

Daily Site Report

Wednesday, September 13, 2017

2017 Jericho Mine Site Stabilization
Departmental Representative

Project: Jericho Mine Site Stabilization
Remediation Contractor: Rowe's-Outcome Joint Venture (ROJV)

Daily Summary

Work on Wednesday, September 13 consisted of the start of rip rap placement for the West Dam; and continuing incineration of waste organic liquids.

Both excavators, 2 rock trucks and the D65 dozer started placement of rip rap for the West Dam. Run of the mine rock segregated from the excavation was used as the rip rap material; in comparison to screened rip rap used for the other breaches. Access to the channel base was down a ramp along the west side; and rip rap placed west moving east.

Both incinerators were in operation during the morning; however, after lunch the previously crack nozzle on the TCI incinerator failed and broke from the unit. ROJV were looking at an interim fix to continue the incineration.

All the totes from the HWTa has been consolidated into the Blue 60,000 litre ASTs. Waste fuel remains in Tank 16 at the back of the HWTa, as well as the silver sausage tank.

Earthworks quantities based on ROJV's truck counts as of Sep 09, 2017 are summarized below:

Work	Volume to Date (cu.m) (based on truck counts)	Contract Volume (cu.m)	Estimated % complete
West Dam	28,391	26,500	107%
Pit Outfall Breach	1,176	1,800	65%
C1 Diversion	12,900	14,000	92%
PKCA Cell	40,260	32,640 (less 25% contingency allotted in Contract Quantity)	123%
Dyke A	4,380	3,700	118%

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The following grouped HAZMAT quantities are based on KBL's, the registered waste receiver, actual site receipt documentation:

Item	Actual Quantities	Contract Quantity
Batteries	3,207 kg	2,000 kg
Antifreeze	15,257 kg	18,000 kg
Acids/Alcohols	3,136 kg	5,500 kg
Aerosol Cans	120 kg	3,200 kg
Miscellaneous	277 kg	6,500 kg
Fluorescent lights	info pending	600 kg
Oil Filters	info pending	10,000 kg

A daily report of specific work activities and photos is attached at the end of this report.

Site Personnel and Equipment

The total camp persons onsite this morning was 22:

- 1 Departmental Representative (Henry Wong); and
- 21 Contractor's work personnel, of which 12 are Inuit.

The contractor's workforce at the start of the day is shown in the table below:

Company	Role	Name	Local Inuit Classification
1. ROJV	Superintendent	John Weigel	
1. ROJV	Operator	Don Boxer	
1. ROJV	Operator	Garth Shippit	
1. ROJV	Labourer	Aurthur Oniak	Y
1. ROJV	Wildlife Monitor	Jeff Niptanatiak	Y
1. ROJV	Operator	Wally Walister	
1. ROJV	Environmental Compliance and Controls	Garricks Elechi	
1. ROJV	Cook's helper	Eileen Katiak	Y
1. ROJV	Mechanic	Donald Cook	
1. ROJV	Labourer	Gordon Ailanak	Y
1. ROJV	Labourer	Raymond Oniak	Y
1. ROJV	Labourer	Regan Adjun	Y
1. ROJV	Operator	Salomon Ullulaq	Y
1. ROJV	Labourer	Hebert Alonak	Y
1. ROJV	Labourer	Jorgen Anablak	Y

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Departmental Representative

Company	Role	Name	Local Inuit Classification
1. ROJV	Labourer	Joe Martin-Algiak	Y
1. ROJV	Labourer	Timothy Milukshuk	Y
2. DMS	Cook	Paolo Bertini	
2. DMS	Cook	Brian Fehur	Y
2. DMS	Cook	Lisa Probert	
3. 62North	EMT	Peter Smith	

Contract Work Items

An outline of Contract Work and schedule dates is included in the table below.

SpecID	--Work Activity	Start	Finish	Actual Duration (days)	Planned Duration (days)
01 11 00-1	Worker Orientation Seminar	Jul-04	Jul-04		
01 31 19-1	Off-site Project Meetings;				
01 31 19-1	Project Start-up Teleconference	May-05	May-05		
01 31 19-1	Pre-Construction Meeting	May-31	May-31		
01 31 19-2	Community Meetings				
01 31 19-2	Pre-Construction Community Meeting	Jun-01	Jun-01		
01 53 00-1	Mobilization				
01 53 00-1	Air Mobilization	Jun-05	Jun-26	22.	24
01 53 00-1	--10 Hercules flights-in	Jun-21	Jun-24		
01 54 00-1	Supply and Setup Camp	Jun-05	Jul-04	30.	12
01 54 00-2	Operation and Maintenance of Camp Facilities				
01 54 00-2	Operate Camp facilities	Jun-19	Ongoing	12+ weeks	
01 54 00-2	Camp Re-supply flights	Jun-27	Ongoing		
31 -- --	Earthworks				
31 22 13-1	Pre-Grade PKCA			8.	15
31 22 13-1	1st run - until equipment down	Jul-07	Jul-11	5.	
31 22 13-1	2nd run	Jul-15	Jul-17	3.	
31 22 13-2	Construct Cover over Cell A	Jul-18	Sep-01	44.	39
31 22 33.01-1	Construct West Dam Breach				
31 22 33.01-1	Dewater PKCA and Cell C (@1,500 gpm) (@2,160,000 g/24hr-day)	Jun-23	Jul-17	25.	25
31 22 33.01-1	Excavate West Dam to plan elevations and limits			38.	29 including blasting
31 22 33.01-1	--Excavate and Stockpile - 1st cut to frozen	Jun-30	Jul-08	9.	
31 22 33.01-1	--Excavate and Stockpile - 2nd cut	Jul-14	Jul-16	3.	
31 22 33.01-1	--Excavate and Stockpile - 3rd cut	Jul-26	Jul-26	1.	

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SpecID	..	--Work Activity	Start	Finish	Actual Duration (days)	Planned Duration (days)
31 22 33.01-1		--Excavate and Stockpile - 4th cut	Aug-08	Aug-17	10.	
31 22 33.01-1		--Drilling and Excavation	Aug-18	Aug-21	4.	
31 22 33.01-1		----Post Drill Excavation - 2nd cut	Aug-27	Sep-02 Sep-06 to Sep-09	11.	
31 22 33.01-1		Place rip rap	Sep-13	Ongoing	--	
31 22 33.01-2		Construct Divider Dyke A Notch				
31 22 33.01-2		Dewater Cell A	Jul-06	Jul-12	7.	20
31 22 33.01-2		Excavate and Stockpile	Jul-21	Jul-27	7.	6
31 22 33.01-2		Place Energy Dissipation Ramp	Aug-26	Aug-27	2.	2
31 22 33.01-2		Place rip rap	Sep-03	Sep-04	2.	2
31 22 33.01-3		Construct Open Pit Outfall			5.	4
31 22 33.01-3		Excavate and Stockpile - 1st cut to frozen	Jul-09	Jul-10	2.	
31 22 33.01-3		Excavate and Stockpile - 2nd cut	Jul-16	Jul-18	3.	
31 22 33.01-3		Place rip rap	Sep-11	Sep-11	1.	1
31 22 33.01-4		Construct C1 Diversion			25.	15
31 22 33.01-4		Excavate and Stockpile - 1st cut to frozen	Jul-10	Jul-13	4.	
31 22 33.01-4		Excavate and Stockpile - 2nd cut	Jul-17	Jul-21	5.	
31 22 33.01-4		Excavate and Stockpile - 3rd cut	Jul-26	Jul-28	3.	
31 22 33.01-4		Excavate and Stockpile - 4th cut	Aug-01	Aug-03, Aug-06	4.	
31 22 33.01-4		Excavate and Stockpile	Aug-15	Sep-02	9.	
31 22 33.01-4		Place rip rap	Sep-04	Sep-08	4.	1
02 -- --		Environmental				
02 61 00.01-1		Excavate and Place PHC Soils into Phase 1 Tank Farm area	--	--		
02 61 00.01-1		Remove Phase 1 Tanks and prep cell	Jul-16	Jul-17	2.	8
02 61 00.01-1		Excavate, Haul and Place PHC Contaminated soils into Phase 1	Aug-10	Aug-15 Aug-22 to Aug-23 Aug-28 to Aug-29	10.	8
02 61 00.01-1		--Carat Camp excavation	Aug-30	Aug-31 Sep-03	3.	
02 61 00.01-2		Install geosynthetic liner & coarse PK Cover over PHC soils in Phase 1 Tank Farm area	Sep-10	Sep-12 Pending	--	4
02 81 01-01		Clean and/or decommission all drums, pipelines, and ASTs	--	--		
02 81 01-01		Clean out Phase 1 Tanks	Jul-01	Jul-05 Jul-11	6.	8
02 81 01-01		Clean out Phase 2 Tanks	Jul-07	Jul-09	3.	4

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SpecID	--Work Activity	Start	Finish	Actual Duration (days)	Planned Duration (days)
02 81 01-01	Clean and wash drums	Jul-25	Aug-28	21 days and @ ~175% complete	15
02 81 01-02	Consolidate and classify all Organic Liquid Wastes including oils and wastes oils; and incinerating and/ or shipping off-site for disposal	--	--		
02 81 01-02	Consolidate Tank Farm Organic Liquids	Jun-24	Jun-28		
02 81 01-02	Incinerate Organic Liquids - base contract quantity	Jul-13	Sep-07	56.	45
02 81 01-03	Consolidate and Depressurize/ Vent all Compressed Gas Cylinders and Fire Extinguishers	Jun-21	--		
02 81 01-04	Remove, Consolidate and Package all identified Hazardous Wastes; including Fluorescent lights, Refrigerant fluids, Batteries and Other remaining Hazard Materials	Jul-19	Aug-16	28 days and @ est. 90% complete	8 days 49 total

Additional Comments/ Correspondence

The project weekly call-in was held this afternoon.

Sign-off

Henry Wong
DXB Projects
Jericho Mine Site Stabilization Departmental Representative

Henry16, 2017-09-13

Project	Jericho Mine Site Stabilization
Created	2017-09-13 08:57:04 EDT by Henry Wong
Updated	2017-09-16 22:21:09 EDT by Henry Wong

Project Information

Name and Daily Report Number	Henry16
Day	Wednesday
Date	2017-09-13
Project Name	2017 Jericho Mine Site Stabilization
Contractor	Rowe's Outcome Joint Venture

Weather Conditions

Weather	Clear, Cool
Site Conditions	Cool damp morning
Morning Temperature	1
Afternoon Temperature	1

People on Site

Total number of all people on-site (at morning meeting)	22
Total number of Contractor people (at morning meeting)	21
Total number of Contractor Local Inuit (at morning meeting)	12
Departmental Representative people on-site	Henry W

Morning Meeting

Health and Safety Topic	HSA reviewed the following topics during this morning's tailgate: Cold winds -a note that there has been an increase in reports of head aches and sore throats; - and a reminder to wear good cold weather gear such as toques and neck warmth protection
Work Plan	-Start rip rap on west dam -Incineration

Overview/ Summary of Work

Summary of Work areas	Consolidate Fuel, Incinerate,Clean Tanks/Drums, West Dam
Planes on-site today	No planes today.
Equipment Down Time	-TCI Incinerator -D61 -Blue Van

Work Progress - Consolidate Fuel (organic liquids) and Incinerate + Clean (Decom.) Tanks/ Drums

Work done today_ Consolidate+Incinerate fuel,
Clean tanks/drums

Consolidation of waste oils was completed for the totes yesterday.

The source feed for the incineration appears to be gumming up with the cooler temperature (waste oil feed). ROJV installed a tarp cover and frost fighter for tank T22 to to help keep the liquids viscous.

Workers were hauling drums of the glycol to the air strip for weighing and staging for later transport.

The TCI was down after lunch with the cracked nozzle system breaking off. ROJV worked out a temporary repair and was able to run the incinerator during the nigh shift.

Number of workers_ Consolidate+Incinerate fuel,
Clean tanks/drums

5

Equipment_ Consolidate+Incinerate fuel, Clean
tanks/drums

Skid Steer- 250 (Crown)

Other Equipment_ Consolidate+Incinerate fuel,
Clean tanks/drums

Westland and TCI Incinerators.

Photos_ Consolidate+Incinerate fuel, Clean
tanks/drums



Both incinerator in operation during the morning.



Tarp cover over Tank 22.



Frost fight set up at the back of T22.



Blues AST and silver tank remaining in HWTA.

Work Progress - West Dam Breach

Work done today_ West Dam	The placement of rip rap was started today.
Number of workers_ West Dam	5
Equipment_ West Dam	PC200 Excavator, D65 Dozer, Rock Truck 1, Rock Truck 2, 322 Excavator (Crown)
Photos_ West Dam	



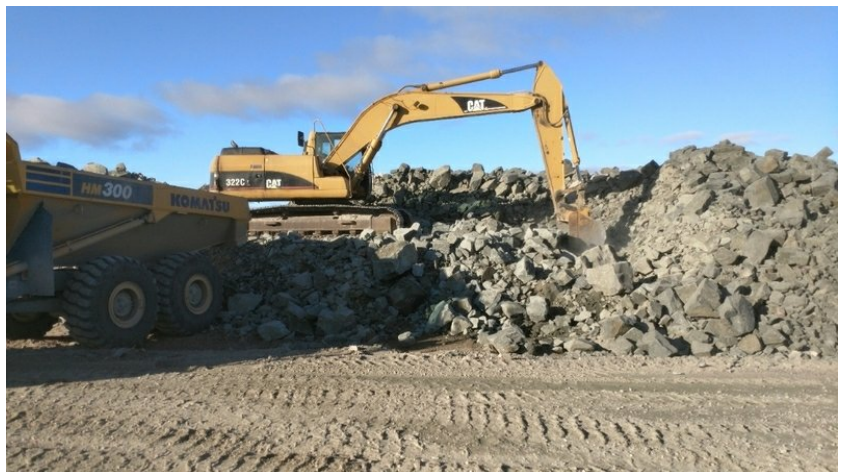
Both excavator loading Run of Mine rock from top pile adjacent West Dam.



Trucks reversing west to east building out the rip rap cover.



D65 placing rip rap.



Run of Mine material.

Remarks/ Notes

Remarks (describe anything not covered above)

Weekly call-in meeting was held this afternoon.

Daily Site Report

Thursday, September 14, 2017

2017 Jericho Mine Site Stabilization
Departmental Representative

Project: Jericho Mine Site Stabilization
Remediation Contractor: Rowe's-Outcome Joint Venture (ROJV)

Daily Summary

Work on Thursday, September 14 consisted of completing rip rap placement at the West Dam and continuing incineration of waste organic liquids.

Both excavators, 2 rock trucks and the D65 dozer were in use to complete the West Dam rip rap work. The final vertical height of the rip rap changed with the varied cross sectional shape of the channel, the channel width being wider at the west contouring to the original ground.

Waste oil from the silver tank was transferred into one of the Blue 60,000 AST.

Both incinerators were in operation today.

A small charter plane arrived on-site with the surveyor.

Earthworks quantities based on ROJV's truck counts as of Sep 09, 2017 are summarized below:

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Contract Work Items

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01 31 19-1	Pre-Construction Meeting	May-31	May-31		
01 31 19-2	Community Meetings				
01 31 19-2	Pre-Construction Community Meeting	Jun-01	Jun-01		
01 53 00-1	Mobilization				
01 53 00-1	Air Mobilization	Jun-05	Jun-26	22.	24
01 53 00-1	--10 Hercules flights-in	Jun-21	Jun-24		
01 54 00-1	Supply and Setup Camp	Jun-05	Jul-04	30.	12
01 54 00-2	Operation and Maintenance of Camp Facilities				
01 54 00-2	Operate Camp facilities	Jun-19	Ongoing	12+ weeks	
01 54 00-2	Camp Re-supply flights	Jun-27	Ongoing		
31 -- --	Earthworks				
31 22 13-1	Pre-Grade PKCA			8.	15
31 22 13-1	1st run - until equipment down	Jul-07	Jul-11	5.	
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31 22 13-2	Construct Cover over Cell A	Jul-18	Sep-01	44.	39
31 22 33.01-1	Construct West Dam Breach				
31 22 33.01-1	Dewater PKCA and Cell C (@1,500 gpm) (@2,160,000 g/24hr-day)	Jun-23	Jul-17	25.	25
31 22 33.01-1	Excavate West Dam to plan elevations and limits			38.	29 including blasting
31 22 33.01-1	--Excavate and Stockpile - 1st cut to frozen	Jun-30	Jul-08	9.	

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SpecID	..	--Work Activity	Start	Finish	Actual Duration (days)	Planned Duration (days)
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31 22 33.01-1		--Excavate and Stockpile - 3rd cut	Jul-26	Jul-26	1.	
31 22 33.01-1		--Excavate and Stockpile - 4th cut	Aug-08	Aug-17	10.	
31 22 33.01-1		--Drilling and Excavation	Aug-18	Aug-21	4.	
31 22 33.01-1		----Post Drill Excavation - 2nd cut	Aug-27	Sep-02 Sep-06 to Sep-09	11.	
31 22 33.01-1		Place rip rap	Sep-13	Ongoing	--	
31 22 33.01-2	Construct Divider Dyke A Notch					
31 22 33.01-2		Dewater Cell A	Jul-06	Jul-12	7.	20
31 22 33.01-2		Excavate and Stockpile	Jul-21	Jul-27	7.	6
31 22 33.01-2		Place Energy Dissipation Ramp	Aug-26	Aug-27	2.	2
31 22 33.01-2		Place rip rap	Sep-03	Sep-04	2.	2
31 22 33.01-3	Construct Open Pit Outfall				5.	4
31 22 33.01-3		Excavate and Stockpile - 1st cut to frozen	Jul-09	Jul-10	2.	
31 22 33.01-3		Excavate and Stockpile - 2nd cut	Jul-16	Jul-18	3.	
31 22 33.01-3		Place rip rap	Sep-11	Sep-11	1.	1
31 22 33.01-4	Construct C1 Diversion				25.	15
31 22 33.01-4		Excavate and Stockpile - 1st cut to frozen	Jul-10	Jul-13	4.	
31 22 33.01-4		Excavate and Stockpile - 2nd cut	Jul-17	Jul-21	5.	
31 22 33.01-4		Excavate and Stockpile - 3rd cut	Jul-26	Jul-28	3.	
31 22 33.01-4		Excavate and Stockpile - 4th cut	Aug-01	Aug-03, Aug-06	4.	
31 22 33.01-4		Excavate and Stockpile	Aug-15	Sep-02	9.	
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02 -- --	Environmental					
02 61 00.01-1	Excavate and Place PHC Soils into Phase 1 Tank Farm area		--	--		
02 61 00.01-1		Remove Phase 1 Tanks and prep cell	Jul-16	Jul-17	2.	8
02 61 00.01-1		Excavate, Haul and Place PHC Contaminated soils into Phase 1	Aug-10	Aug-15 Aug-22 to Aug-23 Aug-28 to Aug-29	10.	8
02 61 00.01-1		--Carat Camp excavation	Aug-30	Aug-31 Sep-03	3.	
02 61 00.01-2	Install geosynthetic liner & coarse PK Cover over PHC soils in Phase 1 Tank Farm area		Sep-10	Sep-12 Pending	--	4
02 81 01-01	Clean and/or decommission all drums, pipelines, and ASTs		--	--		

Daily Site Report

Thursday, September 14, 2017

2017 Jericho Mine Site Stabilization
Departmental Representative

SpecID	--Work Activity	Start	Finish	Actual Duration (days)	Planned Duration (days)
02 81 01-01	Clean out Phase 1 Tanks	Jul-01	Jul-05 Jul-11	6.	8
02 81 01-01	Clean out Phase 2 Tanks	Jul-07	Jul-09	3.	4
02 81 01-01	Clean and wash drums	Jul-25	Aug-28	21 days and @ ~175% complete	15
02 81 01-02	Consolidate and classify all Organic Liquid Wastes including oils and wastes oils; and incinerating and/ or shipping off-site for disposal	--	--		
02 81 01-02	Consolidate Tank Farm Organic Liquids	Jun-24	Jun-28		
02 81 01-02	Incinerate Organic Liquids - base contract quantity	Jul-13	Sep-07	56.	45
02 81 01-03	Consolidate and Depressurize/ Vent all Compressed Gas Cylinders and Fire Extinguishers	Jun-21	--		
02 81 01-04	Remove, Consolidate and Package all identified Hazardous Wastes; including Fluorescent lights, Refrigerant fluids, Batteries and Other remaining Hazard Materials	Jul-19	Aug-16	28 days and @ est. 90% complete	8 days 49 total

Additional Comments/ Correspondence

No specific comments or correspondence to report.

Sign-off

Henry Wong
DXB Projects
Jericho Mine Site Stabilization Departmental Representative

Henry17, 2017-09-14

Project	Jericho Mine Site Stabilization
Created	2017-09-14 08:45:50 EDT by Henry Wong
Updated	2017-09-16 22:49:52 EDT by Henry Wong

Project Information

Name and Daily Report Number	Henry17
Day	Thursday
Date	2017-09-14
Project Name	2017 Jericho Mine Site Stabilization
Contractor	Rowe's Outcome Joint Venture

Weather Conditions

Weather	Clear, Cold
Site Conditions	Cool damp morning light rain after lunch
Morning Temperature	1
Afternoon Temperature	8

People on Site

New Camp People IN/ Day Visitors	Simon in.
Total number of all people on-site (at morning meeting)	22
Total number of Contractor people (at morning meeting)	21
Total number of Contractor Local Inuit (at morning meeting)	12
Departmental Representative people on-site	Henry W

Morning Meeting

Health and Safety Topic	ROJV's HSA reviewed the following during the morning tailgate: Refuelling -note explosive nature of fuel -rules; never smoke, check for fire extinguishers, use chalk wheels and keep the engine off -a reminder to keep gas-soaked PPE out of kitchen Note for night shift to have radios.
Work Plan	-West dam rip rap -Haul glycol for Monday's flight

Overview/ Summary of Work

Summary of Work areas	Consolidate Fuel, Incinerate,Clean Tanks/Drums, West Dam
Planes on-site today	Plane due in afternoon.
Equipment Down Time	-D61 -Blue van

Work Progress - Consolidate Fuel (organic liquids) and Incinerate + Clean (Decom.) Tanks/ Drums

Work done today_ Consolidate+Incinerate fuel, Clean tanks/drums	Labour crew consolidated waste fuel from silver tank. Both Incinerators in operation.
---	--

Number of workers_ Consolidate+Incinerate fuel, Clean tanks/drums	3
Equipment_ Consolidate+Incinerate fuel, Clean tanks/drums	Skid Steer- 250 (Crown)
Photos_ Consolidate+Incinerate fuel, Clean tanks/drums	



TCI incinerator burning hot.



Contact water from Silver tank.

Work Progress - West Dam Breach

Work done today_ West Dam	West Dam rip rip completed today.
Number of workers_ West Dam	5
Equipment_ West Dam	PC200 Excavator, D65 Dozer, Rock Truck 1, Rock Truck 2, 322 Excavator (Crown)



Placement of rip rap at last west section.



East side rip rap complete.



Tie in of rip rap at the west end of channel with surrounding terrain.

Remarks/ Notes

Remarks (describe anything not covered above)

TCL up and running last night.

Daily Site Report

Friday, September 15, 2017

2017 Jericho Mine Site Stabilization
Departmental Representative

Project: Jericho Mine Site Stabilization
Remediation Contractor: Rowe's-Outcome Joint Venture (ROJV)

Daily Summary

Work on Friday, September 15 consisted of consolidation of waste oil from Tank 16 to the Blue AST next and continuing incineration of waste organic liquids.

Both incinerators were in operation today. A tracking log for the incinerators was given to ROJV to record incineration hours for the two units.

The surveyor carried out as-built survey work for the earthworks today.

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Oil Filters info pending 10,000 kg

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- 22 Contractor's work personnel, of which 12 are Inuit.

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1. ROJV	Operator	Garth Shippit	
1. ROJV	Labourer	Aurthur Oniak	Y
1. ROJV	Wildlife Monitor	Jeff Niptanatiak	Y
1. ROJV	Operator	Wally Walister	
1. ROJV	Environmental Compliance and Controls	Garricks Elechi	
1. ROJV	Surveyor	Simon Kasprzak	
1. ROJV	Cook's helper	Eileen Katiak	Y
1. ROJV	Mechanic	Donald Cook	
1. ROJV	Labourer	Gordon Ailanak	Y
1. ROJV	Labourer	Raymond Oniak	Y
1. ROJV	Labourer	Regan Adjun	Y
1. ROJV	Operator	Salomon Ullulaq	Y
1. ROJV	Labourer	Hebert Alonak	Y
1. ROJV	Labourer	Jorgen Anablak	Y
1. ROJV	Labourer	Joe Martin-Algiak	Y
1. ROJV	Labourer	Timothy Milukshuk	Y
2. DMS	Cook	Paolo Bertini	
2. DMS	Cook	Bryan	Y
2. DMS	Cook	Lisa Probert	
3. 62North	EMT	Peter Smith	

Daily Site Report

Friday, September 15, 2017

2017 Jericho Mine Site Stabilization
Departmental Representative

Contract Work Items

An outline of Contract Work and schedule dates is included in the table below.

SpecID	--Work Activity	Start	Finish	Actual Duration (days)	Planned Duration (days)
01 11 00-1	Worker Orientation Seminar	Jul-04	Jul-04		
01 31 19-1	Off-site Project Meetings;				
01 31 19-1	Project Start-up Teleconference	May-05	May-05		
01 31 19-1	Pre-Construction Meeting	May-31	May-31		
01 31 19-2	Community Meetings				
01 31 19-2	Pre-Construction Community Meeting	Jun-01	Jun-01		
01 53 00-1	Mobilization				
01 53 00-1	Air Mobilization	Jun-05	Jun-26	22.	24
01 53 00-1	--10 Hercules flights-in	Jun-21	Jun-24		
01 54 00-1	Supply and Setup Camp	Jun-05	Jul-04	30.	12
01 54 00-2	Operation and Maintenance of Camp Facilities				
01 54 00-2	Operate Camp facilities	Jun-19	Ongoing	12+ weeks	
01 54 00-2	Camp Re-supply flights	Jun-27	Ongoing		
31 -- --	Earthworks				
31 22 13-1	Pre-Grade PKCA			8.	15
31 22 13-1	1st run - until equipment down	Jul-07	Jul-11	5.	
31 22 13-1	2nd run	Jul-15	Jul-17	3.	
31 22 13-2	Construct Cover over Cell A	Jul-18	Sep-01	44.	39
31 22 33.01-1	Construct West Dam Breach				
31 22 33.01-1	Dewater PKCA and Cell C (@1,500 gpm) (@2,160,000 g/24hr-day)	Jun-23	Jul-17	25.	25
31 22 33.01-1	Excavate West Dam to plan elevations and limits			38.	29 including blasting
31 22 33.01-1	--Excavate and Stockpile - 1st cut to frozen	Jun-30	Jul-08	9.	
31 22 33.01-1	--Excavate and Stockpile - 2nd cut	Jul-14	Jul-16	3.	
31 22 33.01-1	--Excavate and Stockpile - 3rd cut	Jul-26	Jul-26	1.	
31 22 33.01-1	--Excavate and Stockpile - 4th cut	Aug-08	Aug-17	10.	
31 22 33.01-1	--Drilling and Excavation	Aug-18	Aug-21	4.	
31 22 33.01-1	----Post Drill Excavation - 2nd cut	Aug-27	Sep-02 Sep-06 to Sep-09	11.	
31 22 33.01-1	Place rip rap	Sep-13	Sep-14	2	
31 22 33.01-2	Construct Divider Dyke A Notch				
31 22 33.01-2	Dewater Cell A	Jul-06	Jul-12	7.	20

Daily Site Report

Friday, September 15, 2017

2017 Jericho Mine Site Stabilization
Departmental Representative

SpecID	--Work Activity	Start	Finish	Actual Duration (days)	Planned Duration (days)
31 22 33.01-2	Excavate and Stockpile	Jul-21	Jul-27	7.	6
31 22 33.01-2	Place Energy Dissipation Ramp	Aug-26	Aug-27	2.	2
31 22 33.01-2	Place rip rap	Sep-03	Sep-04	2.	2
31 22 33.01-3	Construct Open Pit Outfall			5.	4
31 22 33.01-3	Excavate and Stockpile - 1st cut to frozen	Jul-09	Jul-10	2.	
31 22 33.01-3	Excavate and Stockpile - 2nd cut	Jul-16	Jul-18	3.	
31 22 33.01-3	Place rip rap	Sep-11	Sep-11	1.	1
31 22 33.01-4	Construct C1 Diversion			25.	15
31 22 33.01-4	Excavate and Stockpile - 1st cut to frozen	Jul-10	Jul-13	4.	
31 22 33.01-4	Excavate and Stockpile - 2nd cut	Jul-17	Jul-21	5.	
31 22 33.01-4	Excavate and Stockpile - 3rd cut	Jul-26	Jul-28	3.	
31 22 33.01-4	Excavate and Stockpile - 4th cut	Aug-01	Aug-03, Aug-06	4.	
31 22 33.01-4	Excavate and Stockpile	Aug-15	Sep-02	9.	
31 22 33.01-4	Place rip rap	Sep-04	Sep-08	4.	1
02 -- --	Environmental				
02 61 00.01-1	Excavate and Place PHC Soils into Phase 1 Tank Farm area	--	--		
02 61 00.01-1	Remove Phase 1 Tanks and prep cell	Jul-16	Jul-17	2.	8
02 61 00.01-1	Excavate, Haul and Place PHC Contaminated soils into Phase 1	Aug-10	Aug-15 Aug-22 to Aug-23 Aug-28 to Aug-29	10.	8
02 61 00.01-1	--Carat Camp excavation	Aug-30	Aug-31 Sep-03	3.	
02 61 00.01-2	Install geosynthetic liner & coarse PK Cover over PHC soils in Phase 1 Tank Farm area	Sep-10	Sep-12 Pending	--	4
02 81 01-01	Clean and/or decommission all drums, pipelines, and ASTs	--	--		
02 81 01-01	Clean out Phase 1 Tanks	Jul-01	Jul-05 Jul-11	6.	8
02 81 01-01	Clean out Phase 2 Tanks	Jul-07	Jul-09	3.	4
02 81 01-01	Clean and wash drums	Jul-25	Aug-28	21 days and @ ~175% complete	15
02 81 01-02	Consolidate and classify all Organic Liquid Wastes including oils and wastes oils; and incinerating and/ or shipping off-site for disposal	--	--		
02 81 01-02	Consolidate Tank Farm Organic Liquids	Jun-24	Jun-28		

Daily Site Report

Friday, September 15, 2017

2017 Jericho Mine Site Stabilization
Departmental Representative

SpecID	--Work Activity	Start	Finish	Actual Duration (days)	Planned Duration (days)
02 81 01-02	Incinerate Organic Liquids - base contract quantity	Jul-13	Sep-07	56.	45
02 81 01-03	Consolidate and Depressurize/ Vent all Compressed Gas Cylinders and Fire Extinguishers	Jun-21	--		
02 81 01-04	Remove, Consolidate and Package all identified Hazardous Wastes; including Fluorescent lights, Refrigerant fluids, Batteries and Other remaining Hazard Materials	Jul-19	Aug-16	28 days and @ est. 90% complete	8 days 49 total

Additional Comments/ Correspondence

Based on a review of the incineration hours to date and amount of waste organic liquids burnt off (checked by measuring depth of fluid in the source tanks); the TCI unit is only incinerating approximately 300 l/ hr compared to the 700 l/hr estimated by ROJV earlier this month. That production rate corresponds to a maximum ~10,000 L/ 24 hour shift, noting not many full 24 hour shifts have been achieved this past week.

An estimated 160,000 liters of waste fuel/oils remains to be incinerated, and at the maximum rate of incineration, a minimum 16 days to complete.

A replacement head for the cracked nozzle has been ordered for the TCI unit. Nothing that there is no backup for the incinerator if any further issue develops.

Sign-off

Henry Wong
DXB Projects
Jericho Mine Site Stabilization Departmental Representative

Henry18, 2017-09-15

Project	Jericho Mine Site Stabilization
Created	2017-09-15 08:58:54 EDT by Henry Wong
Updated	2017-09-16 23:06:24 EDT by Henry Wong

Project Information

Name and Daily Report Number	Henry18
Day	Friday
Date	2017-09-15
Project Name	2017 Jericho Mine Site Stabilization
Contractor	Rowe's Outcome Joint Venture

Weather Conditions

Weather	Cool, Overcast
Site Conditions	Cool, damp turning to warm sunny afternoon.
Morning Temperature	6
Afternoon Temperature	9

People on Site

Total number of all people on-site (at morning meeting)	23
Total number of Contractor people (at morning meeting)	22
Total number of Contractor Local Inuit (at morning meeting)	12
Departmental Representative people on-site	Henry W

Morning Meeting

Health and Safety Topic	HSA tailgate topic today; Blindspots -a note that all machines have blindspots -be aware of vehicles when outside -be aware of things low to ground when in machines Camp note to be easy with pacto toilets.
Work Plan	-Project earthworks largely complete -Transfer more drums into blue AST

Overview/ Summary of Work

Summary of Work areas	Consolidate Fuel, Incinerate,Clean Tanks/Drums
Planes on-site today	No planes today.
Equipment Down Time	-Blue van up and running again -D61



Transmission replaced for Blue van.

Work Progress - Consolidate Fuel (organic liquids) and Incinerate + Clean (Decom.) Tanks/ Drums

Work done today_ Consolidate+Incinerate fuel, Clean tanks/drums	Tank 16 moved adjacent to other blue ASTs for transferring waste oil. Both Incinerators in operation.
Number of workers_ Consolidate+Incinerate fuel, Clean tanks/drums	4
Equipment_ Consolidate+Incinerate fuel, Clean tanks/drums	PC200 Excavator, Skid Steer- 250 (Crown)
Other Equipment_ Consolidate+Incinerate fuel, Clean tanks/drums	Westland and TCI Incinerators.
Photos_ Consolidate+Incinerate fuel, Clean tanks/drums	



Tank 16 moved adjacent berm of 4 Blue AST - incinerator source feed.



HWTa area cleaned up - prepped for PHC cleanup.



5 Blue ASTs in line.



T22 line feeding Westland Incinerator.



Tank 19 feeding TCI incinerator.

Work Progress - West Dam Breach



Rocks set at top of West Dam breach.



Panoramic of West Dam work complete.



Rocks set at top of stockpile adjacent West Dam.

Work Progress - Hazmat Cleanup



Glycol and water mixes staged at TSA.

Remarks/ Notes

Remarks (describe anything not covered above)

Review of Incineration to date and remaining.

Daily Site Report

Saturday, September 16, 2017

2017 Jericho Mine Site Stabilization
Departmental Representative

Project: Jericho Mine Site Stabilization
Remediation Contractor: Rowe's-Outcome Joint Venture (ROJV)

Daily Summary

Work on Saturday, September 16 consisted of continuing consolidation of the remaining waste oils/fuels into the two blue feed ASTs, Tank 19 and Tank 22, and on-going incineration of that liquid.

With the barrels, Tank 16 and the silver tank removed; impacted soil in that section of the HWTa was dug out and hauled to the Phase 1 PHC Soil containment cell. 10 truckloads were hauled out.

Drums of waste oils were also hauled up from the shop to the HWTa incineration area. The drums were previously set there to use in the shop furnaces; 14 drums remain at the shop to finish out the project.

Both incinerators were in 24-hr operation today. A 2-person night shift has been on-going.

Earthworks quantities based on ROJV's truck counts as of Sep 09, 2017 are summarized below:

Work	Volume to Date (cu.m) (based on truck counts)	Contract Volume (cu.m)	Estimated % complete
West Dam	28,391	26,500	107%
Pit Outfall Breach	1,176	1,800	65%
C1 Diversion	12,900	14,000	92%
PKCA Cell	40,260	32,640 (less 25% contingency allotted in Contract Quantity)	123%
Dyke A	4,380	3,700	118%

The following grouped HAZMAT quantities are based on KBL's, the registered waste receiver, actual site receipt documentation:

Item	Actual Quantities	Contract Quantity
Batteries	3,207 kg	2,000 kg
Antifreeze	15,257 kg	18,000 kg
Acids/Alcohols	3,136 kg	5,500 kg
Aerosol Cans	120 kg	3,200 kg

Daily Site Report

Saturday, September 16, 2017

2017 Jericho Mine Site Stabilization
Departmental Representative

Miscellaneous 277 kg 6,500 kg

Fluorescent lights info pending 600 kg
Oil Filters info pending 10,000 kg

A daily report of specific work activities and photos is attached at the end of this report.

Site Personnel and Equipment

The total camp persons onsite this morning was 23:

- 1 Departmental Representative (Henry Wong); and
- 22 Contractor's work personnel, of which 12 are Inuit.

The contractor's workforce at the start of the day is shown in the table below:

Company	Role	Name	Local Inuit Classification
1. ROJV	Superintendent	John Weigel	
1. ROJV	Operator	Don Boxer	
1. ROJV	Operator	Garth Shippit	
1. ROJV	Labourer	Aurthur Oniak	Y
1. ROJV	Wildlife Monitor	Jeff Niptanatiak	Y
1. ROJV	Operator	Wally Walister	
1. ROJV	Environmental Compliance and Controls	Garricks Elechi	
1. ROJV	Surveyor	Simon Kasprzak	
1. ROJV	Cook's helper	Eileen Katiak	Y
1. ROJV	Mechanic	Donald Cook	
1. ROJV	Labourer	Gordon Ailanak	Y
1. ROJV	Labourer	Raymond Oniak	Y
1. ROJV	Labourer	Regan Adjun	Y
1. ROJV	Operator	Salomon Ullulaq	Y
1. ROJV	Labourer	Hebert Alonak	Y
1. ROJV	Labourer	Jorgen Anablak	Y
1. ROJV	Labourer	Joe Martin-Algiak	Y
1. ROJV	Labourer	Timothy Milukshuk	Y
2. DMS	Cook	Paolo Bertini	
2. DMS	Cook	Bryan	Y

Daily Site Report

Saturday, September 16, 2017

2017 Jericho Mine Site Stabilization
Departmental Representative

2. DMS	Cook	Lisa Probert
3. 62North	EMT	Peter Smith

Contract Work Items

An outline of Contract Work and schedule dates is included in the table below.

SpecID	--Work Activity	Start	Finish	Actual Duration (days)	Planned Duration (days)
01 11 00-1	Worker Orientation Seminar	Jul-04	Jul-04		
01 31 19-1	Off-site Project Meetings;				
01 31 19-1	Project Start-up Teleconference	May-05	May-05		
01 31 19-1	Pre-Construction Meeting	May-31	May-31		
01 31 19-2	Community Meetings				
01 31 19-2	Pre-Construction Community Meeting	Jun-01	Jun-01		
01 53 00-1	Mobilization				
01 53 00-1	Air Mobilization	Jun-05	Jun-26	22.	24
01 53 00-1	--10 Hercules flights-in	Jun-21	Jun-24		
01 54 00-1	Supply and Setup Camp	Jun-05	Jul-04	30.	12
01 54 00-2	Operation and Maintenance of Camp Facilities				
01 54 00-2	Operate Camp facilities	Jun-19	Ongoing	12+ weeks	
01 54 00-2	Camp Re-supply flights	Jun-27	Ongoing		
31 -- --	Earthworks				
31 22 13-1	Pre-Grade PKCA			8.	15
31 22 13-1	1st run - until equipment down	Jul-07	Jul-11	5.	
31 22 13-1	2nd run	Jul-15	Jul-17	3.	
31 22 13-2	Construct Cover over Cell A	Jul-18	Sep-01	44.	39
31 22 33.01-1	Construct West Dam Breach				
31 22 33.01-1	Dewater PKCA and Cell C (@1,500 gpm) (@2,160,000 g/24hr-day)	Jun-23	Jul-17	25.	25
31 22 33.01-1	Excavate West Dam to plan elevations and limits			38.	29 including blasting
31 22 33.01-1	--Excavate and Stockpile - 1st cut to frozen	Jun-30	Jul-08	9.	
31 22 33.01-1	--Excavate and Stockpile - 2nd cut	Jul-14	Jul-16	3.	
31 22 33.01-1	--Excavate and Stockpile - 3rd cut	Jul-26	Jul-26	1.	
31 22 33.01-1	--Excavate and Stockpile - 4th cut	Aug-08	Aug-17	10.	
31 22 33.01-1	--Drilling and Excavation	Aug-18	Aug-21	4.	
31 22 33.01-1	----Post Drill Excavation - 2nd cut	Aug-27	Sep-02 Sep-06 to Sep-09	11.	
31 22 33.01-1	Place rip rap	Sep-13	Sep-14	2	

Daily Site Report

Saturday, September 16, 2017

2017 Jericho Mine Site Stabilization
Departmental Representative

SpecID	--Work Activity	Start	Finish	Actual Duration (days)	Planned Duration (days)
31 22 33.01-2	Construct Divider Dyke A Notch				
31 22 33.01-2	Dewater Cell A	Jul-06	Jul-12	7.	20
31 22 33.01-2	Excavate and Stockpile	Jul-21	Jul-27	7.	6
31 22 33.01-2	Place Energy Dissipation Ramp	Aug-26	Aug-27	2.	2
31 22 33.01-2	Place rip rap	Sep-03	Sep-04	2.	2
31 22 33.01-3	Construct Open Pit Outfall			5.	4
31 22 33.01-3	Excavate and Stockpile - 1st cut to frozen	Jul-09	Jul-10	2.	
31 22 33.01-3	Excavate and Stockpile - 2nd cut	Jul-16	Jul-18	3.	
31 22 33.01-3	Place rip rap	Sep-11	Sep-11	1.	1
31 22 33.01-4	Construct C1 Diversion			25.	15
31 22 33.01-4	Excavate and Stockpile - 1st cut to frozen	Jul-10	Jul-13	4.	
31 22 33.01-4	Excavate and Stockpile - 2nd cut	Jul-17	Jul-21	5.	
31 22 33.01-4	Excavate and Stockpile - 3rd cut	Jul-26	Jul-28	3.	
31 22 33.01-4	Excavate and Stockpile - 4th cut	Aug-01	Aug-03, Aug-06	4.	
31 22 33.01-4	Excavate and Stockpile	Aug-15	Sep-02	9.	
31 22 33.01-4	Place rip rap	Sep-04	Sep-08	4.	1
02 -- --	Environmental				
02 61 00.01-1	Excavate and Place PHC Soils into Phase 1 Tank Farm area	--	--		
02 61 00.01-1	Remove Phase 1 Tanks and prep cell	Jul-16	Jul-17	2.	8
02 61 00.01-1	Excavate, Haul and Place PHC Contaminated soils into Phase 1	Aug-10	Aug-15 Aug-22 to Aug-23 Aug-28 to Aug-29	10.	8
02 61 00.01-1	--Carat Camp excavation	Aug-30	Aug-31 Sep-03	3.	
02 61 00.01-2	Install geosynthetic liner & coarse PK Cover over PHC soils in Phase 1 Tank Farm area	Sep-10	Sep-12 Pending	--	4
02 81 01-01	Clean and/or decommission all drums, pipelines, and ASTs	--	--		
02 81 01-01	Clean out Phase 1 Tanks	Jul-01	Jul-05 Jul-11	6.	8
02 81 01-01	Clean out Phase 2 Tanks	Jul-07	Jul-09	3.	4
02 81 01-01	Clean and wash drums	Jul-25	Aug-28	21 days and @ ~175% complete	15
02 81 01-02	Consolidate and classify all Organic Liquid Wastes including oils and wastes oils; and incinerating and/ or shipping off-site for disposal	--	--		

Daily Site Report

Saturday, September 16, 2017

2017 Jericho Mine Site Stabilization
Departmental Representative

SpecID	--Work Activity	Start	Finish	Actual Duration (days)	Planned Duration (days)
02 81 01-02	Consolidate Tank Farm Organic Liquids	Jun-24	Jun-28		
02 81 01-02	Incinerate Organic Liquids - base contract quantity	Jul-13	Sep-07	56.	45
02 81 01-03	Consolidate and Depressurize/ Vent all Compressed Gas Cylinders and Fire Extinguishers	Jun-21	--		
02 81 01-04	Remove, Consolidate and Package all identified Hazardous Wastes; including Fluorescent lights, Refrigerant fluids, Batteries and Other remaining Hazard Materials	Jul-19	Aug-16	28 days and @ est. 90% complete	8 days 49 total

Additional Comments/ Correspondence

No specific comments or correspond.

Sign-off

Henry Wong
DXB Projects
Jericho Mine Site Stabilization Departmental Representative

Henry19, 2017-09-16

Project	Jericho Mine Site Stabilization
Created	2017-09-16 08:56:34 EDT by Henry Wong
Updated	2017-09-18 22:39:24 EDT by Henry Wong

Project Information

Name and Daily Report Number	Henry19
Day	Saturday
Date	2017-09-16
Project Name	2017 Jericho Mine Site Stabilization
Contractor	Rowe's Outcome Joint Venture

Weather Conditions

Weather	Clear, Cool, Warm
Site Conditions	Cool morning, warm medium wind afternoon
Morning Temperature	1
Afternoon Temperature	13

People on Site

Total number of all people on-site (at morning meeting)	23
Total number of Contractor people (at morning meeting)	22
Total number of Contractor Local Inuit (at morning meeting)	12
Departmental Representative people on-site	Henry W

Morning Meeting

Health and Safety Topic	<p>HSA tailgate topic: A note that there have been no near miss reports fill out of late and a reminder of the importance of identifying near misses.</p> <p>JW with note to not let complacency set in as project winds down.</p>
Work Plan	<p>-Incineration -remove PHC soil from HWTa -Wash trucks after last haul</p>

Overview/ Summary of Work

Summary of Work areas	Consolidate Fuel, Incinerate,Clean Tanks/Drums, PHC Soil
Planes on-site today	No planes today.
Equipment Down Time	-D61

Work Progress - Consolidate Fuel (organic liquids) and Incinerate + Clean (Decom.) Tanks/ Drums

Work done today_ Consolidate+Incinerate fuel, Clean tanks/drums	<p>The crew completed transferring waste oil from Tank 16 into the other Blue ASTs/ incineration source tanks; and hauled drums of waste oils adjacent the shop to the HWTa consolidation area.</p> <p>Both Incinerators were in operation today for the day and night shifts.</p>
---	--

Number of workers_ Consolidate+Incinerate fuel, Clean tanks/drums	6
Equipment_ Consolidate+Incinerate fuel, Clean tanks/drums	Skid Steer- 250 (Crown)
Other Equipment_ Consolidate+Incinerate fuel, Clean tanks/drums	Westland and TCI Incinerators.

Photos_ Consolidate+Incinerate fuel, Clean tanks/drums



Photo of both incinerators in the afternoon.



High burn.



Tank 16 waste oil pumped into Tank 19 incinerator source tank.

Work Progress - PHC Soil

Work done today_ PHC Soil

The 200 excavator and 2 rock trucks excavated and hauled hydrocarbon impacted soil from the HWTa - barrel storage area to the Phase 1 containment cell. Ten truck loads of soil were hauled out of the 587 sq.m excavated footprint; being approximately 200 mm deep.

Number of workers_ PHC Soil

3

Equipment_ PHC Soil

PC200 Excavator, Rock Truck 1, Rock Truck 2

Photos_ PHC Soil



Impacted soil excavation.



Excavator and rock truck.

Daily Site Report

Sunday, September 17, 2017

2017 Jericho Mine Site Stabilization
Departmental Representative

Project: Jericho Mine Site Stabilization
Remediation Contractor: Rowe's-Outcome Joint Venture (ROJV)

Daily Summary

Work on Sunday, September 17 consisted of the consolidation of the remaining waste oils/ fuels into the two blue feed ASTs, Tank 19 and Tank 22, for the incinerators and on-going incineration of that liquid.

As a part of the HWTa cleanup and management of environment items, totes with ROJV's contact water were transferred into the Tanker; and then hauled to the Phase 2 area for processing.

Both incinerators were down for maintenance around lunch time; and then the TCI incinerator went offline at 2 am.

Earthworks quantities based on ROJV's truck counts as of Sep 09, 2017 are summarized below:

Work	Volume to Date (cu.m) (based on truck counts)	Contract Volume (cu.m)	Estimated % complete
West Dam	28,391	26,500	107%
Pit Outfall Breach	1,176	1,800	65%
C1 Diversion	12,900	14,000	92%
PKCA Cell	40,260	32,640 (less 25% contingency allotted in Contract Quantity)	123%
Dyke A	4,380	3,700	118%

The following grouped HAZMAT quantities are based on KBL's, the registered waste receiver, actual site receipt documentation:

Item	Actual Quantities	Contract Quantity
Batteries	3,207 kg	2,000 kg
Antifreeze	15,257 kg	18,000 kg
Acids/Alcohols	3,136 kg	5,500 kg
Aerosol Cans	120 kg	3,200 kg
Miscellaneous	277 kg	6,500 kg

Daily Site Report

Sunday, September 17, 2017

2017 Jericho Mine Site Stabilization
Departmental Representative

Fluorescent lights	info pending	600 kg
Oil Filters	info pending	10,000 kg

A daily report of specific work activities and photos is attached at the end of this report.

Site Personnel and Equipment

The total camp persons onsite this morning was 23:

- 1 Departmental Representative (Henry Wong); and
- 22 Contractor's work personnel, of which 12 are Inuit.

The contractor's workforce at the start of the day is shown in the table below:

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1. ROJV	Operator	Don Boxer	
1. ROJV	Operator	Garth Shippit	
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1. ROJV	Wildlife Monitor	Jeff Niptanatiak	Y
1. ROJV	Operator	Wally Walister	
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1. ROJV	Labourer	Timothy Milukshuk	Y
2. DMS	Cook	Paolo Bertini	
2. DMS	Cook	Bryan	Y
2. DMS	Cook	Lisa Probert	
3. 62North	EMT	Peter Smith	

Contract Work Items

An outline of Contract Work and schedule dates is included in the table below.

SpecID	--Work Activity	Start	Finish	Actual Duration (days)	Planned Duration (days)
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01 31 19-1	Project Start-up Teleconference	May-05	May-05		
01 31 19-1	Pre-Construction Meeting	May-31	May-31		
01 31 19-2	Community Meetings				
01 31 19-2	Pre-Construction Community Meeting	Jun-01	Jun-01		
01 53 00-1	Mobilization				
01 53 00-1	Air Mobilization	Jun-05	Jun-26	22.	24
01 53 00-1	--10 Hercules flights-in	Jun-21	Jun-24		
01 54 00-1	Supply and Setup Camp	Jun-05	Jul-04	30.	12
01 54 00-2	Operation and Maintenance of Camp Facilities				
01 54 00-2	Operate Camp facilities	Jun-19	Ongoing	12+ weeks	
01 54 00-2	Camp Re-supply flights	Jun-27	Ongoing		
31 -- --	Earthworks				
31 22 13-1	Pre-Grade PKCA			8.	15
31 22 13-1	1st run - until equipment down	Jul-07	Jul-11	5.	
31 22 13-1	2nd run	Jul-15	Jul-17	3.	
31 22 13-2	Construct Cover over Cell A	Jul-18	Sep-01	44.	39
31 22 33.01-1	Construct West Dam Breach				
31 22 33.01-1	Dewater PKCA and Cell C (@1,500 gpm) (@2,160,000 g/24hr-day)	Jun-23	Jul-17	25.	25
31 22 33.01-1	Excavate West Dam to plan elevations and limits			38.	29 including blasting
31 22 33.01-1	--Excavate and Stockpile - 1st cut to frozen	Jun-30	Jul-08	9.	
31 22 33.01-1	--Excavate and Stockpile - 2nd cut	Jul-14	Jul-16	3.	
31 22 33.01-1	--Excavate and Stockpile - 3rd cut	Jul-26	Jul-26	1.	
31 22 33.01-1	--Excavate and Stockpile - 4th cut	Aug-08	Aug-17	10.	
31 22 33.01-1	--Drilling and Excavation	Aug-18	Aug-21	4.	
31 22 33.01-1	----Post Drill Excavation - 2nd cut	Aug-27	Sep-02 Sep-06 to Sep-09	11.	
31 22 33.01-1	Place rip rap	Sep-13	Sep-14	2	
31 22 33.01-2	Construct Divider Dyke A Notch				
31 22 33.01-2	Dewater Cell A	Jul-06	Jul-12	7.	20

Daily Site Report

Sunday, September 17, 2017

2017 Jericho Mine Site Stabilization
Departmental Representative

SpecID	--Work Activity	Start	Finish	Actual Duration (days)	Planned Duration (days)
31 22 33.01-2	Excavate and Stockpile	Jul-21	Jul-27	7.	6
31 22 33.01-2	Place Energy Dissipation Ramp	Aug-26	Aug-27	2.	2
31 22 33.01-2	Place rip rap	Sep-03	Sep-04	2.	2
31 22 33.01-3	Construct Open Pit Outfall			5.	4
31 22 33.01-3	Excavate and Stockpile - 1st cut to frozen	Jul-09	Jul-10	2.	
31 22 33.01-3	Excavate and Stockpile - 2nd cut	Jul-16	Jul-18	3.	
31 22 33.01-3	Place rip rap	Sep-11	Sep-11	1.	1
31 22 33.01-4	Construct C1 Diversion			25.	15
31 22 33.01-4	Excavate and Stockpile - 1st cut to frozen	Jul-10	Jul-13	4.	
31 22 33.01-4	Excavate and Stockpile - 2nd cut	Jul-17	Jul-21	5.	
31 22 33.01-4	Excavate and Stockpile - 3rd cut	Jul-26	Jul-28	3.	
31 22 33.01-4	Excavate and Stockpile - 4th cut	Aug-01	Aug-03, Aug-06	4.	
31 22 33.01-4	Excavate and Stockpile	Aug-15	Sep-02	9.	
31 22 33.01-4	Place rip rap	Sep-04	Sep-08	4.	1
02 -- --	Environmental				
02 61 00.01-1	Excavate and Place PHC Soils into Phase 1 Tank Farm area	--	--		
02 61 00.01-1	Remove Phase 1 Tanks and prep cell	Jul-16	Jul-17	2.	8
02 61 00.01-1	Excavate, Haul and Place PHC Contaminated soils into Phase 1	Aug-10	Aug-15 Aug-22 to Aug-23 Aug-28 to Aug-29	10.	8
02 61 00.01-1	--Carat Camp excavation	Aug-30	Aug-31 Sep-03	3.	
02 61 00.01-2	Install geosynthetic liner & coarse PK Cover over PHC soils in Phase 1 Tank Farm area	Sep-10	Sep-12 Pending	--	4
02 81 01-01	Clean and/or decommission all drums, pipelines, and ASTs	--	--		
02 81 01-01	Clean out Phase 1 Tanks	Jul-01	Jul-05 Jul-11	6.	8
02 81 01-01	Clean out Phase 2 Tanks	Jul-07	Jul-09	3.	4
02 81 01-01	Clean and wash drums	Jul-25	Aug-28	21 days and @ ~175% complete	15
02 81 01-02	Consolidate and classify all Organic Liquid Wastes including oils and wastes oils; and incinerating and/ or shipping off-site for disposal	--	--		
02 81 01-02	Consolidate Tank Farm Organic Liquids	Jun-24	Jun-28		

Daily Site Report

Sunday, September 17, 2017

2017 Jericho Mine Site Stabilization
Departmental Representative

SpecID	--Work Activity	Start	Finish	Actual Duration (days)	Planned Duration (days)
02 81 01-02	Incinerate Organic Liquids - base contract quantity	Jul-13	Sep-07	56.	45
02 81 01-03	Consolidate and Depressurize/ Vent all Compressed Gas Cylinders and Fire Extinguishers	Jun-21	--		
02 81 01-04	Remove, Consolidate and Package all identified Hazardous Wastes; including Fluorescent lights, Refrigerant fluids, Batteries and Other remaining Hazard Materials	Jul-19	Aug-16	28 days and @ est. 90% complete	8 days 49 total

Additional Comments/ Correspondence

No specific comments or correspondence.

Sign-off

Henry Wong
DXB Projects
Jericho Mine Site Stabilization Departmental Representative

Henry20, 2017-09-17

Project	Jericho Mine Site Stabilization
Created	2017-09-17 08:57:38 EDT by Henry Wong
Updated	2017-09-18 23:34:23 EDT by Henry Wong

Project Information

Name and Daily Report Number	Henry20
Day	Sunday
Date	2017-09-17
Project Name	2017 Jericho Mine Site Stabilization
Contractor	Rowe's Outcome Joint Venture

Weather Conditions

Weather	Clear, Cool
Site Conditions	Cool clear morning, warm overcast afternoon.
Morning Temperature	3
Afternoon Temperature	13

People on Site

Total number of all people on-site (at morning meeting)	23
Total number of Contractor people (at morning meeting)	22
Total number of Contractor Local Inuit (at morning meeting)	12
Departmental Representative people on-site	Henry W

Morning Meeting

Health and Safety Topic	HSA tailgate meeting: Housekeeping -keep things clean out if way -keep things well lit- -don't block entrances and exits Weekly safety meeting: The little things that count
Work Plan	-Consolidating liquids into Blue ASTs -Put contact water into silver tank -Plane in tomorrow

Overview/ Summary of Work

Summary of Work areas	Consolidate Fuel, Incinerate,Clean Tanks/Drums
Planes on-site today	No planes today.
Equipment Down Time	-D61

Work Progress - Consolidate Fuel (organic liquids) and Incinerate + Clean (Decom.) Tanks/ Drums

Work done today_ Consolidate+Incinerate fuel, Clean tanks/drums	<p>Consolidation of the remaining waste oil/ fuel continued today. The drums of waste oil hauled up from the shop were transferred into Tank 19.</p> <p>Contact water from the barrel washing and as pumped out from the incinerator feed tanks were also consolidated into the tanker and hauled to the Phase 2 area adjacent ROJV's oil-water separator.</p> <p>Incineration is ongoing; however, the TCI Incinerator went down at 2am.</p>
Number of workers_ Consolidate+Incinerate fuel, Clean tanks/drums	6
Equipment_ Consolidate+Incinerate fuel, Clean tanks/drums	Skid Steer- 250 (Crown)
Other Equipment_ Consolidate+Incinerate fuel, Clean tanks/drums	Westland and TCI Incinerator.

Photos_ Consolidate+Incinerate fuel, Clean tanks/drums



Photo black drums of waste oil being consolidated into Tank 19.



Both incinerators down for maintenance at lunch.



Transfer of contact water stored in totes to the tanker.

Work Progress - PHC Soil



Former HWT barrel storage area - impacted soil removed, berm breached.



Project: Jericho Mine Site Stabilization
Remediation Contractor: Rowe's-Outcome Joint Venture (ROJV)

Daily Summary

Work on Monday, September 18 consisted of the on-going incineration of waste organic liquids, processing of contact water, and some backhaul of drummed glycol impacted water.

The TCI incinerator was still undergoing repair today and not in operation. The Westland incinerator was in continued operation.

A chartered DCH-7 plane arrived on-site just past lunch with two SMS mechanics, groceries and a crew change. Crew were flow out as well as several pallets of glycol impacted water.

Earthworks quantities based on ROJV's truck counts as of Sep 09, 2017 are summarized below:

Work	Volume to Date (cu.m) (based on truck counts)	Contract Volume (cu.m)	Estimated % complete
West Dam	28,391	26,500	107%
Pit Outfall Breach	1,176	1,800	65%
C1 Diversion	12,900	14,000	92%
PKCA Cell	40,260	32,640 (less 25% contingency allotted in Contract Quantity)	123%
Dyke A	4,380	3,700	118%

The following grouped HAZMAT quantities are based on KBL's, the registered waste receiver, actual site receipt documentation:

Item	Actual Quantities	Contract Quantity
Batteries	3,207 kg	2,000 kg
Antifreeze	15,257 kg	18,000 kg
Acids/Alcohols	3,136 kg	5,500 kg
Aerosol Cans	120 kg	3,200 kg
Miscellaneous	277 kg	6,500 kg

Daily Site Report

Monday, September 18, 2017

2017 Jericho Mine Site Stabilization
Departmental Representative

Fluorescent lights	info pending	600 kg
Oil Filters	info pending	10,000 kg

A daily report of specific work activities and photos is attached at the end of this report.

Site Personnel and Equipment

The total camp persons onsite this morning was 23:

- 1 Departmental Representative (Henry Wong); and
- 22 Contractor's work personnel, of which 12 are Inuit.

The contractor's workforce at the start of the day is shown in the table below:

Company	Role	Name	Local Inuit Classification
1. ROJV	Superintendent	John Weigel	
1. ROJV	Operator	Don Boxer	
1. ROJV	Operator	Garth Shippit	
1. ROJV	Labourer	Aurthur Oniak	Y
1. ROJV	Wildlife Monitor	Jeff Niptanatiak	Y
1. ROJV	Operator	Wally Walister	
1. ROJV	Environmental Compliance and Controls	Garricks Elechi	
1. ROJV	Surveyor	Simon Kasprzak	
1. ROJV	Cook's helper	Eileen Katiak	Y
1. ROJV	Mechanic	Donald Cook	
1. ROJV	Labourer	Gordon Ailanak	Y
1. ROJV	Labourer	Raymond Oniak	Y
1. ROJV	Labourer	Regan Adjun	Y
1. ROJV	Operator	Salomon Ullulaq	Y
1. ROJV	Labourer	Hebert Alonak	Y
1. ROJV	Labourer	Jorgen Anablak	Y
1. ROJV	Labourer	Joe Martin-Algiak	Y
1. ROJV	Labourer	Timothy Milukshuk	Y
2. DMS	Cook	Paolo Bertini	
2. DMS	Cook	Brian Fehur	Y
2. DMS	Cook	Lisa Probert	
3. 62North	EMT	Peter Smith	

Contract Work Items

An outline of Contract Work and schedule dates is included in the table below.

SpecID	--Work Activity	Start	Finish	Actual Duration (days)	Planned Duration (days)
01 11 00-1	Worker Orientation Seminar	Jul-04	Jul-04		
01 31 19-1	Off-site Project Meetings;				
01 31 19-1	Project Start-up Teleconference	May-05	May-05		
01 31 19-1	Pre-Construction Meeting	May-31	May-31		
01 31 19-2	Community Meetings				
01 31 19-2	Pre-Construction Community Meeting	Jun-01	Jun-01		
01 53 00-1	Mobilization				
01 53 00-1	Air Mobilization	Jun-05	Jun-26	22.	24
01 53 00-1	--10 Hercules flights-in	Jun-21	Jun-24		
01 54 00-1	Supply and Setup Camp	Jun-05	Jul-04	30.	12
01 54 00-2	Operation and Maintenance of Camp Facilities				
01 54 00-2	Operate Camp facilities	Jun-19	Ongoing	12+ weeks	
01 54 00-2	Camp Re-supply flights	Jun-27	Ongoing		
31 -- --	Earthworks				
31 22 13-1	Pre-Grade PKCA			8.	15
31 22 13-1	1st run - until equipment down	Jul-07	Jul-11	5.	
31 22 13-1	2nd run	Jul-15	Jul-17	3.	
31 22 13-2	Construct Cover over Cell A	Jul-18	Sep-01	44.	39
31 22 33.01-1	Construct West Dam Breach				
31 22 33.01-1	Dewater PKCA and Cell C (@1,500 gpm) (@2,160,000 g/24hr-day)	Jun-23	Jul-17	25.	25
31 22 33.01-1	Excavate West Dam to plan elevations and limits			38.	29 including blasting
31 22 33.01-1	--Excavate and Stockpile - 1st cut to frozen	Jun-30	Jul-08	9.	
31 22 33.01-1	--Excavate and Stockpile - 2nd cut	Jul-14	Jul-16	3.	
31 22 33.01-1	--Excavate and Stockpile - 3rd cut	Jul-26	Jul-26	1.	
31 22 33.01-1	--Excavate and Stockpile - 4th cut	Aug-08	Aug-17	10.	
31 22 33.01-1	--Drilling and Excavation	Aug-18	Aug-21	4.	
31 22 33.01-1	----Post Drill Excavation - 2nd cut	Aug-27	Sep-02 Sep-06 to Sep-09	11.	
31 22 33.01-1	Place rip rap	Sep-13	Sep-14	2	
31 22 33.01-2	Construct Divider Dyke A Notch				
31 22 33.01-2	Dewater Cell A	Jul-06	Jul-12	7.	20

Daily Site Report

Monday, September 18, 2017

2017 Jericho Mine Site Stabilization
Departmental Representative

SpecID	--Work Activity	Start	Finish	Actual Duration (days)	Planned Duration (days)
31 22 33.01-2	Excavate and Stockpile	Jul-21	Jul-27	7.	6
31 22 33.01-2	Place Energy Dissipation Ramp	Aug-26	Aug-27	2.	2
31 22 33.01-2	Place rip rap	Sep-03	Sep-04	2.	2
31 22 33.01-3	Construct Open Pit Outfall			5.	4
31 22 33.01-3	Excavate and Stockpile - 1st cut to frozen	Jul-09	Jul-10	2.	
31 22 33.01-3	Excavate and Stockpile - 2nd cut	Jul-16	Jul-18	3.	
31 22 33.01-3	Place rip rap	Sep-11	Sep-11	1.	1
31 22 33.01-4	Construct C1 Diversion			25.	15
31 22 33.01-4	Excavate and Stockpile - 1st cut to frozen	Jul-10	Jul-13	4.	
31 22 33.01-4	Excavate and Stockpile - 2nd cut	Jul-17	Jul-21	5.	
31 22 33.01-4	Excavate and Stockpile - 3rd cut	Jul-26	Jul-28	3.	
31 22 33.01-4	Excavate and Stockpile - 4th cut	Aug-01	Aug-03, Aug-06	4.	
31 22 33.01-4	Excavate and Stockpile	Aug-15	Sep-02	9.	
31 22 33.01-4	Place rip rap	Sep-04	Sep-08	4.	1
02 -- --	Environmental				
02 61 00.01-1	Excavate and Place PHC Soils into Phase 1 Tank Farm area	--	--		
02 61 00.01-1	Remove Phase 1 Tanks and prep cell	Jul-16	Jul-17	2.	8
02 61 00.01-1	Excavate, Haul and Place PHC Contaminated soils into Phase 1	Aug-10	Aug-15 Aug-22 to Aug-23 Aug-28 to Aug-29	10.	8
02 61 00.01-1	--Carat Camp excavation	Aug-30	Aug-31 Sep-03	3.	
02 61 00.01-2	Install geosynthetic liner & coarse PK Cover over PHC soils in Phase 1 Tank Farm area	Sep-10	Sep-12 Pending	--	4
02 81 01-01	Clean and/or decommission all drums, pipelines, and ASTs	--	--		
02 81 01-01	Clean out Phase 1 Tanks	Jul-01	Jul-05 Jul-11	6.	8
02 81 01-01	Clean out Phase 2 Tanks	Jul-07	Jul-09	3.	4
02 81 01-01	Clean and wash drums	Jul-25	Aug-28	21 days and @ ~175% complete	15
02 81 01-02	Consolidate and classify all Organic Liquid Wastes including oils and wastes oils; and incinerating and/ or shipping off-site for disposal	--	--		
02 81 01-02	Consolidate Tank Farm Organic Liquids	Jun-24	Jun-28		

Daily Site Report

Monday, September 18, 2017

2017 Jericho Mine Site Stabilization
Departmental Representative

SpecID	--Work Activity	Start	Finish	Actual Duration (days)	Planned Duration (days)
02 81 01-02	Incinerate Organic Liquids - base contract quantity	Jul-13	Sep-07	56.	45
02 81 01-03	Consolidate and Depressurize/ Vent all Compressed Gas Cylinders and Fire Extinguishers	Jun-21	--		
02 81 01-04	Remove, Consolidate and Package all identified Hazardous Wastes; including Fluorescent lights, Refrigerant fluids, Batteries and Other remaining Hazard Materials	Jul-19	Aug-16	28 days and @ est. 90% complete	8 days 49 total

Additional Comments/ Correspondence

No specific comments or correspondence.

Sign-off

Henry Wong
DXB Projects
Jericho Mine Site Stabilization Departmental Representative

Henry21, 2017-09-18

Project	Jericho Mine Site Stabilization
Created	2017-09-18 13:41:10 UTC by Henry Wong
Updated	2017-09-19 10:39:57 UTC by Andy Uyarrai

Project Information

Name and Daily Report Number	Henry21
Day	Monday
Date	2017-09-18
Project Name	2017 Jericho Mine Site Stabilization
Contractor	Rowe's Outcome Joint Venture

Weather Conditions

Weather	Cool, Overcast
Site Conditions	Cool morning
Morning Temperature	6
Afternoon Temperature	7

People on Site

New Camp People IN/ Day Visitors	Crew change plane; Prasanna, Andy and SMS mechanics inbound; Salo, Raymond outbound.
Total number of all people on-site (at morning meeting)	23
Total number of Contractor people (at morning meeting)	22
Total number of Contractor Local Inuit (at morning meeting)	12
Departmental Representative people on-site	Henry W

Morning Meeting

Health and Safety Topic	HSA Tailgate topic: Pinch points and pressure points -to avoid wear proper clothing
Work Plan	-Get frost fighter up and running -move tanker to back of Phase 2 where oil water separator is located

Overview/ Summary of Work

Summary of Work areas	Consolidate Fuel, Incinerate,Clean Tanks/Drums, Hazmat Cleanup
Planes on-site today	Air Tindi DCH-7 in at noon.
Equipment Down Time	-D61 -TCI Incinerator



Work Progress - Consolidate Fuel (organic liquids) and Incinerate + Clean (Decom.) Tanks/ Drums

Work done today_ Consolidate+Incinerate fuel,
Clean tanks/drums

The Westland Incinerator was in operation the full day; however, TCI unit still under repair.

ROJV started processing their contact water; running through an Oil and Water separator. The system is set up adjacent the Phase 2 Tank Farm area.

Number of workers_ Consolidate+Incinerate fuel,
Clean tanks/drums

4

Equipment_ Consolidate+Incinerate fuel, Clean
tanks/drums

PC200 Excavator, Skid Steer- 250 (Crown)

Photos_ Consolidate+Incinerate fuel, Clean
tanks/drums



incinerating ongoing with west land



down incinerator hard time burning needs parts



shack with heat trying to keep things warm



oil water separator into totes



poured totes into big gray tank and poured into oil water separator

Work Progress - Hazmat Cleanup

Work done today_ Hazmat	Drums of glycol mixed water/ leachate were backhauled on the DCH-7.
Number of workers_ Hazmat	2
Equipment_ Hazmat	Skid Steer- 250 (Crown)

Daily Site Report

Tuesday, September 19, 2017

2017 Jericho Mine Site Stabilization
Departmental Representative

Project: Jericho Mine Site Stabilization
Remediation Contractor: Rowe's-Outcome Joint Venture (ROJV)

Daily Summary

Work on Tuesday, September 19 consisted of the on-going incineration of waste organic liquids, processing of contact water, and breaking down of the heavy equipment for the Hercules demobilization.

A temporary fix was rigged for the TCI incinerator and it was operation for a few hours today. The Westland incinerator continued 24hr operation.

ROJV continued with processing contact water today; running it through the oil-water separated set-in front of the Phase 2 Tank Farm area.

The SMS mechanics broke down the D61 today.

Earthworks quantities based on ROJV's truck counts as of Sep 09, 2017 are summarized below:

Work	Volume to Date (cu.m) (based on truck counts)	Contract Volume (cu.m)	Estimated % complete
West Dam	28,391	26,500	107%
Pit Outfall Breach	1,176	1,800	65%
C1 Diversion	12,900	14,000	92%
PKCA Cell	40,260	32,640 (less 25% contingency allotted in Contract Quantity)	123%
Dyke A	4,380	3,700	118%

Daily Site Report

Tuesday, September 19, 2017

2017 Jericho Mine Site Stabilization
Departmental Representative

The following grouped HAZMAT quantities are based on KBL's, the registered waste receiver, actual site receipt documentation:

Item	Actual Quantities	Contract Quantity
Batteries	3,207 kg	2,000 kg
Antifreeze	15,257 kg	18,000 kg
Acids/Alcohols	3,136 kg	5,500 kg
Aerosol Cans	120 kg	3,200 kg
Miscellaneous	277 kg	6,500 kg
Fluorescent lights	info pending	600 kg
Oil Filters	info pending	10,000 kg

A daily report of specific work activities and photos is attached at the end of this report.

Site Personnel and Equipment

The total camp persons onsite this morning was 23:

- 2 Departmental Representative (Henry Wong); and
- 21 Contractor's work personnel, of which 8 are local Inuit.

The contractor's workforce at the start of the day is shown in the table below:

Company	Role	Name	Local Inuit Classification
1. ROJV	Superintendent	John Weigel	
1. ROJV	Operator	Don Boxer	
1. ROJV	Operator	Garth Shippit	
1. ROJV	Labourer	Aurthur Oniak	Y
1. ROJV	Wildlife Monitor	Jeff Niptanatiak	Y
1. ROJV	Operator	Wally Walister	
1. ROJV	Environmental Compliance and Controls	Garricks Elechi	
1. ROJV	Mechanic	Donald Cook	
1. ROJV	Labourer	Gordon Ailanak	Y
1. ROJV	Labourer	Regan Adjun	Y
1. ROJV	Labourer	Shayne Nivingalok	Y
1. ROJV	Labourer	Hebert Alonak	Y

Daily Site Report

Tuesday, September 19, 2017

2017 Jericho Mine Site Stabilization
Departmental Representative

Company	Role	Name	Local Inuit Classification
1. ROJV	Labourer	Jorgen Anablak	Y
1. ROJV	Labourer	Timothy Milukshuk	Y
1. ROJV	Project Manager	Prassanna Yennawar	
2. DMS	Cook	Paolo Bertini	
2. DMS	Cook	Brian Fehur	
2. DMS	Cook	Lisa Probert	
3. 62North	EMT	Peter Smith	
5. SMS	HE Mechanic	Josh Bucholz	
5. SMS	HE Mechanic	Mike Macleod	

Contract Work Items

An outline of Contract Work and schedule dates is included in the table below.

SpecID	--Work Activity	Start	Finish	Actual Duration (days)	Planned Duration (days)
01 11 00-1	Worker Orientation Seminar	Jul-04	Jul-04		
01 31 19-1	Off-site Project Meetings;				
01 31 19-1	Project Start-up Teleconference	May-05	May-05		
01 31 19-1	Pre-Construction Meeting	May-31	May-31		
01 31 19-2	Community Meetings				
01 31 19-2	Pre-Construction Community Meeting	Jun-01	Jun-01		
01 53 00-1	Mobilization				
01 53 00-1	Air Mobilization	Jun-05	Jun-26	22.	24
01 53 00-1	--10 Hercules flights-in	Jun-21	Jun-24		
01 54 00-1	Supply and Setup Camp	Jun-05	Jul-04	30.	12
01 54 00-2	Operation and Maintenance of Camp Facilities				
01 54 00-2	Operate Camp facilities	Jun-19	Ongoing	12+ weeks	
01 54 00-2	Camp Re-supply flights	Jun-27	Ongoing		
31 -- --	Earthworks				
31 22 13-1	Pre-Grade PKCA			8.	15
31 22 13-1	1st run - until equipment down	Jul-07	Jul-11	5.	
31 22 13-1	2nd run	Jul-15	Jul-17	3.	
31 22 13-2	Construct Cover over Cell A	Jul-18	Sep-01	44.	39
31 22 33.01-1	Construct West Dam Breach				
31 22 33.01-1	Dewater PKCA and Cell C (@1,500 gpm) (@2,160,000 g/24hr-day)	Jun-23	Jul-17	25.	25

Daily Site Report

Tuesday, September 19, 2017

2017 Jericho Mine Site Stabilization
Departmental Representative

SpecID	..	--Work Activity	Start	Finish	Actual Duration (days)	Planned Duration (days)
31 22 33.01-1		Excavate West Dam to plan elevations and limits			38.	29 including blasting
31 22 33.01-1		--Excavate and Stockpile - 1st cut to frozen	Jun-30	Jul-08	9.	
31 22 33.01-1		--Excavate and Stockpile - 2nd cut	Jul-14	Jul-16	3.	
31 22 33.01-1		--Excavate and Stockpile - 3rd cut	Jul-26	Jul-26	1.	
31 22 33.01-1		--Excavate and Stockpile - 4th cut	Aug-08	Aug-17	10.	
31 22 33.01-1		--Drilling and Excavation	Aug-18	Aug-21	4.	
31 22 33.01-1		----Post Drill Excavation - 2nd cut	Aug-27	Sep-02 Sep-06 to Sep-09	11.	
31 22 33.01-1		Place rip rap	Sep-13	Sep-14	2	
31 22 33.01-2		Construct Divider Dyke A Notch				
31 22 33.01-2		Dewater Cell A	Jul-06	Jul-12	7.	20
31 22 33.01-2		Excavate and Stockpile	Jul-21	Jul-27	7.	6
31 22 33.01-2		Place Energy Dissipation Ramp	Aug-26	Aug-27	2.	2
31 22 33.01-2		Place rip rap	Sep-03	Sep-04	2.	2
31 22 33.01-3		Construct Open Pit Outfall			5.	4
31 22 33.01-3		Excavate and Stockpile - 1st cut to frozen	Jul-09	Jul-10	2.	
31 22 33.01-3		Excavate and Stockpile - 2nd cut	Jul-16	Jul-18	3.	
31 22 33.01-3		Place rip rap	Sep-11	Sep-11	1.	1
31 22 33.01-4		Construct C1 Diversion			25.	15
31 22 33.01-4		Excavate and Stockpile - 1st cut to frozen	Jul-10	Jul-13	4.	
31 22 33.01-4		Excavate and Stockpile - 2nd cut	Jul-17	Jul-21	5.	
31 22 33.01-4		Excavate and Stockpile - 3rd cut	Jul-26	Jul-28	3.	
31 22 33.01-4		Excavate and Stockpile - 4th cut	Aug-01	Aug-03, Aug-06	4.	
31 22 33.01-4		Excavate and Stockpile	Aug-15	Sep-02	9.	
31 22 33.01-4		Place rip rap	Sep-04	Sep-08	4.	1
02 -- --		Environmental				
02 61 00.01-1		Excavate and Place PHC Soils into Phase 1 Tank Farm area	--	--		
02 61 00.01-1		Remove Phase 1 Tanks and prep cell	Jul-16	Jul-17	2.	8
02 61 00.01-1		Excavate, Haul and Place PHC Contaminated soils into Phase 1	Aug-10	Aug-15 Aug-22 to Aug-23 Aug-28 to Aug-29	10.	8
02 61 00.01-1		--Carat Camp excavation	Aug-30	Aug-31 Sep-03	3.	

Daily Site Report

Tuesday, September 19, 2017

2017 Jericho Mine Site Stabilization
Departmental Representative

SpecID	--Work Activity	Start	Finish	Actual Duration (days)	Planned Duration (days)
02 61 00.01-2	Install geosynthetic liner & coarse PK Cover over PHC soils in Phase 1 Tank Farm area	Sep-10	Sep-12 Pending	--	4
02 81 01-01	Clean and/or decommission all drums, pipelines, and ASTs	--	--		
02 81 01-01	Clean out Phase 1 Tanks	Jul-01	Jul-05 Jul-11	6.	8
02 81 01-01	Clean out Phase 2 Tanks	Jul-07	Jul-09	3.	4
02 81 01-01	Clean and wash drums	Jul-25	Aug-28	21 days and @ ~175% complete	15
02 81 01-02	Consolidate and classify all Organic Liquid Wastes including oils and wastes oils; and incinerating and/ or shipping off-site for disposal	--	--		
02 81 01-02	Consolidate Tank Farm Organic Liquids	Jun-24	Jun-28		
02 81 01-02	Incinerate Organic Liquids - base contract quantity	Jul-13	Sep-07	56.	45
02 81 01-03	Consolidate and Depressurize/ Vent all Compressed Gas Cylinders and Fire Extinguishers	Jun-21	--		
02 81 01-04	Remove, Consolidate and Package all identified Hazardous Wastes; including Fluorescent lights, Refrigerant fluids, Batteries and Other remaining Hazard Materials	Jul-19	Aug-16	28 days and @ est. 90% complete	8 days 49 total

Additional Comments/ Correspondence

No specific comments or correspondence.

Sign-off

Henry Wong
DXB Projects
Jericho Mine Site Stabilization Departmental Representative

Andy63, 2017-09-19

Project	Jericho Mine Site Stabilization
Created	2017-09-19 17:38:30 EDT by Andy Uyarrai
Updated	2017-09-20 17:35:59 EDT by Henry Wong

Project Information

Name and Daily Report Number	Andy63
Day	Tuesday
Date	2017-09-19
Project Name	2017 Jericho Mine Site Stabilization
Contractor	Rowe's Outcome Joint Venture

Weather Conditions

Weather	Cool, Overcast
Site Conditions	cool morning cloudy
Morning Temperature	3
Afternoon Temperature	7

People on Site

New Camp People IN/ Day Visitors	none
Total number of all people on-site (at morning meeting)	23
Total number of Contractor people (at morning meeting)	21
Total number of Contractor Local Inuit (at morning meeting)	8
Departmental Representative people on-site	Henry W, Andy U

Morning Meeting

Health and Safety Topic	small group of people sick yesterday when your coughing sneezing cover your mouth with your arms keep your hands clean and use hand cleaner and spray
Work Plan	SMS guys start taking apart equipment's Jeff incinerator Arthur gray water and fueling Garth loader Gord hauling to phase4

Overview/ Summary of Work

Summary of Work areas	Mob/ Demob, Consolidate Fuel, Incinerate,Clean Tanks/Drums
Other Work Done Today	consolidating oil fuel at phase 4
Planes on-site today	no
Equipment Down Time	-D61 -TCI Incinerator

Work Progress - Mob/ DeMob

Work done today_ Mob/Demob	2 SMS guys demob D61 Dozer getting ready to back haul fro Hercules
Number of workers_ Mob/Demob	2

Equipment_ Mob/Demob	PC200 Excavator
Other Equipment_ Mob/Demob	blue van
Photos_ Mob/Demob	



SMS guys demob D61Dozer



start demob sms guys on D61 Dozer

Work Progress - Consolidate Fuel (organic liquids) and Incinerate + Clean (Decom.) Tanks/ Drums

Work done today_ Consolidate+Incinerate fuel, Clean tanks/drums	ongoing incinerator westland 24 hours burning TCI incinerator running into problems wear out burner Burned approximately 4 to 6 hours
Number of workers_ Consolidate+Incinerate fuel, Clean tanks/drums	2
Photos_ Consolidate+Incinerate fuel, Clean tanks/drums	



tokes felling by phase2 tank farm



consolidating oil and fuel



incinerator on for 4 to 6 hours

Environmental Issues, Wildlife Sightings

Spills?	none
Wildlife Sightings	no

Health and Safety

Incidents/ Accidents	no
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Daily Site Report

Wednesday, September 20, 2017

2017 Jericho Mine Site Stabilization
Departmental Representative

Project: Jericho Mine Site Stabilization
Remediation Contractor: Rowe's-Outcome Joint Venture (ROJV)

Daily Summary

Work on Wednesday, September 20 consisted of continuing work; the on-going incineration of waste organic liquids, processing of contact water, and breaking down of the heavy equipment for the Hercules demobilization.

A temporary fix was rigged for the TCI incinerator and it continued to operate at partial output. A new part has been fabricated by the manufacturer and being shipped to site. The Westland incinerator continued 24-hr operation.

The processing of the contact water through the oil-water separator system continued. Treated water has been being stored in the cell adjacent the Phase 2 area; and separated hydrocarbon put back into the totes and hauled to the HWTa for incineration.

The mechanics were working on dismantling the rock trucks today.

Earthworks quantities based on ROJV's final truck counts as of Sep 12, 2017 are summarized below:

Work	Volume to Date (cu.m) (based on truck counts)	Contract Volume (cu.m)	Estimated % complete
West Dam	28,391	26,500	107%
Pit Outfall Breach	1,176	1,800	65%
C1 Diversion	12,648	14,000	92%
PKCA Cell	40,260	32,640 (less 25% contingency allotted in Contract Quantity)	123%
Dyke A	4,380	3,700	118%

Daily Site Report

Wednesday, September 20, 2017

2017 Jericho Mine Site Stabilization
Departmental Representative

The following grouped HAZMAT quantities are based on KBL's, the registered waste receiver, actual site receipt documentation:

Item	Actual Quantities	Contract Quantity
Batteries	3,207 kg	2,000 kg
Antifreeze	15,257 kg	18,000 kg
Acids/Alcohols	3,136 kg	5,500 kg
Aerosol Cans	120 kg	3,200 kg
Miscellaneous	277 kg	6,500 kg
Fluorescent lights	info pending	600 kg
Oil Filters	info pending	10,000 kg

A daily report of specific work activities and photos is attached at the end of this report.

Site Personnel and Equipment

The total camp persons onsite this morning was 23:

- 2 Departmental Representative (Henry Wong); and
- 21 Contractor's work personnel, of which 8 are local Inuit.

The contractor's workforce at the start of the day is shown in the table below:

Company	Role	Name	Local Inuit Classification
1. ROJV	Superintendent	John Weigel	
1. ROJV	Operator	Don Boxer	
1. ROJV	Operator	Garth Shippit	
1. ROJV	Labourer	Aurthur Oniak	Y
1. ROJV	Wildlife Monitor	Jeff Niptanatiak	Y
1. ROJV	Operator	Wally Walister	
1. ROJV	Environmental Compliance and Controls	Garricks Elechi	
1. ROJV	Mechanic	Donald Cook	
1. ROJV	Labourer	Gordon Ailanak	Y
1. ROJV	Labourer	Regan Adjun	Y
1. ROJV	Labourer	Shayne Nivingalok	Y
1. ROJV	Labourer	Hebert Alonak	Y

Daily Site Report

Wednesday, September 20, 2017

2017 Jericho Mine Site Stabilization
Departmental Representative

Company	Role	Name	Local Inuit Classification
1. ROJV	Labourer	Jorgen Anablak	Y
1. ROJV	Labourer	Timothy Milukshuk	Y
1. ROJV	Project Manager	Prassanna Yennawar	
2. DMS	Cook	Paolo Bertini	
2. DMS	Cook	Brian Fehur	
2. DMS	Cook	Lisa Probert	
3. 62North	EMT	Peter Smith	
5. SMS	HE Mechanic	Josh Bucholz	
5. SMS	HE Mechanic	Mike Macleod	

Contract Work Items

An outline of Contract Work and schedule dates is included in the table below.

SpecID	--Work Activity	Start	Finish	Actual Duration (days)	Planned Duration (days)
01 11 00-1	Worker Orientation Seminar	Jul-04	Jul-04		
01 31 19-1	Off-site Project Meetings;				
01 31 19-1	Project Start-up Teleconference	May-05	May-05		
01 31 19-1	Pre-Construction Meeting	May-31	May-31		
01 31 19-2	Community Meetings				
01 31 19-2	Pre-Construction Community Meeting	Jun-01	Jun-01		
01 53 00-1	Mobilization				
01 53 00-1	Air Mobilization	Jun-05	Jun-26	22.	24
01 53 00-1	--10 Hercules flights-in	Jun-21	Jun-24		
01 54 00-1	Supply and Setup Camp	Jun-05	Jul-04	30.	12
01 54 00-2	Operation and Maintenance of Camp Facilities				
01 54 00-2	Operate Camp facilities	Jun-19	Ongoing	12+ weeks	
01 54 00-2	Camp Re-supply flights	Jun-27	Ongoing		
31 -- --	Earthworks				
31 22 13-1	Pre-Grade PKCA			8.	15
31 22 13-1	1st run - until equipment down	Jul-07	Jul-11	5.	
31 22 13-1	2nd run	Jul-15	Jul-17	3.	
31 22 13-2	Construct Cover over Cell A	Jul-18	Sep-01	44.	39
31 22 33.01-1	Construct West Dam Breach				
31 22 33.01-1	Dewater PKCA and Cell C (@1,500 gpm) (@2,160,000 g/24hr-day)	Jun-23	Jul-17	25.	25

Daily Site Report

Wednesday, September 20, 2017

2017 Jericho Mine Site Stabilization
Departmental Representative

SpecID	..	--Work Activity	Start	Finish	Actual Duration (days)	Planned Duration (days)
31 22 33.01-1		Excavate West Dam to plan elevations and limits			38.	29 including blasting
31 22 33.01-1		--Excavate and Stockpile - 1st cut to frozen	Jun-30	Jul-08	9.	
31 22 33.01-1		--Excavate and Stockpile - 2nd cut	Jul-14	Jul-16	3.	
31 22 33.01-1		--Excavate and Stockpile - 3rd cut	Jul-26	Jul-26	1.	
31 22 33.01-1		--Excavate and Stockpile - 4th cut	Aug-08	Aug-17	10.	
31 22 33.01-1		--Drilling and Excavation	Aug-18	Aug-21	4.	
31 22 33.01-1		----Post Drill Excavation - 2nd cut	Aug-27	Sep-02 Sep-06 to Sep-09	11.	
31 22 33.01-1		Place rip rap	Sep-13	Sep-14	2	
31 22 33.01-2		Construct Divider Dyke A Notch				
31 22 33.01-2		Dewater Cell A	Jul-06	Jul-12	7.	20
31 22 33.01-2		Excavate and Stockpile	Jul-21	Jul-27	7.	6
31 22 33.01-2		Place Energy Dissipation Ramp	Aug-26	Aug-27	2.	2
31 22 33.01-2		Place rip rap	Sep-03	Sep-04	2.	2
31 22 33.01-3		Construct Open Pit Outfall			5.	4
31 22 33.01-3		Excavate and Stockpile - 1st cut to frozen	Jul-09	Jul-10	2.	
31 22 33.01-3		Excavate and Stockpile - 2nd cut	Jul-16	Jul-18	3.	
31 22 33.01-3		Place rip rap	Sep-11	Sep-11	1.	1
31 22 33.01-4		Construct C1 Diversion			25.	15
31 22 33.01-4		Excavate and Stockpile - 1st cut to frozen	Jul-10	Jul-13	4.	
31 22 33.01-4		Excavate and Stockpile - 2nd cut	Jul-17	Jul-21	5.	
31 22 33.01-4		Excavate and Stockpile - 3rd cut	Jul-26	Jul-28	3.	
31 22 33.01-4		Excavate and Stockpile - 4th cut	Aug-01	Aug-03, Aug-06	4.	
31 22 33.01-4		Excavate and Stockpile	Aug-15	Sep-02	9.	
31 22 33.01-4		Place rip rap	Sep-04	Sep-08	4.	1
02 -- --		Environmental				
02 61 00.01-1		Excavate and Place PHC Soils into Phase 1 Tank Farm area	--	--		
02 61 00.01-1		Remove Phase 1 Tanks and prep cell	Jul-16	Jul-17	2.	8
02 61 00.01-1		Excavate, Haul and Place PHC Contaminated soils into Phase 1	Aug-10	Aug-15 Aug-22 to Aug-23 Aug-28 to Aug-29	10.	8
02 61 00.01-1		--Carat Camp excavation	Aug-30	Aug-31 Sep-03	3.	

Daily Site Report

Wednesday, September 20, 2017

2017 Jericho Mine Site Stabilization
Departmental Representative

SpecID	--Work Activity	Start	Finish	Actual Duration (days)	Planned Duration (days)
02 61 00.01-2	Install geosynthetic liner & coarse PK Cover over PHC soils in Phase 1 Tank Farm area	Sep-10	Sep-12 Pending	--	4
02 81 01-01	Clean and/or decommission all drums, pipelines, and ASTs	--	--		
02 81 01-01	Clean out Phase 1 Tanks	Jul-01	Jul-05 Jul-11	6.	8
02 81 01-01	Clean out Phase 2 Tanks	Jul-07	Jul-09	3.	4
02 81 01-01	Clean and wash drums	Jul-25	Aug-28	21 days and @ ~175% complete	15
02 81 01-02	Consolidate and classify all Organic Liquid Wastes including oils and wastes oils; and incinerating and/ or shipping off-site for disposal	--	--		
02 81 01-02	Consolidate Tank Farm Organic Liquids	Jun-24	Jun-28		
02 81 01-02	Incinerate Organic Liquids - base contract quantity	Jul-13	Sep-07	56.	45
02 81 01-03	Consolidate and Depressurize/ Vent all Compressed Gas Cylinders and Fire Extinguishers	Jun-21	--		
02 81 01-04	Remove, Consolidate and Package all identified Hazardous Wastes; including Fluorescent lights, Refrigerant fluids, Batteries and Other remaining Hazard Materials	Jul-19	Aug-16	28 days and @ est. 90% complete	8 days 49 total

Additional Comments/ Correspondence

The weekly update meeting was held via teleconference after lunch.

Sign-off

Henry Wong
DXB Projects
Jericho Mine Site Stabilization Departmental Representative

Andy64, 2017-09-20

Project	Jericho Mine Site Stabilization
Created	2017-09-20 20:16:52 UTC by Andy Uyarrai
Updated	2017-09-20 20:47:11 UTC by Andy Uyarrai

Project Information

Name and Daily Report Number	Andy64
Day	Wednesday
Date	2017-09-20
Project Name	2017 Jericho Mine Site Stabilization
Contractor	Rowe's Outcome Joint Venture

Weather Conditions

Weather	Cool, Fog
Site Conditions	Frosty in the morning
Morning Temperature	3
Afternoon Temperature	5

People on Site

New Camp People IN/ Day Visitors	No
Total number of all people on-site (at morning meeting)	23
Total number of Contractor people (at morning meeting)	21
Total number of Contractor Local Inuit (at morning meeting)	8
Departmental Representative people on-site	Henry W, Andy U

Morning Meeting

Health and Safety Topic	Plane day Hauling oil and waste water Communications Communicate use radio eye contact More communication Use your hands thumps up
Work Plan	Using shower room Keep your stuff out of there Sms guys demob Jeff incinerator Art wash 61 And excavator Dress nice it cooler out

Overview/ Summary of Work

Summary of Work areas	Mob/ Demob, Consolidate Fuel, Incinerate,Clean Tanks/Drums, Hazmat Cleanup
Other Work Done Today	Getting ready for Electra back haul waste coolants
Planes on-site today	Canceled
Equipment Down Time	Westland incinerator Cleanup



Westland shut down for clean up

Work Progress - Mob/ DeMob

Work done today_ Mob/Demob	1Rock demob and 61Dozer
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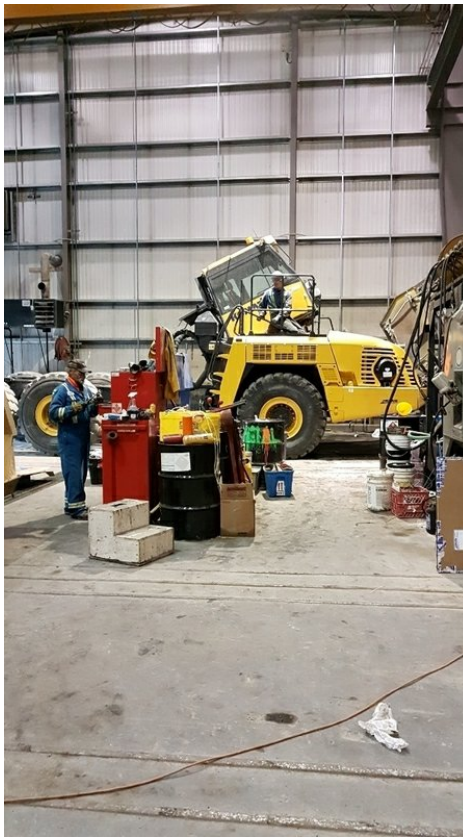
Number of workers_ Mob/Demob	2
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Equipment_ Mob/Demob	PC200 Excavator, truck shop
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Photos_ Mob/Demob



demob inside truck shop going well



working on rock truck demob going very well



rock truck box at airport ready for back haul

Work Progress - Consolidate Fuel (organic liquids) and Incinerate + Clean (Decom.) Tanks/ Drums

Work done today_ Consolidate+Incinerate fuel, Clean tanks/drums	Westland incinerator down for clean up TCL running all day
Number of workers_ Consolidate+Incinerate fuel, Clean tanks/drums	1
Equipment_ Consolidate+Incinerate fuel, Clean tanks/drums	322 Excavator (Crown), Skid Steer- 250 (Crown), Dump truck to haul tanker
Other Equipment_ Consolidate+Incinerate fuel, Clean tanks/drums	White van to haul tokens

Photos_ Consolidate+Incinerate fuel, Clean tanks/drums



unloading and separating water and oil



tanker to sperate water



waste drums ready for back haul



coolant and waste water back haul

Environmental Issues, Wildlife Sightings

Spills?	No
Wildlife Sightings	No

Health and Safety

Incidents/ Accidents	No
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Daily Site Report

Thursday, September 21, 2017

2017 Jericho Mine Site Stabilization
Departmental Representative

Project: Jericho Mine Site Stabilization
Remediation Contractor: Rowe's-Outcome Joint Venture (ROJV)

Daily Summary

Work on Thursday, September 21 consisted of continuing activities; the on-going incineration of waste organic liquids, processing of contact water, and dismantling the heavy equipment for demobilization.

The TCI incinerator is now effectively out of commission until the replacement part arrives on-site; while the Westland incinerator continued in operation.

The processing of contact water through the oil-water separator system continued today. Treated water is being stored in the cell adjacent Phase 2; and separated hydrocarbon put back into totes and hauled to the HWTa for incineration.

The remaining two (2) rock trucks and D65 dozer were stripped own and ready deomb today.

Earthworks quantities based on ROJV's final truck counts as of Sep 12, 2017 are summarized below:

Work	Volume to Date (cu.m) (based on truck counts)	Contract Volume (cu.m)	Estimated % complete
West Dam	28,391	26,500	107%
Pit Outfall Breach	1,176	1,800	65%
C1 Diversion	12,648	14,000	92%
PKCA Cell	40,260	32,640 (less 25% contingency allotted in Contract Quantity)	123%
Dyke A	4,380	3,700	118%

Daily Site Report

Thursday, September 21, 2017

2017 Jericho Mine Site Stabilization
Departmental Representative

The following grouped HAZMAT quantities are based on KBL's, the registered waste receiver, actual site receipt documentation:

Item	Actual Quantities	Contract Quantity
Batteries	3,207 kg	2,000 kg
Antifreeze	15,257 kg	18,000 kg
Acids/Alcohols	3,136 kg	5,500 kg
Aerosol Cans	120 kg	3,200 kg
Miscellaneous	277 kg	6,500 kg
Fluorescent lights	info pending	600 kg
Oil Filters	info pending	10,000 kg

A daily report of specific work activities and photos is attached at the end of this report.

Site Personnel and Equipment

The total camp persons onsite this morning was 23:

- 2 Departmental Representative (Henry Wong); and
- 21 Contractor's work personnel, of which 8 are local Inuit.

The contractor's workforce at the start of the day is shown in the table below:

Company	Role	Name	Local Inuit Classification
1. ROJV	Superintendent	John Weigel	
1. ROJV	Operator	Don Boxer	
1. ROJV	Operator	Garth Shippit	
1. ROJV	Labourer	Aurthur Oniak	Y
1. ROJV	Wildlife Monitor	Jeff Niptanatiak	Y
1. ROJV	Operator	Wally Walister	
1. ROJV	Environmental Compliance and Controls	Garricks Elechi	
1. ROJV	Mechanic	Donald Cook	
1. ROJV	Labourer	Gordon Ailanak	Y
1. ROJV	Labourer	Regan Adjun	Y
1. ROJV	Labourer	Shayne Nivingalok	Y
1. ROJV	Labourer	Hebert Alonak	Y

Daily Site Report

Thursday, September 21, 2017

2017 Jericho Mine Site Stabilization
Departmental Representative

Company	Role	Name	Local Inuit Classification
1. ROJV	Labourer	Jorgen Anablak	Y
1. ROJV	Labourer	Timothy Milukshuk	Y
1. ROJV	Project Manager	Prassanna Yennawar	
2. DMS	Cook	Paolo Bertini	
2. DMS	Cook	Brian Fehur	
2. DMS	Cook	Lisa Probert	
3. 62North	EMT	Peter Smith	
5. SMS	HE Mechanic	Josh Bucholz	
5. SMS	HE Mechanic	Mike Macleod	

Contract Work Items

An outline of Contract Work and schedule dates is included in the table below.

SpecID	--Work Activity	Start	Finish	Actual Duration (days)	Planned Duration (days)
01 11 00-1	Worker Orientation Seminar	Jul-04	Jul-04		
01 31 19-1	Off-site Project Meetings;				
01 31 19-1	Project Start-up Teleconference	May-05	May-05		
01 31 19-1	Pre-Construction Meeting	May-31	May-31		
01 31 19-2	Community Meetings				
01 31 19-2	Pre-Construction Community Meeting	Jun-01	Jun-01		
01 53 00-1	Mobilization				
01 53 00-1	Air Mobilization	Jun-05	Jun-26	22.	24
01 53 00-1	--10 Hercules flights-in	Jun-21	Jun-24		
01 54 00-1	Supply and Setup Camp	Jun-05	Jul-04	30.	12
01 54 00-2	Operation and Maintenance of Camp Facilities				
01 54 00-2	Operate Camp facilities	Jun-19	Ongoing	12+ weeks	
01 54 00-2	Camp Re-supply flights	Jun-27	Ongoing		
31 -- --	Earthworks				
31 22 13-1	Pre-Grade PKCA			8.	15
31 22 13-1	1st run - until equipment down	Jul-07	Jul-11	5.	
31 22 13-1	2nd run	Jul-15	Jul-17	3.	
31 22 13-2	Construct Cover over Cell A	Jul-18	Sep-01	44.	39
31 22 33.01-1	Construct West Dam Breach				
31 22 33.01-1	Dewater PKCA and Cell C (@1,500 gpm) (@2,160,000 g/24hr-day)	Jun-23	Jul-17	25.	25

Daily Site Report

Thursday, September 21, 2017

2017 Jericho Mine Site Stabilization
Departmental Representative

SpecID	..	--Work Activity	Start	Finish	Actual Duration (days)	Planned Duration (days)
31 22 33.01-1		Excavate West Dam to plan elevations and limits			38.	29 including blasting
31 22 33.01-1		--Excavate and Stockpile - 1st cut to frozen	Jun-30	Jul-08	9.	
31 22 33.01-1		--Excavate and Stockpile - 2nd cut	Jul-14	Jul-16	3.	
31 22 33.01-1		--Excavate and Stockpile - 3rd cut	Jul-26	Jul-26	1.	
31 22 33.01-1		--Excavate and Stockpile - 4th cut	Aug-08	Aug-17	10.	
31 22 33.01-1		--Drilling and Excavation	Aug-18	Aug-21	4.	
31 22 33.01-1		----Post Drill Excavation - 2nd cut	Aug-27	Sep-02 Sep-06 to Sep-09	11.	
31 22 33.01-1		Place rip rap	Sep-13	Sep-14	2	
31 22 33.01-2		Construct Divider Dyke A Notch				
31 22 33.01-2		Dewater Cell A	Jul-06	Jul-12	7.	20
31 22 33.01-2		Excavate and Stockpile	Jul-21	Jul-27	7.	6
31 22 33.01-2		Place Energy Dissipation Ramp	Aug-26	Aug-27	2.	2
31 22 33.01-2		Place rip rap	Sep-03	Sep-04	2.	2
31 22 33.01-3		Construct Open Pit Outfall			5.	4
31 22 33.01-3		Excavate and Stockpile - 1st cut to frozen	Jul-09	Jul-10	2.	
31 22 33.01-3		Excavate and Stockpile - 2nd cut	Jul-16	Jul-18	3.	
31 22 33.01-3		Place rip rap	Sep-11	Sep-11	1.	1
31 22 33.01-4		Construct C1 Diversion			25.	15
31 22 33.01-4		Excavate and Stockpile - 1st cut to frozen	Jul-10	Jul-13	4.	
31 22 33.01-4		Excavate and Stockpile - 2nd cut	Jul-17	Jul-21	5.	
31 22 33.01-4		Excavate and Stockpile - 3rd cut	Jul-26	Jul-28	3.	
31 22 33.01-4		Excavate and Stockpile - 4th cut	Aug-01	Aug-03, Aug-06	4.	
31 22 33.01-4		Excavate and Stockpile	Aug-15	Sep-02	9.	
31 22 33.01-4		Place rip rap	Sep-04	Sep-08	4.	1
02 -- --		Environmental				
02 61 00.01-1		Excavate and Place PHC Soils into Phase 1 Tank Farm area	--	--		
02 61 00.01-1		Remove Phase 1 Tanks and prep cell	Jul-16	Jul-17	2.	8
02 61 00.01-1		Excavate, Haul and Place PHC Contaminated soils into Phase 1	Aug-10	Aug-15 Aug-22 to Aug-23 Aug-28 to Aug-29	10.	8
02 61 00.01-1		--Carat Camp excavation	Aug-30	Aug-31 Sep-03	3.	

Daily Site Report

Thursday, September 21, 2017

2017 Jericho Mine Site Stabilization
Departmental Representative

SpecID	--Work Activity	Start	Finish	Actual Duration (days)	Planned Duration (days)
02 61 00.01-2	Install geosynthetic liner & coarse PK Cover over PHC soils in Phase 1 Tank Farm area	Sep-10	Sep-12 Pending	--	4
02 81 01-01	Clean and/or decommission all drums, pipelines, and ASTs	--	--		
02 81 01-01	Clean out Phase 1 Tanks	Jul-01	Jul-05 Jul-11	6.	8
02 81 01-01	Clean out Phase 2 Tanks	Jul-07	Jul-09	3.	4
02 81 01-01	Clean and wash drums	Jul-25	Aug-28	21 days and @ ~175% complete	15
02 81 01-02	Consolidate and classify all Organic Liquid Wastes including oils and wastes oils; and incinerating and/ or shipping off-site for disposal	--	--		
02 81 01-02	Consolidate Tank Farm Organic Liquids	Jun-24	Jun-28		
02 81 01-02	Incinerate Organic Liquids - base contract quantity	Jul-13	Sep-07	56.	45
02 81 01-03	Consolidate and Depressurize/ Vent all Compressed Gas Cylinders and Fire Extinguishers	Jun-21	--		
02 81 01-04	Remove, Consolidate and Package all identified Hazardous Wastes; including Fluorescent lights, Refrigerant fluids, Batteries and Other remaining Hazard Materials	Jul-19	Aug-16	28 days and @ est. 90% complete	8 days 49 total

Additional Comments/ Correspondence

ROJV was notified this morning that their grey water discharge plan was accepted by the Lands and Water office. The treated grey water cells were hauled and transferred into the open pit.

Sign-off

Henry Wong
DXB Projects
Jericho Mine Site Stabilization Departmental Representative

Andy65, 2017-09-21

Project	Jericho Mine Site Stabilization
Created	2017-09-21 17:08:02 EDT by Andy Uyarrai
Updated	2017-09-22 14:27:17 EDT by Henry Wong

Project Information

Name and Daily Report Number	Andy65
Day	Thursday
Date	2017-09-21
Project Name	2017 Jericho Mine Site Stabilization
Contractor	Rowe's Outcome Joint Venture

Weather Conditions

Weather	Cool, Fog, Overcast
Site Conditions	Frosty wet snow in the evening
Morning Temperature	1
Afternoon Temperature	5

People on Site

New Camp People IN/ Day Visitors	None
Total number of all people on-site (at morning meeting)	23
Total number of Contractor people (at morning meeting)	21
Total number of Contractor Local Inuit (at morning meeting)	8
Departmental Representative people on-site	Henry W, Andy U

Morning Meeting

Health and Safety Topic	Slip trips and falls Biggest danger is unsafe ladders or stairs Icy and wet surface Running and walking to fast Poor lighting Not paying attention What were doing
Work Plan	Incinerating Demob equipment Hauling Gray water into pit Hauling waste oil and water

Overview/ Summary of Work

Summary of Work areas	Mob/ Demob, Consolidate Fuel, Incinerate,Clean Tanks/Drums, PHC Soil
Other Work Done Today	Gray water into pit
Planes on-site today	No
Equipment Down Time	No



hauling gray water to pit



vacume truck hauling gray water into pit

Work Progress - Mob/ DeMob

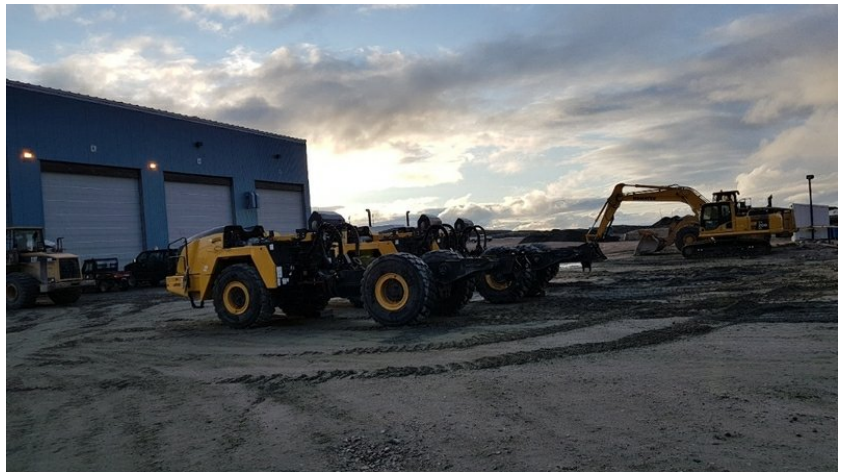
Work done today_ Mob/Demob	3rock trucks done
Number of workers_ Mob/Demob	2
Equipment_ Mob/Demob	950 Loader (Crown), truck shop
Photos_ Mob/Demob	



D65 dozer demob inside truck shop



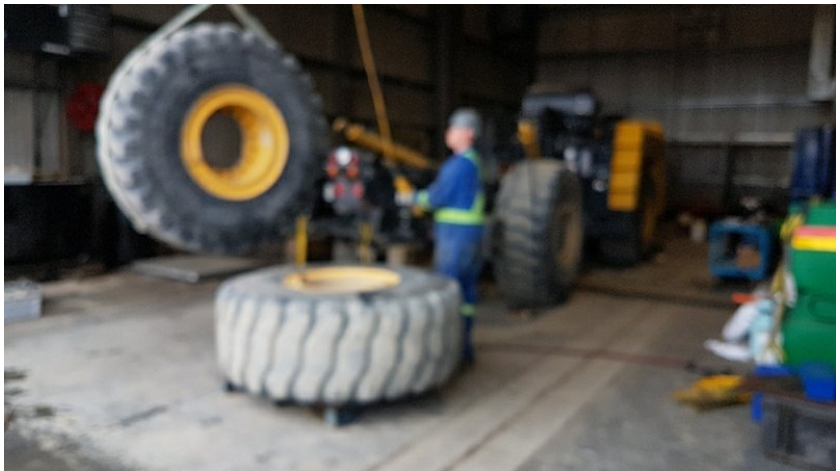
all 3 rock trucks demobed



rock trucks done ready for back haul



rock truck box setup to go



demob inside truck shop

Work Progress - Consolidate Fuel (organic liquids) and Incinerate + Clean (Decom.) Tanks/ Drums

Work done today_ Consolidate+Incinerate fuel,
Clean tanks/drums

Incinerator west land 7.5 hours 1100liters burn
Other incinerator down
Transferring waste oil and fuel into tank 17 and 22
From totes

Number of workers_ Consolidate+Incinerate fuel,
Clean tanks/drums

4

Equipment_ Consolidate+Incinerate fuel, Clean
tanks/drums

Skid Steer- 250 (Crown), green dump truck

Photos_ Consolidate+Incinerate fuel, Clean tanks/drums



tank 17 and 23 Transferring to tank 22and 19



Transferring into tank 19



incinerating 7.5 hours 1100liters burnt



burning from tank 22 at 5pm

Work Progress - PHC Soil

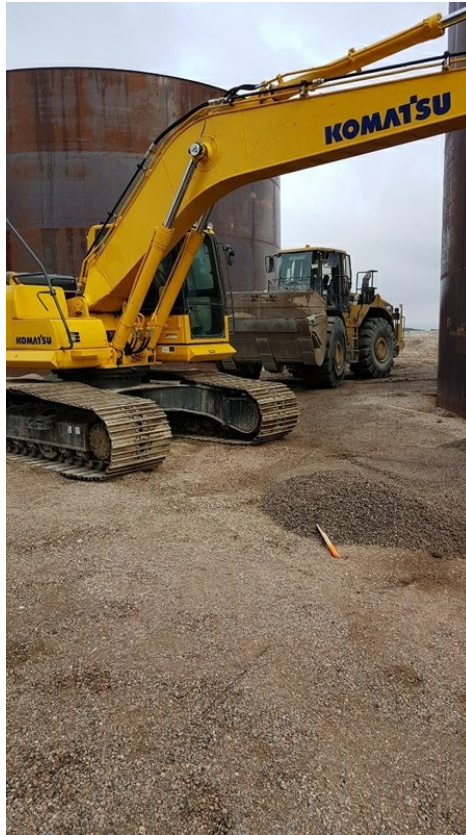
Work done today_ PHC Soil	Phase1 hauled contaminated soil to phase2
Number of workers_ PHC Soil	2
Equipment_ PHC Soil	PC200 Excavator, 980 Loader (Crown)
Photos_ PHC Soil	



3.4 m ×8 m ×4.5 m and 0.55 m depth



Between Tank 11 and 12; 11.4 m ×3.5 m and 0.55 m depth



excavator and 980 loader PHC soil

Environmental Issues, Wildlife Sightings

Spills?	No
Wildlife Sightings	No

Health and Safety

Incidents/ Accidents	No
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Daily Site Report

Friday, September 29, 2017

2017 Jericho Mine Site Stabilization
Departmental Representative

Project: Jericho Mine Site Stabilization
Remediation Contractor: Rowe's-Outcome Joint Venture (ROJV)

Daily Summary

Work on Friday, September 29 consisted of on-going incineration of the waste organic liquids, cleaning of the blue 60,000+ litre ASTs, and staging and demobilization of ROJV's heavy equipment.

After a weather-day delay on Thursday (fog, low ceiling and heavy rain and wind), re-scheduled King-Air and DCH-7 flights made it to site in the afternoon. The Hercules, however, did attempt the afternoon fly-in. A Cascom technician and KBL technician were among the passengers inbound on the King Air; on-site to repair the site communications and oversee the final removal of outstanding hazardous materials, respectively. Dismantled equipment parts and components and some drums of water+glycol were hauled out on the DCH-7.

Both incinerators were in full-time operation on Friday. ROJV's have noted that both incinerators are under heavy strain due to the work load, fuel type and environmental conditions (wind and cold) of the work.

All-Peace have started cleaning the blue ASTs at the HWTa.

Earthworks quantities based on ROJV's final truck counts as of Sep 12, 2017 are summarized below:

Work	Volume to Date (cu.m) (based on truck counts)	Contract Volume (cu.m)	Estimated % complete
West Dam	28,391	26,500	107%
Pit Outfall Breach	1,176	1,800	65%
C1 Diversion	12,648	14,000	92%
PKCA Cell	40,260	32,640 (less 25% contingency allotted in Contract Quantity)	123%
Dyke A	4,380	3,700	118%

Daily Site Report

Friday, September 29, 2017

2017 Jericho Mine Site Stabilization
Departmental Representative

The following grouped HAZMAT quantities are based on KBL, the registered waste receiver's, actual site receipt documentation:

Item	Actual Quantities	Contract Quantity
Batteries	3,207 kg	2,000 kg
Antifreeze	15,257 kg	18,000 kg
Acids/Alcohols	3,136 kg	5,500 kg
Aerosol Cans	120 kg	3,200 kg
Miscellaneous	277 kg	6,500 kg
Fluorescent lights	info pending	600 kg
Oil Filters	info pending	10,000 kg

A daily report of specific work activities and photos is attached at the end of this report.

Site Personnel and Equipment

The total camp persons onsite this morning was 22:

- 1 Departmental Representatives (Andy Uyarrai); and
- 21 Contractor's work personnel, of which 8 are local Inuit.

The contractor's workforce at the start of the day is shown in the table below:

Company	Role	Name	Local Inuit Classification
1. ROJV	Superintendent	John Weigel	
1. ROJV	Operator	Don Boxer	
1. ROJV	Operator	Garth Shippit	
1. ROJV	Labourer	Aurthur Oniak	Y
1. ROJV	Wildlife Monitor	Jeff Niptanatiak	Y
1. ROJV	Operator	Wally Walister	
1. ROJV	Environmental Compliance and Controls	Garricks Elechi	
1. ROJV	Mechanic	Donald Cook	
1. ROJV	Labourer	Gordon Ailanak	Y
1. ROJV	Labourer	Regan Adjun	Y
1. ROJV	Labourer	Shayne Nivingalok	Y
1. ROJV	Labourer	Jorgen Anablak	Y
1. ROJV	Labourer	Timothy Milukshuk	Y
1. ROJV	Project Manager	Prassanna Yennawar	

Daily Site Report

Friday, September 29, 2017

2017 Jericho Mine Site Stabilization
Departmental Representative

Company	Role	Name	Local Inuit Classification
1. ROJV	Labourer	Kyle Algona	Y
2. DMS	Cook	Auriane Chouinard-Duggleby	
2. DMS	Camp Man	Brian Fehur	
2. DMS	Cook	Lisa Probert	
3. 62North	EMT	Peter Smith	
6. All Peace	Fuel Tank Inspection	Ken Dinelle	
6. All Peace	Fuel Tank Inspection/ Cleaning	Brandon Deschamps	

Contract Work Items

An outline of Contract Work and schedule dates is included in the table below.

SpecID	--Work Activity	Start	Finish	Actual Duration (days)	Planned Duration (days)
01 11 00-1	Worker Orientation Seminar	Jul-04	Jul-04		
01 31 19-1	Off-site Project Meetings;				
01 31 19-1	Project Start-up Teleconference	May-05	May-05		
01 31 19-1	Pre-Construction Meeting	May-31	May-31		
01 31 19-2	Community Meetings				
01 31 19-2	Pre-Construction Community Meeting	Jun-01	Jun-01		
01 53 00-1	Mobilization				
01 53 00-1	Air Mobilization	Jun-05	Jun-26	22.	24
01 53 00-1	--10 Hercules flights-in	Jun-21	Jun-24		
01 53 00-2	Air Demobilization				
01 53 00-2	--Hercules	Sep-25	Ongoing		
01 53 00-2	--Electra	Sep-27	Ongoing		
01 54 00-1	Supply and Setup Camp	Jun-05	Jul-04	30.	12
01 54 00-2	Operation and Maintenance of Camp Facilities				
01 54 00-2	Operate Camp facilities	Jun-19	Ongoing	14.7 weeks	
01 54 00-2	Camp Re-supply flights	Jun-27	Ongoing		
31 -- --	Earthworks				
31 22 13-1	Pre-Grade PKCA	Jul-07	Jul-17	8.	15
31 22 13-2	Construct Cover over Cell A	Jul-18	Sep-01	44.	39
31 22 33.01-1	Construct West Dam Breach	Jun-23	Sep-14		
31 22 33.01-1	Dewater PKCA and Cell C (@1,500 gpm) (@2,160,000 g/24hr-day)	Jun-23	Jul-17	25.	25
31 22 33.01-1	Excavate West Dam to plan elevations and limits	Jun-30	Sep-09	38.	29 including blasting

Daily Site Report

Friday, September 29, 2017

2017 Jericho Mine Site Stabilization
Departmental Representative

SpecID	--Work Activity	Start	Finish	Actual Duration (days)	Planned Duration (days)
31 22 33.01-1	Place rip rap	Sep-13	Sep-14	2.	
31 22 33.01-2	Construct Divider Dyke A Notch	Jul-06	Sep-04		
31 22 33.01-2	Dewater Cell A	Jul-06	Jul-12	7.	20
31 22 33.01-2	Excavate and Stockpile	Jul-21	Jul-27	7.	6
31 22 33.01-2	Place Energy Dissipation Ramp	Aug-26	Aug-27	2.	2
31 22 33.01-2	Place rip rap	Sep-03	Sep-04	2.	2
31 22 33.01-3	Construct Open Pit Outfall			5.	4
31 22 33.01-3	Excavate and Stockpile - 1st cut to frozen	Jul-09	Jul-10	2.	
31 22 33.01-3	Excavate and Stockpile - 2nd cut	Jul-16	Jul-18	3.	
31 22 33.01-3	Place rip rap	Sep-11	Sep-11	1.	1
31 22 33.01-4	Construct C1 Diversion	Jul-10	Sep-08	29.	15
31 22 33.01-3	Excavate West Dam to plan elevations and limits	Jul-10	Sep-02	25.	
31 22 33.01-4	Place rip rap	Sep-04	Sep-08	4.	1
02 -- --	Environmental				
02 61 00.01-1	Excavate and Place PHC Soils into Phase 1 Tank Farm area	--	--		
02 61 00.01-1	Remove Phase 1 Tanks and prep cell	Jul-16	Jul-17	2.	8
02 61 00.01-1	Excavate, Haul and Place PHC Contaminated soils into Phase 1	Aug-10	Aug-15, Aug-22 to 23, Aug-28 to 29, Sep16, Sep21	12.	8
02 61 00.01-2	Install geosynthetic liner & coarse PK Cover over PHC soils in Phase 1 Tank Farm area	Sep-10	Sep-12 Pending	--	4
02 81 01-01	Clean and/or decommission all drums, pipelines, and ASTs	--	--		
02 81 01-01	Clean out Phase 1 Tanks (incl. 1 Blue AST)	Jul-01	Jul-05, Jul-11	6.	8
02 81 01-01	Clean out Phase 2 Tanks	Jul-07	Jul-09, Sep-24	4.	4
02 81 01-01	Clean and wash drums	Jul-25	Aug-28	21 days and @ ~175% complete	15
02 81 01-01	Clean and wash Blue ASTs + 1 White AST	Sep-27	Ongoing		
02 81 01-02	Consolidate and classify all Organic Liquid Wastes including oils and wastes oils; and incinerating and/ or shipping off-site for disposal	--	--		
02 81 01-02	Consolidate Tank Farm Organic Liquids	Jun-24	Jun-28	5.	

Daily Site Report

Friday, September 29, 2017

2017 Jericho Mine Site Stabilization
Departmental Representative

SpecID	--Work Activity	Start	Finish	Actual Duration (days)	Planned Duration (days)
02 81 01-02	Incinerate Organic Liquids - base contract quantity	Jul-13	Sep-22	71.	45
02 81 01-02	Incinerate Organic Liquids - additional quantities	Sep-23	Ongoing	7.	
02 81 01-03	Consolidate and Depressurize/ Vent all Compressed Gas Cylinders and Fire Extinguishers	Jun-21	--		
02 81 01-04	Remove, Consolidate and Package all identified Hazardous Wastes; including Fluorescent lights, Refrigerant fluids, Batteries and Other remaining Hazard Materials	Jul-19	Aug-16	28 days and @ est. 95% complete	8 days 49 total

Additional Comments/ Correspondence

Two grizzlies were spotted by the wild life monitor around the airstrip today.

Sign-off

Henry Wong
DXB Projects
Jericho Mine Site Stabilization Departmental Representative

Andy73, 2017-09-29

Project	Jericho Mine Site Stabilization
Created	2017-09-29 21:11:47 UTC by Andy Uyarrai
Updated	2017-09-29 22:36:55 UTC by Andy Uyarrai

Project Information

Name and Daily Report Number	Andy73
Day	Friday
Date	2017-09-29
Project Name	2017 Jericho Mine Site Stabilization
Contractor	Rowe's Outcome Joint Venture

Weather Conditions

Weather	Cool, Fog, Overcast
Site Conditions	Fog in the morning clear Overcast in the afternoon
Morning Temperature	0
Afternoon Temperature	9

People on Site

New Camp People IN/ Day Visitors	4 come in Henry Jerry Oston Frank
Total number of all people on-site (at morning meeting)	22
Total number of Contractor people (at morning meeting)	21
Total number of Contractor Local Inuit (at morning meeting)	8
Departmental Representative people on-site	Andy U

Morning Meeting

Health and Safety Topic	Saftey Wet outside slippery traffic today in front of the shop Plane day
Work Plan	Plane day herc Dash7 King air Ongoing incinerating Cleanup at phase1 area were they consolidated tokes Move blue tank 17and 23 empty out 19 and move to phase3

Overview/ Summary of Work

Summary of Work areas	Mob/ Demob, Consolidate Fuel, Incinerate,Clean Tanks/Drums, consolidated blue tanks and moved to phase3
Other Work Done Today	Gray water pumped out of camp into tokes and drums Put up dish with 950 loader
Planes on-site today	Dash7 and king air Herc cancelled
Equipment Down Time	Steam cleaner plugged allpeace



dish back up on to c-can



Steam cleaner plugged with sand change tank to water truck



king air landed at 3:30pm 4 people come in and steam cleaner and grocery



dash7 25 drums unloaded



back hauled rock truck cylinders and totes

Work Progress - Consolidate Fuel (organic liquids) and Incinerate + Clean (Decom.) Tanks/ Drums

Work done today_ Consolidate+Incinerate fuel, Clean tanks/drums	Incinerating TCI downing the morning for few hours westland running all night Consolidated at phase4
Number of workers_ Consolidate+Incinerate fuel, Clean tanks/drums	5
Equipment_ Consolidate+Incinerate fuel, Clean tanks/drums	322 Excavator (Crown), 950 Loader (Crown), Skid Steer- 250 (Crown)
Photos_ Consolidate+Incinerate fuel, Clean tanks/drums	



consolidating at phase4 area tank 19,22,17



excavator and roll off



Incinerating tank 22 (27000liter left)



both incinerator burning



consolidating and incinerating phase4



moving blue tanks into phase3 for consolidating

Environmental Issues, Wildlife Sightings

Spills?	No
Wildlife Sightings	Two Grizzly bears spotted 5 miles northeast of airport moving north

Health and Safety

Incidents/ Accidents	No
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Daily Site Report

Saturday, September 30, 2017

2017 Jericho Mine Site Stabilization
Departmental Representative

Project: Jericho Mine Site Stabilization
Remediation Contractor: Rowe's-Outcome Joint Venture (ROJV)

Daily Summary

Work on Saturday, September 30 consisted of on-going incineration of the waste organic liquids, cleaning of the blue 60,000+ litre ASTs, and preparing items for demobilization.

Both incinerators were in part-operation today; however, both had mechanical issues in the afternoon and were shut down prior to the night shift. ROJV's have noted that both incinerators are under heavy strain due to the work load, fuel type and environmental conditions (wind and cold) of the work.

All-Peace completed cleaning the inactive blue ASTs at the HWTa with 1 blue tank remaining; the feed tank for both incinerators. An estimated 18,000 L of waste oil is contained in the last tank. One blue AST, adjacent the Phase 2 Tank Farm Area, also remains to be clean. This was tank used in the refueling area when Tank 9 (1.5M litre tank) was decommissioned.

A walk-through was done with ROJV's hazardous material sub-contractor, KBL, to confirm that the remaining inventory of wastes will be addressed as work closes out. Fluorescent lights, aerosol cans, totes and materials adjacent the incinerator were all reviewed.

Note: the leachate analysis results for the incinerator ash (identified in the ESA Material Inventory table) show that the ash is not a hazardous-classified material; and therefore to be left on-site as non-hazardous material.

A review of the shipping manifests provided by ROJV showed that the hazardous materials shipped off-site still needs to be reconciled against the materials received by ROJV's waste receiver.

The following grouped HAZMAT quantities are based on KBL, the registered waste receiver's, actual site receipt documentation:

Item	Actual Quantities	Contract Quantity
Batteries	3,207 kg	2,000 kg
Antifreeze	15,257 kg	18,000 kg
Acids/Alcohols	3,136 kg	5,500 kg
Aerosol Cans	120 kg	3,200 kg
Miscellaneous	277 kg	6,500 kg
Fluorescent lights	info pending	600 kg

Daily Site Report

Saturday, September 30, 2017

2017 Jericho Mine Site Stabilization
Departmental Representative

Oil Filters

info pending

10,000 kg

A daily report of specific work activities and photos is attached at the end of this report.

Site Personnel and Equipment

The total camp persons onsite this morning was 26:

- 2 Departmental Representatives (Henry Wong and Andy Uyarrai); and
- 24 Contractor's work personnel, of which 9 are local Inuit.

The contractor's workforce at the start of the day is shown in the table below:

Company	Role	Name	Local Inuit Classification
1. ROJV	Superintendent	John Weigel	
1. ROJV	Operator	Don Boxer	
1. ROJV	Operator	Garth Shippit	
1. ROJV	Labourer	Aurthur Oniak	Y
1. ROJV	Wildlife Monitor	Jeff Niptanatiak	Y
1. ROJV	Operator	Wally Walister	
1. ROJV	Environmental Compliance and Controls	Garricks Elechi	
1. ROJV	Mechanic	Donald Cook	
1. ROJV	Labourer	Gordon Ailanak	Y
1. ROJV	Labourer	Regan Adjun	Y
1. ROJV	Labourer	Shayne Nivingalok	Y
1. ROJV	Labourer	Jerry Oniak	Y
1. ROJV	Labourer	Jorgen Anablak	Y
1. ROJV	Labourer	Timothy Milukshuk	Y
1. ROJV	Project Manager	Prassanna Yennawar	
1. ROJV	Labourer	Kyle Algona	Y
2. DMS	Cook	Auriane Chouinard-Duggleby	
2. DMS	Camp Man	Brian Fehur	
2. DMS	Cook	Lisa Probert	
3. 62North	EMT	Peter Smith	
6. All Peace	Fuel Tank Inspection	Ken Dinelle	
6. All Peace	Fuel Tank Inspection/ Cleaning	Brandon Deschamps	
8. Cascom	Satellite Communications	Frank Chinwebudu	
9. KBL	Hazmat Lead	Austin Sparks	

Contract Work Items

An outline of Contract Work and schedule dates is included in the table below.

SpecID	--Work Activity	Start	Finish	Actual Duration (days)	Planned Duration (days)
01 11 00-1	Worker Orientation Seminar	Jul-04	Jul-04		
01 31 19-1	Off-site Project Meetings;				
01 31 19-1	Project Start-up Teleconference	May-05	May-05		
01 31 19-1	Pre-Construction Meeting	May-31	May-31		
01 31 19-2	Community Meetings				
01 31 19-2	Pre-Construction Community Meeting	Jun-01	Jun-01		
01 53 00-1	Mobilization				
01 53 00-1	Air Mobilization	Jun-05	Jun-26	22.	24
01 53 00-1	--10 Hercules flights-in	Jun-21	Jun-24		
01 53 00-2	Air Demobilization				
01 53 00-2	--Hercules	Sep-25	Ongoing		
01 53 00-2	--Electra	Sep-27	Ongoing		
01 54 00-1	Supply and Setup Camp	Jun-05	Jul-04	30.	12
01 54 00-2	Operation and Maintenance of Camp Facilities				
01 54 00-2	Operate Camp facilities	Jun-19	Ongoing	14.7 weeks	
01 54 00-2	Camp Re-supply flights	Jun-27	Ongoing		
31 -- --	Earthworks				
31 22 13-1	Pre-Grade PKCA	Jul-07	Jul-17	8.	15
31 22 13-2	Construct Cover over Cell A	Jul-18	Sep-01	44.	39
31 22 33.01-1	Construct West Dam Breach	Jun-23	Sep-14		
31 22 33.01-1	Dewater PKCA and Cell C (@1,500 gpm) (@2,160,000 g/24hr-day)	Jun-23	Jul-17	25.	25
31 22 33.01-1	Excavate West Dam to plan elevations and limits	Jun-30	Sep-09	38.	29 including blasting
31 22 33.01-1	Place rip rap	Sep-13	Sep-14	2.	
31 22 33.01-2	Construct Divider Dyke A Notch	Jul-06	Sep-04		
31 22 33.01-2	Dewater Cell A	Jul-06	Jul-12	7.	20
31 22 33.01-2	Excavate and Stockpile	Jul-21	Jul-27	7.	6
31 22 33.01-2	Place Energy Dissipation Ramp	Aug-26	Aug-27	2.	2
31 22 33.01-2	Place rip rap	Sep-03	Sep-04	2.	2
31 22 33.01-3	Construct Open Pit Outfall			5.	4
31 22 33.01-3	Excavate and Stockpile - 1st cut to frozen	Jul-09	Jul-10	2.	
31 22 33.01-3	Excavate and Stockpile - 2nd cut	Jul-16	Jul-18	3.	
31 22 33.01-3	Place rip rap	Sep-11	Sep-11	1.	1

Daily Site Report

Saturday, September 30, 2017

2017 Jericho Mine Site Stabilization
Departmental Representative

SpecID	--Work Activity	Start	Finish	Actual Duration (days)	Planned Duration (days)
31 22 33.01-4	Construct C1 Diversion	Jul-10	Sep-08	29.	15
31 22 33.01-3	Excavate West Dam to plan elevations and limits	Jul-10	Sep-02	25.	
31 22 33.01-4	Place rip rap	Sep-04	Sep-08	4.	1
02 -- --	Environmental				
02 61 00.01-1	Excavate and Place PHC Soils into Phase 1 Tank Farm area	--	--		
02 61 00.01-1	Remove Phase 1 Tanks and prep cell	Jul-16	Jul-17	2.	8
02 61 00.01-1	Excavate, Haul and Place PHC Contaminated soils into Phase 1	Aug-10	Aug-15, Aug-22 to 23, Aug-28 to 29, Sep16, Sep21	12.	8
02 61 00.01-2	Install geosynthetic liner & coarse PK Cover over PHC soils in Phase 1 Tank Farm area	Sep-10	Sep-12 Pending	--	4
02 81 01-01	Clean and/or decommission all drums, pipelines, and ASTs	--	--		
02 81 01-01	Clean out Phase 1 Tanks (incl. 1 Blue AST)	Jul-01	Jul-05, Jul-11	6.	8
02 81 01-01	Clean out Phase 2 Tanks	Jul-07	Jul-09, Sep-24	4.	4
02 81 01-01	Clean and wash drums	Jul-25	Aug-28	21 days and @ ~175% complete	15
02 81 01-01	Clean and wash Blue ASTs + 1 White AST	Sep-27	Ongoing		
02 81 01-02	Consolidate and classify all Organic Liquid Wastes including oils and wastes oils; and incinerating and/ or shipping off-site for disposal	--	--		
02 81 01-02	Consolidate Tank Farm Organic Liquids	Jun-24	Jun-28	5.	
02 81 01-02	Incinerate Organic Liquids - base contract quantity	Jul-13	Sep-22	71.	45
02 81 01-02	Incinerate Organic Liquids - additional quantities	Sep-23	Ongoing	7.	
02 81 01-03	Consolidate and Depressurize/ Vent all Compressed Gas Cylinders and Fire Extinguishers	Jun-21	--		
02 81 01-04	Remove, Consolidate and Package all identified Hazardous Wastes; including Fluorescent lights, Refrigerant fluids, Batteries and Other remaining Hazard Materials	Jul-19	Aug-16	28 days and @ est. 95% complete	8 days 49 total

Additional Comments/ Correspondence

Daily Site Report

Saturday, September 30, 2017

2017 Jericho Mine Site Stabilization
Departmental Representative

Fog and cloud persisted all morning. The Hercules flight that was tentatively scheduled for today was called-off part way through the morning.

Sign-off

Henry Wong

DXB Projects

Jericho Mine Site Stabilization Departmental Representative

Andy74, 2017-09-30

Project	Jericho Mine Site Stabilization
Created	2017-09-30 20:51:48 UTC by Andy Uyarrai
Updated	2017-10-01 00:26:56 UTC by Andy Uyarrai

Project Information

Name and Daily Report Number	Andy74
Day	Saturday
Date	2017-09-30
Project Name	2017 Jericho Mine Site Stabilization
Contractor	Rowe's Outcome Joint Venture

Weather Conditions

Weather	Fog, Overcast
Site Conditions	Freezing mist
Morning Temperature	0
Afternoon Temperature	1

People on Site

New Camp People IN/ Day Visitors	No
Total number of all people on-site (at morning meeting)	26
Total number of Contractor people (at morning meeting)	24
Total number of Contractor Local Inuit (at morning meeting)	9
Departmental Representative people on-site	Henry W, Andy U

Morning Meeting

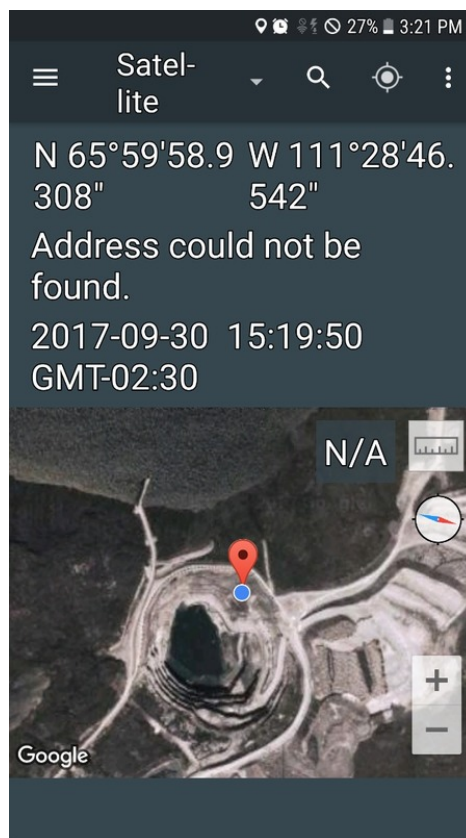
Health and Safety Topic	Loading unloading Signaling guiding Improper signaling One person singling Watch over head wiring Know what signaling is up down stop slow hand signals
Work Plan	Activities Ready for herc incinerating Tank steam cleaning Gray water

Overview/ Summary of Work

Summary of Work areas	Consolidate Fuel, Incinerate,Clean Tanks/Drums, Hazmat Cleanup, dish for phone took one from the old camp put it on the new one oil and water spectator put to airport
Other Work Done Today	Boxing supplies at truck shop into creates Getting ready for back haul Cleanup at airport trailer and shack Gray water pumped out of cell 7 discharged into northeast side of pit
Planes on-site today	Cancelled herc foggy
Equipment Down Time	No



roll off gray water dumped into pit from cell7



gray water coordinates northeast of pit



northeast of pit gray water discharged



cell 7 gray water pumped into vac truck discharged into northeast side of pit



create getting ready for back haul



battery create getting ready for back haul



airport trailer clean up

Work Progress - Consolidate Fuel (organic liquids) and Incinerate + Clean (Decom.) Tanks/ Drums

Work done today_ Consolidate+Incinerate fuel, Clean tanks/drums	All peace steam cleaning blue tank and gray tank at phase4 incinerating ran into Shut down for 1 hour or 2
Number of workers_ Consolidate+Incinerate fuel, Clean tanks/drums	5
Equipment_ Consolidate+Incinerate fuel, Clean tanks/drums	322 Excavator (Crown), Skid Steer- 250 (Crown), roll on roll off
Photos_ Consolidate+Incinerate fuel, Clean tanks/drums	



diesel fuel drums transferred into fuel truck



185 skid steer moving totes for consolidation



steam cleaning blue tanks all done



getting ready for steam cleaning inside truck shop



steam cleaning all peace



totes ready for back haul



weighting totes for back haul

Work Progress - Hazmat Cleanup

Work done today_ Hazmat	Put down lights at truck shop
Number of workers_ Hazmat	1

Environmental Issues, Wildlife Sightings

Spills?	No
Wildlife Sightings	No
Photos_Enviro	



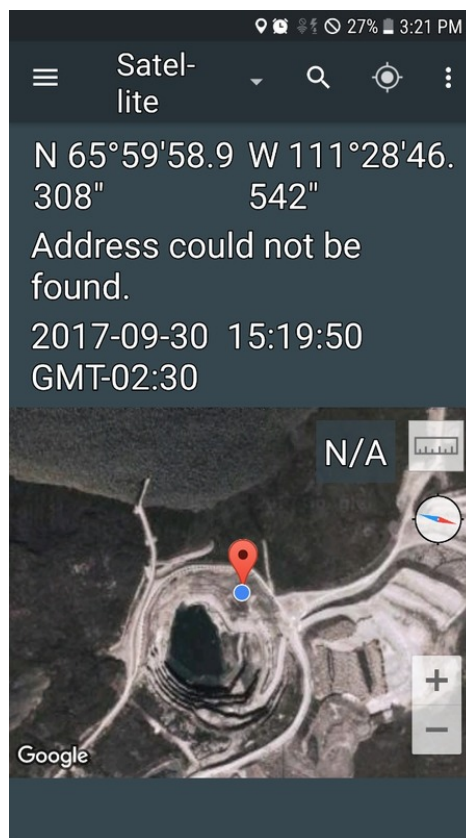
PKCA potholes started to show up at south east side



few more pot holes at PKCA southeast side



discharge gray water northeast side of pit



coordinates discharge northeast side of pit

Health and Safety

Incidents/ Accidents No

Remarks/ Notes

Remarks (describe anything not covered above) Gray water into pit from cell 7 northeast side of pit

Daily Site Report

Sunday, October 1, 2017

2017 Jericho Mine Site Stabilization
Departmental Representative

Project: Jericho Mine Site Stabilization
Remediation Contractor: Rowe's-Outcome Joint Venture (ROJV)

Daily Summary

Work on Sunday, October 1 consisted of snow clearing, on-going incineration of the waste organic liquids, and the cleaning of various totes and tanks.

Heavy snow fell late last night and into the early morning today. ROJV set up a metal drag to clear snow from the airstrip. A Hercules flight was planned in the afternoon; however, called off when clouds started moving back through site mid-afternoon.

Both incinerators were in part-operation today; the TCI incinerator was having issues during the day-shift with the oil consistency and heavy wind conditions; and the Westland incinerator was only back online in the late afternoon following a fix and cleaning within the unit.

All-Peace setup and started cleaning totes and the smaller tanks in the shop today. The work was done in the shop to avoid issues with the lines freezing. All the totes and smaller tanks were completed by days end. Barrels and 2 blue ASTs remain to be cleaned.

A review of the shipping manifests provided by ROJV showed that the hazardous materials shipped off-site needs to be reconciled against the materials received by ROJV's waste receiver.

The following grouped HAZMAT quantities are based on KBL, the registered waste receiver's, actual site receipt documentation:

<u>Item</u>	<u>Actual Quantities</u>	<u>Contract Quantity</u>
Batteries	3,207 kg	2,000 kg
Antifreeze	15,257 kg	18,000 kg
Acids/Alcohols	3,136 kg	5,500 kg
Aerosol Cans	120 kg	3,200 kg
Miscellaneous	277 kg	6,500 kg
Fluorescent lights	info pending	600 kg
Oil Filters	info pending	10,000 kg

A daily report of specific work activities and photos is attached at the end of this report.

Daily Site Report

Sunday, October 1, 2017

2017 Jericho Mine Site Stabilization
Departmental Representative

Site Personnel and Equipment

The total camp persons onsite this morning was 26:

- 2 Departmental Representatives (Henry Wong and Andy Uyarrai); and
- 24 Contractor's work personnel, of which 9 are local Inuit.

The contractor's workforce at the start of the day is shown in the table below:

Company	Role	Name	Local Inuit Classification
1. ROJV	Superintendent	John Weigel	
1. ROJV	Operator	Don Boxer	
1. ROJV	Operator	Garth Shippit	
1. ROJV	Labourer	Aurthur Oniak	Y
1. ROJV	Wildlife Monitor	Jeff Niptanatiak	Y
1. ROJV	Operator	Wally Walister	
1. ROJV	Environmental Compliance and Controls	Garricks Elechi	
1. ROJV	Mechanic	Donald Cook	
1. ROJV	Labourer	Gordon Ailanak	Y
1. ROJV	Labourer	Regan Adjun	Y
1. ROJV	Labourer	Shayne Nivingalok	Y
1. ROJV	Labourer	Jerry Oniak	Y
1. ROJV	Labourer	Jorgen Anablak	Y
1. ROJV	Labourer	Timothy Milukshuk	Y
1. ROJV	Project Manager	Prassanna Yennawar	
1. ROJV	Labourer	Kyle Algona	Y
2. DMS	Cook	Auriane Chouinard-Duggleby	
2. DMS	Camp Man	Brian Fehur	
2. DMS	Cook	Lisa Probert	
3. 62North	EMT	Peter Smith	
6. All Peace	Fuel Tank Inspection	Ken Dinelle	
6. All Peace	Fuel Tank Inspection/ Cleaning	Brandon Deschamps	
8. Cascom	Satellite Communications	Frank Chinwebudu	
9. KBL	Hazmat Lead	Austin Sparks	

Contract Work Items

An outline of Contract Work and schedule dates is included in the table below.

Daily Site Report

Sunday, October 1, 2017

2017 Jericho Mine Site Stabilization
Departmental Representative

SpecID	--Work Activity	Start	Finish	Actual Duration (days)	Planned Duration (days)
01 11 00-1	Worker Orientation Seminar	Jul-04	Jul-04		
01 31 19-1	Off-site Project Meetings;				
01 31 19-1	Project Start-up Teleconference	May-05	May-05		
01 31 19-1	Pre-Construction Meeting	May-31	May-31		
01 31 19-2	Community Meetings				
01 31 19-2	Pre-Construction Community Meeting	Jun-01	Jun-01		
01 53 00-1	Mobilization				
01 53 00-1	Air Mobilization	Jun-05	Jun-26	22.	24
01 53 00-1	--10 Hercules flights-in	Jun-21	Jun-24		
01 53 00-2	Air Demobilization				
01 53 00-2	--Hercules	Sep-25	Ongoing		
01 53 00-2	--Electra	Sep-27	Ongoing		
01 54 00-1	Supply and Setup Camp	Jun-05	Jul-04	30.	12
01 54 00-2	Operation and Maintenance of Camp Facilities				
01 54 00-2	Operate Camp facilities	Jun-19	Ongoing	14.7 weeks	
01 54 00-2	Camp Re-supply flights	Jun-27	Ongoing		
31 ---	Earthworks				
31 22 13-1	Pre-Grade PKCA	Jul-07	Jul-17	8.	15
31 22 13-2	Construct Cover over Cell A	Jul-18	Sep-01	44.	39
31 22 33.01-1	Construct West Dam Breach	Jun-23	Sep-14		
31 22 33.01-1	Dewater PKCA and Cell C (@1,500 gpm) (@2,160,000 g/24hr-day)	Jun-23	Jul-17	25.	25
31 22 33.01-1	Excavate West Dam to plan elevations and limits	Jun-30	Sep-09	38.	29 including blasting
31 22 33.01-1	Place rip rap	Sep-13	Sep-14	2.	
31 22 33.01-2	Construct Divider Dyke A Notch	Jul-06	Sep-04		
31 22 33.01-2	Dewater Cell A	Jul-06	Jul-12	7.	20
31 22 33.01-2	Excavate and Stockpile	Jul-21	Jul-27	7.	6
31 22 33.01-2	Place Energy Dissipation Ramp	Aug-26	Aug-27	2.	2
31 22 33.01-2	Place rip rap	Sep-03	Sep-04	2.	2
31 22 33.01-3	Construct Open Pit Outfall			5.	4
31 22 33.01-3	Excavate and Stockpile - 1st cut to frozen	Jul-09	Jul-10	2.	
31 22 33.01-3	Excavate and Stockpile - 2nd cut	Jul-16	Jul-18	3.	
31 22 33.01-3	Place rip rap	Sep-11	Sep-11	1.	1
31 22 33.01-4	Construct C1 Diversion	Jul-10	Sep-08	29.	15
31 22 33.01-3	Excavate West Dam to plan elevations and limits	Jul-10	Sep-02	25.	

Daily Site Report

Sunday, October 1, 2017

2017 Jericho Mine Site Stabilization
Departmental Representative

SpecID	--Work Activity	Start	Finish	Actual Duration (days)	Planned Duration (days)
31 22 33.01-4	Place rip rap	Sep-04	Sep-08	4.	1
02 -- --	Environmental				
02 61 00.01-1	Excavate and Place PHC Soils into Phase 1 Tank Farm area	--	--		
02 61 00.01-1	Remove Phase 1 Tanks and prep cell	Jul-16	Jul-17	2.	8
02 61 00.01-1	Excavate, Haul and Place PHC Contaminated soils into Phase 1	Aug-10	Aug-15, Aug-22 to 23, Aug-28 to 29, Sep16, Sep21	12.	8
02 61 00.01-2	Install geosynthetic liner & coarse PK Cover over PHC soils in Phase 1 Tank Farm area	Sep-10	Sep-12 Pending	--	4
02 81 01-01	Clean and/or decommission all drums, pipelines, and ASTs	--	--		
02 81 01-01	Clean out Phase 1 Tanks (incl. 1 Blue AST)	Jul-01	Jul-05, Jul-11	6.	8
02 81 01-01	Clean out Phase 2 Tanks	Jul-07	Jul-09, Sep-24	4.	4
02 81 01-01	Clean and wash drums	Jul-25	Aug-28	21 days and @ ~175% complete	15
02 81 01-01	Clean and wash Blue ASTs + 1 White AST	Sep-27	Ongoing		
02 81 01-02	Consolidate and classify all Organic Liquid Wastes including oils and wastes oils; and incinerating and/ or shipping off-site for disposal	--	--		
02 81 01-02	Consolidate Tank Farm Organic Liquids	Jun-24	Jun-28	5.	
02 81 01-02	Incinerate Organic Liquids - base contract quantity	Jul-13	Sep-22	71.	45
02 81 01-02	Incinerate Organic Liquids - additional quantities	Sep-23	Ongoing	7.	
02 81 01-03	Consolidate and Depressurize/ Vent all Compressed Gas Cylinders and Fire Extinguishers	Jun-21	--		
02 81 01-04	Remove, Consolidate and Package all identified Hazardous Wastes; including Fluorescent lights, Refrigerant fluids, Batteries and Other remaining Hazard Materials	Jul-19	Aug-16	28 days and @ est. 95% complete	8 days 49 total

Additional Comments/ Correspondence

The weather conditions look promising for tomorrow, and ROJV are planning to have the Hercules try multiple flights to site to continue with the demobilization.

Daily Site Report

Sunday, October 1, 2017

2017 Jericho Mine Site Stabilization
Departmental Representative

Sign-off

Henry Wong

DXB Projects

Jericho Mine Site Stabilization Departmental Representative

Andy75, 2017-10-01

Project	Jericho Mine Site Stabilization
Created	2017-10-01 23:49:38 UTC by Andy Uyarrai
Updated	2017-10-01 23:01:27 UTC by Andy Uyarrai

Project Information

Name and Daily Report Number	Andy75
Day	Sunday
Date	2017-10-01
Project Name	2017 Jericho Mine Site Stabilization
Contractor	Rowe's Outcome Joint Venture

Weather Conditions

Weather	Cold, Overcast, Windy
Site Conditions	snow on the ground 6 to 8 inches on ground
Morning Temperature	1
Afternoon Temperature	4

People on Site

New Camp People IN/ Day Visitors	no
Total number of all people on-site (at morning meeting)	26
Total number of Contractor people (at morning meeting)	24
Total number of Contractor Local Inuit (at morning meeting)	9
Departmental Representative people on-site	Henry W, Andy U

Morning Meeting

Health and Safety Topic	<p>Proper ergonomics Minimize injuries Preventive injury Stress you body Avoid lifting heavy loads use mechanical equipment When lifting use your hips not your back When shoveling take time</p> <p>Weekly safety meeting Wearing ppe 50% of workers are still wearing ppe we like everyone to wear it Works almost done Slip trip and fall with all the snow extra Careful going on equipment ladders Driving be careful Snow on ground It's slippery traffic</p>
Work Plan	<p>Art gray water Into cell 7 Donnie move snow get ready for back haul Incinerating not good last night Mens dri comment on the stove but Brian said it's safe lots of air going through</p>

Overview/ Summary of Work

Summary of Work areas	Mob/ Demob, Consolidate Fuel, Incinerate,Clean Tanks/Drums, All peace steam cleaning inside truck shop
Other Work Done Today	snow removal camp area and airport by truck shop fueling station clean up light plant generator at airport for backup
Planes on-site today	herc
Equipment Down Time	none
Photos_ Overview	



consolidating inside truck shop



light plant back for airport

ID	Date	Day	WESTLAND- TOTAL Hours	WESTLAND- DAY shift Hours	WESTLAND- NIGHT shift Hours	TCI- TOTAL Hours	TCI- DAY shift Hours	TCI- NIGHT shift Hours
65	Sep-15, 2017	Fri	24			4 1/2		
66	Sep-16, 2017	Sat	12			12		
67	Sep-17, 2017	Sun	24			0		
68	Sep-18, 2017	Mon	24			0		
69	Sep-19, 2017	Tue	24			3 1/2		
70	Sep-20, 2017	Wed	0			12		
71	Sep-21, 2017	Thu	24			0		
72	Sep-22, 2017	Fri	24			2		
73	Sep-23, 2017	Sat	0			23		12
74	Sep-24, 2017	Sun	24			22		10
75	Sep-25, 2017	Mon	24		6	24		
76	Sep-26, 2017	Tue	12			13	2	11
77	Sep-27, 2017	Wed	24	12	12	23	12	12
78	Sep-28, 2017	Thu	24	12	12	19 1/2	8 1/2	11
79	Sep-29, 2017	Fri	24	12	12	18 1/2	6 1/2	12
80	Sep-30, 2017	Sat		2				
81	Oct-01, 2017	Sun						
82	Oct-02, 2017	Mon						
83	Oct-03, 2017	Tue						
84	Oct-04, 2017	Wed						

yesterday's chart incinertaor

Work Progress - Consolidate Fuel (organic liquids) and Incinerate + Clean (Decom.) Tanks/ Drums

Work done today_ Consolidate+Incinerate fuel,
Clean tanks/drums

Consolidate+Incinerate fuel, Clean tanks/drums

Number of workers_ Consolidate+Incinerate fuel,
Clean tanks/drums

6

Equipment_ Consolidate+Incinerate fuel, Clean
tanks/drums

Skid Steer- 250 (Crown), Skid Steer- 185 (Crown), van trailer

Other Equipment_ Consolidate+Incinerate fuel,
Clean tanks/drums

truck shop

Photos_ Consolidate+Incinerate fuel, Clean
tanks/drums



consolidating inside truck shop tanker



transferring totes for incinerating from blue tank



steam cleaning fuel tank,totes



tanker all done steam cleaning



185 skid steer moving totes into truck shop



ongoing incineration tan into small problem burnt 7 hours today with TCI



Westland incinerator was down but backup and running in the afternoon



both incinerator running in the afternoon

Environmental Issues, Wildlife Sightings

Spills?	small spill at phase 4 inside berm area 80 liters cleanup asap
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Wildlife Sightings	none
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Photos_Enviro



80 litres spill at the end of shift at phase4 while filling totes from blue tank sorry no pic cleaned up asap

Health and Safety

Incidents/ Accidents	none
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Remarks/ Notes

Remarks (describe anything not covered above)	hauling totes from phase4 to truck shop for steam cleaning hauling waste water to airport for back hauling
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Daily Site Report

Monday, October 2, 2017

2017 Jericho Mine Site Stabilization
Departmental Representative

Project: Jericho Mine Site Stabilization
Remediation Contractor: Rowe's-Outcome Joint Venture (ROJV)

Daily Summary

Work on Monday, October 2 consisted of prepping for and loading the Hercules flights, wrap-up of the - incineration work, and pumping out and cleaning of totes and tanks.

The Hercules made two flights into site today, arriving at 9h30 and 14h00; and ROJV got two loads of heavy equipment parts and components out. A potential 3rd flight was called off by the Hercules crew due to daylight concerns.

A King Air flight was also flown in during the morning, with cook and surveyor inbound and 5 workers outbound.

ROJV had planned to complete one (1) last day shift and night shift of incineration today, and then ship the remaining waste oil liquids off-site for disposal. Some incineration was completed in the morning; however, difficulty with the TCI unit resulted in ROJV shutting down the operation. Approximately 8,000 L of remained and was pumped into drums (approximately 40 drums). The blue AST was hauled down to the shop at the end of the day to be cleaned tomorrow.

All-Peace pumped out and steam-cleaned the blue AST that was used at the refueling station. During the late afternoon, the crew started hauling the barrel wash and barrels to the shop to do the cleaning work there.

A review of the shipping manifests provided by ROJV showed that the hazardous materials shipped off-site needs to be reconciled against the materials received by ROJV's waste receiver.

The following grouped HAZMAT quantities are based on KBL, the registered waste receiver's, actual site receipt documentation:

<u>Item</u>	<u>Actual Quantities</u>	<u>Contract Quantity</u>
Batteries	3,207 kg	2,000 kg
Antifreeze	15,257 kg	18,000 kg
Acids/Alcohols	3,136 kg	5,500 kg
Aerosol Cans	120 kg	3,200 kg
Miscellaneous	277 kg	6,500 kg

Daily Site Report

Monday, October 2, 2017

2017 Jericho Mine Site Stabilization
Departmental Representative

Fluorescent lights
Oil Filters

info pending
info pending

600 kg
10,000 kg

A daily report of specific work activities and photos is attached at the end of this report.

Site Personnel and Equipment

The total camp persons onsite this morning was 26:

- 2 Departmental Representatives (Henry Wong and Andy Uyarrai); and
- 24 Contractor's work personnel, of which 9 are local Inuit.

The contractor's workforce at the start of the day is shown in the table below:

Company	Role	Name	Local Inuit Classification
1. ROJV	Superintendent	John Weigel	
1. ROJV	Operator	Don Boxer	
1. ROJV	Operator	Garth Shippit	
1. ROJV	Labourer	Aurthur Oniak	Y
1. ROJV	Wildlife Monitor	Jeff Niptanatiak	Y
1. ROJV	Operator	Wally Walister	
1. ROJV	Environmental Compliance and Controls	Garricks Elechi	
1. ROJV	Mechanic	Donald Cook	
1. ROJV	Labourer	Gordon Ailanak	Y
1. ROJV	Labourer	Regan Adjun	Y
1. ROJV	Labourer	Shayne Nivingalok	Y
1. ROJV	Labourer	Jerry Oniak	Y
1. ROJV	Labourer	Jorgen Anablak	Y
1. ROJV	Labourer	Timothy Milukshuk	Y
1. ROJV	Project Manager	Prassanna Yennawar	
1. ROJV	Labourer	Kyle Algona	Y
2. DMS	Cook	Auriane Chouinard-Duggleby	
2. DMS	Camp Man	Brian Fehur	
2. DMS	Cook	Lisa Probert	
3. 62North	EMT	Peter Smith	
6. All Peace	Fuel Tank Inspection	Ken Dinelle	
6. All Peace	Fuel Tank Inspection/ Cleaning	Brandon Deschamps	
8. Cascom	Satellite Communications	Frank Chinwebudu	
9. KBL	Hazmat Lead	Austin Sparks	

Daily Site Report

Monday, October 2, 2017

2017 Jericho Mine Site Stabilization
Departmental Representative

Contract Work Items

An outline of Contract Work and schedule dates is included in the table below.

SpecID	--Work Activity	Start	Finish	Actual Duration (days)	Planned Duration (days)
01 11 00-1	Worker Orientation Seminar	Jul-04	Jul-04		
01 31 19-1	Off-site Project Meetings;				
01 31 19-1	Project Start-up Teleconference	May-05	May-05		
01 31 19-1	Pre-Construction Meeting	May-31	May-31		
01 31 19-2	Community Meetings				
01 31 19-2	Pre-Construction Community Meeting	Jun-01	Jun-01		
01 53 00-1	Mobilization				
01 53 00-1	Air Mobilization	Jun-05	Jun-26	22.	24
01 53 00-1	--10 Hercules flights-in	Jun-21	Jun-24		
01 53 00-2	Air Demobilization				
01 53 00-2	--Hercules	Sep-25, Oct-02	Ongoing		
01 53 00-2	--Electra	Sep-27	Ongoing		
01 54 00-1	Supply and Setup Camp	Jun-05	Jul-04	30.	12
01 54 00-2	Operation and Maintenance of Camp Facilities				
01 54 00-2	Operate Camp facilities	Jun-19	Ongoing	15 weeks	
01 54 00-2	Camp Re-supply flights	Jun-27	Ongoing		
31 -- --	Earthworks				
31 22 13-1	Pre-Grade PKCA	Jul-07	Jul-17	8.	15
31 22 13-2	Construct Cover over Cell A	Jul-18	Sep-01	44.	39
31 22 33.01-1	Construct West Dam Breach	Jun-23	Sep-14		
31 22 33.01-1	Dewater PKCA and Cell C (@1,500 gpm) (@2,160,000 g/24hr-day)	Jun-23	Jul-17	25.	25
31 22 33.01-1	Excavate West Dam to plan elevations and limits	Jun-30	Sep-09	38.	34 days including drilling+ blasting
31 22 33.01-1	Place rip rap	Sep-13	Sep-14	2.	2
31 22 33.01-2	Construct Divider Dyke A Notch	Jul-06	Sep-04		
31 22 33.01-2	Dewater Cell A	Jul-06	Jul-12	7.	20
31 22 33.01-2	Excavate and Stockpile	Jul-21	Jul-27	7.	6
31 22 33.01-2	Place Energy Dissipation Ramp	Aug-26	Aug-27	2.	2
31 22 33.01-2	Place rip rap	Sep-03	Sep-04	2.	2
31 22 33.01-3	Construct Open Pit Outfall			6.	4

Daily Site Report

Monday, October 2, 2017

2017 Jericho Mine Site Stabilization
Departmental Representative

SpecID	--Work Activity	Start	Finish	Actual Duration (days)	Planned Duration (days)
31 22 33.01-3	Excavate Open Pit to plan elevations and limits	Jul-09	Jul-18, Final placement pending	5.	2
31 22 33.01-3	Place rip rap	Sep-11	Sep-11	1.	1
31 22 33.01-4	Construct C1 Diversion	Jul-10	Sep-08	29.	15
31 22 33.01-3	Excavate C1 Diversion to plan elevations and limits	Jul-10	Sep-02	25.	12
31 22 33.01-4	Place rip rap	Sep-04	Sep-08	4.	1
02 -- --	Environmental				
02 61 00.01-1	Excavate and Place PHC Soils into Phase 1 Tank Farm area	--	--		
02 61 00.01-1	Remove Phase 1 Tanks and prep cell	Jul-16	Jul-17	2.	8
02 61 00.01-1	Excavate, Haul and Place PHC Contaminated soils into Phase 1	Aug-10	Aug-15, Aug-22 to 23, Aug-28 to 29, Sep16, Sep21	12.	8
02 61 00.01-2	Install geosynthetic liner & coarse PK Cover over PHC soils in Phase 1 Tank Farm area	Sep-10	Sep-12 Pending	--	4
02 81 01-01	Clean and/or decommission all drums, pipelines, and ASTs	--	--		
02 81 01-01	Clean out Phase 1 Tanks (incl. 1 Blue AST)	Jul-01	Jul-05, Jul-11	6.	8
02 81 01-01	Clean out Phase 2 Tanks	Jul-07	Jul-09, Sep-24	4.	4
02 81 01-01	Clean and wash drums	Jul-25	Aug-28, Oct-03	22.	15
02 81 01-01	Clean and wash Blue ASTs + 1 White AST	Sep-27	Oct-03	6.	10
02 81 01-02	Consolidate and classify all Organic Liquid Wastes including oils and wastes oils; and incinerating and/ or shipping off-site for disposal	--	--		
02 81 01-02	Consolidate Tank Farm Organic Liquids	Jun-24	Jun-28	5.	
02 81 01-02	Incinerate Organic Liquids - base contract quantity	Jul-13	Sep-22	71.	45
02 81 01-02	Incinerate Organic Liquids - additional quantities	Sep-23	Oct-02	9.	
02 81 01-03	Consolidate and Depressurize/ Vent all Compressed Gas Cylinders and Fire Extinguishers	Jun-21	Oct-01		
02 81 01-04	Remove, Consolidate and Package all identified Hazardous Wastes; including Fluorescent lights, Refrigerant fluids, Batteries and Other remaining Hazard Materials	Jul-19	Aug-16, Sep-30 to Oct-01	30.	8 days 49 total

Daily Site Report

Monday, October 2, 2017

2017 Jericho Mine Site Stabilization
Departmental Representative

Additional Comments/ Correspondence

The hazmat work was reviewed and remaining work itemized and sent to ROJV.

ROJV moved the Granular Activated Carbon treatment system to an area adjacent the camp sump to treat the greywater there; and will decommission the other greywater sump area tomorrow.

Sign-off

Henry Wong
DXB Projects
Jericho Mine Site Stabilization Departmental Representative

Andy76, 2017-10-02

Project	Jericho Mine Site Stabilization
Created	2017-10-02 18:53:34 EDT by Andy Uyarrai
Updated	2017-10-03 10:30:28 EDT by Henry Wong

Project Information

Name and Daily Report Number	Andy76
Day	Monday
Date	2017-10-02
Project Name	2017 Jericho Mine Site Stabilization
Contractor	Rowe's Outcome Joint Venture

Weather Conditions

Weather	Cool, Windy
Site Conditions	Blowing snow
Morning Temperature	5
Afternoon Temperature	8

People on Site

New Camp People IN/ Day Visitors	2 in
Total number of all people on-site (at morning meeting)	26
Total number of Contractor people (at morning meeting)	24
Total number of Contractor Local Inuit (at morning meeting)	9
Departmental Representative people on-site	Henry W, Andy U

Morning Meeting

Health and Safety Topic	Good job on ppe Near miss need more reports Near misses are good to report It's been awhile since someone been sick
Work Plan	Cleanup airport Gord cleanup at phase4 On going incinerating Steam cleaning inside truck shop

Overview/ Summary of Work

Summary of Work areas	Mob/ Demob, Consolidate Fuel, Incinerate,Clean Tanks/Drums, Herc backhaul equipment
Planes on-site today	2 Herc runs 1 King Air with 2 (cook and surveyor) in and 5 workers out
Equipment Down Time	none



ready for back haul



first herc loads

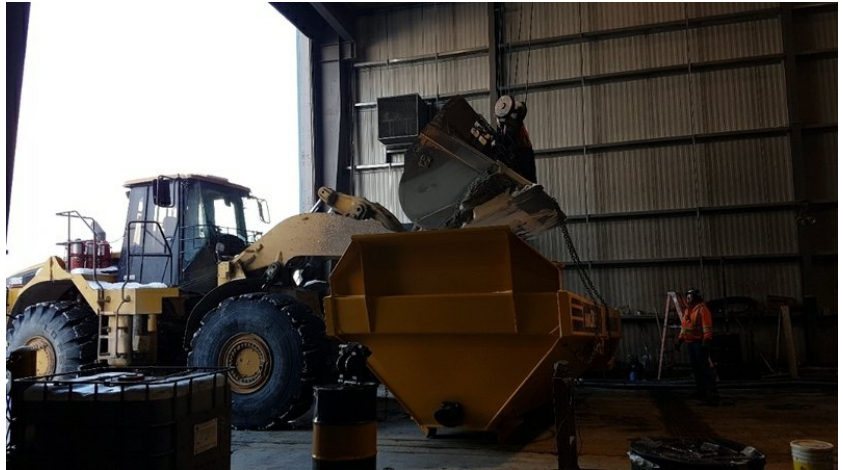
Work Progress - Mob/ DeMob

Work done today_ Mob/Demob	2 herc loads
Number of workers_ Mob/Demob	3
Equipment_ Mob/Demob	950 Loader (Crown), 980 Loader (Crown), green dump truck to haul equipments
Other Equipment_ Mob/Demob	Truck shop

Photos_ Mob/Demob



ready for back haul D65 dozer



ready for back haul 980 loader setup inside truck shop



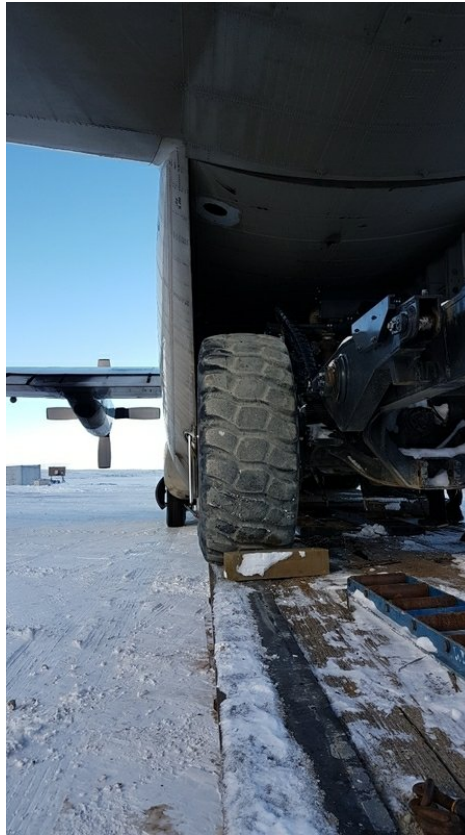
second load demob rock truck into herc



first load dump box 2 cabs 3 rippers 2 D65 dozer tracks 2 rock truck feedback hauled



second herc back hauled rock truck



rock truck loading into herc

Work Progress - Consolidate Fuel (organic liquids) and Incinerate + Clean (Decom.) Tanks/ Drums

Work done today_ Consolidate+Incinerate fuel,
Clean tanks/drums

All hands on deck phase4 cleanup and pumping out waste from blue tank 22
And berm water
Steam cleaning inside truck shop
Hauling empty drums to truck shop for steam cleaning

Number of workers_ Consolidate+Incinerate fuel,
Clean tanks/drums

7

Equipment_ Consolidate+Incinerate fuel, Clean
tanks/drums

322 Excavator (Crown), 950 Loader (Crown), 980 Loader (Crown), Skid Steer- 250
(Crown), Skid Steer- 185 (Crown)

Photos_ Consolidate+Incinerate fuel, Clean
tanks/drums



blue tank ready to consolidate and steam clean



getting ready to move last tank for steam cleaning



have traffic by truck shop Hauling drums and getting ready for back haul and steam cleaning



blue tank ready for steam cleaning



blue tank ready for steam cleaning by truck shop



waste fuel water and oil of drums ready for back haul



waste water fuel oil from separator berm



consolidating inside truckshop all peace



excavator lift backend to get the rest of waste fuel in to drums from blue tanks at phase4



waste water oil fuel from phase1 bermed separator

Environmental Issues, Wildlife Sightings

Spills?

No



spill from oct01 cleaned up at phase4



spill from phase4 berm area



spill oct01 over flow Transferring waste into totes



spill cleaned inside bermed area at phase4 into drum

Health and Safety

Incidents/ Accidents	No
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Remarks/ Notes

Remarks (describe anything not covered above)	Phase4 area ready for excavation
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Daily Site Report

Tuesday, October 3, 2017

2017 Jericho Mine Site Stabilization
Departmental Representative

Project: Jericho Mine Site Stabilization
Remediation Contractor: Rowe's-Outcome Joint Venture (ROJV)

Daily Summary

Work on Tuesday, October 3 consisted of pumping out and cleaning of the remaining two tanks, site clean-up, and continued staging and prepping of loads for the Hercules demobilization.

Morning fog and low ceiling through the day kept the planned Hercules and Electra flights from attempting a fly into site.

All-Peace pumped out and steam-cleaned the last blue AST, Tank 22; as well as a red tank from the HWTa. The tank cleaning work is complete.

ROJV dismantled the two incinerators and cleaned up the bermed areas beneath the group of 4 blue ASTs and incineration work area. The impacted soil was hauled to the Phase 1 containment cell, graded out and liner installed. Note..

A review of the shipping manifests provided by ROJV showed that the hazardous materials shipped off-site needs to be reconciled against the materials received by ROJV's waste receiver.

The following grouped HAZMAT quantities are based on KBL, the registered waste receiver's, actual site receipt documentation:

<u>Item</u>	<u>Actual Quantities</u>	<u>Contract Quantity</u>
Batteries	3,207 kg	2,000 kg
Antifreeze	15,257 kg	18,000 kg
Acids/Alcohols	3,136 kg	5,500 kg
Aerosol Cans	120 kg	3,200 kg
Miscellaneous	277 kg	6,500 kg
Fluorescent lights	info pending	600 kg
Oil Filters	info pending	10,000 kg

A daily report of specific work activities and photos is attached at the end of this report.

Daily Site Report

Tuesday, October 3, 2017

2017 Jericho Mine Site Stabilization
Departmental Representative

Site Personnel and Equipment

The total camp persons onsite this morning was 23:

- 2 Departmental Representatives (Henry Wong and Andy Uyarrai); and
- 21 Contractor's work personnel, of which 8 are local Inuit.

The contractor's workforce at the start of the day is shown in the table below:

Company	Role	Name	Local Inuit Classification
1. ROJV	Superintendent	John Weigel	
1. ROJV	Operator	Don Boxer	
1. ROJV	Operator	Garth Shippit	
1. ROJV	Labourer	Aurthur Oniak	Y
1. ROJV	Wildlife Monitor	Jeff Niptanatiak	Y
1. ROJV	Operator	Wally Walister	
1. ROJV	Surveyor	Simon Kasprzak	
1. ROJV	Mechanic	Donald Cook	
1. ROJV	Labourer	Gordon Ailanak	Y
1. ROJV	Labourer	Regan Adjun	Y
1. ROJV	Labourer	Shayne Nivingalok	Y
1. ROJV	Labourer	Jerry Oniak	Y
1. ROJV	Labourer	Timothy Milukshuk	Y
1. ROJV	Project Manager	Prassanna Yennawar	
1. ROJV	Labourer	Kyle Algona	Y
2. DMS	Cook	Auriane Chouinard-Duggleby	
2. DMS	Cook	Paolo Bertini	
2. DMS	Camp Man	Brian Fehur	
3. 62North	EMT	Peter Smith	
6. All Peace	Fuel Tank Inspection	Ken Dinelle	
6. All Peace	Fuel Tank Inspection/ Cleaning	Brandon Deschamps	

Contract Work Items

An outline of Contract Work and schedule dates is included in the table below.

SpecID	--Work Activity	Start	Finish	Actual Duration (days)	Planned Duration (days)
01 11 00-1	Worker Orientation Seminar	Jul-04	Jul-04		
01 31 19-1	Off-site Project Meetings;				
01 31 19-1	Project Start-up Teleconference	May-05	May-05		

Daily Site Report

Tuesday, October 3, 2017

2017 Jericho Mine Site Stabilization
Departmental Representative

SpecID	--Work Activity	Start	Finish	Actual Duration (days)	Planned Duration (days)
01 31 19-1	Pre-Construction Meeting	May-31	May-31		
01 31 19-2	Community Meetings				
01 31 19-2	Pre-Construction Community Meeting	Jun-01	Jun-01		
01 53 00-1	Mobilization				
01 53 00-1	Air Mobilization	Jun-05	Jun-26	22.	24
01 53 00-1	--10 Hercules flights-in	Jun-21	Jun-24		
01 53 00-2	Air Demobilization				
01 53 00-2	--Hercules	Sep-25, Oct-02	Ongoing		
01 53 00-2	--Electra	Sep-27	Ongoing		
01 54 00-1	Supply and Setup Camp	Jun-05	Jul-04	30.	12
01 54 00-2	Operation and Maintenance of Camp Facilities				
01 54 00-2	Operate Camp facilities	Jun-19	Ongoing	15 weeks	
01 54 00-2	Camp Re-supply flights	Jun-27	Ongoing		
31 -- --	Earthworks				
31 22 13-1	Pre-Grade PKCA	Jul-07	Jul-17	8.	15
31 22 13-2	Construct Cover over Cell A	Jul-18	Sep-01	44.	39
31 22 33.01-1	Construct West Dam Breach	Jun-23	Sep-14		
31 22 33.01-1	Dewater PKCA and Cell C (@1,500 gpm) (@2,160,000 g/24hr-day)	Jun-23	Jul-17	25.	25
31 22 33.01-1	Excavate West Dam to plan elevations and limits	Jun-30	Sep-09	38.	34 days including drilling+ blasting
31 22 33.01-1	Place rip rap	Sep-13	Sep-14	2.	2
31 22 33.01-2	Construct Divider Dyke A Notch	Jul-06	Sep-04		
31 22 33.01-2	Dewater Cell A	Jul-06	Jul-12	7.	20
31 22 33.01-2	Excavate and Stockpile	Jul-21	Jul-27	7.	6
31 22 33.01-2	Place Energy Dissipation Ramp	Aug-26	Aug-27	2.	2
31 22 33.01-2	Place rip rap	Sep-03	Sep-04	2.	2
31 22 33.01-3	Construct Open Pit Outfall			6.	4
31 22 33.01-3	Excavate Open Pit to plan elevations and limits	Jul-09	Jul-18, Final placement pending	5.	2
31 22 33.01-3	Place rip rap	Sep-11	Sep-11	1.	1
31 22 33.01-4	Construct C1 Diversion	Jul-10	Sep-08	29.	15

Daily Site Report

Tuesday, October 3, 2017

2017 Jericho Mine Site Stabilization
Departmental Representative

SpecID	--Work Activity	Start	Finish	Actual Duration (days)	Planned Duration (days)
31 22 33.01-3	Excavate C1 Diversion to plan elevations and limits	Jul-10	Sep-02	25.	12
31 22 33.01-4	Place rip rap	Sep-04	Sep-08	4.	1
02 -- --	Environmental				
02 61 00.01-1	Excavate and Place PHC Soils into Phase 1 Tank Farm area	--	--		
02 61 00.01-1	Remove Phase 1 Tanks and prep cell	Jul-16	Jul-17	2.	8
02 61 00.01-1	Excavate, Haul and Place PHC Contaminated soils into Phase 1	Aug-10	Aug-15, Aug-22 to 23, Aug-28 to 29, Sep16, Sep21	12.	8
02 61 00.01-2	Install geosynthetic liner & coarse PK Cover over PHC soils in Phase 1 Tank Farm area	Sep-10	Sep-12 Pending	--	4
02 81 01-01	Clean and/or decommission all drums, pipelines, and ASTs	--	--		
02 81 01-01	Clean out Phase 1 Tanks (incl. 1 Blue AST)	Jul-01	Jul-05, Jul-11	6.	8
02 81 01-01	Clean out Phase 2 Tanks	Jul-07	Jul-09, Sep-24	4.	4
02 81 01-01	Clean and wash drums	Jul-25	Aug-28, Oct-03	22.	15
02 81 01-01	Clean and wash Blue ASTs + 1 White AST	Sep-27	Oct-03	6.	10
02 81 01-02	Consolidate and classify all Organic Liquid Wastes including oils and wastes oils; and incinerating and/ or shipping off-site for disposal	--	--		
02 81 01-02	Consolidate Tank Farm Organic Liquids	Jun-24	Jun-28	5.	
02 81 01-02	Incinerate Organic Liquids - base contract quantity	Jul-13	Sep-22	71.	45
02 81 01-02	Incinerate Organic Liquids - additional quantities	Sep-23	Oct-02	9.	
02 81 01-03	Consolidate and Depressurize/ Vent all Compressed Gas Cylinders and Fire Extinguishers	Jun-21	Oct-01		
02 81 01-04	Remove, Consolidate and Package all identified Hazardous Wastes; including Fluorescent lights, Refrigerant fluids, Batteries and Other remaining Hazard Materials	Jul-19	Aug-16, Sep-30 to Oct-01	30.	8 days 49 total

Additional Comments/ Correspondence

The hazmat work was reviewed and remaining work itemized and sent to ROJV.

Daily Site Report

Tuesday, October 3, 2017

2017 Jericho Mine Site Stabilization
Departmental Representative

ROJV moved the Granular Activated Carbon treatment system to an area adjacent the camp sump to treat the greywater there; and will decommission the other greywater sump area tomorrow.

Sign-off

Henry Wong

DXB Projects

Jericho Mine Site Stabilization Departmental Representative

Andy78, 2017-10-04

Project	Jericho Mine Site Stabilization
Created	2017-10-04 23:51:43 UTC by Andy Uyarrai
Updated	2017-10-05 03:20:04 UTC by Andy Uyarrai

Project Information

Name and Daily Report Number	Andy78
Day	Wednesday
Date	2017-10-04
Project Name	2017 Jericho Mine Site Stabilization
Contractor	Rowe's Outcome Joint Venture

Weather Conditions

Weather	Cool, Fog, Overcast, Windy
Site Conditions	Fog off and overcast in the afternoon
Morning Temperature	-4
Afternoon Temperature	-8

People on Site

New Camp People IN/ Day Visitors	Final Inspection 1 in5 out
Total number of all people on-site (at morning meeting)	26
Total number of Contractor people (at morning meeting)	24
Total number of Contractor Local Inuit (at morning meeting)	8
Departmental Representative people on-site	Henry W, Andy U

Morning Meeting

Health and Safety Topic	Keep an eye on everyone Eye on equipments Eye on People
Work Plan	All peace going home Simone survey Art fueling Jeff phase4 hauling to airport Gord haul drums from phase4 to truck shop

Overview/ Summary of Work

Summary of Work areas	Mob/ Demob, Consolidate Fuel, Incinerate,Clean Tanks/Drums, Hazmat Cleanup
Other Work Done Today	Electra in Few grocery 40 drums of diesel Back haul 40 waste drums of oil glycole fuel Steam cleaner All peace pump air vent Small generator
Planes on-site today	Electra 1 trip
Equipment Down Time	none
Photos_ Overview	



back hauled steam cleaner on electra



back hauled Kubota gen on electra



waste water from berm by phase 2 40 drums back haul



250 skid steer loading electra



Electra unloaded grocery's and 40 drums of diesel



back hauled 40 waste drums all peace pump and air vent kubota generator

Work Progress - Camp Setup/Teardown

Work done today_ Camp Setup/Teardown	Smoke tent down
Number of workers_ Camp Setup/Teardown	1



Smoke room down

Work Progress - Open Pit (Outfall and C1 Diversion)

Work done today_ Open Pit	Final rip rap at outfall
Number of workers_ Open Pit	2
Equipment_ Open Pit	322 Excavator (Crown), 950 Loader (Crown)
Photos_ Open Pit	



Final rip rap at outfall

Work Progress - PHC Soil

Work done today_ PHC Soil	Cover up phase1
Number of workers_ PHC Soil	3
Equipment_ PHC Soil	322 Excavator (Crown), 950 Loader (Crown), 980 Loader (Crown)
Photos_ PHC Soil	



phase1 covering liner



excavator covering liner at phase1



phase 2 breached



phase1 all capped

Environmental Issues, Wildlife Sightings

Spills?	No
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Wildlife Sightings	No
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Health and Safety

Incidents/ Accidents	No
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Andy79, 2017-10-05

Project	Jericho Mine Site Stabilization
Created	2017-10-05 22:40:15 UTC by Andy Uyarrai
Updated	2017-10-06 01:57:11 UTC by Andy Uyarrai

Project Information

Name and Daily Report Number	Andy79
Day	Thursday
Date	2017-10-05
Project Name	2017 Jericho Mine Site Stabilization
Contractor	Rowe's Outcome Joint Venture

Weather Conditions

Weather	Cool, Fog, Overcast
Site Conditions	Foggy morning and clear overcast in the afternoon
Morning Temperature	-5
Afternoon Temperature	-8

People on Site

New Camp People IN/ Day Visitors	No
Total number of all people on-site (at morning meeting)	19
Total number of Contractor people (at morning meeting)	17
Total number of Contractor Local Inuit (at morning meeting)	8
Departmental Representative people on-site	Andy U

Morning Meeting

Health and Safety Topic	Barrel washing proper ppe Make sure you dont get splashed Use goggles Stay alert Watch out for sharp edges
Work Plan	Plane day herc and Electra Barrel clean up Art fueling wally and crew get ready for backhaul Donnie cleanup phase1 tank farm and phase4 beach

Overview/ Summary of Work

Summary of Work areas	Camp Setup/ Teardown, Consolidate Fuel, Incinerate,Clean Tanks/Drums
Other Work Done Today	Final touch on phase1 cap
Planes on-site today	Herc and Electra 1 load each
Equipment Down Time	none
Photos_ Overview	



loading herc 2 dump box 2 cabs johns truck



johns truck back hauled



dump boxes and cabs herc load



herc

Work Progress - Camp Setup/Teardown

Work done today_ Camp Setup/Teardown	1 more weather haven down
Number of workers_ Camp Setup/Teardown	1
Other Equipment_ Camp Setup/Teardown	Sorry no pics

Work Progress - Consolidate Fuel (organic liquids) and Incinerate + Clean (Decom.) Tanks/ Drums

Work done today_ Consolidate+Incinerate fuel, Clean tanks/drums	Clean drums 90 drums
Number of workers_ Consolidate+Incinerate fuel, Clean tanks/drums	4
Equipment_ Consolidate+Incinerate fuel, Clean tanks/drums	Skid Steer- 250 (Crown), Skid Steer- 185 (Crown)
Photos_ Consolidate+Incinerate fuel, Clean tanks/drums	



cleaning drums inside truck shop



setup for cleaning drums



hauling drums to truck shop



waste oil fuel drums ready for back haul



air compressor, Generator, Create 26 diesel come in, Few grocery



950 loader and 250 bobcat loading electra

Work Progress - PHC Soil

Work done today_ PHC Soil

Phase4 berm breched and put traveled on top

Number of workers_ PHC Soil

2



980 spreading gravel phase4



950 loader spreading gravel phase4



phase1 all done capping



phase1 capping 980 loader and 950 loader



phase2 breched on east side



phase1 capped all done

Environmental Issues, Wildlife Sightings

Spills? No

Wildlife Sightings No

Health and Safety

Incidents/ Accidents No

Remarks/ Notes

Remarks (describe anything not covered above)

Propane bottle emptied out into environment

Andy80, 2017-10-06

Project	Jericho Mine Site Stabilization
Created	2017-10-06 22:07:39 UTC by Andy Uyarrai
Updated	2017-10-06 22:34:13 UTC by Andy Uyarrai

Project Information

Name and Daily Report Number	Andy80
Day	Friday
Date	2017-10-06
Project Name	2017 Jericho Mine Site Stabilization
Contractor	Rowe's Outcome Joint Venture

Weather Conditions

Weather	Cold, Fog, Overcast, Windy
Site Conditions	Freezing fog in the morning Overcast in the early afternoon
Morning Temperature	-5
Afternoon Temperature	-9

People on Site

New Camp People IN/ Day Visitors	No
Total number of all people on-site (at morning meeting)	19
Total number of Contractor people (at morning meeting)	18
Total number of Contractor Local Inuit (at morning meeting)	8
Departmental Representative people on-site	Andy U

Morning Meeting

Health and Safety Topic	Finishing up wear all ppe Wear goggles Hard hats and all Wear your ppe Watch out for sharp edges when opening drums
Work Plan	House keeping around work areas Drum steam cleaning Fire extinguisher pick up and get ready for back haul Herc in today back hauling equipments All mattresses and tables chairs that belong to Jericho bring back into building Cleanup your tents before you get out of it

Overview/ Summary of Work

Summary of Work areas	Consolidate Fuel, Incinerate,Clean Tanks/Drums, herc back haul
Other Work Done Today	Herc back haul
Planes on-site today	1Herc back haul equipment Rock truck
Equipment Down Time	Roll off water tank pump broke
Photos_ Overview	



back hauling rock truck



1 herc load rock truck



250 skid steer weighting drums ready for back haul



rock truck back hauled

Work Progress - Consolidate Fuel (organic liquids) and Incinerate + Clean (Decom.) Tanks/ Drums

Work done today_ Consolidate+Incinerate fuel,
Clean tanks/drums

Consolidated totes and drums and hauled to airport

Number of workers_ Consolidate+Incinerate fuel,
Clean tanks/drums

6

Equipment_ Consolidate+Incinerate fuel, Clean
tanks/drums

Skid Steer- 250 (Crown), Skid Steer- 185 (Crown)

Photos_ Consolidate+Incinerate fuel, Clean
tanks/drums



steam cleaning almost done



steam cleaning and consolidating inside truck shop



transferring 5gal buckets into drums for back haul inside truck shop

Environmental Issues, Wildlife Sightings

Spills?	No
Wildlife Sightings	No

Health and Safety

Incidents/ Accidents	No
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Remarks/ Notes

Remarks (describe anything not covered above)	Mechanic filled creates inside truck shop Weighting drums at airport ready for back hauling
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Andy81, 2017-10-07

Project	Jericho Mine Site Stabilization
Created	2017-10-07 23:32:27 UTC by Andy Uyarrai
Updated	2017-10-07 23:45:08 UTC by Andy Uyarrai

Project Information

Name and Daily Report Number	Andy81
Day	Saturday
Date	2017-10-07
Project Name	2017 Jericho Mine Site Stabilization
Contractor	Rowe's Outcome Joint Venture

Weather Conditions

Weather	Cool, Fog
Site Conditions	Foggy all day
Morning Temperature	-8
Afternoon Temperature	-10

People on Site

New Camp People IN/ Day Visitors	No
Total number of all people on-site (at morning meeting)	19
Total number of Contractor people (at morning meeting)	17
Total number of Contractor Local Inuit (at morning meeting)	8
Departmental Representative people on-site	Andy U

Morning Meeting

Health and Safety Topic	Keep your focus on job Look out for another
Work Plan	Load excavator Gord house keeping Art fueling up Don heater at truck shop

Overview/ Summary of Work

Summary of Work areas	Mob/ Demob
Other Work Done Today	House keeping
Planes on-site today	Canceled
Equipment Down Time	Roll off water tank pump broke Ambulance needs new turbo very weak



excavator ready for back haul

Work Progress - Mob/ DeMob

Work done today_ Mob/Demob	Loaded excavator onto trailer ready for back haul
Number of workers_ Mob/Demob	3
Equipment_ Mob/Demob	green dump truck and truck shop
Photos_ Mob/Demob	



Environmental Issues, Wildlife Sightings

Spills?	No
Wildlife Sightings	No

Health and Safety

Incidents/ Accidents	No
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Remarks/ Notes

Remarks (describe anything not covered above)	Fueling up camp house keeping Did a shutdowns on generators and start up with Don and Brian
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Andy82, 2017-10-10

Project	Jericho Mine Site Stabilization
Created	2017-10-10 16:03:47 UTC by Andy Uyarrai
Updated	2017-10-11 13:05:34 UTC by Andy Uyarrai

Project Information

Name and Daily Report Number	Andy82
Day	Sunday
Date	2017-10-10
Project Name	2017 Jericho Mine Site Stabilization
Contractor	Rowe's Outcome Joint Venture

Weather Conditions

Weather	Cold, Fog
Site Conditions	Foggy all morning
Morning Temperature	-8
Afternoon Temperature	-10

People on Site

New Camp People IN/ Day Visitors	8 out
Total number of all people on-site (at morning meeting)	19
Total number of Contractor people (at morning meeting)	17
Total number of Contractor Local Inuit (at morning meeting)	8
Departmental Representative people on-site	Andy U

Morning Meeting

Health and Safety Topic	Lite snow fall watch put for slip trips and falls Keep eye out for everyone Saftey Sunday 3 point contact when climbing lader
Work Plan	Check generator oil herc and Electra Art water tank inside truck shop Bring mattress to airport Check oil

Overview/ Summary of Work

Summary of Work areas	Hazmat Cleanup
Other Work Done Today	Haul waste fuel oil from truck shop to airport
Planes on-site today	Herc Electra and king air
Equipment Down Time	Roll off water tank pump broke Ambulance needs new turbo very weak

Work Progress - Hazmat Cleanup

Work done today_ Hazmat	Herc and Electra back haul
Number of workers_ Hazmat	6
Equipment_ Hazmat	950 Loader (Crown), Skid Steer- 250 (Crown), Skid Steer- 185 (Crown)



Electra and king air



Herc back hauling equipments



back hauled excavator and a cab



gray water saperatpr cleaned and ready to ship out

Environmental Issues, Wildlife Sightings

Spills?	No
Wildlife Sightings	No

Health and Safety

Incidents/ Accidents	No
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Date	November 2018
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- Minutes of Weekly and Monthly Meetings

Date Wednesday, October 18, 2017

MINUTES OF MEETINGS – Weekly Meeting

Project PWGSC – PWGSC
EW699-171068

Location: Teleconference

Attendance and Distribution

<i>Person</i>	<i>Initials</i>	<i>Organization</i>	<i>Role</i>	<i>Email</i>	<i>Attended</i>	<i>Distributed</i>
Michael Bernardin	MBe	PWGSC	PSPC PM	Michael.Bernardin@pwgsc-tpsgc.gc.ca	✓	✓
Mark Yetman	MY	INAC	INAC Lead	Mark.Yetman@aandc-aadnc.gc.ca	✓	✓
Michael Westlake	ML	INAC	INAC Lead	Michael.Westlake@aadnc-aandc.gc.ca		✓
Henry Wong	HW	DXB	DXB DR/Resident Eng	Henry.wong@dxbbprojects.ca	✓	✓
Dave Bynski	DB	DXB	DXB Senior PM	dave.bynski@dxbbprojects.ca		✓
Dan Hewitt	DH	DXB	DXB Sr Consultant	danhewitt@flatriver.ca	✓	✓
Jack Rowe	JR	ROJV	Contractor PM	jrowe@rowes.ca	✓	✓
John Weigel	JW	ROJV	Superintendent	jweigel91@gmail.com		✓
Michael Billowitz	MBi	ROJV	Contractor Consultant	mbillowits@outcomeinc.ca	✓	✓
Jonathan Markiewicz	JM	ROJV	Contractor Consultant	jmarkiewicz@outcomeinc.ca	✓	✓
Garricks Elechi	GM	ROJV	Contractor Project Control Officer	gelechi@outcomeinc.ca		✓

PSPC - Pubic Services and Procurement Canada

PM - Project Manager

INAC - Indigenous and Northern Affairs Canada

DR - Departmental Representative

DXB - DXB Projects

ROJV - Rows-Outcome Joint Venture

Date Wednesday, October 18, 2017

Agenda Item		Description	Action by
i)		Introduction	
		Agenda:	
	1	Safety Moment.	
	2	Proposed changes or approval of Minutes of Previous Meeting, review of action items.	
	3	Previous Week's Activities, Project Schedule and Actions to Regain Schedule, if required.	
	4	Submittals - status update (review register).	
	5	Confirmation of Quantities.	
	6	Health, Safety and Security Issues.	
	7	Summary of Interactions with Authorities having Jurisdiction (AHJ).	
	8	Work Plan for the Following Week.	
	9	Progress Claims.	
	10	Other Business.	
1		Safety Moment.	
1.01	JM	<u>Safety Moment.</u> Topic: Buddy System -A case example of buddy system working at another ROJV project where a worker was able to help and warn another worker out of a dangerous situation.	
2		Proposed changes or approval of Minutes of Previous Meeting, review of action items.	
2.01	JM	No changes requested to last meeting minutes; although some minor typos of speaker-initials were noted.	
3		Previous Week's Activities, Project Schedule and Actions to Regain Schedule, if required.	
3.01	JM	<u>Previous week's activities</u> -ROJV fully off-site yesterday (Tuesday Oct17) -demobilization activities went according to plan HW: request a ROJV check with demob team that everything was completed and left in accordance with demob plans.	ROJV to check and update
4		Submittals - status update (review register).	

Date Wednesday, October 18, 2017

Agenda Item		Description	Action by
4.01	JM	<u>Submittals pending from ROJV</u> -ROJV waiting on suppliers for final demobilization records -All Peace indicated that the Tank Decommission is forth coming -As-builts planned for tomorrow	ROJV submittals
4.02	HW	Note that the following submittals out outstanding: -As-builts for PKCA, Outfall, Phase 1 Containment Mbi: As-builts expected end of week (Oct13). New update: As-builts due for tomorrow (Oct19).	ROJV As-builts
5		Confirmation of Quantities.	
5.01	JM	<u>Quantities</u> -Confirmation of quantities pending final reconciliation from ROJV sub, KBL	ROJV to provide final quantities
6		Health, Safety and Security Issues.	
6.01	HW	Follow-up from Sep27 meeting, ROJV to provide photos/ documentation of cleanup of HWTB blue tank bermed area (4 ASTs).	ROJV to provide photos of the implemented measures
7		Summary of Interactions with Authorities having Jurisdiction (AHJ).	
7.01	JM	Waiting on Tank close-out documentation.	ROJV
8		Work Plan for the Following Week.	
8.01	JM	ROJV working on project close-out next week.	
9		Progress Claims.	
9.01	JM	PC5 issued last week.	
9.02	JM	Change Order 3 - Issued last week, note with credit to CO2 for incorrect cumulative percentage add up of CO2.	
9.03	Me	PC4 to be paid today or tomorrow.	
9.04	JM	PC7 and likely PC8 into Q4.	

Date Wednesday, October 18, 2017

Agenda Item		Description	Action by
10		Other Business.	
10.01	JM	<u>Community Meeting</u> -Originally tentatively scheduled for Nov02, however, ROJV with team schedule conflicts -Proposed end-of-December timeline recommended against by INAC based on the Community's input -new timeframe now set for January 2018 Final Close-out meeting + Lessons Learned meeting also tentatively set for January 2018.	
10.02	HW	<u>Liner Deficiency</u> -Correspondence issued to ROJV, emailed dated Tuesday Oct17, requesting that ROJV propose a solution to the liner deficiency. JM: ROJV has been in contact with Layfield and will reach out to Al Harmon of NWT to review.	ROJV to propose a solution
10.03	HW	<u>Equipment Status</u> -Email request to ROJV to provide an updated status of Crown Equipment left on-site -close out for Bail agreement	ROJV to update equipment status
10.04	Me	Weekly Meeting -Plan to continue with weekly meetings until project close-out and submissions are complete	

END OF MINUTES

Minutes prepared by:

Henry Wong
DXB Projects – Departmental Representative
October 24, 2017

Date Wednesday, October 11, 2017

MINUTES OF MEETINGS – Weekly Meeting

Project PWGSC – PWGSC
EW699-171068

Location: Teleconference

Attendance and Distribution

<i>Person</i>	<i>Initials</i>	<i>Organization</i>	<i>Role</i>	<i>Email</i>	<i>Attended</i>	<i>Distributed</i>
Michael Bernardin	MBe	PWGSC	PSPC PM	Michael.Bernardin@pwgsc-tpsgc.gc.ca	✓	✓
Mark Yetman	MY	INAC	INAC Lead	Mark.Yetman@aandc-aadnc.gc.ca	✓	✓
Michael Westlake	ML	INAC	INAC Lead	Michael.Westlake@aadnc-aandc.gc.ca		✓
Henry Wong	HW	DXB	DXB DR/Resident Eng	Henry.wong@dxbbprojects.ca	✓	✓
Dave Bynski	DB	DXB	DXB Senior PM	dave.bynski@dxbbprojects.ca		✓
Dan Hewitt	DH	DXB	DXB Sr Consultant	danhewitt@flatriver.ca	✓	✓
Jack Rowe	JR	ROJV	Contractor PM	jrowe@rowes.ca	✓	✓
John Weigel	JW	ROJV	Superintendent	jweigel91@gmail.com		✓
Michael Billowitz	MBi	ROJV	Contractor Consultant	mbillowits@outcomeinc.ca	✓	✓
Jonathan Markiewicz	JM	ROJV	Contractor Consultant	jmarkiewicz@outcomeinc.ca	✓	✓
Garricks Elechi	GM	ROJV	Contractor Project Control Officer	gelechi@outcomeinc.ca		✓

PSPC - Pubic Services and Procurement Canada

PM - Project Manager

INAC - Indigenous and Northern Affairs Canada

DR - Departmental Representative

DXB - DXB Projects

ROJV - Rows-Outcome Joint Venture

Date Wednesday, October 11, 2017

Agenda Item	Description	Action by
i)	Introduction	
	Agenda:	
	1 Safety Moment.	
	2 Proposed changes or approval of Minutes of Previous Meeting, review of action items.	
	3 Previous Week's Activities, Project Schedule and Actions to Regain Schedule, if required.	
	4 Submittals - status update (review register).	
	5 Confirmation of Quantities.	
	6 Health, Safety and Security Issues.	
	7 Summary of Interactions with Authorities having Jurisdiction (AHJ).	
	8 Work Plan for the Following Week.	
	9 Progress Claims.	
	10 Other Business.	
1	Safety Moment.	
1.01	JW <u>Safety Moment.</u> Topic: Moving and lifting -small equipment and the communication system remain at site; and therefore lots of moving and lifting on-going -proper lifting includes bending at knees -do not lift and twist -reset feet as required	
2	Proposed changes or approval of Minutes of Previous Meeting, review of action items.	
2.01	JW No weekly meeting last week (the last on Sep27), but an on-site Inspection and review of Substantial Performance Inspection sheet on October 4, 2017.	
3	Previous Week's Activities, Project Schedule and Actions to Regain Schedule, if required.	

Date Wednesday, October 11, 2017

Agenda Item		Description	Action by
3.01	JW	<u>Previous week's activities</u> -Final Inspection w/ INAC and PSCP last week --the deficiency marked for the liner issue was discussed (mounded cover observed in the field) -Continued demobilization, lost numerous days due to weather -The last Herc load went out yesterday (Tuesday Oct10) -2 Electra loads remaining (or at a very minimum 1 Electra load) + 1 DCH 7 for camp materials	
4		Submittals - status update (review register).	
4.01	JM	<u>Submittals pending from ROJV</u> -PC5 submitted last night (Tuesday Oct10) -ROJV working on Q2 Stat -All Peace to prepare sign-off of Tank Decommissions for the work -ROJV to confirm November 2 date for community meeting and submit final presentation	
4.02	Mb e	Will the plan be the same as the start-up community meeting; i.e. a charter from Yellowknife to Kugluktuk and time allotted for a final close-out meeting+ lessons learned? JM: Yes, the current plan is an early charter out of Yellowknife to account for any bingo conflicts in the town. ROJV working on booking community hall.	
4.03	HW	Note that the following submittals out outstanding: -As-builts for PKCA, Outfall, Phase 1 Containment Mbi: As-builts expected end of week (Oct13).	ROJV As-builts
5		Confirmation of Quantities.	
5.01	HW	<u>Quantities</u> -Final quantities for Hazmat outstanding	ROJV to provide final quantities
6		Health, Safety and Security Issues.	

Date Wednesday, October 11, 2017

Agenda Item		Description	Action by
6.01	HW	Follow-up from Sep27 meeting, ROJV to provide photos/ documentation of cleanup of HWTa blue tank bermed area (4 ASTs).	ROJV to provide photos of the implemented measures
7		Summary of Interactions with Authorities having Jurisdiction (AHJ).	
7.01		No specific interactions.	
8		Work Plan for the Following Week.	
8.01	JM	-Two (2) Electra loads remaining and demobilization of crew; however, the weather is not looking good the next few days -complete site demobilization (following final camp removal)	
9		Progress Claims.	
9.01	HW	PC5 issued this past week.	
9.02	Mbe	Change Order 3 - Additional Liquids waiting on a final signature.	
9.03	Mbe	Confirmation on remaining claims? - PC5 for September - PC6 for October Mbi: May be a PC7 for November - community meeting and any wrap-up.	
9.04	JR	Potential delay in final PC for hazardous material waste disposal. Mbe: The Crown will not necessarily require final destruction certificates, since we are not dealing with PCB materials. It is expected final receipt certificates from KBL, as a registered receiver, to be sufficient.	
10		Other Business.	
10.01	JM	Community Meeting tentatively scheduled for Nov.2 with Final Close-out meeting + Lessons Learned meeting +/- morning or evening that day or day before.	

Date Wednesday, October 11, 2017

Agenda Item		Description	Action by
10.02	HW	Regarding the deficiency in the final Phase 1 Cover Construction JM: note deficiency in reference to 's'-bend in the middle section of liner.	DXB to review and provide follow-up
10.03	Mbe	Will there be any ROJV equipment left on-site (previous discussion of possibility)? JM: currently all equipment anticipated to be demobilized from site.	

END OF MINUTES

Minutes prepared by:

Henry Wong
DXB Projects – Departmental Representative
October 17, 2017

Date Wednesday, September 27, 2017

MINUTES OF MEETINGS – Weekly Meeting

Project PWGSC – PWGSC
EW699-171068

Location: Teleconference

Attendance and Distribution

<i>Person</i>	<i>Initials</i>	<i>Organization</i>	<i>Role</i>	<i>Email</i>	<i>Attended</i>	<i>Distributed</i>
Michael Bernardin	MBe	PWGSC	PWGSC PM	Michael.Bernardin@pwgsc-tpsgc.gc.ca	✓	✓
Mark Yetman	MY	INAC	INAC Lead	Mark.Yetman@aandc-aadnc.gc.ca	✓	✓
Michael Westlake	ML	INAC	INAC Lead	Michael.Westlake@aadnc-aandc.gc.ca	✓	✓
Henry Wong	HW	DXB	DXB DR/Resident Eng	Henry.wong@dxbbprojects.ca	✓	✓
Dave Bynski	DB	DXB	DXB Senior PM	dave.bynski@dxbbprojects.ca		✓
Dan Hewitt	DH	DXB	DXB Sr Consultant	danhewitt@flatriver.ca	✓	✓
Jack Rowe	JR	ROJV	Contractor PM	jrowe@rowes.ca		✓
John Weigel	JW	ROJV	Superintendent	jweigel91@gmail.com	✓	✓
Michael Billowitz	MBi	ROJV	Contractor Consultant	mbillowits@outcomeinc.ca		✓
Jonathan Markiewicz	JM	ROJV	Contractor Consultant	jmarkiewicz@outcomeinc.ca	✓	✓
Garricks Elechi	GM	ROJV	Contractor Project Control Officer	gelechi@outcomeinc.ca		✓

PWGSC - Public Works and Government Service Canada

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INAC - Indigenous and Northern Affairs Canada

DR - Departmental Representative

DXB - DXB Projects

ROJV - Rows-Outcome Joint Venture

Date Wednesday, September 27, 2017

Agenda Item	Description	Action by
i)	Introduction	
	Agenda:	
	1 Safety Moment.	
	2 Proposed changes or approval of Minutes of Previous Meeting, review of action items.	
	3 Previous Week's Activities, Project Schedule and Actions to Regain Schedule, if required.	
	4 Submittals - status update (review register).	
	5 Confirmation of Quantities.	
	6 Health, Safety and Security Issues.	
	7 Summary of Interactions with Authorities having Jurisdiction (AHJ).	
	8 Work Plan for the Following Week.	
	9 Progress Claims.	
	10 Other Business.	
1	Safety Moment.	
1.01	JW <u>Safety Moment.</u> Topic: Changing Weather -A reminder on wearing appropriate clothing for the season -dressing in layers -and a note that a cold can easily pass through a camp environment	
2	Proposed changes or approval of Minutes of Previous Meeting, review of action items.	
2.01	HW Minute to be sent out.	HW to send out last week's meeting.
3	Previous Week's Activities, Project Schedule and Actions to Regain Schedule, if required.	

Date Wednesday, September 27, 2017

Agenda Item		Description	Action by
3.01	JW	<u>Previous week's activities</u> -Incineration is on-going -the dismantling of ROJV's heavy equipment is complete -some additional fuel consolidation continued, worked towards transferring waste fuels/ oils to 2 Blue ASTs -the First Herc Load was Monday -a trailer was mobilized in -2 loads out were hauled out	
3.02	JM	<u>Schedule Notes</u> -As previously relayed by ROJV via email, the Hercules was demobilized from Yellowknife due to one of Lynden Air's other Hercules having a mechanical failure and their requirement to another internal contract commitment -The plane scheduled back in late tonight (Wednesday) -The third Hercules demobilization load is scheduled for noon tomorrow -All Peace is onsite now and cleaning the large AST -KBL will be coming in tomorrow	
3.03	JW	An update on the Pit Outfall cut -90% done -the rip rap material has been staged adjacent the work area -finish work can be completed in less than a day -the last survey was done on July 18, and final survey to be completed once all work is complete	
4	Submittals - status update (review register).		
4.01	JM	<u>Submittals pending from ROJV</u> -ROJV has started submission of Project records --As-builts for the 3 breaches (West Dam, Divider Dyke A, C1 Channel) -The As-built for the PKCA cover is done, pending revisions -The As-built for the Outfall is pending work completion -Work on the Q2 stats has been started and will be ready October -The survey raw data will be uploaded to OCI	

Date Wednesday, September 27, 2017

Agenda Item		Description	Action by
4.02	HW	Does ROJV has a reconciliation summary of hazardous materials sent out and waste received at the KBL facility? JM: -ROJV has a reconciliation and can email out	ROJV
5	Confirmation of Quantities.		
5.01	JM	<u>Quantities</u> -Some survey information has been submitted, remaining as-builts and raw data pending -Mbe looking for Final weights	
6	Health, Safety and Security Issues.		
6.01	JW	No accidents	
6.02	JM	With respect to oil seen at HWTa (blue) AST area: -ROJV reviewed the work area and found that there was an oil film over the water that had ponded in the work area -in part because there has been more water in recent days and with on-going work, a depression created and water and oil collecting at the area -in part there has been some complacency on the workers part in using spill trays and showing proper diligence for containing overflows -John W. has spoke with the workers and they are to ensure keeping up with proper fuel transfer procedures -As a result, the water was sucked up and to be treated on-site	ROJV to take photos of the implemented measures
7	Summary of Interactions with Authorities having Jurisdiction (AHJ).		

Date Wednesday, September 27, 2017

Agenda Item		Description	Action by
7.01	JM	<u>Greywater update</u> -ROJV's Plan to pump-out treated greywater meeting typical Water License discharge limits was accepted by the Land/Water Inspector -ROJV proceeded to transfer the treated greywater from Berms 5, 6, 7 into the Pit -The untreated greywater in the other sumps was treated and then transferred into the Pit -Currently Berm 7 is being used to contain the camp's ongoing greywater production; it will be run through the GAC, aerated and transferred to the Pit to close out the project	
7.02	JM	Roll call for attendees for the October 4th final site visit. MY: Baba may have a potential conflict at that time; however, Mark Y. and Michael Be. to attend.	
8		Work Plan for the Following Week.	

Date Wednesday, September 27, 2017

Agenda Item		Description	Action by
8.01	JW	<p>-Packaging parts and components that were stripped down from the heavy equipment (ROJV with note that Lynden Air calculated and set a maximum demobilization payload for the Hercules at 39,000 lbs; compared to 44,000 lbs during the mobilization stage)</p> <p>-hauling the packaged parts to the airstrip for demob by Electra this week</p> <p>-on-going incineration</p> <p>-pumping remaining drums of waste fuel/ oils, as found, into the Blue ASTs with the intent to eventually consolidate all the liquids to 1 single tank</p> <p>-All Peace are on-site cleaning the 2 tanks at the airstrip, and then to move the cleanup to the tanks at the HWTA</p> <p>-KBL will be arriving at site to oversee cleaning the last batch of drums and remove remaining Hazmat from the Shop</p> <p>Mbe: status of 1.5M Litre of tank?</p> <p>JW: decommissioning of Tank 9 was done by All Peace last week</p> <p>ROJV's surveyor is to return to site to complete survey work for the Phase 1 containment cell and Pit Outfall earthwork, once complete</p>	
8.02	JW	<p>Estimating that approximately 60,000L of waste fuel/ oils remains to be incinerated</p> <p>Notes:</p> <p>-ROJV is not demobilization the 2nd incinerator by Hercules; instead will ship the unit out on its side via Electra</p> <p>-ROJV's current forecast is that the incineration will be completed October 2 or 3</p>	
9		Progress Claims.	
9.01	JM	No update.	
10		Other Business.	

Date Wednesday, September 27, 2017

Agenda Item		Description	Action by
10.01	JM	Status of ROJV's CN? MBe: -ROJV's Additional Drum processing CN is in for Crown signoff	
10.02	JM	A note that the Kubota and Bobcat will have been shipped off-site by the October 4 meeting	
10.03	HW	A feasible method to track Pit Lake water elevation is still being pondered; e.g. rock bolts, staff gauge	
10.04	Mbe	Question re: condition of the Crown's two passenger vehicles -White van and ambulance JW: for the 2 vehicles; -Oil changed, filters changed, broken headlights repaired and tires were inspected and switched where required -ROJV can leave the batteries disconnected or pulled out -and will test to see if the vehicles fit into the 40' shipping container, if so will haul container to Airstrip	
10.05	MY	Question re: if Finning work and invoicing has all been closed JM: -Final reconciliation of the hazardous materials shipped off-site and disposed for Finning is still being processed; since the shipping was split between end of August and start of September periods	
10.06	MY	Question re: has a date been set for the Community Meeting? JM -no date confirmed, but ideally end of October -and definitely before November 14	MY to send available dates

Date	Wednesday, September 27, 2017
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END OF MINUTES

Minutes prepared by:

Henry Wong
DXB Projects – Departmental Representative
September 29, 2017

Date Wednesday, September 20, 2017

MINUTES OF MEETINGS – Weekly Meeting

Project PWGSC – PWGSC
EW699-171068

Location: Teleconference

Attendance and Distribution

<i>Person</i>	<i>Initials</i>	<i>Organization</i>	<i>Role</i>	<i>Email</i>	<i>Attended</i>	<i>Distributed</i>
Michael Bernardin	MBe	PWGSC	PWGSC PM	Michael.Bernardin@pwgsc-tpsgc.gc.ca	✓	✓
Mark Yetman	MY	INAC	INAC Lead	Mark.Yetman@aandc-aadnc.gc.ca	✓	✓
Michael Westlake	ML	INAC	INAC Lead	Michael.Westlake@aadnc-aandc.gc.ca		✓
Henry Wong	HW	DXB	DXB DR/Resident Eng	Henry.wong@dxbprojects.ca	✓	✓
Dave Bynski	DB	DXB	DXB Senior PM	dave.bynski@dxbprojects.ca		✓
Dan Hewitt	DH	DXB	DXB Sr Consultant	danhewitt@flatriver.ca		✓
Jack Rowe	JR	ROJV	Contractor PM	jrowe@rowes.ca		✓
John Weigel	JW	ROJV	Superintendent	jweigel91@gmail.com	✓	✓
Michael Billowitz	MBi	ROJV	Contractor Consultant	mbillowits@outcomeinc.ca		✓
Jonathan Markiewicz	JM	ROJV	Contractor Consultant	jmarkiewicz@outcomeinc.ca	✓	✓
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Date Wednesday, September 20, 2017

Agenda Item	Description	Action by
i)	Introduction	
	Agenda:	
	1 Safety Moment.	
	2 Proposed changes or approval of Minutes of Previous Meeting, review of action items.	
	3 Previous Week's Activities, Project Schedule and Actions to Regain Schedule, if required.	
	4 Submittals - status update (review register).	
	5 Confirmation of Quantities.	
	6 Health, Safety and Security Issues.	
	7 Summary of Interactions with Authorities having Jurisdiction (AHJ).	
	8 Work Plan for the Following Week.	
	9 Progress Claims.	
	10 Other Business.	
1	Safety Moment.	
1.01	HW <u>Safety Moment</u> Topic: Fog -note that with weather changing we have fog on-site in the morning and it is key to not lose sight of things	
2	Proposed changes or approval of Minutes of Previous Meeting, review of action items.	
2.01	JM No changes.	
3	Previous Week's Activities, Project Schedule and Actions to Regain Schedule, if required.	

Date Wednesday, September 20, 2017

Agenda Item		Description	Action by
3.01	JW	<p>Previous week's activities</p> <ul style="list-style-type: none"> -West Dam complete -C1 Channel complete -ROJV's surveyor was on-site carrying out as-built survey work -Incineration was on-going -Consolidation of waste organic liquids (drums and totes into the Blue ASTs feeding the incinerators) -an oil water separator was set up adjacent the Phase 2 Tank Farm Area -Half of the he Phase 1 containment cell cover was completed (liner deployed and soil protection layer constructed) 	
3.02	JM	<p><u>Schedule Notes</u></p> <ul style="list-style-type: none"> -SMS arrived yesterday and began dismantle ROJV's heavy equipment for demob -note that Lynden Air requires the smaller payloads for the Hercules demobilization flights (in comparison to the mobilization) -incineration is the main schedule driver and TCI incinerator down; although, a new part is coming in -Estimate that 80,000 L left in blue tanks (30,000 in 1.5M Litre Tank) -All Peace scheduled in for Saturday -7" left in 1.5M L tank = guessing 35,000- 40,000 L -going into end of month or first couple of days of October -2nd incinerator is running with temporary fix 	
4		Submittals - status update (review register).	

Date Wednesday, September 20, 2017

Agenda Item		Description	Action by
4.01	JM	<u>Submittals pending from ROJV</u> -Tracking sheets submitted -ECCC tank inspection documentation? -ROJV having technical issue with the Schedule -KBL provided a Certificate of Receipt with a summary of hazardous materials received -Q1 Stat report was completed -incident reports uploaded to OCI	ROJV to put together email re: the tank for use.
5		Confirmation of Quantities.	
5.01	JM	<u>Quantities</u> -Survey information for the earthworks pending	
6		Health, Safety and Security Issues.	
6.01	JW	No incident/ accidents this week.	
7		Summary of Interactions with Authorities having Jurisdiction (AHJ).	
7.01	JM	<u>Greywater issue</u> -Memo with ROJV greywater plan re-issued today	
7.02	MY	Had a conversation with the Lands/ Water Inspector and anticipates that it will be okay to transfer the greywater to the Open Pit	
7.03	MY	Wednesday October 4th set for the final inspection	
8		Work Plan for the Following Week.	
8.01	JW	-Continuing incineration of liquids -Closing up Phase 1 containment cell -continue dismantling ROJV heavy equipment -Hercules scheduled for Monday -Clean up of site	
9		Progress Claims.	

Date Wednesday, September 20, 2017

Agenda Item		Description	Action by
9.01	Me	Signed Stat Dec. received for PC4 and both PCs in for payment -PC3 set for Sep25 -PC4 set for Oct12	
10		Other Business.	
10.01	Me	<u>Contract Change Orders/ Notices</u> -CO-2 Additional Waste Organic Liquids management will be signed today; ROJV: -Drum CN will be sent out later this week; and -INAC will not be looking to purchase Kubota or Bobcat -PSCP would request that the two Crown passenger vehicles (White van and ambulance) be check through and serviced	

END OF MINUTES

Minutes prepared by:

Henry Wong
DXB Projects – Departmental Representative
September 29, 2017

Date Wednesday, September 13, 2017

MINUTES OF MEETINGS – Weekly Meeting

Project PWGSC – PWGSC
EW699-171068

Location: Teleconference

Attendance and Distribution

<i>Person</i>	<i>Initials</i>	<i>Organization</i>	<i>Role</i>	<i>Email</i>	<i>Attended</i>	<i>Distributed</i>
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Dan Hewitt	DH	DXB	DXB Sr Consultant	danhewitt@flatriver.ca		✓
Jack Rowe	JR	ROJV	Contractor PM	jrowe@rowes.ca		✓
John Weigel	JW	ROJV	Superintendent	jweigel91@gmail.com	✓	✓
Michael Billowitz	MBi	ROJV	Contractor Consultant	mbillowits@outcomeinc.ca	?	✓
Jonathan Markiewicz	JM	ROJV	Contractor Consultant	jmarkiewicz@outcomeinc.ca	✓	✓
Garricks Elechi	GM	ROJV	Contractor Project Control Officer	gelechi@outcomeinc.ca	✓	✓

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Date Wednesday, September 13, 2017

Agenda Item		Description	Action by
i)		Introduction	
		Agenda:	
	1	Safety Moment.	
	2	Proposed changes or approval of Minutes of Previous Meeting, review of action items.	
	3	Previous Week's Activities, Project Schedule and Actions to Regain Schedule, if required.	
	4	Submittals - status update (review register).	
	5	Confirmation of Quantities.	
	6	Health, Safety and Security Issues.	
	7	Summary of Interactions with Authorities having Jurisdiction (AHJ).	
	8	Work Plan for the Following Week.	
	9	Progress Claims.	
	10	Other Business.	
1		Safety Moment.	
1.01	JM	<u>Safety Moment.</u> -A reminder on being PPE conscientious, wearing proper footwear for the specific jobs.	
2		Proposed changes or approval of Minutes of Previous Meeting, review of action items.	
2.01	HW	<u>Actions from Construction Meeting:</u> -ROJV to leave 4 drums of fuel and top up white tank - ok -ROJV to provide info on volume of tailings cover - survey pending -HW to provide instruction on C1 Channel - completed -ROJV to provide accident reports - Information uploaded on OCI -Review on how to leave buildings and equipment on final shutdown - OK	
3		Previous Week's Activities, Project Schedule and Actions to Regain Schedule, if required.	

Date Wednesday, September 13, 2017

Agenda Item		Description	Action by
3.01	JW	<u>Previous week's activities:</u> -Excavation for the West Dam breach was completed; -The C1 Channel was completed, berm on Pit side installed; -Approximately 60% of Outfall rip rap has been completed to date; however, left unfinished to accommodate water truck access to Carat Lake; -A section of the PHC containment cell was constructed- fill brought in to grade the surface, liner deployed and soil protection cover placed; and -Incineration has been on-going.	
3.02	MB e	Q: Is there grade to Phase 1 Containment Cell surface?	
3.03	JW	A: Yes fill was place to provide surface grade	
3.02	JM	<u>Schedule Notes:</u> -It was estimated that the Incineration of the base quantity of organic waste liquids was completed last week (Sep 7); -consolidation and covering of PHC soil is to be completed - pending soil cleanup of HWTa ROJV area ; -There is an estimated 130,000 L of waste oils/ fuels to be incinerate: at a ROJV estimated rate of 16,000L/ day = 8 or 9 days; -It is anticipated to take 2 days to complete the West Dam rip rap; -Two SMS mechanics are scheduled in on Sep18; -The Herc demob is planned for Sep25; -All Peace is expected to be on-site mid next week and will have 6 to 8 days of work to complete; and -Full demonization from the site is anticipated to be on October 5.	
4	Submittals - status update (review register).		
4.01	JM	<u>Submittals pending from ROVJ:</u> -Tracking sheets and updated schedule; -2 of 3 things submitted ECCC info; -Certificates for receipts received; and -Q1 Stat report.	
5	Confirmation of Quantities.		

Date Wednesday, September 13, 2017

Agenda Item		Description	Action by
5.01	JM	<u>Quantities</u> -Surveyor to be on-site tomorrow; and -Hazardous quantities have been submitted as per KBL's certificates of receipt.	
6		Health, Safety and Security Issues.	
6.01	JW	No accidents	
7		Summary of Interactions with Authorities having Jurisdiction (AHJ).	
7.01	JM	<u>Greywater issue</u> -New results were in from lab; showing treated water with O&G < 5mg/L and that O&G made of 90%ish Vegetable oil and animal fat.	ROJV to submit their plan
7.02	MY	Regarding the final Lands/ Water Inspection; Mr. Pedersen would like to see the site one more time as late into the project demobilization as practical.	
8		Work Plan for the Following Week.	
8.01	JM	N/a	
9		Progress Claims.	
9.01		PC-3_rev.2 and PC 4 have been submitted by ROJV.	
10		Other Business.	
10.01	JM	<u>New business</u> -HW to finish review of CO2; -ROJV working on CN for Additional Drums; and -Note to create a separate CN for potential Crown purchase of the Kubota and Bobcat UTVs.	Mbe to respond

END OF MINUTES

Minutes prepared by:

Henry Wong
DXB Projects – Departmental Representative
September 19, 2017

Date Tuesday September 5, 2017

MINUTES OF MEETINGS – Construction Meeting No.2

Project PWGSC – PWGSC
EW699-171068

Location Jericho Site Meeting

Attendance and Distribution

<i>Person</i>	<i>Initials</i>	<i>Organization</i>	<i>Role</i>	<i>Email</i>	<i>Attended</i>	<i>Distributed</i>
Michael Bernardin	MBe	PWGSC	PWGSC PM	Michael.Bernardin@pwgsc-tpsgc.gc.ca	✓	✓
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Henry Wong	HW	DXB	DR Resident Engineer	Henry.wong@dxbprojects.ca	✓	✓
Dave Bynski	DB	DXB	DXB – Senior PM	dave.bynski@dxbprojects.ca		✓
Claire Brown	CB	DXB	DXB DR	Claire.brown@dxbprojects.ca		✓
Dan Hewitt	DH	DXB	DXB- Senior Consultant	danhewitt@flatriver.ca	✓	✓
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Michael Billowitz	MBi	Rowes	Contractor Senior PM	mwillowits@outcomeinc.ca		✓
Jonathan Markiewicz	JM	Rowes	Contractor PM	jmarkiewicz@outcomeinc.ca	✓	✓

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DR = Departmental Representative

DXB = DXB Projects

Rowes = Rowe's Construction

Date Tuesday September 5, 2017

Agenda Item	Description	Action by
i)	Introduction	
	Agenda:	
1	Safety Moment.	
2	Review Work progress since previous meeting.	
3	Review Construction Schedule; --Identify any activities that are behind Schedule and measures to regain slippage, if any, --Identify problems which may impede construction Schedule, if any, and --Review off-site fabrication delivery Schedules, if any.	
4	Review Work for succeeding period.	
5	Review submittal Schedules.	
6	Review maintenance of quality standards.	
7	Review Health, Safety and Security issues.	
8	Review environmental and permitting issues; --including correspondence from Authorities Having Jurisdiction (AHJ) or expected visits from AHJ, and --permit reporting.	
9	Review open project issues;	
10	ROJV Progress Claim.	
11	Other business.	
12	Next Meeting	
1	Safety Moment.	
1.01	JR <u>Topic: Change in Temperature</u> -colder weather is starting to set in -it's good to be aware and have a change in mindset -ensure appropriate PPE to deal with cold and cold weather conditions -specially walking conditions - notably up and down slopes	
2	Review Work progress since previous meeting.	
2.01	HW Review of minutes from last Construction Meeting (No.1):-One action item still open; concerning the amount of fuel to be <u>left on site</u> . <u>The final decision re: the amount of fuel was the following:</u> -4 drums of diesel are to be left on-site, on the hard yellow plastic berm, and inside the shop; and -the white fuel tank adjacent the airstrip terminal building is to be topped up (filled completely).	Final Decision on fuel to be left on-site

Date Tuesday September 5, 2017

Agenda Item		Description	Action by
2.02	JW	Work Progress since last meeting/ to-date/ remaining, note taking point of view of any contractual risk items that might be open:	
2.03	JW	<p><u>West Dam</u></p> <p>-the excavation is expected to be done in 4 more days</p> <p>Mbe Q: any risk with respect to the final excavation volume; i.e. exceeding contract quantities</p> <p>ROJV A: based on the current tracking, there is no change expected for/ in comparison against the contract quantity</p> <p>- note; however, that the rip rap quantity is expected to be 24% greater than contract quantity</p>	
2.04	JW	<p><u>Divider Dyke A</u></p> <p>-Earth works complete for the dyke</p> <p>-no change items identified</p>	
2.05	JW	<p><u>Tailings Cover</u></p> <p>-Equipment work done (survey work pending)</p> <p>-on-site discussion re: extra material (coarse PK) be hauled and stockpiled for the SE are of the PKCA, in case supplemental work is required there</p> <p>-note: truckload counts tracked that over 40,000 cu.m was placed</p>	ROJV to check if truck volume was appropriate - final survey to be done.
2.06	JW	<p><u>PHC Soil containment in Phase 1</u></p> <p>-PHC soil areas cleaned up except for pocket areas in Phase 2 and the HWTa laydown area</p> <p>ROJV Q: is the surface of the containment to be crowned? i.e. water shedding/ draining</p> <p>Crown A: yes</p>	
2.07	JW	<p><u>C1 Diversion</u>-rip rap is to be finished Thursday-with the exception of reinstatement of the pit berm</p> <p>Contract: Rip rap going from 950 cu.m to 2450 cu.m - 2 to 3 day total</p>	HW to give instruction on the berm reinstatement

Date Tuesday September 5, 2017

Agenda Item		Description	Action by
2.08	JW	<u>Outfall</u> -an access ramp is currently still in place that will need to be taken out -rip rap needs to be placed and expected to take 1 working day	
2.09	JW	<u>HWTA</u> -Incineration work is on-going -Burning waste with Jet B and diesel to dilute -expected to take 2 more weeks -A KBL supervisor is scheduled to come back to finish the drum washing -the silver tank is still to be cleaned out -approximately 1/3 of the total found fuel has been incinerated -based on some initial fuel burning tests, an estimated 800/ l of fuel is being incinerated per hour (total for both incinerators) -there is currently 3 people are working on night shift to oversee the TCI incinerator; although, there was a problem last night with the fuel filter in air compressor -an estimated 320 incineration hours left; approximately 20 days -Note: the incineration work is not tied to the Hercules Demob	
2.1	JW	<u>Airstrip</u> -A Temporary Storage Area was set up adjacent the airstrip terminal building - instar-berm used to contain the work area -2 blue AST tanks emptied, but still to be decommissioned/ clean; All Peace is scheduled to be back on-site near the end of the work to complete decommissioning	
2.11	JW	<u>Finning</u> -a technician was on-site and decommissioned the CAT generators, draining, disconnecting batteries and taking out 3 drums of glycol	
3		Review Construction Schedule; --Identify any activities that are behind Schedule and measures to regain slippage, if any, --Identify problems which may impede construction Schedule, if any, and --Review off-site fabrication delivery Schedules, if any.	

Date Tuesday September 5, 2017

Agenda Item		Description	Action by
3.01	JM	<u>Schedule</u> -To be submitted with August progress Claim -Breach earthworks were to be done Sept 17 -PKCA cover complete -PHC was to be done in Aug, but was lagging -The start of demob is still on track and planned for 3rd week of Sept -10 mobs trips will be planned at 2 flights per day (compared to 3/ day during mob) because of daylight and weather - therefore 8 or 9 days	
4		Review Work for succeeding period.	
4.01		All work remaining contract work as described above is to be completed in the succeeding period.	
5		Review submittal Schedules.	
5.01	JM	Tracking sheet will be submitted with august progress claim.	
5.02	JM	ECCC questions were addressed, responded to INAC.	
5.03	JM	Waste certificates are to be submitted.	
5.04	HW	<u>Project Records to include the following:</u> -crown agreement (for vehicles) final check/ sign-off -as-builts survey records -decommissioning letter for ASTs -hazmat bill of lading and manifests -waste receiver receipt certificate -all permit reporting	
6		Review maintenance of quality standards.	
6.01		No specific quality standard issues raised.	
7		Review Health, Safety and Security issues.	
7.01	HW	All incident/ accident reports to be submitted.	ROJV to compile and submit.

Date Tuesday September 5, 2017

Agenda Item		Description	Action by
7.02	INAC	<u>Final shutdown - condition-to-leave-the-site-in is to consist of the following:</u> -leave doors of buildings unlocked -but make sure everything shut, fastened and closed -specially shop and mill doors -leave keys in their respective vehicles -turn off master switches-leave air terminal camp fully functional -park all vehicles outside shop by hitch rail.	Shut down site.
8		Review environmental and permitting issues; --including correspondence from Authorities Having Jurisdiction (AHJ) or expected visits from AHJ, and --permit reporting.	
8.01	JW	<u>Grey water issue is still ongoing</u> -BOD exceeds LOD, but below other reference water license discharge limits -O&G; however, exceeds typical water license discharge limits - still presents a discharge issue -Currently there are 7 sumps holding grey water	
8.02	MY	No project work issues or concerns of note were flagged by the Inspectors post- August 22 site Inspection.	
8.03	HW	Baba Pedersen has indicated he would like to conduct one more inspection final walk through near the end of the project before final demob.	
8.04	HW	Note to make sure all required permitting reports are completed for progress claim and project record.	
9		Review open project issues;	

Date Tuesday September 5, 2017

Agenda Item		Description	Action by
9.01	JM	Contemplated Change Notices/ Change Orders -CCN 1 and 2 closed -CCN3 vehicle decommissioning CCN approved, CO to be issued and closed (work complete) -ROJV change request for additional organic waste liquids work to undergo final review and CO to be issued -ROJV preparing change request for additional drums work	
10		ROJV Progress Claim.	
10.01	JM	ROJV is preparing August claim for submission.	
11		Other business.	
11.01		No other businesses.	
12		Next Meeting	
12.01	Mbe	Wait and see regarding a final site meeting (play by ear) -All Peace is tentatively scheduled for the last few days in September, near the very end of work; and outbound September 28; so wait and see if that timeline works. Post Construction meeting TBD Community meeting TBD, expected sometime in October	

Please advise the writer, in writing, if these minutes contain any errors or omissions, otherwise they will become part of the project documentation as presented.

END OF MINUTES

Minutes prepared by Claire Brown and reviewed by Henry Wong.

Henry Wong
DXB Projects – Departmental Representative Resident Engineer
September 12, 2017

Date Wednesday, August 30, 2017

MINUTES OF MEETINGS – Weekly Meeting

Project PWGSC – PWGSC
EW699-171068

Location: Teleconference

Attendance and Distribution

<i>Person</i>	<i>Initials</i>	<i>Organization</i>	<i>Role</i>	<i>Email</i>	<i>Attended</i>	<i>Distributed</i>
Michael Bernardin	MBe	PWGSC	PWGSC PM	Michael.Bernardin@pwgsc-tpsgc.gc.ca	✓	✓
Mark Yetman	MY	INAC	INAC Lead	Mark.Yetman@aandc-aadnc.gc.ca		✓
Michael Westlake	ML	INAC	INAC Lead	Michael.Westlake@aadnc-aandc.gc.ca	✓	✓
Henry Wong	HW	DXB	DXB DR/Resident Eng	Henry.wong@dxbprojects.ca		✓
Dave Bynski	DB	DXB	DXB Senior PM	dave.bynski@dxbprojects.ca		✓
Claire Brown	CB	DXB	DXB DR	Claire.brown@dxbprojects.ca		✓
Dan Hewitt	DH	DXB	DXB Sr Consultant	danhewitt@flatriver.ca	✓	✓
Jack Rowe	JR	ROJV	Contractor PM	jrowe@rowes.ca		✓
John Weigel	JW	ROJV	Superintendent	jweigel91@gmail.com		✓
Michael Billowitz	MBi	ROJV	Contractor Consultant	mbillowitz@outcomeinc.ca	✓	✓
Jonathan Markiewicz	JM	ROJV	Contractor Consultant	jmarkiewicz@outcomeinc.ca	✓	✓
Garricks Elechi	GM	ROJV	Contractor Project Control Officer	gelechi@outcomeinc.ca		✓

PWGSC - Public Works and Government Service Canada

PM - Project Manager

INAC - Indigenous and Northern Affairs Canada

DR - Departmental Representative

DXB - DXB Projects

ROJV - Rows-Outcome Joint Venture

Date Wednesday, August 30, 2017

Agenda Item	Description	Action by
i)	Introduction	
	Agenda:	
1	Safety Moment	
2	Proposed changes or approval of Minutes of Previous Meeting, review of action items	
3	Previous Week's Activities, Project Schedule and Actions to Regain Schedule, if required	
4	Submittals - status update (review register)	
5	Confirmation of Quantities	
6	Health, Safety and Security Issues	
7	Summary of Interactions with Authorities Having Jurisdiction (AHJs)	
8	Work Plan for the Following Week	
9	Progress Claims	
10	Other Business	
1	Safety Moment.	
1.01	<u>Topic – Pinch Points</u> - Placing our hands on something leaves them to susceptible to having something come into contact with them, e.g. door, drawer, falling object, moving object, which can pinch the fingers or hand. - Keeping our hands by our side can avoid being pinched. - Pinched fingers can disrupt our work and personal life. - Being aware of where hands are placed for the possibility of objects unexpectedly coming into contact with them can help avoid injury.	
2	Proposed changes or approval of Minutes of Previous Meeting, review of action items	
2.01	No changes proposed to last week's minutes.	

Date Wednesday, August 30, 2017

Agenda Item		Description	Action by
3		Previous Week's Activities, Project Schedule and Actions to Regain Schedule, if required	
3.01		<u>Previous week's activities:</u> - Completed blasting at West Dam. Excavated blasted material to within 1.5 to 2 m of channel grade. - Placed rock for energy dissipation ramp at Dyke A. - PKCA cover over tailings 100% complete; pond south of rock hill remains. - Water flowing in the channel to the pit; most areas were excavated to grade; frozen material is thawing. - Big push on the hazardous waste materials consolidation and packaging for off-site transport. - Incineration ongoing with Westland unit; installed TCI unit to increase incineration rate. - PHC soil consolidation was ongoing; Carat Camp work was slowed by lack of sample results.	
3.02	JM	<u>Schedule Notes:</u> - Schedule is sensitive to burning waste fuel (Sect. 5.05) and sample results from PHC contaminated material (Sect 8.01).	
4		Submittals - status update (review register)	
4.01	JM	<u>Submittals:</u> - CCN 003 Vehicle Fluids under review by ROJV.	
4.02		- CCNs 004 to 007 to be issued as suggested by ROJV for next progress claim.	
5		Confirmation of Quantities	
5.01		Quantities of hazmat and earthworks are to be confirmed.	
5.02		Coarse PK quantity increased for cover work on the softer tailings areas toward Dyke A and south of the rock hill. Increased thickness was required for dozer trafficability to spread the coarse PK. Cover to be surveyed.	ROJV
5.03		Surveyor, Simon Kasprzak, arriving Friday to confirm any final alterations required and quantities.	
5.04		Drawings to be marked up for submittals.	
5.05		Riprap only needs to be placed on finer material in the breaches, e.g. core of West Dam. Coarser material that is riprap grade need not be covered, e.g. most of Dyke A.	

Date Wednesday, August 30, 2017

Agenda Item	Description	Action by
6	Health, Safety and Security Issues	
6.01	<u>Health and Safety</u> - No issues.	
6.02	Continue X-ray machine information search; current action is to isolate the area.	HW to look up info
7	Summary of Interactions with Authorities having Jurisdiction (AHJ)	
7.01	Last Week's Inspection Visit - Walkthrough indicated that there were no items of significance to address.	
7.02	Greywater issue - Aeration cell in operation; sample sent out yesterday.	
7.03	Note: that the grey water may not be the top priority with winter conditions looming, but the Crown does view it as important and wants to work with ROJV to come up with a resolution.	
8	Work Plan for the Following Week	
8.01	<u>Work Plan for next week:</u> Award Substantial Completion for contract items and note outstanding items, e.g. West Dam, C1 Channel, Open Pit Outfall. Riprap: locate riprap placement on breach excavations. West Dam - Continue excavating to the extent allowed by frozen material. - Review excavation options when current round of excavation nears completion, e.g. raise channel elevation to expedite excavation (may be constrained by the project approval), blast remaining frozen ground. - Check volume by survey. Volume to date is close to contract and may increase. Divider Dyke - Crown dissipation ramp so water will run off sides as well as down ramp. - May start placing riprap. - Surveyor to check channel side slope grade.	Project Team DH/SK

Date Wednesday, August 30, 2017

Agenda Item	Description	Action by
	<p>PKCA Cover</p> <ul style="list-style-type: none"> - Finish filling in low areas and final contouring. <p>C1 Diversion Breach</p> <ul style="list-style-type: none"> - Complete the channel excavation to final grade. <p>Open Pit Outfall</p> <ul style="list-style-type: none"> - No activity as rock trucks haul past here for C1 Breach work. Excavation will resume when C1 Breach is completed. <p>PHC Soils</p> <ul style="list-style-type: none"> - Ongoing removal and consolidation. - Specify "rush" for sample analyses as the contaminated soils work is a risk to the schedule. <p>Organic Liquids</p> <ul style="list-style-type: none"> - Ongoing incineration with Westland unit. TCI rep on site Thursday unit to set up TCI unit to be fully operational. <p>Hazmat</p> <ul style="list-style-type: none"> - Depressurize cylinders. - Finning rep to be completed draining and de-energizing generators on Friday. - Remaining hazmat to be off site this week. 	
9	Progress Claims	
9.01	<ul style="list-style-type: none"> - PC-3 to be discussed on site next week. - PC-4 to be issued by end of next week. 	
10	Other Business	
10.01	<p><u>New business</u></p> <ul style="list-style-type: none"> - CCN-001 and CN-002 were reviewed and it was decided not to proceed as there would be no net benefit considering the cost. - re: CN-002, alternative suggestions are welcome to crush or otherwise decommission the fuel tanks. 	
10.02	<ul style="list-style-type: none"> - Herc demobilization flights scheduled for Sep 25 – 27. 	
10.03	<ul style="list-style-type: none"> - Final Inspection date to be determined. 	

Date Wednesday, August 30, 2017

Agenda Item	Description	Action by
10.04	<ul style="list-style-type: none">- On Site Progress Meeting and Substantial Completion Inspection are both scheduled for Tuesday, Sep 5.- Attendees will be on the crew change flight leaving Air Tindi at 10am.- A list of contract items, expected % completion, and anticipated status as of Sep 5 was emailed by ROJV on Aug 29.	

END OF MINUTES

Minutes prepared by:

Dan Hewitt
DXB Projects – Departmental Representative
August 31, 2017

Date Friday August 18, 2017

MINUTES OF MEETINGS – Weekly Meeting

Project PWGSC – PWGSC
EW699-171068

Location: Teleconference

Attendance and Distribution

<i>Person</i>	<i>Initials</i>	<i>Organization</i>	<i>Role</i>	<i>Email</i>	<i>Attended</i>	<i>Distributed</i>
Michael Bernardin	MBe	PWGSC	PWGSC PM	Michael.Bernardin@pwgsc-tpsgc.gc.ca	✓	✓
Mark Yetman	MY	INAC	INAC Lead	Mark.Yetman@aandc-aadnc.gc.ca		✓
Michael Westlake	ML	INAC	INAC Lead	Michael.Westlake@aadnc-aandc.gc.ca		✓
Henry Wong	HW	DXB	DXB DR/Resident Eng	Henry.wong@dxbprojects.ca	✓	✓
Dave Bynski	DB	DXB	DXB Senior PM	dave.bynski@dxbprojects.ca		✓
Claire Brown	CB	DXB	DXB DR	Claire.brown@dxbprojects.ca		✓
Dan Hewitt	DH	DXB	DXB Sr Consultant	danhewitt@flatriver.ca	✓	✓
Jack Rowe	JR	ROJV	Contractor PM	jrowe@rowes.ca		✓
John Weigel	JW	ROJV	Superintendent	jweigel91@gmail.com		✓
Michael Billowitz	MBi	ROJV	Contractor Consultant	mbillowitz@outcomeinc.ca	✓	✓
Jonathan Markiewicz	JM	ROJV	Contractor Consultant	jmarkiewicz@outcomeinc.ca	✓	✓
Garricks Elechi	GM	ROJV	Contractor Project Control Officer	gelechi@outcomeinc.ca	✓	✓

PWGSC - Public Works and Government Service Canada

PM - Project Manager

INAC - Indigenous and Northern Affairs Canada

DR - Departmental Representative

DXB - DXB Projects

ROJV - Rowes-Outcome Joint Venture

Date Friday August 18, 2017

Agenda Item		Description	Action by
i)		Introduction	
		Agenda:	
	1	Safety Moment.	
	2	Proposed changes or approval of Minutes of Previous Meeting, review of action items.	
	3	Previous Week's Activities, Project Schedule and Actions to Regain Schedule, if required.	
	4	Submittals - status update (review register).	
	5	Confirmation of Quantities.	
	6	Health, Safety and Security Issues.	
	7	Summary of Interactions with Authorities having Jurisdiction (AHJ).	
	8	Work Plan for the Following Week.	
	9	Progress Claims.	
	10	Other Business.	
1		Safety Moment.	
1.01	Mbi	<u>Topic - Eye Contact</u> -A reference to road driving and the importance of eye contact with drivers and pedestrians, -Being and mindful of present when driving.	
2		Proposed changes or approval of Minutes of Previous Meeting, review of action items.	
2.01	JM	No changes proposed to last week's minutes.	
3		Previous Week's Activities, Project Schedule and Actions to Regain Schedule, if required.	
3.01	JM	<u>Previous week's activities:</u> -Shifted equipment over to West Dam in preparation for drilling and blasting; -Work was on-going for the PKCA cover (West section going well, while the SE section remains wet); -The frozen surface at the C1 cut is thawing and excavation continued bringing the cut down to grade; -Big push on the hazardous waste materials consolidation and packaging for off-site transport; -Incineration; and -PHC soil consolidation - dig from outside of Phase 1.	

Date Friday August 18, 2017

Agenda Item		Description	Action by
3.02	JM	<u>Schedule Notes:</u> -The C1 Diversion is thawing and work progressing; -Blasting at the West Dam will start this week; -The Incineration or organic liquids is a key driver of the critical path	
4		Submittals - status update (review register).	
4.01	JM	<u>Submittals:</u> -Comments on PC-3 were received and revision to be submitted with change in % complete for tank cleaning; -Q1 report pending - next week? -Progress schedule pending -Monthly tracking in for review and submission pending	ROJV to submit for Monday Aug21
4.02	Mbe	What is the timeline for the progress schedule submission?	ROJV to submit for Monday Aug21
5		Confirmation of Quantities.	
5.01	JM	<u>Quantities</u> -Pre-liminary quantities of consolidated hazmat have been assessed with an update today, ROJV to re-send the information with the update; -Surveyor on-site today and to survey the West Dam - calculate quantities; -PKCA is at 85-95% remaining to be covered - will be checked by survey.	ROJV to update hazmat quantities
5.02	Mbe	The Crown would like to confirm PKCA Actual vs. Estimated quantity.	
5.03	Mbi	ROJV will have the surveyor carry out this shift.	
6		Health, Safety and Security Issues.	
6.01	JM	<u>Health and Safety</u> -2 incidents --D61 with broken door, moving through PKCA tire area --Towing with underrated chain, broke ----safety stand-down and review of SOP and SWP with operators ----SOP and SWP labourers	

Date Friday August 18, 2017

Agenda Item		Description	Action by
6.02	HW	A list of incidents and copies of the completed reports have been requested from ROJV.	
6.03	Mbi	ROJV will provide the information.	ROJV to provide list of incidents and completed reports.
6.04	JM	X-ray machine?	
6.05	HW	Action on HW to continue information search; and current action is to simply isolate area.	HW to look up info
7	Summary of Interactions with Authorities having Jurisdiction (AHJ).		
7.01	JM	<u>Permitting Update:</u> -LUP amendment received; activities approved	
7.02	JM	Greywater issue -ROJV and DXB split samples were take post treatment with GAC, and average BOD exceeded discharge criteria; -another cell has been constructed and ROJV is working on setting up an aeration system.	JM to provide info
7.03	JM	Lands and Water Inspector Site Inspection -Site Inspection with Mr. Baba Pedersen covering camp operations and project work across site; -Mr. Pedersen gave very positive feedback at the end of the inspection, stating the site was well managed; -The issue of greywater was noted and to be resolved.	
7.04	MB e	Note: that the grey water may not be the top priority with winter conditions looming, but the Crown does view it as important and wants to work with ROJV to come up with a resolution.	
8	Work Plan for the Following Week.		

Date Friday August 18, 2017

Agenda Item		Description	Action by
8.01	JM	<u>Work Plan for next week:</u> West Dam -Drillers arrived on site Wednesday -test holes last night -first blast today -survey -anticipate 35-40% of mass -east, west, core -blasts at lunch w/ safe viewing Divider Dyke -Final Grade so will work on Dissipation ramp PKCA cover -Pushing and still wet in South West corner C1 Diversion -another round of ripping and excavation -will run both excavators from West Dam PHC soils -work underway -Carat Camp large excavation Hazmat -worked into HWTa and truck shop -push to demob	
8.02	JM	Six people on inspection -David H. not making -4 inspectors + Michael + Mark Y Flight scheduled for Tuesday at 10am	
9	Progress Claims.		
9.01		PC-3 to be re-issued.	
10	Other Business.		

Date Friday August 18, 2017

Agenda Item		Description	Action by
10.01	JM	<u>New business</u> -JM to send Flight times for Aug22 inspection -Finning moved to Aug29	JM
10.02	HW	Quotes for CCN-001 and CCN-002 were received. Another CCN for work to drain fluids from the decrepit vehicles was issued to ROJV.	
10.03	MB e	PSCP will talk with INAC re: CCN-001 and CN-002 early next week.	
10.04	HW	Notification was sent from ROJV re: overage of Quantities for certain Hazmat work items, and next steps will be for ROJV to submit Change Orders.	ROJV

END OF MINUTES

Minutes prepared by:

Henry Wong
DXB Projects – Departmental Representative
August 20, 2017

Date Wednesday August 9, 2017

MINUTES OF MEETINGS – Weekly Meeting

Project PWGSC – PWGSC
EW699-171068

Location: Teleconference

Attendance and Distribution

<i>Person</i>	<i>Initials</i>	<i>Organization</i>	<i>Role</i>	<i>Email</i>	<i>Attended</i>	<i>Distributed</i>
Michael Bernardin	MBe	PWGSC	PWGSC PM	Michael.Bernardin@pwgsc-tpsgc.gc.ca	✓	✓
Mark Yetman	MY	INAC	INAC Lead	Mark.Yetman@aandc-aadnc.gc.ca	✓	✓
Michael Westlake	ML	INAC	INAC Lead	Michael.Westlake@aandc-aandc.gc.ca	✓	✓
Eli Honderich	EH	INAC	INAC Summer Student	eli.honderich@aandc-aadnc.gc.ca	✓	
Henry Wong	HW	DXB	DXB DR/Resident Eng	Henry.wong@dxbprojects.ca	✓	✓
Dave Bynski	DB	DXB	DXB Senior PM	dave.bynski@dxbprojects.ca	✓	✓
Claire Brown	CB	DXB	DXB DR	Claire.brown@dxbprojects.ca		✓
Dan Hewitt	DH	DXB	DXB Sr Consultant	danhewitt@flatriver.ca	✓	✓
Andy Uyarrai	AU	DXB	DXB DR Assistant	uyarrai@gmail.com		✓
Jack Rowe	JR	ROJV	Contractor PM	jrowe@rowes.ca		✓
John Weigel	JW	ROJV	Superintendent	jweigel91@gmail.com		✓
Michael Billowitz	MBi	ROJV	Contractor Consultant	mbillowitz@outcomeinc.ca		✓
Jonathan Markiewicz	JM	ROJV	Contractor Consultant	jmarkiewicz@outcomeinc.ca	✓	✓

PWGSC - Public Works and Government Service Canada

PM - Project Manager

INAC - Indigenous and Northern Affairs Canada

DR - Departmental Representative

DXB - DXB Projects

ROJV - Rowes-Outcome Joint Venture

Date Wednesday August 9, 2017

Agenda Item	Description	Action by
i)	Introduction	
	Agenda:	
1	Safety Moment.	
2	Proposed changes or approval of Minutes of Previous Meeting, review of action items.	
3	Previous Week's Activities, Project Schedule and Actions to Regain Schedule, if required.	
4	Submittals - status update (review register).	
5	Confirmation of Quantities.	
6	Health, Safety and Security Issues.	
7	Summary of Interactions with Authorities having Jurisdiction (AHJ).	
8	Work Plan for the Following Week.	
9	Progress Claims.	
10	Other Business.	
1	Safety Moment.	
1.01	JM <u>Topic - Safe driving speeds</u> -monitor and maintain safe driving speeds -additional signs were added around the truck shop since it is a worker work area -regular reminders are also brought up during the morning tailgate	
2	Proposed changes or approval of Minutes of Previous Meeting, review of action items.	
2.01	JM No additional changes to last weekly update meeting (Aug7) or construction meeting minutes.	
3	Previous Week's Activities, Project Schedule and Actions to Regain Schedule, if required.	

Date Wednesday August 9, 2017

Agenda Item		Description	Action by
3.01	JW	<u>Previous week's activities:</u> -Ripping at West Dam to see how much blasting will be required; -Working on C1 diversion (water was pumped to help thaw frozen material); -No work @ Divider Dyke (waiting on survey); -PKCA cover construction (cover advanced southward to within 80 m of divider dyke); -Hazmat consolidation by KBL; -Consolidating at TSA; -Incineration of organic liquids; -Soil drums of PHC soil emptied in Phase and drums moved to HWTa.	
3.02	JM	<u>Schedule Notes:</u> -C1 Diversion is thawing Critical Path -The West Dam work is on the critical path -The incineration of organics is on the critical path because of quantities	
3.03	Mbe	Note re: on-site actual quantities, ROJV to start change order process and Crown will respond	ROJV memo on actual quantities
4	Submittals - status update (review register).		
4.01	JM	<u>Submittals:</u> -Progress claim sent today -Q1 report pending -Progress schedule pending	ROJV to submit Q1 report, progress schedule, monthly permit quantities
5	Confirmation of Quantities.		

Date Wednesday August 9, 2017

Agenda Item		Description	Action by
5.01	JM	<u>Quantities</u> -Preliminary quantities of consolidated hazmat have been assessed, ROJV to provide -Estimated 60% of the PKCA cover has been completed -Glycol hauled off-site -Surveyor coming in next Tuesday	ROJV to confirm quantities
5.02	HW	Note: that the south area of PKCA where water is still ponded is soft and will likely not support any vehicles or the ability to construct a cover. It may be required to left uncovered. The Crown is also considering leaving stockpiled material adjacent any uncovered area.	
6	Health, Safety and Security Issues.		
6.01	JM	<u>Health and Safety</u> -A few near misses; however no incidents. -KBL found a potential radioactive item in the Process Plant -SE corner of process plant in x-ray room (recovery room) -3rd floor -a 2nd unit found -workers sectioned off the area and site personal were notified to keep away -HSA notified	PWGSC and INAC to look into x-ray unit
7	Summary of Interactions with Authorities having Jurisdiction (AHJ).		
7.01	MY	<u>Permitting Update:</u> -LUP amendment expected today	
7.02	MW	Greywater -increased sump capacity -re-run samples through treatment -samples and duplicates run -ROJV to have plan in place this week	Grey water plan pending
8	Work Plan for the Following Week.		

Date Wednesday August 9, 2017

Agenda Item		Description	Action by
8.01	JW	<u>Work Plan for next week:</u> West Dam -Stripping last layer off West Dam -60% removed -Drilling 24/7 on Thursday Divider Dyke -Dissipation ramp PKCA cover -southwest corner C1 Diversion -ripping and excavation PHC soils -starting tomorrow -HMTA soils emptied into Phase 1 Hazmat -consolidation completed this week -x3 TSA at airstrip -off-site transport booked D3 Thursday and Friday -cargo only for acids and bases -continue incineration of oily liquids Rowe's Safety rep onsite Thursday August 15 Inspector and Geologist on-site	
9	Progress Claims.		
9.01	JM	Progress Claim submitted today -schedule reviewed tonight -tracking current to August 4 -input for Q1 report	
10	Other Business.		

Date Wednesday August 9, 2017

Agenda Item		Description	Action by
10.01	JM	<u>New business</u> -JM to send Flight times for Aug22 inspection -Finning moved to Aug29	JM to send flight times for Aug22
10.02	HW	CCN for Jetty Removal	
10.03	HW	Polymer shipped offsite that was not meant to go off-site	
10.04		With respect to Aug15 site meeting: PWGSC and INAC on-site for inspection tour Aug22, and not planning to attend Aug15, and since there are not pressing issues for resolution - the next site meeting will be for early September. Tentatively September 5.	

END OF MINUTES

Minutes prepared by:

Henry Wong
DXB Projects – Departmental Representative
August 15, 2017

Date Wednesday August 2, 2017, rev. 1*

MINUTES OF MEETINGS – Weekly Meeting

Project PWGSC – PWGSC
EW699-171068

Location: Teleconference

Attendance and Distribution

<i>Person</i>	<i>Initials</i>	<i>Organization</i>	<i>Role</i>	<i>Email</i>	<i>Attended</i>	<i>Distributed</i>
Michael Bernardin	MBe	PWGSC	PWGSC PM	Michael.Bernardin@pwgsc-tpsgc.gc.ca		✓
Mark Yetman	MY	INAC	INAC Lead	Mark.Yetman@aandc-aadnc.gc.ca	✓	✓
Michael Westlake	ML	INAC	INAC Lead	Michael.Westlake@aandc-aandc.gc.ca	✓	✓
Eli Honderich	EH	INAC	INAC Summer Student	eli.honderich@aandc-aadnc.gc.ca	✓	
Henry Wong	HW	DXB	DXB DR/Resident Eng	Henry.wong@dxbprojects.ca	✓	✓
Dave Bynski	DB	DXB	DXB Senior PM	dave.bynski@dxbprojects.ca	✓	✓
Claire Brown	CB	DXB	DXB DR	Claire.brown@dxbprojects.ca	✓	✓
Dan Hewitt	DH	DXB	DXB Sr Consultant	danhewitt@flatriver.ca	✓	✓
Andy Uyarrai	AU	DXB	DXB DR Assistant	uyarrai@gmail.com		✓
Jack Rowe	JR	ROJV	Contractor PM	jrowe@rowes.ca	✓	✓
John Weigel	JW	ROJV	Superintendent	jweigel91@gmail.com	✓	✓
Michael Billowitz	MBi	ROJV	Contractor Consultant	mbillowitz@outcomeinc.ca		✓
Jonathan Markiewicz	JM	ROJV	Contractor Consultant	jmarkiewicz@outcomeinc.ca	✓	✓

PWGSC - Public Works and Government Service Canada

PM - Project Manager

INAC - Indigenous and Northern Affairs Canada

DR - Departmental Representative

DXB - DXB Projects

ROJV - Rowes-Outcome Joint Venture

Date Wednesday August 2, 2017, rev. 1*

Agenda Item		Description	Action by
		Agenda:	
1		Safety Moment	
2		Proposed changes or approval of Minutes of Previous Meeting, review of action items	
3		Previous Week's Activities, Project Schedule and Actions to Regain Schedule, if required	
4		Submittals - status update (review register)	
5		Confirmation of Quantities	
6		Health, Safety and Security Issues	
7		Summary of Interactions with Authorities having Jurisdiction (AHJ)	
8		Work Plan for the Following Week	
9		Progress Claims	
10		Other Business	
1		Safety Moment	
1.01	CB	<u>Safety Moment: Hydration</u> - Very warm on site and it's easy to become dehydrated - This can have direct health effects but may also alter alertness - Workers are drinking when in camp; however, letting workers know to bring a water bottle would be helpful - ROJV indicated they will remind workers and evaluate options to bring in some reusable bottles	
2		Proposed changes or approval of Minutes of Previous Meeting, review of action items	
2.01	DH	Revisions required to previous minutes to update the list of attendees. Confirmation was provided on those present and revised minutes will be sent out (with names removed).	

Date Wednesday August 2, 2017, rev. 1*

3 Previous Week's Activities, Project Schedule and Actions to Regain Schedule, if required			
3.01	JW	<p>Previous week's activities:</p> <ul style="list-style-type: none"> - Concentrated on C1 Diversion Berm, the majority of work complete - Few days of excavation at West Dam - Progress placing cover at PKCA - Work consolidating hazardous materials (KBL): <ul style="list-style-type: none"> - Fire extinguishers, batteries and miscellaneous products - Barrel washing - Incinerating was down for a few days and is now running again - Drums with PHC contaminated soil taken to Phase I Tank Farm 	
3.02	JM	<p><u>Schedule Notes</u></p> <ul style="list-style-type: none"> - Progress Schedule will be submitted with Progress Claim - Blasting at West Dam is waiting for LUP amendment - Moving between tasks more than anticipated; however, it's still tracking well - West Dam work done until blasting approved 	ROJV to submit progress schedule on Friday or early next week
3.03	MY	<p><u>Blasting</u></p> <ul style="list-style-type: none"> - Rob Johnstone with NRCAN was consulted and a permit is not needed unless explosive storage required - Lands Manager indicates permit amendment will be issued within three weeks (though may be within a week) - Drilling work does not require the permit amendment to be issued and could proceed 	
3.04	HW	<p><u>Blasting</u></p> <ul style="list-style-type: none"> - What are the next steps or potential risks to the schedule? 	
3.05	JM	<p><u>Blasting</u></p> <ul style="list-style-type: none"> - Three-week lead time to get emulsion to Yellowknife. Nothing will be stored at site and will be brought in as required (i.e. multiple flights if needed based on schedule) - While there is a risk of paying for drilling and amendment isn't issued for blasting, ROJV is arranging for emulsion and setting up drilling. Still have until approximately August 10th before any delays would be incurred (no drilling/blasting in the next week's work plan). 	
3.06	JM	<ul style="list-style-type: none"> - Greywater samples exceeded again, including after treatment with activated carbon 	

Date Wednesday August 2, 2017, rev. 1*

		- ROJV making a plan in case of rain and for long term management	
3.07	HW	Greywater spill was reported and recommends plan to address issue.	
4	Submittals - status update (review register)		
4.01	JM	<u>Submittals:</u> - Progress claim and schedule for July to be submitted on Friday - Will include sample log, truck tracking, Inuit hours - Inspections of fuel transfer areas will be provided to the DR weekly	ROJV to submit progress schedule/ claim on Friday or early next week
5	Confirmation of Quantities		
5.01	DH	<u>Quantities</u> - DH worked with Garricks for progress claim revision (small change to haul truck counts)	
5.02	JM	<u>Quantities</u> - No inspections for final payment yet - 1,000 kg glycol removed to date, DR will be notified as hazardous materials are shipped off site. Weights will be taken at the airstrip (for DR notification), manifests provided monthly and a consolidated package of manifests once complete.	
5.03	HW	<u>Quantities</u> - Warning required as quantities go up (i.e. 75%) to ensure no overages.	
6	Health, Safety and Security Issues		
6.01	JM	- No bear sightings in approximately 5 days	

Date Wednesday August 2, 2017, rev. 1*

7	Summary of Interactions with Authorities having Jurisdiction (AHJ)		
7.01	MW	<u>Permitting Update:</u> - Blasting LUP amendment per above	
8	Work Plan for the Following Week		
8.01	JW	<u>Work Plan for next week:</u> -Continue working through frozen materials at the C1 Diversion Berm -Continue placing coarse PK at the PKCA - Transfer drums of PHC contaminated soils into Phase I - Excavation of in-situ PHC contaminated soils to start next week (~August 9) at the airstrip and working towards camp	
9	Progress Claims		
9.01	JM	- July Progress Claim ready this Friday or start of next week (will include waste manifests)	
10	Other Business		
10.01	JM	- Vehicle Licence Agreement was sent back by MY and can be removed from minutes moving forward	
10.01	HW	- Next progress meeting is tentatively scheduled for Aug 15. No INAC or PSPC will be present; however, Inspector (Baba) will be coming to site. - Email of flight times/schedule required	ROJV to email flight times and schedule
10.02	MY	- Would like to send a geologist to pack core within core shack (requires a few hours) on August 15.	
10.03	MY	- August 22 Site Tour (approximately 7 people) plus two Finning technicians - Will send email with passengers for August 15 and August 22 flights	INAC to send list of participants and personnel
10.07	JM	- Finning to come to site to decommissioning their generators: - 3 days on-site around Aug22 - Finning requires drums (do not need to be clean). ROJV will provide	
10.08	JM	- Quote being reviewed internally by ROJV - MY requests this is provided as an addition (i.e. extra time) - ROJV requests a CCN for Jetty Work before providing quote	HW to provide a CCN
10.09	DH	- Open Pit Outfall Channel work to be field fitted to actual site conditions	

Date Wednesday August 2, 2017, rev. 1*

		- Original ground at inlet is at a significantly lower elevation - DH provided recommendation approach to JW
10.10	JW	- At PKCA, direction is needed for dealing with the pool of standing water -Final direction still required for wet areas which can't be traversed with equipment - Cover 20-30% complete
10.11	HW	- Cover as much as possible; remainder will continue to be wet based on physical limitations. Additional direction provided upon return.

Please advise the writer, in writing, if these minutes contain any errors or omissions, otherwise they will become part of the project documentation as presented.

* Changes in Revision 1: Item 3.03 – NRCan Inspector name corrected to Rob Johnstone

END OF MINUTES

Minutes prepared by:

Claire Brown
DXB Projects – Departmental Representative
August 3, 2017

Date Wednesday July 26, 2017, rev.1*

MINUTES OF MEETINGS – Weekly Meeting

Project PWGSC – PWGSC
EW699-171068

Location: Teleconference

Attendance and Distribution

<i>Person</i>	<i>Initials</i>	<i>Organization</i>	<i>Role</i>	<i>Email</i>	<i>Attended</i>	<i>Distributed</i>
Michael Bernardin	MBe	PWGSC	PWGSC PM	Michael.Bernardin@pwgsc-tpsgc.gc.ca		✓
Mark Yetman	MY	INAC	INAC Lead	Mark.Yetman@aandc-aadnc.gc.ca		✓
Michael Westlake	ML	INAC	INAC Lead	Michael.Westlake@aandc-aandc.gc.ca	✓	✓
Henry Wong	HW	DXB	DXB DR/Resident Eng	Henry.wong@dxbprojects.ca	✓	✓
Dave Bynski	DB	DXB	DXB Senior PM	dave.bynski@dxbprojects.ca		✓
Claire Brown	CB	DXB	DXB DR	Claire.brown@dxbprojects.ca		✓
Dan Hewitt	DH	DXB	DXB Sr Consultant	danhewitt@flatriver.ca	✓	✓
Andy Uyarrai	AU	DXB	DXB DR Assistant	uyarrai@gmail.com	✓	✓
Jack Rowe	JR	ROJV	Contractor PM	jrowe@rowes.ca	✓	✓
John Weigel	JW	ROJV	Superintendent	jweigel91@gmail.com	✓	✓
Michael Billowitz	MBi	ROJV	Contractor Consultant	mbillowitz@outcomeinc.ca	✓	✓
Jonathan Markiewicz	JM	ROJV	Contractor Consultant	jmarkiewicz@outcomeinc.ca	✓	✓

PWGSC - Public Works and Government Service Canada

PM - Project Manager

INAC - Indigenous and Northern Affairs Canada

DR - Departmental Representative

DXB - DXB Projects

ROJV - Rowes-Outcome Joint Venture

Date Wednesday July 26, 2017, rev.1*

Agenda Item	Description	Action by
Agenda:		
1	Safety Moment	
2	Proposed changes or approval of Minutes of Previous Meeting, review of action items	
3	Previous Week's Activities, Project Schedule and Actions to Regain Schedule, if required	
4	Submittals - status update (review register)	
5	Confirmation of Quantities	
6	Health, Safety and Security Issues	
7	Summary of Interactions with Authorities having Jurisdiction (AHJ)	
8	Work Plan for the Following Week	
9	Progress Claims	
10	Other Business	
1	Safety Moment	
1.01	DH <u>Safety Moment:</u> Safe Walking - Be mindful of where we are stepping as ground is not always flat and hard – it can be soft or uneven – place foot so that our next step is firmly supported - Make sure the next place our foot falls is stable and secure, e.g. when stepping in/out of a boat, walking on rocky ground - A crack can catch the toe of our shoe and cause loss of balance - Walking fast may result in more injury than walking slowly if balance is lost - Please walk safely	
2	Proposed changes or approval of Minutes of Previous Meeting, review of action items	
2.01	No changes to last weekly meeting (Jul 19).	

Date Wednesday July 26, 2017, rev.1*

3 Previous Week's Activities, Project Schedule and Actions to Regain Schedule, if required		
3.01	JW	<p>Previous week's activities:</p> <ul style="list-style-type: none"> - Excavation at C1 Diversion stopped to allow thawing after encountering large rocks frozen in place - Completed Dyke A cut; rock placed in drainage channels in PKCA - Resumed excavation at West Dam - PKCA pre-grading complete except for areas too wet for equipment trafficking - Hauled coarse PK to into PKCA - Screened and stockpiled riprap - Resumed continuous water pumping from Cell C at Dyke A and West Dam to lower the water level - Incinerator running 24 hr/day; downtime due to soot build-up - Consolidate inventoried and non-inventoried HAZMAT - Stage HAZMAT to be removed
3.02		<p><u>Schedule Notes:</u></p> <ul style="list-style-type: none"> - Progress Schedule was submitted - Blasting at West Dam is pending LUP amendment - Unknown delay at West Dam and C1 Diversion Channel due to frozen ground; excavation crew will alternate between them to remove material as it thaws - incineration performance is down to 2,500 m³/day versus 4,000 m³/day nominal performance; plan to estimate remaining quantity of waste fuel and 1) remove from site for disposal and/or 2) burn it in site equipment able to use it as fuel
3.03	JW	<p><u>C1 Diversion:</u></p> <ul style="list-style-type: none"> - Large boulders and frozen material are hampering excavation - Not able to rip material due to the large size of boulders frozen in place - Excavator better than dozer at loosening smaller rocks but can't loosen the large chunks - Drilling holes and steaming to thaw the ground is under consideration - Keep working to the limit of the equipment - Pursue alternatives
3.04		<p><u>Blasting:</u></p> <ul style="list-style-type: none"> - Representative from Break-Away Drilling and Blasting inspected West Dam and C1 Diversion Channel to determine approaches for drilling and blasting - A plan is to be presented this week for drilling steam holes at C1 Diversion, and a drill/blast operation at West Dam - Drilling would begin mid-August pending LUP amendment

Date Wednesday July 26, 2017, rev.1*

3.05	HW	- Spill of grey water was reported - A filtering system for the non-compliant grey water was set up and running	
3.06	JW	- Spill from excavator occurred when fuel filter came loose while ripping at C1 Diversion Channel - Quantity was less than 100 litres limit required for reporting - Filter was replaced and excavator resumed operation - 6 buckets of material were removed and placed in Phase I containment	
4	Submittals - status update (review register)		
4.01	JM	<u>Submittals:</u> - ROJV submitted project Progress Schedule. - Progress Tracking pending - Quote for jetty removal expected next week; price required for DFO approval	ROJV
5	Confirmation of Quantities		
5.01	JW	<u>Quantities</u> - ROJV surveyor was on site - No HC contaminated soils have been excavated to date - ROJV not aware of any surveyed vs. actual quantities issues to date - Removal of HAZMAT from site to start shortly	
6	Health, Safety and Security Issues		
6.01	JW	- A grizzly bear has been deterred from camp several times; the tailgate meetings have been cautioning about not leaving food or garbage about or in an area that would attract the bear	
	MW	- ENR to be notified of possible action by wildlife monitor should the bear become a threat	HW/MW

Date Wednesday July 26, 2017, rev.1*

7	Summary of Interactions with Authorities having Jurisdiction (AHJ)		
7.01	MW	<u>Permitting Update:</u> - LUP amendment - PKCA cover material was oddly questioned; there was general acceptance of the application and quick approval is expected	
8	Work Plan for the Following Week		
8.01	JW	<u>Work Plan for next week:</u> - Alternate dam excavation crew between West Dam and C1 Diversion to remove thawed material overlying frozen material - Cover PK tailings with coarse PK - Incinerate waste fuel - KBL to continue overseeing barrel washing, hazmat consolidation, incineration, removal of hazmat from buildings, staging for removal off site	
9	Progress Claims		
9.01	JM	- July figures ready late next week or early following week	
10	Other Business		
10.01		<u>New business:</u> - next progress meeting is tentatively scheduled for Aug 15	ROJV
10.02	MY	Site visit for various AHJs scheduled for Aug22 - 4 or 5 inspectors - INAC Land inspector is not available that week so a separate inspection is scheduled for Aug15	
10.03	MY	- Vehicle License agreement was forwarded to HW to be provided to ROJV.	HW
10.04	HW	- Non-compliant grey water was reported as a spill	
10.05	JW	- Samples of non-compliant grey water were flown out for testing - Results expected early next week	
10.06	JW	- The non-compliant grey water is being pumped through a filtering system and discharged into a clean grey water sump	
10.07	JM	- Finning to come to site to decommissioning their generators: - 3 days on-site around Aug22	
10.08	JM	- Jetty removal design and write-up is with ROJV - Quote to be provided next week	ROJV
10.09	DH	- Open Pit Outfall Channel work to be field fitted to actual site conditions - Original ground at inlet is at a significantly lower elevation - Work procedure to be agreed upon and coordinated with ROJV	DH/JW

Date Wednesday July 26, 2017, rev.1*

10.10	JW	- At PKCA, direction is needed for dealing with the pool of standing water - Options to date included: 1) a swale to empty the water, which is not feasible 2) backfilling to displace the water 3) stop coarse PK cover at shoreline of pond

Please advise the writer, in writing, if these minutes contain any errors or omissions, otherwise they will become part of the project documentation as presented.

* Changes in revision 1: references to Mark Yeltman and Michael Bernardin have been made to reflect that they were NOT in attendance at the meeting.

END OF MINUTES

Minutes prepared by:

Dan Hewitt
DXB Projects – Departmental Representative / Sr Consultant
July 28, 2017
Revision 1: August 2, 2017

Date Wednesday July 19, 2017

MINUTES OF MEETINGS – Weekly Meeting

Project PWGSC – PWGSC
EW699-171068

Location Teleconference

Attendance and Distribution

<i>Person</i>	<i>Initials</i>	<i>Organization</i>	<i>Role</i>	<i>Email</i>	<i>Attended</i>	<i>Distributed</i>
Michael Bernardin	MBe	PWGSC	PWGSC PM	Michael.Bernardin@pwgsc-tpsgc.gc.ca		✓
Mark Yetman	MY	INAC	INAC Lead	Mark.Yetman@aadnc-aadnc.gc.ca	✓	✓
Michael Westlake	ML	INAC	INAC Lead	Michael.Westlake@aadnc-aadnc.gc.ca	✓	✓
Henry Wong	HW	DXB	DR Resident Engineer	Henry.wong@dxbprojects.ca	✓	✓
Dave Bynski	DB	DXB	DXB – Senior PM	dave.bynski@dxbprojects.ca	✓	✓
Claire Brown	CB	DXB	DXB DR	Claire.brown@dxbprojects.ca		✓
Dan Hewitt	DH	DXB	DXB- Senior Consultant	danhewitt@flatriver.ca		✓
Jack Rowe	JR	Rowes	Contractor PM	jrowe@rowes.ca	✓	✓
John Weigel	JW	Rowes	Superintendent	jweigel91@gmail.com	✓	✓
Michael Billowitz	MBi	Rowes	Contractor Consultant	mbillowitz@outcomeinc.ca	✓	✓
Jonathan Markiewicz	JM	Rowes	Contractor Consultant	jmarkiewicz@outcomeinc.ca	✓	✓

PWGSC = Public Works and Government Service Canada

PM = Project Manager

INAC = Indigenous and Northern Affairs Canada

DR = Departmental Representative

DXB = DXB Projects

Rowes = Rowe's Construction

Date Wednesday July 19, 2017

Agenda Item	Description	Action by
i)	Introduction	
	Agenda:	
1	Safety Moment.	
2	Proposed changes or approval of Minutes of Previous Meeting, review of action items.	
3	Previous Week's Activities, Project Schedule and Actions to Regain Schedule, if required.	
4	Submittals - status update (review register).	
5	Confirmation of Quantities.	
6	Health, Safety and Security Issues.	
7	Summary of Interactions with Authorities having Jurisdiction (AHJ).	
8	Work Plan for the Following Week.	
9	Progress Claims.	
10	Other Business.	
1	Safety Moment.	
1.01	JM <u>Safety Moment:</u> -Safety review for Work around water; -In reference to vacation activities around water or for project work such as the Jetty Removal; -Overview of wearing proper PPE such as life jackets; -And to reiterate the proper donning of PPE to children and workers alike.	
2	Proposed changes or approval of Minutes of Previous Meeting, review of action items.	
2.01	HW No additional changes to last weekly update meeting (Jul12) or construction meeting minutes.	
3	Previous Week's Activities, Project Schedule and Actions to Regain Schedule, if required.	

Date Wednesday July 19, 2017

Agenda Item		Description	Action by
3.01	JW	<p>Previous week's activities:</p> <ul style="list-style-type: none"> -2nd cut of west dam up to frozen surface again; -Rough excavation of Outfall complete; -Excavation at C1 Diversion; -Took down x8- 500,000L tanks & Blue AST from Phase 1 (Tank Farm area); -Built a ramp into Phase 1; -Stopped continuous water pumping stopped for both Cell C and Cell A; -Incineration is running 24 hrs/ day; and -Started hauling material (coarse PK) into PKCA. 	
3.02	MY	Will there be letter for the tank decommissioning? One letter?	
3.03	JM	All Peace will provide a letter stating decommissioning of the tanks (including Blue ASTs).	
3.04	HW	<p><u>Schedule Notes:</u></p> <ul style="list-style-type: none"> -progress schedule pending -fuel filter system for the reclaimed diesel coming in on Thursday -Blasting at West Dam pending LUP amendment -Wet areas in PKCA may not be accessible to place cover -Potential for delay at C1 Diversion cut (boulders) 	ROJV to submit progress schedule
3.05	JW	<p><u>C1 Diversion:</u></p> <ul style="list-style-type: none"> -Mix of large boulders and frozen material causing issues with the excavation (not able to rip material due to the size of boulders); -ROJV are looking into options such as blasting to address; -Currently finished top layer of C1 Diversion; -3m of excavation to go; and -Approximately 5,000 cu.m of 16,000 cu.m completed. 	
3.06	MY	The blasting at the C1 Diversion cut is not in the LUP amendment and the timeline for changing permit would not work for this season.	
3.07	Mbi	Drilling and steaming may be an option.	
3.08	JR	ROJV looking to see how the Divider Dyke excavation will go - to assess overall site excavation options	
4	Submittals - status update (review register).		
4.01	HW	<p><u>Submittals:</u></p> <ul style="list-style-type: none"> -ROJV submitted monthly permit-related reporting; and -ROJV to submit Progress Schedule. 	ROJV

Date Wednesday July 19, 2017

Agenda Item		Description	Action by
5		Confirmation of Quantities.	
5.01	HW	<u>Quantities</u> -ROJV surveyor on-site; -ROJV not aware of any surveyed vs. actual quantities issue to date; and -No quantity changes noted to date.	
6		Health, Safety and Security Issues.	
6.01	HW	No specific health, safety or security issue.	
7		Summary of Interactions with Authorities having Jurisdiction (AHJ).	
7.01	HW	<u>Permitting Update:</u> -No new LUP amendment update.	
8		Work Plan for the Following Week.	
8.01	JW	<u>Work Plan for next week:</u> -C1 Diversion cut until weekend; -Divider Dyke cut; -Coarse PK into tailings; -Incineration; -KBL on-site - barrel wash; and -second KBL supervisor to arrive this week.	
9		Progress Claims.	
9.01	HW	No progress claim issues noted.	
10		Other Business.	
10.01	HW	<u>New business:</u> -Jetty removal design is with DXB, and to be sent out later this week; -a quote was requested from ROJV for demolition of x8 500,000 L tanks; -next meeting is tentatively scheduled for Aug 15.	Next meeting scheduled for Aug15
10.02	MY	Site visit for various AHJs scheduled for Aug22 - 4 or 5 inspectors - INAC Land inspector is not available that week so a separate inspection is scheduled for Aug15	

Date Wednesday July 19, 2017

Agenda Item		Description	Action by
10.03	MY	Vehicle License agreement was finalized and to be sent to ROJV	HW
10.04	MY	Is there an update re: the greywater that exceeded Discharge Criteria	
10.05	JM	The second greywater sample (from Sump 2) also exceeded Discharge Criteria.	
10.06	JW	ROJV is looking at treating the greywater.	
10.07	JW	Finning to come to site to decommissioning their generators - 3 days on-site around Aug22 timeframe.	

Please advise the writer, in writing, if these minutes contain any errors or omissions, otherwise they will become part of the project documentation as presented.

END OF MINUTES

Minutes prepared by:

Henry
DXB Projects – Departmental Representative Resident Engineer
July 22, 2017

Date Wednesday July 12, 2017

MINUTES OF MEETINGS – Weekly Project Team Update Call

Project PWGSC – PWGSC
EW699-171068

Location Teleconference

Attendance and Distribution

<i>Person</i>	<i>Initials</i>	<i>Organization</i>	<i>Role</i>	<i>Email</i>	<i>Attended</i>	<i>Distributed</i>
Michael Bernardin	MBe	PWGSC	PWGSC PM	Michael.Bernardin@pwgsc-tpsgc.gc.ca	✓	✓
Mark Yetman	MY	INAC	INAC Lead	Mark.Yetman@aadnc-aadnc.gc.ca		✓
Michael Westlake	ML	INAC	INAC Lead	Michael.Westlake@aadnc-aadnc.gc.ca	✓	✓
Henry Wong	HW	DXB	DR Resident Engineer	Henry.wong@dxbprojects.ca	✓	✓
Dave Bynski	DB	DXB	DXB – Senior PM	dave.bynski@dxbprojects.ca	✓	✓
Claire Brown	CB	DXB	DXB DR	Claire.brown@dxbprojects.ca		✓
Dan Hewitt	DH	DXB	DXB- Senior Consultant	danhewitt@flatriver.ca		✓
Jack Rowe	JR	Rowes	Contractor PM	jrowe@rowes.ca	✓	✓
John Weigel	JW	Rowes	Superintendent	jweigel91@gmail.com	✓	✓
Michael Billowitz	MBi	Rowes	Contractor Consultant	mbillowitz@outcomeinc.ca		✓
Jonathan Markiewicz	JM	Rowes	Contractor Consultant	jmarkiewicz@outcomeinc.ca	✓	✓

PWGSC = Public Works and Government Service Canada

PM = Project Manager

INAC = Indigenous and Northern Affairs Canada

DR = Departmental Representative

DXB = DXB Projects

Rowes = Rowe's Construction

Date Wednesday July 12, 2017

Agenda Item		Description	Action by
i)		Introduction	
		Agenda:	
	1	Safety Moment.	
	2	Proposed changes or approval of Minutes of Previous Meeting, review of action items.	
	3	Previous Week's Activities, Project Schedule and Actions to Regain Schedule, if required.	
	4	Submittals - status update (review register).	
	5	Confirmation of Quantities.	
	6	Health, Safety and Security Issues.	
	7	Summary of Interactions with Authorities having Jurisdiction (AHJ).	
	8	Work Plan for the Following Week.	
	9	Progress Claims.	
	10	Other Business.	
1		Safety Moment.	
1.01	HW	Maintain radio contact and/or visual contact with heavy equipment operators; reference to accident from this week.	
2		Proposed changes or approval of Minutes of Previous Meeting, review of action items.	
2.01	HW	No additional changes to last weekly update meeting (Jun28) or construction meeting minutes.	
3		Previous Week's Activities, Project Schedule and Actions to Regain Schedule, if required.	
3.01	JW	Previous week's activities: -West Dam - 8,000- 9,000 m3; -PKCA - pre-grading; -Decommissioning of Tank Farm - x8 500,000L cleaned and decommissioned; and -Decommissioning of Tank Farm - x3 1.500,000L cleaned and decommissioned.	
3.02	JM	Project Schedule: -work items have been shifted around; however, no schedule lost to report to date; -surveyor back on site July 18th to check quantities and progress; -ROJV to follow-up with detailed schedule	ROJV

Date Wednesday July 12, 2017

Agenda Item		Description	Action by
3.03	MW	Question: -How significant is the fuel contamination issue?	
3.04	JW	Response: -It is an issue; however, operators are now doing additional checks and ROJV in contact with Edmonton for a separate filtration system; -currently on-track to rectify; and -a SMS mechanic is currently on-site full time to repair equipment.	
3.05	Mbe	Question: -Is the issue quality of fuel?	
3.06	JW	Response: -Likely do to with age of fuel and condensation from tanks	
4	Submittals - status update (review register).		
4.01	HW	Submittals -Over view Progress Schedule submitted, final pending. -Monthly reports under review, ROJV to submit tomorrow	ROJV
5	Confirmation of Quantities.		
5.01	HW	Survey quantities Water quantity	
6	Health, Safety and Security Issues.		
6.01	HW	Health and Safety: 1 incident (injured hand) and 1 accident (vehicle damage) this week. Accident report pending.	
7	Summary of Interactions with Authorities having Jurisdiction (AHJ).		
7.01	HW	Correspondence with Inspector on: -confirmation on incineration of organic liquids on-site vs. disposal offsite as written in LUP	
7.02	HW	Site visit for inspectors still tentatively scheduled for Week of August 21	

Date Wednesday July 12, 2017

Agenda Item		Description	Action by
7.03	MW	LUP Amendment: -Comment period closed last week, comments from 5 organizations received -still tracking on schedule for targeted amendment date (depending on comments)	
7.04	JM	August 15 planned start for blasting and note that 3 weeks are required to procure explosives.	
8	Work Plan for the Following Week.		
8.01	JW	Work Plan next week: -Excavation at C1 Diversion; -Ripping at West Dam; -PKCA pre-grading; and -Screening of rip rap.	
9	Progress Claims.		
9.01	HW	Claim review in progress.	
10	Other Business.		
10.01	HW	New business: -Jetty design almost complete -HW to follow-up with Michael Be. re: demolition of Phase 2 tanks	HW

Please advise the writer, in writing, if these minutes contain any errors or omissions, otherwise they will become part of the project documentation as presented.

END OF MINUTES

Minutes prepared by:

Henry
DXB Projects – Departmental Representative Resident Engineer
July 12, 2017

Date Tuesday July 4, 2017

MINUTES OF MEETINGS – Construction Meeting No.1

Project PWGSC – PWGSC
EW699-171068

Location Jericho Site Meeting

Attendance and Distribution

<i>Person</i>	<i>Initials</i>	<i>Organization</i>	<i>Role</i>	<i>Email</i>	<i>Attended</i>	<i>Distributed</i>
Michael Bernardin	MBe	PWGSC	PWGSC PM	Michael.Bernardin@pwgsc-tpsgc.gc.ca	✓	✓
Mark Yetman	MY	INAC	INAC Lead	Mark.Yetman@aandc-aadnc.gc.ca	✓	✓
Michael Westlake	ML	INAC	INAC Lead	Michael.Westlake@aadnc-aandc.gc.ca		✓
Henry Wong	HW	DXB	DR Resident Engineer	Henry.wong@dxbprojects.ca	✓	✓
Dave Bynski	DB	DXB	DXB – Senior PM	dave.bynski@dxbprojects.ca	✓	✓
Claire Brown	CB	DXB	DXB DR	Claire.brown@dxbprojects.ca	✓	✓
Dan Hewitt	DH	DXB	DXB- Senior Consultant	danhewitt@flatriver.ca		✓
Jack Rowe	JR	Rowes	Contractor Project PM	jrowe@rowes.ca	✓	✓
John Weigel	JW	Rowes	Superintendent	jweigel91@gmail.com	✓	✓
Michael Billowitz	MBi	Rowes	Contractor Senior PM	mwillowits@outcomeinc.ca		✓
Jonathan Markiewicz	JM	Rowes	Contractor PM	jmarkiewicz@outcomeinc.ca	✓	✓

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INAC = Indigenous and Northern Affairs Canada

DR = Departmental Representative

DXB = DXB Projects

Rowes = Rowe's Construction

Date Tuesday July 4, 2017

Agenda Item	Description	Action by
i)	Introduction	
	Agenda:	
1	Safety Moment.	
2	Review Work progress since previous meeting.	
3	Review Construction Schedule; --Identify any activities that are behind Schedule and measures to regain slippage, if any, --Identify problems which may impede construction Schedule, if any, and --Review off-site fabrication delivery Schedules, if any.	
4	Review Work for succeeding period.	
5	Review submittal Schedules.	
6	Review maintenance of quality standards.	
7	Review Health, Safety and Security issues.	
8	Review environmental and permitting issues; --including correspondence from Authorities Having Jurisdiction (AHJ) or expected visits from AHJ, and --permit reporting.	
9	Review open project issues; --Jetty Removal, --Available Fuel on-site, --PKCA cover concerns, and --Earthworks material management (stockpiles and material segregation).	
10	ROJV Progress Claim.	
11	Other business.	
12	Next Meeting	
1	Safety Moment.	
1.01	JW Safety in/out of plane; don't rush	
2	Review Work progress since previous meeting.	

Date Tuesday July 4, 2017

Agenda Item		Description	Action by
2.01	JM	-Camp fully operational-Pumping cell A to C;-Pumping Cell C to West Dam discharge and Open Pit;-Consolidated ~160,000 L into Tank 9 from Phase II Tank Farm (suitable for use);-Consolidated ~90,000L into Tank 8 from Phase I Tank Farm (not suitable for use);-Upper 2-3 m of rock stripped at West Dam Breach;-Piping, manifolding and wiring removed from tank farms;-Greywater will be sampled next week, berm was constructed;-Generator getting shut down at airstrip; and-Roughly 2 m more of drawdown will be required in Cell C.	
3		Review Construction Schedule; --Identify any activities that are behind Schedule and measures to regain slippage, if any, --Identify problems which may impede construction Schedule, if any, and --Review off-site fabrication delivery Schedules, if any.	
3.01	JM	Updated schedule will be issued shortly (tech issue)	
3.02	JM	Schedule review: -Dewatering started late but progressing well and should finish ahead of schedule; -Open pit outfall work shifted back to begin West Dam excavation; -Consolidation from large tanks is ahead of schedule and All Peace will be out by July 11 as projected; -Incineration planned to start next week, which is on schedule pending sample results; -Mobilization is complete (95%), with exception of explosives, if required; -Drill and air track on site; however permit review still in progress, could start drilling end of July and blasting mid August or sooner. Must consider two week notice time required for emulsion; and -Nothing is behind at this point and things are tracking well.	
3.03	JW	Discussion to finalize location of stockpiles for West Dam Breach materials. Approximately 1/3 of excavation complete to date.	
3.04	HW, MY, MB	ROJV plan to doze segregated materials to fill in the road area leading to the West Dam pump is acceptable.	
3.05	JW	ROJV had a crew pull piping out of PKCA and start pre-grading	

Date Tuesday July 4, 2017

Agenda Item		Description	Action by
3.06	JM	No off site fabrication	
3.07	JR	Emulsion requires two weeks notice which must be considered.	
3.08	JW	Cat generator no longer operational. Electrician to be mobilized to site or use alternate genset.	
3.09	HW	ROJV to provide updated schedule	ROJV to submit
4	Review Work for succeeding period.		
4.01	JM	Work for next period: -West Dam Breach (continue) -Open Pit Breach -Rough grading at PKCA -Starting drum consolidation and hazardous material consolidation -Likely use regular flights to backhaul hazardous waste	
4.02	JW	After breaching berms at Open Pit, access to Carrot Lake will be blocked. Road amendment required.	
4.03	MB/JW	PSPC interested if the 0.5mil L tanks could be crushed or cut up. ROJV says shearer could be brought to site with the Electra and will provide a response.	PSPC follow-up
4.04	JW	PKCA cover work will start in August	
5	Review submittal Schedules.		
5.01	JM	Worker orientation seminar complete and will be presented starting today	
5.02	HW	Water meter readings and information required for permits will be submitted monthly as part of the progress claim	
5.03	MB	ROJV reminded of quarterly reporting requirements (e.g. employment stats)	
6	Review maintenance of quality standards.		

Date Tuesday July 4, 2017

Agenda Item		Description	Action by
6.01	JW	ROJV suggestion to leave in place +1 m of material over original ground surface, of West Dam - North face, for areas where the original ground cuts steeply leaving exposed vegetation; providing a more gradual, stabilized slope.	
6.02	JW	1-m of West Dam dyke will be left on the northern shore, providing a more gradual, stabilized slope.	
6.03	HW	Henry identified concern with fines	
7	Review Health, Safety and Security issues.		
7.01	JM	Shock from bear fence, finger splint and boot blister were the only first aid/health and safety reports.	
7.02	JM	Weekly reports done by Medic.	
8	Review environmental and permitting issues; --including correspondence from Authorities Having Jurisdiction (AHJ) or expected visits from AHJ, and --permit reporting.		
8.01	CB	Compliance review conducted for the Nunavut Water Board Letter of Decision	
8.02	MY	INAC will provide the NWB with a monitoring plan. Single samples of the West Dam and other waste discharges are sufficient.	
8.03	JM	ROJV has provided a Camp Plan outlining the sampling requirements for the camp effluent.	
8.04	MY	INAC is the registered Waste Generator.	
8.05	MY	INAC will submit the ROJV Spill Contingency Plan to the Board.	INAC to submit
8.06	HW	Part of Processed Kimberlite (PK) is on IOL land. JW to notify Henry of preferred locations for excavation.	
9	Review open project issues; --Jetty Removal, --Available Fuel on-site, --PKCA cover concerns, and --Earthworks material management (stockpiles and material segregation).		

Date Tuesday July 4, 2017

Agenda Item		Description	Action by
9.01	MY	Jetty is with DFO right now and will confirm approach. ROJV should wait to hear confirmation of funds before looking at design. Deadline suggested for response.	
9.02	JM	Fuel requirements appear to be sufficient.	
9.03	JW	Plan to mix Jet A with diesel when incinerated.	
9.04	JW	ROJV will evaluate, with the DR, the potential cover materials for the PKCA.	
9.05	HW	Material management; -Addressed issue at West Dam and the road down to the pump will be used to stockpile. Will evaluate for preferred location for excavated diversion berm materials, and when possible will approve locations near to excavation to minimize haul distances.	
10 ROJV Progress Claim.			
10.01	JM	Will be sent later this week with supporting documentation: -Worker orientation being billed and small amount for submittals; -Mobilization at 95%; -Supply and setup of camp; -Operations and maintenance of camp; -Use of camp (weekly); -Consolidation of liquid/organic waste (50%) , which includes purchasing of incinerator; -Two items shifted: All mob is now in June and liquid consolidation is now June/July; -Progress invoice \$3.659 M (plus 5% holdback)	
10.02	JM	All submittals will come with progress claim	
10.03	HW	For reference, June invoice will be higher than ROJV WBS Cash flow detail.	
11 Other business.			
11.01	MB	Inuit Opportunities Consideration were extensive and there's a lot of work to go to achieve this, especially with respect to training	
11.02	JW	Hazwoper training reduced (contractor didn't require full training), but ROJV will be accounting for changes/shifting	
11.03	MY	Bailment/use agreement is with legal and will be kept simple.	

Date Tuesday July 4, 2017

Agenda Item		Description	Action by
11.04	MY	LUP inspector on site late July-early August. If possible, would come on crew change flight. ECCC wants to come as well, from Yellowknife, one overnight (details TBD). Impact Review Board, Inuit Association and Water Board visit tentatively planned the week of August 21 (3-4 hours).	
11.05	JW	Items on IOL have not yet been evaluated; but not worth backhauling. Direction will be required.	
11.06	MB	Leave the Crown one drum and the other remaining drums (7) may be used by ROJV.	ROJV to leave drum
11.07	JW	One of the Dozers is down due to an issue with the main computer. Parts are in Edmonton and will be coming in with the mechanic on Thursday.	
12	Next Meeting		
12.01	HW	Upon confirmation, the date of the next meeting will be emailed.	HW

Please advise the writer, in writing, if these minutes contain any errors or omissions, otherwise they will become part of the project documentation as presented.

END OF MINUTES

Minutes prepared by Claire Brown and reviewed by Henry Wong.

Henry Wong
DXB Projects – Departmental Representative Resident Engineer
July 10, 2017

Date Wednesday June 28, 2017 Rev.1

MINUTES OF MEETINGS – Weekly Project Team Update Call N°6

Project PWGSC – PWGSC
EW699-171068

Location Teleconference

Attendance and Distribution

<i>Person</i>	<i>Initials</i>	<i>Organization</i>	<i>Role</i>	<i>Email</i>	<i>Attended</i>	<i>Distributed</i>
Michael Bernardin	MBe	PWGSC	PWGSC PM	Michael.Bernardin@pwgsc-tpsgc.gc.ca		✓
Mark Yetman	MY	INAC	INAC Lead	Mark.Yetman@aadnc-aadnc.gc.ca	✓	✓
Michael Westlake	ML	INAC	INAC Lead	Michael.Westlake@aadnc-aadnc.gc.ca	✓	✓
Henry Wong	HW	DXB	DR Resident Engineer	Henry.wong@dxbprojects.ca		✓
Dave Bynski	DB	DXB	DXB – Senior PM	dave.bynski@dxbprojects.ca	✓	✓
Claire Brown	CB	DXB	DXB DR	Claire.brown@dxbprojects.ca	✓	✓
Dan Hewitt	DH	DXB	DXB- Senior Consultant	danhewitt@flatriver.ca		✓
Jack Rowe	JR	Rowes	Contractor PM	jrowe@rowes.ca	✓	✓
John Weigel	JW	Rowes	Superintendent	jweigel91@gmail.com	✓	✓
Michael Billowitz	MBi	Rowes	Contractor Consultant	mbillowitz@outcomeinc.ca		✓
Jonathan Markiewicz	JM	Rowes	Contractor Consultant	jmarkiewicz@outcomeinc.ca	✓	✓

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Rowes = Rowe's Construction

Date Wednesday June 28, 2017 Rev.1

Agenda Item	Description	Action by
i)	Introduction	
	Agenda:	
1	Safety Moment.	
2	Proposed changes or approval of Minutes of Previous Meeting, review of action items.	
3	Previous Week's Activities, Project Schedule and Actions to Regain Schedule, if required.	
4	Submittals - status update (review register).	
5	Confirmation of Quantities.	
6	Health, Safety and Security Issues.	
7	Summary of Interactions with Authorities having Jurisdiction (AHJ).	
8	Work Plan for the Following Week.	
9	Progress Claims.	
10	Other Business.	
1	Safety Moment.	
1.01	JR Back in parking proven to reduce accidents/incidents	
2	Proposed changes or approval of Minutes of Previous Meeting, review of action items.	
2.01	No Comments	
3	Previous Week's Activities, Project Schedule and Actions to Regain Schedule, if required.	

Date Wednesday June 28, 2017 Rev.1

Agenda Item		Description	Action by
3.01	JM	<p>Previous week: Mob, camp set-up and equipment start-up, fuel consolidation;</p> <ul style="list-style-type: none"> -10 Herc Loads without incident -Tires had to be removed to fit, otherwise no significant challenges -Electra transport -Water Treatment Plant and Fuel Incinerator now on site -All Peace on site: 160,000-170,000 L useable fuel from Phase II into Tank 9 (likely sufficient though not much contingency) -Phase I: 80,000 L consolidated to date, not looking as good -No red flags identified in visual tank inspections by All-Peace -Test Pits in West Dam: Upper layer thawed but frozen below -Camp fully operational as of Monday, communications only deficiency 	
4		Submittals - status update (review register).	
4.01	JM	Sediment and Erosion Control Plan on Ignite for review	
4.02	JM	Worker Orientation near complete and to be finalized for Tuesday	
5		Confirmation of Quantities.	
5.01		Camp is is only unit rate for this month; progress on all other items (lump sum)	
6		Health, Safety and Security Issues.	
6.01	CB	Some caribou and wolf sightings	
6.02	JM	JM will send summary of EMR report	
7		Summary of Interactions with Authorities having Jurisdiction (AHJ).	
7.01	MY	MB speaking with DFO regarding jetty removal	
8		Work Plan for the Following Week.	

Date Wednesday June 28, 2017 Rev.1

Agenda Item		Description	Action by
8.01	JM	Tasks: -Test Diesel -Greywater sampling -Decommissioning Tanks -Start Excavating at West Dam -Commence work at open pit outfall -Finish setting up dewatering system	
9		Progress Claims.	
9.01	JM	Receive late next week for June	
10		Other Business.	
10.01	JM	Construction Meeting July 4th, 2017 (plane will hold)	
10.02	MY	Regarding feedback on insurance for Crown equipment: -Legal looking at "Bailment Agreement" and should have more information next week. Generally for care and not for circumstances out of ROJV control or equipment failure.	
10.03	MY	Cat may have Finning mob to site to remove fluids/materials from generators (estimated 30-40 drums of materials may require management)	
10.04	MY	JW reported a fair amount of the drummed fuel at the airstrip has been used. MB request that use of drummed fuel stop (needed for care and maintenance). 8,000 L tank on IOL land if needed and permission has been granted to look around and evaluate backhaul possibilities.	

Please advise the writer, in writing, if these minutes contain any errors or omissions, otherwise they will become part of the project documentation as presented.

END OF MINUTES

Minutes prepared by:

Claire Brown
DXB Projects – Departmental Representative Resident Engineer
July 3, 2017 (Revised July 10, 2017)

MINUTES OF MEETINGS - Weekly Project Team Update Call No4

Attendance DXB Henry W. and Dave B.
ROJV Jonathan M., Michael Bi., Jack Rowe
INAC Mark Y.
PSCP

Agenda Item		Description	Action by
i)		Introduction	
		Agenda:	
		1 Safety Moment.	
		2 Proposed changes or approval of Minutes of Previous Meeting, review of action items.	
		3 Previous Week's Activities, Project Schedule and Actions to Regain Schedule, if required.	
		4 Submittals - status update (review register).	
		5 Confirmation of Quantities.	
		6 Health, Safety and Security Issues.	
		7 Summary of Interactions with Authorities having Jurisdiction (AHJ).	
		8 Work Plan for the Following Week.	
		9 Progress Claims.	
		10 Other Business.	
1		Safety Moment.	
1.01	JM	Aircraft safety	
2		Proposed changes or approval of Minutes of Previous Meeting, review of action items.	
2.01	MY	Change Tank # from 7 to 9	HW
3		Previous Week's Activities, Project Schedule and Actions to Regain Schedule, if required.	
3.01	JM	Previous week: Mob, camp set-up and equipment start-up; -DR on-site W.r.t. Actions re: Regaining Schedule -Camp Schedule - additional DMS worker added -INAC Inspector approved effluent discharge -ROJV working on plan for PKCA dewatering -Herc landed today - only 1 day behind	
4		Submittals - status update (review register).	
4.01	Mbi	ESC Plan high on ROJV priority list	
4.02	Mbi	Hard start-up for camp not for a few weeks and Site Orientation will be update for that time	
5		Confirmation of Quantities.	

Agenda Item		Description	Action by
5.01		No specific quantities discussion	
6		Health, Safety and Security Issues.	
6.01		Wolf sighted in the distance. 2 Wildlife Monitors coming to site – 1 later this week and 1 early next week	
6.02		EMR is on site. Has been through HASP	
7		Summary of Interactions with Authorities having Jurisdiction (AHJ).	
7.01	Mbi	Look into All Peace independent self-assessment	Mbi
8		Work Plan for the Following Week.	
8.01	JM	Mob+ Camp Setup -Heavy Equipment Mob for next 4 to 5 days -Full Camp Set-up -Fire Safety All-Peace -volume of fuel Dewatering	
9		Progress Claims.	
9.01	JM	Tracking towards end of June	
10		Other Business.	
10.01	JM	Construction Meeting July 4th, 2017	
10.02	JM	ROJV surveyor, baseline survey scheduled for next Tuesday Jun27	

Date Wednesday June 14, 2017

MINUTES OF MEETINGS – Weekly Project Team Update Call N°4

Project PWGSC – PWGSC
EW699-171068

Location Teleconference

Attendance and Distribution

<i>Person</i>	<i>Initials</i>	<i>Organization</i>	<i>Role</i>	<i>Email</i>	<i>Attended</i>	<i>Distributed</i>
Michael Bernardin	MBE	PWGSC	PWGSC PM	Michael.Bernardin@pwgsc-tpsgc.gc.ca	✓	✓
Mark Yetman	MY	INAC	INAC Lead	Mark.Yetman@aandc-aadnc.gc.ca	✓	✓
Michael Westlake	ML	INAC	INAC Lead	Michael.Westlake@aadnc-aandc.gc.ca		✓
Henry Wong	HW	DXB	DR Resident Engineer	Heny.wong@dxbprojects.ca	✓	✓
Dave Bynski	DB	DXB	DXB – Senior PM	dave.bynski@dxbprojects.ca	✓	✓
Dan Hewitt	DH	DXB	DXB- Senior Consultant	danhewitt@flatriver.ca		✓
Jack Rowe	JR	Rowes	Contractor PM	jrowe@rowes.ca	✓	✓
John Weigel	JW	Rowes	Superintendent	jweigel91@gmail.com	✓	✓
Michael Billowitz	MBi	Rowes	Contractor Consultant	mbillowitz@outcomeinc.ca	✓	✓
Jonathan Markiewicz	JM	Rowes	Contractor Consultant	jmarkiewicz@outcomeinc.ca	✓	✓

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PM = Project Manager

INAC =Indigenous and Northern Affairs Canada

DR = Departmental Representative

DXB = DXB Projects

Rowes = Rowe's Construction

Date Wednesday June 14, 2017

Agenda Item		Description	Action by
i)	Introduction		
		Agenda:	
	1	Safety Moment.	
	2	Proposed changes or approval of Minutes of Previous Meeting, review of action items.	
	3	Previous Week's Activities, Project Schedule and Actions to Regain Schedule, if required.	
	4	Submittals - status update (review register).	
	5	Confirmation of Quantities.	
	6	Health, Safety and Security Issues.	
	7	Summary of Interactions with Authorities having Jurisdiction (AHJ).	
	8	Work Plan for the Following Week.	
	9	Progress Claims.	
	10	Other Business.	
1	Safety Moment.		
1.01	JM	Aircraft landing and weather; - uncertain and variable - wind causing issues	
1.02	Mbe	Note windsock was blown off previously.	
1.03	JM	Issue was noted during inspection and Buffalo was tasked for setting up again.	
2	Proposed changes or approval of Minutes of Previous Meeting, review of action items.		
2.01		No specific comments re: last minutes.	
3	Previous Week's Activities, Project Schedule and Actions to Regain Schedule, if required.		
3.01	JM/ Mbi	Mob, camp set-up and equipment start-up; -Staging for Hercules for Jun20 -1 of 2 camp loads to site -POs issued to subs -mechanic 950 going, garage door	
3.02	JM	Water samples were collected; -West Dam and Dyke A samples results due Saturday Jun16 -Other water sample results due Jun22	

Date Wednesday June 14, 2017

Agenda Item		Description	Action by
3.03	JM	ROJV walk-through with subs; -Site inspection - Tank 7 Tank 9 to consolidate fuel for use -drum process area and fuel process planned to be at HWTa	
4		Submittals - status update (review register).	
4.01	Mbi	Finishing WOS.	
5		Confirmation of Quantities.	
5.01	Mbi	No specific action items for review.	
6		Health, Safety and Security Issues.	
6.01	Mbi	Low ceiling at site no wildlife reported from site.	
7		Summary of Interactions with Authorities having Jurisdiction (AHJ).	
7.01	MB	Part of delay through TC is with Lynden is blanket approval; -aiming for Jun20, but may have 1 or 2 day-delay -Lyden commitment to other contracts	
7.02	JM	A separate Hercules is being flown in for JMSS project.	
7.03	Mbi	ROJV worker's with Emergency first aid/ wilderness.	
7.04	JM	EMR in with next worker mob Saturday or Sunday.	
7.04	MY	AHJ; -End of this month for Land-use Permit Amendment -Note number of regulators interested in site visit; EC new to list -INAC will try and coordinate one visit	
7.04	Mbi	ROJV- Cole on-site; H&S document and posting review + self assessment checklist.	
8		Work Plan for the Following Week.	
8.01	JM	Camp in tmrw? Approximately 3-day delay for camp setup	
8.02	Mbi	Next Week; -Camp - Discover to add resources (1 or 2 people) -Submittals -Equipment going -Cole Saddler -Water pumping? Shopping list to fix up Note: 48 hrs	
8.03	HW	DRA in Friday, Henry in early next week.	

Date Wednesday June 14, 2017

Agenda Item		Description	Action by
8.04	JW	Internet and phone at airstrip.	
9		Progress Claims.	
9.01	Mbi	May Invoice issued.	
10		Other Business.	
10.01	Mbi	Test pitting of Coarse PK pile of frost and coarse rock; -note more investigation -unforeseen?	

Please advise the writer, in writing, if these minutes contain any errors or omissions, otherwise they will become part of the project documentation as presented.

END OF MINUTES

Minutes prepared by:

Henry Wong
DXB Projects – Departmental Representative Resident Engineer

June 15, 2017
Revised June 21, 2017

Date Wednesday June 7, 2017

MINUTES OF MEETINGS – Weekly Project Team Update Call N°3 (Pre Site Mobilization)

Project PWGSC – PWGSC
EW699-171068

Location Teleconference

Attendance and Distribution

<i>Person</i>	<i>Initials</i>	<i>Organization</i>	<i>Role</i>	<i>Email</i>	<i>Attended</i>	<i>Distributed</i>
Michael Bernardin	MBE	PWGSC	PWGSC PM	Michael.Bernardin@pwgsc-tpsgc.gc.ca	✓	
Mark Yetman	MY	INAC	INAC Lead	Mark.Yetman@aandc-aadnc.gc.ca		✓
Michael Westlake	ML	INAC	INAC Lead	Michael.Westlake@aadnc-aandc.gc.ca		✓
Henry Wong	HW	DXB	DR Resident Engineer	Heny.wong@dxbprojects.ca	✓	✓
Dave Bynski	DB	DXB	DXB – Senior PM	dave.bynski@dxbprojects.ca		✓
Dan Hewitt	DH	DXB	DXB- Senior Consultant	danhewitt@flatriver.ca		✓
Jack Rowe	JR	Rowes	Contractor PM	jrowe@rowes.ca	✓	✓
John Weigel	JW	Rowes	Superintendent	jweigel91@gmail.com		✓
Michael Billowitz	MBi	Rowes	Contractor Consultant	mbillowitz@outcomeinc.ca	✓	✓
Jonathan Markiewicz	JM	Rowes	Contractor Consultant	jmarkiewicz@outcomeinc.ca	✓	✓

PWGSC = Public Works and Government Service Canada

PM = Project Manager

INAC =Indigenous and Northern Affairs Canada

DR = Departmental Representative

DXB = DXB Projects

Rowes = Rowe's Construction

Date Wednesday June 7, 2017

Agenda Item	Description	Action by
i)	Introduction	
	Agenda:	
1	Safety Moment.	
2	Proposed changes or approval of Minutes of Previous Meeting, review of action items.	
3	Previous Week's Activities, Project Schedule and Actions to Regain Schedule, if required.	
4	Submittals - status update (review register).	
5	Confirmation of Quantities.	
6	Health, Safety and Security Issues.	
7	Summary of Interactions with Authorities having Jurisdiction (AHJ).	
8	Work Plan for the Following Week.	
9	Progress Claims.	
10	Other Business	
1	Safety Moment.	
1.01	JM: Redundancy on safety -Spot receiver as a redundancy -Additional SAT phone will be brought to site as work force increases -Redundancy to ensure proper Supply, Safety and Management of Incidents	
2	Proposed changes or approval of Minutes of Previous Meeting, review of action items.	
2.01	No specific action items for review.	
3	Previous Week's Activities, Project Schedule and Actions to Regain Schedule, if required.	
3.01	JM: Pre-construction Meeting last week Community Meeting last week	
3.02	HW to send names of Kugluktuk workers from previous projects to JM	HW
3.03	JM: Current week: Monday - Mechanic and Discovery personnel Today (Wednesday) - PWGSC, electrician and operator	
4	Submittals - status update (review register).	

Date Wednesday June 7, 2017

Agenda Item	Description	Action by
4.01 JM:	Pre-construction plans pending; WOS and Erosion and Sediment Control Plan	
5	Confirmation of Quantities.	
5.01	No specific action items for review.	
6	Health, Safety and Security Issues.	
6.01 JM:	Signed HASP and SOP brought to site.	
7	Summary of Interactions with Authorities having Jurisdiction (AHJ).	
7.01 JM:	Received permits from INAC today Nunavut Extra Territorial corporation permit pending	
8	Work Plan for the Following Week.	
8.01 JM:	Get heavy equipment operational -915 priority and truck for airstrip work Subs on site - KBL and All Peace Air strip inspection Friday Camp mob Saturday or Sunday Following week mobilize and commission water treatment plant -leading to dewatering of tank farm area	
9	Progress Claims.	
9.01	HW to finish review of May Invoice	HW
10	Other Business	
10.01	Possible contract issue re: if there is less on-site fuel than expected	
10.02	Review of HW email response regarding alternate cover design, HW to issue memo	HW

Date	Wednesday June 7, 2017
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Please advise the writer, in writing, if these minutes contain any errors or omissions, otherwise they will become part of the project documentation as presented.

END OF MINUTES

Minutes prepared by:

Henry Wong
DXB Projects – Departmental Representative Resident Engineer

June 7, 2017

Date Thursday May 25, 2017

MINUTES OF MEETINGS – Weekly Project Team Update Call N°2 (Pre Site Mobilization)

Project PWGSC – PWGSC
EW699-171068

Location Teleconference

Attendance and Distribution

<i>Person</i>	<i>Initials</i>	<i>Organization</i>	<i>Role</i>	<i>Email</i>	<i>Attended</i>	<i>Distributed</i>
Michael Bernardin	MBe	PWGSC	PWGSC PM	Michael.Bernardin@pwgsc-tpsgc.gc.ca	✓	✓
Mark Yetman	MY	INAC	INAC Lead	Mark.Yetman@aandc-aadnc.gc.ca	✓	✓
Michael Westlake	ML	INAC	INAC Lead	Michael.Westlake@aadnc-aandc.gc.ca	✓	✓
Henry Wong	HW	DXB	DR Resident Engineer	Henry.wong@dxbprojects.ca	✓	✓
Dave Bynski	DB	DXB	DXB – Senior PM	dave.bynski@dxbprojects.ca	✓	✓
Dan Hewitt	DH	DXB	DXB- Senior Consultant	danhewitt@flatriver.ca	✓	✓
Jack Rowe	JR	Rowes	Contractor PM	jrowe@rowes.ca	✓	✓
John Weigel	JW	Rowes	Superintendent	jweigel91@gmail.com	✓	✓
Michael Billowitz	MBi	Rowes	Contractor Consultant	mbillowitz@outcomeinc.ca	✓	✓
Jonathan Markiewicz	JM	Rowes	Contractor Consultant	jmarkiewicz@outcomeinc.ca	✓	✓

PWGSC = Public Works and Government Service Canada

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DR = Departmental Representative

DXB = DXB Projects

Rowes = Rowe's Construction

Date Thursday May 25, 2017

Agenda Item	Description	Action by
i)	Introduction	
	Agenda:	
1	Safety Moment.	
2	Proposed changes or approval of Minutes of Previous Meeting, review of action items.	
3	Previous Week's Activities, Project Schedule and Actions to Regain Schedule, if required.	
4	Submittals - status update (review register).	
5	Confirmation of Quantities.	
6	Health, Safety and Security Issues.	
7	Summary of Interactions with Authorities having Jurisdiction (AHJ).	
8	Work Plan for the Following Week.	
9	Progress Claims.	
10	Other Business	
1	Safety Moment.	
1.01	MBe: with wind awareness safety moment; notable from recent wind events in Edmonton	
2	Proposed changes or approval of Minutes of Previous Meeting, review of action items.	
2.01	No specific action items for review.	
3	Previous Week's Activities, Project Schedule and Actions to Regain Schedule, if required.	
3.01	MBi: Rowe continued with issuing PO's, finalizing Equipment List, and Submittals	
3.02	JR: Pre-Mob site visit; Jack, mechanic and Mark from Discovery	
	·Van, Pick-up, Loader Okay	
	·All areas visited	
	·No real surprises - grader - new motor, but transmission seems buttoned up	
	·JR w/ request for any new info on grading	
	·Some water behind dyke	
	·Tailings with some moisture - Rowe's intending to propose an alternate approach to covering Tailings	

Date Thursday May 25, 2017

Agenda Item	Description	Action by
	·Camp is 600V so unlikely for use	
	·Equipment - truck in shop likely to be usable	
	·Ball crusher and screener appear in good condition	
	·No sign of vandalism	
3.02	MBi: Rowe's to provide summary of visit	Rowes
3.03	MY: to look up information on Grader	MY
4	Submittals - status update (review register).	
4.01	Community Meeting Presentation	
4.02	Preliminary Project Schedule	
	·No comments to Preliminary Schedule	
4.03	HASP sent to WSCC	
	·WSCC with comment re: exploration permit	
	·note HASP as live document	
4.04	Detailed sewage and site layout plan	
	·Discussion re: proposed grey water	
	MY: ·Grey water will require holding and testing to meet discharge criteria	
4.05	Mob and Demob plan	
	·Plan pending, now with final equipment fleet set	
4.06	Grading and Earthworks plan	
	·Plan to include observations from Pre-Mob visit	
5	Confirmation of Quantities.	
	Progress Claim for June 2, 2017	
6	Health, Safety and Security Issues.	
6.01	No specific issues this update period.	
7	Summary of Interactions with Authorities having Jurisdiction (AHJ).	
7.01	No new interactions this period.	
8	Work Plan for the Following Week.	
8.01	June 1st meeting	
8.02	Finalizing plans	

Date Thursday May 25, 2017

Agenda Item	Description	Action by
9	Progress Claims.	
10	Other Business	
10.01	Chief pilot from Buffalo Airways inspected airstrip and with no significant concern	
10.02	Water thawed on site	
10.03	Minimal water flow	

Please advise the writer, in writing, if these minutes contain any errors or omissions, otherwise they will become part of the project documentation as presented.

END OF MINUTES

Minutes prepared by:

Henry Wong
DXB Projects – Departmental Representative Resident Engineer

May 29, 2017

Date	November 2018
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- 2018 Summary Site Report

Project: Jericho Mine Site Stabilization
Remediation Contractor: Rowe's-Outcome Joint Venture (ROJV)

1 2018 Site Work – Introduction

Carrying over from the 2017 Jericho Mine Site Stabilization project, a small-scaled work program was recently completed by ROJV to close out outstanding contract items. The site work was initially set-up to address a deficiency that was identified in the PHC soil containment cover, specifically a cell width-wide fold of the linear low-density poly-ethylene (LLDPE) liner. Some subsequent regulatory close-out items were also observed and identified as requiring action following a June 2018 site inspection.

The deficiency in the liner follows correspondence, discussion and DXB's briefing memorandum (dated November 27, 2017) from the end of last season. The regulatory close-out items that required some action and additional support information were listed in a Land-use Inspection report, dated June 8, 2018, and email correspondence from Environment Canada and Climate Change (ECCC). The items were a follow-up to the site inspection carried out by the INAC Lands and Water Inspector and ECCC officer on June 6th, 2018.

The liner re-work, as well as regulatory items, were incorporated into ROJV's 2018 work plan. The plan was submitted on July 25th, 2018, and presented the following scope of work:

1. Establishing a safe and secure Camp;
2. Excavating the soils associated with the 11 stained spots;
3. Uncovering the LLDPE liner located in the Phase 1 Tank Farm such that the S-fold can be cut out and that the liner can be repaired providing a flat top surface;
4. Collecting, containerizing and removing off-site any wastes (wires, tarps, etc.) associated with the Camp operations;
5. Observing and recording the current state of the 22 ASTs and update any records, labels or signage associated with their decommissioning; and
6. Observing and recording the current state of the Halocarbon equipment and update any records, labels or signage associated with their decommissioning.

2 Work Summary and Timeline

ROJV's 2018 site work was completed in accordance with their planned schedule; an initial July 31st crew and tools-air mobilization to Jericho and a total six (6) days on-site. All planned activities were carried out and all persons, tools and remnant materials were demobilized on the afternoon of August 5th, 2018.

The initial Twin Otter flight mobilized in ROJV's superintendent, project manager, an operator and mechanic. The airstrip camp was set-up as the crew's living area and the Shop as the primary field base of operations. The Jericho main-camp generator was started up to power the shop and open the vehicle doors.

As part of the work program, the following Crown vehicles and heavy equipment were used:

- Airstrip generator;
- Truck w/ ambulance box;
- Van;
- Main-camp generator;
- 320 Excavator; and
- 950 Loader.

Following camp set-up and equipment start-up, the first work activity was the remedial excavation/ clean-up of the identified 'camp stains'. A single trench was excavated to remove all eleven 11 stained spots, and soil hauled and stockpiled on a poly sheet atop of the PHC soil containment cell. The trench was left open for confirmatory testing and soil sample collection.

The excavator was then tracked over to the PHC soil containment cell/ Phase 1 Tank Area and ROJV began removal of the protective soil cover over the area of the LLDPE fold. The Coarse Processed Kimberlite (PK) soil cover was machine and hand-excavated to expose the underlying liner.

The second flight into site was on August 1st; a King Air plane mobilizing the Departmental Representatives (DRs), a ROJV labourer and additional supplies. Confirmatory soil samples, for the 'camp stains' clean-up, were collected by ROJV upon arrival of the DR and sent to Yellowknife for laboratory analysis on the flight's return trip.

The site clean-up and regulatory close-out activities continued August 2nd, work progress by the end of the day consisted of:

- Wires from the ROJV 2017 camp removed;
- Liner from the ROJV 2017 greywater sumps cleaned-up;
- Stained areas from the ROJV 2017 camp cleaned up and soil temporarily stockpiled atop PHC containment cell;

Summary Site Report

Sunday August 5th, 2018

2017 Jericho Mine Site Stabilization
Departmental Representative

- Exposing/ removing protective soil over LLDPE 's'-fold on-going;
- Labeling of decommissioned Halocarbon equipment completed; and
- Reconciling of decommissioned tank IDs started.

On August 3rd, a flight flew in two (2) A&A Technical Service workers and the INAC Lands and Water Inspector, Mr. Baba Pederson. A&A were on-site to carry out the liner re-setting and repair work. Mr. Pedersen was on-site for a day-inspection, a follow-up to the June 2018 inspection to check that the activities listed in the Inspection report were properly addressed and review of work areas from last season that were not accessible in June.

Following the inspection, Mr. Pederson requested four (4) items to wrap-up the Land Use Permit. The items were primarily requests for photos of the final completed close-out activity. Specific details are included in the regulatory section below.

By August 4th, the entire fold in the liner was exposed and then straight cut along its full width. Before beginning the liner repair, the stockpiled soil from the stains clean-up was dug into the underlying containment cell; that is some of 200 to 300 mm thick Coarse PK cushion material below the liner removed and replaced with the clean-up soil. The A&A team then began work to re-seal the liner; pulling the overlapping material taut and repairing the areas where the liner was damaged during its uncovering.

The vacuum checks for testing the seal of the extrusion welds were reviewed with the DR and then final cover backfilled and shaped to grade by early afternoon on August 5th.

The close-out items for the decommissioned tanks were also reviewed with the DR and marked as completed. Reconciling the tank id discrepancies noted by INAC were done by visual checks and photos, and tags were affixed to indicate that the tanks they were permanently out of service.

Prior to wrapping up the site work, the following checklist of site shut-down activities were completed by ROJV:

- ROJV 2018 fuel drums – lids cut open, washed and drums stacked with other site emptied & cleaned drums;
- Mine site building doors closed;
- Used tools and equipment returned to Shop;
- Excavator and Loader parked in Shop;
- Main camp generator shut-down with estimated ½ day of fuel left in generator;
- Airstrip camp – Pacto waste incinerated at Mine site with 1 clean bag left and installed;
- Airstrip camp – grey water removed;
- Airstrip camp – garbage removed;
- Airstrip camp – fresh water drained;
- Airstrip camp – antifreeze added to fresh water lines;

Summary Site Report

Sunday August 5th, 2018

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Departmental Representative

- Airstrip camp – generator shutdown with approximately full tank of fuel in generator;
- Airstrip camp – with approximately 60% of 100 lbs propane tank left attached outside (note BBQ broken in between June and August site trips;
- Good light plant brought up to airstrip camp and parked away from the building; and
- Truck ambulance and Van parked away from the building.

A DHC-7 planed arrived August 5th to demobilize all personnel from site.

3 Site Personnel

A total of 9 persons (7 ROJV and 2 DRs) were on-site for the 2018 work. Mr. Pedersen was on-site August 3rd to carry out a day inspection.

A summary of site personnel is listed below.

Company	Role	Name	On-site
ROJV	Superintendent	Linden	Jul31- Aug05
ROJV	Operator	Linden Junior	Jul31- Aug05
ROJV	Project Manager	Jonathan Markiewicz	Jul31- Aug05
ROJV	Mechanic	Sam Sutherland	Jul31- Aug05
ROJV	Labourer	Tim	Aug01- Aug05
DXB	Department Rep.	Henry Wong	Aug01- Aug05
DXB	Department Rep. Assistant	Andy Uyyarai	Aug01- Aug05
A&A	Liner Specialist Lead	Al Harman	Aug03- Aug05
A&A	Liner Labourer	Guy	Aug03- Aug05
INAC	Inspector	Baba Pedersen	Aug03- Aug03

4 Contract Close-Out work

4.1 Liner Re-work

The key site work for the 2018 program was the re-work of LLDPE liner. A deficiency in the installation was identified at the end of the 2017 season, which prompted the site work for this year.

The re-work was successfully completed; consisting of the following:

- Uncovering the LLDPE liner;
- Cutting the liner;
- Smoothing out the material underneath;
- Cleaning the liner using water and cotton cloth;
- Pulling extra/ fold material taut and over the straight cut
- Qualifying the wedge welder – destructive test of test weld;
- Wedge welding the overlap over the straight cut edge;
- Extrusion welding holes and tears;
- then vacuum testing repairs; and
- completing all final repairs.

All liner work was carried out under the supervision of A&A's Al Harman. The qualification checks for the wedge welder were reviewed with the DR, as well as all vacuum tests for the extrusion-weld repairs. The final PHC soil grade and protective soil cover grade were accepted by the DR.

Photos of the liner work are shown in Appendix A.

5 Regulatory Close-Out Items

Some outstanding regulatory close-out items were identified by the INAC Lands and Water Inspector during a June 6th, 2018 site inspection. The corresponding Land-Use Inspection Report listed the following as requiring action:

- Electrical Wires from ROJV's camp were found on the ground where the camp was previously located and must be removed from site;
- 11 stained spots were also on the ground of the former camp area and need to be tested, excavated and restored; and
- A piece of liner from ROJV's greywater sump was observed exposed through the snow and must be removed.

The electrical wires and piece of liner were removed, and the 11 stained-spots excavated and confirmatory testing carried out prior to Mr. Pedersen's follow-up site inspection on August 3rd, 2018. Restoration of the stain clean-up was completed on August 4th, 2018.

The eleven stained spots were cleaned up in accordance with ROJV's work plan. A single trench of all the stain spots was excavated on August 1, 2018. The 'L' trench measured approximately 19 m long with a 4 m dog-leg at the end of the trench, 1 m wide and 30 cm deep.

The confirmatory testing consisted of collecting samples from the sidewall and base at 3 m length interval. All samples were measured for hydrocarbon vapor using a photoionization detector. Based on

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Sunday August 5th, 2018

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the highest vapor readings (note: all readouts were low-level readings), a total of 9 soil samples (6 side walls and 3 bases) were sent to Maxxam Laboratory for Petroleum Hydrocarbons (PHC) F1 to F4 fraction analyses.

The analytical results showed all non-detect levels of PHC for all 9 samples.

Photos of the stain clean-up and the laboratory Certificate of Analysis report are included in Appendix B

Further to the Land Use Permit-related items; close out items that ECCC requested additional information and actions consisted of the following:

- Reconciling the Environment Canada tanks identification numbers with the tank serial numbers;
- Confirmation that the permanently removed tanks were purged of vapors less than 10% of the lower flammability limit;
- Labels affixed to the fill pipes of the decommissioned tanks indicating that they are permanently out of service;
- Notices affixed to the systems from which halocarbons were removed.

All the listed ECCC close-out items were completed.

The tank identifications and vapor readings are shown in the table below, as verified on-site with the DR.

EC Tank #	Serial #	Mine #	Original Location	Vapours	Decom
EC00015828	GEM-6-052-1	T5	Phase 1 Tank Farm	*	July 2, 2017
EC00015828	GEM-6-052-2	T7	Phase 1 Tank Farm	0% LEL	July 3, 2017
EC00015828	GEM-6-052-3	T3	Phase 1 Tank Farm	0% LEL	July 3, 2017
EC00015828	GEM-6-052-4	T2	Phase 1 Tank Farm	0% LEL	July 4, 2017
EC00015828	GEM-6-052-5	T1	Phase 1 Tank Farm	0% LEL	July 4, 2017
EC00015828	GEM-6-052-6	T6	Phase 1 Tank Farm	0% LEL	July 5, 2017
EC00015828	GEM-6-052-7	T4	Phase 1 Tank Farm	0% LEL	July 5, 2017
EC00015828	GEM-6-052-8	T8	Phase 1 Tank Farm	0% LEL	July 6, 2017
EC00015828	GEM-6-005-1	T10	Phase 2 Tank Farm	0% LEL	July 2, 2017
EC00015828	GEM-6-005-2	T9	Phase 2 Tank Farm	0% LEL	October 1, 2017
EC00015828	GEM-6-005-3	T11	Phase 2 Tank Farm	0% LEL	July 1, 2017
EC00015828	GEM-6-005-4	T12	Phase 2 Tank Farm	0% LEL	June 30, 2017
EC00015828	D8778-S14	T15	Phase 1 Tank Farm	0% LEL	October 2, 2017
EC00015828	D8778-S12	T18	Next to Generators	0% LEL	October 2, 2017
EC00016023	C244056	T14	Truck Shop	0% LEL	October 2, 2017
EC00016028	D8778-S13	T21	Airstrip	0% LEL	October 2, 2017

Summary Site Report

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Departmental Representative

EC Tank #	Serial #	Mine #	Original Location	Vapours	Decom
EC00016029	D8778-S15	T20	Airstrip	0% LEL	October 3, 2017
EC00016030	D8778-S19	T19	HWTa	0% LEL	October 5, 2017
EC00016031	D8778-5	T22	HWTa	0% LEL	October 5, 2017
EC00016032	D8778-S11	T17	HWTa	0% LEL	October 4, 2017
EC00016033	D8778-6	T23	HWTa	0% LEL	October 3, 2017
EC00016034	D8778-8	T16	HWTa	0% LEL	October 4, 2017

* No accessible port, vent or opening to collect combustible gas reading

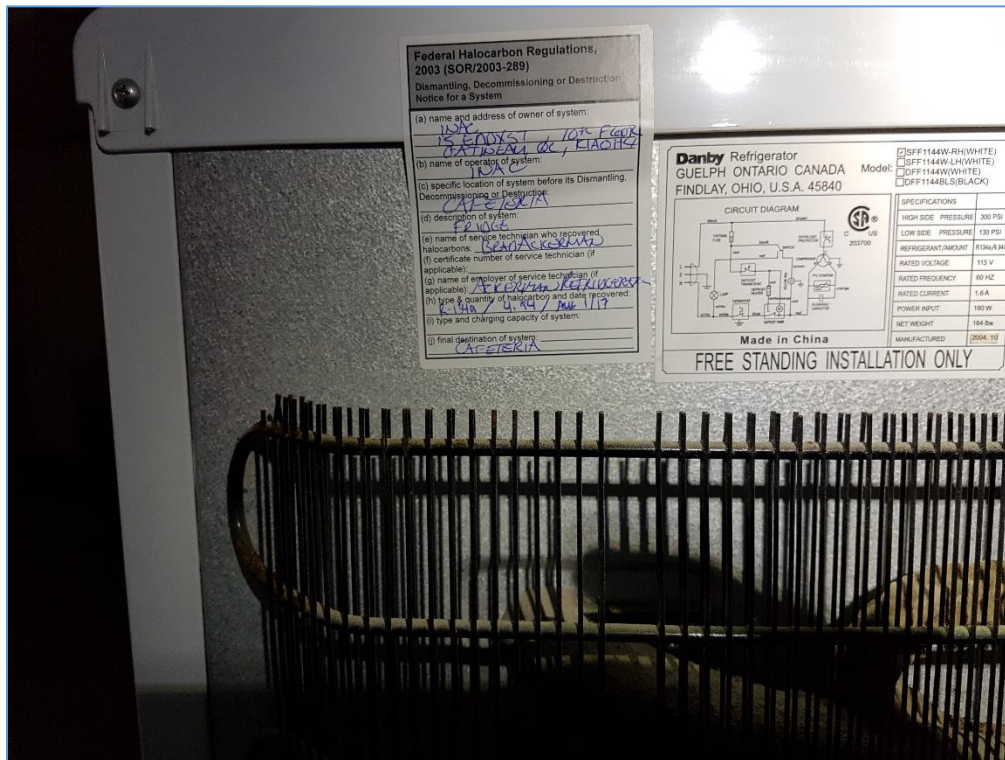
All decommissioned tanks had a 'Permanently Out of Service' tag attached to it, on the fill pipe where possible. A photo of a typical tag attachment is shown below.



All decommissioned halocarbon systems had labels stuck onto them, with the appropriate Federal Halocarbon Regulations SOR/ 2003-289 specified information:

- Owner name and address;
- Operator of system;
- Specific location of system before dismantling;
- Description system;
- Name of service technician who recovered halocarbons;
- Name of employer of service technician;
- Type and quantity of halocarbon and date of recovery; and
- Final destination of system.

A photo of the label pasted on one of the decommissioned systems is shown below.



6 Additional Comments/ Correspondence

During the follow-up Land Use site inspection on August 3rd, water was observed in the lined berm cell adjacent the Phase 2 Tank Farm Area. Mr. Pedersen asked about the origin and plan for the contained water. At the time of the inspection, we recalled that the small containment cell was used to hold contact water from ROJV's oil water separation process and that the water was pumped out and shipped off-site for disposal. The follow-up action was to confirm that the impacted contact water was pumped out of the cell and then address removing the water.

Unfortunately, no photos were found of the of the drained cell and only verbal confirmation by ROJV. Therefore, a water sample was collected of the berm water and sent to the Maxxam laboratory for analysis against the site's discharge criteria.

The new water results show concentrations of PHCs significantly lower than those of the 2017 Contact Water and meeting the site's discharge criteria (as per the Nunavut Water Board's Letter of Decision maximum allowable concentrations); however, levels of Oil and Grease, BOD and Phosphorous not

Summary Site Report

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meeting. It suggests that the contact water was removed; however, there that there was residual organics/ scum that has impacted melt water in the cell.

A plan will be developed in consultation with the INAC Inspector to address the contained water.

7 Sign-off

Henry Wong

DXB Projects

Jericho Mine Site Stabilization Departmental Representative

Summary Site Report

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2017 Jericho Mine Site Stabilization
Departmental Representative

Appendix A

Photos of Liner Re-work

Summary Site Report

Sunday August 5th, 2018

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August 1st PHC Soil Containment Cell, looking east – uncovering LLDPE liner.



August 2nd PHC Soil Containment Cell, looking west – uncovering LLDPE liner.

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Departmental Representative



August 4th A&A Wedge Weld Qualification – destructive test.



August 4th, PHC Soil Containment Cell – Exposed underlying Coarse PK cushion layer.

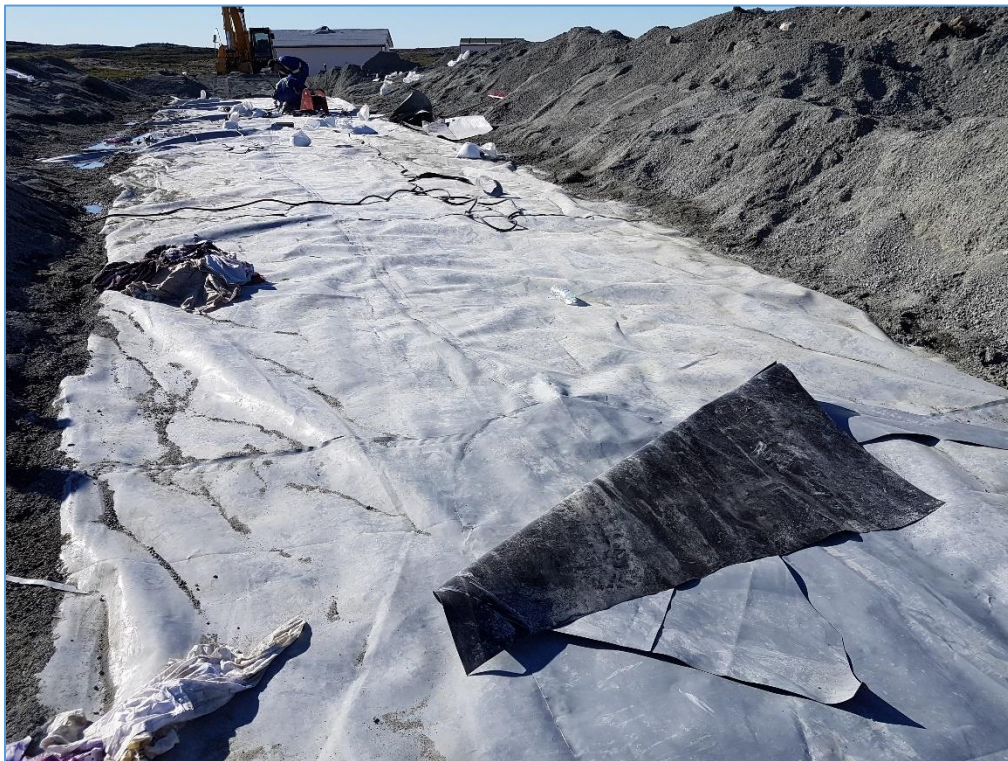
Summary Site Report

Sunday August 5th, 2018

2017 Jericho Mine Site Stabilization
Departmental Representative



August 4th, PHC Soil Containment Cell – Exposed underlying Coarse PK cushion layer.

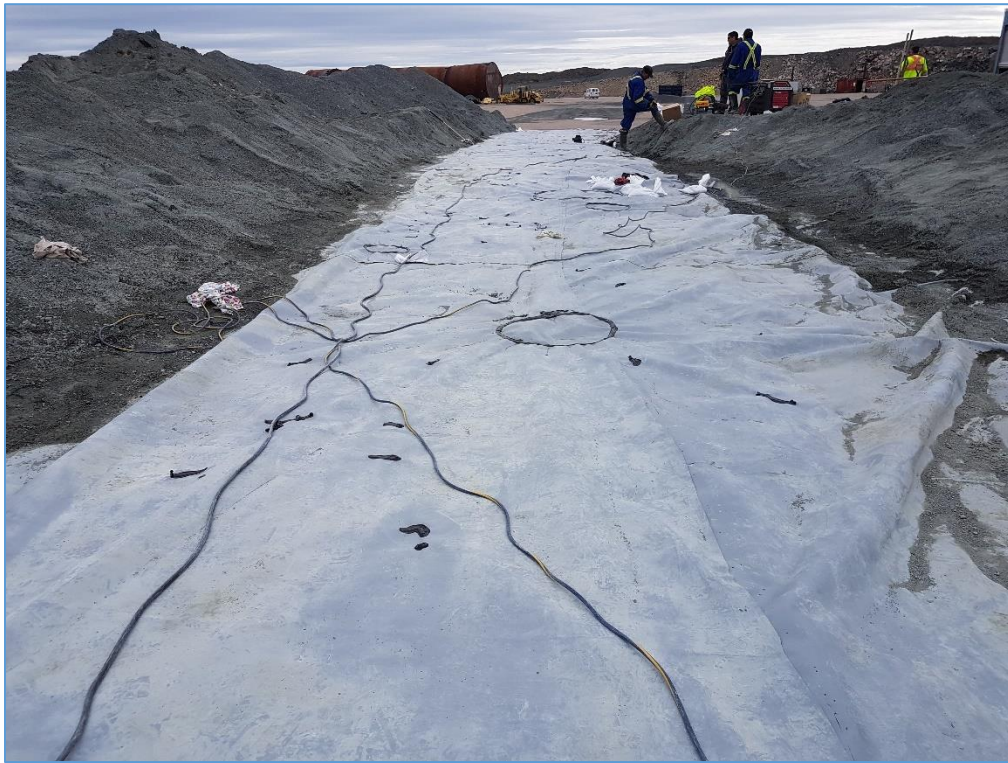


August 4th, PHC Soil Containment Cell – Completed wedge weld.

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August 5th, PHC Soil Containment Cell – Completed extrusion weld of holes and tears.



August 5th, PHC Soil Containment Cell – Vacuum test of extrusion welds.

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August 5th, PHC Soil Containment Cell – Placement of protective Coarse PK cover.



August 5th, PHC Soil Containment Cell – Placement of protective Coarse PK cover.

Summary Site Report

Sunday August 5th, 2018

2017 Jericho Mine Site Stabilization
Departmental Representative



August 5th, PHC Soil Containment Cell – Placement of protective Coarse PK cover.



August 5th, PHC Soil Containment Cell – Final cover grade.

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2017 Jericho Mine Site Stabilization
Departmental Representative



August 5th, PHC Soil Containment Cell – Final cover grade.



August 5th, PHC Soil Containment Cell – Final cover grade.

Summary Site Report

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Departmental Representative

Appendix B

1. Photos of Camp Stains Clean-up
2. Confirmatory Program Laboratory Results

Summary Site Report

Sunday August 5th, 2018

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June 6th, 2018 Former ROJV Camp Area, Looking South – pre-clean-up photo from June Inspection.



August 1st Former ROJV Camp Area, Looking North – Confirmatory Testing.

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2017 Jericho Mine Site Stabilization
Departmental Representative



August 3rd PHC Soil Containment Cell – Stockpiled excavated stained soil to be placed in cell.



August 4th Former ROJV Camp Area – Restored stained clean-up.

Your Project #: JERICO 2018
Your C.O.C. #: M057627

Attention: Henry Wong

DXB Projects
ON
Canada

Report Date: 2018/08/15
Report #: R5357319
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B8J9249

Received: 2018/08/07, 10:32

Sample Matrix: Water
Samples Received: 3

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Biochemical Oxygen Demand (BOD)	1	2018/08/08	2018/08/13	CAM SOP-00427	SM 23 5210B m
Chloride by Automated Colourimetry	1	N/A	2018/08/08	CAM SOP-00463	EPA 325.2 m
Petroleum Hydro. CCME F1 & BTEX in Water	1	N/A	2018/08/09	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydrocarbons F2-F4 in Water (1)	1	2018/08/14	2018/08/15	CAM SOP-00316	CCME PHC-CWS m
Total Metals Analysis by ICPMS	3	N/A	2018/08/09	CAM SOP-00447	EPA 6020B m
Nitrate (NO3) and Nitrite (NO2) in Water (2)	1	N/A	2018/08/08	CAM SOP-00440	SM 23 4500-NO3I/NO2B
Total Oil and Grease	1	2018/08/13	2018/08/14	CAM SOP-00326	EPA1664B m, SM5520A m
pH	1	N/A	2018/08/08	CAM SOP-00413	SM 4500H+ B m
Total Dissolved Solids	1	2018/08/08	2018/08/08	CAM SOP-00428	SM 23 2540C m
Total Suspended Solids	1	2018/08/08	2018/08/08	CAM SOP-00428	SM 23 2540D m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Maxxam, unless otherwise agreed in writing. Maxxam is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested. When sampling is not conducted by Maxxam, results relate to the supplied samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Your Project #: JERICO 2018
Your C.O.C. #: M057627

Attention: Henry Wong

DXB Projects
ON
Canada

Report Date: 2018/08/15
Report #: R5357319
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B8J9249

Received: 2018/08/07, 10:32

(1) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Maxxam conform to all prescribed elements of the reference method and performance based elements have been validated. All modifications have been validated and proven equivalent following "Alberta Environment's Interpretation of the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Validation of Performance-Based Alternative Methods September 2003". Documentation is available upon request. Modifications from Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons in Soil-Tier 1 Method: F2/F3/F4 data reported using validated cold solvent extraction instead of Soxhlet extraction.

(2) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Gemarie Balatico, Project Manager
Email: gbalatico@maxxam.ca
Phone# (905) 817-5700

=====

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

CCME PETROLEUM HYDROCARBONS IN WATER (WATER)

Maxxam ID		HKF488		
Sampling Date		2018/08/05 15:00		
COC Number		M057627		
	UNITS	BERM-1	RDL	QC Batch
BTEX & F1 Hydrocarbons				
Benzene	ug/L	ND	0.20	5669882
Toluene	ug/L	ND	0.20	5669882
Ethylbenzene	ug/L	ND	0.20	5669882
o-Xylene	ug/L	ND	0.20	5669882
p+m-Xylene	ug/L	0.44	0.40	5669882
Total Xylenes	ug/L	0.44	0.40	5669882
F1 (C6-C10)	ug/L	ND	25	5669882
F1 (C6-C10) - BTEX	ug/L	ND	25	5669882
F2-F4 Hydrocarbons				
F2 (C10-C16 Hydrocarbons)	ug/L	210	100	5679011
F3 (C16-C34 Hydrocarbons)	ug/L	1900	200	5679011
F4 (C34-C50 Hydrocarbons)	ug/L	ND	200	5679011
Reached Baseline at C50	ug/L	Yes		5679011
Surrogate Recovery (%)				
1,4-Difluorobenzene	%	99		5669882
4-Bromofluorobenzene	%	96		5669882
D10-Ethylbenzene	%	102		5669882
D4-1,2-Dichloroethane	%	102		5669882
o-Terphenyl	%	106		5679011
RDL = Reportable Detection Limit QC Batch = Quality Control Batch ND = Not detected				

RESULTS OF ANALYSES OF WATER

Maxxam ID		HKF488		
Sampling Date		2018/08/05 15:00		
COC Number		M057627		
	UNITS	BERM-1	RDL	QC Batch
Inorganics				
Total BOD	mg/L	670	2	5668407
Total Dissolved Solids	mg/L	155	10	5669521
pH	pH	6.60		5668366
Total Suspended Solids	mg/L	17	14	5669955
Dissolved Chloride (Cl-)	mg/L	6.0	1.0	5667428
Nitrite (N)	mg/L	ND	0.050	5667379
Nitrate (N)	mg/L	ND	0.50	5667379
Nitrate + Nitrite (N)	mg/L	ND	0.50	5667379
Petroleum Hydrocarbons				
Total Oil & Grease	mg/L	6.4	0.50	5676110
RDL = Reportable Detection Limit QC Batch = Quality Control Batch ND = Not detected				

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		HKF488			HKF489	HKF490		
Sampling Date		2018/08/05 15:00			2018/08/05 15:00	2018/08/05 15:00		
COC Number		M057627			M057627	M057627		
	UNITS	BERM-1	RDL	QC Batch	PIT-1	PIT-2	RDL	QC Batch
Metals								
Total Aluminum (Al)	ug/L	37	5.0	5669653				
Total Antimony (Sb)	ug/L	0.64	0.50	5669653				
Total Arsenic (As)	ug/L	1.1	1.0	5669653				
Total Barium (Ba)	ug/L	67	2.0	5669653				
Total Beryllium (Be)	ug/L	ND	0.50	5669653				
Total Bismuth (Bi)	ug/L	ND	1.0	5669653				
Total Boron (B)	ug/L	400	10	5669653				
Total Cadmium (Cd)	ug/L	ND	0.10	5669653				
Total Calcium (Ca)	ug/L	19000	200	5669653				
Total Cesium (Cs)	ug/L	ND	0.20	5669653				
Total Chromium (Cr)	ug/L	ND	5.0	5669653				
Total Cobalt (Co)	ug/L	17	0.50	5669653				
Total Copper (Cu)	ug/L	1.8	1.0	5669653				
Total Iron (Fe)	ug/L	440	100	5669653				
Total Lead (Pb)	ug/L	ND	0.50	5669653				
Total Lithium (Li)	ug/L	15	5.0	5669653				
Total Magnesium (Mg)	ug/L	2500	50	5669653				
Total Manganese (Mn)	ug/L	6600	2.0	5669653				
Total Molybdenum (Mo)	ug/L	9.8	0.50	5669653				
Total Nickel (Ni)	ug/L	74	1.0	5669653				
Total Phosphorus (P)	ug/L	4200	100	5669653				
Total Potassium (K)	ug/L	1500	200	5669653				
Total Rubidium (Rb)	ug/L	2.9	0.20	5669653				
Total Selenium (Se)	ug/L	ND	2.0	5669653				
Total Silicon (Si)	ug/L	1200	50	5669653				
Total Silver (Ag)	ug/L	ND	0.10	5669653				
Total Sodium (Na)	ug/L	4700	100	5669653				
Total Strontium (Sr)	ug/L	66	1.0	5669653				
Total Tellurium (Te)	ug/L	ND	1.0	5669653				
Total Thallium (Tl)	ug/L	ND	0.050	5669653				
Total Thorium (Th)	ug/L	ND	2.0	5669653				
Total Tin (Sn)	ug/L	ND	1.0	5669653				
Total Titanium (Ti)	ug/L	5.5	5.0	5669653				
Total Tungsten (W)	ug/L	ND	1.0	5669653				
RDL = Reportable Detection Limit								
QC Batch = Quality Control Batch								
ND = Not detected								

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		HKF488			HKF489	HKF490		
Sampling Date		2018/08/05 15:00			2018/08/05 15:00	2018/08/05 15:00		
COC Number		M057627			M057627	M057627		
	UNITS	BERM-1	RDL	QC Batch	PIT-1	PIT-2	RDL	QC Batch
Total Uranium (U)	ug/L	0.50	0.10	5669653	75	74	0.10	5669653
Total Vanadium (V)	ug/L	ND	0.50	5669653				
Total Zinc (Zn)	ug/L	950	5.0	5669653				
Total Zirconium (Zr)	ug/L	ND	1.0	5669653				
RDL = Reportable Detection Limit QC Batch = Quality Control Batch ND = Not detected								

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	6.3°C
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Metals Scan Analysis: Samples were submitted using containers that were not provided by Maxxam. Analysis performed with client's consent.

Sample HKF488 [BERM-1] : Nitrite/Nitrate: Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.

Results relate only to the items tested.

QUALITY ASSURANCE REPORT

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
5669882	1,4-Difluorobenzene	2018/08/08	98	70 - 130	100	70 - 130	101	%				
5669882	4-Bromofluorobenzene	2018/08/08	99	70 - 130	98	70 - 130	98	%				
5669882	D10-Ethylbenzene	2018/08/08	100	70 - 130	100	70 - 130	98	%				
5669882	D4-1,2-Dichloroethane	2018/08/08	101	70 - 130	102	70 - 130	102	%				
5679011	o-Terphenyl	2018/08/15	100	60 - 130	99	60 - 130	96	%				
5667379	Nitrate (N)	2018/08/08	96	80 - 120	94	80 - 120	ND, RDL=0.10	mg/L	NC (1)	20		
5667379	Nitrite (N)	2018/08/08	99	80 - 120	98	80 - 120	ND, RDL=0.010	mg/L	NC (1)	20		
5667428	Dissolved Chloride (Cl-)	2018/08/08	NC	80 - 120	100	80 - 120	ND, RDL=1.0	mg/L	5.9 (1)	20		
5668366	pH	2018/08/08			100	98 - 103			0.23 (1)	N/A		
5668407	Total BOD	2018/08/13					ND, RDL=2	mg/L	4.5 (1)	30	102	80 - 120
5669521	Total Dissolved Solids	2018/08/08					ND, RDL=10	mg/L	1.9 (1)	25	97	90 - 110
5669653	Total Aluminum (Al)	2018/08/09	NC	80 - 120	98	80 - 120	ND, RDL=5.0	ug/L	0.36 (1)	20		
5669653	Total Antimony (Sb)	2018/08/09	107	80 - 120	97	80 - 120	ND, RDL=0.50	ug/L	2.6 (1)	20		
5669653	Total Arsenic (As)	2018/08/09	102	80 - 120	101	80 - 120	ND, RDL=1.0	ug/L	NC (1)	20		
5669653	Total Barium (Ba)	2018/08/09	97	80 - 120	96	80 - 120	ND, RDL=2.0	ug/L	NC (1)	20		
5669653	Total Beryllium (Be)	2018/08/09	100	80 - 120	102	80 - 120	ND, RDL=0.50	ug/L	NC (1)	20		
5669653	Total Bismuth (Bi)	2018/08/09	87	80 - 120	92	80 - 120	ND, RDL=1.0	ug/L	NC (1)	20		
5669653	Total Boron (B)	2018/08/09	93	80 - 120	93	80 - 120	ND, RDL=10	ug/L	3.1 (1)	20		
5669653	Total Cadmium (Cd)	2018/08/09	98	80 - 120	99	80 - 120	ND, RDL=0.10	ug/L	NC (1)	20		
5669653	Total Calcium (Ca)	2018/08/09	NC	80 - 120	97	80 - 120	ND, RDL=200	ug/L	2.3 (1)	20		
5669653	Total Cesium (Cs)	2018/08/09	96	80 - 120	94	80 - 120	ND, RDL=0.20	ug/L				
5669653	Total Chromium (Cr)	2018/08/09	NC	80 - 120	94	80 - 120	ND, RDL=5.0	ug/L	1.6 (1)	20		
5669653	Total Cobalt (Co)	2018/08/09	97	80 - 120	97	80 - 120	ND, RDL=0.50	ug/L	1.4 (1)	20		
5669653	Total Copper (Cu)	2018/08/09	104	80 - 120	98	80 - 120	ND, RDL=1.0	ug/L	1.2 (1)	20		
5669653	Total Iron (Fe)	2018/08/09	98	80 - 120	100	80 - 120	ND, RDL=100	ug/L	NC (1)	20		
5669653	Total Lead (Pb)	2018/08/09	91	80 - 120	97	80 - 120	ND, RDL=0.50	ug/L	NC (1)	20		
5669653	Total Lithium (Li)	2018/08/09	98	80 - 120	101	80 - 120	ND, RDL=5.0	ug/L	NC (1)	20		
5669653	Total Magnesium (Mg)	2018/08/09	105	80 - 120	101	80 - 120	ND, RDL=50	ug/L	0.72 (1)	20		
5669653	Total Manganese (Mn)	2018/08/09	97	80 - 120	96	80 - 120	ND, RDL=2.0	ug/L	1.7 (1)	20		
5669653	Total Molybdenum (Mo)	2018/08/09	110	80 - 120	94	80 - 120	ND, RDL=0.50	ug/L	2.8 (1)	20		
5669653	Total Nickel (Ni)	2018/08/09	92	80 - 120	98	80 - 120	ND, RDL=1.0	ug/L	2.7 (1)	20		

QUALITY ASSURANCE REPORT(CONT'D)

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
5669653	Total Phosphorus (P)	2018/08/09	NC	80 - 120	116	80 - 120	ND, RDL=100	ug/L	1.3 (1)	20		
5669653	Total Potassium (K)	2018/08/09	NC	80 - 120	101	80 - 120	ND, RDL=200	ug/L	0.92 (1)	20		
5669653	Total Rubidium (Rb)	2018/08/09	93	80 - 120	95	80 - 120	ND, RDL=0.20	ug/L				
5669653	Total Selenium (Se)	2018/08/09	100	80 - 120	102	80 - 120	ND, RDL=2.0	ug/L	NC (1)	20		
5669653	Total Silicon (Si)	2018/08/09	115	80 - 120	102	80 - 120	ND, RDL=50	ug/L	2.7 (1)	20		
5669653	Total Silver (Ag)	2018/08/09	93	80 - 120	97	80 - 120	ND, RDL=0.10	ug/L	1.9 (1)	20		
5669653	Total Sodium (Na)	2018/08/09	NC	80 - 120	102	80 - 120	ND, RDL=100	ug/L	0.41 (1)	20		
5669653	Total Strontium (Sr)	2018/08/09	94	80 - 120	96	80 - 120	ND, RDL=1.0	ug/L	1.6 (1)	20		
5669653	Total Tellurium (Te)	2018/08/09	100	80 - 120	102	80 - 120	ND, RDL=1.0	ug/L	NC (1)	20		
5669653	Total Thallium (Tl)	2018/08/09	90	80 - 120	96	80 - 120	ND, RDL=0.050	ug/L	4.2 (1)	20		
5669653	Total Thorium (Th)	2018/08/09	99	80 - 120	98	80 - 120	ND, RDL=2.0	ug/L				
5669653	Total Tin (Sn)	2018/08/09	107	80 - 120	97	80 - 120	ND, RDL=1.0	ug/L	NC (1)	20		
5669653	Total Titanium (Ti)	2018/08/09	109	80 - 120	99	80 - 120	ND, RDL=5.0	ug/L	17 (1)	20		
5669653	Total Tungsten (W)	2018/08/09	102	80 - 120	100	80 - 120	ND, RDL=1.0	ug/L	4.2 (1)	20		
5669653	Total Uranium (U)	2018/08/09	99	80 - 120	99	80 - 120	ND, RDL=0.10	ug/L	NC (1)	20		
5669653	Total Vanadium (V)	2018/08/09	101	80 - 120	95	80 - 120	ND, RDL=0.50	ug/L	0.29 (1)	20		
5669653	Total Zinc (Zn)	2018/08/09	88	80 - 120	103	80 - 120	ND, RDL=5.0	ug/L	2.3 (1)	20		
5669653	Total Zirconium (Zr)	2018/08/09	110	80 - 120	96	80 - 120	ND, RDL=1.0	ug/L	NC (1)	20		
5669882	Benzene	2018/08/08	90	70 - 130	90	70 - 130	ND, RDL=0.20	ug/L	NC (1)	30		
5669882	Ethylbenzene	2018/08/08	90	70 - 130	87	70 - 130	ND, RDL=0.20	ug/L	6.8 (1)	30		
5669882	F1 (C6-C10) - BTEX	2018/08/08					ND, RDL=25	ug/L	24 (1)	30		
5669882	F1 (C6-C10)	2018/08/08	80	70 - 130	82	70 - 130	ND, RDL=25	ug/L	23 (1)	30		
5669882	o-Xylene	2018/08/08	88	70 - 130	84	70 - 130	ND, RDL=0.20	ug/L	4.7 (1)	30		
5669882	p+m-Xylene	2018/08/08	88	70 - 130	86	70 - 130	ND, RDL=0.40	ug/L	1.6 (1)	30		
5669882	Toluene	2018/08/08	93	70 - 130	91	70 - 130	ND, RDL=0.20	ug/L	NC (1)	30		
5669882	Total Xylenes	2018/08/08					ND, RDL=0.40	ug/L	2.8 (1)	30		
5669955	Total Suspended Solids	2018/08/08					ND, RDL=10	mg/L	NC (1)	25	100	85 - 115
5676110	Total Oil & Grease	2018/08/14	94	75 - 125	97	85 - 115	ND, RDL=0.50	mg/L	0.77 (1)	25		
5679011	F2 (C10-C16 Hydrocarbons)	2018/08/15	93	50 - 130	94	60 - 130	ND, RDL=100	ug/L	NC (1)	30		
5679011	F3 (C16-C34 Hydrocarbons)	2018/08/15	90	50 - 130	91	60 - 130	ND, RDL=200	ug/L	NC (1)	30		

QUALITY ASSURANCE REPORT(CONT'D)

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
5679011	F4 (C34-C50 Hydrocarbons)	2018/08/15	87	50 - 130	88	60 - 130	ND, RDL=200	ug/L	NC (1)	30		

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference $\leq 2 \times$ RDL).

(1) Duplicate Parent ID

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Cristina Carriere

Cristina Carriere, Scientific Service Specialist

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Date	November 2018
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APPENDIX D

Technical Support Documents

- October 4, 2018 Substantial Complete Inspection

Date	November 2018
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- October 4, 2018 Substantial Complete Inspection

Substantial Performance Inspection - October 4, 2017

ID	Work Item	Initial Inspection	Update Inspection	Completed? "passed inspection and is ready for use by Canada or is being used for the intended purposes"	Items Outstanding	Deficiencies	UPDATE STATUS	Work Scope revisions - Details	Surveillance?
1	PHC Soil work: PHC Cleanups -Airstrip -Carat Lake Laydown Area -Phase 2 Tank Farm -Phase 1 Tank Farm -Genset and Fuel Berm -Truck Shop and Laydown Area -Process Plant (storage Quonset) Construct Phase 1 Containment Cover	05-Sep-17	04-Oct-17	No. The PHC soil work/ cleanup was done Aug10 to 15, Aug 22 to 23, Aug28 to 29, Sep16 and Sep 21. The first half of the containment cell cover, liner and soil protection layer, was constructed Sep10 to 12; and remainder completed Oct03 to 04, following completion of PHC soil cleanup work.	Complete construction of the second half of containment cell cover (liner deployed Oct03). As-built survey.	Snow created some issues with the deployment of the second half of the liner; specifically alignment and final grade. A torn section was also noted on the liner, and will need to be stabilized.	The Phase 2 Tank Farm cleanup was completed on Sep23, ,2017. The remainder of the liner was deployed on Oct03.	The Genset APEC was removed from the PHC cleanup scope of work due to building and underground infrastructure in the way. ROJV's cover plan is to construct the cover across the entire Phase 1 and provide drainage across the cover surface; therefore the breach to the Phase 1 cell will not be required.	
2	Clean and Decommissioning drums, pipelines and ASTs -x8 Phase 1 Tanks -x4 Phase 2 Tanks -x9 Blue 60,000+ L Tanks -x1 White 60,000+ L Tank	05-Sep-17	03-Oct-17	No. The Phase 1 tanks were cleaned/ decommissioned Jul01 to 05, and Jul11. Phase 2 tanks cleaned/ decommissioned Jul07 to 09, Sep24.	Some remaining drums to be cleaned.		The remaining ASTs were cleaned Sep27 to Oct03.	ROJV notified the Crown, in their memo dated Aug14, that additional drums have been found on-site. The quantity of drums are those in addition to the quantity described in the Contract and that would require the same process management.	
3	Consolidation and Incineration of Waste Organic Liquids	05-Sep-17	13-Sep-17	Yes. ROJV incinerated 274,000 L, starting Jul13 and running through until Oc02. A second incinerator was brought to site to assist the operation on Aug31.			ROJV incinerated 274,000 L, an estimated 8,000 L of waste oil liquids will be shipped off-site for disposal.	ROJV notified the Crown, in their memo dated Aug14, that additional organic liquid wastes have been found on-site. The volume of the organic liquids is in addition to the quantity described in the Contract and that would require the same process management.	

ID	Work Item	Initial Inspection	Update Inspection	Completed? "passed inspection and is ready for use by Canada or is being used for the intended purposes"	Items Outstanding	Deficiencies	UPDATE STATUS	Work Scope revisions - Details	Surveillance?
4	Management of Hazardous Material Wastes	05-Sep-17	02-Oct-17	Yes. The final (progressive) Inspection of hazmat removal work from the mine buildings was done on Aug19; with the majority of the hazmat shipped to Yellowknife by Aug23. A last walk through of the shop and review of a hazmat work summary from KBL marked the completion of work on Oct02.	Reconciliation of the final quantities of shipped and disposed of hazardous material wastes.		KBL was back on-site Sep28 to assess the last outstanding inventory of material and work. The final wrap up of work was marked completed on Oct02.	ROJV was instructed to leave the following non-hazardous and non-regulated materials on-site: -Bentonite -Paraffin Wax Waste -Calcium Chloride -Foray ABC Dry Chemical -Polymer The waste acid tank in the Process Plan is also to be left as is; the decision was based on ROJV's specialist indicating that a full decommissioning of the acid room would be required to carry out the work; however, decommissioning of the mine buildings are not in the scope of the Contract.	
5	PKCA Tailings cover -pre-grading of tailings surface -construct cover	05-Sep-17		Yes. The pre-grade of the tailings surface was completed on Jul24-2017. The construction of the PKCA cover was completed on Sep01-2017.	As-built survey.			Grade stakes were used to mark and verify minimum that depth of cover was achieved over the PKCA. The water-covered section at SE PKCA will be left submerged; based on the existing topography of the area the water to serve as the final cover.	
6	West Dam Breach -excavation -rip rap	05-Sep-17	14-Sep-17	Yes. The excavation of dam breach was completed on Sep09-2017, rip rap placement completed on Sep14-2017.			The survey information for the West Dam was submitted on Sep25. The work item is Complete.	The north slope was excavated to near the original ground surface or left to gradually meet the surrounding terrain where the full cut was deemed extensive; the final north slope cut was carried out as instructed by the Departmental Representative. The exposed bedrock encountered at the west third of the channel base, approximately 300 mm above the design grade, could be left in place. The bend in the channel base alignment was reconfigured as per field instruction from the Departmental Representative.	

ID	Work Item	Initial Inspection	Update Inspection	Completed? "passed inspection and is ready for use by Canada or is being used for the intended purposes"	Items Outstanding	Deficiencies	UPDATE STATUS	Work Scope revisions - Details	Surveillance?
7	Divider Dyke A Notch -excavation -energy dissipation ramp -rip rap	05-Sep-17	14-Sep-17	Yes. The excavation of the dyke notch was completed on Jul27-2017, installation of energy dissipation ramp on Aug27, and placement of rip rap on Sep14.			Survey information for the Divider Dyke was submitted on Sep25; the work item is Complete.	The energy dissipation ramp was constructed to the extent required (volume based) to allow potential water flowing through the Divider Dyke notch to disperse and run smoothly into Cell C; the top of the ramp was crowned and ramp not extended to its full design length. The work was carried out as per the instruction of the Departmental Representative.	
8	Construction of Open Pit Outfall -excavation -rip rap	05-Sep-17	11-Sep-17	No. Outfall excavation stopped Jul18-2017, rip rap placement stopped Sep11-2017.	Rip Rap placement 60% complete as of Sep11. As-built survey.			The alignment of the outfall was adjusted in the field as instructed by the Department Representative to account for different existing terrain topography at the inlet side.	
9	Construction of C1 Channel -excavation -rip rap	05-Sep-17	08-Sep-17	Yes. The channel excavation was completed on Sep02-2017, rip rap placement completed on Sep08-2017.			Survey information for the C1 Channel was submitted on Sep25; the work item is Complete.		
10	Site Cleanup and Demobilization	n/a	04-Oct-17	No. The Hercules demob started Sep25, with two flights in; and then two flights on Oct02. Greywater sumps removed Oct03. ROJV HWTa work area cleaned up Oct03.	-6 Herc loads remaining -Stage and winterize the Crown's heavy equipment in the Shop -Leave the White Van and Ambulance at the Airstrip (in shipping container?) -Break down and remove the Camp -Close all mine buildings				

Date	November 2018
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APPENDIX E

As-built Records

- Civil Work As-built Report
- Contractor As-built Drawings

Date	November 2018
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- Civil Work As-built Report

Memo

To:	Dave Bynski	Client:	DXB Projects Inc.
From:	Dan Hewitt	Project No:	
Cc:	Michael Bernardin, Henry Wong	Date:	October 16, 2018
Subject:	Jericho Diamond Mine – Site Stability Project As-built Earthworks – DRAFT		

1. General

The as-built and contract data for the constructed breaches are summarized in Table 1. The as-built dimensions and quantities were either provided by ROJV or estimated from their as-built drawings. The contract specifications are in the contract drawings and the design basis memo in Attachment 1.

The variations in geometry and placement of riprap at Dyke A and the Open Pit Outfall may affect their performance. A section of the channel at Dyke A is narrow and riprap did not extend as far up the slopes as specified. As a result, high flows could erode the riprap in the narrow part the channel as well as the original dyke material above the riprap.

The riprap at the Open Pit Outfall is subject to erosion due to the steep channel grade and thinly placed riprap. Also of note, the pit perimeter road at the Open Pit Outfall will be subject to seepage or erosion as flood water approaches the target flood level due to the lower than expected ground elevation upstream of the outfall area. The road will essentially be acting as a dam for the pit water.

The total as-built excavation volume of 46,200 m³ was within 2% of the contract estimate of 47,100 m³. By contrast, the as-built volume of riprap placed totaled 8,565 m³, which was 3.4 times the contract estimate of 2,500 m³. The as-built drawings and design reports for the structures to be breached indicated that a portion of the original construction material would be suitable to leave in place as riprap, however, during excavation, none was found to be suitable.

A field adjustment was made to the Processed Kimberlite Containment Area (PKCA) cover to improve drainage performance and help avoid erosion of the coarse processed kimberlite (PK) cover by covering the existing drainage channels with large rock, rather than coarse PK as specified. There were minimum trafficability problems on the soft areas of the PKCA while placing the cover.

The placement of contaminated material and the cover arrangement at the Phase 1 Contaminated Material Consolidation Cell was successful, save for a snowfall which interfered with correctly placing the synthetic liner cover. The liner placement was corrected during the 2018 work program.

The following report Sections provide details of the as-built earthworks:

- Sections 2 to 5 discuss the as-built data for each breach location in detail and how it compares with the contract specifications.
- Section 6 presents the work to cover the PKCA.
- Section 7 presents the work at the Phase 1 Contaminated Material Consolidation Cell.
- Section 8 covers riprap supply.

Conclusions are in Section 9 and Recommendations are in Section 10.

Table 1 Summary of As-built vs. Contract Data for the Constructed Breaches

Item	West Dam Breach		Dyke A Breach		C1 Diversion Breach		Open Pit Outfall Breach	
	As-built	Contract	As-built	Contract	As-built	Contract	As-built	Contract
<u>Channel Excavation</u>								
width (m)	14.14	14.00	2.60 - 4.43	4.00	2.80 - 4.05	3.00	3.00	3.00
grade (%)	2.0	1.2	2.5	2.3	1.6	1.8	6.0	2.9
side slope (H:V)	3:1	3:1	5:1 - 5.5:1	6:1	4:1 - 7:1	4:1	6:1 - 8:1	6:1
inlet elev (masl)	516.50	516.00	520.00	520.00	487.50	n/a	478.78	478.48
outlet elev (masl)	514.65	514.90	518.80	519.10	485.50	n/a	477.36	477.43
riprap thickness (m)	0.80 - 0.81	0.50	0.72 - 1.04	0.50	0.20 - 1.83	0.50	0.23 - 0.37	0.50
riprap height (m)	1.80	min. 2.00	2.00 ¹	2.50	to crest of slope	to crest of slope	to crest of slope	to crest of slope
<u>Volume</u>								
excavation (m ³)	28,500	26,500	3,560	4,800	13,100	14,000	1,040	1,800
riprap (m ³)	1,600	1,100	650	200	6,150	950	165	250

¹ Dyke A as-built riprap height above channel bottom was estimated from ROJV's as-built drawing Dyke 'A' Breach, Sheet 4 of 4.

2. West Dam Breach

Work at the West Dam was completed between June 30 and September 14, 2017. Pumping was started from Cell 3, upstream of West Dam, to lower the water level so it would not enter the channel during construction (Photo 2). When excavation began, it was soon found that the material in the breach area was too solidly frozen for an excavator to dig. As a result, the initial excavation procedure was adapted whereby two benches were established so that one bench could be excavated while the other was left exposed to the sun to thaw out (Photo 3). Construction crews alternated between benches as thawing progressed.

When solar thawing did not progress fast enough for a continuous operation, Break-Away Drilling and Blasting Ltd. of Yellowknife, NT was subcontracted by ROJV to blast much of the remaining frozen material. After the blasting, final excavation resumed with the conventional excavator and dozer operation (Photo 6).

Excavation on the north side of the channel extended to original ground, which was bedrock, and exposed the 10.0 m wide key for the dam's north abutment (Photo 7). Once the material north of the channel was removed and the south slope had reached its excavation limit, excavation continued on the material in between, including the 14.0 m wide channel area (Photo 1, Photo 6).

When the channel alignment was staked for final excavation, it was noticed that there was excessive ground between the toe of the south slope and the south edge of the channel to be removed. Rather than remove this ground, the stakes at the kink in the channel alignment were moved closer to the south slope and the new alignment was tied in with the original inlet and outlet stakes. The re-alignment reduced the amount of excavation required. Frozen ground was still prevalent and ripping with a dozer was required to break up the frozen ground for the excavator to remove. The excavation material was stockpiled on the ground southeast of the dam.

The re-alignment adjustment was discussed with ROJV staff, and the excavator and dozer operators for their comments about the practicality of the change and how it may affect their work. There was minimum work delay as ROJV's surveyor, Simon Kasprzak, repositioned the grade stakes along the channel alignment right away so work could continue.

The finished channel grade was 2.0% (1.2% specified) and the width was 14.1 m (14.0 m specified). The slightly steeper grade will have no significant effect on channel performance. The riprap size and larger channel cross section are capable of handling the 18% higher peak flow rate resulting from the steeper grade.

When pumping from Cell C was nearing completion, the pump and hoses on the upstream side of the dam were removed to make more room to stockpile excavated material (Photo 8). The pump had been discharging to the downstream side of the dam.

The required riprap height above the channel bottom was reduced to account for the reduced channel flow resulting from larger as-built cross section; the north side of the channel was much larger than specified due to the blasting and more extensive excavation. The design assumed that the excavation would follow the slope of the original ground to form the north abutment of the dam. During excavation, the actual location of the original ground was found to be further north from the channel. The final excavation resulted in a span of ground with a very gradual slope from the

channel to the base of the dam's north abutment (Photo 7). The wider excavation increased the cross section of the channel. At peak flow, water would not be constricted by a north slope as shown in the design. Rather, it would be free to spread over the shallow as-built slope, thereby reducing the peak depth and flow rate of water and, therefore, the height of riprap required by the design.

None of the exposed dam material was suitable for use as riprap as had been expected. The dam construction material described in the IFC specification and as-built drawing sections was not found. The cobbles screened from esker material were used for riprap on the channel bottoms and slopes (Photo 7).

No ground temperature cables were found in the dam during excavation as noted in the Issued for Construction (IFC) specification and drawings for the original dam construction.

Thermosyphon pipes had been installed in the trench below the dam, ready to be put into service, as a contingency should the dam not remain frozen and leak at the base (Photo 4). The excavation likely did not extend deep enough to expose the inactive thermosyphon pipes shown in the IFC documents for West Dam. The pipes were capped and left uncharged according to Arctic Foundations, Inc. who was on site for the installation. Two pairs of evaporator pipes and vertical pipe stubs, ready to attach condenser sections if needed, were in place upstream of the dam on the south shore (Photo 4). The matching arrangement on the north shore as shown in the IFC dam construction drawing was not seen. There may actually be none on the north shore as the south shore arrangement had four evaporator pipes, the total number shown in the IFC drawings to be installed along the base of the dam.

Field Adjustments

The kink in the channel alignment was moved south to snug it up to the toe of the south slope (as-built Sheets 3 and 4).

Channel Grade

OK: 12 to 14 m flat grade as-built at the inlet vs. 10 m flat grade specified.

OK: slightly steeper 2.0% as-built grade thereafter vs. 1.2% specified does not affect channel performance.

Channel Width

OK: minimum 14.0 m as-built width vs. 14.0 m specified.

Riprap Thickness on Channel Bottom

OK: thicker 0.62 to 0.81 m as-built vs. 0.50 m specified does not affect channel performance.

Riprap Thickness on Channel Slopes

OK: 0.50 m (estimated from as-built Sheet 2) vs. 0.50 m specified.

Riprap Height (Cover on Side Slopes)

OK: 1.8 m (estimated from as-built Sheet 2) vs. 2.0 m specified. The larger as-built cross section and gradually sloping area on the north side of the channel reduced the riprap requirement.

Channel – South Side Slope (H:V)

OK: 3:1 as-built slope vs. 3:1 as specified.



Photo 2. Typical pump used for dewatering cells (West Dam).



Photo 3. Two excavation benches on the downstream side of West Dam; frozen ground was pervasive (looking south).



Photo 4 Inactive thermosyphon pipes.



Photo 5 Excavation underway in the channel area (looking west/downstream).



Photo 6. Excavation in the channel area; bedrock abutment on the north (left) side; blasting took place in the flat area (looking east/upstream).



Photo 7. Placing riprap in the channel; grade stake markers visible on north/far side (downstream to the left).



Photo 8. Overview of the stockpile of excavated material area on south side of the dam (north down in photo).

3. Dyke A Breach

The Dyke A breach was constructed between July 21 and September 17, 2017. Dyke A material was generally unfrozen, coarse in size, and digging progressed without delay (Photo 15, Photo 9). The grade at the inlet of the channel grade was flat for 5.0 m at the inlet as specified, and marginally steeper than specified thereafter (2.5% as-built grade vs. 2.3% specified), which will not substantially affect performance. The channel width, however, varies from 2.60 m at the inlet to 4.43 m at the outlet, where the specified width was 4.0 m. The narrower section will result in a flow rate faster than design and may result in erosion of the riprap.

The channel inlet elevation was check surveyed as it appeared to be higher than necessary for the upstream settling pond in the PKCA. The elevation was verified to be correct at 520.0 m.

The as-built channel side slopes of 5:1 and 5.5:1 were steeper than the 6:1 specified. The shallow 6:1 side slope was intended to allow easy driving through the breach. The side slopes near the channel inlet were shallower as they were on the upstream face of the dyke (Photo 10, Photo 11).

Although the riprap on the slopes was placed 0.5 m short of the specified vertical height above the channel, it was still within acceptable limits where the channel is at least 4 m wide: the contract height includes a 0.3 m allowance for construction tolerance and a 50% factor of safety for ice interference. The channel section narrower than 4 m will have a somewhat reduced factor of safety and could experience erosion of the original dam material above the riprap (Photo 12, Photo 13).

The top of the dissipation ramp was rounded off, rather than leaving it flat as shown in the design. This was to spread the out the flow of water discharging from the channel to enhance the energy dissipation effect (Photo 18).

The lower road on the upstream side of Dyke A was built to bypass the breach area and was the primary access route to the West Dam (Photo 14, Photo 31). It will not necessary to drive through the breach as long as the bypass road is not flooded by high water in the PKCA settling pond.

Field Adjustments

The energy dissipation ramp was rounded on top to enhance the energy dissipation effect.

Channel Grade

OK: 5.0 m flat as-built section at the inlet is exactly as per specification.

OK: as-built grade of 2.5% thereafter vs. 2.3% specified has negligible effect on performance.

Channel Width

Narrow: as-built channel width widens from 2.60 m at inlet to 4.43 m at outlet vs. 4.0 m specified.

Riprap Thickness – Channel Bottom

OK: 0.72 to 1.04 m as-built vs. 0.50 m specified.

Riprap Thickness – Channel Slopes

OK: greater than 0.50 m (estimated from as-built Sheet 4 of 4) vs. 0.50 m specified.

Riprap Height (Cover on Side Slopes)

Short: 2.0 m above riprap in channel (estimated from as-built drawing Sheet 4 of 4) vs. 2.5 m specified. Finer material above the riprap could be washed away during peak flow.

Channel - Side Slope (H:V)

Steep: 5:1 to 5:5 as-built vs. 6:1 specified.

Energy Dissipation Ramp

OK: 9:1 slope vs. 6:1 slope specified. The shallower slope is energy dissipation performance.



Photo 15. Easy digging in coarse, unfrozen material (looking north).



Photo 16. Channel staked ready for riprap (looking east).

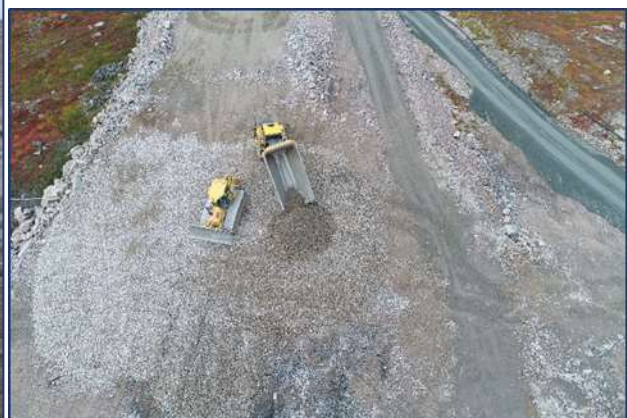


Photo 17. Placing riprap in breach (north up in photo).



Photo 18. Energy dissipation ramp at outlet.



Photo 19. overview of completed riprap (looking northeast).



Photo 20. Two roads on upstream side of Dyke A, one through the breach and a lower road on the upstream side of Dyke A (looking downstream/west).

4. C1 Diversion Breach

Construction took place between July 10 and September 8, 2017. Excavation experienced the same difficulty with frozen ground as at the West Dam. Solar thawing was assisted by flooding the frozen area in the downstream section of the breach. Water was being pumped from Cell C into the open pit at a location near the C1 Diversion Breach. The discharge was diverted to the breach area as required to flood the frozen ground. The construction crew rotated

Excavated material was stockpiled along the C1 Diversion Channel to the extent permitted by available space. This had the double advantage of reducing the haulage distance required to dispose of the excavated material, as well as having a supply of material nearby to plug the channel when the channel was no longer needed. When water started flowing through the new channel, the material was pushed into the diversion channel creating a substantial plug. The remainder of the material excavated was trucked to a bench on the opposite side of the open pit.

The slightly flatter grade of the channel (1.6% as-built vs. 1.8% specified) will not affect performance and the channel width was at least 3.0 m as specified (Photo 21). Riprap placement met or exceeded specification. Coarse rock was placed at discharge end of the channel to reduce erosion where the channel grade slopes down toward the open pit wall.

As protection from inadvertent entry into the open pit, a safety berm was placed along the downstream end of the channel at the pit wall. This berm connected with the existing pit safety berm on each side of the breach. Additional protection included a row of large rocks along the crest of the channel slopes to prevent vehicles from driving into the channel.

Field Adjustments

A berm was installed at the edge of the riprap along the pit wall to prevent inadvertent entry into the open pit.

Frozen ground was thawed by flooding with water to facilitate excavation.

Channel Grade

OK: 1.6% as-built vs. 1.8% specified. The slightly flatter grade will not affect performance of the channel.

Channel Width

OK: minimum 3.0 m as built vs. 3.0 m specified.

Riprap Thickness – Channel Bottom

Thin in flat area near outlet: 0.20 to 0.55 m vs. 0.50 m specified. This area had an uneven bedrock surface. The layer of riprap flattened the channel bottom and is not expected to affect performance.

OK elsewhere: 0.77 to 1.37 m as-built vs. 0.5 m specified.

Riprap Thickness – Channel Slopes

OK: minimum 0.50 m (estimated from as-built Sheet 4 of 4) vs. 0.50 m specified.

Riprap Height (Cover on Side Slopes)

OK: to top of crest as specified.

Channel - Side Slope (H:V)

Shallower than specified: 7:1 to 4:1 slopes will not affect performance.



Photo 21. Overview of the C1 Diversion Breach construction nearing completion (looking east).



Photo 22. Channel during final excavation (looking east).



Photo 23. Dozer grading the north slope (looking east).

5. Open Pit Outfall Breach

Construction took place between July 9 and October 4, 2017. This breach was the last to be completed as this part of the pit perimeter road was in active use to access Carat Lake for the camp water supply (Photo 24). The breach was mostly complete on September 11, 2017, however a traffic lane was maintained across the breach while the camp was in operation for access to Carat Lake. The lane was removed as part of the final construction.

The channel will underperform during periods of high flow. The finished channel width was 3.0 m as per contract specification. However, the channel grade is steeper than design (6.0% as-built grade vs. 2.9% design) resulting in a 28% faster peak flow rate. As a result, the riprap is undersized to handle the peak flow and will not hold up. Also affecting erosion of the riprap is the thinness of the riprap, which is below specification (as-built thickness from 0.23 to 0.37 m vs. 0.5 m specified).

Another concern with the as-built configuration resulting from lack of material at the inlet is that the pit perimeter road will be acting as a dam (Photo 25). It may not be water tight, or have the strength to perform as a dam, when the pit water level approaches the channel inlet elevation of 478.8 m. Two conditions may arise where it would be prudent to lower the channel to the original ground level. Firstly, the road may be permeable and, should water seep through the road, the open pit water level and outflow will not be controlled effectively. Secondly, the road will become saturated and reduce its structural stability, posing the possibility of a washout. Both conditions can be mitigated by excavating the breach to original ground and placing the specified riprap directly on top of the ground. The breach is located at a topographical low which is in the original flow path of water coming from the C1 Channel area and across the open pit area before the pit was developed.

Field Adjustments

A construction guideline superseding the contract design was prepared to account for the absence of material at the inlet end of the channel (Attachment 2). The guideline was reviewed and discussed on site with ROJV, however the actual construction did not follow the guideline.

Channel Grade

Steep inlet stretch (meant to control pit water level): 1.6% as-built vs. 0.0% specified. Control of water elevation in open pit and possibly the structural integrity of the breach may be affected.

Steep thereafter: 6.0% as-built vs. 2.9 % specified. Steepness affects performance of channel.

Channel Width

OK: minimum 3.0 m as built vs. 3.0 m specified.

Riprap Thickness – Channel Bottom

Thin: 0.23 to 0.28 m where measured¹ vs. 0.5 m specified. The thin riprap cover affects performance of channel.

¹ Measurements were not available for riprap thickness in areas where the excavation limit was not surveyed (see as-built drawing Sheet 4 of 4, file name outfall_4.pdf).

Riprap Thickness – Channel Slopes

Thin: 0.27 to 0.37 m where measured vs. 0.5 m specified affects performance of channel.

Riprap Height (Cover on Side Slopes)

OK: top of crest as specified.

Channel - Side Slope (H:V)

OK: 7:1 to 9:1 as-built slopes vs. 6:1 slope specified. The shallower slopes do not affect performance.



Photo 26. Overview of Open Pit Outfall Breach area and absence of ground on the upstream (left) side (looking west).



Photo 27. Remnant geotextile in the breach area (looking west). Photo 28. Original ground at the channel outlet.

6. Processed Kimberlite Containment Area Cover

The cover over the Processed Kimberlite Containment Area (PKCA) was placed between July 18 and September 1, 2017. The coarse process kimberlite (PK) cover material was dumped on the PKCA in rows, ready to be pushed with the dozers (Photo 29, Photo 30). Grade stakes with a 0.30 m mark were placed on a grid throughout the PKCA as a guideline for the equipment operators when spreading the coarse PK cover.

The coarse PK was found to be somewhat spongy to walk on and was visibly compacted when equipment drove over it (Photo 30). This made it tricky to establish a uniform cover thickness. The thickness was checked by digging down to the tailings with a shovel at several grade stake locations and taking a measurement. The thickness was found to be at least 0.30 m, as specified, at all locations.

Soft areas were encountered in the southeast area between the tire east dam and the PKCA island. The tailings became softer towards water where there was a concern for trafficability, i.e. towards Dyke A and the south pond. However, cover placement was successful in all areas except the south pond (Photo 31). At the pond, the coarse PK was dozed as far along the shoreline as the possible without sinking into the soft tailings. The origin of the sink holes that developed in the southeast area of the PKCA is unknown and the PKCA should be monitored for similar unusual occurrences (Photo 32, Photo 33).

The coarse PK stockpile was found to be partially frozen. Strategies were developed to allow the material to thaw as it was exposed, with the result that sometimes the haulage trucks were loaded on top of the stockpile and sometimes at the base of the pile. For example, one technique was to have a dozer on top of the pile push unfrozen material over the edge for the loaders to pick up the bottom. Scraping unfrozen material off the top of the pile allowed the sun to thaw the newly exposed frozen material. When frozen material was encountered during excavation at the bottom of the pile, the operation simply moved to another area where the material was not frozen.

The runoff management strategy included covering the historic drainage paths with rock rather than coarse PK, which could develop gullies or wash away (Photo 31). The rock was intended to function as a variation of a French drain to allow runoff to follow established drainage paths.

Field Adjustments

The existing drainage channels in the PKCA were dressed with coarse rock, rather than covered with coarse PK, to encourage drainage to continue along these established paths. This idea for adaptive management of runoff drainage was initiated by ROJV.



Photo 29. Overview of PKCA showing line of coarse PK piles up ready to be spread with a dozer (looking east).



Photo 30. Close-up of coarse rock in drainage path, piles of coarse PK ready to spread, and equipment tracks in the coarse PK.



Photo 31. Overview of PKCA; rock drain channels visible; south pond (right side of photo) closed in by coarse PK; bypass road upstream of Dyke A at bottom of photo (looking east).



Photo 32. Sink holes developed in the coarse PK cover in the southeast area of the PKCA (looking northeast).



Photo 33. Close-up of sink hole in coarse PK cover.

7. Phase 1 Contaminated Soil Consolidation Cell Cover

Preparation included decommissioning the existing fuel tanks #1 to #8 and above ground storage tank #15 inside the Phase 1 Tank Farm containment area. The inside of tanks was cleaned by All Peace Petroleum Ltd. to remove any remaining fuel. The tanks were removed and stored on their side in the helipad area (Photo 36, Photo 37). Tanks #1 to #8 were secured from rolling by placing mounds of gravel up against them.

The original construction of the Phase 1 containment area was not altered. The liners and liner cover material in the floor and berms of the containment area were left intact. The containment berm was not breached on the southeast side for access and drainage as specified in the contract. Rather, a gravel access ramp was placed over the southeast berm for equipment access to leave the berm intact.

The contoured surface of the contaminated material and cover were mounded as specified to shed runoff to the outside of the containment area (Photo 42). The cover should be monitored for settlement and possible poor drainage and pooling of water.

The containment served as temporary storage for barrels of contaminated material. The drums were subsequently emptied into the containment area and moved to the hazardous waste treatment area (HWTa) for washing.

The liner was placed over the contaminated material in two stages (Photo 38). The initial liner placement covered the material already placed and contoured in the northeastern half of the containment. The southwestern half was left uncovered to allow placement and contouring of remaining contaminated material. The liner was folded back, ready to pull across the open southwestern half of the containment when ready. When the time came to complete the liner placement, an overnight snowfall weighed down the liner to the extent that the pulling force required to drag the liner sometimes tore the liner where it was being gripped. Successive re-gripping and tearing shortened the effective length of the liner to the point where further pulling would have left the liner too short to cover the southwest berm (Photo 39, Photo 34). As a result, the cover was not pulled out completely flat, leaving a snow-filled “S” fold in the middle (Photo 35). The installation was corrected during the 2018 work program.

Field Adjustments

The southeast berm of the Phase 1 containment was not breached as specified for access and to drain the containment area.

Rather than installing a partial cover, ROJV covered the entire containment area.



Photo 36. Placing the cleaned fuel tanks from Phase 1 into a laydown area on July 16 (looking northeast).



Photo 37. Fuel tanks #1 to #8 cleaned and moved from Phase 1 tank farm to laydown area (looking north).



Photo 38. Preparing the liner to pull over the contaminated material.



Photo 39. Pulling the liner over the southwestern half of the Phase 1 consolidation area.



Photo 40. Pulling the liner over the southwestern half.



Photo 41. Bulge in the liner where snow was trapped.



Photo 42. Covering the liner with coarse PK at the Phase 1 Contaminated Material Containment Area (looking north).

8. Riprap

Riprap was sourced from two locations to minimize haulage distance. The main source was an existing stockpile of esker material near the West Dam was screened with an EXTEC 4400 screening plant (Photo 45). The oversize material was stockpiled for use as riprap while the undersize was used mainly for road dressing. This riprap for the West Dam, Dyke A and the C1 Diversion Breach.

A second source of riprap was also an existing stockpile of esker material, which had been partially screened, east of the coarse PK stockpile (Photo 43). Material at this location provided riprap for the C1 Diversion Breach and the Open Pit Discharge Breach.

The riprap was spread in different directions across the breaches, depending on accessibility for the haulage trucks. If riprap was dumped near the top of a channel slope, it was pushed down the slope with a dozer, sometimes pushing right across the channel bottom and up the opposite slope (e.g. Dyke A, Photo 44). Where riprap was dumped along the channel bed (e.g. West Dam), the dozer pushed the riprap along the channel and up the slopes.

The riprap at the West Dam and Dyke A did not extend as far up the slopes as specified. This may have been due to a misunderstanding with the contract drawings. The as-built drawings show the top edge of riprap on the channel slopes measured from the bottom of the excavation, rather than the top of the riprap in the channel as shown in the contract drawings. As a result, fine material on the slope above the riprap may tend to wash away during a high flow event.



Photo 45. Screening plant making riprap near West Dam. Photo 46. Stockpiled riprap near the coarse PK stockpile.

9. Conclusions

Performance of the as-built earthworks can be expected to perform well in all but two locations. High water flow will tend to erode riprap, especially at the inlet area at Dyke A. The channel is narrow at the entry area and riprap did not extend to the top of the slopes. Riprap at the Open Pit Outfall will be prone to erosion during times of high flow due to the steepness of the as-built channel and thinness of riprap.

Decisions were made on site to adjust earthwork designs to fit actual site conditions. Actual conditions were not always as shown in the contract documents and the information available to prepare the designs. The variations typically occurred:

- During excavation (e.g. materials used in original dam construction differed from design reports and as-built drawings).
- With work in progress (e.g. West Dam channel was re-aligned closer to the south slope).
- Where actual conditions at a location were different original ground contours than depicted in available documents (e.g. topography on the inlet side of the open pit outfall breach).

Frozen ground was encountered at several locations. Site specific construction procedures were developed to encourage or assisted to speed up solar thawing. At the West Dam, two workplaces were established and work alternated between them, allowing the idle workplace time to thaw. The excavation at the C1 Diversion Breach was soaked with water pumped from Cell C to speed up thawing. The crew was assigned to another workplace to allow time for thawing to take place. Soaking the frozen material was a successful thawing procedure.

Conditions requiring field adjustments, and other questions arising during the course of construction, were discussed on site with ROJV's personnel for alternative options, practicality and implementation methods.

10. Recommendations

Recommendations to ensure confidence in the continued performance of the earthworks constructed as part of the Jericho Site Stabilization Project are twofold:

1. Inspect the earthworks to assure their ongoing ability to perform well and to take note of any changes requiring mitigation and any positive changes. A typical inspection protocol for the earthworks would be to set up a schedule to inspect the breach areas, the PKCA, and the contaminated soil consolidation area annually for 5 years following construction to assess performance and any conditions requiring mitigation, e.g. as a result of settlement, water management/drainage issues, erosion, freeze-thaw effects, vegetation growth, animal burrows, sediment control, structural degradation, and other changing conditions that may affect performance. The inspection interval can be relaxed or increased according to the change in conditions and assessment results. Inspections should be carried by a qualified person and documented in a report format complete with inspection forms and a photographic record.
2. Prepare an action plan to rectify the non-performance conditions at the Open Pit Outfall and the adjacent pit perimeter road.

Attachment 1

Design Basis Memo for Earthworks

Memo

To:	Dave Bynski	Client:	DXB Projects Inc.
From:	Dan Hewitt	Project No:	
Cc:	Henry Wong	Date:	January 9, 2017
Subject:	Jericho Diamond Mine – Site Stability Project Design Basis for Drawings C01 to C05 in Tender Package - DRAFT		

1 Introduction

A tender package is in preparation for site stabilization work at the Jericho diamond mine, NU as a step forward in the site remediation. Indian Affairs and Northern Development Canada (INAC) has operational custody of the site and the remediation tendering process is being managed by Public Services and Procurement Canada. As part of the tender package for site stabilization activities, Flat River Consulting was contracted to prepare drawings for breaching structures in the processed kimberlite containment area (PKCA) and open pit area, and cover the tailings (Figure 1 and Figure 2). Available data and standard design guidelines were used in developing the drawings. This memorandum describes the technical elements considered for the drawings.

The breaches will establish pre-mining water flow paths. Water from Cell A of the PKCA, where the tailings are located, will be directed west to Stream C3 via the breaches in Dyke A and the West Dam. Water from the C1 Diversion at the open pit will be diverted into the open pit via a breach in the pit perimeter road, aka ring road, on the west side of the pit. This water will assist with flooding the pit. When flooding of the open pit is completed, pit lake water will report to Stream C1 via a breach in the pit perimeter road on the north side of the pit.

The structures involved are:

- Dwg C01 - West Dam Breach: located at the west (downstream) end of the PKCA, breaching will allow water to resume its original flow path into stream C3
- Dwg C02 - Dyke A Breach: located at the west (downstream) end of Cell A, the breach will allow water to flow west along its original flow path toward the West Dam
- Dwg C03 – Open Pit Outfall Breach: a breach in the pit perimeter road at the north side of the open pit will allow pit lake water to flow along its pre-mining alignment in Stream C1 once the pit is flooded
- Dwg C04 - C1 Diversion Breach: a breach in the pit perimeter road on the west side of the open pit will allow water which is currently reporting to the C1 Diversion northwest of the pit to flow into the open pit and shorten the time required to flood the pit
- Dwg C05 - PKCA Tailings Cover: the cover is intended to reduce the dusting and erosion potential of the fine processed kimberlite (PK) tailings.

2 Hydrological Considerations

Available data and standard hydrology calculations were used to determine peak flow velocity in the channels and to confirm channel geometry (Sect 2.2). Riprap specifications were based on the channel slope and depth of water in the channel at the calculated peak flow velocity (Sect 2.3).

2.1 Catchment Areas

Catchment areas were outlined using 1 m contours and the general catchment outlines as shown in available reports.

The catchment areas for the PKCA represented by Tetra Tech EBA (Figure 3 of NIRB 2011b, and NWB 2014) were used as guidelines to outline the individual catchment areas reporting to the breaches at Dyke A and the West Dam.

At the open pit, it was assumed that during mine operations water management measures were in place to divert water away from the pit to reduce inflows into the pit workings. Accordingly, the open pit catchment area outlined in the Pit Dewatering Management Plan (Figure 1 of NIRB 2011c and NWB 2014) was used to outline catchment area used for the open pit outflow calculation.

Tetra Tech EBA had issued a geotechnical design report for C1 Diversion which included a detailed understanding of the relevant hydrology and hydrogeology (NWB 2005). Accordingly, the C1 Diversion Breach arrangement was assumed to be technically sound as presented (Figure 12 of Tetra Tech EBA 2015).

2.2 Peak Flow Rate

The hydrology calculations used the channel widths specified by Tetra Tech EBA (TT EBA 2015). The channel grades were adjusted slightly higher to allow a flat entry of water into the channels and avoid erosion of the channel entry elevation.

Hydrology calculations were performed for catchments reporting to the West Dam, Dyke A and the Open Pit Outflow Breach as a check on the recommended breach arrangements (Figures 13, 15 and 16 of TT EBA 2015). The worst-case event of a 200 year return period rainfall of 269 mm, combined with snowmelt from a 200 year snowfall of 251 mm, was considered (Table W1 of SRK 2003). Water content of snow was estimated at 10% of snowfall, or 25.1 mm.

In each of the three catchment areas, two methods of calculating the time of concentration for peak runoff were compared as a check on reliability of results: the Kirpich equation, and the Rational Method developed by SRK for the site (SRK 2003). Using the calculated time of concentration, rainfall intensity was read from a graph (Figure C.27 of SRK 2003) using the 200 year return line on the graph. Runoff discharge rate was then calculated from the standard formula for flow rate $Q = cIA$, which has dependent variables of terrain runoff factor (c), rainfall intensity (I) and catchment area (A).

The peak flow velocity in the channels was then calculated from the peak flow rate with Manning's equation as well as from the channels' trapezoidal cross sectional dimensions. Depth of water in the channel was a dependent variable in both equations, and an iterative calculation was performed to determine the depth of water (to the nearest millimetre) at which the flow rate yielded by each equation was essentially the same. The resulting difference in peak flow rate between the two equations was less than 0.005 m/sec for each channel.

The depth of water in the channel at peak flow was the basis of determining the height of riprap above the channel bottom. A 1.0 m freeboard allowance was added to the calculated water depth, and the combined depth was increased by 50% to allow for unpredictable interference from ice. The result was rounded up to the nearest half metre. Height of riprap is only a concern in areas where finer material or original ground will be exposed during excavation as explained at the end of the next section.

The calculated peak flow velocity confirmed the channel widths specified by Tetra Tech EBA (TT EBA 2015). The flows were used in the following section to determine the height of riprap on the channel slopes as well as the appropriate size for the riprap.

2.3 Riprap

The appropriate riprap size was determined by applying the calculated channel water depth and channel slope to a riprap sizing chart (Plate 5-31 of VA DEQ 1992). For each channel, the required 50% passing size for riprap was less than 100 mm (0.25 ft. on the chart). This was well below the size range of the run of mine waste rock used during construction, and indicated that the run of mine material could be used for riprap and erosion protection purposes.

The thickness of riprap specified for the breach channels was based on a guideline from the British Columbia Ministry of Environment, Lands and Parks (BC 2000). The guideline recommended adding from 0.15 m to 0.30 m thickness in areas of severe freeze-thaw conditions. The base riprap thickness of 0.35 m for riprap in the channels was thus increased by 0.15 m for a total minimum riprap thickness of 0.50 m.

During construction, riprap height above channel bottom will only be a consideration in areas where material finer than run of mine waste rock or original ground, both of which would be susceptible to erosion, will be exposed and needs to be covered with riprap for erosion protection. Where these areas are encountered, the finer material, i.e. till, 20 mm minus, core and 200 mm minus materials, is to be excavated 0.5 m and then covered with 0.5 m of riprap. Original unconsolidated ground does not need to be excavated, but is to be covered with 0.50 m of riprap. Excavation in other areas will be in the run of mine waste rock, which will essentially serve as a built-in riprap at the excavation limit. Further considerations concerning excavation and construction are in the following section.

3 Breach Excavation and Construction

The as built cross section drawings of West Dam and Dyke A list the various materials used for construction and indicate their location (Appendix G of TT EBA 2014). The pit perimeter road, as with other site roads, was constructed of either esker material or run of mine granite, capped with a mixture of esker and 2 inch or 3/4-inch crush (Sect. 3.1.6 of TT EBA 2014).

It is assumed that quality assurance and/or quality control of the materials used during the construction of Dyke A and the West Dam ensured that the materials met the specifications outlined in their respective design documents (NWB 2006a and NWB 2006b). On this premise, the run of mine waste rock excavated in the breaches can be assumed to be reliably sized for use as riprap. The run of mine waste rock meets the requirements for riprap size in the channels as determined in Sect. 2.3. It is also a suitable cover for the finer materials and original ground exposed higher up the slopes during excavation that require erosion protection. The specified thickness for riprap was 0.50 m with overlap of 1.0 m over dissimilar adjacent material.

The bulk of Dyke A and the West Dam was constructed of run of mine waste rock as indicated by the as built drawings (Appendix G of TT EBA 2014). During excavation of the breaches and construction of the channels, the exposed run of mine waste rock can remain in place at the excavation limit to serve as riprap.

Where finer materials requiring erosion protection will be exposed, i.e. till, 20 mm minus, core and 200 mm minus materials, the material is to be excavated an additional 0.50 m and then covered with 0.50 m of run of mine waste rock for erosion protection. The finished surface will then be flush with the adjacent channel excavation. Original ground in zones requiring riprap is to be covered with 0.50 m of riprap, making the finished surface flush with the adjacent riprap.

When selecting material for riprap, zones of well sorted material and poorly sorted material may be encountered. The well sorted (poorly graded) material is to be avoided for use as riprap. The poorly sorted (well graded) material will do a better job of erosion control due to the lower void space and lower hydraulic conductivity.

4 PKCA Tailings Cover

The fine PK tailings in Cell A of the PKCA are to be covered with coarse PK (SRK 2004 and TT EBA 2015). The reports each recommended a cover thickness between 0.30 m and 0.50 m and specified grading to establish natural drainage. For the tender package, a nominal base cover thickness of 0.30 m is specified with a subjective additional allowance for final grading and irregularities in the underlying tailings surface. INAC suggested a factor of 25% for the additional cover requirement.

A degree of erosion from surface runoff can be expected. Pre-grading the tailings has been specified to remove existing erosion gullies, smooth the topography, and establish preliminary drainage contouring in preparation for placing the coarse PK cover material. Further, the cover has been specified to have flat lying slopes to reduce runoff flow rate. The contouring is to be graded to direct surface drainage toward the topographical low area upstream of Dyke A.

5 Drawings

The drawings were based on Tetra Tech EBA's Figures 12, 13, 15, 16 and 17 in EBA's Options Analysis (TT EBA 2015). The drawings were revised to include additional information required by bidders as a basis for preparing bids. This information includes:

- Dimensions for length and width of channels
- Channel inlet and outlet elevations
- Percent grade for the channel bottom
- H:V ratio for channel side slopes
- Height of riprap above channel bottom
- Thickness of riprap layers
- Material types available in the structures suitable for use as riprap
- Indicating the finer materials in the breaches requiring riprap cover and the extent of cover
- References to the reports containing relevant background information.

The Issued for Tender drawings were posted on the project SharePoint site and sent by email.

6 Specifications

Specification Section 31 22 33.01 – *Excavating and Backfilling Earthwork Constructions* was reviewed to ensure conformity between the drawings and the specification text.

Specification 31 22 13.01 - *Rough Grading and Construction Earthworks* was reviewed to ensure the intent of the cover was expressed appropriately in the specification text.

7 References

- BC 2000. [*Riprap Design and Construction Guide*](#). Province of British Columbia Ministry of Environment, Lands and Parks. Public Safety Section. Water Management Branch. March 2000.
- NIRB 2011a. [*110601-00MN059-OMS Manual - Jericho Diamond Project*](#). Operations, Maintenance & Surveillance Manual, PKCA Dams. (Tetra Tech EBA. February 2011) Nunavut Impact Review Board website. 2011.
- NIRB 2011b. [*110601-00MN059-Interim Closure and Reclamation Plan*](#). Interim Closure and Reclamation Plan. (Tetra Tech EBA. February 2011) Nunavut Impact Review Board website. 2011.
- NIRB 2011c. [*110612-00MN059-2011 Pit Dewatering Addendum to PKMP*](#). 2011 Pit Dewatering Addendum to Processed Kimberlite Management Plan. (Tetra Tech EBA. May 2011) Nunavut Impact Review Board website. 2011.
- NWB 2005. [*050830 NWB1JER0410 C1 Diversion-IEDE OK*](#). C1 Diversion – Geotechnical Design. Letter Report. (Tetra Tech EBA. August 2005.) Nunavut Water Board website. 2005.
- NWB 2006a. [*060622 2AM-JER0410 R01 Final Long Lake Divider Dykes June 2005*](#). Long Lake Divider Dyke Design Report. (EBA Engineering Consultants Ltd. June 2005.) Nunavut Water Board website. 2006.
- NWB 2006b. [*060622 2AM-JER0410 D2 R01 Final West Dam Design September 2005*](#). West Dam Design Report. (EBA Engineering Consultants Ltd. September 2005.) Nunavut Water Board website. 2006.
- NWB 2014. *141029 2AM-JER1119 Gen Mon Plan Catchment Areas SWF Site Water Flow Mon Location Map-IMLE*. (Tetra Tech EBA. January 2011.) Nunavut Water Board website. 2014.
- SRK 2003. Technical Memorandum C – Supplemental Climate and Hydrology. Report to Tahera Corporation. SRK. October 2003.
- SRK 2004. [*Technical Memorandum W – Site Water Management*](#). Report to Tahera Diamond Corporation. SRK. August 2004.
- TT EBA 2014. *Environmental Site Assessment, Materials Survey and Geotechnical Evaluation*. Report to AANDC. Tetra Tech EBA. December 2014.
- TT EBA 2015. *Options Analysis Rev 02 Jericho Diamond Mine, Nunavut*. Report to AANDC. Tetra Tech EBA. April 2015.
- VA DEQ 1992. [*Erosion and Sediment Control Handbook, Chapter 5 – Engineering Equations*](#). ESC Handbook. State of Virginia Department of Environmental Quality. 1992.



Figure 1 Jericho Diamond Mine - Processed Kimberlite Containment Area Breaches
Source: TT EBA 2015.



Figure 2 Jericho Diamond Mine - Open Pit Breaches

Source: TT EBA 2015.

Attachment 2

Construction Guideline for Open Pit Outfall

Open Pit Outflow Breach - Construction Guideline

The flat ground shown in the design drawing on the inlet end of the channel is not actually there. As a result, the channel arrangement needs to be reorganized and the construction procedure needs to be modified. The purpose of this guideline is to lay out what is required to build the required channel.

Ground on inlet side is lower than outlet, therefore excavation should start level with the original ground the outlet end of the channel and work toward the inlet end, keeping a slight upgrade toward the inlet end.

It is possible that the original ground beneath the channel may have bedrock that could interfere with the excavation. In that case the bedrock could be blended with the riprap on the channel bottom, or the channel could be raised.

The measured channel length in the current excavation is about 19 m. The width of the channel is to remain at minimum 3.0 m as per design. The side slopes may be steeper to accommodate deeper excavation, if necessary. The side slope need not be a constant from bottom to top, but if there is a slope change, it should be a gradual transition.

The slope of the channel can be flatter than the 2.9% design grade, or even flat.

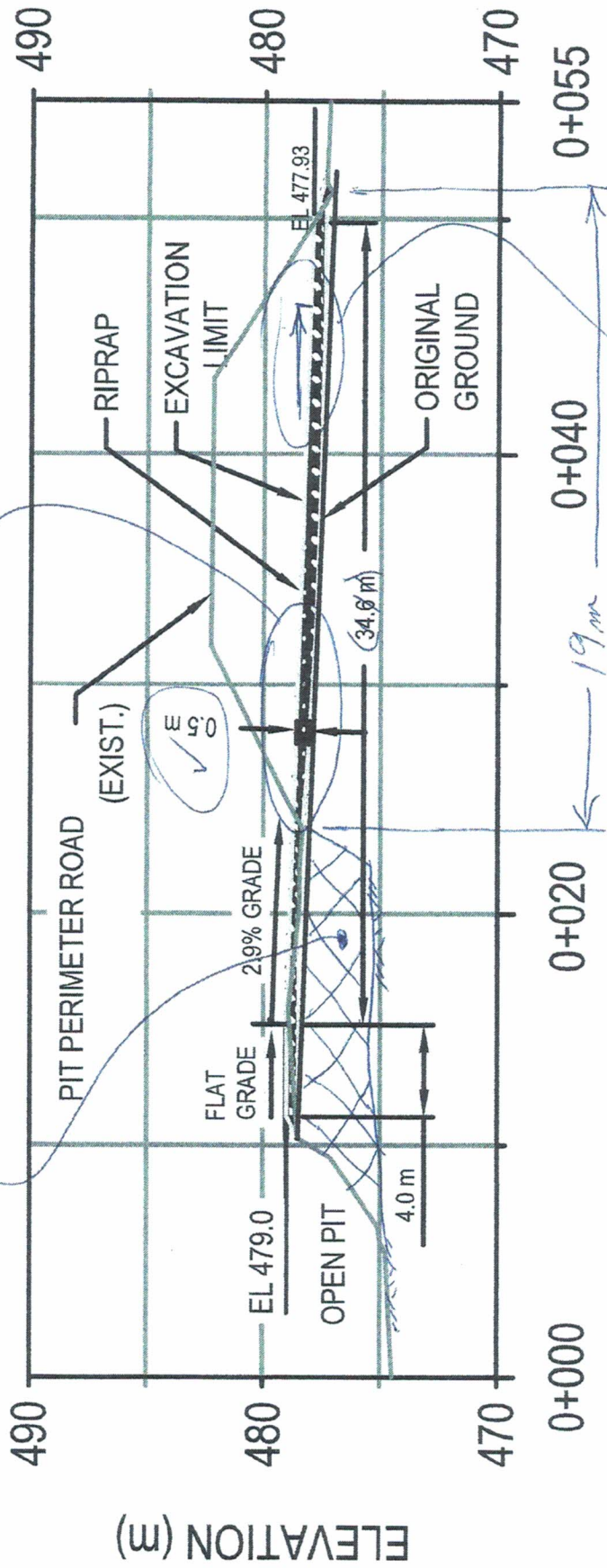
Place riprap so as to achieve a minimum 4 m long flat stretch at the inlet end to control water level in the pit. The channel length and width dimensions are stated as "minimum" for flexibility during construction.

Frozen ground below the channel may result in settlement of the channel after construction. To avoid settlement, and if project schedule allows, the ground can be left uncovered to thaw before placing the riprap.

John,
Please review
so we can discuss.
Thanks,
Dan.

input the flat stretch
in this area, min. 4 m long

other material in
not actually here.



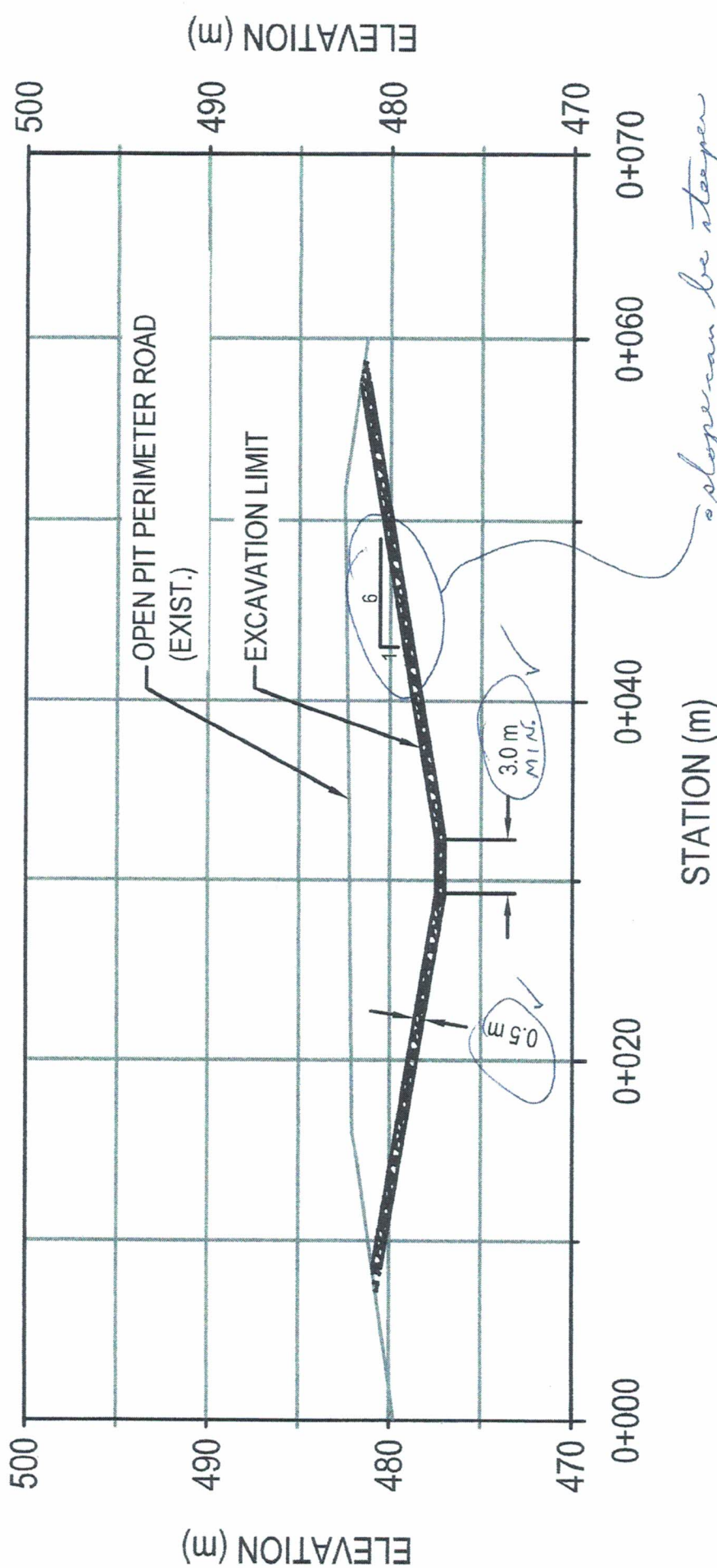
STATION (m)

PROFILE SECTION
LOOKING WEST

grade can be
flatter than the
2.9% design grade



OPEN PIT
OUTFALL BREACH



CROSS SECTION $\frac{F}{\text{O}}$
LOOKING NORTH

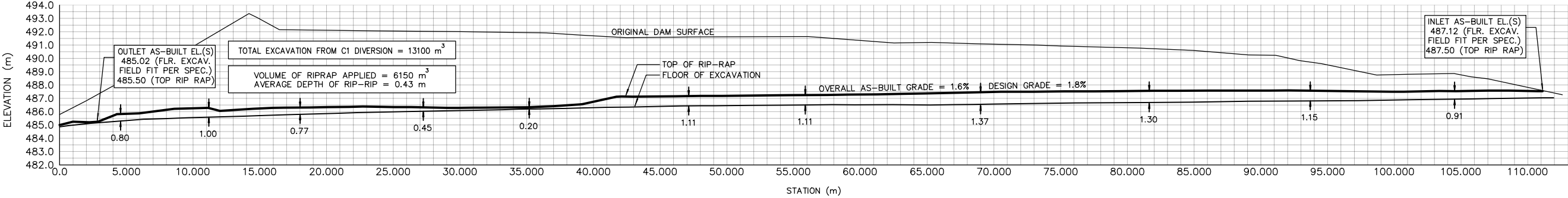
OPEN PIT
OUTFALL BREACH

Photos looking west toward jetty road

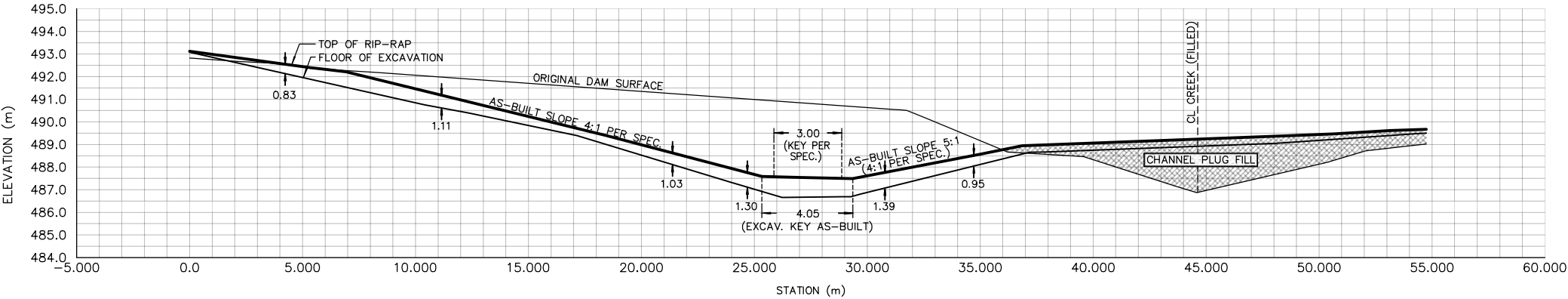


Date	November 2018
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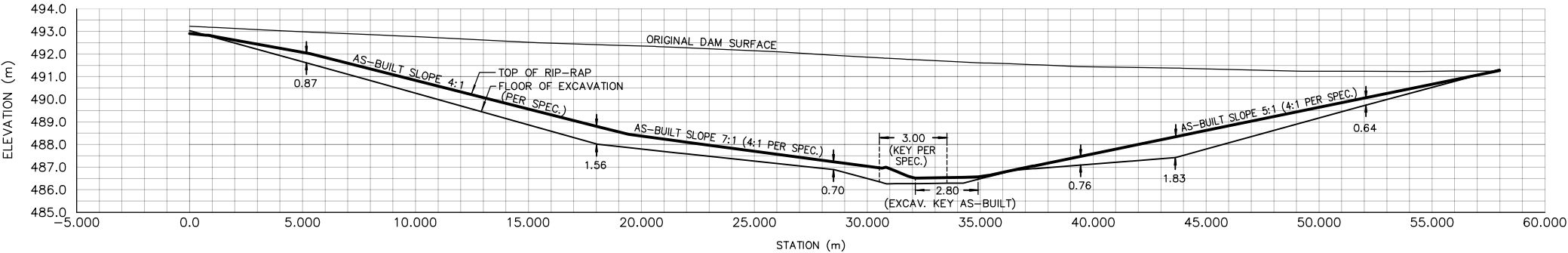
- Contractor As-built Drawings



PROFILE E-E' – FACING NORTHWEST
1.5x DRAWING SCALE FOR CLARITY



CROSS SECTION F-F' – FACING SOUTHWEST/UPSTREAM
2x DRAWING SCALE FOR CLARITY



CROSS SECTION G-G' – FACING SOUTHWEST/UPSTREAM
2x DRAWING SCALE FOR CLARITY

Jericho Diamond Mine, Nunavut
Site Stabilization & Remediation

Client:
Public Services and Procurement Canada (PSPC)

Topographic Sketch
C1 Diversion Breach

Sheet 4 of 4 - C1 Diversion Cross Section and Profile

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Coordinates Note:
Drawing Coordinates are in Mine Site Coordinate System

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CP1	7318486.389	477006.447	525.270	Bolt
CP2	7318493.816	477048.138	522.548	IB
CP3	7318704.646	476909.615	523.956	Bolt
CP4	7318562.228	476940.260	524.118	Bolt

Basemap Note:
Base Mapping originates from Flat River Consulting
Project No. R.083349, Drawing C04, dated May 31, 2017

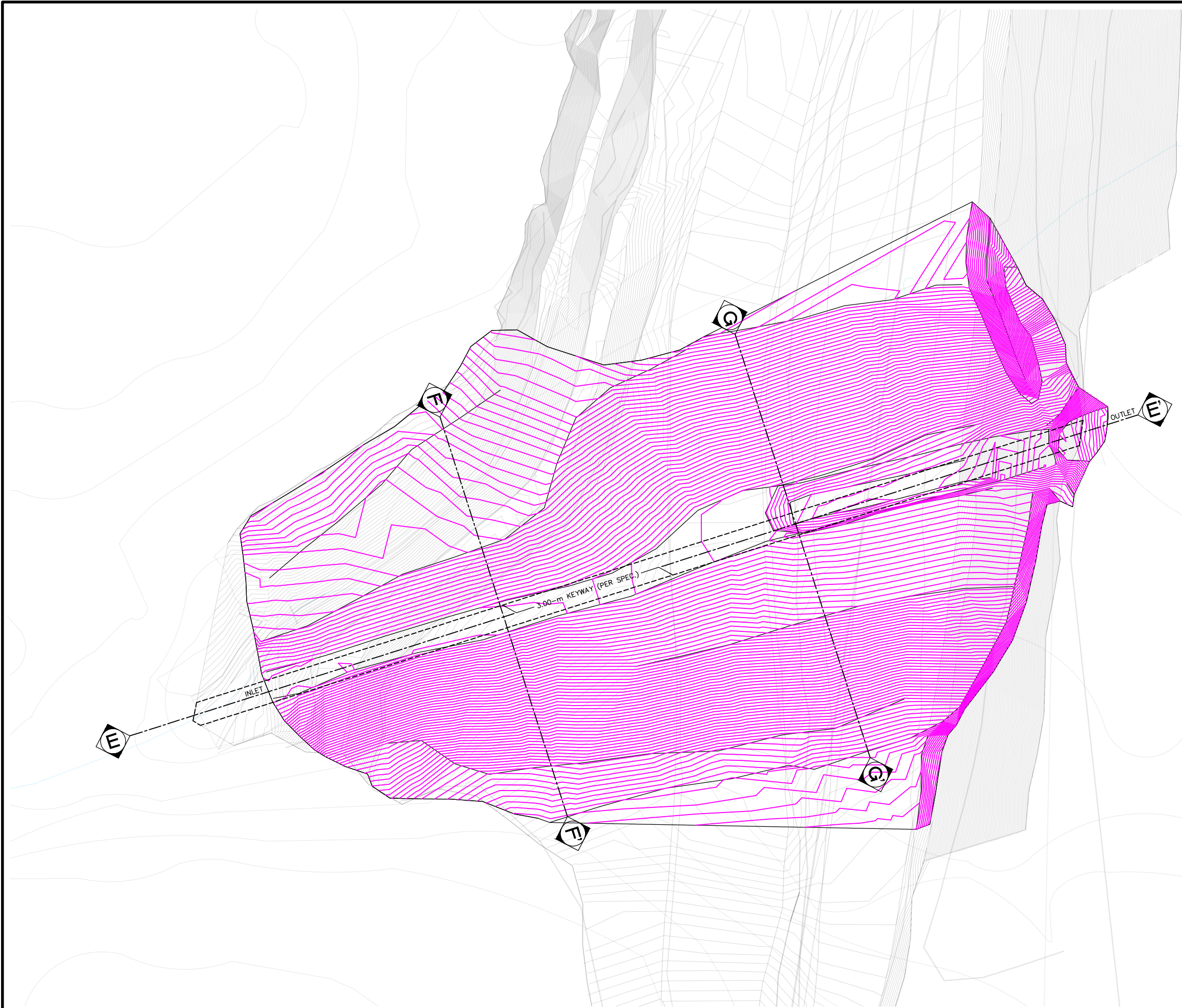
Survey Data Note:
Information shown on this drawing based on survey
data collected up to September 15th, 2017

Specification Note:
See Drawings C01 to C05 prepared by Flat River Consulting,
Project No. R.083349, dated May 31, 2017.

Rowes Outcome Joint Venture

Simon Kasprzak, D.L.S.
contractals@gmail.com

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DRAWN BY: S.Kasprzak	DATE: 09-21-17

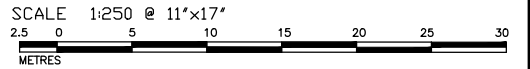


Jericho Diamond Mine, Nunavut
Site Stabilization & Remediation

Client:
Public Services and Procurement Canada (PSPC)

Topographic Sketch
C1 Diversion Breach

Sheet 3 of 4 - C1 Diversion Top of Rip Rap Contours



Coordinates Note:
Drawing Coordinates are in Mine Site Coordinate System

Local Mine Site Control:				
Point	Northing	Easting	Elevation	Desc.
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CP2	7318493.816	477048.138	522.548	IB
CP3	7318704.646	476909.615	523.956	Bolt
CP4	7318562.228	476940.260	524.118	Bolt

Basemap Note:
Base Mapping originates from Flat River Consulting
Project No. R.083349, Drawing C04, dated May 31, 2017

Survey Data Note:
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data collected up to September 15th, 2017

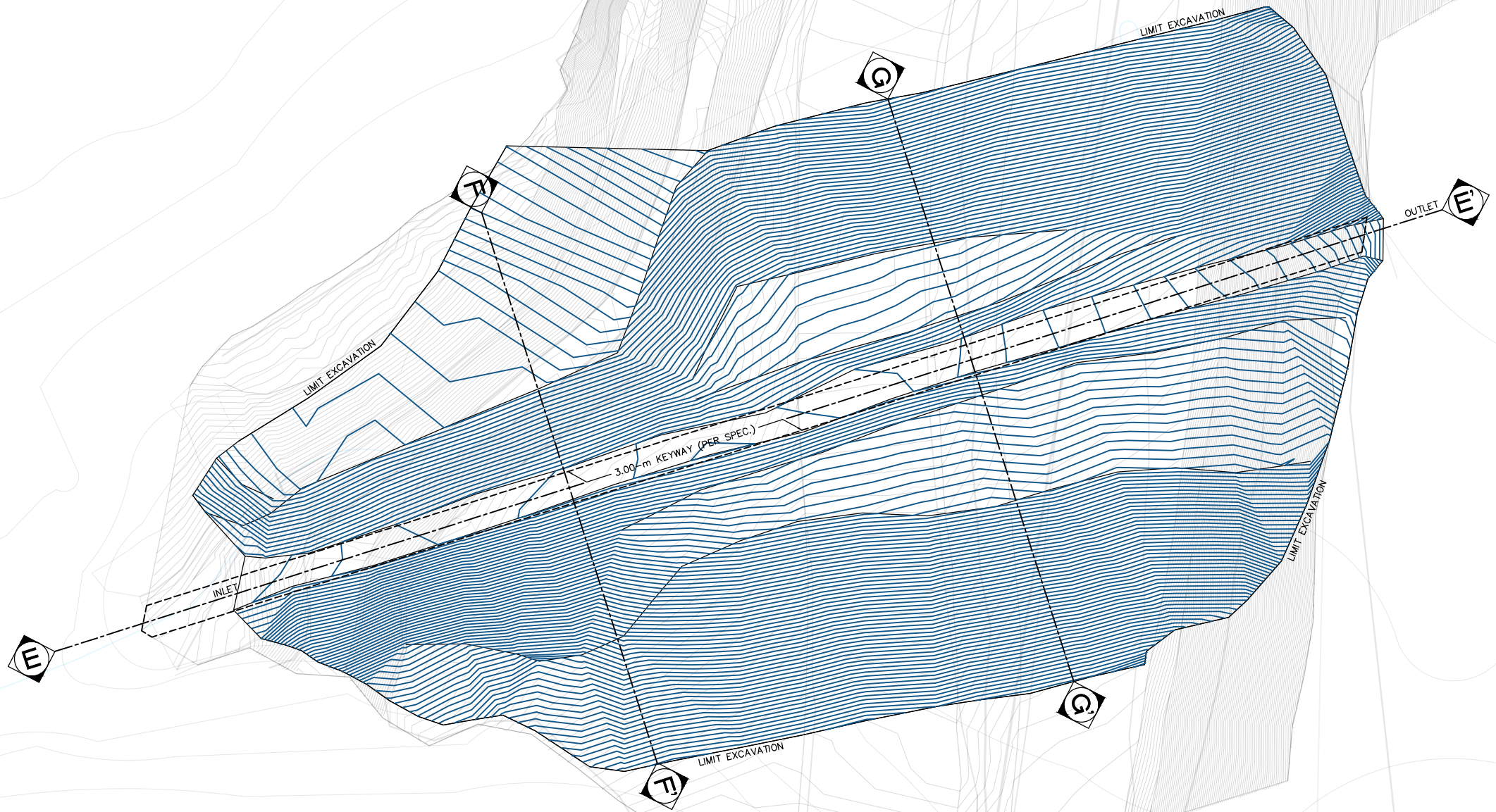
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Project No. R.083349, dated May 31, 2017.

Contour Note:
Contours within subject survey locations shown on this
drawing represent 0.10-m intervals in elevation.

Rowes Outcome Joint Venture

Simon Kasprzak, D.L.S.
contractals@gmail.com

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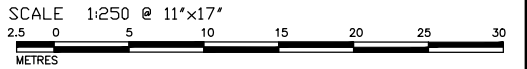


Jericho Diamond Mine, Nunavut
Site Stabilization & Remediation

Client:
Public Services and Procurement Canada (PSPC)

Topographic Sketch
C1 Diversion Breach

Sheet 2 of 4 - C1 Diversion Excavation Floor Contours



Coordinates Note:
Drawing Coordinates are in Mine Site Coordinate System

Local Mine Site Control:				
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CP3	7318704.646	476909.615	523.956	Bolt
CP4	7318562.228	476940.260	524.118	Bolt

Basemap Note:
Base Mapping originates from Flat River Consulting
Project No. R.083349, Drawing C04, dated May 31, 2017

Survey Data Note:
Information shown on this drawing based on survey
data collected up to September 15th, 2017

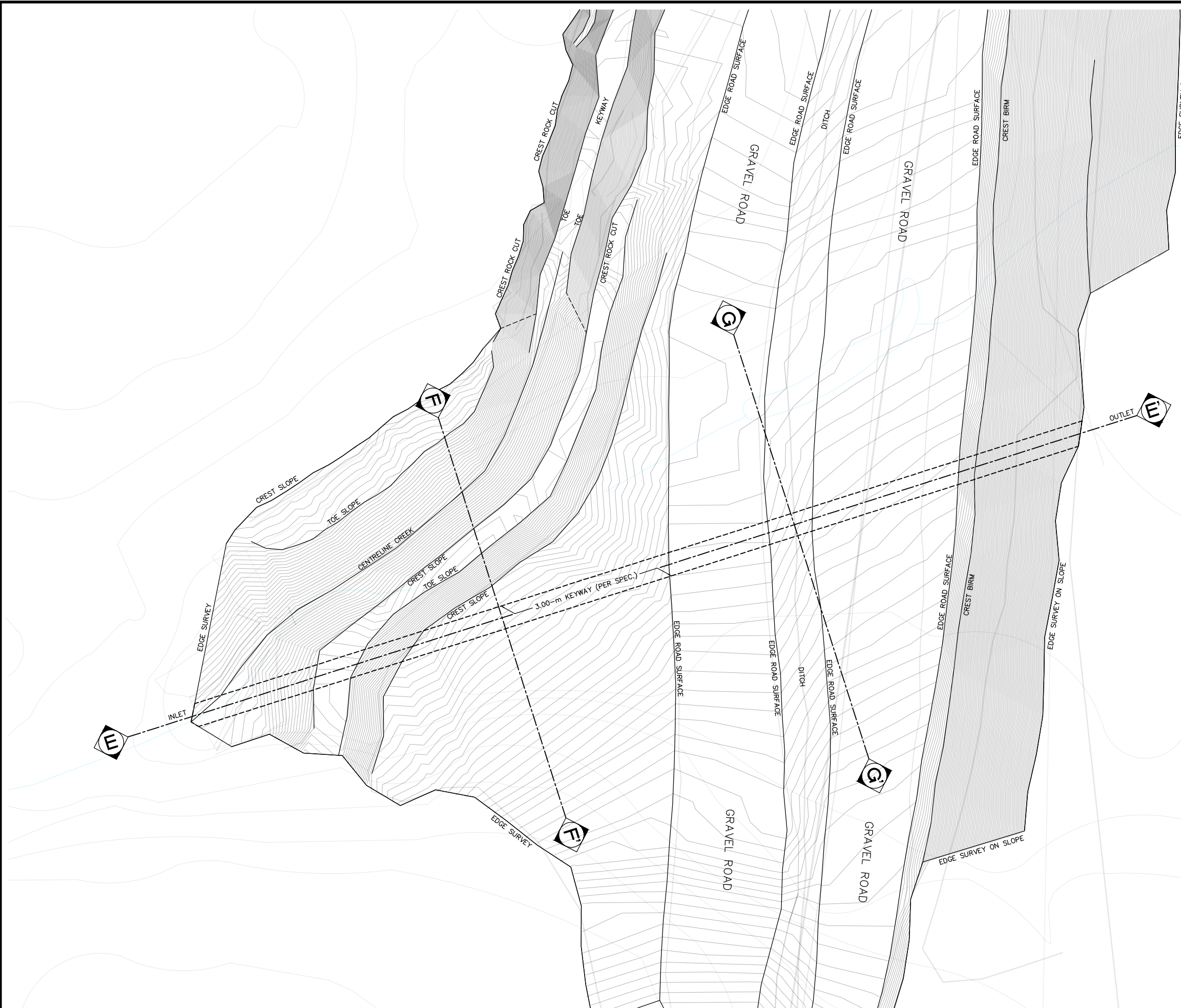
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Project No. R083349, dated May 31, 2017.

Contour Note:
Contours within subject survey locations shown on this
drawing represent 0.10-m intervals in elevation.

Rowes Outcome Joint Venture

Simon Kasprzak, D.L.S.
contractals@gmail.com

SCALE: 1 : 250 @ 11"x17"	REF: c1_2.dwg
DRAWN BY: S.Kasprzak	DATE: 09-21-17



Jericho Diamond Mine, Nunavut
Site Stabilization & Remediation

Client:
Public Services and Procurement Canada (PSPC)

Topographic Sketch
C1 Diversion Breach

Sheet 1 of 4 - C1 Diversion Original Surface Contours

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METRES

Coordinates Note:
Drawing Coordinates are in Mine Site Coordinate System

Local Mine Site Control:				
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CP3	7318704.646	476909.615	523.956	Bolt
CP4	7318562.228	476940.260	524.118	Bolt

Basemap Note:
Base Mapping originates from Flat River Consulting
Project No. R.083349, Drawing C04, dated May 31, 2017

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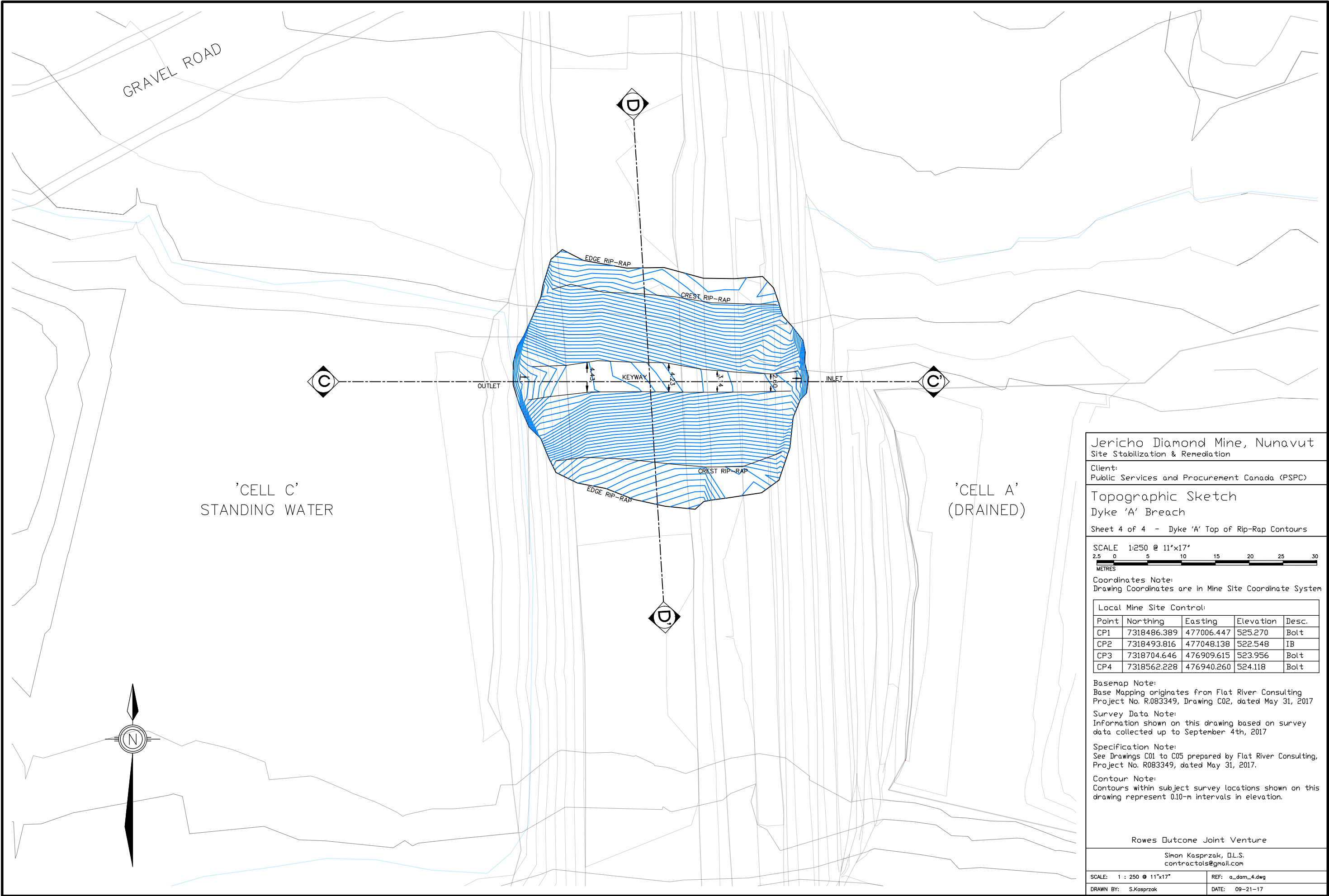
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Project No. R.083349, dated May 31, 2017.

Contour Note:
Contours within subject survey locations shown on this
drawing represent 0.10-m intervals in elevation.

Rowes Outcome Joint Venture

Simon Kasprzak, D.L.S.
contractals@gmail.com

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DRAWN BY: S.Kasprzak	DATE: 09-21-17



Jericho Diamond Mine, Nunavut
Site Stabilization & Remediation

Client:
Public Services and Procurement Canada (PSPC)

Topographic Sketch
Dyke 'A' Breach

Sheet 4 of 4 - Dyke 'A' Top of Rip-Rap Contours

SCALE 1:250 @ 11"x17"
2.5 0 5 10 15 20 25 30
METRES

Coordinates Note:
Drawing Coordinates are in Mine Site Coordinate System

Local Mine Site Control:				
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CP2	7318493.816	477048.138	522.548	IB
CP3	7318704.646	476909.615	523.956	Bolt
CP4	7318562.228	476940.260	524.118	Bolt

Basemap Note:
Base Mapping originates from Flat River Consulting
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data collected up to September 4th, 2017

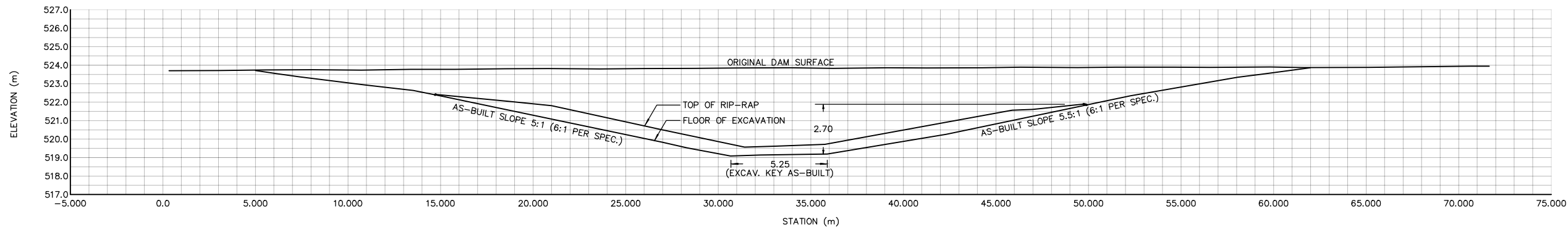
Specification Note:
See Drawings C01 to C05 prepared by Flat River Consulting,
Project No. R.083349, dated May 31, 2017.

Contour Note:
Contours within subject survey locations shown on this
drawing represent 0.10-m intervals in elevation.

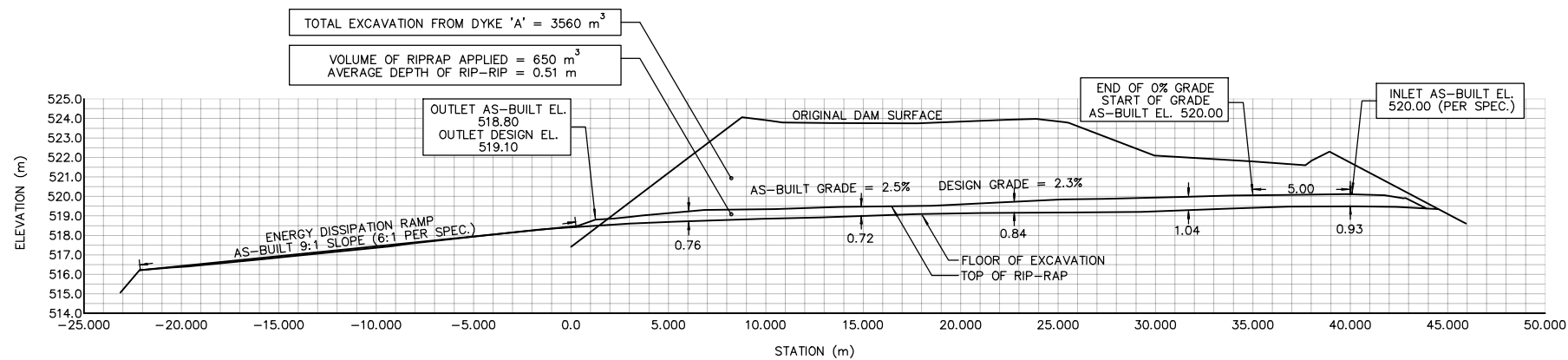
Rowes Outcome Joint Venture

Simon Kasprzak, D.L.S.
contractals@gmail.com

SCALE: 1 : 250 @ 11"x17"	REF: a_dam_4.dwg
DRAWN BY: S.Kasprzak	DATE: 09-21-17



CROSS SECTION D-D' - FACING EAST/UPSTREAM
2x DRAWING SCALE FOR CLARITY



PROFILE VIEW C-C' - FACING NORTH
1.5x DRAWING SCALE FOR CLARITY

Jericho Diamond Mine, Nunavut
Site Stabilization & Remediation

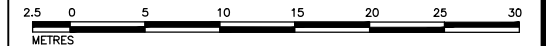
Client:
Public Services and Procurement Canada (PSPC)

Topographic Sketch

Dyke 'A' Breach

Sheet 4 of 4 - Dyke 'A' Cross Section and Profile

SCALE 1:250 @ 11"x17"



Coordinates Note:
Drawing Coordinates are in Mine Site Coordinate System

Local Mine Site Control:				
Point	Northing	Easting	Elevation	Desc.
CP1	7318486.389	477006.447	525.270	Bolt
CP2	7318493.816	477048.138	522.548	IB
CP3	7318704.646	476909.615	523.956	Bolt
CP4	7318562.228	476940.260	524.118	Bolt

Basemap Note:
Base Mapping originates from Flat River Consulting
Project No. R.083349, Drawing C02, dated May 31, 2017

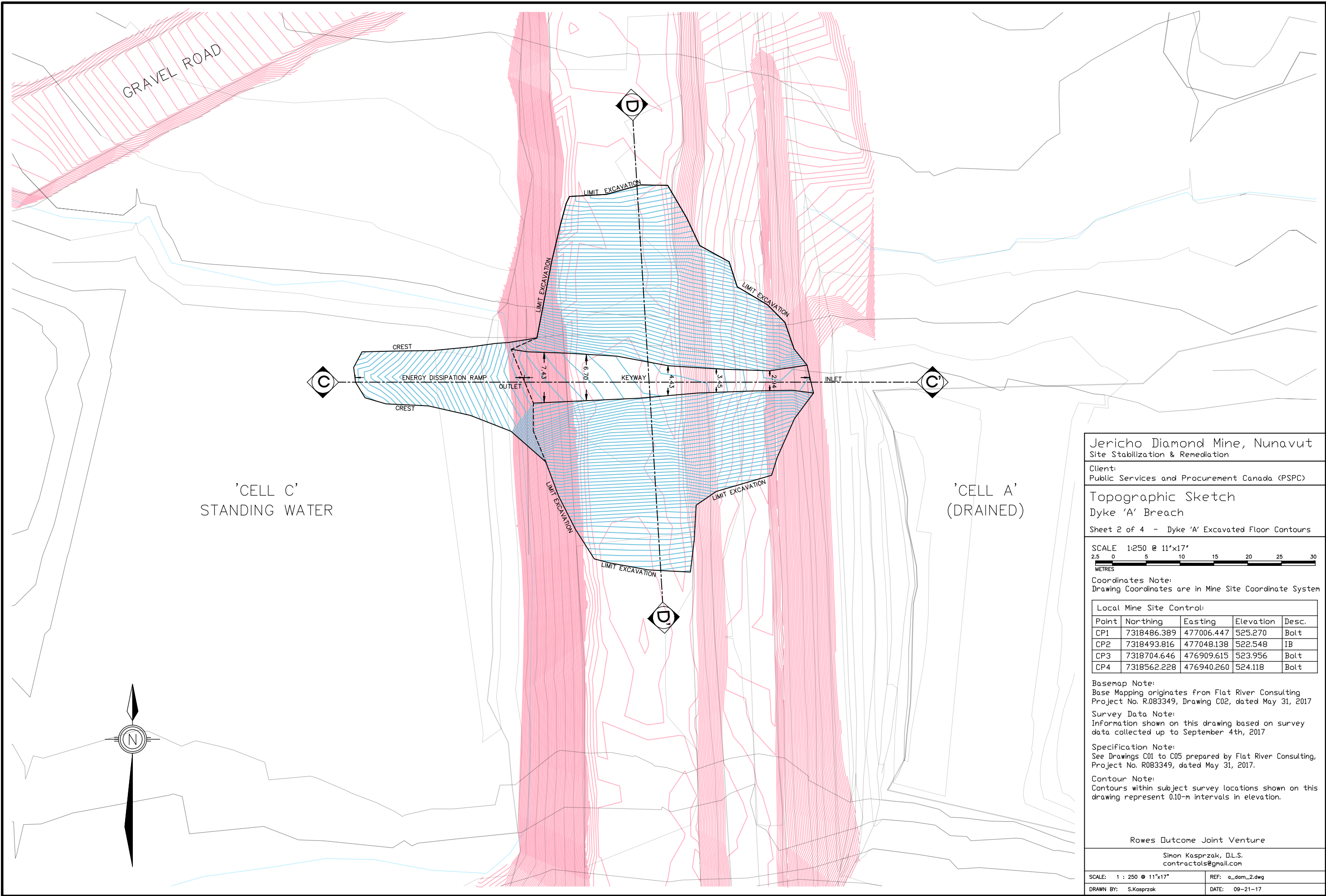
Survey Data Note:
Information shown on this drawing based on survey
data collected up to September 4th, 2017

Specification Note:
See Drawings C01 to C05 prepared by Flat River Consulting,
Project No. R.083349, dated May 31, 2017.

Rowes Outcome Joint Venture

Simon Kasprzak, D.L.S.
contractals@gmail.com

SCALE: 1 : 250 @ 11"x17"	REF: a_dam_3.dwg
DRAWN BY: S.Kasprzak	DATE: 09-21-17



Jericho Diamond Mine, Nunavut
Site Stabilization & Remediation

Client:
Public Services and Procurement Canada (PSPC)

Topographic Sketch
Dyke 'A' Breach

Sheet 2 of 4 - Dyke 'A' Excavated Floor Contours

SCALE 1:250 @ 11"x17"
2.5 0 5 10 15 20 25 30
METRES

Coordinates Note:
Drawing Coordinates are in Mine Site Coordinate System

Local Mine Site Control:				
Point	Northing	Easting	Elevation	Desc.
CP1	7318486.389	477006.447	525.270	Bolt
CP2	7318493.816	477048.138	522.548	IB
CP3	7318704.646	476909.615	523.956	Bolt
CP4	7318562.228	476940.260	524.118	Bolt

Basemap Note:
Base Mapping originates from Flat River Consulting
Project No. R083349, Drawing C02, dated May 31, 2017

Survey Data Note:
Information shown on this drawing based on survey
data collected up to September 4th, 2017

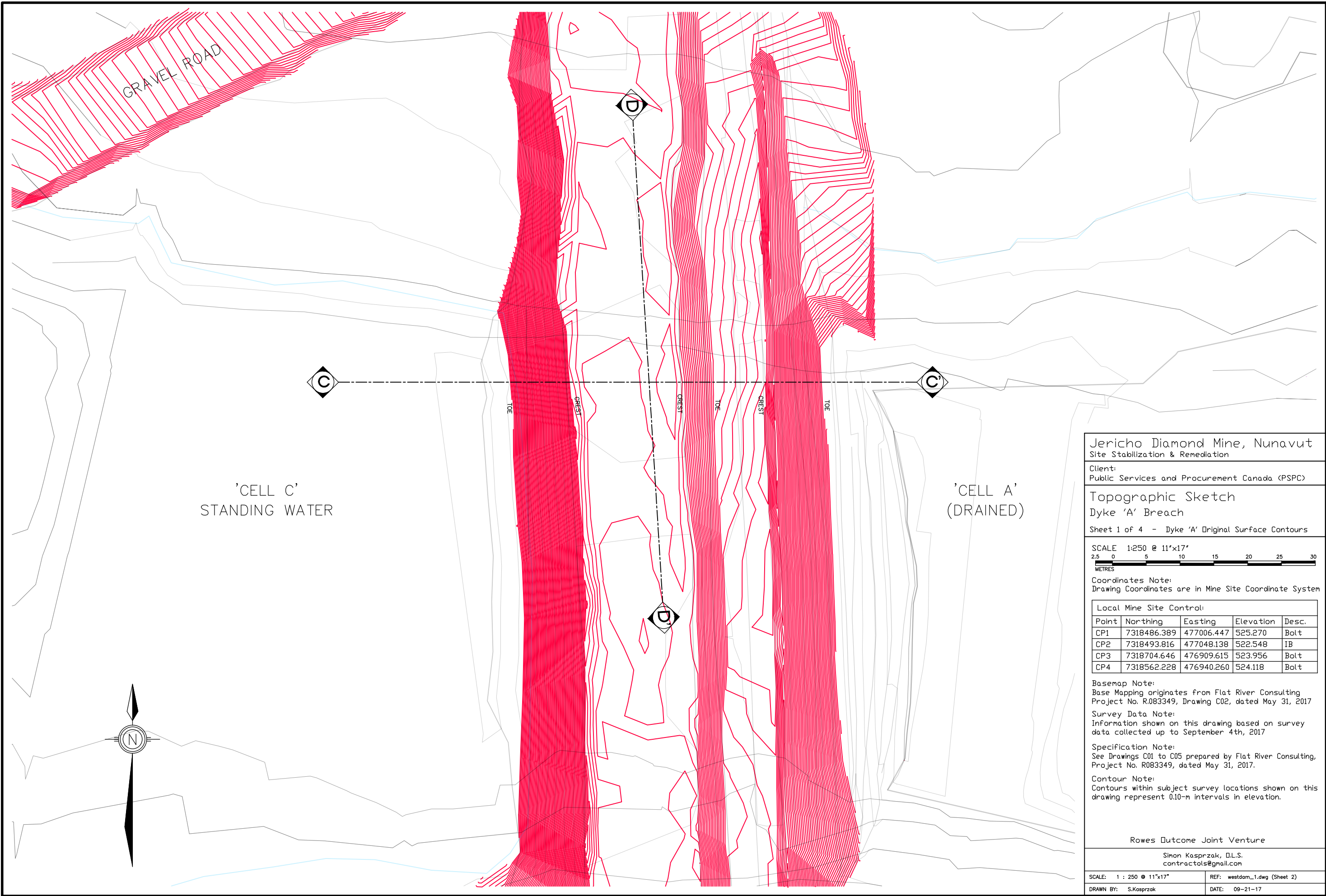
Specification Note:
See Drawings C01 to C05 prepared by Flat River Consulting,
Project No. R083349, dated May 31, 2017.

Contour Note:
Contours within subject survey locations shown on this
drawing represent 0.10-m intervals in elevation.

Rowes Outcome Joint Venture

Simon Kasprzak, D.L.S.
contractals@gmail.com

SCALE: 1 : 250 @ 11"x17"	REF: a_dam_2.dwg
DRAWN BY: S.Kasprzak	DATE: 09-21-17



Jericho Diamond Mine, Nunavut
Site Stabilization & Remediation

Client:
Public Services and Procurement Canada (PSPC)

Topographic Sketch
Dyke 'A' Breach

Sheet 1 of 4 - Dyke 'A' Original Surface Contours

SCALE 1:250 @ 11"x17"
2.5 0 5 10 15 20 25 30
METRES

Coordinates Note:
Drawing Coordinates are in Mine Site Coordinate System

Local Mine Site Control:				
Point	Northing	Easting	Elevation	Desc.
CP1	7318486.389	477006.447	525.270	Bolt
CP2	7318493.816	477048.138	522.548	IB
CP3	7318704.646	476909.615	523.956	Bolt
CP4	7318562.228	476940.260	524.118	Bolt

Basemap Note:
Base Mapping originates from Flat River Consulting
Project No. R.083349, Drawing C02, dated May 31, 2017

Survey Data Note:
Information shown on this drawing based on survey
data collected up to September 4th, 2017

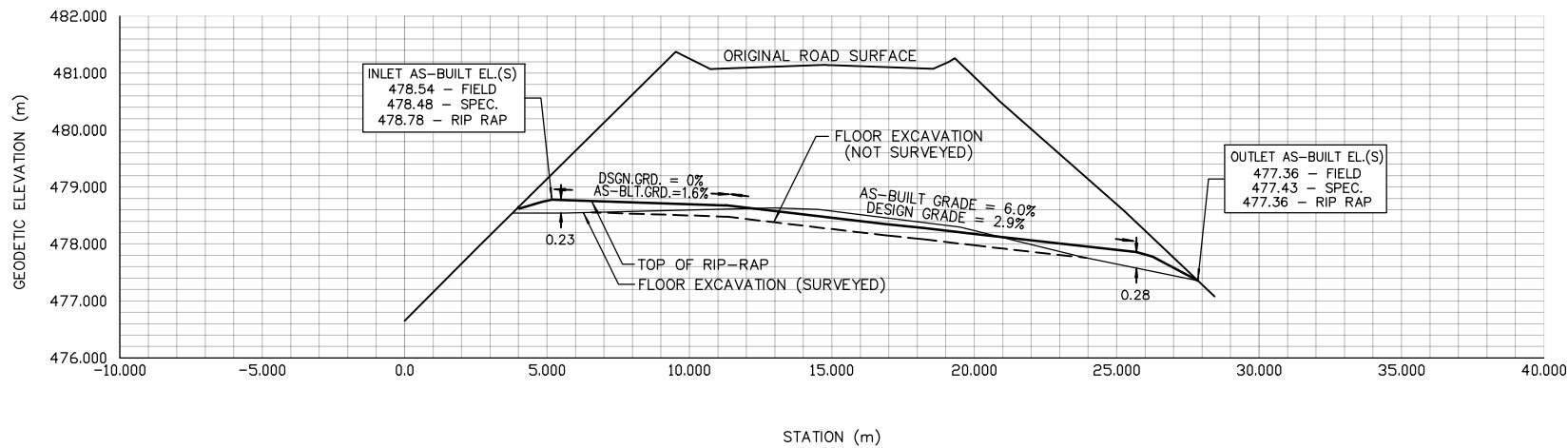
Specification Note:
See Drawings C01 to C05 prepared by Flat River Consulting,
Project No. R.083349, dated May 31, 2017.

Contour Note:
Contours within subject survey locations shown on this
drawing represent 0.10-m intervals in elevation.

Rowes Outcome Joint Venture

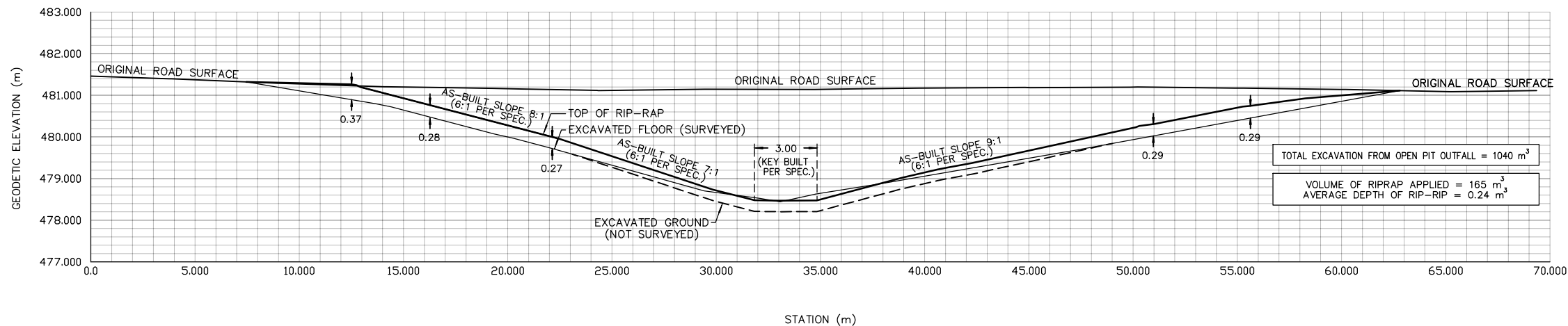
Simon Kasprzak, D.L.S.
contractals@gmail.com

SCALE: 1 : 250 @ 11"x17"	REF: westdam_1.dwg (Sheet 2)
DRAWN BY: S.Kasprzak	DATE: 09-21-17



PROFILE H-H' - FACING NORTHWEST

2x VERTICAL EXAGGERATION



CROSS SECTION I-I' - FACING NORTH/DOWNSTREAM

2x VERTICAL EXAGGERATION

Jericho Diamond Mine, Nunavut Site Stabilization & Remediation

Client:
Public Services and Procurement Canada (PSPC)

Topographic Sketch Open Pit Outfall Breach

Sheet 4 of 4 - Open Pit Outfall Profile & Cross Section

SCALE 1:125 @ 11"x17"
1.25 0 2.5 5 7.5 10 12.5 15
METRES

Coordinates Note:
Drawing Coordinates are in Mine Site Coordinate System

Local Mine Site Control:				
Point	Northing	Easting	Elevation	Desc.
CP1	7318486.389	477006.447	525.270	Bolt
CP2	7318493.816	477048.138	522.548	IB
CP3	7318704.646	476909.615	523.956	Bolt
CP4	7318562.228	476940.260	524.118	Bolt

Survey Data Note:
Information shown on this drawing based on survey data collected up to October 5th, 2017

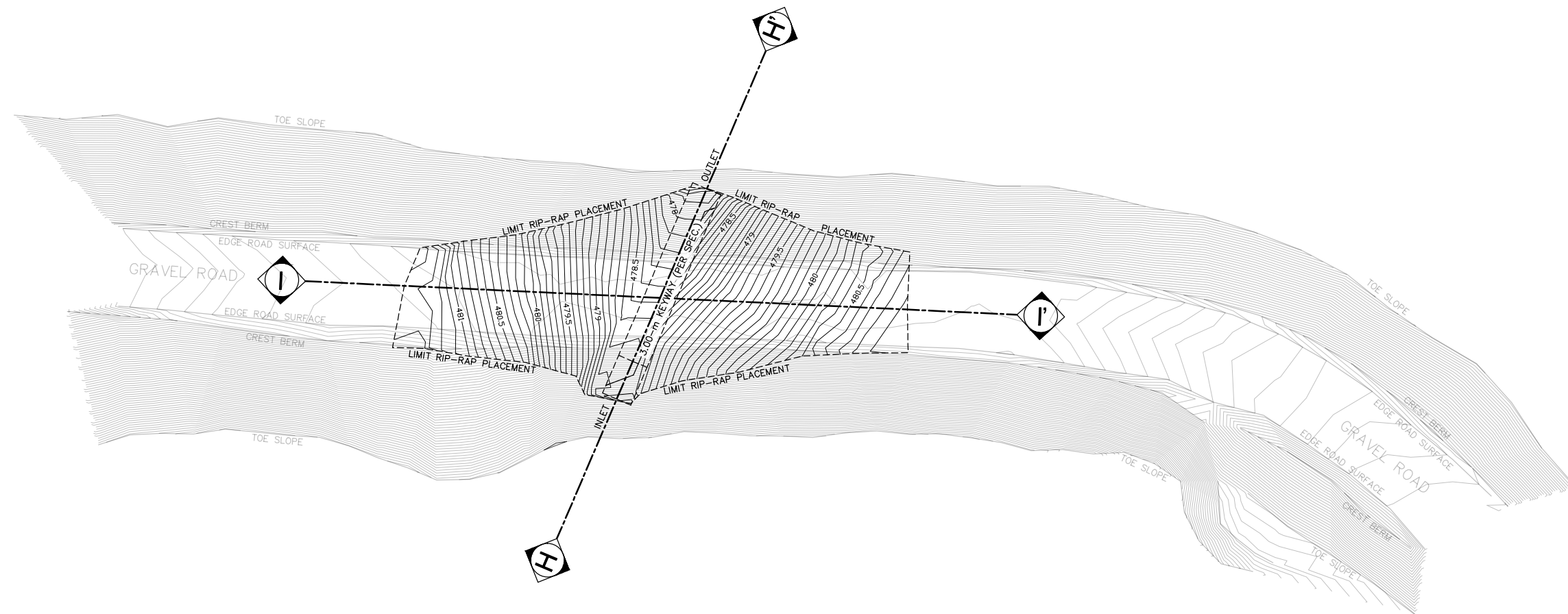
Specification Note:
See Drawings C01 to C05 prepared by Flat River Consulting, Project No. R083349, dated May 31, 2017.

Contour Note:
Contours within subject survey locations shown on this drawing represent 0.10-m intervals in elevation.

Rowes Outcome Joint Venture

Simon Kasprzak, D.L.S.
contractals@gmail.com

SCALE: 1 : 125 @ 11"x17"	REF: outfall_4.dwg (Sheet 4)
DRAWN BY: S.Kasprzak	DATE: 10-15-17



Jericho Diamond Mine, Nunavut
Site Stabilization & Remediation

Client:
Public Services and Procurement Canada (PSPC)

Topographic Sketch
Open Pit Outfall Breach

Sheet 3 of 4 - Open Pit Outfall Rip-Rap Contours

SCALE 1:250 @ 11"x17"
2.5 0 5 10 15 20 25 30
METRES

Coordinates Note:
Drawing Coordinates are in Mine Site Coordinate System

Local Mine Site Control:				
Point	Northing	Easting	Elevation	Desc.
CP1	7318486.389	477006.447	525.270	Bolt
CP2	7318493.816	477048.138	522.548	IB
CP3	7318704.646	476909.615	523.956	Bolt
CP4	7318562.228	476940.260	524.118	Bolt

Survey Data Note:
Information shown on this drawing based on survey data collected up to October 5th, 2017

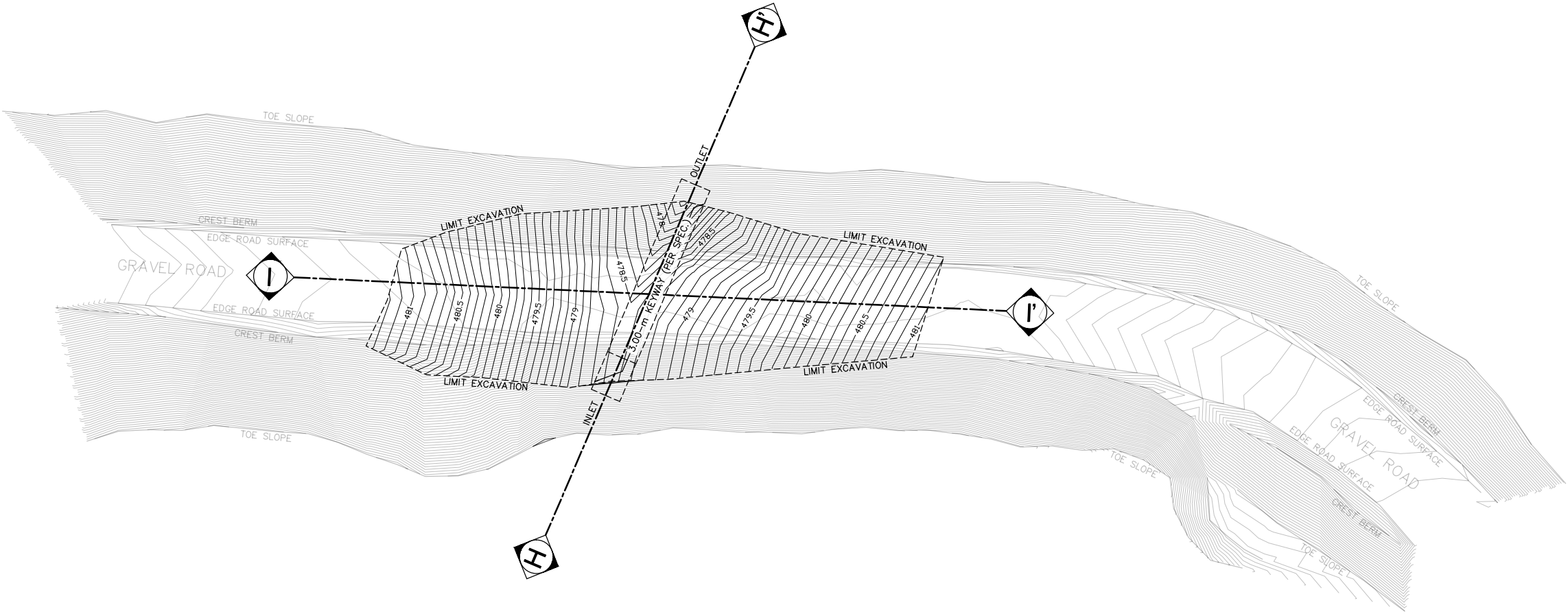
Specification Note:
See Drawings C01 to C05 prepared by Flat River Consulting, Project No. R083349, dated May 31, 2017.

Contour Note:
Contours within subject survey locations shown on this drawing represent 0.10-m intervals in elevation.

Rowes Outcome Joint Venture

Simon Kasprzak, D.L.S.
contractals@gmail.com

SCALE: 1 : 250 @ 11"x17"	REF: outfall_3.dwg (Sheet 3)
DRAWN BY: S.Kasprzak	DATE: 10-15-17

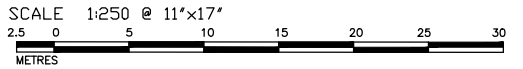


Jericho Diamond Mine, Nunavut
Site Stabilization & Remediation

Client:
Public Services and Procurement Canada (PSPC)

Topographic Sketch
Open Pit Outfall Breach

Sheet 2 of 4 - Open Pit Outfall Excavation Floor



Coordinates Note:
Drawing Coordinates are in Mine Site Coordinate System

Local Mine Site Control:				
Point	Northing	Easting	Elevation	Desc.
CP1	7318486.389	477006.447	525.270	Bolt
CP2	7318493.816	477048.138	522.548	IB
CP3	7318704.646	476909.615	523.956	Bolt
CP4	7318562.228	476940.260	524.118	Bolt

Survey Data Note:
Information shown on this drawing based on survey data collected up to October 5th, 2017

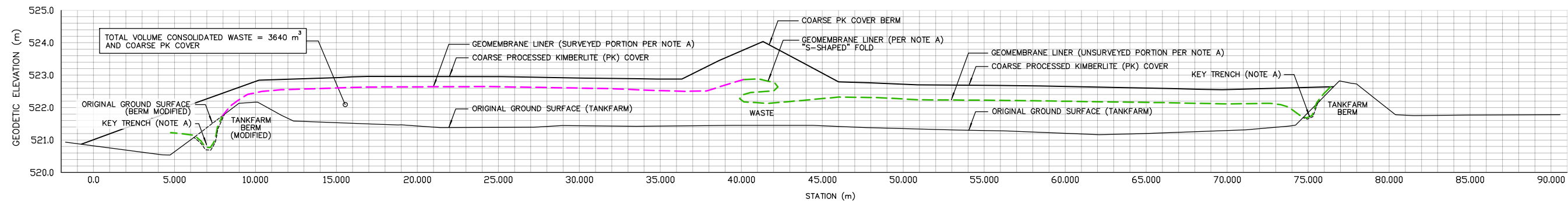
Specification Note:
See Drawings C01 to C05 prepared by Flat River Consulting, Project No. R083349, dated May 31, 2017.

Contour Note:
Contours within subject survey locations shown on this drawing represent 0.10-m intervals in elevation.

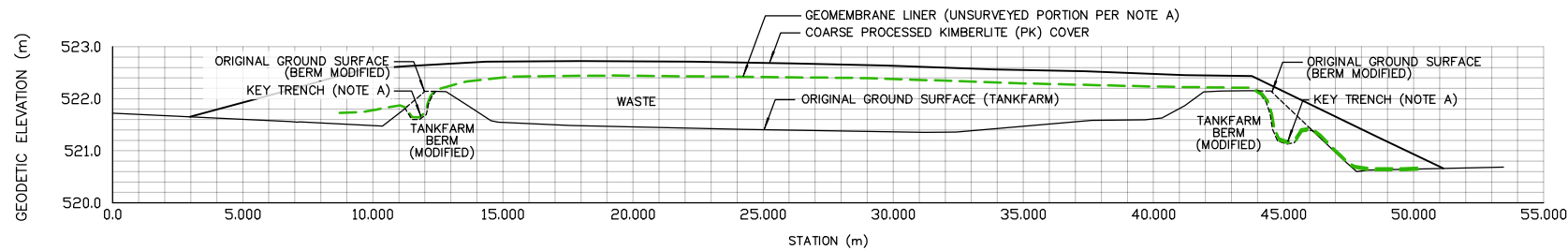
Rowes Outcome Joint Venture

Simon Kasprzak, D.L.S.
contractals@gmail.com

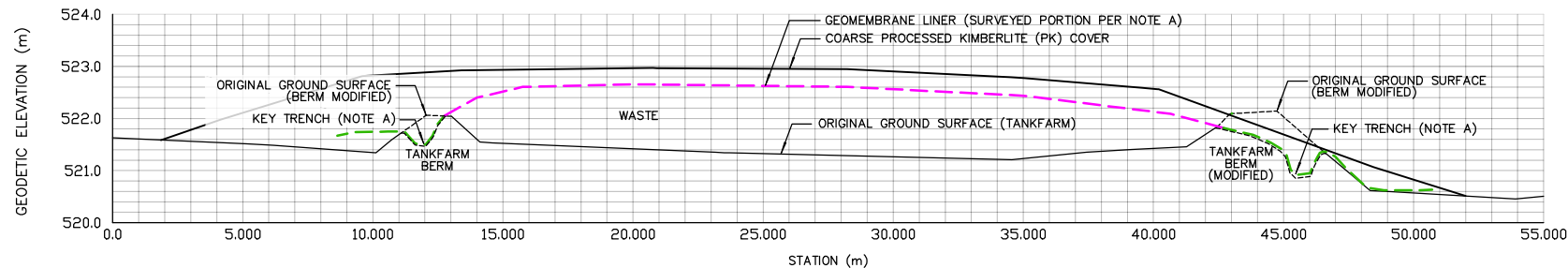
SCALE: 1 : 250 @ 11"x17"	REF: outfall_2.dwg (Sheet 2)
DRAWN BY: S.Kasprzak	DATE: 10-15-17



CROSS SECTION J-J' – FACING NORTHWEST
2X VERTICAL EXAGGERATION



CROSS SECTION K-K' – FACING NORTHEAST
2X VERTICAL EXAGGERATION



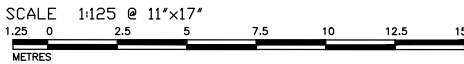
CROSS SECTION L-L' – FACING NORTHEAST
2X VERTICAL EXAGGERATION

Jericho Diamond Mine, Nunavut
Site Stabilization & Remediation

Client:
Public Services and Procurement Canada (PSPC)

Topographic Sketch
Area Potential Environmental Concern 8
Phase 1 Tank Farm

Sheet 3 of 3 - Cross Section & Profile



Coordinates Note:
Drawing Coordinates are in Mine Site Coordinate System

Local Mine Site Control:				
Point	Northing	Easting	Elevation	Desc.
CP1	7318486.389	477006.447	525.270	Bolt
CP2	7318493.816	477048.138	522.548	IB
CP3	7318704.646	476909.615	523.956	Bolt
CP4	7318562.228	476940.260	524.118	Bolt

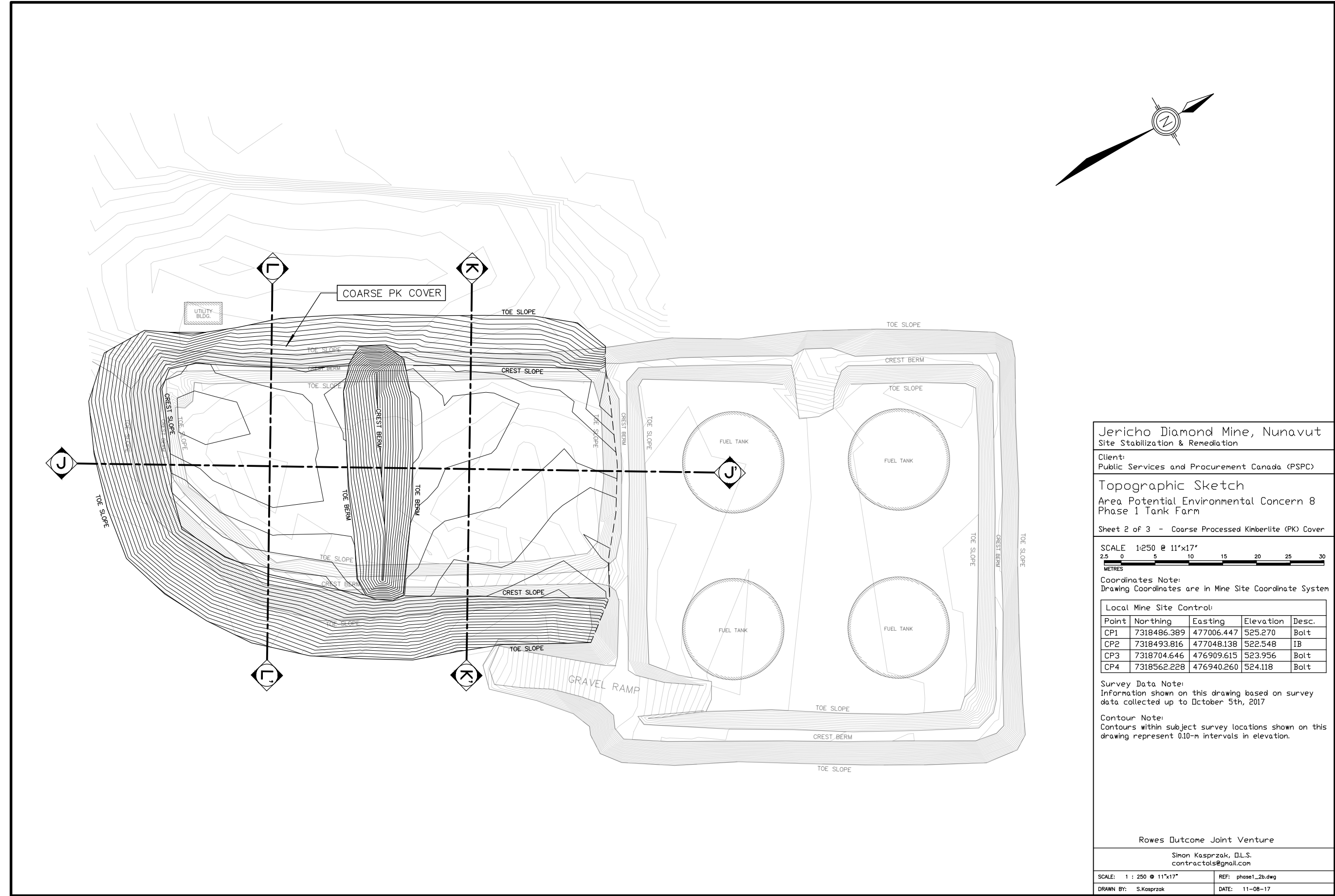
Survey Data Note:
Information shown on this drawing based on survey data collected up to October 5th, 2017

Contour Note:
Contours within subject survey locations shown on this drawing represent 0.10-m intervals in elevation.

Note A:
Geomembrane liner location placement and details per John Weigel, Site Superintendent. Geomembrane Liner not surveyed in entirety. Key trenches were not surveyed.

Rowes Outcome Joint Venture
Simon Kasprzak, D.L.S.
contractals@gmail.com

SCALE: 1 : 125 @ 11"x17" REF: phase1_3d.dwg
DRAWN BY: S.Kasprzak DATE: 11-11-17

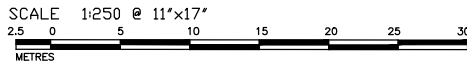


Jericho Diamond Mine, Nunavut
Site Stabilization & Remediation

Client:
Public Services and Procurement Canada (PSPC)

Topographic Sketch
Area Potential Environmental Concern 8
Phase 1 Tank Farm

Sheet 2 of 3 - Coarse Processed Kimberlite (PK) Cover



Coordinates Note:
Drawing Coordinates are in Mine Site Coordinate System

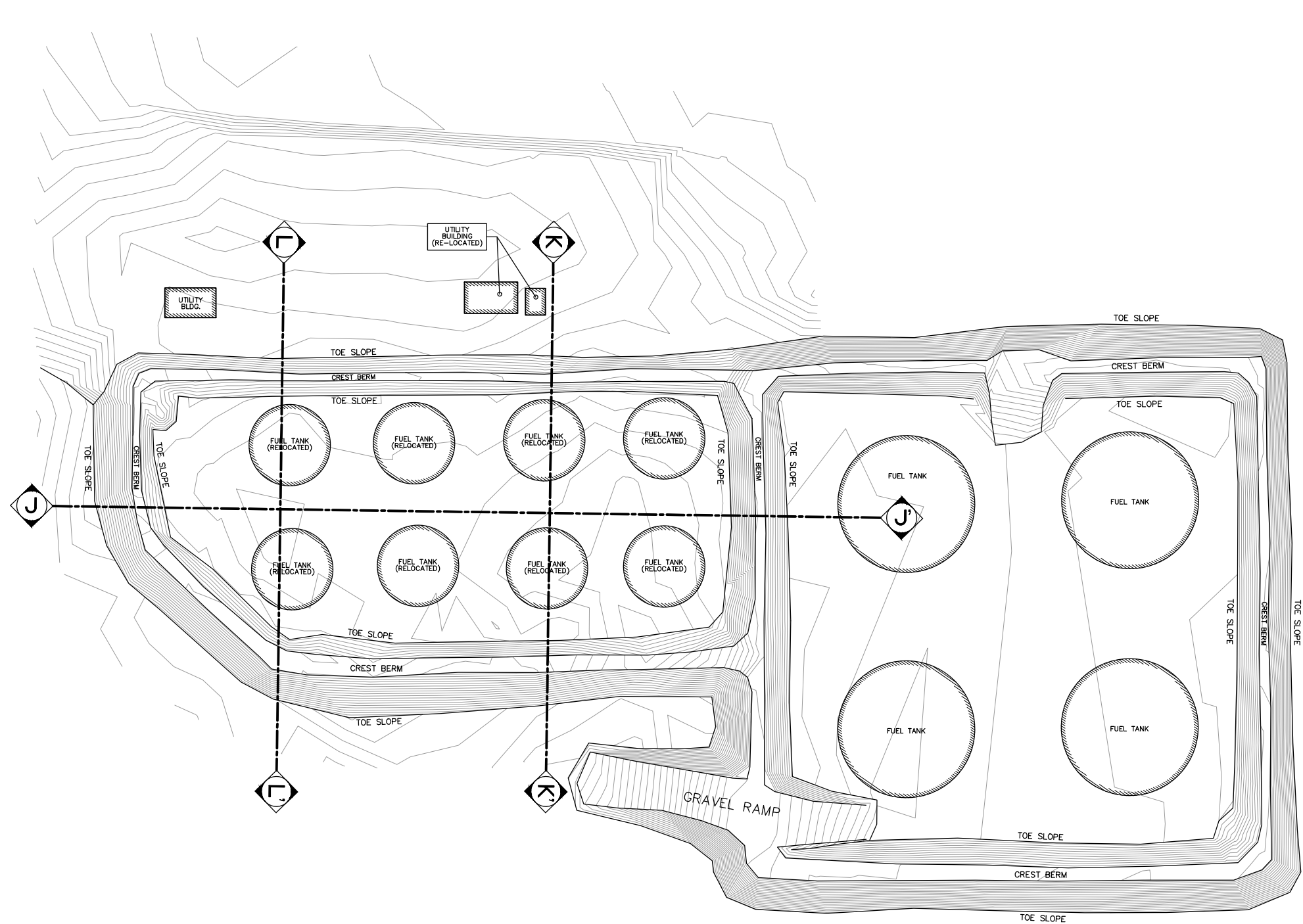
Local Mine Site Control:				
Point	Northing	Easting	Elevation	Desc.
CP1	7318486.389	477006.447	525.270	Bolt
CP2	7318493.816	477048.138	522.548	IB
CP3	7318704.646	476909.615	523.956	Bolt
CP4	7318562.228	476940.260	524.118	Bolt

Survey Data Note:
Information shown on this drawing based on survey data collected up to October 5th, 2017

Contour Note:
Contours within subject survey locations shown on this drawing represent 0.10-m intervals in elevation.

Rowes Outcome Joint Venture
Simon Kasprzak, D.L.S.
contractals@gmail.com

SCALE: 1 : 250 @ 11"x17"	REF: phase1_2b.dwg
DRAWN BY: S.Kasprzak	DATE: 11-08-17



Jericho Diamond Mine, Nunavut
Site Stabilization & Remediation

Client:
Public Services and Procurement Canada (PSPC)

Topographic Sketch
Area Potential Environmental Concern 8
Phase 1 Tank Farm

Sheet 1 of 3 - Original Ground Conditions

SCALE 1:250 @ 11"x17"
2.5 0 5 10 15 20 25 30
METRES

Coordinates Note:
Drawing Coordinates are in Mine Site Coordinate System

Local Mine Site Control:				
Point	Northing	Easting	Elevation	Desc.
CP1	7318486.389	477006.447	525.270	Bolt
CP2	7318493.816	477048.138	522.548	IB
CP3	7318704.646	476909.615	523.956	Bolt
CP4	7318562.228	476940.260	524.118	Bolt

Survey Data Note:
Information shown on this drawing based on survey data collected up to October 5th, 2017

Contour Note:
Contours within subject survey locations shown on this drawing represent 0.10-m intervals in elevation.

Rowes Outcome Joint Venture

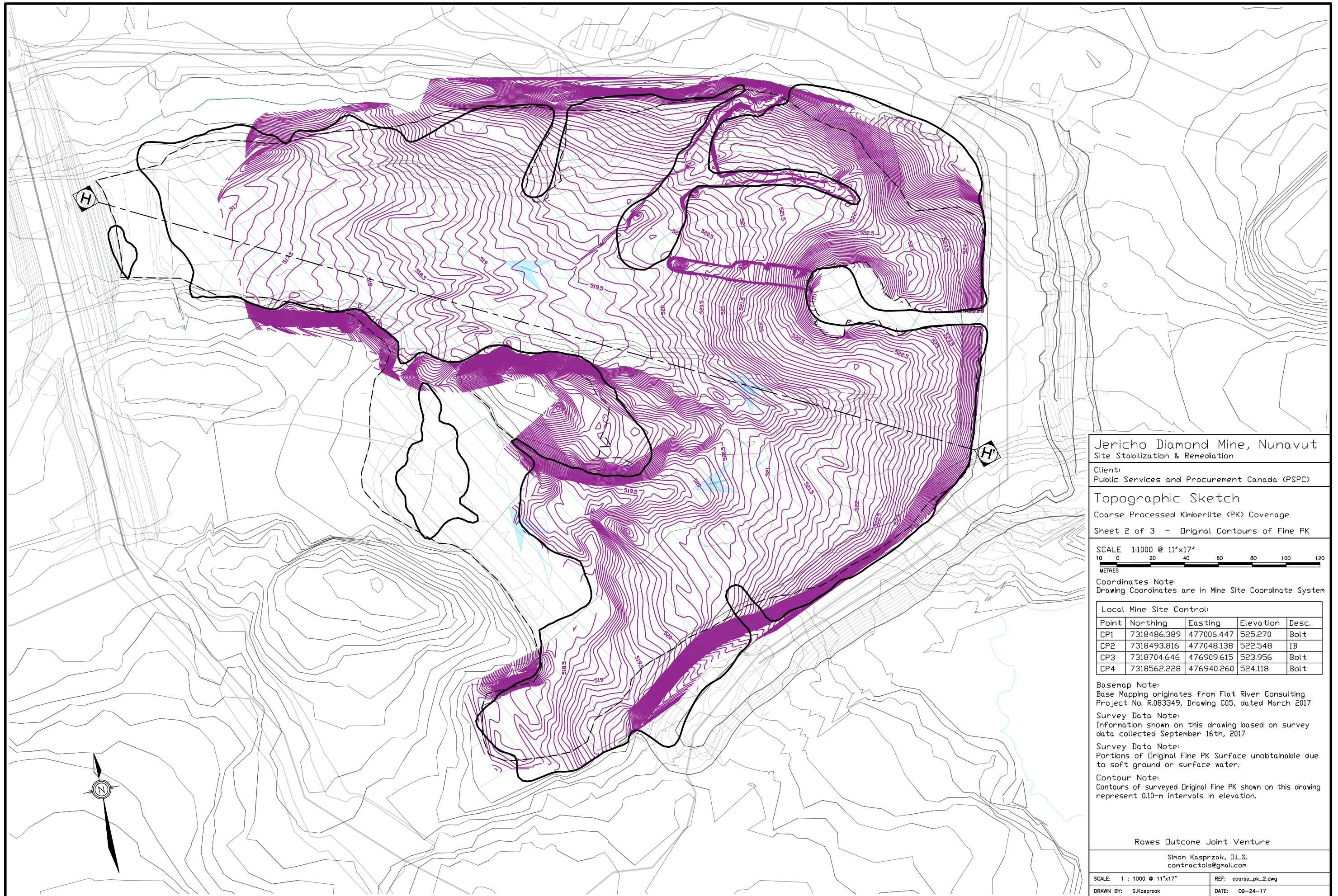
Simon Kasprzak, D.L.S.
contractals@gmail.com

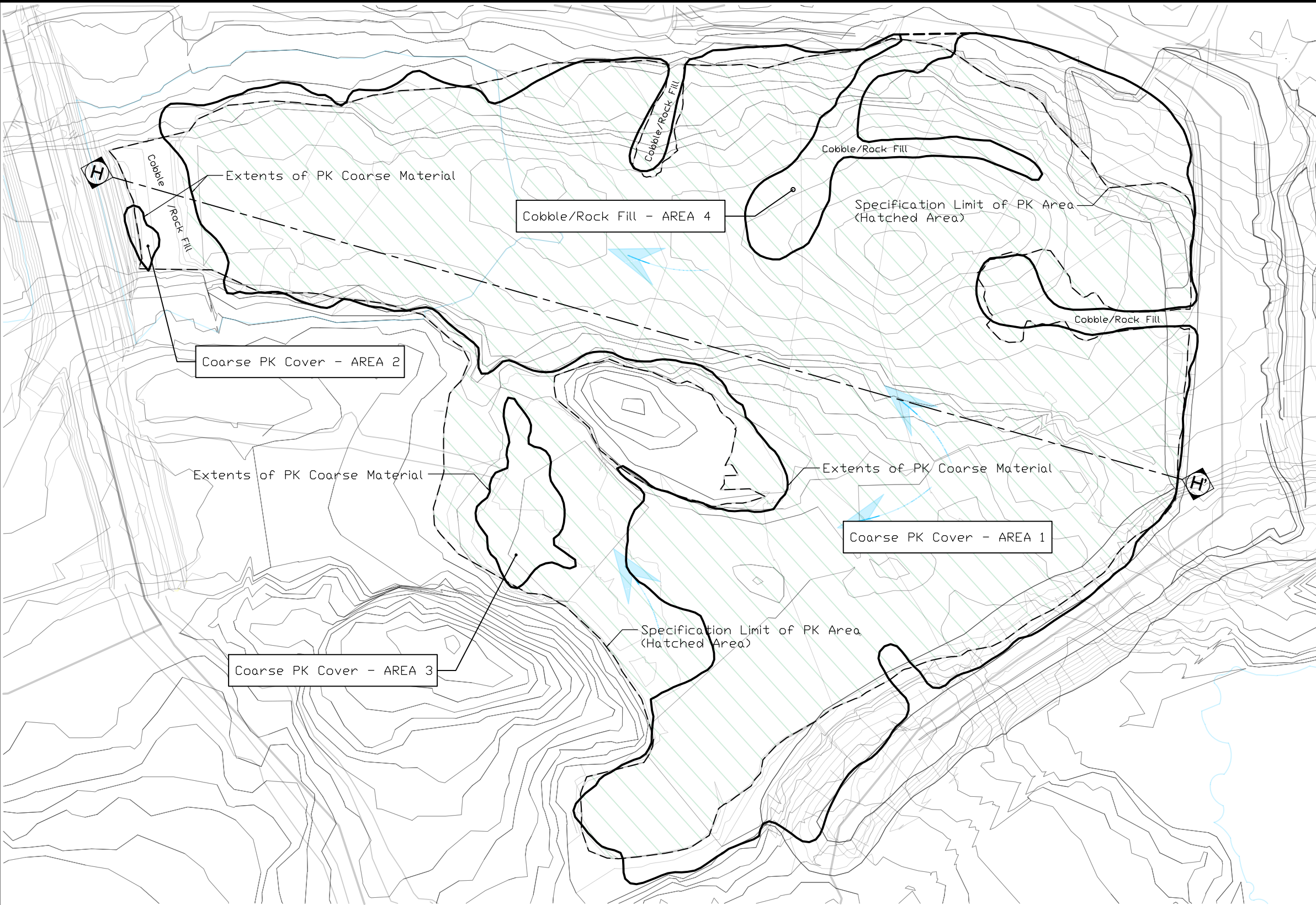
SCALE: 1 : 250 @ 11"x17"

REF: phase1_1b.dwg

DRAWN BY: S.Kasprzak

DATE: 11-08-17





AREAS (m ²)	
AREA 1	100126
AREA 2	286
AREA 3	2240
AREA 4	3589
TOTAL AREA	106241

Jericho Diamond Mine, Nunavut
Site Stabilization & Remediation

Client:
Public Services and Procurement Canada (PSPC)

Topographic Sketch
Coarse Processed Kimberlite (PK) Coverage
Sheet 1 of 3 - Coarse PK Outline

SCALE 1:1000 @ 11"x17"
10 0 20 40 60 80 100 120
METRES

Coordinates Note:
Drawing Coordinates are in Mine Site Coordinate System

Local Mine Site Control:				
Point	Northing	Easting	Elevation	Desc.
CP1	7318486.389	477006.447	525.270	Bolt
CP2	7318493.816	477048.138	522.548	IB
CP3	7318704.646	476909.615	523.956	Bolt
CP4	7318562.228	476940.260	524.118	Bolt

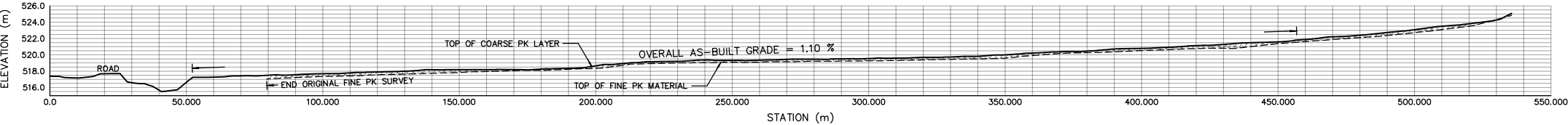
Basemap Note:
Base Mapping originates from Flat River Consulting
Project No. R.083349, Drawing C05, dated March 2017

Survey Data Note:
Information shown on this drawing based on survey
data collected September 16th, 2017

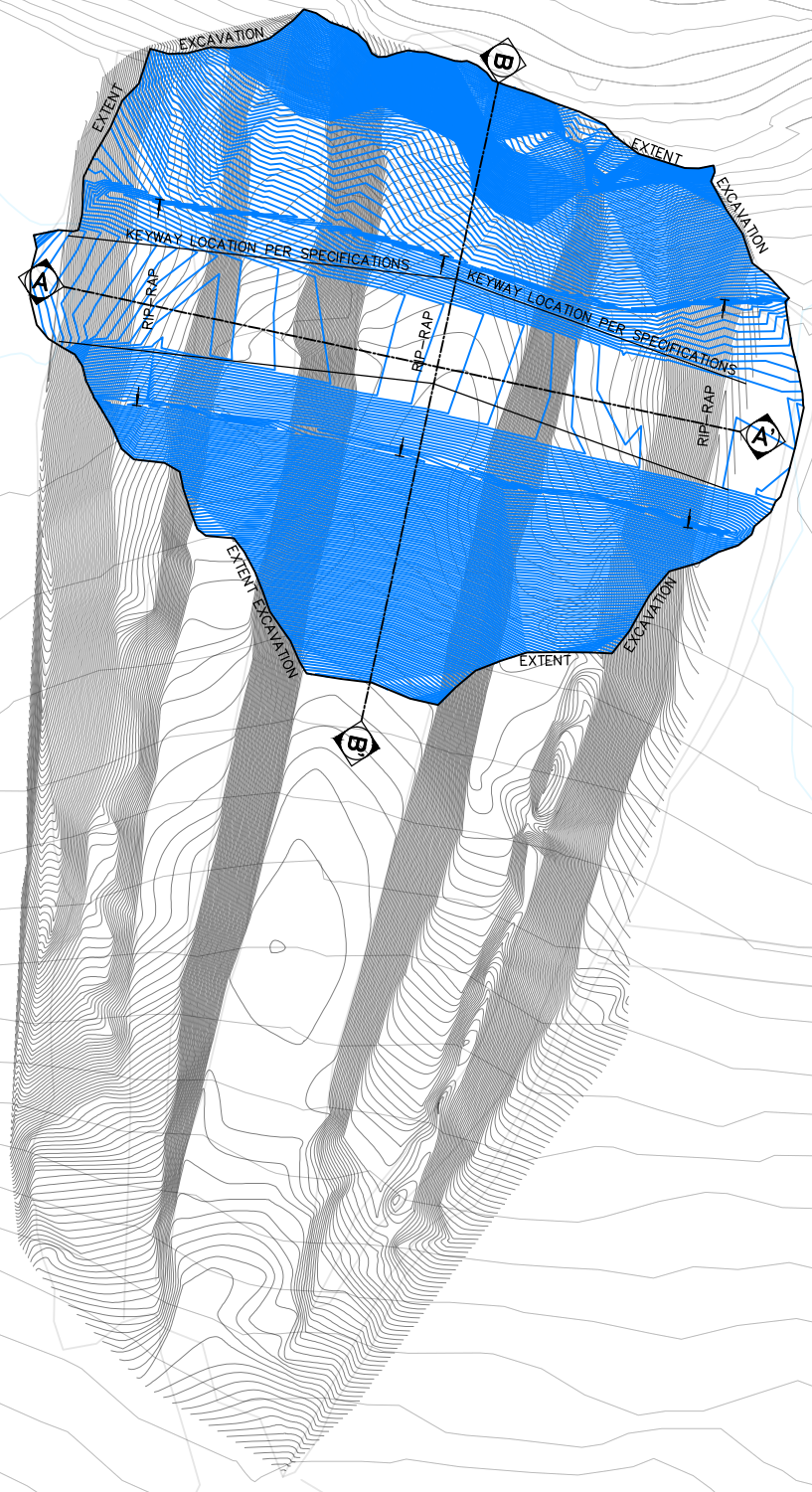
Rowes Outcome Joint Venture

Simon Kasprzak, D.L.S.
contractals@gmail.com

SCALE: 1 : 1000 @ 11"x17"	REF: coarse_pk_1.dwg
DRAWN BY: S.Kasprzak	DATE: 09-20-17



PROFILE VIEW H-H' - FACING NORTHEAST
3x VERTICAL EXAGGERATION FOR CLARITY

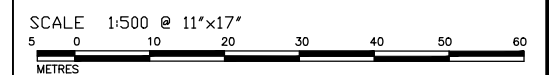


Jericho Diamond Mine, Nunavut
Site Stabilization & Remediation

Client:
Public Services and Procurement Canada (PSPC)

Topographic Sketch
West Dam Breach

Sheet 4 of 4 - West Dam Contours of Final Surface (Rip-Rap)



Coordinates Note:
Drawing Coordinates are in Mine Site Coordinate System

Local Mine Site Control:				
Point	Northing	Easting	Elevation	Desc.
CP1	7318486.389	477006.447	525.270	Bolt
CP2	7318493.816	477048.138	522.548	IB
CP3	7318704.646	476909.615	523.956	Bolt
CP4	7318562.228	476940.260	524.118	Bolt

Basemap Note:
Base Mapping originates from Flat River Consulting
Project No. R083349, Drawing C01, dated May 31, 2017

Survey Data Note:
Information shown on this drawing based on survey
data collected September up to 16th, 2017

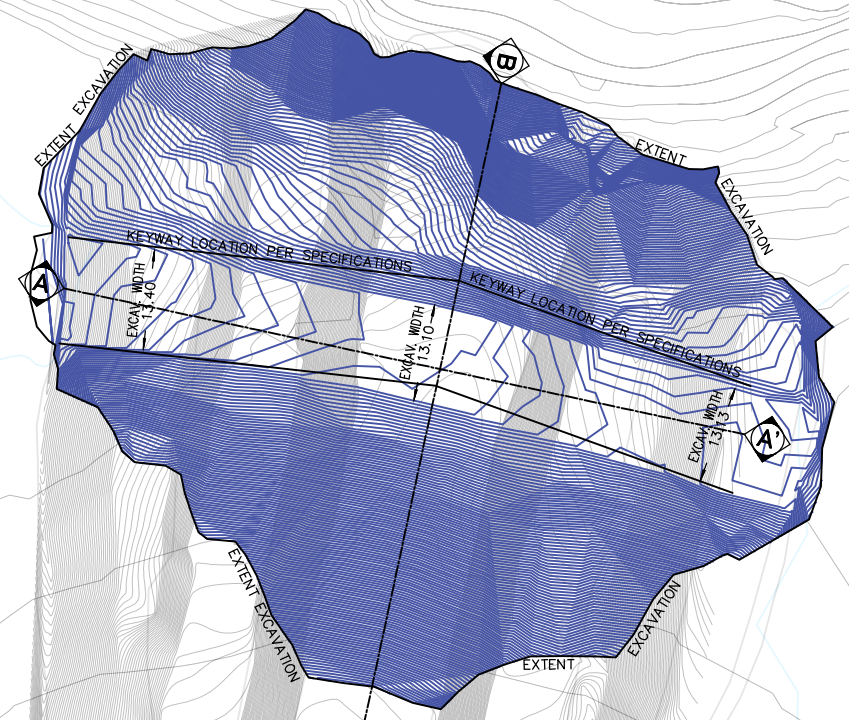
Contour Note:
Contours within subject survey locations shown on this
drawing represent 0.10-m intervals in elevation.

Specification Note:
See Drawings C01 to C05 prepared by Flat River Consulting,
Project No. R083349, dated May 31, 2017.

Rowes Outcome Joint Venture

Simon Kasprzak, D.L.S.
contractols@gmail.com

SCALE: 1 : 500 @ 11"x17"	REF: westdam_3.dwg
DRAWN BY: S.Kasprzak	DATE: 09-21-17

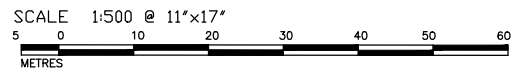


Jericho Diamond Mine, Nunavut
Site Stabilization & Remediation

Client:
Public Services and Procurement Canada (PSPC)

Topographic Sketch
West Dam Breach

Sheet 3 of 4 - West Dam Contours of Excavation Floor



Coordinates Note:
Drawing Coordinates are in Mine Site Coordinate System

Local Mine Site Control:				
Point	Northing	Easting	Elevation	Desc.
CP1	7318486.389	477006.447	525.270	Bolt
CP2	7318493.816	477048.138	522.548	IB
CP3	7318704.646	476909.615	523.956	Bolt
CP4	7318562.228	476940.260	524.118	Bolt

Basemap Note:
Base Mapping originates from Flat River Consulting
Project No. R083349, Drawing C01, dated May 31, 2017

Survey Data Note:
Information shown on this drawing based on survey
data collected September up to 16th, 2017

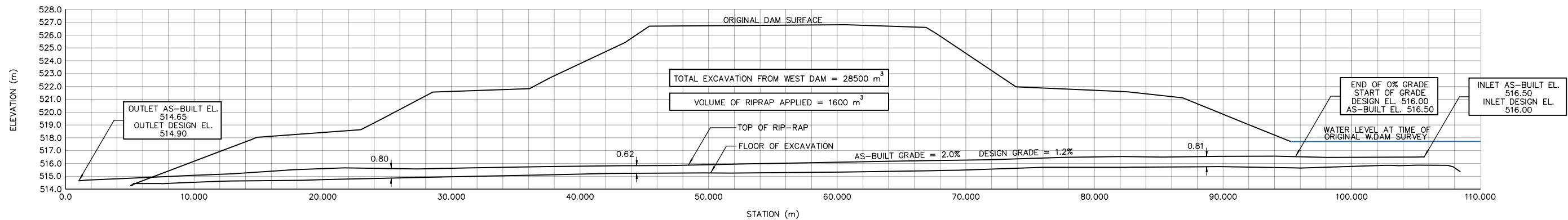
Contour Note:
Contours within subject survey locations shown on this
drawing represent 0.10-m intervals in elevation.

Specification Note:
See Drawings C01 to C05 prepared by Flat River Consulting,
Project No. R083349, dated May 31, 2017.

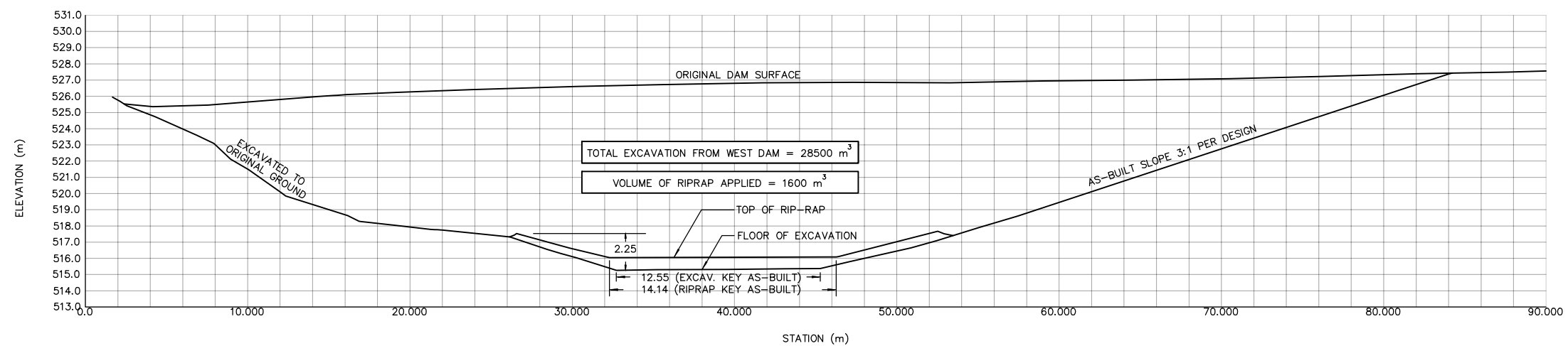
Rowes Outcome Joint Venture

Simon Kasprzak, D.L.S.
contractols@gmail.com

SCALE: 1 : 500 @ 11"x17"	REF: westdam_2.dwg
DRAWN BY: S.Kasprzak	DATE: 09-21-17



PROFILE VIEW A-A' — FACING NORTH
3x DRAWING SCALE FOR CLARITY



CROSS SECTION B-B' — FACING EAST/UPSTREAM
3x DRAWING SCALE FOR CLARITY

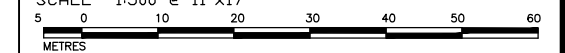
Jericho Diamond Mine, Nunavut Site Stabilization & Remediation

Client:
Public Services and Procurement Canada (PSPC)

Topographic Sketch West Dam Breach

Sheet 2 of 4 - West Dam Cross Section & Profile

SCALE 1:500 @ 11"x17"



Coordinates Note:
Drawing Coordinates are in Mine Site Coordinate System

Local Mine Site Control:				
Point	Northing	Easting	Elevation	Desc.
CP1	7318486.389	477006.447	525.270	Bolt
CP2	7318493.816	477048.138	522.548	IB
CP3	7318704.646	476909.615	523.956	Bolt
CP4	7318562.228	476940.260	524.118	Bolt

Basemap Note:
Base Mapping originates from Flat River Consulting
Project No. R.083349, Drawing C01, dated May 31, 2017

Survey Data Note:
Information shown on this drawing based on survey
data collected up to September 15th, 2017

Specification Note:
See Drawings C01 to C05 prepared by Flat River Consulting,
Project No. R083349, dated May 31, 2017.

Rowes Outcome Joint Venture

Simon Kasprzak, D.L.S.
contractals@gmail.com

SCALE: 1 : 500 @ 11"x17"	REF: westdam_1.dwg (Sheet 2)
DRAWN BY: S.Kasprzak	DATE: 09-21-17



Jericho Diamond Mine, Nunavut
Site Stabilization & Remediation

Client:
Public Services and Procurement Canada (PSPC)

Topographic Sketch
West Dam Breach

Sheet 1 of 4 - West Dam Original Surface Contours

SCALE 1:500 @ 11"x17"

5060

METRES

Coordinates Note:
Drawing Coordinates are in Mine Site Coordinate System

Local Mine Site Control:				
Point	Northing	Easting	Elevation	Desc.
CP1	7318486.389	477006.447	525.270	Bolt
CP2	7318493.816	477048.138	522.548	IB
CP3	7318704.646	476909.615	523.956	Bolt
CP4	7318562.228	476940.260	524.118	Bolt

Basemap Note:
Base Mapping originates from Flat River Consulting
Project No. R083349, Drawing C01, dated May 31, 2017

Survey Data Note:
Information shown on this drawing based on survey
data collected September up to 16th, 2017

Contour Note:
Contours within subject survey locations shown on this
drawing represent 0.10-m intervals in elevation.

Specification Note:
See Drawings C01 to C05 prepared by Flat River Consulting,
Project No. R083349, dated May 31, 2017.

Rowes Outcome Joint Venture

Simon Kasprzak, D.L.S.
contractols@gmail.com

SCALE: 1 : 500 @ 11"x17"

REF: westdam_1.dwg (Sheet 1)

DRAWN BY: S.Kasprzak

DATE: 09-21-17

Date	November 2018
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APPENDIX F

PHC Soil Clean-up Records

- Field Delineation Maps
- PHC Soil Clean-up Summary
- PHC Soil Confirmatory Sampling Summary
- Sample Log
- Laboratory Certificate of Analyses

Date	November 2018
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- Field Delineation Maps



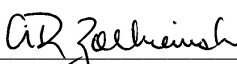
Cash Clients
ATTN: Henry Wong
DXB Projects
Toronto ON

Date Received: 24-AUG-17
Report Date: 30-AUG-17 09:02 (MT)
Version: FINAL REV. 2

Client Phone: 416-575-8064

Certificate of Analysis

Lab Work Order #: L1980340
Project P.O. #: TA8
Job Reference: JERICO MINE SITE STABILIZATION
C of C Numbers: 14-2017-08-23
Legal Site Desc:



Rick Zolkiewski
General Manager

[This report shall not be reproduced except in full without the written authority of the Laboratory.]

ADDRESS: 314 Old Airport Road, Unit 116, Yellowknife, NT X1A 3T3 Canada | Phone: +1 867 873 5593 |
ALS CANADA LTD Part of the ALS Group An ALS Limited Company

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample ID Description Sampled Date Sampled Time Client ID		L1980340-1 SOIL 23-AUG-17 14:30 A10-S1	L1980340-2 SOIL 23-AUG-17 14:30 A10-S2	L1980340-3 SOIL 23-AUG-17 14:30 A10-S3	L1980340-4 SOIL 23-AUG-17 14:30 A10-S4	L1980340-5 SOIL 23-AUG-17 14:30 A10-S5
Grouping	Analyte					
SOIL						
Physical Tests	Moisture (%)	5.45	5.31	5.28	4.05	2.24
Volatile Organic Compounds	Benzene (mg/kg)	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
	Ethylbenzene (mg/kg)	<0.015	<0.015	<0.015	<0.015	<0.015
	Toluene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050
	o-Xylene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050
	m+p-Xylene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050
	Xylenes (Total) (mg/kg)	<0.071	<0.071	<0.071	<0.071	<0.071
	Surrogate: 4-Bromofluorobenzene (%)	82.6	86.1	84.3	82.2	88.1
	Surrogate: 3,4-Dichlorotoluene (%)	86.5	86.4	98.3	81.9	82.6
	Surrogate: 1,4-Difluorobenzene (%)	74.8	82.2	79.3	79.9	79.3
Hydrocarbons	F1 (C6-C10) (mg/kg)	<10	<10	<10	<10	<10
	F1-BTEX (mg/kg)	<10	<10	<10	<10	<10
	F2 (C10-C16) (mg/kg)	<25	<25	<25	<25	<25
	F3 (C16-C34) (mg/kg)	<50	<50	<50	995	<50
	F4 (C34-C50) (mg/kg)	<50	<50	<50	314	<50
	Total Hydrocarbons (C6-C50) (mg/kg)	<50	<50	<50	1310	<50
	Chrom. to baseline at nC50 (ppm)	YES	YES	YES	YES	YES
	Surrogate: 2-Bromobenzotrifluoride (%)	81.8	85.2	73.3	81.8	81.1

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample ID Description Sampled Date Sampled Time Client ID		L1980340-6 SOIL 23-AUG-17 14:30 A10-S6	L1980340-7 SOIL 23-AUG-17 14:30 A10-S7	L1980340-8 SOIL 23-AUG-17 14:30 A10-S8	L1980340-9 SOIL 23-AUG-17 14:30 A10-S9	L1980340-10 SOIL 23-AUG-17 14:30 A10-S10
Grouping	Analyte					
SOIL						
Physical Tests	Moisture (%)	2.57	2.45	3.24	3.73	4.64
Volatile Organic Compounds	Benzene (mg/kg)	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
	Ethylbenzene (mg/kg)	<0.015	<0.015	<0.015	<0.015	<0.015
	Toluene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050
	o-Xylene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050
	m+p-Xylene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050
	Xylenes (Total) (mg/kg)	<0.071	<0.071	<0.071	<0.071	<0.071
	Surrogate: 4-Bromofluorobenzene (%)	116.3	89.1	84.0	87.5	85.8
	Surrogate: 3,4-Dichlorotoluene (%)	96.4	89.2	90.8	88.6	81.7
	Surrogate: 1,4-Difluorobenzene (%)	82.2	81.0	76.8	86.9	77.1
Hydrocarbons	F1 (C6-C10) (mg/kg)	<10	<10	<10	<10	<10
	F1-BTEX (mg/kg)	<10	<10	<10	<10	<10
	F2 (C10-C16) (mg/kg)	<25	<25	<25	<25	<25
	F3 (C16-C34) (mg/kg)	<50	<50	<50	<50	<50
	F4 (C34-C50) (mg/kg)	<50	<50	<50	<50	<50
	Total Hydrocarbons (C6-C50) (mg/kg)	<50	<50	<50	<50	<50
	Chrom. to baseline at nC50 (ppm)	YES	YES	YES	YES	YES
	Surrogate: 2-Bromobenzotrifluoride (%)	84.6	80.1	83.6	82.3	84.4

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample ID Description Sampled Date Sampled Time Client ID		L1980340-11 SOIL 23-AUG-17 14:30 A10-S11	L1980340-12 SOIL 23-AUG-17 14:30 A10-S12			
Grouping	Analyte					
SOIL						
Physical Tests	Moisture (%)	3.27	3.51			
Volatile Organic Compounds	Benzene (mg/kg)	<0.0050	<0.0050			
	Ethylbenzene (mg/kg)	<0.015	<0.015			
	Toluene (mg/kg)	<0.050	<0.050			
	o-Xylene (mg/kg)	<0.050	<0.050			
	m+p-Xylene (mg/kg)	<0.050	<0.050			
	Xylenes (Total) (mg/kg)	<0.071	<0.071			
	Surrogate: 4-Bromofluorobenzene (%)	83.1	83.2			
	Surrogate: 3,4-Dichlorotoluene (%)	84.0	83.4			
	Surrogate: 1,4-Difluorobenzene (%)	73.5	74.9			
Hydrocarbons	F1 (C6-C10) (mg/kg)	<10	<10			
	F1-BTEX (mg/kg)	<10	<10			
	F2 (C10-C16) (mg/kg)	<25	<25			
	F3 (C16-C34) (mg/kg)	<50	<50			
	F4 (C34-C50) (mg/kg)	<50	<50			
	Total Hydrocarbons (C6-C50) (mg/kg)	<50	<50			
	Chrom. to baseline at nC50 (ppm)	YES	YES			
	Surrogate: 2-Bromobenzotrifluoride (%)	83.1	88.7			

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
BTXS-HS-MS-CL	Soil	BTEX, Styrene	EPA 8260C/5021A
This analysis involves the extraction of a subsample of the sediment/soil with methanol. Aliquots of the methanol extract are then added to water and reagents, then heated in a sealed vial to equilibrium. The headspace from the vial is transferred into a gas chromatograph. Target compound concentrations are measured using mass spectrometry detection.			
F1-4-CALC-CL	Soil	CCME Total Hydrocarbons	CCME CWS-PHC, Pub #1310, Dec 2001
Analytical methods used for analysis of CCME Petroleum Hydrocarbons have been validated and comply with the Reference Method for the CWS PHC.			
Hydrocarbon results are expressed on a dry weight basis.			
In cases where results for both F4 and F4G are reported, the greater of the two results must be used in any application of the CWS PHC guidelines and the gravimetric heavy hydrocarbons cannot be added to the C6 to C50 hydrocarbons.			
In samples where BTEX and F1 were analyzed, F1-BTEX represents a value where the sum of Benzene, Toluene, Ethylbenzene and total Xylenes has been subtracted from F1.			
In samples where PAHs, F2 and F3 were analyzed, F2-Naphth represents the result where Naphthalene has been subtracted from F2. F3-PAH represents a result where the sum of Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Dibenzo(a,h)anthracene, Fluoranthene, Indeno(1,2,3-cd)pyrene, Phenanthrene, and Pyrene has been subtracted from F3.			
Unless otherwise qualified, the following quality control criteria have been met for the F1 hydrocarbon range:			
1. All extraction and analysis holding times were met.			
2. Instrument performance showing response factors for C6 and C10 within 30% of the response factor for toluene.			
3. Linearity of gasoline response within 15% throughout the calibration range.			
Unless otherwise qualified, the following quality control criteria have been met for the F2-F4 hydrocarbon ranges:			
1. All extraction and analysis holding times were met.			
2. Instrument performance showing C10, C16 and C34 response factors within 10% of their average.			
3. Instrument performance showing the C50 response factor within 30% of the average of the C10, C16 and C34 response factors.			
4. Linearity of diesel or motor oil response within 15% throughout the calibration range.			
F1-HS-FID-CL	Soil	F1(C6-C10)	CWS PHC Tier 1
This analysis involves the extraction of a subsample of the sediment/soil with methanol. Aliquots of the methanol extract are then added to water and reagents, then heated in a sealed vial to equilibrium. The headspace from the vial is transferred into a gas chromatograph. The F1 fraction concentration is measured using flame ionization detection, in accordance with the Canada Wide Standard for Petroleum Hydrocarbons in Soil - Tier 1 Method (2001).			
F2-4-TMB-H/A-FID-CL	Soil	CCME F2-4 Hydrocarbons	CCME CWS-PHC, Pub #1310, Dec 2001
This analysis is carried out in accordance with the "Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil - Tier 1 Method, Canadian Council of Ministers of the Environment, December 2001." For C10 to C50 hydrocarbons (F2, F3, F4) and gravimetric heavy hydrocarbons (F4G-sg), a subsample of the sediment/soil is extracted with 1:1 hexane:acetone using a rotary extractor. The extract undergoes a silica-gel clean-up to remove polar compounds. F2, F3 & F4 are analyzed by on-column GC/FID, and F4G-sg is analyzed gravimetrically.			
Notes:			
1. F2 (C10-C16): Sum of all hydrocarbons that elute between nC10 and nC16.			
2. F3 (C16-C34): Sum of all hydrocarbons that elute between nC16 and nC34.			
3. F4 (C34-C50): Sum of all hydrocarbons that elute between nC34 and nC50.			
4. F4G: Gravimetric Heavy Hydrocarbons			
5. F4G-sg: Gravimetric Heavy Hydrocarbons (F4G) after silica gel treatment.			
6. Where F4 (C34-C50) and F4G-sg results are reported for a sample, the larger of the reported values is used for comparison against the relevant CCME standard for F4.			
7. The gravimetric heavy hydrocarbon results (F4G-sg), cannot be added to the C6 to C50 hydrocarbon results.			
8. This method is validated for use.			
9. Data from analysis of quality control samples is available upon request.			
10. Reported results are expressed as milligrams per dry kilogram.			
MOISTURE-CL	Soil	% Moisture	CWS for PHC in Soil - Tier 1
This analysis is carried out gravimetrically by drying the sample at 105 C			
XYLENES-SUM-CALC-CL	Soil	Sum of Xylene Isomer Concentrations	CALCULATED RESULT
Total xylenes represents the sum of o-xylene and m&p-xylene.			

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
CL	ALS ENVIRONMENTAL - CALGARY, ALBERTA, CANADA

Reference Information

Chain of Custody Numbers:

14-2017-08-23

GLOSSARY OF REPORT TERMS

Surrogate - A compound that is similar in behaviour to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

mg/kg - milligrams per kilogram based on dry weight of sample.

mg/kg ww - milligrams per kilogram based on wet weight of sample.

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight of sample.

mg/L - milligrams per litre.

< - Less than.

D.L. - The reported Detection Limit, also known as the Limit of Reporting (LOR).

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

Quality Control Report

Workorder: L1980340

Report Date: 30-AUG-17

Page 1 of 3

Client: Cash Clients
DXB Projects
Toronto ON
Contact: Henry Wong

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
BTXS-HS-MS-CL		Soil						
Batch	R3812574							
WG2601724-3	DUP	L1980340-1						
Benzene		<0.0050	<0.0050	RPD-NA	mg/kg	N/A	40	26-AUG-17
Ethylbenzene		<0.015	<0.015	RPD-NA	mg/kg	N/A	40	26-AUG-17
Toluene		<0.050	<0.050	RPD-NA	mg/kg	N/A	40	26-AUG-17
o-Xylene		<0.050	<0.050	RPD-NA	mg/kg	N/A	40	26-AUG-17
m+p-Xylene		<0.050	<0.050	RPD-NA	mg/kg	N/A	40	26-AUG-17
WG2601724-2	LCS							
Benzene			84.7		%		70-130	26-AUG-17
Ethylbenzene			87.9		%		70-130	26-AUG-17
Toluene			82.5		%		70-130	26-AUG-17
o-Xylene			92.5		%		70-130	26-AUG-17
m+p-Xylene			91.1		%		70-130	26-AUG-17
WG2601724-1	MB							
Benzene			<0.0050		mg/kg		0.005	26-AUG-17
Ethylbenzene			<0.015		mg/kg		0.015	26-AUG-17
Toluene			<0.050		mg/kg		0.05	26-AUG-17
o-Xylene			<0.050		mg/kg		0.05	26-AUG-17
m+p-Xylene			<0.050		mg/kg		0.05	26-AUG-17
Surrogate: 1,4-Difluorobenzene			71.0		%		70-130	26-AUG-17
Surrogate: 4-Bromofluorobenzene			82.1		%		70-130	26-AUG-17
F1-HS-FID-CL		Soil						
Batch	R3812586							
WG2601724-3	DUP	L1980340-1						
F1(C6-C10)		<10	<10	RPD-NA	mg/kg	N/A	40	26-AUG-17
WG2601724-2	LCS							
F1(C6-C10)			115.0		%		70-130	26-AUG-17
WG2601724-1	MB							
F1(C6-C10)			<10		mg/kg		10	26-AUG-17
Surrogate: 3,4-Dichlorotoluene			90.0		%		70-130	26-AUG-17
F2-4-TMB-H/A-FID-CL		Soil						
Batch	R3810989							
WG2601721-4	DUP	L1980340-1						
F2: (C10-C16)		<25	<25	RPD-NA	mg/kg	N/A	40	27-AUG-17
F3: (C16-C34)		<50	<50	RPD-NA	mg/kg	N/A	40	27-AUG-17
F4: (C34-C50)		<50	<50	RPD-NA	mg/kg	N/A	40	27-AUG-17
WG2601721-3	IRM	ALS PHC2 RM						

Quality Control Report

Workorder: L1980340

Report Date: 30-AUG-17

Page 2 of 3

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
F2-4-TMB-H/A-FID-CL		Soil						
Batch	R3810989							
WG2601721-3	IRM	ALS PHC2 RM						
F2: (C10-C16)			86.2		%		70-130	27-AUG-17
F3: (C16-C34)			86.0		%		70-130	27-AUG-17
F4: (C34-C50)			85.1		%		70-130	27-AUG-17
WG2601721-2	LCS							
F2: (C10-C16)			107.9		%		70-130	27-AUG-17
F3: (C16-C34)			104.5		%		70-130	27-AUG-17
F4: (C34-C50)			106.0		%		70-130	27-AUG-17
WG2601721-1	MB							
F2: (C10-C16)			<25		mg/kg		25	27-AUG-17
F3: (C16-C34)			<50		mg/kg		50	27-AUG-17
F4: (C34-C50)			<50		mg/kg		50	27-AUG-17
Surrogate: 2-Bromobenzotrifluoride			90.9		%		70-130	27-AUG-17
MOISTURE-CL		Soil						
Batch	R3812432							
WG2601723-3	DUP	L1980340-1						
Moisture		5.45	5.42		%	0.6	20	26-AUG-17
WG2601723-2	LCS							
Moisture			104.9		%		90-110	26-AUG-17
WG2601723-1	MB							
Moisture			<0.25		%		0.25	26-AUG-17

Quality Control Report

Workorder: L1980340

Report Date: 30-AUG-17

Page 3 of 3

Legend:

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

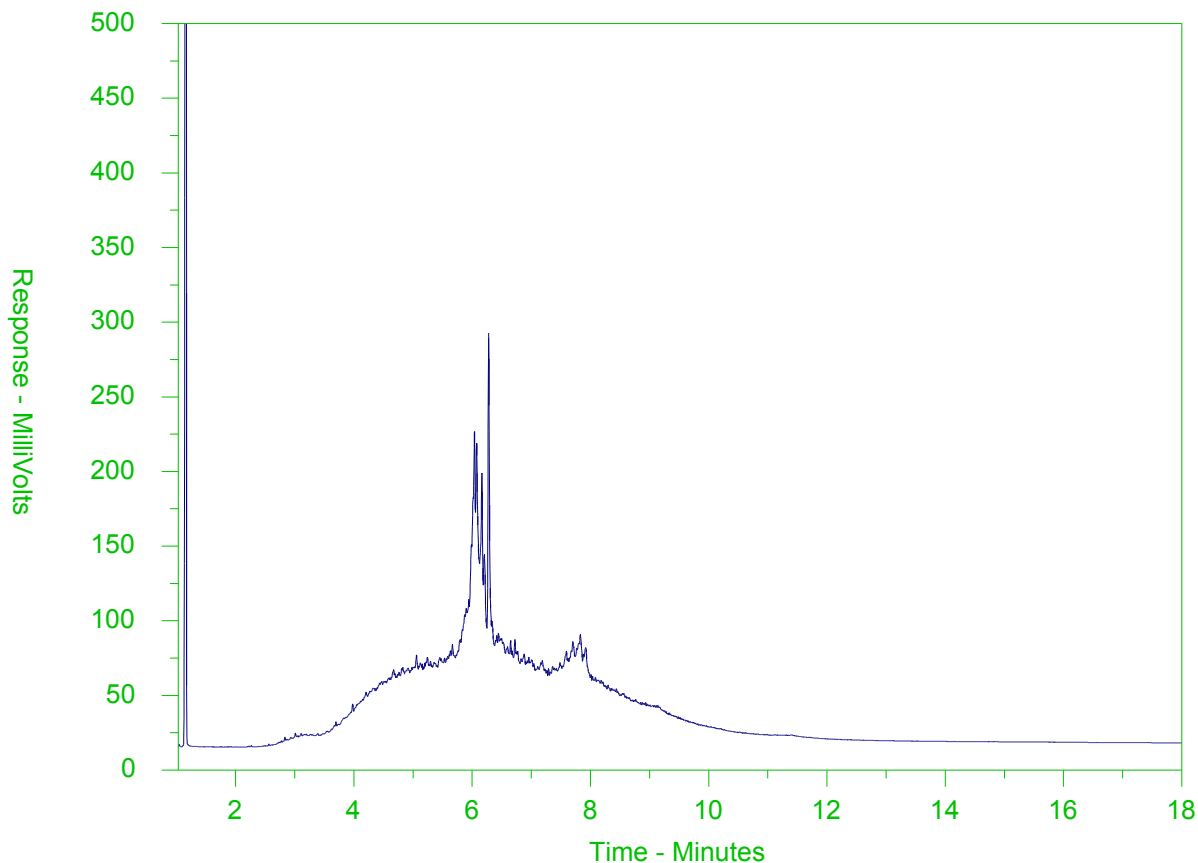
The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT



ALS Sample ID: L1980340-4
 Client Sample ID: A10-S1



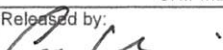

← F2 →		← F3 →		← F4 →	
nC10	nC16		nC34		nC50
174°C	287°C		481°C		575°C
346°F	549°F		898°F		1067°F
← Gasoline →			← Motor Oils/ Lube Oils/ Grease →		
← Diesel/ Jet Fuels →					

The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.

Report To		Report Format / Distribution		Select Service Level Below (Rush Turnaround Time (TAT) is not available for all tests)									
Company: DXB Projects		Select Report Format: <input type="checkbox"/> PDF <input type="checkbox"/> EXCEL <input type="checkbox"/> EDD (DIGITAL)		R <input type="checkbox"/> Regular (Standard TAT if received by 3 pm - business days)									
Contact: Henry Wong		Quality Control (QC) Report with Report <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		P <input type="checkbox"/> Priority (2-4 bus. days if received by 3pm) 50% surcharge - contact ALS to confirm TAT									
Address:		Criteria on Report - provide details below if box checked		E <input checked="" type="checkbox"/> Emergency (1-2 bus. days if received by 3pm) 100% surcharge - contact ALS to confirm TAT									
Phone: 416.575.8064		Select Distribution: <input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX		E2 <input type="checkbox"/> Same day or weekend emergency - contact ALS to confirm TAT and surcharge									
		Email 1 or Fax: henry.wong@dxbprojects.ca		Specify Date Required for E2, E or P:									
		Email 2: claire.brown@dxbprojects.ca											
Invoice To		Invoice Distribution		Analysis Request									
Same as Report To <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Select Invoice Distribution: <input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX		Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below									
Copy of Invoice with Report <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Email 1 or Fax: dave.bynski@dxbprojects.ca											
Company: DXB Projects		Email 2: henry.wong@dxbprojects.ca											
Contact: Dave Bynski													
Project Information		Oil and Gas Required Fields (client use)											
ALS Quote #: Q62054		Approver ID:		Cost Center:									
Job #: Jericho Mine Site Stabilization		GL Account:		Routing Code:									
PO / AFE: TA8		Activity Code:											
LSD:		Location:											
ALS Lab Work Order # (lab use only)		L1980340		ALS Contact: Rick Z.		Sampler: Henry W.							
ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)		Date (dd-mmm-yy)	Time (hh:mm)	Sample Type							Number of Containers	
	A10-S1		Aug 23/17	14:30	Soil								
	A10-S2		23/08/17										
	A10-S3		23/08/17										
	A10-S4		23/08/17										
	A10-S5		23/08/17										
	A10-S6		23/08/17										
	A10-S7		23/08/17										
	A10-S8		23/08/17										
	A10-S9		23/08/17										
	A10-S10		23/08/17										
	A10-S11		23/08/17										
	A10-S12		23/08/17										
Drinking Water (DW) Samples¹ (client use)			Special Instructions / Specify Criteria to add on report (client Use)			SAMPLE COI							
Are samples taken from a Regulated DW System? <input type="checkbox"/> Yes <input type="checkbox"/> No			Please also report results to danhewitt@flatriver.ca, dank@breakwaterconsulting.ca, uyarrai@gmail.com			Frozen <input type="checkbox"/>						No <input type="checkbox"/>	
Are samples for human drinking water use? <input type="checkbox"/> Yes <input type="checkbox"/> No						Ice packs Yes <input type="checkbox"/> No <input type="checkbox"/>						No <input type="checkbox"/>	
						Cooling Initiated <input type="checkbox"/>							
						INITIAL COOLER TEMPERATURE						RES °C	
						9.9							
SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)							
Released by: 		Date: Aug 23/17	Time: 14:30	Received by: 		Date: Aug 24/17	Time: 09:30	Received by:		Date:	Time:		

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY

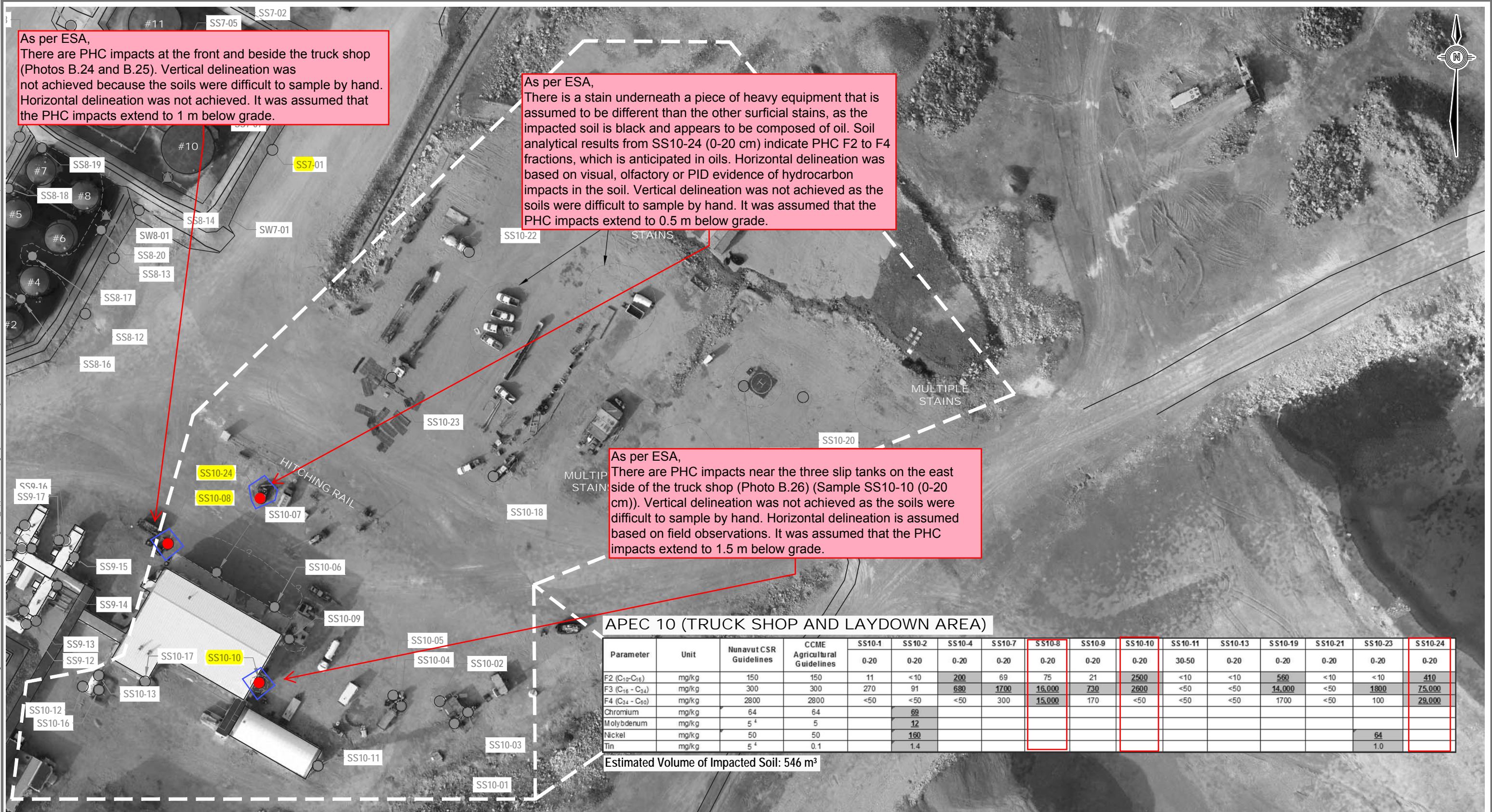
YELLOW - CLIENT COPY

NA-FM-0326e v09 Front04 January 2014

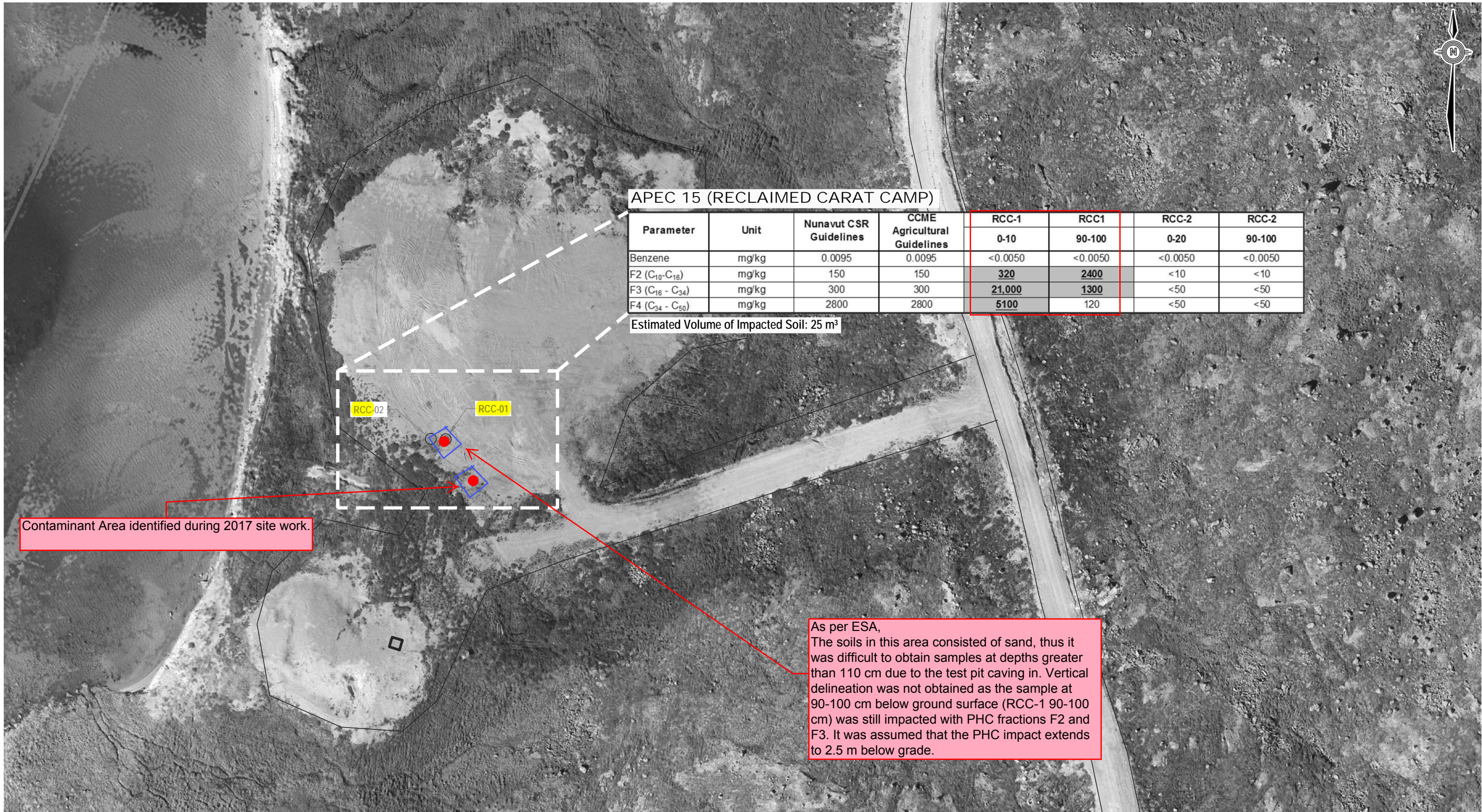
Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.

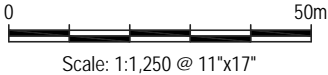
Q:\Edmonton\Engineering\141\Projects\14103202 - Jericho Reclamation\5.0 Drawings\ESA\2.0 Production Drawings\ESA Figures Appendix B.dwg [FIGURE B.8] December 15, 2014 - 1:37:14 pm (BY: STIRLING, JENNIFER)



C:\Edmonton\Engineering\E141\Projects\E14103202 - Jericho Reclamation\5.0 Drawings\ESA\2.0 Production Drawings\ESA Figures Appendix B.dwg [FIGURE B.7] December 15, 2014 - 1:36:23 pm (BY: STIRLING, JENNIFER)



- LEGEND:**
- SOIL SAMPLE LOCATION
 - BELOW APPLICABLE GUIDELINES - SOIL
 - ABOVE APPLICABLE GUIDELINES - SOIL
 - NOT ANALYSED
 - APPROXIMATE EXTENT OF IMPACTED SOIL



NOTE:
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Notes:	
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Shaded - Exceeds CCME Guideline	
<i>Italic</i> - Detection limit greater than guideline	
N/A - Not applicable	
Blank - Not analyzed	

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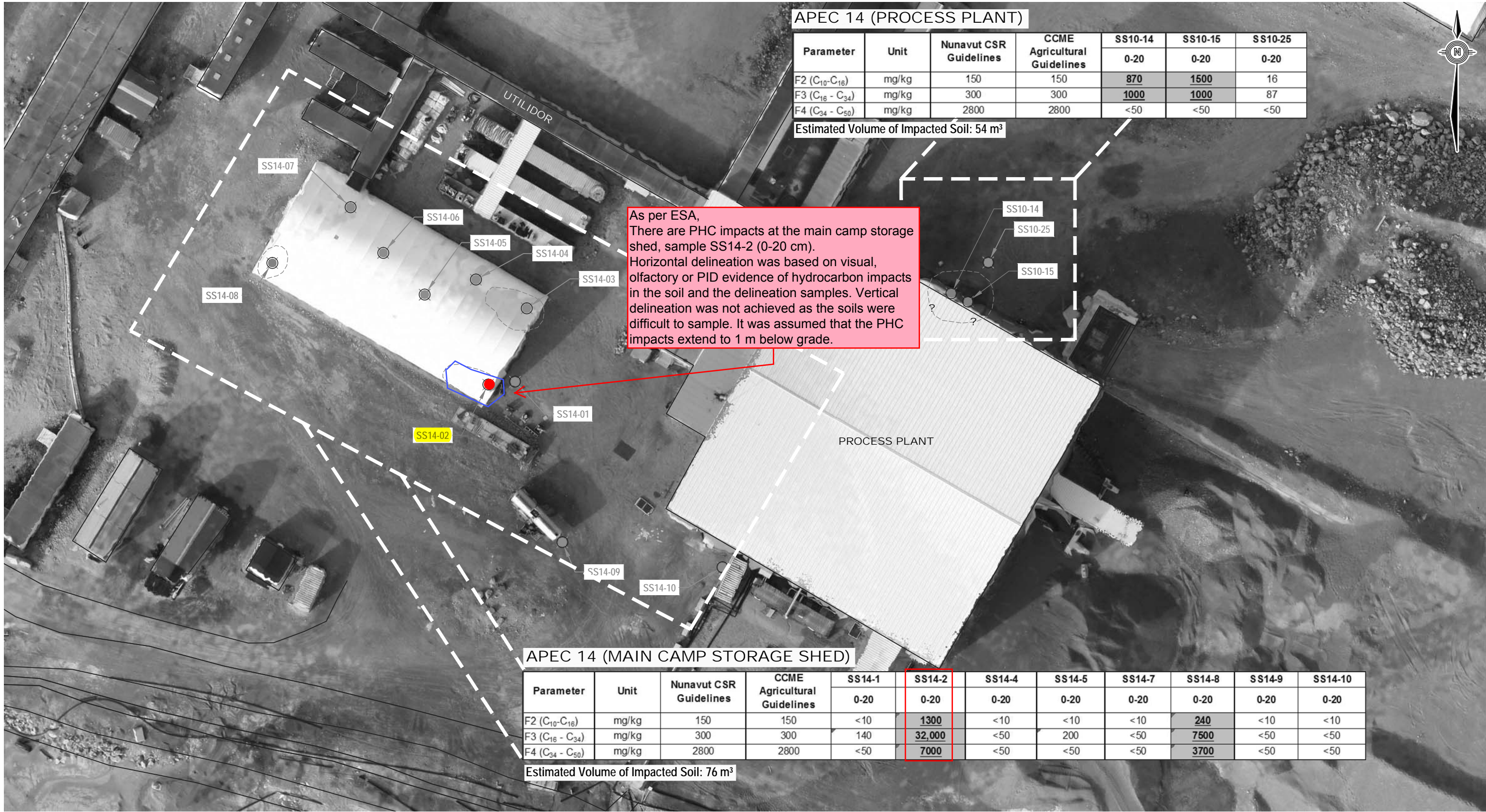
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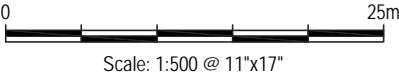
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Closure Assessment Jericho Diamond Mine, Nunavut				
APEC 15 - RECLAIMED CARAT CAMP SOIL SAMPLE LOCATIONS				
PROJECT NO. E14103202	DWN GDK/DBD	CKD WTH	REV 0	Figure B.7
OFFICE EDM	DATE December 2014			

Q:\Edmonton\Engineering\E141\Projects\E14103202 - Jericho Reclamation\5.0 Drawings\ESA\2.0 Production Drawings\ESA Figures Appendix B.dwg [FIGURE B.13] December 15, 2014 - 1:39:15 pm (BY: STIRLING, JENNIFER)



- LEGEND:
- SOIL SAMPLE LOCATION
 - BELOW APPLICABLE GUIDELINES - SOIL
 - ABOVE APPLICABLE GUIDELINES - SOIL
 - NOT ANALYSED
 - APPROXIMATE EXTENT OF IMPACTED SOIL



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Closure Assessment
Jericho Diamond Mine, Nunavut

APEC 14 - PROCESS PLANT
SOIL SAMPLE LOCATIONS

PROJECT NO.

E14103202

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DWN

GDK/DBD

DATE
December 2014

CKD

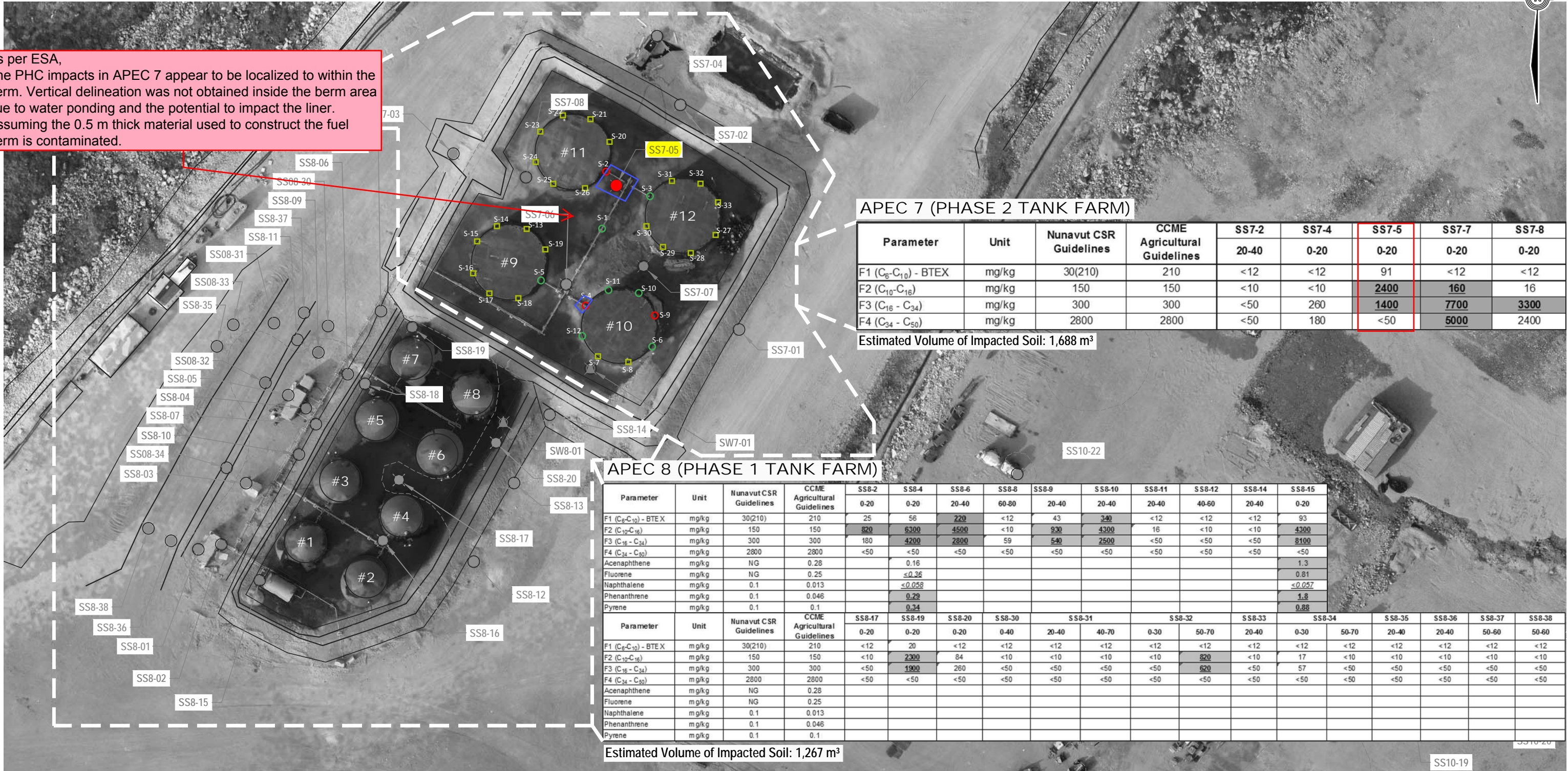
WTH

REV
0

Figure B.13

As per ESA,
The PHC impacts in APEC 7 appear to be localized to within the berm. Vertical delineation was not obtained inside the berm area due to water ponding and the potential to impact the liner.
Assuming the 0.5 m thick material used to construct the fuel berm is contaminated.

Q:\Edmonton\Engineering\141\Projects\E14103202 - Jericho Reclamation\5.0 Drawings\ESA2.0 Production Drawings\ESA Figures Appendix B.dwg [FIGURE B.11] December 15, 2014 - 1:38:38 pm (BY: STIRLING, JENNIFER)



LEGEND:

- SOIL SAMPLE LOCATION
- BELOW APPLICABLE GUIDELINES - SOIL
- ABOVE APPLICABLE GUIDELINES - SOIL
- NOT ANALYSED
- APPROXIMATE EXTENT OF IMPACTED SOIL

BERM WATER SAMPLE LOCATION

0 25m
Scale: 1:750 @ 11"x17"

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Closure Assessment
Jericho Diamond Mine, Nunavut

APEC 7 AND APEC 8 - TANK FARM
SOIL SAMPLE LOCATIONS

PROJECT NO.
E14103202

OFFICE
EDM

DWN
GDK/DBD

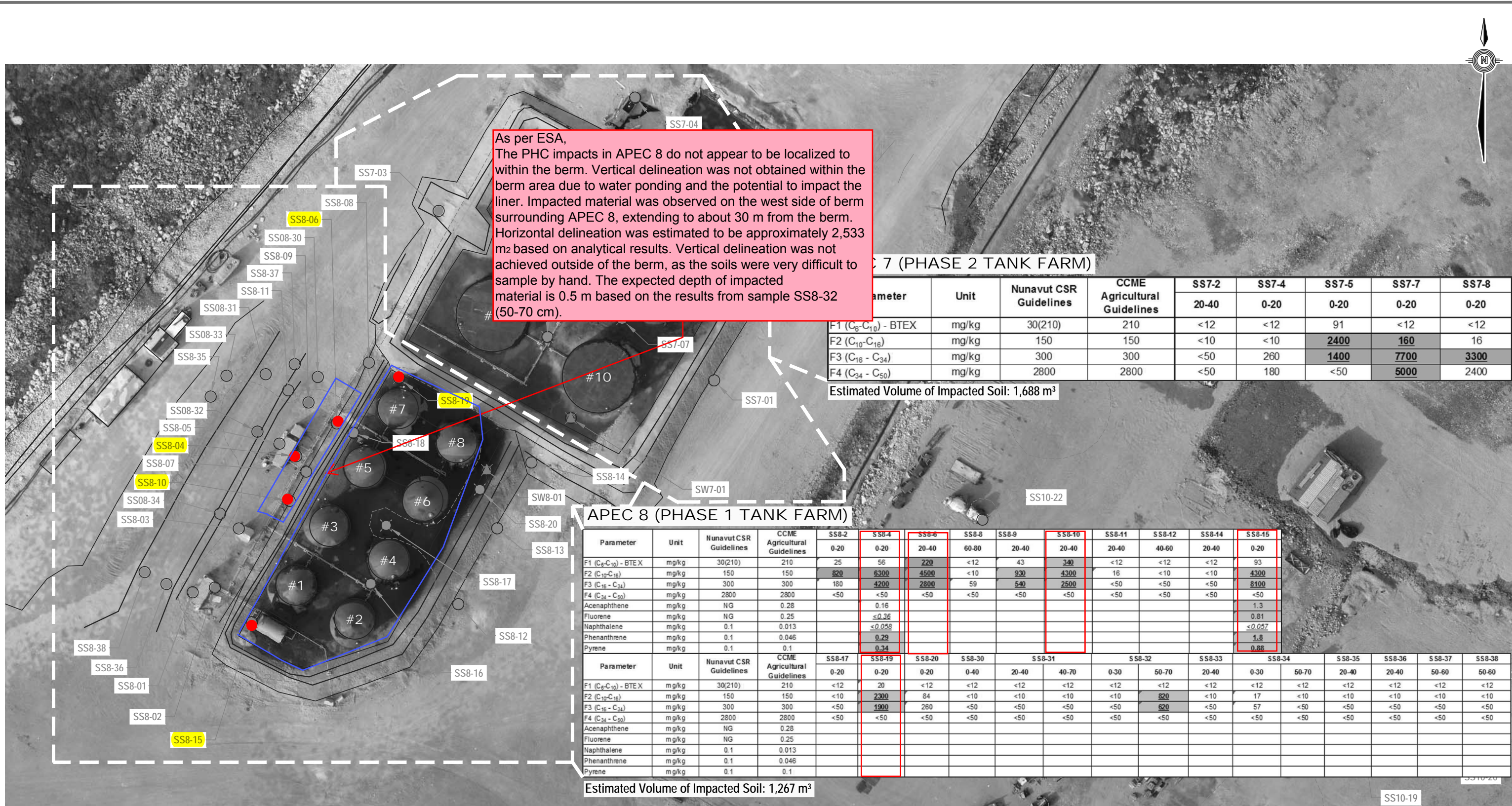
CKD
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REV
0

DATE
December 2014

Figure B.11

Q:\Edmonton\Engineering\141\Projects\14103202 - Jericho Reclamation\5.0 Drawings\ESA2.0 Production Drawings\ESA Figures Appendix B.dwg [FIGURE B.11] December 15, 2014 - 1:38:38 pm (BY: STIRLING, JENNIFER)



LEGEND:

- SOIL SAMPLE LOCATION
- BELOW APPLICABLE GUIDELINES - SOIL
- ABOVE APPLICABLE GUIDELINES - SOIL
- NOT ANALYSED
- APPROXIMATE EXTENT OF IMPACTED SOIL

- BERM WATER SAMPLE LOCATION

0 25m
Scale: 1:750 @ 11"x17"

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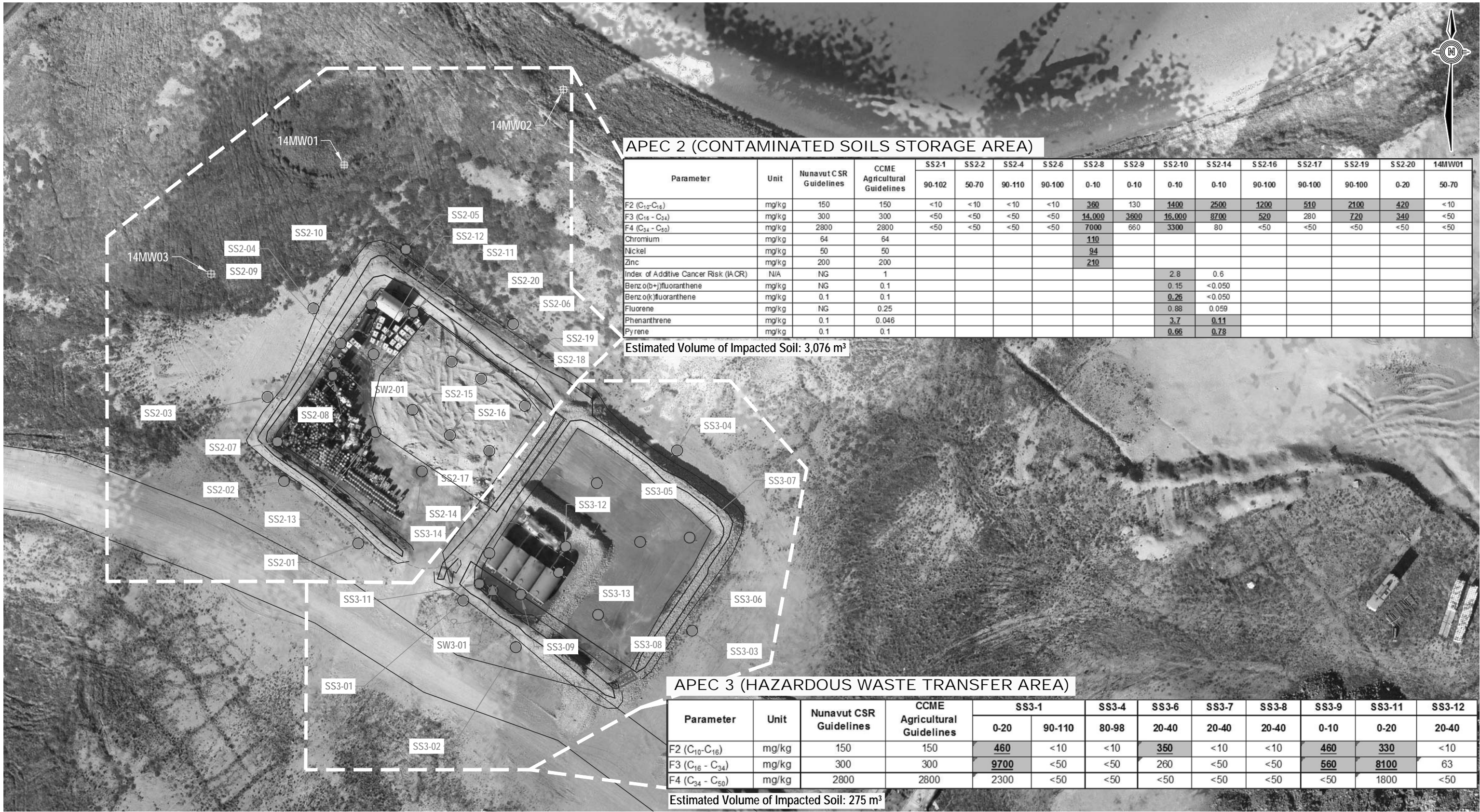
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Closure Assessment Jericho Diamond Mine, Nunavut			
APEC 7 AND APEC 8 - TANK FARM SOIL SAMPLE LOCATIONS			
PROJECT NO. E14103202	DWN GDK/DBD	CKD WTH	REV 0
OFFICE EDM	DATE December 2014		Figure B.11

Q:\Edmonton\Engineering\E141\Projects\E14103202 - Jericho Reclamation\5.0 Drawings\ESA2.0 Production Drawings\ESA Figures Appendix B.dwg [FIGURE B.5] December 15, 2014 - 1:35:52 pm (BY: STIRLING, JENNIFER)



LEGEND:

- SOIL SAMPLE LOCATION
- BELOW APPLICABLE GUIDELINES - SOIL
- ABOVE APPLICABLE GUIDELINES - SOIL
- NOT ANALYSED
- APPROXIMATE EXTENT OF IMPACTED SOIL
- BERM WATER SAMPLE LOCATION
- MONITORING WELL LOCATION
- BELOW APPLICABLE GUIDELINES

- BERM WATER SAMPLE LOCATION
- MONITORING WELL LOCATION
- BELOW APPLICABLE GUIDELINES

0 25m
Scale: 1:750 @ 11"x17"

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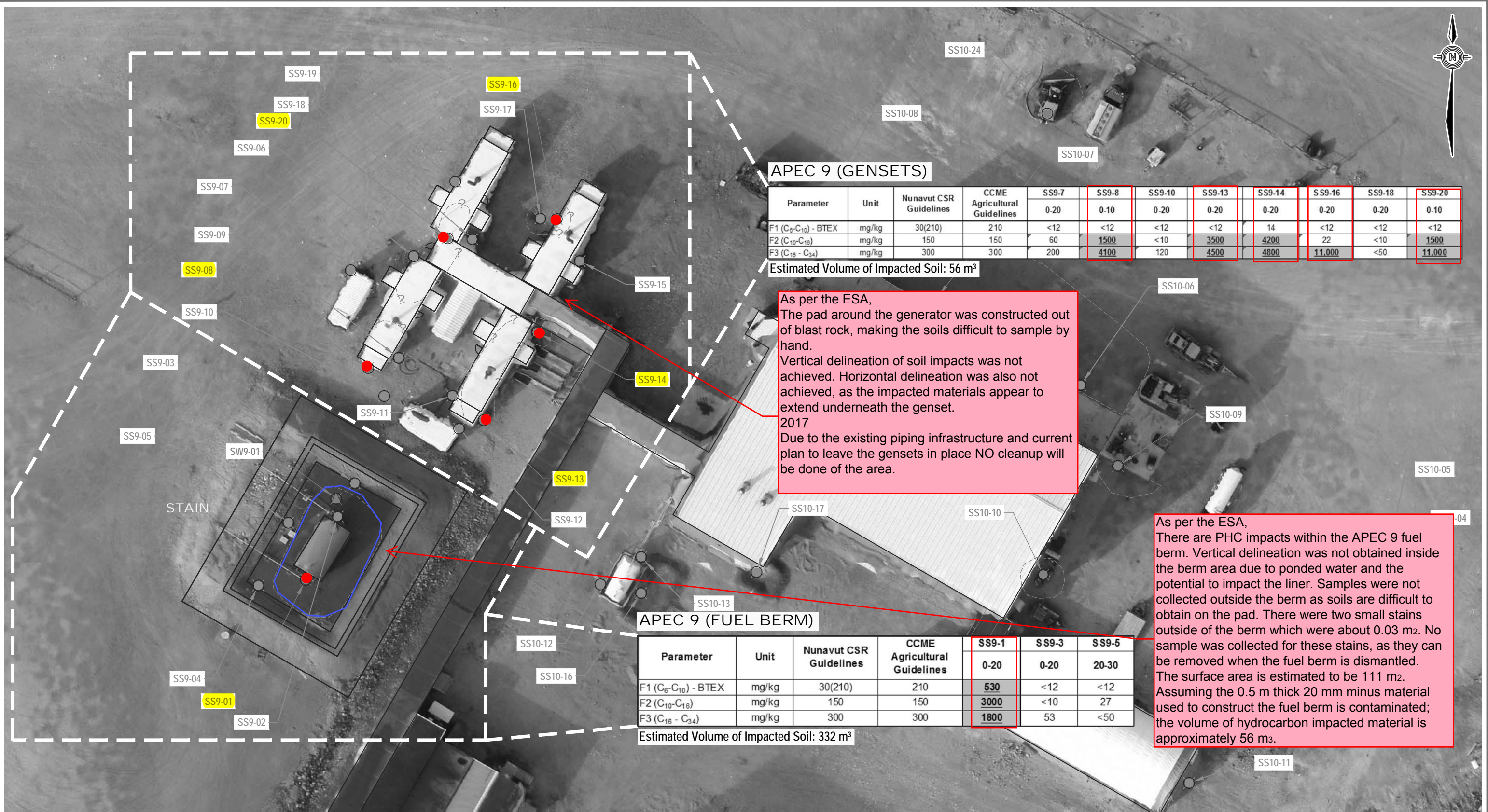
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Closure Assessment
Jericho Diamond Mine, Nunavut
APEC 2 AND 3 - CONTAMINATED SOILS STORAGE
AREA AND HAZARDOUS WASTE TRANSFER AREA
SOIL SAMPLE LOCATIONS

PROJECT NO. E14103202	DWN GDK/DBD	CKD WTH	REV 0
OFFICE EDM	DATE December 2014		

Figure B.5

Q:\Edmonton\Engineering\141\Projects\14103202 - Jericho Reclamation\5.0 Drawings\ESA\2.0 Production Drawings\ESA Figures Appendix B.dwg [FIGURE B.12] December 15, 2014 - 1:38:56 pm (BY: STIRLING, JENNIFER)



LEGEND:

- SOIL SAMPLE LOCATION
- BERM WATER SAMPLE LOCATION
- BELOW APPLICABLE GUIDELINES - SOIL
- ABOVE APPLICABLE GUIDELINES - SOIL
- NOT ANALYSED
- APPROXIMATE EXTENT OF IMPACTED SOIL

- BERM WATER SAMPLE LOCATION

0 20m
Scale: 1:400 @ 11"x17"

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Closure Assessment
Jericho Diamond Mine, Nunavut
**APEC 9 - GENSETS AND FUEL BERM
SOIL SAMPLE LOCATIONS**

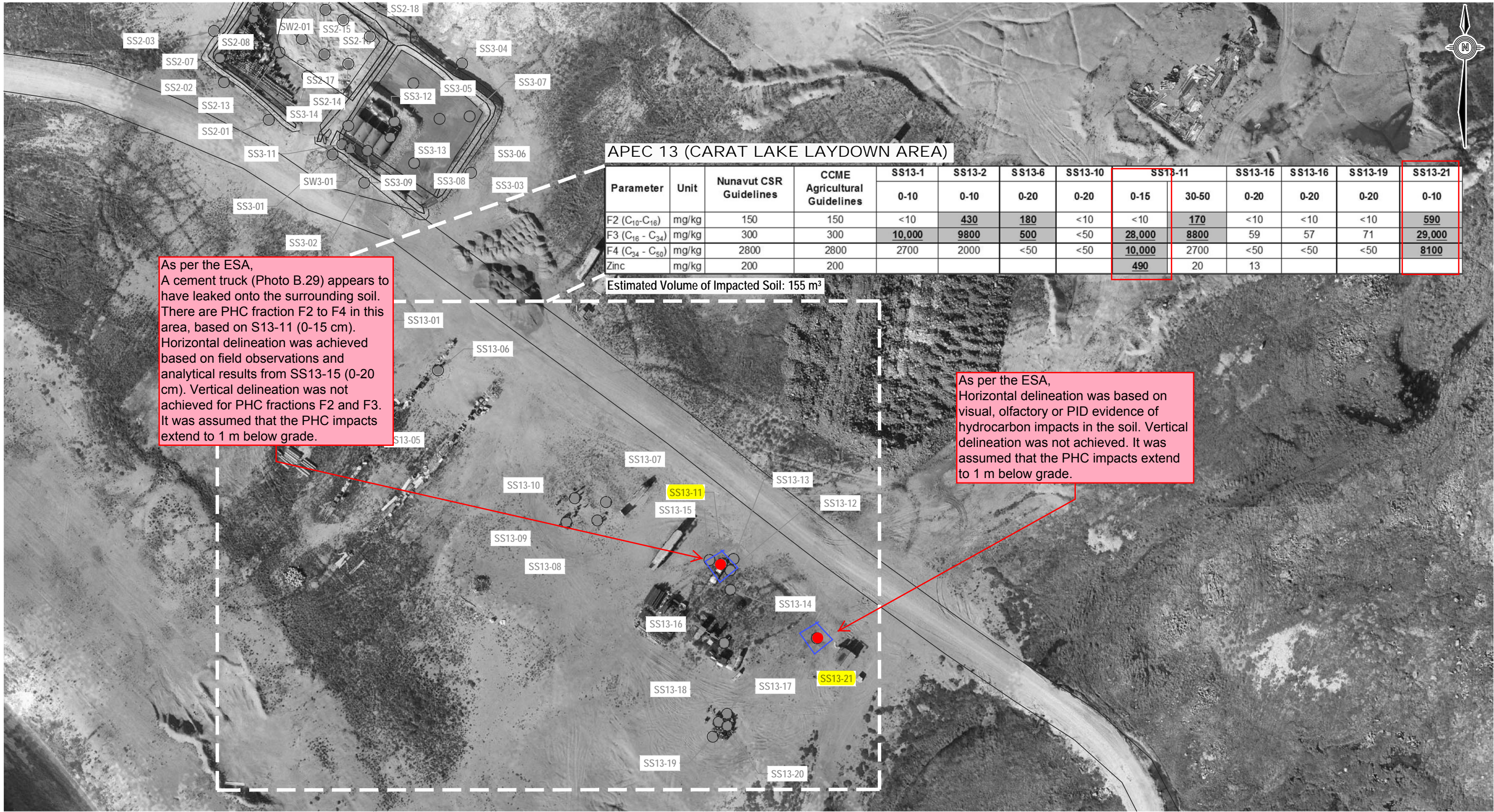
PROJECT NO.
E14103202
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GDK/DBD
DATE
December 2014

CKD
WTH
REV
0

Figure B.12

Q:\Edmonton\Engineering\E141\Projects\E14103202 - Jericho Reclamation\5.0 Drawings\ESA\2.0 Production Drawings\ESA Figures Appendix B.dwg [FIGURE B.6] December 15, 2014 - 1:36:06 pm (BY: STIRLING, JENNIFER)



LEGEND:

- SOIL SAMPLE LOCATION
- BELOW APPLICABLE GUIDELINES - SOIL
- ABOVE APPLICABLE GUIDELINES - SOIL
- NOT ANALYSED
- APPROXIMATE EXTENT OF IMPACTED SOIL

- BERM WATER SAMPLE LOCATION

0 50m
Scale: 1:1,250 @ 11"x17"

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Closure Assessment
Jericho Diamond Mine, Nunavut
APEC 13 - CARAT LAKE LAYDOWN AREA
SOIL SAMPLE LOCATIONS

PROJECT NO.
E14103202
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EDM

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GDK/DBD
DATE
December 2014

CKD
WTH
REV
0

Figure B.6

Q:\Edmonton\Engineering\141\Projects\14103202 - Jericho Reclamation\5.0 Drawings\ESA\2.0 Production Drawings\ESA Figures Appendix B.dwg [FIGURE B.4] December 15, 2014 - 1:35:16 pm (BY: STIRLING, JENNIFER)

As per ESA, PHC impacts appear to be localized to within the fuel berm. Vertical delineation was not obtained within the berm due to water and the potential to impact the liner. The surface area is estimated to be 260 m². Assuming the 0.5 m thick layer of material used to construct the fuel berm is contaminated, the volume of hydrocarbon impacted material is approximately 130 m³.

As per ESA and additional sampling, The pad was constructed out of blast rock, thus the soils were difficult to hand sample, even with a pickaxe. Vertical delineation of soil impacts was not achieved. The PHC impacts are estimated to extend to 1 m below grade.

APEC 1E

Parameter	Unit	Nunavut CSR Guidelines	CCME Agricultural Guidelines	SS1E-1	SS1E-2	SS1E-5	SS1E-9
				0-20	0-20	0-20	0-20
Benzene	mg/kg	0.0095	0.0095	<0.0050	<0.0050	<0.0050	<0.0050
Ethylbenzene	mg/kg	0.082	0.082	<0.010	<0.010	0.014	<0.010
F2 (C ₁₀ -C ₁₆)	mg/kg	150	150	54	<10	770	410
F3 (C ₁₆ - C ₃₄)	mg/kg	300	300	3600	<50	400	1100
F4 (C ₃₄ - C ₅₀)	mg/kg	2800	2800	13,000	<50	<50	1600
F4G-SG (Heavy Hydrocarbons-Grav.)	mg/kg	2800	NG	19,000			2600

Parameter	Unit	Nunavut CSR Guidelines	CCME Agricultural Guidelines	SS1C-1	SS1C-2	SS1C-3
				0-10	0-20	0-20
Ethylbenzene	mg/kg	0.0095	0.0095	<0.0050	<0.0050	0.0079
F2 (C ₁₀ -C ₁₆)	mg/kg	0.082	0.082	<0.010	<0.010	<0.010
F3 (C ₁₆ - C ₃₄)	mg/kg	150	150	4200	2400	<10
F4 (C ₃₄ - C ₅₀)	mg/kg	300	300	3500	2900	<50
Nickel	mg/kg	2800	2800	970	68	<50
	mg/kg	50	50		63	

Estimated Volume of Impacted Soil: 100 m³

APEC 1D

Parameter	Unit	Nunavut CSR Guidelines	CCME Agricultural Guidelines	SS1D-1	SS1D-3	SS1D-4	SS1D-5
				0-20	0-20	20-40	0-20
Benzene	mg/kg	0.0095	0.0095	<0.0050	0.0099	<0.0050	0.0090
Ethylbenzene	mg/kg	0.082	0.082	<0.010	<0.010	<0.010	<0.010
F2 (C ₁₀ -C ₁₆)	mg/kg	150	150	<10	15	190	<10
F3 (C ₁₆ - C ₃₄)	mg/kg	300	300	<50	1300	150	<50
F4 (C ₃₄ - C ₅₀)	mg/kg	2800	2800	<50	720	<50	<50

Estimated Volume of Impacted Soil: 50 m³

APEC 1B

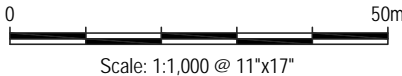
Parameter	Unit	Nunavut CSR Guidelines	CCME Agricultural Guidelines	SS1B-1	SS1B-4	SS1B-6	SS1B-7	SS1B-8
				0-10	0-10	90-110	90-110	0-10
Benzene	mg/kg	0.0095	0.0095	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Ethylbenzene	mg/kg	0.082	0.082	0.13	0.13	<0.010	<0.010	0.018
F2 (C ₁₀ -C ₁₆)	mg/kg	150	150	3300	3500	<10	<10	2800
F3 (C ₁₆ - C ₃₄)	mg/kg	300	300	1100	400	<50	<50	1000

Estimated Volume of Impacted Soil: 130 m³

LEGEND:

- SOIL SAMPLE LOCATION
- BELOW APPLICABLE GUIDELINES - SOIL
- ABOVE APPLICABLE GUIDELINES - SOIL
- NOT ANALYSED
- APPROXIMATE EXTENT OF IMPACTED SOIL

- BERM WATER SAMPLE LOCATION



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Closure Assessment
Jericho Diamond Mine, Nunavut

APEC 1 - AIRSTRIP
SOIL SAMPLE LOCATIONS

PROJECT NO.
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0
DATE
December 2014

Figure B.4

Date	November 2018
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- PHC Soil Clean-up Summary

PHC Soil Clean-up Summary

Nunavut CSR Guidelines		150.	3,000.	2,800.
------------------------	--	------	--------	--------

AMSRP	2,500.	20,000.
-------	--------	---------

Total ESA PHC Soil Volume	7,850.
------------------------------	--------

Total 2017 Plan PHC Soil Volume	3,349.
--	--------

Final PHC Soil Clean-up Volume	1316.
--------------------------------------	-------

From ESA- Appendix B Figures

Apec	ESA- PHC Soil Volume (cu.m)	ESA Notes	Sample	Depth (cm)	Depth (cm)2	F1 (mg/kg)	F2 (mg/kg)	F3 (mg/kg)	F4 (mg/kg)	AMSRP Type	AMSRP Type B (mg/kg)	AMSRP Type A (mg/kg)	AMSRP- PHC Soil Volume (cu.m)	2017 Specifications- PHC Soil volume Update	2017 Actual Cleanup Volume (cu.m)
01B- Airport berm	130.	Based on the analytical results and the locations of the samples, the PHC impacts appear to be localized to within the fuel berm. Vertical delineation was not obtained within the berm due to water and the potential to impact the liner. Assuming the 0.5 m thick layer of material used to construct the fuel berm is contaminated, the volume of hydrocarbon impacted material is approximately 130 m3.											130.	No change from ESA delineation. All soil within the Berm @ ~ 0.5 m deep was to be removed.	69.
01B- Airport berm			SS1B-1	0.	10.		3,300.	1,100.		TypeB	4,400.	--			
01B- Airport berm			SS1B-4	0.	10.		3,500.	400.		TypeB	3,900.	--			
01B- Airport berm			SS1B-6	90.	110.		10.	50.		TypeB					
01B- Airport berm			SS1B-7	90.	110.		10.	50.		TypeB					
01B- Airport berm			SS1B-8	0.	10.		2,800.	1,000.		TypeB	3,800.	--			
01C- N and IN Shop	100.	The pad was constructed out of blast rock, thus the soils were difficult to hand sample, even with a pickaxe. Vertical delineation of soil impacts was not achieved. The surface area is estimated to be 100 m2 and the PHC impacts are estimated to extend to 1 m below grade.											100.	No change from ESA delineation. @ 100 sq.m x 1 m deep.	15.
01C- N and IN Shop			SS1C-1	0.	10.		4,200.	3,500.	970.	TypeB	7,700.	--			
01C- N and IN Shop			SS1C-2	0.	20.		2,400.	2,900.	68.	TypeB	5,300.	--			
01C- N and IN Shop			SS1C-3	0.	20.		10.	50.	50.	TypeA					
01D- Generator Seacan	50.	The soils were difficult to sample by hand in this area, even with a pickaxe. Vertical delineation of soil impacts was not achieved. The PHC impacts are estimated to extend to 1.5 m below grade.											0.	The hydrocarbons were classed as Type B - mobile and meeting the remedial objectives set out in the AMSRP.	
01D- Generator Seacan			SS1D-1	0.	20.		10.	50.	50.	TypeA					
01D- Generator Seacan			SS1D-3	0.	20.		15.	1,300.	720.	TypeA	--	2,020.			
01D- Generator Seacan			SS1D-4	20.	40.		190.	150.	50.	TypeB	340.	--			
01D- Generator Seacan			SS1D-5	0.	20.		10.	50.	50.	TypeA					
01E- Drums N of Shop	20.	The soils were difficult to sample by hand, therefore, vertical delineation of soil impacts was not achieved. The black stain area was horizontally delineated based on field observations and the confirmatory sample SS1E-2 (0-20 cm). The surface area is estimated to be 4 m2 and the PHC impacts are estimated to extend 0.5 m below grade. The sample SS1E-5 (20-40 cm) was located where stained soil was located while no visible, olfactory or PID evidence was observed near sample SS1E-9. Surface area is anticipated to be 18 m2. It was assumed that the PHC impacts extend to 1 m below grade.											0.	The hydrocarbons were classed as both Type A and B and meeting the AMSRP remedial objectives.	
01E- Drums N of Shop			SS1E-1	0.	20.		54.	3,600.	13,000.	TypeA	--	16,600.			
01E- Drums N of Shop			SS1E-2	0.	20.		10.	50.	50.	TypeA					
01E- Drums N of Shop			SS1E-5	0.	20.		770.	400.	50.	TypeB	1,170.	--			
01E- Drums N of Shop			SS1E-9	0.	20.		410.	1,100.	1,600.	TypeA	--	2,700.			
02- HWTa Contam Soil	3,076.	APEC 2 contained fuel drums with soil, containers holding antifreeze, motor oil, transmission and hydraulic oil containers, a large AST, a small AST, a large stockpile of soil, and a soil bag (2 m3) with black stained soil overflowing the edges. The PHC impacts in APEC 2 appear to be localized within the berm. The stockpile inside the berm is approximately 36 m by 24 m with a surface area of 864 m2 of PHC impacted material. The stockpile of material is approximately 2 m high, thus the volume of impacted material is 1,728 m3. Vertical delineation was not obtained inside the berm area due to water in the berm and the potential to impact the liner. The surface area is estimated to be 2,495 m2. Assuming the contaminated soil thickness is about 0.5 m the approximate volume of impacted materials is estimated to be 1,248 m3.											0.	The hydrocarbons in the HWTa Soil Stockpile were classed Type B - mobile and primarily met the AMSRP remedial objectives; however, since the soils were recovered from a spill, additional testing was recommended for the 2017 work program to verify soil delineation. The hydrocarbons in the soil base/ bedding soil overlying the HWTa liner were classed as Type A - non-mobile and primarily meeting the AMSRP remedial objectives.	110.
02- HWTa Contam Soil			SS2-1	90.	102.		10.	50.	50.	TypeA	--	100.			
02- HWTa Contam Soil			SS2-2	50.	70.		10.	50.	50.	TypeA	--	100.			
02- HWTa Contam Soil			SS2-4	90.	110.		10.	50.	50.	TypeA	--	100.			
02- HWTa Contam Soil			SS2-6	90.	100.		10.	50.	50.	TypeA	--	100.			
02- HWTa Contam Soil			SS2-8	0.	10.		360.	14,000.	7,000.	TypeA	--	21,000.		Localized Type A - impacted soil should be removed as part of the cleanup work.	
02- HWTa Contam Soil			SS2-9	0.	10.		130.	3,600.	660.	TypeA	--	4,260.			
02- HWTa Contam Soil			SS2-10	0.	10.		1,400.	16,000.	3,300.	TypeA	--	19,300.			
02- HWTa Contam Soil			SS2-14	0.	10.		2,500.	8,700.	80.	TypeB	11,200.	--		Additional testing should be carried out to delineate any localized Type B classed PHC soil.	
02- HWTa Contam Soil		Soil Stockpile in HWTa.	SS2-16	90.	100.		1,200.	520.	50.	TypeB	1,720.	--		Recommend collecting additional samples during the 2017 work for additional delineation.	
02- HWTa Contam Soil		Soil Stockpile in HWTa.	SS2-17	90.	100.		510.	280.	50.	TypeB	790.	--		Recommend collecting additional samples during the 2017 work for additional delineation.	
02- HWTa Contam Soil		Soil Stockpile in HWTa.	SS2-19	90.	100.		2,100.	720.	50.	TypeB	2,820.	--		Recommend collecting additional samples during the 2017 work for additional delineation.	
02- HWTa Contam Soil		Soil Stockpile in HWTa.	SS2-20	0.	20.		420.	340.	50.	TypeB	760.	--		Recommend collecting additional samples during the 2017 work for additional delineation.	
03- HWTa	275.	Based on the soil analytical results and the locations of the samples within and around berm, the PHC impacts in APEC 3 appear to be localized to within the berm except for a stain by SS3-1 (0-20 cm)(Photo B.12). Vertical delineation was not obtained within the berm area due to water and the potential to impact the liner. The surface area is estimated to be 550 m2. Assuming the contaminated soil thickness is 0.5 m thick, the volume of hydrocarbon impacted material is approximately 275 m3.									--		0.	The hydrocarbons in the newer HWTa cell were classed as both Types A and B and meeting the AMSRP remedial objectives.	ROJV completed local cleanup around 4- tank transfer area.
03- HWTa			SS3-1	0.	20.		460.	9,700.	2,300.	TypeA	--	12,000.			
03- HWTa			SS3-1	90.	110.		10.	50.	50.	TypeA	--	100.			
03- HWTa			SS3-4	80.	98.		10.	50.	50.	TypeA	--	100.			
03- HWTa			SS3-6	20.	40.		350.	260.	50.	TypeB	610.	--			
03- HWTa			SS3-7	20.	40.		10.	50.	50.	TypeA	--	100.			
03- HWTa			SS3-8	20.	40.		10.	50.	50.	TypeA	--	100.			
03- HWTa			SS3-9	0.	10.		460.	560.	50.	TypeB	1,020.	--			
03- HWTa			SS3-11	0.	20.		330.	8,100.	1,800.	TypeA	--	9,900.			
03- HWTa			SS3-12	20.	40.		10.	63.	50.	TypeA	--	113.			
07- Phase 2 Tank Farm	1,688.	APEC 7 is located north of APEC 8 and contains four large ASTs and fuel drums with potentially impacted soil and water all contained in a lined berm. The PHC impacts in APEC 7 appear to be localized to within the berm. Vertical delineation was not obtained inside the berm area due to water ponding and the potential to impact the liner. The surface area is estimated to be 3,376 m2. Assuming the 0.5 m thick material used to construct the fuel berm is contaminated, the estimated volume of hydrocarbon impacted material is approximately 1,688 m3.											844.	The hydrocarbons in the Phase 2 Tank Farm soil were primary classed as Type A - non-mobile and meeting the AMSRP remedial objectives. One sample central in tank farm did exceed the AMSRP objective for mobile PHC, and to be removed as part of cleanup work. Assuming the sample represents the inner tank farm area where piping infrastructure runs, 1/2 of the area volume was assigned as a revised estimated cleanup volume.	63.
07- Phase 2 Tank Farm			SS7-2	20.	40.	12.	10.	50.	50.	TypeA	--	100.			
07- Phase 2 Tank Farm			SS7-4	0.	20.	12.	10.	50.	50.	TypeA	--	100.			
07- Phase 2 Tank Farm			SS7-5	0.	20.	91.	2,400.	1,400.	50.	TypeB	3,891.	--		Middle of tank farm.	
07- Phase 2 Tank Farm			SS7-7	0.	20.	12.	160.	7,700.	5,000.	TypeA	--	12,700.			
07- Phase 2 Tank Farm			SS7-8	0.	20.	12.	16.	3,300.	2,400.	TypeA	--	5,700.			

Apec	ESA- PHC Soil Volume (cu.m)	ESA Notes	Sample	Depth (cm)	Depth (cm)2	F1 (mg/kg)	F2 (mg/kg)	F3 (mg/kg)	F4 (mg/kg)	AMSRP Type	AMSRP Type B (mg/kg)	AMSRP Type A (mg/kg)	AMSRP- PHC Soil Volume (cu.m)	2017 Specifications- PHC Soil volume Update	2017 Actual Cleanup Volume (cu.m)
08- Phase 1 Tank Farm	1,267.	APEC 8 contains eight large ASTs and one smaller AST in a lined berm. The PHC and PAH impacts in APEC 8 do not appear to be localized to within the berm. Vertical delineation was not obtained within the berm area due to water ponding and the potential to impact the liner. Impacted material was observed on the west side of berm surrounding APEC 8, extending to about 30 m from the berm. Horizontal delineation was estimated to be approximately 2,533 m2 based on analytical results. Vertical delineation was not achieved outside of the berm, as the soils were very difficult to sample by hand. The expected depth of impacted material is 0.5 m based on the results from sample SS8-32 (50-70 cm). The volume of hydrocarbon impacted material is estimated to be approximately 1,267 m3. '											1,267.	The hydrocarbons in the Phase 1 Tank Farm soil were primary classed as Type B and exceeding the AMSRP remedial objectives. The ESA delineated area represented an outer lined containment trench where the main filling pipe infrastructure sat.	308.
08- Phase 1 Tank Farm		Outside berm.	SS8-2	0.	20.	25.	820.	180.	50.	TypeB	1,025.	--			
08- Phase 1 Tank Farm		Outside berm.	SS8-4	0.	20.	56.	6,300.	4,200.	50.	TypeB	10,556.	--			
08- Phase 1 Tank Farm		Outside berm.	SS8-6	20.	40.	220.	4,500.	2,800.	50.	TypeB	7,520.	--			
08- Phase 1 Tank Farm			SS8-8	60.	80.	12.	10.	59.	50.	TypeA	--	109.			
08- Phase 1 Tank Farm		Outside berm - far northwest point of plume.	SS8-9	20.	40.	43.	930.	540.	50.	TypeB	1,513.	--			
08- Phase 1 Tank Farm		Outside berm.	SS8-10	20.	40.	340.	4,300.	2,500.	50.	TypeB	7,140.	--			
08- Phase 1 Tank Farm			SS8-11	20.	40.	12.	16.	50.	50.	TypeA	--	100.			
08- Phase 1 Tank Farm			SS8-12	40.	60.	1.	10.	50.	50.	TypeA	--	100.			
08- Phase 1 Tank Farm			SS8-14	20.	40.	1.	10.	50.	50.	TypeA	--	100.			
08- Phase 1 Tank Farm		South end in berm.	SS8-15	0.	20.	93.	300.	8,100.	50.	TypeB	8,493.	--			
08- Phase 1 Tank Farm			SS8-17	0.	20.	12.	10.	50.	50.	TypeA	--	100.			
08- Phase 1 Tank Farm		North end in berm.	SS8-19	0.	20.	20.	2,300.	1,900.	50.	TypeB	4,220.	--			
08- Phase 1 Tank Farm			SS8-20	0.	20.	12.	84.	260.	50.	TypeB	356.	--			
08- Phase 1 Tank Farm			SS8-30	0.	40.	12.	10.	50.	50.	TypeA	--	100.			
08- Phase 1 Tank Farm			SS8-31	20.	40.	12.	10.	50.	50.	TypeA	--	100.			
08- Phase 1 Tank Farm			SS8-31	40.	70.	12.	10.	50.	50.	TypeA	--	100.			
08- Phase 1 Tank Farm			SS8-32	0.	30.	12.	10.	50.	50.	TypeA	--	100.			
08- Phase 1 Tank Farm		Outside berm - far west point of plume.	SS8-32	50.	70.	12.	820.	620.	50.	TypeB	1,452.	--			
08- Phase 1 Tank Farm			SS8-33	20.	40.	12.	10.	50.	50.	TypeA	--	100.			
08- Phase 1 Tank Farm			SS8-34	0.	30.	1.	17.	57.	50.	TypeA	--	107.			
08- Phase 1 Tank Farm			SS8-34	50.	70.	12.	10.	50.	50.	TypeA	--	100.			
08- Phase 1 Tank Farm			SS8-35	20.	40.	12.	10.	50.	50.	TypeA	--	100.			
08- Phase 1 Tank Farm			SS8-36	20.	40.	12.	10.	50.	50.	TypeA	--	100.			
08- Phase 1 Tank Farm			SS8-37	50.	60.	12.	10.	50.	50.	TypeA	--	100.			
08- Phase 1 Tank Farm			SS8-38	50.	60.	12.	10.	50.	50.	TypeA	--	100.			
09- Fuel Berm	332.	The pad around the generator was constructed out of blast rock, making the soils difficult to sample by hand. Vertical delineation of soil impacts was not achieved. Horizontal delineation was also not achieved, as the impacted materials appear to extend underneath the genset. An estimate of the area of impact is 166 m2. Assuming that the PHC impacts extend to 2 m below grade, the approximate volume of impacted materials is 332 m3.											332.	No change from ESA delineation. Dig out bedding soil from the Camp Fuel Berm estimated to 2 m deep.	9.
09- Fuel Berm			SS9-1	0.	20.	530.	3,000.	1,800.	50.	TypeB	5,330.	--			
09- Fuel Berm			SS9-3	0.	20.	12.	10.	53.	50.	TypeA	--	103.			
09- Fuel Berm			SS9-5	20.	30.	12.	27.	50.	50.	TypeA	--	100.			
09- Gensets	56.	Assuming the 0.5 m thick 20 mm minus material used to construct the fuel berm is contaminated; the volume of hydrocarbon impacted material is approximately 56 m3.											28.	Note that a large section of the area of impact is under the generator building structures, which will not be removed as part of the 2017 site stabilization work. Consideration will be required on what PHC soil can be feasibly removed.	0.
09- Gensets			SS9-7	0.	20.	12.	60.	200.		TypeB	272.	--			
09- Gensets			SS9-8	0.	10.	12.	1,500.	4,100.		TypeB	5,612.	--			
09- Gensets			SS9-10	0.	20.	12.	10.	120.		TypeB	142.	--			
09- Gensets			SS9-13	0.	20.	12.	3,500.	4,500.		TypeB	8,012.	--			
09- Gensets			SS9-14	0.	20.	14.	4,200.	4,800.		TypeB	9,014.	--			
09- Gensets			SS9-16	0.	20.	12.	22.	11,000.		TypeB	11,034.	--			
09- Gensets			SS9-18	0.	20.	12.	10.	50.		TypeB	72.	--			
09- Gensets			SS9-20	0.	10.	1.	1,500.	11,000.		TypeB	12,501.	--			
10- Truck Shop	546.	APEC 10 (Table B.1; Table B.3; Figure B.8 and Figure B.12) was identified in the gap analysis as having some staining located adjacent to the incinerator. There are PHC impacts at the front and beside the truck shop (Photos B.24 and B.25). Vertical delineation was not achieved because the soils were difficult to sample by hand. Horizontal delineation was not achieved. Based upon field observations, the surface area is anticipated to be 369 m2. It was assumed that the PHC impacts extend to 1 m below grade. Based on this assumption, the approximate volume of impacted materials was 369 m3.											546.	No change from ESA delineation; however, additional testing was recommended to determine if the exceedances were localized, specifically areas outside of the Shop doors/ exits.	24.
10- Truck Shop			SS10-1	0.	20.		11.	270.	50.	TypeA	--	320.			
10- Truck Shop			SS10-2	0.	20.		10.	91.	50.	TypeA	--	141.			
10- Truck Shop			SS10-4	0.	20.		200.	680.	50.	TypeB	880.	--			
10- Truck Shop			SS10-7	0.	20.		69.	1,700.	300.	TypeA	--	2,000.			
10- Truck Shop			SS10-8	0.	20.		75.	16,000.	15,000.	TypeA	--	31,000.		Check if the impacted area was a local impact.	
10- Truck Shop			SS10-9	0.	20.		21.	730.	170.	TypeA	--	900.			
10- Truck Shop			SS10-10	0.	20.		2,500.	2,600.	50.	TypeB	5,100.	--		Check if the impacted area was a local impact.	
10- Truck Shop			SS10-11	30.	50.		10.	50.	50.	TypeA	--	100.			
10- Truck Shop			SS10-13	0.	20.		10.	50.	50.	TypeA	--	100.			
10- Truck Shop			SS10-19	0.	20.		560.	14,000.	1,700.	TypeA	--	15,700.			
10- Truck Shop			SS10-21	0.	20.		10.	50.	50.	TypeA	--	100.			
10- Truck Shop			SS10-23	0.	20.		10.	1,800.	100.	TypeA	--	1,900.			
10- Truck Shop			SS10-24	0.	20.		410.	75,000.	29,000.	TypeA	--	104,000.		Check if the impacted area was a local impact.	
13- Carat Lake	155.	Stained soil, fuel drums and ASTs were observed on APEC 13. A cement truck (Photo B.29) appears to have leaked onto the surrounding soil. There are PHC fraction F2 to F4 in this area, based on S13-11 (0-15 cm) and SS13-11 (30-50 cm). Horizontal delineation was achieved based on field observations and analytical results from SS13-15 (0-20 cm). Vertical delineation was achieved for Zinc to 0.3 m below grade, but not for PHC fractions F2 and F3. The surface area is estimated to be 124 m2. It was assumed that the PHC impacts extend to 1 m below grade. The approximate volume of impacted materials was 124 m3.											39.	The ESA delineated hydrocarbon contamination in the Carat Lake Layout area were primary classed as Type A - non-mobile and exceeding the AMSRP remedial objectives. Additional testing was recommended during the 2017 cleanup ot confirm the extent of the impacted area; i.e. if the contaminant extends beyond the obvious staining.	40.
13- Carat Lake			SS13-1	0.	10.		10.	10,000.	2,700.	TypeA	--	12,700.			
13- Carat Lake			SS13-2	0.	10.		430.	9,800.	2,000.	TypeA	--	11,800.			
13- Carat Lake			SS13-6	0.	20.		180.	500.	50.	TypeB	680.	--			
13- Carat Lake			SS13-10	0.	20.		10.	50.	50.	TypeA	--	100.			
13- Carat Lake			SS13-11	0.	15.		10.	28,000.	10,000.	TypeA	--	38,000.		Carry out field testing to confirm extent of contaminant zone.	
13- Carat Lake			SS13-11	30.	50.		170.	8,800.	2,700.	TypeA	--	11,500.		Carry out field testing to confirm extent of contaminant zone.	
13- Carat Lake			SS13-15	30.	50.		10.	59.	50.	TypeA	--	109.			
13- Carat Lake			SS13-16	0.	20.		10.	57.	50.	TypeA	--	107.			
13- Carat Lake			SS13-19	0.	20.		10.	71.	50.	TypeA	--	121.			
13- Carat Lake			SS13-21	0.	10.		590.	29,000.	8,100.	TypeA	--	37,100.		Carry out field testing to confirm extent of contaminant zone.	
14-Process Plant	54.												0.		
14-Process Plant			SS10-14	0.	20.		870.	1,000.	50.	TypeB	1,870.	--			
14-Process Plant			SS10-15	0.	20.		1,500.	1,000.	50.	TypeB	2,500.	--			
14-Process Plant			SS10-26	0.	20.		17.	87.	50.	TypeA	--	137.			
14-Main Camp Storage	76.		SS14-1	0.	20.		10.	140.	50.	TypeA	--	190.	38.		14.
14-Main Camp Storage			SS14-2	0.	20.		1,300.	32,000.	7,000.	TypeA	--	39,000.		Carry out field testing to confirm extent of contaminant zone.	
14-Main Camp Storage			SS14-4	0.	20.		10.	50.	50.	TypeA	--	100.			
14-Main Camp Storage			SS14-5	0.	20.		10.	200.	50.	TypeA	--	250.			
14-Main Camp Storage			SS14-7	0.	20.		10.	50.	50.	TypeA	--	100.			
14-Main Camp Storage			SS14-8	0.	20.		240.	7,500.	3,700.	TypeA	--	11,200.			
14-Main Camp Storage			SS14-9	0.	20.		10.	50.	50.	TypeA	--	100.			
14-Main Camp Storage			SS14-10	0.	20.		10.	50.	50.	TypeA	--	100.			
15- Reclaimed Carat Camp	25.	The soils in this area consisted of sand, thus it was difficult to obtain samples at depths greater than 110 cm due to the test pit caving in. Vertical delineation was not obtained as the sample at 90-100 cm below ground surface was still impacted with PHC fractions F2 and F3. Sample location RCC-2 is located down-gradient of RCC-1 in the direction of the lake. At sample location RCC-2, PHC impacts were not observed. Therefore, based on this and field observations, the estimated surface area of the impacted material is 10 m2. It was assumed that the PHC impact extends to 2.5 m below grade. Based on this assumption, the approximate volume of impacted materials was 25 m3.											25.	Delineated to 2.5 m depth. Carry out field testing to confirm extent of contaminant zone.	663.
15- Reclaimed Carat Camp			RCC-1	0.	10.		320.	21,000.	5,100.	TypeA	--	26,100.			
15- Reclaimed Carat Camp			RCC-1	90.	100.		2,400.	1,300.	120.	TypeB	3,700.	--			
15- Reclaimed Carat Camp			RCC-2	0.	20.		10.	50.	50.	TypeA	--	100.			
15- Reclaimed Carat Camp			RCC-2	90.	100.		10.	50.	50.	TypeA	--	100.			

Date	November 2018
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- PHC Soil Confirmatory Sampling Summary

PHC SOIL CONFIRMATORY SAMPLING SUMMARY

ID	Sample Date	Sample ID	Type	APEC	Area	Depth (cm)	Description	Rationale	Eagle Reading (ppm)	Petroflag Results (ppm)	Sample into lab	Lab Analysis	Lab Results (mg/kg)	Results Description	Results Date
1	Jul-14, 2017	A1C-CS-1	Soil	1C	Airstrip Quonset Outside			Petroflag lateral delineation	0	96				Meets rem. objective	
2	Jul-14, 2017	A1C-CS-2	Soil	1C	Airstrip Quonset Outside			Petroflag lateral delineation	0	81				Meets rem. objective	
3	Jul-14, 2017	A1C-CS-3	Soil	1C	Airstrip Quonset Outside			Petroflag lateral delineation	0	249				Meets rem. objective	
4	Jul-14, 2017	A1C-CS-4	Soil	1C	Airstrip Quonset Inside			Petroflag lateral delineation	0	115				Meets rem. objective	
5	Jul-14, 2017	A1C-CS-5	Soil	1C	Airstrip Quonset Inside			Petroflag lateral delineation	0	EEEE				Exceeds maximum reading.	
6	Jul-15, 2017	A1C-CS-6	Soil	1C	Airstrip Quonset Inside		Re-sample w/ dilution of CS-5	Re-analysis of CS-5	11	3462				Exceeds rem. objective ..Delineation sample stepped out 1 m	
7	Jul-15, 2017	A1C-CS-7	Soil	1C	Airstrip Quonset Inside		Step out 1 m of CS-5	Petroflag lateral delineation	0	79				Meets rem. objective	
8	Jul-15, 2017	A13-CS-8	Soil	13	Carat Cement Truck			Petroflag lateral delineation	0	0				Meets rem. objective	
9	Jul-15, 2017	A13-CS-9	Soil	13	Carat Cement Truck			Petroflag lateral delineation	0	0				Meets rem. objective	
10	Jul-15, 2017	A13-CS-10	Soil	13	Carat Cement Truck			Petroflag lateral delineation	0	51				Meets rem. objective	
11	Jul-15, 2017	A13-CS-11	Soil	13	Carat Cement Truck			Petroflag lateral delineation	0	504				Meets rem. objective	
12	Jul-15, 2017	A13-CS-12	Soil	13	Carat laydown SE			Petroflag lateral delineation	0	12				Meets rem. objective	
13	Jul-15, 2017	A13-CS-13	Soil	13	Carat laydown SE			Petroflag lateral delineation	0	0				Meets rem. objective	
14	Jul-15, 2017	A13-CS-14	Soil	13	Carat laydown SE			Petroflag lateral delineation	0	0				Meets rem. objective	
15	Jul-15, 2017	A13-CS-15	Soil	13	Carat laydown SE			Petroflag lateral delineation	0	23				Meets rem. objective	
16	Jul-16, 2017	A15-CS-16	Soil	15	Carat Camp			Petroflag lateral delineation	0	33				Meets rem. objective	
17	Jul-16, 2017	A15-CS-17	Soil	15	Carat Camp			Petroflag lateral delineation	0	21				Meets rem. objective	
18	Jul-16, 2017	A15-CS-18	Soil	15	Carat Camp			Petroflag lateral delineation	0	304				Meets rem. objective	
19	Jul-16, 2017	A15-CS-19	Soil	15	Carat Camp			Petroflag lateral delineation	0	11				Meets rem. objective	
20	Jul-16, 2017	A15-CS-20	Soil	15	Carat Camp		Sample re-analysed w/ dilution.	Petroflag lateral delineation	20	2520				Meets rem. objective	
21	Jul-17, 2017	A15-CS-21	Soil	15	Carat Camp- new			Petroflag lateral delineation	0	65				Meets rem. objective	
22	Jul-17, 2017	A15-CS-22	Soil	15	Carat Camp- new			Petroflag lateral delineation	22	1437				Meets rem. objective	
23	Jul-17, 2017	A15-CS-23	Soil	15	Carat Camp- new			Petroflag lateral delineation	0	173				Meets rem. objective	
24	Jul-17, 2017	A15-CS-24	Soil	15	Carat Camp- new			Petroflag lateral delineation	0	959				Meets rem. objective	
25	Jul-18, 2017	A2-S1a	Soil	2	HWTa- Soil Stockpile		Test hole 1- shallow	Characterization + Correlation	0	240	Jul-18, 2017	CCME PHC F1-F4	102	Classed Type B, meets rem. objective	Jul-21, 2017
26	Jul-18, 2017	A2-S1b	Soil	2	HWTa- Soil Stockpile		Test hole 1- deep	Characterization + Correlation	7	1340	Jul-18, 2017	CCME PHC F1-F4	614	Classed Type B, meets rem. objective	Jul-21, 2017
27	Jul-18, 2017	A2-S2a	Soil	2	HWTa- Soil Stockpile		Test hole 2- shallow	Characterization + Correlation	0	250	Jul-18, 2017	CCME PHC F1-F4	351	Classed Type B, meets rem. objective	Jul-21, 2017
28	Jul-18, 2017	A2-S2b	Soil	2	HWTa- Soil Stockpile		Test hole 2- deep	Characterization + Correlation	6	1132	Jul-18, 2017	CCME PHC F1-F4	662	Classed Type B, meets rem. objective	Jul-21, 2017
29	Jul-18, 2017	A2-S3a	Soil	2	HWTa- Soil Stockpile		Test hole 3- shallow	Characterization + Correlation	0	487	Jul-18, 2017	CCME PHC F1-F4	358	Classed Type B, meets rem. objective	Jul-21, 2017
30	Jul-18, 2017	A2-S3b	Soil	2	HWTa- Soil Stockpile		Test hole 3- deep	Characterization + Correlation	1	774	Jul-18, 2017	CCME PHC F1-F4	814	Classed Type B, meets rem. objective	Jul-21, 2017
31	Jul-18, 2017	A2-S4a	Soil	2	HWTa- Soil Stockpile		Test hole 4- shallow	Characterization + Correlation	0	771	Jul-18, 2017	CCME PHC F1-F4	826	Classed Type B, meets rem. objective	Jul-21, 2017
32	Jul-18, 2017	A2-S4b	Soil	2	HWTa- Soil Stockpile		Test hole 4- deep	Characterization + Correlation	0	231	Jul-18, 2017	CCME PHC F1-F4	158	Classed Type B, meets rem. objective	Jul-21, 2017
33	Jul-18, 2017	A2-S5a	Soil	2	HWTa- Soil Stockpile		Test hole 5- shallow	Characterization + Correlation	11	2137	Jul-18, 2017	CCME PHC F1-F4	1,646	Classed Type B, meets rem. objective	Jul-21, 2017
34	Jul-18, 2017	A2-S5b	Soil	2	HWTa- Soil Stockpile		Test hole 5- deep	Characterization + Correlation	0	405	Jul-18, 2017	CCME PHC F1-F4	343	Classed Type B, meets rem. objective	Jul-21, 2017
35	Jul-18, 2017	A2-S6a	Soil	2	HWTa- Soil Stockpile		Test hole 6- shallow	Characterization + Correlation	0	266	Jul-18, 2017	CCME PHC F1-F4	82	Classed Type B, meets rem. objective	Jul-21, 2017
36	Jul-18, 2017	A2-S6b	Soil	2	HWTa- Soil Stockpile		Test hole 6- deep	Characterization + Correlation	2	498	Jul-18, 2017	CCME PHC F1-F4	295	Classed Type B, meets rem. objective	Jul-21, 2017
37	Aug-09, 2017	HWTa-1	Soil	2	HWTa- ground	20.	Test Hole 1 - N side of Berm	HWTa area (covered by barrels) characterization	0	8				Meets rem. objective	
38	Aug-09, 2017	HWTa-2	Soil	2	HWTa- ground	18.	Test Hole 2 - N side middle Berm	HWTa area (covered by barrels) characterization	0	2274	Aug-16, 2017	CCME PHC F2-F4	836	Classed Type A, meets rem. objectives	Aug-24, 2017
39	Aug-09, 2017	HWTa-3	Soil	2	HWTa- ground	18.	Test Hole 3 - N side South Berm	HWTa area (covered by barrels) characterization	0	5094	Aug-16, 2017	CCME PHC F2-F4	9,373	Classed Type A, meets rem. objectives	Aug-24, 2017
40	Aug-09, 2017	HWTa-4	Soil	2	HWTa- ground	16.	Test Hole 4 - S side of Berm	HWTa area (covered by barrels) characterization	1	>x2 EEEE	Aug-16, 2017	CCME PHC F2-F4	2,410	Classed Type B, meets rem. objective	Aug-24, 2017
41	Aug-10, 2017	A8-1	Soil	8	Phase 1- outsider berm		Below liner	Confirm clean below liner	22	144	Aug-10, 2017	CCME PHC F2-F4	61	Classed Type B, meets rem. objective	Aug-15, 2017
42	Aug-10, 2017	A8-2	Soil	8	Phase 1- outsider berm		North of Seacan	Characterization + Correlation	235	>x2 EEEE	Aug-10, 2017	CCME PHC F2-F4	8,310	Exceeds rem. objective ..soil excavated out	Aug-15, 2017
43	Aug-10, 2017	A8-3	Soil	8	Phase 1- outsider berm		Side of Berm	Confirm clean		94				Meets rem. objective	
44	Aug-10, 2017	A8-4	Soil	8	Phase 1- outsider berm		South end of Seacan	Characterization + Correlation	637	>x2 EEEE	Aug-10, 2017 Note: labeled A8-3		7,360	Exceeds rem. objective ..soil excavated out	Aug-15, 2017
45	Aug-10, 2017	A8-5	Soil	8	Phase 1- outsider berm		South side of Seacan	Characterization + Correlation	220	>x2 EEEE				Exceeds rem. objective ..soil excavated out	
46	Aug-10, 2017	A8-6	Soil	8	Phase 1- outsider berm		Under Seacan	Characterization + Correlation	160	>x2 EEEE				Exceeds rem. objective ..soil excavated out	
47	Aug-10, 2017	A8-7	Soil	8	Phase 1- outsider berm		Side Berm	Characterization + Correlation	120	>x2 EEEE				Exceeds rem. objective ..soil excavated out	
48	Aug-10, 2017	A8-S-18	Soil	8	Phase 1- outsider berm	100.	SW side of mid	Confirm clean		38				Meets rem. objective	
49	Aug-10, 2017	A8-S-19	Soil	8	Phase 1- outsider berm	100.	SW side of corner	Confirm clean		44				Meets rem. objective	
50	Aug-10, 2017	A8-S-20	Soil	8	Phase 1- outsider berm	100.	SE side of corner	Confirm clean + lab verification		50	Aug-13, 2017	CCME PHC F2-F4	40	Classed Type B, meets rem. objective	Aug-17, 2017
51	Aug-11, 2017	A14-S-1	Soil	14	Camp Quonset	50.	Middle of contaminated soil	Characterization + Correlation	8	2490				Proceeded with additional excavation	
52	Aug-11, 2017	A14-S-2	Soil	14	Camp Quonset	50.	1m away from wall	Confirm clean	3	2080				Proceeded with additional excavation	

ID	Sample Date	Sample ID	Type	APEC	Area	Depth (cm)	Description	Rationale	Eagle Reading (ppm)	Petroflag Results (ppm)	Sample into lab	Lab Analysis	Lab Results (mg/kg)	Results Description	Results Date
53	Aug-11, 2017	A14-S-3	Soil	14	Camp Quonset	50.	Inside wall	Confirm clean	0	EEEE				Proceeded with additional excavation	
54	Aug-11, 2017	A14-S-4	Soil	14	Camp Quonset	50.	Corner of wall inside	Confirm clean	2	EEEE				Proceeded with additional excavation	
55	Aug-11, 2017	A14-S-5	Soil	14	Camp Quonset	50.	1m off the wall	Confirm clean	2	626				Proceeded with additional excavation	
56	Aug-11, 2017	A14-S-6	Soil	14	Camp Quonset	50.	Outside south east corner	Confirm clean	0	1916				Proceeded with additional excavation	
57	Aug-11, 2017	A14-S-7	Soil	14	Camp Quonset	50.	Outside south corner	Confirm clean	0	2434				Proceeded with additional excavation	
58	Aug-11, 2017	A14-S-8	Soil	14	Camp Quonset	50.	Outside wall right corner	Confirm clean	0	75				Proceeded with additional excavation	
59	Aug-11, 2017	A14-S-9	Soil	14	Camp Quonset	50.	Outside wall	Confirm clean	0	2389				Proceeded with additional excavation	
60	Aug-11, 2017	A14-S-10	Soil	14	Camp Quonset	50.	Outside left corner	Confirm clean	0	1743				Proceeded with additional excavation	
61	Aug-12, 2017	A14-S-11	Soil	14	Camp Quonset	100.	Inside far S corner	Confirm clean + lab verification	0	618	Aug-13, 2017	CCME PHC F2-F4	724	Classed Type A, meets rem. objectives	Aug-17, 2017
62	Aug-12, 2017	A14-S-12	Soil	14	Camp Quonset	100.	Inside far N Corner	Confirm clean	0	486				Meets rem. objective	
63	Aug-12, 2017	A14-S-13	Soil	14	Camp Quonset	100.	Inside corner building	Confirm clean + lab verification	0	1882	Aug-13, 2017	CCME PHC F2-F4	4,373	Classed Type A, meets rem. objectives	Aug-17, 2017
64	Aug-12, 2017	A14-S-14	Soil	14	Camp Quonset	100.	Inside near doorway	Confirm clean	0	404				Meets rem. objective	
65	Aug-12, 2017	A14-S-15	Soil	14	Camp Quonset	100.	Inside middle excavation	Confirm clean + lab verification	7	3538	Aug-13, 2017	CCME PHC F2-F4	2,564	Classed Type A, meets rem. objectives	Aug-17, 2017
66	Aug-12, 2017	A14-S-16	Soil	14	Camp Quonset	100.	Outside SE corner	Confirm clean	0	258				Meets rem. objective	
67	Aug-12, 2017	A14-S-17	Soil	14	Camp Quonset	100.	Outside north corner	Confirm clean	0	74				Meets rem. objective	
68	Aug-12, 2017	A14-S-18	Soil	14	Camp Quonset	100.	Outside middle	Confirm clean + lab verification	0	536	Aug-13, 2017	CCME PHC F2-F4	388	Classed Type A, meets rem. objectives	Aug-17, 2017
69	Aug-12, 2017	A1C-S-1	Soil	1C	Airstrip Quonset Inside	100.	Inside- SE corner	Confirm clean	0	12				Meets rem. objective	
70	Aug-12, 2017	A1C-S-2	Soil	1C	Airstrip Quonset Inside	100.	Inside- NW corner	Confirm clean	0	236				Meets rem. objective	
71	Aug-12, 2017	A1C-S-3	Soil	1C	Airstrip Quonset Inside	100.	Inside- NE corner	Confirm clean	0	62				Meets rem. objective	
72	Aug-12, 2017	A1C-S-4	Soil	1C	Airstrip Quonset Inside	100.	Inside- SW corner	Confirm clean	0	62				Meets rem. objective	
73	Aug-12, 2017	A1C-S-5	Soil	1C	Airstrip Quonset Inside	100.	Inside- middle	Confirm clean	1	174				Meets rem. objective	
74	Aug-12, 2017	A1C-S-6	Soil	1C	Airstrip Quonset Outside	100.	Outside- SE corner	Confirm clean	0	146				Meets rem. objective	
75	Aug-12, 2017	A1C-S-7	Soil	1C	Airstrip Quonset Outside	100.	Outside- SW corner	Confirm clean + lab verification	0	1390	Aug-16, 2017	CCME PHC F2-F4	791	Classed Type B, meets rem. objective	Aug-24, 2017
76	Aug-12, 2017	A1C-S-8	Soil	1C	Airstrip Quonset Outside	100.	Outside- NW corner	Confirm clean	0	170				Meets rem. objective	
77	Aug-12, 2017	A1C-S-9	Soil	1C	Airstrip Quonset Outside	100.	Outside- NE corner	Confirm clean	0	88				Meets rem. objective	
78	Aug-12, 2017	A1C-S-10	Soil	1C	Airstrip Quonset Outside	100.	Outside- middle	Confirm clean	0	332				Meets rem. objective	
79	Aug-15, 2017	A13-S-1	Soil	13	Carat Cement Truck	50.	Mid-floor	Confirm clean	0	0				Meets rem. objective	
80	Aug-15, 2017	A13-S-2	Soil	13	Carat Cement Truck	50.	N corner	Confirm clean	0	0				Meets rem. objective	
81	Aug-15, 2017	A13-S-3	Soil	13	Carat Cement Truck	50.	W corner	Confirm clean	0	0				Meets rem. objective	
82	Aug-15, 2017	A13-S-4	Soil	13	Carat Cement Truck	50.	N wall	Confirm clean	0	0				Meets rem. objective	
83	Aug-15, 2017	A13-S-5	Soil	13	Carat Cement Truck	50.	W wall	Confirm clean	0	0				Meets rem. objective	
84	Aug-15, 2017	A13-S-6	Soil	13	Carat Cement Truck	50.	Mid base	Confirm clean	0	0				Meets rem. objective	
85	Aug-15, 2017	A13-S-7	Soil	13	Carat Cement Truck	50.	East base	Confirm clean	0	206				Meets rem. objective	
86	Aug-15, 2017	A13-S-8	Soil	13	Carat Cement Truck	50.	East wall	Confirm clean	0	606				Meets rem. objective	
87	Aug-15, 2017	A13-S-9	Soil	13	Carat Cement Truck	50.	Mid base	Confirm clean + lab verification	0	3362	Aug-16, 2017	CCME PHC F2-F4	3,208	Classed Type A, meets rem. objectives	Aug-24, 2017
88	Aug-15, 2017	A13-S-10	Soil	13	Carat Cement Truck	50.	W wall	Confirm clean	0	258				Meets rem. objective	
89	Aug-15, 2017	A13-S-11	Soil	13	Carat Cement Truck	50.		Confirm clean	0	282				Meets rem. objective	
90	Aug-15, 2017	A13-S-12	Soil	13	Carat Cement Truck	50.	S corner	Confirm clean + lab verification	0	930	Aug-16, 2017	CCME PHC F2-F4	193	Classed Type A, meets rem. objectives	Aug-24, 2017
91	Aug-15, 2017	A13-S-13	Soil	13	Carat laydown SE	50.	N corner	Confirm clean	0	60				Meets rem. objective	
92	Aug-15, 2017	A13-S-14	Soil	13	Carat laydown SE	50.	W corner	Confirm clean	0	34				Meets rem. objective	
93	Aug-15, 2017	A13-S-15	Soil	13	Carat laydown SE	50.	S corner	Confirm clean	0	60				Meets rem. objective	
94	Aug-15, 2017	A13-S-16	Soil	13	Carat laydown SE	50.	E corner	Confirm clean	0	54				Meets rem. objective	
95	Aug-15, 2017	A13-S-17	Soil	13	Carat laydown SE	50.	Mid base	Confirm clean	0	32				Meets rem. objective	
96	Aug-16, 2017	A15-S-1	Soil	15	Carat Camp	30.	1 ft stockpile inside berm	Characterization + Correlation	14	216	Aug-16, 2017	CCME PHC F2-F4	61	Classed Type B, meets rem. objective	Aug-24, 2017
97	Aug-16, 2017	A15-S-2	Soil	15	Carat Camp	30.	1 ft stockpile inside berm	Characterization + Correlation	223	>x2 EEEE	Aug-16, 2017	CCME PHC F2-F4	4,920	Exceeds rem. objective ..soil excavated out	Aug-24, 2017
98	Aug-16, 2017	A15-S-3	Soil	15	Carat Camp	30.	Bottom NW	Characterization + Correlation	213	>x2 EEEE	Aug-16, 2017	CCME PHC F2-F4	3,182	Exceeds rem. objective ..soil excavated out	Aug-24, 2017
99	Aug-16, 2017	A15-S-4	Soil	15	Carat Camp	30.	Bottom SW	Characterization + Correlation	244	2094	Aug-16, 2017	CCME PHC F2-F4	1,357	Classed Type B, meets rem. objective	Aug-24, 2017
100	Aug-17, 2017	A7-S-1	Soil	7	Phase 2 - inside Berm	20.	Middle of tanks	Delineation + Correlation	0	340	Aug-17, 2017	CCME PHC F2-F4	250	Classed Type A, meets rem. objectives	Aug-22, 2017
101	Aug-17, 2017	A7-S-2	Soil	7	Phase 2 - inside Berm	20.	Tank #11 inlet	Delineation + Correlation	83	>x2 EEEE	Aug-17, 2017	CCME PHC F2-F4	3,460	Exceeds rem. objective ..soil TO BE excavated out	Aug-22, 2017
102	Aug-17, 2017	A7-S-3	Soil	7	Phase 2 - inside Berm	20.	Tank #12 inlet	Delineation + Correlation	55	1986	Aug-17, 2017	CCME PHC F2-F4	1,093	Classed Type B, meets rem. objective	Aug-22, 2017
103	Aug-17, 2017	A7-S-4	Soil	7	Phase 2 - inside Berm	20.	Tank #10 inlet	Delineation + Correlation	201	>x2 EEEE	Aug-17, 2017	CCME PHC F2-F4	5,100	Exceeds rem. objective ..soil TO BE excavated out	Aug-22, 2017
104	Aug-17, 2017	A7-S-5	Soil	7	Phase 2 - inside Berm	20.	Tank #9 inlet	Delineation + Correlation	11	716	Aug-17, 2017	CCME PHC F2-F4	497	Classed Type B, meets rem. objective	Aug-22, 2017
105	Aug-19, 2017	A7-S-6	Soil	7	Phase 2 - inside Berm	20.	Tank #10 E side	Delineation + Correlation	0	276				Meets rem. objective	
106	Aug-19, 2017	A7-S-9	Soil	7	Phase 2 - inside Berm	20.	Tank #10 NE side	Delineation + Correlation	5	4958	Aug-20, 2017	CCME PHC F2-F4	12,680	Classed Type A, meets rem. objective	Aug 27, ,2017
107	Aug-19, 2017	A7-S-10	Soil	7	Phase 2 - inside Berm	20.	Tank #10 N side	Delineation + Correlation	6	222				Meets rem. objective	
108	Aug-19, 2017	A7-S-11	Soil	7	Phase 2 - inside Berm	20.	Tank #10 NW side	Delineation + Correlation	134	512	Aug-20, 2017	CCME PHC F2-F4	365	Classed Type B, meets rem. objective	Aug 27, ,2017
109	Aug-19, 2017	A7-S-12	Soil	7	Phase 2 - inside Berm	20.	Tank #10 SW side	Delineation + Correlation	2	156				Meets rem. objective	
110	Aug-19, 2017	A7-S-29	Soil	7	Phase 2 - inside Berm	20.	Tank #12 S side	Delineation + Correlation	0	76				Meets rem. objective	
111	Aug-19, 2017	A7-S-30	Soil	7	Phase 2 - inside Berm	20.	Tank #12 SW side	Delineation + Correlation	0	54				Meets rem. objective	
112	Aug-23, 2017	A10-S-1	Soil	10	Shop		Shop- old dozer engine leak	Confirm clean	n/a	n/a	Aug-23, 2017	CCME PHC F2-F4	<	Classed Type A, meets rem. objective	Aug 27, ,2017
113	Aug-23, 2017	A10-S-2	Soil	10	Shop		Shop- old dozer engine leak	Confirm clean	n/a	n/a	Aug-23, 2017	CCME PHC F2-F4	<	Classed Type A, meets rem. objective	Aug 27, ,2017
114	Aug-23, 2017	A10-S-3	Soil	10	Shop		Shop- old dozer engine leak	Confirm clean	n/a	n/a	Aug-23, 2017	CCME PHC F2-F4	<	Classed Type A, meets rem. objective	Aug 27, ,2017

ID	Sample Date	Sample ID	Type	APEC	Area	Depth (cm)	Description	Rationale	Eagle Reading (ppm)	Petroflag Results (ppm)	Sample into lab	Lab Analysis	Lab Results (mg/kg)	Results Description	Results Date
115	Aug-23, 2017	A10-S-4	Soil	10	Shop		Shop- old dozer engine leak	Confirm clean	n/a	n/a	Aug-23, 2017	CCME PHC F2-F4	1,309	Classed Type A, meets rem. objective	Aug 27, ,2017
116	Aug-23, 2017	A10-S-5	Soil	10	Shop		Shop- East door; oil	Confirm clean	n/a	n/a	Aug-23, 2017	CCME PHC F2-F4	<	Classed Type A, meets rem. objective	Aug 27, ,2017
117	Aug-23, 2017	A10-S-6	Soil	10	Shop		Shop- East door; oil	Confirm clean	n/a	n/a	Aug-23, 2017	CCME PHC F2-F4	<	Classed Type A, meets rem. objective	Aug 27, ,2017
118	Aug-23, 2017	A10-S-7	Soil	10	Shop		Shop- East door; oil	Confirm clean	n/a	n/a	Aug-23, 2017	CCME PHC F2-F4	<	Classed Type A, meets rem. objective	Aug 27, ,2017
119	Aug-23, 2017	A10-S-8	Soil	10	Shop		Shop- East door; oil	Confirm clean	n/a	n/a	Aug-23, 2017	CCME PHC F2-F4	<	Classed Type A, meets rem. objective	Aug 27, ,2017
120	Aug-23, 2017	A10-S-9	Soil	10	Shop		Shop- NW, oil	Confirm clean	n/a	n/a	Aug-23, 2017	CCME PHC F2-F4	<	Classed Type A, meets rem. objective	Aug 27, ,2017
121	Aug-23, 2017	A10-S-10	Soil	10	Shop		Shop- NW, oil	Confirm clean	n/a	n/a	Aug-23, 2017	CCME PHC F2-F4	<	Classed Type A, meets rem. objective	Aug 27, ,2017
122	Aug-23, 2017	A10-S-11	Soil	10	Shop		Shop- NW, oil	Confirm clean	n/a	n/a	Aug-23, 2017	CCME PHC F2-F4	<	Classed Type A, meets rem. objective	Aug 27, ,2017
123	Aug-23, 2017	A10-S-12	Soil	10	Shop		Shop- NW, oil	Confirm clean	n/a	n/a	Aug-23, 2017	CCME PHC F2-F4	<	Classed Type A, meets rem. objective	Aug 27, ,2017
124	Aug-30, 2017	A15-S-1	Soil	15	Carat Camp	1.8		Confirm clean	220	796				Meets rem. objective	
125	Aug-30, 2017	A15-S-2	Soil	15	Carat Camp	1.7		Confirm clean	4	112				Meets rem. objective	
126	Aug-30, 2017	A15-S-3	Soil	15	Carat Camp	2.		Confirm clean	480	2760	Aug-31, 2017	CCME PHC F2-F4	2,251	Classed Type B, meets rem. objective	Sep-02, 2017
127	Aug-30, 2017	A15-S-4	Soil	15	Carat Camp	1.9		Confirm clean	45	232				Meets rem. objective	
128	Aug-30, 2017	A15-S-5	Soil	15	Carat Camp	2.		Confirm clean	0	52				Meets rem. objective	
129	Aug-30, 2017	A15-S-6	Soil	15	Carat Camp	1.9		Confirm clean	0	60				Meets rem. objective	

Date	November 2018
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- Sample Log

PHC SOIL - LAB SUBMISSION LOG

ID	COC	Sample Name	Description	Depth1 (cm)	Depth2 (cm)	Sample Date	Report Date	PHC F1	PHC F2	PHC F3	PHC F4	Type?	Type A	Type B
Criteria		INAC AMSRP (2008)						na	na	na	na		20,000.	2,500.
DL			July 21 Detection Limit					10.	20.	20.	20.		20,000.	2,500.
1	1	A2-S1a	Test pit 1	10	20	Jul-18, 2017	Jul-21, 2017	<10.	32.	60.	<20.	TypeB	na	102.
2	1	A2-S1b	Test pit 1	90	100	Jul-18, 2017	Jul-21, 2017	<10.	364.	240.	<20.	TypeB	na	614.
3	1	A2-S2a	Test pit 2	10	20	Jul-18, 2017	Jul-21, 2017	<10.	121.	220.	<20.	TypeB	na	351.
4	1	A2-S2b	Test pit 2	90	100	Jul-18, 2017	Jul-21, 2017	<10.	408.	244.	<20.	TypeB	na	662.
5	1	A2-S3a	Test pit 3	10	20	Jul-18, 2017	Jul-21, 2017	<10.	120.	228.	<20.	TypeB	na	358.
6	1	A2-S3b	Test pit 3	90	100	Jul-18, 2017	Jul-21, 2017	<10.	525.	279.	<20.	TypeB	na	814.
7	1	A2-S4a	Test pit 4	10	20	Jul-18, 2017	Jul-21, 2017	<10.	515.	301.	<20.	TypeB	na	826.
8	1	A2-S4b	Test pit 4	90	100	Jul-18, 2017	Jul-21, 2017	<10.	44.	104.	<20.	TypeB	na	158.
9	1	A2-S5a	Test pit 5	10	20	Jul-18, 2017	Jul-21, 2017	<10.	1,150.	486.	<20.	TypeB	na	1,646.
10	1	A2-S5b	Test pit 5	90	100	Jul-18, 2017	Jul-21, 2017	<10.	147.	186.	<20.	TypeB	na	343.
11	1	A2-S6a	Test pit 6	10	20	Jul-18, 2017	Jul-21, 2017	<10.	30.	42.	<20.	TypeB	na	82.
12	1	A2-S6a	Test pit 6	90	100	Jul-18, 2017	Jul-21, 2017	<10.	179.	106.	<20.	TypeB	na	295.
13	2	A8-1, BELOW LINER 22 PPM	Phase 1- outsider berm			Aug-10, 2017	Aug-15, 2017		41.	<20.	<20.	TypeB	na	61.
14	2	A8-2, NORTH OF SEA CAN 235 PPM	Phase 1- outsider berm			Aug-10, 2017	Aug-15, 2017		5,890.	2,420.	<60.	TypeB	na	8,310.
15	2	A8-3, SOUTH OF SEA CAN 637 PPM	Phase 1- outsider berm			Aug-10, 2017	Aug-15, 2017		5,820.	1,540.	<60.	TypeB	na	7,360.
16	3	A8-S20	West face of excavation/ only unlined excavation face			Aug-13, 2017	Aug-17, 2017		<20.	<20.	<20.	TypeB	na	40.
17	3	A14-S11	Camp Quonset	100		Aug-13, 2017	Aug-17, 2017		24	595	129	TypeA	724.	na
18	3	A14-S13	Camp Quonset	100		Aug-13, 2017	Aug-17, 2017		127	3540	833	TypeA	4,373.	na
19	3	A14-S15	Camp Quonset	100		Aug-13, 2017	Aug-17, 2017		129	2110	454	TypeA	2,564.	na
20	3	A14-S18	Camp Quonset	100		Aug-13, 2017	Aug-17, 2017		<20.	314	74	TypeA	388.	na
21	4	A1C-S7, outside area W. corner	Airstrip Quonset Outside	100		Aug-16, 2017	Aug-24, 2017		190.	601.	<20.	TypeB	na	791.
22	4	A13-S9, base S. corner	Carat Cement Truck	50		Aug-16, 2017	Aug-24, 2017		61.	2,910.	298.	TypeA	3,208.	na
23	4	A13-S12, base middle S.	Carat Cement Truck	50		Aug-16, 2017	Aug-24, 2017		<20.	111.	82.	TypeA	193.	na
24	4	A15-S1, stockpile	Carat Camp	30		Aug-16, 2017	Aug-24, 2017		31.	30.	<20.	TypeB	na	61.
25	4	A15-S2, stockpile	Carat Camp	30		Aug-16, 2017	Aug-24, 2017		3,770.	1,150.	<20.	TypeB	na	4,920.
26	4	A15-S3, Bottom NW	Carat Camp	30		Aug-16, 2017	Aug-24, 2017		2,390.	792.	<20.	TypeB	na	3,182.
27	4	A15-S4, Bottom SW	Carat Camp	30		Aug-16, 2017	Aug-24, 2017		934.	423.	25.	TypeB	na	1,357.
28	4	HWTa-2, Test hole 2	HWTa- ground	18		Aug-16, 2017	Aug-24, 2017		48.	683.	153.	TypeA	836.	na
29	4	HWTa-3, Test hole 3	HWTa- ground	18		Aug-16, 2017	Aug-24, 2017		162.	8,600.	773.	TypeA	9,373.	na
30	4	HWTa-4, Test hole 4	HWTa- ground	16		Aug-16, 2017	Aug-24, 2017		370.	2,040.	187.	TypeB	na	2,410.
31	5	A7-S-1	Phase 2 - inside Berm	20		Aug-17, 2017	Aug-22, 2017		<20.	123	127	TypeA	250.	na
32	5	A7-S-2	Phase 2 - inside Berm	20		Aug-17, 2017	Aug-22, 2017		2460	1000	<20.	TypeB	na	3,460.
33	5	A7-S-3	Phase 2 - inside Berm	20		Aug-17, 2017	Aug-22, 2017		576	517	<20.	TypeB	na	1,093.
34	5	A7-S-4	Phase 2 - inside Berm	20		Aug-17, 2017	Aug-22, 2017		3320	1780	<20.	TypeB	na	5,100.
35	5	A7-S-5	Phase 2 - inside Berm	20		Aug-17, 2017	Aug-22, 2017		300	197	<20.	TypeB	na	497.
36	6	A7-S-9	Phase 2 - inside Berm	20		Aug-19, 2017	Aug-27, 2017	16.	1,190.	8,250.	4,430.	TypeA	12,680.	na
37	6	A7-S-11	Phase 2 - inside Berm	20		Aug-19, 2017	Aug-27, 2017	17.	183.	165.	<50.	TypeB	na	365.
38	7	A10-S-1	Shop- dozer			Aug-23, 2017	Aug-27, 2017	<10.	<25.	<50.	<50.	TypeA	100.	na
39	7	A10-S-2	Shop- dozer			Aug-23, 2017	Aug-27, 2017	<10.	<25.	<50.	<50.	TypeA	100.	na
40	7	A10-S-3	Shop- dozer			Aug-23, 2017	Aug-27, 2017	<10.	<25.	<50.	<50.	TypeA	100.	na

ID	COC	Sample Name	Description	Depth1 (cm)	Depth2 (cm)	Sample Date	Report Date	PHC F1	PHC F2	PHC F3	PHC F4	Type?	Type A	Type B
41	7	A10-S-4	Shop- dozer			Aug-23, 2017	Aug-27, 2017	<10.	<25.	995.	314.	TypeA	1,309.	na
42	7	A10-S-5	Shop- East door			Aug-23, 2017	Aug-27, 2017	<10.	<25.	<50.	<50.	TypeA	100.	na
43	7	A10-S-6	Shop- East door			Aug-23, 2017	Aug-27, 2017	<10.	<25.	<50.	<50.	TypeA	100.	na
44	7	A10-S-7	Shop- East door			Aug-23, 2017	Aug-27, 2017	<10.	<25.	<50.	<50.	TypeA	100.	na
45	7	A10-S-8	Shop- East door			Aug-23, 2017	Aug-27, 2017	<10.	<25.	<50.	<50.	TypeA	100.	na
46	7	A10-S-9	Shop- NW			Aug-23, 2017	Aug-27, 2017	<10.	<25.	<50.	<50.	TypeA	100.	na
47	7	A10-S-10	Shop- NW			Aug-23, 2017	Aug-27, 2017	<10.	<25.	<50.	<50.	TypeA	100.	na
48	7	A10-S-11	Shop- NW			Aug-23, 2017	Aug-27, 2017	<10.	<25.	<50.	<50.	TypeA	100.	na
49	7	A10-S-12	Shop- NW			Aug-23, 2017	Aug-27, 2017	<10.	<25.	<50.	<50.	TypeA	100.	na
50	8	A15-S-3	Carat Camp	2		Aug-31, 2017	Sep-02, 2017	186.	1,670.	395.	<20.	TypeB	na	2,251.

Date	November 2018
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- Laboratory Certificate of Analyses

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1973584-1 A8-1, BELOW LINER 22 PPM Sampled By: HW on 10-AUG-17 @ 17:00 Matrix: SOIL CCME BTEX, F1 TO F4 BTEX and F1 (C6-C10) Benzene<0.00500.0050mg/kg13-AUG-1713-AUG-17R3794055 Toluene<0.0500.050mg/kg13-AUG-1713-AUG-17R3794055 Ethylbenzene<0.0150.015mg/kg13-AUG-1713-AUG-17R3794055 m+p-Xylene<0.0500.050mg/kg13-AUG-1713-AUG-17R3794055 o-Xylene<0.0500.050mg/kg13-AUG-1713-AUG-17R3794055 Xylenes<0.100.10mg/kg13-AUG-1713-AUG-17R3794055 Surrogate: 1,4-Difluorobenzene (SS)91.070-130%13-AUG-1713-AUG-17R3794055 Surrogate: 4-Bromofluorobenzene (SS)100.170-130%13-AUG-1713-AUG-17R3794055 Surrogate: 3,4-Dichlorotoluene (SS)84.270-130%13-AUG-1713-AUG-17R3794055 CCME Total Extractable Hydrocarbons Surrogate: 2-Bromobenzotrifluoride85.770-130%13-AUG-1713-AUG-17R3797405 Chrom. to baseline at nC50YES13-AUG-1713-AUG-17R3797405 Prep/Analysis Dates13-AUG-1713-AUG-17R3797405 CCME Total Hydrocarbons F1 (C6-C10)<1010mg/kg14-AUG-17 F1-BTEX<1010mg/kg14-AUG-17 F2 (C10-C16)4120mg/kg14-AUG-17 F3 (C16-C34)<2020mg/kg14-AUG-17 F4 (C34-C50)<2020mg/kg14-AUG-17 Total Hydrocarbons (C6-C50)4120mg/kg14-AUG-17 Miscellaneous Parameters % Moisture<0.500.50%13-AUG-17R3796585							
L1973584-2 A8-2, NORTH OF SEA CAN 235 PPM Sampled By: HW on 10-AUG-17 @ 17:00 Matrix: SOIL CCME BTEX, F1 TO F4 BTEX and F1 (C6-C10) Benzene<0.00500.0050mg/kg13-AUG-1713-AUG-17R3794055 Toluene<0.0500.050mg/kg13-AUG-1713-AUG-17R3794055 Ethylbenzene0.0160.015mg/kg13-AUG-1713-AUG-17R3794055 m+p-Xylene<0.0500.050mg/kg13-AUG-1713-AUG-17R3794055 o-Xylene0.5780.050mg/kg13-AUG-1713-AUG-17R3794055 Xylenes0.580.10mg/kg13-AUG-1713-AUG-17R3794055 Surrogate: 1,4-Difluorobenzene (SS)93.170-130%13-AUG-1713-AUG-17R3794055 Surrogate: 4-Bromofluorobenzene (SS)94.270-130%13-AUG-1713-AUG-17R3794055 Surrogate: 3,4-Dichlorotoluene (SS)N/ASOL:MI-13-AUG-1713-AUG-17R3794055 CCME Total Extractable Hydrocarbons Surrogate: 2-BromobenzotrifluorideNOT REPORTABLESMI70-130%13-AUG-1713-AUG-17R3797405 Chrom. to baseline at nC50YES13-AUG-1713-AUG-17R3797405 Prep/Analysis Dates13-AUG-1713-AUG-17R3797405 CCME Total Hydrocarbons F1 (C6-C10)49410mg/kg14-AUG-17 F1-BTEX49310mg/kg14-AUG-17 F2 (C10-C16)5890DLHC60mg/kg14-AUG-17 F3 (C16-C34)2420DLHC60mg/kg14-AUG-17 F4 (C34-C50)<60DLHC60mg/kg14-AUG-17 Total Hydrocarbons (C6-C50)880060mg/kg14-AUG-17 Miscellaneous Parameters % Moisture4.650.50%13-AUG-17R3796585							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1973584-3	A8-3, SOUTH OF SEA CAN 637 PPM							
Sampled By:	HW on 10-AUG-17 @ 17:00							
Matrix:	SOIL							
CCME BTEX, F1 TO F4								
BTEX and F1 (C6-C10)								
Benzene		0.0472		0.0050	mg/kg	13-AUG-17	13-AUG-17	R3794055
Toluene		2.03		0.050	mg/kg	13-AUG-17	13-AUG-17	R3794055
Ethylbenzene		3.39		0.015	mg/kg	13-AUG-17	13-AUG-17	R3794055
m+p-Xylene		10.3		0.050	mg/kg	13-AUG-17	13-AUG-17	R3794055
o-Xylene		6.48		0.050	mg/kg	13-AUG-17	13-AUG-17	R3794055
Xylenes		16.8		0.10	mg/kg	13-AUG-17	13-AUG-17	R3794055
Surrogate: 1,4-Difluorobenzene (SS)		96.7		70-130	%	13-AUG-17	13-AUG-17	R3794055
Surrogate: 4-Bromofluorobenzene (SS)		92.1		70-130	%	13-AUG-17	13-AUG-17	R3794055
Surrogate: 3,4-Dichlorotoluene (SS)		N/A	SOL:MI	-	%	13-AUG-17	13-AUG-17	R3794055
CCME Total Extractable Hydrocarbons								
Surrogate: 2-Bromobenzotrifluoride		NOT REPORTABLE	SMI	70-130	%	13-AUG-17	13-AUG-17	R3797405
Chrom. to baseline at nC50		YES				13-AUG-17	13-AUG-17	R3797405
Prep/Analysis Dates						13-AUG-17	13-AUG-17	R3797405
CCME Total Hydrocarbons								
F1 (C6-C10)		892		10	mg/kg		14-AUG-17	
F1-BTEX		870		10	mg/kg		14-AUG-17	
F2 (C10-C16)		5820		60	mg/kg		14-AUG-17	
F3 (C16-C34)		1540		60	mg/kg		14-AUG-17	
F4 (C34-C50)		<60		60	mg/kg		14-AUG-17	
Total Hydrocarbons (C6-C50)		8250		60	mg/kg		14-AUG-17	
Miscellaneous Parameters								
% Moisture		6.40		0.50	%		13-AUG-17	R3796585

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

Qualifiers for Individual Samples Listed:

Sample Number	Client ID	Qualifier	Description
L1973584-1	A8-1, BELOW LINER 22 PPM	VOCC	BTX,F1-ED - Soil jar was submitted as VOC sample container. VOC results may be biased low, and do not meet federal (CCME) or provincial requirements (for BC, AB-Tier1, MB, ON, SK).
L1973584-2	A8-2, NORTH OF SEA CAN :	VOCC	BTX,F1-ED - Soil jar was submitted as VOC sample container. VOC results may be biased low, and do not meet federal (CCME) or provincial requirements (for BC, AB-Tier1, MB, ON, SK).
L1973584-3	A8-3, SOUTH OF SEA CAN :	VOCC	BTX,F1-ED - Soil jar was submitted as VOC sample container. VOC results may be biased low, and do not meet federal (CCME) or provincial requirements (for BC, AB-Tier1, MB, ON, SK).

Sample Parameter Qualifier Key:

Qualifier	Description
DLHC	Detection Limit Raised: Dilution required due to high concentration of test analyte(s).
MS-B	Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.
SMI	Surrogate recovery could not be measured due to sample matrix interference.
SOL:MI	Surrogate recovery outside acceptable limits due to matrix interference

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
BTX,F1-ED	Soil	BTEX and F1 (C6-C10)	CCME CWS-PHC, Pub #1310, Dec 2001
The soil methanol extract is added to water and reagents, then heated in a sealed vial to equilibrium. The headspace from the vial is transferred into a gas chromatograph. Target compound concentrations are measured using mass spectrometry detection.			
ETL-TVH,TEH-CCME-ED	Soil	CCME Total Hydrocarbons	CCME CWS-PHC, Pub #1310, Dec 2001
Analytical methods used for analysis of CCME Petroleum Hydrocarbons have been validated and comply with the Reference Method for the CWS PHC.			

Hydrocarbon results are expressed on a dry weight basis.

In cases where results for both F4 and F4G are reported, the greater of the two results must be used in any application of the CWS PHC guidelines and the gravimetric heavy hydrocarbons cannot be added to the C6 to C50 hydrocarbons.
In samples where BTEX and F1 were analyzed , F1-BTEX represents a value where the sum of Benzene, Toluene, Ethylbenzene and total Xylenes has been subtracted from F1.

In samples where PAHs, F2 and F3 were analyzed, F2-Naphth represents the result where Naphthalene has been subtracted from F2. F3-PAH represents a result where the sum of Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Dibenzo(a,h)anthracene, Fluoranthene, Indeno(1,2,3-cd)pyrene, Phenanthrene, and Pyrene has been subtracted from F3.

Unless otherwise qualified, the following quality control criteria have been met for the F1 hydrocarbon range:

1. All extraction and analysis holding times were met.
2. Instrument performance showing response factors for C6 and C10 within 30% of the response factor for toluene.
3. Linearity of gasoline response within 15% throughout the calibration range.

Unless otherwise qualified, the following quality control criteria have been met for the F2-F4 hydrocarbon ranges:

1. All extraction and analysis holding times were met.
2. Instrument performance showing C10, C16 and C34 response factors within 10% of their average.
3. Instrument performance showing the C50 response factor within 30% of the average of the C10, C16 and C34 response factors.
4. Linearity of diesel or motor oil response within 15% throughout the calibration range.

F2-4-TMB-ED	Soil	CCME Total Extractable Hydrocarbons	CCME CWS-PHC, Pub #1310, Dec 2001
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This analysis is carried out in accordance with the "Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil - Tier 1 Method, Canadian Council of Ministers of the Environment" For C10 to C50 hydrocarbons (F2, F3, F4) and gravimetric heavy hydrocarbons (F4G-sg), a subsample of the sediment/soil is extracted with 1:1 hexane:acetone using a rotary extractor. The extract undergoes a silica-gel clean-up to remove polar compounds. F2, F3 & F4 are analyzed by on-column GC/FID, and F4G-sg is analyzed gravimetrically.

Notes:

1. F2 (C10-C16): Sum of all hydrocarbons that elute between nC10 and nC16.
2. F3 (C16-C34): Sum of all hydrocarbons that elute between nC16 and nC34.
3. F4 (C34-C50): Sum of all hydrocarbons that elute between nC34 and nC50.
4. F4G: Gravimetric Heavy Hydrocarbons
5. F4G-sg: Gravimetric Heavy Hydrocarbons (F4G) after silica gel treatment.
6. Where F4 (C34-C50) and F4G-sg results are reported for a sample, the larger of the reported values is used for comparison against the relevant CCME standard for F4.
7. The gravimetric heavy hydrocarbon results (F4G-sg), cannot be added to the C6 to C50 hydrocarbon results.
8. This method is validated for use.
9. Data from analysis of quality control samples is available upon request.
10. Reported results are expressed as milligrams per dry kilogram.

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
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PREP-MOISTURE-ED	Soil	% Moisture	Oven dry 105C-Gravimetric
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The weighed portion of soil is placed in a 105°C oven to dry to a constant weight; the drying time will vary based on the moisture content of the soil. The dried soil weight is then used to calculate % moisture.

Reference: ASTM D2974-00.

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
ED	ALS ENVIRONMENTAL - EDMONTON, ALBERTA, CANADA

Chain of Custody Numbers:

14-

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

mg/kg - milligrams per kilogram based on dry weight of sample

mg/kg ww - milligrams per kilogram based on wet weight of sample

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight

mg/L - unit of concentration based on volume, parts per million.

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

Quality Control Report

Workorder: L1973584

Report Date: 15-AUG-17

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Client: Cash Clients
DXB Projects
Toronto Ontario
Contact: Henry Wong

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
BTX,F1-ED		Soil						
Batch	R3794055							
WG2591132-4	DUP	L1973584-1						
Benzene		<0.0050	<0.0050	RPD-NA	mg/kg	N/A	40	13-AUG-17
Toluene		<0.050	<0.050	RPD-NA	mg/kg	N/A	40	13-AUG-17
Ethylbenzene		<0.015	<0.015	RPD-NA	mg/kg	N/A	40	13-AUG-17
m+p-Xylene		<0.050	<0.050	RPD-NA	mg/kg	N/A	40	13-AUG-17
o-Xylene		<0.050	<0.050	RPD-NA	mg/kg	N/A	40	13-AUG-17
F1(C6-C10)		<10	<10	RPD-NA	mg/kg	N/A	40	13-AUG-17
WG2591132-2	LCS							
Benzene			77.8		%		70-130	13-AUG-17
Toluene			70.7		%		70-130	13-AUG-17
Ethylbenzene			73.4		%		70-130	13-AUG-17
m+p-Xylene			78.7		%		70-130	13-AUG-17
o-Xylene			76.4		%		70-130	13-AUG-17
WG2591132-3	LCS							
F1(C6-C10)			90.7		%		70-130	13-AUG-17
WG2591132-1	MB							
Benzene			<0.0050		mg/kg		0.005	13-AUG-17
Toluene			<0.050		mg/kg		0.05	13-AUG-17
Ethylbenzene			<0.015		mg/kg		0.015	13-AUG-17
m+p-Xylene			<0.050		mg/kg		0.05	13-AUG-17
o-Xylene			<0.050		mg/kg		0.05	13-AUG-17
F1(C6-C10)			<10		mg/kg		10	13-AUG-17
Surrogate: 1,4-Difluorobenzene (SS)			98.6		%		70-130	13-AUG-17
Surrogate: 4-Bromofluorobenzene (SS)			90.9		%		70-130	13-AUG-17
Surrogate: 3,4-Dichlorotoluene (SS)			114.7		%		70-130	13-AUG-17
WG2591132-5	MS	L1973584-3						
Benzene			93.2		%		60-140	13-AUG-17
Toluene			49.8	MS-B	%		60-140	13-AUG-17
Ethylbenzene			N/A	MS-B	%		-	13-AUG-17
m+p-Xylene			N/A	MS-B	%		-	13-AUG-17
o-Xylene			N/A	MS-B	%		-	13-AUG-17
F2-4-TMB-ED		Soil						
Batch	R3797405							
WG2591114-3	IRM	ALS PHC2 RM						
F2 (C10-C16)			85.9		%		70-130	13-AUG-17
F3 (C16-C34)			100.9		%		70-130	13-AUG-17

Quality Control Report

Workorder: L1973584

Report Date: 15-AUG-17

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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
F2-4-TMB-ED		Soil						
Batch R3797405								
WG2591114-3	IRM	ALS PHC2 RM						
F4 (C34-C50)			102.9		%		70-130	13-AUG-17
WG2591114-2	LCS	DIESEL/MOTOR OIL						
F2 (C10-C16)			97.4		%		70-130	13-AUG-17
F3 (C16-C34)			108.4		%		70-130	13-AUG-17
F4 (C34-C50)			101.2		%		70-130	13-AUG-17
WG2591114-1	MB							
F2 (C10-C16)			<20		mg/kg		20	13-AUG-17
F3 (C16-C34)			<20		mg/kg		20	13-AUG-17
F4 (C34-C50)			<20		mg/kg		20	13-AUG-17
Surrogate: 2-Bromobenzotrifluoride			88.8		%		70-130	13-AUG-17
PREP-MOISTURE-ED		Soil						
Batch R3796585								
WG2591142-2	LCS							
% Moisture			99.7		%		90-110	13-AUG-17
WG2591142-1	MB							
% Moisture			<0.50		%		0.5	13-AUG-17

Quality Control Report

Workorder: L1973584

Report Date: 15-AUG-17

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Legend:

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
MS-B	Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.



Environmental

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L1973584-COFC

[illegible]

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NA FM 0776a-00 Printed January 2014

Ensuring to complete all portions of this form may delay analysis. Please fill in this form 1 (C) (b) (7) (D). The use of this form is the user acknowledges and agrees with the Terms and Conditions as specified on the back panel of the white - report copy

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample ID Description Sampled Date Sampled Time Client ID		L1984986-1 SOIL 31-AUG-17 11:30 A15-5-3				
Grouping	Analyte					
SOIL						
Volatile Organic Compounds	Benzene (mg/kg)	<0.0050				
	Ethylbenzene (mg/kg)	<0.015				
	Toluene (mg/kg)	<0.050				
	o-Xylene (mg/kg)	<0.050				
	m+p-Xylene (mg/kg)	<0.050				
	Xylenes (mg/kg)	<0.10				
	Surrogate: 4-Bromofluorobenzene (SS) (%)	102.0				
	Surrogate: 3,4-Dichlorotoluene (SS) (%)	72.0				
	Surrogate: 1,4-Difluorobenzene (SS) (%)	90.0				
Hydrocarbons	F1 (C6-C10) (mg/kg)	186				
	F1-BTEX (mg/kg)	186				
	F2 (C10-C16) (mg/kg)	1670				
	F3 (C16-C34) (mg/kg)	395				
	F4 (C34-C50) (mg/kg)	<20				
	Total Hydrocarbons (C6-C50) (mg/kg)	2250				
	Chrom. to baseline at nC50	YES				
	Surrogate: 2-Bromobenzotrifluoride (%)	127.8				

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
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BTX,F1-ED

Soil BTEX and F1 (C6-C10)

CCME CWS-PHC, Pub #1310, Dec 2001

The soil methanol extract is added to water and reagents, then heated in a sealed vial to equilibrium. The headspace from the vial is transferred into a gas chromatograph. Target compound concentrations are measured using mass spectrometry detection.

ETL-TVH,TEH-CCME-ED

Soil CCME Total Hydrocarbons

CCME CWS-PHC, Pub #1310, Dec 2001

Analytical methods used for analysis of CCME Petroleum Hydrocarbons have been validated and comply with the Reference Method for the CWS PHC.

Hydrocarbon results are expressed on a dry weight basis.

In cases where results for both F4 and F4G are reported, the greater of the two results must be used in any application of the CWS PHC guidelines and the gravimetric heavy hydrocarbons cannot be added to the C6 to C50 hydrocarbons.

In samples where BTEX and F1 were analyzed, F1-BTEX represents a value where the sum of Benzene, Toluene, Ethylbenzene and total Xylenes has been subtracted from F1.

In samples where PAHs, F2 and F3 were analyzed, F2-Naphth represents the result where Naphthalene has been subtracted from F2. F3-PAH represents a result where the sum of Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Dibenzo(a,h)anthracene, Fluoranthene, Indeno(1,2,3-cd)pyrene, Phenanthrene, and Pyrene has been subtracted from F3.

Unless otherwise qualified, the following quality control criteria have been met for the F1 hydrocarbon range:

1. All extraction and analysis holding times were met.
2. Instrument performance showing response factors for C6 and C10 within 30% of the response factor for toluene.
3. Linearity of gasoline response within 15% throughout the calibration range.

Unless otherwise qualified, the following quality control criteria have been met for the F2-F4 hydrocarbon ranges:

1. All extraction and analysis holding times were met.
2. Instrument performance showing C10, C16 and C34 response factors within 10% of their average.
3. Instrument performance showing the C50 response factor within 30% of the average of the C10, C16 and C34 response factors.
4. Linearity of diesel or motor oil response within 15% throughout the calibration range.

F2-4-TMB-ED

Soil CCME Total Extractable Hydrocarbons

CCME CWS-PHC, Pub #1310, Dec 2001

This analysis is carried out in accordance with the "Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil - Tier 1 Method, Canadian Council of Ministers of the Environment" For C10 to C50 hydrocarbons (F2, F3, F4) and gravimetric heavy hydrocarbons (F4G-sg), a subsample of the sediment/soil is extracted with 1:1 hexane:acetone using a rotary extractor. The extract undergoes a silica-gel clean-up to remove polar compounds. F2, F3 & F4 are analyzed by on-column GC/FID, and F4G-sg is analyzed gravimetrically.

Notes:

1. F2 (C10-C16): Sum of all hydrocarbons that elute between nC10 and nC16.
2. F3 (C16-C34): Sum of all hydrocarbons that elute between nC16 and nC34.
3. F4 (C34-C50): Sum of all hydrocarbons that elute between nC34 and nC50.
4. F4G: Gravimetric Heavy Hydrocarbons
5. F4G-sg: Gravimetric Heavy Hydrocarbons (F4G) after silica gel treatment.
6. Where F4 (C34-C50) and F4G-sg results are reported for a sample, the larger of the reported values is used for comparison against the relevant CCME standard for F4.
7. The gravimetric heavy hydrocarbon results (F4G-sg), cannot be added to the C6 to C50 hydrocarbon results.
8. This method is validated for use.
9. Data from analysis of quality control samples is available upon request.
10. Reported results are expressed as milligrams per dry kilogram.

PREP-MOISTURE-ED

Soil % Moisture

Oven dry 105C-Gravimetric

The weighed portion of soil is placed in a 105°C oven to dry to a constant weight; the drying time will vary based on the moisture content of the soil. The dried soil weight is then used to calculate % moisture.

Reference: ASTM D2974-00.

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
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ED	ALS ENVIRONMENTAL - EDMONTON, ALBERTA, CANADA
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Chain of Custody Numbers:

14-2017-08-31e

Reference Information

GLOSSARY OF REPORT TERMS

Surrogate - A compound that is similar in behaviour to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

mg/kg - milligrams per kilogram based on dry weight of sample.

mg/kg ww - milligrams per kilogram based on wet weight of sample.

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight of sample.

mg/L - milligrams per litre.

< - Less than.

D.L. - The reported Detection Limit, also known as the Limit of Reporting (LOR).

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

the 1990s, the number of people in the United States who are 65 years of age or older has increased by 50 percent. The number of people 75 years of age or older has increased by 100 percent. The number of people 85 years of age or older has increased by 200 percent. The number of people 95 years of age or older has increased by 400 percent. The number of people 100 years of age or older has increased by 800 percent. The number of people 105 years of age or older has increased by 1,600 percent. The number of people 110 years of age or older has increased by 3,200 percent. The number of people 115 years of age or older has increased by 6,400 percent. The number of people 120 years of age or older has increased by 12,800 percent. The number of people 125 years of age or older has increased by 25,600 percent. The number of people 130 years of age or older has increased by 51,200 percent. The number of people 135 years of age or older has increased by 102,400 percent. The number of people 140 years of age or older has increased by 204,800 percent. The number of people 145 years of age or older has increased by 409,600 percent. The number of people 150 years of age or older has increased by 819,200 percent. The number of people 155 years of age or older has increased by 1,638,400 percent. The number of people 160 years of age or older has increased by 3,276,800 percent. The number of people 165 years of age or older has increased by 6,553,600 percent. The number of people 170 years of age or older has increased by 13,107,200 percent. The number of people 175 years of age or older has increased by 26,214,400 percent. The number of people 180 years of age or older has increased by 52,428,800 percent. The number of people 185 years of age or older has increased by 104,857,600 percent. The number of people 190 years of age or older has increased by 209,715,200 percent. The number of people 195 years of age or older has increased by 419,430,400 percent. The number of people 200 years of age or older has increased by 838,860,800 percent. The number of people 205 years of age or older has increased by 1,677,721,600 percent. The number of people 210 years of age or older has increased by 3,355,443,200 percent. The number of people 215 years of age or older has increased by 6,710,886,400 percent. The number of people 220 years of age or older has increased by 13,421,772,800 percent. The number of people 225 years of age or older has increased by 26,843,545,600 percent. The number of people 230 years of age or older has increased by 53,687,091,200 percent. The number of people 235 years of age or older has increased by 107,374,182,400 percent. The number of people 240 years of age or older has increased by 214,748,364,800 percent. The number of people 245 years of age or older has increased by 429,496,729,600 percent. The number of people 250 years of age or older has increased by 858,993,459,200 percent. The number of people 255 years of age or older has increased by 1,717,986,918,400 percent. The number of people 260 years of age or older has increased by 3,435,973,836,800 percent. The number of people 265 years of age or older has increased by 6,871,947,673,600 percent. The number of people 270 years of age or older has increased by 13,743,895,347,200 percent. The number of people 275 years of age or older has increased by 27,487,790,694,400 percent. The number of people 280 years of age or older has increased by 54,975,581,388,800 percent. The number of people 285 years of age or older has increased by 109,951,162,777,600 percent. The number of people 290 years of age or older has increased by 219,902,325,555,200 percent. The number of people 295 years of age or older has increased by 439,804,651,110,400 percent. The number of people 300 years of age or older has increased by 879,609,302,220,800 percent. The number of people 305 years of age or older has increased by 1,759,218,604,441,600 percent. The number of people 310 years of age or older has increased by 3,518,437,208,883,200 percent. The number of people 315 years of age or older has increased by 7,036,874,417,766,400 percent. The number of people 320 years of age or older has increased by 14,073,748,835,532,800 percent. The number of people 325 years of age or older has increased by 28,147,497,671,065,600 percent. The number of people 330 years of age or older has increased by 56,294,995,342,131,200 percent. The number of people 335 years of age or older has increased by 112,589,990,684,262,400 percent. The number of people 340 years of age or older has increased by 225,179,981,368,524,800 percent. The number of people 345 years of age or older has increased by 450,359,962,737,049,600 percent. The number of people 350 years of age or older has increased by 900,719,925,474,099,200 percent. The number of people 355 years of age or older has increased by 1,801,439,850,948,198,400 percent. The number of people 360 years of age or older has increased by 3,602,879,701,896,396,800 percent. The number of people 365 years of age or older has increased by 7,205,759,403,792,793,600 percent. The number of people 370 years of age or older has increased by 14,411,518,807,585,587,200 percent. The number of people 375 years of age or older has increased by 28,823,037,615,171,174,400 percent. The number of people 380 years of age or older has increased by 57,646,075,230,342,348,800 percent. The number of people 385 years of age or older has increased by 115,292,150,460,684,697,600 percent. The number of people 390 years of age or older has increased by 230,584,300,921,369,395,200 percent. The number of people 395 years of age or older has increased by 461,168,601,842,738,790,400 percent. The number of people 400 years of age or older has increased by 922,337,203,685,477,580,800 percent. The number of people 405 years of age or older has increased by 1,844,674,407,370,955,161,600 percent. The number of people 410 years of age or older has increased by 3,689,348,814,741,910,323,200 percent. The number of people 415 years of age or older has increased by 7,378,697,629,483,820,646,400 percent. The number of people 420 years of age or older has increased by 14,757,395,258,967,641,292,800 percent. The number of people 425 years of age or older has increased by 29,514,790,517,935,282,585,600 percent. The number of people 430 years of age or older has increased by 59,029,581,035,870,565,171,200 percent. The number of people 435 years of age or older has increased by 118,059,162,071,741,130,342,400 percent. The number of people 440 years of age or older has increased by 236,118,324,143,482,260,684,800 percent. The number of people 445 years of age or older has increased by 472,236,648,286,964,521,369,600 percent. The number of people 450 years of age or older has increased by 944,473,296,573,929,042,739,200 percent. The number of people 455 years of age or older has increased by 1,888,946,593,147,858,085,478,400 percent. The number of people 460 years of age or older has increased by 3,777,893,186,295,716,170,956,800 percent. The number of people 465 years of age or older has increased by 7,555,786,372,591,432,341,913,600 percent. The number of people 470 years of age or older has increased by 15,111,572,745,182,864,683,827,200 percent. The number of people 475 years of age or older has increased by 30,223,145,490,365,729,367,654,400 percent. The number of people 480 years of age or older has increased by 60,446,290,980,731,458,735,308,800 percent. The number of people 485 years of age or older has increased by 120,892,581,961,462,917,470,617,600 percent. The number of people 490 years of age or older has increased by 241,785,163,922,925,834,941,235,200 percent. The number of people 495 years of age or older has increased by 483,570,327,845,851,669,882,470,400 percent. The number of people 500 years of age or older has increased by 967,140,655,691,703,339,764,940,800 percent. The number of people 505 years of age or older has increased by 1,934,281,311,383,406,679,529,881,600 percent. The number of people 510 years of age or older has increased by 3,868,562,622,766,813,359,059,763,200 percent. The number of people 515 years of age or older has increased by 7,737,125,245,533,626,718,119,526,400 percent. The number of people 520 years of age or older has increased by 15,474,250,491,067,253,436,239,052,800 percent. The number of people 525 years of age or older has increased by 30,948,500,982,134,506,872,478,105,600 percent. The number of people 530 years of age or older has increased by 61,897,001,964,269,013,744,956,211,200 percent. The number of people 535 years of age or older has increased by 123,794,003,928,538,027,489,912,422,400 percent. The number of people 540 years of age or older has increased by 247,588,007,857,076,054,979,824,844,800 percent. The number of people 545 years of age or older has increased by 495,176,015,714,152,109,959,649,689,600 percent. The number of people 550 years of age or older has increased by 990,352,031,428,304,219,919,299,379,200 percent. The number of people 555 years of age or older has increased by 1,980,704,062,856,608,439,838,598,758,400 percent. The number of people 560 years of age or older has increased by 3,961,408,125,713,216,879,677,197,516,800 percent. The number of people 565 years of age or older has increased by 7,922,816,251,426,433,759,354,395,033,600 percent. The number of people 570 years of age or older has increased by 15,845,632,502,852,867,518,708,790,067,200 percent. The number of people 575

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Client: Cash Clients
DXB Projects
Toronto ON

Contact: Henry Wong

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
BTX,F1-ED		Soil						
Batch	R3814738							
WG2607752-7	LCS							
Benzene			82.4		%		70-130	02-SEP-17
Toluene			79.5		%		70-130	02-SEP-17
Ethylbenzene			81.1		%		70-130	02-SEP-17
m+p-Xylene			84.6		%		70-130	02-SEP-17
o-Xylene			81.9		%		70-130	02-SEP-17
F1(C6-C10)			n/a		ug/L			02-SEP-17
WG2607752-8	LCS							
Benzene			n/a		ug/L			02-SEP-17
Toluene			n/a		ug/L			02-SEP-17
Ethylbenzene			n/a		ug/L			02-SEP-17
m+p-Xylene			n/a		ug/L			02-SEP-17
o-Xylene			n/a		ug/L			02-SEP-17
F1(C6-C10)			111.2		%		70-130	02-SEP-17
WG2607752-6	MB							
Benzene			<0.0050		mg/kg		0.005	02-SEP-17
Toluene			<0.050		mg/kg		0.05	02-SEP-17
Ethylbenzene			<0.015		mg/kg		0.015	02-SEP-17
m+p-Xylene			<0.050		mg/kg		0.05	02-SEP-17
o-Xylene			<0.050		mg/kg		0.05	02-SEP-17
F1(C6-C10)			<10		mg/kg		10	02-SEP-17
Surrogate: 1,4-Difluorobenzene (SS)			105.0		%		70-130	02-SEP-17
Surrogate: 4-Bromofluorobenzene (SS)			86.0		%		70-130	02-SEP-17
Surrogate: 3,4-Dichlorotoluene (SS)			111.0		%		70-130	02-SEP-17
F2-4-TMB-ED		Soil						
Batch	R3817618							
WG2607816-2	LCS	DIESEL / MOTOR OIL						
F2 (C10-C16)			101.4		%		70-130	02-SEP-17
F3 (C16-C34)			108.3		%		70-130	02-SEP-17
F4 (C34-C50)			110.8		%		70-130	02-SEP-17
WG2607816-1	MB							
F2 (C10-C16)			<20		mg/kg		20	02-SEP-17
F3 (C16-C34)			<20		mg/kg		20	02-SEP-17
F4 (C34-C50)			<20		mg/kg		20	02-SEP-17
Surrogate: 2-Bromobenzotrifluoride			89.9		%		70-130	02-SEP-17
PREP-MOISTURE-ED		Soil						



Quality Control Report

Workorder: L1984986 Report Date: 02-SEP-17 Page 2 of 3

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PREP-MOISTURE-ED		Soil						
Batch R3817416								
WG2607754-5 LCS								
% Moisture			98.9		%		90-110	02-SEP-17
WG2607754-4 MB								
% Moisture			<0.50		%		0.5	02-SEP-17

Quality Control Report

Workorder: L1984986

Report Date: 02-SEP-17

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Legend:

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.

Canada Toll Free: 1 800 668 9878

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REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

NA-FM-0126e v09 FinalD4 January 2011

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample ID Description Sampled Date Sampled Time Client ID		L1980340-1 SOIL 23-AUG-17 14:30 A10-S1	L1980340-2 SOIL 23-AUG-17 14:30 A10-S1	L1980340-3 SOIL 23-AUG-17 14:30 A10-S1	L1980340-4 SOIL 23-AUG-17 14:30 A10-S1	L1980340-5 SOIL 23-AUG-17 14:30 A10-S1
Grouping	Analyte					
SOIL						
Physical Tests	Moisture (%)	5.45	5.31	5.28	4.05	2.24
Volatile Organic Compounds	Benzene (mg/kg)	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
	Ethylbenzene (mg/kg)	<0.015	<0.015	<0.015	<0.015	<0.015
	Toluene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050
	o-Xylene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050
	m+p-Xylene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050
	Xylenes (Total) (mg/kg)	<0.071	<0.071	<0.071	<0.071	<0.071
	Surrogate: 4-Bromofluorobenzene (%)	82.6	86.1	84.3	82.2	88.1
	Surrogate: 3,4-Dichlorotoluene (%)	86.5	86.4	98.3	81.9	82.6
	Surrogate: 1,4-Difluorobenzene (%)	74.8	82.2	79.3	79.9	79.3
Hydrocarbons	F1 (C6-C10) (mg/kg)	<10	<10	<10	<10	<10
	F1-BTEX (mg/kg)	<10	<10	<10	<10	<10
	F2 (C10-C16) (mg/kg)	<25	<25	<25	<25	<25
	F3 (C16-C34) (mg/kg)	<50	<50	<50	995	<50
	F4 (C34-C50) (mg/kg)	<50	<50	<50	314	<50
	Total Hydrocarbons (C6-C50) (mg/kg)	<50	<50	<50	1310	<50
	Chrom. to baseline at nC50 (ppm)	YES	YES	YES	YES	YES
	Surrogate: 2-Bromobenzotrifluoride (%)	81.8	85.2	73.3	81.8	81.1

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample ID Description Sampled Date Sampled Time Client ID		L1980340-6 SOIL 23-AUG-17 14:30 A10-S1	L1980340-7 SOIL 23-AUG-17 14:30 A10-S1	L1980340-8 SOIL 23-AUG-17 14:30 A10-S1	L1980340-9 SOIL 23-AUG-17 14:30 A10-S1	L1980340-10 SOIL 23-AUG-17 14:30 A10-S1
Grouping	Analyte					
SOIL						
Physical Tests	Moisture (%)	2.57	2.45	3.24	3.73	4.64
Volatile Organic Compounds	Benzene (mg/kg)	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
	Ethylbenzene (mg/kg)	<0.015	<0.015	<0.015	<0.015	<0.015
	Toluene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050
	o-Xylene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050
	m+p-Xylene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050
	Xylenes (Total) (mg/kg)	<0.071	<0.071	<0.071	<0.071	<0.071
	Surrogate: 4-Bromofluorobenzene (%)	116.3	89.1	84.0	87.5	85.8
	Surrogate: 3,4-Dichlorotoluene (%)	96.4	89.2	90.8	88.6	81.7
	Surrogate: 1,4-Difluorobenzene (%)	82.2	81.0	76.8	86.9	77.1
Hydrocarbons	F1 (C6-C10) (mg/kg)	<10	<10	<10	<10	<10
	F1-BTEX (mg/kg)	<10	<10	<10	<10	<10
	F2 (C10-C16) (mg/kg)	<25	<25	<25	<25	<25
	F3 (C16-C34) (mg/kg)	<50	<50	<50	<50	<50
	F4 (C34-C50) (mg/kg)	<50	<50	<50	<50	<50
	Total Hydrocarbons (C6-C50) (mg/kg)	<50	<50	<50	<50	<50
	Chrom. to baseline at nC50 (ppm)	YES	YES	YES	YES	YES
	Surrogate: 2-Bromobenzotrifluoride (%)	84.6	80.1	83.6	82.3	84.4

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample ID Description Sampled Date Sampled Time Client ID		L1980340-11 SOIL 23-AUG-17 14:30 A10-S1	L1980340-12 SOIL 23-AUG-17 14:30 A10-S1			
Grouping	Analyte					
SOIL						
Physical Tests	Moisture (%)	3.27	3.51			
Volatile Organic Compounds	Benzene (mg/kg)	<0.0050	<0.0050			
	Ethylbenzene (mg/kg)	<0.015	<0.015			
	Toluene (mg/kg)	<0.050	<0.050			
	o-Xylene (mg/kg)	<0.050	<0.050			
	m+p-Xylene (mg/kg)	<0.050	<0.050			
	Xylenes (Total) (mg/kg)	<0.071	<0.071			
	Surrogate: 4-Bromofluorobenzene (%)	83.1	83.2			
	Surrogate: 3,4-Dichlorotoluene (%)	84.0	83.4			
	Surrogate: 1,4-Difluorobenzene (%)	73.5	74.9			
Hydrocarbons	F1 (C6-C10) (mg/kg)	<10	<10			
	F1-BTEX (mg/kg)	<10	<10			
	F2 (C10-C16) (mg/kg)	<25	<25			
	F3 (C16-C34) (mg/kg)	<50	<50			
	F4 (C34-C50) (mg/kg)	<50	<50			
	Total Hydrocarbons (C6-C50) (mg/kg)	<50	<50			
	Chrom. to baseline at nC50 (ppm)	YES	YES			
	Surrogate: 2-Bromobenzotrifluoride (%)	83.1	88.7			

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
BTXS-HS-MS-CL	Soil	BTEX, Styrene	EPA 8260C/5021A
This analysis involves the extraction of a subsample of the sediment/soil with methanol. Aliquots of the methanol extract are then added to water and reagents, then heated in a sealed vial to equilibrium. The headspace from the vial is transferred into a gas chromatograph. Target compound concentrations are measured using mass spectrometry detection.			
F1-4-CALC-CL	Soil	CCME Total Hydrocarbons	CCME CWS-PHC, Pub #1310, Dec 2001
Analytical methods used for analysis of CCME Petroleum Hydrocarbons have been validated and comply with the Reference Method for the CWS PHC.			
Hydrocarbon results are expressed on a dry weight basis.			
In cases where results for both F4 and F4G are reported, the greater of the two results must be used in any application of the CWS PHC guidelines and the gravimetric heavy hydrocarbons cannot be added to the C6 to C50 hydrocarbons.			
In samples where BTEX and F1 were analyzed, F1-BTEX represents a value where the sum of Benzene, Toluene, Ethylbenzene and total Xylenes has been subtracted from F1.			
In samples where PAHs, F2 and F3 were analyzed, F2-Naphth represents the result where Naphthalene has been subtracted from F2. F3-PAH represents a result where the sum of Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Dibenzo(a,h)anthracene, Fluoranthene, Indeno(1,2,3-cd)pyrene, Phenanthrene, and Pyrene has been subtracted from F3.			
Unless otherwise qualified, the following quality control criteria have been met for the F1 hydrocarbon range:			
1. All extraction and analysis holding times were met.			
2. Instrument performance showing response factors for C6 and C10 within 30% of the response factor for toluene.			
3. Linearity of gasoline response within 15% throughout the calibration range.			
Unless otherwise qualified, the following quality control criteria have been met for the F2-F4 hydrocarbon ranges:			
1. All extraction and analysis holding times were met.			
2. Instrument performance showing C10, C16 and C34 response factors within 10% of their average.			
3. Instrument performance showing the C50 response factor within 30% of the average of the C10, C16 and C34 response factors.			
4. Linearity of diesel or motor oil response within 15% throughout the calibration range.			
F1-HS-FID-CL	Soil	F1(C6-C10)	CWS PHC Tier 1
This analysis involves the extraction of a subsample of the sediment/soil with methanol. Aliquots of the methanol extract are then added to water and reagents, then heated in a sealed vial to equilibrium. The headspace from the vial is transferred into a gas chromatograph. The F1 fraction concentration is measured using flame ionization detection, in accordance with the Canada Wide Standard for Petroleum Hydrocarbons in Soil - Tier 1 Method (2001).			
F2-4-TMB-H/A-FID-CL	Soil	CCME F2-4 Hydrocarbons	CCME CWS-PHC, Pub #1310, Dec 2001
This analysis is carried out in accordance with the "Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil - Tier 1 Method, Canadian Council of Ministers of the Environment, December 2001." For C10 to C50 hydrocarbons (F2, F3, F4) and gravimetric heavy hydrocarbons (F4G-sg), a subsample of the sediment/soil is extracted with 1:1 hexane:acetone using a rotary extractor. The extract undergoes a silica-gel clean-up to remove polar compounds. F2, F3 & F4 are analyzed by on-column GC/FID, and F4G-sg is analyzed gravimetrically.			
Notes:			
1. F2 (C10-C16): Sum of all hydrocarbons that elute between nC10 and nC16.			
2. F3 (C16-C34): Sum of all hydrocarbons that elute between nC16 and nC34.			
3. F4 (C34-C50): Sum of all hydrocarbons that elute between nC34 and nC50.			
4. F4G: Gravimetric Heavy Hydrocarbons			
5. F4G-sg: Gravimetric Heavy Hydrocarbons (F4G) after silica gel treatment.			
6. Where F4 (C34-C50) and F4G-sg results are reported for a sample, the larger of the reported values is used for comparison against the relevant CCME standard for F4.			
7. The gravimetric heavy hydrocarbon results (F4G-sg), cannot be added to the C6 to C50 hydrocarbon results.			
8. This method is validated for use.			
9. Data from analysis of quality control samples is available upon request.			
10. Reported results are expressed as milligrams per dry kilogram.			
MOISTURE-CL	Soil	% Moisture	CWS for PHC in Soil - Tier 1
This analysis is carried out gravimetrically by drying the sample at 105 C			
XYLENES-SUM-CALC-CL	Soil	Sum of Xylene Isomer Concentrations	CALCULATED RESULT
Total xylenes represents the sum of o-xylene and m&p-xylene.			

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
CL	ALS ENVIRONMENTAL - CALGARY, ALBERTA, CANADA

Reference Information

Chain of Custody Numbers:

14-2017-08-23

GLOSSARY OF REPORT TERMS

Surrogate - A compound that is similar in behaviour to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

mg/kg - milligrams per kilogram based on dry weight of sample.

mg/kg ww - milligrams per kilogram based on wet weight of sample.

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight of sample.

mg/L - milligrams per litre.

< - Less than.

D.L. - The reported Detection Limit, also known as the Limit of Reporting (LOR).

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

Quality Control Report

Workorder: L1980340

Report Date: 27-AUG-17

Page 1 of 3

Client: Cash Clients
DXB Projects
Toronto ON
Contact: Henry Wong

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
BTXS-HS-MS-CL		Soil						
Batch	R3812574							
WG2601724-3	DUP	L1980340-1						
Benzene		<0.0050	<0.0050	RPD-NA	mg/kg	N/A	40	26-AUG-17
Ethylbenzene		<0.015	<0.015	RPD-NA	mg/kg	N/A	40	26-AUG-17
Toluene		<0.050	<0.050	RPD-NA	mg/kg	N/A	40	26-AUG-17
o-Xylene		<0.050	<0.050	RPD-NA	mg/kg	N/A	40	26-AUG-17
m+p-Xylene		<0.050	<0.050	RPD-NA	mg/kg	N/A	40	26-AUG-17
WG2601724-2	LCS							
Benzene			84.7		%		70-130	26-AUG-17
Ethylbenzene			87.9		%		70-130	26-AUG-17
Toluene			82.5		%		70-130	26-AUG-17
o-Xylene			92.5		%		70-130	26-AUG-17
m+p-Xylene			91.1		%		70-130	26-AUG-17
WG2601724-1	MB							
Benzene			<0.0050		mg/kg		0.005	26-AUG-17
Ethylbenzene			<0.015		mg/kg		0.015	26-AUG-17
Toluene			<0.050		mg/kg		0.05	26-AUG-17
o-Xylene			<0.050		mg/kg		0.05	26-AUG-17
m+p-Xylene			<0.050		mg/kg		0.05	26-AUG-17
Surrogate: 1,4-Difluorobenzene			71.0		%		70-130	26-AUG-17
Surrogate: 4-Bromofluorobenzene			82.1		%		70-130	26-AUG-17
F1-HS-FID-CL		Soil						
Batch	R3812586							
WG2601724-3	DUP	L1980340-1						
F1(C6-C10)		<10	<10	RPD-NA	mg/kg	N/A	40	26-AUG-17
WG2601724-2	LCS							
F1(C6-C10)			115.0		%		70-130	26-AUG-17
WG2601724-1	MB							
F1(C6-C10)			<10		mg/kg		10	26-AUG-17
Surrogate: 3,4-Dichlorotoluene			90.0		%		70-130	26-AUG-17
F2-4-TMB-H/A-FID-CL		Soil						
Batch	R3810989							
WG2601721-4	DUP	L1980340-1						
F2: (C10-C16)		<25	<25	RPD-NA	mg/kg	N/A	40	27-AUG-17
F3: (C16-C34)		<50	<50	RPD-NA	mg/kg	N/A	40	27-AUG-17
F4: (C34-C50)		<50	<50	RPD-NA	mg/kg	N/A	40	27-AUG-17
WG2601721-3	IRM	ALS PHC2 RM						

Quality Control Report

Workorder: L1980340

Report Date: 27-AUG-17

Page 2 of 3

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
F2-4-TMB-H/A-FID-CL		Soil						
Batch	R3810989							
WG2601721-3	IRM	ALS PHC2 RM						
F2: (C10-C16)			86.2		%		70-130	27-AUG-17
F3: (C16-C34)			86.0		%		70-130	27-AUG-17
F4: (C34-C50)			85.1		%		70-130	27-AUG-17
WG2601721-2	LCS							
F2: (C10-C16)			107.9		%		70-130	27-AUG-17
F3: (C16-C34)			104.5		%		70-130	27-AUG-17
F4: (C34-C50)			106.0		%		70-130	27-AUG-17
WG2601721-1	MB							
F2: (C10-C16)			<25		mg/kg		25	27-AUG-17
F3: (C16-C34)			<50		mg/kg		50	27-AUG-17
F4: (C34-C50)			<50		mg/kg		50	27-AUG-17
Surrogate: 2-Bromobenzotrifluoride			90.9		%		70-130	27-AUG-17
MOISTURE-CL		Soil						
Batch	R3812432							
WG2601723-3	DUP	L1980340-1						
Moisture		5.45	5.42		%	0.6	20	26-AUG-17
WG2601723-2	LCS							
Moisture			104.9		%		90-110	26-AUG-17
WG2601723-1	MB							
Moisture			<0.25		%		0.25	26-AUG-17

Quality Control Report

Workorder: L1980340

Report Date: 27-AUG-17

Page 3 of 3

Legend:

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

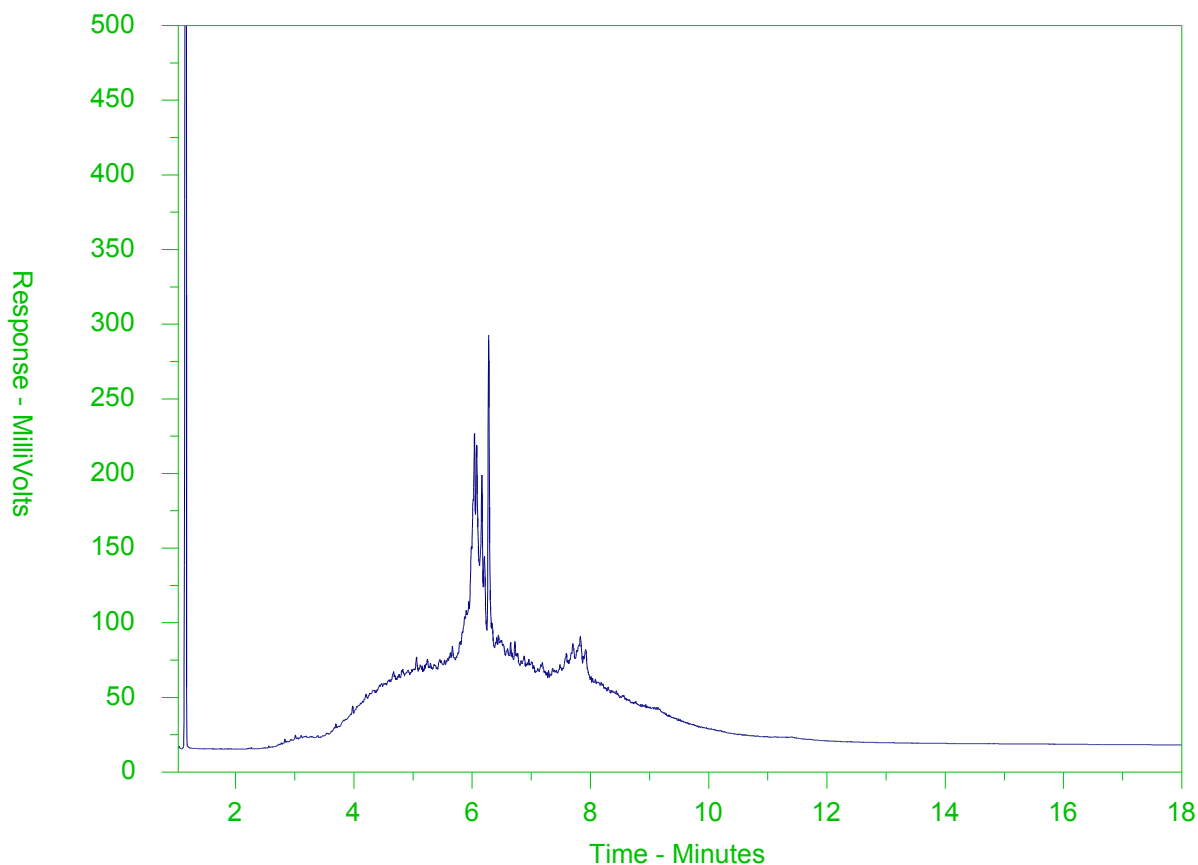
The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT



ALS Sample ID: L1980340-4
 Client Sample ID: A10-S1



← F2 →		← F3 →		← F4 →	
nC10	nC16		nC34		nC50
174°C	287°C		481°C		575°C
346°F	549°F		898°F		1067°F
← Gasoline →			← Motor Oils/ Lube Oils/ Grease →		
← Diesel/ Jet Fuels →					

The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.



Canada Toll Free: 1 800 668 9878

(lab use only)

Page 1 of 1

www.alsglobal.com

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

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NA-EM-0326a v09 Expt104 January 2011

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a **Regulated Drinking Water (DW) System**, please submit using an **Authorized DW COC form**.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample ID Description Sampled Date Sampled Time Client ID		L1980274-1 soil 20-AUG-17 11:00 A7-5-9	L1980274-2 soil 20-AUG-17 11:00 A7-5-11			
Grouping	Analyte					
SOIL						
Physical Tests	Moisture (%)	5.55	5.46			
Volatile Organic Compounds	Benzene (mg/kg)	<0.0050	<0.0050			
	Ethylbenzene (mg/kg)	<0.015	<0.015			
	Toluene (mg/kg)	<0.050	<0.050			
	o-Xylene (mg/kg)	<0.050	<0.050			
	m+p-Xylene (mg/kg)	<0.050	<0.050			
	Xylenes (Total) (mg/kg)	<0.071	<0.071			
	Surrogate: 4-Bromofluorobenzene (%)	81.8	83.5			
	Surrogate: 3,4-Dichlorotoluene (%)	79.4	77.2			
	Surrogate: 1,4-Difluorobenzene (%)	78.4	75.0			
Hydrocarbons	F1 (C6-C10) (mg/kg)	16	17			
	F1-BTEX (mg/kg)	16	17			
	F2 (C10-C16) (mg/kg)	1190	183			
	F3 (C16-C34) (mg/kg)	8250	165			
	F4 (C34-C50) (mg/kg)	4430	<50			
	Total Hydrocarbons (C6-C50) (mg/kg)	13900	365			
	Chrom. to baseline at nC50 (ppm)	YES	YES			
	Surrogate: 2-Bromobenzotrifluoride (%)	81.8	87.1			

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
BTXS-HS-MS-CL	Soil	BTEX, Styrene	EPA 8260C/5021A
This analysis involves the extraction of a subsample of the sediment/soil with methanol. Aliquots of the methanol extract are then added to water and reagents, then heated in a sealed vial to equilibrium. The headspace from the vial is transferred into a gas chromatograph. Target compound concentrations are measured using mass spectrometry detection.			
F1-4-CALC-CL	Soil	CCME Total Hydrocarbons	CCME CWS-PHC, Pub #1310, Dec 2001
Analytical methods used for analysis of CCME Petroleum Hydrocarbons have been validated and comply with the Reference Method for the CWS PHC.			
Hydrocarbon results are expressed on a dry weight basis.			
In cases where results for both F4 and F4G are reported, the greater of the two results must be used in any application of the CWS PHC guidelines and the gravimetric heavy hydrocarbons cannot be added to the C6 to C50 hydrocarbons.			
In samples where BTEX and F1 were analyzed, F1-BTEX represents a value where the sum of Benzene, Toluene, Ethylbenzene and total Xylenes has been subtracted from F1.			
In samples where PAHs, F2 and F3 were analyzed, F2-Naphth represents the result where Naphthalene has been subtracted from F2. F3-PAH represents a result where the sum of Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Dibenzo(a,h)anthracene, Fluoranthene, Indeno(1,2,3-cd)pyrene, Phenanthrene, and Pyrene has been subtracted from F3.			
Unless otherwise qualified, the following quality control criteria have been met for the F1 hydrocarbon range:			
1. All extraction and analysis holding times were met.			
2. Instrument performance showing response factors for C6 and C10 within 30% of the response factor for toluene.			
3. Linearity of gasoline response within 15% throughout the calibration range.			
Unless otherwise qualified, the following quality control criteria have been met for the F2-F4 hydrocarbon ranges:			
1. All extraction and analysis holding times were met.			
2. Instrument performance showing C10, C16 and C34 response factors within 10% of their average.			
3. Instrument performance showing the C50 response factor within 30% of the average of the C10, C16 and C34 response factors.			
4. Linearity of diesel or motor oil response within 15% throughout the calibration range.			
F1-HS-FID-CL	Soil	F1(C6-C10)	CWS PHC Tier 1
This analysis involves the extraction of a subsample of the sediment/soil with methanol. Aliquots of the methanol extract are then added to water and reagents, then heated in a sealed vial to equilibrium. The headspace from the vial is transferred into a gas chromatograph. The F1 fraction concentration is measured using flame ionization detection, in accordance with the Canada Wide Standard for Petroleum Hydrocarbons in Soil - Tier 1 Method (2001).			
F2-4-TMB-H/A-FID-CL	Soil	CCME F2-4 Hydrocarbons	CCME CWS-PHC, Pub #1310, Dec 2001
This analysis is carried out in accordance with the "Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil - Tier 1 Method, Canadian Council of Ministers of the Environment, December 2001." For C10 to C50 hydrocarbons (F2, F3, F4) and gravimetric heavy hydrocarbons (F4G-sg), a subsample of the sediment/soil is extracted with 1:1 hexane:acetone using a rotary extractor. The extract undergoes a silica-gel clean-up to remove polar compounds. F2, F3 & F4 are analyzed by on-column GC/FID, and F4G-sg is analyzed gravimetrically.			
Notes:			
1. F2 (C10-C16): Sum of all hydrocarbons that elute between nC10 and nC16.			
2. F3 (C16-C34): Sum of all hydrocarbons that elute between nC16 and nC34.			
3. F4 (C34-C50): Sum of all hydrocarbons that elute between nC34 and nC50.			
4. F4G: Gravimetric Heavy Hydrocarbons			
5. F4G-sg: Gravimetric Heavy Hydrocarbons (F4G) after silica gel treatment.			
6. Where F4 (C34-C50) and F4G-sg results are reported for a sample, the larger of the reported values is used for comparison against the relevant CCME standard for F4.			
7. The gravimetric heavy hydrocarbon results (F4G-sg), cannot be added to the C6 to C50 hydrocarbon results.			
8. This method is validated for use.			
9. Data from analysis of quality control samples is available upon request.			
10. Reported results are expressed as milligrams per dry kilogram.			
MOISTURE-CL	Soil	% Moisture	CWS for PHC in Soil - Tier 1
This analysis is carried out gravimetrically by drying the sample at 105 C			
XYLENES-SUM-CALC-CL	Soil	Sum of Xylene Isomer Concentrations	CALCULATED RESULT
Total xylenes represents the sum of o-xylene and m&p-xylene.			

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
CL	ALS ENVIRONMENTAL - CALGARY, ALBERTA, CANADA

Reference Information

Chain of Custody Numbers:

14-20170820

GLOSSARY OF REPORT TERMS

Surrogate - A compound that is similar in behaviour to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

mg/kg - milligrams per kilogram based on dry weight of sample.

mg/kg ww - milligrams per kilogram based on wet weight of sample.

mg/kg lw - milligrams per kilogram based on lipid-adjusted weight of sample.

mg/L - milligrams per litre.

< - Less than.

D.L. - The reported Detection Limit, also known as the Limit of Reporting (LOR).

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

Quality Control Report

Workorder: L1980274

Report Date: 27-AUG-17

Page 1 of 3

Client: Cash Clients
DXB Projects

Contact: Henry Wong

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
BTXS-HS-MS-CL		Soil						
Batch	R3812574							
WG2601724-2	LCS							
Benzene			84.7		%		70-130	26-AUG-17
Ethylbenzene			87.9		%		70-130	26-AUG-17
Toluene			82.5		%		70-130	26-AUG-17
o-Xylene			92.5		%		70-130	26-AUG-17
m+p-Xylene			91.1		%		70-130	26-AUG-17
WG2601724-1	MB							
Benzene			<0.0050		mg/kg		0.005	26-AUG-17
Ethylbenzene			<0.015		mg/kg		0.015	26-AUG-17
Toluene			<0.050		mg/kg		0.05	26-AUG-17
o-Xylene			<0.050		mg/kg		0.05	26-AUG-17
m+p-Xylene			<0.050		mg/kg		0.05	26-AUG-17
Surrogate: 1,4-Difluorobenzene			71.0		%		70-130	26-AUG-17
Surrogate: 4-Bromofluorobenzene			82.1		%		70-130	26-AUG-17
F1-HS-FID-CL		Soil						
Batch	R3812586							
WG2601724-2	LCS							
F1(C6-C10)			115.0		%		70-130	26-AUG-17
WG2601724-1	MB							
F1(C6-C10)			<10		mg/kg		10	26-AUG-17
Surrogate: 3,4-Dichlorotoluene			90.0		%		70-130	26-AUG-17
F2-4-TMB-H/A-FID-CL		Soil						
Batch	R3810989							
WG2601721-3	IRM	ALS PHC2 RM						
F2: (C10-C16)			86.2		%		70-130	27-AUG-17
F3: (C16-C34)			86.0		%		70-130	27-AUG-17
F4: (C34-C50)			85.1		%		70-130	27-AUG-17
WG2601721-2	LCS							
F2: (C10-C16)			107.9		%		70-130	27-AUG-17
F3: (C16-C34)			104.5		%		70-130	27-AUG-17
F4: (C34-C50)			106.0		%		70-130	27-AUG-17
WG2601721-1	MB							
F2: (C10-C16)			<25		mg/kg		25	27-AUG-17
F3: (C16-C34)			<50		mg/kg		50	27-AUG-17
F4: (C34-C50)			<50		mg/kg		50	27-AUG-17
Surrogate: 2-Bromobenzotrifluoride			90.9		%		70-130	27-AUG-17



Quality Control Report

Workorder: L1980274 Report Date: 27-AUG-17 Page 2 of 3

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MOISTURE-CL	Soil							
Batch	R3812432							
WG2601723-2	LCS							
Moisture			104.9		%		90-110	26-AUG-17
WG2601723-1	MB							
Moisture			<0.25		%		0.25	26-AUG-17

Quality Control Report

Workorder: L1980274

Report Date: 27-AUG-17

Page 3 of 3

Legend:

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

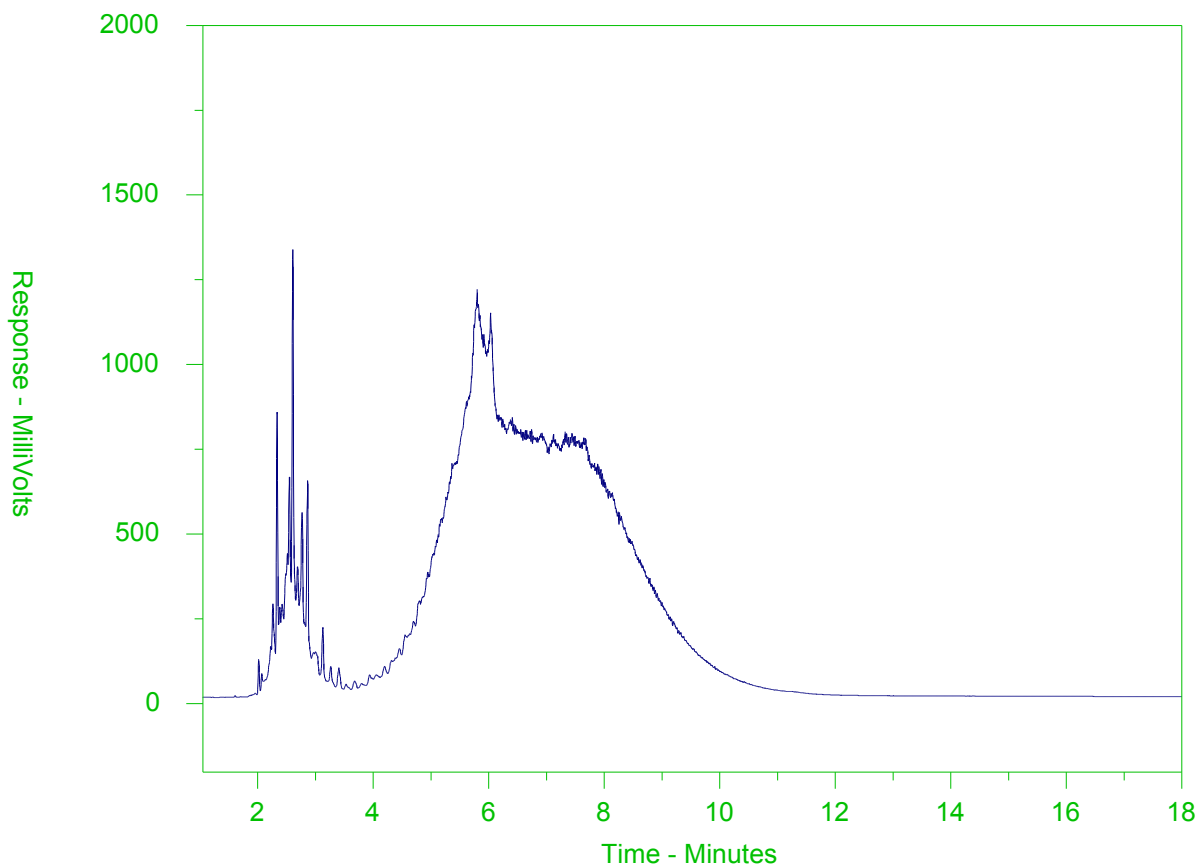
The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT



ALS Sample ID: L1980274-1
Client Sample ID: A7-5-9



The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

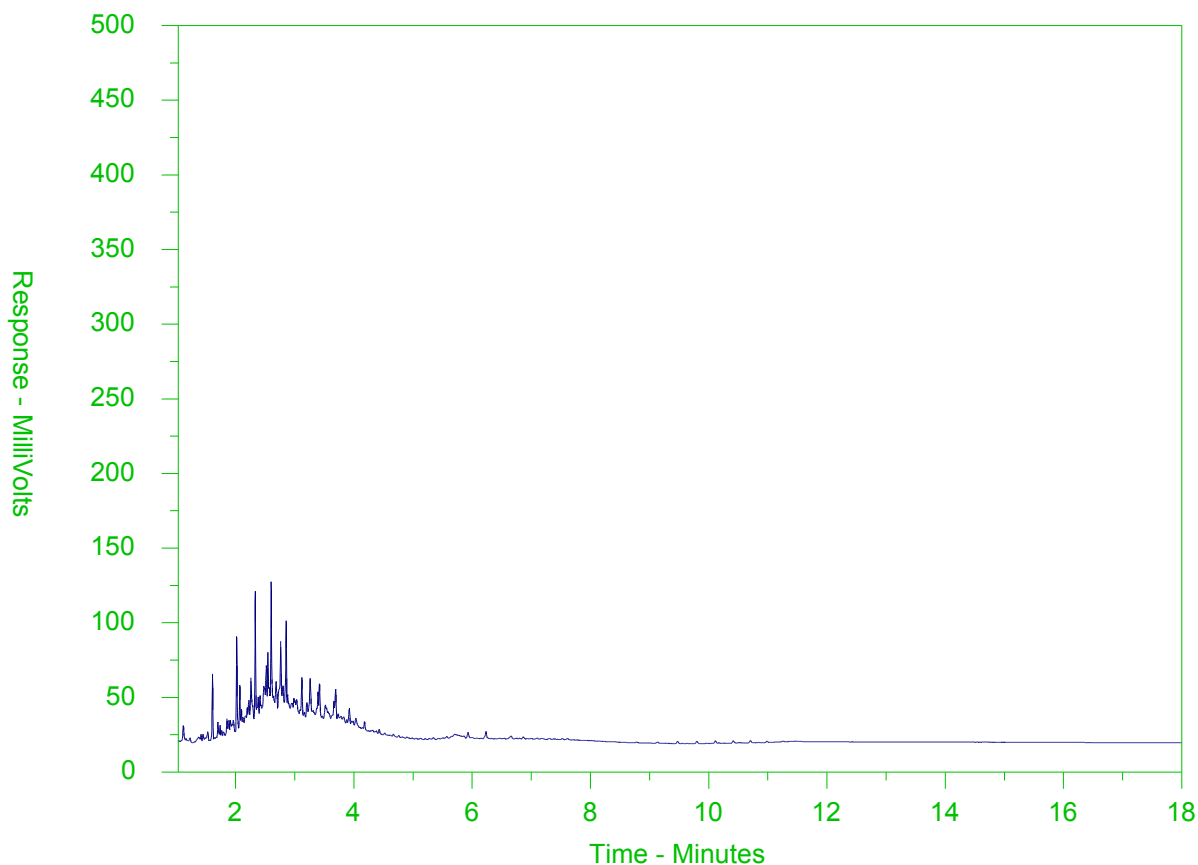
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT



ALS Sample ID: L1980274-2
 Client Sample ID: A7-5-11



← F2 →		← F3 →		← F4 →	
nC10	nC16		nC34		nC50
174°C	287°C		481°C		575°C
346°F	549°F		898°F		1067°F
← Gasoline →			← Motor Oils/ Lube Oils/ Grease →		
← Diesel/ Jet Fuels →					

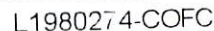
The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.

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Page 1 of 1

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

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14A-FM-0326e v09 Front04 January 201

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample ID Description Sampled Date Sampled Time Client ID		L1976499-1 SOIL 16-AUG-17 12:00 A1C-S7	L1976499-2 SOIL 16-AUG-17 12:00 A13-S9	L1976499-3 SOIL 16-AUG-17 12:00 A13-S12	L1976499-4 SOIL 16-AUG-17 12:00 A15-S1	L1976499-5 SOIL 16-AUG-17 12:00 A15-S2
Grouping	Analyte					
SOIL						
Physical Tests	% Moisture (%)	3.67	5.97	9.15	3.41	9.21
Volatile Organic Compounds	Benzene (mg/kg)	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
	Ethylbenzene (mg/kg)	<0.015	<0.015	<0.015	<0.015	<0.015
	Toluene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050
	o-Xylene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050
	m+p-Xylene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050
	Xylenes (mg/kg)	<0.10	<0.10	<0.10	<0.10	<0.10
	Surrogate: 4-Bromofluorobenzene (SS) (%)	83.5	79.3	90.4	92.6	104.3
	Surrogate: 3,4-Dichlorotoluene (SS) (%)	94.9	87.0	72.3	84.5	N/A
	Surrogate: 1,4-Difluorobenzene (SS) (%)	86.7	84.2	86.7	86.8	81.7
Hydrocarbons	F1 (C6-C10) (mg/kg)	<10	<10	<10	<10	199
	F1-BTEX (mg/kg)	<10	<10	<10	<10	199
	F2 (C10-C16) (mg/kg)	190	61	<20	31	3770
	F3 (C16-C34) (mg/kg)	601	2910	111	30	1150
	F4 (C34-C50) (mg/kg)	<20	298	82	<20	<20
	Total Hydrocarbons (C6-C50) (mg/kg)	791	3270	193	61	5120
	Chrom. to baseline at nC50	YES	YES	YES	YES	YES
	Surrogate: 2-Bromobenzotrifluoride (%)	79.2	85.9	90.9	86.1	not reportable

* Please refer to the Reference Information section for an explanation of any qualifiers detected.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample ID Description Sampled Date Sampled Time Client ID		L1976499-6 SOIL 16-AUG-17 12:00 A15-S3	L1976499-7 SOIL 16-AUG-17 12:00 A15-S4	L1976499-8 SOIL 16-AUG-17 12:00 HWT A-2	L1976499-9 SOIL 16-AUG-17 12:00 HWT A-3	L1976499-10 SOIL 16-AUG-17 12:00 HWT A-4
Grouping	Analyte					
SOIL						
Physical Tests	% Moisture (%)	7.69	9.06	7.01	5.17	3.75
Volatile Organic Compounds	Benzene (mg/kg)	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
	Ethylbenzene (mg/kg)	<0.015	<0.015	<0.015	<0.015	<0.015
	Toluene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050
	o-Xylene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050
	m+p-Xylene (mg/kg)	<0.050	<0.050	<0.050	<0.050	<0.050
	Xylenes (mg/kg)	<0.10	<0.10	<0.10	<0.10	<0.10
	Surrogate: 4-Bromofluorobenzene (SS) (%)	107.3	112.9	104.9	102.0	103.6
	Surrogate: 3,4-Dichlorotoluene (SS) (%)	105.3	84.7	N/A	76.6	70.1
	Surrogate: 1,4-Difluorobenzene (SS) (%)	89.7	90.2	88.2	91.0	84.6
Hydrocarbons	F1 (C6-C10) (mg/kg)	237	93	<10	<10	10
	F1-BTEX (mg/kg)	237	93	<10	<10	10
	F2 (C10-C16) (mg/kg)	2390	934	48	162	370
	F3 (C16-C34) (mg/kg)	792	423	683	8600	2040
	F4 (C34-C50) (mg/kg)	<20	25	153	773	187
	Total Hydrocarbons (C6-C50) (mg/kg)	3420	1480	884	9540	2610
	Chrom. to baseline at nC50	YES	YES	YES	YES	YES
	Surrogate: 2-Bromobenzotrifluoride (%)	117.8	97.1	84.3	91.4	90.2

* Please refer to the Reference Information section for an explanation of any qualifiers detected.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample ID Description Sampled Date Sampled Time Client ID		L1976499-11 WATER 16-AUG-17 12:00 WATER TANK				
Grouping	Analyte					
WATER						
Physical Tests	Total Suspended Solids (mg/L)	<3.0				
Bacteriological Tests	MPN-Fecal Coliform (MPN/100mL)	<10 ^{DLA}				
Aggregate Organics	Biochemical Oxygen Demand (mg/L)	<2.0				
	Oil and Grease (mg/L)	<5.0				

* Please refer to the Reference Information section for an explanation of any qualifiers detected.

Reference Information

Qualifiers for Individual Samples Listed:

Sample Number	Client Sample ID	Qualifier	Description
L1976499-1	A1C-S7	VOCC	Soil jar was submitted as VOC sample container. VOC results may be biased low, and do not meet federal (CCME) or provincial requirements (for BC, AB-Tier1, MB, ON, SK).
L1976499-10	HWT-A-4	VOCC	Soil jar was submitted as VOC sample container. VOC results may be biased low, and do not meet federal (CCME) or provincial requirements (for BC, AB-Tier1, MB, ON, SK).
L1976499-11	WATER TANK	USC	Unknown Sample Container. Sample received in container not provided by ALS. Container type appears to be appropriate, but ALS cannot verify its cleanliness or overall suitability for this test.
L1976499-2	A13-S9	VOCC	Soil jar was submitted as VOC sample container. VOC results may be biased low, and do not meet federal (CCME) or provincial requirements (for BC, AB-Tier1, MB, ON, SK).
L1976499-3	A13-S12	VOCC	Soil jar was submitted as VOC sample container. VOC results may be biased low, and do not meet federal (CCME) or provincial requirements (for BC, AB-Tier1, MB, ON, SK).
L1976499-4	A15-S1	VOCC	Soil jar was submitted as VOC sample container. VOC results may be biased low, and do not meet federal (CCME) or provincial requirements (for BC, AB-Tier1, MB, ON, SK).
L1976499-5	A15-S2	VOCC	Soil jar was submitted as VOC sample container. VOC results may be biased low, and do not meet federal (CCME) or provincial requirements (for BC, AB-Tier1, MB, ON, SK).
L1976499-6	A15-S3	VOCC	Soil jar was submitted as VOC sample container. VOC results may be biased low, and do not meet federal (CCME) or provincial requirements (for BC, AB-Tier1, MB, ON, SK).
L1976499-7	A15-S4	VOCC	Soil jar was submitted as VOC sample container. VOC results may be biased low, and do not meet federal (CCME) or provincial requirements (for BC, AB-Tier1, MB, ON, SK).
L1976499-8	HWT-A-2	VOCC	Soil jar was submitted as VOC sample container. VOC results may be biased low, and do not meet federal (CCME) or provincial requirements (for BC, AB-Tier1, MB, ON, SK).
L1976499-9	HWT-A-3	VOCC	Soil jar was submitted as VOC sample container. VOC results may be biased low, and do not meet federal (CCME) or provincial requirements (for BC, AB-Tier1, MB, ON, SK).

Qualifiers for Individual Parameters Listed:

Qualifier	Description
DLA	Detection Limit adjusted for required dilution
DLHC	Detection Limit Raised: Dilution required due to high concentration of test analyte(s).
SMI	Surrogate recovery could not be measured due to sample matrix interference.
SOL:MI	Surrogate recovery outside acceptable limits due to matrix interference

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
BOD5-TG	Water	Biochemical Oxygen Demand- 5 day (TAIGA)	SM5210B
BTX,F1-ED	Soil	BTEX and F1 (C6-C10)	CCME CWS-PHC, Pub #1310, Dec 2001
The soil methanol extract is added to water and reagents, then heated in a sealed vial to equilibrium. The headspace from the vial is transferred into a gas chromatograph. Target compound concentrations are measured using mass spectrometry detection.			
ETL-TVH,TEH-CCME-ED	Soil	CCME Total Hydrocarbons	CCME CWS-PHC, Pub #1310, Dec 2001
Analytical methods used for analysis of CCME Petroleum Hydrocarbons have been validated and comply with the Reference Method for the CWS PHC.			

Hydrocarbon results are expressed on a dry weight basis.

In cases where results for both F4 and F4G are reported, the greater of the two results must be used in any application of the CWS PHC guidelines and the gravimetric heavy hydrocarbons cannot be added to the C6 to C50 hydrocarbons.

In samples where BTEX and F1 were analyzed, F1-BTEX represents a value where the sum of Benzene, Toluene, Ethylbenzene and total Xylenes has been subtracted from F1.

In samples where PAHs, F2 and F3 were analyzed, F2-Naphth represents the result where Naphthalene has been subtracted from F2. F3-PAH represents a result where the sum of Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Dibenzo(a,h)anthracene, Fluoranthene, Indeno(1,2,3-cd)pyrene, Phenanthrene, and Pyrene has been subtracted from F3.

Unless otherwise qualified, the following quality control criteria have been met for the F1 hydrocarbon range:

1. All extraction and analysis holding times were met.
2. Instrument performance showing response factors for C6 and C10 within 30% of the response factor for toluene.
3. Linearity of gasoline response within 15% throughout the calibration range.

Unless otherwise qualified, the following quality control criteria have been met for the F2-F4 hydrocarbon ranges:

1. All extraction and analysis holding times were met.
2. Instrument performance showing C10, C16 and C34 response factors within 10% of their average.
3. Instrument performance showing the C50 response factor within 30% of the average of the C10, C16 and C34 response factors.
4. Linearity of diesel or motor oil response within 15% throughout the calibration range.

F2-4-TMB-ED	Soil	CCME Total Extractable Hydrocarbons	CCME CWS-PHC, Pub #1310, Dec 2001
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Reference Information

This analysis is carried out in accordance with the "Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil - Tier 1 Method, Canadian Council of Ministers of the Environment" For C10 to C50 hydrocarbons (F2, F3, F4) and gravimetric heavy hydrocarbons (F4G-sg), a subsample of the sediment/soil is extracted with 1:1 hexane:acetone using a rotary extractor. The extract undergoes a silica-gel clean-up to remove polar compounds. F2, F3 & F4 are analyzed by on-column GC/FID, and F4G-sg is analyzed gravimetrically.

Notes:

1. F2 (C10-C16): Sum of all hydrocarbons that elute between nC10 and nC16.
2. F3 (C16-C34): Sum of all hydrocarbons that elute between nC16 and nC34.
3. F4 (C34-C50): Sum of all hydrocarbons that elute between nC34 and nC50.
4. F4G: Gravimetric Heavy Hydrocarbons
5. F4G-sg: Gravimetric Heavy Hydrocarbons (F4G) after silica gel treatment.
6. Where F4 (C34-C50) and F4G-sg results are reported for a sample, the larger of the reported values is used for comparison against the relevant CCME standard for F4.
7. The gravimetric heavy hydrocarbon results (F4G-sg), cannot be added to the C6 to C50 hydrocarbon results.
8. This method is validated for use.
9. Data from analysis of quality control samples is available upon request.
10. Reported results are expressed as milligrams per dry kilogram.

FCOLI-MPN-YL Water Thermotolerant (Fecal) Coliforms APHA 9223B, 2004 Enzyme Substrate Method

Analysis is carried out using procedures adapted from APHA 9223 "Enzyme Substrate Coliform Test". Fecal Coliform (Thermotolerant) bacteria are determined by mixing sample with a mixture of hydrolyzable substrates and then sealing in a multi-well packet. The packet is incubated for 18-24 hours and the number of wells exhibiting a positive response are counted. The final result is obtained by comparing the positive responses to a probability table.

OGG-CL Water Oil and Grease-Gravimetric EPA 1664 Rev. B

This technique employs a hexane extraction of a water material, followed by filtration of the decanted solvent into an evaporation container. The solvent is evaporated in a pre-weighed dish, and the oil content is calculated from the weight of oil and grease recovered

PREP-MOISTURE-ED Soil % Moisture Oven dry 105C-Gravimetric

The weighed portion of soil is placed in a 105°C oven to dry to a constant weight; the drying time will vary based on the moisture content of the soil. The dried soil weight is then used to calculate % moisture.

Reference: ASTM D2974-00.

SOLIDS-TOTSUS-ED Water Total Suspended Solids APHA 2540 D-Gravimetric

Gravimetric determination of solids in waters by filtration and drying filter at 104 degrees Celsius.

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
ED	ALS ENVIRONMENTAL - EDMONTON, ALBERTA, CANADA
TG	TAIGA ENVIRONMENTAL LABORATORY (INAC)
YL	ALS ENVIRONMENTAL - YELLOWKNIFE, NORTHWEST TERRITORIES CANADA
CL	ALS ENVIRONMENTAL - CALGARY, ALBERTA, CANADA

Chain of Custody Numbers:

14-20170816

GLOSSARY OF REPORT TERMS

Surrogate - A compound that is similar in behaviour to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

mg/kg - milligrams per kilogram based on dry weight of sample.

mg/kg wwt - milligrams per kilogram based on wet weight of sample.

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight of sample.

mg/L - milligrams per litre.

< - Less than.

D.L. - The reported Detection Limit, also known as the Limit of Reporting (LOR).

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

Quality Control Report

Workorder: L1976499

Report Date: 24-AUG-17

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Client: Cash Clients
DXB Projects
Toronto ON
Contact: Henry Wong

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
FCOLI-MPN-YL Water								
Batch	R3803630							
WG2596034-2 DUP		L1976499-11						
MPN-Fecal Coliform		<10	<10	RPD-NA	MPN/100mL	N/A	65	17-AUG-17
WG2596034-1 MB								
MPN-Fecal Coliform			<1		MPN/100mL		1	17-AUG-17
OGG-CL Water								
Batch	R3808016							
WG2598558-2 LCS								
Oil and Grease			94.0		%		70-130	23-AUG-17
WG2598558-1 MB								
Oil and Grease			<5.0		mg/L		5	23-AUG-17
SOLIDS-TOTSUS-ED Water								
Batch	R3805943							
WG2597212-2 LCS								
Total Suspended Solids			93.4		%		85-115	21-AUG-17
WG2597212-1 MB								
Total Suspended Solids			<3.0		mg/L		3	21-AUG-17
BTX,F1-ED Soil								
Batch	R3804159							
WG2595912-4 DUP		L1976499-1						
Benzene		<0.0050	<0.0050	RPD-NA	mg/kg	N/A	40	21-AUG-17
Toluene		<0.050	<0.050	RPD-NA	mg/kg	N/A	40	21-AUG-17
Ethylbenzene		<0.015	<0.015	RPD-NA	mg/kg	N/A	40	21-AUG-17
m+p-Xylene		<0.050	<0.050	RPD-NA	mg/kg	N/A	40	21-AUG-17
o-Xylene		<0.050	<0.050	RPD-NA	mg/kg	N/A	40	21-AUG-17
F1(C6-C10)		<10	<10	RPD-NA	mg/kg	N/A	40	21-AUG-17
WG2595912-2 LCS								
Benzene			80.4		%		70-130	21-AUG-17
Toluene			76.8		%		70-130	21-AUG-17
Ethylbenzene			76.8		%		70-130	21-AUG-17
m+p-Xylene			81.0		%		70-130	21-AUG-17
o-Xylene			78.6		%		70-130	21-AUG-17
WG2595912-3 LCS								
F1(C6-C10)			77.9		%		70-130	21-AUG-17
WG2595912-1 MB								
Benzene			<0.0050		mg/kg		0.005	21-AUG-17
Toluene			<0.050		mg/kg		0.05	21-AUG-17
Ethylbenzene			<0.015		mg/kg		0.015	21-AUG-17

Quality Control Report

Workorder: L1976499

Report Date: 24-AUG-17

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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
BTX,F1-ED		Soil						
Batch	R3804159							
WG2595912-1	MB							
m+p-Xylene			<0.050		mg/kg		0.05	21-AUG-17
o-Xylene			<0.050		mg/kg		0.05	21-AUG-17
F1(C6-C10)			<10		mg/kg		10	21-AUG-17
Surrogate: 1,4-Difluorobenzene (SS)			89.2		%		70-130	21-AUG-17
Surrogate: 4-Bromofluorobenzene (SS)			84.6		%		70-130	21-AUG-17
Surrogate: 3,4-Dichlorotoluene (SS)			92.6		%		70-130	21-AUG-17
WG2595912-5	MS	L1976499-3						
Benzene			94.6		%		60-140	21-AUG-17
Toluene			88.9		%		60-140	21-AUG-17
Ethylbenzene			104.7		%		60-140	21-AUG-17
m+p-Xylene			102.8		%		60-140	21-AUG-17
o-Xylene			105.1		%		60-140	21-AUG-17
F2-4-TMB-ED		Soil						
Batch	R3803697							
WG2595523-3	IRM	ALS PHC2 RM						
F2 (C10-C16)			96.5		%		70-130	18-AUG-17
F3 (C16-C34)			100.6		%		70-130	18-AUG-17
F4 (C34-C50)			109.5		%		70-130	18-AUG-17
WG2595523-2	LCS	DIESEL/MOTOR OIL						
F2 (C10-C16)			98.9		%		70-130	18-AUG-17
F3 (C16-C34)			99.3		%		70-130	18-AUG-17
F4 (C34-C50)			100.0		%		70-130	18-AUG-17
WG2595523-1	MB							
F2 (C10-C16)			<20		mg/kg		20	18-AUG-17
F3 (C16-C34)			<20		mg/kg		20	18-AUG-17
F4 (C34-C50)			<20		mg/kg		20	18-AUG-17
Surrogate: 2-Bromobenzotrifluoride			88.7		%		70-130	18-AUG-17
PREP-MOISTURE-ED		Soil						
Batch	R3803784							
WG2596038-2	LCS							
% Moisture			96.6		%		90-110	18-AUG-17
WG2596038-1	MB							
% Moisture			<0.50		%		0.5	18-AUG-17

Quality Control Report

Workorder: L1976499

Report Date: 24-AUG-17

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Legend:

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.



Taiga Environmental Laboratory
4601-52nd Ave., Box 1320, Yellowknife, NT. X1A 2L9
Tel: (867)-767-9235 Fax: (867)-920-8740

Taiga Batch No.:
170759

- FINAL REPORT -

Prepared For: ALS Environmental

Address: 314 Old Airport Road
Unit 116
Yellowknife, NT
X1A 2R1

Attn: Rick Zolkiewski

Facsimile:

Final report has been reviewed and approved by:

Glen Hudy
Quality Assurance Officer

NOTES:

- Test methods and data are validated by the laboratory's Quality Assurance Program. Taiga Environmental Laboratory is accredited by the Canadian Association for Laboratory Accreditation Inc. (CALA) to ISO/IEC 17025 as a testing laboratory for specific tests registered with CALA.
- Routine methods are based on recognized procedures from sources such as
 - Standard Methods for the Examination of Water and Wastewater APHA AWWA WEF;
 - Environment Canada
 - USEPA
- Samples shall be kept for thirty (30) days after the final report is issued. All microbiological samples shall be disposed of immediately upon completion of analysis to minimize biohazardous risks to laboratory personnel. Please contact the laboratory if you have any special requirements.
- Final results are based on the specific tests at the time of analysis and do not represent the conditions during sampling.

ReportDate: Wednesday, August 23, 2017

Print Date: *Wednesday, August 23, 2017*

Page 1 of 3



Taiga Environmental Laboratory
4601-52nd Ave., Box 1320, Yellowknife, NT. X1A 2L9
Tel: (867)-767-9235 Fax: (867)-920-8740

Taiga Batch No.:
170759

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **L1976499-11 WATER TANK**

Taiga Sample ID: **001**

Client Project:

Sample Type: Water

Received Date: 17-Aug-17

Sampling Date: 16-Aug-17

Sampling Time:

Location:

Report Status: Final

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifier
<u>Inorganics - Nutrients</u>						
Biochemical Oxygen Demand	< 2	2	mg/L	17-Aug-17	SM5210:B	

ReportDate: Wednesday, August 23, 2017

Print Date: **Wednesday, August 23, 2017**

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Taiga Environmental Laboratory
4601-52nd Ave., Box 1320, Yellowknife, NT. X1A 2L9
Tel: (867)-767-9235 Fax: (867)-920-8740

Taiga Batch No.:
170759

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **L1976499-11 WATER TANK**

Taiga Sample ID: **001**

*** Taiga analytical methods are based on the following standard analytical methods**

SM - Standard Methods for the Examination of Water and Wastewater

EPA - United States Environmental Protection Agency

Comments **L1976499**

ReportDate: Wednesday, August 23, 2017

Print Date: **Wednesday, August 23, 2017**

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Chain of Custody (COC) / Analytical Request Form

Canada Toll Free: 1 800 666 9878

Affix ALS barcode label here
(lab use only)

COC Number: 14 - 20170816

Page 1 of 1

www.alsglobal.com

Report To		Report Format / Distribution		Select Service Level Below (Rush Turnaround Time (TAT) is not available for all tests)			
Company:	DXB Projects	Select Report Format:	<input type="checkbox"/> PDF <input type="checkbox"/> EXCEL <input type="checkbox"/> DED (DIGITAL)	<input type="checkbox"/> Regular (Standard TAT if received by 3 pm - business days)			
Contact:	Henry Wong	Quality Control (QC) Report with Report	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Priority (2-4 bus. days if received by 3pm) 50% surcharge - contact ALS to confirm TAT			
Address:		Criteria on Report - provide details below if box checked		<input type="checkbox"/> Emergency (1-2 bus. days if received by 3pm) 100% surcharge - contact ALS to confirm TAT			
Phone:	416.575.8064	Select Distribution:	<input type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX	<input type="checkbox"/> Same day or weekend emergency - contact ALS to confirm TAT and surcharge			
		Email 1 or Fax	henry.wong@dxbprojects.ca	Specify Date Required for E2, E or P:			
		Email 2		Analysis Request			
Invoice To	Same as Report To	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Invoice Distribution		Indicate Filtered (F), Preserved (P) or Filtered and Preserved (FP) below		
Copy of Invoice with Report	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Select Invoice Distribution:	<input type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX				
Company:	DXB Projects	Email 1 or Fax	dave.bynski@dxbprojects.ca				
Contact:	Dave Bynski	Email 2	henry.wong@dxbprojects.ca				
Project Information		Oil and Gas Required Fields (client use)					
ALS Quote #:	Q62054	Approver ID:		Cost Center:			
Job #:	Jericho Mine Site Stabilization	GL Account:		Routing Code:			
PO / AFE:	TAB	Activity Code:					
LSD:		Location:					
ALS Lab Work Order # (lab use only)	L1976499	ALS Contact:	Rick Z.	Sampler:	Henry W.		
ALS Sample # (lab use only)		Sample Identification and/or Coordinates (This description will appear on the report)		Date	Time	Sample Type	
1	A1C-S7, outside area W, corner			16-Aug-17	12h00	Soil	1
2	A13-S9, base S, corner			16-Aug-17	12h00	Soil	1
3	A13-S12, base middle S			16-Aug-17	12h00	Soil	1
4	A15-S1, stockpile			16-Aug-17	12h00	Soil	1
5	A15-S2, stockpile			16-Aug-17	12h00	Soil	1
6	A15-S3, Bottom NW			16-Aug-17	12h00	Soil	1
7	A15-S4, Bottom SW			16-Aug-17	12h00	Soil	1
8	HMTA-2, Test hole 2			16-Aug-17	12h00	Soil	1
9	HMTA-3, Test hole 3			16-Aug-17	12h00	Soil	1
10	HMTA-4, Test hole 4			16-Aug-17	12h00	Soil	1
11	Water Tank			16-Aug-17	12h00	Water	4
Drinking Water (DW) Samples¹ (client use)		Special Instructions / Specify Criteria to add on report (client use)					
Are samples taken from a Regulated DW System?							
<input type="checkbox"/> Yes <input type="checkbox"/> No							
Are samples for human drinking water use?							
<input type="checkbox"/> Yes <input type="checkbox"/> No							
SHIPMENT RELEASE (client use)		INITIAL SHIPMENT RECEPTION (lab use only)		FINAL SHIPMENT RECEPTION (lab use only)			
Released by:	Date:	Received by:	Date:	Received by:	Date:	Time:	
Henry Wong	Aug. 16, 2017	[Signature]	Aug 17, 2017	[Signature]			
WHITE - LABORATORY COPY		YELLOW - CLIENT COPY					



L1976499-COFC

Number of Containers

1. If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1977021-1 A7-S-1 Sampled By: HW on 17-AUG-17 @ 12:00 Matrix: soil CCME BTEX, F1 TO F4 BTEX and F1 (C6-C10) Benzene<0.00500.0050mg/kg20-AUG-1721-AUG-17R3804159 Toluene<0.0500.050mg/kg20-AUG-1721-AUG-17R3804159 Ethylbenzene<0.0150.015mg/kg20-AUG-1721-AUG-17R3804159 m+p-Xylene<0.0500.050mg/kg20-AUG-1721-AUG-17R3804159 o-Xylene<0.0500.050mg/kg20-AUG-1721-AUG-17R3804159 Xylenes<0.100.10mg/kg20-AUG-1721-AUG-17R3804159 Surrogate: 1,4-Difluorobenzene (SS)89.370-130%20-AUG-1721-AUG-17R3804159 Surrogate: 4-Bromofluorobenzene (SS)104.970-130%20-AUG-1721-AUG-17R3804159 Surrogate: 3,4-Dichlorotoluene (SS)75.270-130%20-AUG-1721-AUG-17R3804159 CCME Total Extractable Hydrocarbons Surrogate: 2-Bromobenzotrifluoride77.870-130%21-AUG-1721-AUG-17R3804945 Chrom. to baseline at nC50YES21-AUG-1721-AUG-17R3804945 Prep/Analysis Dates21-AUG-1721-AUG-17R3804945 CCME Total Hydrocarbons F1 (C6-C10)<1010mg/kg21-AUG-17 F1-BTEX<1010mg/kg21-AUG-17 F2 (C10-C16)<2020mg/kg21-AUG-17 F3 (C16-C34)12320mg/kg21-AUG-17 F4 (C34-C50)12720mg/kg21-AUG-17 Total Hydrocarbons (C6-C50)25020mg/kg21-AUG-17 Miscellaneous Parameters % Moisture4.300.50%20-AUG-17R3804501							
L1977021-2 A7-S-2 Sampled By: HW on 17-AUG-17 @ 12:00 Matrix: soil CCME BTEX, F1 TO F4 BTEX and F1 (C6-C10) Benzene<0.00500.0050mg/kg20-AUG-1721-AUG-17R3804159 Toluene<0.0500.050mg/kg20-AUG-1721-AUG-17R3804159 Ethylbenzene<0.0150.015mg/kg20-AUG-1721-AUG-17R3804159 m+p-Xylene<0.0500.050mg/kg20-AUG-1721-AUG-17R3804159 o-Xylene<0.0500.050mg/kg20-AUG-1721-AUG-17R3804159 Xylenes<0.100.10mg/kg20-AUG-1721-AUG-17R3804159 Surrogate: 1,4-Difluorobenzene (SS)87.470-130%20-AUG-1721-AUG-17R3804159 Surrogate: 4-Bromofluorobenzene (SS)109.770-130%20-AUG-1721-AUG-17R3804159 Surrogate: 3,4-Dichlorotoluene (SS)108.670-130%20-AUG-1721-AUG-17R3804159 CCME Total Extractable Hydrocarbons Surrogate: 2-Bromobenzotrifluoride102.870-130%21-AUG-1721-AUG-17R3804945 Chrom. to baseline at nC50YES21-AUG-1721-AUG-17R3804945 Prep/Analysis Dates21-AUG-1721-AUG-17R3804945 CCME Total Hydrocarbons F1 (C6-C10)16310mg/kg21-AUG-17 F1-BTEX16310mg/kg21-AUG-17 F2 (C10-C16)246020mg/kg21-AUG-17 F3 (C16-C34)100020mg/kg21-AUG-17 F4 (C34-C50)<2020mg/kg21-AUG-17 Total Hydrocarbons (C6-C50)362020mg/kg21-AUG-17 Miscellaneous Parameters % Moisture5.800.50%20-AUG-17R3804501							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1977021-3 A7-S-3 Sampled By: HW on 17-AUG-17 @ 12:00 Matrix: soil CCME BTEX, F1 TO F4 BTEX and F1 (C6-C10) Benzene<0.00500.0050mg/kg20-AUG-1721-AUG-17R3804159 Toluene<0.0500.050mg/kg20-AUG-1721-AUG-17R3804159 Ethylbenzene<0.0150.015mg/kg20-AUG-1721-AUG-17R3804159 m+p-Xylene<0.0500.050mg/kg20-AUG-1721-AUG-17R3804159 o-Xylene<0.0500.050mg/kg20-AUG-1721-AUG-17R3804159 Xylenes<0.100.10mg/kg20-AUG-1721-AUG-17R3804159 Surrogate: 1,4-Difluorobenzene (SS)102.270-130%20-AUG-1721-AUG-17R3804159 Surrogate: 4-Bromofluorobenzene (SS)125.670-130%20-AUG-1721-AUG-17R3804159 Surrogate: 3,4-Dichlorotoluene (SS)121.770-130%20-AUG-1721-AUG-17R3804159 CCME Total Extractable Hydrocarbons Surrogate: 2-Bromobenzotrifluoride83.570-130%21-AUG-1721-AUG-17R3804945 Chrom. to baseline at nC50YES21-AUG-1721-AUG-17R3804945 Prep/Analysis Dates21-AUG-1721-AUG-17R3804945 CCME Total Hydrocarbons F1 (C6-C10)2010mg/kg21-AUG-17 F1-BTEX2010mg/kg21-AUG-17 F2 (C10-C16)57620mg/kg21-AUG-17 F3 (C16-C34)51720mg/kg21-AUG-17 F4 (C34-C50)<2020mg/kg21-AUG-17 Total Hydrocarbons (C6-C50)111020mg/kg21-AUG-17 Miscellaneous Parameters % Moisture4.490.50%20-AUG-17R3804501							
L1977021-4 A7-S-4 Sampled By: HW on 17-AUG-17 @ 12:00 Matrix: soil CCME BTEX, F1 TO F4 BTEX and F1 (C6-C10) Benzene<0.00500.0050mg/kg20-AUG-1721-AUG-17R3804159 Toluene<0.0500.050mg/kg20-AUG-1721-AUG-17R3804159 Ethylbenzene<0.0150.015mg/kg20-AUG-1721-AUG-17R3804159 m+p-Xylene0.0550.050mg/kg20-AUG-1721-AUG-17R3804159 o-Xylene0.0780.050mg/kg20-AUG-1721-AUG-17R3804159 Xylenes0.130.10mg/kg20-AUG-1721-AUG-17R3804159 Surrogate: 1,4-Difluorobenzene (SS)87.670-130%20-AUG-1721-AUG-17R3804159 Surrogate: 4-Bromofluorobenzene (SS)109.170-130%20-AUG-1721-AUG-17R3804159 Surrogate: 3,4-Dichlorotoluene (SS)107.270-130%20-AUG-1721-AUG-17R3804159 CCME Total Extractable Hydrocarbons Surrogate: 2-Bromobenzotrifluoride102.670-130%21-AUG-1721-AUG-17R3804945 Chrom. to baseline at nC50YES21-AUG-1721-AUG-17R3804945 Prep/Analysis Dates21-AUG-1721-AUG-17R3804945 CCME Total Hydrocarbons F1 (C6-C10)32910mg/kg21-AUG-17 F1-BTEX32910mg/kg21-AUG-17 F2 (C10-C16)332020mg/kg21-AUG-17 F3 (C16-C34)178020mg/kg21-AUG-17 F4 (C34-C50)<2020mg/kg21-AUG-17 Total Hydrocarbons (C6-C50)543020mg/kg21-AUG-17 Miscellaneous Parameters % Moisture4.930.50%20-AUG-17R3804501							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1977021-5	A7-S-5							
Sampled By: HW on 17-AUG-17 @ 12:00								
Matrix: soil								
CCME BTEX, F1 TO F4								
BTEX and F1 (C6-C10)								
Benzene		<0.0050		0.0050	mg/kg	20-AUG-17	21-AUG-17	R3804159
Toluene		<0.050		0.050	mg/kg	20-AUG-17	21-AUG-17	R3804159
Ethylbenzene		<0.015		0.015	mg/kg	20-AUG-17	21-AUG-17	R3804159
m+p-Xylene		<0.050		0.050	mg/kg	20-AUG-17	21-AUG-17	R3804159
o-Xylene		<0.050		0.050	mg/kg	20-AUG-17	21-AUG-17	R3804159
Xylenes		<0.10		0.10	mg/kg	20-AUG-17	21-AUG-17	R3804159
Surrogate: 1,4-Difluorobenzene (SS)		114.0		70-130	%	20-AUG-17	21-AUG-17	R3804159
Surrogate: 4-Bromofluorobenzene (SS)		124.0		70-130	%	20-AUG-17	21-AUG-17	R3804159
Surrogate: 3,4-Dichlorotoluene (SS)		117.0		70-130	%	20-AUG-17	21-AUG-17	R3804159
CCME Total Extractable Hydrocarbons								
Surrogate: 2-Bromobenzotrifluoride		85.7		70-130	%	21-AUG-17	21-AUG-17	R3804945
Chrom. to baseline at nC50		YES				21-AUG-17	21-AUG-17	R3804945
Prep/Analysis Dates						21-AUG-17	21-AUG-17	R3804945
CCME Total Hydrocarbons								
F1 (C6-C10)		<10		10	mg/kg		21-AUG-17	
F1-BTEX		<10		10	mg/kg		21-AUG-17	
F2 (C10-C16)		300		20	mg/kg		21-AUG-17	
F3 (C16-C34)		197		20	mg/kg		21-AUG-17	
F4 (C34-C50)		<20		20	mg/kg		21-AUG-17	
Total Hydrocarbons (C6-C50)		497		20	mg/kg		21-AUG-17	
Miscellaneous Parameters								
% Moisture		5.03		0.50	%		20-AUG-17	R3804501

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

Qualifiers for Individual Samples Listed:

Sample Number	Client ID	Qualifier	Description
L1977021-1	A7-S-1	VOCC	Soil jar was submitted as VOC sample container. VOC results may be biased low, and do not meet federal (CCME) or provincial requirements (for BC, AB-Tier1, MB, ON, SK).
L1977021-2	A7-S-2	VOCC	Soil jar was submitted as VOC sample container. VOC results may be biased low, and do not meet federal (CCME) or provincial requirements (for BC, AB-Tier1, MB, ON, SK).
L1977021-3	A7-S-3	VOCC	Soil jar was submitted as VOC sample container. VOC results may be biased low, and do not meet federal (CCME) or provincial requirements (for BC, AB-Tier1, MB, ON, SK).
L1977021-4	A7-S-4	VOCC	Soil jar was submitted as VOC sample container. VOC results may be biased low, and do not meet federal (CCME) or provincial requirements (for BC, AB-Tier1, MB, ON, SK).
L1977021-5	A7-S-5	VOCC	Soil jar was submitted as VOC sample container. VOC results may be biased low, and do not meet federal (CCME) or provincial requirements (for BC, AB-Tier1, MB, ON, SK).

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
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BTX,F1-ED	Soil	BTEX and F1 (C6-C10)	CCME CWS-PHC, Pub #1310, Dec 2001
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The soil methanol extract is added to water and reagents, then heated in a sealed vial to equilibrium. The headspace from the vial is transferred into a gas chromatograph. Target compound concentrations are measured using mass spectrometry detection.

ETL-TVH,TEH-CCME-ED	Soil	CCME Total Hydrocarbons	CCME CWS-PHC, Pub #1310, Dec 2001
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Analytical methods used for analysis of CCME Petroleum Hydrocarbons have been validated and comply with the Reference Method for the CWS PHC.

Hydrocarbon results are expressed on a dry weight basis.

In cases where results for both F4 and F4G are reported, the greater of the two results must be used in any application of the CWS PHC guidelines and the gravimetric heavy hydrocarbons cannot be added to the C6 to C50 hydrocarbons.

In samples where BTEX and F1 were analyzed, F1-BTEX represents a value where the sum of Benzene, Toluene, Ethylbenzene and total Xylenes has been subtracted from F1.

In samples where PAHs, F2 and F3 were analyzed, F2-Naphth represents the result where Naphthalene has been subtracted from F2. F3-PAH represents a result where the sum of Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Dibenzo(a,h)anthracene, Fluoranthene, Indeno(1,2,3-cd)pyrene, Phenanthrene, and Pyrene has been subtracted from F3.

Unless otherwise qualified, the following quality control criteria have been met for the F1 hydrocarbon range:

1. All extraction and analysis holding times were met.
2. Instrument performance showing response factors for C6 and C10 within 30% of the response factor for toluene.
3. Linearity of gasoline response within 15% throughout the calibration range.

Unless otherwise qualified, the following quality control criteria have been met for the F2-F4 hydrocarbon ranges:

1. All extraction and analysis holding times were met.
2. Instrument performance showing C10, C16 and C34 response factors within 10% of their average.
3. Instrument performance showing the C50 response factor within 30% of the average of the C10, C16 and C34 response factors.
4. Linearity of diesel or motor oil response within 15% throughout the calibration range.

F2-4-TMB-ED	Soil	CCME Total Extractable Hydrocarbons	CCME CWS-PHC, Pub #1310, Dec 2001
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This analysis is carried out in accordance with the "Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil - Tier 1 Method, Canadian Council of Ministers of the Environment" For C10 to C50 hydrocarbons (F2, F3, F4) and gravimetric heavy hydrocarbons (F4G-sg), a subsample of the sediment/soil is extracted with 1:1 hexane:acetone using a rotary extractor. The extract undergoes a silica-gel clean-up to remove polar compounds. F2, F3 & F4 are analyzed by on-column GC/FID, and F4G-sg is analyzed gravimetrically.

Notes:

1. F2 (C10-C16): Sum of all hydrocarbons that elute between nC10 and nC16.
2. F3 (C16-C34): Sum of all hydrocarbons that elute between nC16 and nC34.
3. F4 (C34-C50): Sum of all hydrocarbons that elute between nC34 and nC50.
4. F4G: Gravimetric Heavy Hydrocarbons
5. F4G-sg: Gravimetric Heavy Hydrocarbons (F4G) after silica gel treatment.
6. Where F4 (C34-C50) and F4G-sg results are reported for a sample, the larger of the reported values is used for comparison against the relevant CCME standard for F4.
7. The gravimetric heavy hydrocarbon results (F4G-sg), cannot be added to the C6 to C50 hydrocarbon results.
8. This method is validated for use.
9. Data from analysis of quality control samples is available upon request.
10. Reported results are expressed as milligrams per dry kilogram.

PREP-MOISTURE-ED	Soil	% Moisture	Oven dry 105C-Gravimetric
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Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
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The weighed portion of soil is placed in a 105°C oven to dry to a constant weight; the drying time will vary based on the moisture content of the soil. The dried soil weight is then used to calculate % moisture.

Reference: ASTM D2974-00.

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
ED	ALS ENVIRONMENTAL - EDMONTON, ALBERTA, CANADA

Chain of Custody Numbers:

14-20170816

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

mg/kg - milligrams per kilogram based on dry weight of sample

mg/kg wwt - milligrams per kilogram based on wet weight of sample

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight

mg/L - unit of concentration based on volume, parts per million.

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

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Client: Cash Clients
DXB Projects
Toronto ON

Contact: Henry Wong

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
BTX,F1-ED		Soil						
Batch	R3804159							
WG2596859-4	DUP	L1977021-1						
Benzene		<0.0050	<0.0050	RPD-NA	mg/kg	N/A	40	21-AUG-17
Toluene		<0.050	<0.050	RPD-NA	mg/kg	N/A	40	21-AUG-17
Ethylbenzene		<0.015	<0.015	RPD-NA	mg/kg	N/A	40	21-AUG-17
m+p-Xylene		<0.050	<0.050	RPD-NA	mg/kg	N/A	40	21-AUG-17
o-Xylene		<0.050	<0.050	RPD-NA	mg/kg	N/A	40	21-AUG-17
F1(C6-C10)		<10	<10	RPD-NA	mg/kg	N/A	40	21-AUG-17
WG2596859-2	LCS							
Benzene			79.5		%		70-130	21-AUG-17
Toluene			75.1		%		70-130	21-AUG-17
Ethylbenzene			79.8		%		70-130	21-AUG-17
m+p-Xylene			84.2		%		70-130	21-AUG-17
o-Xylene			81.4		%		70-130	21-AUG-17
WG2596859-3	LCS							
F1(C6-C10)			84.7		%		70-130	21-AUG-17
WG2596859-1	MB							
Benzene			<0.0050		mg/kg		0.005	21-AUG-17
Toluene			<0.050		mg/kg		0.05	21-AUG-17
Ethylbenzene			<0.015		mg/kg		0.015	21-AUG-17
m+p-Xylene			<0.050		mg/kg		0.05	21-AUG-17
o-Xylene			<0.050		mg/kg		0.05	21-AUG-17
F1(C6-C10)			<10		mg/kg		10	21-AUG-17
Surrogate: 1,4-Difluorobenzene (SS)			78.6		%		70-130	21-AUG-17
Surrogate: 4-Bromofluorobenzene (SS)			77.7		%		70-130	21-AUG-17
Surrogate: 3,4-Dichlorotoluene (SS)			92.2		%		70-130	21-AUG-17
F2-4-TMB-ED		Soil						
Batch	R3804945							
WG2596803-3	IRM	ALS PHC2 RM						
F2 (C10-C16)			81.5		%		70-130	20-AUG-17
F3 (C16-C34)			90.6		%		70-130	20-AUG-17
F4 (C34-C50)			99.7		%		70-130	20-AUG-17
WG2596803-2	LCS	DIESEL/MOTOR OIL						
F2 (C10-C16)			97.9		%		70-130	20-AUG-17
F3 (C16-C34)			96.2		%		70-130	20-AUG-17
F4 (C34-C50)			99.1		%		70-130	20-AUG-17
WG2596803-1	MB							

Quality Control Report

Workorder: L1977021

Report Date: 22-AUG-17

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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
F2-4-TMB-ED		Soil						
Batch R3804945								
WG2596803-1 MB								
F2 (C10-C16)			<20		mg/kg		20	20-AUG-17
F3 (C16-C34)			<20		mg/kg		20	20-AUG-17
F4 (C34-C50)			<20		mg/kg		20	20-AUG-17
Surrogate: 2-Bromobenzotrifluoride			84.7		%		70-130	20-AUG-17
PREP-MOISTURE-ED		Soil						
Batch R3804501								
WG2596857-2 LCS								
% Moisture			99.9		%		90-110	20-AUG-17
WG2596857-1 MB								
% Moisture			<0.50		%		0.5	20-AUG-17

Quality Control Report

Workorder: L1977021

Report Date: 22-AUG-17

Page 3 of 3

Legend:

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.



Chain of Custody (COC) / Analytical Request Form

Canada Toll Free: 1 800 668 9878

L1977021-COFC

Page 1 of 1

COC Number: 14 - 20170816

www.alsglobal.com

Report To		Report Format / Distribution		Select Service Level Below (Rush Turnaround Time (TAT) is not available for all tests)	
Company:	DXB Projects	Select Report Format:	<input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> EXCEL <input type="checkbox"/> EDD (DIGITAL)	<input type="checkbox"/> Regular (Standard TAT if received by 3 pm - business days)	
Contact:	Henry Wong	Quality Control (QC) Report with Report	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Priority (2-4 bus. days if received by 3pm) 50% surcharge - contact ALS to confirm TAT	
Address:		Select Distribution:	<input type="checkbox"/> Criteria on Report - provide details below if box checked <input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX	<input type="checkbox"/> Emergency (1-2 bus. days if received by 3pm) 100% surcharge - contact ALS to confirm TAT	
Phone:	416 575 8064	Email 1 or Fax	henry.wong@dxbprojects.ca	<input type="checkbox"/> Same day or weekend emergency - contact ALS to confirm TAT and surcharge	
Invoice To	Same as Report To	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Invoice Distribution		Specify Date Required for E2.E or P.
Copy of Invoice with Report	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Select Invoice Distribution:	<input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX	Analysis Request	
Company:	DXB Projects	Email 1 or Fax	dave.bynski@dxbprojects.ca	Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below	
Contact:	Dave Bynski	Email 2	henry.wong@dxbprojects.ca		
Project Information		Oil and Gas Required Fields (client use)			
ALS Quote #:	062054	Approver ID:			
Job #:	Jericho Mine Site Stabilization	GL Account:			
PO / AFE:	TA8	Activity Code:			
LSD:		Location:			
ALS Lab Work Order # (lab use only)		ALS Contact:	Rick Z.	Sampler:	Henry W.
4977021					
ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mm-yy)	Time (hh:mm)	Sample Type	Number of Containers
A7-S-1		17-Aug-17	12h00	Soil	1
A7-S-2		17-Aug-17	12h00	Soil	1
A7-S-3		17-Aug-17	12h00	Soil	1
A7-S-4		17-Aug-17	12h00	Soil	1
A7-S-5		17-Aug-17	12h00	Soil	1
Drinking Water (DW) Samples¹ (client use)					
Are samples taken from a Regulated DW System?					
<input type="checkbox"/> Yes <input type="checkbox"/> No					
Are samples for human drinking water use?					
<input type="checkbox"/> Yes <input type="checkbox"/> No					
SHIPMENT RELEASE (client use)		INITIAL SHIPMENT RECEPTION (lab use only)			
Released by:	Date:	Time:	Received by:	Date:	Time:
File	17/13/17	13:00	AT	17-Aug-17	4:30
WHITE - LABORATORY COPY YELLOW - CLIENT COPY					
REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION					
Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.					
1. If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.					
WHITE - LABORATORY COPY YELLOW - CLIENT COPY					
SHIPMENT CONDITION AS RECEIVED (lab use only)					
Frozen <input type="checkbox"/> SIF Observations Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>					
Ice packs Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Custody seal intact Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>					
Cooling initiated <input type="checkbox"/>					
INITIAL COOLER TEMPERATURES °C					
FINAL COOLER TEMPERATURES °C					
INITIAL SHIPMENT RECEPTION (lab use only)					
Received by:					
Date:					
Time:					

NAI-MN-02206-02 Printed January 2014



Environmental Division

Sample Integrity Form

Date: 17 AUG 17

Client: DXB Projects

ALS Contact: Rick

COC #: 14-20170816

Phone #: 873-5593

Work Order #: 21977021

Please note the following observations that prevent your samples from being processed.
ALS is attempting to contact you for further instructions.

If our attempts fail, please contact us as soon as possible to ensure your analytical needs are met.

Observation

Details

<input type="checkbox"/>	Temperature < freezing point	actual temp. (breakdown by cooler):
<input checked="" type="checkbox"/>	Temperature ≥ 10 Celsius	actual temp. (breakdown by cooler): <u>11.2°C</u>
<input type="checkbox"/>	Containers broken in transit	details:
<input type="checkbox"/>	Sample integrity compromised	details:
<input type="checkbox"/>	Regulatory non-compliance	details:
<input type="checkbox"/>	No COC with shipment	details:
<input type="checkbox"/>	Discrepancy between COC and label	details:
<input type="checkbox"/>	COC incomplete or unclear	details:
<input type="checkbox"/>	Container incompatible with test	details:
<input type="checkbox"/>	Volume is insufficient for test	details:
<input type="checkbox"/>	Preservation incompatible with test	details:
<input type="checkbox"/>	No preservation	details:
<input type="checkbox"/>	Other observation	details:

Additional Information (list all affected sample portions):

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1974810-1	A8-S20							
Sampled By: HW on 13-AUG-17 @ 17:00								
Matrix: SOIL								
ABT1 BTEX + Styrene, F1 to F4								
BTEX and F1								
Benzene		<0.0050		0.0050	mg/kg	13-AUG-17	17-AUG-17	R3794055
Toluene		<0.050		0.050	mg/kg	13-AUG-17	17-AUG-17	R3794055
Ethylbenzene		<0.010		0.010	mg/kg	13-AUG-17	17-AUG-17	R3794055
m+p-Xylene		<0.050		0.050	mg/kg	13-AUG-17	17-AUG-17	R3794055
o-Xylene		<0.050		0.050	mg/kg	13-AUG-17	17-AUG-17	R3794055
Styrene		<0.050		0.050	mg/kg	13-AUG-17	17-AUG-17	R3794055
Xylenes		<0.10		0.10	mg/kg	13-AUG-17	17-AUG-17	R3794055
Surrogate: 1,4-Difluorobenzene (SS)		86.1		70-130	%	13-AUG-17	17-AUG-17	R3794055
Surrogate: 4-Bromofluorobenzene (SS)		79.9		70-130	%	13-AUG-17	17-AUG-17	R3794055
Surrogate: 3,4-Dichlorotoluene (SS)		86.6		70-130	%	13-AUG-17	17-AUG-17	R3794055
CCME Total Extractable Hydrocarbons								
Surrogate: 2-Bromobenzotrifluoride		80.6		70-130	%	16-AUG-17	16-AUG-17	R3801797
Chrom. to baseline at nC50		YES				16-AUG-17	16-AUG-17	R3801797
Prep/Analysis Dates						16-AUG-17	16-AUG-17	R3801797
CCME Total Hydrocarbons								
F1 (C6-C10)		<10		10	mg/kg		17-AUG-17	
F1-BTEX		<10		10	mg/kg		17-AUG-17	
F2 (C10-C16)		<20		20	mg/kg		17-AUG-17	
F3 (C16-C34)		<20		20	mg/kg		17-AUG-17	
F4 (C34-C50)		<20		20	mg/kg		17-AUG-17	
Miscellaneous Parameters								
% Moisture		8.88		0.50	%		16-AUG-17	R3801553
L1974810-2	A14-S11							
Sampled By: HW on 13-AUG-17 @ 17:00								
Matrix: SOIL								
ABT1 BTEX + Styrene, F1 to F4								
BTEX and F1								
Benzene		<0.0050		0.0050	mg/kg	13-AUG-17	17-AUG-17	R3794055
Toluene		<0.050		0.050	mg/kg	13-AUG-17	17-AUG-17	R3794055
Ethylbenzene		<0.010		0.010	mg/kg	13-AUG-17	17-AUG-17	R3794055
m+p-Xylene		<0.050		0.050	mg/kg	13-AUG-17	17-AUG-17	R3794055
o-Xylene		<0.050		0.050	mg/kg	13-AUG-17	17-AUG-17	R3794055
Styrene		<0.050		0.050	mg/kg	13-AUG-17	17-AUG-17	R3794055
Xylenes		<0.10		0.10	mg/kg	13-AUG-17	17-AUG-17	R3794055
Surrogate: 1,4-Difluorobenzene (SS)		96.1		70-130	%	13-AUG-17	17-AUG-17	R3794055
Surrogate: 4-Bromofluorobenzene (SS)		89.0		70-130	%	13-AUG-17	17-AUG-17	R3794055
Surrogate: 3,4-Dichlorotoluene (SS)		98.5		70-130	%	13-AUG-17	17-AUG-17	R3794055
CCME Total Extractable Hydrocarbons								
Surrogate: 2-Bromobenzotrifluoride		79.7		70-130	%	16-AUG-17	16-AUG-17	R3801797
Chrom. to baseline at nC50		YES				16-AUG-17	16-AUG-17	R3801797
Prep/Analysis Dates						16-AUG-17	16-AUG-17	R3801797
CCME Total Hydrocarbons								
F1 (C6-C10)		<10		10	mg/kg		17-AUG-17	
F1-BTEX		<10		10	mg/kg		17-AUG-17	
F2 (C10-C16)		24		20	mg/kg		17-AUG-17	
F3 (C16-C34)		595		20	mg/kg		17-AUG-17	
F4 (C34-C50)		129		20	mg/kg		17-AUG-17	
Miscellaneous Parameters								
% Moisture		5.29		0.50	%		16-AUG-17	R3801553

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1974810-3	A14-S13							
Sampled By: HW on 13-AUG-17 @ 17:00								
Matrix: SOIL								
ABT1 BTEX + Styrene, F1 to F4								
BTEX and F1								
Benzene		<0.0050		0.0050	mg/kg	13-AUG-17	17-AUG-17	R3794055
Toluene		<0.050		0.050	mg/kg	13-AUG-17	17-AUG-17	R3794055
Ethylbenzene		<0.010		0.010	mg/kg	13-AUG-17	17-AUG-17	R3794055
m+p-Xylene		<0.050		0.050	mg/kg	13-AUG-17	17-AUG-17	R3794055
o-Xylene		<0.050		0.050	mg/kg	13-AUG-17	17-AUG-17	R3794055
Styrene		<0.050		0.050	mg/kg	13-AUG-17	17-AUG-17	R3794055
Xylenes		<0.10		0.10	mg/kg	13-AUG-17	17-AUG-17	R3794055
Surrogate: 1,4-Difluorobenzene (SS)		96.9		70-130	%	13-AUG-17	17-AUG-17	R3794055
Surrogate: 4-Bromofluorobenzene (SS)		89.6		70-130	%	13-AUG-17	17-AUG-17	R3794055
Surrogate: 3,4-Dichlorotoluene (SS)		70.0		70-130	%	13-AUG-17	17-AUG-17	R3794055
CCME Total Extractable Hydrocarbons								
Surrogate: 2-Bromobenzotrifluoride		85.5		70-130	%	16-AUG-17	16-AUG-17	R3801797
Chrom. to baseline at nC50		YES				16-AUG-17	16-AUG-17	R3801797
Prep/Analysis Dates						16-AUG-17	16-AUG-17	R3801797
CCME Total Hydrocarbons								
F1 (C6-C10)		<10		10	mg/kg		17-AUG-17	
F1-BTEX		<10		10	mg/kg		17-AUG-17	
F2 (C10-C16)		127		20	mg/kg		17-AUG-17	
F3 (C16-C34)		3540		20	mg/kg		17-AUG-17	
F4 (C34-C50)		833		20	mg/kg		17-AUG-17	
Miscellaneous Parameters								
% Moisture		10.0		0.50	%		16-AUG-17	R3801553
L1974810-4	A14-S15							
Sampled By: HW on 13-AUG-17 @ 17:00								
Matrix: SOIL								
ABT1 BTEX + Styrene, F1 to F4								
BTEX and F1								
Benzene		<0.0050		0.0050	mg/kg	13-AUG-17	17-AUG-17	R3794055
Toluene		<0.050		0.050	mg/kg	13-AUG-17	17-AUG-17	R3794055
Ethylbenzene		<0.010		0.010	mg/kg	13-AUG-17	17-AUG-17	R3794055
m+p-Xylene		<0.050		0.050	mg/kg	13-AUG-17	17-AUG-17	R3794055
o-Xylene		<0.050		0.050	mg/kg	13-AUG-17	17-AUG-17	R3794055
Styrene		<0.050		0.050	mg/kg	13-AUG-17	17-AUG-17	R3794055
Xylenes		<0.10		0.10	mg/kg	13-AUG-17	17-AUG-17	R3794055
Surrogate: 1,4-Difluorobenzene (SS)		103.8		70-130	%	13-AUG-17	17-AUG-17	R3794055
Surrogate: 4-Bromofluorobenzene (SS)		114.9		70-130	%	13-AUG-17	17-AUG-17	R3794055
Surrogate: 3,4-Dichlorotoluene (SS)		72.4		70-130	%	13-AUG-17	17-AUG-17	R3794055
CCME Total Extractable Hydrocarbons								
Surrogate: 2-Bromobenzotrifluoride		78.2		70-130	%	16-AUG-17	16-AUG-17	R3801797
Chrom. to baseline at nC50		YES				16-AUG-17	16-AUG-17	R3801797
Prep/Analysis Dates						16-AUG-17	16-AUG-17	R3801797
CCME Total Hydrocarbons								
F1 (C6-C10)		<10		10	mg/kg		17-AUG-17	
F1-BTEX		<10		10	mg/kg		17-AUG-17	
F2 (C10-C16)		129		20	mg/kg		17-AUG-17	
F3 (C16-C34)		2110		20	mg/kg		17-AUG-17	
F4 (C34-C50)		454		20	mg/kg		17-AUG-17	
Miscellaneous Parameters								
% Moisture		4.13		0.50	%		16-AUG-17	R3801553

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1974810-5	A14-S18							
Sampled By: HW on 13-AUG-17 @ 17:00								
Matrix: SOIL								
ABT1 BTEX + Styrene, F1 to F4								
BTEX and F1								
Benzene		<0.0050		0.0050	mg/kg	13-AUG-17	17-AUG-17	R3794055
Toluene		<0.050		0.050	mg/kg	13-AUG-17	17-AUG-17	R3794055
Ethylbenzene		<0.010		0.010	mg/kg	13-AUG-17	17-AUG-17	R3794055
m+p-Xylene		<0.050		0.050	mg/kg	13-AUG-17	17-AUG-17	R3794055
o-Xylene		<0.050		0.050	mg/kg	13-AUG-17	17-AUG-17	R3794055
Styrene		<0.050		0.050	mg/kg	13-AUG-17	17-AUG-17	R3794055
Xylenes		<0.10		0.10	mg/kg	13-AUG-17	17-AUG-17	R3794055
Surrogate: 1,4-Difluorobenzene (SS)		92.0		70-130	%	13-AUG-17	17-AUG-17	R3794055
Surrogate: 4-Bromofluorobenzene (SS)		96.2		70-130	%	13-AUG-17	17-AUG-17	R3794055
Surrogate: 3,4-Dichlorotoluene (SS)		76.9		70-130	%	13-AUG-17	17-AUG-17	R3794055
CCME Total Extractable Hydrocarbons								
Surrogate: 2-Bromobenzotrifluoride		82.7		70-130	%	16-AUG-17	16-AUG-17	R3801797
Chrom. to baseline at nC50		YES				16-AUG-17	16-AUG-17	R3801797
Prep/Analysis Dates						16-AUG-17	16-AUG-17	R3801797
CCME Total Hydrocarbons								
F1 (C6-C10)		<10		10	mg/kg		17-AUG-17	
F1-BTEX		<10		10	mg/kg		17-AUG-17	
F2 (C10-C16)		<20		20	mg/kg		17-AUG-17	
F3 (C16-C34)		314		20	mg/kg		17-AUG-17	
F4 (C34-C50)		74		20	mg/kg		17-AUG-17	
Miscellaneous Parameters								
% Moisture		6.67		0.50	%		16-AUG-17	R3801553

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

Qualifiers for Individual Samples Listed:

Sample Number	Client ID	Qualifier	Description
L1974810-1	A8-S20	VOCC	Soil jar was submitted as VOC sample container. VOC results may be biased low, and do not meet federal (CCME) or provincial requirements (for BC, AB-Tier1, MB, ON, SK).
L1974810-2	A14-S11	VOCC	Soil jar was submitted as VOC sample container. VOC results may be biased low, and do not meet federal (CCME) or provincial requirements (for BC, AB-Tier1, MB, ON, SK).
L1974810-3	A14-S13	VOCC	Soil jar was submitted as VOC sample container. VOC results may be biased low, and do not meet federal (CCME) or provincial requirements (for BC, AB-Tier1, MB, ON, SK).
L1974810-4	A14-S15	VOCC	Soil jar was submitted as VOC sample container. VOC results may be biased low, and do not meet federal (CCME) or provincial requirements (for BC, AB-Tier1, MB, ON, SK).
L1974810-5	A14-S18	VOCC	Soil jar was submitted as VOC sample container. VOC results may be biased low, and do not meet federal (CCME) or provincial requirements (for BC, AB-Tier1, MB, ON, SK).

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
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BTXS,F1-MEOH-ED	Soil	BTEX and F1	EPA 8260C/5021A and CWS PHC Tier 1
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This analysis involves the extraction of a subsample of the sediment/soil with methanol added in the field at the time of subsampling. The soil methanol extract is added to water and reagents, then heated in a sealed vial to equilibrium. The headspace from the vial is transferred into a gas chromatograph. BTX Target compound concentrations are measured using mass spectrometry detection. The instrumental portion of F1 analysis is carried out in accordance with the Canada Wide Standard for Petroleum Hydrocarbons in Soil - Tier 1 Method (2001).

F1-4-CALC-ED	Soil	CCME Total Hydrocarbons	CCME CWS-PHC, Pub #1310, Dec 2001
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Analytical methods used for analysis of CCME Petroleum Hydrocarbons have been validated and comply with the Reference Method for the CWS PHC.

Hydrocarbon results are expressed on a dry weight basis.

In cases where results for both F4 and F4G are reported, the greater of the two results must be used in any application of the CWS PHC guidelines and the gravimetric heavy hydrocarbons cannot be added to the C6 to C50 hydrocarbons.

In samples where BTEX and F1 were analyzed, F1-BTEX represents a value where the sum of Benzene, Toluene, Ethylbenzene and total Xylenes has been subtracted from F1.

In samples where PAHs, F2 and F3 were analyzed, F2-Naphth represents the result where Naphthalene has been subtracted from F2. F3-PAH represents a result where the sum of Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Dibenzo(a,h)anthracene, Fluoranthene, Indeno(1,2,3-cd)pyrene, Phenanthrene, and Pyrene has been subtracted from F3.

Unless otherwise qualified, the following quality control criteria have been met for the F1 hydrocarbon range:

1. All extraction and analysis holding times were met.
2. Instrument performance showing response factors for C6 and C10 within 30% of the response factor for toluene.
3. Linearity of gasoline response within 15% throughout the calibration range.

Unless otherwise qualified, the following quality control criteria have been met for the F2-F4 hydrocarbon ranges:

1. All extraction and analysis holding times were met.
2. Instrument performance showing C10, C16 and C34 response factors within 10% of their average.
3. Instrument performance showing the C50 response factor within 30% of the average of the C10, C16 and C34 response factors.
4. Linearity of diesel or motor oil response within 15% throughout the calibration range.

F2-4-TMB-ED	Soil	CCME Total Extractable Hydrocarbons	CCME CWS-PHC, Pub #1310, Dec 2001
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This analysis is carried out in accordance with the "Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil - Tier 1 Method, Canadian Council of Ministers of the Environment" For C10 to C50 hydrocarbons (F2, F3, F4) and gravimetric heavy hydrocarbons (F4G-sg), a subsample of the sediment/soil is extracted with 1:1 hexane:acetone using a rotary extractor. The extract undergoes a silica-gel clean-up to remove polar compounds. F2, F3 & F4 are analyzed by on-column GC/FID, and F4G-sg is analyzed gravimetrically.

Notes:

1. F2 (C10-C16): Sum of all hydrocarbons that elute between nC10 and nC16.
2. F3 (C16-C34): Sum of all hydrocarbons that elute between nC16 and nC34.
3. F4 (C34-C50): Sum of all hydrocarbons that elute between nC34 and nC50.
4. F4G: Gravimetric Heavy Hydrocarbons
5. F4G-sg: Gravimetric Heavy Hydrocarbons (F4G) after silica gel treatment.
6. Where F4 (C34-C50) and F4G-sg results are reported for a sample, the larger of the reported values is used for comparison against the relevant CCME standard for F4.
7. The gravimetric heavy hydrocarbon results (F4G-sg), cannot be added to the C6 to C50 hydrocarbon results.
8. This method is validated for use.
9. Data from analysis of quality control samples is available upon request.
10. Reported results are expressed as milligrams per dry kilogram.

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
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PREP-MOISTURE-ED	Soil	% Moisture	Oven dry 105C-Gravimetric
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The weighed portion of soil is placed in a 105°C oven to dry to a constant weight; the drying time will vary based on the moisture content of the soil. The dried soil weight is then used to calculate % moisture.

Reference: ASTM D2974-00.

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
----------------------------	---------------------

ED	ALS ENVIRONMENTAL - EDMONTON, ALBERTA, CANADA
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Chain of Custody Numbers:

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

mg/kg - milligrams per kilogram based on dry weight of sample

mg/kg ww - milligrams per kilogram based on wet weight of sample

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight

mg/L - unit of concentration based on volume, parts per million.

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

Quality Control Report

Workorder: L1974810

Report Date: 17-AUG-17

Page 1 of 3

Client: Cash Clients
DXB Projects
Toronto Ontario
Contact: Henry Wong

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
BTXS,F1-MEOH-ED		Soil						
Batch	R3794055							
WG2593550-4	DUP	L1974810-1						
Benzene		<0.0050	<0.0050	RPD-NA	mg/kg	N/A	30	17-AUG-17
Toluene		<0.050	<0.050	RPD-NA	mg/kg	N/A	30	17-AUG-17
Ethylbenzene		<0.010	<0.010	RPD-NA	mg/kg	N/A	30	17-AUG-17
m+p-Xylene		<0.050	<0.050	RPD-NA	mg/kg	N/A	30	17-AUG-17
o-Xylene		<0.050	<0.050	RPD-NA	mg/kg	N/A	30	17-AUG-17
Styrene		<0.050	<0.050	RPD-NA	mg/kg	N/A	30	17-AUG-17
WG2593550-2	LCS							
Benzene			98.2		%		70-130	17-AUG-17
Toluene			92.5		%		70-130	17-AUG-17
Ethylbenzene			78.9		%		70-130	17-AUG-17
m+p-Xylene			92.0		%		70-130	17-AUG-17
o-Xylene			86.0		%		70-130	17-AUG-17
Styrene			92.3		%		70-130	17-AUG-17
WG2593550-1	MB							
Benzene			<0.0050		mg/kg		0.005	17-AUG-17
Toluene			<0.050		mg/kg		0.05	17-AUG-17
Ethylbenzene			<0.010		mg/kg		0.01	17-AUG-17
m+p-Xylene			<0.050		mg/kg		0.05	17-AUG-17
o-Xylene			<0.050		mg/kg		0.05	17-AUG-17
Styrene			<0.050		mg/kg		0.05	17-AUG-17
Surrogate: 1,4-Difluorobenzene (SS)			74.5		%		70-130	17-AUG-17
Surrogate: 4-Bromofluorobenzene (SS)			72.1		%		70-130	17-AUG-17
Surrogate: 3,4-Dichlorotoluene (SS)			83.1		%		70-130	17-AUG-17
WG2593550-5	MS	L1974810-5						
Benzene			107.1		%		50-140	17-AUG-17
Toluene			97.6		%		50-140	17-AUG-17
Ethylbenzene			83.4		%		50-140	17-AUG-17
m+p-Xylene			90.8		%		50-140	17-AUG-17
o-Xylene			89.1		%		50-140	17-AUG-17
Styrene			93.7		%		50-140	17-AUG-17
F2-4-TMB-ED		Soil						
Batch	R3801797							
WG2592702-3	IRM	ALS PHC2 RM						
F2 (C10-C16)			89.5		%		70-130	15-AUG-17
F3 (C16-C34)			101.7		%		70-130	15-AUG-17

Quality Control Report

Workorder: L1974810

Report Date: 17-AUG-17

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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
F2-4-TMB-ED		Soil						
Batch R3801797								
WG2592702-3	IRM	ALS PHC2 RM						
F4 (C34-C50)			106.4		%		70-130	15-AUG-17
WG2592702-2	LCS	DIESEL/MOTOR OIL						
F2 (C10-C16)			102.6		%		70-130	15-AUG-17
F3 (C16-C34)			99.2		%		70-130	15-AUG-17
F4 (C34-C50)			98.7		%		70-130	15-AUG-17
WG2592702-1	MB							
F2 (C10-C16)			<20		mg/kg		20	15-AUG-17
F3 (C16-C34)			<20		mg/kg		20	15-AUG-17
F4 (C34-C50)			<20		mg/kg		20	15-AUG-17
Surrogate: 2-Bromobenzotrifluoride			85.6		%		70-130	15-AUG-17
PREP-MOISTURE-ED		Soil						
Batch R3801553								
WG2593282-5	LCS							
% Moisture			100.5		%		90-110	16-AUG-17
WG2593282-4	MB							
% Moisture			<0.50		%		0.5	16-AUG-17

Quality Control Report

Workorder: L1974810

Report Date: 17-AUG-17

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Legend:

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.



Request Form

Affix AL5 barcode label here
(lab use only)

COC Number: **14 -**

Page 1 of 1

Report To						Report Format / Distribution								Select Service Level Below (Rush Turnaround Time (TAT) is not available for all tests)							
Company: DXB Projects						Select Report Format: PDF EXCEL EDD (DIGITAL)								Regular (Standard TAT if received by 3 pm - business days) <input type="checkbox"/> Regular (Standard TAT if received by 3pm) 50% surcharge - contact ALS to confirm TAT Priority (2-4 bus. days if received by 3pm) 50% surcharge - contact ALS to confirm TAT Emergency (1-2 bus. days if received by 3pm) 100% surcharge - contact ALS to confirm TAT E2 Same day or weekend emergency - contact ALS to confirm TAT and surcharge							
Contact: Henry Wong						Quality Control (QC) Report with Report Yes No Criteria on Report - provide details below if box checked Select Distribution: EMAIL MAIL FAX															
Address:						Email 1 or Fax: henry.wong@dxbprojects.ca								Specify Date Required for E2,E or P:							
Phone: 416.575.8064						Email 2								Analysis Request							
Invoice To						Same as Report To Yes No								Indicate Filtered (F), Preserved (P) or Filtered and Preserved (FP) below							
Copy of Invoice with Report Yes No						Select Invoice Distribution: EMAIL MAIL FAX															
Company: DXB Projects						Email 1 or Fax: dave.bynski@dxbprojects.ca															
Contact: Dave Bynski						Email 2: henry.wong@dxbprojects.ca															
Project Information						Oil and Gas Required Fields (client use)															
ALS Quote #: Q62054						Approver ID:								Cost Center:							
Job #: Jericho Mine Site Stabilization						GL Account:								Routing Code:							
PO / AFE: TAB						Activity Code:															
LSD:						Location:															
ALS Lab Work Order # (lab use only)						ALS Contact: Rick Z.								Sampler: Henry W.							
Sample Identification and/or Coordinates (This description will appear on the report)						Date								Time							
ALS Sample #						(dd-mm-yy)								(hh:mm)							
A8-S20						13-Aug-17								17h00							
A14-S11						13-Aug-17								17h00							
A14-S13						13-Aug-17								17h00							
A14-S15						13-Aug-17								17h00							
A14-S18						13-Aug-17								17h00							
Drinking Water (DW) Samples (client use)						Special Instructions / Specify Criteria to add on report (client use)															
Are samples taken from a Regulated DW System?						Yes No															
Are samples for human drinking water use?						Yes No															
SHIPMENT RELEASE (client use)						INITIAL SHIPMENT RECEPTION (lab use only)															
Released by: [Signature]						Date: 8/5/13								Time: 17h00							
Received by: [Signature]						Date: 14 Aug 2013								Time: 9:17							
SAMPLE CONDITION AS RECEIVED (lab use only)						Frozen Yes No SIF Observations Yes No Ice packs Yes No Custody seal intact Yes No Cooling initiated Yes No INITIAL COOLER TEMPERATURES °C FINAL COOLER TEMPERATURES °C								Number of Containers							
Received by: [Signature]						Date: 14 Aug 2013								Time: 9:17							

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1960979-1	A2-S1A							
Sampled By: HW on 18-JUL-17 @ 11:00								
Matrix: SOIL								
CCME BTEX, F1 TO F4								
CCME Total Extractable Hydrocarbons								
Surrogate: 2-Bromobenzotrifluoride		92.4		70-130	%	20-JUL-17	20-JUL-17	R3779507
Chrom. to baseline at nC50		YES				20-JUL-17	20-JUL-17	R3779507
Prep/Analysis Dates						20-JUL-17	20-JUL-17	R3779507
CCME Total Hydrocarbons								
F1 (C6-C10)		<10		10	mg/kg		21-JUL-17	
F1-BTEX		<10		10	mg/kg		21-JUL-17	
F2 (C10-C16)		32		20	mg/kg		21-JUL-17	
F3 (C16-C34)		60		20	mg/kg		21-JUL-17	
F4 (C34-C50)		<20		20	mg/kg		21-JUL-17	
Total Hydrocarbons (C6-C50)		92		20	mg/kg		21-JUL-17	
Miscellaneous Parameters								
% Moisture		2.66		0.50	%		20-JUL-17	R3778761
BTEX and F1								
Benzene		<0.0050		0.0050	mg/kg	18-JUL-17	21-JUL-17	R3779239
Toluene		<0.050		0.050	mg/kg	18-JUL-17	21-JUL-17	R3779239
Ethylbenzene		<0.010		0.010	mg/kg	18-JUL-17	21-JUL-17	R3779239
m+p-Xylene		<0.050		0.050	mg/kg	18-JUL-17	21-JUL-17	R3779239
o-Xylene		<0.050		0.050	mg/kg	18-JUL-17	21-JUL-17	R3779239
Styrene		<0.050		0.050	mg/kg	18-JUL-17	21-JUL-17	R3779239
Xylenes		<0.10		0.10	mg/kg	18-JUL-17	21-JUL-17	R3779239
Surrogate: 1,4-Difluorobenzene (SS)		100.2		70-130	%	18-JUL-17	21-JUL-17	R3779239
Surrogate: 4-Bromofluorobenzene (SS)		99.2		70-130	%	18-JUL-17	21-JUL-17	R3779239
Surrogate: 3,4-Dichlorotoluene (SS)		99.7		70-130	%	18-JUL-17	21-JUL-17	R3779239
L1960979-2	A2-S1B							
Sampled By: HW on 18-JUL-17 @ 11:00								
Matrix: SOIL								
CCME BTEX, F1 TO F4								
CCME Total Extractable Hydrocarbons								
Surrogate: 2-Bromobenzotrifluoride		89.5		70-130	%	20-JUL-17	20-JUL-17	R3779507
Chrom. to baseline at nC50		YES				20-JUL-17	20-JUL-17	R3779507
Prep/Analysis Dates						20-JUL-17	20-JUL-17	R3779507
CCME Total Hydrocarbons								
F1 (C6-C10)		<10		10	mg/kg		21-JUL-17	
F1-BTEX		<10		10	mg/kg		21-JUL-17	
F2 (C10-C16)		364		20	mg/kg		21-JUL-17	
F3 (C16-C34)		240		20	mg/kg		21-JUL-17	
F4 (C34-C50)		<20		20	mg/kg		21-JUL-17	
Total Hydrocarbons (C6-C50)		604		20	mg/kg		21-JUL-17	
Miscellaneous Parameters								
% Moisture		4.50		0.50	%		20-JUL-17	R3778761
BTEX and F1								
Benzene		<0.0050		0.0050	mg/kg	18-JUL-17	21-JUL-17	R3779239
Toluene		<0.050		0.050	mg/kg	18-JUL-17	21-JUL-17	R3779239
Ethylbenzene		<0.010		0.010	mg/kg	18-JUL-17	21-JUL-17	R3779239
m+p-Xylene		<0.050		0.050	mg/kg	18-JUL-17	21-JUL-17	R3779239
o-Xylene		<0.050		0.050	mg/kg	18-JUL-17	21-JUL-17	R3779239
Styrene		<0.050		0.050	mg/kg	18-JUL-17	21-JUL-17	R3779239
Xylenes		<0.10		0.10	mg/kg	18-JUL-17	21-JUL-17	R3779239
Surrogate: 1,4-Difluorobenzene (SS)		93.8		70-130	%	18-JUL-17	21-JUL-17	R3779239
Surrogate: 4-Bromofluorobenzene (SS)		97.9		70-130	%	18-JUL-17	21-JUL-17	R3779239

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1960979-2	A2-S1B							
Sampled By:	HW on 18-JUL-17 @ 11:00							
Matrix:	SOIL							
BTEX and F1								
Surrogate: 3,4-Dichlorotoluene (SS)		88.5		70-130	%	18-JUL-17	21-JUL-17	R3779239
L1960979-3	A2-S2A							
Sampled By:	HW on 18-JUL-17 @ 11:00							
Matrix:	SOIL							
CCME BTEX, F1 TO F4								
CCME Total Extractable Hydrocarbons								
Surrogate: 2-Bromobenzotrifluoride		88.6		70-130	%	20-JUL-17	20-JUL-17	R3779507
Chrom. to baseline at nC50		YES				20-JUL-17	20-JUL-17	R3779507
Prep/Analysis Dates						20-JUL-17	20-JUL-17	R3779507
CCME Total Hydrocarbons								
F1 (C6-C10)		<10		10	mg/kg		21-JUL-17	
F1-BTEX		<10		10	mg/kg		21-JUL-17	
F2 (C10-C16)		121		20	mg/kg		21-JUL-17	
F3 (C16-C34)		220		20	mg/kg		21-JUL-17	
F4 (C34-C50)		<20		20	mg/kg		21-JUL-17	
Total Hydrocarbons (C6-C50)		341		20	mg/kg		21-JUL-17	
Miscellaneous Parameters								
% Moisture		2.04		0.50	%		20-JUL-17	R3778761
BTEX and F1								
Benzene		<0.0050		0.0050	mg/kg	18-JUL-17	21-JUL-17	R3779239
Toluene		<0.050		0.050	mg/kg	18-JUL-17	21-JUL-17	R3779239
Ethylbenzene		<0.010		0.010	mg/kg	18-JUL-17	21-JUL-17	R3779239
m+p-Xylene		<0.050		0.050	mg/kg	18-JUL-17	21-JUL-17	R3779239
o-Xylene		<0.050		0.050	mg/kg	18-JUL-17	21-JUL-17	R3779239
Styrene		<0.050		0.050	mg/kg	18-JUL-17	21-JUL-17	R3779239
Xylenes		<0.10		0.10	mg/kg	18-JUL-17	21-JUL-17	R3779239
Surrogate: 1,4-Difluorobenzene (SS)		95.9		70-130	%	18-JUL-17	21-JUL-17	R3779239
Surrogate: 4-Bromofluorobenzene (SS)		103.3		70-130	%	18-JUL-17	21-JUL-17	R3779239
Surrogate: 3,4-Dichlorotoluene (SS)		87.8		70-130	%	18-JUL-17	21-JUL-17	R3779239
L1960979-4	A2-S2B							
Sampled By:	HW on 18-JUL-17 @ 11:00							
Matrix:	SOIL							
CCME BTEX, F1 TO F4								
CCME Total Extractable Hydrocarbons								
Surrogate: 2-Bromobenzotrifluoride		89.0		70-130	%	20-JUL-17	20-JUL-17	R3779507
Chrom. to baseline at nC50		YES				20-JUL-17	20-JUL-17	R3779507
Prep/Analysis Dates						20-JUL-17	20-JUL-17	R3779507
CCME Total Hydrocarbons								
F1 (C6-C10)		<10		10	mg/kg		21-JUL-17	
F1-BTEX		<10		10	mg/kg		21-JUL-17	
F2 (C10-C16)		408		20	mg/kg		21-JUL-17	
F3 (C16-C34)		244		20	mg/kg		21-JUL-17	
F4 (C34-C50)		<20		20	mg/kg		21-JUL-17	
Total Hydrocarbons (C6-C50)		652		20	mg/kg		21-JUL-17	
Miscellaneous Parameters								
% Moisture		4.04		0.50	%		20-JUL-17	R3778761
BTEX and F1								
Benzene		<0.0050		0.0050	mg/kg	18-JUL-17	21-JUL-17	R3779239
Toluene		<0.050		0.050	mg/kg	18-JUL-17	21-JUL-17	R3779239
Ethylbenzene		<0.010		0.010	mg/kg	18-JUL-17	21-JUL-17	R3779239
m+p-Xylene		<0.050		0.050	mg/kg	18-JUL-17	21-JUL-17	R3779239

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1960979-4 A2-S2B Sampled By: HW on 18-JUL-17 @ 11:00 Matrix: SOIL BTEX and F1 o-Xylene<0.0500.050mg/kg18-JUL-1721-JUL-17R3779239 Styrene<0.0500.050mg/kg18-JUL-1721-JUL-17R3779239 Xylenes<0.100.10mg/kg18-JUL-1721-JUL-17R3779239 Surrogate: 1,4-Difluorobenzene (SS)92.270-130%18-JUL-1721-JUL-17R3779239 Surrogate: 4-Bromofluorobenzene (SS)96.370-130%18-JUL-1721-JUL-17R3779239 Surrogate: 3,4-Dichlorotoluene (SS)86.170-130%18-JUL-1721-JUL-17R3779239							
L1960979-5 A2-S3A Sampled By: HW on 18-JUL-17 @ 11:00 Matrix: SOIL CCME BTEX, F1 TO F4 CCME Total Extractable Hydrocarbons Surrogate: 2-Bromobenzotrifluoride93.070-130%20-JUL-1720-JUL-17R3779507 Chrom. to baseline at nC50YES20-JUL-1720-JUL-17R3779507 Prep/Analysis Dates20-JUL-1720-JUL-17R3779507 CCME Total Hydrocarbons F1 (C6-C10)<1010mg/kg21-JUL-17 F1-BTEX<1010mg/kg21-JUL-17 F2 (C10-C16)12020mg/kg21-JUL-17 F3 (C16-C34)22820mg/kg21-JUL-17 F4 (C34-C50)<2020mg/kg21-JUL-17 Total Hydrocarbons (C6-C50)34820mg/kg21-JUL-17 Miscellaneous Parameters % Moisture2.880.50%20-JUL-17R3778761 BTEX and F1 Benzene<0.00500.0050mg/kg18-JUL-1721-JUL-17R3779239 Toluene<0.0500.050mg/kg18-JUL-1721-JUL-17R3779239 Ethylbenzene<0.0100.010mg/kg18-JUL-1721-JUL-17R3779239 m+p-Xylene<0.0500.050mg/kg18-JUL-1721-JUL-17R3779239 o-Xylene<0.0500.050mg/kg18-JUL-1721-JUL-17R3779239 Styrene<0.0500.050mg/kg18-JUL-1721-JUL-17R3779239 Xylenes<0.100.10mg/kg18-JUL-1721-JUL-17R3779239 Surrogate: 1,4-Difluorobenzene (SS)93.470-130%18-JUL-1721-JUL-17R3779239 Surrogate: 4-Bromofluorobenzene (SS)99.870-130%18-JUL-1721-JUL-17R3779239 Surrogate: 3,4-Dichlorotoluene (SS)83.570-130%18-JUL-1721-JUL-17R3779239							
L1960979-6 A2-S3B Sampled By: HW on 18-JUL-17 @ 11:00 Matrix: SOIL CCME BTEX, F1 TO F4 CCME Total Extractable Hydrocarbons Surrogate: 2-Bromobenzotrifluoride93.170-130%20-JUL-1720-JUL-17R3779507 Chrom. to baseline at nC50YES20-JUL-1720-JUL-17R3779507 Prep/Analysis Dates20-JUL-1720-JUL-17R3779507 CCME Total Hydrocarbons F1 (C6-C10)<1010mg/kg21-JUL-17 F1-BTEX<1010mg/kg21-JUL-17 F2 (C10-C16)52520mg/kg21-JUL-17 F3 (C16-C34)27920mg/kg21-JUL-17 F4 (C34-C50)<2020mg/kg21-JUL-17 Total Hydrocarbons (C6-C50)80420mg/kg21-JUL-17 Miscellaneous Parameters % Moisture4.470.50%20-JUL-17R3778761							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1960979-6 A2-S3B Sampled By: HW on 18-JUL-17 @ 11:00 Matrix: SOIL BTEX and F1 Benzene Toluene Ethylbenzene m+p-Xylene o-Xylene Styrene Xylenes Surrogate: 1,4-Difluorobenzene (SS) Surrogate: 4-Bromofluorobenzene (SS) Surrogate: 3,4-Dichlorotoluene (SS)	<0.0050 <0.050 <0.010 <0.050 <0.050 <0.050 <0.10 93.5 96.2 84.4		0.0050 0.050 0.010 0.050 0.050 0.050 0.10 70-130 70-130 70-130	mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg % % %	18-JUL-17 18-JUL-17 18-JUL-17 18-JUL-17 18-JUL-17 18-JUL-17 18-JUL-17 18-JUL-17 18-JUL-17 18-JUL-17	21-JUL-17 21-JUL-17 21-JUL-17 21-JUL-17 21-JUL-17 21-JUL-17 21-JUL-17 21-JUL-17 21-JUL-17 21-JUL-17	R3779239 R3779239 R3779239 R3779239 R3779239 R3779239 R3779239 R3779239 R3779239 R3779239
L1960979-7 A2-S4A Sampled By: HW on 18-JUL-17 @ 11:00 Matrix: SOIL CCME BTEX, F1 TO F4 CCME Total Extractable Hydrocarbons Surrogate: 2-Bromobenzotrifluoride Chrom. to baseline at nC50 Prep/Analysis Dates CCME Total Hydrocarbons F1 (C6-C10) F1-BTEX F2 (C10-C16) F3 (C16-C34) F4 (C34-C50) Total Hydrocarbons (C6-C50) Miscellaneous Parameters % Moisture BTEX and F1 Benzene Toluene Ethylbenzene m+p-Xylene o-Xylene Styrene Xylenes Surrogate: 1,4-Difluorobenzene (SS) Surrogate: 4-Bromofluorobenzene (SS) Surrogate: 3,4-Dichlorotoluene (SS)	91.9 YES <10 <10 515 301 <20 816 4.56 <0.0050 <0.050 <0.010 <0.050 <0.050 <0.050 <0.10 96.7 115.2 87.2		70-130 10 10 20 20 20 20 0.50 0.0050 0.050 0.010 0.050 0.050 0.050 0.10 70-130 70-130 70-130	% mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg % mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg % % %	20-JUL-17 20-JUL-17 20-JUL-17 20-JUL-17 18-JUL-17 18-JUL-17 18-JUL-17 18-JUL-17 18-JUL-17 18-JUL-17 18-JUL-17 18-JUL-17 18-JUL-17 18-JUL-17	20-JUL-17 20-JUL-17 20-JUL-17 21-JUL-17 21-JUL-17 21-JUL-17 21-JUL-17 21-JUL-17 21-JUL-17 20-JUL-17 21-JUL-17 21-JUL-17 21-JUL-17 21-JUL-17 21-JUL-17 21-JUL-17 21-JUL-17 21-JUL-17 21-JUL-17	R3779507 R3779507 R3779507 R3778761 R3779239 R3779239 R3779239 R3779239 R3779239 R3779239 R3779239 R3779239 R3779239 R3779239
L1960979-8 A2-S4B Sampled By: HW on 18-JUL-17 @ 11:00 Matrix: SOIL CCME BTEX, F1 TO F4 CCME Total Extractable Hydrocarbons Surrogate: 2-Bromobenzotrifluoride Chrom. to baseline at nC50 Prep/Analysis Dates CCME Total Hydrocarbons F1 (C6-C10) F1-BTEX F2 (C10-C16) F3 (C16-C34)	95.6 YES <10 <10 44 104		70-130 10 10 20 20	% mg/kg mg/kg mg/kg mg/kg	20-JUL-17 20-JUL-17 20-JUL-17 21-JUL-17 21-JUL-17 21-JUL-17 21-JUL-17	20-JUL-17 20-JUL-17 20-JUL-17 21-JUL-17 21-JUL-17 21-JUL-17 21-JUL-17	R3779507 R3779507 R3779507 R3779507 R3779507 R3779507 R3779507

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

[illegible]

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1960979-10 A2-S5B Sampled By: HW on 18-JUL-17 @ 11:00 Matrix: SOIL CCME Total Hydrocarbons F1 (C6-C10) F1-BTEX F2 (C10-C16) F3 (C16-C34) F4 (C34-C50) Total Hydrocarbons (C6-C50) Miscellaneous Parameters % Moisture BTEX and F1 Benzene Toluene Ethylbenzene m+p-Xylene o-Xylene Styrene Xylenes Surrogate: 1,4-Difluorobenzene (SS) Surrogate: 4-Bromofluorobenzene (SS) Surrogate: 3,4-Dichlorotoluene (SS)	 <10 <10 147 186 <20 333 4.53 <0.0050 <0.050 <0.010 <0.050 <0.050 <0.050 <0.10 105.1 113.7 82.4	 	 	 	 	 	
L1960979-11 A2-S6A Sampled By: HW on 18-JUL-17 @ 11:00 Matrix: SOIL CCME BTEX, F1 TO F4 CCME Total Extractable Hydrocarbons Surrogate: 2-Bromobenzotrifluoride Chrom. to baseline at nC50 Prep/Analysis Dates CCME Total Hydrocarbons F1 (C6-C10) F1-BTEX F2 (C10-C16) F3 (C16-C34) F4 (C34-C50) Total Hydrocarbons (C6-C50) Miscellaneous Parameters % Moisture BTEX and F1 Benzene Toluene Ethylbenzene m+p-Xylene o-Xylene Styrene Xylenes Surrogate: 1,4-Difluorobenzene (SS) Surrogate: 4-Bromofluorobenzene (SS) Surrogate: 3,4-Dichlorotoluene (SS)	 90.6 YES <10 <10 30 42 <20 72 4.16 <0.0050 <0.050 <0.010 <0.050 <0.050 <0.050 <0.10 94.3 97.9 86.9	 	 	 	 	 	
L1960979-12 A2-S6B Sampled By: HW on 18-JUL-17 @ 11:00 Matrix: SOIL CCME BTEX, F1 TO F4							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1960979-12 A2-S6B							
Sampled By: HW on 18-JUL-17 @ 11:00							
Matrix: SOIL							
CCME Total Extractable Hydrocarbons							
Surrogate: 2-Bromobenzotrifluoride	91.1		70-130	%	20-JUL-17	20-JUL-17	R3779507
Chrom. to baseline at nC50	YES				20-JUL-17	20-JUL-17	R3779507
Prep/Analysis Dates					20-JUL-17	20-JUL-17	R3779507
CCME Total Hydrocarbons							
F1 (C6-C10)	<10		10	mg/kg		21-JUL-17	
F1-BTEX	<10		10	mg/kg		21-JUL-17	
F2 (C10-C16)	179		20	mg/kg		21-JUL-17	
F3 (C16-C34)	106		20	mg/kg		21-JUL-17	
F4 (C34-C50)	<20		20	mg/kg		21-JUL-17	
Total Hydrocarbons (C6-C50)	285		20	mg/kg		21-JUL-17	
Miscellaneous Parameters							
% Moisture	9.36		0.50	%		20-JUL-17	R3778761
BTEX and F1							
Benzene	<0.0050		0.0050	mg/kg	18-JUL-17	21-JUL-17	R3779239
Toluene	<0.050		0.050	mg/kg	18-JUL-17	21-JUL-17	R3779239
Ethylbenzene	<0.010		0.010	mg/kg	18-JUL-17	21-JUL-17	R3779239
m+p-Xylene	<0.050		0.050	mg/kg	18-JUL-17	21-JUL-17	R3779239
o-Xylene	<0.050		0.050	mg/kg	18-JUL-17	21-JUL-17	R3779239
Styrene	<0.050		0.050	mg/kg	18-JUL-17	21-JUL-17	R3779239
Xylenes	<0.10		0.10	mg/kg	18-JUL-17	21-JUL-17	R3779239
Surrogate: 1,4-Difluorobenzene (SS)	93.6		70-130	%	18-JUL-17	21-JUL-17	R3779239
Surrogate: 4-Bromofluorobenzene (SS)	94.7		70-130	%	18-JUL-17	21-JUL-17	R3779239
Surrogate: 3,4-Dichlorotoluene (SS)	86.1		70-130	%	18-JUL-17	21-JUL-17	R3779239

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

Qualifiers for Individual Samples Listed:

Sample Number	Client ID	Qualifier	Description
L1960979-1	A2-S1A	VOCC	Soil jar was submitted as VOC sample container. VOC results may be biased low, and do not meet federal (CCME) or provincial requirements (for BC, AB-Tier1, MB, ON, SK).
L1960979-1C	A2-S5B	VOCC	Soil jar was submitted as VOC sample container. VOC results may be biased low, and do not meet federal (CCME) or provincial requirements (for BC, AB-Tier1, MB, ON, SK).
L1960979-2	A2-S1B	VOCC	Soil jar was submitted as VOC sample container. VOC results may be biased low, and do not meet federal (CCME) or provincial requirements (for BC, AB-Tier1, MB, ON, SK).
L1960979-3	A2-S2A	VOCC	Soil jar was submitted as VOC sample container. VOC results may be biased low, and do not meet federal (CCME) or provincial requirements (for BC, AB-Tier1, MB, ON, SK).
L1960979-4	A2-S2B	VOCC	Soil jar was submitted as VOC sample container. VOC results may be biased low, and do not meet federal (CCME) or provincial requirements (for BC, AB-Tier1, MB, ON, SK).
L1960979-5	A2-S3A	VOCC	Soil jar was submitted as VOC sample container. VOC results may be biased low, and do not meet federal (CCME) or provincial requirements (for BC, AB-Tier1, MB, ON, SK).
L1960979-6	A2-S3B	VOCC	Soil jar was submitted as VOC sample container. VOC results may be biased low, and do not meet federal (CCME) or provincial requirements (for BC, AB-Tier1, MB, ON, SK).
L1960979-7	A2-S4A	VOCC	Soil jar was submitted as VOC sample container. VOC results may be biased low, and do not meet federal (CCME) or provincial requirements (for BC, AB-Tier1, MB, ON, SK).
L1960979-8	A2-S4B	VOCC	Soil jar was submitted as VOC sample container. VOC results may be biased low, and do not meet federal (CCME) or provincial requirements (for BC, AB-Tier1, MB, ON, SK).
L1960979-9	A2-S5A	VOCC	Soil jar was submitted as VOC sample container. VOC results may be biased low, and do not meet federal (CCME) or provincial requirements (for BC, AB-Tier1, MB, ON, SK).

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
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BTXS,F1-MEOH-ED	Soil	BTEX and F1	EPA 8260C/5021A and CWS PHC Tier 1
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This analysis involves the extraction of a subsample of the sediment/soil with methanol added in the field at the time of subsampling. The soil methanol extract is added to water and reagents, then heated in a sealed vial to equilibrium. The headspace from the vial is transferred into a gas chromatograph. BTEX Target compound concentrations are measured using mass spectrometry detection. The instrumental portion of F1 analysis is carried out in accordance with the Canada Wide Standard for Petroleum Hydrocarbons in Soil - Tier 1 Method (2001).

ETL-TVH,TEH-CCME-ED	Soil	CCME Total Hydrocarbons	CCME CWS-PHC, Pub #1310, Dec 2001
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Analytical methods used for analysis of CCME Petroleum Hydrocarbons have been validated and comply with the Reference Method for the CWS PHC.

Hydrocarbon results are expressed on a dry weight basis.

In cases where results for both F4 and F4G are reported, the greater of the two results must be used in any application of the CWS PHC guidelines and the gravimetric heavy hydrocarbons cannot be added to the C6 to C50 hydrocarbons.

In samples where BTEX and F1 were analyzed, F1-BTEX represents a value where the sum of Benzene, Toluene, Ethylbenzene and total Xylenes has been subtracted from F1.

In samples where PAHs, F2 and F3 were analyzed, F2-Naphth represents the result where Naphthalene has been subtracted from F2. F3-PAH represents a result where the sum of Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Dibenzo(a,h)anthracene, Fluoranthene, Indeno(1,2,3-cd)pyrene, Phenanthrene, and Pyrene has been subtracted from F3.

Unless otherwise qualified, the following quality control criteria have been met for the F1 hydrocarbon range:

1. All extraction and analysis holding times were met.
2. Instrument performance showing response factors for C6 and C10 within 30% of the response factor for toluene.
3. Linearity of gasoline response within 15% throughout the calibration range.

Unless otherwise qualified, the following quality control criteria have been met for the F2-F4 hydrocarbon ranges:

1. All extraction and analysis holding times were met.
2. Instrument performance showing C10, C16 and C34 response factors within 10% of their average.
3. Instrument performance showing the C50 response factor within 30% of the average of the C10, C16 and C34 response factors.
4. Linearity of diesel or motor oil response within 15% throughout the calibration range.

F2-4-TMB-ED	Soil	CCME Total Extractable Hydrocarbons	CCME CWS-PHC, Pub #1310, Dec 2001
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This analysis is carried out in accordance with the "Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil - Tier 1 Method, Canadian Council of Ministers of the Environment" For C10 to C50 hydrocarbons (F2, F3, F4) and gravimetric heavy hydrocarbons (F4G-sg), a subsample of the sediment/soil is extracted with 1:1 hexane:acetone using a rotary extractor. The extract undergoes a silica-gel clean-up to remove

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
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polar compounds. F2, F3 & F4 are analyzed by on-column GC/FID, and F4G-sg is analyzed gravimetrically.

Notes:

1. F2 (C10-C16): Sum of all hydrocarbons that elute between nC10 and nC16.
2. F3 (C16-C34): Sum of all hydrocarbons that elute between nC16 and nC34.
3. F4 (C34-C50): Sum of all hydrocarbons that elute between nC34 and nC50.
4. F4G: Gravimetric Heavy Hydrocarbons
5. F4G-sg: Gravimetric Heavy Hydrocarbons (F4G) after silica gel treatment.
6. Where F4 (C34-C50) and F4G-sg results are reported for a sample, the larger of the reported values is used for comparison against the relevant CCME standard for F4.
7. The gravimetric heavy hydrocarbon results (F4G-sg), cannot be added to the C6 to C50 hydrocarbon results.
8. This method is validated for use.
9. Data from analysis of quality control samples is available upon request.
10. Reported results are expressed as milligrams per dry kilogram.

PREP-MOISTURE-ED Soil % Moisture Oven dry 105C-Gravimetric

The weighed portion of soil is placed in a 105°C oven to dry to a constant weight; the drying time will vary based on the moisture content of the soil. The dried soil weight is then used to calculate % moisture.

Reference: ASTM D2974-00.

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
ED	ALS ENVIRONMENTAL - EDMONTON, ALBERTA, CANADA

Chain of Custody Numbers:

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

mg/kg - milligrams per kilogram based on dry weight of sample

mg/kg ww - milligrams per kilogram based on wet weight of sample

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight

mg/L - unit of concentration based on volume, parts per million.

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

Quality Control Report

Workorder: L1960979

Report Date: 21-JUL-17

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Client: Cash Clients
DXB Projects
ON
Contact: Henry Wong

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
BTXS,F1-MEOH-ED		Soil						
Batch	R3779239							
WG2574382-4	DUP	L1960979-1						
Benzene		<0.0050	<0.0050	RPD-NA	mg/kg	N/A	30	21-JUL-17
Toluene		<0.050	<0.050	RPD-NA	mg/kg	N/A	30	21-JUL-17
Ethylbenzene		<0.010	<0.010	RPD-NA	mg/kg	N/A	30	21-JUL-17
m+p-Xylene		<0.050	<0.050	RPD-NA	mg/kg	N/A	30	21-JUL-17
o-Xylene		<0.050	<0.050	RPD-NA	mg/kg	N/A	30	21-JUL-17
Styrene		<0.050	<0.050	RPD-NA	mg/kg	N/A	30	21-JUL-17
WG2574382-2	LCS							
Benzene			89.4		%		70-130	21-JUL-17
Toluene			90.3		%		70-130	21-JUL-17
Ethylbenzene			92.5		%		70-130	21-JUL-17
m+p-Xylene			92.7		%		70-130	21-JUL-17
o-Xylene			92.2		%		70-130	21-JUL-17
Styrene			89.1		%		70-130	21-JUL-17
WG2574382-1	MB							
Benzene			<0.0050		mg/kg		0.005	21-JUL-17
Toluene			<0.050		mg/kg		0.05	21-JUL-17
Ethylbenzene			<0.010		mg/kg		0.01	21-JUL-17
m+p-Xylene			<0.050		mg/kg		0.05	21-JUL-17
o-Xylene			<0.050		mg/kg		0.05	21-JUL-17
Styrene			<0.050		mg/kg		0.05	21-JUL-17
Surrogate: 1,4-Difluorobenzene (SS)			81.0		%		70-130	21-JUL-17
Surrogate: 4-Bromofluorobenzene (SS)			79.8		%		70-130	21-JUL-17
Surrogate: 3,4-Dichlorotoluene (SS)			82.3		%		70-130	21-JUL-17
WG2574382-5	MS	L1960979-12						
Benzene			100.4		%		50-140	21-JUL-17
Toluene			103.2		%		50-140	21-JUL-17
Ethylbenzene			106.0		%		50-140	21-JUL-17
m+p-Xylene			102.7		%		50-140	21-JUL-17
o-Xylene			101.8		%		50-140	21-JUL-17
Styrene			102.0		%		50-140	21-JUL-17
F2-4-TMB-ED		Soil						
Batch	R3779507							
WG2574297-3	IRM	ALS PHC2 RM						
F2 (C10-C16)			99.7		%		70-130	20-JUL-17
F3 (C16-C34)			100.6		%		70-130	20-JUL-17

Quality Control Report

Workorder: L1960979

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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
F2-4-TMB-ED		Soil						
Batch	R3779507							
WG2574297-3	IRM	ALS PHC2 RM						
F4 (C34-C50)			111.3		%		70-130	20-JUL-17
WG2574297-2	LCS	DIESEL/MOTOR OIL						
F2 (C10-C16)			118.7		%		70-130	20-JUL-17
F3 (C16-C34)			114.5		%		70-130	20-JUL-17
F4 (C34-C50)			114.2		%		70-130	20-JUL-17
WG2574297-1	MB							
F2 (C10-C16)			<20		mg/kg		20	20-JUL-17
F3 (C16-C34)			<20		mg/kg		20	20-JUL-17
F4 (C34-C50)			<20		mg/kg		20	20-JUL-17
Surrogate: 2-Bromobenzotrifluoride			97.2		%		70-130	20-JUL-17
PREP-MOISTURE-ED		Soil						
Batch	R3778761							
WG2574184-6	DUP	L1960979-6						
% Moisture		4.47	4.28		%	4.3	20	20-JUL-17
WG2574184-2	LCS							
% Moisture			100.3		%		90-110	20-JUL-17
WG2574184-5	LCS							
% Moisture			100.6		%		90-110	20-JUL-17
WG2574184-1	MB							
% Moisture			<0.50		%		0.5	20-JUL-17
WG2574184-4	MB							
% Moisture			<0.50		%		0.5	20-JUL-17

Quality Control Report

Workorder: L1960979

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Legend:

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.



Canada Toll Free: 1 800 668 9878

COC Number: 14 -

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REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

NSA-FMA-0326, v09 February 2004 January 2011

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

Date	November 2018
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Date	November 2018
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APPENDIX G

Hazardous Materials Records

- Hazardous Materials shipped off-site summary
- Hazardous Material Shipping Manifests

Date	November 2018
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- Hazardous Materials shipped off-site summary

**Contact**

P 867.873.5263
F 867.669.5555
kblenv.com

Address

17 Cameron Rd
P.O. Box 1895
Yellowknife, NT X1A 2P4

November 9, 2017

Outcome/Rowe's Joint Venture
Jericho Mine Remediation
Job#17-018

Attention: Jonathan Markiewicz

REFERENCE: KBL Receipt of Inventory- Jericho Mine Site

DATE	PRODUCT	CONTAINER	WASTE WEIGHT(LBS)	BOL #	MANIFEST	COST CODE
July 27	Glycol	Drum	556	6196	NT12479-1	02 81 01-7
July 27	Glycol	Drum	511	6196	NT12479-1	02 81 01-7
July 27	Glycol	Drum	324	6196	NT12479-1	02 81 01-7
July 27	Glycol	Drum	539	6196	NT12479-1	02 81 01-7
July 27	Glycol	Drum	305	6196	NT12479-1	02 81 01-7
Aug 1st	Refrigerants- R22	Cylinder	34	6197	NT12480-9	02 81 01-11
Aug 1st	Refrigerants- R22	Cylinder	38	6197	NT12480-9	02 81 01-11
Aug 1st	Refrigerants- R404A	Cylinder	33	6197	NT12480-9	02 81 01-11
Aug 1st	Refrigerants- R134A	Cylinder	32	6197	NT12480-9	02 81 01-11
Aug 2	Waste Leachate - Glycol Mix	Drum	504	6198	NT12481-7	02 81 01-7
Aug 2	Waste Leachate - Glycol Mix	Drum	486	6198	NT12481-7	02 81 01-7
Aug 2	Waste Leachate - Glycol Mix	Drum	440	6198	NT12481-7	02 81 01-7
Aug 2	Waste Leachate - Glycol Mix	Drum	446	6198	NT12481-7	02 81 01-7
Aug 2	Waste Leachate - Glycol Mix	Drum	450	6198	NT12481-7	02 81 01-7
Aug 2	Waste Leachate - Glycol Mix	Drum	448	6198	NT12481-7	02 81 01-7
Aug 4th	Waste Leachate - Glycol Mix	Drum	502	6199	NT12482-5	02 81 01-7
Aug 4th	Waste Leachate - Glycol Mix	Drum	446	6199	NT12482-5	02 81 01-7
Aug 4th	Waste Leachate - Glycol Mix	Drum	482	6199	NT12482-5	02 81 01-7
Aug 4th	Waste Leachate - Glycol Mix	Drum	472	6199	NT12482-5	02 81 01-7
Aug 4th	Polymer	Megabag	1704	4752	N/A	CO-04
Aug 4th	Polymer	Megabag	940	4752	N/A	CO-04
Aug 4th	Polymer	Skid	1826	4752	N/A	CO-04

Aug 4th	Polymer	Skid	1830	4752	N/A	CO-04
Aug 4th	Polymer	Skid	1842	4752	N/A	CO-04
Aug 4th	Polymer	Skid	1908	4752	N/A	CO-04
Aug 4th	Polymer	Skid	1820	4752	N/A	CO-04
Aug 4th	Polymer	Skid	1908	4752	N/A	CO-04
Aug 4th	Polymer	Skid	1902	4752	N/A	CO-04
Aug 4th	Polymer	Skid	1690	4752	N/A	CO-04
Aug 4th	Polymer	Skid	1830	4752	N/A	CO-04
Aug 4th	Polymer	Skid	1900	4752	N/A	CO-04
Aug 11th	Waste Corrosive Liquid, Basic	Drum	99	475X	NT12484-1	02 81 01-9
Aug 11th	Waste Corrosive Liquid, Basic	Drum	99	475X	NT12484-1	02 81 01-9
Aug 11th	Waste Corrosive Liquid, Basic	Drum	99	475X	NT12484-1	02 81 01-9
Aug 11th	Waste Corrosive Liquid, Basic	Drum	99	475X	NT12484-1	02 81 01-9
Aug 11th	Waste Corrosive Liquid, Basic	Drum	99	475X	NT12484-1	02 81 01-9
Aug 11th	Waste Corrosive Liquid, Basic	Drum	99	475X	NT12484-1	02 81 01-9
Aug 11th	Waste Corrosive Liquid, Basic	Drum	99	475X	NT12484-1	02 81 01-9
Aug 11th	Waste Corrosive Liquid, Basic	Drum	99	475X	NT12484-1	02 81 01-9
Aug 11th	Waste Corrosive Liquid, Acidic	Drum	70	475X	NT12484-1	02 81 01-9
Aug 11th	Waste Corrosive Liquid, Acidic	Drum	70	475X	NT12484-1	02 81 01-9
Aug 11th	Waste Corrosive Liquid, Acidic	Drum	70	475X	NT12484-1	02 81 01-9
Aug 15th	Waste Corrosive Solid, Basic	Cardboard Pail	183.2	4753	NT12485-8	02 81 01-9
Aug 15th	Waste Corrosive Solid, Basic	Cardboard Pail	183.2	4753	NT12485-8	02 81 01-9
Aug 15th	Waste Corrosive Solid, Basic	Cardboard Pail	183.2	4753	NT12485-8	02 81 01-9
Aug 15th	Waste Corrosive Solid, Basic	Cardboard Pail	183.2	4753	NT12485-8	02 81 01-9
Aug 15th	Waste Corrosive Solid, Basic	Cardboard Pail	183.2	4753	NT12485-8	02 81 01-9
Aug 15th	Waste Corrosive Solid, Basic	Cardboard Pail	183.2	4753	NT12485-8	02 81 01-9

[illegible]

Aug 15th	Waste Corrosive Liquid, Acidic	Styrofoam Box	47.77	4753	NT12485-8	02 81 01-9
Aug 15th	Waste Corrosive Liquid, Acidic	Styrofoam Box	47.77	4753	NT12485-8	02 81 01-9
Aug 15th	Waste Corrosive Liquid, Acidic	Styrofoam Box	47.77	4753	NT12485-8	02 81 01-9
Aug 15th	Waste Corrosive Liquid, Acidic	Styrofoam Box	47.77	4753	NT12485-8	02 81 01-9
Aug 15th	Waste Corrosive Liquid, Acidic	Styrofoam Box	47.77	4753	NT12485-8	02 81 01-9
Aug 15th	Waste Corrosive Liquid, Acidic	Styrofoam Box	47.77	4753	NT12485-8	02 81 01-9
Aug 15th	Waste Corrosive Liquid, Acidic	Styrofoam Box	47.77	4753	NT12485-8	02 81 01-9
Aug 15th	Waste Corrosive Liquid, Acidic	Styrofoam Box	47.77	4753	NT12485-8	02 81 01-9
Aug 15th	Oxidizing Solid, NOS	20L Pail	22	4753	NT12485-8	02 81 01-11
Aug 15th	Waste Corrosive Liquid, Acidic	20L Pail	19.06	4753	NT12486-6	02 81 01-9
Aug 15th	Waste Corrosive Liquid, Acidic	20L Pail	19.06	4753	NT12486-6	02 81 01-9
Aug 15th	Waste Corrosive Liquid, Acidic	20L Pail	19.06	4753	NT12486-6	02 81 01-9
Aug 15th	Alkaline Batteries	20L Pail	60.02	4753	N/A	02 81 01-6
Aug 15th	Alkaline Batteries	20L Pail	60.02	4753	N/A	02 81 01-6
Aug 15th	Alkaline Batteries	20L Pail	60.02	4753	N/A	02 81 01-6
Aug 15th	Alkaline Batteries	20L Pail	60.02	4753	N/A	02 81 01-6
Aug 15th	Alkaline Batteries	20L Pail	60.02	4753	N/A	02 81 01-6
Aug 15th	Alkaline Batteries	20L Pail	60.02	4753	N/A	02 81 01-6
Aug 15th	Alkaline Batteries	20L Pail	60.02	4753	N/A	02 81 01-6
Aug 15th	Waste Corrosive Liquid, Basic	20L Pail	99	4753	NT12485-8	02 81 01-9
Aug 15th	Waste Corrosive Liquid, Basic	20L Pail	99	4753	NT12485-8	02 81 01-9
Aug 15th	Waste Corrosive Liquid, Basic	20L Pail	99	4753	NT12485-8	02 81 01-9
Aug 15th	Waste Corrosive Liquid, Basic	20L Pail	99	4753	NT12485-8	02 81 01-9
Aug 17th	Aerosols, Flammable	Drum	123.36	4754	NT12487-4	02 81 01-10

Aug 17th	Aerosols, Flammable	Drum	123.36	4754	NT12487-4	02 81 01-10
Aug 17th	Aerosols, Flammable	Drum	123.36	4754	NT12487-4	02 81 01-10
Aug 17th	Aerosols, Flammable	Drum	123.36	4754	NT12487-4	02 81 01-10
Aug 17th	Aerosols, Flammable	Drum	123.36	4754	NT12487-4	02 81 01-10
Aug 17th	Aerosols, Flammable	Drum	123.36	4754	NT12487-4	02 81 01-10
Aug 17th	Aerosols, Flammable	Drum	123.36	4754	NT12487-4	02 81 01-10
Aug 17th	Aerosols, Flammable	Drum	123.36	4754	NT12487-4	02 81 01-10
Aug 17th	Oil/Fuel Filters	Drum	199.58	4754	NT12487-4	02 81 01-8
Aug 17th	Crushed Fluorescent Tubes	Drum	379.25	4754	N/A	02 81 01-5
Aug 17th	Crushed Fluorescent Tubes	Drum	379.25	4754	N/A	02 81 01-5
Aug 17th	Crushed Fluorescent Tubes	Drum	379.25	4754	N/A	02 81 01-5
Aug 17th	Crushed Fluorescent Tubes	Drum	379.25	4754	N/A	02 81 01-5
Aug 17th	Waste Corrosive Liquid, Basic	20L Pail	71.05	4754	NT12487-4	02 81 01-9
Aug 17th	Waste Corrosive Liquid, Basic	20L Pail	71.05	4754	NT12487-4	02 81 01-9
Aug 17th	Waste Corrosive Liquid, Basic	20L Pail	71.05	4754	NT12487-4	02 81 01-9
Aug 17th	Waste Corrosive Liquid, Basic	20L Pail	71.05	4754	NT12487-4	02 81 01-9
Aug 17th	Waste Corrosive Liquid, Basic	20L Pail	71.05	4754	NT12487-4	02 81 01-9
Aug 17th	Waste Corrosive Liquid, Basic	20L Pail	71.05	4754	NT12487-4	02 81 01-9
Aug 17th	Waste Corrosive Liquid, Basic	20L Pail	71.05	4754	NT12487-4	02 81 01-9
Aug 17th	Waste Corrosive Liquid, Basic	20L Pail	71.05	4754	NT12487-4	02 81 01-9
Aug 17th	Waste Corrosive Liquid, Basic	20L Pail	71.05	4754	NT12487-4	02 81 01-9
Aug 17th	Waste Corrosive Liquid, Basic	Drum	113.56	4754	NT12487-4	02 81 01-9
Aug 17th	Waste Paint Related Material	Drum	141.50	4754	NT12487-4	02 81 01-11
Aug 17th	Waste Paint Related Material	Drum	141.50	4754	NT12487-4	02 81 01-11
Aug 17th	Waste Paint Related Material	Drum	141.50	4754	NT12487-4	02 81 01-11

Aug 17th	Waste Paint Related Material	Drum	141.50	4754	NT12487-4	02 81 01-11
Aug 17th	Waste Adhesive/Resins	Drum	124.96	4754	NT12489-0	02 81 01-11
Aug 17th	Waste Adhesive/Resins	Drum	124.96	4754	NT12489-0	02 81 01-11
Aug 17th	Waste Adhesive/Resins	Drum	124.96	4754	NT12489-0	02 81 01-11
Aug 17th	Oil/Fuel Filters	Drum	385.00	4754	NT12487-4	02 81 01-8
Aug 17th	Oil/Fuel Filters	Drum	385.00	4754	NT12487-4	02 81 01-8
Aug 17th	Oil/Fuel Filters	Drum	385.00	4754	NT12487-4	02 81 01-8
Aug 17th	Env. Hazardous Substance, Liquid, NOS	Drum	114.00	4754	NT12489-0	02 81 01-11
Aug 17th	Non-Regulated Liquid - Lab Pack	Drum	181.00	4754	N/A	02 81 01-11
Aug 17th	Non-Regulated Liquid - Lab Pack	Drum	186.00	4755	N/A	02 81 01-11
Aug 17th	Non-Regulated Solids - Lab Pack	Drum	154.00	4754	N/A	02 81 01-11
Aug 17th	Non-Regulated Solids - Lab Pack	Drum	144.00	4755	N/A	02 81 01-11
Aug 17th	Waste Corrosive Liquid, Basic	Drum	52.00	4755	NT12489-0	02 81 01-9
Aug 17th	Alkaline Batteries	Drum	213.00	4755	N/A	02 81 01-6
Aug 17th	Waste Flammable Liquids, NOS	Drum	136.00	4755	NT12490-8	02 81 01-9
Aug 19th	Batteries, Wet, Non-Spillable (SLA)	Crate	1259.28	4756	NT12491-6	02 81 01-6
Aug 19th	Batteries, Wet, Filled with Acid	Crate	1796.30	4756	NT12491-6	02 81 01-6
Aug 19th	Batteries, Wet, Filled with Acid	Crate	1796.30	4756	NT12491-6	02 81 01-6
Aug 19th	Batteries, Wet, Filled with Acid	Crate	1796.30	4756	NT12491-6	02 81 01-6
Aug 19th	Waste Corrosive Liquid, Acidic	20L Pail	100.78	4756	NT12492-4	02 81 01-9
Aug 19th	Waste Adhesive/Resins	Drum	89.76	4756	NT12491-6	02 81 01-11
Aug 19th	Oxidizing Solid, NOS	20L Pail	19.95	4756	NT12492-4	02 81 01-11
Aug 19th	Oxidizing Solid, NOS	20L Pail	19.95	4756	NT12492-4	02 81 01-11
Aug 19th	Oxidizing Solid, NOS	20L Pail	19.95	4756	NT12492-4	02 81 01-11
Aug 19th	Clinical Waste, NOS	20L Pail	5.98	4756	NT12492-4	02 81 01-11

Aug 19th	Oxidizing Liquid, NOS	20L Pail	31.94	4756	NT12492-4	02 81 01-11
Aug 19th	Hypochlorite Solution	20L Pail	3.98	4756	NT12492-4	02 81 01-9
Aug 19th	Hypochlorite Solution	20L Pail	49.87	4756	NT12492-4	02 81 01-9
Aug 19th	Waste Corrosive Liquid, Basic	20L Pail	49.87	4756	NT12491-6	02 81 01-9
Aug 19th	Waste Flammable Liquids, Toxic	Drum	264.44	4756	NT12493-2	02 81 01-9
Aug 19th	Aerosols, Flammable	Drum	262.46	4757	NT12493-2	02 81 01-10
Aug 19th	Waste Paint Related Material	Drum	267.52	4757	NT12493-2	02 81 01-11
Aug 19th	Mercury	20L Pail	2.64	4757	NT12493-2	02 81 01-11
Aug 21st	Waste Glycol	Drum	269.84	4758	NT12494-0	02 81 01-7
Aug 21st	Waste Glycol	Drum	269.84	4758	NT12494-0	02 81 01-7
Aug 21st	Waste Glycol	Drum	269.84	4758	NT12494-0	02 81 01-7
Aug 21st	Waste Glycol	Drum	269.84	4758	NT12494-0	02 81 01-7
Aug 21st	Waste Glycol	Drum	269.84	4758	NT12494-0	02 81 01-7
Aug 21st	Waste Glycol	Drum	269.84	4758	NT12494-0	02 81 01-7
Aug 21st	Waste Glycol	Drum	269.84	4758	NT12494-0	02 81 01-7
Aug 21st	Waste Glycol	Drum	269.84	4758	NT12494-0	02 81 01-7
Aug 21st	Waste Glycol	Drum	269.84	4758	NT12494-0	02 81 01-7
Aug 21st	Waste Glycol	Drum	269.84	4758	NT12494-0	02 81 01-7
Aug 21st	Waste Glycol	Drum	269.84	4758	NT12494-0	02 81 01-7
Aug 21st	Waste Glycol	Drum	269.84	4758	NT12494-0	02 81 01-7
Aug 21st	Waste Glycol	Drum	269.84	4758	NT12494-0	02 81 01-7
Aug 21st	Waste Glycol	Drum	269.84	4758	NT12494-0	02 81 01-7
Aug 21st	Waste Glycol	Drum	269.84	4758	NT12494-0	02 81 01-7
Aug 21st	Waste Glycol	Drum	269.84	4758	NT12494-0	02 81 01-7
Aug 21st	Waste Glycol	Drum	269.84	4758	NT12494-0	02 81 01-7
Aug 21st	Waste Glycol	Drum	269.84	4758	NT12494-0	02 81 01-7
Aug 21st	Waste Glycol	Drum	269.84	4758	NT12494-0	02 81 01-7
Aug 21st	Waste Glycol	Drum	269.84	4758	NT12494-0	02 81 01-7
Aug 21st	Waste Glycol	Drum	269.84	4758	NT12494-0	02 81 01-7
Aug 21st	Waste Glycol	Drum	269.84	4758	NT12494-0	02 81 01-7
Aug 21st	Non-Reg Solid Lab Pack	Pail	16.64	4758	N/A	02 81 01-11
Aug 21st	Non-Reg Solid Lab Pack	Pail	16.64	4758	N/A	02 81 01-11
Aug 21st	Non-Reg Solid Lab Pack	Pail	16.64	4758	N/A	02 81 01-11
Aug 23rd	Waste Leachate – Glycol/Water	Tote	3010.22	4760	NT12496-5	02 81 01-7
Aug 23rd	Waste Leachate – Glycol/Water	Tote	3010.22	4760	NT12496-5	02 81 01-7

Aug 23rd	Waste Leachate – Glycol/Water	Tote	3010.22	4760	NT12496-5	02 81 01-7
Aug 23rd	Waste Leachate – Glycol/Water	Tote	3010.22	4760	NT12496-5	02 81 01-7
Aug 23rd	Waste Leachate – Glycol/Water	Tote	3010.22	4760	NT12496-5	02 81 01-7
Aug 23rd	Waste Leachate – Glycol/Water	Tote	3010.22	4760	NT12496-5	02 81 01-7
Aug 23rd	Waste Leachate – Glycol/Water	Drum	499.40	4760	NT12496-5	02 81 01-7
Aug 23rd	Waste Leachate – Glycol/Water	Drum	499.40	4760	NT12496-5	02 81 01-7
Aug 23rd	Waste Leachate- Glycol/Water	Drum	499.40	4760	NT12496-5	02 81 01-7
Aug 23rd	Waste Leachate- Glycol/Water	Drum	499.40	4760	NT12496-5	02 81 01-7
Aug 23rd	Waste Leachate- Glycol/Water	Drum	499.40	4760	NT12496-5	02 81 01-7
Aug 23rd	Waste Leachate- Glycol/Water	Drum	499.40	4760	NT12496-5	02 81 01-7
Aug 23rd	Waste Adhesives/Resins	20L Pail	33.00	4760	NT12496-5	02 81 01-11
Aug 23rd	Asbestos, White	20L Pail	13.20	4760	NT12496-5	02 81 01-11
Aug 23rd	Waste Corrosive Liquid	20L Pail	38.50	4760	NT12496-5	02 81 01-9
Aug 23rd	Waste Corrosive Liquid	20L Pail	38.50	4760	NT12496-5	02 81 01-9
Aug 23rd	Waste Corrosive Liquid	20L Pail	38.50	4760	NT12496-5	02 81 01-9
Aug 23rd	Waste Corrosive Liquid	20L Pail	38.50	4760	NT12496-5	02 81 01-9
Aug 23rd	Waste Corrosive Liquid	20L Pail	38.50	4760	NT12496-5	02 81 01-9
Aug 23rd	Waste Corrosive Liquid	20L Pail	38.50	4760	NT12496-5	02 81 01-9
Sept 13th	Compressed gas - Fire Extinguishers	Ply Box	301.75	4765	NT13865-0	02 81 01-3
Sept 13th	Compressed gas - Fire Extinguishers	Ply Box	301.75	4765	NT13865-0	02 81 01-3
Sept 13th	Compressed gas - Fire Extinguishers	Ply Box	301.75	4765	NT13865-0	02 81 01-3
Sept 13th	Compressed gas - Fire Extinguishers	Ply Box	301.75	4765	NT13865-0	02 81 01-3
Sept 13th	Batteries, Wet, Filled with Acid	Small Crate	1207.50	4764	NT12500-4	Finning

Sept 13th	Batteries, Wet, Filled with Acid	Small Crate	1207.50	4764	NT12500-4	Finning
Sept 13th	Waste Leachate - Glycol	Drum	484.00	4759	NT13864-3	02 81 01-7
Sept 13th	Waste Leachate - Glycol	Drum	484.00	4759	NT13864-3	02 81 01-7
Sept 13th	Waste Leachate - Glycol	Drum	484.00	4759	NT13864-3	02 81 01-7
Sept 13th	Waste Leachate - Glycol	Drum	484.00	4759	NT13864-3	02 81 01-7
Sept 13th	Waste Leachate - Glycol	Drum	484.00	4759	NT13864-3	02 81 01-7
Sept 13th	Waste Leachate - Glycol	Drum	484.00	4759	NT13864-3	02 81 01-7
Sept 13th	Waste Leachate - Glycol	Drum	484.00	4759	NT13864-3	02 81 01-7
Sept 13th	Waste Leachate - Glycol	Drum	484.00	4759	NT13864-3	02 81 01-7
Sept 13th	Waste Leachate - Glycol	Drum	484.00	4759	NT13864-3	02 81 01-7
Sept 13th	Waste Leachate - Glycol	Drum	484.00	4759	NT13864-3	02 81 01-7
Sept 13th	Waste Leachate - Glycol	Drum	484.00	4759	NT13864-3	02 81 01-7
Sept 13th	Waste Leachate - Glycol	Drum	484.00	4759	NT13864-3	02 81 01-7
Sept 13th	Waste Leachate - Glycol	Drum	484.00	4759	NT13864-3	02 81 01-7
Sept 13th	Waste Leachate - Glycol	Drum	484.00	4759	NT13864-3	02 81 01-7
Sept 13th	Waste Leachate - Glycol	Drum	484.00	4759	NT13864-3	02 81 01-7
Sept 13th	Waste Leachate - Glycol	Drum	484.00	4759	NT13864-3	02 81 01-7
Sept 13th	Waste Leachate - Glycol	Drum	484.00	4759	NT13864-3	02 81 01-7
Sept 13th	Waste Leachate – Glycol/Water	Tote	2389.20	4762	NT12498-1	Finning
Sept 13th	Waste Leachate – Glycol/Water	Tote	2389.20	4762	NT12498-1	Finning
Sept 13th	Waste Leachate – Glycol/Water	Tote	2380.40	4762	NT12498-1	Finning
Sept 13th	Waste Leachate – Glycol/Water	Tote	2380.40	4762	NT12498-1	Finning
Sept 13th	Petroleum Grease	Drum	391.60	4762	N/A	Finning
Sept 13th	Petroleum Grease	Drum	391.60	4762	N/A	Finning
Sept 13th	Petroleum Grease	Drum	391.60	4762	N/A	Finning

Sept 13th	Petroleum Grease	Drum	391.60	4762	N/A	Finning
Sept 13th	Petroleum Grease	Drum	391.60	4762	N/A	Finning
Sept 13th	Petroleum Grease	Drum	391.60	4762	N/A	Finning
Sept 13th	Petroleum Grease	Drum	391.60	4762	N/A	Finning
Sept 13th	Non-Regulated Solids - Plastics	Megabag	191.40	4762	N/A	Finning
Sept 13th	Non-Regulated Solids - Plastics	Megabag	191.40	4762	N/A	Finning
Sept 13th	Non-Regulated Solids - Plastics	Megabag	191.40	4762	N/A	Finning
Sept 13th	Non-Regulated Solids - Plastics	Megabag	191.40	4762	N/A	Finning
Sept 13th	Non-Regulated Solids - Plastics	Megabag	191.40	4762	N/A	Finning
Sept 13th	Non-Regulated Solids - Plastics	Megabag	191.40	4762	N/A	Finning
Sept 13th	Non-Regulated Solids - Plastics	Megabag	191.40	4762	N/A	Finning
Sept 13th	Non-Regulated Solids - Plastics	Megabag	191.40	4762	N/A	Finning
Sept 13th	Non-Regulated Solids - Plastics	Megabag	191.40	4762	N/A	Finning
Sept 15th	Waste Leachate – Glycol/Water	Drum	484.00	4763	NT12499-9	Finning
Sept 15th	Waste Leachate – Glycol/Water	Drum	484.00	4763	NT12499-9	Finning
Sept 15th	Waste Leachate – Glycol/Water	Drum	484.00	4763	NT12499-9	Finning
Sept 15th	Waste Leachate – Glycol/Water	Drum	484.00	4763	NT12499-9	Finning
Sept 15th	Waste Leachate – Glycol/Water	Drum	484.00	4763	NT12499-9	Finning
Sept 15th	Waste Leachate – Glycol/Water	Drum	484.00	4763	NT12499-9	Finning
Sept 15th	Waste Oil	Drum	387.20	4763	NT12499-9	Finning
Sept 15th	Waste Oil	Drum	387.20	4763	NT12499-9	Finning
Sept 15th	Waste Oil	Drum	387.20	4763	NT12499-9	Finning

Sept 15th	Waste Oil	Drum	387.20	4763	NT12499-9	Finning
Sept 15th	Waste Oil	Drum	387.20	4763	NT12499-9	Finning
Sept 15th	Waste Oil	Drum	387.20	4763	NT12499-9	Finning
Sept 15th	Waste Oil	Drum	387.20	4763	NT12499-9	Finning
Sept 15th	Waste Oil	Drum	387.20	4763	NT12499-9	Finning
Sept 15th	Waste Oil	Drum	387.20	4763	NT12499-9	Finning
Sept 15th	Waste Oil	Drum	387.20	4763	NT12499-9	Finning
Sept 15th	Saturated Rags	Drum	354.20	4763	N/A	Finning
Sept 15th	Saturated Rags	Drum	354.20	4763	N/A	Finning
Sept 15th	Saturated Rags	Drum	354.20	4763	N/A	Finning
Sept 15th	Oil/Fuel Filters	Pail	24.20	4763	N/A	Finning
Sept 15th	Oil/Fuel Filters	Pail	24.20	4763	N/A	Finning
Sept 15th	Oil/Fuel Filters	Pail	24.20	4763	N/A	Finning
Sept 15th	Oil/Fuel Filters	Pail	24.20	4763	N/A	Finning
Sept 15th	Oil/Fuel Filters	Pail	24.20	4763	N/A	Finning
Sept 21st	Waste Oil	Drum	387.00	4764	NT12500-4	Finning
Sept 21st	Glycol/Water	Drum	484.00	4764	NT12500-4	Finning
Sept 21st	Glycol/Water	Pail	484.00	4764	NT12500-4	Finning
Oct. 5th	Glycol + Oil + Water	Pail	484.00	4768	NT14104-3	02 81 01-2
Oct. 5th	Glycol + Oil + Water	Pail	484.00	4768	NT14104-3	02 81 01-2
Oct. 5th	Glycol + Oil + Water	Pail	484.00	4768	NT14104-3	02 81 01-2
Oct. 5th	Glycol + Oil + Water	Pail	484.00	4768	NT14104-3	02 81 01-2
Oct. 5th	Glycol + Oil + Water	Pail	484.00	4768	NT14104-3	02 81 01-2
Oct. 5th	Glycol + Oil + Water	Pail	484.00	4768	NT14104-3	02 81 01-2
Oct. 5th	Glycol + Oil + Water	Pail	484.00	4768	NT14104-3	02 81 01-2
Oct. 5th	Glycol + Oil + Water	Pail	484.00	4768	NT14104-3	02 81 01-2

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Oct. 5th	Waste Oil	Pail	387.20	4768	NT14104-3	02 81 01-2
Oct. 5th	Waste Oil	Pail	387.20	4768	NT14104-3	02 81 01-2
Oct. 5th	Waste Oil	Pail	387.20	4768	NT14104-3	02 81 01-2
Oct. 5th	Waste Oil	Pail	387.20	4768	NT14104-3	02 81 01-2
Oct. 5th	Waste Leachate - Oily Water Mix	Pail	484.00	4767	NT14103-5	02 81 01-2
Oct. 5th	Waste Glycol	Pail	495.00	4764	NT12500-4	Finning
Oct. 13th	Waste Leachate - Mix	Pail	469.20	4762	NT12498-1	Finning
Oct. 13th	Waste Leachate - Mix	Pail	469.20	4762	NT12498-1	Finning
Oct. 13th	Waste Leachate - Mix	Pail	469.20	4762	NT12498-1	Finning
Oct. 13th	Waste Leachate - Mix	Pail	469.20	4762	NT12498-1	Finning
Oct. 13th	Waste Leachate - Mix	Pail	469.20	4762	NT12498-1	Finning
Oct. 13th	Waste Leachate - Mix	Pail	469.20	4762	NT12498-1	Finning
Oct. 13th	Waste Leachate - Mix	Pail	469.20	4762	NT12498-1	Finning
Oct. 13th	Waste Leachate - Mix	Pail	469.20	4762	NT12498-1	Finning
Oct. 13th	Glycol + Oil + Water	Pail	520.00	4769	NT114105-0	02 81 01-2
Oct. 13th	Glycol + Oil + Water	Pail	520.00	4769	NT114105-0	02 81 01-2
Oct. 13th	Glycol + Oil + Water	Pail	520.00	4769	NT114105-0	02 81 01-2
Oct. 13th	Glycol + Oil + Water	Pail	520.00	4769	NT114105-0	02 81 01-2
Oct. 13th	Glycol + Oil + Water	Pail	520.00	4769	NT114105-0	02 81 01-2
Oct. 13th	Glycol + Oil + Water	Pail	520.00	4769	NT114105-0	02 81 01-2
Oct. 13th	Glycol + Oil + Water	Pail	520.00	4769	NT114105-0	02 81 01-2
Oct. 13th	Glycol + Oil + Water	Pail	520.00	4769	NT114105-0	02 81 01-2
Oct. 13th	Glycol + Oil + Water	Pail	520.00	4769	NT114105-0	02 81 01-2
Oct. 13th	Glycol + Oil + Water	Pail	520.00	4769	NT114105-0	02 81 01-2
Oct. 13th	Glycol + Oil + Water	Pail	520.00	4769	NT114105-0	02 81 01-2

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Oct. 13th	Glycol + Oil + Water	Pail	520.00	4769	NT114105-0	02 81 01-2
Oct. 13th	Glycol + Oil + Water	Pail	520.00	4769	NT114105-0	02 81 01-2
Oct. 13th	Glycol + Oil + Water	Pail	520.00	4769	NT114105- 0	02 81 01-2
Oct. 13th	Glycol + Oil + Water	Pail	520.00	4769	NT114105-0	02 81 01-2
Oct. 13th	Glycol + Oil + Water	Pail	520.00	4769	NT114105-0	02 81 01-2
Oct. 13th	Glycol + Oil + Water	Pail	520.00	4769	NT114105- 0	02 81 01-2
Oct. 13th	Glycol+waste oil+ water + sludge	Pail	520.00	4772	NT14107-6	02 81 01-2
Oct. 13th	Glycol+waste oil+ water + sludge	Pail	520.00	4772	NT14107-6	02 81 01-2
Oct. 13th	Glycol+waste oil+ water + sludge	Pail	520.00	4772	NT14107-6	02 81 01-2
Oct. 13th	Glycol+waste oil+ water + sludge	Pail	520.00	4772	NT14107-6	02 81 01-2
Oct. 13th	Waste Leachate - Oily Water Mix	Pail	2741.00	4770		02 81 01-2
Oct. 13th	Waste Leachate - Oily Water Mix	Pail	2741.00	4770		02 81 01-2
Oct. 13th	Waste Leachate - Oily Water Mix	Pail	2741.00	4770		02 81 01-2
Oct. 13th	Waste Leachate - Oily Water Mix	Pail	2741.00	4770		02 81 01-2
Oct. 13th	Waste Leachate - Oily Water Mix	Pail	2741.00	4770		02 81 01-2
Oct. 13th	Waste Leachate - Oily Water Mix	Pail	2741.00	4770		02 81 01-2
Oct. 13th	Waste Oil and Water	Pail	2200.00	4771	NT114106-8	02 81 01-2
Oct. 13th	Waste Oil and Water	Pail	2200.00	4771	NT114106-8	02 81 01-2
Oct. 13th	Waste Oil and Water	Pail	2200.00	4771	NT114106- 8	02 81 01-2
Oct. 13th	Waste Oil and Water	Pail	2200.00	4771	NT114106-8	02 81 01-2
Oct. 13th	Glycol+waste oil+ water	Pail	2200.00	4771	NT114106-8	02 81 01-2
Oct. 13th	Glycol+waste oil+ water + sludge	Pail	3122.00	4772	NT14107-6	02 81 01-2
Oct. 13th	Glycol+waste oil+ water + sludge	Pail	3122.00	4772	NT14107-6	02 81 01-2
Oct. 13th	Glycol+waste oil+ water + sludge	Pail	3122.00	4772	NT14107-6	02 81 01-2
Oct. 13th	Glycol+waste oil+ water + sludge	Pail	3122.00	4772	NT14107-6	02 81 01-2

Oct. 13th	Glycol+waste oil+ water + sludge	Pail	3122.00	4772	NT14107-6	02 81 01-2
Oct. 13th	Glycol+waste oil+ water + sludge	Pail	3122.00	4772	NT14107-6	02 81 01-2
Oct. 13th	Glycol+waste oil+ water + sludge	Pail	3122.00	4772	NT14107-6	02 81 01-2
Oct. 16th	Batteries, Wet, Filled with Acid	Pail	350.90	5208	NT12413-0	02 81 01-6
Oct. 16th	Batteries, Wet, Filled with Acid	Pail	350.90	5208	NT12413-0	02 81 01-6
Oct. 16th	Aerosols, Flammable	Pail	121.00	5208	NT12413-0	02 81 01-10
Oct. 16th	Aerosols, Flammable	Pail	121.00	5208	NT12413-0	02 81 01-10
Oct. 16th	Compressed Gas, Nitrogen	Pail	114.40	5208	NT12413-0	02 81 01-3
Oct. 16th	Oxidizing Solids, NOS (AN)	Pail	36.08	5208	NT12413-0	02 81 01-11
Oct. 16th	Oxidizing Solids, NOS (AN)	Pail	36.08	5208	NT12413-0	02 81 01-11
Oct. 16th	Oxidizing Solids, NOS (AN)	Pail	36.08	5208	NT12413-0	02 81 01-11
Oct. 16th	Oxidizing Solids, NOS (AN)	Pail	36.08	5208	NT12413-0	02 81 01-11
Oct. 16th	Oxidizing Solids, NOS (AN)	Pail	36.08	5208	NT12413-0	02 81 01-11
Oct. 16th	Batteries, Wet, Filled with Alkali	Pail	28.60	5208	NT12414-8	02 81 01-6
Oct. 16th	Petroleum Grease	Drum	255.00	4768	NT14104-3	02 81 01-2
Oct. 16th	Petroleum Grease	Pail	33.00	NES	NES	02 81 01-2
Oct. 16th	Petroleum Grease	Pail	33.00	NES	NES	02 81 01-2
Oct. 16th	Petroleum Grease	Pail	33.00	NES	NES	02 81 01-2
Oct. 16th	Petroleum Grease	Pail	33.00	NES	NES	02 81 01-2
Oct. 16th	Petroleum Grease	Pail	33.00	NES	NES	02 81 01-2
Oct. 16th	Petroleum Grease	Pail	33.00	NES	NES	02 81 01-2
Oct. 16th	Petroleum Grease	Pail	33.00	NES	NES	02 81 01-2
Oct. 16th	Waste Leachate - Oil	Pail	36.00	NES	NES	02 81 01-2
Oct. 16th	Waste Leachate - Oil	Pail	36.00	NES	NES	02 81 01-2

Oct. 16th	Waste Leachate - Oil	Pail	36.00	NES	NES	02 81 01-2
Oct. 16th	Waste Leachate - Oil	Pail	36.00	NES	NES	02 81 01-2
Oct. 16th	Waste Leachate - Glycol + Oil + Water Mix(H2O)	Drum	446.33	4766	NT14101-9	02 81 01-2
Oct. 16th	Waste Leachate - Glycol + Oil + Water Mix(H2O)	Drum	446.33	4766	NT14101-9	02 81 01-2
Oct. 16th	Waste Leachate - Glycol + Oil + Water Mix(H2O)	Drum	446.33	4766	NT14101-9	02 81 01-2
Oct. 16th	Waste Leachate - Glycol + Oil + Water Mix(H2O)	Drum	446.33	4766	NT14101-9	02 81 01-2
Oct. 16th	Waste Leachate - Glycol + Oil + Water Mix(H2O)	Drum	446.33	4766	NT14101-9	02 81 01-2
Oct. 16th	Waste Leachate - Glycol + Oil + Water Mix(H2O)	Drum	446.33	4766	NT14101-9	02 81 01-2
Oct. 16th	Waste Leachate - Glycol + Oil + Water Mix(H2O)	Drum	446.33	4766	NT14101-9	02 81 01-2
Oct. 16th	Waste Leachate - Glycol + Oil + Water Mix(H2O)	Drum	446.33	4766	NT14101-9	02 81 01-2
Oct. 16th	Waste Leachate - Glycol + Oil + Water Mix(H2O)	Drum	446.33	4766	NT14101-9	02 81 01-2
Oct. 16th	Waste Leachate - Glycol + Oil + Water Mix(H2O)	Overpack	669.45	4766	NT14101-9	02 81 01-2
Oct. 16th	Non-Regulated Solids - Plastics	Megabag	172.80	4765	N/A	02 81 01-8
Oct. 16th	Non-Regulated Solids - Plastics	Megabag	172.80	4765	N/A	02 81 01-8
Oct. 16th	Non-Regulated Solids - Plastics	Megabag	172.80	4765	N/A	02 81 01-8
Oct. 16th	Non-Regulated Solids - Plastics	Megabag	172.80	4765	N/A	02 81 01-8
Oct. 16th	Non-Regulated Solids - Plastics	Megabag	172.80	4765	N/A	02 81 01-8
Oct. 16th	Waste Leachate - Glycol + Oil	Drum	453.00	4766	NT14101-9	02 81 01-2
Oct. 16th	Waste Leachate - Glycol + Oil	Drum	453.00	4766	NT14101-9	02 81 01-2
Oct. 16th	Waste Leachate - Glycol + Oil	Drum	453.00	4766	NT14101-9	02 81 01-2
Oct. 16th	Waste Leachate - Glycol + Oil	Drum	453.00	4766	NT14101-9	02 81 01-2
Oct. 16th	Waste Leachate - Glycol + Oil	Drum	453.00	4766	NT14101-9	02 81 01-2
Oct. 16th	Waste Leachate - Oil	Drum	453.00	4764	NT12500-4	Finning
Oct. 16th	Waste Leachate - Oil	Drum	453.00	4764	NT12500-4	Finning

Oct. 16th	50/50 engine coolant	Drum	453.00	4764	NT12500-4	02 81 01-7
Oct. 16th	50/50 engine coolant	Drum	453.00	4764	NT12500-4	02 81 01-7
Oct. 16th	50/50 engine coolant	Drum	453.00	4764	NT12500-4	02 81 01-7
Oct. 16th	Glycol + Oil + Water	Drum	453.00	4768	NT14104-3	02 81 01-2
Oct. 16th	Glycol + Oil + Water	Drum	453.00	4768	NT14104-3	02 81 01-2
Oct. 16th	Waste Leachate - Glycol + Oil + Water Mix(H2O)	Drum	478.00	4766	NT14101-9	02 81 01-2
Oct. 16th	Hydrocarbons Sludge	Drum	513.14	NES	NES	02 81 01-2
Oct. 16th	Hydrocarbons Sludge	Drum	513.14	NES	NES	02 81 01-2
Oct. 16th	Hydrocarbons Sludge	Drum	513.14	NES	NES	02 81 01-2
Oct. 16th	Hydrocarbons Sludge	Drum	513.14	NES	NES	02 81 01-2
Oct. 16th	Hydrocarbons Sludge	Drum	513.14	NES	NES	02 81 01-2
Oct. 16th	Hydrocarbons Sludge	Drum	513.14	NES	NES	02 81 01-2
Oct. 16th	Hydrocarbons Sludge	Drum	513.14	NES	NES	02 81 01-2
Oct. 16th	Old Floor Dry - Sweepings	Drum	598.00	NES	NES	02 81 01-11
Oct. 16th	Petroleum Grease	Tote	2709.00	NES	NES	02 81 01-2
Oct. 16th	Oil/Fuel Filters	Drum	82.00	4766	NT14101-9	02 81 01-8
Oct. 16th	Oil/Fuel Filters	Drum	82.00	4766	NT14101-9	02 81 01-8
Oct. 18th	Waste Glycol + Oil Mix	Tote	2607.00	4761	NT12497-3	02 81 01-2
Oct. 18th	Waste Glycol + Oil Mix	Tote	3007.00	4761	NT12497-3	02 81 01-2
Oct. 18th	Waste Glycol	Tote	3353.00	4761	NT12497-3	02 81 01-7
Oct. 18th	Waste Glycol	Tote	3002.00	4761	NT12497-3	02 81 01-7
Oct. 18th	Waste Glycol	Tote	3157.00	4761	NT12497-3	02 81 01-7
Oct. 18th	Greywater	Tote	2720.00	NES	NES	01 54 00-2
Oct. 18th	Greywater	Tote	3381.00	NES	NES	01 54 00-2
Oct. 18th	Waste Leachate - Glycol Mix	Drum	526.50	4761	NT12497-3	02 81 01-2
Oct. 18th	Waste Leachate - Glycol Mix	Drum	526.50	4761	NT12497-3	02 81 01-2
Oct. 18th	Waste Leachate - Glycol Mix	Drum	526.50	4761	NT12497-3	02 81 01-2

Oct. 18th	Waste Leachate - Glycol Mix	Drum	526.50	4761	NT12497-3	02 81 01-2
Oct. 18th	Waste Leachate - Glycol Mix	Drum	510.75	4761	NT12497-3	02 81 01-2
Oct. 18th	Waste Leachate - Glycol Mix	Drum	510.75	4761	NT12497-3	02 81 01-2
Oct. 18th	Waste Leachate - Glycol Mix	Drum	510.75	4761	NT12497-3	02 81 01-2
Oct. 18th	Waste Leachate - Glycol Mix	Drum	510.75	4761	NT12497-3	02 81 01-2
Oct. 18th	Waste Leachate - Glycol Mix	Drum	532.50	4761	NT12497-3	02 81 01-2
Oct. 18th	Waste Leachate - Glycol Mix	Drum	532.50	4761	NT12497-3	02 81 01-2
Oct. 18th	Waste Leachate - Glycol Mix	Drum	532.50	4761	NT12497-3	02 81 01-2
Oct. 18th	Waste Leachate - Glycol Mix	Drum	532.50	4761	NT12497-3	02 81 01-2
Oct. 18th	Waste Leachate - Glycol Mix	Drum	528.00	4761	NT12497-3	02 81 01-2
Oct. 18th	Waste Leachate - Glycol Mix	Drum	528.00	4761	NT12497-3	02 81 01-2
Oct. 18th	Waste Leachate - Glycol Mix	Drum	528.00	4761	NT12497-3	02 81 01-2
Oct. 18th	Waste Leachate - Glycol Mix	Drum	528.00	4761	NT12497-3	02 81 01-2
Oct. 18th	Glycol + Oil + Water	Drum	453.00	4768	NT14104-3	02 81 01-2
Oct. 18th	Waste Leachate - Oily Water Mix	Drum	474.25	NES	NES	02 81 01-2
Oct. 18th	Waste Leachate - Oily Water Mix	Drum	474.25	NES	NES	02 81 01-2
Oct. 18th	Waste Leachate - Oily Water Mix	Drum	474.25	NES	NES	02 81 01-2
Oct. 18th	Waste Leachate - Oily Water Mix	Drum	465.25	NES	NES	02 81 01-2
Oct. 18th	Waste Leachate - Oily Water Mix	Drum	465.25	NES	NES	02 81 01-2
Oct. 18th	Waste Leachate - Oily Water Mix	Drum	465.25	NES	NES	02 81 01-2
Oct. 18th	Waste Leachate - Oily Water Mix	Drum	465.25	NES	NES	02 81 01-2
Oct. 18th	Waste Leachate - Oily Water Mix	Drum	469.50	NES	NES	02 81 01-2
Oct. 18th	Waste Leachate - Oily Water Mix	Drum	469.50	NES	NES	02 81 01-2
Oct. 18th	Waste Leachate - Oily Water Mix	Drum	469.50	NES	NES	02 81 01-2
Oct. 18th	Waste Leachate - Oily Water Mix	Drum	495.50	NES	NES	02 81 01-2
Oct. 18th	Waste Leachate - Oily Water Mix	Drum	495.50	NES	NES	02 81 01-2

Oct. 18th	Waste Leachate - Oily Water Mix	Drum	495.50	NES	NES	02 81 01-2
Oct. 18th	Waste Leachate - Oily Water Mix	Drum	495.50	NES	NES	02 81 01-2
Oct. 18th	Waste Leachate - Oily Water Mix	Drum	395.25	NES	NES	02 81 01-2
Oct. 18th	Waste Leachate - Oily Water Mix	Drum	395.25	NES	NES	02 81 01-2
Oct. 18th	Waste Leachate - Oily Water Mix	Drum	395.25	NES	NES	02 81 01-2
Oct. 18th	Waste Leachate - Oily Water Mix	Drum	395.25	NES	NES	02 81 01-2
Oct. 18th	Waste Leachate - Oily Water Mix	Drum	495.66	NES	NES	02 81 01-2
Oct. 18th	Waste Leachate - Oily Water Mix	Drum	495.66	NES	NES	02 81 01-2
Oct. 18th	Waste Leachate - Oily Water Mix	Drum	495.66	NES	NES	02 81 01-2

KBL Environmental hereby certifies that the material listed herein has been received and inventoried at its registered hazardous waste transfer facility located at 17 Cameron Rd, Yellowknife, NT. All waste streams listed above will undergo final profiling and consolidation at which point it will be sent for final destruction.

Issued By:



Jeff Bembridge
Operations Manager
KBL Environmental LTD.
NTR000123

Date	November 2018
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- Hazardous Material Shipping Manifests

MOVEMENT DOCUMENT / MANIFEST DOCUMENT DE MOUVEMENT / MANIFESTE

This Movement document/manifest conforms to all federal and provincial environmental legislation.
Ce document de mouvement/manifeste est conforme aux législations fédérale et provinciale sur l'environnement.

NT13888-2

Movement Document / Manifest Reference No.
N° de référence du document de mouvement/manifeste

A Generator / consigneur Producteur / expéditeur Registration No. / Provincial ID No. N° d'immatriculation - d'id. provincial NTG000306				B Carrier Transporteur Registration No. / Provincial ID No. N° d'immatriculation - d'id. provincial NTC000124				Reference Nos. of other movement documents/manifest(s) used / N° de référence des autres documents de mouvement/manifestes utilisés																																																																																																															
Company / Entreprise Roads Construction Address / Adresse postale 25 SUNDAY DRIVE, City / Ville Hay River, NT Postal code / Code postal X0E 0R0 E-mail / Courriel électronique (867) 974-3243 Shipping site address / Adresse du lieu de l'expédition CARL LARSEN City / Ville Hay River, NT Province NT Postal code / Code postal X0E 0R0				Company / Entreprise KBC Environmental Ltd. Address / Adresse postale 17 CAMBRIDGE RD. City / Ville Yellowknife, NT Postal code / Code postal X1A 2W0 E-mail / Courriel électronique Tel. No. / N° de tél. () Vehicle / Véhicule Trailer - Rail car No. 1 1 ^{re} remorque - wagon Trailer - Rail car No. 2 2 ^e remorque - wagon Registration No. / N° d'immatriculation Prov. NT				C Receiver / consignee Réceptionnaire / destinataire Registration No. / Provincial ID No. N° d'immatriculation - d'id. provincial Receiver / consignee information same as in Part A Les renseignements du réceptionnaire / destinataire sont les mêmes qu'à la Partie A <input type="checkbox"/> Yes / Oui <input type="checkbox"/> No, complete the box below / Non, remplir la case ci-dessous Company name / Nom de l'entreprise Mailing address / Adresse postale City / Ville Province Postal code / Code postal E-mail / Courriel électronique Tel. No. / N° de tél. () Receiving site address / Adresse du lieu de destination																																																																																																															
Intended Receiver / consignee Réceptionnaire / destinataire prévu Yellowknife Waste Facility Address / Adresse postale City / Ville Yellowknife, NT Postal code / Code postal X1A 2W0 E-mail / Courriel électronique 867-873-5263 Receiving site address / Adresse du lieu de destination 17 CAMBRIDGE ROAD City / Ville Yellowknife, NT Postal code / Code postal X1A 2W0				Port of entry Point d'entrée International use only Port of exit Point de sortie International use only Carrier Certification: I certify that I have received waste or recyclable material from the generator / consigneur for delivery to the receiver / consignee as set out in Part A and that the information contained in Part B is complete and correct. Attestation du transporteur: J'atteste avoir reçu les déchets ou matières recyclables du producteur / expéditeur en vue de leur livraison au réceptionnaire / destinataire, tels qu'ils figurent à la partie A et que les renseignements inscrits à la partie B sont exacts et complets. Name of authorized person (print): Nom de l'agent autorisé (caractères d'imprimerie): BOB AVERA 867-873-5263 Year / Année Month / Mois Day / Jour Signature 1 7 1 0 0 5				Date received / Date de réception Year / Année Month / Mois Day / Jour Time / Heure <input type="checkbox"/> A.M. <input type="checkbox"/> P.M. If waste or recyclable material to be transferred, specify intended company name / Si les déchets ou matières recyclables doivent être transférés, préciser le nom du destinataire Registration No. / Provincial ID No. N° d'immatriculation / d'id. provincial																																																																																																															
Prov. code Code prov.				Shipping name Appellation réglementaire				Class / Classe Sub. class(es) Sous-classe(s)				UN No. N° NU				Packing / risk gr. Gr. d'emballage / de risque				Quantity shipped Quantité expédiée				Units L or / ou Kg Unités				Packaging/Container No. / N° Codes Int. - ext.				Phys. state État phys.				Quantity received Quantité reçue				Units L or / ou Kg Unités				Comments Commentaires				Handling Code / Code de manutention				Shipment / Envoi Accepted / Refused Accepté / Refusé				Des Pack. Cont.																																																															
(i) NRL WASTE LEACHATE-MIX NRL NRL NRL 12,915 L 83 01 L				(ii) NRL WASTE LEACHATE-OIL NRL NRL NRL 820 L 4 01 L				(iii) NRL WASTE LEACHATE-GLYCOL NRL NRL NRL 410 L 2 01 L				(iv)				(v)				(vi)				(vii)				(viii)				(ix)				(x)				(xi)				(xii)				(xiii)				(xiv)				(xv)				(xvi)				(xvii)				(xviii)				(xix)				(xx)				(xxi)				(xxii)				(xxiii)				(xxiv)				(xxv)				(xxvi)				(xxvii)				(xxviii)				(xxix)				(xxx)			
Notice No. N° de notification				Notice Line No. N° de ligne de la notification				Shipment Envoi				Cf / De				D or R code Code D ou R				C code Code C				Basel Annex VIII or OECD Code Annexe VIII de Bâle ou Code OCDE				H code Code H				Y code Code Y				National code in country of / Code du pays				Customs code(s) Code(s) de douanes				If handling code "Other" (specify) Si code de manutention « autre » (spécifier)				Receiver / consignee certification / I certify that the information contained in Part C is correct and complete. Attestation du réceptionnaire / destinataire: J'atteste que tous les renseignements à la partie C sont exacts et complets.				Name of authorized person (print) Nom de l'agent autorisé (caractères d'imprimerie)				Tel. No. / N° de tél.				Signature				Tel. No. / N° de tél.																																																							
(i)				(ii)				(iii)				(iv)				(v)				(vi)				(vii)				(viii)				(ix)				(x)				(xi)				(xii)				(xiii)				(xiv)				(xv)				(xvi)				(xvii)				(xviii)				(xix)				(xx)				(xxi)				(xxii)				(xxiii)				(xxiv)				(xxv)				(xxvi)				(xxvii)				(xxviii)				(xxix)				(xxx)			
Generator / consigneur certification: I certify that the information contained in Part A is correct and complete. I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labelled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. Attestation du producteur / expéditeur: J'atteste que tous les renseignements à la partie A sont exacts et complets. Je déclare que le contenu de ce chargement est décrit ci-dessus de façon complète et exacte par la désignation officielle de transport et qu'il est convenablement classé, emballé, marqué, étiqueté, muni de plaques-étiquettes et à tous égards bien conditionné pour être transporté conformément aux réglementations internationales et nationales applicables.				Name of authorized person (print) Nom de l'agent autorisé (caractères d'imprimerie)				Tel. No. / N° de tél.				Signature POWERS/OUTCOME				Tel. No. / N° de tél.				Date shipped / Date d'expédition Year / Année Month / Mois Day / Jour				Time / Heure <input type="checkbox"/> A.M. <input type="checkbox"/> P.M.				Scheduled arrival date / Date d'arrivée prévue Year / Année Month / Mois Day / Jour																																																																																											

Instructions on reverse
Instructions au verso

Copy / Copie 1 (white / blanc)

MOVEMENT DOCUMENT / MANIFEST DOCUMENT DE MOUVEMENT / MANIFESTE

This Movement document/manifest conforms to all federal and provincial environmental legislation.
Ce document de mouvement/manifeste est conforme aux législations fédérale et provinciale sur l'environnement.

NT13876-

Movement Document / Manifest Reference No.
N° de référence du document de mouvement/manifeste

A Generator / consigneur Producteur / expéditeur Registration No. / Provincial ID No. N° d'immatriculation - d'id. provincial NTG000308				B Carrier Transporteur Registration No. / Provincial ID No. N° d'immatriculation - d'id. provincial NTC000124				Reference Nos. of other movement document(s)/manifest(s) used / N° de référence des autres documents de mouvement/manifestes utilisés			
Company name / Nom de l'entreprise Rowes Construction				Company name / Nom de l'entreprise KBL Environmental Ltd.				C Receiver / consignee Réceptionnaire / destinataire Registration No. / Provincial ID No. N° d'immatriculation - d'id. provincial			
Mailing address / Adresse postale 25 Studney Drive, Hay River, NT X0E 0R0				Mailing address / Adresse postale 17 Cameron Rd. Yellowknife, NT X1A 2N8							
E-mail / Courriel électronique Tel. No. / N° de tél. (867) 874-8243				E-mail / Courriel électronique Tel. No. / N° de tél. ()				Receiver / consignee information same as in Part A Les renseignements du réceptionnaire / destinataire sont les mêmes qu'à la Partie A <input type="checkbox"/> Yes / Oui <input type="checkbox"/> No, complete the box below / Non, remplir la case ci-dessous			
Shipping site address / Adresse du lieu de l'expédition 25 Studney Drive, Yellowknife, NT X0E 0R0				Vehicle / Véhicule Trailer - Rail car No. 1 C39578				Registration No. / N° d'immatriculation NT			
Intended Receiver / consignee Réceptionnaire / destinataire prévu Yellowknife Waste Facility				Port of entry Point d'entrée International use only				Port of exit Point de sortie International use only			
Registration No. / Provincial ID No. N° d'immatriculation - d'id. provincial NTR000123				Carrier Certification: I certify that I have received waste or recyclable material from the generator / consigneur for delivery to the receiver / consignee as set out in Part A and that the information contained in Part B is complete and correct. Attestation du transporteur: J'atteste avoir reçu les déchets ou matières recyclables du producteur / expéditeur en vue de leur livraison au réceptionnaire / destinataire, tels qu'ils figurent à la partie A et que les renseignements inscrits à la partie B sont exacts et complets.				Name of authorized person (print): Nom de l'agent autorisé (caractères d'imprimerie): A. Stupski			
Mailing address / Adresse postale City / Ville Province Postal code / Code postal PO Box 1895 Yellowknife NT X1A 2P4				Year / Année Month / Mois Day / Jour 1 7 0 9 2 1				Signature: [Signature]			
E-mail / Courriel électronique Tel. No. / N° de tél. 867-873-6263				Date received / Date de réception Year / Année Month / Mois Day / Jour Time / Heure <input type="checkbox"/> A.M. <input type="checkbox"/> P.M.				If waste or recyclable material to be transferred, specify intended company name / Si les déchets ou matières recyclables doivent être transférés, préciser le nom du destinataire			
Receiving site address / Adresse du lieu de destination 17 Cameron Road Yellowknife, NT X1A 2P4				Quantity shipped Quantité expédiée 205				Units L or / ou Kg L			
Prox. code Code prov. (i) NRL				Shipping name Appellation réglementaire WASTE LEACHATE-OIL				Class / Classe Sub. class(es) Classe(s) sub. NRL			
Prox. code Code prov. (ii) NRL				Shipping name Appellation réglementaire WASTE LEACHATE-MIX				Class / Classe Sub. class(es) Classe(s) sub. NRL			
Prox. code Code prov. (iii)				Shipping name Appellation réglementaire 				Class / Classe Sub. class(es) Classe(s) sub. 			
Prox. code Code prov. (iv)				Shipping name Appellation réglementaire 				Class / Classe Sub. class(es) Classe(s) sub. 			
Notice No. N° de notification (i)				Notice Line No. N° de ligne de la notification 				Shipment Envoi 			
Notice No. N° de notification (ii)				Notice Line No. N° de ligne de la notification 				Shipment Envoi 			
Notice No. N° de notification (iii)				Notice Line No. N° de ligne de la notification 				Shipment Envoi 			
Notice No. N° de notification (iv)				Notice Line No. N° de ligne de la notification 				Shipment Envoi 			
Basel Annex VIII or OECD Code Annexe VIII de Bâle ou Code OCDE 				H code Code H 				Y code Code Y 			
National code in country of / Code du pays 				Customs code(s) Code(s) de douanes 				If handling code "Other" (specify) Si code de manutention « autre » (spécifier)			
Export Exportation 				Import Importation 				Receiver / consignee certification: I certify that the information contained in Part C is correct and complete. Attestation du réceptionnaire / destinataire: J'atteste que tous les renseignements à la partie C sont exacts et complets.			
Signature Rowes (Fanning)				Tel. No. / N° de tél. ()				Name of authorized person (print) Nom de l'agent autorisé (caractères d'imprimerie) 			
Generator / consigneur certification: I certify that the information contained in Part A is correct and complete. I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labelled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. Attestation du producteur / expéditeur: J'atteste que tous les renseignements à la partie A sont exacts et complets. Je déclare que le contenu de ce chargement est décrit ci-dessus de façon complète et exacte par la désignation officielle de transport et qu'il est convenablement classé, emballé, marqué, étiqueté, muni de plaques-étiquettes et à tous égards bien conditionné pour être transporté conformément aux réglementations internationales et nationales applicables.				Date shipped / Date d'expédition Year / Année Month / Mois Day / Jour Time / Heure <input type="checkbox"/> A.M. <input type="checkbox"/> P.M.				Scheduled arrival date / Date d'arrivée Year / Année Month / Mois Day / Jour			

Instructions on reverse
Instructions au verso

Copy / Copie 1 (white / bla

MOVEMENT DOCUMENT / MANIFEST DOCUMENT DE MOUVEMENT / MANIFESTE

This Movement document/manifest conforms to all federal and provincial environmental legislation.
Ce document de mouvement/manifeste est conforme aux législations fédérale et provinciale sur l'environnement.

NT13865-0

Movement Document / Manifest Reference No.
N° de référence du document de mouvement/manifeste

A Generator / consigneur Producteur / expéditeur Registration No. / Provincial ID No. N° d'immatriculation - d'id. provincial NTG000306 Company name / Nom de l'entreprise Rowes Construction Mailing address / Adresse postale City / Ville Province Postal code / Code postal 25 Studney Drive, Hay River, NT X0E 0R0 E-mail / Courriel électronique Tel. No. / N° de tél. (867) 874-3243 Shipping site address / Adresse du lieu de l'expédition 25 Studney Drive, Hay River, NT X0E 0R0 Intended Receiver / consignee Réceptionnaire / destinataire prévu Registration No. / Provincial ID No. N° d'immatriculation - d'id. provincial NTR000123 Mailing address / Adresse postale City / Ville Province Postal code / Code postal PO Box 1895 Yellowknife, NT X1A 2P4 E-mail / Courriel électronique Tel. No. / N° de tél. 867-873-5263 Receiving site address / Adresse du lieu de destination 17 Cameron Road, Yellowknife, NT X1A 2P4		B Carrier Transporteur Registration No. / Provincial ID No. N° d'immatriculation - d'id. provincial NTC000124 Company name / Nom de l'entreprise KBL Environmental Ltd. Mailing address / Adresse postale City / Ville Province Postal code / Code postal 17 Cameron Rd. Yellowknife, NT X1A 2N8 E-mail / Courriel électronique Tel. No. / N° de tél. () Vehicle / Véhicule Trailer - Rail car No. 1 1 ^{re} remorque - wagon C39570 Registration No. / N° d'immatriculation NT Trailer - Rail car No. 2 2 ^e remorque - wagon Port of entry / Point d'entrée International use only Port of exit / Point de sortie International use only Carrier Certification: I certify that I have received waste or recyclable material from the generator / consigneur for delivery to the receiver / consignee as set out in Part A and that the information contained in Part B is complete and correct. Attestation du transporteur: J'atteste avoir reçu les déchets ou matières recyclables du producteur / expéditeur en vue de leur livraison au réceptionnaire / destinataire, tels qu'ils figurent à la partie A et que les renseignements inscrits à la partie B sont exacts et complets. Name of authorized person (print): Nom de l'agent autorisé (caractères d'imprimerie): Deshaens Paul Tel. No. / N° de tél. () Year / Année Month / Mois Day / Jour Signature		C Receiver / consignee Réceptionnaire / destinataire Registration No. / Provincial ID No. N° d'immatriculation - d'id. provincial Receiver / consignee information same as in Part A Les renseignements du réceptionnaire / destinataire sont les mêmes qu'à la Partie A <input type="checkbox"/> Yes / Oui <input type="checkbox"/> No, complete the box below / Non, remplir la case ci-dessous Company name / Nom de l'entreprise Mailing address / Adresse postale City / Ville Province Postal code / Code postal E-mail / Courriel électronique Tel. No. / N° de tél. () Receiving site address / Adresse du lieu de destination Date received / Date de réception Year / Année Month / Mois Day / Jour Time / Heure () A.M. () P.M. If waste or recyclable material to be transferred, specify intended company name / SI les déchets ou matières recyclables doivent être transférés, préciser le nom du destinataire Registration No./Provincial ID No. N° d'immatriculation/d'id. provincial Quantity received / Quantités reçues Units / L or / ou kg Comments / Commentaires Handling / Code de manipulation Shipment / Envoi Decou Accepted / Refused / Pack. Cont.																												
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Prov. code Code prov.</th> <th>Shipping name Appellation réglementaire</th> <th>Class / Classe Sub. class(es) Class(es) sub.</th> <th>UN No. N° NU</th> <th>Packing / Risk Gr. Gr. d'emballage/ de risque</th> <th>Quantity shipped Quantités expédiées</th> <th>Units L or / ou Kg Unités</th> <th>Packaging/Contenat Codes Int. - ext.</th> <th>Phys. state État phys.</th> </tr> </thead> <tbody> <tr> <td>1044</td> <td>COMPRESSED GAS - FIRE EXTINGUI</td> <td>2</td> <td>1044</td> <td>N/A</td> <td>519</td> <td>KG</td> <td>30</td> <td>07 S</td> </tr> <tr> <td>2794</td> <td>BATTERIES - LEAD ACID</td> <td>8</td> <td>2794</td> <td>III</td> <td>975</td> <td>KG</td> <td>2</td> <td>07 S</td> </tr> </tbody> </table>		Prov. code Code prov.	Shipping name Appellation réglementaire	Class / Classe Sub. class(es) Class(es) sub.	UN No. N° NU	Packing / Risk Gr. Gr. d'emballage/ de risque	Quantity shipped Quantités expédiées	Units L or / ou Kg Unités	Packaging/Contenat Codes Int. - ext.	Phys. state État phys.	1044	COMPRESSED GAS - FIRE EXTINGUI	2	1044	N/A	519	KG	30	07 S	2794	BATTERIES - LEAD ACID	8	2794	III	975	KG	2	07 S	National code in country of / Code du pays Export Import Exportation Importation Customs code(s) Code(s) de douanes		If handling code "Other" (specify) Si code de manipulation « autre » (spécifier) Receiver / consignee certification: I certify that the information contained in Part C is correct and complete. Attestation du réceptionnaire / destinataire: J'atteste que tous les renseignements à la partie C sont exacts et complets. Name of authorized person (print) Nom de l'agent autorisé (caractères d'imprimerie) Signature Tel. No. / N° de tél. () Special handling / Manipulation spéciale <input type="checkbox"/> Attached / Ci-joint <input type="checkbox"/> As follows / Ci-contre	
Prov. code Code prov.	Shipping name Appellation réglementaire	Class / Classe Sub. class(es) Class(es) sub.	UN No. N° NU	Packing / Risk Gr. Gr. d'emballage/ de risque	Quantity shipped Quantités expédiées	Units L or / ou Kg Unités	Packaging/Contenat Codes Int. - ext.	Phys. state État phys.																								
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2794	BATTERIES - LEAD ACID	8	2794	III	975	KG	2	07 S																								
Generator / consigneur certification: I certify that the information contained in Part A is correct and complete. I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labelled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. Attestation du producteur / expéditeur: J'atteste que tous les renseignements à la partie A sont exacts et complets. Je déclare que le contenu de ce chargement est décrit ci-dessus de façon complète et exacte par la désignation officielle de transport et qu'il est convenablement classé, emballé, marqué, étiqueté, muni de plaques-étiquettes et à tous égards bien conditionné pour être transporté conformément aux réglementations internationales et nationales applicables.		Name of authorized person (print) Nom de l'agent autorisé (caractères d'imprimerie) Rowes Construction Signature		Date shipped / Date d'expédition Year / Année Month / Mois Day / Jour Time / Heure () A.M. () P.M. Scheduled arrival date / Date d'arrivée prévue Year / Année Month / Mois Day / Jour																												

Instructions on reverse
Instructions au verso

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MOVEMENT DOCUMENT / MANIFEST DOCUMENT DE MOUVEMENT / MANIFESTE

This Movement document/manifest conforms to all federal and provincial environmental legislation.
Ce document de mouvement/manifeste est conforme aux législations fédérale et provinciale sur l'environnement.

NT13864-3

Movement Document / Manifest Reference No.
N° de référence du document de mouvement/manifeste

A Generator / consigneur Producteur / expéditeur Registration No. / Provincial ID No. N° d'immatriculation - d'id. provincial NTG000308		B Carrier Transporteur Registration No. / Provincial ID No. N° d'immatriculation - d'id. provincial NTC000124		Reference Nos. of other movement document(s)/manifest(s) used / N° de référence des autres documents de mouvement/manifestes utilisés	
Company name / Nom de l'entreprise Rowes Construction		Company name / Nom de l'entreprise KBL Environmental Ltd.		C Receiver / consignee Réceptionnaire / destinataire Registration No. / Provincial ID No. N° d'immatriculation - d'id. provincial	
Mailing address / Adresse postale 25 Studney Drive, City / Ville Hay River, Province NT Postal code / Code postal X0E 0R0		Mailing address / Adresse postale 17 Cameron Rd. City / Ville Yellowknife Province NT Postal code / Code postal X1A 2N8		Receiver / consignee information same as in Part A Les renseignements du réceptionnaire / destinataire sont les mêmes qu'à la Partie A <input type="checkbox"/> Yes / Oui <input type="checkbox"/> No, complete the box below / Non, remplir la case ci-dessous	
E-mail / Courriel électronique Tel. No. / N° de tél. (867) 874-3243		E-mail / Courriel électronique Tel. No. / N° de tél. ()		Company name / Nom de l'entreprise Mailing address / Adresse postale City / Ville Province Postal code / Code postal E-mail / Courriel électronique Tel. No. / N° de tél. ()	
Shipping site address / Adresse du lieu de l'expédition 25 Studney Drive, City / Ville Hay River, Province NT Postal code / Code postal X0E 0R0		Vehicle / Véhicule Trailer - Rail car No. 1 C39578 Trailer - Rail car No. 2 2 ^e remorque - wagon		Prov. 24 NT	
Intended Receiver / consignee Réceptionnaire / destinataire prévu Yellowknife Waste Facility Mailing address / Adresse postale PO Box 1895 City / Ville Yellowknife Province NT Postal code / Code postal X1A 2P4 E-mail / Courriel électronique Tel. No. / N° de tél. 867-873-5263		Registration No. / Provincial ID No. N° d'immatriculation - d'id. provincial NTR000123		Port of entry Point d'entrée International use only Port of exit Point de sortie International use only	
Receiving site address / Adresse du lieu de destination 17 Cameron Road City / Ville Yellowknife Province NT Postal code / Code postal X1A 2P4		Carrier Certification: I certify that I have received waste or recyclable material from the generator / consigneur for delivery to the receiver / consignee as set out in Part A and that the information contained in Part B is complete and correct. Attestation du transporteur: J'atteste avoir reçu les déchets ou matières recyclables du producteur / expéditeur en vue de leur livraison au réceptionnaire / destinataire, tels qu'ils figurent à la partie A et que les renseignements inscrits à la partie B sont exacts et complets. Name of authorized person (print): Nom de l'agent autorisé (caractères d'imprimerie): Austus... Year / Année Month / Mois Day / Jour Signature: [Signature]		Tel. No. / N° de tél. ()	
Pro. code Code prov.		Shipping name Appellation réglementaire		Class / Classe Sub. class(es) Classe(s) sub.	
UN No. N° NU		Packing / Risk Gr. Gr. d'emballage / de risque		Quantity shipped Quantité expédiée	
Units L or / ou Kg Unités		Packaging/Container No. / N° Codes Int. - ext.		Phys. state État phys.	
Quantity received Quantité reçue		Units L or / ou Kg Unités		Comments Commentaires	
Handling Code / Code de manutention		Shipment / Envoi Accepted / Refused Accepté / Refusé		Decar Pack. Cont.	
Notice No. N° de notification		Notice Line No. N° de ligne de la notification		Shipment Envoi	
Of / De		D or R code Code D ou R		C code Code C	
Basel Annex VIII or OECD Code Annexe VIII de Bâle ou Code OCDE		H code Code H		Y code Code Y	
National code in country of / Code du pays		Export Exportation		Import Importation	
Customs code(s) Code(s) de douanes		If handling code "Other" (specify) Si code de manutention « autre » (spécifier)		Receiver / consignee certification: I certify that the information contained in Part C is correct and complete. Attestation du réceptionnaire / destinataire: J'atteste que tous les renseignements à la partie C sont exacts et complets. Name of authorized person (print) Nom de l'agent autorisé (caractères d'imprimerie) Tel. No. / N° de tél. ()	
Signature		Special handling / Manutention spéciale <input type="checkbox"/> Attached / Ci-joint <input type="checkbox"/> As follows / Ci-contre		Date shipped / Date d'expédition Year / Année Month / Mois Day / Jour	
Date of arrival / Date d'arrivée prévue Year / Année Month / Mois Day / Jour		Instructions on reverse Instructions au verso		Copy / Copie 1 (white / blanc)	

This Movement document/manifest conforms to all federal and provincial environmental legislation.
Ce document de mouvement/manifeste est conforme aux législations fédérale et provinciale sur l'environnement.

Movement Document / Manifest Reference No.
N° de référence du document de mouvement/manifeste

[illegible]**Instructions on reverse**

MOVEMENT DOCUMENT / MANIFEST DOCUMENT DE MOUVEMENT / MANIFESTE

This Movement document/manifest conforms to all federal and provincial environmental legislation.
Ce document de mouvement/manifeste est conforme aux législations fédérale et provinciale sur l'environnement.

NT12413-0

Movement Document / Manifest Reference No.
N° de référence du document de mouvement/manifeste

A Generator / consigneur Producteur / expéditeur <i>Rouss / out Come</i> Company name / Nom de l'entreprise <i>Rouss / out Come</i> Mailing address / Adresse postale City / Ville Province Postal code / Code postal <i>Jericho Mine Site</i> City / Ville Province Postal code / Code postal E-mail / Courriel électronique Tel. No. / N° de tél. () Shipping site address / Adresse du lieu de l'expédition <i>Jericho Mine Site</i> City / Ville Province Postal code / Code postal		B Carrier Transporteur Registration No. / Provincial ID No. N° d'immatriculation - d'id. provincial Company name / Nom de l'entreprise <i>Buffalo Airways</i> Mailing address / Adresse postale City / Ville Province Postal code / Code postal <i>108 Berry St Yellowknife NT X1A 2R3</i> E-mail / Courriel électronique Tel. No. / N° de tél. <i>867-873-6112</i> Vehicle / Véhicule Trailer - Rail car No. 1 1 ^{re} remorque - wagon Trailer - Rail car No. 2 2 ^e remorque - wagon Port of entry / Point d'entrée International use only Port of exit / Point de sortie International use only Carrier Certification: I certify that I have received waste or recyclable material from the generator / consigneur for delivery to the receiver / consignee as set out in Part A and that the information contained in Part B is complete and correct. Attestation du transporteur: J'atteste avoir reçu les déchets ou matières recyclables du producteur / expéditeur en vue de leur livraison au récepteur / destinataire, tels qu'ils figurent à la partie A et que les renseignements inscrits à la partie B sont exacts et complets. Name of authorized person (print): Nom de l'agent autorisé (caractères d'imprimerie): <i>X</i> Year / Année Month / Mois Day / Jour Signature: <i>1 7 9 0 0 1 X</i>		C Receiver / consignee Réceptionnaire / destinataire Registration No. / Provincial ID No. N° d'immatriculation - d'id. provincial Receiver / consignee information same as in Part A Les renseignements du récepteur / destinataire sont les mêmes qu'à la Partie A <input type="checkbox"/> Yes / Oui <input type="checkbox"/> No, complete the box below / Non, remplir la case ci-dessous Company name / Nom de l'entreprise Mailing address / Adresse postale City / Ville Province Postal code / Code postal E-mail / Courriel électronique Tel. No. / N° de tél. () Receiving site address / Adresse du lieu de destination Date received / Date de réception Year / Année Month / Mois Day / Jour Time / Heure <input type="checkbox"/> A.M. <input type="checkbox"/> P.M. If waste or recyclable material to be transferred, specify intended company name / Si les déchets ou matières recyclables doivent être transférés, préciser le nom du destinataire Registration No. / Provincial ID No. N° d'immatriculation / d'id. provincial	
Intended Receiver / consignee Réceptionnaire / destinataire prévu <i>KRL Environmental</i> Mailing address / Adresse postale City / Ville Province Postal code / Code postal <i>PO Box 1095 Yellowknife NT X1A 2P4</i> E-mail / Courriel électronique Tel. No. / N° de tél. <i>867-873-5063</i> Receiving site address / Adresse du lieu de destination <i>17 Cameron Rd</i> City / Ville Province Postal code / Code postal <i>Yellowknife NT X1A 2P4</i>		Intended Receiver / consignee Réceptionnaire / destinataire prévu Registration No. / Provincial ID No. N° d'immatriculation - d'id. provincial <i>NTRO00123</i> Mailing address / Adresse postale City / Ville Province Postal code / Code postal E-mail / Courriel électronique Tel. No. / N° de tél. () Receiving site address / Adresse du lieu de destination City / Ville Province Postal code / Code postal		Date received / Date de réception Year / Année Month / Mois Day / Jour Time / Heure <input type="checkbox"/> A.M. <input type="checkbox"/> P.M. If waste or recyclable material to be transferred, specify intended company name / Si les déchets ou matières recyclables doivent être transférés, préciser le nom du destinataire Registration No. / Provincial ID No. N° d'immatriculation / d'id. provincial	
Prov. code Code prov. Shipping name Appellation réglementaire Class / Classe Sub. class(es) Classes(s) sub. UN No. N° NU Packing / risk gr. Gr. d'emballage / de risque Quantity shipped Quantité expédiée Units L or / ou Kg Unités Packaging/Container No. / N° Int. - ext. Phys. state État phys.		Quantity received Quantité reçue Units L or / ou Kg Unités Comments Commentaires Handling Code / Code de manutention Shipment / Envoi Accepted Refused Pack. Cont. Veh. Véh.		Quantity received Quantité reçue Units L or / ou Kg Unités Comments Commentaires Handling Code / Code de manutention Shipment / Envoi Accepted Refused Pack. Cont. Veh. Véh.	
(i) UN 2794 Buffonnesulfides - Acid 8 2794 II 319 KG 2 01 S (ii) UN 1950 Aerosols, Flammable 2.1 1950 IIA 110 KG 2 01 S (iii) UN 1066 Nitrogen Compressed 2.2 1066 III 52 KG 1 01 S (iv) UN 1942 Ammonium Nitrate 5.1 1942 II 82 KG 5 07 S		(i) UN 2794 Buffonnesulfides - Acid 8 2794 II 319 KG 2 01 S (ii) UN 1950 Aerosols, Flammable 2.1 1950 IIA 110 KG 2 01 S (iii) UN 1066 Nitrogen Compressed 2.2 1066 III 52 KG 1 01 S (iv) UN 1942 Ammonium Nitrate 5.1 1942 II 82 KG 5 07 S		(i) UN 2794 Buffonnesulfides - Acid 8 2794 II 319 KG 2 01 S (ii) UN 1950 Aerosols, Flammable 2.1 1950 IIA 110 KG 2 01 S (iii) UN 1066 Nitrogen Compressed 2.2 1066 III 52 KG 1 01 S (iv) UN 1942 Ammonium Nitrate 5.1 1942 II 82 KG 5 07 S	
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Generator / consigneur certification: I certify that the information contained in Part A is correct and complete. I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labelled/picardé, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. Attestation du producteur / expéditeur: J'atteste que tous les renseignements à la partie A sont exacts et complets. Je déclare que le contenu de ce chargement est décrit ci-dessus de façon complète et exacte par la désignation officielle de transport et qu'il est		Name of authorized person (print): Nom de l'agent autorisé (caractères d'imprimerie): Signature Tel. No. / N° de tél. ()		Special handling / Manutention spéciale <input type="checkbox"/> Attached / Ci-joint <input type="checkbox"/> As follows / Ci-contre: Date shipped / Date d'expédition Year / Année Month / Mois Day / Jour Time / Heure <input type="checkbox"/> A.M. <input type="checkbox"/> P.M. Scheduled arrival date / Date d'arrivée prévue Year / Année Month / Mois Day / Jour	

Instructions on reverse

BILL OF LADING

KBL Environmental LTD.

PO Box 1108
Yellowknife, NT X1A 2N8

DATE

Oct. 01, 2017

NO

5208

CONSIGNOR/CUSTOMER SITE ADDRESS

Name: *Rouge / Outcome*

Address: *Nunavut
Sericho*

Telephone: Contact:

Generator Pin #: Manifest #:

CUSTOMER BILLING ADDRESS

Name:

Address:

Telephone: Contact:

Account #: PO #:

CONSIGNEE/RECEIVER SITE ADDRESS

Name: *KBL Environmental*

Address: *17 Cameron Rd
PO Box 1845 Yellowknife NT X1A 2P4*

Telephone: *867 873-5263* Contact: *Jeff Bernbridge*

Receiver Pin #: *NT 12000123* Manifest #: *NT 12413-0
NT 12414-8*

CARRIER/TRANSPORTER

Name: *Buffalo Airways*

Address: *108 Berry St.
Yellowknife NT X1A 2R3*

Driver: Unit #:

Carrier Pin #:

DANGEROUS GOODS INFO. 24 HOUR EMERGENCY PHONE #
CANUTEC (613) 996-6666

PLACARDS REQUIRED BY CARRIER (PER T.D.G REGULATIONS)

Yes ☐ No ☐ Number Required Type

D G	SHIPPING NAME/ DESCRIPTION	T.D.G INFORMATION					U M	EXPECTED QUANTITY	ACTUAL QUANTITY
		CLASS	P.I.N.	PACKING GROUP	PACKAGING				
					NO.	CODE			
*	Batteries wet filled w/ Acid	8	UN2794	III	2	01		2 Drums	
*	Gas Aerosols, Flammable	2.1	UN1950	IIIA	2	01		2 Drums	
*	Nitrogen Compressed	2.2	UN1066	III	1	01		1 Drum	
*	Ammonium Nitrate	5.1	UN1942	II	5	07		5 Pails	
*	Batteries wet filled with Alkali	8	UN2795	III	1	07		1 Pail	

DG-Dangerous Goods (X-Yes)

**UM-Unit of Measure (L-Litre, K-Kilogram, E-Each)

TECHNICIAN TIME:

TRANSPORT TIME:

General Terms and Conditions:

All wastes must meet the specifications as described on the Customer's Bill of Lading sheet. Wastes that do not meet the profile are subject to rejection at the Receiver site or conditional acceptance at a higher price. Customer acknowledges and accepts these conditions by signing below. Customer agrees to indemnify and save harmless KBL from any and all claims, penalties, forfeitures, and expenses incident thereto, which it may incur as a result of death, bodily injuries to any person, destruction or damage to any property, contamination or any adverse effects on the environment, violation of laws, regulations, or orders, caused in whole or in part by the Customer failure to provide waste which meets the specifications as described on this Bill of Lading.

CONSIGNOR SIGNATURE

DRIVER SIGNATURE

CONSIGNEE SIGNATURE

ABOVE NAME PRINTED

ABOVE NAME PRINTED

ABOVE NAME PRINTED

White - Customer

Canary - File

Pink - Receiver

Goldenrod - Carrier

BILL OF LADING



KBL Environmental Ltd.
PO Box 1895
17 Cameron Rd.
Yellowknife, NT X1A 2P4

DATE: Oct 13, 2017

NO: YK0000001600

CONSIGNOR / CUSTOMER SITE ADDRESS

Rowes Construction
25 Studney Drive,
Hay River,, NT X0E 0R0

Phone: (867) 874-3243

Generator Pin #: NTG000306

CUSTOMER BILLING ADDRESS

Rowes Construction
25 Studney Drive,
Hay River,, NT X0E 0R0

Phone: (867) 874-3243

CONSIGNEE / RECEIVER SITE ADDRESS

Yellowknife Waste Facility
17 Cameron Road
PO Box 1895
Yellowknife, NT X1A 2P4
Receiver Pin #: NTR000123
Manifest #: NT12413-0,NT12414-8

CARRIER / TRANSPORTER

KBL Environmental Ltd.
17 Cameron Rd.
Yellowknife, NT X1A 2N8

PO #:

Carrier Pin #: NTC000124

DANGEROUS GOOD INFO. 24 HOUR EMERGENCY PHONE #
 CANUTEC (613) 996-6666

PLACARDS REQUIRED BY CARRIER (PER T.D.G. REGULATIONS)

Yes ☐ No ☐ Number Required Type

D G	P.I.N.	SHIPPING NAME / DESCRIPTION	T.D.G. INFORMATION				QUANTITY	UOM	MASS OR VOLUME
			CLASS	PACKING GROUP	PACKING NO	CODE			
		REGULATED DANGEROUS GOODS							
X	1950	AEROSOLS PROCESSABLE	2	N/A	2	01	2.00	DRUM	
X	2794	BATTERIES-LEAD ACID	8	III	2	01	2.00	DRUM	
		NON REGULATED DANGEROUS GOODS							
	NRL	WASTE LEACHATE-MIX	NRL	NRL	56	01	56.00	DRUM	
	NRL	WASTE LEACHATE-MIX	NRL	NRL	18	07	18.00	TOTE	
	NRS	NON REGULATED SOLIDS-EMPTY DRUMS	NRS	NRS	16	01	16.00	DRUM	
	NRL	NON REGULATED LIQUID-PETROLEUM GREASE	NRL	NRL	1	01	1.00	DRUM	
		COMPRESSED NITROGEN BOTTLES FOR FIRE EXTINGUISHER			1	07	1.00	EA	
		AMMONIUM NITRATE (PAIL)			5	07	5.00	EA	
	NRS	BATTERIES-ALKALINE	NRS	NRS	1	07	1.00	PAIL	
	NRL	NON REGULATED LIQUID-PETROLEUM GREASE	NRL	NRL	1	07	1.00	PAIL	
		JERICO MANIFEST #NT14106-8							
		JERICO BOL #4771							

DG-Dangerous Goods (X-Yes)

TECHNICIAN TIME: 0.00

TRANSPORT TIME: 0.00

CONSIGNOR CERTIFICATION:

I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, are properly classified and packaged, have dangerous goods safety marks properly affixed or displayed on them, and are in all respects in proper condition for transport according to the Transportation of Dangerous Goods Regulations.

CONSIGNOR SIGNATURE

DRIVER SIGNATURE

CONSIGNEE SIGNATURE

ABOVE NAME PRINTED

ABOVE NAME PRINTED

ABOVE NAME PRINTED

Rowes

Hustin Sparks

Hustin Sparks

KBL Environmental LTD.

PO Box 1108
Yellowknife, NT X1A 2N8

DATE Oct 04, 2017

NO

4769

CONSIGNOR/CUSTOMER SITE ADDRESS

Name: Rolv Jenche Mines
Address:

Telephone: Contact:
Generator Pin #: Manifest #:

CUSTOMER BILLING ADDRESS

Name:
Address:

Telephone: Contact:
Account #: PO #:

CONSIGNEE/RECEIVER SITE ADDRESS

Name: KBL Environmental
Address: Yellowknife

Telephone: Contact:
Receiver Pin #: Manifest #:

CARRIER/TRANSPORTER

Name: ~~ATLANTA~~ BUFFALO
Address: Yellowknife

Driver: Unit #:
Carrier Pin #:

DANGEROUS GOODS INFO. 24 HOUR EMERGENCY PHONE #
CANUTEC (613) 996-6666

PLACARDS REQUIRED BY CARRIER (PER T.D.G REGULATIONS)

Yes ☐ No ☐ Number Required Type

D G	SHIPPING NAME/ DESCRIPTION	T.D.G INFORMATION					U M	EXPECTED QUANTITY	ACTUAL QUANTITY
		CLASS	P.I.N.	PACKING GROUP	PACKAGING NO.	CODE			
1	Glycol + waste oil + water			40 Drums					
				20.8W lbs					
				20.8W lbs					

DG-Dangerous Goods (X-Yes)

**UM-Unit of Measure (L-Litre, K-Kilogram, E-Each)

TECHNICIAN TIME:

TRANSPORT TIME:

General Terms and Conditions:

All wastes must meet the specifications as described on the Customer's Bill of Lading sheet. Wastes that do not meet the profile are subject to rejection at the Receiver site or conditional acceptance at a higher price. Customer acknowledges and accepts these conditions by signing below. Customer agrees to indemnify and save harmless KBL from any and all claims, penalties, forfeitures, and expenses incident thereto, which it may incur as a result of death, bodily injuries to any person, destruction or damage to any property, contamination or any adverse effects on the environment, violation of laws, regulations, or orders, caused in whole or in part by the Customer failure to provide waste which meets the specifications as described on this Bill of Lading.

CONSIGNOR SIGNATURE

DRIVER SIGNATURE

CONSIGNEE SIGNATURE

ABOVE NAME PRINTED

ABOVE NAME PRINTED

ABOVE NAME PRINTED

White - Customer

Canary - File

Pink - Receiver

Goldenrod - Carrier

MOVEMENT DOCUMENT / MANIFEST DOCUMENT DE MOUVEMENT / MANIFESTE

This Movement document/manifest conforms to all federal and provincial environmental legislation.
Ce document de mouvement/manifeste est conforme aux législations fédérale et provinciale sur l'environnement.

NT14105-0

Movement Document / Manifest Reference No.
N° de référence du document de mouvement/manifeste

A Generator / consigneur Producteur / expéditeur Registration No. / Provincial ID No. N° d'immatriculation - d'id. provincial				B Carrier Transporteur Registration No. / Provincial ID No. N° d'immatriculation - d'id. provincial				C Receiver / consignee Réceptionnaire / destinataire Registration No. / Provincial ID No. N° d'immatriculation - d'id. provincial			
Company name / Nom de l'entreprise <i>ROV, Jendo</i>				Company name / Nom de l'entreprise				Receiver / consignee information same as in Part A Les renseignements du réceptionnaire / destinataire sont les mêmes qu'à la Partie A <input type="checkbox"/> Yes / Oui <input type="checkbox"/> No, complete the box below / Non, remplir la case ci-dessous			
Mailing address / Adresse postale City / Ville Province Postal code / Code postal				Mailing address / Adresse postale City / Ville Province Postal code / Code postal				Company name / Nom de l'entreprise			
E-mail / Courriel électronique Tel. No. / N° de tél. ()				E-mail / Courriel électronique Tel. No. / N° de tél. ()				Mailing address / Adresse postale			
Shipping site address / Adresse du lieu de l'expédition				Vehicle / Véhicule Trailer - Rail car No. 1 1 ^{re} remorque - wagon				City / Ville Province Postal code / Code postal			
City / Ville Province Postal code / Code postal				Trailer - Rail car No. 2 2 ^e remorque - wagon				E-mail / Courriel électronique Tel. No. / N° de tél. ()			
Intended Receiver / consignee Réceptionnaire / destinataire prévu <i>KBL Environment</i>				Port of entry / Point d'entrée International use only				Port of exit / Point de sortie International use only			
Mailing address / Adresse postale City / Ville Province Postal code / Code postal <i>BOBA 1108 Yellowknife</i>				Carrier Certification: I certify that I have received waste or recyclable material from the generator / consigneur for delivery to the receiver / consignee as set out in Part A and that the information contained in Part B is complete and correct. Attestation du transporteur: J'atteste avoir reçu les déchets ou matières recyclables du producteur / expéditeur en vue de leur livraison au réceptionnaire / destinataire, tels qu'ils figurent à la partie A et que les renseignements inscrits à la partie B sont exacts et complets.				Receiving site address / Adresse du lieu de destination			
E-mail / Courriel électronique Tel. No. / N° de tél. ()				Name of authorized person (print): Nom de l'agent autorisé (caractères d'imprimerie):				Year / Année Month / Mois Day / Jour Signature			
Receiving site address / Adresse du lieu de destination				Year / Année Month / Mois Day / Jour				Signature			
City / Ville Province Postal code / Code postal <i>Yellowknife N.T.</i>				1 7 10 04				Date received / Date de réception Year / Année Month / Mois Day / Jour Time / Heure <input type="checkbox"/> A.M. <input type="checkbox"/> P.M.			
Prov. code Code prov. Shipping name Appellation réglementaire				Class / Classe Sub. class(es) Classe(s) sub. UN No. N°NU Packing / risk gr. 7 Gr. d'emballage / de risque Quantity shipped Quantité expédiée Units L or / ou Kg Unités Packaging/Contenant No. / N° Codes int.-ext. Phys. state État phys.				If waste or recyclable material to be transferred, specify intended company name/ Si les déchets ou matières recyclables doivent être transférés, préciser le nom du destinataire			
(i) Waste Glycer + HT				20 Drums				Quantity received Quantité reçue Units L or / ou Kg Unités			
(ii) Water				20,800 lbs				Comments Commentaires			
(iii)								Handling Code / Code de manutention			
(iv)								Shipment / Envoi Accepted / Refused / Pack. / Veh.			
Notice No. N° de notification				Notice Line No N° de ligne de la notification				National code in country of / Code du pays			
Shipment Envoi				D or R code Code D ou R				Customs code(s) Code(s) de douanes			
Of / De				C code Code C				Export Import			
Basel Annex VIII or OECD Code Annexe VIII de Bâle ou Code OCDE				H code Code H				Y code Code Y			
International use only											
Generator / consigneur certification: I certify that the information contained in Part A is correct and complete. I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labelled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. Attestation du producteur / expéditeur: J'atteste que tous les renseignements à la partie A sont exacts et complets. Je déclare que le contenu de ce chargement est décrit ci-dessus de façon complète et exacte par la désignation officielle de transport et qu'il est convenablement classé, emballé, marqué, étiqueté, muni de plaques-étiquettes et à tous égards bien conditionné pour être transporté conformément aux réglementations internationales et nationales applicables.				Name of authorized person (print): Nom de l'agent autorisé (caractères d'imprimerie):				Tel. No. / N° de tél. ()			
								Date shipped / Date d'expédition Year / Année Month / Mois Day / Jour Time / Heure <input type="checkbox"/> A.M. <input type="checkbox"/> P.M.			
								Scheduled arrival date / Date d'arrivée prévue Year / Année Month / Mois Day / Jour			
								Special handling / Manutention spéciale <input type="checkbox"/> Attached /CI-joint: <input type="checkbox"/> As follows / Ci-contre:			

Retained by Consignor
Gardée par l'expéditeur

Copy / Copie 2 (green / vert)

BILL OF LADING



KBL Environmental Ltd.
PO Box 1895
17 Cameron Rd.
Yellowknife, NT X1A 2P4

DATE: Oct 5, 2017

NO: YK0000001584

CONSIGNOR / CUSTOMER SITE ADDRESS

Jericho Mine Site
Carat Lake
Nunavut

Generator Pin #: NTG000306

CUSTOMER BILLING ADDRESS

Rowes Construction
25 Studney Drive,
Hay River,, NT X0E 0R0

Phone: (867) 874-3243

PO #:

CONSIGNEE / RECEIVER SITE ADDRESS

Yellowknife Waste Facility
17 Cameron Road
PO Box 1895
Yellowknife, NT X1A 2P4
Receiver Pin #:

Manifest #: NT13888-2

CARRIER / TRANSPORTER

KBL Environmental Ltd.
17 Cameron Rd.
Yellowknife, NT X1A 2N8

Carrier Pin #: NTC000124

DANGEROUS GOOD INFO. 24 HOUR EMERGENCY PHONE # CANUTEC (613) 996-6666			PLACARDS REQUIRED BY CARRIER (PER T.D.G. REGULATIONS)						
			Yes	<input type="checkbox"/> No	<input type="checkbox"/>	Number Required		Type	
D G	P.I.N.	SHIPPING NAME / DESCRIPTION	T.D.G. INFORMATION						
			CLASS	PACKING GROUP	PACKING		QUANTITY	UOM	MASS OR VOLUME
					NO	CODE			
		NON REGULATED DANGEROUS GOODS							
	NRL	WASTE LEACHATE-MIX	NRL	NRL	63	01	63.00	DRUM	
	NRL	WASTE LEACHATE-OIL	NRL	NRL	4	01	4.00	DRUM	
	NRL	WASTE LEACHATE-GLYCOL	NRL	NRL	2	01	2.00	DRUM	

DG-Dangerous Goods (X-Yes)

TECHNICIAN TIME: 0.00

TRANSPORT TIME: 2.00

CONSIGNOR CERTIFICATION:

I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, are properly classified and packaged, have dangerous goods safety marks properly affixed or displayed on them, and are in all respect in proper condition for transport according to the Transportation of Dangerous Goods Regulations.

CONSIGNOR SIGNATURE

DRIVER SIGNATURE

CONSIGNEE SIGNATURE

ABOVE NAME PRINTED

Rowes/OUTCOME

ABOVE NAME PRINTED

Ben Arsen

ABOVE NAME PRINTED

Ben Arsen

Goldenrod – Carrier

MOVEMENT DOCUMENT / MANIFEST DOCUMENT DE MOUVEMENT / MANIFESTE

This Movement document/manifest conforms to all federal and provincial environmental legislation.
Ce document de mouvement/manifeste est conforme aux législations fédérale et provinciale sur l'environnement.

NT14104-3

Movement Document / Manifest Reference No.
N° de référence du document de mouvement/manifeste

A Generator / consigneur Producteur / expéditeur		B Carrier Transporteur		C Receiver / consignee Réceptionnaire / destinataire	
Registration No. / Provincial ID No. N° d'immatriculation - d'id. provincial		Registration No. / Provincial ID No. N° d'immatriculation - d'id. provincial		Reference Nos. of other movement document(s) / manifest(s) used / N° de référence des autres documents de mouvement/manifestes utilisés	
Company name / Nom de l'entreprise RUJY		Company name / Nom de l'entreprise B. Hala Airways		Receiver / consignee information same as in Part A Les renseignements du réceptionnaire / destinataire sont les mêmes qu'à la Partie A <input type="checkbox"/> Yes / Oui <input type="checkbox"/> No, complete the box below / Non, remplir la case ci-dessous	
Mailing address / Adresse postale City / Ville Province Postal code / Code postal		Mailing address / Adresse postale City / Ville Province Postal code / Code postal		Company name / Nom de l'entreprise	
E-mail / Courriel électronique Tel. No. / N° de tél.		E-mail / Courriel électronique Tel. No. / N° de tél.		Mailing address / Adresse postale	
Shipping site address / Adresse du lieu de l'expédition		Vehicle / Véhicule Trailer - Rail car No. 1 1 ^{er} remorque - wagon		City / Ville Province Postal code / Code postal	
City / Ville Province Postal code / Code postal		Trailer - Rail car No. 2 2 ^e remorque - wagon		E-mail / Courriel électronique Tel. No. / N° de tél.	
Intended Receiver / consignee Réceptionnaire / destinataire prévu		Port of entry / Point d'entrée international use only		Receiving site address / Adresse du lieu de destination	
Registration No. / Provincial ID No. N° d'immatriculation - d'id. provincial		Port of exit / Point de sortie international use only		Date received / Date de réception Year / Année Month / Mois Day / Jour Time / Heure	
Mailing address / Adresse postale City / Ville Province Postal code / Code postal		Carrier Certification: I certify that I have received waste or recyclable material from the generator / consigneur for delivery to the receiver / consignee as set out in Part A and that the information contained in Part B is complete and correct. Attestation du transporteur: J'atteste avoir reçu les déchets ou matières recyclables du producteur / expéditeur en vue de leur livraison au réceptionnaire / destinataire, tels qu'ils figurent à la partie A et que les renseignements inscrits à la partie B sont exacts et complets.		If waste or recyclable material to be transferred, specify intended company name / Si les déchets ou matières recyclables doivent être transférés, préciser le nom du destinataire	
E-mail / Courriel électronique Tel. No. / N° de tél.		Name of authorized person (print) Nom de l'agent autorisé (caractère d'imprimerie):		Registration No. / Provincial ID No. N° d'immatriculation / d'id provincial	
Receiving site address / Adresse du lieu de destination		Year / Année Month / Mois Day / Jour Signature		Quantity received / Quantité reçue	
City / Ville Province Postal code / Code postal		117 99 27		Units / L or / ou kg Unités	
Prov. code / Code prov.		Shipping name / Appellation réglementaire		Comments / Commentaires	
Class / Classe Sub. class(es) / Classe(s) sub.		UN No. / N° NU		Handling / Code de manutention	
Packing / risk gr. / Gr. d'emballage / de risque		Quantity shipped / Quantité expédiée		Shipment / Envoi	
Units / L or / ou kg / Unités		Packaging / Contenant No. / N°		Accepted / Refused	
Phys. state / État phys.		Codes / Codes		Decant. / Veh.	
National code in country of / Code du pays		Customs code(s) / Code(s) de douanes		If handling code "Other" (specify) / Si code de manutention « autre » (spécifier)	
Notice No. / N° de notification		Notice Line No. / N° de ligne de la notification		Receiver / consignee certification: I certify that the information contained in Part C is correct and complete. / Attestation du réceptionnaire / destinataire: J'atteste que tous les renseignements à la partie C sont exacts et complets.	
Shipment / Envoi		Of / De		Name of authorized person (print) / Nom de l'agent autorisé (caractère d'imprimerie)	
D or R code / Code D ou R		C code / Code C		Signature	
Basel Annex VIII or OECD Code / Annexe VIII de Bâle ou Code OCDE		H code / Code H		Tel. No. / N° de tél.	
Y code / Code Y		Export / Importation		Special handling / Manutention spéciale	
International use only		Customs code(s) / Code(s) de douanes		<input type="checkbox"/> Attached / Joint <input type="checkbox"/> As follows / Ci-contre	
Generator / consigneur certification: I certify that the information contained in Part A is correct and complete. I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labelled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.		Name of authorized person (print) / Nom de l'agent autorisé (caractère d'imprimerie)		Date shipped / Date d'expédition	
Attestation du producteur / expéditeur: J'atteste que tous les renseignements à la partie A sont exacts et complets. Je déclare que le contenu de ce chargement est décrit ci-dessus de façon complète et exacte par la désignation officielle de transport et qu'il est convenablement classé, emballé, marqué, étiqueté, muni de plaques-étiquettes et à tous égards bien conditionné pour être transporté conformément aux réglementations internationales et nationales applicables.		Signature		Time / Heure	
Scheduled arrival date / Date d'arrivée prévue		Year / Année Month / Mois Day / Jour		A.M. P.M.	

Instructions on reverse
Instructions au verso

Copy / Copie 3 (yellow / jaune)

KBL Environmental LTD.
PO Box 1108
Yellowknife, NT X1A 2N8

NO

4767

Name: Jericho Mine N.Y.

Address:

Telephone:

Contact:

Generator Pin #:

Manifest #:

Name: Rajiv

Address:

Telephone:

Contact:

Account #:

PO #:

Name: KBL Environmental
Address: 17 Cameron Rd Box 1815

Address: 17 Cameron Rd Box 1815

Telephone: 867-873-5263 Contact: Jeff Bembrige

Receiver Pin #:

Manifest #:

Name: Buffalo Air

Address:

Driver:

Unit #:

Carrier Pin #:

**DANGEROUS GOODS INFO. 24 HOUR EMERGENCY PHONE #
CANUTEC (613) 996-6666**

PLACARDS REQUIRED BY CARRIER (PER T.D.G REGULATIONS)

Yes ☐

No ☐

Number Required

Type

[illegible]

DG-Dangerous Goods (X-Yes)

****UM-Unit of Measure (L-Litre, K-Kilogram, E-Each)**

TECHNICIAN TIME:

TRANSPORT TIME:

General Terms and Conditions:

General Terms and Conditions: All wastes must meet the specifications as described on the Customer's Bill of Lading sheet. Wastes that do not meet the profile are subject to rejection at the Receiver site or conditional acceptance at a higher price. Customer acknowledges and accepts these conditions by signing below. Customer agrees to indemnify and save harmless KBL from any and all claims, penalties, forfeitures, and expenses incident thereto, which it may incur as a result of death, bodily injuries to any person, destruction or damage to any property, contamination or any adverse effects on the environment, violation of laws, regulations, or orders, caused in whole or in part by the Customer failure to provide waste which meets the specifications as described on this Bill of Lading.

CONSIGNOR SIGNATURE

~~DRIVER SIGNATURE~~

CONSIGNEE SIGNATURE

ABOVE NAME PRINTED

ABOVE NAME PRINTED

ABOVE NAME PRINTED

White – Customer

Canary – File

Pink – Receiver

Goldenrod – Carrier

MOVEMENT DOCUMENT / MANIFEST DOCUMENT DE MOUVEMENT / MANIFESTE

This Movement document/manifest conforms to all federal and provincial environmental legislation.
Ce document de mouvement/manifeste est conforme aux législations fédérales et provinciales sur l'environnement.

NT14103-5

Movement Document / Manifest Reference No.
N° de référence du document de mouvement/manifeste

A Generator / consigneur Producteur / expéditeur Registration No. / Provincial ID No. N° d'immatriculation - d'id. provincial		B Carrier Transporteur Registration No. / Provincial ID No. N° d'immatriculation - d'id. provincial		Reference No. of other movement document(s)/manifest(s) used / N° de référence des autres documents de mouvement/manifestes utilisés	
Company name / Nom de l'entreprise Bowes Construction		Company name / Nom de l'entreprise 108 Beryl St Y1100		C Receiver / consignee Réceptionnaire / destinataire Registration No. / Provincial ID No. N° d'immatriculation - d'id. provincial Receiver / consignee information same as in Part A Les renseignements du réceptionnaire / destinataire sont les mêmes qu'à la Partie A <input type="checkbox"/> Yes / Oui <input type="checkbox"/> No, complete the box below / Non, remplir la case ci-dessous	
Mailing address / Adresse postale City / Ville Province Postal code / Code postal E-mail / Courriel électronique Tel. No. / N° de tél. ()		Mailing address / Adresse postale City / Ville Province Postal code / Code postal E-mail / Courriel électronique Tel. No. / N° de tél. ()			
Shipping site address / Adresse du lieu de l'expédition Jericho mine site City / Ville Province Postal code / Code postal		Vehicle / Véhicule Trailer - Rail car No. 1 1 ^{re} remorque - wagon Trailer - Rail car No. 2 2 ^{re} remorque - wagon		Company name / Nom de l'entreprise Mailing address / Adresse postale City / Ville Province Postal code / Code postal E-mail / Courriel électronique Tel. No. / N° de tél. () Receiving site address / Adresse du lieu de destination	
Intended Receiver / consignee Réceptionnaire / destinataire prévu KRL Environmental Mailing address / Adresse postale Box 1845 Yellowknife X1A 2P4 E-mail / Courriel électronique Tel. No. / N° de tél. () Receiving site address / Adresse du lieu de destination 17 Carleton Rd Yellowknife NT X1A 2P4		Port of entry Point d'entrée International use only Port of exit Point de sortie International use only Carrier Certification: I certify that I have received waste or recyclable material from the generator / consigneur for delivery to the receiver / consignee as set out in Part A and that the information contained in Part B is complete and correct. Attestation du transporteur: J'atteste avoir reçu les déchets ou matières recyclables du producteur / expéditeur en vue de leur livraison au réceptionnaire / destinataire, tels qu'ils figurent à la partie A et que les renseignements inscrits à la partie B sont exacts et complets. Name of authorized person (print) Nom de l'agent autorisé (caractère d'imprimerie) X [Signature] Year / Année Month / Mois Day / Jour Signature		Date received / Date de réception Year / Année Month / Mois Day / Jour Time / Heure <input type="checkbox"/> A.M. <input type="checkbox"/> P.M.	
If waste or recyclable material to be transferred, specify intended company name / Si les déchets ou matières recyclables doivent être transférés, préciser le nom du destinataire		Registration No./Provincial ID No. N° d'immatriculation/d'id. provincial		Quantity received Quantité reçue Units Lor / ou kg Unités	
Comments Commentaires		Handling Code / Code de manutention		Shipment / Envoi Accepted / Refused Accepté / Refusé	
Decort. Pack. Veh Cont. Vél		Quantity shipped Quantité expédiée Units Lor / ou kg Unités		Packaging/Contentment Codes Int - ext	
Phys. state État phys.		National code in country of / Code du pays		Customs code(s) Code(s) de douanes	
Notice No. N° de notification		Notice Line No. N° de ligne de la notification		Shipment Envoi	
Of / De		D or R code Code D ou R		C code Code C	
Basel Annex VIII or OECD Code Annexe VIII de Bâle ou Code OCDE		H code Code H		Y code Code Y	
Export Exportation		Import Importation		If handling code "Other" (specify) Si code de manutention « autre » (spécifier)	
Receiver / consignee certification: I certify that the information contained in Part C is correct and complete. / Attestation du réceptionnaire / destinataire: J'atteste que tous les renseignements à la partie C sont exacts et complets.		Name of authorized person (print) Nom de l'agent autorisé (caractère d'imprimerie)		Signature Tel. No. / N° de tél. ()	
Special handling / Manutention spéciale <input type="checkbox"/> Attached / Ci-joint <input type="checkbox"/> As follows / Ci-contre		Date shipped / Date d'expédition Year / Année Month / Mois Day / Jour		Time / Heure <input type="checkbox"/> A.M. <input type="checkbox"/> P.M.	
Scheduled arrival date / Date d'arrivée prévue Year / Année Month / Mois Day / Jour		Instructions on reverse Instructions au verso		Copy / Copie 3 (yellow / jaun	



Certificate of Disposal

Date: August 9th 2017

KBL BOL #6198 (YK1418)

KBL Environmental Ltd hereby certifies that the Glycol (5 drums @ 1015.90 kgs) shipped from Rowes Construction (Jericho Mine Site), on KBL Bill of Lading 6198 (Manifest NT12479-1) was received at KBL Environmental Ltd. on July 27th 2017. The Glycol has been processed, recycled/disposed of in accordance with all applicable Federal and Territorial /Provincial Regulations.

Generator:

Rowes Construction
Jericho Mine
NTG 000306

Issued By:

A handwritten signature in black ink, appearing to read "Jeff Bembridge", is written over a light blue horizontal line.

Jeff Bembridge
Operations Manager
KBL Environmental Ltd.
NTR 0000123

PO Box 1895 - 17 Cameron Road - Yellowknife, NT - X1A 2P4

BILL OF LADING

KBL Environmental LTD.

PO Box 1108

Yellowknife, NT X1A 2N8

DATE

Aug 4, 2017

NO

6199

CONSIGNOR/CUSTOMER SITE ADDRESS

Name: dericho Mine Site c/o Bowes/Outcome

Address:

Telephone:

Contact:

Generator Pin #:

Manifest #:

CUSTOMER BILLING ADDRESS

Name:

Address:

Telephone:

Contact:

Email:

PO #:

CONSIGNEE/RECEIVER SITE ADDRESS

Name: KBL Environmental

Address: 17 Cameron Road / Box 1895
Yellowknife, NT X1A 2P4

Telephone: (867) 875 5263

Contact: Jeff Bembidge

Receiver Pin #: NTR000123

Manifest #:

CARRIER/TRANSPORTER

Name: Ar Tindi

Address: Box 1963
Yellowknife, NT X1A 2P3

Driver: (867) 445-8022

Unit #: Twin Otter

Carrier Pin #:

DANGEROUS GOODS INFO. 24 HOUR EMERGENCY PHONE

CANUTEC (613) 996-6666

PLACARDS REQUIRED BY CARRIER (PER T.D.G REGULATIONS)

Yes ☐

No ☒

Number Required

Type

D G	SHIPPING NAME/ DESCRIPTION	T.D.G INFORMATION						U M	EXPECTED QUANTITY	ACTUAL QUANTITY
		CLASS	P.I.N.	PACKING GROUP	PACKAGING					
					NO.	CODE				
	Waste Leachate - oil/glycol/water mix	N/R	N/R	N/R	4	01		4 drums ~ 2,000 lbs		

DG-Dangerous Goods (X-Yes)

**UM-Unit of Measure (L-Litre, K-Kilogram, E-Each)

TECHNICIAN TIME:

TRANSPORT TIME:

General Terms and Conditions:

All wastes must meet the specifications as described on the Customer's Bill of Lading sheet. Wastes that do not meet the profile are subject to rejection at the Receiver site or conditional acceptance at a higher price. Customer acknowledges and accepts these conditions by signing below. Customer agrees to indemnify and save harmless KBL from any and all claims, penalties, forfeitures, and expenses incident thereto, which it may incur as a result of death, bodily injuries to any person, destruction or damage to any property, contamination or any adverse effects on the environment, violation of laws, regulations, or orders, caused in whole or in part by the Customer failure to provide waste which meets the specifications as described on this Bill of Lading.

CONSIGNOR SIGNATURE

Coleman Sackler

DRIVER SIGNATURE

CONSIGNEE SIGNATURE

ABOVE NAME PRINTED

Coleman Sackler

ABOVE NAME PRINTED

ABOVE NAME PRINTED

White - Customer

Canary - File

Pink - Receiver

Goldenrod - Carrier

MOVEMENT DOCUMENT / MANIFEST DOCUMENT DE MOUVEMENT / MANIFESTE

This Movement document/manifest conforms to all federal and provincial environmental legislation.
Ce document de mouvement/manifeste est conforme aux législations fédérale et provinciale sur l'environnement.

NT12482-5

Movement Document / Manifest Reference No.
N° de référence du document de mouvement/manifeste

A Generator / consigneur Producteur / expéditeur Registration No. / Provincial ID No. N° d'immatriculation - d'id. provincial				B Carrier Transporteur Registration No. / Provincial ID No. N° d'immatriculation - d'id. provincial				Reference Nos. of other movement document(s)/manifest(s) used / N° de référence des autres documents de mouvement/manifestes utilisés			
Company name / Nom de l'entreprise				Company name / Nom de l'entreprise				C Receiver / consignee Réceptionnaire / destinataire Registration No. / Provincial ID No. N° d'immatriculation - d'id. provincial			
Mailing address / Adresse postale City / Ville Province Postal code / Code postal				Mailing address / Adresse postale City / Ville Province Postal code / Code postal				Receiver / consignee information same as in Part A Les renseignements du réceptionnaire / destinataire sont les mêmes qu'à la Partie A <input type="checkbox"/> Yes / Oui <input type="checkbox"/> No, complete the box below / Non, remplir la case ci-dessous			
E-mail / Courriel électronique Tel. No. / N° de tél. ()				E-mail / Courriel électronique Tel. No. / N° de tél. ()				Company name / Nom de l'entreprise Mailing address / Adresse postale City / Ville Province Postal code / Code postal E-mail / Courriel électronique Tel. No. / N° de tél. () Receiving site address / Adresse du lieu de destination			
Shipping site address / Adresse du lieu de l'expédition				Vehicle / Véhicule Trailer - Rail car No. 1 1 st remorque - wagon Trailer - Rail car No. 2 2 nd remorque - wagon				Port of entry / Point d'entrée International use only Port of exit / Point de sortie International use only			
Intended Receiver / consignee Réceptionnaire / destinataire prévu Mailing address / Adresse postale City / Ville Province Postal code / Code postal E-mail / Courriel électronique Tel. No. / N° de tél. () Receiving site address / Adresse du lieu de destination City / Ville Province Postal code / Code postal				Carrier Certification: I certify that I have received waste or recyclable material from the generator / consigneur for delivery to the receiver / consignee as set out in Part A and that the information contained in Part B is complete and correct. Attestation du transporteur: J'atteste avoir reçu les déchets ou matières recyclables du producteur / expéditeur en vue de leur livraison au réceptionnaire / destinataire, tels qu'ils figurent à la partie A et que les renseignements inscrits à la partie B sont exacts et complets.				Date received / Date de réception Year / Année Month / Mois Day / Jour Time / Heure <input type="checkbox"/> A.M. <input type="checkbox"/> P.M.			
Name of authorized person (print): Nom de l'agent autorisé (caractères d'imprimerie):				Name of authorized person (print): Nom de l'agent autorisé (caractères d'imprimerie):				If waste or recyclable material to be transferred, specify intended company name / Si les déchets ou matières recyclables doivent être transférés, préciser le nom du destinataire			
Year / Année Month / Mois Day / Jour Signature:				Year / Année Month / Mois Day / Jour Signature:				Registration No. / Provincial ID No. N° d'immatriculation / d'id. provincial			
Prov. code Code prov. Shipping name Appellation réglementaire				Class / Classe Sub. class(es) / Classe(s) sub. UN No. N° NU Packing / risk gr. Gr. d'emballage / de risque Quantity shipped Quantité expédiée Units L or / ou Kg Unités				Packaging / Contenant Codes Int.-ext. Phys. state État phys.			
(i) Waste Leachate - Oil/glycol/water M/R N/R N/R 820 L 4 01 L											
(ii)											
(iii)											
(iv)											
Notice No. N° de notification Notice Line No N° de ligne de la notification Shipment Envoi Of / De D or R code Code D ou R C code Code C				Basel Annex VIII or OECD Code Annexe VIII de Bâle ou Code OCDE H code Code H Y code Code Y National code in country of / Code du pays Export Import Customs code(s) Code(s) de douanes				If handling code "Other" (specify) Si code de manutention « autre » (spécifier)			
(i)				(i)				Receiver / consignee certification: I certify that the information contained in Part C is correct and complete. / Attestation du réceptionnaire / destinataire: J'atteste que tous les renseignements à la partie C sont exacts et complets.			
(ii)				(ii)				Name of authorized person (print) Nom de l'agent autorisé (caractère d'imprimerie)			
(iii)				(iii)				Signature Tel. No. / N° de tél. ()			
(iv)				(iv)				Special handling / Manutention spéciale <input type="checkbox"/> Attached / Ci-joint <input type="checkbox"/> As follows / Ci-contre:			
Generator / consigneur certification: I certify that the information contained in Part A is correct and complete. I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labelled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.				Name of authorized person (print) Nom de l'agent autorisé (caractère d'imprimerie)				Date shipped / Date d'expédition Year / Année Month / Mois Day / Jour Time / Heure <input type="checkbox"/> A.M. <input type="checkbox"/> P.M.			
Attestation du producteur / expéditeur: J'atteste que tous les renseignements à la partie A sont exacts et complets. Je déclare que le contenu de ce chargement est décrit ci-dessus de façon complète et exacte par la désignation officielle de transport et qu'il est convenablement classé, emballé, marqué, étiqueté, muni de plaques-étiquettes et à tous égards bien conditionné pour être transporté conformément aux réglementations internationales et nationales applicables.				Signature				Scheduled arrival date / Date d'arrivée prévue Year / Année Month / Mois Day / Jour			

Retained by Consignor
Gardée par l'expéditeur

Copy / Copie 2 (green / verte)

MOVEMENT DOCUMENT / MANIFEST DOCUMENT DE MOUVEMENT / MANIFESTE

This Movement document/manifest conforms to all federal and provincial environmental legislation.
Ce document de mouvement/manifeste est conforme aux législations fédérale et provinciale sur l'environnement.

NT12482-5

Movement Document / Manifest Reference No.
N° de référence du document de mouvement/manifeste

A Generator / consigneur Producteur / expéditeur Registration No. / Provincial ID No. N° d'immatriculation - d'id. provincial		B Carrier Transporteur Registration No. / Provincial ID No. N° d'immatriculation - d'id. provincial		Reference Nos. of other movement document(s)/manifest(s) used / N° de référence des autres documents de mouvement/manifestes utilisés	
Company name / Nom de l'entreprise		Company name / Nom de l'entreprise ARTONDI		C Receiver / consignee Réceptionnaire / destinataire Registration No. / Provincial ID No. N° d'immatriculation - d'id. provincial	
Mailing address / Adresse postale City / Ville Province Postal code / Code postal		Mailing address / Adresse postale City / Ville Province Postal code / Code postal Box 1963 Yellowknife, NT X1A 2P3			
E-mail / Courriel électronique Tel. No. / N° de tél. ()		E-mail / Courriel électronique Tel. No. / N° de tél. () 867 4215 8022		Receiver / consignee information same as in Part A. Les renseignements du réceptionnaire / destinataire sont les mêmes qu'à la Partie A. <input type="checkbox"/> Yes / Oui <input type="checkbox"/> No, complete the box below / Non, remplir la case ci-dessous	
Shipping site address / Adresse du lieu de l'expédition City / Ville Province Postal code / Code postal Jericho Mine site c/o Bowes/Outcome		Vehicle / Véhicule Trailer - Rail car No. 1 1 ^{re} remorque - wagon Trailer - Rail car No. 2 2 ^e remorque - wagon Registration No. / N° d'immatriculation TLWIN OTTER		Company name / Nom de l'entreprise Mailing address / Adresse postale City / Ville Province Postal code / Code postal E-mail / Courriel électronique Tel. No. / N° de tél. () Receiving site address / Adresse du lieu de destination	
Intended Receiver / consignee Réceptionnaire / destinataire prévu Mailing address / Adresse postale City / Ville Province Postal code / Code postal EBL Environmental Yellowknife NT X1A 2P4 E-mail / Courriel électronique Tel. No. / N° de tél. 867 873 5263		Port of entry Point d'entrée International use only Port of exit Point de sortie International use only		Date received / Date de réception Year / Année Month / Mois Day / Jour Time / Heure <input type="checkbox"/> A.M. <input type="checkbox"/> P.M.	
Receiving site address / Adresse du lieu de destination City / Ville Province Postal code / Code postal 17 Cameron Rd Yellowknife NT X1A 2P3		Carrier Certification: I certify that I have received waste or recyclable material from the generator / consigneur for delivery to the receiver / consignee as set out in Part A and that the information contained in Part B is complete and correct. Attestation du transporteur: J'atteste avoir reçu les déchets ou matières recyclables du producteur / expéditeur en vue de leur livraison au réceptionnaire / destinataire, tels qu'ils figurent à la partie A et que les renseignements inscrits à la partie B sont exacts et complets.		If waste or recyclable material to be transferred, specify intended company name / Si les déchets ou matières recyclables doivent être transférés, préciser le nom du destinataire	
Name of authorized person (print): Nom de l'agent autorisé (caractères d'imprimerie): Year / Année Month / Mois Day / Jour 17 08 04		Signature: Signature:		Registration No. / Provincial ID No. N° d'immatriculation / d'id provincial	
Prov. code Code prov.		Shipping name Appellation réglementaire		Class / Classe Sub. class(es) Classe(s) sub.	
UN No. N° NU		Packing / risk gr. Gr. d'emballage / de risque		Quantity shipped Quantité expédiée	
Units L or / ou Kg Unités		Packaging/Contenant No. / N° Codes Int-ext.		Phys. state Etat phys.	
(i) Waste Leachate - Oil/glycol/water mix N/R N/R N/R 820 L 4 01 L					
(ii)					
(iii)					
(iv)					
Notice No. N° de notification		Notice Line No. N° de ligne de la notification		Shipment Envoi	
Of / De		D or R code Code D ou R		C code Code C	
Basel Annex VIII or OECD Code Annexe VIII de Bâle ou Code OCDE		H code Code H		Y code Code Y	
National code in country of / Code du pays		Export Exportation		Import Importation	
Customs code(s) Code(s) de douanes					
(i)					
(ii)					
(iii)					
(iv)					
Quantity received Quantité reçue		Units L or / ou kg Unités		Comments Commentaires	
Handling Code / Code de manutention		Shipment / Envoi Accepted Refusé		Decont. Pack. Veh. Cont. Véh.	
If handling code "Other" (specify) Si code de manutention « autre » (spécifier)					
Receiver / consignee certification: I certify that the information contained in Part C is correct and complete, / Attestation du réceptionnaire / destinataire: J'atteste que tous les renseignements à la partie C sont exacts et complets.		Name of authorized person (print) Nom de l'agent autorisé (caractères d'imprimerie)		Signature Signature:	
Special handling / Manutention spéciale <input type="checkbox"/> Attached / Ci-joint: <input type="checkbox"/> As follows / Ci-contre:		Date shipped / Date d'expédition Year / Année Month / Mois Day / Jour		Time / Heure <input type="checkbox"/> A.M. <input type="checkbox"/> P.M.	
Scheduled arrival date / Date d'arrivée prévue Year / Année Month / Mois Day / Jour					

Generator / consigneur certification: I certify that the information contained in Part A is correct and complete. I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labelled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.
Attestation du producteur / expéditeur: J'atteste que tous les renseignements à la partie A sont exacts et complets. Je déclare que le contenu de ce chargement est décrit ci-dessus de façon complète et exacte par la désignation officielle de transport et qu'il est convenablement classé, emballé, marqué, étiqueté, muni de plaques-étiquettes et à tous égards bien conditionné pour être transporté conformément aux réglementations internationales et nationales applicables.

Name of authorized person (print)
 Nom de l'agent autorisé (caractères d'imprimerie)
Cameron Sader
 Signature
Cameron Sader

Tel. No. / N° de tél.
 ()

Instructions on reverse
 Instructions au verso

Copy / Copie 1 (white / blanche)

BILL OF LADING

KBL Environmental LTD.

PO Box 1108

Yellowknife, NT X1A 2N8

DATE

August 2, 2017.

NO

6198

CONSIGNOR/CUSTOMER SITE ADDRESS

Name: Jericho Mine Site c/o.

Address: Bowes / Outcome

Telephone: Contact:

Generator Pin #: Manifest #:

CUSTOMER BILLING ADDRESS

Name:

Address:

Telephone: Contact:

Email: PO #:

CONSIGNEE/RECEIVER SITE ADDRESS

Name: KBL Environmental

Address: 17 Cameron Rd / Box 1845
Yellowknife, YT X1A 2P4

Telephone: (867) 873 5263 Contact: Jeff Bembridge

Receiver Pin #: NTR000123 Manifest #:

CARRIER/TRANSPORTER

Name: Air Tindi

Address: Box 1963
Yellowknife, NT X1A 2P8

Driver: (867) 445-8022 Unit #: Twin Otter

Carrier Pin #:

DANGEROUS GOODS INFO. 24 HOUR EMERGENCY PHONE #
CANUTEC (613) 996-6666

PLACARDS REQUIRED BY CARRIER (PER T.D.G REGULATIONS)

Yes ☐ No ☐ Number Required Type

D G	SHIPPING NAME/ DESCRIPTION	T.D.G INFORMATION						Ü M	EXPECTED QUANTITY	ACTUAL QUANTITY
		CLASS	P.I.N.	PACKING GROUP	PACKAGING					
					NO.	CODE				
	Waste Leachate - Used glycol	N/R	N/R	N/R	01	01			Drums	
	Waste Leachate - oil/glycol/water mix	N/R	N/R	N/R	6	01			6 Drums	
									~ 3000 lbs	

DG-Dangerous Goods (X-Yes)

**UM-Unit of Measure (L-Litre, K-Kilogram, E-Each)

TECHNICIAN TIME:

TRANSPORT TIME:

General Terms and Conditions:

All wastes must meet the specifications as described on the Customer's Bill of Lading sheet. Wastes that do not meet the profile are subject to rejection at the Receiver site or conditional acceptance at a higher price. Customer acknowledges and accepts these conditions by signing below. Customer agrees to indemnify and save harmless KBL from any and all claims, penalties, forfeitures, and expenses incident thereto, which it may incur as a result of death, bodily injuries to any person, destruction or damage to any property, contamination or any adverse effects on the environment, violation of laws, regulations, or orders, caused in whole or in part by the Customer failure to provide waste which meets the specifications as described on this Bill of Lading.

CONSIGNOR SIGNATURE

Cedman Sadler

DRIVER SIGNATURE

CONSIGNEE SIGNATURE

ABOVE NAME PRINTED

Cedman Sadler

ABOVE NAME PRINTED

ABOVE NAME PRINTED

White - Customer

Canary - File

Pink - Receiver

Goldenrod - Carrier

MOVEMENT DOCUMENT / MANIFEST DOCUMENT DE MOUVEMENT / MANIFESTE

This Movement document/manifest conforms to all federal and provincial environmental legislation.
Ce document de mouvement/manifeste est conforme aux législations fédérale et provinciale sur l'environnement.

NT12481-7

Movement Document / Manifest Reference No.
N° de référence du document de mouvement/manifeste

A Generator / consigneur Producteur / expéditeur Registration No. / Provincial ID No. N° d'immatriculation - d'id. provincial		B Carrier Transporteur Registration No. / Provincial ID No. N° d'immatriculation - d'id. provincial		C Receiver / consignee Réceptionnaire / destinataire Registration No. / Provincial ID No. N° d'immatriculation - d'id. provincial	
Company name / Nom de l'entreprise		Company name / Nom de l'entreprise		Receiver / consignee information same as in Part A Les renseignements du réceptionnaire / destinataire sont les mêmes qu'à la Partie A	
Mailing address / Adresse postale City / Ville Province Postal code / Code postal		Mailing address / Adresse postale City / Ville Province Postal code / Code postal		<input type="checkbox"/> Yes / Oui <input type="checkbox"/> No, complete the box below / Non, remplir la case ci-dessous	
E-mail / Courriel électronique Tel. No. / N° de tél.		E-mail / Courriel électronique Tel. No. / N° de tél.		Company name / Nom de l'entreprise	
Shipping site address / Adresse du lieu de l'expédition		Vehicle / Véhicule Registration No. / N° d'immatriculation Prov.		Mailing address / Adresse postale	
City / Ville Province Postal code / Code postal		Trailer - Rail car No. 1 1 ^{re} remorque - wagon Trailer - Rail car No. 2 2 ^e remorque - wagon		City / Ville Province Postal code / Code postal	
Intended Receiver / consignee Réceptionnaire / destinataire prévu Registration No. / Provincial ID No. N° d'immatriculation - d'id. provincial		Port of entry Point d'entrée International use only Port of exit Point de sortie International use only		E-mail / Courriel électronique Tel. No. / N° de tél.	
Mailing address / Adresse postale City / Ville Province Postal code / Code postal E-mail / Courriel électronique Tel. No. / N° de tél.		Carrier Certification : I certify that I have received waste or recyclable material from the generator / consigneur for delivery to the receiver / consignee as set out in Part A and that the information contained in Part B is complete and correct. Attestation du transporteur : J'atteste avoir reçu les déchets ou matières recyclables du producteur / expéditeur en vue de leur livraison au réceptionnaire / destinataire, tels qu'ils figurent à la partie A et que les renseignements inscrits à la partie B sont exacts et complets.		Receiving site address / Adresse du lieu de destination	
Receiving site address / Adresse du lieu de destination City / Ville Province Postal code / Code postal		Name of authorized person (print): Nom de l'agent autorisé (caractères d'imprimerie): Year / Année Month / Mois Day / Jour Signature		Date received / Date de réception Year / Année Month / Mois Day / Jour Time / Heure	
Prov. code Code prov. Shipping name Appellation réglementaire Class / Classe Sub. class(es) / Classe(s) sub. UN No. N° NU Packing / risk gr. Gr. d'emballage / de risque Quantity shipped Quantité expédiée Units L or / ou Kg Unités Packaging / Contenant Codes Int. - ext. Phys. state État phys.		Year / Année Month / Mois Day / Jour Signature		If waste or recyclable material to be transferred, specify intended company name / Si les déchets ou matières recyclables doivent être transférés, préciser le nom du destinataire Registration No. / Provincial ID No. N° d'immatriculation / d'id. provincial	
(i) N/R Waste Leachate - Glyco/oil N/R N/R N/R 1230 L 6 01 L (ii) /water mix (iii) (iv)		Year / Année Month / Mois Day / Jour Signature		Quantity received Quantité reçue Units L or / ou kg Unités Comments Commentaires Handling Code / Code de manutention Shipment / Envoi Accepted / Refused / Refusé Decont. Pack. Veh. Cont. Véh.	
Notice No. N° de notification Notice Line No N° de ligne de la notification Shipment Envoi Of / De D or R code Code D ou R C code Code C Basel Annex VIII or OECD Code Annexe VIII de Bâle ou Code OCDE H code Code H Y code Code Y National code in country of / Code du pays Export Exportation Import Importation Customs code(s) Code(s) de douanes		Year / Année Month / Mois Day / Jour Signature		If handling code "Other" (specify) Si code de manutention « autre » (spécifier)	
(i) (ii) (iii) (iv)		Year / Année Month / Mois Day / Jour Signature		Receiver / consignee certification : I certify that the information contained in Part C is correct and complete. Attestation du réceptionnaire / destinataire : J'atteste que tous les renseignements à la partie C sont exacts et complets.	
Generator / consigneur certification : I certify that the information contained in Part A is correct and complete. I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labelled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. Attestation du producteur / expéditeur : J'atteste que tous les renseignements à la partie A sont exacts et complets. Je déclare que le contenu de ce chargement est décrit ci-dessus de façon complète et exacte par la désignation officielle de transport et qu'il est convenablement classé, emballé, marqué, étiqueté, muni de plaques-étiquettes et à tous égards bien conditionné pour être transporté		Name of authorized person (print) Nom de l'agent autorisé (caractères d'imprimerie) Signature		Signature Tel. No. / N° de tél.	
Date shipped / Date d'expédition Year / Année Month / Mois Day / Jour		Time / Heure <input type="checkbox"/> A.M. <input type="checkbox"/> P.M.		Scheduled arrival date / Date d'arrivée prévue Year / Année Month / Mois Day / Jour	

Instructions on reverse

BILL OF LADING

KBL Environmental LTD.

PO Box 1108
Yellowknife, NT X1A 2N8

DATE AUG 1st 2017

NO **6197**

CONSIGNOR/CUSTOMER SITE ADDRESS

Name:

Address: DERICHO MINE, NU

Telephone:

Contact:

Generator Pin #:

Manifest #:

CONSIGNEE/RECEIVER SITE ADDRESS

Name: KBL ENVIRONMENTAL

Address: 17 CAMERON RD / PO BOX 1895
YELLOWKNIFE, NT X1A 2P4

Telephone: (867) 993-5263

Contact: JEK

Receiver Pin #: NTR000123

Manifest #:

CUSTOMER BILLING ADDRESS

Name:

Address:

Telephone:

Contact:

Email:

PO #:

CARRIER/TRANSPORTER

Name: AIR TINDI

Address:

Driver:

Unit #:

Carrier Pin #:

DANGEROUS GOODS INFO. 24 HOUR EMERGENCY PHONE #
CANUTEC (613) 996-6666

PLACARDS REQUIRED BY CARRIER (PER T.D.G REGULATIONS)

Yes ☐ No ☐ Number Required Type

D G	SHIPPING NAME/ DESCRIPTION	T.D.G INFORMATION				U M	EXPECTED QUANTITY	ACTUAL QUANTITY
		CLASS	P.I.N.	PACKING GROUP	PACKAGING NO. CODE			
<input checked="" type="checkbox"/>	REFRIGERANT GAS R22	2.2	1018	/	2 07		2 BOTTLES	
<input checked="" type="checkbox"/>	REFRIGERANT GAS R 404A	2.2	3337	/	1 07		1 BOTTLE	
<input checked="" type="checkbox"/>	REFRIGERANT GAS R 134A	2.2	3159	/	1 07		1 BOTTLE	

DG-Dangerous Goods (X-Yes)

**UM-Unit of Measure (L-Litre, K-Kilogram, E-Each)

TECHNICIAN TIME:

TRANSPORT TIME:

General Terms and Conditions:

All wastes must meet the specifications as described on the Customer's Bill of Lading sheet. Wastes that do not meet the profile are subject to rejection at the Receiver site or conditional acceptance at a higher price. Customer acknowledges and accepts these conditions by signing below. Customer agrees to indemnify and save harmless KBL from any and all claims, penalties, forfeitures, and expenses incident thereto, which it may incur as a result of death, bodily injuries to any person, destruction or damage to any property, contamination or any adverse effects on the environment, violation of laws, regulations, or orders, caused in whole or in part by the Customer failure to provide waste which meets the specifications as described on this Bill of Lading.

CONSIGNOR SIGNATURE

Coleman Sadler

DRIVER SIGNATURE

CONSIGNEE SIGNATURE

ABOVE NAME PRINTED

Coleman Sadler

ABOVE NAME PRINTED

ABOVE NAME PRINTED

White - Customer

Canary - File

Pink - Receiver

Goldenrod - Carrier

MOVEMENT DOCUMENT / MANIFEST DOCUMENT DE MOUVEMENT / MANIFESTE

This Movement document/manifest conforms to all federal and provincial environmental legislation.
Ce document de mouvement/manifeste est conforme aux législations fédérale et provinciale sur l'environnement.

NT12480-9

Movement Document / Manifest Reference No.
N° de référence du document de mouvement/manifeste

A Generator / consigneur Producteur / expéditeur Registration No. / Provincial ID No. N° d'immatriculation - d'id. provincial				B Carrier Transporteur Registration No. / Provincial ID No. N° d'immatriculation - d'id. provincial				C Receiver / consignee Réceptionnaire / destinataire Registration No. / Provincial ID No. N° d'immatriculation - d'id. provincial			
Company name / Nom de l'entreprise				Company name / Nom de l'entreprise				Reference Nos. of other movement document(s)/manifest(s) used / N° de référence des autres documents de mouvement/manifestes utilisés			
Mailing address / Adresse postale City / Ville Province Postal code / Code postal				Mailing address / Adresse postale City / Ville Province Postal code / Code postal				Receiver / consignee information same as in Part A Les renseignements du réceptionnaire / destinataire sont les mêmes qu'à la Partie A <input type="checkbox"/> Yes / Oui <input type="checkbox"/> No, complete the box below / Non, remplir la case ci-dessous			
E-mail / Courriel électronique Tel. No. / N° de tél. ()				E-mail / Courriel électronique Tel. No. / N° de tél. ()				Company name / Nom de l'entreprise			
Shipping site address / Adresse du lieu d'expédition City / Ville Province Postal code / Code postal				Vehicle / Véhicule Trailer - Rail car No. 1 1 ^{re} remorque - wagon Trailer - Rail car No. 2 2 ^e remorque - wagon Registration No. / N° d'immatriculation Prov.				Mailing address / Adresse postale City / Ville Province Postal code / Code postal			
Intended Receiver / consignee Réceptionnaire / destinataire prévu KEL ENVIRONMENTAL PO BOX 1895 YELLOWKNIFE E-mail / Courriel électronique Tel. No. / N° de tél. 864 893-5263				Port of entry / Point d'entrée International use only Port of exit / Point de sortie International use only Carrier Certification: I certify that I have received waste or recyclable material from the generator / consigneur for delivery to the receiver / consignee as set out in Part A and that the information contained in Part B is complete and correct. Attestation du transporteur: J'atteste avoir reçu les déchets ou matières recyclables du producteur / expéditeur en vue de leur livraison au réceptionnaire / destinataire, tels qu'ils figurent à la partie A et que les renseignements inscrits à la partie B sont exacts et complets.				E-mail / Courriel électronique Tel. No. / N° de tél. ()			
Receiving site address / Adresse du lieu de destination 17 CAMERON ROAD YELLOWKNIFE, NT City / Ville Province Postal code / Code postal				Name of authorized person (print) Nom de l'agent autorisé (caractères d'imprimerie): Year / Année Month / Mois Day / Jour Signature:				Date received / Date de réception Year / Année Month / Mois Day / Jour Time / Heure <input type="checkbox"/> A.M. <input type="checkbox"/> P.M.			
Procs. code Code prov.				Shipping name Appellation réglementaire				Class / Classes Sub. classes / Classes(s) sub.			
UN No. N° UN				Packing / risk gr. Gr. d'emballage / de risque				Quantity shipped Quantité expédiée			
Units L or / ou Kg Unités				Packaging / Contenant No. / N°				Phys. state État phys.			
Quantity received Quantité reçue				Comments Commentaires				Handling Code / Code de manutention			
Shipment / Envoi Accepted / Refusé				Decort. Pack. / Veh. Cont. / Veh.							
Notice No. N° de notification				Notice Line No. N° de ligne de la notification				Shipment Envoi			
Of / De				D or R code Code D ou R				C code Code C			
Basel Annex VIII or OECD Code Annexe VIII de Bâle ou Code OCDE				H code Code H				Y code Code Y			
Export Exportation				Import Importation				Customs code(s) Code(s) de douanes			
National code in country of / Code du pays											
If handling code "Other" (specify) Si code de manutention « autre » (spécifier)											
Receiver / consignee certification: I certify that the information contained in Part C is correct and complete. Attestation du réceptionnaire / destinataire: J'atteste que tous les renseignements à la partie C sont exacts et complets.				Name of authorized person (print) Nom de l'agent autorisé (caractères d'imprimerie)				Signature Tel. No. / N° de tél. ()			
Special handling / Manutention spéciale <input type="checkbox"/> Attached / Ci-joint: <input type="checkbox"/> As follows / Ci-contre:											
Date shipped / Date d'expédition Year / Année Month / Mois Day / Jour				Time / Heure <input type="checkbox"/> A.M. <input type="checkbox"/> P.M.				Scheduled arrival date / Date d'arrivée prévue Year / Année Month / Mois Day / Jour			
Generator / consigneur certification: I certify that the information contained in Part A is correct and complete. I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labelled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. Attestation du producteur / expéditeur: J'atteste que tous les renseignements à la partie A sont exacts et complets. Je déclare que le contenu de ce chargement est décrit ci-dessus de façon complète et exacte par la désignation officielle de transport et qu'il est convenablement classé, emballé, marqué, étiqueté, muni de plaques-étiquettes et à tous égards bien conditionné pour être transporté conformément aux réglementations internationales et nationales applicables.				Name of authorized person (print) Nom de l'agent autorisé (caractères d'imprimerie) Coleman Sadler Signature: Coleman Sadler				Tel. No. / N° de tél. ()			

Instructions on reverse
Instructions au verso

Copy / Copie 1 (white / blanche)