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# Memo

To: Johan Skoglund, CanZinco Mines Ltd. Client: CanZinco Mines Ltd

From: Arlene Laudrum Project No: 1CB002.002

Cc: Andrew Keim, AANDC Date: August 14, 2014
Phyllis Beaulieu, Nunavut Water Board

Subject: Backfilling of Area 4 excavation as part of reclamation activities at the former Nanisivik fuel tank farm

The comment is made in AANDC's inspection report dated August 1, 2013 that an inspection of excavations must be done prior to backfilling or re-contouring the area. The requirement for an AANDC inspection of an excavation at this stage is new and it has the potential to cause significant delays in the progress of the remediation activities and in the future redevelopment of the site. There was no discussion about this requirement with SRK during the inspection.

Of immediate concern is the excavation identified as Area 4. The Area 4 excavation was complete and accessible for inspection at the time of AANDC's inspection on July 13, 2014, and laboratory results have subsequently been received confirming that the soil remaining in the excavation meets the remediation objectives. Area 4 must be backfilled immediately to facilitate access to the area where remediated soils are placed on the west side of the former tank farm. Access to this area is hindered during the removal of the large stockpile of soil and in order for the site to be redeveloped in 2015 this stockpile must be relocated in 2014. Area 4 must also be backfilled in 2014 to prevent ponding of water.

In July 2014, field testing conducted by SRK revealed that PHC contamination did not extend past the west wall of the excavation. In accordance with the NWB-approved protocols for confirmatory sampling of soil, SRK collected discrete samples at 5 m intervals within 0.25 m of the base of the excavation to document that the hydrocarbon contaminated soil had been removed from the excavation and the discrete samples were combined to create a composite sample for testing at an accredited laboratory. A QA/QC sample set of three discrete and a duplicate was also submitted for laboratory testing. The results are provided in Table 1. The results confirm that the soil quality remediation objectives have been met in the Area 4 excavation. The results replace the results for 14428-W-C shown in red on Figure 1. The results for the other remediation confirmation soil samples shown on Figure 1 were reported in the *Nanisivik Mine Contaminated Soil Remediation 2013 Progress Report* (SRK 2014) that was filed with the Nunavut Water Board as part of the annual report under water licence 1AR-NAN0914.

The work at the tank farm is conducted in accordance with the NWB-approved Abandonment and Reclamation Plan, Fuel Tank Farm, Former Nanisivik Mine Site (Stantec 2010) and Nanisivik Mine Reclamation and Closure Monitoring Plan (Gartner Lee Limited, 2004). Section 6.6 of the abandonment and reclamation plan states that areas within the footprint of the former fuel tank farm which meet the applicable remediation criteria will be backfilled with soil with PHC

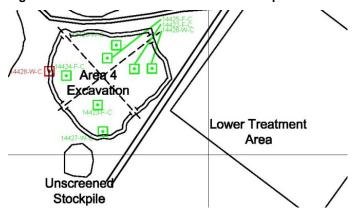
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concentrations below the soil quality remediation objectives. There is no mentioning of excavated areas having to be inspected and approved by AANDC.

Table 1: 2014 Confirmatory Soil Sample Results from Area 4

Sample_#	Location	Date	Sample_type	F2 mg/kg	F3 mg/kg	F4 mg/kg
14780	A4 Wall	7/15/2014	Discrete	80	<20	<20
14781	A4 Wall	7/15/2014	Discrete	80	<20	<20
14782	A4 Wall	7/15/2014	Discrete	90	<20	<20
14785	A4 Wall	7/15/2014	Composite of 14781 to 14784	70	<20	<20
14786	A4 Wall	7/15/2014	Duplicate of 14785	60	<20	<20

Figure 1: Area 4 Excavation Confirmation Sample Locations



As mentioned above, the requirement for AANDC to inspect the Area 4 excavation pit before backfilling is unlikely to be practical as it would cause significant delays in the progress of the remediation activities and in the DND's planned redevelopment of the site. With this in mind, SRK respectfully requests that immediate approval be obtained from AANDC for the backfilling of excavation Area 4. As noted, the excavation of this area was substantially complete at the time of AANDC's inspection on July 13, 2014, and soil confirmation test results, as presented above, have demonstrated that the soil quality remediation objectives have been achieved.

SRK Consulting (Canada) Inc.

Arlene Laudrum, PGeo, FGC

**Principal Consultant** 

Attachment: Laboratory Certificate

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The opinions expressed in this document have been based on the information available to SRK at the time of preparation. SRK has exercised all due care in reviewing information supplied by others for use on this project. While SRK has compared key supplied data with expected values, the accuracy of the results and conclusions from the review are entirely reliant on the accuracy and completeness of the supplied data. SRK does not accept responsibility for any errors or omissions in the supplied information, except to the extent that SRK was hired to verify the data.

# **Certificate of Analysis**



Client: Nyrstar (c/o SRK)

2840-650 West Georgia St.

Vancouver, BC V6B 4N8

Attention: Mr. Johan Skoglund

PO#: ENV/2012/0

Invoice to: Canzinco Ltd. Page 1 of 20

Report Number: Date Submitted: Date Reported: 1415011 2014-07-21 2014-07-28

Laboratory Supervisor, Organics

Project: COC #:

787723

Dear Johan Sko	oglund:			
Please find atta	ched the analytical results for your samples.	If you have any questions regarding this report	t, please do not h	esitate to call (613-727-5692).
Report Comments	:			
APPROVAL:			APPROVAL:	
	Lorna Wilson			Charlie (Long) Qu

Exova (Ottawa) is certified and accredited for specific parameters by:

Laboratory Supervisor, Inorganics

CALA, Canadian Association for Laboratory Accreditation (to ISO 17025), OMAFRA, Ontario Ministry of Agriculture, Food and Rural Affairs (for farm soils), Licensed by Ontario MOE for specific tests in drinking water.

Exova (Mississauga) is accredited for specific parameters by: SCC, Standards Council of Canada (to ISO 17025)

Please note: Field data, where presented on the report, has been provided by the client and is presented for informational purposes only.

Guideline values listed on this report are provided for ease of use (informational purposes) only. Exova recommends consulting the official provincial or federal guideline as required.

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<b>O</b> ncour	Amelista	MRL	Units	Lab I.D. Sample Matrix Sample Type Sampling Date Sample I.D.  Guideline	1120631 Soil 2014-07-11 14758	1120632 Soil 2014-07-11 14759	1120633 Soil 2014-07-11 14760	1120634 Soil 2014-07-14 14775
Group	Analyte  Moisture		%	Guideline	8.6	6.9	6.5	6.4
General Chemistry		0.1			<10	20	20	0.4
Hydrocarbons	F1 (C6-C10)	10	ug/g					
	F1-BTEX (C6-C10)	10	ug/g		<10	20	20	40
	F2 (C10-C16)	10	ug/g		140	330	270	10
	F3 (C16-C34)	20	ug/g		40	<20	50	<20
	F4 (C34-C50)	20	ug/g		<20	<20	<20	<20
Mercury	Hg	0.1	ug/g		<0.1	<0.1	<0.1	
Metals	Ag	0.2	ug/g		0.4	0.4	0.3	
	Al	5	ug/g		18600	17800	16700	
	As	1	ug/g		6	6	6	
	Ва	1	ug/g		86	86	89	
	Be	1	ug/g		<1	<1	<1	
	Ca	100	ug/g		75600	78700	84400	
	Cd	0.5	ug/g		1.7	2.2	1.5	
	Со	1	ug/g		10	10	10	
	Cr	1	ug/g		32	29	33	
	Cu	1	ug/g		28	25	26	
	Fe	5	ug/g		28400	29100	29700	
	K	100	ug/g		4600	4600	4600	
	Mg	100	ug/g		62600	64400	67000	
	Mn	1	ug/g		363	357	372	
	Мо	1	ug/g		1	1	2	
	Na	100	ug/g		400	300	400	
	Ni	1	ug/g		29	28	30	
	Pb	1	ug/g		65	67	54	
	Sb	1	ug/g		<1	<1	<1	

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\* = Guideline Exceedence

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<sup>\*\* =</sup> Analysis completed at Mississauga, Ontario.

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				Lab I.D. Sample Matrix Sample Type Sampling Date Sample I.D.	1120631 Soil 2014-07-11 14758	1120632 Soil 2014-07-11 14759	1120633 Soil 2014-07-11 14760	1120634 Soil 2014-07-14 14775
Group	Analyte	MRL	Units	Guideline				
Metals	Se	1	ug/g		<1	<1	<1	
	Sr	1	ug/g		62	61	58	
	TI	1	ug/g		<1	<1	<1	
	V	2	ug/g		50	50	49	
	Zn	2	ug/g		670	806	547	
VOCs	Benzene	0.02	ug/g		<0.02	<0.02	0.02	
	Ethylbenzene	0.05	ug/g		0.08	<0.05	0.07	
	m/p-xylene	0.05	ug/g		0.37	0.19	0.35	
	o-xylene	0.05	ug/g		0.16	0.10	0.15	
	Toluene	0.20	ug/g		<0.20	<0.20	<0.20	
/OCs Surrogates (%	Toluene-d8	0	%		100	96	95	
				Lab I.D. Sample Matrix Sample Type Sampling Date Sample I.D.	1120635 Soil 2014-07-14 14776	1120636 Soil 2014-07-15 14780	1120637 Soil 2014-07-15 14781	1120638 Soil 2014-07-15 14782
Group	Analyte	MRL	Units	Guideline				
General Chemistry	Moisture	0.1	%		5.8	7.7	5.6	7.6
Hydrocarbons	F2 (C10-C16)	10	ug/g		<10	80	80	90
	F3 (C16-C34)	20	ug/g		<20	<20	<20	<20
	F4 (C34-C50)	20	ug/g		<20	<20	<20	<20

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Group	Analyte	MRL	Units	Lab I.D. Sample Matrix Sample Type Sampling Date Sample I.D.  Guideline	1120639 Soil 2014-07-15 14785	1120640 Soil 2014-07-15 14786	1120641 Soil 2014-07-15 14787	1120642 Soil 2014-07-15 14789
General Chemistry	Moisture	0.1	%		8.3	8.3	7.8	5.3
Hydrocarbons	F2 (C10-C16)	10	ug/g		70	60	<10	<10
	F3 (C16-C34)	20	ug/g		<20	<20	<20	<20
	F4 (C34-C50)	20	ug/g		<20	<20	<20	<20

Group	Analyte	MRL	Units	Lab I.D. Sample Matrix Sample Type Sampling Date Sample I.D.  Guideline	1120643 Soil 2014-07-15 14791	1120644 Soil 2014-07-15 14792	1120645 Soil 2014-07-15 14798	1120646 Soil 2014-07-15 14804
General Chemistry	Moisture	0.1	%		7.0	7.8	6.6	6.0
Hydrocarbons	F2 (C10-C16)	10	ug/g		<10	<10	<10	30
	F3 (C16-C34)	20	ug/g		<20	<20	<20	<20
	F4 (C34-C50)	20	ug/g		<20	<20	<20	<20

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				Lab I.D. Sample Matrix Sample Type Sampling Date Sample I.D.	1120647 Soil 2014-07-15 14815	1120648 Soil 2014-07-15 14816	1120649 Soil 2014-07-15 14818	1120650 Soil 2014-07-15 14820
Group	Analyte	MRL	Units	Guideline				
General Chemistry	Moisture	0.1	%		7.2	8.3	9.3	9.4
Hydrocarbons	F1 (C6-C10)	10	ug/g		<10			
	F1-BTEX (C6-C10)	10	ug/g		<10			
	F2 (C10-C16)	10	ug/g		10	60	620	60
	F3 (C16-C34)	20	ug/g		<20	<20	30	<20
	F4 (C34-C50)	20	ug/g		<20	<20	<20	<20
VOCs	Benzene	0.02	ug/g		<0.02			
	Ethylbenzene	0.05	ug/g		<0.05			
	m/p-xylene	0.05	ug/g		0.11			
	o-xylene	0.05	ug/g		<0.05			
	Toluene	0.20	ug/g		<0.20			
VOCs Surrogates (%	Toluene-d8	0	%		98			
				Lab I.D. Sample Matrix Sample Type Sampling Date Sample I.D.	1120651 Soil 2014-07-15 14821	1120652 Soil 2014-07-15 14827	1120653 Soil 2014-07-15 14834	1120654 Soil 2014-07-15 14835
Group	Analyte	MRL	Units	Guideline				
General Chemistry	Moisture	0.1	%		9.4	8.9	7.5	9.2
Hydrocarbons	F1 (C6-C10)	10	ug/g					<10
	F1-BTEX (C6-C10)	10	ug/g					<10
	F2 (C10-C16)	10	ug/g		330	<10	10	<10
	F3 (C16-C34)	20	ug/g		<20	<20	<20	<20
	F4 (C34-C50)	20	ug/g		<20	<20	<20	<20
VOCs	Benzene	0.02	ug/g					<0.02

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				Lab I.D. Sample Matrix Sample Type Sampling Date Sample I.D.	1120651 Soil 2014-07-15 14821	1120652 Soil 2014-07-15 14827	1120653 Soil 2014-07-15 14834	1120654 Soil 2014-07-15 14835
Group	Analyte	MRL	Units	Guideline				
VOCs	Ethylbenzene	0.05	ug/g					<0.05
	m/p-xylene	0.05	ug/g					<0.05
	o-xylene	0.05	ug/g					<0.05
	Toluene	0.20	ug/g					<0.20
VOCs Surrogates (%	Toluene-d8	0	%					97
				Lab I.D. Sample Matrix Sample Type Sampling Date Sample I.D.	1120655 Soil 2014-07-15 14836	1120656 Soil 2014-07-15 14837	1120657 Soil 2014-07-15 14838	1120658 Soil 2014-07-15 14839
Group	Analyte	MRL	Units	Guideline				
Agri Soil	рН	2.0					8.0	
General Chemistry	Moisture	0.1	%		7.9	7.3	7.4	7.3
Hydrocarbons	F1 (C6-C10)	10	ug/g			50		
	F1-BTEX (C6-C10)	10	ug/g			50		
	F2 (C10-C16)	10	ug/g		880	70	240	280
	F3 (C16-C34)	20	ug/g		<20	<20	<20	40
	F4 (C34-C50)	20	ug/g		<20	<20	<20	<20
Nutrients	Total Kjeldahl Nitrogen	0.01	%				0.02	
Others	Total P	0.01	%				0.05	
Semi-Volatiles	1-methylnaphthalene	0.05	ug/g			0.16		
	2-methylnaphthalene	0.05	ug/g			0.27		
	Acenaphthene	0.05	ug/g			<0.05		
	Acenaphthylene	0.05	ug/g			<0.05		
	Anthracene	0.05	ug/g			<0.05		

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				Lab I.D. Sample Matrix Sample Type Sampling Date Sample I.D.	1120655 Soil 2014-07-15 14836	1120656 Soil 2014-07-15 14837	1120657 Soil 2014-07-15 14838	1120658 Soil 2014-07-15 14839
Group	Analyte	MRL	Units	Guideline				
Semi-Volatiles	Benzo(a)anthracene	0.05	ug/g			<0.05		
	Benzo(a)pyrene	0.05	ug/g			<0.05		
	Benzo(b)fluoranthene	0.05	ug/g			<0.05		
	Benzo(g,h,i)perylene	0.05	ug/g			<0.05		
	Benzo(k)fluoranthene	0.05	ug/g			<0.05		
	Chrysene	0.05	ug/g			<0.05		
	Dibenzo(a,h)anthracene	0.05	ug/g			<0.05		
	Fluoranthene	0.05	ug/g			<0.05		
	Fluorene	0.05	ug/g			<0.05		
	Indeno(1,2,3-c,d)pyrene	0.05	ug/g			<0.05		
	Naphthalene	0.05	ug/g			0.11		
	Phenanthrene	0.05	ug/g			<0.05		
	Pyrene	0.05	ug/g			<0.05		
VOCs	1,1,1,2-tetrachloroethane	0.05	ug/g			<0.05		
	1,1,1-trichloroethane	0.05	ug/g			<0.05		
	1,1,2,2-tetrachloroethane	0.05	ug/g			<0.05		
	1,1,2-trichloroethane	0.05	ug/g			<0.05		
	1,1-dichloroethane	0.05	ug/g			<0.05		
	1,1-dichloroethylene	0.05	ug/g			<0.05		
	1,2-dichlorobenzene	0.05	ug/g			<0.05		
	1,2-dichloroethane	0.05	ug/g			<0.05		
	1,2-dichloropropane	0.05	ug/g			<0.05		
	1,3-dichlorobenzene	0.05	ug/g			<0.05		
	1,3-Dichloropropylene (cis+trans)	0.05	ug/g			<0.05		
	1,4-dichlorobenzene	0.05	ug/g			<0.05		
	Acetone	0.50	ug/g			<0.50		

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Group	Analyte	MRL	Units	Guideline				
VOCs	Benzene	0.02	ug/g			0.04		
	Bromodichloromethane	0.05	ug/g			<0.05		
	Bromoform	0.05	ug/g			<0.05		
	c-1,2-Dichloroethylene	0.05	ug/g			<0.05		
	c-1,3-Dichloropropylene	0.05	ug/g			<0.05		
	Carbon Tetrachloride	0.05	ug/g			<0.05		
	Chloroform	0.05	ug/g			<0.05		
	Dibromochloromethane	0.05	ug/g			<0.05		
	Dichlorodifluoromethane	0.05	ug/g			<0.05		
	Dichloromethane	0.05	ug/g			<0.05		
	Ethylbenzene	0.05	ug/g			0.08		
	Ethylene Dibromide	0.05	ug/g			<0.05		
	Hexane	0.05	ug/g			<0.05		
	m/p-xylene	0.05	ug/g			0.62		
	Methyl Ethyl Ketone (MEK)	0.50	ug/g			<0.50		
	Methyl Isobutyl Ketone (MIBK)	0.50	ug/g			<0.50		
	Methyl Tert Butyl Ether (MTBE)	0.05	ug/g			<0.05		
	Monochlorobenzene	0.05	ug/g			<0.05		
	o-xylene	0.05	ug/g			0.26		
	Styrene	0.05	ug/g			<0.05		
	t-1,2-Dichloroethylene	0.05	ug/g			<0.05		
	t-1,3-Dichloropropylene	0.05	ug/g			<0.05		
	Tetrachloroethylene	0.05	ug/g			<0.05		
	Toluene	0.20	ug/g			0.22		
	Trichloroethylene	0.05	ug/g			<0.05		
	Trichlorofluoromethane	0.05	ug/g			<0.05		

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1120656 1120	
Soil So 014-07-15 2014-0	07-15 2014-07-15
14037	-30 14039
<0.02	
0.88	
92	
93	
102	
Soil So 014-07-16 2014-0	oil Soil 07-16 2014-07-16
6.7 7	7 8.1
-	
0.06 <0.	
3.90   0.0	
3.90 0.0 18.2 0.3	
18.2 0.3	38
	38 21
	0.88 92 93 102  1120660 Soil 014-07-16 14846  6.7 220 50 190 120 26 <20 <20 <2

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Group	Analyte	MRL	Units	Guideline				
General Chemistry	Moisture	0.1	%		8.6	6.4	7.7	8.5
Hydrocarbons	F1 (C6-C10)	10	ug/g					110
	F1-BTEX (C6-C10)	10	ug/g					110
	F2 (C10-C16)	10	ug/g		600	1120	400	570
	F3 (C16-C34)	20	ug/g		50	80	30	40
	F4 (C34-C50)	20	ug/g		<20	<20	<20	<20
Semi-Volatiles	1-methylnaphthalene	0.05	ug/g					3.32
	2-methylnaphthalene	0.05	ug/g					3.19
	Acenaphthene	0.05	ug/g					<0.05
	Acenaphthylene	0.05	ug/g					<0.05
	Anthracene	0.05	ug/g					<0.05
	Benzo(a)anthracene	0.05	ug/g					<0.05
	Benzo(a)pyrene	0.05	ug/g					<0.05
	Benzo(b)fluoranthene	0.05	ug/g					<0.05
	Benzo(g,h,i)perylene	0.05	ug/g					<0.05
	Benzo(k)fluoranthene	0.05	ug/g					<0.05
	Chrysene	0.05	ug/g					<0.05
	Dibenzo(a,h)anthracene	0.05	ug/g					< 0.05
	Fluoranthene	0.05	ug/g					<0.05
	Fluorene	0.05	ug/g					0.12
	Indeno(1,2,3-c,d)pyrene	0.05	ug/g					<0.05
	Naphthalene	0.05	ug/g					0.76
	Phenanthrene	0.05	ug/g					<0.05
	Pyrene	0.05	ug/g					<0.05
VOCs	Benzene	0.02	ug/g					<0.02
	Ethylbenzene	0.05	ug/g					0.13

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<sup>\*\* =</sup> Analysis completed at Mississauga, Ontario.

# **Certificate of Analysis**



Client: Nyrstar (c/o SRK)

2840-650 West Georgia St.

Vancouver, BC

V6B 4N8 Attention: Mr. Johan Skoglund

PO#: ENV/2012/0
Invoice to: Canzinco Ltd.

Report Number: Date Submitted:

1415011 2014-07-21 2014-07-28

Date Reported: Project:

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787723

				Lab I.D. Sample Matrix Sample Type Sampling Date Sample I.D.	1120663 Soil 2014-07-16 14850	1120664 Soil 2014-07-16 14852	1120665 Soil 2014-07-16 14856	1120666 Soil 2014-07-16 15860
Group	Analyte	MRL	Units	Guideline				
VOCs	m/p-xylene	0.05	ug/g					0.68
	o-xylene	0.05	ug/g					0.77
	Toluene	0.20	ug/g					<0.20
VOCs Surrogates (%	Toluene-d8	0	%					97
				Lab I.D. Sample Matrix Sample Type Sampling Date Sample I.D.	1120667 Soil 2014-07-16 14861	1120668 Soil 2014-07-16 14877	1120669 Soil 2014-07-16 14878	1120670 Soil 2014-07-16 14879
Group	Analyte	MRL	Units	Guideline				
General Chemistry	Moisture	0.1	%		7.5	7.2	7.5	8.4
Hydrocarbons	F2 (C10-C16)	10	ug/g		730	100	130	160
	F3 (C16-C34)	20	ug/g		40	40	40	30
	F4 (C34-C50)	20	ug/g		<20	<20	<20	<20

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ed: 2014-07-21 ed: 2014-07-28

1415011

Project:

COC #: 787723

## **QC Summary**

Analyte	•	Blank	QC % Rec	QC Limits
<b>Run No</b> 273085	Analysis Date 2014-	07-22 <b>Method</b> EF	PA 200.8	
Ag		<0.2 ug/g	97	70-130
Al		<5 ug/g	103	70-130
As		<1 ug/g	107	70-130
Ва		<1 ug/g	98	70-130
Ве		<1 ug/g	102	70-130
Cd		<0.5 ug/g	98	70-130
Со		<1 ug/g	102	70-130
Cr		<1 ug/g	101	70-130
Cu		<1 ug/g	105	70-130
Fe		<5 ug/g	92	70-130
Mn		<1 ug/g	103	70-130
Мо		<1 ug/g	104	70-130
Ni		<1 ug/g	104	70-130
Pb		<1 ug/g	96	70-130

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Vancouver, BC

V6B 4N8 Attention: Mr. Johan Skoglund

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Report Number: Date Submitted: Date Reported: 1415011 2014-07-21 2014-07-28

Project: COC #:

787723

## **QC Summary**

	Analyte				Blank		QC % Rec	QC Limits
Sb					<1 ug/g		94	70-130
Se					<1 ug/g		106	70-130
Sr					<1 ug/g		103	70-130
TI					<1 ug/g		93	70-130
V					<2 ug/g		101	70-130
Zn					<2 ug/g		104	70-130
Run No	273199	Analysis Date	2014-	07-23	Method	М	SM3112B-3500B	
Hg					<0.1 ug/g		98	70-130
Run No	273233	Analysis Date	2014-	07-24	Method	С	NONE	
Total P					<0.01 %		101	
Run No	273294	Analysis Date	2014-	07-24	Method	C	SM4500-Norg-B	
Total Kje	ldahl Nitrogen				<0.01 %		98	90-110
Run No	273298	Analysis Date	2014-	07-24	Method	М	SM3111B-3050B	
Ca					<100 ug/g		110	90-100
К					<100 ug/g		117	80-120
Mg					<100 ug/g		98	89-111
Na					<100 ug/g		116	60-140

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787723

## **QC Summary**

Analyte	•	Blank	QC % Rec	QC Limits
Run No 273299	Analysis Date 2014-	07-24 <b>Method</b>	Ag Soil	
рН				90-110
Run No 273367	Analysis Date 2014-	07-23 <b>Method</b>	V 8260B	
Benzene		<0.02 ug/g	81	80-120
Ethylbenzene		<0.05 ug/g	112	80-120
m/p-xylene		<0.05 ug/g	115	80-120
o-xylene		<0.05 ug/g	118	80-120
Toluene		<0.20 ug/g	117	80-120
Toluene-d8		99 %	110	
<b>Run No</b> 273371	Analysis Date 2014-	07-25 <b>Method</b>	CCME	
F1 (C6-C10)		<10 ug/g	93	80-120
Run No 273373	Analysis Date 2014-	07-25 <b>Method</b>	CCME	
F1-BTEX (C6-C10)				
<b>Run No</b> 273380	Analysis Date 2014-	07-25 <b>Method</b>	V 8260B	
Xylene; total				
<b>Run No</b> 273418	Analysis Date 2014-	07-24 <b>Method</b>	CCME	
F2 (C10-C16)		<10 ug/g	80	50-120

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# **QC Summary**

Analyte		Blank		QC % Rec	QC Limits
F3 (C16-C34)		<20 ug/g		80	50-120
F4 (C34-C50)		<20 ug/g		80	50-120
Run No 273419 Analysis	<b>Date</b> 2014-07-24	Method	C S	SM2540B	
Moisture		<0.1 %		100	80-120
Run No 273426 Analysis	<b>Date</b> 2014-07-25	Method	CC	CME	
F2 (C10-C16)		<10 ug/g		82	50-120
F3 (C16-C34)		<20 ug/g		82	50-120
F4 (C34-C50)		<20 ug/g		82	50-120
Moisture		<0.1 %		100	80-120
Run No 273445 Analysis	<b>Date</b> 2014-07-28	Method	Ρ8	3270	
1-methylnaphthalene		<0.05 ug/g		77	20-150
2-methylnaphthalene		<0.05 ug/g		78	20-150
Run No 273455 Analysis	Date 2014-07-26	Method	V 8	3260B	
1,1,1,2-tetrachloroethane		<0.05 ug/g		94	80-120
1,1,1-trichloroethane		<0.05 ug/g		102	80-120
1,1,2,2-tetrachloroethane		<0.05 ug/g		115	80-120
1,1,2-trichloroethane		<0.05 ug/g		107	80-120

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787723

## **QC Summary**

Analyte	Blank	QC % Rec	QC Limits
1,1-dichloroethane	<0.05 ug/g	110	80-120
1,1-dichloroethylene	<0.05 ug/g	96	80-120
1,2-dichlorobenzene	<0.05 ug/g	104	80-120
1,2-dichloroethane	<0.05 ug/g	111	80-120
1,2-dichloroethane-d4	93 %	102	
1,2-dichloropropane	<0.05 ug/g	113	80-120
1,3-dichlorobenzene	<0.05 ug/g	115	80-120
1,3-Dichloropropylene (cis+trans)			
1,4-dichlorobenzene	<0.05 ug/g	118	80-120
Acetone	<0.50 ug/g	114	70-130
Bromodichloromethane	<0.05 ug/g	99	80-120
Bromoform	<0.05 ug/g	101	80-100
c-1,2-Dichloroethylene	<0.05 ug/g	103	80-120
c-1,3-Dichloropropylene	<0.05 ug/g	106	80-120
Carbon Tetrachloride	<0.05 ug/g	106	80-120
Chloroform	<0.05 ug/g	108	80-120
Dibromochloromethane	<0.05 ug/g	101	80-120

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## **QC Summary**

Analyte	Blank	QC % Rec	QC Limits
Dichlorodifluoromethane	<0.05 ug/g	95	70-130
Dichloromethane	<0.05 ug/g	98	70-130
Ethylene Dibromide	<0.05 ug/g	107	80-120
Hexane	<0.05 ug/g	88	70-130
Methyl Ethyl Ketone (MEK)	<0.50 ug/g	113	70-130
Methyl Isobutyl Ketone (MIBK)	<0.50 ug/g	109	70-130
Methyl Tert Butyl Ether (MTBE)	<0.05 ug/g	109	70-130
Monochlorobenzene	<0.05 ug/g	100	80-120
Styrene	<0.05 ug/g	107	80-120
t-1,2-Dichloroethylene	<0.05 ug/g	97	80-120
t-1,3-Dichloropropylene	<0.05 ug/g	112	80-120
Tetrachloroethylene	<0.05 ug/g	96	80-120
Trichloroethylene	<0.05 ug/g	102	80-120
Trichlorofluoromethane	<0.05 ug/g	103	70-130
Vinyl Chloride	<0.02 ug/g	111	80-120
Run No 273482 Analysis Date 2014-	07-28 <b>Method</b> Co	CME	
F2 (C10-C16)	<10 ug/g	90	50-120

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# **QC Summary**

Analyte	Blank	QC % Rec	QC Limits
F3 (C16-C34)	<20 ug/g	90	50-120
F4 (C34-C50)	<20 ug/g	90	50-120
Run No 273485 Analysis Date 2014-	-07-28 <b>Method</b> C	SM2540B	
Moisture	<0.1 %	100	80-120
Run No 273501 Analysis Date 2014-	-07-26 <b>Method</b> P	8270	
1-methylnaphthalene	<0.05 ug/g	77	20-150
2-methylnaphthalene	<0.05 ug/g	78	20-150
Acenaphthene	<0.05 ug/g	80	20-150
Acenaphthylene	<0.05 ug/g	76	20-150
Anthracene	<0.05 ug/g	94	20-150
Benzo(a)anthracene	<0.05 ug/g	102	20-150
Benzo(a)pyrene	<0.05 ug/g	101	20-150
Benzo(b)fluoranthene	<0.05 ug/g	104	20-150
Benzo(g,h,i)perylene	<0.05 ug/g	95	20-150
Benzo(k)fluoranthene	<0.05 ug/g	105	20-150
Chrysene	<0.05 ug/g	95	20-150
Dibenzo(a,h)anthracene	<0.05 ug/g	103	20-150

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## **QC Summary**

Analyte	Blank	QC % Rec	QC Limits
Fluoranthene	<0.05 ug/g	93	20-150
Fluorene	<0.05 ug/g	81	20-150
Indeno(1,2,3-c,d)pyrene	<0.05 ug/g	97	20-150
Naphthalene	<0.05 ug/g	74	20-150
Phenanthrene	<0.05 ug/g	93	20-150
Pyrene	<0.05 ug/g	91	20-150

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## Sample Comment Summary

Sample ID: 1120657 14838 TKN was analysed as received and reported on dried sample basis. TP was analysed and reported on dried sample basis.

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