Maxxam Job #: B363840
Report Date: 2013/08/03

KLOHN CRIPPEN BERGER LTD
Client Project #: A04012A05
Site Location: CAMP FAREWELL
Sampler Initials: NW

REGULATED METALS (CCME/AT1) - SOILS

Maxxam ID		GZ9454	GZ9455	GZ9456	GZ9457	GZ9458	GZ9458		
Sampling Date		2013/07/22	2013/07/22	2013/07/22	2013/07/22	2013/07/22	2013/07/22		
COC Number		A134528	A134528	A134528	A134528	A134528	A134528		
	UNITS	**EX-13-AW (7M)**	**EX-13-BW (1M)**	**EX-13-BW (6M)**	**EX-13-CW (5M)**	**EX-13-DW (6M)**	**EX-13-DW (6M) Lab-Dup**	**RDL**	**QC Batch**
Elements									
Soluble (Hot water) Boron (B)	mg/kg	0.20	0.39	0.50	0.22	0.21	N/A	0.10	7025702
Hex. Chromium (Cr 6+)	mg/kg	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	0.15	7024522
Total Antimony (Sb)	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	N/A	1.0	7024736
Total Arsenic (As)	mg/kg	5.6	6.0	5.6	5.8	5.2	N/A	1.0	7024736
Total Barium (Ba)	mg/kg	97	210	100	100	86	N/A	10	7024736
Total Beryllium (Be)	mg/kg	<0.40	<0.40	<0.40	<0.40	<0.40	N/A	0.40	7024736
Total Cadmium (Cd)	mg/kg	<0.10	0.11	<0.10	<0.10	<0.10	N/A	0.10	7024736
Total Chromium (Cr)	mg/kg	11	10	12	8.2	9.4	N/A	1.0	7024736
Total Cobalt (Co)	mg/kg	3.9	4.4	4.2	4.4	3.9	N/A	1.0	7024736
Total Copper (Cu)	mg/kg	<5.0	5.8	<5.0	<5.0	<5.0	N/A	5.0	7024736
Total Lead (Pb)	mg/kg	3.5	4.5	3.4	3.6	3.2	N/A	1.0	7024736
Total Mercury (Hg)	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050	N/A	0.050	7024736
Total Molybdenum (Mo)	mg/kg	0.58	0.57	0.60	0.55	0.49	N/A	0.40	7024736
Total Nickel (Ni)	mg/kg	12	13	14	13	12	N/A	1.0	7024736
Total Selenium (Se)	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	N/A	0.50	7024736
Total Silver (Ag)	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	N/A	1.0	7024736
Total Thallium (Tl)	mg/kg	<0.30	<0.30	<0.30	<0.30	<0.30	N/A	0.30	7024736
Total Tin (Sn)	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	N/A	1.0	7024736
Total Uranium (U)	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	N/A	1.0	7024736
Total Vanadium (V)	mg/kg	13	17	14	15	13	N/A	1.0	7024736
Total Zinc (Zn)	mg/kg	29	25	29	33	27	N/A	10	7024736

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Job #: B363840
Report Date: 2013/08/03

KLOHN CRIPPEN BERGER LTD
Client Project #: A04012A05
Site Location: CAMP FAREWELL
Sampler Initials: NW

REGULATED METALS (CCME/AT1) - SOILS

Maxxam ID		GZ9465	GZ9466	GZ9467	GZ9468		GZ9469		
Sampling Date		2013/07/22	2013/07/22	2013/07/22	2013/07/22		2013/07/22		
COC Number		A134528	A134528	A134528	A134528		A134516		
	UNITS	**EX-13-DN (0-1M)**	**EX-13-DN (7M)**	**EX-13-EN (3M)**	**EX-13-EN (7M)**	**QC Batch**	**EX-13-LN (0-1M)**	**RDL**	**QC Batch**
Elements									
Soluble (Hot water) Boron (B)	mg/kg	0.22	0.18	<0.10	2.6	7025702	0.84	0.10	7026671
Hex. Chromium (Cr 6+)	mg/kg	<0.15	<0.15	<0.15	<0.15	7024522	<0.15	0.15	7024522
Total Antimony (Sb)	mg/kg	<1.0	<1.0	<1.0	<1.0	7024736	<1.0	1.0	7026100
Total Arsenic (As)	mg/kg	6.1	5.3	6.1	13	7024736	5.1	1.0	7026100
Total Barium (Ba)	mg/kg	120	89	76	210	7024736	480	10	7026100
Total Beryllium (Be)	mg/kg	<0.40	<0.40	<0.40	<0.40	7024736	<0.40	0.40	7026100
Total Cadmium (Cd)	mg/kg	<0.10	<0.10	<0.10	0.98	7024736	0.20	0.10	7026100
Total Chromium (Cr)	mg/kg	12	9.4	9.4	9.3	7024736	6.8	1.0	7026100
Total Cobalt (Co)	mg/kg	4.1	3.9	3.6	6.8	7024736	3.7	1.0	7026100
Total Copper (Cu)	mg/kg	<5.0	<5.0	<5.0	7.4	7024736	7.7	5.0	7026100
Total Lead (Pb)	mg/kg	3.6	3.1	3.0	4.6	7024736	9.6	1.0	7026100
Total Mercury (Hg)	mg/kg	<0.050	<0.050	<0.050	<0.050	7024736	0.057	0.050	7026100
Total Molybdenum (Mo)	mg/kg	0.57	0.52	0.51	1.4	7024736	0.50	0.40	7026100
Total Nickel (Ni)	mg/kg	14	12	12	18	7024736	11	1.0	7026100
Total Selenium (Se)	mg/kg	<0.50	<0.50	<0.50	<0.50	7024736	<0.50	0.50	7026100
Total Silver (Ag)	mg/kg	<1.0	<1.0	<1.0	<1.0	7024736	<1.0	1.0	7026100
Total Thallium (Tl)	mg/kg	<0.30	<0.30	<0.30	<0.30	7024736	<0.30	0.30	7026100
Total Tin (Sn)	mg/kg	<1.0	<1.0	<1.0	<1.0	7024736	<1.0	1.0	7026100
Total Uranium (U)	mg/kg	<1.0	<1.0	<1.0	1.2	7024736	<1.0	1.0	7026100
Total Vanadium (V)	mg/kg	13	13	12	21	7024736	14	1.0	7026100
Total Zinc (Zn)	mg/kg	28	26	25	40	7024736	28	10	7026100

RDL = Reportable Detection Limit

Maxxam Job #: B363840
Report Date: 2013/08/03

KLOHN CRIPPEN BERGER LTD
Client Project #: A04012A05
Site Location: CAMP FAREWELL
Sampler Initials: NW

REGULATED METALS (CCME/AT1) - SOILS

Maxxam ID		GZ9471		HA0382		
Sampling Date		2013/07/22		2013/07/21		
COC Number		A134516		A134527		
	UNITS	**EX-13-LN (6M)**	**QC Batch**	**EX-13-1KB(7M)**	**RDL**	**QC Batch**
Elements						
Soluble (Hot water) Boron (B)	mg/kg	0.56	7026671	0.49	0.10	7027660
Hex. Chromium (Cr 6+)	mg/kg	<0.15	7024522	<0.15	0.15	7024535
Total Antimony (Sb)	mg/kg	<1.0	7026100	<1.0	1.0	7027493
Total Arsenic (As)	mg/kg	4.9	7026100	5.4	1.0	7027493
Total Barium (Ba)	mg/kg	220	7026100	140	10	7027493
Total Beryllium (Be)	mg/kg	<0.40	7026100	<0.40	0.40	7027493
Total Cadmium (Cd)	mg/kg	<0.10	7026100	<0.10	0.10	7027493
Total Chromium (Cr)	mg/kg	5.0	7026100	6.7	1.0	7027493
Total Cobalt (Co)	mg/kg	2.8	7026100	3.7	1.0	7027493
Total Copper (Cu)	mg/kg	<5.0	7026100	5.4	5.0	7027493
Total Lead (Pb)	mg/kg	6.0	7026100	4.8	1.0	7027493
Total Mercury (Hg)	mg/kg	<0.050	7026100	<0.050	0.050	7027493
Total Molybdenum (Mo)	mg/kg	0.45	7026100	0.55	0.40	7027493
Total Nickel (Ni)	mg/kg	7.0	7026100	11	1.0	7027493
Total Selenium (Se)	mg/kg	<0.50	7026100	<0.50	0.50	7027493
Total Silver (Ag)	mg/kg	<1.0	7026100	<1.0	1.0	7027493
Total Thallium (Tl)	mg/kg	<0.30	7026100	<0.30	0.30	7027493
Total Tin (Sn)	mg/kg	<1.0	7026100	<1.0	1.0	7027493
Total Uranium (U)	mg/kg	<1.0	7026100	<1.0	1.0	7027493
Total Vanadium (V)	mg/kg	9.6	7026100	12	1.0	7027493
Total Zinc (Zn)	mg/kg	29	7026100	29	10	7027493

RDL = Reportable Detection Limit

Maxxam Job #: B363840
Report Date: 2013/08/03

KLOHN CRIPPEN BERGER LTD
Client Project #: A04012A05
Site Location: CAMP FAREWELL
Sampler Initials: NW

RESULTS OF CHEMICAL ANALYSES OF SOIL

Maxxam ID		GZ9436	GZ9437	GZ9438	GZ9439	GZ9440	GZ9441		
Sampling Date		2013/07/23 15:30	2013/07/23	2013/07/23	2013/07/23	2013/07/23	2013/07/23		
COC Number		A134527	A134527	A134527	A134527	A134527	A134527		
	UNITS	**TP#1**	**TP#2**	**TP#3**	**TP#4**	**TP#5**	**TP#17**	**RDL**	**QC Batch**
Elements									
Extractable Barium (Ba)	mg/kg	45	36	44	45	34	40	1.0	7037181

RDL = Reportable Detection Limit

Maxxam ID		GZ9442	GZ9445		
Sampling Date		2013/07/23	2013/07/21		
COC Number		A134527	A134527		
	UNITS	**TP#18**	**EX-13-IJB**	**RDL**	**QC Batch**
Elements					
Extractable Barium (Ba)	mg/kg	22	27	1.0	7037181

RDL = Reportable Detection Limit

SEMIVOLATILE ORGANICS BY GC-MS (SOIL)

Maxxam ID		GZ9453		
Sampling Date		2013/07/22		
COC Number		A134528		
	UNITS	**EX-13-AW (3M)**	**RDL**	**QC Batch**
Polycyclic Aromatics				
Acenaphthene	mg/kg	<0.0050	0.0050	7023968
Benzo[a]pyrene equivalency	mg/kg	<0.10	0.10	7021178
Acenaphthylene	mg/kg	<0.0050	0.0050	7023968
Acridine	mg/kg	<0.010	0.010	7023968
Anthracene	mg/kg	<0.0040	0.0040	7023968
Benzo(a)anthracene	mg/kg	<0.0050	0.0050	7023968
Benzo(b&j)fluoranthene	mg/kg	<0.0050	0.0050	7023968
Benzo(k)fluoranthene	mg/kg	<0.0050	0.0050	7023968
Benzo(g,h,i)perylene	mg/kg	<0.0050	0.0050	7023968
Benzo(c)phenanthrene	mg/kg	<0.0050	0.0050	7023968
Benzo(a)pyrene	mg/kg	<0.0050	0.0050	7023968
Benzo[e]pyrene	mg/kg	<0.0050	0.0050	7023968
Chrysene	mg/kg	<0.0050	0.0050	7023968
Dibenz(a,h)anthracene	mg/kg	<0.0050	0.0050	7023968
Fluoranthene	mg/kg	<0.0050	0.0050	7023968
Fluorene	mg/kg	<0.0050	0.0050	7023968
Indeno(1,2,3-cd)pyrene	mg/kg	<0.0050	0.0050	7023968
2-Methylnaphthalene	mg/kg	<0.0050	0.0050	7023968
Naphthalene	mg/kg	<0.0050	0.0050	7023968
Phenanthrene	mg/kg	<0.0050	0.0050	7023968
Perylene	mg/kg	0.0065	0.0050	7023968
Pyrene	mg/kg	<0.0050	0.0050	7023968
Quinoline	mg/kg	<0.010	0.010	7023968
Surrogate Recovery (%)				
D10-ANTHRACENE (sur.)	%	98	N/A	7023968
D12-BENZO(A)PYRENE (sur.)	%	79	N/A	7023968
D8-ACENAPHTHYLENE (sur.)	%	99	N/A	7023968
TERPHENYL-D14 (sur.)	%	117	N/A	7023968

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RDL = Reportable Detection Limit

Maxxam Job #: B363840
Report Date: 2013/08/03

KLOHN CRIPPEN BERGER LTD
Client Project #: A04012A05
Site Location: CAMP FAREWELL
Sampler Initials: NW

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		GZ9436	GZ9437	GZ9438	GZ9439	GZ9440	GZ9441		
Sampling Date		2013/07/23 15:30	2013/07/23	2013/07/23	2013/07/23	2013/07/23	2013/07/23		
COC Number		A134527	A134527	A134527	A134527	A134527	A134527		
	UNITS	**TP#1**	**TP#2**	**TP#3**	**TP#4**	**TP#5**	**TP#17**	**RDL**	**QC Batch**
Elements									
Total Fusion Barium (Ba)	mg/kg	16000	5600	3700	6700	1900	1900	50	7046467
RDL = Reportable Detection Limit									

Maxxam ID		GZ9442	GZ9445		
Sampling Date		2013/07/23	2013/07/21		
COC Number		A134527	A134527		
	UNITS	**TP#18**	**EX-13-IJB**	**RDL**	**QC Batch**
Elements					
Total Fusion Barium (Ba)	mg/kg	1600	4100	50	7046467
RDL = Reportable Detection Limit					

Package 1	6.7°C
Package 2	6.3°C

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

General Comments

Results relate only to the items tested.

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: A04012A05
P.O. #:
Site Location: CAMP FAREWELL

Quality Assurance Report

Maxxam Job Number: EB363840

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7015681	KO	Matrix Spike	O-TERPHENYL (sur.)	2013/07/28		99	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/07/28		104	%	50 - 130
			F3 (C16-C34 Hydrocarbons)	2013/07/28		105	%	50 - 130
			F4 (C34-C50 Hydrocarbons)	2013/07/28		103	%	50 - 130
		Spiked Blank	O-TERPHENYL (sur.)	2013/07/28		96	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/07/28		104	%	70 - 130
			F3 (C16-C34 Hydrocarbons)	2013/07/28		105	%	70 - 130
			F4 (C34-C50 Hydrocarbons)	2013/07/28		102	%	70 - 130
		Method Blank	O-TERPHENYL (sur.)	2013/07/28		99	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/07/28	<10		mg/kg	
			F3 (C16-C34 Hydrocarbons)	2013/07/28	<50		mg/kg	
			F4 (C34-C50 Hydrocarbons)	2013/07/28	<50		mg/kg	
		RPD	F2 (C10-C16 Hydrocarbons)	2013/07/28	NC		%	50
			F3 (C16-C34 Hydrocarbons)	2013/07/28	NC		%	50
			F4 (C34-C50 Hydrocarbons)	2013/07/28	NC		%	50
7020731	PS7	Matrix Spike	1,4-Difluorobenzene (sur.)	2013/07/25		115	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/07/25		100	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/07/25		124	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/07/25		94	%	60 - 140
			Benzene	2013/07/25		105	%	60 - 140
			Toluene	2013/07/25		107	%	60 - 140
			Ethylbenzene	2013/07/25		107	%	60 - 140
			m & p-Xylene	2013/07/25		112	%	60 - 140
			o-Xylene	2013/07/25		103	%	60 - 140
			(C6-C10)	2013/07/25		103	%	60 - 140
		Spiked Blank	1,4-Difluorobenzene (sur.)	2013/07/25		98	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/07/25		97	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/07/25		99	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/07/25		92	%	60 - 140
			Benzene	2013/07/25		86	%	60 - 140
			Toluene	2013/07/25		86	%	60 - 140
			Ethylbenzene	2013/07/25		87	%	60 - 140
			m & p-Xylene	2013/07/25		88	%	60 - 140
			o-Xylene	2013/07/25		89	%	60 - 140
			(C6-C10)	2013/07/25		101	%	60 - 140
		Method Blank	1,4-Difluorobenzene (sur.)	2013/07/25		98	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/07/25		104	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/07/25		110	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/07/25		86	%	60 - 140
			Benzene	2013/07/25	<0.0050		mg/kg	
			Toluene	2013/07/25	<0.020		mg/kg	
			Ethylbenzene	2013/07/25	<0.010		mg/kg	
			Xylenes (Total)	2013/07/25	<0.040		mg/kg	
			m & p-Xylene	2013/07/25	<0.040		mg/kg	
			o-Xylene	2013/07/25	<0.020		mg/kg	
			F1 (C6-C10) - BTEX	2013/07/25	<12		mg/kg	
			(C6-C10)	2013/07/25	<12		mg/kg	
		RPD	Benzene	2013/07/25	NC		%	50
			Toluene	2013/07/25	NC		%	50
			Ethylbenzene	2013/07/25	NC		%	50
			Xylenes (Total)	2013/07/25	NC		%	50
			m & p-Xylene	2013/07/25	NC		%	50
			o-Xylene	2013/07/25	NC		%	50
			F1 (C6-C10) - BTEX	2013/07/25	NC		%	50
			(C6-C10)	2013/07/25	NC		%	50

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: A04012A05
P.O. #:
Site Location: CAMP FAREWELL

Quality Assurance Report (Continued)

Maxxam Job Number: EB363840

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7021306	JR1	Matrix Spike	O-TERPHENYL (sur.)	2013/07/25		101	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/07/25		114	%	50 - 130
			F3 (C16-C34 Hydrocarbons)	2013/07/25		117	%	50 - 130
			F4 (C34-C50 Hydrocarbons)	2013/07/25		116	%	50 - 130
		Spiked Blank	O-TERPHENYL (sur.)	2013/07/25		95	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/07/25		113	%	70 - 130
			F3 (C16-C34 Hydrocarbons)	2013/07/25		116	%	70 - 130
			F4 (C34-C50 Hydrocarbons)	2013/07/25		117	%	70 - 130
		Method Blank	O-TERPHENYL (sur.)	2013/07/25		104	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/07/25	<10		mg/kg	
			F3 (C16-C34 Hydrocarbons)	2013/07/25	<50		mg/kg	
			F4 (C34-C50 Hydrocarbons)	2013/07/25	<50		mg/kg	
		RPD	F2 (C10-C16 Hydrocarbons)	2013/07/25	NC		%	50
			F3 (C16-C34 Hydrocarbons)	2013/07/25	NC		%	50
			F4 (C34-C50 Hydrocarbons)	2013/07/25	NC		%	50
7022792	JR1	Matrix Spike [GZ9455-01]	O-TERPHENYL (sur.)	2013/07/25		87	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/07/25		87	%	50 - 130
			F3 (C16-C34 Hydrocarbons)	2013/07/25		89	%	50 - 130
			F4 (C34-C50 Hydrocarbons)	2013/07/25		88	%	50 - 130
		Spiked Blank	O-TERPHENYL (sur.)	2013/07/25		92	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/07/25		103	%	70 - 130
			F3 (C16-C34 Hydrocarbons)	2013/07/25		105	%	70 - 130
			F4 (C34-C50 Hydrocarbons)	2013/07/25		103	%	70 - 130
		Method Blank	O-TERPHENYL (sur.)	2013/07/25		94	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/07/25	<10		mg/kg	
			F3 (C16-C34 Hydrocarbons)	2013/07/25	<50		mg/kg	
			F4 (C34-C50 Hydrocarbons)	2013/07/25	<50		mg/kg	
		RPD [GZ9454-01]	F2 (C10-C16 Hydrocarbons)	2013/07/25	NC		%	50
			F3 (C16-C34 Hydrocarbons)	2013/07/25	NC		%	50
			F4 (C34-C50 Hydrocarbons)	2013/07/25	NC		%	50
7023787	WAU	Matrix Spike	Leachable Antimony (Sb)	2013/07/26		97	%	75 - 125
			Leachable Arsenic (As)	2013/07/26		103	%	75 - 125
			Leachable Barium (Ba)	2013/07/26		NC	%	75 - 125
			Leachable Beryllium (Be)	2013/07/26		101	%	75 - 125
			Leachable Boron (B)	2013/07/26		105	%	75 - 125
			Leachable Cadmium (Cd)	2013/07/26		104	%	75 - 125
			Leachable Chromium (Cr)	2013/07/26		102	%	75 - 125
			Leachable Cobalt (Co)	2013/07/26		99	%	75 - 125
			Leachable Copper (Cu)	2013/07/26		96	%	75 - 125
			Leachable Iron (Fe)	2013/07/26		NC	%	75 - 125
			Leachable Lead (Pb)	2013/07/26		93	%	75 - 125
			Leachable Mercury (Hg)	2013/07/26		97	%	75 - 125
			Leachable Nickel (Ni)	2013/07/26		100	%	75 - 125
			Leachable Selenium (Se)	2013/07/26		111	%	75 - 125
			Leachable Silver (Ag)	2013/07/26		101	%	75 - 125
			Leachable Thallium (Tl)	2013/07/26		106	%	75 - 125
			Leachable Uranium (U)	2013/07/26		91	%	75 - 125
			Leachable Vanadium (V)	2013/07/26		109	%	75 - 125
			Leachable Zinc (Zn)	2013/07/26		97	%	75 - 125
			Leachable Zirconium (Zr)	2013/07/26		116	%	75 - 125
		Spiked Blank	Leachable Antimony (Sb)	2013/07/26		86	%	80 - 120
			Leachable Arsenic (As)	2013/07/26		97	%	80 - 120
			Leachable Barium (Ba)	2013/07/26		101	%	80 - 120
			Leachable Beryllium (Be)	2013/07/26		99	%	80 - 120

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QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7023787	WAU	Spiked Blank	Leachable Boron (B)	2013/07/26		101	%	80 - 120
			Leachable Cadmium (Cd)	2013/07/26		99	%	80 - 120
			Leachable Chromium (Cr)	2013/07/26		99	%	80 - 120
			Leachable Cobalt (Co)	2013/07/26		97	%	80 - 120
			Leachable Copper (Cu)	2013/07/26		98	%	80 - 120
			Leachable Iron (Fe)	2013/07/26		105	%	80 - 120
			Leachable Lead (Pb)	2013/07/26		95	%	80 - 120
			Leachable Mercury (Hg)	2013/07/26		95	%	80 - 120
			Leachable Nickel (Ni)	2013/07/26		98	%	80 - 120
			Leachable Selenium (Se)	2013/07/26		104	%	80 - 120
			Leachable Silver (Ag)	2013/07/26		98	%	80 - 120
			Leachable Thallium (Tl)	2013/07/26		108	%	80 - 120
			Leachable Uranium (U)	2013/07/26		88	%	80 - 120
			Leachable Vanadium (V)	2013/07/26		101	%	80 - 120
			Leachable Zinc (Zn)	2013/07/26		99	%	80 - 120
			Leachable Zirconium (Zr)	2013/07/26		103	%	80 - 120
		Method Blank	Leachable Antimony (Sb)	2013/07/26	<1.0		mg/L	
			Leachable Arsenic (As)	2013/07/26	<0.50		mg/L	
			Leachable Barium (Ba)	2013/07/26	<1.0		mg/L	
			Leachable Beryllium (Be)	2013/07/26	<0.50		mg/L	
			Leachable Boron (B)	2013/07/26	<1.0		mg/L	
			Leachable Cadmium (Cd)	2013/07/26	<0.10		mg/L	
			Leachable Chromium (Cr)	2013/07/26	<0.50		mg/L	
			Leachable Cobalt (Co)	2013/07/26	<1.0		mg/L	
			Leachable Copper (Cu)	2013/07/26	<1.0		mg/L	
			Leachable Iron (Fe)	2013/07/26	<1.0		mg/L	
			Leachable Lead (Pb)	2013/07/26	<0.50		mg/L	
			Leachable Mercury (Hg)	2013/07/26	<0.020		mg/L	
			Leachable Nickel (Ni)	2013/07/26	<0.50		mg/L	
			Leachable Selenium (Se)	2013/07/26	<0.10		mg/L	
			Leachable Silver (Ag)	2013/07/26	<0.50		mg/L	
			Leachable Thallium (Tl)	2013/07/26	<0.50		mg/L	
			Leachable Uranium (U)	2013/07/26	<0.20		mg/L	
			Leachable Vanadium (V)	2013/07/26	<1.0		mg/L	
			Leachable Zinc (Zn)	2013/07/26	<1.0		mg/L	
			Leachable Zirconium (Zr)	2013/07/26	<1.0		mg/L	
		RPD	Leachable Antimony (Sb)	2013/07/26	NC		%	35
			Leachable Arsenic (As)	2013/07/26	NC		%	35
			Leachable Barium (Ba)	2013/07/26	NC		%	35
			Leachable Beryllium (Be)	2013/07/26	NC		%	35
			Leachable Boron (B)	2013/07/26	NC		%	35
			Leachable Cadmium (Cd)	2013/07/26	NC		%	35
			Leachable Chromium (Cr)	2013/07/26	NC		%	35
			Leachable Cobalt (Co)	2013/07/26	NC		%	35
			Leachable Copper (Cu)	2013/07/26	NC		%	35
			Leachable Iron (Fe)	2013/07/26	NC		%	35
			Leachable Lead (Pb)	2013/07/26	NC		%	35
			Leachable Mercury (Hg)	2013/07/26	NC		%	35
			Leachable Nickel (Ni)	2013/07/26	NC		%	35
			Leachable Selenium (Se)	2013/07/26	NC		%	35
			Leachable Silver (Ag)	2013/07/26	NC		%	35
			Leachable Thallium (Tl)	2013/07/26	NC		%	35
			Leachable Uranium (U)	2013/07/26	NC		%	35
			Leachable Vanadium (V)	2013/07/26	NC		%	35
			Leachable Zinc (Zn)	2013/07/26	NC		%	35

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7023787	WAU	RPD	Leachable Zirconium (Zr)	2013/07/26	NC		%	35
7023968	YM1	Matrix Spike	D10-ANTHRACENE (sur.)	2013/07/26		97	%	50 - 130
			D12-BENZO(A)PYRENE (sur.)	2013/07/26		85	%	50 - 130
			D8-ACENAPHTHYLENE (sur.)	2013/07/26		93	%	50 - 130
			TERPHENYL-D14 (sur.)	2013/07/26		106	%	50 - 130
			Acenaphthene	2013/07/26		88	%	50 - 130
			Acenaphthylene	2013/07/26		90	%	50 - 130
			Acridine	2013/07/26		64	%	50 - 130
			Anthracene	2013/07/26		91	%	50 - 130
			Benzo(a)anthracene	2013/07/26		86	%	50 - 130
			Benzo(b&j)fluoranthene	2013/07/26		78	%	50 - 130
			Benzo(k)fluoranthene	2013/07/26		88	%	50 - 130
			Benzo(g,h,i)perylene	2013/07/26		80	%	50 - 130
			Benzo(c)phenanthrene	2013/07/26		77	%	50 - 130
			Benzo(a)pyrene	2013/07/26		85	%	50 - 130
			Benzo[e]pyrene	2013/07/26		74	%	50 - 130
			Chrysene	2013/07/26		75	%	50 - 130
			Dibenz(a,h)anthracene	2013/07/26		80	%	50 - 130
			Fluoranthene	2013/07/26		95	%	50 - 130
			Fluorene	2013/07/26		95	%	50 - 130
			Indeno(1,2,3-cd)pyrene	2013/07/26		83	%	50 - 130
			2-Methylnaphthalene	2013/07/26		76	%	50 - 130
			Naphthalene	2013/07/26		81	%	50 - 130
			Phenanthrene	2013/07/26		88	%	50 - 130
			Perylene	2013/07/26		77	%	50 - 130
			Pyrene	2013/07/26		92	%	50 - 130
			Quinoline	2013/07/26		106	%	50 - 130
		Spiked Blank	D10-ANTHRACENE (sur.)	2013/07/26		86	%	50 - 130
			D12-BENZO(A)PYRENE (sur.)	2013/07/26		76	%	50 - 130
			D8-ACENAPHTHYLENE (sur.)	2013/07/26		82	%	50 - 130
			TERPHENYL-D14 (sur.)	2013/07/26		95	%	50 - 130
			Acenaphthene	2013/07/26		81	%	50 - 130
			Acenaphthylene	2013/07/26		81	%	50 - 130
			Acridine	2013/07/26		58	%	50 - 130
			Anthracene	2013/07/26		81	%	50 - 130
			Benzo(a)anthracene	2013/07/26		79	%	50 - 130
			Benzo(b&j)fluoranthene	2013/07/26		71	%	50 - 130
			Benzo(k)fluoranthene	2013/07/26		81	%	50 - 130
			Benzo(g,h,i)perylene	2013/07/26		73	%	50 - 130
			Benzo(c)phenanthrene	2013/07/26		70	%	50 - 130
			Benzo(a)pyrene	2013/07/26		82	%	50 - 130
			Benzo[e]pyrene	2013/07/26		68	%	50 - 130
			Chrysene	2013/07/26		70	%	50 - 130
			Dibenz(a,h)anthracene	2013/07/26		72	%	50 - 130
			Fluoranthene	2013/07/26		85	%	50 - 130
			Fluorene	2013/07/26		85	%	50 - 130
			Indeno(1,2,3-cd)pyrene	2013/07/26		71	%	50 - 130
			2-Methylnaphthalene	2013/07/26		71	%	50 - 130
			Naphthalene	2013/07/26		72	%	50 - 130
			Phenanthrene	2013/07/26		79	%	50 - 130
			Perylene	2013/07/26		69	%	50 - 130
			Pyrene	2013/07/26		84	%	50 - 130
			Quinoline	2013/07/26		109	%	50 - 130
		Method Blank	D10-ANTHRACENE (sur.)	2013/07/26		108	%	50 - 130
			D12-BENZO(A)PYRENE (sur.)	2013/07/26		85	%	50 - 130

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7023968	YM1	Method Blank	D8-ACENAPHTHYLENE (sur.)	2013/07/26		99	%	50 - 130
			TERPHENYL-D14 (sur.)	2013/07/26		118	%	50 - 130
			Acenaphthene	2013/07/26	<0.0050		mg/kg	
			Acenaphthylene	2013/07/26	<0.0050		mg/kg	
			Acridine	2013/07/26	<0.010		mg/kg	
			Anthracene	2013/07/26	<0.0040		mg/kg	
			Benzo(a)anthracene	2013/07/26	<0.0050		mg/kg	
			Benzo(b&j)fluoranthene	2013/07/26	<0.0050		mg/kg	
			Benzo(k)fluoranthene	2013/07/26	<0.0050		mg/kg	
			Benzo(g,h,i)perylene	2013/07/26	<0.0050		mg/kg	
			Benzo(c)phenanthrene	2013/07/26	<0.0050		mg/kg	
			Benzo(a)pyrene	2013/07/26	<0.0050		mg/kg	
			Benzo[e]pyrene	2013/07/26	<0.0050		mg/kg	
			Chrysene	2013/07/26	<0.0050		mg/kg	
			Dibenz(a,h)anthracene	2013/07/26	<0.0050		mg/kg	
			Fluoranthene	2013/07/26	<0.0050		mg/kg	
			Fluorene	2013/07/26	<0.0050		mg/kg	
			Indeno(1,2,3-cd)pyrene	2013/07/26	<0.0050		mg/kg	
			2-Methylnaphthalene	2013/07/26	<0.0050		mg/kg	
			Naphthalene	2013/07/26	<0.0050		mg/kg	
			Phenanthrene	2013/07/26	<0.0050		mg/kg	
			Perylene	2013/07/26	<0.0050		mg/kg	
			Pyrene	2013/07/26	<0.0050		mg/kg	
			Quinoline	2013/07/26	<0.010		mg/kg	
		RPD	Acenaphthene	2013/07/26	NC		%	50
			Acenaphthylene	2013/07/26	NC		%	50
			Acridine	2013/07/26	NC		%	50
			Anthracene	2013/07/26	NC		%	50
			Benzo(a)anthracene	2013/07/26	NC		%	50
			Benzo(b&j)fluoranthene	2013/07/26	NC		%	50
			Benzo(k)fluoranthene	2013/07/26	NC		%	50
			Benzo(g,h,i)perylene	2013/07/26	NC		%	50
			Benzo(c)phenanthrene	2013/07/26	NC		%	50
			Benzo(a)pyrene	2013/07/26	NC		%	50
			Benzo[e]pyrene	2013/07/26	NC		%	50
			Chrysene	2013/07/26	NC		%	50
			Dibenz(a,h)anthracene	2013/07/26	NC		%	50
			Fluoranthene	2013/07/26	NC		%	50
			Fluorene	2013/07/26	NC		%	50
			Indeno(1,2,3-cd)pyrene	2013/07/26	NC		%	50
			2-Methylnaphthalene	2013/07/26	NC		%	50
			Naphthalene	2013/07/26	NC		%	50
			Phenanthrene	2013/07/26	NC		%	50
			Perylene	2013/07/26	NC		%	50
			Pyrene	2013/07/26	NC		%	50
			Quinoline	2013/07/26	NC		%	50
7024030	SSF	QC Standard	Soluble (CaCl2) pH	2013/07/26		100	%	97 - 103
		Spiked Blank	Soluble (CaCl2) pH	2013/07/26		100	%	97 - 103
		RPD [GZ9437-01]	Soluble (CaCl2) pH	2013/07/26	1.0		%	5
7024049	SSF	QC Standard	Soluble (CaCl2) pH	2013/07/26		102	%	97 - 103
		Spiked Blank	Soluble (CaCl2) pH	2013/07/26		100	%	97 - 103
		RPD	Soluble (CaCl2) pH	2013/07/26	0.1		%	5
7024196	LX	QC Standard	Saturation %	2013/07/26		99	%	93 - 107
		RPD [GZ9455-01]	Saturation %	2013/07/26	1.2		%	12
7024253	LX	QC Standard	Saturation %	2013/07/26		103	%	93 - 107

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7024253	LX	RPD	Saturation %	2013/07/26	2.2		%	12
7024356	NSE	Matrix Spike	1,4-Difluorobenzene (sur.)	2013/07/26		105	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/07/26		102	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/07/26		101	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/07/26		105	%	60 - 140
			Benzene	2013/07/26		101	%	60 - 140
			Toluene	2013/07/26		97	%	60 - 140
			Ethylbenzene	2013/07/26		96	%	60 - 140
			m & p-Xylene	2013/07/26		100	%	60 - 140
			o-Xylene	2013/07/26		99	%	60 - 140
			(C6-C10)	2013/07/26		104	%	60 - 140
		Spiked Blank	1,4-Difluorobenzene (sur.)	2013/07/26		92	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/07/26		90	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/07/26		86	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/07/26		96	%	60 - 140
			Benzene	2013/07/26		87	%	60 - 140
			Toluene	2013/07/26		85	%	60 - 140
			Ethylbenzene	2013/07/26		84	%	60 - 140
			m & p-Xylene	2013/07/26		87	%	60 - 140
			o-Xylene	2013/07/26		86	%	60 - 140
			(C6-C10)	2013/07/26		103	%	60 - 140
		Method Blank	1,4-Difluorobenzene (sur.)	2013/07/26		95	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/07/26		107	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/07/26		109	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/07/26		88	%	60 - 140
			Benzene	2013/07/26	<0.0050		mg/kg	
			Toluene	2013/07/26	<0.020		mg/kg	
			Ethylbenzene	2013/07/26	<0.010		mg/kg	
			Xylenes (Total)	2013/07/26	<0.040		mg/kg	
			m & p-Xylene	2013/07/26	<0.040		mg/kg	
			o-Xylene	2013/07/26	<0.020		mg/kg	
			F1 (C6-C10) - BTEX	2013/07/26	<12		mg/kg	
			(C6-C10)	2013/07/26	<12		mg/kg	
		RPD	Benzene	2013/07/26	NC		%	50
			Toluene	2013/07/26	NC		%	50
			Ethylbenzene	2013/07/26	NC		%	50
			Xylenes (Total)	2013/07/26	NC		%	50
			m & p-Xylene	2013/07/26	NC		%	50
			o-Xylene	2013/07/26	NC		%	50
			F1 (C6-C10) - BTEX	2013/07/26	NC		%	50
			(C6-C10)	2013/07/26	NC		%	50
7024383	CG7	Matrix Spike						
		[GZ9453-01]	1,4-Difluorobenzene (sur.)	2013/07/26		107	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/07/26		95	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/07/26		110	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/07/26		89	%	60 - 140
			Benzene	2013/07/26		103	%	60 - 140
			Toluene	2013/07/26		98	%	60 - 140
			Ethylbenzene	2013/07/26		94	%	60 - 140
			m & p-Xylene	2013/07/26		97	%	60 - 140
			o-Xylene	2013/07/26		95	%	60 - 140
			(C6-C10)	2013/07/26		91	%	60 - 140
		Spiked Blank	1,4-Difluorobenzene (sur.)	2013/07/26		104	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/07/26		100	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/07/26		129	%	60 - 130

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7024383	CG7	Spiked Blank	D4-1,2-DICHLOROETHANE (sur.)	2013/07/26		101	%	60 - 140
			Benzene	2013/07/26		102	%	60 - 140
			Toluene	2013/07/26		97	%	60 - 140
			Ethylbenzene	2013/07/26		96	%	60 - 140
			m & p-Xylene	2013/07/26		95	%	60 - 140
			o-Xylene	2013/07/26		94	%	60 - 140
			(C6-C10)	2013/07/26		92	%	60 - 140
		Method Blank	1,4-Difluorobenzene (sur.)	2013/07/26		100	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/07/26		101	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/07/26		122	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/07/26		105	%	60 - 140
			Benzene	2013/07/26	<0.0050		mg/kg	
			Toluene	2013/07/26	<0.020		mg/kg	
			Ethylbenzene	2013/07/26	<0.010		mg/kg	
			Xylenes (Total)	2013/07/26	<0.040		mg/kg	
			m & p-Xylene	2013/07/26	<0.040		mg/kg	
			o-Xylene	2013/07/26	<0.020		mg/kg	
			F1 (C6-C10) - BTEX	2013/07/26	<12		mg/kg	
			(C6-C10)	2013/07/26	<12		mg/kg	
		RPD [GZ9449-01]	Benzene	2013/07/26	NC		%	50
			Toluene	2013/07/26	NC		%	50
			Ethylbenzene	2013/07/26	NC		%	50
			Xylenes (Total)	2013/07/26	NC		%	50
			m & p-Xylene	2013/07/26	NC		%	50
			o-Xylene	2013/07/26	NC		%	50
			F1 (C6-C10) - BTEX	2013/07/26	NC		%	50
			(C6-C10)	2013/07/26	NC		%	50
7024500	NSE	Matrix Spike	Leachable (ZH) 1,4-Difluorobenzene (sur.)	2013/07/26		95	%	70 - 130
			Leachable (ZH) 4-BROMOFLUOROBENZEN	2013/07/26		99	%	70 - 130
			Leachable (ZH) D4-1,2-DICHLOROETHANE	2013/07/26		102	%	70 - 130
			Leachable (ZH) Benzene	2013/07/26		84	%	70 - 130
			Leachable (ZH) Toluene	2013/07/26		83	%	70 - 130
			Leachable (ZH) Ethylbenzene	2013/07/26		81	%	70 - 130
			Leachable (ZH) o-Xylene	2013/07/26		93	%	70 - 130
			Leachable (ZH) m & p-Xylene	2013/07/26		91	%	70 - 130
		Spiked Blank	Leachable (ZH) 1,4-Difluorobenzene (sur.)	2013/07/26		90	%	70 - 130
			Leachable (ZH) 4-BROMOFLUOROBENZEN	2013/07/26		100	%	70 - 130
			Leachable (ZH) D4-1,2-DICHLOROETHANE	2013/07/26		95	%	70 - 130
			Leachable (ZH) Benzene	2013/07/26		77	%	70 - 130
			Leachable (ZH) Toluene	2013/07/26		82	%	70 - 130
			Leachable (ZH) Ethylbenzene	2013/07/26		83	%	70 - 130
			Leachable (ZH) o-Xylene	2013/07/26		91	%	70 - 130
			Leachable (ZH) m & p-Xylene	2013/07/26		87	%	70 - 130
		Method Blank	Leachable (ZH) 1,4-Difluorobenzene (sur.)	2013/07/26		99	%	70 - 130
			Leachable (ZH) 4-BROMOFLUOROBENZEN	2013/07/26		101	%	70 - 130
			Leachable (ZH) D4-1,2-DICHLOROETHANE	2013/07/26		98	%	70 - 130
			Leachable (ZH) Benzene	2013/07/26	<10		ug/L	
			Leachable (ZH) Toluene	2013/07/26	<10		ug/L	
			Leachable (ZH) Ethylbenzene	2013/07/26	<10		ug/L	
			Leachable (ZH) o-Xylene	2013/07/26	<10		ug/L	
			Leachable (ZH) m & p-Xylene	2013/07/26	<20		ug/L	
			Leachable (ZH) Xylenes (Total)	2013/07/26	<20		ug/L	
		RPD	Leachable (ZH) Benzene	2013/07/26	NC		%	50
			Leachable (ZH) Toluene	2013/07/26	NC		%	50
			Leachable (ZH) Ethylbenzene	2013/07/26	NC		%	50

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QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7024500	NSE	RPD	Leachable (ZH) o-Xylene	2013/07/26	NC		%	50
			Leachable (ZH) m & p-Xylene	2013/07/26	NC		%	50
			Leachable (ZH) Xylenes (Total)	2013/07/26	NC		%	50
7024503	SSF	QC Standard	Soluble Conductivity	2013/07/26		92	%	75 - 125
		Spiked Blank	Soluble Conductivity	2013/07/26		99	%	90 - 110
		Method Blank	Soluble Conductivity	2013/07/26	<0.020		dS/m	
		RPD [GZ9455-01]	Soluble Conductivity	2013/07/26	1.3		%	35
7024522	KD5	Matrix Spike						
		[GZ9458-01]	Hex. Chromium (Cr 6+)	2013/07/26		82	%	75 - 125
		Spiked Blank	Hex. Chromium (Cr 6+)	2013/07/26		99	%	90 - 110
		Method Blank	Hex. Chromium (Cr 6+)	2013/07/26	<0.15		mg/kg	
		RPD [GZ9458-01]	Hex. Chromium (Cr 6+)	2013/07/26	NC		%	35
7024524	KD5	Matrix Spike	Hex. Chromium (Cr 6+)	2013/07/26		86	%	75 - 125
		Spiked Blank	Hex. Chromium (Cr 6+)	2013/07/26		99	%	90 - 110
		Method Blank	Hex. Chromium (Cr 6+)	2013/07/26	<0.15		mg/kg	
		RPD	Hex. Chromium (Cr 6+)	2013/07/26	NC		%	35
7024529	SSF	QC Standard	Soluble (1:1) pH	2013/07/26		100	%	97 - 103
		Spiked Blank	Soluble (1:1) pH	2013/07/26		100	%	99 - 101
		RPD	Soluble (1:1) pH	2013/07/26	2.2		%	5
7024535	KD5	Matrix Spike	Hex. Chromium (Cr 6+)	2013/07/26		0.0 (1)	%	75 - 125
		Spiked Blank	Hex. Chromium (Cr 6+)	2013/07/26		100	%	90 - 110
		Method Blank	Hex. Chromium (Cr 6+)	2013/07/26	<0.15		mg/kg	
		RPD	Hex. Chromium (Cr 6+)	2013/07/26	NC		%	35
7024736	SF3	Matrix Spike	Total Antimony (Sb)	2013/07/26		90	%	75 - 125
			Total Arsenic (As)	2013/07/26		95	%	75 - 125
			Total Barium (Ba)	2013/07/26		NC	%	75 - 125
			Total Beryllium (Be)	2013/07/26		94	%	75 - 125
			Total Cadmium (Cd)	2013/07/26		95	%	75 - 125
			Total Chromium (Cr)	2013/07/26		93	%	75 - 125
			Total Cobalt (Co)	2013/07/26		97	%	75 - 125
			Total Copper (Cu)	2013/07/26		94	%	75 - 125
			Total Lead (Pb)	2013/07/26		95	%	75 - 125
			Total Magnesium (Mg)	2013/07/26		NC	%	75 - 125
			Total Mercury (Hg)	2013/07/26		93	%	75 - 125
			Total Molybdenum (Mo)	2013/07/26		95	%	75 - 125
			Total Nickel (Ni)	2013/07/26		93	%	75 - 125
			Total Selenium (Se)	2013/07/26		97	%	75 - 125
			Total Silver (Ag)	2013/07/26		98	%	75 - 125
			Total Thallium (Tl)	2013/07/26		94	%	75 - 125
			Total Tin (Sn)	2013/07/26		101	%	75 - 125
			Total Uranium (U)	2013/07/26		96	%	75 - 125
			Total Vanadium (V)	2013/07/26		NC	%	75 - 125
			Total Zinc (Zn)	2013/07/26		NC	%	75 - 125
		QC Standard	Total Arsenic (As)	2013/07/26		128	%	50 - 150
			Total Barium (Ba)	2013/07/26		115	%	69 - 131
			Total Chromium (Cr)	2013/07/26		108	%	41 - 159
			Total Cobalt (Co)	2013/07/26		108	%	75 - 125
			Total Copper (Cu)	2013/07/26		111	%	73 - 127
			Total Lead (Pb)	2013/07/26		104	%	54 - 146
			Total Magnesium (Mg)	2013/07/26		85	%	69 - 131
			Total Nickel (Ni)	2013/07/26		116	%	61 - 139
			Total Vanadium (V)	2013/07/26		125	%	50 - 150
			Total Zinc (Zn)	2013/07/26		117	%	72 - 128
		Spiked Blank	Total Antimony (Sb)	2013/07/26		93	%	75 - 125
			Total Arsenic (As)	2013/07/26		95	%	75 - 125

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QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7024736	SF3	Spiked Blank	Total Barium (Ba)	2013/07/26		95	%	75 - 125
			Total Beryllium (Be)	2013/07/26		100	%	75 - 125
			Total Cadmium (Cd)	2013/07/26		94	%	75 - 125
			Total Chromium (Cr)	2013/07/26		93	%	75 - 125
			Total Cobalt (Co)	2013/07/26		94	%	75 - 125
			Total Copper (Cu)	2013/07/26		95	%	75 - 125
			Total Lead (Pb)	2013/07/26		97	%	75 - 125
			Total Magnesium (Mg)	2013/07/26		89	%	75 - 125
			Total Mercury (Hg)	2013/07/26		95	%	75 - 125
			Total Molybdenum (Mo)	2013/07/26		94	%	75 - 125
			Total Nickel (Ni)	2013/07/26		95	%	75 - 125
			Total Selenium (Se)	2013/07/26		98	%	75 - 125
			Total Silver (Ag)	2013/07/26		97	%	75 - 125
			Total Thallium (Tl)	2013/07/26		95	%	75 - 125
			Total Tin (Sn)	2013/07/26		97	%	75 - 125
			Total Uranium (U)	2013/07/26		102	%	75 - 125
			Total Vanadium (V)	2013/07/26		95	%	75 - 125
			Total Zinc (Zn)	2013/07/26		94	%	75 - 125
		Method Blank	Total Antimony (Sb)	2013/07/26	<1.0		mg/kg	
			Total Arsenic (As)	2013/07/26	<1.0		mg/kg	
			Total Barium (Ba)	2013/07/26	<10		mg/kg	
			Total Beryllium (Be)	2013/07/26	<0.40		mg/kg	
			Total Cadmium (Cd)	2013/07/26	<0.10		mg/kg	
			Total Chromium (Cr)	2013/07/26	<1.0		mg/kg	
			Total Cobalt (Co)	2013/07/26	<1.0		mg/kg	
			Total Copper (Cu)	2013/07/26	<5.0		mg/kg	
			Total Lead (Pb)	2013/07/26	<1.0		mg/kg	
			Total Magnesium (Mg)	2013/07/26	<100		mg/kg	
			Total Mercury (Hg)	2013/07/26	<0.050		mg/kg	
			Total Molybdenum (Mo)	2013/07/26	<0.40		mg/kg	
			Total Nickel (Ni)	2013/07/26	<1.0		mg/kg	
			Total Selenium (Se)	2013/07/26	<0.50		mg/kg	
			Total Silver (Ag)	2013/07/26	<1.0		mg/kg	
			Total Thallium (Tl)	2013/07/26	<0.30		mg/kg	
			Total Tin (Sn)	2013/07/26	<1.0		mg/kg	
			Total Uranium (U)	2013/07/26	<1.0		mg/kg	
			Total Vanadium (V)	2013/07/26	<1.0		mg/kg	
			Total Zinc (Zn)	2013/07/26	<10		mg/kg	
		RPD	Total Antimony (Sb)	2013/07/26	NC		%	35
			Total Arsenic (As)	2013/07/26	NC		%	35
			Total Barium (Ba)	2013/07/26	6.1		%	35
			Total Beryllium (Be)	2013/07/26	NC		%	35
			Total Cadmium (Cd)	2013/07/26	NC		%	35
			Total Chromium (Cr)	2013/07/26	7.2		%	35
			Total Cobalt (Co)	2013/07/26	6.1		%	35
			Total Copper (Cu)	2013/07/26	NC		%	35
			Total Lead (Pb)	2013/07/26	5.6		%	35
			Total Mercury (Hg)	2013/07/26	NC		%	35
			Total Molybdenum (Mo)	2013/07/26	NC		%	35
			Total Nickel (Ni)	2013/07/26	6.4		%	35
			Total Selenium (Se)	2013/07/26	NC		%	35
			Total Silver (Ag)	2013/07/26	NC		%	35
			Total Thallium (Tl)	2013/07/26	NC		%	35
			Total Tin (Sn)	2013/07/26	NC		%	35
			Total Uranium (U)	2013/07/26	NC		%	35

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QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7024736	SF3	RPD	Total Vanadium (V)	2013/07/26	7.9		%	35
			Total Zinc (Zn)	2013/07/26	NC		%	35
7024996	ABH	Method Blank	Moisture	2013/07/26	<0.30		%	
		RPD [GZ9437-01]	Moisture	2013/07/26	5.6		%	20
7025245	SSF	QC Standard	Soluble Conductivity	2013/07/26		97	%	85 - 115
		Spiked Blank	Soluble Conductivity	2013/07/26		100	%	90 - 110
		Method Blank	Soluble Conductivity	2013/07/26	<0.020		dS/m	
		RPD	Soluble Conductivity	2013/07/26	7.8		%	35
7025403	ABH	Method Blank	Moisture	2013/07/26	<0.30		%	
		RPD [GZ9457-01]	Moisture	2013/07/26	10.7		%	20
7025702	NC3	Matrix Spike	Soluble (Hot water) Boron (B)	2013/07/26		102	%	75 - 125
		Spiked Blank	Soluble (Hot water) Boron (B)	2013/07/26		102	%	75 - 125
		Method Blank	Soluble (Hot water) Boron (B)	2013/07/26	<0.10		mg/kg	
		RPD	Soluble (Hot water) Boron (B)	2013/07/26	NC		%	35
7026083	KD5	Matrix Spike						
		[GZ9455-01]	Soluble Chloride (Cl)	2013/07/26		103	%	75 - 125
		QC Standard	Soluble Chloride (Cl)	2013/07/26		91	%	75 - 125
		Spiked Blank	Soluble Chloride (Cl)	2013/07/26		100	%	75 - 125
		Method Blank	Soluble Chloride (Cl)	2013/07/26	<5.0		mg/L	
		RPD [GZ9455-01]	Soluble Chloride (Cl)	2013/07/26	NC		%	35
7026100	WAU	Matrix Spike	Total Antimony (Sb)	2013/07/26		91	%	75 - 125
			Total Arsenic (As)	2013/07/26		95	%	75 - 125
			Total Barium (Ba)	2013/07/26		NC	%	75 - 125
			Total Beryllium (Be)	2013/07/26		103	%	75 - 125
			Total Cadmium (Cd)	2013/07/26		97	%	75 - 125
			Total Chromium (Cr)	2013/07/26		94	%	75 - 125
			Total Cobalt (Co)	2013/07/26		98	%	75 - 125
			Total Copper (Cu)	2013/07/26		93	%	75 - 125
			Total Lead (Pb)	2013/07/26		97	%	75 - 125
			Total Magnesium (Mg)	2013/07/26		NC	%	75 - 125
			Total Mercury (Hg)	2013/07/26		97	%	75 - 125
			Total Molybdenum (Mo)	2013/07/26		98	%	75 - 125
			Total Nickel (Ni)	2013/07/26		93	%	75 - 125
			Total Selenium (Se)	2013/07/26		100	%	75 - 125
			Total Silver (Ag)	2013/07/26		101	%	75 - 125
			Total Thallium (Tl)	2013/07/26		95	%	75 - 125
			Total Tin (Sn)	2013/07/26		103	%	75 - 125
			Total Uranium (U)	2013/07/26		100	%	75 - 125
			Total Vanadium (V)	2013/07/26		100	%	75 - 125
			Total Zinc (Zn)	2013/07/26		NC	%	75 - 125
		QC Standard	Total Arsenic (As)	2013/07/26		131	%	50 - 150
			Total Barium (Ba)	2013/07/26		116	%	69 - 131
			Total Chromium (Cr)	2013/07/26		108	%	41 - 159
			Total Cobalt (Co)	2013/07/26		114	%	75 - 125
			Total Copper (Cu)	2013/07/26		116	%	73 - 127
			Total Lead (Pb)	2013/07/26		110	%	54 - 146
			Total Magnesium (Mg)	2013/07/26		109	%	69 - 131
			Total Nickel (Ni)	2013/07/26		122	%	61 - 139
			Total Vanadium (V)	2013/07/26		126	%	50 - 150
			Total Zinc (Zn)	2013/07/26		124	%	72 - 128
		Spiked Blank	Total Antimony (Sb)	2013/07/26		91	%	75 - 125
			Total Arsenic (As)	2013/07/26		94	%	75 - 125
			Total Barium (Ba)	2013/07/26		93	%	75 - 125
			Total Beryllium (Be)	2013/07/26		96	%	75 - 125
			Total Cadmium (Cd)	2013/07/26		93	%	75 - 125

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QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7026100	WAU	Spiked Blank	Total Chromium (Cr)	2013/07/26		92	%	75 - 125
			Total Cobalt (Co)	2013/07/26		93	%	75 - 125
			Total Copper (Cu)	2013/07/26		94	%	75 - 125
			Total Lead (Pb)	2013/07/26		96	%	75 - 125
			Total Magnesium (Mg)	2013/07/26		90	%	75 - 125
			Total Mercury (Hg)	2013/07/26		94	%	75 - 125
			Total Molybdenum (Mo)	2013/07/26		93	%	75 - 125
			Total Nickel (Ni)	2013/07/26		94	%	75 - 125
			Total Selenium (Se)	2013/07/26		95	%	75 - 125
			Total Silver (Ag)	2013/07/26		96	%	75 - 125
			Total Thallium (Tl)	2013/07/26		94	%	75 - 125
			Total Tin (Sn)	2013/07/26		95	%	75 - 125
			Total Uranium (U)	2013/07/26		98	%	75 - 125
			Total Vanadium (V)	2013/07/26		94	%	75 - 125
			Total Zinc (Zn)	2013/07/26		94	%	75 - 125
		Method Blank	Total Antimony (Sb)	2013/07/26	<1.0		mg/kg	
			Total Arsenic (As)	2013/07/26	<1.0		mg/kg	
			Total Barium (Ba)	2013/07/26	<10		mg/kg	
			Total Beryllium (Be)	2013/07/26	<0.40		mg/kg	
			Total Cadmium (Cd)	2013/07/26	<0.10		mg/kg	
			Total Chromium (Cr)	2013/07/26	<1.0		mg/kg	
			Total Cobalt (Co)	2013/07/26	<1.0		mg/kg	
			Total Copper (Cu)	2013/07/26	<5.0		mg/kg	
			Total Lead (Pb)	2013/07/26	<1.0		mg/kg	
			Total Magnesium (Mg)	2013/07/26	<100		mg/kg	
			Total Mercury (Hg)	2013/07/26	<0.050		mg/kg	
			Total Molybdenum (Mo)	2013/07/26	<0.40		mg/kg	
			Total Nickel (Ni)	2013/07/26	<1.0		mg/kg	
			Total Selenium (Se)	2013/07/26	<0.50		mg/kg	
			Total Silver (Ag)	2013/07/26	<1.0		mg/kg	
			Total Thallium (Tl)	2013/07/26	<0.30		mg/kg	
			Total Tin (Sn)	2013/07/26	<1.0		mg/kg	
			Total Uranium (U)	2013/07/26	<1.0		mg/kg	
			Total Vanadium (V)	2013/07/26	<1.0		mg/kg	
			Total Zinc (Zn)	2013/07/26	<10		mg/kg	
		RPD	Total Antimony (Sb)	2013/07/26	NC		%	35
			Total Arsenic (As)	2013/07/26	NC		%	35
			Total Barium (Ba)	2013/07/26	4.4		%	35
			Total Beryllium (Be)	2013/07/26	NC		%	35
			Total Cadmium (Cd)	2013/07/26	NC		%	35
			Total Chromium (Cr)	2013/07/26	15.6		%	35
			Total Cobalt (Co)	2013/07/26	1.8		%	35
			Total Copper (Cu)	2013/07/26	NC		%	35
			Total Lead (Pb)	2013/07/26	3.2		%	35
			Total Magnesium (Mg)	2013/07/26	1.2		%	35
			Total Mercury (Hg)	2013/07/26	NC		%	35
			Total Molybdenum (Mo)	2013/07/26	NC		%	35
			Total Nickel (Ni)	2013/07/26	8.6		%	35
			Total Selenium (Se)	2013/07/26	NC		%	35
			Total Silver (Ag)	2013/07/26	NC		%	35
			Total Thallium (Tl)	2013/07/26	NC		%	35
			Total Tin (Sn)	2013/07/26	NC		%	35
			Total Uranium (U)	2013/07/26	NC		%	35
			Total Vanadium (V)	2013/07/26	2.7		%	35
			Total Zinc (Zn)	2013/07/26	NC		%	35

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QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7026327	JSM	Matrix Spike						
		[GZ9455-01]	Soluble Calcium (Ca)	2013/07/26		101	%	75 - 125
			Soluble Magnesium (Mg)	2013/07/26		104	%	75 - 125
			Soluble Sodium (Na)	2013/07/26		109	%	75 - 125
			Soluble Potassium (K)	2013/07/26		104	%	75 - 125
		QC Standard	Soluble Calcium (Ca)	2013/07/26		87	%	75 - 125
			Soluble Magnesium (Mg)	2013/07/26		85	%	75 - 125
			Soluble Sodium (Na)	2013/07/26		101	%	75 - 125
			Soluble Potassium (K)	2013/07/26		107	%	75 - 125
			Soluble Sulphate (SO4)	2013/07/26		91	%	78 - 122
		Spiked Blank	Soluble Calcium (Ca)	2013/07/26		102	%	75 - 125
			Soluble Magnesium (Mg)	2013/07/26		101	%	75 - 125
			Soluble Sodium (Na)	2013/07/26		103	%	75 - 125
			Soluble Potassium (K)	2013/07/26		99	%	75 - 125
		Method Blank	Soluble Calcium (Ca)	2013/07/26	<1.5		mg/L	
			Soluble Magnesium (Mg)	2013/07/26	<1.0		mg/L	
			Soluble Sodium (Na)	2013/07/26	<2.5		mg/L	
			Soluble Potassium (K)	2013/07/26	<1.3		mg/L	
			Soluble Sulphate (SO4)	2013/07/26	<5.0		mg/L	
		RPD [GZ9455-01]	Soluble Calcium (Ca)	2013/07/26	13.2		%	35
			Soluble Magnesium (Mg)	2013/07/26	NC		%	35
			Soluble Sodium (Na)	2013/07/26	3.5		%	35
			Soluble Potassium (K)	2013/07/26	NC		%	35
			Soluble Sulphate (SO4)	2013/07/26	NC		%	35
7026562	KD5	Matrix Spike	Soluble Chloride (Cl)	2013/07/26		102	%	75 - 125
		QC Standard	Soluble Chloride (Cl)	2013/07/26		96	%	75 - 125
		Spiked Blank	Soluble Chloride (Cl)	2013/07/26		100	%	75 - 125
		Method Blank	Soluble Chloride (Cl)	2013/07/26	<5.0		mg/L	
		RPD	Soluble Chloride (Cl)	2013/07/26	NC		%	35
7026671	NC3	Matrix Spike	Soluble (Hot water) Boron (B)	2013/07/26		103	%	75 - 125
		Spiked Blank	Soluble (Hot water) Boron (B)	2013/07/26		104	%	75 - 125
		Method Blank	Soluble (Hot water) Boron (B)	2013/07/26	<0.10		mg/kg	
		RPD	Soluble (Hot water) Boron (B)	2013/07/26	NC		%	35
7026924	JSM	Matrix Spike	Soluble Calcium (Ca)	2013/07/26		97	%	75 - 125
			Soluble Magnesium (Mg)	2013/07/26		101	%	75 - 125
			Soluble Sodium (Na)	2013/07/26		106	%	75 - 125
			Soluble Potassium (K)	2013/07/26		101	%	75 - 125
		QC Standard	Soluble Calcium (Ca)	2013/07/26		95	%	75 - 125
			Soluble Magnesium (Mg)	2013/07/26		96	%	75 - 125
			Soluble Sodium (Na)	2013/07/26		108	%	75 - 125
			Soluble Potassium (K)	2013/07/26		115	%	75 - 125
			Soluble Sulphate (SO4)	2013/07/26		98	%	78 - 122
		Spiked Blank	Soluble Calcium (Ca)	2013/07/26		96	%	75 - 125
			Soluble Magnesium (Mg)	2013/07/26		101	%	75 - 125
			Soluble Sodium (Na)	2013/07/26		106	%	75 - 125
			Soluble Potassium (K)	2013/07/26		101	%	75 - 125
		Method Blank	Soluble Calcium (Ca)	2013/07/26	<1.5		mg/L	
			Soluble Magnesium (Mg)	2013/07/26	<1.0		mg/L	
			Soluble Sodium (Na)	2013/07/26	<2.5		mg/L	
			Soluble Potassium (K)	2013/07/26	<1.3		mg/L	
			Soluble Sulphate (SO4)	2013/07/26	<5.0		mg/L	
		RPD	Soluble Calcium (Ca)	2013/07/26	13.5		%	35
			Soluble Magnesium (Mg)	2013/07/26	NC		%	35
			Soluble Sodium (Na)	2013/07/26	0.06		%	35
			Soluble Potassium (K)	2013/07/26	NC		%	35

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: A04012A05
P.O. #:
Site Location: CAMP FAREWELL

Quality Assurance Report (Continued)

Maxxam Job Number: EB363840

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7026924	JSM	RPD	Soluble Sulphate (SO4)	2013/07/26	3.0		%	35
7027318	LX	QC Standard	Saturation %	2013/07/27		105	%	93 - 107
		RPD	Saturation %	2013/07/27	1.2		%	12
7027431	AD3	QC Standard	Soluble Conductivity	2013/07/27		98	%	85 - 115
		Spiked Blank	Soluble Conductivity	2013/07/27		100	%	90 - 110
		Method Blank	Soluble Conductivity	2013/07/27	<0.020		dS/m	
		RPD	Soluble Conductivity	2013/07/27	4.2		%	35
7027480	NM5	Method Blank	Moisture	2013/07/27	<0.30		%	
		RPD	Moisture	2013/07/27	2.2		%	20
7027493	WAU	Matrix Spike	Total Antimony (Sb)	2013/07/27		85	%	75 - 125
			Total Arsenic (As)	2013/07/27		91	%	75 - 125
			Total Barium (Ba)	2013/07/27		NC	%	75 - 125
			Total Beryllium (Be)	2013/07/27		97	%	75 - 125
			Total Cadmium (Cd)	2013/07/27		91	%	75 - 125
			Total Chromium (Cr)	2013/07/27		92	%	75 - 125
			Total Cobalt (Co)	2013/07/27		89	%	75 - 125
			Total Copper (Cu)	2013/07/27		90	%	75 - 125
			Total Lead (Pb)	2013/07/27		87	%	75 - 125
			Total Magnesium (Mg)	2013/07/27		NC	%	75 - 125
			Total Mercury (Hg)	2013/07/27		89	%	75 - 125
			Total Molybdenum (Mo)	2013/07/27		93	%	75 - 125
			Total Nickel (Ni)	2013/07/27		91	%	75 - 125
			Total Selenium (Se)	2013/07/27		88	%	75 - 125
			Total Silver (Ag)	2013/07/27		92	%	75 - 125
			Total Thallium (Tl)	2013/07/27		84	%	75 - 125
			Total Tin (Sn)	2013/07/27		94	%	75 - 125
			Total Uranium (U)	2013/07/27		83	%	75 - 125
			Total Vanadium (V)	2013/07/27		95	%	75 - 125
			Total Zinc (Zn)	2013/07/27		NC	%	75 - 125
		QC Standard	Total Arsenic (As)	2013/07/27		112	%	50 - 150
			Total Barium (Ba)	2013/07/27		96	%	69 - 131
			Total Chromium (Cr)	2013/07/27		90	%	41 - 159
			Total Cobalt (Co)	2013/07/27		96	%	75 - 125
			Total Copper (Cu)	2013/07/27		100	%	73 - 127
			Total Lead (Pb)	2013/07/27		96	%	54 - 146
			Total Magnesium (Mg)	2013/07/27		83	%	69 - 131
			Total Nickel (Ni)	2013/07/27		104	%	61 - 139
			Total Vanadium (V)	2013/07/27		104	%	50 - 150
			Total Zinc (Zn)	2013/07/27		103	%	72 - 128
		Spiked Blank	Total Antimony (Sb)	2013/07/27		92	%	75 - 125
			Total Arsenic (As)	2013/07/27		94	%	75 - 125
			Total Barium (Ba)	2013/07/27		93	%	75 - 125
			Total Beryllium (Be)	2013/07/27		95	%	75 - 125
			Total Cadmium (Cd)	2013/07/27		91	%	75 - 125
			Total Chromium (Cr)	2013/07/27		93	%	75 - 125
			Total Cobalt (Co)	2013/07/27		93	%	75 - 125
			Total Copper (Cu)	2013/07/27		94	%	75 - 125
			Total Lead (Pb)	2013/07/27		91	%	75 - 125
			Total Magnesium (Mg)	2013/07/27		86	%	75 - 125
			Total Mercury (Hg)	2013/07/27		87	%	75 - 125
			Total Molybdenum (Mo)	2013/07/27		94	%	75 - 125
			Total Nickel (Ni)	2013/07/27		94	%	75 - 125
			Total Selenium (Se)	2013/07/27		93	%	75 - 125
			Total Silver (Ag)	2013/07/27		93	%	75 - 125
			Total Thallium (Tl)	2013/07/27		86	%	75 - 125

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: A04012A05
P.O. #:
Site Location: CAMP FAREWELL

Quality Assurance Report (Continued)

Maxxam Job Number: EB363840

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7027493	WAU	Spiked Blank	Total Tin (Sn)	2013/07/27		94	%	75 - 125
			Total Uranium (U)	2013/07/27		86	%	75 - 125
			Total Vanadium (V)	2013/07/27		95	%	75 - 125
			Total Zinc (Zn)	2013/07/27		94	%	75 - 125
		Method Blank	Total Antimony (Sb)	2013/07/27	<1.0		mg/kg	
			Total Arsenic (As)	2013/07/27	<1.0		mg/kg	
			Total Barium (Ba)	2013/07/27	<10		mg/kg	
			Total Beryllium (Be)	2013/07/27	<0.40		mg/kg	
			Total Cadmium (Cd)	2013/07/27	<0.10		mg/kg	
			Total Chromium (Cr)	2013/07/27	<1.0		mg/kg	
			Total Cobalt (Co)	2013/07/27	<1.0		mg/kg	
			Total Copper (Cu)	2013/07/27	<5.0		mg/kg	
			Total Lead (Pb)	2013/07/27	<1.0		mg/kg	
			Total Magnesium (Mg)	2013/07/27	<100		mg/kg	
			Total Mercury (Hg)	2013/07/27	<0.050		mg/kg	
			Total Molybdenum (Mo)	2013/07/27	<0.40		mg/kg	
			Total Nickel (Ni)	2013/07/27	<1.0		mg/kg	
			Total Selenium (Se)	2013/07/27	<0.50		mg/kg	
			Total Silver (Ag)	2013/07/27	<1.0		mg/kg	
			Total Thallium (Tl)	2013/07/27	<0.30		mg/kg	
			Total Tin (Sn)	2013/07/27	<1.0		mg/kg	
			Total Uranium (U)	2013/07/27	<1.0		mg/kg	
			Total Vanadium (V)	2013/07/27	<1.0		mg/kg	
			Total Zinc (Zn)	2013/07/27	<10		mg/kg	
		RPD	Total Antimony (Sb)	2013/07/27	NC		%	35
			Total Arsenic (As)	2013/07/27	NC		%	35
			Total Barium (Ba)	2013/07/27	7.3		%	35
			Total Beryllium (Be)	2013/07/27	NC		%	35
			Total Cadmium (Cd)	2013/07/27	NC		%	35
			Total Chromium (Cr)	2013/07/27	0.6		%	35
			Total Cobalt (Co)	2013/07/27	11.3		%	35
			Total Copper (Cu)	2013/07/27	NC		%	35
			Total Lead (Pb)	2013/07/27	4.1		%	35
			Total Mercury (Hg)	2013/07/27	NC		%	35
			Total Molybdenum (Mo)	2013/07/27	NC		%	35
			Total Nickel (Ni)	2013/07/27	2.4		%	35
			Total Selenium (Se)	2013/07/27	NC		%	35
			Total Silver (Ag)	2013/07/27	NC		%	35
			Total Thallium (Tl)	2013/07/27	NC		%	35
			Total Tin (Sn)	2013/07/27	NC		%	35
			Total Uranium (U)	2013/07/27	NC		%	35
			Total Vanadium (V)	2013/07/27	0.7		%	35
			Total Zinc (Zn)	2013/07/27	NC		%	35
7027624	AD3	QC Standard	Soluble (CaCl2) pH	2013/07/27		101	%	97 - 103
		Spiked Blank	Soluble (CaCl2) pH	2013/07/27		100	%	97 - 103
		RPD	Soluble (CaCl2) pH	2013/07/27	0.1		%	5
7027660	JSM	Matrix Spike	Soluble (Hot water) Boron (B)	2013/07/27		NC	%	75 - 125
		Spiked Blank	Soluble (Hot water) Boron (B)	2013/07/27		96	%	75 - 125
		Method Blank	Soluble (Hot water) Boron (B)	2013/07/27	<0.10		mg/kg	
		RPD	Soluble (Hot water) Boron (B)	2013/07/27	0.4		%	35
7027842	JSM	Matrix Spike	Soluble Sodium (Na)	2013/07/27		109	%	75 - 125
		QC Standard	Soluble Sodium (Na)	2013/07/27		110	%	75 - 125
		Spiked Blank	Soluble Sodium (Na)	2013/07/27		110	%	75 - 125
		Method Blank	Soluble Sodium (Na)	2013/07/27	<2.5		mg/L	
		RPD	Soluble Sodium (Na)	2013/07/27	0.8		%	35

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: A04012A05
P.O. #:
Site Location: CAMP FAREWELL

Quality Assurance Report (Continued)

Maxxam Job Number: EB363840

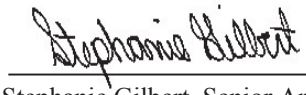
QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7027970	MA4	QC Standard	Soluble Conductivity	2013/07/28		87	%	85 - 115
		Spiked Blank	Soluble Conductivity	2013/07/28		101	%	90 - 110
		Method Blank	Soluble Conductivity	2013/07/28	<0.020		dS/m	
		RPD	Soluble Conductivity	2013/07/28	2.7		%	35
7028052	LCA	Matrix Spike	Soluble Chloride (Cl)	2013/07/28		99	%	75 - 125
		QC Standard	Soluble Chloride (Cl)	2013/07/28		90	%	75 - 125
		Spiked Blank	Soluble Chloride (Cl)	2013/07/28		101	%	75 - 125
		Method Blank	Soluble Chloride (Cl)	2013/07/28	<5.0		mg/L	
		RPD	Soluble Chloride (Cl)	2013/07/28	NC		%	35
7028146	JHC	Matrix Spike	Soluble Calcium (Ca)	2013/07/28		100	%	75 - 125
			Soluble Magnesium (Mg)	2013/07/28		103	%	75 - 125
			Soluble Sodium (Na)	2013/07/28		103	%	75 - 125
			Soluble Potassium (K)	2013/07/28		103	%	75 - 125
		QC Standard	Soluble Calcium (Ca)	2013/07/28		80	%	75 - 125
			Soluble Magnesium (Mg)	2013/07/28		81	%	75 - 125
			Soluble Sodium (Na)	2013/07/28		96	%	75 - 125
			Soluble Potassium (K)	2013/07/28		109	%	75 - 125
			Soluble Sulphate (SO4)	2013/07/28		80	%	78 - 122
		Spiked Blank	Soluble Calcium (Ca)	2013/07/28		99	%	75 - 125
			Soluble Magnesium (Mg)	2013/07/28		101	%	75 - 125
			Soluble Sodium (Na)	2013/07/28		100	%	75 - 125
			Soluble Potassium (K)	2013/07/28		101	%	75 - 125
		Method Blank	Soluble Calcium (Ca)	2013/07/28	<1.5		mg/L	
			Soluble Magnesium (Mg)	2013/07/28	<1.0		mg/L	
			Soluble Sodium (Na)	2013/07/28	<2.5		mg/L	
			Soluble Potassium (K)	2013/07/28	<1.3		mg/L	
			Soluble Sulphate (SO4)	2013/07/28	<5.0		mg/L	
		RPD	Soluble Calcium (Ca)	2013/07/28	21.3		%	35
			Soluble Magnesium (Mg)	2013/07/28	NC		%	35
			Soluble Sodium (Na)	2013/07/28	12.9		%	35
			Soluble Potassium (K)	2013/07/28	NC		%	35
			Soluble Sulphate (SO4)	2013/07/28	15.3		%	35
7037181	JHC	Matrix Spike	Extractable Barium (Ba)	2013/07/31		NC	%	75 - 125
		Spiked Blank	Extractable Barium (Ba)	2013/07/31		89	%	75 - 125
		Method Blank	Extractable Barium (Ba)	2013/07/31	<1.0		mg/kg	
		RPD	Extractable Barium (Ba)	2013/07/31	0.5		%	35
7046467	NC3	QC Standard	Total Fusion Barium (Ba)	2013/08/02		108	%	60 - 140
		Spiked Blank	Total Fusion Barium (Ba)	2013/08/02		96	%	80 - 120
		Method Blank	Total Fusion Barium (Ba)	2013/08/02	<50		mg/kg	
		RPD	Total Fusion Barium (Ba)	2013/08/02	2.7		%	35

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 spiked amount was not sufficiently significant to permit a reliable recovery calculation.
NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.
(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

Validation Signature Page

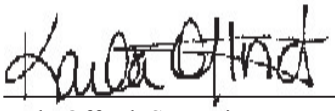
Maxxam Job #: B363840

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

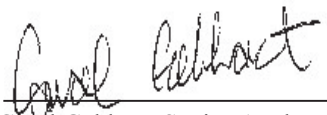


Stephanie Gilbert, Senior Analyst

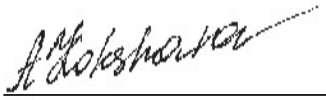
Daniel Reslan, Volatiles Supervisor



Karla Offord, Supervisor, Extractable Hydrocarbons



Carol Gebhart, Senior Analyst



Anna Koksharova, Senior Analyst

Validation Signature Page

Maxxam Job #: B363840

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

Michael Chae, Ph.D, Scientific 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.

Maxxam
Calgary: 4000 19st St. NE, T2E 6P8. Ph: (403) 291-3077, Fax: (403) 735-2240, Toll free: (800) 386-7247
Edmonton: 9331 - 48 Street, T6B 2R4. Ph: (780) 577-7100, Fax: (780) 450-4187, Toll free: (877) 465-8889
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07/1220(4)

Chain of Custody

A134527

	Invoice To: C/O Report Address ☐	Report To: Same as Invoice ☒	Report Distribution (E-Mail):	REGULATORY GUIDELINES:
Company:	IEG Consultants Ltd		nwills@klohn.com	☐ AT1
Contact:	Nicole Wills			☐ CCME
Address:	2618 Hopewell Place NE			☐ Regulated Drinking Water
	Prov: Calgary, AB PC: T1Y 7J7	Prov: PC:		☐ Other:
Contact #s:	Ph: 403.829.3048 Cell:	Ph: Cell:		

All samples are held for 60 calendar days after sample receipt, unless specified otherwise.

PO #:	
Project # / Name:	A04012A05
Site Location:	Camp Farewell
Quote #:	
Sampled By:	Nicole Wills

SERVICE REQUESTED: ☐ **RUSH** (Contact lab to reserve) Date Required: ☐ REGULAR (5 to 7 Days)

See reverse for package specifics

	Sample ID	Depth (unit)	Matrix GW / SW Soil	Date/Time Sampled YY/MM/DD 24:00	SOIL: BTEX F1-F4	SOIL: Sieve (75 micron)	SOIL: Regulated Metals (CCME / AT1)	SOIL: Salinity 4	SOIL: Assessment ICP Metals	SOIL: Basic Class II Landfill	WATER: ☐BTEX F1 ☐VOCs	WATER: ☐BTEX F1-F2 ☐BTEX F1-F4	WATER: ☐ Routine Water ☐ Turb ☐ F	WATER: ☐ TOC ☐ DOC	WATER: Regulated Metals (CCME / AT1) Total	WATER: Regulated Metals (CCME / AT1) Dissolved	WATER: Mercury ☐ Total ☐ Dissolved	Other Analysis: RUSH	HOLD - Do not Analyze	# of Containers Submitted
1	TP#1	0-0.6m	Soil	13/07/23 15:30	X		X	X											BJ	1B
2	TP#2				X		X	X											BJ	1B
3	TP#3				X		X	X											BJ	1B
4	TP#4				X		X	X											BJ	1B
5	TP#5				X		X	X											BJ	1B
6	TP#17				X		X	X											BJ	1B
7	TP#18				X		X	X											BJ	1B
8	DS13-001			07-20-13	X	yes	X	X		X								X		
9	EX-13-1LB	7m		07-21-13	X		X	X												
10	EX-13-1JB	6m		07-21-13	X		X	X												
11	EX-13-1KE	3.5m		07-21-13	X		X	X												
12	EX-13-1LE	4m		07-21-13	X		X	X											R08/mm	

Please indicate Filtered, Preserved or Both (F, P, F/P) → F/P

Relinquished By (Signature/Print): Nicole Wills	Date (YY/MM/DD): 13/07/23	Time (24:00): 20:00	
Relinquished By (Signature/Print):	Date (YY/MM/DD):	Time (24:00):	
Special Instructions: Please rush the analysis of DS13-001		# of Jars Used & Not Submitted	

LAB USE ONLY

Received By: Amanda L'Hirondelle	Date: 20130725@	Time: 1023	Maxxam Job #: B363840
Lab Comments: 14,14,13 > B 15,14,15		Custody Seal: absent	Temperature: 7,6,7 8,5,6 > J present	Ice:

Maxxam

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Edmonton: 9331 - 48 Street, T6B 2R4. Ph: (780) 577-7100, Fax: (780) 450-4187, Toll free: (877) 485-8889
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Chain of Custody A134528

	Invoice To: C/O Report Address ☐	Report To: Same as Invoice ☐	Report Distribution (E-Mail):
Company:	See page 1		nwills@klohn.com
Contact:			
Address:			
	Prov: PC:	Prov: PC:	
Contact #s:	Ph: Cell:	Ph: Cell:	

REGULATORY GUIDELINES:
☐ AT1
☐ CCME
☐ Regulated Drinking Water
☐ Other:

All samples are held for 60 calendar days after sample receipt, unless specified otherwise.

PO #:
Project # / Name:
Site Location:
Quote #:
Sampled By:

SERVICE REQUESTED: ☐ RUSH (Contact lab to reserve) Date Required: ☐ REGULAR (5 to 7 Days)

See reverse for package specifics

	Sample ID	Depth (unit)	Matrix GW / SW Soil	Date/Time Sampled YY/MM/DD 24:00	SOIL: BTEX F1-F4	Sieve (75 micron)	Regulated Metals (CCME / AT1)	Salinity 4	Assessment ICP Metals	Basic Class II Landfill	PAH	Barite	WATER: ☐BTEX F1 ☐BTEX F1-F2	☐VOCs ☐BTEX F1-F4	☐ Routine Water ☐ Turb ☐ F	☐ TOC ☐ DOC	Regulated Metals (CCME / AT1) Total	Dissolved	☐ Total ☐ Dissolved Mercury	Other Analysis	HOLD - Do not Analyze	# of Containers Submitted
1	Ex-13-1EB	7m	Soil	07-21-13	X		X	X														
2	Ex-13-1DB	7m		07-21-13	X		X	X														
3	Ex-13-AW (3m)	3m		07-22-13	X		X	X			X	X										
4	Ex-13-AW (7m)	7m		07-22-13	X		X	X														
5	Ex-13-BW (1m)	1m		07-22-13	X		X	X														
6	Ex-13-BW (6m)	6m		07-22-13	X		X	X														
7	Ex-13-CW (5m)	5m			X		X	X														
8	Ex-13-DW (6m)	6m			X		X	X														
9	Ex-13-DN (0-1m)	0-1			X		X	X														
10	Ex-13-DN (7m)	7m			X		X	X														
11	Ex-13-EN (3m)	3m			X		X	X														
12	Ex-13-EN (7m)	7m			X		X	X														

RDS/mmd

Please indicate Filtered, Preserved or Both (F, P, F/P)

F/P

Relinquished By (Signature/Print): Nicole Wills / Nicole Wills	Date (YY/MM/DD): 13/07/23	Time (24:00): 20:00
Relinquished By (Signature/Print):	Date (YY/MM/DD):	Time (24:00):
Special Instructions:	# of Jars Used & Not Submitted	

LAB USE ONLY

Received By: Amanda Lattirondelle	Date: 20130725	Time: 1033	Maxxam Job #: B363840	
Lab Comments: 14,14,13 15,14,15 7 B			Custody Seal: absent	Temperature: 7,6,7 8,5,6	Ice: present

Maxxam

Calgary: 4000 19st St. NE, T2E 6P8. Ph: (403) 291-3077, Fax: (403) 735-2240, Toll free: (800) 386-7247
Edmonton: 9331 - 48 Street, T6B 2R4. Ph: (780) 577-7100, Fax: (780) 450-4187, Toll free: (877) 465-8889
www.maxxamanalytics.com

Chain of Custody A134516

Page: 3 of 3

Company:	Invoice To: C/O Report Address ☐	Report To: Same as Invoice ☒	Report Distribution (E-Mail):
	Same as page 1		nwills@klohn.com
Contact:			
Address:	Prov: PC:	Prov: PC:	
Contact #s:	Ph: Cell:	Ph: Cell:	

REGULATORY GUIDELINES:
- ☐ AT1
- ☐ CCME
- ☐ Regulated Drinking Water
- ☐ Other:

All samples are held for 60 calendar days after sample receipt, unless specified otherwise.

PO #:
Project # / Name:
Site Location:
Quote #:
Sampled By:

SERVICE REQUESTED: ☐ RUSH (Contact lab to reserve) Date Required: ☐ REGULAR (5 to 7 Days)

See reverse for package specifics

	Sample ID	Depth (unit)	Matrix GW / SW Soil	Date/Time Sampled YY/MM/DD 24:00	SOIL: BTEX F1-F4	Sieve (75 micron)	Regulated Metals (CCME / AT1)	Salinity 4	Assessment ICP Metals	Basic Class II Landfill			WATER: ☐BTEX F1 ☐VOCs	☐BTEX F1-F2 ☐BTEX F1-F4	☐ Routine Water ☐ Turb ☐ F	☐ TOC ☐ DOC	Regulated Metals (CCME / AT1) Total	Dissolved	Mercury ☐ Total ☐ Dissolved	Other Analysis	HOLD - Do not Analyze	# of Containers Submitted
* 1	EX-13-LN (0-1m)	0-1m	Soil	07-22-13	X		X	X														
2	~~[illegible]~~	~~[illegible]~~	~~Soil~~	~~2 2~~	~~X~~		~~X~~	~~X~~														
* 3	EX-13-LN (6m)	6m	Soil	07-22-13	X		X	X														
4																						
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						

ROB/mm

Please indicate Filtered, Preserved or Both (F, P, F/P) → F/P

Relinquished By (Signature/Print):	Date (YY/MM/DD):	Time (24:00):
Nicole Wills / [signature]	13/07/23	20:00
Relinquished By (Signature/Print):	Date (YY/MM/DD):	Time (24:00):

Special Instructions:

# of Jars Used & Not Submitted

LAB USE ONLY

Received By:	Date:	Time:	Maxxam Job #:
Amanda [signature] L.Hirondelle	20130725	1023	B363840

Lab Comments:	Custody Seal	Temperature	Ice
14,14,13 7B; 15,14,15	absent	7,6,7; 8,5,6	present

AB FCD-00331 Rev3 2010/05

Maxxam Analytics International Corporation o/a Maxxam Analytics

Maxxam

Success Through Science®

Your Project #: A04012A05
Site Location: CAMP FAREWELL
Your C.O.C. #: A134527, A134528, A134516

Attention: NICOLE WILLS

KLOHN CRIPPEN BERGER LTD
500-2618
HOPEWELL PLACE NE
CALGARY, AB
CANADA T1Y 7J7

Report Date: 2013/08/13
This report supersedes all previous reports with the same Maxxam job number

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B363840
Received: 2013/07/25, 10:23

Sample Matrix: Soil
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Boron (Hot Water Soluble)	1	2013/07/26	2013/07/26	AB SOP-00042	EPA 200.7
BTEX/F1 by HS GC/MS (MeOH extract)	1	2013/07/25	2013/07/26	AB SOP-00039	CCME, EPA 8260
BTEX in Leachates by HS GC/MS	1	2013/07/25	2013/07/26	AB SOP-00039	EPA 1311/8260C
Cation/EC Ratio	1	N/A	2013/07/26		CALCULATION
Chloride (Soluble)	1	2013/07/26	2013/07/26	AB SOP-00020	SSMA 4500 CL-E
Hexavalent Chromium	1	2013/07/25	2013/07/26	EENVSOP-00131	SM 3500-Cr B
Conductivity @25C (Soluble)	1	2013/07/26	2013/07/26	AB SOP-00004	SSMA 15.3
CCME Hydrocarbons (F2-F4 in soil)	1	2013/07/25	2013/07/25	AB SOP-00040 AB SOP-00036	CCME PHC-CWS
Flash Point	1	N/A	2013/07/26	AB SOP-00062	ASTM D3828-12 A
ICPMS Metals on TCLP Leachate	1	2013/07/25	2013/07/26	AB SOP-00043	EPA 200.8
Elements by ICPMS - Soils	1	2013/07/26	2013/07/26	AB SOP-00043	EPA 200.8
Ion Balance	1	N/A	2013/07/26	AB WI-00065	SM 1030E
Sum of Cations, Anions	1	N/A	2013/07/26	AB WI-00065	SM 1030E
Moisture	1	N/A	2013/07/26	AB SOP-00002	CCME PHC-CWS
Free Liquid (Paint filter)	1	N/A	2013/07/26	AB SOP-00047	EPA SW846/9095B
pH @25C (1:2 Calcium Chloride Extract)	1	2013/07/26	2013/07/26	AB SOP-00006	SSMA 16.3
pH @25C (1:1 extract, solid waste)	1	2013/07/26	2013/07/26	AB SOP-00006	SSMA 16.2
Sodium Adsorption Ratio	1	N/A	2013/07/26	AB WI-00065	SSMA 15.4.4
Ca,Mg,Na,K,SO4 (Soluble)	1	2013/07/26	2013/07/26	AB SOP-00042	EPA 200.7
Soluble Paste	1	2013/07/26	2013/07/26	AB SOP-00033	SSMA 15.2
Soluble Ions Calculation	1	N/A	2013/07/26		CALCULATION
Theoretical Gypsum Requirement (1)	1	N/A	2013/07/26	CAL WI-00087	CJSS 79:449-455

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

(1) Units for TGR have changed from tons/acre to tonnes/ha

Your Project #: A04012A05
Site Location: CAMP FAREWELL
Your C.O.C. #: A134527, A134528, A134516

Attention: NICOLE WILLS

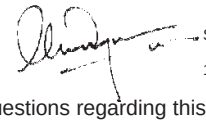
KLOHN CRIPPEN BERGER LTD
500-2618
HOPEWELL PLACE NE
CALGARY, AB
CANADA T1Y 7J7

Report Date: 2013/08/13

This report supersedes all previous reports with the same Maxxam job number

CERTIFICATE OF ANALYSIS

Encryption Key



Sherlyne Sim
13 Aug 2013 09:59:40 -06:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Tanya Eugine, M.Sc., Project Manager
Email: TEugine@maxxam.ca
Phone# (780) 577-7144

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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.

Total cover pages: 2

Maxxam Job #: B363840
Report Date: 2013/08/13

KLOHN CRIPPEN BERGER LTD
Client Project #: A04012A05
Site Location: CAMP FAREWELL
Sampler Initials: NW

AT1 BTEX AND F1-F4 IN SOIL (SOIL)

Maxxam ID		GZ9443		
Sampling Date		2013/07/20		
COC Number		A134527		
	UNITS	**DS13-001**	**RDL**	**QC Batch**
Physical Properties				
Moisture	%	22	0.30	7024996
Ext. Pet. Hydrocarbon				
F2 (C10-C16 Hydrocarbons)	mg/kg	860	10	7022792
F3 (C16-C34 Hydrocarbons)	mg/kg	790	50	7022792
F4 (C34-C50 Hydrocarbons)	mg/kg	200	50	7022792
Reached Baseline at C50	mg/kg	Yes	N/A	7022792
Volatiles				
Benzene	mg/kg	0.059	0.0050	7024383
Toluene	mg/kg	0.83	0.020	7024383
Ethylbenzene	mg/kg	0.38	0.010	7024383
Xylenes (Total)	mg/kg	4.5	0.040	7024383
m & p-Xylene	mg/kg	2.9	0.040	7024383
o-Xylene	mg/kg	1.7	0.020	7024383
F1 (C6-C10) - BTEX	mg/kg	100	12	7024383
(C6-C10)	mg/kg	110	12	7024383
Surrogate Recovery (%)				
1,4-Difluorobenzene (sur.)	%	114	N/A	7024383
4-BROMOFLUOROBENZENE (sur.)	%	78	N/A	7024383
D10-ETHYLBENZENE (sur.)	%	124	N/A	7024383
D4-1,2-DICHLOROETHANE (sur.)	%	110	N/A	7024383
O-TERPHENYL (sur.)	%	111	N/A	7022792

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Job #: B363840
Report Date: 2013/08/13

KLOHN CRIPPEN BERGER LTD
Client Project #: A04012A05
Site Location: CAMP FAREWELL
Sampler Initials: NW

SOIL SALINITY 4 (SOIL)

Maxxam ID		GZ9443		
Sampling Date		2013/07/20		
COC Number		A134527		
	UNITS	**DS13-001**	**RDL**	**QC Batch**
Calculated Parameters				
Anion Sum	meq/L	12	N/A	7022359
Cation Sum	meq/L	12	N/A	7022359
Cation/EC Ratio	N/A	9.3	0.10	7021708
Ion Balance	N/A	1.0	0.010	7022358
Calculated Calcium (Ca)	mg/kg	28	0.55	7022361
Calculated Magnesium (Mg)	mg/kg	7.4	0.37	7022361
Calculated Sodium (Na)	mg/kg	50	0.92	7022361
Calculated Potassium (K)	mg/kg	5.8	0.48	7022361
Calculated Chloride (Cl)	mg/kg	72	1.8	7022361
Calculated Sulphate (SO4)	mg/kg	110	1.8	7022361
Soluble Parameters				
Soluble Chloride (Cl)	mg/L	200	5.0	7026083
Soluble Conductivity	dS/m	1.3	0.020	7024503
Soluble (CaCl2) pH	N/A	7.16	N/A	7024030
Sodium Adsorption Ratio	N/A	3.6	0.10	7021713
Soluble Calcium (Ca)	mg/L	76	1.5	7026327
Soluble Magnesium (Mg)	mg/L	20	1.0	7026327
Soluble Sodium (Na)	mg/L	130	2.5	7026327
Soluble Potassium (K)	mg/L	16	1.3	7026327
Saturation %	%	37	N/A	7024196
Soluble Sulphate (SO4)	mg/L	290	5.0	7026327
Theoretical Gypsum Requirement	tonnes/ha	<0.10	0.10	7021714

RDL = Reportable Detection Limit

Maxxam Job #: B363840
Report Date: 2013/08/13

KLOHN CRIPPEN BERGER LTD
Client Project #: A04012A05
Site Location: CAMP FAREWELL
Sampler Initials: NW

BASIC CLASS II LANDFILL PACKAGE (SOIL)

Maxxam ID		GZ9443		
Sampling Date		2013/07/20		
COC Number		A134527		
	UNITS	**DS13-001**	**RDL**	**QC Batch**
Soluble Parameters				
Soluble (1:1) pH	N/A	7.44	N/A	7024529
Physical Properties				
Closed Cup Flash point	deg. C	>61	N/A	7026825
Free Liquid	N/A	PASS	N/A	7026879
Elements				
Leachable Antimony (Sb)	mg/L	<1.0	1.0	7023787
Leachable Arsenic (As)	mg/L	<0.50	0.50	7023787
Leachable Barium (Ba)	mg/L	2.2	1.0	7023787
Leachable Beryllium (Be)	mg/L	<0.50	0.50	7023787
Leachable Boron (B)	mg/L	<1.0	1.0	7023787
Leachable Cadmium (Cd)	mg/L	<0.10	0.10	7023787
Leachable Chromium (Cr)	mg/L	<0.50	0.50	7023787
Leachable Cobalt (Co)	mg/L	<1.0	1.0	7023787
Leachable Copper (Cu)	mg/L	<1.0	1.0	7023787
Leachable Iron (Fe)	mg/L	11	1.0	7023787
Leachable Lead (Pb)	mg/L	<0.50	0.50	7023787
Leachable Mercury (Hg)	mg/L	<0.020	0.020	7023787
Leachable Nickel (Ni)	mg/L	<0.50	0.50	7023787
Leachable Selenium (Se)	mg/L	<0.10	0.10	7023787
Leachable Silver (Ag)	mg/L	<0.50	0.50	7023787
Leachable Thallium (Tl)	mg/L	<0.50	0.50	7023787
Leachable Uranium (U)	mg/L	<0.20	0.20	7023787
Leachable Vanadium (V)	mg/L	<1.0	1.0	7023787
Leachable Zinc (Zn)	mg/L	<1.0	1.0	7023787
Leachable Zirconium (Zr)	mg/L	<1.0	1.0	7023787
Volatiles				
Leachable (ZH) Benzene	ug/L	<10	10	7024500
Leachable (ZH) Toluene	ug/L	18	10	7024500
Leachable (ZH) Ethylbenzene	ug/L	<10	10	7024500
Leachable (ZH) o-Xylene	ug/L	53	10	7024500
Leachable (ZH) m & p-Xylene	ug/L	80	20	7024500
Leachable (ZH) Xylenes (Total)	ug/L	130	20	7024500
Surrogate Recovery (%)				
Leachable (ZH) 1,4-Difluorobenzene (sur.)	%	91	N/A	7024500

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Job #: B363840
Report Date: 2013/08/13

KLOHN CRIPPEN BERGER LTD
Client Project #: A04012A05
Site Location: CAMP FAREWELL
Sampler Initials: NW

BASIC CLASS II LANDFILL PACKAGE (SOIL)

Maxxam ID		GZ9443		
Sampling Date		2013/07/20		
COC Number		A134527		
	UNITS	**DS13-001**	**RDL**	**QC Batch**
Leachable (ZH) 4-BROMOFLUOROBENZENE (sur.)	%	98	N/A	7024500
Leachable (ZH) D4-1,2-DICHLOROETHANE (sur.)	%	87	N/A	7024500

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Job #: B363840
Report Date: 2013/08/13

KLOHN CRIPPEN BERGER LTD
Client Project #: A04012A05
Site Location: CAMP FAREWELL
Sampler Initials: NW

REGULATED METALS (CCME/AT1) - SOILS

Maxxam ID		GZ9443		
Sampling Date		2013/07/20		
COC Number		A134527		
	UNITS	**DS13-001**	**RDL**	**QC Batch**
Elements				
Soluble (Hot water) Boron (B)	mg/kg	0.72	0.10	7026671
Hex. Chromium (Cr 6+)	mg/kg	<0.15	0.15	7024524
Total Antimony (Sb)	mg/kg	1.2	1.0	7026100
Total Arsenic (As)	mg/kg	5.5	1.0	7026100
Total Barium (Ba)	mg/kg	420	10	7026100
Total Beryllium (Be)	mg/kg	<0.40	0.40	7026100
Total Cadmium (Cd)	mg/kg	0.18	0.10	7026100
Total Chromium (Cr)	mg/kg	11	1.0	7026100
Total Cobalt (Co)	mg/kg	3.8	1.0	7026100
Total Copper (Cu)	mg/kg	11	5.0	7026100
Total Lead (Pb)	mg/kg	16	1.0	7026100
Total Mercury (Hg)	mg/kg	<0.050	0.050	7026100
Total Molybdenum (Mo)	mg/kg	0.67	0.40	7026100
Total Nickel (Ni)	mg/kg	12	1.0	7026100
Total Selenium (Se)	mg/kg	<0.50	0.50	7026100
Total Silver (Ag)	mg/kg	<1.0	1.0	7026100
Total Thallium (Tl)	mg/kg	<0.30	0.30	7026100
Total Tin (Sn)	mg/kg	1.3	1.0	7026100
Total Uranium (U)	mg/kg	<1.0	1.0	7026100
Total Vanadium (V)	mg/kg	11	1.0	7026100
Total Zinc (Zn)	mg/kg	46	10	7026100

RDL = Reportable Detection Limit

Maxxam Job #: B363840
Report Date: 2013/08/13

KLOHN CRIPPEN BERGER LTD
Client Project #: A04012A05
Site Location: CAMP FAREWELL
Sampler Initials: NW

Package 1	6.7°C
Package 2	6.3°C

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

General Comments

Results relate only to the items tested.

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: A04012A05
P.O. #:
Site Location: CAMP FAREWELL

Quality Assurance Report

Maxxam Job Number: EB363840

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7022792	JR1	Matrix Spike						
		[GZ9455-01]	O-TERPHENYL (sur.)	2013/07/25		87	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/07/25		87	%	50 - 130
			F3 (C16-C34 Hydrocarbons)	2013/07/25		89	%	50 - 130
			F4 (C34-C50 Hydrocarbons)	2013/07/25		88	%	50 - 130
		Spiked Blank	O-TERPHENYL (sur.)	2013/07/25		92	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/07/25		103	%	70 - 130
			F3 (C16-C34 Hydrocarbons)	2013/07/25		105	%	70 - 130
			F4 (C34-C50 Hydrocarbons)	2013/07/25		103	%	70 - 130
		Method Blank	O-TERPHENYL (sur.)	2013/07/25		94	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/07/25	<10		mg/kg	
			F3 (C16-C34 Hydrocarbons)	2013/07/25	<50		mg/kg	
			F4 (C34-C50 Hydrocarbons)	2013/07/25	<50		mg/kg	
7023787	WAU	Matrix Spike	Leachable Antimony (Sb)	2013/07/26		97	%	75 - 125
			Leachable Arsenic (As)	2013/07/26		103	%	75 - 125
			Leachable Barium (Ba)	2013/07/26		NC	%	75 - 125
			Leachable Beryllium (Be)	2013/07/26		101	%	75 - 125
			Leachable Boron (B)	2013/07/26		105	%	75 - 125
			Leachable Cadmium (Cd)	2013/07/26		104	%	75 - 125
			Leachable Chromium (Cr)	2013/07/26		102	%	75 - 125
			Leachable Cobalt (Co)	2013/07/26		99	%	75 - 125
			Leachable Copper (Cu)	2013/07/26		96	%	75 - 125
			Leachable Iron (Fe)	2013/07/26		NC	%	75 - 125
			Leachable Lead (Pb)	2013/07/26		93	%	75 - 125
			Leachable Mercury (Hg)	2013/07/26		97	%	75 - 125
			Leachable Nickel (Ni)	2013/07/26		100	%	75 - 125
			Leachable Selenium (Se)	2013/07/26		111	%	75 - 125
			Leachable Silver (Ag)	2013/07/26		101	%	75 - 125
			Leachable Thallium (Tl)	2013/07/26		106	%	75 - 125
			Leachable Uranium (U)	2013/07/26		91	%	75 - 125
			Leachable Vanadium (V)	2013/07/26		109	%	75 - 125
			Leachable Zinc (Zn)	2013/07/26		97	%	75 - 125
			Leachable Zirconium (Zr)	2013/07/26		116	%	75 - 125
		Spiked Blank	Leachable Antimony (Sb)	2013/07/26		86	%	80 - 120
			Leachable Arsenic (As)	2013/07/26		97	%	80 - 120
			Leachable Barium (Ba)	2013/07/26		101	%	80 - 120
			Leachable Beryllium (Be)	2013/07/26		99	%	80 - 120
			Leachable Boron (B)	2013/07/26		101	%	80 - 120
			Leachable Cadmium (Cd)	2013/07/26		99	%	80 - 120
			Leachable Chromium (Cr)	2013/07/26		99	%	80 - 120
			Leachable Cobalt (Co)	2013/07/26		97	%	80 - 120
			Leachable Copper (Cu)	2013/07/26		98	%	80 - 120
			Leachable Iron (Fe)	2013/07/26		105	%	80 - 120
			Leachable Lead (Pb)	2013/07/26		95	%	80 - 120
			Leachable Mercury (Hg)	2013/07/26		95	%	80 - 120
			Leachable Nickel (Ni)	2013/07/26		98	%	80 - 120
			Leachable Selenium (Se)	2013/07/26		104	%	80 - 120
			Leachable Silver (Ag)	2013/07/26		98	%	80 - 120
			Leachable Thallium (Tl)	2013/07/26		108	%	80 - 120
			Leachable Uranium (U)	2013/07/26		88	%	80 - 120
			Leachable Vanadium (V)	2013/07/26		101	%	80 - 120
			Leachable Zinc (Zn)	2013/07/26		99	%	80 - 120
			Leachable Zirconium (Zr)	2013/07/26		103	%	80 - 120
		Method Blank	Leachable Antimony (Sb)	2013/07/26	<1.0		mg/L	
			Leachable Arsenic (As)	2013/07/26	<0.50		mg/L	

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: A04012A05
P.O. #:
Site Location: CAMP FAREWELL

Quality Assurance Report (Continued)

Maxxam Job Number: EB363840

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7023787	WAU	Method Blank	Leachable Barium (Ba)	2013/07/26	<1.0		mg/L	
			Leachable Beryllium (Be)	2013/07/26	<0.50		mg/L	
			Leachable Boron (B)	2013/07/26	<1.0		mg/L	
			Leachable Cadmium (Cd)	2013/07/26	<0.10		mg/L	
			Leachable Chromium (Cr)	2013/07/26	<0.50		mg/L	
			Leachable Cobalt (Co)	2013/07/26	<1.0		mg/L	
			Leachable Copper (Cu)	2013/07/26	<1.0		mg/L	
			Leachable Iron (Fe)	2013/07/26	<1.0		mg/L	
			Leachable Lead (Pb)	2013/07/26	<0.50		mg/L	
			Leachable Mercury (Hg)	2013/07/26	<0.020		mg/L	
			Leachable Nickel (Ni)	2013/07/26	<0.50		mg/L	
			Leachable Selenium (Se)	2013/07/26	<0.10		mg/L	
			Leachable Silver (Ag)	2013/07/26	<0.50		mg/L	
			Leachable Thallium (Tl)	2013/07/26	<0.50		mg/L	
			Leachable Uranium (U)	2013/07/26	<0.20		mg/L	
			Leachable Vanadium (V)	2013/07/26	<1.0		mg/L	
			Leachable Zinc (Zn)	2013/07/26	<1.0		mg/L	
			Leachable Zirconium (Zr)	2013/07/26	<1.0		mg/L	
		RPD	Leachable Antimony (Sb)	2013/07/26	NC		%	35
			Leachable Arsenic (As)	2013/07/26	NC		%	35
			Leachable Barium (Ba)	2013/07/26	NC		%	35
			Leachable Beryllium (Be)	2013/07/26	NC		%	35
			Leachable Boron (B)	2013/07/26	NC		%	35
			Leachable Cadmium (Cd)	2013/07/26	NC		%	35
			Leachable Chromium (Cr)	2013/07/26	NC		%	35
			Leachable Cobalt (Co)	2013/07/26	NC		%	35
			Leachable Copper (Cu)	2013/07/26	NC		%	35
			Leachable Iron (Fe)	2013/07/26	NC		%	35
			Leachable Lead (Pb)	2013/07/26	NC		%	35
			Leachable Mercury (Hg)	2013/07/26	NC		%	35
			Leachable Nickel (Ni)	2013/07/26	NC		%	35
			Leachable Selenium (Se)	2013/07/26	NC		%	35
			Leachable Silver (Ag)	2013/07/26	NC		%	35
			Leachable Thallium (Tl)	2013/07/26	NC		%	35
			Leachable Uranium (U)	2013/07/26	NC		%	35
			Leachable Vanadium (V)	2013/07/26	NC		%	35
			Leachable Zinc (Zn)	2013/07/26	NC		%	35
			Leachable Zirconium (Zr)	2013/07/26	NC		%	35
7024030	SSF	QC Standard	Soluble (CaCl2) pH	2013/07/26		100	%	97 - 103
		Spiked Blank	Soluble (CaCl2) pH	2013/07/26		100	%	97 - 103
7024196	LX	QC Standard	Saturation %	2013/07/26		99	%	93 - 107
7024383	CG7	Matrix Spike						
		[GZ9453-01]	1,4-Difluorobenzene (sur.)	2013/07/26		107	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/07/26		95	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/07/26		110	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/07/26		89	%	60 - 140
			Benzene	2013/07/26		103	%	60 - 140
			Toluene	2013/07/26		98	%	60 - 140
			Ethylbenzene	2013/07/26		94	%	60 - 140
			m & p-Xylene	2013/07/26		97	%	60 - 140
			o-Xylene	2013/07/26		95	%	60 - 140
			(C6-C10)	2013/07/26		91	%	60 - 140
		Spiked Blank	1,4-Difluorobenzene (sur.)	2013/07/26		104	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/07/26		100	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/07/26		129	%	60 - 130

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: A04012A05
P.O. #:
Site Location: CAMP FAREWELL

Quality Assurance Report (Continued)

Maxxam Job Number: EB363840

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7024383	CG7	Spiked Blank	D4-1,2-DICHLOROETHANE (sur.)	2013/07/26		101	%	60 - 140
			Benzene	2013/07/26		102	%	60 - 140
			Toluene	2013/07/26		97	%	60 - 140
			Ethylbenzene	2013/07/26		96	%	60 - 140
			m & p-Xylene	2013/07/26		95	%	60 - 140
			o-Xylene	2013/07/26		94	%	60 - 140
			(C6-C10)	2013/07/26		92	%	60 - 140
		Method Blank	1,4-Difluorobenzene (sur.)	2013/07/26		100	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/07/26		101	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/07/26		122	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/07/26		105	%	60 - 140
			Benzene	2013/07/26	<0.0050		mg/kg	
			Toluene	2013/07/26	<0.020		mg/kg	
			Ethylbenzene	2013/07/26	<0.010		mg/kg	
			Xylenes (Total)	2013/07/26	<0.040		mg/kg	
			m & p-Xylene	2013/07/26	<0.040		mg/kg	
			o-Xylene	2013/07/26	<0.020		mg/kg	
			F1 (C6-C10) - BTEX	2013/07/26	<12		mg/kg	
			(C6-C10)	2013/07/26	<12		mg/kg	
7024500	NSE	Matrix Spike	Leachable (ZH) 1,4-Difluorobenzene (sur.)	2013/07/26		95	%	70 - 130
			Leachable (ZH) 4-BROMOFLUOROBENZEN	2013/07/26		99	%	70 - 130
			Leachable (ZH) D4-1,2-DICHLOROETHANE	2013/07/26		102	%	70 - 130
			Leachable (ZH) Benzene	2013/07/26		84	%	70 - 130
			Leachable (ZH) Toluene	2013/07/26		83	%	70 - 130
			Leachable (ZH) Ethylbenzene	2013/07/26		81	%	70 - 130
			Leachable (ZH) o-Xylene	2013/07/26		93	%	70 - 130
			Leachable (ZH) m & p-Xylene	2013/07/26		91	%	70 - 130
		Spiked Blank	Leachable (ZH) 1,4-Difluorobenzene (sur.)	2013/07/26		90	%	70 - 130
			Leachable (ZH) 4-BROMOFLUOROBENZEN	2013/07/26		100	%	70 - 130
			Leachable (ZH) D4-1,2-DICHLOROETHANE	2013/07/26		95	%	70 - 130
			Leachable (ZH) Benzene	2013/07/26		77	%	70 - 130
			Leachable (ZH) Toluene	2013/07/26		82	%	70 - 130
			Leachable (ZH) Ethylbenzene	2013/07/26		83	%	70 - 130
			Leachable (ZH) o-Xylene	2013/07/26		91	%	70 - 130
			Leachable (ZH) m & p-Xylene	2013/07/26		87	%	70 - 130
		Method Blank	Leachable (ZH) 1,4-Difluorobenzene (sur.)	2013/07/26		99	%	70 - 130
			Leachable (ZH) 4-BROMOFLUOROBENZEN	2013/07/26		101	%	70 - 130
			Leachable (ZH) D4-1,2-DICHLOROETHANE	2013/07/26		98	%	70 - 130
			Leachable (ZH) Benzene	2013/07/26	<10		ug/L	
			Leachable (ZH) Toluene	2013/07/26	<10		ug/L	
			Leachable (ZH) Ethylbenzene	2013/07/26	<10		ug/L	
			Leachable (ZH) o-Xylene	2013/07/26	<10		ug/L	
			Leachable (ZH) m & p-Xylene	2013/07/26	<20		ug/L	
			Leachable (ZH) Xylenes (Total)	2013/07/26	<20		ug/L	
		RPD	Leachable (ZH) Benzene	2013/07/26	NC		%	50
			Leachable (ZH) Toluene	2013/07/26	NC		%	50
			Leachable (ZH) Ethylbenzene	2013/07/26	NC		%	50
			Leachable (ZH) o-Xylene	2013/07/26	NC		%	50
			Leachable (ZH) m & p-Xylene	2013/07/26	NC		%	50
			Leachable (ZH) Xylenes (Total)	2013/07/26	NC		%	50
7024503	SSF	QC Standard	Soluble Conductivity	2013/07/26		92	%	75 - 125
		Spiked Blank	Soluble Conductivity	2013/07/26		99	%	90 - 110
		Method Blank	Soluble Conductivity	2013/07/26	<0.020		dS/m	
7024524	KD5	Matrix Spike	Hex. Chromium (Cr 6+)	2013/07/26		86	%	75 - 125
		Spiked Blank	Hex. Chromium (Cr 6+)	2013/07/26		99	%	90 - 110

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: A04012A05
P.O. #:
Site Location: CAMP FAREWELL

Quality Assurance Report (Continued)

Maxxam Job Number: EB363840

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7024524	KD5	Method Blank	Hex. Chromium (Cr 6+)	2013/07/26	<0.15		mg/kg	
		RPD	Hex. Chromium (Cr 6+)	2013/07/26	NC		%	35
7024529	SSF	QC Standard	Soluble (1:1) pH	2013/07/26		100	%	97 - 103
		Spiked Blank	Soluble (1:1) pH	2013/07/26		100	%	99 - 101
		RPD	Soluble (1:1) pH	2013/07/26	2.2		%	5
7024996	ABH	Method Blank	Moisture	2013/07/26	<0.30		%	
7026083	KD5	Matrix Spike						
		[GZ9455-01]	Soluble Chloride (Cl)	2013/07/26		103	%	75 - 125
		QC Standard	Soluble Chloride (Cl)	2013/07/26		91	%	75 - 125
		Spiked Blank	Soluble Chloride (Cl)	2013/07/26		100	%	75 - 125
		Method Blank	Soluble Chloride (Cl)	2013/07/26	<5.0		mg/L	
7026100	WAU	Matrix Spike	Total Antimony (Sb)	2013/07/26		91	%	75 - 125
			Total Arsenic (As)	2013/07/26		95	%	75 - 125
			Total Barium (Ba)	2013/07/26		NC	%	75 - 125
			Total Beryllium (Be)	2013/07/26		103	%	75 - 125
			Total Cadmium (Cd)	2013/07/26		97	%	75 - 125
			Total Chromium (Cr)	2013/07/26		94	%	75 - 125
			Total Cobalt (Co)	2013/07/26		98	%	75 - 125
			Total Copper (Cu)	2013/07/26		93	%	75 - 125
			Total Lead (Pb)	2013/07/26		97	%	75 - 125
			Total Mercury (Hg)	2013/07/26		97	%	75 - 125
			Total Molybdenum (Mo)	2013/07/26		98	%	75 - 125
			Total Nickel (Ni)	2013/07/26		93	%	75 - 125
			Total Selenium (Se)	2013/07/26		100	%	75 - 125
			Total Silver (Ag)	2013/07/26		101	%	75 - 125
			Total Thallium (Tl)	2013/07/26		95	%	75 - 125
			Total Tin (Sn)	2013/07/26		103	%	75 - 125
			Total Uranium (U)	2013/07/26		100	%	75 - 125
			Total Vanadium (V)	2013/07/26		100	%	75 - 125
			Total Zinc (Zn)	2013/07/26		NC	%	75 - 125
		QC Standard	Total Arsenic (As)	2013/07/26		131	%	50 - 150
			Total Barium (Ba)	2013/07/26		116	%	69 - 131
			Total Chromium (Cr)	2013/07/26		108	%	41 - 159
			Total Cobalt (Co)	2013/07/26		114	%	75 - 125
			Total Copper (Cu)	2013/07/26		116	%	73 - 127
			Total Lead (Pb)	2013/07/26		110	%	54 - 146
			Total Nickel (Ni)	2013/07/26		122	%	61 - 139
			Total Vanadium (V)	2013/07/26		126	%	50 - 150
			Total Zinc (Zn)	2013/07/26		124	%	72 - 128
		Spiked Blank	Total Antimony (Sb)	2013/07/26		91	%	75 - 125
			Total Arsenic (As)	2013/07/26		94	%	75 - 125
			Total Barium (Ba)	2013/07/26		93	%	75 - 125
			Total Beryllium (Be)	2013/07/26		96	%	75 - 125
			Total Cadmium (Cd)	2013/07/26		93	%	75 - 125
			Total Chromium (Cr)	2013/07/26		92	%	75 - 125
			Total Cobalt (Co)	2013/07/26		93	%	75 - 125
			Total Copper (Cu)	2013/07/26		94	%	75 - 125
			Total Lead (Pb)	2013/07/26		96	%	75 - 125
			Total Mercury (Hg)	2013/07/26		94	%	75 - 125
			Total Molybdenum (Mo)	2013/07/26		93	%	75 - 125
			Total Nickel (Ni)	2013/07/26		94	%	75 - 125
			Total Selenium (Se)	2013/07/26		95	%	75 - 125
			Total Silver (Ag)	2013/07/26		96	%	75 - 125
			Total Thallium (Tl)	2013/07/26		94	%	75 - 125
			Total Tin (Sn)	2013/07/26		95	%	75 - 125

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: A04012A05
P.O. #:
Site Location: CAMP FAREWELL

Quality Assurance Report (Continued)

Maxxam Job Number: EB363840

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7026100	WAU	Spiked Blank	Total Uranium (U)	2013/07/26		98	%	75 - 125
			Total Vanadium (V)	2013/07/26		94	%	75 - 125
			Total Zinc (Zn)	2013/07/26		94	%	75 - 125
		Method Blank	Total Antimony (Sb)	2013/07/26	<1.0		mg/kg	
			Total Arsenic (As)	2013/07/26	<1.0		mg/kg	
			Total Barium (Ba)	2013/07/26	<10		mg/kg	
			Total Beryllium (Be)	2013/07/26	<0.40		mg/kg	
			Total Cadmium (Cd)	2013/07/26	<0.10		mg/kg	
			Total Chromium (Cr)	2013/07/26	<1.0		mg/kg	
			Total Cobalt (Co)	2013/07/26	<1.0		mg/kg	
			Total Copper (Cu)	2013/07/26	<5.0		mg/kg	
			Total Lead (Pb)	2013/07/26	<1.0		mg/kg	
			Total Mercury (Hg)	2013/07/26	<0.050		mg/kg	
			Total Molybdenum (Mo)	2013/07/26	<0.40		mg/kg	
			Total Nickel (Ni)	2013/07/26	<1.0		mg/kg	
			Total Selenium (Se)	2013/07/26	<0.50		mg/kg	
			Total Silver (Ag)	2013/07/26	<1.0		mg/kg	
			Total Thallium (Tl)	2013/07/26	<0.30		mg/kg	
			Total Tin (Sn)	2013/07/26	<1.0		mg/kg	
			Total Uranium (U)	2013/07/26	<1.0		mg/kg	
			Total Vanadium (V)	2013/07/26	<1.0		mg/kg	
			Total Zinc (Zn)	2013/07/26	<10		mg/kg	
		RPD	Total Antimony (Sb)	2013/07/26	NC		%	35
			Total Arsenic (As)	2013/07/26	NC		%	35
			Total Barium (Ba)	2013/07/26	4.4		%	35
			Total Beryllium (Be)	2013/07/26	NC		%	35
			Total Cadmium (Cd)	2013/07/26	NC		%	35
			Total Chromium (Cr)	2013/07/26	15.6		%	35
			Total Cobalt (Co)	2013/07/26	1.8		%	35
			Total Copper (Cu)	2013/07/26	NC		%	35
			Total Lead (Pb)	2013/07/26	3.2		%	35
			Total Mercury (Hg)	2013/07/26	NC		%	35
			Total Molybdenum (Mo)	2013/07/26	NC		%	35
			Total Nickel (Ni)	2013/07/26	8.6		%	35
			Total Selenium (Se)	2013/07/26	NC		%	35
			Total Silver (Ag)	2013/07/26	NC		%	35
			Total Thallium (Tl)	2013/07/26	NC		%	35
			Total Tin (Sn)	2013/07/26	NC		%	35
			Total Uranium (U)	2013/07/26	NC		%	35
			Total Vanadium (V)	2013/07/26	2.7		%	35
			Total Zinc (Zn)	2013/07/26	NC		%	35
7026327	JSM	Matrix Spike [GZ9455-01]	Soluble Calcium (Ca)	2013/07/26		101	%	75 - 125
			Soluble Magnesium (Mg)	2013/07/26		104	%	75 - 125
			Soluble Sodium (Na)	2013/07/26		109	%	75 - 125
			Soluble Potassium (K)	2013/07/26		104	%	75 - 125
		QC Standard	Soluble Calcium (Ca)	2013/07/26		87	%	75 - 125
			Soluble Magnesium (Mg)	2013/07/26		85	%	75 - 125
			Soluble Sodium (Na)	2013/07/26		101	%	75 - 125
			Soluble Potassium (K)	2013/07/26		107	%	75 - 125
			Soluble Sulphate (SO4)	2013/07/26		91	%	78 - 122
		Spiked Blank	Soluble Calcium (Ca)	2013/07/26		102	%	75 - 125
			Soluble Magnesium (Mg)	2013/07/26		101	%	75 - 125
			Soluble Sodium (Na)	2013/07/26		103	%	75 - 125
			Soluble Potassium (K)	2013/07/26		99	%	75 - 125

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: A04012A05
P.O. #:
Site Location: CAMP FAREWELL

Quality Assurance Report (Continued)

Maxxam Job Number: EB363840

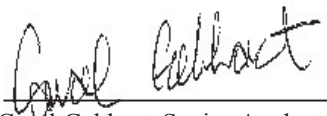
QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7026327	JSM	Method Blank	Soluble Calcium (Ca)	2013/07/26	<1.5		mg/L	
			Soluble Magnesium (Mg)	2013/07/26	<1.0		mg/L	
			Soluble Sodium (Na)	2013/07/26	<2.5		mg/L	
			Soluble Potassium (K)	2013/07/26	<1.3		mg/L	
			Soluble Sulphate (SO4)	2013/07/26	<5.0		mg/L	
7026671	NC3	Matrix Spike	Soluble (Hot water) Boron (B)	2013/07/26		103	%	75 - 125
		Spiked Blank	Soluble (Hot water) Boron (B)	2013/07/26		104	%	75 - 125
		Method Blank	Soluble (Hot water) Boron (B)	2013/07/26	<0.10		mg/kg	
		RPD	Soluble (Hot water) Boron (B)	2013/07/26	NC		%	35

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 spiked amount was not sufficiently significant to permit a reliable recovery calculation.
NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

Validation Signature Page

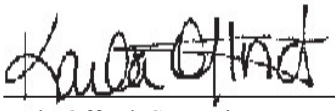
Maxxam Job #: B363840

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



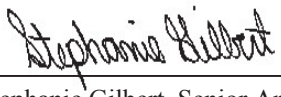
Carol Gebhart, Senior Analyst

Daniel Reslan, Volatiles Supervisor



Karla Offord, Supervisor, Extractable Hydrocarbons

Michael Chae, Ph.D, Scientific Specialist



Stephanie Gilbert, Senior Analyst

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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.

Maxxam

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Edmonton: 9331 - 48 Street, T6B 2R4. Ph: (780) 577-7100, Fax: (780) 450-4187, Toll free: (877) 465-8889
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07/1220(4)

Chain of Custody A134527

Page: 1 of 3

	Invoice To: C/O Report Address ☐	Report To: Same as Invoice ☒	Report Distribution (E-Mail):
Company:	IEG Consultants Ltd		nwills@klohn.com
Contact:	Nicole Wills		
Address:	2618 Hopewell Place NE		
	Prov: Calgary, AB PC: T1Y 7J7	Prov: PC:	
Contact #s:	Ph: 403.829.3048 Cell:	Ph: Cell:	

REGULATORY GUIDELINES:
- ☐ AT1
- ☐ CCME
- ☐ Regulated Drinking Water
- ☐ Other:

All samples are held for 60 calendar days after sample receipt, unless specified otherwise.

PO #:
Project # / Name: A04012A05
Site Location: Camp Farewell
Quote #:
Sampled By: Nicole Wills

SERVICE REQUESTED: ☐ RUSH (Contact lab to reserve) Date Required: ☐ REGULAR (5 to 7 Days)

See reverse for package specifics

	Sample ID	Depth (unit)	Matrix GW / SW Soil	Date/Time Sampled YY/MM/DD 24:00	SOIL: BTEX F1-F4	Sieve (75 micron)	Regulated Metals (CCME / AT1)	Salinity 4	Assessment ICP Metals	Basic Class II Landfill	WATER: ☐VOCs ☐BTEX F1	☐BTEX F1-F2 ☐BTEX F1-F4	☐ Routine Water ☐ Turb ☐ F	☐ TOC ☐ DOC	Regulated Metals (CCME / AT1) Total	Dissolved	Mercury ☐ Total ☐ Dissolved	Other Analysis: RUSH	HOLD - Do not Analyze	# of Containers Submitted
1	TP#1	0-0.6m	Soil	13/07/23 15:30	X		X	X												BJ/1B
2	TP#2	↓	↓	↓	X		X	X												BJ/1B
3	TP#3				X		X	X												BJ/1B
4	TP#4				X		X	X												BJ/1B
5	TP#5				X		X	X												BJ/1B
6	TP#17				X		X	X												BJ/1B
7	TP#18	↓	↓	↓	X		X	X												BJ/1B
8	DS13-001			07-20-13	X	yes	X	X		X								X		
9	EX-13-1AB	7m		07-21-13	X		X	X												
10	EX-13-1JB	6m		07-21-13	X		X	X												
11	EX-13-1KE	3.5m		07-21-13	X		X	X												
12	EX-13-1LE	4m	↓	07-21-13	X		X	X												RDS/MMM

Please indicate Filtered, Preserved or Both (F, P, F/P) → F/P

Relinquished By (Signature/Print): Nicole Wills	Date (YY/MM/DD): 13/07/23	Time (24:00): 20:00	
Relinquished By (Signature/Print):	Date (YY/MM/DD):	Time (24:00):	
Special Instructions: Please rush the analysis of DS13-001		# of Jars Used & Not Submitted	

LAB USE ONLY

Received By:	Date:	Time:	Maxxam Job #: B363840		
Amanda L'Hirondelle	20130725@	1023	Custody Seal	Temperature	Ice
Lab Comments:	14,14,13 > B 15,14,15	absent		7,6,7 8,5,6 > J present	

Maxxam

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Chain of Custody

A134528

Page: 2 of 3

	Invoice To: C/O Report Address ☐	Report To: Same as Invoice ☐
Company:	See page 1	
Contact:		
Address:		
	Prov: PC:	Prov: PC:
Contact #s:	Ph: Cell:	Ph: Cell:

Report Distribution (E-Mail): nwills@Klohn.com

REGULATORY GUIDELINES:
- ☐ AT1
- ☐ CCME
- ☐ Regulated Drinking Water
- ☐ Other:

All samples are held for 60 calendar days after sample receipt, unless specified otherwise.

PO #:
Project # / Name:
Site Location:
Quote #:
Sampled By:

SERVICE REQUESTED: ☐ **RUSH** (Contact lab to reserve) Date Required: ☐ REGULAR (5 to 7 Days)

See reverse for package specifics

#	Sample ID	Depth (unit)	Matrix GW / SW Soil	Date/Time Sampled YY/MM/DD 24:00	SOIL: BTEX F1-F4	Sieve (75 micron)	Regulated Metals (CCME / AT1)	Salinity 4	Assessment ICP Metals	Basic Class II Landfill	PAH	Barite		WATER: ☐BTEX F1 / ☐VOCs	☐BTEX F1-F2 / ☐BTEX F1-F4	☐ Routine Water ☐ Turb ☐ F	☐ TOC / ☐ DOC	Regulated Metals (CCME / AT1) Total	Dissolved	Mercury ☐ Total ☐ Dissolved	Other Analysis	HOLD - Do not Analyze	# of Containers Submitted
1	EX-13-1EB	7m	Soil	07-21-13	X		X	X															
2	EX-13-1DB	7m		07-21-13	X		X	X															
3	EX-13-AW (3m)	3m		07-22-13	X		X	X			X	X											
4	EX-13-AW (7m)	7m		07-22-13	X		X	X															
5	EX-13-BW (1m)	1m		07-22-13	X		X	X															
6	EX-13-BW (6m)	6m		07-22-13	X		X	X															
7	EX-13-CW (5m)	5m			X		X	X															
8	EX-13-DW (6m)	6m			X		X	X															
9	EX-13-DN (0-1m)	0-1			X		X	X															
10	EX-13-DN (7m)	7m			X		X	X															
11	EX-13-EN (3m)	3m			X		X	X													RDS/mmm		
12	EX-13-EN (7m)	7m			X		X	X															

Please indicate Filtered, Preserved or Both (F, P, F/P) → F/P

Relinquished By (Signature/Print):	Date (YY/MM/DD):	Time (24:00):
Nicole Wills / Nicole Wills	13/07/23	20:00
Relinquished By (Signature/Print):	Date (YY/MM/DD):	Time (24:00):

Special Instructions:

# of Jars Used & Not Submitted

LAB USE ONLY

Received By:	Date:	Time:	Maxxam Job #: B363840
Amanda Lhirondelle	20130725@	1023	

Lab Comments: 14,14,13 / 15,14,15 > 6

Custody Seal	Temperature	Ice
absent	7,6,7 / 8,5,6	present

AB FCD-00331 Rev3 2010/05

Maxxam Analytics International Corporation o/a Maxxam Analytics

Maxxam

Calgary: 4000 19st St. NE, T2E 6P8. Ph: (403) 291-3077, Fax: (403) 735-2240, Toll free: (800) 386-7247
Edmonton: 9331 - 48 Street, T6B 2R4. Ph: (780) 577-7100, Fax: (780) 450-4187, Toll free: (877) 465-8889
www.maxxamanalytics.com

Chain of Custody A134516

Page: 3 of 3

Company:	Invoice To: Same as page 1	C/O Report Address ☐	Report To:	Same as Invoice ☒	Report Distribution (E-Mail): nwills@klohn.com
Contact:					
Address:	Prov:	PC:	Prov:	PC:	
Contact #s:	Ph:	Cell:	Ph:	Cell:	

REGULATORY GUIDELINES:
- ☐ AT1
- ☐ CCME
- ☐ Regulated Drinking Water
- ☐ Other:

All samples are held for 60 calendar days after sample receipt, unless specified otherwise.

PO #:
Project # / Name:
Site Location:
Quote #:
Sampled By:

SERVICE REQUESTED: ☐ RUSH (Contact lab to reserve) Date Required: ☐ REGULAR (5 to 7 Days)

See reverse for package specifics

	Sample ID	Depth (unit)	Matrix GW / SW Soil	Date/Time Sampled YY/MM/DD 24:00	SOIL: BTEX F1-F4	Sieve (75 micron)	Regulated Metals (CCME / AT1)	Salinity 4	Assessment ICP Metals	Basic Class II Landfill			WATER: ☐BTEX F1 ☐VOCs	☐BTEX F1-F2 ☐BTEX F1-F4	☐ Routine Water ☐ Turb ☐ F	☐ TOC ☐ DOC	Regulated Metals (CCME / AT1) Total	Dissolved	Mercury ☐ Total ☐ Dissolved	Other Analysis											HOLD - Do not Analyze	# of Containers Submitted
* 1	EX-13-LN (0-1m)	0-1m	Soil	07-22-13	X		X	X																								
2	~~EX-13-LN (3m)~~	~~1.5m~~	~~Soil~~	~~2~~	~~X~~		~~X~~	~~X~~																								
* 3	EX-13-LN (6m)	6m	Soil	07-22-13	X		X	X																								
4																																
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

ROB/[illegible]

Please indicate Filtered, Preserved or Both (F, P, F/P) → F/P

Relinquished By (Signature/Print): Nicole Wills / [signature]	Date (YY/MM/DD): 13/07/23	Time (24:00): 20:00
Relinquished By (Signature/Print):	Date (YY/MM/DD):	Time (24:00):
Special Instructions:		# of Jars Used & Not Submitted

LAB USE ONLY

Received By: Amanda Lahirondelle	Date: [signature] 20130725 @	Time: 1023	Maxxam Job #: B363840
Lab Comments: 14,14,13 / 15,14,15 > B		Custody Seal: absent	Temperature: 7,6,7 / 8,5,6 > yj; Ice: present

Maxxam

Success Through Science®

Your Project #: A04012A05
Site Location: CAMP FAREWELL
Your C.O.C. #: A134527, A134528, A134516

Attention: NICOLE WILLS

KLOHN CRIPPEN BERGER LTD
500-2618
HOPEWELL PLACE NE
CALGARY, AB
CANADA T1Y 7J7

Report Date: 2013/08/13
This report supersedes all previous reports with the same Maxxam job number

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B363840
Received: 2013/07/25, 10:23

Sample Matrix: Soil
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Boron (Hot Water Soluble)	1	2013/07/26	2013/07/26	AB SOP-00042	EPA 200.7
BTEX/F1 by HS GC/MS (MeOH extract)	1	2013/07/25	2013/07/26	AB SOP-00039	CCME, EPA 8260
BTEX in Leachates by HS GC/MS	1	2013/07/25	2013/07/26	AB SOP-00039	EPA 1311/8260C
Cation/EC Ratio	1	N/A	2013/07/26		CALCULATION
Chloride (Soluble)	1	2013/07/26	2013/07/26	AB SOP-00020	SSMA 4500 CL-E
Hexavalent Chromium	1	2013/07/25	2013/07/26	EENVSOP-00131	SM 3500-Cr B
Conductivity @25C (Soluble)	1	2013/07/26	2013/07/26	AB SOP-00004	SSMA 15.3
CCME Hydrocarbons (F2-F4 in soil)	1	2013/07/25	2013/07/25	AB SOP-00040 AB SOP-00036	CCME PHC-CWS
Flash Point	1	N/A	2013/07/26	AB SOP-00062	ASTM D3828-12 A
ICPMS Metals on TCLP Leachate	1	2013/07/25	2013/07/26	AB SOP-00043	EPA 200.8
Elements by ICPMS - Soils	1	2013/07/26	2013/07/26	AB SOP-00043	EPA 200.8
Ion Balance	1	N/A	2013/07/26	AB WI-00065	SM 1030E
Sum of Cations, Anions	1	N/A	2013/07/26	AB WI-00065	SM 1030E
Moisture	1	N/A	2013/07/26	AB SOP-00002	CCME PHC-CWS
Free Liquid (Paint filter)	1	N/A	2013/07/26	AB SOP-00047	EPA SW846/9095B
pH @25C (1:2 Calcium Chloride Extract)	1	2013/07/26	2013/07/26	AB SOP-00006	SSMA 16.3
pH @25C (1:1 extract, solid waste)	1	2013/07/26	2013/07/26	AB SOP-00006	SSMA 16.2
Sodium Adsorption Ratio	1	N/A	2013/07/26	AB WI-00065	SSMA 15.4.4
Ca,Mg,Na,K,SO4 (Soluble)	1	2013/07/26	2013/07/26	AB SOP-00042	EPA 200.7
Soluble Paste	1	2013/07/26	2013/07/26	AB SOP-00033	SSMA 15.2
Soluble Ions Calculation	1	N/A	2013/07/26		CALCULATION
Theoretical Gypsum Requirement (1)	1	N/A	2013/07/26	CAL WI-00087	CJSS 79:449-455

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

(1) Units for TGR have changed from tons/acre to tonnes/ha

Your Project #: A04012A05
Site Location: CAMP FAREWELL
Your C.O.C. #: A134527, A134528, A134516

Attention: NICOLE WILLS

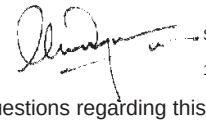
KLOHN CRIPPEN BERGER LTD
500-2618
HOPEWELL PLACE NE
CALGARY, AB
CANADA T1Y 7J7

Report Date: 2013/08/13

This report supersedes all previous reports with the same Maxxam job number

CERTIFICATE OF ANALYSIS

Encryption Key



Sherlyne Sim
13 Aug 2013 10:59:29 -06:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Tanya Eugine, M.Sc., Project Manager
Email: TEugine@maxxam.ca
Phone# (780) 577-7144

==========

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.

Total cover pages: 2

Maxxam Job #: B363840
Report Date: 2013/08/13

KLOHN CRIPPEN BERGER LTD
Client Project #: A04012A05
Site Location: CAMP FAREWELL
Sampler Initials: NW

AT1 BTEX AND F1-F4 IN SOIL (SOIL)

Maxxam ID		GZ9443		
Sampling Date		2013/07/20		
COC Number		A134527		
	UNITS	**DS13-001**	**RDL**	**QC Batch**
Physical Properties				
Moisture	%	22	0.30	7024996
Ext. Pet. Hydrocarbon				
F2 (C10-C16 Hydrocarbons)	mg/kg	860	10	7022792
F3 (C16-C34 Hydrocarbons)	mg/kg	790	50	7022792
F4 (C34-C50 Hydrocarbons)	mg/kg	200	50	7022792
Reached Baseline at C50	mg/kg	Yes	N/A	7022792
Volatiles				
Benzene	mg/kg	0.059	0.0050	7024383
Toluene	mg/kg	0.83	0.020	7024383
Ethylbenzene	mg/kg	0.38	0.010	7024383
Xylenes (Total)	mg/kg	4.5	0.040	7024383
m & p-Xylene	mg/kg	2.9	0.040	7024383
o-Xylene	mg/kg	1.7	0.020	7024383
F1 (C6-C10) - BTEX	mg/kg	100	12	7024383
(C6-C10)	mg/kg	110	12	7024383
Surrogate Recovery (%)				
1,4-Difluorobenzene (sur.)	%	114	N/A	7024383
4-BROMOFLUOROBENZENE (sur.)	%	78	N/A	7024383
D10-ETHYLBENZENE (sur.)	%	124	N/A	7024383
D4-1,2-DICHLOROETHANE (sur.)	%	110	N/A	7024383
O-TERPHENYL (sur.)	%	111	N/A	7022792

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Job #: B363840
Report Date: 2013/08/13

KLOHN CRIPPEN BERGER LTD
Client Project #: A04012A05
Site Location: CAMP FAREWELL
Sampler Initials: NW

SOIL SALINITY 4 (SOIL)

Maxxam ID		GZ9443		
Sampling Date		2013/07/20		
COC Number		A134527		
	UNITS	**DS13-001**	**RDL**	**QC Batch**
Calculated Parameters				
Anion Sum	meq/L	12	N/A	7022359
Cation Sum	meq/L	12	N/A	7022359
Cation/EC Ratio	N/A	9.3	0.10	7021708
Ion Balance	N/A	1.0	0.010	7022358
Calculated Calcium (Ca)	mg/kg	28	0.55	7022361
Calculated Magnesium (Mg)	mg/kg	7.4	0.37	7022361
Calculated Sodium (Na)	mg/kg	50	0.92	7022361
Calculated Potassium (K)	mg/kg	5.8	0.48	7022361
Calculated Chloride (Cl)	mg/kg	72	1.8	7022361
Calculated Sulphate (SO4)	mg/kg	110	1.8	7022361
Soluble Parameters				
Soluble Chloride (Cl)	mg/L	200	5.0	7026083
Soluble Conductivity	dS/m	1.3	0.020	7024503
Soluble (CaCl2) pH	N/A	7.16	N/A	7024030
Sodium Adsorption Ratio	N/A	3.6	0.10	7021713
Soluble Calcium (Ca)	mg/L	76	1.5	7026327
Soluble Magnesium (Mg)	mg/L	20	1.0	7026327
Soluble Sodium (Na)	mg/L	130	2.5	7026327
Soluble Potassium (K)	mg/L	16	1.3	7026327
Saturation %	%	37	N/A	7024196
Soluble Sulphate (SO4)	mg/L	290	5.0	7026327
Theoretical Gypsum Requirement	tonnes/ha	<0.10	0.10	7021714

RDL = Reportable Detection Limit

Maxxam Job #: B363840
Report Date: 2013/08/13

KLOHN CRIPPEN BERGER LTD
Client Project #: A04012A05
Site Location: CAMP FAREWELL
Sampler Initials: NW

BASIC CLASS II LANDFILL PACKAGE (SOIL)

Maxxam ID		GZ9443		
Sampling Date		2013/07/20		
COC Number		A134527		
	UNITS	**DS13-001**	**RDL**	**QC Batch**
Soluble Parameters				
Soluble (1:1) pH	N/A	7.44	N/A	7024529
Physical Properties				
Closed Cup Flash point	deg. C	>61	N/A	7026825
Free Liquid	N/A	PASS	N/A	7026879
Elements				
Leachable Antimony (Sb)	mg/L	<1.0	1.0	7023787
Leachable Arsenic (As)	mg/L	<0.50	0.50	7023787
Leachable Barium (Ba)	mg/L	2.2	1.0	7023787
Leachable Beryllium (Be)	mg/L	<0.50	0.50	7023787
Leachable Boron (B)	mg/L	<1.0	1.0	7023787
Leachable Cadmium (Cd)	mg/L	<0.10	0.10	7023787
Leachable Chromium (Cr)	mg/L	<0.50	0.50	7023787
Leachable Cobalt (Co)	mg/L	<1.0	1.0	7023787
Leachable Copper (Cu)	mg/L	<1.0	1.0	7023787
Leachable Iron (Fe)	mg/L	11	1.0	7023787
Leachable Lead (Pb)	mg/L	<0.50	0.50	7023787
Leachable Mercury (Hg)	mg/L	<0.020	0.020	7023787
Leachable Nickel (Ni)	mg/L	<0.50	0.50	7023787
Leachable Selenium (Se)	mg/L	<0.10	0.10	7023787
Leachable Silver (Ag)	mg/L	<0.50	0.50	7023787
Leachable Thallium (Tl)	mg/L	<0.50	0.50	7023787
Leachable Uranium (U)	mg/L	<0.20	0.20	7023787
Leachable Vanadium (V)	mg/L	<1.0	1.0	7023787
Leachable Zinc (Zn)	mg/L	<1.0	1.0	7023787
Leachable Zirconium (Zr)	mg/L	<1.0	1.0	7023787
Volatiles				
Leachable (ZH) Benzene	mg/L	<0.010	0.010	7024500
Leachable (ZH) Toluene	mg/L	0.018	0.010	7024500
Leachable (ZH) Ethylbenzene	mg/L	<0.010	0.010	7024500
Leachable (ZH) o-Xylene	mg/L	0.053	0.010	7024500
Leachable (ZH) m & p-Xylene	mg/L	0.080	0.020	7024500
Leachable (ZH) Xylenes (Total)	mg/L	0.13	0.020	7024500
Surrogate Recovery (%)				
Leachable (ZH) 1,4-Difluorobenzene (sur.)	%	91	N/A	7024500

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Job #: B363840
Report Date: 2013/08/13

KLOHN CRIPPEN BERGER LTD
Client Project #: A04012A05
Site Location: CAMP FAREWELL
Sampler Initials: NW

BASIC CLASS II LANDFILL PACKAGE (SOIL)

Maxxam ID		GZ9443		
Sampling Date		2013/07/20		
COC Number		A134527		
	UNITS	**DS13-001**	**RDL**	**QC Batch**
Leachable (ZH) 4-BROMOFLUOROBENZENE (sur.)	%	98	N/A	7024500
Leachable (ZH) D4-1,2-DICHLOROETHANE (sur.)	%	87	N/A	7024500

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Job #: B363840
Report Date: 2013/08/13

KLOHN CRIPPEN BERGER LTD
Client Project #: A04012A05
Site Location: CAMP FAREWELL
Sampler Initials: NW

REGULATED METALS (CCME/AT1) - SOILS

Maxxam ID		GZ9443		
Sampling Date		2013/07/20		
COC Number		A134527		
	UNITS	**DS13-001**	**RDL**	**QC Batch**
Elements				
Soluble (Hot water) Boron (B)	mg/kg	0.72	0.10	7026671
Hex. Chromium (Cr 6+)	mg/kg	<0.15	0.15	7024524
Total Antimony (Sb)	mg/kg	1.2	1.0	7026100
Total Arsenic (As)	mg/kg	5.5	1.0	7026100
Total Barium (Ba)	mg/kg	420	10	7026100
Total Beryllium (Be)	mg/kg	<0.40	0.40	7026100
Total Cadmium (Cd)	mg/kg	0.18	0.10	7026100
Total Chromium (Cr)	mg/kg	11	1.0	7026100
Total Cobalt (Co)	mg/kg	3.8	1.0	7026100
Total Copper (Cu)	mg/kg	11	5.0	7026100
Total Lead (Pb)	mg/kg	16	1.0	7026100
Total Mercury (Hg)	mg/kg	<0.050	0.050	7026100
Total Molybdenum (Mo)	mg/kg	0.67	0.40	7026100
Total Nickel (Ni)	mg/kg	12	1.0	7026100
Total Selenium (Se)	mg/kg	<0.50	0.50	7026100
Total Silver (Ag)	mg/kg	<1.0	1.0	7026100
Total Thallium (Tl)	mg/kg	<0.30	0.30	7026100
Total Tin (Sn)	mg/kg	1.3	1.0	7026100
Total Uranium (U)	mg/kg	<1.0	1.0	7026100
Total Vanadium (V)	mg/kg	11	1.0	7026100
Total Zinc (Zn)	mg/kg	46	10	7026100

RDL = Reportable Detection Limit

Maxxam Job #: B363840
Report Date: 2013/08/13

KLOHN CRIPPEN BERGER LTD
Client Project #: A04012A05
Site Location: CAMP FAREWELL
Sampler Initials: NW

Package 1	6.7°C
Package 2	6.3°C

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

General Comments

Results relate only to the items tested.

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: A04012A05
P.O. #:
Site Location: CAMP FAREWELL

Quality Assurance Report

Maxxam Job Number: EB363840

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7022792	JR1	Matrix Spike						
		[GZ9455-01]	O-TERPHENYL (sur.)	2013/07/25		87	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/07/25		87	%	50 - 130
			F3 (C16-C34 Hydrocarbons)	2013/07/25		89	%	50 - 130
			F4 (C34-C50 Hydrocarbons)	2013/07/25		88	%	50 - 130
		Spiked Blank	O-TERPHENYL (sur.)	2013/07/25		92	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/07/25		103	%	70 - 130
			F3 (C16-C34 Hydrocarbons)	2013/07/25		105	%	70 - 130
			F4 (C34-C50 Hydrocarbons)	2013/07/25		103	%	70 - 130
		Method Blank	O-TERPHENYL (sur.)	2013/07/25		94	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/07/25	<10		mg/kg	
			F3 (C16-C34 Hydrocarbons)	2013/07/25	<50		mg/kg	
			F4 (C34-C50 Hydrocarbons)	2013/07/25	<50		mg/kg	
7023787	WAU	Matrix Spike	Leachable Antimony (Sb)	2013/07/26		97	%	75 - 125
			Leachable Arsenic (As)	2013/07/26		103	%	75 - 125
			Leachable Barium (Ba)	2013/07/26		NC	%	75 - 125
			Leachable Beryllium (Be)	2013/07/26		101	%	75 - 125
			Leachable Boron (B)	2013/07/26		105	%	75 - 125
			Leachable Cadmium (Cd)	2013/07/26		104	%	75 - 125
			Leachable Chromium (Cr)	2013/07/26		102	%	75 - 125
			Leachable Cobalt (Co)	2013/07/26		99	%	75 - 125
			Leachable Copper (Cu)	2013/07/26		96	%	75 - 125
			Leachable Iron (Fe)	2013/07/26		NC	%	75 - 125
			Leachable Lead (Pb)	2013/07/26		93	%	75 - 125
			Leachable Mercury (Hg)	2013/07/26		97	%	75 - 125
			Leachable Nickel (Ni)	2013/07/26		100	%	75 - 125
			Leachable Selenium (Se)	2013/07/26		111	%	75 - 125
			Leachable Silver (Ag)	2013/07/26		101	%	75 - 125
			Leachable Thallium (Tl)	2013/07/26		106	%	75 - 125
			Leachable Uranium (U)	2013/07/26		91	%	75 - 125
			Leachable Vanadium (V)	2013/07/26		109	%	75 - 125
			Leachable Zinc (Zn)	2013/07/26		97	%	75 - 125
			Leachable Zirconium (Zr)	2013/07/26		116	%	75 - 125
		Spiked Blank	Leachable Antimony (Sb)	2013/07/26		86	%	80 - 120
			Leachable Arsenic (As)	2013/07/26		97	%	80 - 120
			Leachable Barium (Ba)	2013/07/26		101	%	80 - 120
			Leachable Beryllium (Be)	2013/07/26		99	%	80 - 120
			Leachable Boron (B)	2013/07/26		101	%	80 - 120
			Leachable Cadmium (Cd)	2013/07/26		99	%	80 - 120
			Leachable Chromium (Cr)	2013/07/26		99	%	80 - 120
			Leachable Cobalt (Co)	2013/07/26		97	%	80 - 120
			Leachable Copper (Cu)	2013/07/26		98	%	80 - 120
			Leachable Iron (Fe)	2013/07/26		105	%	80 - 120
			Leachable Lead (Pb)	2013/07/26		95	%	80 - 120
			Leachable Mercury (Hg)	2013/07/26		95	%	80 - 120
			Leachable Nickel (Ni)	2013/07/26		98	%	80 - 120
			Leachable Selenium (Se)	2013/07/26		104	%	80 - 120
			Leachable Silver (Ag)	2013/07/26		98	%	80 - 120
			Leachable Thallium (Tl)	2013/07/26		108	%	80 - 120
			Leachable Uranium (U)	2013/07/26		88	%	80 - 120
			Leachable Vanadium (V)	2013/07/26		101	%	80 - 120
			Leachable Zinc (Zn)	2013/07/26		99	%	80 - 120
			Leachable Zirconium (Zr)	2013/07/26		103	%	80 - 120
		Method Blank	Leachable Antimony (Sb)	2013/07/26	<1.0		mg/L	
			Leachable Arsenic (As)	2013/07/26	<0.50		mg/L	

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
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Quality Assurance Report (Continued)

Maxxam Job Number: EB363840

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7023787	WAU	Method Blank	Leachable Barium (Ba)	2013/07/26	<1.0		mg/L	
			Leachable Beryllium (Be)	2013/07/26	<0.50		mg/L	
			Leachable Boron (B)	2013/07/26	<1.0		mg/L	
			Leachable Cadmium (Cd)	2013/07/26	<0.10		mg/L	
			Leachable Chromium (Cr)	2013/07/26	<0.50		mg/L	
			Leachable Cobalt (Co)	2013/07/26	<1.0		mg/L	
			Leachable Copper (Cu)	2013/07/26	<1.0		mg/L	
			Leachable Iron (Fe)	2013/07/26	<1.0		mg/L	
			Leachable Lead (Pb)	2013/07/26	<0.50		mg/L	
			Leachable Mercury (Hg)	2013/07/26	<0.020		mg/L	
			Leachable Nickel (Ni)	2013/07/26	<0.50		mg/L	
			Leachable Selenium (Se)	2013/07/26	<0.10		mg/L	
			Leachable Silver (Ag)	2013/07/26	<0.50		mg/L	
			Leachable Thallium (Tl)	2013/07/26	<0.50		mg/L	
			Leachable Uranium (U)	2013/07/26	<0.20		mg/L	
			Leachable Vanadium (V)	2013/07/26	<1.0		mg/L	
			Leachable Zinc (Zn)	2013/07/26	<1.0		mg/L	
			Leachable Zirconium (Zr)	2013/07/26	<1.0		mg/L	
		RPD	Leachable Antimony (Sb)	2013/07/26	NC		%	35
			Leachable Arsenic (As)	2013/07/26	NC		%	35
			Leachable Barium (Ba)	2013/07/26	NC		%	35
			Leachable Beryllium (Be)	2013/07/26	NC		%	35
			Leachable Boron (B)	2013/07/26	NC		%	35
			Leachable Cadmium (Cd)	2013/07/26	NC		%	35
			Leachable Chromium (Cr)	2013/07/26	NC		%	35
			Leachable Cobalt (Co)	2013/07/26	NC		%	35
			Leachable Copper (Cu)	2013/07/26	NC		%	35
			Leachable Iron (Fe)	2013/07/26	NC		%	35
			Leachable Lead (Pb)	2013/07/26	NC		%	35
			Leachable Mercury (Hg)	2013/07/26	NC		%	35
			Leachable Nickel (Ni)	2013/07/26	NC		%	35
			Leachable Selenium (Se)	2013/07/26	NC		%	35
			Leachable Silver (Ag)	2013/07/26	NC		%	35
			Leachable Thallium (Tl)	2013/07/26	NC		%	35
			Leachable Uranium (U)	2013/07/26	NC		%	35
			Leachable Vanadium (V)	2013/07/26	NC		%	35
			Leachable Zinc (Zn)	2013/07/26	NC		%	35
			Leachable Zirconium (Zr)	2013/07/26	NC		%	35
7024030	SSF	QC Standard	Soluble (CaCl2) pH	2013/07/26		100	%	97 - 103
		Spiked Blank	Soluble (CaCl2) pH	2013/07/26		100	%	97 - 103
7024196	LX	QC Standard	Saturation %	2013/07/26		99	%	93 - 107
7024383	CG7	Matrix Spike						
		[GZ9453-01]	1,4-Difluorobenzene (sur.)	2013/07/26		107	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/07/26		95	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/07/26		110	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/07/26		89	%	60 - 140
			Benzene	2013/07/26		103	%	60 - 140
			Toluene	2013/07/26		98	%	60 - 140
			Ethylbenzene	2013/07/26		94	%	60 - 140
			m & p-Xylene	2013/07/26		97	%	60 - 140
			o-Xylene	2013/07/26		95	%	60 - 140
			(C6-C10)	2013/07/26		91	%	60 - 140
		Spiked Blank	1,4-Difluorobenzene (sur.)	2013/07/26		104	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/07/26		100	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/07/26		129	%	60 - 130

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Maxxam Job Number: EB363840

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7024383	CG7	Spiked Blank	D4-1,2-DICHLOROETHANE (sur.)	2013/07/26		101	%	60 - 140
			Benzene	2013/07/26		102	%	60 - 140
			Toluene	2013/07/26		97	%	60 - 140
			Ethylbenzene	2013/07/26		96	%	60 - 140
			m & p-Xylene	2013/07/26		95	%	60 - 140
			o-Xylene	2013/07/26		94	%	60 - 140
			(C6-C10)	2013/07/26		92	%	60 - 140
		Method Blank	1,4-Difluorobenzene (sur.)	2013/07/26		100	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/07/26		101	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/07/26		122	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/07/26		105	%	60 - 140
			Benzene	2013/07/26	<0.0050		mg/kg	
			Toluene	2013/07/26	<0.020		mg/kg	
			Ethylbenzene	2013/07/26	<0.010		mg/kg	
			Xylenes (Total)	2013/07/26	<0.040		mg/kg	
			m & p-Xylene	2013/07/26	<0.040		mg/kg	
			o-Xylene	2013/07/26	<0.020		mg/kg	
			F1 (C6-C10) - BTEX	2013/07/26	<12		mg/kg	
			(C6-C10)	2013/07/26	<12		mg/kg	
7024500	NSE	Matrix Spike	Leachable (ZH) 1,4-Difluorobenzene (sur.)	2013/07/26		95	%	70 - 130
			Leachable (ZH) 4-BROMOFLUOROBENZEN	2013/07/26		99	%	70 - 130
			Leachable (ZH) D4-1,2-DICHLOROETHANE	2013/07/26		102	%	70 - 130
			Leachable (ZH) Benzene	2013/07/26		84	%	70 - 130
			Leachable (ZH) Toluene	2013/07/26		83	%	70 - 130
			Leachable (ZH) Ethylbenzene	2013/07/26		81	%	70 - 130
			Leachable (ZH) o-Xylene	2013/07/26		93	%	70 - 130
			Leachable (ZH) m & p-Xylene	2013/07/26		91	%	70 - 130
		Spiked Blank	Leachable (ZH) 1,4-Difluorobenzene (sur.)	2013/07/26		90	%	70 - 130
			Leachable (ZH) 4-BROMOFLUOROBENZEN	2013/07/26		100	%	70 - 130
			Leachable (ZH) D4-1,2-DICHLOROETHANE	2013/07/26		95	%	70 - 130
			Leachable (ZH) Benzene	2013/07/26		77	%	70 - 130
			Leachable (ZH) Toluene	2013/07/26		82	%	70 - 130
			Leachable (ZH) Ethylbenzene	2013/07/26		83	%	70 - 130
			Leachable (ZH) o-Xylene	2013/07/26		91	%	70 - 130
			Leachable (ZH) m & p-Xylene	2013/07/26		87	%	70 - 130
		Method Blank	Leachable (ZH) 1,4-Difluorobenzene (sur.)	2013/07/26		99	%	70 - 130
			Leachable (ZH) 4-BROMOFLUOROBENZEN	2013/07/26		101	%	70 - 130
			Leachable (ZH) D4-1,2-DICHLOROETHANE	2013/07/26		98	%	70 - 130
			Leachable (ZH) Benzene	2013/07/26	<0.010		mg/L	
			Leachable (ZH) Toluene	2013/07/26	<0.010		mg/L	
			Leachable (ZH) Ethylbenzene	2013/07/26	<0.010		mg/L	
			Leachable (ZH) o-Xylene	2013/07/26	<0.010		mg/L	
			Leachable (ZH) m & p-Xylene	2013/07/26	<0.020		mg/L	
			Leachable (ZH) Xylenes (Total)	2013/07/26	<0.020		mg/L	
		RPD	Leachable (ZH) Benzene	2013/07/26	NC		%	50
			Leachable (ZH) Toluene	2013/07/26	NC		%	50
			Leachable (ZH) Ethylbenzene	2013/07/26	NC		%	50
			Leachable (ZH) o-Xylene	2013/07/26	NC		%	50
			Leachable (ZH) m & p-Xylene	2013/07/26	NC		%	50
			Leachable (ZH) Xylenes (Total)	2013/07/26	NC		%	50
7024503	SSF	QC Standard	Soluble Conductivity	2013/07/26		92	%	75 - 125
		Spiked Blank	Soluble Conductivity	2013/07/26		99	%	90 - 110
		Method Blank	Soluble Conductivity	2013/07/26	<0.020		dS/m	
7024524	KD5	Matrix Spike	Hex. Chromium (Cr 6+)	2013/07/26		86	%	75 - 125
		Spiked Blank	Hex. Chromium (Cr 6+)	2013/07/26		99	%	90 - 110

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Maxxam Job Number: EB363840

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7024524	KD5	Method Blank	Hex. Chromium (Cr 6+)	2013/07/26	<0.15		mg/kg	
		RPD	Hex. Chromium (Cr 6+)	2013/07/26	NC		%	35
7024529	SSF	QC Standard	Soluble (1:1) pH	2013/07/26		100	%	97 - 103
		Spiked Blank	Soluble (1:1) pH	2013/07/26		100	%	99 - 101
		RPD	Soluble (1:1) pH	2013/07/26	2.2		%	5
7024996	ABH	Method Blank	Moisture	2013/07/26	<0.30		%	
7026083	KD5	Matrix Spike						
		[GZ9455-01]	Soluble Chloride (Cl)	2013/07/26		103	%	75 - 125
		QC Standard	Soluble Chloride (Cl)	2013/07/26		91	%	75 - 125
		Spiked Blank	Soluble Chloride (Cl)	2013/07/26		100	%	75 - 125
		Method Blank	Soluble Chloride (Cl)	2013/07/26	<5.0		mg/L	
7026100	WAU	Matrix Spike	Total Antimony (Sb)	2013/07/26		91	%	75 - 125
			Total Arsenic (As)	2013/07/26		95	%	75 - 125
			Total Barium (Ba)	2013/07/26		NC	%	75 - 125
			Total Beryllium (Be)	2013/07/26		103	%	75 - 125
			Total Cadmium (Cd)	2013/07/26		97	%	75 - 125
			Total Chromium (Cr)	2013/07/26		94	%	75 - 125
			Total Cobalt (Co)	2013/07/26		98	%	75 - 125
			Total Copper (Cu)	2013/07/26		93	%	75 - 125
			Total Lead (Pb)	2013/07/26		97	%	75 - 125
			Total Mercury (Hg)	2013/07/26		97	%	75 - 125
			Total Molybdenum (Mo)	2013/07/26		98	%	75 - 125
			Total Nickel (Ni)	2013/07/26		93	%	75 - 125
			Total Selenium (Se)	2013/07/26		100	%	75 - 125
			Total Silver (Ag)	2013/07/26		101	%	75 - 125
			Total Thallium (Tl)	2013/07/26		95	%	75 - 125
			Total Tin (Sn)	2013/07/26		103	%	75 - 125
			Total Uranium (U)	2013/07/26		100	%	75 - 125
			Total Vanadium (V)	2013/07/26		100	%	75 - 125
			Total Zinc (Zn)	2013/07/26		NC	%	75 - 125
		QC Standard	Total Arsenic (As)	2013/07/26		131	%	50 - 150
			Total Barium (Ba)	2013/07/26		116	%	69 - 131
			Total Chromium (Cr)	2013/07/26		108	%	41 - 159
			Total Cobalt (Co)	2013/07/26		114	%	75 - 125
			Total Copper (Cu)	2013/07/26		116	%	73 - 127
			Total Lead (Pb)	2013/07/26		110	%	54 - 146
			Total Nickel (Ni)	2013/07/26		122	%	61 - 139
			Total Vanadium (V)	2013/07/26		126	%	50 - 150
			Total Zinc (Zn)	2013/07/26		124	%	72 - 128
		Spiked Blank	Total Antimony (Sb)	2013/07/26		91	%	75 - 125
			Total Arsenic (As)	2013/07/26		94	%	75 - 125
			Total Barium (Ba)	2013/07/26		93	%	75 - 125
			Total Beryllium (Be)	2013/07/26		96	%	75 - 125
			Total Cadmium (Cd)	2013/07/26		93	%	75 - 125
			Total Chromium (Cr)	2013/07/26		92	%	75 - 125
			Total Cobalt (Co)	2013/07/26		93	%	75 - 125
			Total Copper (Cu)	2013/07/26		94	%	75 - 125
			Total Lead (Pb)	2013/07/26		96	%	75 - 125
			Total Mercury (Hg)	2013/07/26		94	%	75 - 125
			Total Molybdenum (Mo)	2013/07/26		93	%	75 - 125
			Total Nickel (Ni)	2013/07/26		94	%	75 - 125
			Total Selenium (Se)	2013/07/26		95	%	75 - 125
			Total Silver (Ag)	2013/07/26		96	%	75 - 125
			Total Thallium (Tl)	2013/07/26		94	%	75 - 125
			Total Tin (Sn)	2013/07/26		95	%	75 - 125

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
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Quality Assurance Report (Continued)

Maxxam Job Number: EB363840

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7026100	WAU	Spiked Blank	Total Uranium (U)	2013/07/26		98	%	75 - 125
			Total Vanadium (V)	2013/07/26		94	%	75 - 125
			Total Zinc (Zn)	2013/07/26		94	%	75 - 125
		Method Blank	Total Antimony (Sb)	2013/07/26	<1.0		mg/kg	
			Total Arsenic (As)	2013/07/26	<1.0		mg/kg	
			Total Barium (Ba)	2013/07/26	<10		mg/kg	
			Total Beryllium (Be)	2013/07/26	<0.40		mg/kg	
			Total Cadmium (Cd)	2013/07/26	<0.10		mg/kg	
			Total Chromium (Cr)	2013/07/26	<1.0		mg/kg	
			Total Cobalt (Co)	2013/07/26	<1.0		mg/kg	
			Total Copper (Cu)	2013/07/26	<5.0		mg/kg	
			Total Lead (Pb)	2013/07/26	<1.0		mg/kg	
			Total Mercury (Hg)	2013/07/26	<0.050		mg/kg	
			Total Molybdenum (Mo)	2013/07/26	<0.40		mg/kg	
			Total Nickel (Ni)	2013/07/26	<1.0		mg/kg	
			Total Selenium (Se)	2013/07/26	<0.50		mg/kg	
			Total Silver (Ag)	2013/07/26	<1.0		mg/kg	
			Total Thallium (Tl)	2013/07/26	<0.30		mg/kg	
			Total Tin (Sn)	2013/07/26	<1.0		mg/kg	
			Total Uranium (U)	2013/07/26	<1.0		mg/kg	
			Total Vanadium (V)	2013/07/26	<1.0		mg/kg	
			Total Zinc (Zn)	2013/07/26	<10		mg/kg	
		RPD	Total Antimony (Sb)	2013/07/26	NC		%	35
			Total Arsenic (As)	2013/07/26	NC		%	35
			Total Barium (Ba)	2013/07/26	4.4		%	35
			Total Beryllium (Be)	2013/07/26	NC		%	35
			Total Cadmium (Cd)	2013/07/26	NC		%	35
			Total Chromium (Cr)	2013/07/26	15.6		%	35
			Total Cobalt (Co)	2013/07/26	1.8		%	35
			Total Copper (Cu)	2013/07/26	NC		%	35
			Total Lead (Pb)	2013/07/26	3.2		%	35
			Total Mercury (Hg)	2013/07/26	NC		%	35
			Total Molybdenum (Mo)	2013/07/26	NC		%	35
			Total Nickel (Ni)	2013/07/26	8.6		%	35
			Total Selenium (Se)	2013/07/26	NC		%	35
			Total Silver (Ag)	2013/07/26	NC		%	35
			Total Thallium (Tl)	2013/07/26	NC		%	35
			Total Tin (Sn)	2013/07/26	NC		%	35
			Total Uranium (U)	2013/07/26	NC		%	35
			Total Vanadium (V)	2013/07/26	2.7		%	35
			Total Zinc (Zn)	2013/07/26	NC		%	35
7026327	JSM	Matrix Spike [GZ9455-01]	Soluble Calcium (Ca)	2013/07/26		101	%	75 - 125
			Soluble Magnesium (Mg)	2013/07/26		104	%	75 - 125
			Soluble Sodium (Na)	2013/07/26		109	%	75 - 125
			Soluble Potassium (K)	2013/07/26		104	%	75 - 125
		QC Standard	Soluble Calcium (Ca)	2013/07/26		87	%	75 - 125
			Soluble Magnesium (Mg)	2013/07/26		85	%	75 - 125
			Soluble Sodium (Na)	2013/07/26		101	%	75 - 125
			Soluble Potassium (K)	2013/07/26		107	%	75 - 125
			Soluble Sulphate (SO4)	2013/07/26		91	%	78 - 122
		Spiked Blank	Soluble Calcium (Ca)	2013/07/26		102	%	75 - 125
			Soluble Magnesium (Mg)	2013/07/26		101	%	75 - 125
			Soluble Sodium (Na)	2013/07/26		103	%	75 - 125
			Soluble Potassium (K)	2013/07/26		99	%	75 - 125

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Maxxam Job Number: EB363840

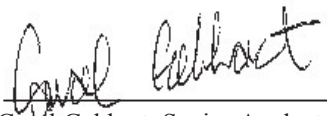
QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7026327	JSM	Method Blank	Soluble Calcium (Ca)	2013/07/26	<1.5		mg/L	
			Soluble Magnesium (Mg)	2013/07/26	<1.0		mg/L	
			Soluble Sodium (Na)	2013/07/26	<2.5		mg/L	
			Soluble Potassium (K)	2013/07/26	<1.3		mg/L	
			Soluble Sulphate (SO4)	2013/07/26	<5.0		mg/L	
7026671	NC3	Matrix Spike	Soluble (Hot water) Boron (B)	2013/07/26		103	%	75 - 125
		Spiked Blank	Soluble (Hot water) Boron (B)	2013/07/26		104	%	75 - 125
		Method Blank	Soluble (Hot water) Boron (B)	2013/07/26	<0.10		mg/kg	
		RPD	Soluble (Hot water) Boron (B)	2013/07/26	NC		%	35

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 spiked amount was not sufficiently significant to permit a reliable recovery calculation.
NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

Validation Signature Page

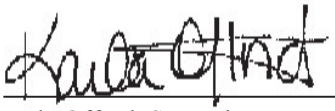
Maxxam Job #: B363840

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



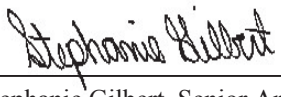
Carol Gebhart, Senior Analyst

Daniel Reslan, Volatiles Supervisor



Karla Offord, Supervisor, Extractable Hydrocarbons

Michael Chae, Ph.D, Scientific Specialist



Stephanie Gilbert, Senior Analyst

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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.

Maxxam

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Chain of Custody A134527

Page: 1 of 3

	Invoice To: C/O Report Address ☐	Report To: Same as Invoice ☒	Report Distribution (E-Mail):
Company:	IEG Consultants Ltd		nwills@klohn.com
Contact:	Nicole Wills		
Address:	2618 Hopewell Place NE		
	Prov: Calgary, AB PC: T1Y 7J7	Prov: PC:	
Contact #s:	Ph: 403.829.3048 Cell:	Ph: Cell:	

REGULATORY GUIDELINES:
- ☐ AT1
- ☐ CCME
- ☐ Regulated Drinking Water
- ☐ Other:

All samples are held for 60 calendar days after sample receipt, unless specified otherwise.

PO #:
Project # / Name: A04012A05
Site Location: Camp Farewell
Quote #:
Sampled By: Nicole Wills

SERVICE REQUESTED: ☐ RUSH (Contact lab to reserve) Date Required: ☐ REGULAR (5 to 7 Days)

See reverse for package specifics

	Sample ID	Depth (unit)	Matrix GW / SW Soil	Date/Time Sampled YY/MM/DD 24:00	SOIL: BTEX F1-F4	Sieve (75 micron)	Regulated Metals (CCME / AT1)	Salinity 4	Assessment ICP Metals	Basic Class II Landfill	WATER: ☐VOCs ☐BTEX F1	☐BTEX F1-F2 ☐BTEX F1-F4	☐ Routine Water ☐ Turb ☐ F	☐ TOC ☐ DOC	Regulated Metals (CCME / AT1) Total	Dissolved	Mercury ☐ Total ☐ Dissolved	Other Analysis: RUSH	HOLD - Do not Analyze	# of Containers Submitted
1	TP#1	0-0.6m	Soil	13/07/23 15:30	X		X	X												BJ/1B
2	TP#2	↓	↓	↓	X		X	X												BJ/1B
3	TP#3				X		X	X												BJ/1B
4	TP#4				X		X	X												BJ/1B
5	TP#5				X		X	X												BJ/1B
6	TP#17				X		X	X												BJ/1B
7	TP#18	↓	↓	↓	X		X	X												BJ/1B
8	DS13-001			07-20-13	X	yes	X	X		X								X		
9	EX-13-1AB	7m		07-21-13	X		X	X												
10	EX-13-1JB	6m		07-21-13	X		X	X												
11	EX-13-1KE	3.5m		07-21-13	X		X	X												
12	EX-13-1LE	4m	↓	07-21-13	X		X	X												RDS/MMM

Please indicate Filtered, Preserved or Both (F, P, F/P) → F/P

Relinquished By (Signature/Print): Nicole Wills	Date (YY/MM/DD): 13/07/23	Time (24:00): 20:00	
Relinquished By (Signature/Print):	Date (YY/MM/DD):	Time (24:00):	
Special Instructions: Please rush the analysis of DS13-001		# of Jars Used & Not Submitted	

LAB USE ONLY

Received By:	Date:	Time:	Maxxam Job #: B363840		
Amanda L'Hirondelle	20130725@	1023	Custody Seal	Temperature	Ice
Lab Comments:	14,14,13 > B 15,14,15	absent		7,6,7 8,5,6 > J present	

Maxxam

Calgary: 4000 19st St. NE, T2E 6P8. Ph: (403) 291-3077, Fax: (403) 735-2240, Toll free: (800) 386-7247
Edmonton: 9331 - 48 Street, T6B 2R4. Ph: (780) 577-7100, Fax: (780) 450-4187, Toll free: (877) 465-8889
www.maxxamanalytics.com

Chain of Custody

A134528

Page: 2 of 3

Company:	Invoice To: See page 1	C/O Report Address ☐	Report To:	Same as Invoice ☐
Contact:				
Address:	Prov:	PC:	Prov:	PC:
Contact #s:	Ph:	Cell:	Ph:	Cell:

Report Distribution (E-Mail): nwills@klohn.com

REGULATORY GUIDELINES:
- ☐ AT1
- ☐ CCME
- ☐ Regulated Drinking Water
- ☐ Other:

All samples are held for 60 calendar days after sample receipt, unless specified otherwise.

PO #:
Project # / Name:
Site Location:
Quote #:
Sampled By:

SERVICE REQUESTED: ☐ RUSH (Contact lab to reserve) Date Required: ☐ REGULAR (5 to 7 Days)

See reverse for package specifics

#	Sample ID	Depth (unit)	Matrix GW / SW Soil	Date/Time Sampled YY/MM/DD 24:00	SOIL: BTEX F1-F4	Sieve (75 micron)	Regulated Metals (CCME / AT1)	Salinity 4	Assessment ICP Metals	Basic Class II Landfill	PAH	Barite	WATER: ☐BTEX F1 / ☐VOCs	☐BTEX F1-F2 / ☐BTEX F1-F4	☐ Routine Water ☐ Turb ☐ F	☐ TOC / ☐ DOC	Regulated Metals (CCME / AT1): Total	Dissolved	Mercury ☐ Total ☐ Dissolved	HOLD - Do not Analyze	# of Containers Submitted
1	EX-13-1EB	7m	Soil	07-21-13	X		X	X													
2	EX-13-1DB	7m	↓	07-21-13	X		X	X													
3	EX-13-AW (3m)	3m		07-22-13	X		X	X			X	X									
4	EX-13-AW (7m)	7m		07-22-13	X		X	X													
5	EX-13-BW (1m)	1m		07-22-13	X		X	X													
6	EX-13-BW (6m)	6m		07-22-13	X		X	X													
7	EX-13-CW (5m)	5m		↓	X		X	X													
8	EX-13-DW (6m)	6m			X		X	X													
9	EX-13-DN (0-1m)	0-1			X		X	X													
10	EX-13-DN (7m)	7m			X		X	X													
11	EX-13-EN (3m)	3m			X		X	X													
12	EX-13-EN (7m)	7m	↓	↓	X		X	X													

RDS/mm

Please indicate Filtered, Preserved or Both (F, P, F/P) → F/P

Relinquished By (Signature/Print):	Date (YY/MM/DD):	Time (24:00):
Nicole Wills / Nicole Wills	13/07/23	20:00
Relinquished By (Signature/Print):	Date (YY/MM/DD):	Time (24:00):

Special Instructions:

# of Jars Used & Not Submitted

LAB USE ONLY

Received By: Amanda Lahirondelle
Date: 20130725 @
Time: 1023
Maxxam Job #: B363840

Lab Comments: 14,14,13 / 15,14,15 > 6

Custody Seal	Temperature	Ice
absent	7,6,7 / 8,5,6 > j	present

Maxxam

Calgary: 4000 19st St. NE, T2E 6P8. Ph: (403) 291-3077, Fax: (403) 735-2240, Toll free: (800) 386-7247
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www.maxxamanalytics.com

Chain of Custody A134516

Page: 3 of 3

	Invoice To: C/O Report Address ☐	Report To: Same as Invoice ☒
Company:	Same as page 1	
Contact:		
Address:		
	Prov: PC:	Prov: PC:
Contact #s:	Ph: Cell:	Ph: Cell:

Report Distribution (E-Mail): nwills@klohn.com

REGULATORY GUIDELINES:
- ☐ AT1
- ☐ CCME
- ☐ Regulated Drinking Water
- ☐ Other:

All samples are held for 60 calendar days after sample receipt, unless specified otherwise.

PO #:
Project # / Name:
Site Location:
Quote #:
Sampled By:

SERVICE REQUESTED: ☐ RUSH (Contact lab to reserve) Date Required: ☐ REGULAR (5 to 7 Days)

See reverse for package specifics

#	Sample ID	Depth (unit)	Matrix GW / SW Soil	Date/Time Sampled YY/MM/DD 24:00	SOIL: BTEX F1-F4	Sieve (75 micron)	Regulated Metals (CCME / AT1)	Salinity 4	Assessment ICP Metals	Basic Class II Landfill			WATER: ☐BTEX F1 ☐VOCs	☐BTEX F1-F2 ☐BTEX F1-F4	☐ Routine Water ☐ Turb ☐ F	☐ TOC ☐ DOC	Regulated Metals (CCME / AT1) Total	Regulated Metals Dissolved	Mercury ☐ Total ☐ Dissolved	Other Analysis	HOLD - Do not Analyze	# of Containers Submitted
* 1	EX-13-LN (0-1m)	0-1m	Soil	07-22-13	X		X	X														
2	[illegible] (crossed out)	[illegible] (crossed out)	Soil (crossed out)	(crossed out)	(crossed out)		(crossed out)	(crossed out)														
* 3	EX-13-LN (6m)	6m	Soil	07-22-13	X		X	X														
4																						
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																				ROB [illegible]		

Please indicate Filtered, Preserved or Both (F, P, F/P) → F/P

Relinquished By (Signature/Print):	Date (YY/MM/DD):	Time (24:00):
Nicole Wills / [signature]	13/07/23	20:00
Relinquished By (Signature/Print):	Date (YY/MM/DD):	Time (24:00):

Special Instructions:

# of Jars Used & Not Submitted

LAB USE ONLY

Received By:	Date:	Time:	Maxxam Job #:
Amanda [signature]		1023	B363840
Lhirondelle 20130725 @			

Lab Comments:	Custody Seal	Temperature	Ice
14,14,13 / 15,14,15 > B	absent	7,6,7 / 8,5,6 > J	present

AB FCD-00331 Rev3 2010/05

Maxxam Analytics International Corporation o/a Maxxam Analytics

Maxxam

Your Project #: A04012A05
Site Location: CAMP FAREWELL
Your C.O.C. #: A134527, A134528, A134516

Attention: NICOLE WILLS

KLOHN CRIPPEN BERGER LTD
500-2618
HOPEWELL PLACE NE
CALGARY, AB
CANADA T1Y 7J7

Report Date: 2013/08/14

This report supersedes all previous reports with the same Maxxam job number

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B363840
Received: 2013/07/25, 10:23

Sample Matrix: Soil
Samples Received: 27

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Extractable Barium	8	2013/07/31	2013/07/31	AB SOP-00042	EPA 200.7
Barium on ICP using Fusion Extraction	8	2013/08/02	2013/08/02	AB SOP-00042	EPA 200.7
Boron (Hot Water Soluble)	26	2013/07/26	2013/07/26	AB SOP-00042	EPA 200.7
Boron (Hot Water Soluble)	1	2013/07/27	2013/07/27	AB SOP-00042	EPA 200.7
BTEX/F1 by HS GC/MS (MeOH extract)	26	2013/07/25	2013/07/26	AB SOP-00039	CCME, EPA 8260
BTEX/F1 by HS GC/MS (MeOH extract)	1	2013/07/26	2013/07/27	AB SOP-00039	CCME, EPA 8260
BTEX in Leachates by HS GC/MS	1	2013/07/25	2013/07/26	AB SOP-00039	EPA 1311/8260C
Cation/EC Ratio	26	N/A	2013/07/26		CALCULATION
Cation/EC Ratio	1	N/A	2013/07/27		CALCULATION
Chloride (Soluble)	26	2013/07/26	2013/07/26	AB SOP-00020	SSMA 4500 CL-E
Chloride (Soluble)	1	2013/07/28	2013/07/28	AB SOP-00020	SSMA 4500 CL-E
Hexavalent Chromium	26	2013/07/25	2013/07/26	EENVSOP-00131	SM 3500-Cr B
Hexavalent Chromium	1	2013/07/26	2013/07/26	EENVSOP-00131	SM 3500-Cr B
Conductivity @25C (Soluble)	26	2013/07/26	2013/07/26	AB SOP-00004	SSMA 15.3
Conductivity @25C (Soluble)	1	2013/07/28	2013/07/28	AB SOP-00004	SSMA 15.3
CCME Hydrocarbons (F2-F4 in soil)	26	2013/07/25	2013/07/25	AB SOP-00040 AB SOP-00036	CCME PHC-CWS
CCME Hydrocarbons (F2-F4 in soil)	1	2013/07/26	2013/07/28	AB SOP-00040 AB SOP-00036	CCME PHC-CWS
Flash Point	1	N/A	2013/07/26	AB SOP-00062	ASTM D3828-12 A
ICPMS Metals on TCLP Leachate	1	2013/07/25	2013/07/26	AB SOP-00043	EPA 200.8
Elements by ICPMS - Soils	26	2013/07/26	2013/07/26	AB SOP-00043	EPA 200.8
Elements by ICPMS - Soils	1	2013/07/27	2013/07/27	AB SOP-00043	EPA 200.8
Ion Balance	26	N/A	2013/07/26	AB WI-00065	SM 1030E
Ion Balance	1	N/A	2013/07/27	AB WI-00065	SM 1030E
Sum of Cations, Anions	26	N/A	2013/07/26	AB WI-00065	SM 1030E
Sum of Cations, Anions	1	N/A	2013/07/27	AB WI-00065	SM 1030E
Moisture	26	N/A	2013/07/26	AB SOP-00002	CCME PHC-CWS
Moisture	1	N/A	2013/07/27	AB SOP-00002	CCME PHC-CWS
Benzo[a]pyrene Equivalency	1	N/A	2013/07/27	AB SOP-00003	EPA 8270D
PAH in Soil by GC/MS	1	2013/07/25	2013/07/27	AB SOP-00003 AB SOP-00036	EPA 3540C/8270D
Free Liquid (Paint filter)	1	N/A	2013/07/26	AB SOP-00047	EPA SW846/9095B
pH @25C (1:2 Calcium Chloride Extract)	26	2013/07/26	2013/07/26	AB SOP-00006	SSMA 16.3
pH @25C (1:2 Calcium Chloride Extract)	1	2013/07/27	2013/07/27	AB SOP-00006	SSMA 16.3
pH @25C (1:1 extract, solid waste)	1	2013/07/26	2013/07/26	AB SOP-00006	SSMA 16.2
Sodium Adsorption Ratio	26	N/A	2013/07/26	AB WI-00065	SSMA 15.4.4

Maxxam

Your Project #: A04012A05
Site Location: CAMP FAREWELL
Your C.O.C. #: A134527, A134528, A134516

Attention: NICOLE WILLS

KLOHN CRIPPEN BERGER LTD
500-2618
HOPEWELL PLACE NE
CALGARY, AB
CANADA T1Y 7J7

Report Date: 2013/08/14

This report supersedes all previous reports with the same Maxxam job number

CERTIFICATE OF ANALYSIS

Sample Matrix: Soil
Samples Received: 27

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Sodium Adsorption Ratio	1	N/A	2013/07/27	AB WI-00065	SSMA 15.4.4
Ca,Mg,Na,K,SO4 (Soluble)	26	2013/07/26	2013/07/26	AB SOP-00042	EPA 200.7
Ca,Mg,Na,K,SO4 (Soluble)	1	2013/07/28	2013/07/28	AB SOP-00042	EPA 200.7
Soluble Paste	26	2013/07/26	2013/07/26	AB SOP-00033	SSMA 15.2
Soluble Paste	1	2013/07/27	2013/07/27	AB SOP-00033	SSMA 15.2
Soluble Ions Calculation	27	N/A	2013/07/26		CALCULATION
Theoretical Gypsum Requirement (1)	26	N/A	2013/07/26	CAL WI-00087	CJSS 79:449-455
Theoretical Gypsum Requirement (1)	1	N/A	2013/07/27	CAL WI-00087	CJSS 79:449-455

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

(1) Units for TGR have changed from tons/acre to tonnes/ha

Encryption Key

Sherlyne Sim
14 Aug 2013 16:59:25 -06:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Tanya Eugine, M.Sc., Project Manager
Email: TEugine@maxxam.ca
Phone# (780) 577-7144

==========

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.

Total cover pages: 2

Maxxam Job #: B363840
Report Date: 2013/08/14

KLOHN CRIPPEN BERGER LTD
Client Project #: A04012A05
Site Location: CAMP FAREWELL
Sampler Initials: NW

AT1 BTEX AND F1-F4 IN SOIL (SOIL)

Maxxam ID		GZ9436	GZ9437	GZ9437	GZ9438	GZ9439		
Sampling Date		2013/07/23 15:30	2013/07/23	2013/07/23	2013/07/23	2013/07/23		
COC Number		A134527	A134527	A134527	A134527	A134527		
	UNITS	**TP#1**	**TP#2**	**TP#2 Lab-Dup**	**TP#3**	**TP#4**	**RDL**	**QC Batch**
Physical Properties								
Moisture	%	5.3	3.5	3.7	3.7	4.1	0.30	7024996
Ext. Pet. Hydrocarbon								
F2 (C10-C16 Hydrocarbons)	mg/kg	<10	46	N/A	22	<10	10	7022792
F3 (C16-C34 Hydrocarbons)	mg/kg	58	<50	N/A	<50	<50	50	7022792
F4 (C34-C50 Hydrocarbons)	mg/kg	<50	<50	N/A	<50	<50	50	7022792
Reached Baseline at C50	mg/kg	Yes	Yes	N/A	Yes	Yes	N/A	7022792
Volatiles								
Benzene	mg/kg	<0.0050	<0.0050	N/A	<0.0050	<0.0050	0.0050	7024356
Toluene	mg/kg	<0.020	<0.020	N/A	<0.020	<0.020	0.020	7024356
Ethylbenzene	mg/kg	<0.010	<0.010	N/A	<0.010	<0.010	0.010	7024356
Xylenes (Total)	mg/kg	<0.040	<0.040	N/A	<0.040	<0.040	0.040	7024356
m & p-Xylene	mg/kg	<0.040	<0.040	N/A	<0.040	<0.040	0.040	7024356
o-Xylene	mg/kg	<0.020	<0.020	N/A	<0.020	<0.020	0.020	7024356
F1 (C6-C10) - BTEX	mg/kg	<12	<12	N/A	<12	<12	12	7024356
(C6-C10)	mg/kg	<12	<12	N/A	<12	<12	12	7024356
Surrogate Recovery (%)								
1,4-Difluorobenzene (sur.)	%	100	99	N/A	99	101	N/A	7024356
4-BROMOFLUOROBENZENE (sur.)	%	97	97	N/A	99	97	N/A	7024356
D10-ETHYLBENZENE (sur.)	%	90	93	N/A	91	90	N/A	7024356
D4-1,2-DICHLOROETHANE (sur.)	%	100	99	N/A	97	100	N/A	7024356
O-TERPHENYL (sur.)	%	104	104	N/A	105	96	N/A	7022792

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Job #: B363840
Report Date: 2013/08/14

KLOHN CRIPPEN BERGER LTD
Client Project #: A04012A05
Site Location: CAMP FAREWELL
Sampler Initials: NW

AT1 BTEX AND F1-F4 IN SOIL (SOIL)

Maxxam ID		GZ9440	GZ9441		GZ9442	GZ9443		
Sampling Date		2013/07/23	2013/07/23		2013/07/23	2013/07/20		
COC Number		A134527	A134527		A134527	A134527		
	UNITS	**TP#5**	**TP#17**	**QC Batch**	**TP#18**	**DS13-001**	**RDL**	**QC Batch**
Physical Properties								
Moisture	%	3.1	2.4	7024996	5.0	22	0.30	7024996
Ext. Pet. Hydrocarbon								
F2 (C10-C16 Hydrocarbons)	mg/kg	<10	<10	7022792	260	860	10	7022792
F3 (C16-C34 Hydrocarbons)	mg/kg	61	<50	7022792	410	790	50	7022792
F4 (C34-C50 Hydrocarbons)	mg/kg	<50	<50	7022792	<50	200	50	7022792
Reached Baseline at C50	mg/kg	Yes	Yes	7022792	Yes	Yes	N/A	7022792
Volatiles								
Benzene	mg/kg	<0.0050	<0.0050	7024356	<0.0050	0.059	0.0050	7024383
Toluene	mg/kg	<0.020	<0.020	7024356	<0.020	0.83	0.020	7024383
Ethylbenzene	mg/kg	<0.010	<0.010	7024356	<0.010	0.38	0.010	7024383
Xylenes (Total)	mg/kg	<0.040	<0.040	7024356	<0.040	4.5	0.040	7024383
m & p-Xylene	mg/kg	<0.040	<0.040	7024356	<0.040	2.9	0.040	7024383
o-Xylene	mg/kg	<0.020	<0.020	7024356	<0.020	1.7	0.020	7024383
F1 (C6-C10) - BTEX	mg/kg	<12	<12	7024356	<12	100	12	7024383
(C6-C10)	mg/kg	<12	<12	7024356	<12	110	12	7024383
Surrogate Recovery (%)								
1,4-Difluorobenzene (sur.)	%	107	112	7024356	102	114	N/A	7024383
4-BROMOFLUOROBENZENE (sur.)	%	96	97	7024356	100	78	N/A	7024383
D10-ETHYLBENZENE (sur.)	%	92	106	7024356	120	124	N/A	7024383
D4-1,2-DICHLOROETHANE (sur.)	%	102	100	7024356	106	110	N/A	7024383
O-TERPHENYL (sur.)	%	98	98	7022792	106	111	N/A	7022792

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Job #: B363840
Report Date: 2013/08/14

KLOHN CRIPPEN BERGER LTD
Client Project #: A04012A05
Site Location: CAMP FAREWELL
Sampler Initials: NW

AT1 BTEX AND F1-F4 IN SOIL (SOIL)

Maxxam ID		GZ9444	GZ9445	GZ9446	GZ9447	GZ9448		
Sampling Date		2013/07/21	2013/07/21	2013/07/21	2013/07/21	2013/07/21		
COC Number		A134527	A134527	A134527	A134527	A134528		
	UNITS	**EX-13-ILB**	**EX-13-IJB**	**EX-13-IKE**	**EX-13-ILE**	**EX-13-IEB**	**RDL**	**QC Batch**
Physical Properties								
Moisture	%	13	17	8.3	6.6	13	0.30	7024996
Ext. Pet. Hydrocarbon								
F2 (C10-C16 Hydrocarbons)	mg/kg	530	2500	400	810	<10	10	7022792
F3 (C16-C34 Hydrocarbons)	mg/kg	97	970	<50	100	<50	50	7022792
F4 (C34-C50 Hydrocarbons)	mg/kg	<50	380	<50	<50	<50	50	7022792
Reached Baseline at C50	mg/kg	Yes	Yes	Yes	Yes	Yes	N/A	7022792
Volatiles								
Benzene	mg/kg	0.018	0.069	<0.0050	0.0090	<0.0050	0.0050	7024383
Toluene	mg/kg	0.12	1.2	0.026	0.062	<0.020	0.020	7024383
Ethylbenzene	mg/kg	0.12	1.4	0.022	0.026	0.014	0.010	7024383
Xylenes (Total)	mg/kg	3.9	22	0.27	0.33	0.15	0.040	7024383
m & p-Xylene	mg/kg	0.95	13	0.083	0.22	0.095	0.040	7024383
o-Xylene	mg/kg	3.0	9.1	0.19	0.11	0.054	0.020	7024383
F1 (C6-C10) - BTEX	mg/kg	200	370	380	13	<12	12	7024383
(C6-C10)	mg/kg	210	400	380	14	<12	12	7024383
Surrogate Recovery (%)								
1,4-Difluorobenzene (sur.)	%	108	110	106	102	107	N/A	7024383
4-BROMOFLUOROBENZENE (sur.)	%	80	78	98	91	89	N/A	7024383
D10-ETHYLBENZENE (sur.)	%	127	121	176 (1)	120	120	N/A	7024383
D4-1,2-DICHLOROETHANE (sur.)	%	109	105	106	100	103	N/A	7024383
O-TERPHENYL (sur.)	%	100	114	99	100	101	N/A	7022792

N/A = Not Applicable
RDL = Reportable Detection Limit
(1) Surrogate recovery exceeds acceptance criteria due to matrix interference. Reanalysis yields similar results.

Maxxam Job #: B363840
Report Date: 2013/08/14

KLOHN CRIPPEN BERGER LTD
Client Project #: A04012A05
Site Location: CAMP FAREWELL
Sampler Initials: NW

AT1 BTEX AND F1-F4 IN SOIL (SOIL)

Maxxam ID		GZ9449	GZ9449	GZ9453	GZ9454	GZ9454		
Sampling Date		2013/07/21	2013/07/21	2013/07/22	2013/07/22	2013/07/22		
COC Number		A134528	A134528	A134528	A134528	A134528		
	UNITS	**EX-13-IDB**	**EX-13-IDB Lab-Dup**	**EX-13-AW (3M)**	**EX-13-AW (7M)**	**EX-13-AW (7M) Lab-Dup**	**RDL**	**QC Batch**
Physical Properties								
Moisture	%	14	N/A	13	12	N/A	0.30	7025403
Ext. Pet. Hydrocarbon								
F2 (C10-C16 Hydrocarbons)	mg/kg	<10	N/A	<10	<10	<10	10	7022792
F3 (C16-C34 Hydrocarbons)	mg/kg	<50	N/A	<50	<50	<50	50	7022792
F4 (C34-C50 Hydrocarbons)	mg/kg	<50	N/A	<50	<50	<50	50	7022792
Reached Baseline at C50	mg/kg	Yes	N/A	Yes	Yes	Yes	N/A	7022792
Volatiles								
Benzene	mg/kg	<0.0050	<0.0050	<0.0050	0.061	N/A	0.0050	7024383
Toluene	mg/kg	<0.020	<0.020	<0.020	0.080	N/A	0.020	7024383
Ethylbenzene	mg/kg	<0.010	<0.010	<0.010	<0.010	N/A	0.010	7024383
Xylenes (Total)	mg/kg	<0.040	<0.040	<0.040	<0.040	N/A	0.040	7024383
m & p-Xylene	mg/kg	<0.040	<0.040	<0.040	<0.040	N/A	0.040	7024383
o-Xylene	mg/kg	<0.020	<0.020	<0.020	<0.020	N/A	0.020	7024383
F1 (C6-C10) - BTEX	mg/kg	<12	<12	<12	<12	N/A	12	7024383
(C6-C10)	mg/kg	<12	<12	<12	<12	N/A	12	7024383
Surrogate Recovery (%)								
1,4-Difluorobenzene (sur.)	%	108	109	104	104	N/A	N/A	7024383
4-BROMOFLUOROBENZENE (sur.)	%	100	100	94	97	N/A	N/A	7024383
D10-ETHYLBENZENE (sur.)	%	121	122	114	93	N/A	N/A	7024383
D4-1,2-DICHLOROETHANE (sur.)	%	105	107	87	101	N/A	N/A	7024383
O-TERPHENYL (sur.)	%	98	N/A	91	104	108	N/A	7022792

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Job #: B363840
Report Date: 2013/08/14

KLOHN CRIPPEN BERGER LTD
Client Project #: A04012A05
Site Location: CAMP FAREWELL
Sampler Initials: NW

AT1 BTEX AND F1-F4 IN SOIL (SOIL)

Maxxam ID		GZ9455	GZ9456	GZ9457	GZ9457	GZ9458		
Sampling Date		2013/07/22	2013/07/22	2013/07/22	2013/07/22	2013/07/22		
COC Number		A134528	A134528	A134528	A134528	A134528		
	UNITS	**EX-13-BW (1M)**	**EX-13-BW (6M)**	**EX-13-CW (5M)**	**EX-13-CW (5M) Lab-Dup**	**EX-13-DW (6M)**	**RDL**	**QC Batch**
Physical Properties								
Moisture	%	14	23	13	12	21	0.30	7025403
Ext. Pet. Hydrocarbon								
F2 (C10-C16 Hydrocarbons)	mg/kg	<10	<10	<10	N/A	<10	10	7022792
F3 (C16-C34 Hydrocarbons)	mg/kg	60	<50	<50	N/A	<50	50	7022792
F4 (C34-C50 Hydrocarbons)	mg/kg	<50	<50	<50	N/A	<50	50	7022792
Reached Baseline at C50	mg/kg	Yes	Yes	Yes	N/A	Yes	N/A	7022792
Volatiles								
Benzene	mg/kg	<0.0050	0.0084	<0.0050	N/A	<0.0050	0.0050	7024383
Toluene	mg/kg	<0.020	<0.020	<0.020	N/A	<0.020	0.020	7024383
Ethylbenzene	mg/kg	<0.010	<0.010	<0.010	N/A	<0.010	0.010	7024383
Xylenes (Total)	mg/kg	<0.040	<0.040	<0.040	N/A	<0.040	0.040	7024383
m & p-Xylene	mg/kg	<0.040	<0.040	<0.040	N/A	<0.040	0.040	7024383
o-Xylene	mg/kg	<0.020	<0.020	<0.020	N/A	<0.020	0.020	7024383
F1 (C6-C10) - BTEX	mg/kg	<12	<12	<12	N/A	<12	12	7024383
(C6-C10)	mg/kg	<12	<12	<12	N/A	<12	12	7024383
Surrogate Recovery (%)								
1,4-Difluorobenzene (sur.)	%	106	110	106	N/A	109	N/A	7024383
4-BROMOFLUOROBENZENE (sur.)	%	96	96	95	N/A	95	N/A	7024383
D10-ETHYLBENZENE (sur.)	%	95	97	93	N/A	94	N/A	7024383
D4-1,2-DICHLOROETHANE (sur.)	%	99	100	94	N/A	97	N/A	7024383
O-TERPHENYL (sur.)	%	109	105	108	N/A	97	N/A	7022792

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Job #: B363840
Report Date: 2013/08/14

KLOHN CRIPPEN BERGER LTD
Client Project #: A04012A05
Site Location: CAMP FAREWELL
Sampler Initials: NW

AT1 BTEX AND F1-F4 IN SOIL (SOIL)

Maxxam ID		GZ9465	GZ9466	GZ9467	GZ9468	GZ9469		
Sampling Date		2013/07/22	2013/07/22	2013/07/22	2013/07/22	2013/07/22		
COC Number		A134528	A134528	A134528	A134528	A134516		
	UNITS	**EX-13-DN (0-1M)**	**EX-13-DN (7M)**	**EX-13-EN (3M)**	**EX-13-EN (7M)**	**EX-13-LN (0-1M)**	**RDL**	**QC Batch**
Physical Properties								
Moisture	%	3.2	17	4.7	27	25	0.30	7025403
Ext. Pet. Hydrocarbon								
F2 (C10-C16 Hydrocarbons)	mg/kg	<10	<10	<10	12	<10	10	7021306
F3 (C16-C34 Hydrocarbons)	mg/kg	<50	<50	<50	100	230	50	7021306
F4 (C34-C50 Hydrocarbons)	mg/kg	<50	<50	<50	<50	<50	50	7021306
Reached Baseline at C50	mg/kg	Yes	Yes	Yes	Yes	Yes	N/A	7021306
Volatiles								
Benzene	mg/kg	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	7024383
Toluene	mg/kg	<0.020	<0.020	<0.020	<0.020	0.037	0.020	7024383
Ethylbenzene	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	7024383
Xylenes (Total)	mg/kg	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	7024383
m & p-Xylene	mg/kg	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	7024383
o-Xylene	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	7024383
F1 (C6-C10) - BTEX	mg/kg	<12	<12	<12	<12	<12	12	7024383
(C6-C10)	mg/kg	<12	<12	<12	<12	<12	12	7024383
Surrogate Recovery (%)								
1,4-Difluorobenzene (sur.)	%	100	108	101	112	111	N/A	7024383
4-BROMOFLUOROBENZENE (sur.)	%	94	95	97	95	95	N/A	7024383
D10-ETHYLBENZENE (sur.)	%	91	92	93	95	89	N/A	7024383
D4-1,2-DICHLOROETHANE (sur.)	%	94	95	101	97	109	N/A	7024383
O-TERPHENYL (sur.)	%	106	95	117	108	102	N/A	7021306

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Job #: B363840
Report Date: 2013/08/14

KLOHN CRIPPEN BERGER LTD
Client Project #: A04012A05
Site Location: CAMP FAREWELL
Sampler Initials: NW

AT1 BTEX AND F1-F4 IN SOIL (SOIL)

Maxxam ID		GZ9471		HA0382		
Sampling Date		2013/07/22		2013/07/21		
COC Number		A134516		A134527		
	UNITS	**EX-13-LN (6M)**	**QC Batch**	**EX-13-1KB(7M)**	**RDL**	**QC Batch**
Physical Properties						
Moisture	%	6.7	7025403	18	0.30	7027480
Ext. Pet. Hydrocarbon						
F2 (C10-C16 Hydrocarbons)	mg/kg	<10	7021306	120	10	7015681
F3 (C16-C34 Hydrocarbons)	mg/kg	<50	7021306	100	50	7015681
F4 (C34-C50 Hydrocarbons)	mg/kg	<50	7021306	<50	50	7015681
Reached Baseline at C50	mg/kg	Yes	7021306	Yes	N/A	7015681
Volatiles						
Benzene	mg/kg	<0.0050	7024383	0.11	0.0050	7020731
Toluene	mg/kg	<0.020	7024383	0.14	0.020	7020731
Ethylbenzene	mg/kg	<0.010	7024383	0.097	0.010	7020731
Xylenes (Total)	mg/kg	<0.040	7024383	1.4	0.040	7020731
m & p-Xylene	mg/kg	<0.040	7024383	0.87	0.040	7020731
o-Xylene	mg/kg	<0.020	7024383	0.54	0.020	7020731
F1 (C6-C10) - BTEX	mg/kg	<12	7024383	34	12	7020731
(C6-C10)	mg/kg	<12	7024383	36	12	7020731
Surrogate Recovery (%)						
1,4-Difluorobenzene (sur.)	%	103	7024383	122	N/A	7020731
4-BROMOFLUOROBENZENE (sur.)	%	96	7024383	101	N/A	7020731
D10-ETHYLBENZENE (sur.)	%	95	7024383	123	N/A	7020731
D4-1,2-DICHLOROETHANE (sur.)	%	102	7024383	96	N/A	7020731
O-TERPHENYL (sur.)	%	102	7021306	84	N/A	7015681

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Job #: B363840
Report Date: 2013/08/14

KLOHN CRIPPEN BERGER LTD
Client Project #: A04012A05
Site Location: CAMP FAREWELL
Sampler Initials: NW

SOIL SALINITY 4 (SOIL)

Maxxam ID		GZ9436			GZ9437	GZ9437		
Sampling Date		2013/07/23 15:30			2013/07/23	2013/07/23		
COC Number		A134527			A134527	A134527		
	UNITS	**TP#1**	**RDL**	**QC Batch**	**TP#2**	**TP#2 Lab-Dup**	**RDL**	**QC Batch**
Calculated Parameters								
Anion Sum	meq/L	1.7	N/A	7022359	2.2	N/A	N/A	7022359
Cation Sum	meq/L	3.5	N/A	7022359	3.4	N/A	N/A	7022359
Cation/EC Ratio	N/A	12	0.10	7021708	11	N/A	0.10	7021708
Ion Balance	N/A	2.0	0.010	7022358	1.5	N/A	0.010	7022358
Calculated Calcium (Ca)	mg/kg	15	0.60	7020006	12	N/A	0.50	7022361
Calculated Magnesium (Mg)	mg/kg	2.3	0.40	7020006	1.8	N/A	0.33	7022361
Calculated Sodium (Na)	mg/kg	9.2	1.0	7020006	6.5	N/A	0.83	7022361
Calculated Potassium (K)	mg/kg	2.9	0.52	7020006	4.5	N/A	0.43	7022361
Calculated Chloride (Cl)	mg/kg	6.8	2.0	7020006	3.5	N/A	1.7	7022361
Calculated Sulphate (SO4)	mg/kg	24	2.0	7020006	31	N/A	1.7	7022361
Soluble Parameters								
Soluble Chloride (Cl)	mg/L	17	5.0	7026083	11	N/A	5.0	7026083
Soluble Conductivity	dS/m	0.30	0.020	7024503	0.31	N/A	0.020	7024503
Soluble (CaCl2) pH	N/A	7.61	N/A	7024030	7.76	7.84	N/A	7024030
Sodium Adsorption Ratio	N/A	0.93	0.10	7021713	0.81	N/A	0.10	7021713
Soluble Calcium (Ca)	mg/L	37	1.5	7026327	35	N/A	1.5	7026327
Soluble Magnesium (Mg)	mg/L	5.6	1.0	7026327	5.6	N/A	1.0	7026327
Soluble Sodium (Na)	mg/L	23	2.5	7026327	19	N/A	2.5	7026327
Soluble Potassium (K)	mg/L	7.1	1.3	7026327	14	N/A	1.3	7026327
Saturation %	%	40	N/A	7024196	33	N/A	N/A	7024196
Soluble Sulphate (SO4)	mg/L	61	5.0	7026327	93	N/A	5.0	7026327
Theoretical Gypsum Requirement	tonnes/ha	<0.10	0.10	7021714	<0.10	N/A	0.10	7021714

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Job #: B363840
Report Date: 2013/08/14

KLOHN CRIPPEN BERGER LTD
Client Project #: A04012A05
Site Location: CAMP FAREWELL
Sampler Initials: NW

SOIL SALINITY 4 (SOIL)

Maxxam ID		GZ9438		GZ9439		GZ9440		GZ9441		
Sampling Date		2013/07/23		2013/07/23		2013/07/23		2013/07/23		
COC Number		A134527		A134527		A134527		A134527		
	UNITS	**TP#3**	**RDL**	**TP#4**	**RDL**	**TP#5**	**RDL**	**TP#17**	**RDL**	**QC Batch**
Calculated Parameters										
Anion Sum	meq/L	0.49	N/A	0.89	N/A	0.63	N/A	0.21	N/A	7022359
Cation Sum	meq/L	1.2	N/A	2.9	N/A	1.9	N/A	1.2	N/A	7022359
Cation/EC Ratio	N/A	12	0.10	12	0.10	12	0.10	14	0.10	7021708
Ion Balance	N/A	2.5	0.010	3.2	0.010	3.0	0.010	5.7	0.010	7022358
Calculated Calcium (Ca)	mg/kg	2.3	0.44	7.6	0.48	4.7	0.47	3.3	0.48	7022361
Calculated Magnesium (Mg)	mg/kg	0.44	0.30	1.5	0.32	0.84	0.31	0.57	0.32	7022361
Calculated Sodium (Na)	mg/kg	3.7	0.74	6.6	0.80	4.1	0.78	3.0	0.81	7022361
Calculated Potassium (K)	mg/kg	2.0	0.39	5.0	0.42	4.0	0.41	1.4	0.42	7022361
Calculated Chloride (Cl)	mg/kg	<1.5	1.5	<1.6	1.6	<1.6	1.6	<1.6	1.6	7022361
Calculated Sulphate (SO4)	mg/kg	7.0	1.5	14	1.6	9.4	1.6	3.2	1.6	7022361
Soluble Parameters										
Soluble Chloride (Cl)	mg/L	<5.0	5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	7026083
Soluble Conductivity	dS/m	0.11	0.020	0.23	0.020	0.15	0.020	0.085	0.020	7024503
Soluble (CaCl2) pH	N/A	7.17	N/A	7.60	N/A	7.53	N/A	6.67	N/A	7024030
Sodium Adsorption Ratio	N/A	1.1	0.10	1.0	0.10	0.82	0.10	0.71	0.10	7021713
Soluble Calcium (Ca)	mg/L	7.8	1.5	24	1.5	15	1.5	10	1.5	7026327
Soluble Magnesium (Mg)	mg/L	1.5	1.0	4.6	1.0	2.7	1.0	1.8	1.0	7026327
Soluble Sodium (Na)	mg/L	12	2.5	21	2.5	13	2.5	9.4	2.5	7026327
Soluble Potassium (K)	mg/L	6.9	1.3	16	1.3	13	1.3	4.5	1.3	7026327
Saturation %	%	30	N/A	32	N/A	31	N/A	32	N/A	7024196
Soluble Sulphate (SO4)	mg/L	24	5.0	43	5.0	30	5.0	9.9	5.0	7026327
Theoretical Gypsum Requirement	tonnes/ha	<0.10	0.10	<0.10	0.10	<0.10	0.10	<0.10	0.10	7021714

RDL = Reportable Detection Limit

Maxxam Job #: B363840
Report Date: 2013/08/14

KLOHN CRIPPEN BERGER LTD
Client Project #: A04012A05
Site Location: CAMP FAREWELL
Sampler Initials: NW

SOIL SALINITY 4 (SOIL)

Maxxam ID		GZ9442		GZ9443		GZ9444		GZ9445		
Sampling Date		2013/07/23		2013/07/20		2013/07/21		2013/07/21		
COC Number		A134527		A134527		A134527		A134527		
	UNITS	**TP#18**	**RDL**	**DS13-001**	**RDL**	**EX-13-ILB**	**RDL**	**EX-13-IJB**	**RDL**	**QC Batch**
Calculated Parameters										
Anion Sum	meq/L	0.76	N/A	12	N/A	4.2	N/A	16	N/A	7022359
Cation Sum	meq/L	2.9	N/A	12	N/A	5.1	N/A	16	N/A	7022359
Cation/EC Ratio	N/A	13	0.10	9.3	0.10	11	0.10	11	0.10	7021708
Ion Balance	N/A	3.8	0.010	1.0	0.010	1.2	0.010	1.0	0.010	7022358
Calculated Calcium (Ca)	mg/kg	15	0.63	28	0.55	20	0.53	81	0.57	7022361
Calculated Magnesium (Mg)	mg/kg	1.7	0.42	7.4	0.37	4.2	0.35	13	0.38	7022361
Calculated Sodium (Na)	mg/kg	4.1	1.1	50	0.92	9.0	0.88	23	0.95	7022361
Calculated Potassium (K)	mg/kg	4.5	0.54	5.8	0.48	2.9	0.46	4.7	0.49	7022361
Calculated Chloride (Cl)	mg/kg	<2.1	2.1	72	1.8	4.0	1.8	34	1.9	7022361
Calculated Sulphate (SO4)	mg/kg	15	2.1	110	1.8	65	1.8	250	1.9	7022361
Soluble Parameters										
Soluble Chloride (Cl)	mg/L	<5.0	5.0	200	5.0	11	5.0	90	5.0	7026083
Soluble Conductivity	dS/m	0.22	0.020	1.3	0.020	0.45	0.020	1.5	0.020	7024503
Soluble (CaCl2) pH	N/A	7.53	N/A	7.16	N/A	7.23	N/A	6.90	N/A	7024030
Sodium Adsorption Ratio	N/A	0.41	0.10	3.6	0.10	0.80	0.10	1.0	0.10	7021713
Soluble Calcium (Ca)	mg/L	37	1.5	76	1.5	56	1.5	210	1.5	7026327
Soluble Magnesium (Mg)	mg/L	4.2	1.0	20	1.0	12	1.0	35	1.0	7026327
Soluble Sodium (Na)	mg/L	9.7	2.5	130	2.5	25	2.5	60	2.5	7026327
Soluble Potassium (K)	mg/L	11	1.3	16	1.3	8.3	1.3	12	1.3	7026327
Saturation %	%	42	N/A	37	N/A	35	N/A	38	N/A	7024196
Soluble Sulphate (SO4)	mg/L	36	5.0	290	5.0	180	5.0	650	5.0	7026327
Theoretical Gypsum Requirement	tonnes/ha	<0.10	0.10	<0.10	0.10	<0.10	0.10	<0.10	0.10	7021714

RDL = Reportable Detection Limit

Maxxam Job #: B363840
Report Date: 2013/08/14

KLOHN CRIPPEN BERGER LTD
Client Project #: A04012A05
Site Location: CAMP FAREWELL
Sampler Initials: NW

SOIL SALINITY 4 (SOIL)

Maxxam ID		GZ9446		GZ9447		GZ9448		GZ9449		
Sampling Date		2013/07/21		2013/07/21		2013/07/21		2013/07/21		
COC Number		A134527		A134527		A134528		A134528		
	UNITS	**EX-13-IKE**	**RDL**	**EX-13-ILE**	**RDL**	**EX-13-IEB**	**RDL**	**EX-13-IDB**	**RDL**	**QC Batch**
Calculated Parameters										
Anion Sum	meq/L	1.7	N/A	3.5	N/A	1.3	N/A	1.8	N/A	7022359
Cation Sum	meq/L	2.3	N/A	4.3	N/A	2.8	N/A	2.8	N/A	7022359
Cation/EC Ratio	N/A	11	0.10	11	0.10	12	0.10	12	0.10	7021708
Ion Balance	N/A	1.4	0.010	1.2	0.010	2.0	0.010	1.5	0.010	7022358
Calculated Calcium (Ca)	mg/kg	11	0.53	18	0.54	8.5	0.48	10	0.50	7022361
Calculated Magnesium (Mg)	mg/kg	1.2	0.35	3.2	0.36	2.1	0.32	2.4	0.33	7022361
Calculated Sodium (Na)	mg/kg	3.7	0.89	7.2	0.90	5.2	0.79	4.6	0.83	7022361
Calculated Potassium (K)	mg/kg	1.2	0.46	1.6	0.47	1.8	0.41	1.5	0.43	7022361
Calculated Chloride (Cl)	mg/kg	3.1	1.8	7.2	1.8	5.3	1.6	2.9	1.7	7022361
Calculated Sulphate (SO4)	mg/kg	24	1.8	50	1.8	13	1.6	26	1.7	7022361
Soluble Parameters										
Soluble Chloride (Cl)	mg/L	8.9	5.0	20	5.0	17	5.0	8.5	5.0	7026083
Soluble Conductivity	dS/m	0.21	0.020	0.37	0.020	0.23	0.020	0.24	0.020	7024503
Soluble (CaCl2) pH	N/A	7.26	N/A	7.26	N/A	6.99	N/A	7.64	N/A	7024030
Sodium Adsorption Ratio	N/A	0.48	0.10	0.68	0.10	0.73	0.10	0.58	0.10	7021713
Soluble Calcium (Ca)	mg/L	30	1.5	51	1.5	27	1.5	31	1.5	7026327
Soluble Magnesium (Mg)	mg/L	3.3	1.0	9.0	1.0	6.7	1.0	7.2	1.0	7026327
Soluble Sodium (Na)	mg/L	10	2.5	20	2.5	16	2.5	14	2.5	7026327
Soluble Potassium (K)	mg/L	3.3	1.3	4.5	1.3	5.7	1.3	4.4	1.3	7026327
Saturation %	%	36	N/A	36	N/A	32	N/A	33	N/A	7024196
Soluble Sulphate (SO4)	mg/L	68	5.0	140	5.0	42	5.0	77	5.0	7026327
Theoretical Gypsum Requirement	tonnes/ha	<0.10	0.10	<0.10	0.10	<0.10	0.10	<0.10	0.10	7021714

RDL = Reportable Detection Limit

Maxxam Job #: B363840
Report Date: 2013/08/14

KLOHN CRIPPEN BERGER LTD
Client Project #: A04012A05
Site Location: CAMP FAREWELL
Sampler Initials: NW

SOIL SALINITY 4 (SOIL)

Maxxam ID		GZ9453		GZ9454		GZ9455	GZ9455		
Sampling Date		2013/07/22		2013/07/22		2013/07/22	2013/07/22		
COC Number		A134528		A134528		A134528	A134528		
	UNITS	**EX-13-AW (3M)**	**RDL**	**EX-13-AW (7M)**	**RDL**	**EX-13-BW (1M)**	**EX-13-BW (1M) Lab-Dup**	**RDL**	**QC Batch**
Calculated Parameters									
Anion Sum	meq/L	2.0	N/A	2.7	N/A	0.94	N/A	N/A	7022359
Cation Sum	meq/L	3.8	N/A	4.4	N/A	2.9	N/A	N/A	7022359
Cation/EC Ratio	N/A	11	0.10	10	0.10	15	N/A	0.10	7021708
Ion Balance	N/A	1.9	0.010	1.6	0.010	3.1	N/A	0.010	7022358
Calculated Calcium (Ca)	mg/kg	18	0.68	16	0.53	6.8	N/A	0.74	7022361
Calculated Magnesium (Mg)	mg/kg	3.8	0.45	2.3	0.35	1.4	N/A	0.49	7022361
Calculated Sodium (Na)	mg/kg	11	1.1	10	0.88	22	N/A	1.2	7022361
Calculated Potassium (K)	mg/kg	2.3	0.59	3.6	0.46	1.1	N/A	0.64	7022361
Calculated Chloride (Cl)	mg/kg	16	2.3	12	1.8	9.0	N/A	2.5	7022361
Calculated Sulphate (SO4)	mg/kg	22	2.3	29	1.8	10	N/A	2.5	7022361
Soluble Parameters									
Soluble Chloride (Cl)	mg/L	35	5.0	35	5.0	18	10	5.0	7026083
Soluble Conductivity	dS/m	0.35	0.020	0.42	0.020	0.19	0.19	0.020	7024503
Soluble (CaCl2) pH	N/A	7.12	N/A	7.24	N/A	7.00	N/A	N/A	7024030
Sodium Adsorption Ratio	N/A	0.89	0.10	1.1	0.10	2.9	N/A	0.10	7021713
Soluble Calcium (Ca)	mg/L	40	1.5	46	1.5	14	12	1.5	7026327
Soluble Magnesium (Mg)	mg/L	8.3	1.0	6.4	1.0	2.8	2.3	1.0	7026327
Soluble Sodium (Na)	mg/L	24	2.5	30	2.5	45	43	2.5	7026327
Soluble Potassium (K)	mg/L	5.0	1.3	10	1.3	2.1	1.6	1.3	7026327
Saturation %	%	45	N/A	35	N/A	49	49	N/A	7024196
Soluble Sulphate (SO4)	mg/L	48	5.0	83	5.0	20	18	5.0	7026327
Theoretical Gypsum Requirement	tonnes/ha	<0.10	0.10	<0.10	0.10	<0.10	N/A	0.10	7021714

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Job #: B363840
Report Date: 2013/08/14

KLOHN CRIPPEN BERGER LTD
Client Project #: A04012A05
Site Location: CAMP FAREWELL
Sampler Initials: NW

SOIL SALINITY 4 (SOIL)

Maxxam ID		GZ9456		GZ9457		GZ9458		
Sampling Date		2013/07/22		2013/07/22		2013/07/22		
COC Number		A134528		A134528		A134528		
	UNITS	**EX-13-BW (6M)**	**RDL**	**EX-13-CW (5M)**	**RDL**	**EX-13-DW (6M)**	**RDL**	**QC Batch**
Calculated Parameters								
Anion Sum	meq/L	20	N/A	3.3	N/A	18	N/A	7022359
Cation Sum	meq/L	22	N/A	4.1	N/A	19	N/A	7022359
Cation/EC Ratio	N/A	9.9	0.10	10	0.10	9.7	0.10	7021708
Ion Balance	N/A	1.1	0.010	1.2	0.010	1.0	0.010	7022358
Calculated Calcium (Ca)	mg/kg	34	0.50	11	0.51	42	0.54	7022361
Calculated Magnesium (Mg)	mg/kg	8.4	0.34	2.1	0.34	12	0.36	7022361
Calculated Sodium (Na)	mg/kg	110	0.84	13	0.85	83	0.91	7022361
Calculated Potassium (K)	mg/kg	3.9	0.44	2.6	0.44	3.7	0.47	7022361
Calculated Chloride (Cl)	mg/kg	150	3.4	7.3	1.7	140	1.8	7022361
Calculated Sulphate (SO4)	mg/kg	120	1.7	44	1.7	120	1.8	7022361
Soluble Parameters								
Soluble Chloride (Cl)	mg/L	440 (1)	10	21	5.0	400	5.0	7026083
Soluble Conductivity	dS/m	2.2	0.020	0.40	0.020	1.9	0.020	7024503
Soluble (CaCl2) pH	N/A	7.39	N/A	7.62	N/A	7.19	N/A	7024030
Sodium Adsorption Ratio	N/A	7.7	0.10	1.7	0.10	4.9	0.10	7021713
Soluble Calcium (Ca)	mg/L	100	1.5	33	1.5	120	1.5	7026327
Soluble Magnesium (Mg)	mg/L	25	1.0	6.3	1.0	33	1.0	7026327
Soluble Sodium (Na)	mg/L	330	2.5	39	2.5	230	2.5	7026327
Soluble Potassium (K)	mg/L	12	1.3	7.7	1.3	10	1.3	7026327
Saturation %	%	34	N/A	34	N/A	36	N/A	7024196
Soluble Sulphate (SO4)	mg/L	360	5.0	130	5.0	330	5.0	7026327
Theoretical Gypsum Requirement	tonnes/ha	1.1	0.10	<0.10	0.10	0.24	0.10	7021714

RDL = Reportable Detection Limit
(1) Detection limits raised due to dilution to bring analyte within the calibrated range.

Maxxam Job #: B363840
Report Date: 2013/08/14

KLOHN CRIPPEN BERGER LTD
Client Project #: A04012A05
Site Location: CAMP FAREWELL
Sampler Initials: NW

SOIL SALINITY 4 (SOIL)

Maxxam ID		GZ9465		GZ9466			GZ9467		
Sampling Date		2013/07/22		2013/07/22			2013/07/22		
COC Number		A134528		A134528			A134528		
	UNITS	**EX-13-DN (0-1M)**	**RDL**	**EX-13-DN (7M)**	**RDL**	**QC Batch**	**EX-13-EN (3M)**	**RDL**	**QC Batch**
Calculated Parameters									
Anion Sum	meq/L	1.1	N/A	7.0	N/A	7022359	0.23	N/A	7022359
Cation Sum	meq/L	2.7	N/A	7.1	N/A	7022359	1.7	N/A	7022359
Cation/EC Ratio	N/A	12	0.10	10	0.10	7021708	14	0.10	7022350
Ion Balance	N/A	2.4	0.010	1.0	0.010	7022358	7.4	0.010	7022358
Calculated Calcium (Ca)	mg/kg	10	0.59	22	0.45	7022361	4.4	0.44	7022361
Calculated Magnesium (Mg)	mg/kg	1.7	0.39	5.7	0.30	7022361	0.61	0.29	7022361
Calculated Sodium (Na)	mg/kg	4.7	0.98	12	0.75	7022361	4.5	0.73	7022361
Calculated Potassium (K)	mg/kg	7.7	0.51	2.9	0.39	7022361	0.74	0.38	7022361
Calculated Chloride (Cl)	mg/kg	3.4	2.0	5.3	1.5	7022361	<1.5	1.5	7022361
Calculated Sulphate (SO4)	mg/kg	17	2.0	93	1.5	7022361	3.1	1.5	7022361
Soluble Parameters									
Soluble Chloride (Cl)	mg/L	8.6	5.0	18	5.0	7026562	<5.0	5.0	7026562
Soluble Conductivity	dS/m	0.22	0.020	0.71	0.020	7025245	0.12	0.020	7025245
Soluble (CaCl2) pH	N/A	7.25	N/A	7.46	N/A	7024049	7.74	N/A	7024049
Sodium Adsorption Ratio	N/A	0.57	0.10	1.1	0.10	7021713	0.99	0.10	7022360
Soluble Calcium (Ca)	mg/L	26	1.5	72	1.5	7026924	15	1.5	7026924
Soluble Magnesium (Mg)	mg/L	4.2	1.0	19	1.0	7026924	2.1	1.0	7026924
Soluble Sodium (Na)	mg/L	12	2.5	40	2.5	7026924	15	2.5	7026924
Soluble Potassium (K)	mg/L	20	1.3	9.8	1.3	7026924	2.5	1.3	7026924
Saturation %	%	39	N/A	30	N/A	7024253	29	N/A	7024253
Soluble Sulphate (SO4)	mg/L	42	5.0	310	5.0	7026924	11	5.0	7026924
Theoretical Gypsum Requirement	tonnes/ha	<0.10	0.10	<0.10	0.10	7021714	<0.10	0.10	7022362

RDL = Reportable Detection Limit

Maxxam Job #: B363840
Report Date: 2013/08/14

KLOHN CRIPPEN BERGER LTD
Client Project #: A04012A05
Site Location: CAMP FAREWELL
Sampler Initials: NW

SOIL SALINITY 4 (SOIL)

Maxxam ID		GZ9468		GZ9469		GZ9471		
Sampling Date		2013/07/22		2013/07/22		2013/07/22		
COC Number		A134528		A134516		A134516		
	UNITS	**EX-13-EN (7M)**	**RDL**	**EX-13-LN (0-1M)**	**RDL**	**EX-13-LN (6M)**	**RDL**	**QC Batch**
Calculated Parameters								
Anion Sum	meq/L	19	N/A	1.0	N/A	2.9	N/A	7022359
Cation Sum	meq/L	18	N/A	2.2	N/A	4.7	N/A	7022359
Cation/EC Ratio	N/A	12	0.10	13	0.10	12	0.10	7022350
Ion Balance	N/A	0.98	0.010	2.1	0.010	1.6	0.010	7022358
Calculated Calcium (Ca)	mg/kg	90	0.62	25	2.1	28	0.82	7022361
Calculated Magnesium (Mg)	mg/kg	27	0.41	7.3	1.4	7.4	0.55	7022361
Calculated Sodium (Na)	mg/kg	16	1.0	28	3.5	4.9	1.4	7022361
Calculated Potassium (K)	mg/kg	3.7	0.53	1.9	1.8	14	0.71	7022361
Calculated Chloride (Cl)	mg/kg	32	2.1	10	7.0	4.0	2.7	7022361
Calculated Sulphate (SO4)	mg/kg	320	2.1	56	7.0	70	2.7	7022361
Soluble Parameters								
Soluble Chloride (Cl)	mg/L	77	5.0	7.4	5.0	7.3	5.0	7026562
Soluble Conductivity	dS/m	1.5	0.020	0.18	0.020	0.41	0.020	7025245
Soluble (CaCl2) pH	N/A	6.72	N/A	6.10	N/A	6.64	N/A	7024049
Sodium Adsorption Ratio	N/A	0.58	0.10	1.1	0.10	0.29	0.10	7022360
Soluble Calcium (Ca)	mg/L	220	1.5	17	1.5	51	1.5	7026924
Soluble Magnesium (Mg)	mg/L	66	1.0	5.2	1.0	13	1.0	7026924
Soluble Sodium (Na)	mg/L	39	2.5	20	2.5	8.9	2.5	7026924
Soluble Potassium (K)	mg/L	8.9	1.3	1.4	1.3	25	1.3	7026924
Saturation %	%	41	N/A	140	N/A	55	N/A	7024253
Soluble Sulphate (SO4)	mg/L	790	5.0	40	5.0	130	5.0	7026924
Theoretical Gypsum Requirement	tonnes/ha	<0.10	0.10	<0.10	0.10	<0.10	0.10	7022362

RDL = Reportable Detection Limit

Maxxam Job #: B363840
Report Date: 2013/08/14

KLOHN CRIPPEN BERGER LTD
Client Project #: A04012A05
Site Location: CAMP FAREWELL
Sampler Initials: NW

SOIL SALINITY 4 (SOIL)

Maxxam ID		HA0382		
Sampling Date		2013/07/21		
COC Number		A134527		
	UNITS	**EX-13-1KB(7M)**	**RDL**	**QC Batch**
Calculated Parameters				
Anion Sum	meq/L	6.0	N/A	7025961
Cation Sum	meq/L	6.4	N/A	7025961
Cation/EC Ratio	N/A	9.0	0.10	7025954
Ion Balance	N/A	1.1	0.010	7025960
Calculated Calcium (Ca)	mg/kg	2.7	0.54	7025964
Calculated Magnesium (Mg)	mg/kg	0.76	0.36	7025964
Calculated Sodium (Na)	mg/kg	45	0.90	7025964
Calculated Potassium (K)	mg/kg	5.4	0.47	7025964
Calculated Chloride (Cl)	mg/kg	36	1.8	7025964
Calculated Sulphate (SO4)	mg/kg	55	1.8	7025964
Soluble Parameters				
Soluble Chloride (Cl)	mg/L	100	5.0	7028052
Soluble Conductivity	dS/m	0.72	0.020	7027970
Soluble (CaCl2) pH	N/A	6.94	N/A	7027624
Sodium Adsorption Ratio	N/A	10	0.10	7025962
Soluble Calcium (Ca)	mg/L	7.5	1.5	7028146
Soluble Magnesium (Mg)	mg/L	2.1	1.0	7028146
Soluble Sodium (Na)	mg/L	130	2.5	7028146
Soluble Potassium (K)	mg/L	15	1.3	7028146
Saturation %	%	36	N/A	7027318
Soluble Sulphate (SO4)	mg/L	150	5.0	7028146
Theoretical Gypsum Requirement	tonnes/ha	0.19	0.10	7025965

RDL = Reportable Detection Limit

Maxxam Job #: B363840
Report Date: 2013/08/14

KLOHN CRIPPEN BERGER LTD
Client Project #: A04012A05
Site Location: CAMP FAREWELL
Sampler Initials: NW

BASIC CLASS II LANDFILL PACKAGE (SOIL)

Maxxam ID		GZ9443		
Sampling Date		2013/07/20		
COC Number		A134527		
	UNITS	**DS13-001**	**RDL**	**QC Batch**
Soluble Parameters				
Soluble (1:1) pH	N/A	7.44	N/A	7024529
Physical Properties				
Closed Cup Flash point	deg. C	>61	N/A	7026825
Free Liquid	N/A	PASS	N/A	7026879
Elements				
Leachable Antimony (Sb)	mg/L	<1.0	1.0	7023787
Leachable Arsenic (As)	mg/L	<0.50	0.50	7023787
Leachable Barium (Ba)	mg/L	2.2	1.0	7023787
Leachable Beryllium (Be)	mg/L	<0.50	0.50	7023787
Leachable Boron (B)	mg/L	<1.0	1.0	7023787
Leachable Cadmium (Cd)	mg/L	<0.10	0.10	7023787
Leachable Chromium (Cr)	mg/L	<0.50	0.50	7023787
Leachable Cobalt (Co)	mg/L	<1.0	1.0	7023787
Leachable Copper (Cu)	mg/L	<1.0	1.0	7023787
Leachable Iron (Fe)	mg/L	11	1.0	7023787
Leachable Lead (Pb)	mg/L	<0.50	0.50	7023787
Leachable Mercury (Hg)	mg/L	<0.020	0.020	7023787
Leachable Nickel (Ni)	mg/L	<0.50	0.50	7023787
Leachable Selenium (Se)	mg/L	<0.10	0.10	7023787
Leachable Silver (Ag)	mg/L	<0.50	0.50	7023787
Leachable Thallium (Tl)	mg/L	<0.50	0.50	7023787
Leachable Uranium (U)	mg/L	<0.20	0.20	7023787
Leachable Vanadium (V)	mg/L	<1.0	1.0	7023787
Leachable Zinc (Zn)	mg/L	<1.0	1.0	7023787
Leachable Zirconium (Zr)	mg/L	<1.0	1.0	7023787
Volatiles				
Leachable (ZH) Benzene	mg/L	<0.010	0.010	7024500
Leachable (ZH) Toluene	mg/L	0.018	0.010	7024500
Leachable (ZH) Ethylbenzene	mg/L	<0.010	0.010	7024500
Leachable (ZH) o-Xylene	mg/L	0.053	0.010	7024500
Leachable (ZH) m & p-Xylene	mg/L	0.080	0.020	7024500
Leachable (ZH) Xylenes (Total)	mg/L	0.13	0.020	7024500
Surrogate Recovery (%)				
Leachable (ZH) 1,4-Difluorobenzene (sur.)	%	91	N/A	7024500

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Job #: B363840
Report Date: 2013/08/14

KLOHN CRIPPEN BERGER LTD
Client Project #: A04012A05
Site Location: CAMP FAREWELL
Sampler Initials: NW

BASIC CLASS II LANDFILL PACKAGE (SOIL)

Maxxam ID		GZ9443		
Sampling Date		2013/07/20		
COC Number		A134527		
	UNITS	**DS13-001**	**RDL**	**QC Batch**
Leachable (ZH) 4-BROMOFLUOROBENZENE (sur.)	%	98	N/A	7024500
Leachable (ZH) D4-1,2-DICHLOROETHANE (sur.)	%	87	N/A	7024500

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Job #: B363840
Report Date: 2013/08/14

KLOHN CRIPPEN BERGER LTD
Client Project #: A04012A05
Site Location: CAMP FAREWELL
Sampler Initials: NW

REGULATED METALS (CCME/AT1) - SOILS

Maxxam ID		GZ9436	GZ9437	GZ9438	GZ9439	GZ9440		
Sampling Date		2013/07/23 15:30	2013/07/23	2013/07/23	2013/07/23	2013/07/23		
COC Number		A134527	A134527	A134527	A134527	A134527		
	UNITS	**TP#1**	**TP#2**	**TP#3**	**TP#4**	**TP#5**	**RDL**	**QC Batch**
Elements								
Soluble (Hot water) Boron (B)	mg/kg	0.19	0.11	0.19	0.25	<0.10	0.10	7026671
Hex. Chromium (Cr 6+)	mg/kg	<0.15	<0.15	<0.15	<0.15	<0.15	0.15	7024524
Total Antimony (Sb)	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	7026100
Total Arsenic (As)	mg/kg	6.6	6.4	6.5	5.0	4.5	1.0	7026100
Total Barium (Ba)	mg/kg	2300	1700	1100	1900	580	10	7026100
Total Beryllium (Be)	mg/kg	<0.40	<0.40	<0.40	<0.40	<0.40	0.40	7026100
Total Cadmium (Cd)	mg/kg	0.26	<0.10	<0.10	<0.10	<0.10	0.10	7026100
Total Chromium (Cr)	mg/kg	6.8	5.3	6.8	5.3	4.6	1.0	7026100
Total Cobalt (Co)	mg/kg	2.7	3.0	2.7	2.2	1.9	1.0	7026100
Total Copper (Cu)	mg/kg	10	6.2	8.0	6.1	<5.0	5.0	7026100
Total Lead (Pb)	mg/kg	61	18	18	18	9.1	1.0	7026100
Total Mercury (Hg)	mg/kg	0.12	0.064	0.061	0.072	0.057	0.050	7026100
Total Molybdenum (Mo)	mg/kg	0.68	0.61	0.98	0.50	<0.40	0.40	7026100
Total Nickel (Ni)	mg/kg	7.0	7.1	6.9	5.2	4.9	1.0	7026100
Total Selenium (Se)	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	7026100
Total Silver (Ag)	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	7026100
Total Thallium (Tl)	mg/kg	<0.30	<0.30	<0.30	<0.30	<0.30	0.30	7026100
Total Tin (Sn)	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	7026100
Total Uranium (U)	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	7026100
Total Vanadium (V)	mg/kg	11	11	10	9.7	8.6	1.0	7026100
Total Zinc (Zn)	mg/kg	77	29	23	29	17	10	7026100

RDL = Reportable Detection Limit

Maxxam Job #: B363840
Report Date: 2013/08/14

KLOHN CRIPPEN BERGER LTD
Client Project #: A04012A05
Site Location: CAMP FAREWELL
Sampler Initials: NW

REGULATED METALS (CCME/AT1) - SOILS

Maxxam ID		GZ9441	GZ9442	GZ9443		GZ9444		
Sampling Date		2013/07/23	2013/07/23	2013/07/20		2013/07/21		
COC Number		A134527	A134527	A134527		A134527		
	UNITS	**TP#17**	**TP#18**	**DS13-001**	**QC Batch**	**EX-13-ILB**	**RDL**	**QC Batch**
Elements								
Soluble (Hot water) Boron (B)	mg/kg	0.11	0.34	0.72	7026671	0.39	0.10	7025702
Hex. Chromium (Cr 6+)	mg/kg	<0.15	<0.15	<0.15	7024524	<0.15	0.15	7024524
Total Antimony (Sb)	mg/kg	<1.0	<1.0	1.2	7026100	<1.0	1.0	7024736
Total Arsenic (As)	mg/kg	7.9	6.7	5.5	7026100	5.9	1.0	7024736
Total Barium (Ba)	mg/kg	740	1100	420	7026100	180	10	7024736
Total Beryllium (Be)	mg/kg	<0.40	<0.40	<0.40	7026100	<0.40	0.40	7024736
Total Cadmium (Cd)	mg/kg	0.11	0.17	0.18	7026100	0.23	0.10	7024736
Total Chromium (Cr)	mg/kg	6.6	110	11	7026100	13	1.0	7024736
Total Cobalt (Co)	mg/kg	3.9	3.3	3.8	7026100	3.9	1.0	7024736
Total Copper (Cu)	mg/kg	6.8	7.9	11	7026100	14	5.0	7024736
Total Lead (Pb)	mg/kg	8.4	22	16	7026100	13	1.0	7024736
Total Mercury (Hg)	mg/kg	0.053	0.081	<0.050	7026100	<0.050	0.050	7024736
Total Molybdenum (Mo)	mg/kg	0.66	0.74	0.67	7026100	0.80	0.40	7024736
Total Nickel (Ni)	mg/kg	9.2	8.5	12	7026100	14	1.0	7024736
Total Selenium (Se)	mg/kg	<0.50	<0.50	<0.50	7026100	<0.50	0.50	7024736
Total Silver (Ag)	mg/kg	<1.0	<1.0	<1.0	7026100	<1.0	1.0	7024736
Total Thallium (Tl)	mg/kg	<0.30	<0.30	<0.30	7026100	<0.30	0.30	7024736
Total Tin (Sn)	mg/kg	<1.0	<1.0	1.3	7026100	2.0	1.0	7024736
Total Uranium (U)	mg/kg	<1.0	<1.0	<1.0	7026100	<1.0	1.0	7024736
Total Vanadium (V)	mg/kg	15	13	11	7026100	14	1.0	7024736
Total Zinc (Zn)	mg/kg	28	30	46	7026100	57	10	7024736

RDL = Reportable Detection Limit

Maxxam Job #: B363840
Report Date: 2013/08/14

KLOHN CRIPPEN BERGER LTD
Client Project #: A04012A05
Site Location: CAMP FAREWELL
Sampler Initials: NW

REGULATED METALS (CCME/AT1) - SOILS

Maxxam ID		GZ9445	GZ9446	GZ9447	GZ9448	GZ9449	GZ9453		
Sampling Date		2013/07/21	2013/07/21	2013/07/21	2013/07/21	2013/07/21	2013/07/22		
COC Number		A134527	A134527	A134527	A134528	A134528	A134528		
	UNITS	**EX-13-IJB**	**EX-13-IKE**	**EX-13-ILE**	**EX-13-IEB**	**EX-13-IDB**	**EX-13-AW (3M)**	**RDL**	**QC Batch**
Elements									
Soluble (Hot water) Boron (B)	mg/kg	0.50	<0.10	<0.10	0.20	<0.10	0.90	0.10	7025702
Hex. Chromium (Cr 6+)	mg/kg	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	0.15	7024522
Total Antimony (Sb)	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	7024736
Total Arsenic (As)	mg/kg	5.1	4.9	4.4	5.6	5.2	8.1	1.0	7024736
Total Barium (Ba)	mg/kg	1900	82	120	350	91	180	10	7024736
Total Beryllium (Be)	mg/kg	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	0.40	7024736
Total Cadmium (Cd)	mg/kg	0.22	<0.10	<0.10	<0.10	<0.10	0.12	0.10	7024736
Total Chromium (Cr)	mg/kg	11	6.3	6.6	25	7.0	11	1.0	7024736
Total Cobalt (Co)	mg/kg	3.4	4.0	3.8	3.5	3.8	4.2	1.0	7024736
Total Copper (Cu)	mg/kg	25	<5.0	<5.0	<5.0	<5.0	6.5	5.0	7024736
Total Lead (Pb)	mg/kg	18	3.0	3.7	6.5	3.3	4.8	1.0	7024736
Total Mercury (Hg)	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	7024736
Total Molybdenum (Mo)	mg/kg	0.63	0.47	<0.40	0.81	0.46	0.62	0.40	7024736
Total Nickel (Ni)	mg/kg	10	11	10	17	10	12	1.0	7024736
Total Selenium (Se)	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	7024736
Total Silver (Ag)	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	7024736
Total Thallium (Tl)	mg/kg	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	0.30	7024736
Total Tin (Sn)	mg/kg	3.9	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	7024736
Total Uranium (U)	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	7024736
Total Vanadium (V)	mg/kg	14	12	13	13	13	20	1.0	7024736
Total Zinc (Zn)	mg/kg	60	27	30	26	27	34	10	7024736

RDL = Reportable Detection Limit

Maxxam Job #: B363840
Report Date: 2013/08/14

KLOHN CRIPPEN BERGER LTD
Client Project #: A04012A05
Site Location: CAMP FAREWELL
Sampler Initials: NW

REGULATED METALS (CCME/AT1) - SOILS

Maxxam ID		GZ9454	GZ9455	GZ9456	GZ9457	GZ9458	GZ9458		
Sampling Date		2013/07/22	2013/07/22	2013/07/22	2013/07/22	2013/07/22	2013/07/22		
COC Number		A134528	A134528	A134528	A134528	A134528	A134528		
	UNITS	**EX-13-AW (7M)**	**EX-13-BW (1M)**	**EX-13-BW (6M)**	**EX-13-CW (5M)**	**EX-13-DW (6M)**	**EX-13-DW (6M) Lab-Dup**	**RDL**	**QC Batch**
Elements									
Soluble (Hot water) Boron (B)	mg/kg	0.20	0.39	0.50	0.22	0.21	N/A	0.10	7025702
Hex. Chromium (Cr 6+)	mg/kg	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	0.15	7024522
Total Antimony (Sb)	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	N/A	1.0	7024736
Total Arsenic (As)	mg/kg	5.6	6.0	5.6	5.8	5.2	N/A	1.0	7024736
Total Barium (Ba)	mg/kg	97	210	100	100	86	N/A	10	7024736
Total Beryllium (Be)	mg/kg	<0.40	<0.40	<0.40	<0.40	<0.40	N/A	0.40	7024736
Total Cadmium (Cd)	mg/kg	<0.10	0.11	<0.10	<0.10	<0.10	N/A	0.10	7024736
Total Chromium (Cr)	mg/kg	11	10	12	8.2	9.4	N/A	1.0	7024736
Total Cobalt (Co)	mg/kg	3.9	4.4	4.2	4.4	3.9	N/A	1.0	7024736
Total Copper (Cu)	mg/kg	<5.0	5.8	<5.0	<5.0	<5.0	N/A	5.0	7024736
Total Lead (Pb)	mg/kg	3.5	4.5	3.4	3.6	3.2	N/A	1.0	7024736
Total Mercury (Hg)	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050	N/A	0.050	7024736
Total Molybdenum (Mo)	mg/kg	0.58	0.57	0.60	0.55	0.49	N/A	0.40	7024736
Total Nickel (Ni)	mg/kg	12	13	14	13	12	N/A	1.0	7024736
Total Selenium (Se)	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	N/A	0.50	7024736
Total Silver (Ag)	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	N/A	1.0	7024736
Total Thallium (Tl)	mg/kg	<0.30	<0.30	<0.30	<0.30	<0.30	N/A	0.30	7024736
Total Tin (Sn)	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	N/A	1.0	7024736
Total Uranium (U)	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	N/A	1.0	7024736
Total Vanadium (V)	mg/kg	13	17	14	15	13	N/A	1.0	7024736
Total Zinc (Zn)	mg/kg	29	25	29	33	27	N/A	10	7024736

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Job #: B363840
Report Date: 2013/08/14

KLOHN CRIPPEN BERGER LTD
Client Project #: A04012A05
Site Location: CAMP FAREWELL
Sampler Initials: NW

REGULATED METALS (CCME/AT1) - SOILS

Maxxam ID		GZ9465	GZ9466	GZ9467		GZ9468		
Sampling Date		2013/07/22	2013/07/22	2013/07/22		2013/07/22		
COC Number		A134528	A134528	A134528		A134528		
	UNITS	**EX-13-DN (0-1M)**	**EX-13-DN (7M)**	**EX-13-EN (3M)**	**QC Batch**	**EX-13-EN (7M)**	**RDL**	**QC Batch**
Elements								
Soluble (Hot water) Boron (B)	mg/kg	0.22	0.18	<0.10	7025702	2.6	0.10	7025702
Hex. Chromium (Cr 6+)	mg/kg	<0.15	<0.15	<0.15	7024522	<0.15	0.15	7024522
Total Antimony (Sb)	mg/kg	<1.0	<1.0	<1.0	7024736	<1.0	1.0	7024736
Total Arsenic (As)	mg/kg	6.1	5.3	6.1	7024736	16	1.0	7076255
Total Barium (Ba)	mg/kg	120	89	76	7024736	210	10	7024736
Total Beryllium (Be)	mg/kg	<0.40	<0.40	<0.40	7024736	<0.40	0.40	7024736
Total Cadmium (Cd)	mg/kg	<0.10	<0.10	<0.10	7024736	0.98	0.10	7024736
Total Chromium (Cr)	mg/kg	12	9.4	9.4	7024736	9.3	1.0	7024736
Total Cobalt (Co)	mg/kg	4.1	3.9	3.6	7024736	6.8	1.0	7024736
Total Copper (Cu)	mg/kg	<5.0	<5.0	<5.0	7024736	7.4	5.0	7024736
Total Lead (Pb)	mg/kg	3.6	3.1	3.0	7024736	4.6	1.0	7024736
Total Mercury (Hg)	mg/kg	<0.050	<0.050	<0.050	7024736	<0.050	0.050	7024736
Total Molybdenum (Mo)	mg/kg	0.57	0.52	0.51	7024736	1.4	0.40	7024736
Total Nickel (Ni)	mg/kg	14	12	12	7024736	18	1.0	7024736
Total Selenium (Se)	mg/kg	<0.50	<0.50	<0.50	7024736	<0.50	0.50	7024736
Total Silver (Ag)	mg/kg	<1.0	<1.0	<1.0	7024736	<1.0	1.0	7024736
Total Thallium (Tl)	mg/kg	<0.30	<0.30	<0.30	7024736	<0.30	0.30	7024736
Total Tin (Sn)	mg/kg	<1.0	<1.0	<1.0	7024736	<1.0	1.0	7024736
Total Uranium (U)	mg/kg	<1.0	<1.0	<1.0	7024736	1.2	1.0	7024736
Total Vanadium (V)	mg/kg	13	13	12	7024736	21	1.0	7024736
Total Zinc (Zn)	mg/kg	28	26	25	7024736	40	10	7024736

RDL = Reportable Detection Limit

Maxxam Job #: B363840
Report Date: 2013/08/14

KLOHN CRIPPEN BERGER LTD
Client Project #: A04012A05
Site Location: CAMP FAREWELL
Sampler Initials: NW

REGULATED METALS (CCME/AT1) - SOILS

Maxxam ID		GZ9469	GZ9471		HA0382		
Sampling Date		2013/07/22	2013/07/22		2013/07/21		
COC Number		A134516	A134516		A134527		
	UNITS	**EX-13-LN (0-1M)**	**EX-13-LN (6M)**	**QC Batch**	**EX-13-1KB(7M)**	**RDL**	**QC Batch**
Elements							
Soluble (Hot water) Boron (B)	mg/kg	0.84	0.56	7026671	0.49	0.10	7027660
Hex. Chromium (Cr 6+)	mg/kg	<0.15	<0.15	7024522	<0.15	0.15	7024535
Total Antimony (Sb)	mg/kg	<1.0	<1.0	7026100	<1.0	1.0	7027493
Total Arsenic (As)	mg/kg	5.1	4.9	7026100	5.4	1.0	7027493
Total Barium (Ba)	mg/kg	480	220	7026100	140	10	7027493
Total Beryllium (Be)	mg/kg	<0.40	<0.40	7026100	<0.40	0.40	7027493
Total Cadmium (Cd)	mg/kg	0.20	<0.10	7026100	<0.10	0.10	7027493
Total Chromium (Cr)	mg/kg	6.8	5.0	7026100	6.7	1.0	7027493
Total Cobalt (Co)	mg/kg	3.7	2.8	7026100	3.7	1.0	7027493
Total Copper (Cu)	mg/kg	7.7	<5.0	7026100	5.4	5.0	7027493
Total Lead (Pb)	mg/kg	9.6	6.0	7026100	4.8	1.0	7027493
Total Mercury (Hg)	mg/kg	0.057	<0.050	7026100	<0.050	0.050	7027493
Total Molybdenum (Mo)	mg/kg	0.50	0.45	7026100	0.55	0.40	7027493
Total Nickel (Ni)	mg/kg	11	7.0	7026100	11	1.0	7027493
Total Selenium (Se)	mg/kg	<0.50	<0.50	7026100	<0.50	0.50	7027493
Total Silver (Ag)	mg/kg	<1.0	<1.0	7026100	<1.0	1.0	7027493
Total Thallium (Tl)	mg/kg	<0.30	<0.30	7026100	<0.30	0.30	7027493
Total Tin (Sn)	mg/kg	<1.0	<1.0	7026100	<1.0	1.0	7027493
Total Uranium (U)	mg/kg	<1.0	<1.0	7026100	<1.0	1.0	7027493
Total Vanadium (V)	mg/kg	14	9.6	7026100	12	1.0	7027493
Total Zinc (Zn)	mg/kg	28	29	7026100	29	10	7027493

RDL = Reportable Detection Limit

Maxxam Job #: B363840
Report Date: 2013/08/14

KLOHN CRIPPEN BERGER LTD
Client Project #: A04012A05
Site Location: CAMP FAREWELL
Sampler Initials: NW

RESULTS OF CHEMICAL ANALYSES OF SOIL

Maxxam ID		GZ9436	GZ9437	GZ9438	GZ9439	GZ9440	GZ9441		
Sampling Date		2013/07/23 15:30	2013/07/23	2013/07/23	2013/07/23	2013/07/23	2013/07/23		
COC Number		A134527	A134527	A134527	A134527	A134527	A134527		
	UNITS	**TP#1**	**TP#2**	**TP#3**	**TP#4**	**TP#5**	**TP#17**	**RDL**	**QC Batch**
Elements									
Extractable Barium (Ba)	mg/kg	45	36	44	45	34	40	1.0	7037181

RDL = Reportable Detection Limit

Maxxam ID		GZ9442	GZ9445		
Sampling Date		2013/07/23	2013/07/21		
COC Number		A134527	A134527		
	UNITS	**TP#18**	**EX-13-IJB**	**RDL**	**QC Batch**
Elements					
Extractable Barium (Ba)	mg/kg	22	27	1.0	7037181

RDL = Reportable Detection Limit

SEMIVOLATILE ORGANICS BY GC-MS (SOIL)

Maxxam ID		GZ9453		
Sampling Date		2013/07/22		
COC Number		A134528		
	UNITS	**EX-13-AW (3M)**	**RDL**	**QC Batch**
Polycyclic Aromatics				
Acenaphthene	mg/kg	<0.0050	0.0050	7023968
Benzo[a]pyrene equivalency	mg/kg	<0.10	0.10	7021178
Acenaphthylene	mg/kg	<0.0050	0.0050	7023968
Acridine	mg/kg	<0.010	0.010	7023968
Anthracene	mg/kg	<0.0040	0.0040	7023968
Benzo(a)anthracene	mg/kg	<0.0050	0.0050	7023968
Benzo(b&j)fluoranthene	mg/kg	<0.0050	0.0050	7023968
Benzo(k)fluoranthene	mg/kg	<0.0050	0.0050	7023968
Benzo(g,h,i)perylene	mg/kg	<0.0050	0.0050	7023968
Benzo(c)phenanthrene	mg/kg	<0.0050	0.0050	7023968
Benzo(a)pyrene	mg/kg	<0.0050	0.0050	7023968
Benzo[e]pyrene	mg/kg	<0.0050	0.0050	7023968
Chrysene	mg/kg	<0.0050	0.0050	7023968
Dibenz(a,h)anthracene	mg/kg	<0.0050	0.0050	7023968
Fluoranthene	mg/kg	<0.0050	0.0050	7023968
Fluorene	mg/kg	<0.0050	0.0050	7023968
Indeno(1,2,3-cd)pyrene	mg/kg	<0.0050	0.0050	7023968
2-Methylnaphthalene	mg/kg	<0.0050	0.0050	7023968
Naphthalene	mg/kg	<0.0050	0.0050	7023968
Phenanthrene	mg/kg	<0.0050	0.0050	7023968
Perylene	mg/kg	0.0065	0.0050	7023968
Pyrene	mg/kg	<0.0050	0.0050	7023968
Quinoline	mg/kg	<0.010	0.010	7023968
Surrogate Recovery (%)				
D10-ANTHRACENE (sur.)	%	98	N/A	7023968
D12-BENZO(A)PYRENE (sur.)	%	79	N/A	7023968
D8-ACENAPHTHYLENE (sur.)	%	99	N/A	7023968
TERPHENYL-D14 (sur.)	%	117	N/A	7023968

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Job #: B363840
Report Date: 2013/08/14

KLOHN CRIPPEN BERGER LTD
Client Project #: A04012A05
Site Location: CAMP FAREWELL
Sampler Initials: NW

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		GZ9436	GZ9437	GZ9438	GZ9439	GZ9440	GZ9441		
Sampling Date		2013/07/23 15:30	2013/07/23	2013/07/23	2013/07/23	2013/07/23	2013/07/23		
COC Number		A134527	A134527	A134527	A134527	A134527	A134527		
	UNITS	**TP#1**	**TP#2**	**TP#3**	**TP#4**	**TP#5**	**TP#17**	**RDL**	**QC Batch**
Elements									
Total Fusion Barium (Ba)	mg/kg	16000	5600	3700	6700	1900	1900	50	7046467
RDL = Reportable Detection Limit									

Maxxam ID		GZ9442	GZ9445		
Sampling Date		2013/07/23	2013/07/21		
COC Number		A134527	A134527		
	UNITS	**TP#18**	**EX-13-IJB**	**RDL**	**QC Batch**
Elements					
Total Fusion Barium (Ba)	mg/kg	1600	4100	50	7046467
RDL = Reportable Detection Limit					

Package 1	6.7°C
Package 2	6.3°C

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

Sample GZ9468, Elements by ICPMS - Soils: Test repeated.

Results relate only to the items tested.

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: A04012A05
P.O. #:
Site Location: CAMP FAREWELL

Quality Assurance Report

Maxxam Job Number: EB363840

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7015681	KO	Matrix Spike	O-TERPHENYL (sur.)	2013/07/28		99	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/07/28		104	%	50 - 130
			F3 (C16-C34 Hydrocarbons)	2013/07/28		105	%	50 - 130
			F4 (C34-C50 Hydrocarbons)	2013/07/28		103	%	50 - 130
		Spiked Blank	O-TERPHENYL (sur.)	2013/07/28		96	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/07/28		104	%	70 - 130
			F3 (C16-C34 Hydrocarbons)	2013/07/28		105	%	70 - 130
			F4 (C34-C50 Hydrocarbons)	2013/07/28		102	%	70 - 130
		Method Blank	O-TERPHENYL (sur.)	2013/07/28		99	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/07/28	<10		mg/kg	
			F3 (C16-C34 Hydrocarbons)	2013/07/28	<50		mg/kg	
			F4 (C34-C50 Hydrocarbons)	2013/07/28	<50		mg/kg	
		RPD	F2 (C10-C16 Hydrocarbons)	2013/07/28	NC		%	50
			F3 (C16-C34 Hydrocarbons)	2013/07/28	NC		%	50
			F4 (C34-C50 Hydrocarbons)	2013/07/28	NC		%	50
7020731	PS7	Matrix Spike	1,4-Difluorobenzene (sur.)	2013/07/25		115	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/07/25		100	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/07/25		124	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/07/25		94	%	60 - 140
			Benzene	2013/07/25		105	%	60 - 140
			Toluene	2013/07/25		107	%	60 - 140
			Ethylbenzene	2013/07/25		107	%	60 - 140
			m & p-Xylene	2013/07/25		112	%	60 - 140
			o-Xylene	2013/07/25		103	%	60 - 140
			(C6-C10)	2013/07/25		103	%	60 - 140
		Spiked Blank	1,4-Difluorobenzene (sur.)	2013/07/25		98	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/07/25		97	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/07/25		99	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/07/25		92	%	60 - 140
			Benzene	2013/07/25		86	%	60 - 140
			Toluene	2013/07/25		86	%	60 - 140
			Ethylbenzene	2013/07/25		87	%	60 - 140
			m & p-Xylene	2013/07/25		88	%	60 - 140
			o-Xylene	2013/07/25		89	%	60 - 140
			(C6-C10)	2013/07/25		101	%	60 - 140
		Method Blank	1,4-Difluorobenzene (sur.)	2013/07/25		98	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/07/25		104	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/07/25		110	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/07/25		86	%	60 - 140
			Benzene	2013/07/25	<0.0050		mg/kg	
			Toluene	2013/07/25	<0.020		mg/kg	
			Ethylbenzene	2013/07/25	<0.010		mg/kg	
			Xylenes (Total)	2013/07/25	<0.040		mg/kg	
			m & p-Xylene	2013/07/25	<0.040		mg/kg	
			o-Xylene	2013/07/25	<0.020		mg/kg	
			F1 (C6-C10) - BTEX	2013/07/25	<12		mg/kg	
			(C6-C10)	2013/07/25	<12		mg/kg	
		RPD	Benzene	2013/07/25	NC		%	50
			Toluene	2013/07/25	NC		%	50
			Ethylbenzene	2013/07/25	NC		%	50
			Xylenes (Total)	2013/07/25	NC		%	50
			m & p-Xylene	2013/07/25	NC		%	50
			o-Xylene	2013/07/25	NC		%	50
			F1 (C6-C10) - BTEX	2013/07/25	NC		%	50
			(C6-C10)	2013/07/25	NC		%	50

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QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7021306	JR1	Matrix Spike	O-TERPHENYL (sur.)	2013/07/25		101	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/07/25		114	%	50 - 130
			F3 (C16-C34 Hydrocarbons)	2013/07/25		117	%	50 - 130
			F4 (C34-C50 Hydrocarbons)	2013/07/25		116	%	50 - 130
		Spiked Blank	O-TERPHENYL (sur.)	2013/07/25		95	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/07/25		113	%	70 - 130
			F3 (C16-C34 Hydrocarbons)	2013/07/25		116	%	70 - 130
			F4 (C34-C50 Hydrocarbons)	2013/07/25		117	%	70 - 130
		Method Blank	O-TERPHENYL (sur.)	2013/07/25		104	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/07/25	<10		mg/kg	
			F3 (C16-C34 Hydrocarbons)	2013/07/25	<50		mg/kg	
			F4 (C34-C50 Hydrocarbons)	2013/07/25	<50		mg/kg	
		RPD	F2 (C10-C16 Hydrocarbons)	2013/07/25	NC		%	50
			F3 (C16-C34 Hydrocarbons)	2013/07/25	NC		%	50
			F4 (C34-C50 Hydrocarbons)	2013/07/25	NC		%	50
7022792	JR1	Matrix Spike [GZ9455-01]	O-TERPHENYL (sur.)	2013/07/25		87	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/07/25		87	%	50 - 130
			F3 (C16-C34 Hydrocarbons)	2013/07/25		89	%	50 - 130
			F4 (C34-C50 Hydrocarbons)	2013/07/25		88	%	50 - 130
		Spiked Blank	O-TERPHENYL (sur.)	2013/07/25		92	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/07/25		103	%	70 - 130
			F3 (C16-C34 Hydrocarbons)	2013/07/25		105	%	70 - 130
			F4 (C34-C50 Hydrocarbons)	2013/07/25		103	%	70 - 130
		Method Blank	O-TERPHENYL (sur.)	2013/07/25		94	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/07/25	<10		mg/kg	
			F3 (C16-C34 Hydrocarbons)	2013/07/25	<50		mg/kg	
			F4 (C34-C50 Hydrocarbons)	2013/07/25	<50		mg/kg	
		RPD [GZ9454-01]	F2 (C10-C16 Hydrocarbons)	2013/07/25	NC		%	50
			F3 (C16-C34 Hydrocarbons)	2013/07/25	NC		%	50
			F4 (C34-C50 Hydrocarbons)	2013/07/25	NC		%	50
7023787	WAU	Matrix Spike	Leachable Antimony (Sb)	2013/07/26		97	%	75 - 125
			Leachable Arsenic (As)	2013/07/26		103	%	75 - 125
			Leachable Barium (Ba)	2013/07/26		NC	%	75 - 125
			Leachable Beryllium (Be)	2013/07/26		101	%	75 - 125
			Leachable Boron (B)	2013/07/26		105	%	75 - 125
			Leachable Cadmium (Cd)	2013/07/26		104	%	75 - 125
			Leachable Chromium (Cr)	2013/07/26		102	%	75 - 125
			Leachable Cobalt (Co)	2013/07/26		99	%	75 - 125
			Leachable Copper (Cu)	2013/07/26		96	%	75 - 125
			Leachable Iron (Fe)	2013/07/26		NC	%	75 - 125
			Leachable Lead (Pb)	2013/07/26		93	%	75 - 125
			Leachable Mercury (Hg)	2013/07/26		97	%	75 - 125
			Leachable Nickel (Ni)	2013/07/26		100	%	75 - 125
			Leachable Selenium (Se)	2013/07/26		111	%	75 - 125
			Leachable Silver (Ag)	2013/07/26		101	%	75 - 125
			Leachable Thallium (Tl)	2013/07/26		106	%	75 - 125
			Leachable Uranium (U)	2013/07/26		91	%	75 - 125
			Leachable Vanadium (V)	2013/07/26		109	%	75 - 125
			Leachable Zinc (Zn)	2013/07/26		97	%	75 - 125
			Leachable Zirconium (Zr)	2013/07/26		116	%	75 - 125
		Spiked Blank	Leachable Antimony (Sb)	2013/07/26		86	%	80 - 120
			Leachable Arsenic (As)	2013/07/26		97	%	80 - 120
			Leachable Barium (Ba)	2013/07/26		101	%	80 - 120
			Leachable Beryllium (Be)	2013/07/26		99	%	80 - 120

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7023787	WAU	Spiked Blank	Leachable Boron (B)	2013/07/26		101	%	80 - 120
			Leachable Cadmium (Cd)	2013/07/26		99	%	80 - 120
			Leachable Chromium (Cr)	2013/07/26		99	%	80 - 120
			Leachable Cobalt (Co)	2013/07/26		97	%	80 - 120
			Leachable Copper (Cu)	2013/07/26		98	%	80 - 120
			Leachable Iron (Fe)	2013/07/26		105	%	80 - 120
			Leachable Lead (Pb)	2013/07/26		95	%	80 - 120
			Leachable Mercury (Hg)	2013/07/26		95	%	80 - 120
			Leachable Nickel (Ni)	2013/07/26		98	%	80 - 120
			Leachable Selenium (Se)	2013/07/26		104	%	80 - 120
			Leachable Silver (Ag)	2013/07/26		98	%	80 - 120
			Leachable Thallium (Tl)	2013/07/26		108	%	80 - 120
			Leachable Uranium (U)	2013/07/26		88	%	80 - 120
			Leachable Vanadium (V)	2013/07/26		101	%	80 - 120
			Leachable Zinc (Zn)	2013/07/26		99	%	80 - 120
			Leachable Zirconium (Zr)	2013/07/26		103	%	80 - 120
		Method Blank	Leachable Antimony (Sb)	2013/07/26	<1.0		mg/L	
			Leachable Arsenic (As)	2013/07/26	<0.50		mg/L	
			Leachable Barium (Ba)	2013/07/26	<1.0		mg/L	
			Leachable Beryllium (Be)	2013/07/26	<0.50		mg/L	
			Leachable Boron (B)	2013/07/26	<1.0		mg/L	
			Leachable Cadmium (Cd)	2013/07/26	<0.10		mg/L	
			Leachable Chromium (Cr)	2013/07/26	<0.50		mg/L	
			Leachable Cobalt (Co)	2013/07/26	<1.0		mg/L	
			Leachable Copper (Cu)	2013/07/26	<1.0		mg/L	
			Leachable Iron (Fe)	2013/07/26	<1.0		mg/L	
			Leachable Lead (Pb)	2013/07/26	<0.50		mg/L	
			Leachable Mercury (Hg)	2013/07/26	<0.020		mg/L	
			Leachable Nickel (Ni)	2013/07/26	<0.50		mg/L	
			Leachable Selenium (Se)	2013/07/26	<0.10		mg/L	
			Leachable Silver (Ag)	2013/07/26	<0.50		mg/L	
			Leachable Thallium (Tl)	2013/07/26	<0.50		mg/L	
			Leachable Uranium (U)	2013/07/26	<0.20		mg/L	
			Leachable Vanadium (V)	2013/07/26	<1.0		mg/L	
			Leachable Zinc (Zn)	2013/07/26	<1.0		mg/L	
			Leachable Zirconium (Zr)	2013/07/26	<1.0		mg/L	
		RPD	Leachable Antimony (Sb)	2013/07/26	NC		%	35
			Leachable Arsenic (As)	2013/07/26	NC		%	35
			Leachable Barium (Ba)	2013/07/26	NC		%	35
			Leachable Beryllium (Be)	2013/07/26	NC		%	35
			Leachable Boron (B)	2013/07/26	NC		%	35
			Leachable Cadmium (Cd)	2013/07/26	NC		%	35
			Leachable Chromium (Cr)	2013/07/26	NC		%	35
			Leachable Cobalt (Co)	2013/07/26	NC		%	35
			Leachable Copper (Cu)	2013/07/26	NC		%	35
			Leachable Iron (Fe)	2013/07/26	NC		%	35
			Leachable Lead (Pb)	2013/07/26	NC		%	35
			Leachable Mercury (Hg)	2013/07/26	NC		%	35
			Leachable Nickel (Ni)	2013/07/26	NC		%	35
			Leachable Selenium (Se)	2013/07/26	NC		%	35
			Leachable Silver (Ag)	2013/07/26	NC		%	35
			Leachable Thallium (Tl)	2013/07/26	NC		%	35
			Leachable Uranium (U)	2013/07/26	NC		%	35
			Leachable Vanadium (V)	2013/07/26	NC		%	35
			Leachable Zinc (Zn)	2013/07/26	NC		%	35

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7023787	WAU	RPD	Leachable Zirconium (Zr)	2013/07/26	NC		%	35
7023968	YM1	Matrix Spike	D10-ANTHRACENE (sur.)	2013/07/26		97	%	50 - 130
			D12-BENZO(A)PYRENE (sur.)	2013/07/26		85	%	50 - 130
			D8-ACENAPHTHYLENE (sur.)	2013/07/26		93	%	50 - 130
			TERPHENYL-D14 (sur.)	2013/07/26		106	%	50 - 130
			Acenaphthene	2013/07/26		88	%	50 - 130
			Acenaphthylene	2013/07/26		90	%	50 - 130
			Acridine	2013/07/26		64	%	50 - 130
			Anthracene	2013/07/26		91	%	50 - 130
			Benzo(a)anthracene	2013/07/26		86	%	50 - 130
			Benzo(b&j)fluoranthene	2013/07/26		78	%	50 - 130
			Benzo(k)fluoranthene	2013/07/26		88	%	50 - 130
			Benzo(g,h,i)perylene	2013/07/26		80	%	50 - 130
			Benzo(c)phenanthrene	2013/07/26		77	%	50 - 130
			Benzo(a)pyrene	2013/07/26		85	%	50 - 130
			Benzo[e]pyrene	2013/07/26		74	%	50 - 130
			Chrysene	2013/07/26		75	%	50 - 130
			Dibenz(a,h)anthracene	2013/07/26		80	%	50 - 130
			Fluoranthene	2013/07/26		95	%	50 - 130
			Fluorene	2013/07/26		95	%	50 - 130
			Indeno(1,2,3-cd)pyrene	2013/07/26		83	%	50 - 130
			2-Methylnaphthalene	2013/07/26		76	%	50 - 130
			Naphthalene	2013/07/26		81	%	50 - 130
			Phenanthrene	2013/07/26		88	%	50 - 130
			Perylene	2013/07/26		77	%	50 - 130
			Pyrene	2013/07/26		92	%	50 - 130
			Quinoline	2013/07/26		106	%	50 - 130
		Spiked Blank	D10-ANTHRACENE (sur.)	2013/07/26		86	%	50 - 130
			D12-BENZO(A)PYRENE (sur.)	2013/07/26		76	%	50 - 130
			D8-ACENAPHTHYLENE (sur.)	2013/07/26		82	%	50 - 130
			TERPHENYL-D14 (sur.)	2013/07/26		95	%	50 - 130
			Acenaphthene	2013/07/26		81	%	50 - 130
			Acenaphthylene	2013/07/26		81	%	50 - 130
			Acridine	2013/07/26		58	%	50 - 130
			Anthracene	2013/07/26		81	%	50 - 130
			Benzo(a)anthracene	2013/07/26		79	%	50 - 130
			Benzo(b&j)fluoranthene	2013/07/26		71	%	50 - 130
			Benzo(k)fluoranthene	2013/07/26		81	%	50 - 130
			Benzo(g,h,i)perylene	2013/07/26		73	%	50 - 130
			Benzo(c)phenanthrene	2013/07/26		70	%	50 - 130
			Benzo(a)pyrene	2013/07/26		82	%	50 - 130
			Benzo[e]pyrene	2013/07/26		68	%	50 - 130
			Chrysene	2013/07/26		70	%	50 - 130
			Dibenz(a,h)anthracene	2013/07/26		72	%	50 - 130
			Fluoranthene	2013/07/26		85	%	50 - 130
			Fluorene	2013/07/26		85	%	50 - 130
			Indeno(1,2,3-cd)pyrene	2013/07/26		71	%	50 - 130
			2-Methylnaphthalene	2013/07/26		71	%	50 - 130
			Naphthalene	2013/07/26		72	%	50 - 130
			Phenanthrene	2013/07/26		79	%	50 - 130
			Perylene	2013/07/26		69	%	50 - 130
			Pyrene	2013/07/26		84	%	50 - 130
			Quinoline	2013/07/26		109	%	50 - 130
		Method Blank	D10-ANTHRACENE (sur.)	2013/07/26		108	%	50 - 130
			D12-BENZO(A)PYRENE (sur.)	2013/07/26		85	%	50 - 130

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7023968	YM1	Method Blank	D8-ACENAPHTHYLENE (sur.)	2013/07/26		99	%	50 - 130
			TERPHENYL-D14 (sur.)	2013/07/26		118	%	50 - 130
			Acenaphthene	2013/07/26	<0.0050		mg/kg	
			Acenaphthylene	2013/07/26	<0.0050		mg/kg	
			Acridine	2013/07/26	<0.010		mg/kg	
			Anthracene	2013/07/26	<0.0040		mg/kg	
			Benzo(a)anthracene	2013/07/26	<0.0050		mg/kg	
			Benzo(b&j)fluoranthene	2013/07/26	<0.0050		mg/kg	
			Benzo(k)fluoranthene	2013/07/26	<0.0050		mg/kg	
			Benzo(g,h,i)perylene	2013/07/26	<0.0050		mg/kg	
			Benzo(c)phenanthrene	2013/07/26	<0.0050		mg/kg	
			Benzo(a)pyrene	2013/07/26	<0.0050		mg/kg	
			Benzo[e]pyrene	2013/07/26	<0.0050		mg/kg	
			Chrysene	2013/07/26	<0.0050		mg/kg	
			Dibenz(a,h)anthracene	2013/07/26	<0.0050		mg/kg	
			Fluoranthene	2013/07/26	<0.0050		mg/kg	
			Fluorene	2013/07/26	<0.0050		mg/kg	
			Indeno(1,2,3-cd)pyrene	2013/07/26	<0.0050		mg/kg	
			2-Methylnaphthalene	2013/07/26	<0.0050		mg/kg	
			Naphthalene	2013/07/26	<0.0050		mg/kg	
			Phenanthrene	2013/07/26	<0.0050		mg/kg	
			Perylene	2013/07/26	<0.0050		mg/kg	
			Pyrene	2013/07/26	<0.0050		mg/kg	
			Quinoline	2013/07/26	<0.010		mg/kg	
		RPD	Acenaphthene	2013/07/26	NC		%	50
			Acenaphthylene	2013/07/26	NC		%	50
			Acridine	2013/07/26	NC		%	50
			Anthracene	2013/07/26	NC		%	50
			Benzo(a)anthracene	2013/07/26	NC		%	50
			Benzo(b&j)fluoranthene	2013/07/26	NC		%	50
			Benzo(k)fluoranthene	2013/07/26	NC		%	50
			Benzo(g,h,i)perylene	2013/07/26	NC		%	50
			Benzo(c)phenanthrene	2013/07/26	NC		%	50
			Benzo(a)pyrene	2013/07/26	NC		%	50
			Benzo[e]pyrene	2013/07/26	NC		%	50
			Chrysene	2013/07/26	NC		%	50
			Dibenz(a,h)anthracene	2013/07/26	NC		%	50
			Fluoranthene	2013/07/26	NC		%	50
			Fluorene	2013/07/26	NC		%	50
			Indeno(1,2,3-cd)pyrene	2013/07/26	NC		%	50
			2-Methylnaphthalene	2013/07/26	NC		%	50
			Naphthalene	2013/07/26	NC		%	50
			Phenanthrene	2013/07/26	NC		%	50
			Perylene	2013/07/26	NC		%	50
			Pyrene	2013/07/26	NC		%	50
			Quinoline	2013/07/26	NC		%	50
7024030	SSF	QC Standard	Soluble (CaCl2) pH	2013/07/26		100	%	97 - 103
		Spiked Blank	Soluble (CaCl2) pH	2013/07/26		100	%	97 - 103
		RPD [GZ9437-01]	Soluble (CaCl2) pH	2013/07/26	1.0		%	5
7024049	SSF	QC Standard	Soluble (CaCl2) pH	2013/07/26		102	%	97 - 103
		Spiked Blank	Soluble (CaCl2) pH	2013/07/26		100	%	97 - 103
		RPD	Soluble (CaCl2) pH	2013/07/26	0.1		%	5
7024196	LX	QC Standard	Saturation %	2013/07/26		99	%	93 - 107
		RPD [GZ9455-01]	Saturation %	2013/07/26	1.2		%	12
7024253	LX	QC Standard	Saturation %	2013/07/26		103	%	93 - 107

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7024253	LX	RPD	Saturation %	2013/07/26	2.2		%	12
7024356	NSE	Matrix Spike	1,4-Difluorobenzene (sur.)	2013/07/26		105	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/07/26		102	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/07/26		101	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/07/26		105	%	60 - 140
			Benzene	2013/07/26		101	%	60 - 140
			Toluene	2013/07/26		97	%	60 - 140
			Ethylbenzene	2013/07/26		96	%	60 - 140
			m & p-Xylene	2013/07/26		100	%	60 - 140
			o-Xylene	2013/07/26		99	%	60 - 140
			(C6-C10)	2013/07/26		104	%	60 - 140
		Spiked Blank	1,4-Difluorobenzene (sur.)	2013/07/26		92	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/07/26		90	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/07/26		86	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/07/26		96	%	60 - 140
			Benzene	2013/07/26		87	%	60 - 140
			Toluene	2013/07/26		85	%	60 - 140
			Ethylbenzene	2013/07/26		84	%	60 - 140
			m & p-Xylene	2013/07/26		87	%	60 - 140
			o-Xylene	2013/07/26		86	%	60 - 140
			(C6-C10)	2013/07/26		103	%	60 - 140
		Method Blank	1,4-Difluorobenzene (sur.)	2013/07/26		95	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/07/26		107	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/07/26		109	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/07/26		88	%	60 - 140
			Benzene	2013/07/26	<0.0050		mg/kg	
			Toluene	2013/07/26	<0.020		mg/kg	
			Ethylbenzene	2013/07/26	<0.010		mg/kg	
			Xylenes (Total)	2013/07/26	<0.040		mg/kg	
			m & p-Xylene	2013/07/26	<0.040		mg/kg	
			o-Xylene	2013/07/26	<0.020		mg/kg	
			F1 (C6-C10) - BTEX	2013/07/26	<12		mg/kg	
			(C6-C10)	2013/07/26	<12		mg/kg	
		RPD	Benzene	2013/07/26	NC		%	50
			Toluene	2013/07/26	NC		%	50
			Ethylbenzene	2013/07/26	NC		%	50
			Xylenes (Total)	2013/07/26	NC		%	50
			m & p-Xylene	2013/07/26	NC		%	50
			o-Xylene	2013/07/26	NC		%	50
			F1 (C6-C10) - BTEX	2013/07/26	NC		%	50
			(C6-C10)	2013/07/26	NC		%	50
7024383	CG7	Matrix Spike [GZ9453-01]	1,4-Difluorobenzene (sur.)	2013/07/26		107	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/07/26		95	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/07/26		110	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/07/26		89	%	60 - 140
			Benzene	2013/07/26		103	%	60 - 140
			Toluene	2013/07/26		98	%	60 - 140
			Ethylbenzene	2013/07/26		94	%	60 - 140
			m & p-Xylene	2013/07/26		97	%	60 - 140
			o-Xylene	2013/07/26		95	%	60 - 140
			(C6-C10)	2013/07/26		91	%	60 - 140
		Spiked Blank	1,4-Difluorobenzene (sur.)	2013/07/26		104	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/07/26		100	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/07/26		129	%	60 - 130

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QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7024383 CG7	Spiked Blank	D4-1,2-DICHLOROETHANE (sur.)	2013/07/26		101	%	60 - 140
		Benzene	2013/07/26		102	%	60 - 140
		Toluene	2013/07/26		97	%	60 - 140
		Ethylbenzene	2013/07/26		96	%	60 - 140
		m & p-Xylene	2013/07/26		95	%	60 - 140
		o-Xylene	2013/07/26		94	%	60 - 140
		(C6-C10)	2013/07/26		92	%	60 - 140
	Method Blank	1,4-Difluorobenzene (sur.)	2013/07/26		100	%	60 - 140
		4-BROMOFLUOROBENZENE (sur.)	2013/07/26		101	%	60 - 140
		D10-ETHYLBENZENE (sur.)	2013/07/26		122	%	60 - 130
		D4-1,2-DICHLOROETHANE (sur.)	2013/07/26		105	%	60 - 140
		Benzene	2013/07/26	<0.0050		mg/kg	
		Toluene	2013/07/26	<0.020		mg/kg	
		Ethylbenzene	2013/07/26	<0.010		mg/kg	
		Xylenes (Total)	2013/07/26	<0.040		mg/kg	
		m & p-Xylene	2013/07/26	<0.040		mg/kg	
		o-Xylene	2013/07/26	<0.020		mg/kg	
		F1 (C6-C10) - BTEX	2013/07/26	<12		mg/kg	
		(C6-C10)	2013/07/26	<12		mg/kg	
	RPD [GZ9449-01]	Benzene	2013/07/26	NC		%	50
		Toluene	2013/07/26	NC		%	50
		Ethylbenzene	2013/07/26	NC		%	50
		Xylenes (Total)	2013/07/26	NC		%	50
		m & p-Xylene	2013/07/26	NC		%	50
		o-Xylene	2013/07/26	NC		%	50
		F1 (C6-C10) - BTEX	2013/07/26	NC		%	50
		(C6-C10)	2013/07/26	NC		%	50
7024500 NSE	Matrix Spike	Leachable (ZH) 1,4-Difluorobenzene (sur.)	2013/07/26		95	%	70 - 130
		Leachable (ZH) 4-BROMOFLUOROBENZEN	2013/07/26		99	%	70 - 130
		Leachable (ZH) D4-1,2-DICHLOROETHANE	2013/07/26		102	%	70 - 130
		Leachable (ZH) Benzene	2013/07/26		84	%	70 - 130
		Leachable (ZH) Toluene	2013/07/26		83	%	70 - 130
		Leachable (ZH) Ethylbenzene	2013/07/26		81	%	70 - 130
		Leachable (ZH) o-Xylene	2013/07/26		93	%	70 - 130
		Leachable (ZH) m & p-Xylene	2013/07/26		91	%	70 - 130
	Spiked Blank	Leachable (ZH) 1,4-Difluorobenzene (sur.)	2013/07/26		90	%	70 - 130
		Leachable (ZH) 4-BROMOFLUOROBENZEN	2013/07/26		100	%	70 - 130
		Leachable (ZH) D4-1,2-DICHLOROETHANE	2013/07/26		95	%	70 - 130
		Leachable (ZH) Benzene	2013/07/26		77	%	70 - 130
		Leachable (ZH) Toluene	2013/07/26		82	%	70 - 130
		Leachable (ZH) Ethylbenzene	2013/07/26		83	%	70 - 130
		Leachable (ZH) o-Xylene	2013/07/26		91	%	70 - 130
		Leachable (ZH) m & p-Xylene	2013/07/26		87	%	70 - 130
	Method Blank	Leachable (ZH) 1,4-Difluorobenzene (sur.)	2013/07/26		99	%	70 - 130
		Leachable (ZH) 4-BROMOFLUOROBENZEN	2013/07/26		101	%	70 - 130
		Leachable (ZH) D4-1,2-DICHLOROETHANE	2013/07/26		98	%	70 - 130
		Leachable (ZH) Benzene	2013/07/26	<0.010		mg/L	
		Leachable (ZH) Toluene	2013/07/26	<0.010		mg/L	
		Leachable (ZH) Ethylbenzene	2013/07/26	<0.010		mg/L	
		Leachable (ZH) o-Xylene	2013/07/26	<0.010		mg/L	
		Leachable (ZH) m & p-Xylene	2013/07/26	<0.020		mg/L	
		Leachable (ZH) Xylenes (Total)	2013/07/26	<0.020		mg/L	
	RPD	Leachable (ZH) Benzene	2013/07/26	NC		%	50
		Leachable (ZH) Toluene	2013/07/26	NC		%	50
		Leachable (ZH) Ethylbenzene	2013/07/26	NC		%	50

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QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7024500	NSE	RPD	Leachable (ZH) o-Xylene	2013/07/26	NC		%	50
			Leachable (ZH) m & p-Xylene	2013/07/26	NC		%	50
			Leachable (ZH) Xylenes (Total)	2013/07/26	NC		%	50
7024503	SSF	QC Standard	Soluble Conductivity	2013/07/26		92	%	75 - 125
		Spiked Blank	Soluble Conductivity	2013/07/26		99	%	90 - 110
		Method Blank	Soluble Conductivity	2013/07/26	<0.020		dS/m	
		RPD [GZ9455-01]	Soluble Conductivity	2013/07/26	1.3		%	35
7024522	KD5	Matrix Spike						
		[GZ9458-01]	Hex. Chromium (Cr 6+)	2013/07/26		82	%	75 - 125
		Spiked Blank	Hex. Chromium (Cr 6+)	2013/07/26		99	%	90 - 110
		Method Blank	Hex. Chromium (Cr 6+)	2013/07/26	<0.15		mg/kg	
		RPD [GZ9458-01]	Hex. Chromium (Cr 6+)	2013/07/26	NC		%	35
7024524	KD5	Matrix Spike	Hex. Chromium (Cr 6+)	2013/07/26		86	%	75 - 125
		Spiked Blank	Hex. Chromium (Cr 6+)	2013/07/26		99	%	90 - 110
		Method Blank	Hex. Chromium (Cr 6+)	2013/07/26	<0.15		mg/kg	
		RPD	Hex. Chromium (Cr 6+)	2013/07/26	NC		%	35
7024529	SSF	QC Standard	Soluble (1:1) pH	2013/07/26		100	%	97 - 103
		Spiked Blank	Soluble (1:1) pH	2013/07/26		100	%	99 - 101
		RPD	Soluble (1:1) pH	2013/07/26	2.2		%	5
7024535	KD5	Matrix Spike	Hex. Chromium (Cr 6+)	2013/07/26		0.0 (1)	%	75 - 125
		Spiked Blank	Hex. Chromium (Cr 6+)	2013/07/26		100	%	90 - 110
		Method Blank	Hex. Chromium (Cr 6+)	2013/07/26	<0.15		mg/kg	
		RPD	Hex. Chromium (Cr 6+)	2013/07/26	NC		%	35
7024736	SF3	Matrix Spike	Total Antimony (Sb)	2013/07/26		90	%	75 - 125
			Total Arsenic (As)	2013/07/26		95	%	75 - 125
			Total Barium (Ba)	2013/07/26		NC	%	75 - 125
			Total Beryllium (Be)	2013/07/26		94	%	75 - 125
			Total Cadmium (Cd)	2013/07/26		95	%	75 - 125
			Total Chromium (Cr)	2013/07/26		93	%	75 - 125
			Total Cobalt (Co)	2013/07/26		97	%	75 - 125
			Total Copper (Cu)	2013/07/26		94	%	75 - 125
			Total Lead (Pb)	2013/07/26		95	%	75 - 125
			Total Magnesium (Mg)	2013/07/26		NC	%	75 - 125
			Total Mercury (Hg)	2013/07/26		93	%	75 - 125
			Total Molybdenum (Mo)	2013/07/26		95	%	75 - 125
			Total Nickel (Ni)	2013/07/26		93	%	75 - 125
			Total Selenium (Se)	2013/07/26		97	%	75 - 125
			Total Silver (Ag)	2013/07/26		98	%	75 - 125
			Total Thallium (Tl)	2013/07/26		94	%	75 - 125
			Total Tin (Sn)	2013/07/26		101	%	75 - 125
			Total Uranium (U)	2013/07/26		96	%	75 - 125
			Total Vanadium (V)	2013/07/26		NC	%	75 - 125
			Total Zinc (Zn)	2013/07/26		NC	%	75 - 125
		QC Standard	Total Arsenic (As)	2013/07/26		128	%	50 - 150
			Total Barium (Ba)	2013/07/26		115	%	69 - 131
			Total Chromium (Cr)	2013/07/26		108	%	41 - 159
			Total Cobalt (Co)	2013/07/26		108	%	75 - 125
			Total Copper (Cu)	2013/07/26		111	%	73 - 127
			Total Lead (Pb)	2013/07/26		104	%	54 - 146
			Total Magnesium (Mg)	2013/07/26		85	%	69 - 131
			Total Nickel (Ni)	2013/07/26		116	%	61 - 139
			Total Vanadium (V)	2013/07/26		125	%	50 - 150
			Total Zinc (Zn)	2013/07/26		117	%	72 - 128
		Spiked Blank	Total Antimony (Sb)	2013/07/26		93	%	75 - 125
			Total Arsenic (As)	2013/07/26		95	%	75 - 125

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Maxxam Job Number: EB363840

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7024736	SF3	Spiked Blank	Total Barium (Ba)	2013/07/26		95	%	75 - 125
			Total Beryllium (Be)	2013/07/26		100	%	75 - 125
			Total Cadmium (Cd)	2013/07/26		94	%	75 - 125
			Total Chromium (Cr)	2013/07/26		93	%	75 - 125
			Total Cobalt (Co)	2013/07/26		94	%	75 - 125
			Total Copper (Cu)	2013/07/26		95	%	75 - 125
			Total Lead (Pb)	2013/07/26		97	%	75 - 125
			Total Magnesium (Mg)	2013/07/26		89	%	75 - 125
			Total Mercury (Hg)	2013/07/26		95	%	75 - 125
			Total Molybdenum (Mo)	2013/07/26		94	%	75 - 125
			Total Nickel (Ni)	2013/07/26		95	%	75 - 125
			Total Selenium (Se)	2013/07/26		98	%	75 - 125
			Total Silver (Ag)	2013/07/26		97	%	75 - 125
			Total Thallium (Tl)	2013/07/26		95	%	75 - 125
			Total Tin (Sn)	2013/07/26		97	%	75 - 125
			Total Uranium (U)	2013/07/26		102	%	75 - 125
			Total Vanadium (V)	2013/07/26		95	%	75 - 125
			Total Zinc (Zn)	2013/07/26		94	%	75 - 125
		Method Blank	Total Antimony (Sb)	2013/07/26	<1.0		mg/kg	
			Total Arsenic (As)	2013/07/26	<1.0		mg/kg	
			Total Barium (Ba)	2013/07/26	<10		mg/kg	
			Total Beryllium (Be)	2013/07/26	<0.40		mg/kg	
			Total Cadmium (Cd)	2013/07/26	<0.10		mg/kg	
			Total Chromium (Cr)	2013/07/26	<1.0		mg/kg	
			Total Cobalt (Co)	2013/07/26	<1.0		mg/kg	
			Total Copper (Cu)	2013/07/26	<5.0		mg/kg	
			Total Lead (Pb)	2013/07/26	<1.0		mg/kg	
			Total Magnesium (Mg)	2013/07/26	<100		mg/kg	
			Total Mercury (Hg)	2013/07/26	<0.050		mg/kg	
			Total Molybdenum (Mo)	2013/07/26	<0.40		mg/kg	
			Total Nickel (Ni)	2013/07/26	<1.0		mg/kg	
			Total Selenium (Se)	2013/07/26	<0.50		mg/kg	
			Total Silver (Ag)	2013/07/26	<1.0		mg/kg	
			Total Thallium (Tl)	2013/07/26	<0.30		mg/kg	
			Total Tin (Sn)	2013/07/26	<1.0		mg/kg	
			Total Uranium (U)	2013/07/26	<1.0		mg/kg	
			Total Vanadium (V)	2013/07/26	<1.0		mg/kg	
			Total Zinc (Zn)	2013/07/26	<10		mg/kg	
		RPD	Total Antimony (Sb)	2013/07/26	NC		%	35
			Total Arsenic (As)	2013/07/26	NC		%	35
			Total Barium (Ba)	2013/07/26	6.1		%	35
			Total Beryllium (Be)	2013/07/26	NC		%	35
			Total Cadmium (Cd)	2013/07/26	NC		%	35
			Total Chromium (Cr)	2013/07/26	7.2		%	35
			Total Cobalt (Co)	2013/07/26	6.1		%	35
			Total Copper (Cu)	2013/07/26	NC		%	35
			Total Lead (Pb)	2013/07/26	5.6		%	35
			Total Mercury (Hg)	2013/07/26	NC		%	35
			Total Molybdenum (Mo)	2013/07/26	NC		%	35
			Total Nickel (Ni)	2013/07/26	6.4		%	35
			Total Selenium (Se)	2013/07/26	NC		%	35
			Total Silver (Ag)	2013/07/26	NC		%	35
			Total Thallium (Tl)	2013/07/26	NC		%	35
			Total Tin (Sn)	2013/07/26	NC		%	35
			Total Uranium (U)	2013/07/26	NC		%	35

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7024736	SF3	RPD	Total Vanadium (V)	2013/07/26	7.9		%	35
			Total Zinc (Zn)	2013/07/26	NC		%	35
7024996	ABH	Method Blank	Moisture	2013/07/26	<0.30		%	
		RPD [GZ9437-01]	Moisture	2013/07/26	5.6		%	20
7025245	SSF	QC Standard	Soluble Conductivity	2013/07/26		97	%	85 - 115
		Spiked Blank	Soluble Conductivity	2013/07/26		100	%	90 - 110
		Method Blank	Soluble Conductivity	2013/07/26	<0.020		dS/m	
		RPD	Soluble Conductivity	2013/07/26	7.8		%	35
7025403	ABH	Method Blank	Moisture	2013/07/26	<0.30		%	
		RPD [GZ9457-01]	Moisture	2013/07/26	10.7		%	20
7025702	NC3	Matrix Spike	Soluble (Hot water) Boron (B)	2013/07/26		102	%	75 - 125
		Spiked Blank	Soluble (Hot water) Boron (B)	2013/07/26		102	%	75 - 125
		Method Blank	Soluble (Hot water) Boron (B)	2013/07/26	<0.10		mg/kg	
		RPD	Soluble (Hot water) Boron (B)	2013/07/26	NC		%	35
7026083	KD5	Matrix Spike						
		[GZ9455-01]	Soluble Chloride (Cl)	2013/07/26		103	%	75 - 125
		QC Standard	Soluble Chloride (Cl)	2013/07/26		91	%	75 - 125
		Spiked Blank	Soluble Chloride (Cl)	2013/07/26		100	%	75 - 125
		Method Blank	Soluble Chloride (Cl)	2013/07/26	<5.0		mg/L	
		RPD [GZ9455-01]	Soluble Chloride (Cl)	2013/07/26	NC		%	35
7026100	WAU	Matrix Spike	Total Antimony (Sb)	2013/07/26		91	%	75 - 125
			Total Arsenic (As)	2013/07/26		95	%	75 - 125
			Total Barium (Ba)	2013/07/26		NC	%	75 - 125
			Total Beryllium (Be)	2013/07/26		103	%	75 - 125
			Total Cadmium (Cd)	2013/07/26		97	%	75 - 125
			Total Chromium (Cr)	2013/07/26		94	%	75 - 125
			Total Cobalt (Co)	2013/07/26		98	%	75 - 125
			Total Copper (Cu)	2013/07/26		93	%	75 - 125
			Total Lead (Pb)	2013/07/26		97	%	75 - 125
			Total Magnesium (Mg)	2013/07/26		NC	%	75 - 125
			Total Mercury (Hg)	2013/07/26		97	%	75 - 125
			Total Molybdenum (Mo)	2013/07/26		98	%	75 - 125
			Total Nickel (Ni)	2013/07/26		93	%	75 - 125
			Total Selenium (Se)	2013/07/26		100	%	75 - 125
			Total Silver (Ag)	2013/07/26		101	%	75 - 125
			Total Thallium (Tl)	2013/07/26		95	%	75 - 125
			Total Tin (Sn)	2013/07/26		103	%	75 - 125
			Total Uranium (U)	2013/07/26		100	%	75 - 125
			Total Vanadium (V)	2013/07/26		100	%	75 - 125
			Total Zinc (Zn)	2013/07/26		NC	%	75 - 125
		QC Standard	Total Arsenic (As)	2013/07/26		131	%	50 - 150
			Total Barium (Ba)	2013/07/26		116	%	69 - 131
			Total Chromium (Cr)	2013/07/26		108	%	41 - 159
			Total Cobalt (Co)	2013/07/26		114	%	75 - 125
			Total Copper (Cu)	2013/07/26		116	%	73 - 127
			Total Lead (Pb)	2013/07/26		110	%	54 - 146
			Total Magnesium (Mg)	2013/07/26		109	%	69 - 131
			Total Nickel (Ni)	2013/07/26		122	%	61 - 139
			Total Vanadium (V)	2013/07/26		126	%	50 - 150
			Total Zinc (Zn)	2013/07/26		124	%	72 - 128
		Spiked Blank	Total Antimony (Sb)	2013/07/26		91	%	75 - 125
			Total Arsenic (As)	2013/07/26		94	%	75 - 125
			Total Barium (Ba)	2013/07/26		93	%	75 - 125
			Total Beryllium (Be)	2013/07/26		96	%	75 - 125
			Total Cadmium (Cd)	2013/07/26		93	%	75 - 125

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QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7026100	WAU	Spiked Blank	Total Chromium (Cr)	2013/07/26		92	%	75 - 125
			Total Cobalt (Co)	2013/07/26		93	%	75 - 125
			Total Copper (Cu)	2013/07/26		94	%	75 - 125
			Total Lead (Pb)	2013/07/26		96	%	75 - 125
			Total Magnesium (Mg)	2013/07/26		90	%	75 - 125
			Total Mercury (Hg)	2013/07/26		94	%	75 - 125
			Total Molybdenum (Mo)	2013/07/26		93	%	75 - 125
			Total Nickel (Ni)	2013/07/26		94	%	75 - 125
			Total Selenium (Se)	2013/07/26		95	%	75 - 125
			Total Silver (Ag)	2013/07/26		96	%	75 - 125
			Total Thallium (Tl)	2013/07/26		94	%	75 - 125
			Total Tin (Sn)	2013/07/26		95	%	75 - 125
			Total Uranium (U)	2013/07/26		98	%	75 - 125
			Total Vanadium (V)	2013/07/26		94	%	75 - 125
			Total Zinc (Zn)	2013/07/26		94	%	75 - 125
		Method Blank	Total Antimony (Sb)	2013/07/26	<1.0		mg/kg	
			Total Arsenic (As)	2013/07/26	<1.0		mg/kg	
			Total Barium (Ba)	2013/07/26	<10		mg/kg	
			Total Beryllium (Be)	2013/07/26	<0.40		mg/kg	
			Total Cadmium (Cd)	2013/07/26	<0.10		mg/kg	
			Total Chromium (Cr)	2013/07/26	<1.0		mg/kg	
			Total Cobalt (Co)	2013/07/26	<1.0		mg/kg	
			Total Copper (Cu)	2013/07/26	<5.0		mg/kg	
			Total Lead (Pb)	2013/07/26	<1.0		mg/kg	
			Total Magnesium (Mg)	2013/07/26	<100		mg/kg	
			Total Mercury (Hg)	2013/07/26	<0.050		mg/kg	
			Total Molybdenum (Mo)	2013/07/26	<0.40		mg/kg	
			Total Nickel (Ni)	2013/07/26	<1.0		mg/kg	
			Total Selenium (Se)	2013/07/26	<0.50		mg/kg	
			Total Silver (Ag)	2013/07/26	<1.0		mg/kg	
			Total Thallium (Tl)	2013/07/26	<0.30		mg/kg	
			Total Tin (Sn)	2013/07/26	<1.0		mg/kg	
			Total Uranium (U)	2013/07/26	<1.0		mg/kg	
			Total Vanadium (V)	2013/07/26	<1.0		mg/kg	
			Total Zinc (Zn)	2013/07/26	<10		mg/kg	
		RPD	Total Antimony (Sb)	2013/07/26	NC		%	35
			Total Arsenic (As)	2013/07/26	NC		%	35
			Total Barium (Ba)	2013/07/26	4.4		%	35
			Total Beryllium (Be)	2013/07/26	NC		%	35
			Total Cadmium (Cd)	2013/07/26	NC		%	35
			Total Chromium (Cr)	2013/07/26	15.6		%	35
			Total Cobalt (Co)	2013/07/26	1.8		%	35
			Total Copper (Cu)	2013/07/26	NC		%	35
			Total Lead (Pb)	2013/07/26	3.2		%	35
			Total Magnesium (Mg)	2013/07/26	1.2		%	35
			Total Mercury (Hg)	2013/07/26	NC		%	35
			Total Molybdenum (Mo)	2013/07/26	NC		%	35
			Total Nickel (Ni)	2013/07/26	8.6		%	35
			Total Selenium (Se)	2013/07/26	NC		%	35
			Total Silver (Ag)	2013/07/26	NC		%	35
			Total Thallium (Tl)	2013/07/26	NC		%	35
			Total Tin (Sn)	2013/07/26	NC		%	35
			Total Uranium (U)	2013/07/26	NC		%	35
			Total Vanadium (V)	2013/07/26	2.7		%	35
			Total Zinc (Zn)	2013/07/26	NC		%	35

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: A04012A05
P.O. #:
Site Location: CAMP FAREWELL

Quality Assurance Report (Continued)

Maxxam Job Number: EB363840

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7026327	JSM	Matrix Spike						
		[GZ9455-01]	Soluble Calcium (Ca)	2013/07/26		101	%	75 - 125
			Soluble Magnesium (Mg)	2013/07/26		104	%	75 - 125
			Soluble Sodium (Na)	2013/07/26		109	%	75 - 125
			Soluble Potassium (K)	2013/07/26		104	%	75 - 125
		QC Standard	Soluble Calcium (Ca)	2013/07/26		87	%	75 - 125
			Soluble Magnesium (Mg)	2013/07/26		85	%	75 - 125
			Soluble Sodium (Na)	2013/07/26		101	%	75 - 125
			Soluble Potassium (K)	2013/07/26		107	%	75 - 125
			Soluble Sulphate (SO4)	2013/07/26		91	%	78 - 122
		Spiked Blank	Soluble Calcium (Ca)	2013/07/26		102	%	75 - 125
			Soluble Magnesium (Mg)	2013/07/26		101	%	75 - 125
			Soluble Sodium (Na)	2013/07/26		103	%	75 - 125
			Soluble Potassium (K)	2013/07/26		99	%	75 - 125
		Method Blank	Soluble Calcium (Ca)	2013/07/26	<1.5		mg/L	
			Soluble Magnesium (Mg)	2013/07/26	<1.0		mg/L	
			Soluble Sodium (Na)	2013/07/26	<2.5		mg/L	
			Soluble Potassium (K)	2013/07/26	<1.3		mg/L	
			Soluble Sulphate (SO4)	2013/07/26	<5.0		mg/L	
		RPD [GZ9455-01]	Soluble Calcium (Ca)	2013/07/26	13.2		%	35
			Soluble Magnesium (Mg)	2013/07/26	NC		%	35
			Soluble Sodium (Na)	2013/07/26	3.5		%	35
			Soluble Potassium (K)	2013/07/26	NC		%	35
			Soluble Sulphate (SO4)	2013/07/26	NC		%	35
7026562	KD5	Matrix Spike	Soluble Chloride (Cl)	2013/07/26		102	%	75 - 125
		QC Standard	Soluble Chloride (Cl)	2013/07/26		96	%	75 - 125
		Spiked Blank	Soluble Chloride (Cl)	2013/07/26		100	%	75 - 125
		Method Blank	Soluble Chloride (Cl)	2013/07/26	<5.0		mg/L	
		RPD	Soluble Chloride (Cl)	2013/07/26	NC		%	35
7026671	NC3	Matrix Spike	Soluble (Hot water) Boron (B)	2013/07/26		103	%	75 - 125
		Spiked Blank	Soluble (Hot water) Boron (B)	2013/07/26		104	%	75 - 125
		Method Blank	Soluble (Hot water) Boron (B)	2013/07/26	<0.10		mg/kg	
		RPD	Soluble (Hot water) Boron (B)	2013/07/26	NC		%	35
7026924	JSM	Matrix Spike	Soluble Calcium (Ca)	2013/07/26		97	%	75 - 125
			Soluble Magnesium (Mg)	2013/07/26		101	%	75 - 125
			Soluble Sodium (Na)	2013/07/26		106	%	75 - 125
			Soluble Potassium (K)	2013/07/26		101	%	75 - 125
		QC Standard	Soluble Calcium (Ca)	2013/07/26		95	%	75 - 125
			Soluble Magnesium (Mg)	2013/07/26		96	%	75 - 125
			Soluble Sodium (Na)	2013/07/26		108	%	75 - 125
			Soluble Potassium (K)	2013/07/26		115	%	75 - 125
			Soluble Sulphate (SO4)	2013/07/26		98	%	78 - 122
		Spiked Blank	Soluble Calcium (Ca)	2013/07/26		96	%	75 - 125
			Soluble Magnesium (Mg)	2013/07/26		101	%	75 - 125
			Soluble Sodium (Na)	2013/07/26		106	%	75 - 125
			Soluble Potassium (K)	2013/07/26		101	%	75 - 125
		Method Blank	Soluble Calcium (Ca)	2013/07/26	<1.5		mg/L	
			Soluble Magnesium (Mg)	2013/07/26	<1.0		mg/L	
			Soluble Sodium (Na)	2013/07/26	<2.5		mg/L	
			Soluble Potassium (K)	2013/07/26	<1.3		mg/L	
			Soluble Sulphate (SO4)	2013/07/26	<5.0		mg/L	
		RPD	Soluble Calcium (Ca)	2013/07/26	13.5		%	35
			Soluble Magnesium (Mg)	2013/07/26	NC		%	35
			Soluble Sodium (Na)	2013/07/26	0.06		%	35
			Soluble Potassium (K)	2013/07/26	NC		%	35

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: A04012A05
P.O. #:
Site Location: CAMP FAREWELL

Quality Assurance Report (Continued)

Maxxam Job Number: EB363840

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7026924	JSM	RPD	Soluble Sulphate (SO4)	2013/07/26	3.0		%	35
7027318	LX	QC Standard	Saturation %	2013/07/27		105	%	93 - 107
		RPD	Saturation %	2013/07/27	1.2		%	12
7027431	AD3	QC Standard	Soluble Conductivity	2013/07/27		98	%	85 - 115
		Spiked Blank	Soluble Conductivity	2013/07/27		100	%	90 - 110
		Method Blank	Soluble Conductivity	2013/07/27	<0.020		dS/m	
		RPD	Soluble Conductivity	2013/07/27	4.2		%	35
7027480	NM5	Method Blank	Moisture	2013/07/27	<0.30		%	
		RPD	Moisture	2013/07/27	2.2		%	20
7027493	WAU	Matrix Spike	Total Antimony (Sb)	2013/07/27		85	%	75 - 125
			Total Arsenic (As)	2013/07/27		91	%	75 - 125
			Total Barium (Ba)	2013/07/27		NC	%	75 - 125
			Total Beryllium (Be)	2013/07/27		97	%	75 - 125
			Total Cadmium (Cd)	2013/07/27		91	%	75 - 125
			Total Chromium (Cr)	2013/07/27		92	%	75 - 125
			Total Cobalt (Co)	2013/07/27		89	%	75 - 125
			Total Copper (Cu)	2013/07/27		90	%	75 - 125
			Total Lead (Pb)	2013/07/27		87	%	75 - 125
			Total Magnesium (Mg)	2013/07/27		NC	%	75 - 125
			Total Mercury (Hg)	2013/07/27		89	%	75 - 125
			Total Molybdenum (Mo)	2013/07/27		93	%	75 - 125
			Total Nickel (Ni)	2013/07/27		91	%	75 - 125
			Total Selenium (Se)	2013/07/27		88	%	75 - 125
			Total Silver (Ag)	2013/07/27		92	%	75 - 125
			Total Thallium (Tl)	2013/07/27		84	%	75 - 125
			Total Tin (Sn)	2013/07/27		94	%	75 - 125
			Total Uranium (U)	2013/07/27		83	%	75 - 125
			Total Vanadium (V)	2013/07/27		95	%	75 - 125
			Total Zinc (Zn)	2013/07/27		NC	%	75 - 125
		QC Standard	Total Arsenic (As)	2013/07/27		112	%	50 - 150
			Total Barium (Ba)	2013/07/27		96	%	69 - 131
			Total Chromium (Cr)	2013/07/27		90	%	41 - 159
			Total Cobalt (Co)	2013/07/27		96	%	75 - 125
			Total Copper (Cu)	2013/07/27		100	%	73 - 127
			Total Lead (Pb)	2013/07/27		96	%	54 - 146
			Total Magnesium (Mg)	2013/07/27		83	%	69 - 131
			Total Nickel (Ni)	2013/07/27		104	%	61 - 139
			Total Vanadium (V)	2013/07/27		104	%	50 - 150
			Total Zinc (Zn)	2013/07/27		103	%	72 - 128
		Spiked Blank	Total Antimony (Sb)	2013/07/27		92	%	75 - 125
			Total Arsenic (As)	2013/07/27		94	%	75 - 125
			Total Barium (Ba)	2013/07/27		93	%	75 - 125
			Total Beryllium (Be)	2013/07/27		95	%	75 - 125
			Total Cadmium (Cd)	2013/07/27		91	%	75 - 125
			Total Chromium (Cr)	2013/07/27		93	%	75 - 125
			Total Cobalt (Co)	2013/07/27		93	%	75 - 125
			Total Copper (Cu)	2013/07/27		94	%	75 - 125
			Total Lead (Pb)	2013/07/27		91	%	75 - 125
			Total Magnesium (Mg)	2013/07/27		86	%	75 - 125
			Total Mercury (Hg)	2013/07/27		87	%	75 - 125
			Total Molybdenum (Mo)	2013/07/27		94	%	75 - 125
			Total Nickel (Ni)	2013/07/27		94	%	75 - 125
			Total Selenium (Se)	2013/07/27		93	%	75 - 125
			Total Silver (Ag)	2013/07/27		93	%	75 - 125
			Total Thallium (Tl)	2013/07/27		86	%	75 - 125

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: A04012A05
P.O. #:
Site Location: CAMP FAREWELL

Quality Assurance Report (Continued)

Maxxam Job Number: EB363840

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7027493	WAU	Spiked Blank	Total Tin (Sn)	2013/07/27		94	%	75 - 125
			Total Uranium (U)	2013/07/27		86	%	75 - 125
			Total Vanadium (V)	2013/07/27		95	%	75 - 125
			Total Zinc (Zn)	2013/07/27		94	%	75 - 125
		Method Blank	Total Antimony (Sb)	2013/07/27	<1.0		mg/kg	
			Total Arsenic (As)	2013/07/27	<1.0		mg/kg	
			Total Barium (Ba)	2013/07/27	<10		mg/kg	
			Total Beryllium (Be)	2013/07/27	<0.40		mg/kg	
			Total Cadmium (Cd)	2013/07/27	<0.10		mg/kg	
			Total Chromium (Cr)	2013/07/27	<1.0		mg/kg	
			Total Cobalt (Co)	2013/07/27	<1.0		mg/kg	
			Total Copper (Cu)	2013/07/27	<5.0		mg/kg	
			Total Lead (Pb)	2013/07/27	<1.0		mg/kg	
			Total Magnesium (Mg)	2013/07/27	<100		mg/kg	
			Total Mercury (Hg)	2013/07/27	<0.050		mg/kg	
			Total Molybdenum (Mo)	2013/07/27	<0.40		mg/kg	
			Total Nickel (Ni)	2013/07/27	<1.0		mg/kg	
			Total Selenium (Se)	2013/07/27	<0.50		mg/kg	
			Total Silver (Ag)	2013/07/27	<1.0		mg/kg	
			Total Thallium (Tl)	2013/07/27	<0.30		mg/kg	
			Total Tin (Sn)	2013/07/27	<1.0		mg/kg	
			Total Uranium (U)	2013/07/27	<1.0		mg/kg	
			Total Vanadium (V)	2013/07/27	<1.0		mg/kg	
			Total Zinc (Zn)	2013/07/27	<10		mg/kg	
		RPD	Total Antimony (Sb)	2013/07/27	NC		%	35
			Total Arsenic (As)	2013/07/27	NC		%	35
			Total Barium (Ba)	2013/07/27	7.3		%	35
			Total Beryllium (Be)	2013/07/27	NC		%	35
			Total Cadmium (Cd)	2013/07/27	NC		%	35
			Total Chromium (Cr)	2013/07/27	0.6		%	35
			Total Cobalt (Co)	2013/07/27	11.3		%	35
			Total Copper (Cu)	2013/07/27	NC		%	35
			Total Lead (Pb)	2013/07/27	4.1		%	35
			Total Mercury (Hg)	2013/07/27	NC		%	35
			Total Molybdenum (Mo)	2013/07/27	NC		%	35
			Total Nickel (Ni)	2013/07/27	2.4		%	35
			Total Selenium (Se)	2013/07/27	NC		%	35
			Total Silver (Ag)	2013/07/27	NC		%	35
			Total Thallium (Tl)	2013/07/27	NC		%	35
			Total Tin (Sn)	2013/07/27	NC		%	35
			Total Uranium (U)	2013/07/27	NC		%	35
			Total Vanadium (V)	2013/07/27	0.7		%	35
			Total Zinc (Zn)	2013/07/27	NC		%	35
7027624	AD3	QC Standard	Soluble (CaCl2) pH	2013/07/27		101	%	97 - 103
		Spiked Blank	Soluble (CaCl2) pH	2013/07/27		100	%	97 - 103
		RPD	Soluble (CaCl2) pH	2013/07/27	0.1		%	5
7027660	JSM	Matrix Spike	Soluble (Hot water) Boron (B)	2013/07/27		NC	%	75 - 125
		Spiked Blank	Soluble (Hot water) Boron (B)	2013/07/27		96	%	75 - 125
		Method Blank	Soluble (Hot water) Boron (B)	2013/07/27	<0.10		mg/kg	
		RPD	Soluble (Hot water) Boron (B)	2013/07/27	0.4		%	35
7027842	JSM	Matrix Spike	Soluble Sodium (Na)	2013/07/27		109	%	75 - 125
		QC Standard	Soluble Sodium (Na)	2013/07/27		110	%	75 - 125
		Spiked Blank	Soluble Sodium (Na)	2013/07/27		110	%	75 - 125
		Method Blank	Soluble Sodium (Na)	2013/07/27	<2.5		mg/L	
		RPD	Soluble Sodium (Na)	2013/07/27	0.8		%	35

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: A04012A05
P.O. #:
Site Location: CAMP FAREWELL

Quality Assurance Report (Continued)

Maxxam Job Number: EB363840

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7027970	MA4	QC Standard	Soluble Conductivity	2013/07/28		87	%	85 - 115
		Spiked Blank	Soluble Conductivity	2013/07/28		101	%	90 - 110
		Method Blank	Soluble Conductivity	2013/07/28	<0.020		dS/m	
		RPD	Soluble Conductivity	2013/07/28	2.7		%	35
7028052	LCA	Matrix Spike	Soluble Chloride (Cl)	2013/07/28		99	%	75 - 125
		QC Standard	Soluble Chloride (Cl)	2013/07/28		90	%	75 - 125
		Spiked Blank	Soluble Chloride (Cl)	2013/07/28		101	%	75 - 125
		Method Blank	Soluble Chloride (Cl)	2013/07/28	<5.0		mg/L	
		RPD	Soluble Chloride (Cl)	2013/07/28	NC		%	35
7028146	JHC	Matrix Spike	Soluble Calcium (Ca)	2013/07/28		100	%	75 - 125
			Soluble Magnesium (Mg)	2013/07/28		103	%	75 - 125
			Soluble Sodium (Na)	2013/07/28		103	%	75 - 125
			Soluble Potassium (K)	2013/07/28		103	%	75 - 125
		QC Standard	Soluble Calcium (Ca)	2013/07/28		80	%	75 - 125
			Soluble Magnesium (Mg)	2013/07/28		81	%	75 - 125
			Soluble Sodium (Na)	2013/07/28		96	%	75 - 125
			Soluble Potassium (K)	2013/07/28		109	%	75 - 125
			Soluble Sulphate (SO4)	2013/07/28		80	%	78 - 122
		Spiked Blank	Soluble Calcium (Ca)	2013/07/28		99	%	75 - 125
			Soluble Magnesium (Mg)	2013/07/28		101	%	75 - 125
			Soluble Sodium (Na)	2013/07/28		100	%	75 - 125
			Soluble Potassium (K)	2013/07/28		101	%	75 - 125
		Method Blank	Soluble Calcium (Ca)	2013/07/28	<1.5		mg/L	
			Soluble Magnesium (Mg)	2013/07/28	<1.0		mg/L	
			Soluble Sodium (Na)	2013/07/28	<2.5		mg/L	
			Soluble Potassium (K)	2013/07/28	<1.3		mg/L	
			Soluble Sulphate (SO4)	2013/07/28	<5.0		mg/L	
		RPD	Soluble Calcium (Ca)	2013/07/28	21.3		%	35
			Soluble Magnesium (Mg)	2013/07/28	NC		%	35
			Soluble Sodium (Na)	2013/07/28	12.9		%	35
			Soluble Potassium (K)	2013/07/28	NC		%	35
			Soluble Sulphate (SO4)	2013/07/28	15.3		%	35
7037181	JHC	Matrix Spike	Extractable Barium (Ba)	2013/07/31		NC	%	75 - 125
		Spiked Blank	Extractable Barium (Ba)	2013/07/31		89	%	75 - 125
		Method Blank	Extractable Barium (Ba)	2013/07/31	<1.0		mg/kg	
		RPD	Extractable Barium (Ba)	2013/07/31	0.5		%	35
7046467	NC3	QC Standard	Total Fusion Barium (Ba)	2013/08/02		108	%	60 - 140
		Spiked Blank	Total Fusion Barium (Ba)	2013/08/02		96	%	80 - 120
		Method Blank	Total Fusion Barium (Ba)	2013/08/02	<50		mg/kg	
		RPD	Total Fusion Barium (Ba)	2013/08/02	2.7		%	35
7076255	WAU	Matrix Spike	Total Arsenic (As)	2013/08/14		95	%	75 - 125
		QC Standard	Total Arsenic (As)	2013/08/14		113	%	50 - 150
		Spiked Blank	Total Arsenic (As)	2013/08/14		92	%	75 - 125
		Method Blank	Total Arsenic (As)	2013/08/14	<1.0		mg/kg	
		RPD	Total Arsenic (As)	2013/08/14	NC		%	35

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 spiked amount was not sufficiently significant to permit a reliable recovery calculation.

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: A04012A05
P.O. #:
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Quality Assurance Report (Continued)

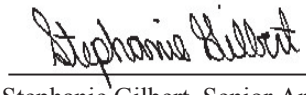
Maxxam Job Number: EB363840

NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.
(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

Validation Signature Page

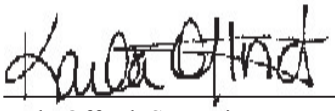
Maxxam Job #: B363840

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

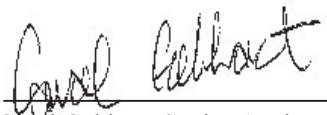


Stephanie Gilbert, Senior Analyst

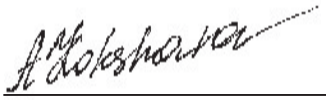
Daniel Reslan, Volatiles Supervisor



Karla Offord, Supervisor, Extractable Hydrocarbons



Carol Gebhart, Senior Analyst



Anna Koksharova, Senior Analyst

Validation Signature Page

Maxxam Job #: B363840

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

Michael Chae, Ph.D, Scientific 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.

Maxxam

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07/1220(4)

Chain of Custody A134527

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Invoice To:	C/O Report Address ☐	Report To:	Same as Invoice ☒
Company:	IEG Consultants Ltd		
Contact:	Nicole Wills		
Address:	2618 Hopewell Place NE		
Prov:	Calgary, AB PC: T1Y 7J7	Prov:	PC:
Contact #s:	Ph: 403.824.3048 Cell:	Ph:	Cell:

Report Distribution (E-Mail): nwills@klohn.com

REGULATORY GUIDELINES:
- ☐ AT1
- ☐ CCME
- ☐ Regulated Drinking Water
- ☐ Other:

All samples are held for 60 calendar days after sample receipt, unless specified otherwise.

PO #:	
Project # / Name:	A04012A05
Site Location:	Camp Farewell
Quote #:	
Sampled By:	Nicole Wills

SERVICE REQUESTED: ☐ RUSH (Contact lab to reserve) Date Required: ☐ REGULAR (5 to 7 Days)

See reverse for package specifics

#	Sample ID	Depth (unit)	Matrix GW / SW Soil	Date/Time Sampled YY/MM/DD 24:00	SOIL: BTEX F1-F4	SOIL: Sieve (75 micron)	SOIL: Regulated Metals (CCME / AT1)	SOIL: Salinity 4	SOIL: Assessment ICP Metals	SOIL: Basic Class II Landfill			WATER: ☐BTEX F1 ☐VOCs	WATER: ☐BTEX F1-F2 ☐BTEX F1-F4	WATER: ☐ Routine Water ☐ Turb ☐ F	WATER: ☐ TOC ☐ DOC	WATER: Regulated Metals (CCME / AT1) Total	WATER: Dissolved	WATER: Mercury ☐ Total ☐ Dissolved	Other Analysis: RUSH	HOLD - Do not Analyze	# of Containers Submitted
1	TP#1	0-0.6m	Soil	13/07/23 15:30	X		X	X														3J/1B
2	TP#2	↓	↓	↓	X		X	X														3J/1B
3	TP#3	↓	↓	↓	X		X	X														3J/1B
4	TP#4	↓	↓	↓	X		X	X														3J/1B
5	TP#5	↓	↓	↓	X		X	X														3J/1B
6	TP#17	↓	↓	↓	X		X	X														3J/1B
7	TP#18	↓	↓	↓	X		X	X														3J/1B
8	DS13-001		↓	07-20-13	[scribbled out]	yes	X	X		X										X		
9	EX-13-1LB	7m	↓	07-24-13	X		X	X														
10	EX-13-1JB	6m	↓	07-21-13	X		X	X														
11	EX-13-1KE	3.5m	↓	07-21-13	X		X	X														
12	EX-13-1LE	4m	↓	07-21-13	X		X	X														

RDS/mml

Please indicate Filtered, Preserved or Both (F, P, F/P) → F/P

Relinquished By (Signature/Print):	Date (YY/MM/DD):	Time (24:00):
Nicole Wills / [signature]	13/07/23	20:00
Relinquished By (Signature/Print):	Date (YY/MM/DD):	Time (24:00):

Special Instructions: Please rush the analysis of DS13-001

# of Jars Used & Not Submitted:

LAB USE ONLY

Received By:	Date:	Time:	Maxxam Job #: B363840
Amanda L'Hirondelle	2013/07/25 [initials] 20130725@	1023	

Lab Comments:	Custody Seal	Temperature	Ice
14,14,13 > B; 15,14,15 > B	absent	7,6,7 > J; 8,5,6 > J	present

AB FCD-00331 Rev3 2010/05

Maxxam Analytics International Corporation o/a Maxxam Analytics

Maxxam

Calgary: 4000 19st St. NE, T2E 6P8. Ph: (403) 291-3077, Fax: (403) 735-2240, Toll free: (800) 386-7247
Edmonton: 9331 - 48 Street, T6B 2R4. Ph: (780) 577-7100, Fax: (780) 450-4187, Toll free: (877) 465-8889
www.maxxamanalytics.com

Chain of Custody A134528

	Invoice To: C/O Report Address ☐	Report To: Same as Invoice ☐	Report Distribution (E-Mail):	REGULATORY GUIDELINES:
Company:	See page 1		nwills@klohn.com	☐ AT1
Contact:				☐ CCME
Address:				☐ Regulated Drinking Water
	Prov: PC:	Prov: PC:		☐ Other:
Contact #s:	Ph: Cell:	Ph: Cell:		

All samples are held for 60 calendar days after sample receipt, unless specified otherwise.

PO #:
Project # / Name:
Site Location:
Quote #:
Sampled By:

SERVICE REQUESTED: ☐ RUSH (Contact lab to reserve) Date Required: ☐ REGULAR (5 to 7 Days)

See reverse for package specifics

	Sample ID	Depth (unit)	Matrix GW / SW Soil	Date/Time Sampled YY/MM/DD 24:00	SOIL: BTEX F1-F4	Sieve (75 micron)	Regulated Metals (CCME / AT1)	Salinity 4	Assessment ICP Metals	Basic Class II Landfill	PAH	Barite	WATER: ☐VOCs ☐BTEX F1 ☐BTEX F1-F2	☐BTEX F1-F4 ☐Routine Water ☐Turb ☐F	☐TOC ☐DOC	Regulated Metals (CCME / AT1) Total	Dissolved	☐Total ☐Dissolved Mercury	Other Analysis	HOLD - Do not Analyze	# of Containers Submitted
1	Ex-13-1EB	7m	Soil	07-21-13	X		X	X													
2	Ex-13-1DB	7m		07-21-13	X		X	X													
3	Ex-13-AW (3m)	3m		07-22-13	X		X	X			X	X									
4	Ex-13-AW (7m)	7m		07-22-13	X		X	X													
5	Ex-13-BW (1m)	1m		07-22-13	X		X	X													
6	Ex-13-BW (6m)	6m		07-22-13	X		X	X													
7	Ex-13-CW (5m)	5m			X		X	X													
8	Ex-13-DW (6m)	6m			X		X	X													
9	Ex-13-DN (0-1m)	0-1			X		X	X													
10	Ex-13-DN (7m)	7m			X		X	X													
11	Ex-13-EN (3m)	3m			X		X	X													
12	Ex-13-EN (7m)	7m			X		X	X													

RUSH/mmd

Please indicate Filtered, Preserved or Both (F, P, F/P) → F/P

Relinquished By (Signature/Print):	Date (YY/MM/DD):	Time (24:00):
Nicole Wills / Nicole Wills	13/07/23	20:00
Relinquished By (Signature/Print):	Date (YY/MM/DD):	Time (24:00):

Special Instructions:

# of Jars Used & Not Submitted

LAB USE ONLY

Received By:	Date:	Time:	Maxxam Job #: B363840
Amanda Lattirondelle	20130725	1033	

Lab Comments:	Custody Seal	Temperature	Ice
14,14,13 15,14,15 7 B	absent	7,6,7 >j 8,5,6	present

Maxxam

Calgary: 4000 19st St. NE, T2E 6P8. Ph: (403) 291-3077, Fax: (403) 735-2240, Toll free: (800) 386-7247
Edmonton: 9331 - 48 Street, T6B 2R4. Ph: (780) 577-7100, Fax: (780) 450-4187, Toll free: (877) 465-8889
www.maxxamanalytics.com

Chain of Custody A134516

Page: 3 of 3

	Invoice To: Same as page 1 (C/O Report Address ☐)	Report To: (Same as Invoice ☒)	Report Distribution (E-Mail):
Company:	Same as page 1		nwills@klohn.com
Contact:			
Address:	Prov: PC:	Prov: PC:	
Contact #s:	Ph: Cell:	Ph: Cell:	

REGULATORY GUIDELINES:
- ☐ AT1
- ☐ CCME
- ☐ Regulated Drinking Water
- ☐ Other:

All samples are held for 60 calendar days after sample receipt, unless specified otherwise.

PO #:
Project # / Name:
Site Location:
Quote #:
Sampled By:

SERVICE REQUESTED: ☐ RUSH (Contact lab to reserve) Date Required: ☐ REGULAR (5 to 7 Days)

See reverse for package specifics

	Sample ID	Depth (unit)	Matrix GW / SW Soil	Date/Time Sampled YY/MM/DD 24:00	SOIL: BTEX F1-F4	Sieve (75 micron)	Regulated Metals (CCME / AT1)	Salinity 4	Assessment ICP Metals	Basic Class II Landfill			WATER: ☐BTEX F1 ☐VOCs	☐BTEX F1-F2 ☐BTEX F1-F4	☐ Routine Water ☐ Turb ☐ F	☐ TOC ☐ DOC	Regulated Metals (CCME / AT1) Total	Dissolved	Mercury ☐ Total ☐ Dissolved	Other Analysis										HOLD - Do not Analyze	# of Containers Submitted
*1	EX-13-LN (0-1m)	0-1m	Soil	07-22-13	X		X	X																						
2	~~[illegible]~~	~~[illegible]~~	~~Soil~~	~~2 2~~	~~X~~		~~X~~	~~X~~																						
*3	EX-13-LN (6m)	6m	Soil	07-22-13	X		X	X																						
4																														
5																														
6																														
7																														
8																														
9																														
10																														
11																														
12																														

ROS/mm

Please indicate Filtered, Preserved or Both (F, P, F/P) → F/P

Relinquished By (Signature/Print):	Date (YY/MM/DD):	Time (24:00):
Nicole Wills / Nicole Wills	13/07/23	20:00
Relinquished By (Signature/Print):	Date (YY/MM/DD):	Time (24:00):

Special Instructions:

# of Jars Used & Not Submitted

LAB USE ONLY

Received By:	Date:	Time:	Maxxam Job #: B363840
Amanda / L. Hirondelle	20130725 @	1023	

Lab Comments:	Custody Seal	Temperature	Ice
14,14,13 / 15,14,15 7B	absent	7,6,7 / 8,5,6 7J	present

AB FCD-00331 Rev3 2010/05

Maxxam Analytics International Corporation o/a Maxxam Analytics

CONFIRMATION-RECEIPT OF SAMPLES FOR ANALYSIS

Maxxam Job # B364361

Client Project #: CAMP FAREWELL
PO #: A04012A05

3 Samples

Samples Received 2013/07/26
Client Confirmation 2013/07/29
Expected Report Delivery 2013/07/29 18:00

Report will be sent to:

NICOLE WILLS
KLOHN CRIPPEN BERGER LTD
HOPEWELL PLACE NE
CALGARY
T1Y 7J7
Ph 403-274-3424
Fax 403-274-5349
NWills@klohn.com

Invoice will be sent to:

Accounts Payable
IEG CONSULTANTS LTD.
500-2618 HOPEWELL PLACE NE
CALGARY
T1Y 7J7

We have received the following samples:

TP-13-19(0.75M) Sampled 2013/07/24 18:00 COC# A134517 Matrix: SOIL
Maxxam #: HA2189

AT1 BTEX and F1-F4 in Soil
Regulated Metals (CCME/AT1) - Soils
SOIL SALINITY 4
Acid Digestion for Metals - Soils
Drying and Grinding
Environmental Sample Disposal Fee
Hexavalent Chromium Prep Code
Sub Sample for Dry Grind
Sub-sample for metals

TP-13-19(1M) Sampled 2013/07/24 18:00
Maxxam #: HA2190

AT1 BTEX and F1-F4 in Soil
Regulated Metals (CCME/AT1) - Soils
SOIL SALINITY 4
Acid Digestion for Metals - Soils
Drying and Grinding
Environmental Sample Disposal Fee
Hexavalent Chromium Prep Code
Sub Sample for Dry Grind
Sub-sample for metals

TP-13-19(3M) Sampled 2013/07/24 18:00
Maxxam #: HA2191

AT1 BTEX and F1-F4 in Soil
Regulated Metals (CCME/AT1) - Soils
SOIL SALINITY 4
Acid Digestion for Metals - Soils

Drying and Grinding
Environmental Sample Disposal Fee
Hexavalent Chromium Prep Code
Sub Sample for Dry Grind
Sub-sample for metals

Comments:

- Unless special storage arrangements are made, all samples will be discarded 60 days after receipt of samples.
- Non-regular samples are flagged as (C) Composite by lab, (H) Hold, or (L) Leachate.
- If there are any problems with the submitted samples, a Sample Integrity Form (SIF) detailing conditions will be included in this confirmation.
- For revisions please contact your Maxxam Project Management team at Ph (780) 577-7100.
  Your Project Manager is: Tanya Eugine

Maxxam Job # B364361 PARAMETERS FOR ANALYSIS REQUESTED

The values listed below are RDL's and not results. Report Detection Limit (RDL) may be elevated if there are matrix interferences or limited sample amounts.

Maxxam # HA2189, Sample IDN: **TP-13-19(0.75M)**
Maxxam # HA2190, Sample IDN: **TP-13-19(1M)**
Maxxam # HA2191, Sample IDN: **TP-13-19(3M)**

AT1 BTEX AND F1-F4 IN SOIL			
F2 (C10-C16 Hydrocarbons)	10 mg/kg	F3 (C16-C34 Hydrocarbons)	50 mg/kg
F4 (C34-C50 Hydrocarbons)	50 mg/kg	Reached Baseline at C50	
F1 (C6-C10) - BTEX	12 mg/kg	(C6-C10)	12 mg/kg
Benzene	0.005 mg/kg	m & p-Xylene	0.04 mg/kg
Xylenes (Total)	0.04 mg/kg	Toluene	0.02 mg/kg
Ethylbenzene	0.01 mg/kg	o-Xylene	0.02 mg/kg
Moisture	0.3 %	F4G-SG (Heavy Hydrocarbons-Grav.)	500 mg/kg
SOIL SALINITY 4			
+Fluoride (F)	0.1 mg/kg	pH	
Conductivity	0.02 dS/m	Chloride (Cl)	5 mg/L
Chloride (Cl)	1 mg/kg	Sulphate (SO4)	5 mg/L
Sulphate (SO4)	1 mg/kg	+Bicarbonate (HCO3)	1 mg/kg
Anion Sum		Cation Sum	
Ion Balance	0.01 N/A	Cation/EC Ratio	0.1 N/A
Magnesium (Mg)	1 mg/L	Magnesium (Mg)	0.1 mg/kg
Potassium (K)	1.3 mg/L	Potassium (K)	0.2 mg/kg
Sodium (Na)	2.5 mg/L	Sodium (Na)	0.1 mg/kg
Calcium (Ca)	1.5 mg/L	Calcium (Ca)	0.1 mg/kg
Sodium Adsorption Ratio	0.1 N/A	Saturation %	
Theoretical Gypsum Requirement	0.1 tonnes/ha		
REGULATED METALS (CCME/AT1) - SOILS			
Hex. Chromium (Cr 6+)	0.15 mg/kg	Chromium (Cr)	1 mg/kg
Cobalt (Co)	1 mg/kg	Copper (Cu)	5 mg/kg
Mercury (Hg)	0.05 mg/kg	Lead (Pb)	1 mg/kg
Antimony (Sb)	1 mg/kg	Molybdenum (Mo)	0.4 mg/kg
Nickel (Ni)	1 mg/kg	Selenium (Se)	0.5 mg/kg
Silver (Ag)	1 mg/kg	Arsenic (As)	1 mg/kg
Thallium (Tl)	0.3 mg/kg	Tin (Sn)	1 mg/kg
Uranium (U)	1 mg/kg	Vanadium (V)	1 mg/kg
Zinc (Zn)	10 mg/kg	Barium (Ba)	10 mg/kg
Beryllium (Be)	0.4 mg/kg	Boron (B)	0.1 mg/kg
Cadmium (Cd)	0.1 mg/kg		

Fundamental Laboratory Acceptance Guideline

Invoice To:
IEG CONSULTANTS LTD.
ATTN: Accounts Payable
500-2618 HOPEWELL PLACE NE
CALGARY, AB
CANADA T1Y 7J7
Client Contact:
NICOLE WILLS

Report To:
KLOHN CRIPPEN BERGER LTD
500-2618
ATTN: NICOLE WILLS
HOPEWELL PLACE NE
CALGARY, AB
CANADA T1Y 7J7

Maxxam Job #:	B364361
Date Received:	2013/07/26
Your C.O.C. #:	A134517
Your Project #:	CAMP FAREWELL
Your P.O. #:	A04012A05
Maxxam Project Manager:	Tanya Eugine

[x] Temperature > 10 C

Report Comments
2. Temperature over 10 degrees.

Received Date: 2013/07/26 **(Time):** 8:10 **By:** _____

Inspected Date: _____ **(Time):** _____ **By:** _____

FLAG Created Date: 2013/07/26 **(Time):** 11:29 **By:** DW2

Maxxam

Calgary: 4000 19st St. NE, T2E 6P8. Ph: (403) 291-3077, Fax: (403) 735-2240, Toll free: (800) 386-7247
Edmonton: 9331 - 48 Street, T6B 2R4. Ph: (780) 577-7100, Fax: (780) 450-4187, Toll free: (877) 465-6889
www.maxxamanalytics.com

07/1296

Chain of Custody A134517

Page: 1 of 1

	Invoice To:	C/O Report Address ☐	Report To:	Same as Invoice ☒	Report Distribution (E-Mail):
Company:	IEG Consultants Ltd				nwills@klohn.com
Contact:	Nicole Wills				
Address:	2618 Hopewell Place NE				
	Prov: Calgary, AB PC: T1Y7J7		Prov:	PC:	
Contact #s:	Ph: 403-829-3048 Cell:		Ph:	Cell:	

REGULATORY GUIDELINES:
- ☐ AT1
- ☐ CCME
- ☐ Regulated Drinking Water
- ☐ Other:

All samples are held for 60 calendar days after sample receipt, unless specified otherwise

PO #:
Project # / Name: A0101A05
Site Location: Camp Farewell
Quote #:
Sampled By: Nicole Wills / Bryan Gendreau

SERVICE REQUESTED: ☒ RUSH (Contact lab to reserve) Date Required: ☐ REGULAR (5 to 7 Days)

See reverse for package specifics

	Sample ID	Depth (unit) M	Matrix GW / SW Soil	Date/Time Sampled YY/MM/DD 24:00	SOIL: BTEX F1-F4	SOIL: Sieve (75 micron)	SOIL: Regulated Metals (CCME / AT1)	SOIL: Salinity 4	SOIL: Assessment ICP Metals	SOIL: Basic Class II Landfill	WATER: ☐BTEX F1 ☐VOCs	WATER: ☐BTEX F1-F2 ☐BTEX F1-F4	WATER: ☐ Routine Water ☐ Turb ☐ F	WATER: ☐ TOC ☐ DOC	WATER: Regulated Metals (CCME / AT1) Total	WATER: Regulated Metals (CCME / AT1) Dissolved	WATER: Mercury ☐ Total ☐ Dissolved	Other Analysis	HOLD - Do not Analyze	# of Containers Submitted
1	~~TP~~ TP-13-19(0.75m)	0.75	Soil	13/07/24 19:30	X		X	X											2B/IJ	
2	TP-13-19(1m)	1	↓	↓	X		X	X											2B/IJ	
3	TP-13-19 (3m)	3	↓	↓	X		X	X											2B/IJ	
4																				
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				

Please indicate Filtered, Preserved or Both (F, P, F/P) →

NKB/CA F/P

Relinquished By (Signature/Print):	Date (YY/MM/DD):	Time (24:00):
Nicole Wills Nicole Wills	13/07/24	19:30
Relinquished By (Signature/Print):	Date (YY/MM/DD):	Time (24:00):

Special Instructions:

# of Jars Used & Not Submitted

LAB USE ONLY

Received By:	Date:	Time:	Maxxam Job #: B364361
Jenna Walter Jenna Walter	20130726	0810	

Lab Comments:

Custody Seal	Temperature	Ice
absent	11, 14, 10	absent

Maxxam

Your P.O. #: A04012A05
Your Project #: CAMP FAREWELL
Your C.O.C. #: A134517

Attention: NICOLE WILLS

KLOHN CRIPPEN BERGER LTD
500-2618
HOPEWELL PLACE NE
CALGARY, AB
CANADA T1Y 7J7

Report Date: 2013/07/29

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B364361
Received: 2013/07/26, 8:10

Sample Matrix: Soil
Samples Received: 3

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Boron (Hot Water Soluble)	3	2013/07/28	2013/07/28	AB SOP-00042	EPA 200.7
BTEX/F1 by HS GC/MS (MeOH extract)	3	2013/07/26	2013/07/28	AB SOP-00039	CCME, EPA 8260
Cation/EC Ratio	3	N/A	2013/07/29		CALCULATION
Chloride (Soluble)	3	2013/07/27	2013/07/29	AB SOP-00020	SSMA 4500 CL-E
Hexavalent Chromium	3	2013/07/29	2013/07/29	EENVSOP-00131	SM 3500-Cr B
Conductivity @25C (Soluble)	3	2013/07/27	2013/07/28	AB SOP-00004	SSMA 15.3
CCME Hydrocarbons (F2-F4 in soil)	3	2013/07/26	2013/07/28	AB SOP-00040 AB SOP-00036	CCME PHC-CWS
Elements by ICPMS - Soils	3	2013/07/28	2013/07/28	AB SOP-00043	EPA 200.8
Ion Balance	3	N/A	2013/07/29	AB WI-00065	SM 1030E
Sum of Cations, Anions	3	N/A	2013/07/29	AB WI-00065	SM 1030E
Moisture	3	N/A	2013/07/27	AB SOP-00002	CCME PHC-CWS
pH @25C (1:2 Calcium Chloride Extract)	3	2013/07/27	2013/07/27	AB SOP-00006	SSMA 16.3
Sodium Adsorption Ratio	3	N/A	2013/07/29	AB WI-00065	SSMA 15.4.4
Ca,Mg,Na,K,SO4 (Soluble)	3	2013/07/28	2013/07/28	AB SOP-00042	EPA 200.7
Soluble Paste	3	2013/07/27	2013/07/29	AB SOP-00033	SSMA 15.2
Soluble Ions Calculation	3	N/A	2013/07/27		CALCULATION
Theoretical Gypsum Requirement (1)	3	N/A	2013/07/29	CAL WI-00087	CJSS 79:449-455

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

(1) Units for TGR have changed from tons/acre to tonnes/ha

Encryption Key

Tanya Eugine
29 Jul 2013 14:54:37 -06:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Tanya Eugine, M.Sc., Project Manager
Email: TEugine@maxxam.ca
Phone# (780) 577-7144

==========

Your P.O. #: A04012A05
Your Project #: CAMP FAREWELL
Your C.O.C. #: A134517

Attention: NICOLE WILLS

KLOHN CRIPPEN BERGER LTD
500-2618
HOPEWELL PLACE NE
CALGARY, AB
CANADA T1Y 7J7

Report Date: 2013/07/29

CERTIFICATE OF ANALYSIS

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.

Total cover pages: 2

Maxxam Job #: B364361
Report Date: 2013/07/29

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: NW

AT1 BTEX AND F1-F4 IN SOIL (SOIL)

Maxxam ID		HA2189		HA2190	HA2191		
Sampling Date		2013/07/24 18:00		2013/07/24 18:00	2013/07/24 18:00		
COC Number		A134517		A134517	A134517		
	UNITS	**TP-13-19(0.75M)**	**QC Batch**	**TP-13-19(1M)**	**TP-13-19(3M)**	**RDL**	**QC Batch**
Physical Properties							
Moisture	%	50	7027491	7.0	17	0.30	7027491
Ext. Pet. Hydrocarbon							
F2 (C10-C16 Hydrocarbons)	mg/kg	<10	7015565	2700	<10	10	7015565
F3 (C16-C34 Hydrocarbons)	mg/kg	730	7015565	620	<50	50	7015565
F4 (C34-C50 Hydrocarbons)	mg/kg	150	7015565	<50	<50	50	7015565
Reached Baseline at C50	mg/kg	Yes	7015565	Yes	Yes	N/A	7015565
Volatiles							
Benzene	mg/kg	0.096	7022576	<0.0050	<0.0050	0.0050	7027344
Toluene	mg/kg	0.25	7022576	<0.020	<0.020	0.020	7027344
Ethylbenzene	mg/kg	0.14	7022576	<0.010	<0.010	0.010	7027344
Xylenes (Total)	mg/kg	0.43	7022576	<0.040	<0.040	0.040	7027344
m & p-Xylene	mg/kg	0.30	7022576	<0.040	<0.040	0.040	7027344
o-Xylene	mg/kg	0.16	7022576	<0.020	<0.020	0.020	7027344
F1 (C6-C10) - BTEX	mg/kg	<12	7022576	130	<12	12	7027344
(C6-C10)	mg/kg	<12	7022576	130	<12	12	7027344
Surrogate Recovery (%)							
1,4-Difluorobenzene (sur.)	%	127	7022576	100	107	N/A	7027344
4-BROMOFLUOROBENZENE (sur.)	%	99	7022576	118	95	N/A	7027344
D10-ETHYLBENZENE (sur.)	%	93	7022576	120	125	N/A	7027344
D4-1,2-DICHLOROETHANE (sur.)	%	96	7022576	89	82	N/A	7027344
O-TERPHENYL (sur.)	%	93	7015565	101	99	N/A	7015565

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Job #: B364361
Report Date: 2013/07/29

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: NW

SOIL SALINITY 4 (SOIL)

Maxxam ID		HA2189		HA2190	HA2191		
Sampling Date		2013/07/24 18:00		2013/07/24 18:00	2013/07/24 18:00		
COC Number		A134517		A134517	A134517		
	UNITS	**TP-13-19(0.75M)**	**RDL**	**TP-13-19(1M)**	**TP-13-19(3M)**	**RDL**	**QC Batch**
Calculated Parameters							
Anion Sum	meq/L	0.63	N/A	0.56	20	N/A	7024728
Cation Sum	meq/L	1.5	N/A	2.0	21	N/A	7024728
Cation/EC Ratio	N/A	10	0.10	13	12	0.10	7024719
Ion Balance	N/A	2.3	0.010	3.6	1.1	0.010	7024727
Calculated Calcium (Ca)	mg/kg	10	1.6	5.8	73	0.51	7024731
Calculated Magnesium (Mg)	mg/kg	3.3	1.0	1.5	25	0.34	7024731
Calculated Sodium (Na)	mg/kg	16	2.6	5.6	31	0.85	7024731
Calculated Potassium (K)	mg/kg	2.6	1.3	1.1	4.8	0.44	7024731
Calculated Chloride (Cl)	mg/kg	7.6	5.2	2.3	61	1.7	7024731
Calculated Sulphate (SO4)	mg/kg	21	5.2	6.0	240	1.7	7024731
Soluble Parameters							
Soluble Chloride (Cl)	mg/L	7.4	5.0	6.7	180	5.0	7028478
Soluble Conductivity	dS/m	0.15	0.020	0.15	1.8	0.020	7027912
Soluble (CaCl2) pH	N/A	5.94	N/A	7.31	7.54	N/A	7027624
Sodium Adsorption Ratio	N/A	1.1	0.10	0.92	1.4	0.10	7024730
Soluble Calcium (Ca)	mg/L	9.8	1.5	17	220	1.5	7028337
Soluble Magnesium (Mg)	mg/L	3.2	1.0	4.5	73	1.0	7028337
Soluble Sodium (Na)	mg/L	15	2.5	16	90	2.5	7028337
Soluble Potassium (K)	mg/L	2.5	1.3	3.1	14	1.3	7028337
Saturation %	%	100	N/A	34	34	N/A	7027320
Soluble Sulphate (SO4)	mg/L	20	5.0	18	720	5.0	7028337
Theoretical Gypsum Requirement	tonnes/ha	<0.10	0.10	<0.10	<0.10	0.10	7024732

RDL = Reportable Detection Limit

Maxxam Job #: B364361
Report Date: 2013/07/29

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: NW

REGULATED METALS (CCME/AT1) - SOILS

Maxxam ID		HA2189	HA2190	HA2191		
Sampling Date		2013/07/24 18:00	2013/07/24 18:00	2013/07/24 18:00		
COC Number		A134517	A134517	A134517		
	UNITS	**TP-13-19(0.75M)**	**TP-13-19(1M)**	**TP-13-19(3M)**	**RDL**	**QC Batch**
Elements						
Soluble (Hot water) Boron (B)	mg/kg	0.40	0.14	0.38	0.10	7028159
Hex. Chromium (Cr 6+)	mg/kg	<0.15	<0.15	<0.15	0.15	7029030
Total Antimony (Sb)	mg/kg	<1.0	<1.0	<1.0	1.0	7028252
Total Arsenic (As)	mg/kg	3.6	5.8	5.6	1.0	7028252
Total Barium (Ba)	mg/kg	190	140	92	10	7028252
Total Beryllium (Be)	mg/kg	<0.40	<0.40	<0.40	0.40	7028252
Total Cadmium (Cd)	mg/kg	0.11	<0.10	<0.10	0.10	7028252
Total Chromium (Cr)	mg/kg	7.7	11	7.6	1.0	7028252
Total Cobalt (Co)	mg/kg	1.6	3.7	4.2	1.0	7028252
Total Copper (Cu)	mg/kg	<5.0	<5.0	<5.0	5.0	7028252
Total Lead (Pb)	mg/kg	4.5	4.3	3.4	1.0	7028252
Total Mercury (Hg)	mg/kg	0.070	<0.050	<0.050	0.050	7028252
Total Molybdenum (Mo)	mg/kg	<0.40	0.56	0.53	0.40	7028252
Total Nickel (Ni)	mg/kg	6.4	12	11	1.0	7028252
Total Selenium (Se)	mg/kg	0.58	<0.50	<0.50	0.50	7028252
Total Silver (Ag)	mg/kg	<1.0	<1.0	<1.0	1.0	7028252
Total Thallium (Tl)	mg/kg	<0.30	<0.30	<0.30	0.30	7028252
Total Tin (Sn)	mg/kg	<1.0	<1.0	<1.0	1.0	7028252
Total Uranium (U)	mg/kg	<1.0	<1.0	<1.0	1.0	7028252
Total Vanadium (V)	mg/kg	15	15	13	1.0	7028252
Total Zinc (Zn)	mg/kg	<10	22	29	10	7028252

RDL = Reportable Detection Limit

Maxxam Job #: B364361
Report Date: 2013/07/29

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: NW

Package 1	11.7°C

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

General Comments

Results relate only to the items tested.

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: CAMP FAREWELL
P.O. #: A04012A05
Site Location:

Quality Assurance Report

Maxxam Job Number: EB364361

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7015565	GG3	Matrix Spike	O-TERPHENYL (sur.)	2013/07/28		89	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/07/28		NC	%	50 - 130
			F3 (C16-C34 Hydrocarbons)	2013/07/28		NC	%	50 - 130
			F4 (C34-C50 Hydrocarbons)	2013/07/28		NC	%	50 - 130
		Spiked Blank	O-TERPHENYL (sur.)	2013/07/28		104	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/07/28		115	%	70 - 130
			F3 (C16-C34 Hydrocarbons)	2013/07/28		117	%	70 - 130
			F4 (C34-C50 Hydrocarbons)	2013/07/28		116	%	70 - 130
		Method Blank	O-TERPHENYL (sur.)	2013/07/28		99	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/07/28	<10		mg/kg	
			F3 (C16-C34 Hydrocarbons)	2013/07/28	<50		mg/kg	
			F4 (C34-C50 Hydrocarbons)	2013/07/28	<50		mg/kg	
		RPD	F2 (C10-C16 Hydrocarbons)	2013/07/28	19.4		%	50
			F3 (C16-C34 Hydrocarbons)	2013/07/28	11.8		%	50
			F4 (C34-C50 Hydrocarbons)	2013/07/28	4.9		%	50
7022576	NM5	Matrix Spike	1,4-Difluorobenzene (sur.)	2013/07/27		103	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/07/27		100	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/07/27		86	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/07/27		102	%	60 - 140
			Benzene	2013/07/27		96	%	60 - 140
			Toluene	2013/07/27		90	%	60 - 140
			Ethylbenzene	2013/07/27		87	%	60 - 140
			m & p-Xylene	2013/07/27		89	%	60 - 140
			o-Xylene	2013/07/27		90	%	60 - 140
			(C6-C10)	2013/07/27		100	%	60 - 140
		Spiked Blank	1,4-Difluorobenzene (sur.)	2013/07/28		99	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/07/28		99	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/07/28		93	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/07/28		104	%	60 - 140
			Benzene	2013/07/28		101	%	60 - 140
			Toluene	2013/07/28		95	%	60 - 140
			Ethylbenzene	2013/07/28		93	%	60 - 140
			m & p-Xylene	2013/07/28		94	%	60 - 140
			o-Xylene	2013/07/28		96	%	60 - 140
			(C6-C10)	2013/07/28		107	%	60 - 140
		Method Blank	1,4-Difluorobenzene (sur.)	2013/07/28		100	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/07/28		99	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/07/28		96	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/07/28		94	%	60 - 140
			Benzene	2013/07/28	<0.0050		mg/kg	
			Toluene	2013/07/28	<0.020		mg/kg	
			Ethylbenzene	2013/07/28	<0.010		mg/kg	
			Xylenes (Total)	2013/07/28	<0.040		mg/kg	
			m & p-Xylene	2013/07/28	<0.040		mg/kg	
			o-Xylene	2013/07/28	<0.020		mg/kg	
			F1 (C6-C10) - BTEX	2013/07/28	<12		mg/kg	
			(C6-C10)	2013/07/28	<12		mg/kg	
		RPD	Benzene	2013/07/28	NC		%	50
			Toluene	2013/07/28	NC		%	50
			Ethylbenzene	2013/07/28	NC		%	50
			Xylenes (Total)	2013/07/28	NC		%	50
			m & p-Xylene	2013/07/28	NC		%	50
			o-Xylene	2013/07/28	NC		%	50
			F1 (C6-C10) - BTEX	2013/07/28	NC		%	50
			(C6-C10)	2013/07/28	NC		%	50

Maxxam

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: CAMP FAREWELL
P.O. #: A04012A05
Site Location:

Quality Assurance Report (Continued)

Maxxam Job Number: EB364361

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7027320	LX	QC Standard	Saturation %	2013/07/29		103	%	93 - 107
		RPD	Saturation %	2013/07/29	0.5		%	12
7027344	RC6	Matrix Spike	1,4-Difluorobenzene (sur.)	2013/07/28		107	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/07/28		95	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/07/28		123	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/07/28		89	%	60 - 140
			Benzene	2013/07/28		114	%	60 - 140
			Toluene	2013/07/28		109	%	60 - 140
			Ethylbenzene	2013/07/28		106	%	60 - 140
			m & p-Xylene	2013/07/28		113	%	60 - 140
			o-Xylene	2013/07/28		103	%	60 - 140
			(C6-C10)	2013/07/28		111	%	60 - 140
		Spiked Blank	1,4-Difluorobenzene (sur.)	2013/07/28		101	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/07/28		94	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/07/28		123	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/07/28		85	%	60 - 140
			Benzene	2013/07/28		114	%	60 - 140
			Toluene	2013/07/28		108	%	60 - 140
			Ethylbenzene	2013/07/28		106	%	60 - 140
			m & p-Xylene	2013/07/28		111	%	60 - 140
			o-Xylene	2013/07/28		103	%	60 - 140
			(C6-C10)	2013/07/28		94	%	60 - 140
		Method Blank	1,4-Difluorobenzene (sur.)	2013/07/28		100	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/07/28		94	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/07/28		121	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/07/28		91	%	60 - 140
			Benzene	2013/07/28	<0.0050		mg/kg	
			Toluene	2013/07/28	<0.020		mg/kg	
			Ethylbenzene	2013/07/28	<0.010		mg/kg	
			Xylenes (Total)	2013/07/28	<0.040		mg/kg	
			m & p-Xylene	2013/07/28	<0.040		mg/kg	
			o-Xylene	2013/07/28	<0.020		mg/kg	
			F1 (C6-C10) - BTEX	2013/07/28	<12		mg/kg	
			(C6-C10)	2013/07/28	<12		mg/kg	
		RPD	Benzene	2013/07/28	NC		%	50
			Toluene	2013/07/28	NC		%	50
			Ethylbenzene	2013/07/28	NC		%	50
			Xylenes (Total)	2013/07/28	NC		%	50
			m & p-Xylene	2013/07/28	NC		%	50
			o-Xylene	2013/07/28	NC		%	50
			F1 (C6-C10) - BTEX	2013/07/28	NC		%	50
			(C6-C10)	2013/07/28	NC		%	50
7027491	NM5	Method Blank	Moisture	2013/07/27	<0.30		%	
		RPD	Moisture	2013/07/27	1.4		%	20
7027624	AD3	QC Standard	Soluble (CaCl2) pH	2013/07/27		101	%	97 - 103
		Spiked Blank	Soluble (CaCl2) pH	2013/07/27		100	%	97 - 103
		RPD	Soluble (CaCl2) pH	2013/07/27	0.1		%	5
7027912	MA4	QC Standard	Soluble Conductivity	2013/07/28		99	%	85 - 115
		Spiked Blank	Soluble Conductivity	2013/07/28		100	%	90 - 110
		Method Blank	Soluble Conductivity	2013/07/28	<0.020		dS/m	
		RPD	Soluble Conductivity	2013/07/28	3.0		%	35
7028159	JHC	Matrix Spike	Soluble (Hot water) Boron (B)	2013/07/28		98	%	75 - 125
		Spiked Blank	Soluble (Hot water) Boron (B)	2013/07/28		108	%	75 - 125
		Method Blank	Soluble (Hot water) Boron (B)	2013/07/28	<0.10		mg/kg	
		RPD	Soluble (Hot water) Boron (B)	2013/07/28	NC		%	35

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: CAMP FAREWELL
P.O. #: A04012A05
Site Location:

Quality Assurance Report (Continued)

Maxxam Job Number: EB364361

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7028252	WAU	Matrix Spike	Total Antimony (Sb)	2013/07/28		88	%	75 - 125
			Total Arsenic (As)	2013/07/28		92	%	75 - 125
			Total Barium (Ba)	2013/07/28		NC	%	75 - 125
			Total Beryllium (Be)	2013/07/28		98	%	75 - 125
			Total Cadmium (Cd)	2013/07/28		94	%	75 - 125
			Total Chromium (Cr)	2013/07/28		95	%	75 - 125
			Total Cobalt (Co)	2013/07/28		93	%	75 - 125
			Total Copper (Cu)	2013/07/28		91	%	75 - 125
			Total Lead (Pb)	2013/07/28		94	%	75 - 125
			Total Magnesium (Mg)	2013/07/28		NC	%	75 - 125
			Total Mercury (Hg)	2013/07/28		99	%	75 - 125
			Total Molybdenum (Mo)	2013/07/28		97	%	75 - 125
			Total Nickel (Ni)	2013/07/28		94	%	75 - 125
			Total Selenium (Se)	2013/07/28		88	%	75 - 125
			Total Silver (Ag)	2013/07/28		97	%	75 - 125
			Total Thallium (Tl)	2013/07/28		94	%	75 - 125
			Total Tin (Sn)	2013/07/28		99	%	75 - 125
			Total Uranium (U)	2013/07/28		91	%	75 - 125
			Total Vanadium (V)	2013/07/28		103	%	75 - 125
			Total Zinc (Zn)	2013/07/28		NC	%	75 - 125
		QC Standard	Total Arsenic (As)	2013/07/28		115	%	50 - 150
			Total Barium (Ba)	2013/07/28		111	%	69 - 131
			Total Chromium (Cr)	2013/07/28		108	%	41 - 159
			Total Cobalt (Co)	2013/07/28		101	%	75 - 125
			Total Copper (Cu)	2013/07/28		96	%	73 - 127
			Total Lead (Pb)	2013/07/28		99	%	54 - 146
			Total Magnesium (Mg)	2013/07/28		91	%	69 - 131
			Total Nickel (Ni)	2013/07/28		109	%	61 - 139
			Total Vanadium (V)	2013/07/28		126	%	50 - 150
			Total Zinc (Zn)	2013/07/28		100	%	72 - 128
		Spiked Blank	Total Antimony (Sb)	2013/07/28		92	%	75 - 125
			Total Arsenic (As)	2013/07/28		88	%	75 - 125
			Total Barium (Ba)	2013/07/28		95	%	75 - 125
			Total Beryllium (Be)	2013/07/28		87	%	75 - 125
			Total Cadmium (Cd)	2013/07/28		89	%	75 - 125
			Total Chromium (Cr)	2013/07/28		86	%	75 - 125
			Total Cobalt (Co)	2013/07/28		84	%	75 - 125
			Total Copper (Cu)	2013/07/28		83	%	75 - 125
			Total Lead (Pb)	2013/07/28		89	%	75 - 125
			Total Magnesium (Mg)	2013/07/28		90	%	75 - 125
			Total Mercury (Hg)	2013/07/28		92	%	75 - 125
			Total Molybdenum (Mo)	2013/07/28		90	%	75 - 125
			Total Nickel (Ni)	2013/07/28		85	%	75 - 125
			Total Selenium (Se)	2013/07/28		85	%	75 - 125
			Total Silver (Ag)	2013/07/28		89	%	75 - 125
			Total Thallium (Tl)	2013/07/28		89	%	75 - 125
			Total Tin (Sn)	2013/07/28		94	%	75 - 125
			Total Uranium (U)	2013/07/28		92	%	75 - 125
			Total Vanadium (V)	2013/07/28		89	%	75 - 125
			Total Zinc (Zn)	2013/07/28		85	%	75 - 125
		Method Blank	Total Antimony (Sb)	2013/07/28	<1.0		mg/kg	
			Total Arsenic (As)	2013/07/28	<1.0		mg/kg	
			Total Barium (Ba)	2013/07/28	<10		mg/kg	
			Total Beryllium (Be)	2013/07/28	<0.40		mg/kg	
			Total Cadmium (Cd)	2013/07/28	<0.10		mg/kg	

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: CAMP FAREWELL
P.O. #: A04012A05
Site Location:

Quality Assurance Report (Continued)

Maxxam Job Number: EB364361

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7028252	WAU	Method Blank	Total Chromium (Cr)	2013/07/28	<1.0		mg/kg	
			Total Cobalt (Co)	2013/07/28	<1.0		mg/kg	
			Total Copper (Cu)	2013/07/28	<5.0		mg/kg	
			Total Lead (Pb)	2013/07/28	<1.0		mg/kg	
			Total Magnesium (Mg)	2013/07/28	<100		mg/kg	
			Total Mercury (Hg)	2013/07/28	<0.050		mg/kg	
			Total Molybdenum (Mo)	2013/07/28	<0.40		mg/kg	
			Total Nickel (Ni)	2013/07/28	<1.0		mg/kg	
			Total Selenium (Se)	2013/07/28	<0.50		mg/kg	
			Total Silver (Ag)	2013/07/28	<1.0		mg/kg	
			Total Thallium (Tl)	2013/07/28	<0.30		mg/kg	
			Total Tin (Sn)	2013/07/28	<1.0		mg/kg	
			Total Uranium (U)	2013/07/28	<1.0		mg/kg	
			Total Vanadium (V)	2013/07/28	<1.0		mg/kg	
			Total Zinc (Zn)	2013/07/28	<10		mg/kg	
		RPD	Total Antimony (Sb)	2013/07/28	NC		%	35
			Total Arsenic (As)	2013/07/28	2.1		%	35
			Total Barium (Ba)	2013/07/28	0.8		%	35
			Total Beryllium (Be)	2013/07/28	NC		%	35
			Total Cadmium (Cd)	2013/07/28	NC		%	35
			Total Chromium (Cr)	2013/07/28	4.9		%	35
			Total Cobalt (Co)	2013/07/28	0.8		%	35
			Total Copper (Cu)	2013/07/28	NC		%	35
			Total Lead (Pb)	2013/07/28	0.5		%	35
			Total Magnesium (Mg)	2013/07/28	3.6		%	35
			Total Mercury (Hg)	2013/07/28	NC		%	35
			Total Molybdenum (Mo)	2013/07/28	NC		%	35
			Total Nickel (Ni)	2013/07/28	1.1		%	35
			Total Selenium (Se)	2013/07/28	NC		%	35
			Total Silver (Ag)	2013/07/28	NC		%	35
			Total Thallium (Tl)	2013/07/28	NC		%	35
			Total Tin (Sn)	2013/07/28	NC		%	35
			Total Uranium (U)	2013/07/28	NC		%	35
			Total Vanadium (V)	2013/07/28	1.4		%	35
			Total Zinc (Zn)	2013/07/28	NC		%	35
7028337	NC3	Matrix Spike	Soluble Calcium (Ca)	2013/07/28		100	%	75 - 125
			Soluble Magnesium (Mg)	2013/07/28		104	%	75 - 125
			Soluble Sodium (Na)	2013/07/28		104	%	75 - 125
			Soluble Potassium (K)	2013/07/28		105	%	75 - 125
		QC Standard	Soluble Calcium (Ca)	2013/07/28		109	%	75 - 125
			Soluble Magnesium (Mg)	2013/07/28		106	%	75 - 125
			Soluble Sodium (Na)	2013/07/28		103	%	75 - 125
			Soluble Potassium (K)	2013/07/28		111	%	75 - 125
			Soluble Sulphate (SO4)	2013/07/28		114	%	78 - 122
		Spiked Blank	Soluble Calcium (Ca)	2013/07/28		98	%	75 - 125
			Soluble Magnesium (Mg)	2013/07/28		101	%	75 - 125
			Soluble Sodium (Na)	2013/07/28		101	%	75 - 125
			Soluble Potassium (K)	2013/07/28		101	%	75 - 125
		Method Blank	Soluble Calcium (Ca)	2013/07/28	<1.5		mg/L	
			Soluble Magnesium (Mg)	2013/07/28	<1.0		mg/L	
			Soluble Sodium (Na)	2013/07/28	<2.5		mg/L	
			Soluble Potassium (K)	2013/07/28	<1.3		mg/L	
			Soluble Sulphate (SO4)	2013/07/28	<5.0		mg/L	
		RPD	Soluble Calcium (Ca)	2013/07/28	18.4		%	35
			Soluble Magnesium (Mg)	2013/07/28	16.2		%	35

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: CAMP FAREWELL
P.O. #: A04012A05
Site Location:

Quality Assurance Report (Continued)

Maxxam Job Number: EB364361

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7028337	NC3	RPD	Soluble Sodium (Na)	2013/07/28	2.0		%	35
			Soluble Potassium (K)	2013/07/28	NC		%	35
			Soluble Sulphate (SO4)	2013/07/28	10.1		%	35
7028478	KD5	Matrix Spike	Soluble Chloride (Cl)	2013/07/29		104	%	75 - 125
		QC Standard	Soluble Chloride (Cl)	2013/07/29		89	%	75 - 125
		Spiked Blank	Soluble Chloride (Cl)	2013/07/29		102	%	75 - 125
		Method Blank	Soluble Chloride (Cl)	2013/07/29	<5.0		mg/L	
		RPD	Soluble Chloride (Cl)	2013/07/29	NC		%	35
7029030	KD5	Matrix Spike	Hex. Chromium (Cr 6+)	2013/07/29		97	%	75 - 125
		Spiked Blank	Hex. Chromium (Cr 6+)	2013/07/29		100	%	90 - 110
		Method Blank	Hex. Chromium (Cr 6+)	2013/07/29	<0.15		mg/kg	
		RPD	Hex. Chromium (Cr 6+)	2013/07/29	NC		%	35

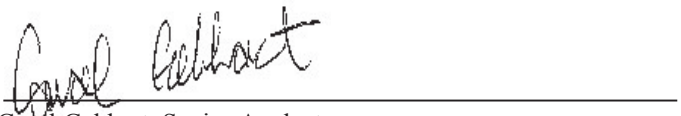
Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.
Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.
QC Standard: A sample of known concentration prepared 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 spiked amount was not sufficiently significant to permit a reliable recovery calculation.
NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

Maxxam

Validation Signature Page

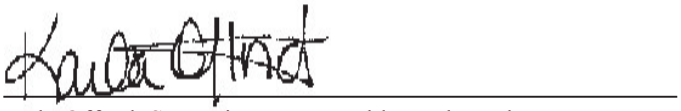
Maxxam Job #: B364361

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

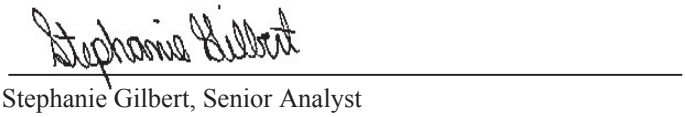


Carol Gebhart, Senior Analyst

Daniel Reslan, Volatiles Supervisor



Karla Offord, Supervisor, Extractable Hydrocarbons



Stephanie Gilbert, Senior Analyst

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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.

Maxxam

Calgary: 4000 19st St. NE, T2E 6P8. Ph: (403) 291-3077, Fax: (403) 735-2240. Toll free: (800) 386-7247
Edmonton: 9331 - 48 Street, T6B 2R4. Ph: (780) 577-7100. Fax: (780) 450-4187. Toll free: (877) 465-6889
www.maxxamanalytics.com

07/1296

Chain of Custody A134517

Page: 1 of 1

	Invoice To: C/O Report Address ☐	Report To: Same as Invoice ☒	Report Distribution (E-Mail):
Company:	IEG Consultants Ltd		
Contact:	Nicole Wills		nwills@klohn.com
Address:	2618 Hopewell Place NE		
	Prov: Calgary, AB PC: T1Y7J7	Prov: PC:	
Contact #s:	Ph: 403-829-3048 Cell:	Ph: Cell:	

REGULATORY GUIDELINES:
☐ AT1
☐ CCME
☐ Regulated Drinking Water
☐ Other:

All samples are held for 60 calendar days after sample receipt, unless specified otherwise

PO #:
Project # / Name: AOH12A05
Site Location: Camp Farewell
Quote #:
Sampled By: Nicole Wills / Bryan Gendreau

SERVICE REQUESTED: ☒ RUSH (Contact lab to reserve) Date Required: ☐ REGULAR (5 to 7 Days)

See reverse for package specifics

	Sample ID	Depth (unit) M	Matrix GW / SW Soil	Date/Time Sampled YY/MM/DD 24:00	SOIL: BTEX F1-F4	Sieve (75 micron)	Regulated Metals (CCME / AT1)	Salinity 4	Assessment ICP Metals	Basic Class II Landfill	WATER: ☐BTEX F1 ☐VOCs	☐BTEX F1-F2 ☐BTEX F1-F4	☐ Routine Water ☐ Turb ☐ F	☐ TOC ☐ DOC	Regulated Metals (CCME / AT1) Total	Dissolved	Mercury ☐ Total ☐ Dissolved	Other Analysis	HOLD - Do not Analyze	# of Containers Submitted
1	TP-13-19(0.75m)	0.75	Soil	13/07/24 19:30	X		X	X											2B/1J	
2	TP-13-19(1m)	1	↓	↓	X		X	X											2B/1J	
3	TP-13-19 (3m)	3	↓	↓	X		X	X											2B/1J	
4																				
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				

Please indicate Filtered, Preserved or Both (F, P, F/P) → NKB/CM F/P

Relinquished By (Signature/Print): Nicole Wills Nicole Wills Date (YY/MM/DD): 13/07/24 Time (24:00): 19:30

Relinquished By (Signature/Print): Date (YY/MM/DD): Time (24:00):

Special Instructions:

# of Jars Used & Not Submitted

LAB USE ONLY

Received By: Jenna Walter Jenna Walter Date: 20130726 Time: 0810

Lab Comments:

Maxxam Job #: B364361

Custody Seal	Temperature	Ice
absent	11, 14, 10	absent

CONFIRMATION-RECEIPT OF SAMPLES FOR ANALYSIS

Maxxam Job # B367026

Client Project #: CAMP FAREWELL
PO #: A04012A05

29 Samples

Samples Received 2013/08/02
Client Confirmation 2013/08/02
Expected Report Delivery 2013/08/03 18:00
(Results to be reported early are indicated)

Report will be sent to:

NICOLE WILLS
KLOHN CRIPPEN BERGER LTD
HOPEWELL PLACE NE
CALGARY
T1Y 7J7
Ph 403-274-3424
Fax 403-274-5349
NWills@klohn.com

Invoice will be sent to:

Accounts Payable
IEG CONSULTANTS LTD.
500-2618 HOPEWELL PLACE NE
CALGARY
T1Y 7J7

We have received the following samples:

EX-13-AB (7M) Sampled 2013/07/28 COC# A134518 Matrix: SOIL

Maxxam #: HB9854	Test Result Delivery Due
AT1 BTEX and F1-F4 in Soil	
Regulated Metals (CCME/AT1) - Soils	2013/08/06 6:00 PM
SOIL SALINITY 4	2013/08/06 6:00 PM
Acid Digestion for Metals - Soils	2013/08/06 6:00 PM
Drying and Grinding	2013/08/06 6:00 PM
Environmental Sample Disposal Fee	2013/08/06 6:00 PM
Hexavalent Chromium Prep Code	2013/08/06 6:00 PM
Sub Sample for Dry Grind	2013/08/06 6:00 PM
Sub-sample for metals	2013/08/06 6:00 PM

EX-13-BB (7M) Sampled 2013/07/28 COC# A134518

Maxxam #: HB9855	Test Result Delivery Due
AT1 BTEX and F1-F4 in Soil	
Regulated Metals (CCME/AT1) - Soils	2013/08/06 6:00 PM
SOIL SALINITY 4	2013/08/06 6:00 PM
Acid Digestion for Metals - Soils	2013/08/06 6:00 PM
Drying and Grinding	2013/08/06 6:00 PM
Environmental Sample Disposal Fee	2013/08/06 6:00 PM
Hexavalent Chromium Prep Code	2013/08/06 6:00 PM
Sub Sample for Dry Grind	2013/08/06 6:00 PM
Sub-sample for metals	2013/08/06 6:00 PM

EX-13-CB (7M) Sampled 2013/07/28 COC# A134518

Maxxam #: HB9856	Test Result Delivery Due
AT1 BTEX and F1-F4 in Soil	
Regulated Metals (CCME/AT1) - Soils	2013/08/06 6:00 PM
SOIL SALINITY 4	2013/08/06 6:00 PM

Acid Digestion for Metals - Soils	2013/08/06 6:00 PM
Drying and Grinding	2013/08/06 6:00 PM
Environmental Sample Disposal Fee	2013/08/06 6:00 PM
Hexavalent Chromium Prep Code	2013/08/06 6:00 PM
Particle Size by Sieve (75 micron)	2013/08/06 6:00 PM
Sub Sample for Dry Grind	2013/08/06 6:00 PM
Sub-sample for metals	2013/08/06 6:00 PM

EX-13-FB (7M) Sampled 2013/07/28 COC# A134518

Maxxam #: HB9857	Test Result Delivery Due
AT1 BTEX and F1-F4 in Soil	
Regulated Metals (CCME/AT1) - Soils	2013/08/06 6:00 PM
SOIL SALINITY 4	2013/08/06 6:00 PM
Acid Digestion for Metals - Soils	2013/08/06 6:00 PM
Drying and Grinding	2013/08/06 6:00 PM
Environmental Sample Disposal Fee	2013/08/06 6:00 PM
Hexavalent Chromium Prep Code	2013/08/06 6:00 PM
Sub Sample for Dry Grind	2013/08/06 6:00 PM
Sub-sample for metals	2013/08/06 6:00 PM

EX-13-GB (7M) Sampled 2013/07/28 COC# A134518

Maxxam #: HB9858	Test Result Delivery Due
AT1 BTEX and F1-F4 in Soil	
Regulated Metals (CCME/AT1) - Soils	2013/08/06 6:00 PM
SOIL SALINITY 4	2013/08/06 6:00 PM
Acid Digestion for Metals - Soils	2013/08/06 6:00 PM
Drying and Grinding	2013/08/06 6:00 PM
Environmental Sample Disposal Fee	2013/08/06 6:00 PM
Hexavalent Chromium Prep Code	2013/08/06 6:00 PM
Sub Sample for Dry Grind	2013/08/06 6:00 PM
Sub-sample for metals	2013/08/06 6:00 PM

EX-13-HB (7M) Sampled 2013/07/28 COC# A134518

Maxxam #: HB9859	Test Result Delivery Due
AT1 BTEX and F1-F4 in Soil	
Regulated Metals (CCME/AT1) - Soils	2013/08/06 6:00 PM
SOIL SALINITY 4	2013/08/06 6:00 PM
Acid Digestion for Metals - Soils	2013/08/06 6:00 PM
Drying and Grinding	2013/08/06 6:00 PM
Environmental Sample Disposal Fee	2013/08/06 6:00 PM
Hexavalent Chromium Prep Code	2013/08/06 6:00 PM
Sub Sample for Dry Grind	2013/08/06 6:00 PM
Sub-sample for metals	2013/08/06 6:00 PM

EX-13-IB (7M) Sampled 2013/07/28 COC# A134518

Maxxam #: HB9860	Test Result Delivery Due
AT1 BTEX and F1-F4 in Soil	
Regulated Metals (CCME/AT1) - Soils	2013/08/06 6:00 PM
SOIL SALINITY 4	2013/08/06 6:00 PM
Acid Digestion for Metals - Soils	2013/08/06 6:00 PM
Drying and Grinding	2013/08/06 6:00 PM

Environmental Sample Disposal Fee	2013/08/06 6:00 PM
Hexavalent Chromium Prep Code	2013/08/06 6:00 PM
Sub Sample for Dry Grind	2013/08/06 6:00 PM
Sub-sample for metals	2013/08/06 6:00 PM

EX-13-KB (7M) Sampled 2013/07/28 COC# A134518

Maxxam #: HB9861	Test Result Delivery Due
AT1 BTEX and F1-F4 in Soil	
Regulated Metals (CCME/AT1) - Soils	2013/08/06 6:00 PM
SOIL SALINITY 4	2013/08/06 6:00 PM
Acid Digestion for Metals - Soils	2013/08/06 6:00 PM
Drying and Grinding	2013/08/06 6:00 PM
Environmental Sample Disposal Fee	2013/08/06 6:00 PM
Hexavalent Chromium Prep Code	2013/08/06 6:00 PM
Sub Sample for Dry Grind	2013/08/06 6:00 PM
Sub-sample for metals	2013/08/06 6:00 PM

EX-13-AS (1M) Sampled 2013/07/28 COC# A134518

Maxxam #: HB9862	Test Result Delivery Due
AT1 BTEX and F1-F4 in Soil	
Regulated Metals (CCME/AT1) - Soils	2013/08/06 6:00 PM
SOIL SALINITY 4	2013/08/06 6:00 PM
Acid Digestion for Metals - Soils	2013/08/06 6:00 PM
Drying and Grinding	2013/08/06 6:00 PM
Environmental Sample Disposal Fee	2013/08/06 6:00 PM
Hexavalent Chromium Prep Code	2013/08/06 6:00 PM
Particle Size by Sieve (75 micron)	2013/08/06 6:00 PM
Sub Sample for Dry Grind	2013/08/06 6:00 PM
Sub-sample for metals	2013/08/06 6:00 PM

EX-13-AS (4M) Sampled 2013/07/28 COC# A134518

Maxxam #: HB9863	Test Result Delivery Due
AT1 BTEX and F1-F4 in Soil	
Regulated Metals (CCME/AT1) - Soils	2013/08/06 6:00 PM
SOIL SALINITY 4	2013/08/06 6:00 PM
Acid Digestion for Metals - Soils	2013/08/06 6:00 PM
Drying and Grinding	2013/08/06 6:00 PM
Environmental Sample Disposal Fee	2013/08/06 6:00 PM
Hexavalent Chromium Prep Code	2013/08/06 6:00 PM
Sub Sample for Dry Grind	2013/08/06 6:00 PM
Sub-sample for metals	2013/08/06 6:00 PM

EX-13-LE (2M) Sampled 2013/07/28 COC# A134518

Maxxam #: HB9864	Test Result Delivery Due
Environmental Sample Disposal Fee	2013/08/06 6:00 PM
Sample on Hold	2013/08/06 6:00 PM

EX-13-LE (6M) Sampled 2013/07/28 COC# A134518

Maxxam #: HB9865	Test Result Delivery Due
AT1 BTEX and F1-F4 in Soil	
Regulated Metals (CCME/AT1) - Soils	2013/08/06 6:00 PM

SOIL SALINITY 4	2013/08/06 6:00 PM
Acid Digestion for Metals - Soils	2013/08/06 6:00 PM
Benzo[a]pyrene Equivalency	2013/08/06 6:00 PM
Drying and Grinding	2013/08/06 6:00 PM
Environmental Sample Disposal Fee	2013/08/06 6:00 PM
Extractable Barium	2013/08/06 6:00 PM
Extraction for Barium	2013/08/06 6:00 PM
Hexavalent Chromium Prep Code	2013/08/06 6:00 PM
PAH Extraction	2013/08/06 6:00 PM
PAH in Soil by GC/MS	2013/08/06 6:00 PM
Sub Sample for Dry Grind	2013/08/06 6:00 PM
Sub-sample for metals	2013/08/06 6:00 PM

EX-13-KE (2M) Sampled 2013/07/28 COC# A134519

Maxxam #: HB9866	Test Result Delivery Due
AT1 BTEX and F1-F4 in Soil	
Regulated Metals (CCME/AT1) - Soils	2013/08/06 6:00 PM
SOIL SALINITY 4	2013/08/06 6:00 PM
Acid Digestion for Metals - Soils	2013/08/06 6:00 PM
Drying and Grinding	2013/08/06 6:00 PM
Environmental Sample Disposal Fee	2013/08/06 6:00 PM
Hexavalent Chromium Prep Code	2013/08/06 6:00 PM
Particle Size by Sieve (75 micron)	2013/08/06 6:00 PM
Sub Sample for Dry Grind	2013/08/06 6:00 PM
Sub-sample for metals	2013/08/06 6:00 PM

EX-13-JE (1M) Sampled 2013/07/28 COC# A134519

Maxxam #: HB9867	Test Result Delivery Due
AT1 BTEX and F1-F4 in Soil	
Regulated Metals (CCME/AT1) - Soils	2013/08/06 6:00 PM
SOIL SALINITY 4	2013/08/06 6:00 PM
Acid Digestion for Metals - Soils	2013/08/06 6:00 PM
Drying and Grinding	2013/08/06 6:00 PM
Environmental Sample Disposal Fee	2013/08/06 6:00 PM
Hexavalent Chromium Prep Code	2013/08/06 6:00 PM
Sub Sample for Dry Grind	2013/08/06 6:00 PM
Sub-sample for metals	2013/08/06 6:00 PM

EX-13-JE (7M) Sampled 2013/07/28 COC# A134519

Maxxam #: HB9868	Test Result Delivery Due
AT1 BTEX and F1-F4 in Soil	
Regulated Metals (CCME/AT1) - Soils	2013/08/06 6:00 PM
SOIL SALINITY 4	2013/08/06 6:00 PM
Acid Digestion for Metals - Soils	2013/08/06 6:00 PM
Drying and Grinding	2013/08/06 6:00 PM
Environmental Sample Disposal Fee	2013/08/06 6:00 PM
Hexavalent Chromium Prep Code	2013/08/06 6:00 PM
Sub Sample for Dry Grind	2013/08/06 6:00 PM
Sub-sample for metals	2013/08/06 6:00 PM

EX-13-1E (3M)	Sampled 2013/07/28	COC# A134519
Maxxam #: HB9869	Test Result Delivery Due	
Environmental Sample Disposal Fee	2013/08/06 6:00 PM	
Sample on Hold	2013/08/06 6:00 PM	

EX-13-1E (6M)	Sampled 2013/07/28	COC# A134519
Maxxam #: HB9870	Test Result Delivery Due	
AT1 BTEX and F1-F4 in Soil		
Regulated Metals (CCME/AT1) - Soils	2013/08/06 6:00 PM	
SOIL SALINITY 4	2013/08/06 6:00 PM	
Acid Digestion for Metals - Soils	2013/08/06 6:00 PM	
Drying and Grinding	2013/08/06 6:00 PM	
Environmental Sample Disposal Fee	2013/08/06 6:00 PM	
Hexavalent Chromium Prep Code	2013/08/06 6:00 PM	
Sub Sample for Dry Grind	2013/08/06 6:00 PM	
Sub-sample for metals	2013/08/06 6:00 PM	

TP21	Sampled 2013/07/29	COC# A134519
Maxxam #: HB9871	Test Result Delivery Due	
AT1 BTEX and F1-F4 in Soil		
Regulated Metals (CCME/AT1) - Soils	2013/08/06 6:00 PM	
SOIL SALINITY 4	2013/08/06 6:00 PM	
Acid Digestion for Metals - Soils	2013/08/06 6:00 PM	
Drying and Grinding	2013/08/06 6:00 PM	
Environmental Sample Disposal Fee	2013/08/06 6:00 PM	
Hexavalent Chromium Prep Code	2013/08/06 6:00 PM	
Sub Sample for Dry Grind	2013/08/06 6:00 PM	
Sub-sample for metals	2013/08/06 6:00 PM	

TP22	Sampled 2013/07/29	COC# A134519
Maxxam #: HB9872	Test Result Delivery Due	
AT1 BTEX and F1-F4 in Soil		
Regulated Metals (CCME/AT1) - Soils	2013/08/06 6:00 PM	
SOIL SALINITY 4	2013/08/06 6:00 PM	
Acid Digestion for Metals - Soils	2013/08/06 6:00 PM	
Drying and Grinding	2013/08/06 6:00 PM	
Environmental Sample Disposal Fee	2013/08/06 6:00 PM	
Hexavalent Chromium Prep Code	2013/08/06 6:00 PM	
Sub Sample for Dry Grind	2013/08/06 6:00 PM	
Sub-sample for metals	2013/08/06 6:00 PM	

TP23	Sampled 2013/07/29	COC# A134519
Maxxam #: HB9873	Test Result Delivery Due	
AT1 BTEX and F1-F4 in Soil		
Regulated Metals (CCME/AT1) - Soils	2013/08/06 6:00 PM	
SOIL SALINITY 4	2013/08/06 6:00 PM	
Acid Digestion for Metals - Soils	2013/08/06 6:00 PM	
Drying and Grinding	2013/08/06 6:00 PM	
Environmental Sample Disposal Fee	2013/08/06 6:00 PM	
Hexavalent Chromium Prep Code	2013/08/06 6:00 PM	
Particle Size by Sieve (75 micron)	2013/08/06 6:00 PM	

Sub Sample for Dry Grind	2013/08/06 6:00 PM
Sub-sample for metals	2013/08/06 6:00 PM

TP24 Sampled 2013/07/29 COC# A134519

Maxxam #: HB9874	Test Result Delivery Due
AT1 BTEX and F1-F4 in Soil	
Regulated Metals (CCME/AT1) - Soils	2013/08/06 6:00 PM
SOIL SALINITY 4	2013/08/06 6:00 PM
Acid Digestion for Metals - Soils	2013/08/06 6:00 PM
Drying and Grinding	2013/08/06 6:00 PM
Environmental Sample Disposal Fee	2013/08/06 6:00 PM
Hexavalent Chromium Prep Code	2013/08/06 6:00 PM
Sub Sample for Dry Grind	2013/08/06 6:00 PM
Sub-sample for metals	2013/08/06 6:00 PM

TP25 Sampled 2013/07/29 COC# A134519

Maxxam #: HB9875	Test Result Delivery Due
AT1 BTEX and F1-F4 in Soil	
Regulated Metals (CCME/AT1) - Soils	2013/08/06 6:00 PM
SOIL SALINITY 4	2013/08/06 6:00 PM
Acid Digestion for Metals - Soils	2013/08/06 6:00 PM
Drying and Grinding	2013/08/06 6:00 PM
Environmental Sample Disposal Fee	2013/08/06 6:00 PM
Hexavalent Chromium Prep Code	2013/08/06 6:00 PM
Sub Sample for Dry Grind	2013/08/06 6:00 PM
Sub-sample for metals	2013/08/06 6:00 PM

TP26 Sampled 2013/07/29 COC# A134519

Maxxam #: HB9876	Test Result Delivery Due
AT1 BTEX and F1-F4 in Soil	
Regulated Metals (CCME/AT1) - Soils	2013/08/06 6:00 PM
SOIL SALINITY 4	2013/08/06 6:00 PM
Acid Digestion for Metals - Soils	2013/08/06 6:00 PM
Drying and Grinding	2013/08/06 6:00 PM
Environmental Sample Disposal Fee	2013/08/06 6:00 PM
Hexavalent Chromium Prep Code	2013/08/06 6:00 PM
Sub Sample for Dry Grind	2013/08/06 6:00 PM
Sub-sample for metals	2013/08/06 6:00 PM

TP27 Sampled 2013/07/29 COC# A134519

Maxxam #: HB9877	Test Result Delivery Due
AT1 BTEX and F1-F4 in Soil	
Regulated Metals (CCME/AT1) - Soils	2013/08/06 6:00 PM
SOIL SALINITY 4	2013/08/06 6:00 PM
Acid Digestion for Metals - Soils	2013/08/06 6:00 PM
Drying and Grinding	2013/08/06 6:00 PM
Environmental Sample Disposal Fee	2013/08/06 6:00 PM
Hexavalent Chromium Prep Code	2013/08/06 6:00 PM
Sub Sample for Dry Grind	2013/08/06 6:00 PM
Sub-sample for metals	2013/08/06 6:00 PM

TP 28	Sampled 2013/07/29	COC# A134520
Maxxam #: HB9878	Test Result Delivery Due	
AT1 BTEX and F1-F4 in Soil		
Regulated Metals (CCME/AT1) - Soils	2013/08/06 6:00 PM	
SOIL SALINITY 4	2013/08/06 6:00 PM	
Acid Digestion for Metals - Soils	2013/08/06 6:00 PM	
Drying and Grinding	2013/08/06 6:00 PM	
Environmental Sample Disposal Fee	2013/08/06 6:00 PM	
Hexavalent Chromium Prep Code	2013/08/06 6:00 PM	
Sub Sample for Dry Grind	2013/08/06 6:00 PM	
Sub-sample for metals	2013/08/06 6:00 PM	

EX-13-CW (2M)	Sampled 2013/07/29	COC# A134520
Maxxam #: HB9879	Test Result Delivery Due	
AT1 BTEX and F1-F4 in Soil		
Regulated Metals (CCME/AT1) - Soils	2013/08/06 6:00 PM	
SOIL SALINITY 4	2013/08/06 6:00 PM	
Acid Digestion for Metals - Soils	2013/08/06 6:00 PM	
Drying and Grinding	2013/08/06 6:00 PM	
Environmental Sample Disposal Fee	2013/08/06 6:00 PM	
Hexavalent Chromium Prep Code	2013/08/06 6:00 PM	
Sub Sample for Dry Grind	2013/08/06 6:00 PM	
Sub-sample for metals	2013/08/06 6:00 PM	

EX-13-DW (1M)	Sampled 2013/07/29	COC# A134520
Maxxam #: HB9880	Test Result Delivery Due	
AT1 BTEX and F1-F4 in Soil		
Regulated Metals (CCME/AT1) - Soils	2013/08/06 6:00 PM	
SOIL SALINITY 4	2013/08/06 6:00 PM	
Acid Digestion for Metals - Soils	2013/08/06 6:00 PM	
Drying and Grinding	2013/08/06 6:00 PM	
Environmental Sample Disposal Fee	2013/08/06 6:00 PM	
Hexavalent Chromium Prep Code	2013/08/06 6:00 PM	
Sub Sample for Dry Grind	2013/08/06 6:00 PM	
Sub-sample for metals	2013/08/06 6:00 PM	

EX-13-LB (7.5M)	Sampled 2013/07/31	COC# A134520
Maxxam #: HB9881	Test Result Delivery Due	
AT1 BTEX and F1-F4 in Soil		
Regulated Metals (CCME/AT1) - Soils	2013/08/06 6:00 PM	
SOIL SALINITY 4	2013/08/06 6:00 PM	
Acid Digestion for Metals - Soils	2013/08/06 6:00 PM	
Drying and Grinding	2013/08/06 6:00 PM	
Environmental Sample Disposal Fee	2013/08/06 6:00 PM	
Hexavalent Chromium Prep Code	2013/08/06 6:00 PM	
Sub Sample for Dry Grind	2013/08/06 6:00 PM	
Sub-sample for metals	2013/08/06 6:00 PM	

EX-13-JB (7M)		COC# A134518
Maxxam #: HC0424		
Environmental Sample Disposal Fee		

Sample on Hold

Comments:

- Unless special storage arrangements are made, all samples will be discarded 60 days after receipt of samples.
- Non-regular samples are flagged as (C) Composite by lab, (H) Hold, or (L) Leachate.
- If there are any problems with the submitted samples, a Sample Integrity Form (SIF) detailing conditions will be included in this confirmation.
- For revisions please contact your Maxxam Project Management team at Ph (780) 577-7100.
  Your Project Manager is: Tanya Eugine

Maxxam Job # B367026 PARAMETERS FOR ANALYSIS REQUESTED

The values listed below are RDL's and not results. Report Detection Limit (RDL) may be elevated if there are matrix interferences or limited sample amounts.

Maxxam # HB9854, Sample IDN: **EX-13-AB (7M)**
Maxxam # HB9855, Sample IDN: **EX-13-BB (7M)**
Maxxam # HB9856, Sample IDN: **EX-13-CB (7M)**
Maxxam # HB9857, Sample IDN: **EX-13-FB (7M)**
Maxxam # HB9858, Sample IDN: **EX-13-GB (7M)**
Maxxam # HB9859, Sample IDN: **EX-13-HB (7M)**
Maxxam # HB9860, Sample IDN: **EX-13-IB (7M)**
Maxxam # HB9861, Sample IDN: **EX-13-KB (7M)**
Maxxam # HB9862, Sample IDN: **EX-13-AS (1M)**
Maxxam # HB9863, Sample IDN: **EX-13-AS (4M)**
Maxxam # HB9865, Sample IDN: **EX-13-LE (6M)**
Maxxam # HB9866, Sample IDN: **EX-13-KE (2M)**
Maxxam # HB9867, Sample IDN: **EX-13-JE (1M)**
Maxxam # HB9868, Sample IDN: **EX-13-JE (7M)**
Maxxam # HB9870, Sample IDN: **EX-13-1E (6M)**
Maxxam # HB9871, Sample IDN: **TP21**
Maxxam # HB9872, Sample IDN: **TP22**
Maxxam # HB9873, Sample IDN: **TP23**
Maxxam # HB9874, Sample IDN: **TP24**
Maxxam # HB9875, Sample IDN: **TP25**
Maxxam # HB9876, Sample IDN: **TP26**
Maxxam # HB9877, Sample IDN: **TP27**
Maxxam # HB9878, Sample IDN: **TP 28**
Maxxam # HB9879, Sample IDN: **EX-13-CW (2M)**
Maxxam # HB9880, Sample IDN: **EX-13-DW (1M)**
Maxxam # HB9881, Sample IDN: **EX-13-LB (7.5M)**

AT1 BTEX AND F1-F4 IN SOIL			
F2 (C10-C16 Hydrocarbons)	10 mg/kg	F3 (C16-C34 Hydrocarbons)	50 mg/kg
F4 (C34-C50 Hydrocarbons)	50 mg/kg	Reached Baseline at C50	
F1 (C6-C10) - BTEX	12 mg/kg	(C6-C10)	12 mg/kg
Benzene	0.005 mg/kg	m & p-Xylene	0.04 mg/kg
Xylenes (Total)	0.04 mg/kg	Toluene	0.02 mg/kg
Ethylbenzene	0.01 mg/kg	o-Xylene	0.02 mg/kg
Moisture	0.3 %	F4G-SG (Heavy Hydrocarbons-Grav.)	500 mg/kg
SOIL SALINITY 4			
+Fluoride (F)	0.1 mg/kg	pH	
Conductivity	0.02 dS/m	Chloride (Cl)	5 mg/L
Chloride (Cl)	1 mg/kg	Sulphate (SO4)	5 mg/L
Sulphate (SO4)	1 mg/kg	+Bicarbonate (HCO3)	1 mg/kg
Anion Sum		Cation Sum	
Ion Balance	0.01 N/A	Cation/EC Ratio	0.1 N/A
Magnesium (Mg)	1 mg/L	Magnesium (Mg)	0.1 mg/kg
Potassium (K)	1.3 mg/L	Potassium (K)	0.2 mg/kg
Sodium (Na)	2.5 mg/L	Sodium (Na)	0.1 mg/kg
Calcium (Ca)	1.5 mg/L		

SOIL SALINITY 4

Calcium (Ca)	0.1 mg/kg		
Sodium Adsorption Ratio	0.1 N/A	Saturation %	
Theoretical Gypsum Requirement	0.1 tonnes/ha		

REGULATED METALS (CCME/AT1) - SOILS

Hex. Chromium (Cr 6+)	0.15 mg/kg	Chromium (Cr)	1 mg/kg
Cobalt (Co)	1 mg/kg	Copper (Cu)	5 mg/kg
Mercury (Hg)	0.05 mg/kg	Lead (Pb)	1 mg/kg
Antimony (Sb)	1 mg/kg	Molybdenum (Mo)	0.4 mg/kg
Nickel (Ni)	1 mg/kg	Selenium (Se)	0.5 mg/kg
Silver (Ag)	1 mg/kg	Arsenic (As)	1 mg/kg
Thallium (Tl)	0.3 mg/kg	Tin (Sn)	1 mg/kg
Uranium (U)	1 mg/kg	Vanadium (V)	1 mg/kg
Zinc (Zn)	10 mg/kg	Barium (Ba)	10 mg/kg
Beryllium (Be)	0.4 mg/kg	Boron (B)	0.1 mg/kg
Cadmium (Cd)	0.1 mg/kg		

Maxxam # HB9856, Sample IDN: **EX-13-CB (7M)**
Maxxam # HB9862, Sample IDN: **EX-13-AS (1M)**
Maxxam # HB9866, Sample IDN: **EX-13-KE (2M)**
Maxxam # HB9873, Sample IDN: **TP23**

PARTICLE SIZE BY SIEVE (75 MICRON)

Sieve - #200 (>0.075mm)	0.2 %	Sieve - Pan	0.2 %
Grain Size	0.2 %		

Maxxam # HB9865, Sample IDN: **EX-13-LE (6M)**

EXTRACTABLE BARIUM

Barium (Ba)	1 mg/kg

BENZO[A]PYRENE EQUIVALENCY

Benzo[a]pyrene equivalency	0.1 mg/kg

PAH IN SOIL BY GC/MS

Quinoline	0.01 mg/kg	Naphthalene	0.005 mg/kg
Chrysene	0.005 mg/kg	Benzo(k)fluoranthene	0.005 mg/kg
Benzo[e]pyrene	0.005 mg/kg	Benzo(a)pyrene	0.005 mg/kg
Perylene	0.005 mg/kg	Acenaphthylene	0.005 mg/kg
Indeno(1,2,3-cd)pyrene	0.005 mg/kg	Dibenz(a,h)anthracene	0.005 mg/kg
2-Methylnaphthalene	0.005 mg/kg	Acenaphthene	0.005 mg/kg
Fluorene	0.005 mg/kg	Benzo(a)anthracene	0.005 mg/kg
Phenanthrene	0.005 mg/kg	Anthracene	0.004 mg/kg
Benzo(c)phenanthrene	0.005 mg/kg	Fluoranthene	0.005 mg/kg
Benzo(g,h,i)perylene	0.005 mg/kg	Benzo(b&j)fluoranthene	0.005 mg/kg
Acridine	0.01 mg/kg	Pyrene	0.005 mg/kg

Fundamental Laboratory Acceptance Guideline

Invoice To:	**Report To:**	
IEG CONSULTANTS LTD.	KLOHN CRIPPEN BERGER LTD	Maxxam Job #: B367026
ATTN: Accounts Payable	500-2618	Date Received: 2013/08/02
500-2618 HOPEWELL PLACE NE	ATTN: NICOLE WILLS	Your C.O.C. #: A134518
CALGARY, AB	HOPEWELL PLACE NE	Your Project #: CAMP FAREWELL
CANADA T1Y 7J7	CALGARY, AB	Your P.O. #: A04012A05
Client Contact:	CANADA T1Y 7J7	Maxxam Project Manager: Tanya Eugine
NICOLE WILLS		

[x] Bottles in shipment but not listed on Chain of Custody

Report Comments

9. We received one extra sample (1 x bag) labelled EX-13-JB (7m), currently set on hold.

Received Date: 2013/08/02 **(Time):** 10:10 **By:** _____

Inspected Date: _____ **(Time):** _____ **By:** _____

FLAG Created Date: 2013/08/02 **(Time):** 14:25 **By:** AH4

Maxxam

Calgary: 4000 19st St. NE, T2E 6P8. Ph: (403) 291-3077, Fax: (403) 735-2240, Toll free: (800) 386-7247
Edmonton: 9331 - 48 Street, T6B 2R4. Ph: (780) 577-7100, Fax: (780) 450-4187, Toll free: (877) 465-8889
www.maxxamanalytics.com

08/09/(3)

Chain of Custody

A134518

Page: 1 of 3

	Invoice To: C/O Report Address ☐	Report To: Same as Invoice ☒	Report Distribution (E-Mail):
Company:	Nicole Wills		nwills@klohn.com
Contact:	LEG Consultants Ltd.		jcollins@klohn.com
Address:	2618 Hopewell Place NE		
	Prov: Calgary, AB PC: T1Y 7J7	Prov: PC:	
Contact #s:	Ph: 403.829.3048 Cell:	Ph: Cell:	

REGULATORY GUIDELINES:
- ☐ AT1
- ☐ CCME
- ☐ Regulated Drinking Water
- ☐ Other:

All samples are held for 60 calendar days after sample receipt, unless specified otherwise.

PO #:	AU4012A05
Project # / Name:	Camp Farewell
Site Location:	
Quote #:	
Sampled By:	Nicole Wills / Bryan Gendreau

SERVICE REQUESTED: ☒ RUSH (Contact lab to reserve) Date Required: ☐ REGULAR (5 to 7 Days)

See reverse for package specifics

#	Sample ID	Depth (unit)	Matrix GW / SW Soil	Date/Time Sampled YY/MM/DD 24:00	SOIL: BTEX F1-F4	Sieve (75 micron)	Regulated Metals (CCME / AT1)	Salinity 4	Assessment ICP Metals	Basic Class II Landfill	PAH	Barite	WATER: ☐BTEX F1 / ☐VOCs	☐BTEX F1-F2 / ☐BTEX F1-F4	☐ Routine Water ☐ Turb ☐ F	☐ TOC ☐ DOC	Regulated Metals (CCME / AT1): Total	Dissolved	Mercury ☐ Total ☐ Dissolved	Other Analysis	HOLD - Do not Analyze	# of Containers Submitted
1	EX-13-AB (7m)	7m	Soil	13/07/28	X		X	X														
2	EX-13-BB (7m)	7m	↓	↓	X		X	X														
3	EX-13-CB (7m)	7m			X	X	X	X														
4	EX-13-FB (7m)	7m			X		X	X														
5	EX-13-GB (7m)	7m			X		X	X														
6	EX-13-HB (7m)	7m			X		X	X														
7	EX-13-IB (7m)	7m			X		X	X														
8	EX-13-KB (7m)	7m			X		X	X														
9	EX-13-AS (1m)	1m			X	X	X	X														
10	EX-13-AS (4m)	4m			X		X	X														
11	EX-13-LE (2m)	2m			~~X~~	~~X~~	~~X~~	~~X~~													X	
12	EX-13-LE (6m)	6m	↓	↓	X		X	X			X	X										

Please indicate Filtered, Preserved or Both (F, P, F/P) → F/P

chk mmk

Relinquished By (Signature/Print):	Date (YY/MM/DD):	Time (24:00):
Bryan [signature]	13/07/31	19:40
Relinquished By (Signature/Print):	Date (YY/MM/DD):	Time (24:00):

Special Instructions:

# of Jars Used & Not Submitted

LAB USE ONLY

Received By:	Date:	Time:
Jenna Walter	20130802	
Jenna Walter [signature]	JW#110	1010

Maxxam Job #: B367026

Custody Seal	Temperature	Ice
absent	6,6,6 / 7,6,4 / 12,12,9 (Bags)	present with Bags

Lab Comments:

AB FCD-00331 Rev3 2010/05

Maxxam Analytics International Corporation o/a Maxxam Analytics

Maxxam

Calgary: 4000 19st St. NE, T2E 6P8, Ph: (403) 291-3077, Fax: (403) 735-2240, Toll free: (800) 386-7247
Edmonton: 9331 - 48 Street, T6B 2R4. Ph: (780) 577-7100, Fax: (780) 450-4187, Toll free: (877) 465-8889
www.maxxamanalytics.com

Chain of Custody A134519

Page: 2 of 3

Invoice To:	C/O Report Address ☐
Company:	Nicole Wills
Contact:	IEG Consultants Ltd.
Address:	2618 Hopewell Place NE, Prov: Calgary, AB PC: T1Y 7J7
Contact #s:	Ph: 403.829.3048 Cell:

Report To:	Same as Invoice ☒
Prov:	PC:
Ph:	Cell:

Report Distribution (E-Mail):
nwills@klohn.com
jcollins@klohn.com

REGULATORY GUIDELINES:
☐ AT1
☐ CCME
☐ Regulated Drinking Water
☐ Other:

All samples are held for 60 calendar days after sample receipt, unless otherwise specified.

PO #:	
Project # / Name:	A04012A05
Site Location:	Camp Farewell
Quote #:	
Sampled By:	Nicole Wills / Bryan Gendreau

SERVICE REQUESTED: ☒ RUSH (Contact lab to reserve) Date Required: ☐ REGULAR (5 to 7 Days)

See reverse for package specifics

#	Sample ID	Depth (unit)	Matrix GW / SW Soil	Date/Time Sampled YY/MM/DD 24:00	SOIL: BTEX F1-F4	Sieve (75 micron)	Regulated Metals (CCME / AT1)	Salinity 4	Assessment ICP Metals	Basic Class II Landfill	WATER: ☐VOCs / ☐BTEX F1	☐BTEX F1-F4 / ☐BTEX F1-F2	☐ Turb ☐ F / ☐ Routine Water	☐ DOC / ☐ TOC	Regulated Metals (CCME / AT1): Total	Dissolved	☐ Total ☐ Dissolved: Mercury	Other Analysis	HOLD - Do not Analyze	# of Containers Submitted
1	Ex-13-KE (2m)	2m	Soil	13/07/28	X	X	X	X												
2	Ex-13-JE (1m)	1m	↓	↓	X		X	X												
3	Ex-13-JE (7m)	7m	↓	↓	X		X	X												
4	Ex-13-IE (3m)	3m	↓	↓	X	X	X	X											X	
5	Ex-13-IE (6m)	6m	↓	↓	X	X	X	X												
6	TP21	0-1m	↓	13/07/29	X		X	X												
7	TP22	↓	↓	↓	X		X	X												
8	TP 23	↓	↓	↓	X	X	X	X												
9	TP 24	↓	↓	↓	X		X	X												
10	TP 25	↓	↓	↓	X		X	X												
11	TP 26	↓	↓	↓	X		X	X												
12	TP 27	Comp.	↓	↓	X		X	X												

Please indicate Filtered, Preserved or Both (F, P, F/P) → F/P

CKH / MMP

Relinquished By (Signature/Print):	Date (YY/MM/DD):	Time (24:00):
Bryan B	13/07/31	19:40
Relinquished By (Signature/Print):	Date (YY/MM/DD):	Time (24:00):

Special Instructions:

# of Jars Used & Not Submitted

LAB USE ONLY

Received By:	Date:	Time:	Maxxam Job #: B367026
Jenna Witter (signature)	20130802	1010	

Custody Seal	Temperature	Ice
absent	6,6,6 / 7,6,4 / 12,12,9 (B)	Present with jars

Lab Comments:

AB FCD-00331 Rev3 2010/05

Maxxam Analytics International Corporation o/a Maxxam Analytics

Maxxam

Calgary: 4000 19st St. NE, T2E 6P8, Ph: (403) 291-3077, Fax: (403) 735-2240, Toll free: (800) 386-7247
Edmonton: 9331 - 48 Street, T6B 2R4, Ph: (780) 577-7100, Fax: (780) 450-4187, Toll free: (877) 465-8889
www.maxxamanalytics.com

Chain of Custody A134520

Page: 3 of 3

Invoice To:	C/O Report Address ☐	Report To: Same as Invoice ☒	Report Distribution (E-Mail):	REGULATORY GUIDELINES:
Company:	See page 1		nwills@Klohn.com	☐ AT1
Contact:			jcollins@Klohn.com	☐ CCME
Address: Prov: PC:		Prov: PC:		☐ Regulated Drinking Water
Contact #s: Ph: Cell:		Ph: Cell:		☐ Other:

All samples are held for 60 calendar days after sample receipt, unless specified otherwise.

PO #:	See page 1
Project # / Name:	
Site Location:	
Quote #:	
Sampled By:	

SERVICE REQUESTED: ☒ RUSH (Contact lab to reserve) Date Required: ☐ REGULAR (5 to 7 Days)

See reverse for package specifics

	Sample ID	Depth (unit)	Matrix GW / SW Soil	Date/Time Sampled YY/MM/DD 24:00	BTEX F1-F4	Sieve (75 micron)	Regulated Metals (CCME / AT1)	Salinity 4	Assessment ICP Metals	Basic Class II Landfill	☐BTEX F1 ☐VOCs	☐BTEX F1-F2 ☐BTEX F1-F4	☐ Routine Water ☐ Turb ☐ F	☐ TOC ☐ DOC	Regulated Metals (CCME / AT1) Total	Dissolved	Mercury ☐ Total ☐ Dissolved	Other Analysis	HOLD - Do not Analyze	# of Containers Submitted
1	TP 28	Comp.	Soil	13/07/29	X		X	X												
2	EX-13-CW (2m)	2m	↓	↓	X		X	X												
3	EX-13-DW (1m)	1 m	↓	↓	X		X	X												
4	EX-13-LB (7.5m)	7.5m	Soil	13/07/31	X		X	X												
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				

CKW/MM

Please indicate Filtered, Preserved or Both (F, P, F/P) → F/P

Relinquished By (Signature/Print):	Date (YY/MM/DD):	Time (24:00):
[signature]	13/07/31	19:40
Relinquished By (Signature/Print):	Date (YY/MM/DD):	Time (24:00):

Special Instructions:

# of Jars Used & Not Submitted

LAB USE ONLY			
Received By: Jenna Walter [signature]	Date: 20130802	Time: 1010	Maxxam Job #: B367026
Lab Comments:	Custody Seal: absent	Temperature: 6,6,6 / 7,6,4 / 12,12,9(B)	Ice: Present with 3

AB FCD-00331 Rev3 2010/05

Maxxam Analytics International Corporation o/a Maxxam Analytics

Your P.O. #: A04012A05
Your Project #: CAMP FAREWELL
Your C.O.C. #: A134518, A134519, A134520

Attention: NICOLE WILLS

KLOHN CRIPPEN BERGER LTD
500-2618
HOPEWELL PLACE NE
CALGARY, AB
CANADA T1Y 7J7

Report Date: 2013/08/03

CERTIFICATE OF ANALYSIS

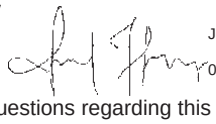
MAXXAM JOB #: B367026
Received: 2013/08/02, 10:10

Sample Matrix: Soil
Samples Received: 26

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
BTEX/F1 by HS GC/MS (MeOH extract)	20	2013/08/02	2013/08/02	AB SOP-00039	CCME, EPA 8260
BTEX/F1 by HS GC/MS (MeOH extract)	6	2013/08/02	2013/08/03	AB SOP-00039	CCME, EPA 8260
CCME Hydrocarbons (F2-F4 in soil)	26	2013/08/02	2013/08/03	AB SOP-00040 AB SOP-00036	CCME PHC-CWS
Moisture	26	N/A	2013/08/03	AB SOP-00002	CCME PHC-CWS

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

Encryption Key



Jennifer Thompson
03 Aug 2013 16:38:10 -06:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Tanya Eugine, M.Sc., Project Manager
Email: TEugine@maxxam.ca
Phone# (780) 577-7144

==========

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.

Total cover pages: 1

Maxxam Job #: B367026
Report Date: 2013/08/03

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: NW

AT1 BTEX AND F1-F4 IN SOIL (SOIL)

Maxxam ID		HB9854	HB9855	HB9856	HB9857	HB9858		
Sampling Date		2013/07/28	2013/07/28	2013/07/28	2013/07/28	2013/07/28		
COC Number		A134518	A134518	A134518	A134518	A134518		
	UNITS	**EX-13-AB (7M)**	**EX-13-BB (7M)**	**EX-13-CB (7M)**	**EX-13-FB (7M)**	**EX-13-GB (7M)**	**RDL**	**QC Batch**
Physical Properties								
Moisture	%	16	22	19	18	20	0.30	7046962
Ext. Pet. Hydrocarbon								
F2 (C10-C16 Hydrocarbons)	mg/kg	<10	<10	<10	110	<10	10	7046204
F3 (C16-C34 Hydrocarbons)	mg/kg	<50	<50	<50	120	<50	50	7046204
F4 (C34-C50 Hydrocarbons)	mg/kg	<50	<50	<50	<50	<50	50	7046204
Reached Baseline at C50	mg/kg	Yes	Yes	Yes	Yes	Yes		7046204
Volatiles								
Benzene	mg/kg	<0.0050	0.021	<0.0050	<0.0050	0.013	0.0050	7043191
Toluene	mg/kg	<0.020	<0.020	<0.020	0.038	<0.020	0.020	7043191
Ethylbenzene	mg/kg	<0.010	<0.010	0.014	0.078	<0.010	0.010	7043191
Xylenes (Total)	mg/kg	<0.040	<0.040	<0.040	0.80	<0.040	0.040	7043191
m & p-Xylene	mg/kg	<0.040	<0.040	<0.040	0.44	<0.040	0.040	7043191
o-Xylene	mg/kg	<0.020	<0.020	<0.020	0.36	<0.020	0.020	7043191
F1 (C6-C10) - BTEX	mg/kg	<12	<12	<12	41	<12	12	7043191
(C6-C10)	mg/kg	<12	<12	<12	42	<12	12	7043191
Surrogate Recovery (%)								
1,4-Difluorobenzene (sur.)	%	105	111	110	107	108		7043191
4-BROMOFLUOROBENZENE (sur.)	%	94	94	96	99	96		7043191
D10-ETHYLBENZENE (sur.)	%	114	122	117	119	115		7043191
D4-1,2-DICHLOROETHANE (sur.)	%	91	91	94	93	95		7043191
O-TERPHENYL (sur.)	%	123	101	100	100	102		7046204

RDL = Reportable Detection Limit

Maxxam Job #: B367026
Report Date: 2013/08/03

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: NW

AT1 BTEX AND F1-F4 IN SOIL (SOIL)

Maxxam ID		HB9859		HB9860	HB9861		HB9862		
Sampling Date		2013/07/28		2013/07/28	2013/07/28		2013/07/28		
COC Number		A134518		A134518	A134518		A134518		
	UNITS	**EX-13-HB (7M)**	**QC Batch**	**EX-13-IB (7M)**	**EX-13-KB (7M)**	**RDL**	**EX-13-AS (1M)**	**RDL**	**QC Batch**
Physical Properties									
Moisture	%	17	7046962	17	20	0.30	54	0.30	7046962
Ext. Pet. Hydrocarbon									
F2 (C10-C16 Hydrocarbons)	mg/kg	<10	7046204	<10	<10	10	<22 (1)	22	7046183
F3 (C16-C34 Hydrocarbons)	mg/kg	<50	7046204	<50	<50	50	930 (1)	110	7046183
F4 (C34-C50 Hydrocarbons)	mg/kg	<50	7046204	<50	<50	50	190 (1)	110	7046183
Reached Baseline at C50	mg/kg	Yes	7046204	Yes	Yes		Yes		7046183
Volatiles									
Benzene	mg/kg	0.093	7042465	0.12	0.0072	0.0050	<0.011 (1)	0.011	7046331
Toluene	mg/kg	0.027	7042465	<0.020	<0.020	0.020	<0.044 (1)	0.044	7046331
Ethylbenzene	mg/kg	0.016	7042465	<0.010	<0.010	0.010	<0.022 (1)	0.022	7046331
Xylenes (Total)	mg/kg	0.071	7042465	<0.040	<0.040	0.040	<0.087 (1)	0.087	7046331
m & p-Xylene	mg/kg	0.071	7042465	<0.040	<0.040	0.040	<0.087 (1)	0.087	7046331
o-Xylene	mg/kg	<0.020	7042465	<0.020	<0.020	0.020	<0.044 (1)	0.044	7046331
F1 (C6-C10) - BTEX	mg/kg	<12	7042465	<12	<12	12	<26 (1)	26	7046331
(C6-C10)	mg/kg	<12	7042465	<12	<12	12	<26 (1)	26	7046331
Surrogate Recovery (%)									
1,4-Difluorobenzene (sur.)	%	105	7042465	107	112		129		7046331
4-BROMOFLUOROBENZENE (sur.)	%	96	7042465	99	101		99		7046331
D10-ETHYLBENZENE (sur.)	%	111	7042465	108	109		108		7046331
D4-1,2-DICHLOROETHANE (sur.)	%	92	7042465	108	111		113		7046331
O-TERPHENYL (sur.)	%	99	7046204	108	112		105		7046183

RDL = Reportable Detection Limit
(1) Detection limits raised due to high moisture content.

Maxxam Job #: B367026
Report Date: 2013/08/03

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: NW

AT1 BTEX AND F1-F4 IN SOIL (SOIL)

Maxxam ID		HB9863	HB9865	HB9866	HB9867		
Sampling Date		2013/07/28	2013/07/28	2013/07/28	2013/07/28		
COC Number		A134518	A134518	A134519	A134519		
	UNITS	**EX-13-AS (4M)**	**EX-13-LE (6M)**	**EX-13-KE (2M)**	**EX-13-JE (1M)**	**RDL**	**QC Batch**
Physical Properties							
Moisture	%	8.4	9.9	3.2	5.8	0.30	7046962
Ext. Pet. Hydrocarbon							
F2 (C10-C16 Hydrocarbons)	mg/kg	63	580	14	120	10	7046183
F3 (C16-C34 Hydrocarbons)	mg/kg	<50	150	130	180	50	7046183
F4 (C34-C50 Hydrocarbons)	mg/kg	<50	<50	<50	<50	50	7046183
Reached Baseline at C50	mg/kg	Yes	Yes	Yes	Yes		7046183
Volatiles							
Benzene	mg/kg	<0.0050	0.0099	<0.0050	<0.0050	0.0050	7046331
Toluene	mg/kg	<0.020	<0.020	<0.020	<0.020	0.020	7046331
Ethylbenzene	mg/kg	0.011	0.044	<0.010	<0.010	0.010	7046331
Xylenes (Total)	mg/kg	<0.040	1.3	<0.040	<0.040	0.040	7046331
m & p-Xylene	mg/kg	<0.040	0.33	<0.040	<0.040	0.040	7046331
o-Xylene	mg/kg	<0.020	0.93	<0.020	<0.020	0.020	7046331
F1 (C6-C10) - BTEX	mg/kg	<12	94	<12	<12	12	7046331
(C6-C10)	mg/kg	<12	95	<12	<12	12	7046331
Surrogate Recovery (%)							
1,4-Difluorobenzene (sur.)	%	104	104	100	104		7046331
4-BROMOFLUOROBENZENE (sur.)	%	101	98	101	100		7046331
D10-ETHYLBENZENE (sur.)	%	111	116	110	110		7046331
D4-1,2-DICHLOROETHANE (sur.)	%	114	107	109	110		7046331
O-TERPHENYL (sur.)	%	112	109	109	105		7046183

RDL = Reportable Detection Limit

Maxxam Job #: B367026
Report Date: 2013/08/03

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: NW

AT1 BTEX AND F1-F4 IN SOIL (SOIL)

Maxxam ID		HB9868	HB9870	HB9871	HB9872	HB9873		
Sampling Date		2013/07/28	2013/07/28	2013/07/29	2013/07/29	2013/07/29		
COC Number		A134519	A134519	A134519	A134519	A134519		
	UNITS	**EX-13-JE (7M)**	**EX-13-1E (6M)**	**TP21**	**TP22**	**TP23**	**RDL**	**QC Batch**
Physical Properties								
Moisture	%	16	18	5.3	4.4	5.6	0.30	7046956
Ext. Pet. Hydrocarbon								
F2 (C10-C16 Hydrocarbons)	mg/kg	<10	380	<10	<10	<10	10	7046183
F3 (C16-C34 Hydrocarbons)	mg/kg	<50	410	<50	<50	<50	50	7046183
F4 (C34-C50 Hydrocarbons)	mg/kg	<50	140	<50	<50	<50	50	7046183
Reached Baseline at C50	mg/kg	Yes	Yes	Yes	Yes	Yes		7046183
Volatiles								
Benzene	mg/kg	0.036	0.043	<0.0050	<0.0050	<0.0050	0.0050	7046331
Toluene	mg/kg	<0.020	0.12	<0.020	<0.020	<0.020	0.020	7046331
Ethylbenzene	mg/kg	<0.010	0.47	<0.010	<0.010	<0.010	0.010	7046331
Xylenes (Total)	mg/kg	<0.040	3.9	<0.040	<0.040	<0.040	0.040	7046331
m & p-Xylene	mg/kg	<0.040	2.2	<0.040	<0.040	<0.040	0.040	7046331
o-Xylene	mg/kg	0.027	1.7	<0.020	<0.020	<0.020	0.020	7046331
F1 (C6-C10) - BTEX	mg/kg	<12	96	<12	<12	<12	12	7046331
(C6-C10)	mg/kg	<12	100	<12	<12	<12	12	7046331
Surrogate Recovery (%)								
1,4-Difluorobenzene (sur.)	%	107	105	102	101	102		7046331
4-BROMOFLUOROBENZENE (sur.)	%	100	99	99	99	98		7046331
D10-ETHYLBENZENE (sur.)	%	106	108	111	106	108		7046331
D4-1,2-DICHLOROETHANE (sur.)	%	109	108	108	108	107		7046331
O-TERPHENYL (sur.)	%	119	110	125	111	111		7046183

RDL = Reportable Detection Limit

Maxxam Job #: B367026
Report Date: 2013/08/03

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: NW

AT1 BTEX AND F1-F4 IN SOIL (SOIL)

Maxxam ID		HB9874	HB9875	HB9876	HB9877	HB9878		
Sampling Date		2013/07/29	2013/07/29	2013/07/29	2013/07/29	2013/07/29		
COC Number		A134519	A134519	A134519	A134519	A134520		
	UNITS	**TP24**	**TP25**	**TP26**	**TP27**	**TP 28**	**RDL**	**QC Batch**
Physical Properties								
Moisture	%	5.0	5.7	7.1	5.7	5.9	0.30	7046956
Ext. Pet. Hydrocarbon								
F2 (C10-C16 Hydrocarbons)	mg/kg	<10	<10	<10	14	19	10	7046183
F3 (C16-C34 Hydrocarbons)	mg/kg	<50	<50	<50	66	58	50	7046183
F4 (C34-C50 Hydrocarbons)	mg/kg	<50	<50	<50	<50	<50	50	7046183
Reached Baseline at C50	mg/kg	Yes	Yes	Yes	Yes	Yes		7046183
Volatiles								
Benzene	mg/kg	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	7046331
Toluene	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	7046331
Ethylbenzene	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	7046331
Xylenes (Total)	mg/kg	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	7046331
m & p-Xylene	mg/kg	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	7046331
o-Xylene	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	7046331
F1 (C6-C10) - BTEX	mg/kg	<12	<12	<12	<12	<12	12	7046331
(C6-C10)	mg/kg	<12	<12	<12	<12	<12	12	7046331
Surrogate Recovery (%)								
1,4-Difluorobenzene (sur.)	%	102	105	104	103	104		7046331
4-BROMOFLUOROBENZENE (sur.)	%	99	98	98	100	98		7046331
D10-ETHYLBENZENE (sur.)	%	108	125	116	114	114		7046331
D4-1,2-DICHLOROETHANE (sur.)	%	110	111	111	109	113		7046331
O-TERPHENYL (sur.)	%	112	107	97	108	99		7046183

RDL = Reportable Detection Limit

Maxxam Job #: B367026
Report Date: 2013/08/03

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: NW

AT1 BTEX AND F1-F4 IN SOIL (SOIL)

Maxxam ID		HB9879	HB9880	HB9881		
Sampling Date		2013/07/29	2013/07/29	2013/07/31		
COC Number		A134520	A134520	A134520		
	UNITS	**EX-13-CW (2M)**	**EX-13-DW (1M)**	**EX-13-LB (7.5M)**	**RDL**	**QC Batch**
Physical Properties						
Moisture	%	21	10	18	0.30	7046956
Ext. Pet. Hydrocarbon						
F2 (C10-C16 Hydrocarbons)	mg/kg	<10	<10	<10	10	7046183
F3 (C16-C34 Hydrocarbons)	mg/kg	74	<50	<50	50	7046183
F4 (C34-C50 Hydrocarbons)	mg/kg	<50	<50	<50	50	7046183
Reached Baseline at C50	mg/kg	Yes	Yes	Yes		7046183
Volatiles						
Benzene	mg/kg	<0.0050	<0.0050	<0.0050	0.0050	7046331
Toluene	mg/kg	<0.020	<0.020	<0.020	0.020	7046331
Ethylbenzene	mg/kg	<0.010	<0.010	0.015	0.010	7046331
Xylenes (Total)	mg/kg	<0.040	<0.040	<0.040	0.040	7046331
m & p-Xylene	mg/kg	<0.040	<0.040	<0.040	0.040	7046331
o-Xylene	mg/kg	<0.020	<0.020	<0.020	0.020	7046331
F1 (C6-C10) - BTEX	mg/kg	<12	<12	<12	12	7046331
(C6-C10)	mg/kg	<12	<12	<12	12	7046331
Surrogate Recovery (%)						
1,4-Difluorobenzene (sur.)	%	110	105	109		7046331
4-BROMOFLUOROBENZENE (sur.)	%	100	96	100		7046331
D10-ETHYLBENZENE (sur.)	%	114	115	116		7046331
D4-1,2-DICHLOROETHANE (sur.)	%	111	110	112		7046331
O-TERPHENYL (sur.)	%	94	98	110		7046183

RDL = Reportable Detection Limit

Maxxam Job #: B367026
Report Date: 2013/08/03

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: NW

General Comments

Sample HB9854-01: Sample was extracted from a jar with headspace for BTEX/F1.

Sample HB9855-01: Sample was extracted from a jar with headspace for BTEX/F1.

Sample HB9857-01: Sample was extracted from a jar with headspace for BTEX/F1.

Results relate only to the items tested.

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: CAMP FAREWELL
P.O. #: A04012A05
Site Location:

Quality Assurance Report

Maxxam Job Number: EB367026

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7042465	PS7	Matrix Spike	1,4-Difluorobenzene (sur.)	2013/08/02		104	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/08/02		97	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/08/02		115	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/08/02		92	%	60 - 140
			Benzene	2013/08/02		107	%	60 - 140
			Toluene	2013/08/02		102	%	60 - 140
			Ethylbenzene	2013/08/02		98	%	60 - 140
			m & p-Xylene	2013/08/02		104	%	60 - 140
			o-Xylene	2013/08/02		98	%	60 - 140
			(C6-C10)	2013/08/02		61	%	60 - 140
		Spiked Blank	1,4-Difluorobenzene (sur.)	2013/08/02		99	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/08/02		95	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/08/02		98	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/08/02		93	%	60 - 140
			Benzene	2013/08/02		110	%	60 - 140
			Toluene	2013/08/02		108	%	60 - 140
			Ethylbenzene	2013/08/02		103	%	60 - 140
			m & p-Xylene	2013/08/02		110	%	60 - 140
			o-Xylene	2013/08/02		102	%	60 - 140
			(C6-C10)	2013/08/02		92	%	60 - 140
		Method Blank	1,4-Difluorobenzene (sur.)	2013/08/02		99	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/08/02		95	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/08/02		113	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/08/02		93	%	60 - 140
			Benzene	2013/08/02	<0.0050		mg/kg	
			Toluene	2013/08/02	<0.020		mg/kg	
			Ethylbenzene	2013/08/02	<0.010		mg/kg	
			Xylenes (Total)	2013/08/02	<0.040		mg/kg	
			m & p-Xylene	2013/08/02	<0.040		mg/kg	
			o-Xylene	2013/08/02	<0.020		mg/kg	
			F1 (C6-C10) - BTEX	2013/08/02	<12		mg/kg	
			(C6-C10)	2013/08/02	<12		mg/kg	
		RPD	Benzene	2013/08/02	NC		%	50
			Toluene	2013/08/02	NC		%	50
			Ethylbenzene	2013/08/02	NC		%	50
			Xylenes (Total)	2013/08/02	NC		%	50
			m & p-Xylene	2013/08/02	NC		%	50
			o-Xylene	2013/08/02	NC		%	50
			F1 (C6-C10) - BTEX	2013/08/02	NC		%	50
			(C6-C10)	2013/08/02	NC		%	50
7043191	KH7	Matrix Spike	1,4-Difluorobenzene (sur.)	2013/08/01		112	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/08/01		96	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/08/01		104	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/08/01		95	%	60 - 140
			Benzene	2013/08/01		114	%	60 - 140
			Toluene	2013/08/01		109	%	60 - 140
			Ethylbenzene	2013/08/01		105	%	60 - 140
			m & p-Xylene	2013/08/01		110	%	60 - 140
			o-Xylene	2013/08/01		108	%	60 - 140
			(C6-C10)	2013/08/01		104	%	60 - 140
		Spiked Blank	1,4-Difluorobenzene (sur.)	2013/08/01		100	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/08/01		97	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/08/01		98	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/08/01		95	%	60 - 140
			Benzene	2013/08/01		108	%	60 - 140

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: CAMP FAREWELL
P.O. #: A04012A05
Site Location:

Quality Assurance Report (Continued)

Maxxam Job Number: EB367026

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7043191	KH7	Spiked Blank	Toluene	2013/08/01		103	%	60 - 140
			Ethylbenzene	2013/08/01		98	%	60 - 140
			m & p-Xylene	2013/08/01		104	%	60 - 140
			o-Xylene	2013/08/01		102	%	60 - 140
			(C6-C10)	2013/08/01		103	%	60 - 140
		Method Blank	1,4-Difluorobenzene (sur.)	2013/08/01		100	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/08/01		97	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/08/01		100	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/08/01		91	%	60 - 140
			Benzene	2013/08/01	<0.0050		mg/kg	
			Toluene	2013/08/01	<0.020		mg/kg	
			Ethylbenzene	2013/08/01	<0.010		mg/kg	
			Xylenes (Total)	2013/08/01	<0.040		mg/kg	
			m & p-Xylene	2013/08/01	<0.040		mg/kg	
			o-Xylene	2013/08/01	<0.020		mg/kg	
			F1 (C6-C10) - BTEX	2013/08/01	<12		mg/kg	
			(C6-C10)	2013/08/01	<12		mg/kg	
		RPD	Benzene	2013/08/02	NC		%	50
			Toluene	2013/08/02	NC		%	50
			Ethylbenzene	2013/08/02	NC		%	50
			Xylenes (Total)	2013/08/02	NC		%	50
			m & p-Xylene	2013/08/02	NC		%	50
			o-Xylene	2013/08/02	NC		%	50
			F1 (C6-C10) - BTEX	2013/08/02	NC		%	50
			(C6-C10)	2013/08/02	NC		%	50
7046183	SHM	Matrix Spike						
		[HB9870-01]	O-TERPHENYL (sur.)	2013/08/03		101	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/08/03		NC	%	50 - 130
			F3 (C16-C34 Hydrocarbons)	2013/08/03		106	%	50 - 130
			F4 (C34-C50 Hydrocarbons)	2013/08/03		104	%	50 - 130
		Spiked Blank	O-TERPHENYL (sur.)	2013/08/03		117	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/08/03		124	%	70 - 130
			F3 (C16-C34 Hydrocarbons)	2013/08/03		123	%	70 - 130
			F4 (C34-C50 Hydrocarbons)	2013/08/03		128	%	70 - 130
		Method Blank	O-TERPHENYL (sur.)	2013/08/03		124	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/08/03	<10		mg/kg	
			F3 (C16-C34 Hydrocarbons)	2013/08/03	<50		mg/kg	
			F4 (C34-C50 Hydrocarbons)	2013/08/03	<50		mg/kg	
		RPD [HB9868-01]	F2 (C10-C16 Hydrocarbons)	2013/08/03	NC		%	50
			F3 (C16-C34 Hydrocarbons)	2013/08/03	NC		%	50
			F4 (C34-C50 Hydrocarbons)	2013/08/03	NC		%	50
7046204	SHM	Matrix Spike						
		[HB9855-01]	O-TERPHENYL (sur.)	2013/08/03		94	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/08/03		94	%	50 - 130
			F3 (C16-C34 Hydrocarbons)	2013/08/03		96	%	50 - 130
			F4 (C34-C50 Hydrocarbons)	2013/08/03		89	%	50 - 130
		Spiked Blank	O-TERPHENYL (sur.)	2013/08/03		109	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/08/03		120	%	70 - 130
			F3 (C16-C34 Hydrocarbons)	2013/08/03		122	%	70 - 130
			F4 (C34-C50 Hydrocarbons)	2013/08/03		115	%	70 - 130
		Method Blank	O-TERPHENYL (sur.)	2013/08/03		95	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/08/03	<10		mg/kg	
			F3 (C16-C34 Hydrocarbons)	2013/08/03	<50		mg/kg	
			F4 (C34-C50 Hydrocarbons)	2013/08/03	<50		mg/kg	
		RPD [HB9854-01]	F2 (C10-C16 Hydrocarbons)	2013/08/03	NC		%	50

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: CAMP FAREWELL
P.O. #: A04012A05
Site Location:

Quality Assurance Report (Continued)

Maxxam Job Number: EB367026

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7046204	SHM	RPD [HB9854-01]	F3 (C16-C34 Hydrocarbons)	2013/08/03	NC		%	50
			F4 (C34-C50 Hydrocarbons)	2013/08/03	NC		%	50
7046331	CG7	Matrix Spike [HB9870-01]	1,4-Difluorobenzene (sur.)	2013/08/02		106	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/08/02		96	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/08/02		112	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/08/02		105	%	60 - 140
			Benzene	2013/08/02		91	%	60 - 140
			Toluene	2013/08/02		89	%	60 - 140
			Ethylbenzene	2013/08/02		97	%	60 - 140
			m & p-Xylene	2013/08/02		107	%	60 - 140
			o-Xylene	2013/08/02		112	%	60 - 140
			(C6-C10)	2013/08/02		113	%	60 - 140
		Spiked Blank	1,4-Difluorobenzene (sur.)	2013/08/02		100	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/08/02		100	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/08/02		110	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/08/02		107	%	60 - 140
			Benzene	2013/08/02		94	%	60 - 140
			Toluene	2013/08/02		89	%	60 - 140
			Ethylbenzene	2013/08/02		93	%	60 - 140
			m & p-Xylene	2013/08/02		96	%	60 - 140
			o-Xylene	2013/08/02		90	%	60 - 140
			(C6-C10)	2013/08/02		111	%	60 - 140
		Method Blank	1,4-Difluorobenzene (sur.)	2013/08/02		100	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/08/02		101	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/08/02		108	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/08/02		109	%	60 - 140
			Benzene	2013/08/02	<0.0050		mg/kg	
			Toluene	2013/08/02	<0.020		mg/kg	
			Ethylbenzene	2013/08/02	<0.010		mg/kg	
			Xylenes (Total)	2013/08/02	<0.040		mg/kg	
			m & p-Xylene	2013/08/02	<0.040		mg/kg	
			o-Xylene	2013/08/02	<0.020		mg/kg	
			F1 (C6-C10) - BTEX	2013/08/02	<12		mg/kg	
			(C6-C10)	2013/08/02	<12		mg/kg	
		RPD [HB9868-01]	Benzene	2013/08/02	10.0		%	50
			Toluene	2013/08/02	NC		%	50
			Ethylbenzene	2013/08/02	NC		%	50
			Xylenes (Total)	2013/08/02	NC		%	50
			m & p-Xylene	2013/08/02	NC		%	50
			o-Xylene	2013/08/02	NC		%	50
			F1 (C6-C10) - BTEX	2013/08/02	NC		%	50
			(C6-C10)	2013/08/02	NC		%	50
7046956	ABH	Method Blank	Moisture	2013/08/03	<0.30		%	
		RPD [HB9868-01]	Moisture	2013/08/03	5.2		%	20
7046962	ABH	Method Blank	Moisture	2013/08/03	<0.30		%	
		RPD [HB9854-01]	Moisture	2013/08/03	3.1		%	20

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.
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 spiked amount was not sufficiently significant to permit a reliable recovery calculation.

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: CAMP FAREWELL
P.O. #: A04012A05
Site Location:

Quality Assurance Report (Continued)

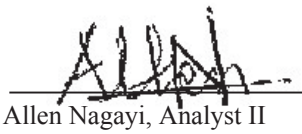
Maxxam Job Number: EB367026

NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

Validation Signature Page

Maxxam Job #: B367026

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



Allen Nagayi, Analyst II

Carol Gebhart, Senior Analyst

Poonam Sharma, Senior Analyst, Organics Department

==========

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Maxxam

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08/09/(3)

Chain of Custody

A134518

Page: 1 of 3

	Invoice To: (C/O Report Address ☐)	Report To: (Same as Invoice ☒)
Company:	Nicole Wills	
Contact:	IEG Consultants Ltd.	
Address:	2618 Hopewell Place NE	
Prov: / PC:	Calgary, AB / T1Y 7J7	Prov: / PC:
Contact #s:	Ph: 403.829.3048 Cell:	Ph: Cell:

Report Distribution (E-Mail):
nwills@klohn.com
jcollins@klohn.com

REGULATORY GUIDELINES:
☐ AT1
☐ CCME
☐ Regulated Drinking Water
☐ Other:

All samples are held for 60 calendar days after sample receipt, unless specified otherwise.

PO #: AU4012A05
Project # / Name: Camp Farewell
Site Location:
Quote #:
Sampled By: Nicole Wills / Bryan Gendreau

SERVICE REQUESTED: ☒ RUSH (Contact lab to reserve) Date Required: ☐ REGULAR (5 to 7 Days)

See reverse for package specifics

#	Sample ID	Depth (unit)	Matrix GW / SW Soil	Date/Time Sampled YY/MM/DD 24:00	BTEX F1-F4	Sieve (75 micron)	Regulated Metals (CCME / AT1)	Salinity 4	Assessment ICP Metals	Basic Class II Landfill	PAH	Barite	HOLD - Do not Analyze
1	EX-13-AB (7m)	7m	Soil	13/07/28	X		X	X					
2	EX-13-BB (7m)	7m	↓	↓	X		X	X					
3	EX-13-CB (7m)	7m			X	X	X	X					
4	EX-13-FB (7m)	7m			X		X	X					
5	EX-13-GB (7m)	7m			X		X	X					
6	EX-13-HB (7m)	7m			X		X	X					
7	EX-13-IB (7m)	7m			X		X	X					
8	EX-13-KB (7m)	7m			X		X	X					
9	EX-13-AS (1m)	1m			X	X	X	X					
10	EX-13-AS (4m)	4m			X		X	X					
11	EX-13-LE (2m)	2m			~~X~~	~~X~~	~~X~~	~~X~~					X
12	EX-13-LE (6m)	6m	↓	↓	X		X	X			X	X	

Water columns: ☐BTEX F1 / ☐VOCs; ☐BTEX F1-F2 / ☐BTEX F1-F4; ☐ Routine Water ☐ Turb ☐ F; ☐ TOC / ☐ DOC; Regulated Metals (CCME / AT1): Total, Dissolved; Mercury ☐ Total ☐ Dissolved. Other Analysis. # of Containers Submitted.

Please indicate Filtered, Preserved or Both (F, P, F/P) → F/P

ckd JMK

Relinquished By (Signature/Print):	Date (YY/MM/DD):	Time (24:00):
Bryan	13/07/31	19:40
Relinquished By (Signature/Print):	Date (YY/MM/DD):	Time (24:00):

Special Instructions:

# of Jars Used & Not Submitted

LAB USE ONLY

Received By:	Date:	Time:
Jenna Walter	20130802	
Jenna Walter	Jul/30	1010

Maxxam Job #: B367026

Lab Comments:

Custody Seal	Temperature	Ice
absent	6,6,6 7,6,4 12,12,9 (Bags)	present with jars

AB FCD-00331 Rev3 2010/05

Maxxam Analytics International Corporation o/a Maxxam Analytics

Maxxam

Calgary: 4000 19st St. NE, T2E 6P8, Ph: (403) 291-3077, Fax: (403) 735-2240, Toll free: (800) 386-7247
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Chain of Custody A134519

Page: 2 of 3

	Invoice To: C/O Report Address ☐	Report To: Same as Invoice ☒
Company:	Nicole Wills	
Contact:	LEG Consultants Ltd.	
Address:	2618 Hopewell place NE	
	Prov: Calgary, AB PC: T1Y 7J7	Prov: PC:
Contact #s:	Ph: 403.829.3048 Cell:	Ph: Cell:

Report Distribution (E-Mail):
nwills@klohn.com
jcollins@klohn.com

REGULATORY GUIDELINES:
☐ AT1
☐ CCME
☐ Regulated Drinking Water
☐ Other:

All samples are held for 60 calendar days after sample receipt, unless specified otherwise.

PO #:
Project # / Name: A04012A03
Site Location: Camp Facewell
Quote #:
Sampled By: Nicole Wills / Bryan Gendreau

SERVICE REQUESTED: ☒ RUSH (Contact lab to reserve) Date Required: ☐ REGULAR (5 to 7 Days)

See reverse for package specifics

	Sample ID	Depth (unit)	Matrix GW / SW Soil	Date/Time Sampled YY/MM/DD 24:00	SOIL: BTEX F1-F4	Sieve (75 micron)	Regulated Metals (CCME / AT1)	Salinity 4	Assessment ICP Metals	Basic Class II Landfill	WATER: ☐BTEX F1 ☐VOCs	☐BTEX F1-F2 ☐BTEX F1-F4	☐ Routine Water ☐ Turb ☐ F	☐ TOC ☐ DOC	Regulated Metals (CCME / AT1) Total	Dissolved	Mercury ☐ Total ☐ Dissolved	Other Analysis	HOLD - Do not Analyze	# of Containers Submitted
1	Ex-13-KE (2m)	2m	Soil	13/07/28	X	X	X	X												
2	Ex-13-JE (1m)	1m			X		X	X												
3	Ex-13-JE (7m)	7m			X		X	X												
4	Ex-13-1E (3m)	3m			X		X	X											X	
5	Ex-13-1E (6m)	6m			X		X	X												
6	TP21	0-1m		13/07/29	X		X	X												
7	TP22				X		X	X												
8	TP 23				X		X	X												
9	TP 24				X		X	X												
10	TP 25				X		X	X												
11	TP 26				X		X	X												
12	TP 27	Comp.			X		X	X										CKM/MMP		

Please indicate Filtered, Preserved or Both (F, P, F/P) → F/P

Relinquished By (Signature/Print): Bryan B	Date (YY/MM/DD): 13/07/31	Time (24:00): 19:40
Relinquished By (Signature/Print):	Date (YY/MM/DD):	Time (24:00):

Special Instructions:

# of Jars Used & Not Submitted

LAB USE ONLY

Received By: Jenna Walter Date: 20130802 Time: 1010

Maxxam Job #: B367026

Lab Comments:

Custody Seal	Temperature	Ice
absent	6,6,6 7,6,4 12,12,9(B)	present with jars

Maxxam

Calgary: 4000 19st St. NE, T2E 6P8, Ph: (403) 291-3077, Fax: (403) 735-2240, Toll free: (800) 386-7247
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Chain of Custody A134520

Page: 3 of 3

	Invoice To:	C/O Report Address ☐
Company:	See page 1	
Contact:		
Address:		
	Prov:	PC:
Contact #s:	Ph:	Cell:

Report To:	Same as Invoice ☒
Prov:	PC:
Ph:	Cell:

Report Distribution (E-Mail):
nwills@klohn.com
jcollins@klohn.com

REGULATORY GUIDELINES:
☐ AT1
☐ CCME
☐ Regulated Drinking Water
☐ Other:

All samples are held for 60 calendar days after sample receipt, unless specified otherwise.

PO #:	See page 1
Project # / Name:	
Site Location:	
Quote #:	
Sampled By:	

SERVICE REQUESTED: ☒ RUSH (Contact lab to reserve) Date Required: ☐ REGULAR (5 to 7 Days)

See reverse for package specifics

	Sample ID	Depth (unit)	Matrix GW / SW Soil	Date/Time Sampled YY/MM/DD 24:00	SOIL: BTEX F1-F4	Sieve (75 micron)	Regulated Metals (CCME / AT1)	Salinity 4	Assessment ICP Metals	Basic Class II Landfill	WATER: ☐BTEX F1 ☐VOCs	☐BTEX F1-F2 ☐BTEX F1-F4	☐ Routine Water ☐ Turb ☐ F	☐ TOC ☐ DOC	Regulated Metals (CCME / AT1) Total	Dissolved	Mercury ☐ Total ☐ Dissolved	Other Analysis	HOLD - Do not Analyze	# of Containers Submitted
1	TP 28	Comp.	Soil	13/07/29	X		X	X												
2	EX-13-CW (2m)	2m	↓	↓	X		X	X												
3	EX-13-DW (1m)	1m	↓	↓	X		X	X												
4	EX-13-LB (7.5m)	7.5m	Soil	13/07/31	X		X	X												
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				

OK 1 MM

Please indicate Filtered, Preserved or Both (F, P, F/P) → F/P

Relinquished By (Signature/Print):	Date (YY/MM/DD): 13/07/31	Time (24:00): 19:40
Relinquished By (Signature/Print):	Date (YY/MM/DD):	Time (24:00):

Special Instructions: | **# of Jars Used & Not Submitted**

LAB USE ONLY

Received By: Jenna Walter	Date: 20130802	Time: 1010
Lab Comments:		

Maxxam Job #: R367026

Custody Seal	Temperature	Ice
absent	6, 6, 6 7, 6, 4	present with jars

12, 12, 9 (B)

Your P.O. #: A04012A05
Your Project #: CAMP FAREWELL
Your C.O.C. #: A134518, A134519, A134520

Attention: NICOLE WILLS

KLOHN CRIPPEN BERGER LTD
500-2618
HOPEWELL PLACE NE
CALGARY, AB
CANADA T1Y 7J7

Report Date: 2013/08/06

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B367026
Received: 2013/08/02, 10:10

Sample Matrix: Soil
Samples Received: 26

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Boron (Hot Water Soluble)	26	2013/08/04	2013/08/04	AB SOP-00042	EPA 200.7
BTEX/F1 by HS GC/MS (MeOH extract)	20	2013/08/02	2013/08/02	AB SOP-00039	CCME, EPA 8260
BTEX/F1 by HS GC/MS (MeOH extract)	6	2013/08/02	2013/08/03	AB SOP-00039	CCME, EPA 8260
Cation/EC Ratio	13	N/A	2013/08/04		CALCULATION
Cation/EC Ratio	13	N/A	2013/08/06		CALCULATION
Chloride (Soluble)	26	2013/08/03	2013/08/04	AB SOP-00020	SSMA 4500 CL-E
Hexavalent Chromium	26	2013/08/02	2013/08/06	EENVSOP-00131	SM 3500-Cr B
Conductivity @25C (Soluble)	13	2013/08/03	2013/08/03	AB SOP-00004	SSMA 15.3
Conductivity @25C (Soluble)	13	2013/08/03	2013/08/04	AB SOP-00004	SSMA 15.3
CCME Hydrocarbons (F2-F4 in soil)	26	2013/08/02	2013/08/03	AB SOP-00040 AB SOP-00036	CCME PHC-CWS
Elements by ICPMS - Soils	26	2013/08/04	2013/08/04	AB SOP-00043	EPA 200.8
Ion Balance	13	N/A	2013/08/04	AB WI-00065	SM 1030E
Ion Balance	13	N/A	2013/08/06	AB WI-00065	SM 1030E
Sum of Cations, Anions	13	N/A	2013/08/04	AB WI-00065	SM 1030E
Sum of Cations, Anions	13	N/A	2013/08/06	AB WI-00065	SM 1030E
Moisture	26	N/A	2013/08/03	AB SOP-00002	CCME PHC-CWS
pH @25C (1:2 Calcium Chloride Extract)	26	2013/08/06	2013/08/06	AB SOP-00006	SSMA 16.3
Sodium Adsorption Ratio	13	N/A	2013/08/04	AB WI-00065	SSMA 15.4.4
Sodium Adsorption Ratio	13	N/A	2013/08/06	AB WI-00065	SSMA 15.4.4
Ca,Mg,Na,K,SO4 (Soluble)	13	2013/08/04	2013/08/04	AB SOP-00042	EPA 200.7
Ca,Mg,Na,K,SO4 (Soluble)	13	2013/08/06	2013/08/06	AB SOP-00042	EPA 200.7
Soluble Paste	26	2013/08/03	2013/08/03	AB SOP-00033	SSMA 15.2
Soluble Ions Calculation	26	N/A	2013/08/03		CALCULATION
Theoretical Gypsum Requirement (1)	13	N/A	2013/08/04	CAL WI-00087	CJSS 79:449-455
Theoretical Gypsum Requirement (1)	13	N/A	2013/08/06	CAL WI-00087	CJSS 79:449-455

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

(1) Units for TGR have changed from tons/acre to tonnes/ha

Your P.O. #: A04012A05
Your Project #: CAMP FAREWELL
Your C.O.C. #: A134518, A134519, A134520

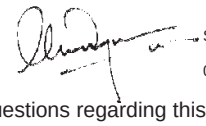
Attention: NICOLE WILLS

KLOHN CRIPPEN BERGER LTD
500-2618
HOPEWELL PLACE NE
CALGARY, AB
CANADA T1Y 7J7

Report Date: 2013/08/06

CERTIFICATE OF ANALYSIS

Encryption Key



Sherlyne Sim
06 Aug 2013 17:55:15 -06:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Tanya Eugine, M.Sc., Project Manager
Email: TEugine@maxxam.ca
Phone# (780) 577-7144

==========

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Total cover pages: 2

Maxxam Job #: B367026
Report Date: 2013/08/06

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: NW

AT1 BTEX AND F1-F4 IN SOIL (SOIL)

Maxxam ID		HB9854	HB9855	HB9856	HB9857	HB9858		
Sampling Date		2013/07/28	2013/07/28	2013/07/28	2013/07/28	2013/07/28		
COC Number		A134518	A134518	A134518	A134518	A134518		
	UNITS	**EX-13-AB (7M)**	**EX-13-BB (7M)**	**EX-13-CB (7M)**	**EX-13-FB (7M)**	**EX-13-GB (7M)**	**RDL**	**QC Batch**
Physical Properties								
Moisture	%	16	22	19	18	20	0.30	7046962
Ext. Pet. Hydrocarbon								
F2 (C10-C16 Hydrocarbons)	mg/kg	<10	<10	<10	110	<10	10	7046204
F3 (C16-C34 Hydrocarbons)	mg/kg	<50	<50	<50	120	<50	50	7046204
F4 (C34-C50 Hydrocarbons)	mg/kg	<50	<50	<50	<50	<50	50	7046204
Reached Baseline at C50	mg/kg	Yes	Yes	Yes	Yes	Yes		7046204
Volatiles								
Benzene	mg/kg	<0.0050	0.021	<0.0050	<0.0050	0.013	0.0050	7043191
Toluene	mg/kg	<0.020	<0.020	<0.020	0.038	<0.020	0.020	7043191
Ethylbenzene	mg/kg	<0.010	<0.010	0.014	0.078	<0.010	0.010	7043191
Xylenes (Total)	mg/kg	<0.040	<0.040	<0.040	0.80	<0.040	0.040	7043191
m & p-Xylene	mg/kg	<0.040	<0.040	<0.040	0.44	<0.040	0.040	7043191
o-Xylene	mg/kg	<0.020	<0.020	<0.020	0.36	<0.020	0.020	7043191
F1 (C6-C10) - BTEX	mg/kg	<12	<12	<12	41	<12	12	7043191
(C6-C10)	mg/kg	<12	<12	<12	42	<12	12	7043191
Surrogate Recovery (%)								
1,4-Difluorobenzene (sur.)	%	105	111	110	107	108		7043191
4-BROMOFLUOROBENZENE (sur.)	%	94	94	96	99	96		7043191
D10-ETHYLBENZENE (sur.)	%	114	122	117	119	115		7043191
D4-1,2-DICHLOROETHANE (sur.)	%	91	91	94	93	95		7043191
O-TERPHENYL (sur.)	%	123	101	100	100	102		7046204

RDL = Reportable Detection Limit

Maxxam Job #: B367026
Report Date: 2013/08/06

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: NW

AT1 BTEX AND F1-F4 IN SOIL (SOIL)

Maxxam ID		HB9859		HB9860	HB9861		HB9862		
Sampling Date		2013/07/28		2013/07/28	2013/07/28		2013/07/28		
COC Number		A134518		A134518	A134518		A134518		
	UNITS	**EX-13-HB (7M)**	**QC Batch**	**EX-13-IB (7M)**	**EX-13-KB (7M)**	**RDL**	**EX-13-AS (1M)**	**RDL**	**QC Batch**
Physical Properties									
Moisture	%	17	7046962	17	20	0.30	54	0.30	7046962
Ext. Pet. Hydrocarbon									
F2 (C10-C16 Hydrocarbons)	mg/kg	<10	7046204	<10	<10	10	<22 (1)	22	7046183
F3 (C16-C34 Hydrocarbons)	mg/kg	<50	7046204	<50	<50	50	930 (1)	110	7046183
F4 (C34-C50 Hydrocarbons)	mg/kg	<50	7046204	<50	<50	50	190 (1)	110	7046183
Reached Baseline at C50	mg/kg	Yes	7046204	Yes	Yes		Yes		7046183
Volatiles									
Benzene	mg/kg	0.093	7042465	0.12	0.0072	0.0050	<0.011 (1)	0.011	7046331
Toluene	mg/kg	0.027	7042465	<0.020	<0.020	0.020	<0.044 (1)	0.044	7046331
Ethylbenzene	mg/kg	0.016	7042465	<0.010	<0.010	0.010	<0.022 (1)	0.022	7046331
Xylenes (Total)	mg/kg	0.071	7042465	<0.040	<0.040	0.040	<0.087 (1)	0.087	7046331
m & p-Xylene	mg/kg	0.071	7042465	<0.040	<0.040	0.040	<0.087 (1)	0.087	7046331
o-Xylene	mg/kg	<0.020	7042465	<0.020	<0.020	0.020	<0.044 (1)	0.044	7046331
F1 (C6-C10) - BTEX	mg/kg	<12	7042465	<12	<12	12	<26 (1)	26	7046331
(C6-C10)	mg/kg	<12	7042465	<12	<12	12	<26 (1)	26	7046331
Surrogate Recovery (%)									
1,4-Difluorobenzene (sur.)	%	105	7042465	107	112		129		7046331
4-BROMOFLUOROBENZENE (sur.)	%	96	7042465	99	101		99		7046331
D10-ETHYLBENZENE (sur.)	%	111	7042465	108	109		108		7046331
D4-1,2-DICHLOROETHANE (sur.)	%	92	7042465	108	111		113		7046331
O-TERPHENYL (sur.)	%	99	7046204	108	112		105		7046183

RDL = Reportable Detection Limit
(1) Detection limits raised due to high moisture content.

Maxxam Job #: B367026
Report Date: 2013/08/06

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: NW

AT1 BTEX AND F1-F4 IN SOIL (SOIL)

Maxxam ID		HB9863	HB9865	HB9866	HB9867		
Sampling Date		2013/07/28	2013/07/28	2013/07/28	2013/07/28		
COC Number		A134518	A134518	A134519	A134519		
	UNITS	**EX-13-AS (4M)**	**EX-13-LE (6M)**	**EX-13-KE (2M)**	**EX-13-JE (1M)**	**RDL**	**QC Batch**
Physical Properties							
Moisture	%	8.4	9.9	3.2	5.8	0.30	7046962
Ext. Pet. Hydrocarbon							
F2 (C10-C16 Hydrocarbons)	mg/kg	63	580	14	120	10	7046183
F3 (C16-C34 Hydrocarbons)	mg/kg	<50	150	130	180	50	7046183
F4 (C34-C50 Hydrocarbons)	mg/kg	<50	<50	<50	<50	50	7046183
Reached Baseline at C50	mg/kg	Yes	Yes	Yes	Yes		7046183
Volatiles							
Benzene	mg/kg	<0.0050	0.0099	<0.0050	<0.0050	0.0050	7046331
Toluene	mg/kg	<0.020	<0.020	<0.020	<0.020	0.020	7046331
Ethylbenzene	mg/kg	0.011	0.044	<0.010	<0.010	0.010	7046331
Xylenes (Total)	mg/kg	<0.040	1.3	<0.040	<0.040	0.040	7046331
m & p-Xylene	mg/kg	<0.040	0.33	<0.040	<0.040	0.040	7046331
o-Xylene	mg/kg	<0.020	0.93	<0.020	<0.020	0.020	7046331
F1 (C6-C10) - BTEX	mg/kg	<12	94	<12	<12	12	7046331
(C6-C10)	mg/kg	<12	95	<12	<12	12	7046331
Surrogate Recovery (%)							
1,4-Difluorobenzene (sur.)	%	104	104	100	104		7046331
4-BROMOFLUOROBENZENE (sur.)	%	101	98	101	100		7046331
D10-ETHYLBENZENE (sur.)	%	111	116	110	110		7046331
D4-1,2-DICHLOROETHANE (sur.)	%	114	107	109	110		7046331
O-TERPHENYL (sur.)	%	112	109	109	105		7046183

RDL = Reportable Detection Limit

Maxxam Job #: B367026
Report Date: 2013/08/06

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: NW

AT1 BTEX AND F1-F4 IN SOIL (SOIL)

Maxxam ID		HB9868	HB9870	HB9871	HB9872	HB9873		
Sampling Date		2013/07/28	2013/07/28	2013/07/29	2013/07/29	2013/07/29		
COC Number		A134519	A134519	A134519	A134519	A134519		
	UNITS	**EX-13-JE (7M)**	**EX-13-1E (6M)**	**TP21**	**TP22**	**TP23**	**RDL**	**QC Batch**
Physical Properties								
Moisture	%	16	18	5.3	4.4	5.6	0.30	7046956
Ext. Pet. Hydrocarbon								
F2 (C10-C16 Hydrocarbons)	mg/kg	<10	380	<10	<10	<10	10	7046183
F3 (C16-C34 Hydrocarbons)	mg/kg	<50	410	<50	<50	<50	50	7046183
F4 (C34-C50 Hydrocarbons)	mg/kg	<50	140	<50	<50	<50	50	7046183
Reached Baseline at C50	mg/kg	Yes	Yes	Yes	Yes	Yes		7046183
Volatiles								
Benzene	mg/kg	0.036	0.043	<0.0050	<0.0050	<0.0050	0.0050	7046331
Toluene	mg/kg	<0.020	0.12	<0.020	<0.020	<0.020	0.020	7046331
Ethylbenzene	mg/kg	<0.010	0.47	<0.010	<0.010	<0.010	0.010	7046331
Xylenes (Total)	mg/kg	<0.040	3.9	<0.040	<0.040	<0.040	0.040	7046331
m & p-Xylene	mg/kg	<0.040	2.2	<0.040	<0.040	<0.040	0.040	7046331
o-Xylene	mg/kg	0.027	1.7	<0.020	<0.020	<0.020	0.020	7046331
F1 (C6-C10) - BTEX	mg/kg	<12	96	<12	<12	<12	12	7046331
(C6-C10)	mg/kg	<12	100	<12	<12	<12	12	7046331
Surrogate Recovery (%)								
1,4-Difluorobenzene (sur.)	%	107	105	102	101	102		7046331
4-BROMOFLUOROBENZENE (sur.)	%	100	99	99	99	98		7046331
D10-ETHYLBENZENE (sur.)	%	106	108	111	106	108		7046331
D4-1,2-DICHLOROETHANE (sur.)	%	109	108	108	108	107		7046331
O-TERPHENYL (sur.)	%	119	110	125	111	111		7046183

RDL = Reportable Detection Limit

Maxxam Job #: B367026
Report Date: 2013/08/06

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: NW

AT1 BTEX AND F1-F4 IN SOIL (SOIL)

Maxxam ID		HB9874	HB9875	HB9876	HB9877	HB9878		
Sampling Date		2013/07/29	2013/07/29	2013/07/29	2013/07/29	2013/07/29		
COC Number		A134519	A134519	A134519	A134519	A134520		
	UNITS	**TP24**	**TP25**	**TP26**	**TP27**	**TP 28**	**RDL**	**QC Batch**
Physical Properties								
Moisture	%	5.0	5.7	7.1	5.7	5.9	0.30	7046956
Ext. Pet. Hydrocarbon								
F2 (C10-C16 Hydrocarbons)	mg/kg	<10	<10	<10	14	19	10	7046183
F3 (C16-C34 Hydrocarbons)	mg/kg	<50	<50	<50	66	58	50	7046183
F4 (C34-C50 Hydrocarbons)	mg/kg	<50	<50	<50	<50	<50	50	7046183
Reached Baseline at C50	mg/kg	Yes	Yes	Yes	Yes	Yes		7046183
Volatiles								
Benzene	mg/kg	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	7046331
Toluene	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	7046331
Ethylbenzene	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	7046331
Xylenes (Total)	mg/kg	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	7046331
m & p-Xylene	mg/kg	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	7046331
o-Xylene	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	7046331
F1 (C6-C10) - BTEX	mg/kg	<12	<12	<12	<12	<12	12	7046331
(C6-C10)	mg/kg	<12	<12	<12	<12	<12	12	7046331
Surrogate Recovery (%)								
1,4-Difluorobenzene (sur.)	%	102	105	104	103	104		7046331
4-BROMOFLUOROBENZENE (sur.)	%	99	98	98	100	98		7046331
D10-ETHYLBENZENE (sur.)	%	108	125	116	114	114		7046331
D4-1,2-DICHLOROETHANE (sur.)	%	110	111	111	109	113		7046331
O-TERPHENYL (sur.)	%	112	107	97	108	99		7046183

RDL = Reportable Detection Limit

Maxxam Job #: B367026
Report Date: 2013/08/06

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: NW

AT1 BTEX AND F1-F4 IN SOIL (SOIL)

Maxxam ID		HB9879	HB9880	HB9881		
Sampling Date		2013/07/29	2013/07/29	2013/07/31		
COC Number		A134520	A134520	A134520		
	UNITS	**EX-13-CW (2M)**	**EX-13-DW (1M)**	**EX-13-LB (7.5M)**	**RDL**	**QC Batch**
Physical Properties						
Moisture	%	21	10	18	0.30	7046956
Ext. Pet. Hydrocarbon						
F2 (C10-C16 Hydrocarbons)	mg/kg	<10	<10	<10	10	7046183
F3 (C16-C34 Hydrocarbons)	mg/kg	74	<50	<50	50	7046183
F4 (C34-C50 Hydrocarbons)	mg/kg	<50	<50	<50	50	7046183
Reached Baseline at C50	mg/kg	Yes	Yes	Yes		7046183
Volatiles						
Benzene	mg/kg	<0.0050	<0.0050	<0.0050	0.0050	7046331
Toluene	mg/kg	<0.020	<0.020	<0.020	0.020	7046331
Ethylbenzene	mg/kg	<0.010	<0.010	0.015	0.010	7046331
Xylenes (Total)	mg/kg	<0.040	<0.040	<0.040	0.040	7046331
m & p-Xylene	mg/kg	<0.040	<0.040	<0.040	0.040	7046331
o-Xylene	mg/kg	<0.020	<0.020	<0.020	0.020	7046331
F1 (C6-C10) - BTEX	mg/kg	<12	<12	<12	12	7046331
(C6-C10)	mg/kg	<12	<12	<12	12	7046331
Surrogate Recovery (%)						
1,4-Difluorobenzene (sur.)	%	110	105	109		7046331
4-BROMOFLUOROBENZENE (sur.)	%	100	96	100		7046331
D10-ETHYLBENZENE (sur.)	%	114	115	116		7046331
D4-1,2-DICHLOROETHANE (sur.)	%	111	110	112		7046331
O-TERPHENYL (sur.)	%	94	98	110		7046183

RDL = Reportable Detection Limit

Maxxam Job #: B367026
Report Date: 2013/08/06

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: NW

SOIL SALINITY 4 (SOIL)

Maxxam ID		HB9854		HB9855		HB9856		
Sampling Date		2013/07/28		2013/07/28		2013/07/28		
COC Number		A134518		A134518		A134518		
	UNITS	**EX-13-AB (7M)**	**RDL**	**EX-13-BB (7M)**	**RDL**	**EX-13-CB (7M)**	**RDL**	**QC Batch**
Calculated Parameters								
Anion Sum	meq/L	10	N/A	30	N/A	22	N/A	7043756
Cation Sum	meq/L	12	N/A	32	N/A	23	N/A	7043756
Cation/EC Ratio	N/A	9.5	0.10	8.9	0.10	9.1	0.10	7043753
Ion Balance	N/A	1.1	0.010	1.1	0.010	1.1	0.010	7043755
Calculated Calcium (Ca)	mg/kg	8.2	0.49	17	0.42	23	0.46	7045421
Calculated Magnesium (Mg)	mg/kg	3.8	0.33	5.3	0.28	6.1	0.30	7045421
Calculated Sodium (Na)	mg/kg	67	0.82	170	0.71	120	0.76	7045421
Calculated Potassium (K)	mg/kg	7.2	0.43	8.3	0.37	8.7	0.40	7045421
Calculated Chloride (Cl)	mg/kg	67	1.7	240	7.1	190	7.6	7045421
Calculated Sulphate (SO4)	mg/kg	69	1.7	80	1.4	54	1.5	7045421
Soluble Parameters								
Soluble Chloride (Cl)	mg/L	200	5.0	850 (1)	25	640 (1)	25	7047631
Soluble Conductivity	dS/m	1.2	0.020	3.6	0.020	2.6	0.020	7047284
Soluble (CaCl2) pH	N/A	7.37	N/A	7.16	N/A	7.47	N/A	7049152
Sodium Adsorption Ratio	N/A	8.4	0.10	17	0.10	10	0.10	7045420
Soluble Calcium (Ca)	mg/L	25	1.5	61	1.5	77	1.5	7047736
Soluble Magnesium (Mg)	mg/L	12	1.0	19	1.0	20	1.0	7047736
Soluble Sodium (Na)	mg/L	200	2.5	600	2.5	390	2.5	7047736
Soluble Potassium (K)	mg/L	22	1.3	29	1.3	28	1.3	7047736
Saturation %	%	33	N/A	28	N/A	30	N/A	7046375
Soluble Sulphate (SO4)	mg/L	210	5.0	280	5.0	180	5.0	7047736
Theoretical Gypsum Requirement	tonnes/ha	0.42	0.10	3.9	0.10	1.6	0.10	7043760

RDL = Reportable Detection Limit
(1) Detection limits raised due to dilution to bring analyte within the calibrated range.

Maxxam Job #: B367026
Report Date: 2013/08/06

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: NW

SOIL SALINITY 4 (SOIL)

Maxxam ID		HB9857		HB9858		HB9859		HB9860		
Sampling Date		2013/07/28		2013/07/28		2013/07/28		2013/07/28		
COC Number		A134518		A134518		A134518		A134518		
	UNITS	**EX-13-FB (7M)**	**RDL**	**EX-13-GB (7M)**	**RDL**	**EX-13-HB (7M)**	**RDL**	**EX-13-IB (7M)**	**RDL**	**QC Batch**
Calculated Parameters										
Anion Sum	meq/L	14	N/A	23	N/A	16	N/A	6.2	N/A	7045962
Cation Sum	meq/L	14	N/A	26	N/A	19	N/A	6.4	N/A	7045962
Cation/EC Ratio	N/A	9.2	0.10	8.8	0.10	8.6	0.10	8.8	0.10	7045954
Ion Balance	N/A	1.0	0.010	1.1	0.010	1.2	0.010	1.0	0.010	7045961
Calculated Calcium (Ca)	mg/kg	20	0.46	8.3	0.45	6.4	0.48	5.2	0.46	7045421
Calculated Magnesium (Mg)	mg/kg	5.8	0.31	1.8	0.30	3.7	0.32	2.4	0.31	7045421
Calculated Sodium (Na)	mg/kg	65	0.77	150	0.74	120	0.81	24	0.77	7045421
Calculated Potassium (K)	mg/kg	3.7	0.40	28	0.39	16	0.42	20	0.40	7045421
Calculated Chloride (Cl)	mg/kg	120	1.5	210	7.4	170	8.1	19	1.5	7045421
Calculated Sulphate (SO4)	mg/kg	55	1.5	46	1.5	28	1.6	65	1.5	7045421
Soluble Parameters										
Soluble Chloride (Cl)	mg/L	380	5.0	690 (1)	25	520 (1)	25	63	5.0	7047631
Soluble Conductivity	dS/m	1.6	0.020	2.9	0.020	2.2	0.020	0.73	0.020	7047284
Soluble (CaCl2) pH	N/A	7.03	N/A	7.10	N/A	8.09	N/A	7.28	N/A	7049152
Sodium Adsorption Ratio	N/A	5.9	0.10	22	0.10	16	0.10	3.8	0.10	7045420
Soluble Calcium (Ca)	mg/L	66	1.5	28	1.5	20	1.5	17	1.5	7047736
Soluble Magnesium (Mg)	mg/L	19	1.0	5.9	1.0	12	1.0	7.8	1.0	7047736
Soluble Sodium (Na)	mg/L	210	2.5	490	2.5	370	2.5	76	2.5	7047736
Soluble Potassium (K)	mg/L	12	1.3	93	1.3	50	1.3	63	1.3	7047736
Saturation %	%	31	N/A	30	N/A	32	N/A	31	N/A	7046375
Soluble Sulphate (SO4)	mg/L	180	5.0	160	5.0	87	5.0	210	5.0	7047736
Theoretical Gypsum Requirement	tonnes/ha	0.29	0.10	2.7	0.10	1.6	0.10	<0.10	0.10	7045968

RDL = Reportable Detection Limit
(1) Detection limits raised due to dilution to bring analyte within the calibrated range.

Maxxam Job #: B367026
Report Date: 2013/08/06

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: NW

SOIL SALINITY 4 (SOIL)

Maxxam ID		HB9861			HB9862			HB9863		
Sampling Date		2013/07/28			2013/07/28			2013/07/28		
COC Number		A134518			A134518			A134518		
	UNITS	**EX-13-KB (7M)**	**RDL**	**QC Batch**	**EX-13-AS (1M)**	**RDL**	**QC Batch**	**EX-13-AS (4M)**	**RDL**	**QC Batch**
Calculated Parameters										
Anion Sum	meq/L	8.1	N/A	7045962	2.6	N/A	7045962	8.4	N/A	7045962
Cation Sum	meq/L	8.4	N/A	7045962	3.4	N/A	7045962	8.8	N/A	7045962
Cation/EC Ratio	N/A	9.9	0.10	7045954	9.8	0.10	7045954	9.0	0.10	7045954
Ion Balance	N/A	1.0	0.010	7045961	1.3	0.010	7045961	1.1	0.010	7045961
Calculated Calcium (Ca)	mg/kg	19	0.44	7045421	40	1.8	7045421	39	0.45	7045421
Calculated Magnesium (Mg)	mg/kg	5.3	0.29	7045421	11	1.2	7045421	3.3	0.30	7045421
Calculated Sodium (Na)	mg/kg	22	0.73	7045421	26	3.0	7045421	6.0	0.74	7045421
Calculated Potassium (K)	mg/kg	3.7	0.38	7045421	3.2	1.6	7045421	4.6	0.39	7045421
Calculated Chloride (Cl)	mg/kg	21	1.5	7045421	41	6.0	7045421	7.0	1.5	7045421
Calculated Sulphate (SO4)	mg/kg	84	1.5	7045421	96	6.0	7045421	110	1.5	7045421
Soluble Parameters										
Soluble Chloride (Cl)	mg/L	73	5.0	7047631	34	5.0	7047707	24	5.0	7047631
Soluble Conductivity	dS/m	0.85	0.020	7047284	0.35	0.020	7047454	0.99	0.020	7047284
Soluble (CaCl2) pH	N/A	7.27	N/A	7049152	6.09	N/A	7049152	7.20	N/A	7049152
Sodium Adsorption Ratio	N/A	2.1	0.10	7045420	0.86	0.10	7045420	0.45	0.10	7045420
Soluble Calcium (Ca)	mg/L	65	1.5	7047736	33	1.5	7051837	130	1.5	7047736
Soluble Magnesium (Mg)	mg/L	18	1.0	7047736	9.3	1.0	7051837	11	1.0	7047736
Soluble Sodium (Na)	mg/L	76	2.5	7047736	22	2.5	7051837	20	2.5	7047736
Soluble Potassium (K)	mg/L	13	1.3	7047736	2.7	1.3	7051837	15	1.3	7047736
Saturation %	%	29	N/A	7046375	120	N/A	7047292	30	N/A	7046375
Soluble Sulphate (SO4)	mg/L	290	5.0	7047736	80	5.0	7051837	370	5.0	7047736
Theoretical Gypsum Requirement	tonnes/ha	<0.10	0.10	7045968	<0.10	0.10	7045968	<0.10	0.10	7045968

RDL = Reportable Detection Limit

Maxxam Job #: B367026
Report Date: 2013/08/06

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: NW

SOIL SALINITY 4 (SOIL)

Maxxam ID		HB9865		HB9866		HB9867		
Sampling Date		2013/07/28		2013/07/28		2013/07/28		
COC Number		A134518		A134519		A134519		
	UNITS	**EX-13-LE (6M)**	**RDL**	**EX-13-KE (2M)**	**RDL**	**EX-13-JE (1M)**	**RDL**	**QC Batch**
Calculated Parameters								
Anion Sum	meq/L	4.1	N/A	0.86	N/A	1.4	N/A	7045962
Cation Sum	meq/L	5.6	N/A	2.3	N/A	3.8	N/A	7045962
Cation/EC Ratio	N/A	9.2	0.10	11	0.10	13	0.10	7045954
Ion Balance	N/A	1.4	0.010	2.7	0.010	2.8	0.010	7045961
Calculated Calcium (Ca)	mg/kg	20	0.45	5.5	0.41	11	0.47	7045421
Calculated Magnesium (Mg)	mg/kg	4.3	0.30	1.1	0.27	4.4	0.31	7045421
Calculated Sodium (Na)	mg/kg	6.5	0.75	5.7	0.68	5.5	0.79	7045421
Calculated Potassium (K)	mg/kg	1.9	0.39	0.46	0.35	2.7	0.41	7045421
Calculated Chloride (Cl)	mg/kg	5.0	1.5	3.0	1.4	5.1	1.6	7045421
Calculated Sulphate (SO4)	mg/kg	52	1.5	7.2	1.4	14	1.6	7045421
Soluble Parameters								
Soluble Chloride (Cl)	mg/L	17	5.0	11	5.0	16	5.0	7047631
Soluble Conductivity	dS/m	0.61	0.020	0.21	0.020	0.29	0.020	7047284
Soluble (CaCl2) pH	N/A	7.26	N/A	7.36	N/A	6.91	N/A	7049152
Sodium Adsorption Ratio	N/A	0.62	0.10	1.1	0.10	0.64	0.10	7045420
Soluble Calcium (Ca)	mg/L	67	1.5	20	1.5	34	1.5	7047736
Soluble Magnesium (Mg)	mg/L	14	1.0	4.2	1.0	14	1.0	7047736
Soluble Sodium (Na)	mg/L	21	2.5	21	2.5	17	2.5	7047736
Soluble Potassium (K)	mg/L	6.2	1.3	1.7	1.3	8.5	1.3	7047736
Saturation %	%	30	N/A	27	N/A	31	N/A	7046375
Soluble Sulphate (SO4)	mg/L	170	5.0	26	5.0	43	5.0	7047736
Theoretical Gypsum Requirement	tonnes/ha	<0.10	0.10	<0.10	0.10	<0.10	0.10	7045968

RDL = Reportable Detection Limit

Maxxam Job #: B367026
Report Date: 2013/08/06

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: NW

SOIL SALINITY 4 (SOIL)

Maxxam ID		HB9868		HB9870		HB9871		HB9872		
Sampling Date		2013/07/28		2013/07/28		2013/07/29		2013/07/29		
COC Number		A134519		A134519		A134519		A134519		
	UNITS	**EX-13-JE (7M)**	**RDL**	**EX-13-1E (6M)**	**RDL**	**TP21**	**RDL**	**TP22**	**RDL**	**QC Batch**
Calculated Parameters										
Anion Sum	meq/L	5.3	N/A	5.9	N/A	2.0	N/A	0.45	N/A	7045962
Cation Sum	meq/L	5.6	N/A	5.6	N/A	2.7	N/A	0.79	N/A	7045962
Cation/EC Ratio	N/A	9.8	0.10	9.8	0.10	9.3	0.10	11	0.10	7045954
Ion Balance	N/A	1.1	0.010	0.94	0.010	1.4	0.010	1.8	0.010	7045961
Calculated Calcium (Ca)	mg/kg	16	0.43	15	0.46	7.0	0.38	1.4	0.40	7045421
Calculated Magnesium (Mg)	mg/kg	4.3	0.29	3.8	0.31	2.3	0.25	0.44	0.26	7045421
Calculated Sodium (Na)	mg/kg	7.0	0.72	13	0.77	3.1	0.63	2.1	0.66	7045421
Calculated Potassium (K)	mg/kg	5.5	0.37	3.5	0.40	0.66	0.33	0.54	0.34	7045421
Calculated Chloride (Cl)	mg/kg	8.0	1.4	16	1.5	12	1.3	2.1	1.3	7045421
Calculated Sulphate (SO4)	mg/kg	62	1.4	65	1.5	8.0	1.3	2.9	1.3	7045421
Soluble Parameters										
Soluble Chloride (Cl)	mg/L	28	5.0	52	5.0	48	5.0	7.8	5.0	7047707
Soluble Conductivity	dS/m	0.57	0.020	0.57	0.020	0.29	0.020	0.073	0.020	7047454
Soluble (CaCl2) pH	N/A	7.52	N/A	6.89	N/A	6.38	N/A	6.18	N/A	7049152
Sodium Adsorption Ratio	N/A	0.75	0.10	1.4	0.10	0.52	0.10	0.76	0.10	7045966
Soluble Calcium (Ca)	mg/L	56	1.5	48	1.5	28	1.5	5.2	1.5	7051837
Soluble Magnesium (Mg)	mg/L	15	1.0	12	1.0	9.2	1.0	1.7	1.0	7051837
Soluble Sodium (Na)	mg/L	24	2.5	43	2.5	12	2.5	7.8	2.5	7051837
Soluble Potassium (K)	mg/L	19	1.3	11	1.3	2.6	1.3	2.1	1.3	7051837
Saturation %	%	29	N/A	31	N/A	25	N/A	26	N/A	7047292
Soluble Sulphate (SO4)	mg/L	210	5.0	210	5.0	32	5.0	11	5.0	7051837
Theoretical Gypsum Requirement	tonnes/ha	<0.10	0.10	<0.10	0.10	<0.10	0.10	<0.10	0.10	7045968

RDL = Reportable Detection Limit

Maxxam Job #: B367026
Report Date: 2013/08/06

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: NW

SOIL SALINITY 4 (SOIL)

Maxxam ID		HB9873		HB9874			HB9875		
Sampling Date		2013/07/29		2013/07/29			2013/07/29		
COC Number		A134519		A134519			A134519		
	UNITS	**TP23**	**RDL**	**TP24**	**RDL**	**QC Batch**	**TP25**	**RDL**	**QC Batch**
Calculated Parameters									
Anion Sum	meq/L	0.45	N/A	0.39	N/A	7045962	2.1	N/A	7045962
Cation Sum	meq/L	0.98	N/A	0.92	N/A	7045962	2.7	N/A	7045962
Cation/EC Ratio	N/A	11	0.10	11	0.10	7045954	8.7	0.10	7045954
Ion Balance	N/A	2.1	0.010	2.4	0.010	7045961	1.3	0.010	7045961
Calculated Calcium (Ca)	mg/kg	2.2	0.45	2.1	0.47	7045421	5.6	0.42	7045421
Calculated Magnesium (Mg)	mg/kg	0.65	0.30	0.59	0.31	7045421	2.0	0.28	7045421
Calculated Sodium (Na)	mg/kg	2.5	0.75	2.7	0.78	7045421	7.0	0.70	7045421
Calculated Potassium (K)	mg/kg	0.73	0.39	0.71	0.41	7045421	1.0	0.37	7045421
Calculated Chloride (Cl)	mg/kg	2.4	1.5	2.1	1.6	7045421	15	1.4	7045421
Calculated Sulphate (SO4)	mg/kg	3.2	1.5	3.0	1.6	7045421	8.8	1.4	7045421
Soluble Parameters									
Soluble Chloride (Cl)	mg/L	8.1	5.0	6.7	5.0	7047707	52	5.0	7047631
Soluble Conductivity	dS/m	0.086	0.020	0.085	0.020	7047454	0.31	0.020	7047284
Soluble (CaCl2) pH	N/A	6.08	N/A	6.19	N/A	7049152	6.59	N/A	7049152
Sodium Adsorption Ratio	N/A	0.71	0.10	0.75	0.10	7045966	1.2	0.10	7045966
Soluble Calcium (Ca)	mg/L	7.3	1.5	6.8	1.5	7051837	20	1.5	7047736
Soluble Magnesium (Mg)	mg/L	2.2	1.0	1.9	1.0	7051837	7.0	1.0	7047736
Soluble Sodium (Na)	mg/L	8.5	2.5	8.5	2.5	7051837	25	2.5	7047736
Soluble Potassium (K)	mg/L	2.4	1.3	2.3	1.3	7051837	3.6	1.3	7047736
Saturation %	%	30	N/A	31	N/A	7047292	28	N/A	7046375
Soluble Sulphate (SO4)	mg/L	11	5.0	9.6	5.0	7051837	31	5.0	7047736
Theoretical Gypsum Requirement	tonnes/ha	<0.10	0.10	<0.10	0.10	7045968	<0.10	0.10	7045968

RDL = Reportable Detection Limit

Maxxam Job #: B367026
Report Date: 2013/08/06

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: NW

SOIL SALINITY 4 (SOIL)

Maxxam ID		HB9876		HB9877		HB9878		HB9879		
Sampling Date		2013/07/29		2013/07/29		2013/07/29		2013/07/29		
COC Number		A134519		A134519		A134520		A134520		
	UNITS	**TP26**	**RDL**	**TP27**	**RDL**	**TP 28**	**RDL**	**EX-13-CW (2M)**	**RDL**	**QC Batch**
Calculated Parameters										
Anion Sum	meq/L	0.42	N/A	0.75	N/A	2.2	N/A	1.4	N/A	7045962
Cation Sum	meq/L	0.97	N/A	2.9	N/A	4.5	N/A	4.6	N/A	7045962
Cation/EC Ratio	N/A	11	0.10	10	0.10	9.7	0.10	15	0.10	7045954
Ion Balance	N/A	2.3	0.010	3.9	0.010	2.0	0.010	3.3	0.010	7045961
Calculated Calcium (Ca)	mg/kg	2.1	0.42	12	0.48	16	0.44	29	0.82	7045421
Calculated Magnesium (Mg)	mg/kg	0.67	0.28	1.5	0.32	1.9	0.29	8.1	0.55	7045421
Calculated Sodium (Na)	mg/kg	2.2	0.71	3.9	0.79	6.9	0.73	7.2	1.4	7045421
Calculated Potassium (K)	mg/kg	0.65	0.37	1.5	0.41	1.6	0.38	3.1	0.71	7045421
Calculated Chloride (Cl)	mg/kg	1.6	1.4	2.5	1.6	14	1.5	12	2.7	7045421
Calculated Sulphate (SO4)	mg/kg	3.5	1.4	8.0	1.6	13	1.5	21	2.7	7045421
Soluble Parameters										
Soluble Chloride (Cl)	mg/L	5.6	5.0	7.9	5.0	48	5.0	22	5.0	7047707
Soluble Conductivity	dS/m	0.089	0.020	0.28	0.020	0.46	0.020	0.30	0.020	7047454
Soluble (CaCl2) pH	N/A	7.04	N/A	7.45	N/A	7.51	N/A	6.87	N/A	7048885
Sodium Adsorption Ratio	N/A	0.63	0.10	0.51	0.10	0.80	0.10	0.41	0.10	7045966
Soluble Calcium (Ca)	mg/L	7.6	1.5	37	1.5	56	1.5	53	1.5	7051837
Soluble Magnesium (Mg)	mg/L	2.4	1.0	4.8	1.0	6.6	1.0	15	1.0	7051837
Soluble Sodium (Na)	mg/L	7.8	2.5	12	2.5	24	2.5	13 (1)	2.5	7051837
Soluble Potassium (K)	mg/L	2.3	1.3	4.9	1.3	5.5	1.3	5.7	1.3	7051837
Saturation %	%	28	N/A	32	N/A	29	N/A	55	N/A	7047292
Soluble Sulphate (SO4)	mg/L	12	5.0	25	5.0	43	5.0	37	5.0	7051837
Theoretical Gypsum Requirement	tonnes/ha	<0.10	0.10	<0.10	0.10	<0.10	0.10	<0.10	0.10	7045968

RDL = Reportable Detection Limit
(1) Duplicate exceeds acceptance criteria due to sample non homogeneity. Reanalysis yields similar results.

Maxxam Job #: B367026
Report Date: 2013/08/06

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: NW

SOIL SALINITY 4 (SOIL)

Maxxam ID		HB9880			HB9881		
Sampling Date		2013/07/29			2013/07/31		
COC Number		A134520			A134520		
	UNITS	**EX-13-DW (1M)**	**RDL**	**QC Batch**	**EX-13-LB (7.5M)**	**RDL**	**QC Batch**
Calculated Parameters							
Anion Sum	meq/L	2.5	N/A	7045962	14	N/A	7045962
Cation Sum	meq/L	4.3	N/A	7045962	14	N/A	7045962
Cation/EC Ratio	N/A	12	0.10	7045954	10	0.10	7045954
Ion Balance	N/A	1.7	0.010	7045961	0.97	0.010	7045961
Calculated Calcium (Ca)	mg/kg	13	0.49	7045421	37	0.42	7045967
Calculated Magnesium (Mg)	mg/kg	4.0	0.33	7045421	10	0.28	7045967
Calculated Sodium (Na)	mg/kg	5.6	0.82	7045421	24	0.71	7045967
Calculated Potassium (K)	mg/kg	7.8	0.43	7045421	4.1	0.37	7045967
Calculated Chloride (Cl)	mg/kg	7.1	1.6	7045421	68	1.4	7045967
Calculated Sulphate (SO4)	mg/kg	29	1.6	7045421	100	1.4	7045967
Soluble Parameters							
Soluble Chloride (Cl)	mg/L	22	5.0	7047707	240	5.0	7047707
Soluble Conductivity	dS/m	0.36	0.020	7047454	1.4	0.020	7047454
Soluble (CaCl2) pH	N/A	6.72	N/A	7048885	7.45	N/A	7048885
Sodium Adsorption Ratio	N/A	0.61	0.10	7045966	1.7	0.10	7045966
Soluble Calcium (Ca)	mg/L	39	1.5	7051837	130	1.5	7051837
Soluble Magnesium (Mg)	mg/L	12	1.0	7051837	37	1.0	7051837
Soluble Sodium (Na)	mg/L	17	2.5	7051837	86	2.5	7051837
Soluble Potassium (K)	mg/L	24	1.3	7051837	14	1.3	7051837
Saturation %	%	33	N/A	7047292	28	N/A	7047292
Soluble Sulphate (SO4)	mg/L	88	5.0	7051837	350	5.0	7051837
Theoretical Gypsum Requirement	tonnes/ha	<0.10	0.10	7045968	<0.10	0.10	7045968

RDL = Reportable Detection Limit

Maxxam Job #: B367026
Report Date: 2013/08/06

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: NW

REGULATED METALS (CCME/AT1) - SOILS

Maxxam ID		HB9854	HB9855	HB9856	HB9857	HB9858	HB9859		
Sampling Date		2013/07/28	2013/07/28	2013/07/28	2013/07/28	2013/07/28	2013/07/28		
COC Number		A134518	A134518	A134518	A134518	A134518	A134518		
	UNITS	**EX-13-AB (7M)**	**EX-13-BB (7M)**	**EX-13-CB (7M)**	**EX-13-FB (7M)**	**EX-13-GB (7M)**	**EX-13-HB (7M)**	**RDL**	**QC Batch**
Elements									
Soluble (Hot water) Boron (B)	mg/kg	0.20	0.31	0.15	0.21	0.20	0.49	0.10	7047919
Hex. Chromium (Cr 6+)	mg/kg	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	0.15	7049222
Total Antimony (Sb)	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	7047716
Total Arsenic (As)	mg/kg	4.8	6.3	5.3	5.1	4.5	4.7	1.0	7047716
Total Barium (Ba)	mg/kg	70	70	72	120	57	78	10	7047716
Total Beryllium (Be)	mg/kg	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	0.40	7047716
Total Cadmium (Cd)	mg/kg	<0.10	<0.10	<0.10	0.12	<0.10	<0.10	0.10	7047716
Total Chromium (Cr)	mg/kg	6.1	7.6	5.2	6.2	5.8	5.3	1.0	7047716
Total Cobalt (Co)	mg/kg	3.6	4.0	3.4	3.7	3.1	3.4	1.0	7047716
Total Copper (Cu)	mg/kg	<5.0	<5.0	<5.0	6.0	<5.0	<5.0	5.0	7047716
Total Lead (Pb)	mg/kg	2.9	3.2	3.0	4.2	2.5	2.7	1.0	7047716
Total Mercury (Hg)	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	7047716
Total Molybdenum (Mo)	mg/kg	0.49	0.63	0.47	0.49	0.44	0.49	0.40	7047716
Total Nickel (Ni)	mg/kg	10	12	9.5	10	9.1	9.1	1.0	7047716
Total Selenium (Se)	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	7047716
Total Silver (Ag)	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	7047716
Total Thallium (Tl)	mg/kg	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	0.30	7047716
Total Tin (Sn)	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	7047716
Total Uranium (U)	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	7047716
Total Vanadium (V)	mg/kg	10	10	9.8	10	8.9	9.2	1.0	7047716
Total Zinc (Zn)	mg/kg	26	27	25	29	23	24	10	7047716

RDL = Reportable Detection Limit

Maxxam Job #: B367026
Report Date: 2013/08/06

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: NW

REGULATED METALS (CCME/AT1) - SOILS

Maxxam ID		HB9860	HB9861		HB9862		HB9863	HB9865		
Sampling Date		2013/07/28	2013/07/28		2013/07/28		2013/07/28	2013/07/28		
COC Number		A134518	A134518		A134518		A134518	A134518		
	UNITS	**EX-13-IB (7M)**	**EX-13-KB (7M)**	**RDL**	**EX-13-AS (1M)**	**RDL**	**EX-13-AS (4M)**	**EX-13-LE (6M)**	**RDL**	**QC Batch**
Elements										
Soluble (Hot water) Boron (B)	mg/kg	0.19	0.19	0.10	3.7 (1)	0.40	0.25	0.21	0.10	7047942
Hex. Chromium (Cr 6+)	mg/kg	<0.15	<0.15	0.15	<0.15	0.15	<0.15	<0.15	0.15	7049269
Total Antimony (Sb)	mg/kg	<1.0	<1.0	1.0	<2.0	2.0	<1.0	<1.0	1.0	7047717
Total Arsenic (As)	mg/kg	4.5	4.7	1.0	5.3	2.0	4.3	4.9	1.0	7047717
Total Barium (Ba)	mg/kg	65	66	10	260	20	67	150	10	7047717
Total Beryllium (Be)	mg/kg	<0.40	<0.40	0.40	<0.80	0.80	<0.40	<0.40	0.40	7047717
Total Cadmium (Cd)	mg/kg	<0.10	<0.10	0.10	<0.20	0.20	<0.10	0.14	0.10	7047717
Total Chromium (Cr)	mg/kg	5.7	6.0	1.0	7.2	2.0	4.8	8.8	1.0	7047717
Total Cobalt (Co)	mg/kg	3.0	3.3	1.0	3.3	2.0	3.2	3.5	1.0	7047717
Total Copper (Cu)	mg/kg	<5.0	<5.0	5.0	<10	10	<5.0	6.5	5.0	7047717
Total Lead (Pb)	mg/kg	2.5	2.8	1.0	17	2.0	2.7	7.2	1.0	7047717
Total Mercury (Hg)	mg/kg	<0.050	<0.050	0.050	<0.10	0.10	<0.050	<0.050	0.050	7047717
Total Molybdenum (Mo)	mg/kg	0.43	0.48	0.40	<0.80	0.80	0.42	0.48	0.40	7047717
Total Nickel (Ni)	mg/kg	8.7	9.5	1.0	8.8	2.0	9.0	11	1.0	7047717
Total Selenium (Se)	mg/kg	<0.50	<0.50	0.50	<1.0	1.0	<0.50	<0.50	0.50	7047717
Total Silver (Ag)	mg/kg	<1.0	<1.0	1.0	<2.0	2.0	<1.0	<1.0	1.0	7047717
Total Thallium (Tl)	mg/kg	<0.30	<0.30	0.30	<0.60	0.60	<0.30	<0.30	0.30	7047717
Total Tin (Sn)	mg/kg	<1.0	<1.0	1.0	4.3	2.0	<1.0	<1.0	1.0	7047717
Total Uranium (U)	mg/kg	<1.0	<1.0	1.0	<2.0	2.0	<1.0	<1.0	1.0	7047717
Total Vanadium (V)	mg/kg	8.7	8.6	1.0	10	2.0	8.5	10	1.0	7047717
Total Zinc (Zn)	mg/kg	22	24	10	<20	20	23	32	10	7047717

RDL = Reportable Detection Limit
(1) Detection limits raised based on sample weight used for analysis.

Maxxam Job #: B367026
Report Date: 2013/08/06

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: NW

REGULATED METALS (CCME/AT1) - SOILS

Maxxam ID		HB9866	HB9867	HB9868	HB9870	HB9871	HB9872		
Sampling Date		2013/07/28	2013/07/28	2013/07/28	2013/07/28	2013/07/29	2013/07/29		
COC Number		A134519	A134519	A134519	A134519	A134519	A134519		
	UNITS	**EX-13-KE (2M)**	**EX-13-JE (1M)**	**EX-13-JE (7M)**	**EX-13-1E (6M)**	**TP21**	**TP22**	**RDL**	**QC Batch**
Elements									
Soluble (Hot water) Boron (B)	mg/kg	0.13	0.21	0.31	0.35	<0.10	<0.10	0.10	7047942
Hex. Chromium (Cr 6+)	mg/kg	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	0.15	7049269
Total Antimony (Sb)	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	7047717
Total Arsenic (As)	mg/kg	5.1	5.3	5.5	4.8	6.1	7.2	1.0	7047717
Total Barium (Ba)	mg/kg	960	2000	94	150	200	150	10	7047717
Total Beryllium (Be)	mg/kg	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	0.40	7047717
Total Cadmium (Cd)	mg/kg	<0.10	<0.10	<0.10	0.12	<0.10	<0.10	0.10	7047717
Total Chromium (Cr)	mg/kg	18	14	7.6	7.7	9.1	21	1.0	7047717
Total Cobalt (Co)	mg/kg	3.6	1.6	3.7	3.5	3.1	3.2	1.0	7047717
Total Copper (Cu)	mg/kg	6.6	8.8	<5.0	6.6	6.0	5.8	5.0	7047717
Total Lead (Pb)	mg/kg	27	8.6	3.3	9.8	5.9	4.6	1.0	7047717
Total Mercury (Hg)	mg/kg	<0.050	0.053	<0.050	<0.050	0.051	0.053	0.050	7047717
Total Molybdenum (Mo)	mg/kg	0.61	0.55	0.58	0.50	0.65	1.0	0.40	7047717
Total Nickel (Ni)	mg/kg	15	7.9	11	11	8.8	15	1.0	7047717
Total Selenium (Se)	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	7047717
Total Silver (Ag)	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	7047717
Total Thallium (Tl)	mg/kg	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	0.30	7047717
Total Tin (Sn)	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	7047717
Total Uranium (U)	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	7047717
Total Vanadium (V)	mg/kg	11	8.9	11	9.4	12	12	1.0	7047717
Total Zinc (Zn)	mg/kg	29	19	28	33	20	21	10	7047717

RDL = Reportable Detection Limit

Maxxam Job #: B367026
Report Date: 2013/08/06

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: NW

REGULATED METALS (CCME/AT1) - SOILS

Maxxam ID		HB9873	HB9874	HB9875	HB9876	HB9877	HB9878		
Sampling Date		2013/07/29	2013/07/29	2013/07/29	2013/07/29	2013/07/29	2013/07/29		
COC Number		A134519	A134519	A134519	A134519	A134519	A134520		
	UNITS	**TP23**	**TP24**	**TP25**	**TP26**	**TP27**	**TP 28**	**RDL**	**QC Batch**
Elements									
Soluble (Hot water) Boron (B)	mg/kg	<0.10	0.15	<0.10	<0.10	0.16	<0.10	0.10	7047942
Hex. Chromium (Cr 6+)	mg/kg	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	0.15	7049269
Total Antimony (Sb)	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	7047717
Total Arsenic (As)	mg/kg	6.4	5.9	6.5	6.9	6.2	7.2	1.0	7047717
Total Barium (Ba)	mg/kg	180	220	320	190	1100	1200	10	7047717
Total Beryllium (Be)	mg/kg	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	0.40	7047717
Total Cadmium (Cd)	mg/kg	<0.10	<0.10	<0.10	<0.10	0.14	0.15	0.10	7047717
Total Chromium (Cr)	mg/kg	24	14	18	13	22	29	1.0	7047717
Total Cobalt (Co)	mg/kg	3.2	2.7	2.6	3.0	3.1	3.8	1.0	7047717
Total Copper (Cu)	mg/kg	5.6	5.2	5.8	6.0	9.5	13	5.0	7047717
Total Lead (Pb)	mg/kg	5.8	5.9	5.2	5.6	16	28	1.0	7047717
Total Mercury (Hg)	mg/kg	<0.050	<0.050	<0.050	<0.050	0.066	0.30	0.050	7047717
Total Molybdenum (Mo)	mg/kg	0.94	0.67	1.4	0.70	0.92	1.1	0.40	7047717
Total Nickel (Ni)	mg/kg	16	10	13	11	15	19	1.0	7047717
Total Selenium (Se)	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	7047717
Total Silver (Ag)	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	7047717
Total Thallium (Tl)	mg/kg	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	0.30	7047717
Total Tin (Sn)	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	7047717
Total Uranium (U)	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	7047717
Total Vanadium (V)	mg/kg	11	11	11	11	11	13	1.0	7047717
Total Zinc (Zn)	mg/kg	20	18	18	21	35	36	10	7047717

RDL = Reportable Detection Limit

Maxxam Job #: B367026
Report Date: 2013/08/06

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: NW

REGULATED METALS (CCME/AT1) - SOILS

Maxxam ID		HB9879	HB9880	HB9881		
Sampling Date		2013/07/29	2013/07/29	2013/07/31		
COC Number		A134520	A134520	A134520		
	UNITS	**EX-13-CW (2M)**	**EX-13-DW (1M)**	**EX-13-LB (7.5M)**	**RDL**	**QC Batch**
Elements						
Soluble (Hot water) Boron (B)	mg/kg	0.37	0.23	0.26	0.10	7047942
Hex. Chromium (Cr 6+)	mg/kg	<0.15	<0.15	<0.15	0.15	7049269
Total Antimony (Sb)	mg/kg	<1.0	<1.0	<1.0	1.0	7047717
Total Arsenic (As)	mg/kg	6.5	5.7	5.4	1.0	7047717
Total Barium (Ba)	mg/kg	170	190	62	10	7047717
Total Beryllium (Be)	mg/kg	<0.40	<0.40	<0.40	0.40	7047717
Total Cadmium (Cd)	mg/kg	<0.10	<0.10	<0.10	0.10	7047717
Total Chromium (Cr)	mg/kg	11	21	6.5	1.0	7047717
Total Cobalt (Co)	mg/kg	4.6	2.4	3.5	1.0	7047717
Total Copper (Cu)	mg/kg	7.1	<5.0	<5.0	5.0	7047717
Total Lead (Pb)	mg/kg	4.8	5.5	2.9	1.0	7047717
Total Mercury (Hg)	mg/kg	<0.050	<0.050	<0.050	0.050	7047717
Total Molybdenum (Mo)	mg/kg	0.72	0.71	0.57	0.40	7047717
Total Nickel (Ni)	mg/kg	12	13	9.7	1.0	7047717
Total Selenium (Se)	mg/kg	<0.50	<0.50	<0.50	0.50	7047717
Total Silver (Ag)	mg/kg	<1.0	<1.0	<1.0	1.0	7047717
Total Thallium (Tl)	mg/kg	<0.30	<0.30	<0.30	0.30	7047717
Total Tin (Sn)	mg/kg	<1.0	<1.0	<1.0	1.0	7047717
Total Uranium (U)	mg/kg	<1.0	<1.0	<1.0	1.0	7047717
Total Vanadium (V)	mg/kg	15	9.1	9.0	1.0	7047717
Total Zinc (Zn)	mg/kg	30	14	24	10	7047717

RDL = Reportable Detection Limit

Maxxam Job #: B367026
Report Date: 2013/08/06

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: NW

General Comments

Sample HB9854-01: Sample was extracted from a jar with headspace for BTEX/F1.

Sample HB9855-01: Sample was extracted from a jar with headspace for BTEX/F1.

Sample HB9857-01: Sample was extracted from a jar with headspace for BTEX/F1.

Sample HB9862-01: Detection limits raised due to sample matrix. Parameters affected are total Cr, Co, Cu, Pb, Sb, Mo, Ni, Se, Ag, As, Tl, Sn, U, V, Zn, Be, Cd, Ba, Hg.

Results relate only to the items tested.

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: CAMP FAREWELL
P.O. #: A04012A05
Site Location:

Quality Assurance Report

Maxxam Job Number: EB367026

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7042465	PS7	Matrix Spike	1,4-Difluorobenzene (sur.)	2013/08/02		104	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/08/02		97	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/08/02		115	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/08/02		92	%	60 - 140
			Benzene	2013/08/02		107	%	60 - 140
			Toluene	2013/08/02		102	%	60 - 140
			Ethylbenzene	2013/08/02		98	%	60 - 140
			m & p-Xylene	2013/08/02		104	%	60 - 140
			o-Xylene	2013/08/02		98	%	60 - 140
			(C6-C10)	2013/08/02		61	%	60 - 140
		Spiked Blank	1,4-Difluorobenzene (sur.)	2013/08/02		99	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/08/02		95	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/08/02		98	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/08/02		93	%	60 - 140
			Benzene	2013/08/02		110	%	60 - 140
			Toluene	2013/08/02		108	%	60 - 140
			Ethylbenzene	2013/08/02		103	%	60 - 140
			m & p-Xylene	2013/08/02		110	%	60 - 140
			o-Xylene	2013/08/02		102	%	60 - 140
			(C6-C10)	2013/08/02		92	%	60 - 140
		Method Blank	1,4-Difluorobenzene (sur.)	2013/08/02		99	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/08/02		95	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/08/02		113	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/08/02		93	%	60 - 140
			Benzene	2013/08/02	<0.0050		mg/kg	
			Toluene	2013/08/02	<0.020		mg/kg	
			Ethylbenzene	2013/08/02	<0.010		mg/kg	
			Xylenes (Total)	2013/08/02	<0.040		mg/kg	
			m & p-Xylene	2013/08/02	<0.040		mg/kg	
			o-Xylene	2013/08/02	<0.020		mg/kg	
			F1 (C6-C10) - BTEX	2013/08/02	<12		mg/kg	
			(C6-C10)	2013/08/02	<12		mg/kg	
		RPD	Benzene	2013/08/02	NC		%	50
			Toluene	2013/08/02	NC		%	50
			Ethylbenzene	2013/08/02	NC		%	50
			Xylenes (Total)	2013/08/02	NC		%	50
			m & p-Xylene	2013/08/02	NC		%	50
			o-Xylene	2013/08/02	NC		%	50
			F1 (C6-C10) - BTEX	2013/08/02	NC		%	50
			(C6-C10)	2013/08/02	NC		%	50
7043191	KH7	Matrix Spike	1,4-Difluorobenzene (sur.)	2013/08/01		112	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/08/01		96	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/08/01		104	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/08/01		95	%	60 - 140
			Benzene	2013/08/01		114	%	60 - 140
			Toluene	2013/08/01		109	%	60 - 140
			Ethylbenzene	2013/08/01		105	%	60 - 140
			m & p-Xylene	2013/08/01		110	%	60 - 140
			o-Xylene	2013/08/01		108	%	60 - 140
			(C6-C10)	2013/08/01		104	%	60 - 140
		Spiked Blank	1,4-Difluorobenzene (sur.)	2013/08/01		100	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/08/01		97	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/08/01		98	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/08/01		95	%	60 - 140
			Benzene	2013/08/01		108	%	60 - 140

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: CAMP FAREWELL
P.O. #: A04012A05
Site Location:

Quality Assurance Report (Continued)

Maxxam Job Number: EB367026

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7043191	KH7	Spiked Blank	Toluene	2013/08/01		103	%	60 - 140
			Ethylbenzene	2013/08/01		98	%	60 - 140
			m & p-Xylene	2013/08/01		104	%	60 - 140
			o-Xylene	2013/08/01		102	%	60 - 140
			(C6-C10)	2013/08/01		103	%	60 - 140
		Method Blank	1,4-Difluorobenzene (sur.)	2013/08/01		100	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/08/01		97	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/08/01		100	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/08/01		91	%	60 - 140
			Benzene	2013/08/01	<0.0050		mg/kg	
			Toluene	2013/08/01	<0.020		mg/kg	
			Ethylbenzene	2013/08/01	<0.010		mg/kg	
			Xylenes (Total)	2013/08/01	<0.040		mg/kg	
			m & p-Xylene	2013/08/01	<0.040		mg/kg	
			o-Xylene	2013/08/01	<0.020		mg/kg	
			F1 (C6-C10) - BTEX	2013/08/01	<12		mg/kg	
			(C6-C10)	2013/08/01	<12		mg/kg	
		RPD	Benzene	2013/08/02	NC		%	50
			Toluene	2013/08/02	NC		%	50
			Ethylbenzene	2013/08/02	NC		%	50
			Xylenes (Total)	2013/08/02	NC		%	50
			m & p-Xylene	2013/08/02	NC		%	50
			o-Xylene	2013/08/02	NC		%	50
			F1 (C6-C10) - BTEX	2013/08/02	NC		%	50
			(C6-C10)	2013/08/02	NC		%	50
7046183	SHM	Matrix Spike						
		[HB9870-01]	O-TERPHENYL (sur.)	2013/08/03		101	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/08/03		NC	%	50 - 130
			F3 (C16-C34 Hydrocarbons)	2013/08/03		106	%	50 - 130
			F4 (C34-C50 Hydrocarbons)	2013/08/03		104	%	50 - 130
		Spiked Blank	O-TERPHENYL (sur.)	2013/08/03		117	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/08/03		124	%	70 - 130
			F3 (C16-C34 Hydrocarbons)	2013/08/03		123	%	70 - 130
			F4 (C34-C50 Hydrocarbons)	2013/08/03		128	%	70 - 130
		Method Blank	O-TERPHENYL (sur.)	2013/08/03		124	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/08/03	<10		mg/kg	
			F3 (C16-C34 Hydrocarbons)	2013/08/03	<50		mg/kg	
			F4 (C34-C50 Hydrocarbons)	2013/08/03	<50		mg/kg	
		RPD [HB9868-01]	F2 (C10-C16 Hydrocarbons)	2013/08/03	NC		%	50
			F3 (C16-C34 Hydrocarbons)	2013/08/03	NC		%	50
			F4 (C34-C50 Hydrocarbons)	2013/08/03	NC		%	50
7046204	SHM	Matrix Spike						
		[HB9855-01]	O-TERPHENYL (sur.)	2013/08/03		94	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/08/03		94	%	50 - 130
			F3 (C16-C34 Hydrocarbons)	2013/08/03		96	%	50 - 130
			F4 (C34-C50 Hydrocarbons)	2013/08/03		89	%	50 - 130
		Spiked Blank	O-TERPHENYL (sur.)	2013/08/03		109	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/08/03		120	%	70 - 130
			F3 (C16-C34 Hydrocarbons)	2013/08/03		122	%	70 - 130
			F4 (C34-C50 Hydrocarbons)	2013/08/03		115	%	70 - 130
		Method Blank	O-TERPHENYL (sur.)	2013/08/03		95	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/08/03	<10		mg/kg	
			F3 (C16-C34 Hydrocarbons)	2013/08/03	<50		mg/kg	
			F4 (C34-C50 Hydrocarbons)	2013/08/03	<50		mg/kg	
		RPD [HB9854-01]	F2 (C10-C16 Hydrocarbons)	2013/08/03	NC		%	50

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: CAMP FAREWELL
P.O. #: A04012A05
Site Location:

Quality Assurance Report (Continued)

Maxxam Job Number: EB367026

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7046204	SHM	RPD [HB9854-01]	F3 (C16-C34 Hydrocarbons)	2013/08/03	NC		%	50
			F4 (C34-C50 Hydrocarbons)	2013/08/03	NC		%	50
7046331	CG7	Matrix Spike						
		[HB9870-01]	1,4-Difluorobenzene (sur.)	2013/08/02		106	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/08/02		96	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/08/02		112	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/08/02		105	%	60 - 140
			Benzene	2013/08/02		91	%	60 - 140
			Toluene	2013/08/02		89	%	60 - 140
			Ethylbenzene	2013/08/02		97	%	60 - 140
			m & p-Xylene	2013/08/02		107	%	60 - 140
			o-Xylene	2013/08/02		112	%	60 - 140
			(C6-C10)	2013/08/02		113	%	60 - 140
		Spiked Blank	1,4-Difluorobenzene (sur.)	2013/08/02		100	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/08/02		100	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/08/02		110	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/08/02		107	%	60 - 140
			Benzene	2013/08/02		94	%	60 - 140
			Toluene	2013/08/02		89	%	60 - 140
			Ethylbenzene	2013/08/02		93	%	60 - 140
			m & p-Xylene	2013/08/02		96	%	60 - 140
			o-Xylene	2013/08/02		90	%	60 - 140
			(C6-C10)	2013/08/02		111	%	60 - 140
		Method Blank	1,4-Difluorobenzene (sur.)	2013/08/02		100	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/08/02		101	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/08/02		108	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/08/02		109	%	60 - 140
			Benzene	2013/08/02	<0.0050		mg/kg	
			Toluene	2013/08/02	<0.020		mg/kg	
			Ethylbenzene	2013/08/02	<0.010		mg/kg	
			Xylenes (Total)	2013/08/02	<0.040		mg/kg	
			m & p-Xylene	2013/08/02	<0.040		mg/kg	
			o-Xylene	2013/08/02	<0.020		mg/kg	
			F1 (C6-C10) - BTEX	2013/08/02	<12		mg/kg	
			(C6-C10)	2013/08/02	<12		mg/kg	
		RPD [HB9868-01]	Benzene	2013/08/02	10.0		%	50
			Toluene	2013/08/02	NC		%	50
			Ethylbenzene	2013/08/02	NC		%	50
			Xylenes (Total)	2013/08/02	NC		%	50
			m & p-Xylene	2013/08/02	NC		%	50
			o-Xylene	2013/08/02	NC		%	50
			F1 (C6-C10) - BTEX	2013/08/02	NC		%	50
			(C6-C10)	2013/08/02	NC		%	50
7046375	LX	QC Standard	Saturation %	2013/08/03		100	%	93 - 107
		RPD	Saturation %	2013/08/03	1.7		%	12
7046956	ABH	Method Blank	Moisture	2013/08/03	<0.30		%	
		RPD [HB9868-01]	Moisture	2013/08/03	5.2		%	20
7046962	ABH	Method Blank	Moisture	2013/08/03	<0.30		%	
		RPD [HB9854-01]	Moisture	2013/08/03	3.1		%	20
7047284	LZ2	QC Standard	Soluble Conductivity	2013/08/03		104	%	85 - 115
		Spiked Blank	Soluble Conductivity	2013/08/03		100	%	90 - 110
		Method Blank	Soluble Conductivity	2013/08/03	<0.020		dS/m	
		RPD	Soluble Conductivity	2013/08/03	1.6		%	35
7047292	LX	QC Standard	Saturation %	2013/08/03		104	%	93 - 107
		RPD [HB9879-01]	Saturation %	2013/08/03	0.4		%	12

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: CAMP FAREWELL
P.O. #: A04012A05
Site Location:

Quality Assurance Report (Continued)

Maxxam Job Number: EB367026

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7047454	LZ2	QC Standard	Soluble Conductivity	2013/08/04		111	%	85 - 115
		Spiked Blank	Soluble Conductivity	2013/08/04		100	%	90 - 110
		Method Blank	Soluble Conductivity	2013/08/04	<0.020		dS/m	
		RPD [HB9879-01]	Soluble Conductivity	2013/08/04	8.4		%	35
7047631	LCA	Matrix Spike	Soluble Chloride (Cl)	2013/08/04		97	%	75 - 125
		QC Standard	Soluble Chloride (Cl)	2013/08/04		99	%	N/A
		Spiked Blank	Soluble Chloride (Cl)	2013/08/04		100	%	75 - 125
		Method Blank	Soluble Chloride (Cl)	2013/08/04	<5.0		mg/L	
		RPD	Soluble Chloride (Cl)	2013/08/04	NC		%	35
7047707	LCA	Matrix Spike [HB9879-01]	Soluble Chloride (Cl)	2013/08/04		93	%	75 - 125
		QC Standard	Soluble Chloride (Cl)	2013/08/04		97	%	75 - 125
		Spiked Blank	Soluble Chloride (Cl)	2013/08/04		99	%	75 - 125
		Method Blank	Soluble Chloride (Cl)	2013/08/04	<5.0		mg/L	
		RPD [HB9879-01]	Soluble Chloride (Cl)	2013/08/04	NC		%	35
7047716	SF3	Matrix Spike	Total Antimony (Sb)	2013/08/04		81	%	75 - 125
			Total Arsenic (As)	2013/08/04		94	%	75 - 125
			Total Barium (Ba)	2013/08/04		NC	%	75 - 125
			Total Beryllium (Be)	2013/08/04		99	%	75 - 125
			Total Cadmium (Cd)	2013/08/04		91	%	75 - 125
			Total Chromium (Cr)	2013/08/04		94	%	75 - 125
			Total Cobalt (Co)	2013/08/04		91	%	75 - 125
			Total Copper (Cu)	2013/08/04		91	%	75 - 125
			Total Lead (Pb)	2013/08/04		86	%	75 - 125
			Total Mercury (Hg)	2013/08/04		91	%	75 - 125
			Total Molybdenum (Mo)	2013/08/04		95	%	75 - 125
			Total Nickel (Ni)	2013/08/04		94	%	75 - 125
			Total Selenium (Se)	2013/08/04		90	%	75 - 125
			Total Silver (Ag)	2013/08/04		95	%	75 - 125
			Total Thallium (Tl)	2013/08/04		86	%	75 - 125
			Total Tin (Sn)	2013/08/04		98	%	75 - 125
			Total Uranium (U)	2013/08/04		92	%	75 - 125
			Total Vanadium (V)	2013/08/04		100	%	75 - 125
			Total Zinc (Zn)	2013/08/04		NC	%	75 - 125
		QC Standard	Total Arsenic (As)	2013/08/04		109	%	50 - 150
			Total Barium (Ba)	2013/08/04		101	%	69 - 131
			Total Chromium (Cr)	2013/08/04		92	%	41 - 159
			Total Cobalt (Co)	2013/08/04		96	%	75 - 125
			Total Copper (Cu)	2013/08/04		96	%	73 - 127
			Total Lead (Pb)	2013/08/04		91	%	54 - 146
			Total Nickel (Ni)	2013/08/04		104	%	61 - 139
			Total Vanadium (V)	2013/08/04		109	%	50 - 150
			Total Zinc (Zn)	2013/08/04		100	%	72 - 128
		Spiked Blank	Total Antimony (Sb)	2013/08/04		97	%	75 - 125
			Total Arsenic (As)	2013/08/04		97	%	75 - 125
			Total Barium (Ba)	2013/08/04		99	%	75 - 125
			Total Beryllium (Be)	2013/08/04		96	%	75 - 125
			Total Cadmium (Cd)	2013/08/04		95	%	75 - 125
			Total Chromium (Cr)	2013/08/04		95	%	75 - 125
			Total Cobalt (Co)	2013/08/04		94	%	75 - 125
			Total Copper (Cu)	2013/08/04		96	%	75 - 125
			Total Lead (Pb)	2013/08/04		90	%	75 - 125
			Total Mercury (Hg)	2013/08/04		93	%	75 - 125
			Total Molybdenum (Mo)	2013/08/04		98	%	75 - 125
			Total Nickel (Ni)	2013/08/04		95	%	75 - 125

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: CAMP FAREWELL
P.O. #: A04012A05
Site Location:

Quality Assurance Report (Continued)

Maxxam Job Number: EB367026

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7047716 SF3	Spiked Blank	Total Selenium (Se)	2013/08/04		97	%	75 - 125
		Total Silver (Ag)	2013/08/04		99	%	75 - 125
		Total Thallium (Tl)	2013/08/04		89	%	75 - 125
		Total Tin (Sn)	2013/08/04		100	%	75 - 125
		Total Uranium (U)	2013/08/04		97	%	75 - 125
		Total Vanadium (V)	2013/08/04		99	%	75 - 125
		Total Zinc (Zn)	2013/08/04		96	%	75 - 125
	Method Blank	Total Antimony (Sb)	2013/08/04	<1.0		mg/kg	
		Total Arsenic (As)	2013/08/04	<1.0		mg/kg	
		Total Barium (Ba)	2013/08/04	<10		mg/kg	
		Total Beryllium (Be)	2013/08/04	<0.40		mg/kg	
		Total Cadmium (Cd)	2013/08/04	<0.10		mg/kg	
		Total Chromium (Cr)	2013/08/04	<1.0		mg/kg	
		Total Cobalt (Co)	2013/08/04	<1.0		mg/kg	
		Total Copper (Cu)	2013/08/04	<5.0		mg/kg	
		Total Lead (Pb)	2013/08/04	<1.0		mg/kg	
		Total Mercury (Hg)	2013/08/04	<0.050		mg/kg	
		Total Molybdenum (Mo)	2013/08/04	<0.40		mg/kg	
		Total Nickel (Ni)	2013/08/04	<1.0		mg/kg	
		Total Selenium (Se)	2013/08/04	<0.50		mg/kg	
		Total Silver (Ag)	2013/08/04	<1.0		mg/kg	
		Total Thallium (Tl)	2013/08/04	<0.30		mg/kg	
		Total Tin (Sn)	2013/08/04	<1.0		mg/kg	
		Total Uranium (U)	2013/08/04	<1.0		mg/kg	
		Total Vanadium (V)	2013/08/04	<1.0		mg/kg	
		Total Zinc (Zn)	2013/08/04	<10		mg/kg	
	RPD	Total Antimony (Sb)	2013/08/06	NC		%	35
		Total Arsenic (As)	2013/08/06	2.7		%	35
		Total Barium (Ba)	2013/08/06	17.8		%	35
		Total Beryllium (Be)	2013/08/06	NC		%	35
		Total Cadmium (Cd)	2013/08/06	NC		%	35
		Total Chromium (Cr)	2013/08/06	2.4		%	35
		Total Cobalt (Co)	2013/08/06	0.7		%	35
		Total Copper (Cu)	2013/08/06	NC		%	35
		Total Lead (Pb)	2013/08/06	2.5		%	35
		Total Mercury (Hg)	2013/08/06	NC		%	35
		Total Molybdenum (Mo)	2013/08/06	NC		%	35
		Total Nickel (Ni)	2013/08/06	0.01		%	35
		Total Selenium (Se)	2013/08/06	NC		%	35
		Total Silver (Ag)	2013/08/06	NC		%	35
		Total Thallium (Tl)	2013/08/06	NC		%	35
		Total Tin (Sn)	2013/08/06	NC		%	35
		Total Uranium (U)	2013/08/06	NC		%	35
		Total Vanadium (V)	2013/08/06	6.2		%	35
		Total Zinc (Zn)	2013/08/06	NC		%	35
7047717 SF3	Matrix Spike [HB9860-01]	Total Antimony (Sb)	2013/08/04		88	%	75 - 125
		Total Arsenic (As)	2013/08/04		93	%	75 - 125
		Total Barium (Ba)	2013/08/04		NC	%	75 - 125
		Total Beryllium (Be)	2013/08/04		93	%	75 - 125
		Total Cadmium (Cd)	2013/08/04		89	%	75 - 125
		Total Chromium (Cr)	2013/08/04		90	%	75 - 125
		Total Cobalt (Co)	2013/08/04		88	%	75 - 125
		Total Copper (Cu)	2013/08/04		89	%	75 - 125
		Total Lead (Pb)	2013/08/04		86	%	75 - 125

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: CAMP FAREWELL
P.O. #: A04012A05
Site Location:

Quality Assurance Report (Continued)

Maxxam Job Number: EB367026

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7047717	SF3	Matrix Spike [HB9860-01]	Total Mercury (Hg)	2013/08/04		91	%	75 - 125
			Total Molybdenum (Mo)	2013/08/04		94	%	75 - 125
			Total Nickel (Ni)	2013/08/04		92	%	75 - 125
			Total Selenium (Se)	2013/08/04		91	%	75 - 125
			Total Silver (Ag)	2013/08/04		93	%	75 - 125
			Total Thallium (Tl)	2013/08/04		86	%	75 - 125
			Total Tin (Sn)	2013/08/04		95	%	75 - 125
			Total Uranium (U)	2013/08/04		90	%	75 - 125
			Total Vanadium (V)	2013/08/04		101	%	75 - 125
			Total Zinc (Zn)	2013/08/04		97	%	75 - 125
		QC Standard	Total Arsenic (As)	2013/08/04		122	%	50 - 150
			Total Barium (Ba)	2013/08/04		108	%	69 - 131
			Total Chromium (Cr)	2013/08/04		98	%	41 - 159
			Total Cobalt (Co)	2013/08/04		103	%	75 - 125
			Total Copper (Cu)	2013/08/04		106	%	73 - 127
			Total Lead (Pb)	2013/08/04		102	%	54 - 146
			Total Nickel (Ni)	2013/08/04		112	%	61 - 139
			Total Vanadium (V)	2013/08/04		117	%	50 - 150
			Total Zinc (Zn)	2013/08/04		109	%	72 - 128
		Spiked Blank	Total Antimony (Sb)	2013/08/04		97	%	75 - 125
			Total Arsenic (As)	2013/08/04		98	%	75 - 125
			Total Barium (Ba)	2013/08/04		100	%	75 - 125
			Total Beryllium (Be)	2013/08/04		100	%	75 - 125
			Total Cadmium (Cd)	2013/08/04		96	%	75 - 125
			Total Chromium (Cr)	2013/08/04		96	%	75 - 125
			Total Cobalt (Co)	2013/08/04		95	%	75 - 125
			Total Copper (Cu)	2013/08/04		97	%	75 - 125
			Total Lead (Pb)	2013/08/04		92	%	75 - 125
			Total Mercury (Hg)	2013/08/04		103	%	75 - 125
			Total Molybdenum (Mo)	2013/08/04		100	%	75 - 125
			Total Nickel (Ni)	2013/08/04		96	%	75 - 125
			Total Selenium (Se)	2013/08/04		98	%	75 - 125
			Total Silver (Ag)	2013/08/04		100	%	75 - 125
			Total Thallium (Tl)	2013/08/04		94	%	75 - 125
			Total Tin (Sn)	2013/08/04		102	%	75 - 125
			Total Uranium (U)	2013/08/04		99	%	75 - 125
			Total Vanadium (V)	2013/08/04		99	%	75 - 125
			Total Zinc (Zn)	2013/08/04		96	%	75 - 125
		Method Blank	Total Antimony (Sb)	2013/08/04	<1.0		mg/kg	
			Total Arsenic (As)	2013/08/04	<1.0		mg/kg	
			Total Barium (Ba)	2013/08/04	<10		mg/kg	
			Total Beryllium (Be)	2013/08/04	<0.40		mg/kg	
			Total Cadmium (Cd)	2013/08/04	<0.10		mg/kg	
			Total Chromium (Cr)	2013/08/04	<1.0		mg/kg	
			Total Cobalt (Co)	2013/08/04	<1.0		mg/kg	
			Total Copper (Cu)	2013/08/04	<5.0		mg/kg	
			Total Lead (Pb)	2013/08/04	<1.0		mg/kg	
			Total Mercury (Hg)	2013/08/04	<0.050		mg/kg	
			Total Molybdenum (Mo)	2013/08/04	<0.40		mg/kg	
			Total Nickel (Ni)	2013/08/04	<1.0		mg/kg	
			Total Selenium (Se)	2013/08/04	<0.50		mg/kg	
			Total Silver (Ag)	2013/08/04	<1.0		mg/kg	
			Total Thallium (Tl)	2013/08/04	<0.30		mg/kg	
			Total Tin (Sn)	2013/08/04	<1.0		mg/kg	

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: CAMP FAREWELL
P.O. #: A04012A05
Site Location:

Quality Assurance Report (Continued)

Maxxam Job Number: EB367026

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7047717	SF3	Method Blank	Total Uranium (U)	2013/08/04	<1.0		mg/kg	
			Total Vanadium (V)	2013/08/04	<1.0		mg/kg	
			Total Zinc (Zn)	2013/08/04	<10		mg/kg	
		RPD [HB9860-01]	Total Antimony (Sb)	2013/08/04	NC		%	35
			Total Arsenic (As)	2013/08/04	NC		%	35
			Total Barium (Ba)	2013/08/04	2.3		%	35
			Total Beryllium (Be)	2013/08/04	NC		%	35
			Total Cadmium (Cd)	2013/08/04	NC		%	35
			Total Chromium (Cr)	2013/08/04	18.1		%	35
			Total Cobalt (Co)	2013/08/04	NC		%	35
			Total Copper (Cu)	2013/08/04	NC		%	35
			Total Lead (Pb)	2013/08/04	NC		%	35
			Total Mercury (Hg)	2013/08/04	NC		%	35
			Total Molybdenum (Mo)	2013/08/04	NC		%	35
			Total Nickel (Ni)	2013/08/04	21.7		%	35
			Total Selenium (Se)	2013/08/04	NC		%	35
			Total Silver (Ag)	2013/08/04	NC		%	35
			Total Thallium (Tl)	2013/08/04	NC		%	35
			Total Tin (Sn)	2013/08/04	NC		%	35
			Total Uranium (U)	2013/08/04	NC		%	35
			Total Vanadium (V)	2013/08/04	19.4		%	35
			Total Zinc (Zn)	2013/08/04	NC		%	35
7047736	JHC	Matrix Spike	Soluble Calcium (Ca)	2013/08/04		98	%	75 - 125
			Soluble Magnesium (Mg)	2013/08/04		99	%	75 - 125
			Soluble Sodium (Na)	2013/08/04		96	%	75 - 125
			Soluble Potassium (K)	2013/08/04		100	%	75 - 125
		QC Standard	Soluble Calcium (Ca)	2013/08/04		114	%	75 - 125
			Soluble Magnesium (Mg)	2013/08/04		108	%	75 - 125
			Soluble Sodium (Na)	2013/08/04		103	%	75 - 125
			Soluble Potassium (K)	2013/08/04		111	%	75 - 125
			Soluble Sulphate (SO4)	2013/08/04		112	%	78 - 122
		Spiked Blank	Soluble Calcium (Ca)	2013/08/04		101	%	75 - 125
			Soluble Magnesium (Mg)	2013/08/04		101	%	75 - 125
			Soluble Sodium (Na)	2013/08/04		99	%	75 - 125
			Soluble Potassium (K)	2013/08/04		100	%	75 - 125
		Method Blank	Soluble Calcium (Ca)	2013/08/04	<1.5		mg/L	
			Soluble Magnesium (Mg)	2013/08/04	<1.0		mg/L	
			Soluble Sodium (Na)	2013/08/04	<2.5		mg/L	
			Soluble Potassium (K)	2013/08/04	<1.3		mg/L	
			Soluble Sulphate (SO4)	2013/08/04	<5.0		mg/L	
		RPD	Soluble Calcium (Ca)	2013/08/04	0.1		%	35
			Soluble Magnesium (Mg)	2013/08/04	0.6		%	35
			Soluble Sodium (Na)	2013/08/04	0.8		%	35
			Soluble Potassium (K)	2013/08/04	0.5		%	35
			Soluble Sulphate (SO4)	2013/08/04	0.4		%	35
7047919	JHC	Matrix Spike	Soluble (Hot water) Boron (B)	2013/08/04		101	%	75 - 125
		Spiked Blank	Soluble (Hot water) Boron (B)	2013/08/04		101	%	75 - 125
		Method Blank	Soluble (Hot water) Boron (B)	2013/08/04	<0.10		mg/kg	
		RPD	Soluble (Hot water) Boron (B)	2013/08/04	NC		%	35
7047942	JHC	Matrix Spike [HB9860-01]	Soluble (Hot water) Boron (B)	2013/08/04		106	%	75 - 125
		Spiked Blank	Soluble (Hot water) Boron (B)	2013/08/04		103	%	75 - 125
		Method Blank	Soluble (Hot water) Boron (B)	2013/08/04	<0.10		mg/kg	
		RPD [HB9860-01]	Soluble (Hot water) Boron (B)	2013/08/04	NC		%	35
7048885	MA4	QC Standard	Soluble (CaCl2) pH	2013/08/06		102	%	97 - 103

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: CAMP FAREWELL
P.O. #: A04012A05
Site Location:

Quality Assurance Report (Continued)

Maxxam Job Number: EB367026

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7048885	MA4	Spiked Blank	Soluble (CaCl2) pH	2013/08/06		100	%	97 - 103
		RPD	Soluble (CaCl2) pH	2013/08/06	0.1		%	5
7049152	MA4	QC Standard	Soluble (CaCl2) pH	2013/08/06		100	%	97 - 103
		Spiked Blank	Soluble (CaCl2) pH	2013/08/06		100	%	97 - 103
		RPD [HB9861-01]	Soluble (CaCl2) pH	2013/08/06	0.7		%	5
7049222	KD5	Matrix Spike	Hex. Chromium (Cr 6+)	2013/08/06		66 (1)	%	75 - 125
		Spiked Blank	Hex. Chromium (Cr 6+)	2013/08/06		102	%	90 - 110
		Method Blank	Hex. Chromium (Cr 6+)	2013/08/06	<0.15		mg/kg	
		RPD	Hex. Chromium (Cr 6+)	2013/08/06	NC		%	35
7049269	KD5	Matrix Spike [HB9875-01]	Hex. Chromium (Cr 6+)	2013/08/06		100	%	75 - 125
		Spiked Blank	Hex. Chromium (Cr 6+)	2013/08/06		103	%	90 - 110
		Method Blank	Hex. Chromium (Cr 6+)	2013/08/06	<0.15		mg/kg	
		RPD [HB9875-01]	Hex. Chromium (Cr 6+)	2013/08/06	NC		%	35
7051837	JSM	Matrix Spike [HB9879-01]	Soluble Calcium (Ca)	2013/08/06		96	%	75 - 125
			Soluble Magnesium (Mg)	2013/08/06		103	%	75 - 125
			Soluble Sodium (Na)	2013/08/06		98	%	75 - 125
			Soluble Potassium (K)	2013/08/06		102	%	75 - 125
		QC Standard	Soluble Calcium (Ca)	2013/08/06		112	%	75 - 125
			Soluble Magnesium (Mg)	2013/08/06		112	%	75 - 125
			Soluble Sodium (Na)	2013/08/06		105	%	75 - 125
			Soluble Potassium (K)	2013/08/06		117	%	75 - 125
			Soluble Sulphate (SO4)	2013/08/06		111	%	78 - 122
		Spiked Blank	Soluble Calcium (Ca)	2013/08/06		102	%	75 - 125
			Soluble Magnesium (Mg)	2013/08/06		108	%	75 - 125
			Soluble Sodium (Na)	2013/08/06		103	%	75 - 125
			Soluble Potassium (K)	2013/08/06		106	%	75 - 125
		Method Blank	Soluble Calcium (Ca)	2013/08/06	<1.5		mg/L	
			Soluble Magnesium (Mg)	2013/08/06	<1.0		mg/L	
			Soluble Sodium (Na)	2013/08/06	<2.5		mg/L	
			Soluble Potassium (K)	2013/08/06	<1.3		mg/L	
			Soluble Sulphate (SO4)	2013/08/06	<5.0		mg/L	
		RPD [HB9879-01]	Soluble Calcium (Ca)	2013/08/06	16.8		%	35
			Soluble Magnesium (Mg)	2013/08/06	16.5		%	35
			Soluble Sodium (Na)	2013/08/06	NC		%	35
			Soluble Potassium (K)	2013/08/06	NC		%	35
			Soluble Sulphate (SO4)	2013/08/06	5.5		%	35

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 spiked amount was not sufficiently significant to permit a reliable recovery calculation.
NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.
(1) Matrix Spike exceeds acceptance limits for Hexavalent Chromium, due to matrix interference. Reanalysis yields similar results.

Validation Signature Page

Maxxam Job #: B367026

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

Allen Nagayi, Analyst II

Stephanie Gilbert, Senior Analyst

Poonam Sharma, Senior Analyst, Organics Department

Annie Dang, B.Sc., Supervisor, Inorganic

Carol Gebhart, Senior Analyst

==========

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.

Maxxam

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www.maxxamanalytics.com

08/09/13

Chain of Custody A134518

Page: 1 of 3

	Invoice To: C/O Report Address ☐	Report To: Same as Invoice ☒	Report Distribution (E-Mail):
Company:	Nicole Wills		nwills@klohn.com
Contact:	EG Consultants Ltd.		jcollins@klohn.com
Address:	2618 Hopewell Place NE		
	Prov: Calgary, AB PC: T2E 7J7	Prov: PC:	
Contact #s:	Ph: 403.829.3048 Cell:	Ph: Cell:	

REGULATORY GUIDELINES:
- ☐ AT1
- ☐ CCME
- ☐ Regulated Drinking Water
- ☐ Other:

All samples are held for 60 calendar days after sample receipt, unless specified otherwise.

PO #: AU4012A05
Project # / Name: Camp Farewell
Site Location:
Quote #:
Sampled By: Nicole Wills / Bryan Gendreau

SERVICE REQUESTED: ☒ RUSH (Contact lab to reserve) Date Required: ☐ REGULAR (5 to 7 Days)

See reverse for package specifics

	Sample ID	Depth (unit)	Matrix GW / SW Soil	Date/Time Sampled YY/MM/DD 24:00	SOIL: BTEX F1-F4	Sieve (75 micron)	Regulated Metals (CCME / AT1)	Salinity 4	Assessment ICP Metals	Basic Class II Landfill	PAH	Barite	WATER: ☐VOCs ☐BTEX F1	☐BTEX F1-F4 ☐BTEX F2	☐Routine Water ☐Turb ☐F	☐DOC ☐TOC	Regulated Metals (CCME / AT1): Total	Dissolved	☐Total ☐Dissolved Mercury	Other Analysis	HOLD - Do not Analyze	# of Containers Submitted
1	Ex-13-AB (7m)	7m	Soil	13/07/28	X						X	X										
2	Ex-13-BB (7m)	7m			X																	
3	Ex-13-CB (7m)	7m			X																	
4	Ex-13-FB (7m)	7m			X																	
5	Ex-13-GB (7m)	7m			X																	
6	Ex-13-HB (7m)	7m			X																	
7	Ex-13-IB (7m)	7m			X																	
8	Ex-13-KB (7m)	7m			X																	
9	Ex-13-AS (1m)	1m			X																	
10	Ex-13-AS (4m)	4m			X																	
11	Ex-13-LE (2m)	2m			XXXXXXX																	
12	Ex-13-LE (6m)	6m	↓	↓	X						X	X								Clay		

Please indicate Filtered, Preserved or Both (F, P, F/P) →

F/P

Relinquished By (Signature/Print):	Date (YY/MM/DD):	Time (24:00):
Bryan Gendreau	13/07/31	19:40
Relinquished By (Signature/Print):	Date (YY/MM/DD):	Time (24:00):
Special Instructions:	# of Jars Used & Not Submitted	

LAB USE ONLY

Received By:	Date:	Time:	Maxxam Job #: B361026
Jenna Walter	20130802	1010	
Lab Comments:	Custody Seal	Temperature	Ice
	absent	6,6,6 / 7,6,4	present with ice

12,12,9 (Bags)

Maxxam

Calgary: 4000 19st St. NE, T2E 6P8, Ph: (403) 291-3077, Fax: (403) 735-2240, Toll free: (800) 386-7247
Edmonton: 9331 - 48 Street, T6B 2R4, Ph: (780) 577-7100, Fax: (780) 450-4187, Toll free: (877) 465-8889
www.maxxamanalytics.com

Chain of Custody A134519

Page: 2 of 3

Invoice To:	C/O Report Address ☐
Company:	Nicole Wills
Contact:	IEG Consultants Ltd.
Address:	2618 Hopewell Place NE
Prov:	Calgary, AB PC: T1Y 7J7
Contact #s:	Ph: 403.829.3048 Cell:

Report To: Same as Invoice ☒

Prov: PC:
Ph: Cell:

Report Distribution (E-Mail):
nwills@klohn.com
jcollins@klohn.com

REGULATORY GUIDELINES:
☐ AT1
☐ CCME
☐ Regulated Drinking Water
☐ Other:

All samples are held for 60 calendar days after sample receipt, unless specified otherwise.

PO #:
Project # / Name: A04012A05
Site Location: Camp Farewell
Quote #:
Sampled By: Nicole Wills / Bryan Gendreau

SERVICE REQUESTED: ☒ RUSH (Contact lab to reserve) Date Required: ☐ REGULAR (5 to 7 Days)

See reverse for package specifics

SOIL: BTEX F1-F4 | Sieve (75 micron) | Regulated Metals (CCME / AT1) | Salinity 4 | Assessment ICP Metals | Basic Class II Landfill

WATER: ☐VOCs ☐BTEX F1 | ☐BTEX F1-F4 ☐BTEX F1-F2 | ☐ Routine Water ☐ Turb ☐ F | ☐ DOC ☐ TOC | Regulated Metals (CCME / AT1) Total / Dissolved | ☐ Total ☐ Dissolved Mercury

Other Analysis

HOLD - Do not Analyze | # of Containers Submitted

#	Sample ID	Depth (unit)	Matrix GW / SW Soil	Date/Time Sampled YY/MM/DD 24:00	BTEX F1-F4	Sieve (75 micron)	Regulated Metals (CCME / AT1)	Salinity 4	HOLD - Do not Analyze	# of Containers Submitted
1	Ex-13-KE (2m)	2m	Soil	13/07/28	X	X	X	X		
2	Ex-13-JE (1m)	1m	↓	↓	X		X	X		
3	Ex-13-JE (7m)	7m	↓	↓	X		X	X		
4	Ex-13-IE (3m)	3m	↓	↓	[scribbled out]		[scribbled out]	[scribbled out]	X	
5	Ex-13-IE (6m)	6m	↓	↓	X		X	X		
6	TP21	0-1m	↓	13/07/29	X		X	X		
7	TP22	↓	↓	↓	X		X	X		
8	TP 23	↓	↓	↓	X		X	X		
9	TP 24	↓	↓	↓	X		X	X		
10	TP 25	↓	↓	↓	X		X	X		
11	TP 26	↓	↓	↓	X		X	X		
12	TP 27	Comp.	↓	↓	X		X	X		

Please indicate Filtered, Preserved or Both (F, P, F/P) → F/P

CKU/MMP

Relinquished By (Signature/Print):	Date (YY/MM/DD):	Time (24:00):
Bryan B	13/07/31	19:40
Relinquished By (Signature/Print):	Date (YY/MM/DD):	Time (24:00):

Special Instructions:

# of Jars Used & Not Submitted

LAB USE ONLY

Received By: Jenna Lib Her / Jenna Witt Date: 20130802 Time: 1010

Maxxam Job #: B367026

Custody Seal	Temperature	Ice
absent	6,6,6 / 7,6,4 / 12,12,9(B)	Present with jars

Lab Comments:

AB FCD-00331 Rev3 2010/05

Maxxam Analytics International Corporation o/a Maxxam Analytics

Maxxam

Calgary: 4000 19st St. NE, T2E 6P8, Ph: (403) 291-3077, Fax: (403) 735-2240, Toll free: (800) 386-7247
Edmonton: 9331 - 48 Street, T6B 2R4, Ph: (780) 577-7100, Fax: (780) 450-4187, Toll free: (877) 465-8889
www.maxxamanalytics.com

Chain of Custody A134520

Page: 3 of 3

	Invoice To:	C/O Report Address ☐
Company:	See page 1	
Contact:		
Address:		
	Prov:	PC:
Contact #s:	Ph:	Cell:

Report To:	Same as Invoice ☒
Prov:	PC:
Ph:	Cell:

Report Distribution (E-Mail):
nwills@klohn.com
jcollins@klohn.com

REGULATORY GUIDELINES:
- ☐ AT1
- ☐ CCME
- ☐ Regulated Drinking Water
- ☐ Other:

All samples are held for 60 calendar days after sample receipt, unless specified otherwise.

PO #:	See page 1
Project # / Name:	
Site Location:	
Quote #:	
Sampled By:	

SERVICE REQUESTED: ☒ RUSH (Contact lab to reserve) Date Required: ☐ REGULAR (5 to 7 Days)

See reverse for package specifics

	Sample ID	Depth (unit)	Matrix GW / SW Soil	Date/Time Sampled YY/MM/DD 24:00	SOIL: BTEX F1-F4	Sieve (75 micron)	Regulated Metals (CCME / AT1)	Salinity 4	Assessment ICP Metals	Basic Class II Landfill	WATER: ☐VOCs ☐BTEX F1	☐BTEX F1-F4 ☐BTEX F2	☐ Routine Water ☐ Turb ☐ F	☐ DOC ☐ TOC	Regulated Metals (CCME / AT1): Total	Dissolved	Mercury ☐ Total ☐ Dissolved	Other Analysis	HOLD - Do not Analyze	# of Containers Submitted
1	TP 28	Comp.	Soil	13/07/29	X		X	X												
2	EX-13-CW (2m)	2m	↓	↓	X		X	X												
3	EX-13-DW (1m)	1m	↓	↓	X		X	X												
4	EX-13-LB (7.5m)	7.5m	Soil	13/07/31	X		X	X												
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				

OK 1 MM

Please indicate Filtered, Preserved or Both (F, P, F/P) → F/P

Relinquished By (Signature/Print):	Date (YY/MM/DD): 13/07/31	Time (24:00): 19:40
Relinquished By (Signature/Print):	Date (YY/MM/DD):	Time (24:00):

Special Instructions: | # of Jars Used & Not Submitted:

LAB USE ONLY

Received By: Jenna Walter	Date: 20130802	Time: 1010
Lab Comments:		

Maxxam Job #: R367026		
Custody Seal	Temperature	Ice
absent	6,6,6 7,6,4	present with jars

12,12,9(B)

Maxxam

Your P.O. #: A04012A05
Your Project #: CAMP FAREWELL
Your C.O.C. #: A134518, A134519, A134520

Attention: NICOLE WILLS

KLOHN CRIPPEN BERGER LTD
500-2618
HOPEWELL PLACE NE
CALGARY, AB
CANADA T1Y 7J7

Report Date: 2013/08/07

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B367026
Received: 2013/08/02, 10:10

Sample Matrix: Soil
Samples Received: 26

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Extractable Barium	1	2013/08/06	2013/08/07	AB SOP-00042	EPA 200.7
Boron (Hot Water Soluble)	26	2013/08/04	2013/08/04	AB SOP-00042	EPA 200.7
BTEX/F1 by HS GC/MS (MeOH extract)	20	2013/08/02	2013/08/02	AB SOP-00039	CCME, EPA 8260
BTEX/F1 by HS GC/MS (MeOH extract)	6	2013/08/02	2013/08/03	AB SOP-00039	CCME, EPA 8260
Cation/EC Ratio	13	N/A	2013/08/04		CALCULATION
Cation/EC Ratio	13	N/A	2013/08/06		CALCULATION
Chloride (Soluble)	26	2013/08/03	2013/08/04	AB SOP-00020	SSMA 4500 CL-E
Hexavalent Chromium	26	2013/08/02	2013/08/06	EENVSOP-00131	SM 3500-Cr B
Conductivity @25C (Soluble)	13	2013/08/03	2013/08/03	AB SOP-00004	SSMA 15.3
Conductivity @25C (Soluble)	13	2013/08/03	2013/08/04	AB SOP-00004	SSMA 15.3
CCME Hydrocarbons (F2-F4 in soil)	26	2013/08/02	2013/08/03	AB SOP-00040 AB SOP-00036	CCME PHC-CWS
Elements by ICPMS - Soils	26	2013/08/04	2013/08/04	AB SOP-00043	EPA 200.8
Ion Balance	13	N/A	2013/08/04	AB WI-00065	SM 1030E
Ion Balance	13	N/A	2013/08/06	AB WI-00065	SM 1030E
Sum of Cations, Anions	13	N/A	2013/08/04	AB WI-00065	SM 1030E
Sum of Cations, Anions	13	N/A	2013/08/06	AB WI-00065	SM 1030E
Moisture	26	N/A	2013/08/03	AB SOP-00002	CCME PHC-CWS
Benzo[a]pyrene Equivalency	1	N/A	2013/08/07	AB SOP-00003	EPA 8270D
PAH in Soil by GC/MS	1	2013/08/02	2013/08/07	AB SOP-00003 AB SOP-00036	EPA 3540C/8270D
pH @25C (1:2 Calcium Chloride Extract)	26	2013/08/06	2013/08/06	AB SOP-00006	SSMA 16.3
Particle Size by Sieve (75 micron)	4	N/A	2013/08/06	EENVSOP-00077	SSMA 55.4
Sodium Adsorption Ratio	13	N/A	2013/08/04	AB WI-00065	SSMA 15.4.4
Sodium Adsorption Ratio	13	N/A	2013/08/06	AB WI-00065	SSMA 15.4.4
Ca,Mg,Na,K,SO4 (Soluble)	13	2013/08/04	2013/08/04	AB SOP-00042	EPA 200.7
Ca,Mg,Na,K,SO4 (Soluble)	13	2013/08/06	2013/08/06	AB SOP-00042	EPA 200.7
Soluble Paste	26	2013/08/03	2013/08/03	AB SOP-00033	SSMA 15.2
Soluble Ions Calculation	26	N/A	2013/08/03		CALCULATION
Theoretical Gypsum Requirement (1)	13	N/A	2013/08/04	CAL WI-00087	CJSS 79:449-455
Theoretical Gypsum Requirement (1)	13	N/A	2013/08/06	CAL WI-00087	CJSS 79:449-455

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

(1) Units for TGR have changed from tons/acre to tonnes/ha

Your P.O. #: A04012A05
Your Project #: CAMP FAREWELL
Your C.O.C. #: A134518, A134519, A134520

Attention: NICOLE WILLS

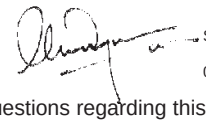
KLOHN CRIPPEN BERGER LTD
500-2618
HOPEWELL PLACE NE
CALGARY, AB
CANADA T1Y 7J7

Report Date: 2013/08/07

CERTIFICATE OF ANALYSIS

-2-

Encryption Key



Sherlyne Sim
07 Aug 2013 17:08:49 -06:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Tanya Eugine, M.Sc., Project Manager
Email: TEugine@maxxam.ca
Phone# (780) 577-7144

==========

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.

Total cover pages: 2

Maxxam Job #: B367026
Report Date: 2013/08/07

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: NW

AT1 BTEX AND F1-F4 IN SOIL (SOIL)

Maxxam ID		HB9854	HB9854	HB9855	HB9856	HB9857		
Sampling Date		2013/07/28	2013/07/28	2013/07/28	2013/07/28	2013/07/28		
COC Number		A134518	A134518	A134518	A134518	A134518		
	UNITS	**EX-13-AB (7M)**	**EX-13-AB (7M) Lab-Dup**	**EX-13-BB (7M)**	**EX-13-CB (7M)**	**EX-13-FB (7M)**	**RDL**	**QC Batch**
Physical Properties								
Moisture	%	16	17	22	19	18	0.30	7046962
Ext. Pet. Hydrocarbon								
F2 (C10-C16 Hydrocarbons)	mg/kg	<10	<10	<10	<10	110	10	7046204
F3 (C16-C34 Hydrocarbons)	mg/kg	<50	<50	<50	<50	120	50	7046204
F4 (C34-C50 Hydrocarbons)	mg/kg	<50	<50	<50	<50	<50	50	7046204
Reached Baseline at C50	mg/kg	Yes	Yes	Yes	Yes	Yes	N/A	7046204
Volatiles								
Benzene	mg/kg	<0.0050	N/A	0.021	<0.0050	<0.0050	0.0050	7043191
Toluene	mg/kg	<0.020	N/A	<0.020	<0.020	0.038	0.020	7043191
Ethylbenzene	mg/kg	<0.010	N/A	<0.010	0.014	0.078	0.010	7043191
Xylenes (Total)	mg/kg	<0.040	N/A	<0.040	<0.040	0.80	0.040	7043191
m & p-Xylene	mg/kg	<0.040	N/A	<0.040	<0.040	0.44	0.040	7043191
o-Xylene	mg/kg	<0.020	N/A	<0.020	<0.020	0.36	0.020	7043191
F1 (C6-C10) - BTEX	mg/kg	<12	N/A	<12	<12	41	12	7043191
(C6-C10)	mg/kg	<12	N/A	<12	<12	42	12	7043191
Surrogate Recovery (%)								
1,4-Difluorobenzene (sur.)	%	105	N/A	111	110	107	N/A	7043191
4-BROMOFLUOROBENZENE (sur.)	%	94	N/A	94	96	99	N/A	7043191
D10-ETHYLBENZENE (sur.)	%	114	N/A	122	117	119	N/A	7043191
D4-1,2-DICHLOROETHANE (sur.)	%	91	N/A	91	94	93	N/A	7043191
O-TERPHENYL (sur.)	%	123	102	101	100	100	N/A	7046204

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Job #: B367026
Report Date: 2013/08/07

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: NW

AT1 BTEX AND F1-F4 IN SOIL (SOIL)

Maxxam ID		HB9858		HB9859		HB9860	HB9861		
Sampling Date		2013/07/28		2013/07/28		2013/07/28	2013/07/28		
COC Number		A134518		A134518		A134518	A134518		
	UNITS	**EX-13-GB (7M)**	**QC Batch**	**EX-13-HB (7M)**	**QC Batch**	**EX-13-IB (7M)**	**EX-13-KB (7M)**	**RDL**	**QC Batch**
Physical Properties									
Moisture	%	20	7046962	17	7046962	17	20	0.30	7046962
Ext. Pet. Hydrocarbon									
F2 (C10-C16 Hydrocarbons)	mg/kg	<10	7046204	<10	7046204	<10	<10	10	7046183
F3 (C16-C34 Hydrocarbons)	mg/kg	<50	7046204	<50	7046204	<50	<50	50	7046183
F4 (C34-C50 Hydrocarbons)	mg/kg	<50	7046204	<50	7046204	<50	<50	50	7046183
Reached Baseline at C50	mg/kg	Yes	7046204	Yes	7046204	Yes	Yes	N/A	7046183
Volatiles									
Benzene	mg/kg	0.013	7043191	0.093	7042465	0.12	0.0072	0.0050	7046331
Toluene	mg/kg	<0.020	7043191	0.027	7042465	<0.020	<0.020	0.020	7046331
Ethylbenzene	mg/kg	<0.010	7043191	0.016	7042465	<0.010	<0.010	0.010	7046331
Xylenes (Total)	mg/kg	<0.040	7043191	0.071	7042465	<0.040	<0.040	0.040	7046331
m & p-Xylene	mg/kg	<0.040	7043191	0.071	7042465	<0.040	<0.040	0.040	7046331
o-Xylene	mg/kg	<0.020	7043191	<0.020	7042465	<0.020	<0.020	0.020	7046331
F1 (C6-C10) - BTEX	mg/kg	<12	7043191	<12	7042465	<12	<12	12	7046331
(C6-C10)	mg/kg	<12	7043191	<12	7042465	<12	<12	12	7046331
Surrogate Recovery (%)									
1,4-Difluorobenzene (sur.)	%	108	7043191	105	7042465	107	112	N/A	7046331
4-BROMOFLUOROBENZENE (sur.)	%	96	7043191	96	7042465	99	101	N/A	7046331
D10-ETHYLBENZENE (sur.)	%	115	7043191	111	7042465	108	109	N/A	7046331
D4-1,2-DICHLOROETHANE (sur.)	%	95	7043191	92	7042465	108	111	N/A	7046331
O-TERPHENYL (sur.)	%	102	7046204	99	7046204	108	112	N/A	7046183

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Job #: B367026
Report Date: 2013/08/07

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: NW

AT1 BTEX AND F1-F4 IN SOIL (SOIL)

Maxxam ID		HB9862		HB9863	HB9865	HB9866	HB9867		
Sampling Date		2013/07/28		2013/07/28	2013/07/28	2013/07/28	2013/07/28		
COC Number		A134518		A134518	A134518	A134519	A134519		
	UNITS	**EX-13-AS (1M)**	**RDL**	**EX-13-AS (4M)**	**EX-13-LE (6M)**	**EX-13-KE (2M)**	**EX-13-JE (1M)**	**RDL**	**QC Batch**
Physical Properties									
Moisture	%	54	0.30	8.4	9.9	3.2	5.8	0.30	7046962
Ext. Pet. Hydrocarbon									
F2 (C10-C16 Hydrocarbons)	mg/kg	<22 (1)	22	63	580	14	120	10	7046183
F3 (C16-C34 Hydrocarbons)	mg/kg	930 (1)	110	<50	150	130	180	50	7046183
F4 (C34-C50 Hydrocarbons)	mg/kg	190 (1)	110	<50	<50	<50	<50	50	7046183
Reached Baseline at C50	mg/kg	Yes	N/A	Yes	Yes	Yes	Yes	N/A	7046183
Volatiles									
Benzene	mg/kg	<0.011 (1)	0.011	<0.0050	0.0099	<0.0050	<0.0050	0.0050	7046331
Toluene	mg/kg	<0.044 (1)	0.044	<0.020	<0.020	<0.020	<0.020	0.020	7046331
Ethylbenzene	mg/kg	<0.022 (1)	0.022	0.011	0.044	<0.010	<0.010	0.010	7046331
Xylenes (Total)	mg/kg	<0.087 (1)	0.087	<0.040	1.3	<0.040	<0.040	0.040	7046331
m & p-Xylene	mg/kg	<0.087 (1)	0.087	<0.040	0.33	<0.040	<0.040	0.040	7046331
o-Xylene	mg/kg	<0.044 (1)	0.044	<0.020	0.93	<0.020	<0.020	0.020	7046331
F1 (C6-C10) - BTEX	mg/kg	<26 (1)	26	<12	94	<12	<12	12	7046331
(C6-C10)	mg/kg	<26 (1)	26	<12	95	<12	<12	12	7046331
Surrogate Recovery (%)									
1,4-Difluorobenzene (sur.)	%	129	N/A	104	104	100	104	N/A	7046331
4-BROMOFLUOROBENZENE (sur.)	%	99	N/A	101	98	101	100	N/A	7046331
D10-ETHYLBENZENE (sur.)	%	108	N/A	111	116	110	110	N/A	7046331
D4-1,2-DICHLOROETHANE (sur.)	%	113	N/A	114	107	109	110	N/A	7046331
O-TERPHENYL (sur.)	%	105	N/A	112	109	109	105	N/A	7046183

N/A = Not Applicable
RDL = Reportable Detection Limit
(1) Detection limits raised due to high moisture content.

Maxxam Job #: B367026
Report Date: 2013/08/07

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: NW

AT1 BTEX AND F1-F4 IN SOIL (SOIL)

Maxxam ID		HB9868	HB9868	HB9870	HB9871	HB9872		
Sampling Date		2013/07/28	2013/07/28	2013/07/28	2013/07/29	2013/07/29		
COC Number		A134519	A134519	A134519	A134519	A134519		
	UNITS	**EX-13-JE (7M)**	**EX-13-JE (7M) Lab-Dup**	**EX-13-1E (6M)**	**TP21**	**TP22**	**RDL**	**QC Batch**
Physical Properties								
Moisture	%	16	15	18	5.3	4.4	0.30	7046956
Ext. Pet. Hydrocarbon								
F2 (C10-C16 Hydrocarbons)	mg/kg	<10	<10	380	<10	<10	10	7046183
F3 (C16-C34 Hydrocarbons)	mg/kg	<50	<50	410	<50	<50	50	7046183
F4 (C34-C50 Hydrocarbons)	mg/kg	<50	<50	140	<50	<50	50	7046183
Reached Baseline at C50	mg/kg	Yes	Yes	Yes	Yes	Yes	N/A	7046183
Volatiles								
Benzene	mg/kg	0.036	0.040	0.043	<0.0050	<0.0050	0.0050	7046331
Toluene	mg/kg	<0.020	<0.020	0.12	<0.020	<0.020	0.020	7046331
Ethylbenzene	mg/kg	<0.010	<0.010	0.47	<0.010	<0.010	0.010	7046331
Xylenes (Total)	mg/kg	<0.040	<0.040	3.9	<0.040	<0.040	0.040	7046331
m & p-Xylene	mg/kg	<0.040	<0.040	2.2	<0.040	<0.040	0.040	7046331
o-Xylene	mg/kg	0.027	<0.020	1.7	<0.020	<0.020	0.020	7046331
F1 (C6-C10) - BTEX	mg/kg	<12	<12	96	<12	<12	12	7046331
(C6-C10)	mg/kg	<12	<12	100	<12	<12	12	7046331
Surrogate Recovery (%)								
1,4-Difluorobenzene (sur.)	%	107	107	105	102	101	N/A	7046331
4-BROMOFLUOROBENZENE (sur.)	%	100	100	99	99	99	N/A	7046331
D10-ETHYLBENZENE (sur.)	%	106	109	108	111	106	N/A	7046331
D4-1,2-DICHLOROETHANE (sur.)	%	109	109	108	108	108	N/A	7046331
O-TERPHENYL (sur.)	%	119	120	110	125	111	N/A	7046183

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Job #: B367026
Report Date: 2013/08/07

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: NW

AT1 BTEX AND F1-F4 IN SOIL (SOIL)

Maxxam ID		HB9873	HB9874	HB9875	HB9876	HB9877		
Sampling Date		2013/07/29	2013/07/29	2013/07/29	2013/07/29	2013/07/29		
COC Number		A134519	A134519	A134519	A134519	A134519		
	UNITS	**TP23**	**TP24**	**TP25**	**TP26**	**TP27**	**RDL**	**QC Batch**
Physical Properties								
Moisture	%	5.6	5.0	5.7	7.1	5.7	0.30	7046956
Ext. Pet. Hydrocarbon								
F2 (C10-C16 Hydrocarbons)	mg/kg	<10	<10	<10	<10	14	10	7046183
F3 (C16-C34 Hydrocarbons)	mg/kg	<50	<50	<50	<50	66	50	7046183
F4 (C34-C50 Hydrocarbons)	mg/kg	<50	<50	<50	<50	<50	50	7046183
Reached Baseline at C50	mg/kg	Yes	Yes	Yes	Yes	Yes	N/A	7046183
Volatiles								
Benzene	mg/kg	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	7046331
Toluene	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	7046331
Ethylbenzene	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	7046331
Xylenes (Total)	mg/kg	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	7046331
m & p-Xylene	mg/kg	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	7046331
o-Xylene	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	7046331
F1 (C6-C10) - BTEX	mg/kg	<12	<12	<12	<12	<12	12	7046331
(C6-C10)	mg/kg	<12	<12	<12	<12	<12	12	7046331
Surrogate Recovery (%)								
1,4-Difluorobenzene (sur.)	%	102	102	105	104	103	N/A	7046331
4-BROMOFLUOROBENZENE (sur.)	%	98	99	98	98	100	N/A	7046331
D10-ETHYLBENZENE (sur.)	%	108	108	125	116	114	N/A	7046331
D4-1,2-DICHLOROETHANE (sur.)	%	107	110	111	111	109	N/A	7046331
O-TERPHENYL (sur.)	%	111	112	107	97	108	N/A	7046183

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Job #: B367026
Report Date: 2013/08/07

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: NW

AT1 BTEX AND F1-F4 IN SOIL (SOIL)

Maxxam ID		HB9878	HB9879	HB9880	HB9881		
Sampling Date		2013/07/29	2013/07/29	2013/07/29	2013/07/31		
COC Number		A134520	A134520	A134520	A134520		
	UNITS	**TP 28**	**EX-13-CW (2M)**	**EX-13-DW (1M)**	**EX-13-LB (7.5M)**	**RDL**	**QC Batch**
Physical Properties							
Moisture	%	5.9	21	10	18	0.30	7046956
Ext. Pet. Hydrocarbon							
F2 (C10-C16 Hydrocarbons)	mg/kg	19	<10	<10	<10	10	7046183
F3 (C16-C34 Hydrocarbons)	mg/kg	58	74	<50	<50	50	7046183
F4 (C34-C50 Hydrocarbons)	mg/kg	<50	<50	<50	<50	50	7046183
Reached Baseline at C50	mg/kg	Yes	Yes	Yes	Yes	N/A	7046183
Volatiles							
Benzene	mg/kg	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	7046331
Toluene	mg/kg	<0.020	<0.020	<0.020	<0.020	0.020	7046331
Ethylbenzene	mg/kg	<0.010	<0.010	<0.010	0.015	0.010	7046331
Xylenes (Total)	mg/kg	<0.040	<0.040	<0.040	<0.040	0.040	7046331
m & p-Xylene	mg/kg	<0.040	<0.040	<0.040	<0.040	0.040	7046331
o-Xylene	mg/kg	<0.020	<0.020	<0.020	<0.020	0.020	7046331
F1 (C6-C10) - BTEX	mg/kg	<12	<12	<12	<12	12	7046331
(C6-C10)	mg/kg	<12	<12	<12	<12	12	7046331
Surrogate Recovery (%)							
1,4-Difluorobenzene (sur.)	%	104	110	105	109	N/A	7046331
4-BROMOFLUOROBENZENE (sur.)	%	98	100	96	100	N/A	7046331
D10-ETHYLBENZENE (sur.)	%	114	114	115	116	N/A	7046331
D4-1,2-DICHLOROETHANE (sur.)	%	113	111	110	112	N/A	7046331
O-TERPHENYL (sur.)	%	99	94	98	110	N/A	7046183

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Job #: B367026
Report Date: 2013/08/07

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: NW

SOIL SALINITY 4 (SOIL)

Maxxam ID		HB9854		HB9855		HB9856		
Sampling Date		2013/07/28		2013/07/28		2013/07/28		
COC Number		A134518		A134518		A134518		
	UNITS	**EX-13-AB (7M)**	**RDL**	**EX-13-BB (7M)**	**RDL**	**EX-13-CB (7M)**	**RDL**	**QC Batch**
Calculated Parameters								
Anion Sum	meq/L	10	N/A	30	N/A	22	N/A	7043756
Cation Sum	meq/L	12	N/A	32	N/A	23	N/A	7043756
Cation/EC Ratio	N/A	9.5	0.10	8.9	0.10	9.1	0.10	7043753
Ion Balance	N/A	1.1	0.010	1.1	0.010	1.1	0.010	7043755
Calculated Calcium (Ca)	mg/kg	8.2	0.49	17	0.42	23	0.46	7045421
Calculated Magnesium (Mg)	mg/kg	3.8	0.33	5.3	0.28	6.1	0.30	7045421
Calculated Sodium (Na)	mg/kg	67	0.82	170	0.71	120	0.76	7045421
Calculated Potassium (K)	mg/kg	7.2	0.43	8.3	0.37	8.7	0.40	7045421
Calculated Chloride (Cl)	mg/kg	67	1.7	240	7.1	190	7.6	7045421
Calculated Sulphate (SO4)	mg/kg	69	1.7	80	1.4	54	1.5	7045421
Soluble Parameters								
Soluble Chloride (Cl)	mg/L	200	5.0	850 (1)	25	640 (1)	25	7047631
Soluble Conductivity	dS/m	1.2	0.020	3.6	0.020	2.6	0.020	7047284
Soluble (CaCl2) pH	N/A	7.37	N/A	7.16	N/A	7.47	N/A	7049152
Sodium Adsorption Ratio	N/A	8.4	0.10	17	0.10	10	0.10	7045420
Soluble Calcium (Ca)	mg/L	25	1.5	61	1.5	77	1.5	7047736
Soluble Magnesium (Mg)	mg/L	12	1.0	19	1.0	20	1.0	7047736
Soluble Sodium (Na)	mg/L	200	2.5	600	2.5	390	2.5	7047736
Soluble Potassium (K)	mg/L	22	1.3	29	1.3	28	1.3	7047736
Saturation %	%	33	N/A	28	N/A	30	N/A	7046375
Soluble Sulphate (SO4)	mg/L	210	5.0	280	5.0	180	5.0	7047736
Theoretical Gypsum Requirement	tonnes/ha	0.42	0.10	3.9	0.10	1.6	0.10	7043760

RDL = Reportable Detection Limit
(1) Detection limits raised due to dilution to bring analyte within the calibrated range.

Maxxam

Maxxam Job #: B367026
Report Date: 2013/08/07

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: NW

SOIL SALINITY 4 (SOIL)

Maxxam ID		HB9857		HB9858		HB9859		HB9860		
Sampling Date		2013/07/28		2013/07/28		2013/07/28		2013/07/28		
COC Number		A134518		A134518		A134518		A134518		
	UNITS	**EX-13-FB (7M)**	**RDL**	**EX-13-GB (7M)**	**RDL**	**EX-13-HB (7M)**	**RDL**	**EX-13-IB (7M)**	**RDL**	**QC Batch**
Calculated Parameters										
Anion Sum	meq/L	14	N/A	23	N/A	16	N/A	6.2	N/A	7045962
Cation Sum	meq/L	14	N/A	26	N/A	19	N/A	6.4	N/A	7045962
Cation/EC Ratio	N/A	9.2	0.10	8.8	0.10	8.6	0.10	8.8	0.10	7045954
Ion Balance	N/A	1.0	0.010	1.1	0.010	1.2	0.010	1.0	0.010	7045961
Calculated Calcium (Ca)	mg/kg	20	0.46	8.3	0.45	6.4	0.48	5.2	0.46	7045421
Calculated Magnesium (Mg)	mg/kg	5.8	0.31	1.8	0.30	3.7	0.32	2.4	0.31	7045421
Calculated Sodium (Na)	mg/kg	65	0.77	150	0.74	120	0.81	24	0.77	7045421
Calculated Potassium (K)	mg/kg	3.7	0.40	28	0.39	16	0.42	20	0.40	7045421
Calculated Chloride (Cl)	mg/kg	120	1.5	210	7.4	170	8.1	19	1.5	7045421
Calculated Sulphate (SO4)	mg/kg	55	1.5	46	1.5	28	1.6	65	1.5	7045421
Soluble Parameters										
Soluble Chloride (Cl)	mg/L	380	5.0	690 (1)	25	520 (1)	25	63	5.0	7047631
Soluble Conductivity	dS/m	1.6	0.020	2.9	0.020	2.2	0.020	0.73	0.020	7047284
Soluble (CaCl2) pH	N/A	7.03	N/A	7.10	N/A	8.09	N/A	7.28	N/A	7049152
Sodium Adsorption Ratio	N/A	5.9	0.10	22	0.10	16	0.10	3.8	0.10	7045420
Soluble Calcium (Ca)	mg/L	66	1.5	28	1.5	20	1.5	17	1.5	7047736
Soluble Magnesium (Mg)	mg/L	19	1.0	5.9	1.0	12	1.0	7.8	1.0	7047736
Soluble Sodium (Na)	mg/L	210	2.5	490	2.5	370	2.5	76	2.5	7047736
Soluble Potassium (K)	mg/L	12	1.3	93	1.3	50	1.3	63	1.3	7047736
Saturation %	%	31	N/A	30	N/A	32	N/A	31	N/A	7046375
Soluble Sulphate (SO4)	mg/L	180	5.0	160	5.0	87	5.0	210	5.0	7047736
Theoretical Gypsum Requirement	tonnes/ha	0.29	0.10	2.7	0.10	1.6	0.10	<0.10	0.10	7045968

RDL = Reportable Detection Limit
(1) Detection limits raised due to dilution to bring analyte within the calibrated range.

Maxxam Job #: B367026
Report Date: 2013/08/07

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: NW

SOIL SALINITY 4 (SOIL)

Maxxam ID		HB9861	HB9861			HB9862		
Sampling Date		2013/07/28	2013/07/28			2013/07/28		
COC Number		A134518	A134518			A134518		
	UNITS	**EX-13-KB (7M)**	**EX-13-KB (7M) Lab-Dup**	**RDL**	**QC Batch**	**EX-13-AS (1M)**	**RDL**	**QC Batch**
Calculated Parameters								
Anion Sum	meq/L	8.1	N/A	N/A	7045962	2.6	N/A	7045962
Cation Sum	meq/L	8.4	N/A	N/A	7045962	3.4	N/A	7045962
Cation/EC Ratio	N/A	9.9	N/A	0.10	7045954	9.8	0.10	7045954
Ion Balance	N/A	1.0	N/A	0.010	7045961	1.3	0.010	7045961
Calculated Calcium (Ca)	mg/kg	19	N/A	0.44	7045421	40	1.8	7045421
Calculated Magnesium (Mg)	mg/kg	5.3	N/A	0.29	7045421	11	1.2	7045421
Calculated Sodium (Na)	mg/kg	22	N/A	0.73	7045421	26	3.0	7045421
Calculated Potassium (K)	mg/kg	3.7	N/A	0.38	7045421	3.2	1.6	7045421
Calculated Chloride (Cl)	mg/kg	21	N/A	1.5	7045421	41	6.0	7045421
Calculated Sulphate (SO4)	mg/kg	84	N/A	1.5	7045421	96	6.0	7045421
Soluble Parameters								
Soluble Chloride (Cl)	mg/L	73	N/A	5.0	7047631	34	5.0	7047707
Soluble Conductivity	dS/m	0.85	N/A	0.020	7047284	0.35	0.020	7047454
Soluble (CaCl2) pH	N/A	7.27	7.32	N/A	7049152	6.09	N/A	7049152
Sodium Adsorption Ratio	N/A	2.1	N/A	0.10	7045420	0.86	0.10	7045420
Soluble Calcium (Ca)	mg/L	65	N/A	1.5	7047736	33	1.5	7051837
Soluble Magnesium (Mg)	mg/L	18	N/A	1.0	7047736	9.3	1.0	7051837
Soluble Sodium (Na)	mg/L	76	N/A	2.5	7047736	22	2.5	7051837
Soluble Potassium (K)	mg/L	13	N/A	1.3	7047736	2.7	1.3	7051837
Saturation %	%	29	N/A	N/A	7046375	120	N/A	7047292
Soluble Sulphate (SO4)	mg/L	290	N/A	5.0	7047736	80	5.0	7051837
Theoretical Gypsum Requirement	tonnes/ha	<0.10	N/A	0.10	7045968	<0.10	0.10	7045968

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Job #: B367026
Report Date: 2013/08/07

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: NW

SOIL SALINITY 4 (SOIL)

Maxxam ID		HB9863		HB9865		HB9866		HB9867		
Sampling Date		2013/07/28		2013/07/28		2013/07/28		2013/07/28		
COC Number		A134518		A134518		A134519		A134519		
	UNITS	**EX-13-AS (4M)**	**RDL**	**EX-13-LE (6M)**	**RDL**	**EX-13-KE (2M)**	**RDL**	**EX-13-JE (1M)**	**RDL**	**QC Batch**
Calculated Parameters										
Anion Sum	meq/L	8.4	N/A	4.1	N/A	0.86	N/A	1.4	N/A	7045962
Cation Sum	meq/L	8.8	N/A	5.6	N/A	2.3	N/A	3.8	N/A	7045962
Cation/EC Ratio	N/A	9.0	0.10	9.2	0.10	11	0.10	13	0.10	7045954
Ion Balance	N/A	1.1	0.010	1.4	0.010	2.7	0.010	2.8	0.010	7045961
Calculated Calcium (Ca)	mg/kg	39	0.45	20	0.45	5.5	0.41	11	0.47	7045421
Calculated Magnesium (Mg)	mg/kg	3.3	0.30	4.3	0.30	1.1	0.27	4.4	0.31	7045421
Calculated Sodium (Na)	mg/kg	6.0	0.74	6.5	0.75	5.7	0.68	5.5	0.79	7045421
Calculated Potassium (K)	mg/kg	4.6	0.39	1.9	0.39	0.46	0.35	2.7	0.41	7045421
Calculated Chloride (Cl)	mg/kg	7.0	1.5	5.0	1.5	3.0	1.4	5.1	1.6	7045421
Calculated Sulphate (SO4)	mg/kg	110	1.5	52	1.5	7.2	1.4	14	1.6	7045421
Soluble Parameters										
Soluble Chloride (Cl)	mg/L	24	5.0	17	5.0	11	5.0	16	5.0	7047631
Soluble Conductivity	dS/m	0.99	0.020	0.61	0.020	0.21	0.020	0.29	0.020	7047284
Soluble (CaCl2) pH	N/A	7.20	N/A	7.26	N/A	7.36	N/A	6.91	N/A	7049152
Sodium Adsorption Ratio	N/A	0.45	0.10	0.62	0.10	1.1	0.10	0.64	0.10	7045420
Soluble Calcium (Ca)	mg/L	130	1.5	67	1.5	20	1.5	34	1.5	7047736
Soluble Magnesium (Mg)	mg/L	11	1.0	14	1.0	4.2	1.0	14	1.0	7047736
Soluble Sodium (Na)	mg/L	20	2.5	21	2.5	21	2.5	17	2.5	7047736
Soluble Potassium (K)	mg/L	15	1.3	6.2	1.3	1.7	1.3	8.5	1.3	7047736
Saturation %	%	30	N/A	30	N/A	27	N/A	31	N/A	7046375
Soluble Sulphate (SO4)	mg/L	370	5.0	170	5.0	26	5.0	43	5.0	7047736
Theoretical Gypsum Requirement	tonnes/ha	<0.10	0.10	<0.10	0.10	<0.10	0.10	<0.10	0.10	7045968

RDL = Reportable Detection Limit

Maxxam Job #: B367026
Report Date: 2013/08/07

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: NW

SOIL SALINITY 4 (SOIL)

Maxxam ID		HB9868		HB9870		HB9871		HB9872		
Sampling Date		2013/07/28		2013/07/28		2013/07/29		2013/07/29		
COC Number		A134519		A134519		A134519		A134519		
	UNITS	**EX-13-JE (7M)**	**RDL**	**EX-13-1E (6M)**	**RDL**	**TP21**	**RDL**	**TP22**	**RDL**	**QC Batch**
Calculated Parameters										
Anion Sum	meq/L	5.3	N/A	5.9	N/A	2.0	N/A	0.45	N/A	7045962
Cation Sum	meq/L	5.6	N/A	5.6	N/A	2.7	N/A	0.79	N/A	7045962
Cation/EC Ratio	N/A	9.8	0.10	9.8	0.10	9.3	0.10	11	0.10	7045954
Ion Balance	N/A	1.1	0.010	0.94	0.010	1.4	0.010	1.8	0.010	7045961
Calculated Calcium (Ca)	mg/kg	16	0.43	15	0.46	7.0	0.38	1.4	0.40	7045421
Calculated Magnesium (Mg)	mg/kg	4.3	0.29	3.8	0.31	2.3	0.25	0.44	0.26	7045421
Calculated Sodium (Na)	mg/kg	7.0	0.72	13	0.77	3.1	0.63	2.1	0.66	7045421
Calculated Potassium (K)	mg/kg	5.5	0.37	3.5	0.40	0.66	0.33	0.54	0.34	7045421
Calculated Chloride (Cl)	mg/kg	8.0	1.4	16	1.5	12	1.3	2.1	1.3	7045421
Calculated Sulphate (SO4)	mg/kg	62	1.4	65	1.5	8.0	1.3	2.9	1.3	7045421
Soluble Parameters										
Soluble Chloride (Cl)	mg/L	28	5.0	52	5.0	48	5.0	7.8	5.0	7047707
Soluble Conductivity	dS/m	0.57	0.020	0.57	0.020	0.29	0.020	0.073	0.020	7047454
Soluble (CaCl2) pH	N/A	7.52	N/A	6.89	N/A	6.38	N/A	6.18	N/A	7049152
Sodium Adsorption Ratio	N/A	0.75	0.10	1.4	0.10	0.52	0.10	0.76	0.10	7045966
Soluble Calcium (Ca)	mg/L	56	1.5	48	1.5	28	1.5	5.2	1.5	7051837
Soluble Magnesium (Mg)	mg/L	15	1.0	12	1.0	9.2	1.0	1.7	1.0	7051837
Soluble Sodium (Na)	mg/L	24	2.5	43	2.5	12	2.5	7.8	2.5	7051837
Soluble Potassium (K)	mg/L	19	1.3	11	1.3	2.6	1.3	2.1	1.3	7051837
Saturation %	%	29	N/A	31	N/A	25	N/A	26	N/A	7047292
Soluble Sulphate (SO4)	mg/L	210	5.0	210	5.0	32	5.0	11	5.0	7051837
Theoretical Gypsum Requirement	tonnes/ha	<0.10	0.10	<0.10	0.10	<0.10	0.10	<0.10	0.10	7045968

RDL = Reportable Detection Limit

Maxxam Job #: B367026
Report Date: 2013/08/07

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: NW

SOIL SALINITY 4 (SOIL)

Maxxam ID		HB9873		HB9874			HB9875		
Sampling Date		2013/07/29		2013/07/29			2013/07/29		
COC Number		A134519		A134519			A134519		
	UNITS	**TP23**	**RDL**	**TP24**	**RDL**	**QC Batch**	**TP25**	**RDL**	**QC Batch**
Calculated Parameters									
Anion Sum	meq/L	0.45	N/A	0.39	N/A	7045962	2.1	N/A	7045962
Cation Sum	meq/L	0.98	N/A	0.92	N/A	7045962	2.7	N/A	7045962
Cation/EC Ratio	N/A	11	0.10	11	0.10	7045954	8.7	0.10	7045954
Ion Balance	N/A	2.1	0.010	2.4	0.010	7045961	1.3	0.010	7045961
Calculated Calcium (Ca)	mg/kg	2.2	0.45	2.1	0.47	7045421	5.6	0.42	7045421
Calculated Magnesium (Mg)	mg/kg	0.65	0.30	0.59	0.31	7045421	2.0	0.28	7045421
Calculated Sodium (Na)	mg/kg	2.5	0.75	2.7	0.78	7045421	7.0	0.70	7045421
Calculated Potassium (K)	mg/kg	0.73	0.39	0.71	0.41	7045421	1.0	0.37	7045421
Calculated Chloride (Cl)	mg/kg	2.4	1.5	2.1	1.6	7045421	15	1.4	7045421
Calculated Sulphate (SO4)	mg/kg	3.2	1.5	3.0	1.6	7045421	8.8	1.4	7045421
Soluble Parameters									
Soluble Chloride (Cl)	mg/L	8.1	5.0	6.7	5.0	7047707	52	5.0	7047631
Soluble Conductivity	dS/m	0.086	0.020	0.085	0.020	7047454	0.31	0.020	7047284
Soluble (CaCl2) pH	N/A	6.08	N/A	6.19	N/A	7049152	6.59	N/A	7049152
Sodium Adsorption Ratio	N/A	0.71	0.10	0.75	0.10	7045966	1.2	0.10	7045966
Soluble Calcium (Ca)	mg/L	7.3	1.5	6.8	1.5	7051837	20	1.5	7047736
Soluble Magnesium (Mg)	mg/L	2.2	1.0	1.9	1.0	7051837	7.0	1.0	7047736
Soluble Sodium (Na)	mg/L	8.5	2.5	8.5	2.5	7051837	25	2.5	7047736
Soluble Potassium (K)	mg/L	2.4	1.3	2.3	1.3	7051837	3.6	1.3	7047736
Saturation %	%	30	N/A	31	N/A	7047292	28	N/A	7046375
Soluble Sulphate (SO4)	mg/L	11	5.0	9.6	5.0	7051837	31	5.0	7047736
Theoretical Gypsum Requirement	tonnes/ha	<0.10	0.10	<0.10	0.10	7045968	<0.10	0.10	7045968

RDL = Reportable Detection Limit

Maxxam Job #: B367026
Report Date: 2013/08/07

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: NW

SOIL SALINITY 4 (SOIL)

Maxxam ID		HB9876		HB9877		HB9878		HB9879		
Sampling Date		2013/07/29		2013/07/29		2013/07/29		2013/07/29		
COC Number		A134519		A134519		A134520		A134520		
	UNITS	**TP26**	**RDL**	**TP27**	**RDL**	**TP 28**	**RDL**	**EX-13-CW (2M)**	**RDL**	**QC Batch**
Calculated Parameters										
Anion Sum	meq/L	0.42	N/A	0.75	N/A	2.2	N/A	1.4	N/A	7045962
Cation Sum	meq/L	0.97	N/A	2.9	N/A	4.5	N/A	4.6	N/A	7045962
Cation/EC Ratio	N/A	11	0.10	10	0.10	9.7	0.10	15	0.10	7045954
Ion Balance	N/A	2.3	0.010	3.9	0.010	2.0	0.010	3.3	0.010	7045961
Calculated Calcium (Ca)	mg/kg	2.1	0.42	12	0.48	16	0.44	29	0.82	7045421
Calculated Magnesium (Mg)	mg/kg	0.67	0.28	1.5	0.32	1.9	0.29	8.1	0.55	7045421
Calculated Sodium (Na)	mg/kg	2.2	0.71	3.9	0.79	6.9	0.73	7.2	1.4	7045421
Calculated Potassium (K)	mg/kg	0.65	0.37	1.5	0.41	1.6	0.38	3.1	0.71	7045421
Calculated Chloride (Cl)	mg/kg	1.6	1.4	2.5	1.6	14	1.5	12	2.7	7045421
Calculated Sulphate (SO4)	mg/kg	3.5	1.4	8.0	1.6	13	1.5	21	2.7	7045421
Soluble Parameters										
Soluble Chloride (Cl)	mg/L	5.6	5.0	7.9	5.0	48	5.0	22	5.0	7047707
Soluble Conductivity	dS/m	0.089	0.020	0.28	0.020	0.46	0.020	0.30	0.020	7047454
Soluble (CaCl2) pH	N/A	7.04	N/A	7.45	N/A	7.51	N/A	6.87	N/A	7048885
Sodium Adsorption Ratio	N/A	0.63	0.10	0.51	0.10	0.80	0.10	0.41	0.10	7045966
Soluble Calcium (Ca)	mg/L	7.6	1.5	37	1.5	56	1.5	53	1.5	7051837
Soluble Magnesium (Mg)	mg/L	2.4	1.0	4.8	1.0	6.6	1.0	15	1.0	7051837
Soluble Sodium (Na)	mg/L	7.8	2.5	12	2.5	24	2.5	13 (1)	2.5	7051837
Soluble Potassium (K)	mg/L	2.3	1.3	4.9	1.3	5.5	1.3	5.7	1.3	7051837
Saturation %	%	28	N/A	32	N/A	29	N/A	55	N/A	7047292
Soluble Sulphate (SO4)	mg/L	12	5.0	25	5.0	43	5.0	37	5.0	7051837
Theoretical Gypsum Requirement	tonnes/ha	<0.10	0.10	<0.10	0.10	<0.10	0.10	<0.10	0.10	7045968

RDL = Reportable Detection Limit
(1) Duplicate exceeds acceptance criteria due to sample non homogeneity. Reanalysis yields similar results.

Maxxam Job #: B367026
Report Date: 2013/08/07

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: NW

SOIL SALINITY 4 (SOIL)

Maxxam ID		HB9879		HB9880			HB9881		
Sampling Date		2013/07/29		2013/07/29			2013/07/31		
COC Number		A134520		A134520			A134520		
	UNITS	**EX-13-CW (2M) Lab-Dup**	**RDL**	**EX-13-DW (1M)**	**RDL**	**QC Batch**	**EX-13-LB (7.5M)**	**RDL**	**QC Batch**
Calculated Parameters									
Anion Sum	meq/L	N/A	N/A	2.5	N/A	7045962	14	N/A	7045962
Cation Sum	meq/L	N/A	N/A	4.3	N/A	7045962	14	N/A	7045962
Cation/EC Ratio	N/A	N/A	0.10	12	0.10	7045954	10	0.10	7045954
Ion Balance	N/A	N/A	0.010	1.7	0.010	7045961	0.97	0.010	7045961
Calculated Calcium (Ca)	mg/kg	N/A	0.82	13	0.49	7045421	37	0.42	7045967
Calculated Magnesium (Mg)	mg/kg	N/A	0.55	4.0	0.33	7045421	10	0.28	7045967
Calculated Sodium (Na)	mg/kg	N/A	1.4	5.6	0.82	7045421	24	0.71	7045967
Calculated Potassium (K)	mg/kg	N/A	0.71	7.8	0.43	7045421	4.1	0.37	7045967
Calculated Chloride (Cl)	mg/kg	N/A	2.7	7.1	1.6	7045421	68	1.4	7045967
Calculated Sulphate (SO4)	mg/kg	N/A	2.7	29	1.6	7045421	100	1.4	7045967
Soluble Parameters									
Soluble Chloride (Cl)	mg/L	22	5.0	22	5.0	7047707	240	5.0	7047707
Soluble Conductivity	dS/m	0.32	0.020	0.36	0.020	7047454	1.4	0.020	7047454
Soluble (CaCl2) pH	N/A	N/A	N/A	6.72	N/A	7048885	7.45	N/A	7048885
Sodium Adsorption Ratio	N/A	N/A	0.10	0.61	0.10	7045966	1.7	0.10	7045966
Soluble Calcium (Ca)	mg/L	62	1.5	39	1.5	7051837	130	1.5	7051837
Soluble Magnesium (Mg)	mg/L	17	1.0	12	1.0	7051837	37	1.0	7051837
Soluble Sodium (Na)	mg/L	7.3	2.5	17	2.5	7051837	86	2.5	7051837
Soluble Potassium (K)	mg/L	4.9	1.3	24	1.3	7051837	14	1.3	7051837
Saturation %	%	55	N/A	33	N/A	7047292	28	N/A	7047292
Soluble Sulphate (SO4)	mg/L	35	5.0	88	5.0	7051837	350	5.0	7051837
Theoretical Gypsum Requirement	tonnes/ha	N/A	0.10	<0.10	0.10	7045968	<0.10	0.10	7045968

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam

Maxxam Job #: B367026
Report Date: 2013/08/07

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: NW

REGULATED METALS (CCME/AT1) - SOILS

Maxxam ID		HB9854	HB9855	HB9856	HB9857	HB9858	HB9859		
Sampling Date		2013/07/28	2013/07/28	2013/07/28	2013/07/28	2013/07/28	2013/07/28		
COC Number		A134518	A134518	A134518	A134518	A134518	A134518		
	UNITS	**EX-13-AB (7M)**	**EX-13-BB (7M)**	**EX-13-CB (7M)**	**EX-13-FB (7M)**	**EX-13-GB (7M)**	**EX-13-HB (7M)**	**RDL**	**QC Batch**
Elements									
Soluble (Hot water) Boron (B)	mg/kg	0.20	0.31	0.15	0.21	0.20	0.49	0.10	7047919
Hex. Chromium (Cr 6+)	mg/kg	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	0.15	7049222
Total Antimony (Sb)	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	7047716
Total Arsenic (As)	mg/kg	4.8	6.3	5.3	5.1	4.5	4.7	1.0	7047716
Total Barium (Ba)	mg/kg	70	70	72	120	57	78	10	7047716
Total Beryllium (Be)	mg/kg	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	0.40	7047716
Total Cadmium (Cd)	mg/kg	<0.10	<0.10	<0.10	0.12	<0.10	<0.10	0.10	7047716
Total Chromium (Cr)	mg/kg	6.1	7.6	5.2	6.2	5.8	5.3	1.0	7047716
Total Cobalt (Co)	mg/kg	3.6	4.0	3.4	3.7	3.1	3.4	1.0	7047716
Total Copper (Cu)	mg/kg	<5.0	<5.0	<5.0	6.0	<5.0	<5.0	5.0	7047716
Total Lead (Pb)	mg/kg	2.9	3.2	3.0	4.2	2.5	2.7	1.0	7047716
Total Mercury (Hg)	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	7047716
Total Molybdenum (Mo)	mg/kg	0.49	0.63	0.47	0.49	0.44	0.49	0.40	7047716
Total Nickel (Ni)	mg/kg	10	12	9.5	10	9.1	9.1	1.0	7047716
Total Selenium (Se)	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	7047716
Total Silver (Ag)	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	7047716
Total Thallium (Tl)	mg/kg	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	0.30	7047716
Total Tin (Sn)	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	7047716
Total Uranium (U)	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	7047716
Total Vanadium (V)	mg/kg	10	10	9.8	10	8.9	9.2	1.0	7047716
Total Zinc (Zn)	mg/kg	26	27	25	29	23	24	10	7047716

RDL = Reportable Detection Limit

Maxxam Job #: B367026
Report Date: 2013/08/07

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: NW

REGULATED METALS (CCME/AT1) - SOILS

Maxxam ID		HB9860	HB9860	HB9861		HB9862		HB9863		
Sampling Date		2013/07/28	2013/07/28	2013/07/28		2013/07/28		2013/07/28		
COC Number		A134518	A134518	A134518		A134518		A134518		
	UNITS	**EX-13-IB (7M)**	**EX-13-IB (7M) Lab-Dup**	**EX-13-KB (7M)**	**RDL**	**EX-13-AS (1M)**	**RDL**	**EX-13-AS (4M)**	**RDL**	**QC Batch**
Elements										
Soluble (Hot water) Boron (B)	mg/kg	0.19	0.21	0.19	0.10	3.7 (1)	0.40	0.25	0.10	7047942
Hex. Chromium (Cr 6+)	mg/kg	<0.15	N/A	<0.15	0.15	<0.15	0.15	<0.15	0.15	7049269
Total Antimony (Sb)	mg/kg	<1.0	<1.0	<1.0	1.0	<2.0	2.0	<1.0	1.0	7047717
Total Arsenic (As)	mg/kg	4.5	5.7	4.7	1.0	5.3	2.0	4.3	1.0	7047717
Total Barium (Ba)	mg/kg	65	66	66	10	260	20	67	10	7047717
Total Beryllium (Be)	mg/kg	<0.40	<0.40	<0.40	0.40	<0.80	0.80	<0.40	0.40	7047717
Total Cadmium (Cd)	mg/kg	<0.10	<0.10	<0.10	0.10	<0.20	0.20	<0.10	0.10	7047717
Total Chromium (Cr)	mg/kg	5.7	6.9	6.0	1.0	7.2	2.0	4.8	1.0	7047717
Total Cobalt (Co)	mg/kg	3.0	3.8	3.3	1.0	3.3	2.0	3.2	1.0	7047717
Total Copper (Cu)	mg/kg	<5.0	<5.0	<5.0	5.0	<10	10	<5.0	5.0	7047717
Total Lead (Pb)	mg/kg	2.5	3.2	2.8	1.0	17	2.0	2.7	1.0	7047717
Total Mercury (Hg)	mg/kg	<0.050	<0.050	<0.050	0.050	<0.10	0.10	<0.050	0.050	7047717
Total Molybdenum (Mo)	mg/kg	0.43	0.55	0.48	0.40	<0.80	0.80	0.42	0.40	7047717
Total Nickel (Ni)	mg/kg	8.7	11	9.5	1.0	8.8	2.0	9.0	1.0	7047717
Total Selenium (Se)	mg/kg	<0.50	<0.50	<0.50	0.50	<1.0	1.0	<0.50	0.50	7047717
Total Silver (Ag)	mg/kg	<1.0	<1.0	<1.0	1.0	<2.0	2.0	<1.0	1.0	7047717
Total Thallium (Tl)	mg/kg	<0.30	<0.30	<0.30	0.30	<0.60	0.60	<0.30	0.30	7047717
Total Tin (Sn)	mg/kg	<1.0	<1.0	<1.0	1.0	4.3	2.0	<1.0	1.0	7047717
Total Uranium (U)	mg/kg	<1.0	<1.0	<1.0	1.0	<2.0	2.0	<1.0	1.0	7047717
Total Vanadium (V)	mg/kg	8.7	11	8.6	1.0	10	2.0	8.5	1.0	7047717
Total Zinc (Zn)	mg/kg	22	28	24	10	<20	20	23	10	7047717

N/A = Not Applicable
RDL = Reportable Detection Limit
(1) Detection limits raised based on sample weight used for analysis.

Maxxam

Maxxam Job #: B367026
Report Date: 2013/08/07

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: NW

REGULATED METALS (CCME/AT1) - SOILS

Maxxam ID		HB9865	HB9866	HB9867	HB9868	HB9870	HB9871		
Sampling Date		2013/07/28	2013/07/28	2013/07/28	2013/07/28	2013/07/28	2013/07/29		
COC Number		A134518	A134519	A134519	A134519	A134519	A134519		
	UNITS	**EX-13-LE (6M)**	**EX-13-KE (2M)**	**EX-13-JE (1M)**	**EX-13-JE (7M)**	**EX-13-1E (6M)**	**TP21**	**RDL**	**QC Batch**
Elements									
Soluble (Hot water) Boron (B)	mg/kg	0.21	0.13	0.21	0.31	0.35	<0.10	0.10	7047942
Hex. Chromium (Cr 6+)	mg/kg	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	0.15	7049269
Total Antimony (Sb)	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	7047717
Total Arsenic (As)	mg/kg	4.9	5.1	5.3	5.5	4.8	6.1	1.0	7047717
Total Barium (Ba)	mg/kg	150	960	2000	94	150	200	10	7047717
Total Beryllium (Be)	mg/kg	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	0.40	7047717
Total Cadmium (Cd)	mg/kg	0.14	<0.10	<0.10	<0.10	0.12	<0.10	0.10	7047717
Total Chromium (Cr)	mg/kg	8.8	18	14	7.6	7.7	9.1	1.0	7047717
Total Cobalt (Co)	mg/kg	3.5	3.6	1.6	3.7	3.5	3.1	1.0	7047717
Total Copper (Cu)	mg/kg	6.5	6.6	8.8	<5.0	6.6	6.0	5.0	7047717
Total Lead (Pb)	mg/kg	7.2	27	8.6	3.3	9.8	5.9	1.0	7047717
Total Mercury (Hg)	mg/kg	<0.050	<0.050	0.053	<0.050	<0.050	0.051	0.050	7047717
Total Molybdenum (Mo)	mg/kg	0.48	0.61	0.55	0.58	0.50	0.65	0.40	7047717
Total Nickel (Ni)	mg/kg	11	15	7.9	11	11	8.8	1.0	7047717
Total Selenium (Se)	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	7047717
Total Silver (Ag)	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	7047717
Total Thallium (Tl)	mg/kg	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	0.30	7047717
Total Tin (Sn)	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	7047717
Total Uranium (U)	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	7047717
Total Vanadium (V)	mg/kg	10	11	8.9	11	9.4	12	1.0	7047717
Total Zinc (Zn)	mg/kg	32	29	19	28	33	20	10	7047717

RDL = Reportable Detection Limit

Maxxam Job #: B367026
Report Date: 2013/08/07

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: NW

REGULATED METALS (CCME/AT1) - SOILS

Maxxam ID		HB9872	HB9873	HB9874	HB9875	HB9875	HB9876		
Sampling Date		2013/07/29	2013/07/29	2013/07/29	2013/07/29	2013/07/29	2013/07/29		
COC Number		A134519	A134519	A134519	A134519	A134519	A134519		
	UNITS	**TP22**	**TP23**	**TP24**	**TP25**	**TP25 Lab-Dup**	**TP26**	**RDL**	**QC Batch**
Elements									
Soluble (Hot water) Boron (B)	mg/kg	<0.10	<0.10	0.15	<0.10	N/A	<0.10	0.10	7047942
Hex. Chromium (Cr 6+)	mg/kg	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	0.15	7049269
Total Antimony (Sb)	mg/kg	<1.0	<1.0	<1.0	<1.0	N/A	<1.0	1.0	7047717
Total Arsenic (As)	mg/kg	7.2	6.4	5.9	6.5	N/A	6.9	1.0	7047717
Total Barium (Ba)	mg/kg	150	180	220	320	N/A	190	10	7047717
Total Beryllium (Be)	mg/kg	<0.40	<0.40	<0.40	<0.40	N/A	<0.40	0.40	7047717
Total Cadmium (Cd)	mg/kg	<0.10	<0.10	<0.10	<0.10	N/A	<0.10	0.10	7047717
Total Chromium (Cr)	mg/kg	21	24	14	18	N/A	13	1.0	7047717
Total Cobalt (Co)	mg/kg	3.2	3.2	2.7	2.6	N/A	3.0	1.0	7047717
Total Copper (Cu)	mg/kg	5.8	5.6	5.2	5.8	N/A	6.0	5.0	7047717
Total Lead (Pb)	mg/kg	4.6	5.8	5.9	5.2	N/A	5.6	1.0	7047717
Total Mercury (Hg)	mg/kg	0.053	<0.050	<0.050	<0.050	N/A	<0.050	0.050	7047717
Total Molybdenum (Mo)	mg/kg	1.0	0.94	0.67	1.4	N/A	0.70	0.40	7047717
Total Nickel (Ni)	mg/kg	15	16	10	13	N/A	11	1.0	7047717
Total Selenium (Se)	mg/kg	<0.50	<0.50	<0.50	<0.50	N/A	<0.50	0.50	7047717
Total Silver (Ag)	mg/kg	<1.0	<1.0	<1.0	<1.0	N/A	<1.0	1.0	7047717
Total Thallium (Tl)	mg/kg	<0.30	<0.30	<0.30	<0.30	N/A	<0.30	0.30	7047717
Total Tin (Sn)	mg/kg	<1.0	<1.0	<1.0	<1.0	N/A	<1.0	1.0	7047717
Total Uranium (U)	mg/kg	<1.0	<1.0	<1.0	<1.0	N/A	<1.0	1.0	7047717
Total Vanadium (V)	mg/kg	12	11	11	11	N/A	11	1.0	7047717
Total Zinc (Zn)	mg/kg	21	20	18	18	N/A	21	10	7047717

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Job #: B367026
Report Date: 2013/08/07

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: NW

REGULATED METALS (CCME/AT1) - SOILS

Maxxam ID		HB9877	HB9878	HB9879	HB9880	HB9881		
Sampling Date		2013/07/29	2013/07/29	2013/07/29	2013/07/29	2013/07/31		
COC Number		A134519	A134520	A134520	A134520	A134520		
	UNITS	**TP27**	**TP 28**	**EX-13-CW (2M)**	**EX-13-DW (1M)**	**EX-13-LB (7.5M)**	**RDL**	**QC Batch**
Elements								
Soluble (Hot water) Boron (B)	mg/kg	0.16	<0.10	0.37	0.23	0.26	0.10	7047942
Hex. Chromium (Cr 6+)	mg/kg	<0.15	<0.15	<0.15	<0.15	<0.15	0.15	7049269
Total Antimony (Sb)	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	7047717
Total Arsenic (As)	mg/kg	6.2	7.2	6.5	5.7	5.4	1.0	7047717
Total Barium (Ba)	mg/kg	1100	1200	170	190	62	10	7047717
Total Beryllium (Be)	mg/kg	<0.40	<0.40	<0.40	<0.40	<0.40	0.40	7047717
Total Cadmium (Cd)	mg/kg	0.14	0.15	<0.10	<0.10	<0.10	0.10	7047717
Total Chromium (Cr)	mg/kg	22	29	11	21	6.5	1.0	7047717
Total Cobalt (Co)	mg/kg	3.1	3.8	4.6	2.4	3.5	1.0	7047717
Total Copper (Cu)	mg/kg	9.5	13	7.1	<5.0	<5.0	5.0	7047717
Total Lead (Pb)	mg/kg	16	28	4.8	5.5	2.9	1.0	7047717
Total Mercury (Hg)	mg/kg	0.066	0.30	<0.050	<0.050	<0.050	0.050	7047717
Total Molybdenum (Mo)	mg/kg	0.92	1.1	0.72	0.71	0.57	0.40	7047717
Total Nickel (Ni)	mg/kg	15	19	12	13	9.7	1.0	7047717
Total Selenium (Se)	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	7047717
Total Silver (Ag)	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	7047717
Total Thallium (Tl)	mg/kg	<0.30	<0.30	<0.30	<0.30	<0.30	0.30	7047717
Total Tin (Sn)	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	7047717
Total Uranium (U)	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	7047717
Total Vanadium (V)	mg/kg	11	13	15	9.1	9.0	1.0	7047717
Total Zinc (Zn)	mg/kg	35	36	30	14	24	10	7047717

RDL = Reportable Detection Limit

Maxxam Job #: B367026
Report Date: 2013/08/07

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: NW

RESULTS OF CHEMICAL ANALYSES OF SOIL

Maxxam ID		HB9856	HB9862	HB9865	HB9866	HB9873		
Sampling Date		2013/07/28	2013/07/28	2013/07/28	2013/07/28	2013/07/29		
COC Number		A134518	A134518	A134518	A134519	A134519		
	UNITS	**EX-13-CB (7M)**	**EX-13-AS (1M)**	**EX-13-LE (6M)**	**EX-13-KE (2M)**	**TP23**	**RDL**	**QC Batch**
Elements								
Extractable Barium (Ba)	mg/kg	N/A	N/A	10	N/A	N/A	1.0	7050511
Physical Properties								
Sieve - Pan	%	2.5	42	N/A	10	12	0.20	7048448
Sieve - #200 (>0.075mm)	%	97	58	N/A	90	88	0.20	7048448
Grain Size	%	COARSE	COARSE	N/A	COARSE	COARSE	0.20	7048448

N/A = Not Applicable
RDL = Reportable Detection Limit

SEMIVOLATILE ORGANICS BY GC-MS (SOIL)

Maxxam ID		HB9865		
Sampling Date		2013/07/28		
COC Number		A134518		
	UNITS	**EX-13-LE (6M)**	**RDL**	**QC Batch**
Polycyclic Aromatics				
Acenaphthene	mg/kg	0.010	0.0050	7047668
Benzo[a]pyrene equivalency	mg/kg	<0.10	0.10	7045963
Acenaphthylene	mg/kg	<0.0076 (1)	0.0076	7047668
Acridine	mg/kg	0.030	0.010	7047668
Anthracene	mg/kg	<0.0040	0.0040	7047668
Benzo(a)anthracene	mg/kg	<0.0050	0.0050	7047668
Benzo(b&j)fluoranthene	mg/kg	<0.0050	0.0050	7047668
Benzo(k)fluoranthene	mg/kg	<0.0050	0.0050	7047668
Benzo(g,h,i)perylene	mg/kg	<0.0050	0.0050	7047668
Benzo(c)phenanthrene	mg/kg	<0.0050	0.0050	7047668
Benzo(a)pyrene	mg/kg	<0.0050	0.0050	7047668
Benzo[e]pyrene	mg/kg	<0.0050	0.0050	7047668
Chrysene	mg/kg	<0.0050	0.0050	7047668
Dibenz(a,h)anthracene	mg/kg	<0.0050	0.0050	7047668
Fluoranthene	mg/kg	0.0093	0.0050	7047668
Fluorene	mg/kg	0.039	0.0050	7047668
Indeno(1,2,3-cd)pyrene	mg/kg	<0.0050	0.0050	7047668
2-Methylnaphthalene	mg/kg	0.52	0.0050	7047668
Naphthalene	mg/kg	0.33	0.0050	7047668
Phenanthrene	mg/kg	0.054	0.0050	7047668
Perylene	mg/kg	0.022	0.0050	7047668
Pyrene	mg/kg	0.014	0.0050	7047668
Quinoline	mg/kg	<0.010	0.010	7047668
Surrogate Recovery (%)				
D10-ANTHRACENE (sur.)	%	96	N/A	7047668
D12-BENZO(A)PYRENE (sur.)	%	84	N/A	7047668
D8-ACENAPHTHYLENE (sur.)	%	101	N/A	7047668
TERPHENYL-D14 (sur.)	%	111	N/A	7047668

N/A = Not Applicable
RDL = Reportable Detection Limit
(1) Detection limits raised due to matrix interference.

Package 1	6.0°C
Package 2	5.7°C

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

General Comments

Sample HB9854-01: Sample was extracted from a jar with headspace for BTEX/F1.

Sample HB9855-01: Sample was extracted from a jar with headspace for BTEX/F1.

Sample HB9857-01: Sample was extracted from a jar with headspace for BTEX/F1.

Sample HB9862-01: Detection limits raised due to sample matrix. Parameters affected are total Cr, Co, Cu, Pb, Sb, Mo, Ni, Se, Ag, As, Tl, Sn, U, V, Zn, Be, Cd, Ba, Hg.

Results relate only to the items tested.

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: CAMP FAREWELL
P.O. #: A04012A05
Site Location:

Quality Assurance Report

Maxxam Job Number: EB367026

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7042465 PS7	Matrix Spike	1,4-Difluorobenzene (sur.)	2013/08/02		104	%	60 - 140
		4-BROMOFLUOROBENZENE (sur.)	2013/08/02		97	%	60 - 140
		D10-ETHYLBENZENE (sur.)	2013/08/02		115	%	60 - 130
		D4-1,2-DICHLOROETHANE (sur.)	2013/08/02		92	%	60 - 140
		Benzene	2013/08/02		107	%	60 - 140
		Toluene	2013/08/02		102	%	60 - 140
		Ethylbenzene	2013/08/02		98	%	60 - 140
		m & p-Xylene	2013/08/02		104	%	60 - 140
		o-Xylene	2013/08/02		98	%	60 - 140
		(C6-C10)	2013/08/02		61	%	60 - 140
	Spiked Blank	1,4-Difluorobenzene (sur.)	2013/08/02		99	%	60 - 140
		4-BROMOFLUOROBENZENE (sur.)	2013/08/02		95	%	60 - 140
		D10-ETHYLBENZENE (sur.)	2013/08/02		98	%	60 - 130
		D4-1,2-DICHLOROETHANE (sur.)	2013/08/02		93	%	60 - 140
		Benzene	2013/08/02		110	%	60 - 140
		Toluene	2013/08/02		108	%	60 - 140
		Ethylbenzene	2013/08/02		103	%	60 - 140
		m & p-Xylene	2013/08/02		110	%	60 - 140
		o-Xylene	2013/08/02		102	%	60 - 140
		(C6-C10)	2013/08/02		92	%	60 - 140
	Method Blank	1,4-Difluorobenzene (sur.)	2013/08/02		99	%	60 - 140
		4-BROMOFLUOROBENZENE (sur.)	2013/08/02		95	%	60 - 140
		D10-ETHYLBENZENE (sur.)	2013/08/02		113	%	60 - 130
		D4-1,2-DICHLOROETHANE (sur.)	2013/08/02		93	%	60 - 140
		Benzene	2013/08/02	<0.0050		mg/kg	
		Toluene	2013/08/02	<0.020		mg/kg	
		Ethylbenzene	2013/08/02	<0.010		mg/kg	
		Xylenes (Total)	2013/08/02	<0.040		mg/kg	
		m & p-Xylene	2013/08/02	<0.040		mg/kg	
		o-Xylene	2013/08/02	<0.020		mg/kg	
		F1 (C6-C10) - BTEX	2013/08/02	<12		mg/kg	
		(C6-C10)	2013/08/02	<12		mg/kg	
	RPD	Benzene	2013/08/02	NC		%	50
		Toluene	2013/08/02	NC		%	50
		Ethylbenzene	2013/08/02	NC		%	50
		Xylenes (Total)	2013/08/02	NC		%	50
		m & p-Xylene	2013/08/02	NC		%	50
		o-Xylene	2013/08/02	NC		%	50
		F1 (C6-C10) - BTEX	2013/08/02	NC		%	50
		(C6-C10)	2013/08/02	NC		%	50
7043191 KH7	Matrix Spike	1,4-Difluorobenzene (sur.)	2013/08/01		112	%	60 - 140
		4-BROMOFLUOROBENZENE (sur.)	2013/08/01		96	%	60 - 140
		D10-ETHYLBENZENE (sur.)	2013/08/01		104	%	60 - 130
		D4-1,2-DICHLOROETHANE (sur.)	2013/08/01		95	%	60 - 140
		Benzene	2013/08/01		114	%	60 - 140
		Toluene	2013/08/01		109	%	60 - 140
		Ethylbenzene	2013/08/01		105	%	60 - 140
		m & p-Xylene	2013/08/01		110	%	60 - 140
		o-Xylene	2013/08/01		108	%	60 - 140
		(C6-C10)	2013/08/01		104	%	60 - 140
	Spiked Blank	1,4-Difluorobenzene (sur.)	2013/08/01		100	%	60 - 140
		4-BROMOFLUOROBENZENE (sur.)	2013/08/01		97	%	60 - 140
		D10-ETHYLBENZENE (sur.)	2013/08/01		98	%	60 - 130
		D4-1,2-DICHLOROETHANE (sur.)	2013/08/01		95	%	60 - 140
		Benzene	2013/08/01		108	%	60 - 140

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: CAMP FAREWELL
P.O. #: A04012A05
Site Location:

Quality Assurance Report (Continued)

Maxxam Job Number: EB367026

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7043191	KH7	Spiked Blank	Toluene	2013/08/01		103	%	60 - 140
			Ethylbenzene	2013/08/01		98	%	60 - 140
			m & p-Xylene	2013/08/01		104	%	60 - 140
			o-Xylene	2013/08/01		102	%	60 - 140
			(C6-C10)	2013/08/01		103	%	60 - 140
		Method Blank	1,4-Difluorobenzene (sur.)	2013/08/01		100	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/08/01		97	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/08/01		100	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/08/01		91	%	60 - 140
			Benzene	2013/08/01	<0.0050		mg/kg	
			Toluene	2013/08/01	<0.020		mg/kg	
			Ethylbenzene	2013/08/01	<0.010		mg/kg	
			Xylenes (Total)	2013/08/01	<0.040		mg/kg	
			m & p-Xylene	2013/08/01	<0.040		mg/kg	
			o-Xylene	2013/08/01	<0.020		mg/kg	
			F1 (C6-C10) - BTEX	2013/08/01	<12		mg/kg	
			(C6-C10)	2013/08/01	<12		mg/kg	
		RPD	Benzene	2013/08/02	NC		%	50
			Toluene	2013/08/02	NC		%	50
			Ethylbenzene	2013/08/02	NC		%	50
			Xylenes (Total)	2013/08/02	NC		%	50
			m & p-Xylene	2013/08/02	NC		%	50
			o-Xylene	2013/08/02	NC		%	50
			F1 (C6-C10) - BTEX	2013/08/02	NC		%	50
			(C6-C10)	2013/08/02	NC		%	50
7046183	SHM	Matrix Spike						
		[HB9870-01]	O-TERPHENYL (sur.)	2013/08/03		101	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/08/03		NC	%	50 - 130
			F3 (C16-C34 Hydrocarbons)	2013/08/03		106	%	50 - 130
			F4 (C34-C50 Hydrocarbons)	2013/08/03		104	%	50 - 130
		Spiked Blank	O-TERPHENYL (sur.)	2013/08/03		117	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/08/03		124	%	70 - 130
			F3 (C16-C34 Hydrocarbons)	2013/08/03		123	%	70 - 130
			F4 (C34-C50 Hydrocarbons)	2013/08/03		128	%	70 - 130
		Method Blank	O-TERPHENYL (sur.)	2013/08/03		124	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/08/03	<10		mg/kg	
			F3 (C16-C34 Hydrocarbons)	2013/08/03	<50		mg/kg	
			F4 (C34-C50 Hydrocarbons)	2013/08/03	<50		mg/kg	
		RPD [HB9868-01]	F2 (C10-C16 Hydrocarbons)	2013/08/03	NC		%	50
			F3 (C16-C34 Hydrocarbons)	2013/08/03	NC		%	50
			F4 (C34-C50 Hydrocarbons)	2013/08/03	NC		%	50
7046204	SHM	Matrix Spike						
		[HB9855-01]	O-TERPHENYL (sur.)	2013/08/03		94	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/08/03		94	%	50 - 130
			F3 (C16-C34 Hydrocarbons)	2013/08/03		96	%	50 - 130
			F4 (C34-C50 Hydrocarbons)	2013/08/03		89	%	50 - 130
		Spiked Blank	O-TERPHENYL (sur.)	2013/08/03		109	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/08/03		120	%	70 - 130
			F3 (C16-C34 Hydrocarbons)	2013/08/03		122	%	70 - 130
			F4 (C34-C50 Hydrocarbons)	2013/08/03		115	%	70 - 130
		Method Blank	O-TERPHENYL (sur.)	2013/08/03		95	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/08/03	<10		mg/kg	
			F3 (C16-C34 Hydrocarbons)	2013/08/03	<50		mg/kg	
			F4 (C34-C50 Hydrocarbons)	2013/08/03	<50		mg/kg	
		RPD [HB9854-01]	F2 (C10-C16 Hydrocarbons)	2013/08/03	NC		%	50

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: CAMP FAREWELL
P.O. #: A04012A05
Site Location:

Quality Assurance Report (Continued)

Maxxam Job Number: EB367026

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7046204	SHM	RPD [HB9854-01]	F3 (C16-C34 Hydrocarbons)	2013/08/03	NC		%	50
			F4 (C34-C50 Hydrocarbons)	2013/08/03	NC		%	50
7046331	CG7	Matrix Spike						
		[HB9870-01]	1,4-Difluorobenzene (sur.)	2013/08/02		106	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/08/02		96	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/08/02		112	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/08/02		105	%	60 - 140
			Benzene	2013/08/02		91	%	60 - 140
			Toluene	2013/08/02		89	%	60 - 140
			Ethylbenzene	2013/08/02		97	%	60 - 140
			m & p-Xylene	2013/08/02		107	%	60 - 140
			o-Xylene	2013/08/02		112	%	60 - 140
			(C6-C10)	2013/08/02		113	%	60 - 140
		Spiked Blank	1,4-Difluorobenzene (sur.)	2013/08/02		100	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/08/02		100	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/08/02		110	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/08/02		107	%	60 - 140
			Benzene	2013/08/02		94	%	60 - 140
			Toluene	2013/08/02		89	%	60 - 140
			Ethylbenzene	2013/08/02		93	%	60 - 140
			m & p-Xylene	2013/08/02		96	%	60 - 140
			o-Xylene	2013/08/02		90	%	60 - 140
			(C6-C10)	2013/08/02		111	%	60 - 140
		Method Blank	1,4-Difluorobenzene (sur.)	2013/08/02		100	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/08/02		101	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/08/02		108	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/08/02		109	%	60 - 140
			Benzene	2013/08/02	<0.0050		mg/kg	
			Toluene	2013/08/02	<0.020		mg/kg	
			Ethylbenzene	2013/08/02	<0.010		mg/kg	
			Xylenes (Total)	2013/08/02	<0.040		mg/kg	
			m & p-Xylene	2013/08/02	<0.040		mg/kg	
			o-Xylene	2013/08/02	<0.020		mg/kg	
			F1 (C6-C10) - BTEX	2013/08/02	<12		mg/kg	
			(C6-C10)	2013/08/02	<12		mg/kg	
		RPD [HB9868-01]	Benzene	2013/08/02	10.0		%	50
			Toluene	2013/08/02	NC		%	50
			Ethylbenzene	2013/08/02	NC		%	50
			Xylenes (Total)	2013/08/02	NC		%	50
			m & p-Xylene	2013/08/02	NC		%	50
			o-Xylene	2013/08/02	NC		%	50
			F1 (C6-C10) - BTEX	2013/08/02	NC		%	50
			(C6-C10)	2013/08/02	NC		%	50
7046375	LX	QC Standard	Saturation %	2013/08/03		100	%	93 - 107
		RPD	Saturation %	2013/08/03	1.7		%	12
7046956	ABH	Method Blank	Moisture	2013/08/03	<0.30		%	
		RPD [HB9868-01]	Moisture	2013/08/03	5.2		%	20
7046962	ABH	Method Blank	Moisture	2013/08/03	<0.30		%	
		RPD [HB9854-01]	Moisture	2013/08/03	3.1		%	20
7047284	LZ2	QC Standard	Soluble Conductivity	2013/08/03		104	%	85 - 115
		Spiked Blank	Soluble Conductivity	2013/08/03		100	%	90 - 110
		Method Blank	Soluble Conductivity	2013/08/03	<0.020		dS/m	
		RPD	Soluble Conductivity	2013/08/03	1.6		%	35
7047292	LX	QC Standard	Saturation %	2013/08/03		104	%	93 - 107
		RPD [HB9879-01]	Saturation %	2013/08/03	0.4		%	12

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: CAMP FAREWELL
P.O. #: A04012A05
Site Location:

Quality Assurance Report (Continued)

Maxxam Job Number: EB367026

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7047454	LZ2	QC Standard	Soluble Conductivity	2013/08/04		111	%	85 - 115
		Spiked Blank	Soluble Conductivity	2013/08/04		100	%	90 - 110
		Method Blank	Soluble Conductivity	2013/08/04	<0.020		dS/m	
		RPD [HB9879-01]	Soluble Conductivity	2013/08/04	8.4		%	35
7047631	LCA	Matrix Spike	Soluble Chloride (Cl)	2013/08/04		97	%	75 - 125
		QC Standard	Soluble Chloride (Cl)	2013/08/04		99	%	N/A
		Spiked Blank	Soluble Chloride (Cl)	2013/08/04		100	%	75 - 125
		Method Blank	Soluble Chloride (Cl)	2013/08/04	<5.0		mg/L	
		RPD	Soluble Chloride (Cl)	2013/08/04	NC		%	35
7047668	BC5	Matrix Spike	D10-ANTHRACENE (sur.)	2013/08/06		106	%	50 - 130
			D12-BENZO(A)PYRENE (sur.)	2013/08/06		92	%	50 - 130
			D8-ACENAPHTHYLENE (sur.)	2013/08/06		108	%	50 - 130
			TERPHENYL-D14 (sur.)	2013/08/06		118	%	50 - 130
			Acenaphthene	2013/08/06		95	%	50 - 130
			Acenaphthylene	2013/08/06		98	%	50 - 130
			Acridine	2013/08/06		68	%	50 - 130
			Anthracene	2013/08/06		98	%	50 - 130
			Benzo(a)anthracene	2013/08/06		89	%	50 - 130
			Benzo(b&j)fluoranthene	2013/08/06		78	%	50 - 130
			Benzo(k)fluoranthene	2013/08/06		88	%	50 - 130
			Benzo(g,h,i)perylene	2013/08/06		86	%	50 - 130
			Benzo(c)phenanthrene	2013/08/06		77	%	50 - 130
			Benzo(a)pyrene	2013/08/06		89	%	50 - 130
			Benzo[e]pyrene	2013/08/06		74	%	50 - 130
			Chrysene	2013/08/06		76	%	50 - 130
			Dibenz(a,h)anthracene	2013/08/06		86	%	50 - 130
			Fluoranthene	2013/08/06		104	%	50 - 130
			Fluorene	2013/08/06		104	%	50 - 130
			Indeno(1,2,3-cd)pyrene	2013/08/06		92	%	50 - 130
			2-Methylnaphthalene	2013/08/06		85	%	50 - 130
			Naphthalene	2013/08/06		87	%	50 - 130
			Phenanthrene	2013/08/06		96	%	50 - 130
			Perylene	2013/08/06		75	%	50 - 130
			Pyrene	2013/08/06		100	%	50 - 130
			Quinoline	2013/08/06		97	%	50 - 130
		Spiked Blank	D10-ANTHRACENE (sur.)	2013/08/06		98	%	50 - 130
			D12-BENZO(A)PYRENE (sur.)	2013/08/06		88	%	50 - 130
			D8-ACENAPHTHYLENE (sur.)	2013/08/06		100	%	50 - 130
			TERPHENYL-D14 (sur.)	2013/08/06		111	%	50 - 130
			Acenaphthene	2013/08/06		100	%	50 - 130
			Acenaphthylene	2013/08/06		104	%	50 - 130
			Acridine	2013/08/06		73	%	50 - 130
			Anthracene	2013/08/06		104	%	50 - 130
			Benzo(a)anthracene	2013/08/06		98	%	50 - 130
			Benzo(b&j)fluoranthene	2013/08/06		87	%	50 - 130
			Benzo(k)fluoranthene	2013/08/06		98	%	50 - 130
			Benzo(g,h,i)perylene	2013/08/06		95	%	50 - 130
			Benzo(c)phenanthrene	2013/08/06		86	%	50 - 130
			Benzo(a)pyrene	2013/08/06		100	%	50 - 130
			Benzo[e]pyrene	2013/08/06		83	%	50 - 130
			Chrysene	2013/08/06		85	%	50 - 130
			Dibenz(a,h)anthracene	2013/08/06		87	%	50 - 130
			Fluoranthene	2013/08/06		110	%	50 - 130
			Fluorene	2013/08/06		111	%	50 - 130
			Indeno(1,2,3-cd)pyrene	2013/08/06		102	%	50 - 130

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QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7047668	BC5	Spiked Blank	2-Methylnaphthalene	2013/08/06		91	%	50 - 130
			Naphthalene	2013/08/06		93	%	50 - 130
			Phenanthrene	2013/08/06		102	%	50 - 130
			Perylene	2013/08/06		83	%	50 - 130
			Pyrene	2013/08/06		106	%	50 - 130
			Quinoline	2013/08/06		109	%	50 - 130
		Method Blank	D10-ANTHRACENE (sur.)	2013/08/06		106	%	50 - 130
			D12-BENZO(A)PYRENE (sur.)	2013/08/06		91	%	50 - 130
			D8-ACENAPHTHYLENE (sur.)	2013/08/06		106	%	50 - 130
			TERPHENYL-D14 (sur.)	2013/08/06		118	%	50 - 130
			Acenaphthene	2013/08/06	<0.0050		mg/kg	
			Acenaphthylene	2013/08/06	<0.0050		mg/kg	
			Acridine	2013/08/06	<0.010		mg/kg	
			Anthracene	2013/08/06	<0.0040		mg/kg	
			Benzo(a)anthracene	2013/08/06	<0.0050		mg/kg	
			Benzo(b&j)fluoranthene	2013/08/06	<0.0050		mg/kg	
			Benzo(k)fluoranthene	2013/08/06	<0.0050		mg/kg	
			Benzo(g,h,i)perylene	2013/08/06	<0.0050		mg/kg	
			Benzo(c)phenanthrene	2013/08/06	<0.0050		mg/kg	
			Benzo(a)pyrene	2013/08/06	<0.0050		mg/kg	
			Benzo[e]pyrene	2013/08/06	<0.0050		mg/kg	
			Chrysene	2013/08/06	<0.0050		mg/kg	
			Dibenz(a,h)anthracene	2013/08/06	<0.0050		mg/kg	
			Fluoranthene	2013/08/06	<0.0050		mg/kg	
			Fluorene	2013/08/06	<0.0050		mg/kg	
			Indeno(1,2,3-cd)pyrene	2013/08/06	<0.0050		mg/kg	
			2-Methylnaphthalene	2013/08/06	<0.0050		mg/kg	
			Naphthalene	2013/08/06	<0.0050		mg/kg	
			Phenanthrene	2013/08/06	<0.0050		mg/kg	
			Perylene	2013/08/06	<0.0050		mg/kg	
			Pyrene	2013/08/06	<0.0050		mg/kg	
			Quinoline	2013/08/06	<0.010		mg/kg	
		RPD	Benzo(a)anthracene	2013/08/07	NC		%	50
			Benzo(b&j)fluoranthene	2013/08/07	NC		%	50
			Benzo(k)fluoranthene	2013/08/07	NC		%	50
			Benzo(g,h,i)perylene	2013/08/07	NC		%	50
			Benzo(a)pyrene	2013/08/07	NC		%	50
			Chrysene	2013/08/07	NC		%	50
			Dibenz(a,h)anthracene	2013/08/07	NC		%	50
			Indeno(1,2,3-cd)pyrene	2013/08/07	NC		%	50
7047707	LCA	Matrix Spike						
		[HB9879-01]	Soluble Chloride (Cl)	2013/08/04		93	%	75 - 125
		QC Standard	Soluble Chloride (Cl)	2013/08/04		97	%	75 - 125
		Spiked Blank	Soluble Chloride (Cl)	2013/08/04		99	%	75 - 125
		Method Blank	Soluble Chloride (Cl)	2013/08/04	<5.0		mg/L	
		RPD [HB9879-01]	Soluble Chloride (Cl)	2013/08/04	NC		%	35
7047716	SF3	Matrix Spike	Total Antimony (Sb)	2013/08/04		81	%	75 - 125
			Total Arsenic (As)	2013/08/04		94	%	75 - 125
			Total Barium (Ba)	2013/08/04		NC	%	75 - 125
			Total Beryllium (Be)	2013/08/04		99	%	75 - 125
			Total Cadmium (Cd)	2013/08/04		91	%	75 - 125
			Total Chromium (Cr)	2013/08/04		94	%	75 - 125
			Total Cobalt (Co)	2013/08/04		91	%	75 - 125
			Total Copper (Cu)	2013/08/04		91	%	75 - 125
			Total Lead (Pb)	2013/08/04		86	%	75 - 125

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QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7047716	SF3	Matrix Spike	Total Magnesium (Mg)	2013/08/04		NC	%	75 - 125
			Total Mercury (Hg)	2013/08/04		91	%	75 - 125
			Total Molybdenum (Mo)	2013/08/04		95	%	75 - 125
			Total Nickel (Ni)	2013/08/04		94	%	75 - 125
			Total Selenium (Se)	2013/08/04		90	%	75 - 125
			Total Silver (Ag)	2013/08/04		95	%	75 - 125
			Total Thallium (Tl)	2013/08/04		86	%	75 - 125
			Total Tin (Sn)	2013/08/04		98	%	75 - 125
			Total Uranium (U)	2013/08/04		92	%	75 - 125
			Total Vanadium (V)	2013/08/04		100	%	75 - 125
			Total Zinc (Zn)	2013/08/04		NC	%	75 - 125
		QC Standard	Total Arsenic (As)	2013/08/04		109	%	50 - 150
			Total Barium (Ba)	2013/08/04		101	%	69 - 131
			Total Chromium (Cr)	2013/08/04		92	%	41 - 159
			Total Cobalt (Co)	2013/08/04		96	%	75 - 125
			Total Copper (Cu)	2013/08/04		96	%	73 - 127
			Total Lead (Pb)	2013/08/04		91	%	54 - 146
			Total Magnesium (Mg)	2013/08/04		83	%	69 - 131
			Total Nickel (Ni)	2013/08/04		104	%	61 - 139
			Total Vanadium (V)	2013/08/04		109	%	50 - 150
			Total Zinc (Zn)	2013/08/04		100	%	72 - 128
		Spiked Blank	Total Antimony (Sb)	2013/08/04		97	%	75 - 125
			Total Arsenic (As)	2013/08/04		97	%	75 - 125
			Total Barium (Ba)	2013/08/04		99	%	75 - 125
			Total Beryllium (Be)	2013/08/04		96	%	75 - 125
			Total Cadmium (Cd)	2013/08/04		95	%	75 - 125
			Total Chromium (Cr)	2013/08/04		95	%	75 - 125
			Total Cobalt (Co)	2013/08/04		94	%	75 - 125
			Total Copper (Cu)	2013/08/04		96	%	75 - 125
			Total Lead (Pb)	2013/08/04		90	%	75 - 125
			Total Magnesium (Mg)	2013/08/04		93	%	75 - 125
			Total Mercury (Hg)	2013/08/04		93	%	75 - 125
			Total Molybdenum (Mo)	2013/08/04		98	%	75 - 125
			Total Nickel (Ni)	2013/08/04		95	%	75 - 125
			Total Selenium (Se)	2013/08/04		97	%	75 - 125
			Total Silver (Ag)	2013/08/04		99	%	75 - 125
			Total Thallium (Tl)	2013/08/04		89	%	75 - 125
			Total Tin (Sn)	2013/08/04		100	%	75 - 125
			Total Uranium (U)	2013/08/04		97	%	75 - 125
			Total Vanadium (V)	2013/08/04		99	%	75 - 125
			Total Zinc (Zn)	2013/08/04		96	%	75 - 125
		Method Blank	Total Antimony (Sb)	2013/08/04	<1.0		mg/kg	
			Total Arsenic (As)	2013/08/04	<1.0		mg/kg	
			Total Barium (Ba)	2013/08/04	<10		mg/kg	
			Total Beryllium (Be)	2013/08/04	<0.40		mg/kg	
			Total Cadmium (Cd)	2013/08/04	<0.10		mg/kg	
			Total Chromium (Cr)	2013/08/04	<1.0		mg/kg	
			Total Cobalt (Co)	2013/08/04	<1.0		mg/kg	
			Total Copper (Cu)	2013/08/04	<5.0		mg/kg	
			Total Lead (Pb)	2013/08/04	<1.0		mg/kg	
			Total Magnesium (Mg)	2013/08/04	<100		mg/kg	
			Total Mercury (Hg)	2013/08/04	<0.050		mg/kg	
			Total Molybdenum (Mo)	2013/08/04	<0.40		mg/kg	
			Total Nickel (Ni)	2013/08/04	<1.0		mg/kg	
			Total Selenium (Se)	2013/08/04	<0.50		mg/kg	

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QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7047716	SF3	Method Blank	Total Silver (Ag)	2013/08/04	<1.0		mg/kg	
			Total Thallium (Tl)	2013/08/04	<0.30		mg/kg	
			Total Tin (Sn)	2013/08/04	<1.0		mg/kg	
			Total Uranium (U)	2013/08/04	<1.0		mg/kg	
			Total Vanadium (V)	2013/08/04	<1.0		mg/kg	
			Total Zinc (Zn)	2013/08/04	<10		mg/kg	
		RPD	Total Antimony (Sb)	2013/08/06	NC		%	35
			Total Arsenic (As)	2013/08/06	2.7		%	35
			Total Barium (Ba)	2013/08/06	17.8		%	35
			Total Beryllium (Be)	2013/08/06	NC		%	35
			Total Cadmium (Cd)	2013/08/06	NC		%	35
			Total Chromium (Cr)	2013/08/06	2.4		%	35
			Total Cobalt (Co)	2013/08/06	0.7		%	35
			Total Copper (Cu)	2013/08/06	NC		%	35
			Total Lead (Pb)	2013/08/06	2.5		%	35
			Total Magnesium (Mg)	2013/08/06	0.3		%	35
			Total Mercury (Hg)	2013/08/06	NC		%	35
			Total Molybdenum (Mo)	2013/08/06	NC		%	35
			Total Nickel (Ni)	2013/08/06	0.01		%	35
			Total Selenium (Se)	2013/08/06	NC		%	35
			Total Silver (Ag)	2013/08/06	NC		%	35
			Total Thallium (Tl)	2013/08/06	NC		%	35
			Total Tin (Sn)	2013/08/06	NC		%	35
			Total Uranium (U)	2013/08/06	NC		%	35
			Total Vanadium (V)	2013/08/06	6.2		%	35
			Total Zinc (Zn)	2013/08/06	NC		%	35
7047717	SF3	Matrix Spike						
		[HB9860-01]	Total Antimony (Sb)	2013/08/04		88	%	75 - 125
			Total Arsenic (As)	2013/08/04		93	%	75 - 125
			Total Barium (Ba)	2013/08/04		NC	%	75 - 125
			Total Beryllium (Be)	2013/08/04		93	%	75 - 125
			Total Cadmium (Cd)	2013/08/04		89	%	75 - 125
			Total Chromium (Cr)	2013/08/04		90	%	75 - 125
			Total Cobalt (Co)	2013/08/04		88	%	75 - 125
			Total Copper (Cu)	2013/08/04		89	%	75 - 125
			Total Lead (Pb)	2013/08/04		86	%	75 - 125
			Total Magnesium (Mg)	2013/08/04		NC	%	75 - 125
			Total Mercury (Hg)	2013/08/04		91	%	75 - 125
			Total Molybdenum (Mo)	2013/08/04		94	%	75 - 125
			Total Nickel (Ni)	2013/08/04		92	%	75 - 125
			Total Selenium (Se)	2013/08/04		91	%	75 - 125
			Total Silver (Ag)	2013/08/04		93	%	75 - 125
			Total Thallium (Tl)	2013/08/04		86	%	75 - 125
			Total Tin (Sn)	2013/08/04		95	%	75 - 125
			Total Uranium (U)	2013/08/04		90	%	75 - 125
			Total Vanadium (V)	2013/08/04		101	%	75 - 125
			Total Zinc (Zn)	2013/08/04		97	%	75 - 125
		QC Standard	Total Arsenic (As)	2013/08/04		122	%	50 - 150
			Total Barium (Ba)	2013/08/04		108	%	69 - 131
			Total Chromium (Cr)	2013/08/04		98	%	41 - 159
			Total Cobalt (Co)	2013/08/04		103	%	75 - 125
			Total Copper (Cu)	2013/08/04		106	%	73 - 127
			Total Lead (Pb)	2013/08/04		102	%	54 - 146
			Total Magnesium (Mg)	2013/08/04		88	%	69 - 131
			Total Nickel (Ni)	2013/08/04		112	%	61 - 139

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7047717	SF3	QC Standard	Total Vanadium (V)	2013/08/04		117	%	50 - 150
			Total Zinc (Zn)	2013/08/04		109	%	72 - 128
		Spiked Blank	Total Antimony (Sb)	2013/08/04		97	%	75 - 125
			Total Arsenic (As)	2013/08/04		98	%	75 - 125
			Total Barium (Ba)	2013/08/04		100	%	75 - 125
			Total Beryllium (Be)	2013/08/04		100	%	75 - 125
			Total Cadmium (Cd)	2013/08/04		96	%	75 - 125
			Total Chromium (Cr)	2013/08/04		96	%	75 - 125
			Total Cobalt (Co)	2013/08/04		95	%	75 - 125
			Total Copper (Cu)	2013/08/04		97	%	75 - 125
			Total Lead (Pb)	2013/08/04		92	%	75 - 125
			Total Magnesium (Mg)	2013/08/04		92	%	75 - 125
			Total Mercury (Hg)	2013/08/04		103	%	75 - 125
			Total Molybdenum (Mo)	2013/08/04		100	%	75 - 125
			Total Nickel (Ni)	2013/08/04		96	%	75 - 125
			Total Selenium (Se)	2013/08/04		98	%	75 - 125
			Total Silver (Ag)	2013/08/04		100	%	75 - 125
			Total Thallium (Tl)	2013/08/04		94	%	75 - 125
			Total Tin (Sn)	2013/08/04		102	%	75 - 125
			Total Uranium (U)	2013/08/04		99	%	75 - 125
			Total Vanadium (V)	2013/08/04		99	%	75 - 125
			Total Zinc (Zn)	2013/08/04		96	%	75 - 125
		Method Blank	Total Antimony (Sb)	2013/08/04	<1.0		mg/kg	
			Total Arsenic (As)	2013/08/04	<1.0		mg/kg	
			Total Barium (Ba)	2013/08/04	<10		mg/kg	
			Total Beryllium (Be)	2013/08/04	<0.40		mg/kg	
			Total Cadmium (Cd)	2013/08/04	<0.10		mg/kg	
			Total Chromium (Cr)	2013/08/04	<1.0		mg/kg	
			Total Cobalt (Co)	2013/08/04	<1.0		mg/kg	
			Total Copper (Cu)	2013/08/04	<5.0		mg/kg	
			Total Lead (Pb)	2013/08/04	<1.0		mg/kg	
			Total Magnesium (Mg)	2013/08/04	<100		mg/kg	
			Total Mercury (Hg)	2013/08/04	<0.050		mg/kg	
			Total Molybdenum (Mo)	2013/08/04	<0.40		mg/kg	
			Total Nickel (Ni)	2013/08/04	<1.0		mg/kg	
			Total Selenium (Se)	2013/08/04	<0.50		mg/kg	
			Total Silver (Ag)	2013/08/04	<1.0		mg/kg	
			Total Thallium (Tl)	2013/08/04	<0.30		mg/kg	
			Total Tin (Sn)	2013/08/04	<1.0		mg/kg	
			Total Uranium (U)	2013/08/04	<1.0		mg/kg	
			Total Vanadium (V)	2013/08/04	<1.0		mg/kg	
			Total Zinc (Zn)	2013/08/04	<10		mg/kg	
		RPD [HB9860-01]	Total Antimony (Sb)	2013/08/04	NC		%	35
			Total Arsenic (As)	2013/08/04	NC		%	35
			Total Barium (Ba)	2013/08/04	2.3		%	35
			Total Beryllium (Be)	2013/08/04	NC		%	35
			Total Cadmium (Cd)	2013/08/04	NC		%	35
			Total Chromium (Cr)	2013/08/04	18.1		%	35
			Total Cobalt (Co)	2013/08/04	NC		%	35
			Total Copper (Cu)	2013/08/04	NC		%	35
			Total Lead (Pb)	2013/08/04	NC		%	35
			Total Mercury (Hg)	2013/08/04	NC		%	35
			Total Molybdenum (Mo)	2013/08/04	NC		%	35
			Total Nickel (Ni)	2013/08/04	21.7		%	35
			Total Selenium (Se)	2013/08/04	NC		%	35

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QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7047717	SF3	RPD [HB9860-01]	Total Silver (Ag)	2013/08/04	NC		%	35
			Total Thallium (Tl)	2013/08/04	NC		%	35
			Total Tin (Sn)	2013/08/04	NC		%	35
			Total Uranium (U)	2013/08/04	NC		%	35
			Total Vanadium (V)	2013/08/04	19.4		%	35
			Total Zinc (Zn)	2013/08/04	NC		%	35
7047736	JHC	Matrix Spike	Soluble Calcium (Ca)	2013/08/04		98	%	75 - 125
			Soluble Magnesium (Mg)	2013/08/04		99	%	75 - 125
			Soluble Sodium (Na)	2013/08/04		96	%	75 - 125
			Soluble Potassium (K)	2013/08/04		100	%	75 - 125
		QC Standard	Soluble Calcium (Ca)	2013/08/04		114	%	75 - 125
			Soluble Magnesium (Mg)	2013/08/04		108	%	75 - 125
			Soluble Sodium (Na)	2013/08/04		103	%	75 - 125
			Soluble Potassium (K)	2013/08/04		111	%	75 - 125
			Soluble Sulphate (SO4)	2013/08/04		112	%	78 - 122
		Spiked Blank	Soluble Calcium (Ca)	2013/08/04		101	%	75 - 125
			Soluble Magnesium (Mg)	2013/08/04		101	%	75 - 125
			Soluble Sodium (Na)	2013/08/04		99	%	75 - 125
			Soluble Potassium (K)	2013/08/04		100	%	75 - 125
		Method Blank	Soluble Calcium (Ca)	2013/08/04	<1.5		mg/L	
			Soluble Magnesium (Mg)	2013/08/04	<1.0		mg/L	
			Soluble Sodium (Na)	2013/08/04	<2.5		mg/L	
			Soluble Potassium (K)	2013/08/04	<1.3		mg/L	
			Soluble Sulphate (SO4)	2013/08/04	<5.0		mg/L	
		RPD	Soluble Calcium (Ca)	2013/08/04	0.1		%	35
			Soluble Magnesium (Mg)	2013/08/04	0.6		%	35
			Soluble Sodium (Na)	2013/08/04	0.8		%	35
			Soluble Potassium (K)	2013/08/04	0.5		%	35
			Soluble Sulphate (SO4)	2013/08/04	0.4		%	35
7047919	JHC	Matrix Spike	Soluble (Hot water) Boron (B)	2013/08/04		101	%	75 - 125
		Spiked Blank	Soluble (Hot water) Boron (B)	2013/08/04		101	%	75 - 125
		Method Blank	Soluble (Hot water) Boron (B)	2013/08/04	<0.10		mg/kg	
		RPD	Soluble (Hot water) Boron (B)	2013/08/04	NC		%	35
7047942	JHC	Matrix Spike [HB9860-01]	Soluble (Hot water) Boron (B)	2013/08/04		106	%	75 - 125
		Spiked Blank	Soluble (Hot water) Boron (B)	2013/08/04		103	%	75 - 125
		Method Blank	Soluble (Hot water) Boron (B)	2013/08/04	<0.10		mg/kg	
		RPD [HB9860-01]	Soluble (Hot water) Boron (B)	2013/08/04	NC		%	35
7048448	SSF	QC Standard	Sieve - Pan	2013/08/06		100	%	95 - 105
			Sieve - #200 (>0.075mm)	2013/08/06		100	%	92 - 108
		RPD	Sieve - Pan	2013/08/06	29.5		%	35
			Sieve - #200 (>0.075mm)	2013/08/06	12.5		%	35
7048885	MA4	QC Standard	Soluble (CaCl2) pH	2013/08/06		102	%	97 - 103
		Spiked Blank	Soluble (CaCl2) pH	2013/08/06		100	%	97 - 103
		RPD	Soluble (CaCl2) pH	2013/08/06	0.1		%	5
7049152	MA4	QC Standard	Soluble (CaCl2) pH	2013/08/06		100	%	97 - 103
		Spiked Blank	Soluble (CaCl2) pH	2013/08/06		100	%	97 - 103
		RPD [HB9861-01]	Soluble (CaCl2) pH	2013/08/06	0.7		%	5
7049222	KD5	Matrix Spike	Hex. Chromium (Cr 6+)	2013/08/06		66 (1)	%	75 - 125
		Spiked Blank	Hex. Chromium (Cr 6+)	2013/08/06		102	%	90 - 110
		Method Blank	Hex. Chromium (Cr 6+)	2013/08/06	<0.15		mg/kg	
		RPD	Hex. Chromium (Cr 6+)	2013/08/06	NC		%	35
7049269	KD5	Matrix Spike [HB9875-01]	Hex. Chromium (Cr 6+)	2013/08/06		100	%	75 - 125
		Spiked Blank	Hex. Chromium (Cr 6+)	2013/08/06		103	%	90 - 110

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: CAMP FAREWELL
P.O. #: A04012A05
Site Location:

Quality Assurance Report (Continued)

Maxxam Job Number: EB367026

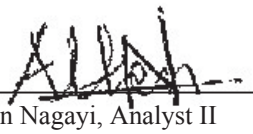
QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7049269	KD5	Method Blank	Hex. Chromium (Cr 6+)	2013/08/06	<0.15		mg/kg	
		RPD [HB9875-01]	Hex. Chromium (Cr 6+)	2013/08/06	NC		%	35
7050511	JHC	Matrix Spike	Extractable Barium (Ba)	2013/08/07		NC	%	75 - 125
		Spiked Blank	Extractable Barium (Ba)	2013/08/07		88	%	75 - 125
		Method Blank	Extractable Barium (Ba)	2013/08/07	<1.0		mg/kg	
		RPD	Extractable Barium (Ba)	2013/08/07	3.0		%	35
7051837	JSM	Matrix Spike						
		[HB9879-01]	Soluble Calcium (Ca)	2013/08/06		96	%	75 - 125
			Soluble Magnesium (Mg)	2013/08/06		103	%	75 - 125
			Soluble Sodium (Na)	2013/08/06		98	%	75 - 125
			Soluble Potassium (K)	2013/08/06		102	%	75 - 125
		QC Standard	Soluble Calcium (Ca)	2013/08/06		112	%	75 - 125
			Soluble Magnesium (Mg)	2013/08/06		112	%	75 - 125
			Soluble Sodium (Na)	2013/08/06		105	%	75 - 125
			Soluble Potassium (K)	2013/08/06		117	%	75 - 125
			Soluble Sulphate (SO4)	2013/08/06		111	%	78 - 122
		Spiked Blank	Soluble Calcium (Ca)	2013/08/06		102	%	75 - 125
			Soluble Magnesium (Mg)	2013/08/06		108	%	75 - 125
			Soluble Sodium (Na)	2013/08/06		103	%	75 - 125
			Soluble Potassium (K)	2013/08/06		106	%	75 - 125
		Method Blank	Soluble Calcium (Ca)	2013/08/06	<1.5		mg/L	
			Soluble Magnesium (Mg)	2013/08/06	<1.0		mg/L	
			Soluble Sodium (Na)	2013/08/06	<2.5		mg/L	
			Soluble Potassium (K)	2013/08/06	<1.3		mg/L	
			Soluble Sulphate (SO4)	2013/08/06	<5.0		mg/L	
		RPD [HB9879-01]	Soluble Calcium (Ca)	2013/08/06	16.8		%	35
			Soluble Magnesium (Mg)	2013/08/06	16.5		%	35
			Soluble Sodium (Na)	2013/08/06	NC		%	35
			Soluble Potassium (K)	2013/08/06	NC		%	35
			Soluble Sulphate (SO4)	2013/08/06	5.5		%	35

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 spiked amount was not sufficiently significant to permit a reliable recovery calculation.
NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.
(1) Matrix Spike exceeds acceptance limits for Hexavalent Chromium, due to matrix interference. Reanalysis yields similar results.

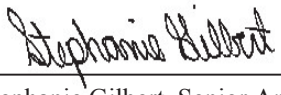
Validation Signature Page

Maxxam Job #: B367026

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

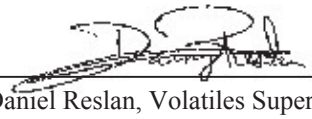


Allen Nagayi, Analyst II



Stephanie Gilbert, Senior Analyst

Poonam Sharma, Senior Analyst, Organics Department



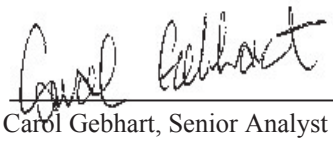
Daniel Reslan, Volatiles Supervisor

Annie Dang, B.Sc., Supervisor, Inorganic

Validation Signature Page

Maxxam Job #: B367026

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



Carol Gebhart, Senior Analyst

Michael Chae, Ph.D, Scientific 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.

Maxxam

Calgary: 4000 19st St. NE, T2E 6P8. Ph: (403) 291-3077, Fax: (403) 735-2240, Toll free: (800) 386-7247
Edmonton: 9331 - 48 Street, T6B 2R4. Ph: (780) 577-7100, Fax: (780) 450-4187, Toll free: (877) 465-8869
www.maxxamanalytics.com

08/09/13

Chain of Custody A134518

Page: 1 of 3

	Invoice To: C/O Report Address ☐	Report To: Same as Invoice ☒
Company:	Nicole Wills	
Contact:	EG Consultants Ltd.	
Address:	2618 Hopewell Place NE	
	Prov: Calgary, AB PC: T2E 7J7	Prov: PC:
Contact #s:	Ph: 403.829.3048 Cell:	Ph: Cell:

Report Distribution (E-Mail):
nwills@klohn.com
jcollins@klohn.com

REGULATORY GUIDELINES:
☐ AT1
☐ CCME
☐ Regulated Drinking Water
☐ Other:

All samples are held for 60 calendar days after sample receipt, unless specified otherwise.

PO #: AU4012A05
Project # / Name: Camp Farewell
Site Location:
Quote #:
Sampled By: Nicole Wills / Bryan Gendreau

SERVICE REQUESTED: ☒ RUSH (Contact lab to reserve) Date Required: ☐ REGULAR (5 to 7 Days)

See reverse for package specifics

	Sample ID	Depth (unit)	Matrix GW / SW Soil	Date/Time Sampled YY/MM/DD 24:00	SOIL: BTEX F1-F4	Sieve (75 micron)	Regulated Metals (CCME / AT1)	Salinity 4	Assessment ICP Metals	Basic Class II Landfill	PAH	Barite	WATER: ☐BTEX F1 ☐VOCs	☐BTEX F1-F2 ☐BTEX F1-F4	☐ Routine Water ☐ Turb ☐ F	☐ TOC ☐ DOC	Regulated Metals (CCME / AT1) Total	Dissolved	Mercury ☐ Total ☐ Dissolved	Other Analysis	HOLD - Do not Analyze	# of Containers Submitted
1	Ex-13-AB (7m)	7m	Soil	13/07/28	X		X	X														
2	Ex-13-BB (7m)	7m			X		X	X														
3	Ex-13-CB (7m)	7m			X		X	X														
4	Ex-13-FB (7m)	7m			X		X	X														
5	Ex-13-GB (7m)	7m			X		X	X														
6	Ex-13-HB (7m)	7m			X		X	X														
7	Ex-13-IB (7m)	7m			X		X	X														
8	Ex-13-KB (7m)	7m			X		X	X														
9	Ex-13-As (1m)	1m			X		X	X														
10	Ex-13-As (4m)	4m			X		X	X														
11	Ex-13-LE (2m)	2m			X		X	X														
12	Ex-13-LE (6m)	6m			X		X	X				X	X									

Okay mm

Please indicate Filtered, Preserved or Both (F, P, F/P) →

F/P

Relinquished By (Signature/Print):	Date (YY/MM/DD):	Time (24:00):
Bryan	13/07/31	19:40
Relinquished By (Signature/Print):	Date (YY/MM/DD):	Time (24:00):

Special Instructions:

# of Jars Used & Not Submitted

LAB USE ONLY

Received By:	Date:	Time:	Maxxam Job #: B367026
Jenna Walter	20130802		
Jenna Walter	JW#10	1010	

Lab Comments:

Custody Seal	Temperature	Ice
absent	6,6,6	present
	7,6,4	with
	12,12,9 (Bags)	ice

Maxxam

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Edmonton: 9331 - 48 Street, T6B 2R4. Ph: (780) 577-7100, Fax: (780) 450-4187, Toll free: (877) 465-8889
www.maxxamanalytics.com

Chain of Custody A134519

Page: 2 of 3

	Invoice To: C/O Report Address ☐	Report To: Same as Invoice ☒	Report Distribution (E-Mail):
Company:	Nicole Wills		nwills@Klohn.com
Contact:	LEG Consultants Ltd.		jcollins@Klohn.com
Address:	2618 Hopewell place NE		
	Prov: Calgary, AB PC: T1Y 7J7	Prov: PC:	
Contact #s:	Ph: 403.829.3048 Cell:	Ph: Cell:	

REGULATORY GUIDELINES:
- ☐ AT1
- ☐ CCME
- ☐ Regulated Drinking Water
- ☐ Other:

All samples are held for 60 calendar days after sample receipt, unless specified otherwise.

PO #:	
Project # / Name:	A04012A05
Site Location:	Camp Farewell
Quote #:	
Sampled By:	Nicole Wills / Bryan Gendreau

SERVICE REQUESTED: ☒ RUSH (Contact lab to reserve) Date Required: ☐ REGULAR (5 to 7 Days)

See reverse for package specifics

#	Sample ID	Depth (unit)	Matrix GW / SW Soil	Date/Time Sampled YY/MM/DD 24:00	SOIL: BTEX F1-F4	Sieve (75 micron)	Regulated Metals (CCME / AT1)	Salinity 4	Assessment ICP Metals	Basic Class II Landfill			WATER: ☐BTEX F1 / ☐VOCs	☐BTEX F1-F2 / ☐BTEX F1-F4	☐ Routine Water ☐ Turb ☐ F	☐ TOC ☐ DOC	Regulated Metals (CCME / AT1): Total	Dissolved	Mercury ☐ Total ☐ Dissolved	Other Analysis	HOLD - Do not Analyze	# of Containers Submitted
1	Ex-13-KE (2m)	2m	Soil	13/07/28	X	X	X	X														
2	Ex-13-JE (1m)	1m	↓	↓	X		X	X														
3	Ex-13-JE (7m)	7m	↓	↓	X		X	X														
4	Ex-13-IE (3m)	3m	↓	↓	~~X~~		~~X~~	~~X~~													X	
5	Ex-13-IE (6m)	6m	↓	↓	X		X	X														
6	TP21	0-1m	↓	13/07/29	X		X	X														
7	TP22	↓	↓	↓	X		X	X														
8	TP 23	↓	↓	↓	X		X	X														
9	TP 24	↓	↓	↓	X		X	X														
10	TP 25	↓	↓	↓	X		X	X														
11	TP 26	↓	↓	↓	X		X	X														
12	TP 27	Comp.	↓	↓	X		X	X														

Please indicate Filtered, Preserved or Both (F, P, F/P) → CKU/MM F/P

Relinquished By (Signature/Print):	Date (YY/MM/DD):	Time (24:00):
Bryan B	13/07/31	19:40
Relinquished By (Signature/Print):	Date (YY/MM/DD):	Time (24:00):

Special Instructions:

# of Jars Used & Not Submitted

LAB USE ONLY

Received By:	Date:	Time:	Maxxam Job #: B367026		
Jenna Walter	20130802	1010	Custody Seal	Temperature	Ice
Lab Comments:			absent	6,6,6 / 7,6,4 / 12,12,9(B)	Present with jars

AB FCD-00331 Rev3 2010/05

Maxxam Analytics International Corporation o/a Maxxam Analytics

Maxxam

Calgary: 4000 19st St. NE, T2E 6P8, Ph: (403) 291-3077, Fax: (403) 735-2240, Toll free: (800) 386-7247
Edmonton: 9331 - 48 Street, T6B 2R4, Ph: (780) 577-7100, Fax: (780) 450-4187, Toll free: (877) 465-8889
www.maxxamanalytics.com

Chain of Custody A134520

Page: 3 of 3

	Invoice To:	C/O Report Address ☐	Report To:	Same as Invoice ☒
Company:	See page 1			
Contact:				
Address:				
	Prov:	PC:	Prov:	PC:
Contact #s:	Ph:	Cell:	Ph:	Cell:

Report Distribution (E-Mail):
nwills@klohn.com
jcollins@klohn.com

REGULATORY GUIDELINES:
- ☐ AT1
- ☐ CCME
- ☐ Regulated Drinking Water
- ☐ Other:

All samples are held for 60 calendar days after sample receipt, unless specified otherwise.

PO #:	See page 1
Project # / Name:	
Site Location:	
Quote #:	
Sampled By:	

SERVICE REQUESTED:
☒ RUSH (Contact lab to reserve)
Date Required:
☐ REGULAR (5 to 7 Days)

See reverse for package specifics

#	Sample ID	Depth (unit)	Matrix GW / SW Soil	Date/Time Sampled YY/MM/DD 24:00	SOIL: BTEX F1-F4	SOIL: Sieve (75 micron)	SOIL: Regulated Metals (CCME / AT1)	SOIL: Salinity 4	SOIL: Assessment ICP Metals	SOIL: Basic Class II Landfill			WATER: ☐BTEX F1 / ☐VOCs	WATER: ☐BTEX F1-F2 / ☐BTEX F1-F4	WATER: ☐ Routine Water ☐ Turb ☐ F	WATER: ☐ TOC / ☐ DOC	WATER: Regulated Metals (CCME / AT1) Total	WATER: Regulated Metals (CCME / AT1) Dissolved	WATER: Mercury ☐ Total ☐ Dissolved	Other Analysis											HOLD - Do not Analyze	# of Containers Submitted
1	TP 28	Comp.	Soil	13/07/29	X		X	X																								
2	EX-13-CW (2m)	2m	↓	↓	X		X	X																								
3	Ex-13-DW (1m)	1m	↓	↓	X		X	X																								
4	EX-13-LB (7.5m)	7.5m	Soil	13/07/31	X		X	X																								
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12																																

OK / MM

Please indicate Filtered, Preserved or Both (F, P, F/P) → F/P

Relinquished By (Signature/Print):	Date (YY/MM/DD):	Time (24:00):
[signature]	13/07/31	19:40
Relinquished By (Signature/Print):	**Date (YY/MM/DD):**	**Time (24:00):**

Special Instructions:

# of Jars Used & Not Submitted

LAB USE ONLY

Received By:	Date:	Time:	Maxxam Job #: B367026		
Jenna Walter [signature]	20130802	1010	Custody Seal	Temperature	Ice
Lab Comments:			absent	6, 6, 6 / 7, 6, 4 / 12, 12, 9 (B)	present with jars

AB FCD-00331 Rev3 2010/05

Maxxam Analytics International Corporation o/a Maxxam Analytics

CONFIRMATION-RECEIPT OF SAMPLES FOR ANALYSIS

Maxxam Job # B367746

Client Project #: CAMP FAREWELL
PO #: A04012A05

6 Samples

Samples Received 2013/08/06
Client Confirmation 2013/08/06
Expected Report Delivery 2013/08/07 18:00

Report will be sent to:

NICOLE WILLS
KLOHN CRIPPEN BERGER LTD
HOPEWELL PLACE NE
CALGARY
T1Y 7J7
Ph 403-274-3424
Fax 403-274-5349
NWills@klohn.com

Invoice will be sent to:

Accounts Payable
IEG CONSULTANTS LTD.
500-2618 HOPEWELL PLACE NE
CALGARY
T1Y 7J7

We have received the following samples:

EX-13-3KE Sampled 2013/08/01 COC# A134521 Matrix: SOIL
Maxxam #: HC5247

AT1 BTEX and F1-F4 in Soil
Regulated Metals (CCME/AT1) - Soils
SOIL SALINITY 4
Acid Digestion for Metals - Soils
Drying and Grinding
Environmental Sample Disposal Fee
Hexavalent Chromium Prep Code
Sub Sample for Dry Grind
Sub-sample for metals

EX-13-2JE Sampled 2013/08/01
Maxxam #: HC5323

AT1 BTEX and F1-F4 in Soil
Regulated Metals (CCME/AT1) - Soils
SOIL SALINITY 4
Acid Digestion for Metals - Soils
Drying and Grinding
Environmental Sample Disposal Fee
Hexavalent Chromium Prep Code
Sub Sample for Dry Grind
Sub-sample for metals

EX-13-3JE Sampled 2013/08/01
Maxxam #: HC5325

AT1 BTEX and F1-F4 in Soil
Regulated Metals (CCME/AT1) - Soils
SOIL SALINITY 4
Acid Digestion for Metals - Soils

Drying and Grinding
Environmental Sample Disposal Fee
Hexavalent Chromium Prep Code
Sub Sample for Dry Grind
Sub-sample for metals

EX-13-3LN Sampled 2013/08/01
Maxxam #: HC5327
AT1 BTEX and F1-F4 in Soil
Regulated Metals (CCME/AT1) - Soils
SOIL SALINITY 4
Acid Digestion for Metals - Soils
Drying and Grinding
Environmental Sample Disposal Fee
Hexavalent Chromium Prep Code
Sub Sample for Dry Grind
Sub-sample for metals

EX-13-4LN Sampled 2013/08/01
Maxxam #: HC5328
AT1 BTEX and F1-F4 in Soil
Regulated Metals (CCME/AT1) - Soils
SOIL SALINITY 4
Acid Digestion for Metals - Soils
Drying and Grinding
Environmental Sample Disposal Fee
Hexavalent Chromium Prep Code
Sub Sample for Dry Grind
Sub-sample for metals

EX-13-2LE Sampled 2013/08/01
Maxxam #: HC5329
AT1 BTEX and F1-F4 in Soil
Regulated Metals (CCME/AT1) - Soils
SOIL SALINITY 4
Acid Digestion for Metals - Soils
Drying and Grinding
Environmental Sample Disposal Fee
Hexavalent Chromium Prep Code
Sub Sample for Dry Grind
Sub-sample for metals

Comments:

- Unless special storage arrangements are made, all samples will be discarded 60 days after receipt of samples.
- Non-regular samples are flagged as (C) Composite by lab, (H) Hold, or (L) Leachate.
- If there are any problems with the submitted samples, a Sample Integrity Form (SIF) detailing conditions will be included in this confirmation.
- For revisions please contact your Maxxam Project Management team at Ph (780) 577-7100.
  Your Project Manager is: Tanya Eugine

Maxxam Job # B367746 PARAMETERS FOR ANALYSIS REQUESTED

The values listed below are RDL's and not results. Report Detection Limit (RDL) may be elevated if there are matrix interferences or limited sample amounts.

Maxxam # HC5247, Sample IDN: **EX-13-3KE**
Maxxam # HC5323, Sample IDN: **EX-13-2JE**
Maxxam # HC5325, Sample IDN: **EX-13-3JE**
Maxxam # HC5327, Sample IDN: **EX-13-3LN**
Maxxam # HC5328, Sample IDN: **EX-13-4LN**
Maxxam # HC5329, Sample IDN: **EX-13-2LE**

AT1 BTEX AND F1-F4 IN SOIL			
F2 (C10-C16 Hydrocarbons)	10 mg/kg	F3 (C16-C34 Hydrocarbons)	50 mg/kg
F4 (C34-C50 Hydrocarbons)	50 mg/kg	Reached Baseline at C50	
F1 (C6-C10) - BTEX	12 mg/kg	(C6-C10)	12 mg/kg
Benzene	0.005 mg/kg	m & p-Xylene	0.04 mg/kg
Xylenes (Total)	0.04 mg/kg	Toluene	0.02 mg/kg
Ethylbenzene	0.01 mg/kg	o-Xylene	0.02 mg/kg
Moisture	0.3 %	F4G-SG (Heavy Hydrocarbons-Grav.)	500 mg/kg
SOIL SALINITY 4			
+Fluoride (F)	0.1 mg/kg	pH	
Conductivity	0.02 dS/m	Chloride (Cl)	5 mg/L
Chloride (Cl)	1 mg/kg	Sulphate (SO4)	5 mg/L
Sulphate (SO4)	1 mg/kg	+Bicarbonate (HCO3)	1 mg/kg
Anion Sum		Cation Sum	
Ion Balance	0.01 N/A	Cation/EC Ratio	0.1 N/A
Magnesium (Mg)	1 mg/L	Magnesium (Mg)	0.1 mg/kg
Potassium (K)	1.3 mg/L	Potassium (K)	0.2 mg/kg
Sodium (Na)	2.5 mg/L	Sodium (Na)	0.1 mg/kg
Calcium (Ca)	1.5 mg/L	Calcium (Ca)	0.1 mg/kg
Sodium Adsorption Ratio	0.1 N/A	Saturation %	
Theoretical Gypsum Requirement	0.1 tonnes/ha		
REGULATED METALS (CCME/AT1) - SOILS			
Hex. Chromium (Cr 6+)	0.15 mg/kg	Chromium (Cr)	1 mg/kg
Cobalt (Co)	1 mg/kg	Copper (Cu)	5 mg/kg
Mercury (Hg)	0.05 mg/kg	Lead (Pb)	1 mg/kg
Antimony (Sb)	1 mg/kg	Molybdenum (Mo)	0.4 mg/kg
Nickel (Ni)	1 mg/kg	Selenium (Se)	0.5 mg/kg
Silver (Ag)	1 mg/kg	Arsenic (As)	1 mg/kg
Thallium (Tl)	0.3 mg/kg	Tin (Sn)	1 mg/kg
Uranium (U)	1 mg/kg	Vanadium (V)	1 mg/kg
Zinc (Zn)	10 mg/kg	Barium (Ba)	10 mg/kg
Beryllium (Be)	0.4 mg/kg	Boron (B)	0.1 mg/kg
Cadmium (Cd)	0.1 mg/kg		

Maxxam

Calgary: 4000 19st St. NE, T2E 6P8. Ph: (403) 291-3077, Fax: (403) 735-2240, Toll free: (800) 386-7247
Edmonton: 9331 - 48 Street, T6B 2R4. Ph: (780) 577-7100, Fax: (780) 450-4187, Toll free: (877) 465-8889
www.maxxamanalytics.com

08/216

Chain of Custody A134521

Page: 1 of 1

	Invoice To: C/O Report Address ☐	Report To: Same as Invoice ☒	Report Distribution (E-Mail):
Company:	IEG Consultants LTD.		NWills@Klohn.com
Contact:	Nicole Wills		jcollins@Klohn.com
Address:	2618 Hopewell Place NE		
	Prov: Calgary AB PC: T1Y 7J7	Prov: PC:	
Contact #s:	Ph: 403 829 3048 Cell:	Ph: Cell:	

REGULATORY GUIDELINES:
- ☐ AT1
- ☐ CCME
- ☐ Regulated Drinking Water
- ☐ Other:

All samples are held for 60 calendar days after sample receipt, unless specified otherwise.

PO #:	A04012A05
Project # / Name:	
Site Location:	Camp Farewell
Quote #:	
Sampled By:	Nicole Wills / Jesse Collins

SERVICE REQUESTED: ☒ RUSH (Contact lab to reserve) Date Required: Aug 6 ☐ REGULAR (5 to 7 Days)

See reverse for package specifics

	Sample ID	Depth (unit)	Matrix GW / SW Soil	Date/Time Sampled YY/MM/DD 24:00	SOIL: BTEX F1-F4	SOIL: Sieve (75 micron)	SOIL: Regulated Metals (CCME / AT1)	SOIL: Salinity 4	SOIL: Assessment ICP Metals	SOIL: Basic Class II Landfill	WATER: ☐BTEX F1 ☐VOCs	WATER: ☐BTEX F1-F2 ☐BTEX F1-F4	WATER: ☐ Routine Water ☐ Turb ☐ F	WATER: ☐ TOC ☐ DOC	WATER: Regulated Metals (CCME / AT1) Total	WATER: Regulated Metals (CCME / AT1) Dissolved	WATER: Mercury ☐ Total ☐ Dissolved	Other Analysis	HOLD - Do not Analyze	# of Containers Submitted
1	Ex-13-3KE	4.0m	Soil	13/08/01	X		X	X												
2	Ex-13-2JE	4.0m			X		X	X												
3	Ex-13-3JE	4.0m			X		X	X												
4	Ex-13-3LN	4.0m			X		X	X												
5	Ex-13-4LN	7.0m			X		X	X												
6	Ex-13-2LE	4.0m			X		X	X												
7																				
8																				
9																				
10																				
11																				
12																				

$55/cm F/P

Please indicate Filtered, Preserved or Both (F, P, F/P)

Relinquished By (Signature/Print): Nicole Wills	Date (YY/MM/DD): 13/08	Time (24:00):
Relinquished By (Signature/Print):	Date (YY/MM/DD):	Time (24:00):
Special Instructions:		# of Jars Used & Not Submitted

LAB USE ONLY

Received By: Rachel Davies	Date: 20130806	Time: 10:55	Maxxam Job #: B367746		
Lab Comments:			Custody Seal: absent	Temperature: 7.7.8	Ice: present

Your P.O. #: A04012A05
Your Project #: CAMP FAREWELL
Your C.O.C. #: A134521

Attention: NICOLE WILLS

KLOHN CRIPPEN BERGER LTD
500-2618
HOPEWELL PLACE NE
CALGARY, AB
CANADA T1Y 7J7

Report Date: 2013/08/07

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B367746
Received: 2013/08/06, 10:55

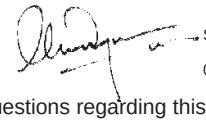
Sample Matrix: Soil
Samples Received: 6

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
BTEX/F1 by HS GC/MS (MeOH extract)	6	2013/08/06	2013/08/07	AB SOP-00039	CCME, EPA 8260
Cation/EC Ratio	6	N/A	2013/08/07		CALCULATION
Chloride (Soluble)	6	2013/08/07	2013/08/07	AB SOP-00020	SSMA 4500 CL-E
Hexavalent Chromium	6	2013/08/06	2013/08/07	EENVSOP-00131	SM 3500-Cr B
Conductivity @25C (Soluble)	6	2013/08/07	2013/08/07	AB SOP-00004	SSMA 15.3
CCME Hydrocarbons (F2-F4 in soil)	6	2013/08/06	2013/08/06	AB SOP-00040 AB SOP-00036	CCME PHC-CWS
Elements by ICPMS - Soils	6	2013/08/07	2013/08/07	AB SOP-00043	EPA 200.8
Ion Balance	6	N/A	2013/08/07	AB WI-00065	SM 1030E
Sum of Cations, Anions	6	N/A	2013/08/07	AB WI-00065	SM 1030E
Moisture	6	N/A	2013/08/07	AB SOP-00002	CCME PHC-CWS
pH @25C (1:2 Calcium Chloride Extract)	6	2013/08/07	2013/08/07	AB SOP-00006	SSMA 16.3
Sodium Adsorption Ratio	6	N/A	2013/08/07	AB WI-00065	SSMA 15.4.4
Ca,Mg,Na,K,SO4 (Soluble)	6	2013/08/07	2013/08/07	AB SOP-00042	EPA 200.7
Soluble Paste	6	2013/08/07	2013/08/07	AB SOP-00033	SSMA 15.2
Soluble Ions Calculation	6	N/A	2013/08/07		CALCULATION
Theoretical Gypsum Requirement (1)	6	N/A	2013/08/07	CAL WI-00087	CJSS 79:449-455

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

(1) Units for TGR have changed from tons/acre to tonnes/ha

Encryption Key



Sherlyne Sim
07 Aug 2013 17:47:45 -06:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Tanya Eugine, M.Sc., Project Manager
Email: TEugine@maxxam.ca
Phone# (780) 577-7144

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section

Your P.O. #: A04012A05
Your Project #: CAMP FAREWELL
Your C.O.C. #: A134521

Attention: NICOLE WILLS

KLOHN CRIPPEN BERGER LTD
500-2618
HOPEWELL PLACE NE
CALGARY, AB
CANADA T1Y 7J7

Report Date: 2013/08/07

CERTIFICATE OF ANALYSIS

5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Analytics International Corporation o/a Maxxam Analytics Edmonton: 9331 - 48th Street T6B 2R4 Telephone(780)577-7100 Fax(780)450-4187

Maxxam Job #: B367746
Report Date: 2013/08/07

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: NW

AT1 BTEX AND F1-F4 IN SOIL (SOIL)

Maxxam ID		HC5247	HC5323	HC5325	HC5327	HC5328		
Sampling Date		2013/08/01	2013/08/01	2013/08/01	2013/08/01	2013/08/01		
COC Number		A134521	A134521	A134521	A134521	A134521		
	UNITS	**EX-13-3KE**	**EX-13-2JE**	**EX-13-3JE**	**EX-13-3LN**	**EX-13-4LN**	**RDL**	**QC Batch**
Physical Properties								
Moisture	%	18	18	15	17	18	0.30	7054085
Ext. Pet. Hydrocarbon								
F2 (C10-C16 Hydrocarbons)	mg/kg	<10	<10	13	<10	<10	10	7051832
F3 (C16-C34 Hydrocarbons)	mg/kg	<50	<50	<50	<50	<50	50	7051832
F4 (C34-C50 Hydrocarbons)	mg/kg	<50	<50	<50	<50	<50	50	7051832
Reached Baseline at C50	mg/kg	Yes	Yes	Yes	Yes	Yes		7051832
Volatiles								
Benzene	mg/kg	0.088	<0.0050	0.040	0.075	0.040	0.0050	7051944
Toluene	mg/kg	0.35	<0.020	0.12	0.12	0.33	0.020	7051944
Ethylbenzene	mg/kg	0.16	0.019	0.075	0.076	0.16	0.010	7051944
Xylenes (Total)	mg/kg	0.86	0.11	0.38	0.45	0.80	0.040	7051944
m & p-Xylene	mg/kg	0.59	0.081	0.25	0.28	0.63	0.040	7051944
o-Xylene	mg/kg	0.27	0.031	0.13	0.17	0.18	0.020	7051944
F1 (C6-C10) - BTEX	mg/kg	19	<12	19	<12	<12	12	7051944
(C6-C10)	mg/kg	21	<12	20	<12	<12	12	7051944
Surrogate Recovery (%)								
1,4-Difluorobenzene (sur.)	%	105	108	111	130	114		7051944
4-BROMOFLUOROBENZENE (sur.)	%	105	103	107	118	103		7051944
D10-ETHYLBENZENE (sur.)	%	96	98	100	100	105		7051944
D4-1,2-DICHLOROETHANE (sur.)	%	95	99	105	117	103		7051944
O-TERPHENYL (sur.)	%	86	84	89	88	79		7051832

RDL = Reportable Detection Limit

Maxxam Job #: B367746
Report Date: 2013/08/07

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: NW

AT1 BTEX AND F1-F4 IN SOIL (SOIL)

Maxxam ID		HC5329		
Sampling Date		2013/08/01		
COC Number		A134521		
	UNITS	**EX-13-2LE**	**RDL**	**QC Batch**
Physical Properties				
Moisture	%	21	0.30	7054085
Ext. Pet. Hydrocarbon				
F2 (C10-C16 Hydrocarbons)	mg/kg	<10	10	7051832
F3 (C16-C34 Hydrocarbons)	mg/kg	<50	50	7051832
F4 (C34-C50 Hydrocarbons)	mg/kg	<50	50	7051832
Reached Baseline at C50	mg/kg	Yes		7051832
Volatiles				
Benzene	mg/kg	0.090	0.0050	7051944
Toluene	mg/kg	0.17	0.020	7051944
Ethylbenzene	mg/kg	0.081	0.010	7051944
Xylenes (Total)	mg/kg	0.50	0.040	7051944
m & p-Xylene	mg/kg	0.38	0.040	7051944
o-Xylene	mg/kg	0.12	0.020	7051944
F1 (C6-C10) - BTEX	mg/kg	<12	12	7051944
(C6-C10)	mg/kg	<12	12	7051944
Surrogate Recovery (%)				
1,4-Difluorobenzene (sur.)	%	132		7051944
4-BROMOFLUOROBENZENE (sur.)	%	100		7051944
D10-ETHYLBENZENE (sur.)	%	122		7051944
D4-1,2-DICHLOROETHANE (sur.)	%	121		7051944
O-TERPHENYL (sur.)	%	83		7051832

RDL = Reportable Detection Limit

Maxxam Job #: B367746
Report Date: 2013/08/07

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: NW

SOIL SALINITY 4 (SOIL)

Maxxam ID		HC5247		HC5323		HC5325		HC5327		
Sampling Date		2013/08/01		2013/08/01		2013/08/01		2013/08/01		
COC Number		A134521		A134521		A134521		A134521		
	UNITS	**EX-13-3KE**	**RDL**	**EX-13-2JE**	**RDL**	**EX-13-3JE**	**RDL**	**EX-13-3LN**	**RDL**	**QC Batch**
Calculated Parameters										
Anion Sum	meq/L	13	N/A	23	N/A	11	N/A	9.7	N/A	7049797
Cation Sum	meq/L	13	N/A	24	N/A	11	N/A	9.9	N/A	7049797
Cation/EC Ratio	N/A	9.5	0.10	9.8	0.10	8.6	0.10	9.8	0.10	7049783
Ion Balance	N/A	0.97	0.010	1.0	0.010	1.0	0.010	1.0	0.010	7049795
Calculated Calcium (Ca)	mg/kg	36	0.47	63	0.47	28	0.48	27	0.47	7050162
Calculated Magnesium (Mg)	mg/kg	11	0.32	20	0.31	7.5	0.32	8.1	0.31	7050162
Calculated Sodium (Na)	mg/kg	30	0.79	57	0.78	31	0.80	23	0.78	7050162
Calculated Potassium (K)	mg/kg	4.2	0.41	5.8	0.40	3.8	0.42	3.9	0.41	7050162
Calculated Chloride (Cl)	mg/kg	82	1.6	150	3.1	29	1.6	36	1.6	7050162
Calculated Sulphate (SO4)	mg/kg	93	1.6	140	1.6	120	1.6	97	1.6	7050162
Soluble Parameters										
Soluble Chloride (Cl)	mg/L	260	5.0	480 (1)	10	91	5.0	120	5.0	7056078
Soluble Conductivity	dS/m	1.4	0.020	2.4	0.020	1.3	0.020	1.0	0.020	7053928
Soluble (CaCl2) pH	N/A	7.58	N/A	7.51	N/A	7.54	N/A	7.61	N/A	7054708
Sodium Adsorption Ratio	N/A	2.0	0.10	2.9	0.10	2.4	0.10	1.7	0.10	7049802
Soluble Calcium (Ca)	mg/L	110	1.5	200	1.5	88	1.5	88	1.5	7056147
Soluble Magnesium (Mg)	mg/L	35	1.0	65	1.0	23	1.0	26	1.0	7056147
Soluble Sodium (Na)	mg/L	96	2.5	180	2.5	96	2.5	72	2.5	7056147
Soluble Potassium (K)	mg/L	13	1.3	19	1.3	12	1.3	13	1.3	7056147
Saturation %	%	32	N/A	31	N/A	32	N/A	31	N/A	7053443
Soluble Sulphate (SO4)	mg/L	290	5.0	450	5.0	380	5.0	310	5.0	7056147
Theoretical Gypsum Requirement	tonnes/ha	<0.10	0.10	<0.10	0.10	<0.10	0.10	<0.10	0.10	7049806

RDL = Reportable Detection Limit
(1) Detection limits raised due to dilution to bring analyte within the calibrated range.

Maxxam Job #: B367746
Report Date: 2013/08/07

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: NW

SOIL SALINITY 4 (SOIL)

Maxxam ID		HC5328		HC5329		
Sampling Date		2013/08/01		2013/08/01		
COC Number		A134521		A134521		
	UNITS	**EX-13-4LN**	**RDL**	**EX-13-2LE**	**RDL**	**QC Batch**
Calculated Parameters						
Anion Sum	meq/L	14	N/A	20	N/A	7049797
Cation Sum	meq/L	14	N/A	22	N/A	7049797
Cation/EC Ratio	N/A	9.7	0.10	9.8	0.10	7049783
Ion Balance	N/A	0.97	0.010	1.1	0.010	7049795
Calculated Calcium (Ca)	mg/kg	37	0.43	66	0.50	7050162
Calculated Magnesium (Mg)	mg/kg	11	0.29	22	0.33	7050162
Calculated Sodium (Na)	mg/kg	27	0.72	49	0.83	7050162
Calculated Potassium (K)	mg/kg	4.0	0.38	5.0	0.43	7050162
Calculated Chloride (Cl)	mg/kg	55	1.4	130	3.3	7050162
Calculated Sulphate (SO4)	mg/kg	120	1.4	150	1.7	7050162
Soluble Parameters						
Soluble Chloride (Cl)	mg/L	190	5.0	380 (1)	10	7056078
Soluble Conductivity	dS/m	1.4	0.020	2.2	0.020	7053928
Soluble (CaCl2) pH	N/A	7.53	N/A	7.28	N/A	7054708
Sodium Adsorption Ratio	N/A	1.9	0.10	2.3	0.10	7049802
Soluble Calcium (Ca)	mg/L	130	1.5	200	1.5	7056147
Soluble Magnesium (Mg)	mg/L	38	1.0	65	1.0	7056147
Soluble Sodium (Na)	mg/L	93	2.5	150	2.5	7056147
Soluble Potassium (K)	mg/L	14	1.3	15	1.3	7056147
Saturation %	%	29	N/A	33	N/A	7053443
Soluble Sulphate (SO4)	mg/L	430	5.0	460	5.0	7056147
Theoretical Gypsum Requirement	tonnes/ha	<0.10	0.10	<0.10	0.10	7049806

RDL = Reportable Detection Limit
(1) Detection limits raised due to matrix interference.

Maxxam Job #: B367746
Report Date: 2013/08/07

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: NW

REGULATED METALS (CCME/AT1) - SOILS

Maxxam ID		HC5247	HC5323	HC5325	HC5327	HC5328	HC5329		
Sampling Date		2013/08/01	2013/08/01	2013/08/01	2013/08/01	2013/08/01	2013/08/01		
COC Number		A134521	A134521	A134521	A134521	A134521	A134521		
	UNITS	**EX-13-3KE**	**EX-13-2JE**	**EX-13-3JE**	**EX-13-3LN**	**EX-13-4LN**	**EX-13-2LE**	**RDL**	**QC Batch**
Elements									
Hex. Chromium (Cr 6+)	mg/kg	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	0.15	7053951
Total Antimony (Sb)	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	7055900
Total Arsenic (As)	mg/kg	5.4	6.8	5.1	5.2	5.3	5.4	1.0	7055900
Total Barium (Ba)	mg/kg	61	91	64	71	71	71	10	7055900
Total Beryllium (Be)	mg/kg	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	0.40	7055900
Total Cadmium (Cd)	mg/kg	<0.10	0.11	<0.10	<0.10	<0.10	<0.10	0.10	7055900
Total Chromium (Cr)	mg/kg	5.6	5.7	5.5	5.4	5.4	5.4	1.0	7055900
Total Cobalt (Co)	mg/kg	3.5	4.7	3.6	3.5	3.5	3.8	1.0	7055900
Total Copper (Cu)	mg/kg	<5.0	5.3	<5.0	<5.0	<5.0	<5.0	5.0	7055900
Total Lead (Pb)	mg/kg	2.8	3.5	2.7	2.7	3.0	2.7	1.0	7055900
Total Mercury (Hg)	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	7055900
Total Molybdenum (Mo)	mg/kg	0.51	0.73	0.41	0.47	0.47	0.53	0.40	7055900
Total Nickel (Ni)	mg/kg	10	12	10	9.7	10	11	1.0	7055900
Total Selenium (Se)	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	7055900
Total Silver (Ag)	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	7055900
Total Thallium (Tl)	mg/kg	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	0.30	7055900
Total Tin (Sn)	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	7055900
Total Uranium (U)	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	7055900
Total Vanadium (V)	mg/kg	11	12	10	11	11	11	1.0	7055900
Total Zinc (Zn)	mg/kg	27	30	27	25	25	26	10	7055900

RDL = Reportable Detection Limit

Maxxam Job #: B367746
Report Date: 2013/08/07

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: NW

General Comments

Results relate only to the items tested.

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: CAMP FAREWELL
P.O. #: A04012A05
Site Location:

Quality Assurance Report

Maxxam Job Number: EB367746

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7051832	GG3	Matrix Spike	O-TERPHENYL (sur.)	2013/08/06		84	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/08/06		89	%	50 - 130
			F3 (C16-C34 Hydrocarbons)	2013/08/06		89	%	50 - 130
			F4 (C34-C50 Hydrocarbons)	2013/08/06		91	%	50 - 130
		Spiked Blank	O-TERPHENYL (sur.)	2013/08/06		88	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/08/06		104	%	70 - 130
			F3 (C16-C34 Hydrocarbons)	2013/08/06		107	%	70 - 130
			F4 (C34-C50 Hydrocarbons)	2013/08/06		104	%	70 - 130
		Method Blank	O-TERPHENYL (sur.)	2013/08/06		92	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/08/06	<10		mg/kg	
			F3 (C16-C34 Hydrocarbons)	2013/08/06	<50		mg/kg	
			F4 (C34-C50 Hydrocarbons)	2013/08/06	<50		mg/kg	
		RPD	F2 (C10-C16 Hydrocarbons)	2013/08/06	NC		%	50
			F3 (C16-C34 Hydrocarbons)	2013/08/06	NC		%	50
			F4 (C34-C50 Hydrocarbons)	2013/08/06	NC		%	50
7051944	PS7	Matrix Spike	1,4-Difluorobenzene (sur.)	2013/08/07		75	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/08/07		110	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/08/07		102	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/08/07		79	%	60 - 140
			Benzene	2013/08/07		70	%	60 - 140
			Toluene	2013/08/07		74	%	60 - 140
			Ethylbenzene	2013/08/07		104	%	60 - 140
			m & p-Xylene	2013/08/07		118	%	60 - 140
			o-Xylene	2013/08/07		104	%	60 - 140
			(C6-C10)	2013/08/07		115	%	60 - 140
		Spiked Blank	1,4-Difluorobenzene (sur.)	2013/08/07		93	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/08/07		88	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/08/07		103	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/08/07		96	%	60 - 140
			Benzene	2013/08/07		97	%	60 - 140
			Toluene	2013/08/07		98	%	60 - 140
			Ethylbenzene	2013/08/07		102	%	60 - 140
			m & p-Xylene	2013/08/07		105	%	60 - 140
			o-Xylene	2013/08/07		109	%	60 - 140
			(C6-C10)	2013/08/07		117	%	60 - 140
		Method Blank	1,4-Difluorobenzene (sur.)	2013/08/07		69	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/08/07		113	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/08/07		98	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/08/07		76	%	60 - 140
			Benzene	2013/08/07	<0.0050		mg/kg	
			Toluene	2013/08/07	<0.020		mg/kg	
			Ethylbenzene	2013/08/07	<0.010		mg/kg	
			Xylenes (Total)	2013/08/07	<0.040		mg/kg	
			m & p-Xylene	2013/08/07	<0.040		mg/kg	
			o-Xylene	2013/08/07	<0.020		mg/kg	
			F1 (C6-C10) - BTEX	2013/08/07	<12		mg/kg	
			(C6-C10)	2013/08/07	<12		mg/kg	
		RPD	Benzene	2013/08/07	NC		%	50
			Toluene	2013/08/07	NC		%	50
			Ethylbenzene	2013/08/07	NC		%	50
			Xylenes (Total)	2013/08/07	NC		%	50
			m & p-Xylene	2013/08/07	NC		%	50
			o-Xylene	2013/08/07	NC		%	50
			F1 (C6-C10) - BTEX	2013/08/07	NC		%	50
			(C6-C10)	2013/08/07	NC		%	50

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: CAMP FAREWELL
P.O. #: A04012A05
Site Location:

Quality Assurance Report (Continued)

Maxxam Job Number: EB367746

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7053443	AD7	QC Standard	Saturation %	2013/08/07		103	%	93 - 107
		RPD	Saturation %	2013/08/07	1.5		%	12
7053928	LZ2	QC Standard	Soluble Conductivity	2013/08/07		92	%	85 - 115
		Spiked Blank	Soluble Conductivity	2013/08/07		100	%	90 - 110
		Method Blank	Soluble Conductivity	2013/08/07	<0.020		dS/m	
		RPD	Soluble Conductivity	2013/08/07	0.2		%	35
7053951	KD5	Matrix Spike						
		[HC5247-01]	Hex. Chromium (Cr 6+)	2013/08/07		93	%	75 - 125
		Spiked Blank	Hex. Chromium (Cr 6+)	2013/08/07		98	%	90 - 110
		Method Blank	Hex. Chromium (Cr 6+)	2013/08/07	<0.15		mg/kg	
		RPD [HC5247-01]	Hex. Chromium (Cr 6+)	2013/08/07	NC		%	35
7054085	ABH	Method Blank	Moisture	2013/08/07	<0.30		%	
		RPD [HC5329-01]	Moisture	2013/08/07	6.8		%	20
7054708	MA4	QC Standard	Soluble (CaCl2) pH	2013/08/07		102	%	97 - 103
		Spiked Blank	Soluble (CaCl2) pH	2013/08/07		101	%	97 - 103
7055900	WAU	Matrix Spike						
		[HC5247-01]	Total Antimony (Sb)	2013/08/07		96	%	75 - 125
			Total Arsenic (As)	2013/08/07		94	%	75 - 125
			Total Barium (Ba)	2013/08/07		NC	%	75 - 125
			Total Beryllium (Be)	2013/08/07		99	%	75 - 125
			Total Cadmium (Cd)	2013/08/07		92	%	75 - 125
			Total Chromium (Cr)	2013/08/07		91	%	75 - 125
			Total Cobalt (Co)	2013/08/07		88	%	75 - 125
			Total Copper (Cu)	2013/08/07		89	%	75 - 125
			Total Lead (Pb)	2013/08/07		85	%	75 - 125
			Total Mercury (Hg)	2013/08/07		92	%	75 - 125
			Total Molybdenum (Mo)	2013/08/07		96	%	75 - 125
			Total Nickel (Ni)	2013/08/07		92	%	75 - 125
			Total Selenium (Se)	2013/08/07		93	%	75 - 125
			Total Silver (Ag)	2013/08/07		99	%	75 - 125
			Total Thallium (Tl)	2013/08/07		88	%	75 - 125
			Total Tin (Sn)	2013/08/07		99	%	75 - 125
			Total Uranium (U)	2013/08/07		94	%	75 - 125
			Total Vanadium (V)	2013/08/07		97	%	75 - 125
			Total Zinc (Zn)	2013/08/07		NC	%	75 - 125
		QC Standard	Total Arsenic (As)	2013/08/07		110	%	50 - 150
			Total Barium (Ba)	2013/08/07		106	%	69 - 131
			Total Chromium (Cr)	2013/08/07		94	%	41 - 159
			Total Cobalt (Co)	2013/08/07		96	%	75 - 125
			Total Copper (Cu)	2013/08/07		96	%	73 - 127
			Total Lead (Pb)	2013/08/07		98	%	54 - 146
			Total Nickel (Ni)	2013/08/07		104	%	61 - 139
			Total Vanadium (V)	2013/08/07		112	%	50 - 150
			Total Zinc (Zn)	2013/08/07		101	%	72 - 128
		Spiked Blank	Total Antimony (Sb)	2013/08/07		95	%	75 - 125
			Total Arsenic (As)	2013/08/07		92	%	75 - 125
			Total Barium (Ba)	2013/08/07		94	%	75 - 125
			Total Beryllium (Be)	2013/08/07		95	%	75 - 125
			Total Cadmium (Cd)	2013/08/07		90	%	75 - 125
			Total Chromium (Cr)	2013/08/07		89	%	75 - 125
			Total Cobalt (Co)	2013/08/07		88	%	75 - 125
			Total Copper (Cu)	2013/08/07		89	%	75 - 125
			Total Lead (Pb)	2013/08/07		84	%	75 - 125
			Total Mercury (Hg)	2013/08/07		96	%	75 - 125
			Total Molybdenum (Mo)	2013/08/07		92	%	75 - 125

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: CAMP FAREWELL
P.O. #: A04012A05
Site Location:

Quality Assurance Report (Continued)

Maxxam Job Number: EB367746

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7055900	WAU	Spiked Blank	Total Nickel (Ni)	2013/08/07		89	%	75 - 125
			Total Selenium (Se)	2013/08/07		93	%	75 - 125
			Total Silver (Ag)	2013/08/07		97	%	75 - 125
			Total Thallium (Tl)	2013/08/07		88	%	75 - 125
			Total Tin (Sn)	2013/08/07		95	%	75 - 125
			Total Uranium (U)	2013/08/07		94	%	75 - 125
			Total Vanadium (V)	2013/08/07		93	%	75 - 125
			Total Zinc (Zn)	2013/08/07		91	%	75 - 125
		Method Blank	Total Antimony (Sb)	2013/08/07	<1.0		mg/kg	
			Total Arsenic (As)	2013/08/07	<1.0		mg/kg	
			Total Barium (Ba)	2013/08/07	<10		mg/kg	
			Total Beryllium (Be)	2013/08/07	<0.40		mg/kg	
			Total Cadmium (Cd)	2013/08/07	<0.10		mg/kg	
			Total Chromium (Cr)	2013/08/07	<1.0		mg/kg	
			Total Cobalt (Co)	2013/08/07	<1.0		mg/kg	
			Total Copper (Cu)	2013/08/07	<5.0		mg/kg	
			Total Lead (Pb)	2013/08/07	<1.0		mg/kg	
			Total Mercury (Hg)	2013/08/07	<0.050		mg/kg	
			Total Molybdenum (Mo)	2013/08/07	<0.40		mg/kg	
			Total Nickel (Ni)	2013/08/07	<1.0		mg/kg	
			Total Selenium (Se)	2013/08/07	<0.50		mg/kg	
			Total Silver (Ag)	2013/08/07	<1.0		mg/kg	
			Total Thallium (Tl)	2013/08/07	<0.30		mg/kg	
			Total Tin (Sn)	2013/08/07	<1.0		mg/kg	
			Total Uranium (U)	2013/08/07	<1.0		mg/kg	
			Total Vanadium (V)	2013/08/07	<1.0		mg/kg	
			Total Zinc (Zn)	2013/08/07	<10		mg/kg	
		RPD [HC5247-01]	Total Antimony (Sb)	2013/08/07	NC		%	35
			Total Arsenic (As)	2013/08/07	4.3		%	35
			Total Barium (Ba)	2013/08/07	0.1		%	35
			Total Beryllium (Be)	2013/08/07	NC		%	35
			Total Cadmium (Cd)	2013/08/07	NC		%	35
			Total Chromium (Cr)	2013/08/07	3.8		%	35
			Total Cobalt (Co)	2013/08/07	NC		%	35
			Total Copper (Cu)	2013/08/07	NC		%	35
			Total Lead (Pb)	2013/08/07	NC		%	35
			Total Mercury (Hg)	2013/08/07	NC		%	35
			Total Molybdenum (Mo)	2013/08/07	NC		%	35
			Total Nickel (Ni)	2013/08/07	3.9		%	35
			Total Selenium (Se)	2013/08/07	NC		%	35
			Total Silver (Ag)	2013/08/07	NC		%	35
			Total Thallium (Tl)	2013/08/07	NC		%	35
			Total Tin (Sn)	2013/08/07	NC		%	35
			Total Uranium (U)	2013/08/07	NC		%	35
			Total Vanadium (V)	2013/08/07	2.6		%	35
			Total Zinc (Zn)	2013/08/07	NC		%	35
7056078	KD5	Matrix Spike	Soluble Chloride (Cl)	2013/08/07		99	%	75 - 125
		QC Standard	Soluble Chloride (Cl)	2013/08/07		92	%	75 - 125
		Spiked Blank	Soluble Chloride (Cl)	2013/08/07		106	%	75 - 125
		Method Blank	Soluble Chloride (Cl)	2013/08/07	<5.0		mg/L	
		RPD	Soluble Chloride (Cl)	2013/08/07	NC		%	35
7056147	JSM	Matrix Spike	Soluble Calcium (Ca)	2013/08/07		113	%	75 - 125
			Soluble Magnesium (Mg)	2013/08/07		113	%	75 - 125
			Soluble Sodium (Na)	2013/08/07		109	%	75 - 125
			Soluble Potassium (K)	2013/08/07		107	%	75 - 125

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: CAMP FAREWELL
P.O. #: A04012A05
Site Location:

Quality Assurance Report (Continued)

Maxxam Job Number: EB367746

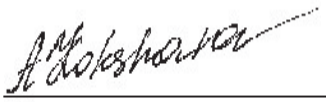
QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7056147	JSM	QC Standard	Soluble Calcium (Ca)	2013/08/07		87	%	75 - 125
			Soluble Magnesium (Mg)	2013/08/07		86	%	75 - 125
			Soluble Sodium (Na)	2013/08/07		96	%	75 - 125
			Soluble Potassium (K)	2013/08/07		107	%	75 - 125
			Soluble Sulphate (SO4)	2013/08/07		86	%	78 - 122
		Spiked Blank	Soluble Calcium (Ca)	2013/08/07		105	%	75 - 125
			Soluble Magnesium (Mg)	2013/08/07		105	%	75 - 125
			Soluble Sodium (Na)	2013/08/07		102	%	75 - 125
			Soluble Potassium (K)	2013/08/07		100	%	75 - 125
		Method Blank	Soluble Calcium (Ca)	2013/08/07	<1.5		mg/L	
			Soluble Magnesium (Mg)	2013/08/07	<1.0		mg/L	
			Soluble Sodium (Na)	2013/08/07	<2.5		mg/L	
			Soluble Potassium (K)	2013/08/07	<1.3		mg/L	
			Soluble Sulphate (SO4)	2013/08/07	<5.0		mg/L	
		RPD	Soluble Calcium (Ca)	2013/08/07	2.0		%	35
			Soluble Magnesium (Mg)	2013/08/07	2.5		%	35
			Soluble Sodium (Na)	2013/08/07	0.6		%	35
			Soluble Potassium (K)	2013/08/07	NC		%	35
			Soluble Sulphate (SO4)	2013/08/07	NC		%	35

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 spiked amount was not sufficiently significant to permit a reliable recovery calculation.
NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

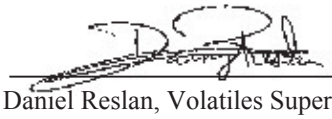
Validation Signature Page

Maxxam Job #: B367746

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

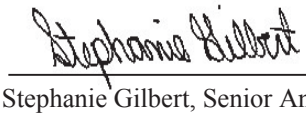


Anna Koksharova, Senior Analyst



Daniel Reslan, Volatiles Supervisor

Poonam Sharma, Senior Analyst, Organics Department



Stephanie Gilbert, Senior Analyst

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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.

Maxxam

Calgary: 4000 19st St. NE, T2E 6P8. Ph: (403) 291-3077, Fax: (403) 735-2240, Toll free: (800) 386-7247
Edmonton: 9331 - 48 Street, T6B 2R4. Ph: (780) 577-7100, Fax: (780) 450-4187, Toll free: (877) 465-8889
www.maxxamanalytics.com

08/216

Chain of Custody A134521

Page: 1 of 1

	Invoice To: C/O Report Address ☐	Report To: Same as Invoice ☒	Report Distribution (E-Mail):
Company:	IEG Consultants LTD.		NWills@Klohn.com
Contact:	Nicole Wills		jcollins@Klohn.com
Address:	2618 Hopewell Place NE		
	Prov: Calgary AB PC: T1Y 7J7	Prov: PC:	
Contact #s:	Ph: 403 829 3048 Cell:	Ph: Cell:	

REGULATORY GUIDELINES:
☐ AT1
☐ CCME
☐ Regulated Drinking Water
☐ Other:

All samples are held for 60 calendar days after sample receipt, unless specified otherwise.

PO #: A04012A05
Project # / Name:
Site Location: Camp Farewell
Quote #:
Sampled By: Nicole Wills / Jesse Collins

SERVICE REQUESTED: ☒ RUSH (Contact lab to reserve) Date Required: Aug 6 ☐ REGULAR (5 to 7 Days)

See reverse for package specifics

	Sample ID	Depth (unit)	Matrix GW / SW Soil	Date/Time Sampled YY/MM/DD 24:00	SOIL: BTEX F1-F4	SOIL: Sieve (75 micron)	SOIL: Regulated Metals (CCME / AT1)	SOIL: Salinity 4	SOIL: Assessment ICP Metals	SOIL: Basic Class II Landfill	WATER: ☐BTEX F1 ☐VOCs	WATER: ☐BTEX F1-F2 ☐BTEX F1-F4	WATER: ☐ Routine Water ☐ Turb ☐ F	WATER: ☐ TOC ☐ DOC	WATER: Regulated Metals (CCME / AT1) Total	WATER: Regulated Metals (CCME / AT1) Dissolved	WATER: Mercury ☐ Total ☐ Dissolved	Other Analysis	HOLD - Do not Analyze	# of Containers Submitted
1	Ex-13-3KE	4.0m	Soil	13/08/01	X		X	X												
2	Ex-13-2JE	4.0m			X		X	X												
3	Ex-13-3JE	4.0m			X		X	X												
4	Ex-13-3LN	4.0m			X		X	X												
5	Ex-13-4LN	7.0m			X		X	X												
6	Ex-13-2LE	4.0m			X		X	X												
7																				
8																				
9																				
10																				
11																				
12																				

$55/cm F/P

Please indicate Filtered, Preserved or Both (F, P, F/P)

Relinquished By (Signature/Print): Nicole Wills	Date (YY/MM/DD): 13/08	Time (24:00):
Relinquished By (Signature/Print):	Date (YY/MM/DD):	Time (24:00):
Special Instructions:	# of Jars Used & Not Submitted	

LAB USE ONLY

Received By:	Date:	Time:	Maxxam Job #:
Rachel Davies	20130806	10:55	B367746

Custody Seal	Temperature	Ice
absent	7.7.8	present

Lab Comments:

Maxxam

Your P.O. #: A04012A05
Your Project #: CAMP FAREWELL
Your C.O.C. #: A134521

Attention: NICOLE WILLS

KLOHN CRIPPEN BERGER LTD
500-2618
HOPEWELL PLACE NE
CALGARY, AB
CANADA T1Y 7J7

Report Date: 2013/08/08

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B367746
Received: 2013/08/06, 10:55

Sample Matrix: Soil
Samples Received: 6

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Boron (Hot Water Soluble)	6	2013/08/07	2013/08/07	AB SOP-00042	EPA 200.7
BTEX/F1 by HS GC/MS (MeOH extract)	6	2013/08/06	2013/08/07	AB SOP-00039	CCME, EPA 8260
Cation/EC Ratio	6	N/A	2013/08/07		CALCULATION
Chloride (Soluble)	6	2013/08/07	2013/08/07	AB SOP-00020	SSMA 4500 CL-E
Hexavalent Chromium	6	2013/08/06	2013/08/07	EENVSOP-00131	SM 3500-Cr B
Conductivity @25C (Soluble)	6	2013/08/07	2013/08/07	AB SOP-00004	SSMA 15.3
CCME Hydrocarbons (F2-F4 in soil)	6	2013/08/06	2013/08/06	AB SOP-00040 AB SOP-00036	CCME PHC-CWS
Elements by ICPMS - Soils	6	2013/08/07	2013/08/07	AB SOP-00043	EPA 200.8
Ion Balance	6	N/A	2013/08/07	AB WI-00065	SM 1030E
Sum of Cations, Anions	6	N/A	2013/08/07	AB WI-00065	SM 1030E
Moisture	6	N/A	2013/08/07	AB SOP-00002	CCME PHC-CWS
pH @25C (1:2 Calcium Chloride Extract)	6	2013/08/07	2013/08/07	AB SOP-00006	SSMA 16.3
Sodium Adsorption Ratio	6	N/A	2013/08/07	AB WI-00065	SSMA 15.4.4
Ca,Mg,Na,K,SO4 (Soluble)	6	2013/08/07	2013/08/07	AB SOP-00042	EPA 200.7
Soluble Paste	6	2013/08/07	2013/08/07	AB SOP-00033	SSMA 15.2
Soluble Ions Calculation	6	N/A	2013/08/07		CALCULATION
Theoretical Gypsum Requirement (1)	6	N/A	2013/08/07	CAL WI-00087	CJSS 79:449-455

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

(1) Units for TGR have changed from tons/acre to tonnes/ha

Encryption Key

Sherlyne Sim
08 Aug 2013 09:23:30 -06:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Tanya Eugine, M.Sc., Project Manager
Email: TEugine@maxxam.ca
Phone# (780) 577-7144

==========

Your P.O. #: A04012A05
Your Project #: CAMP FAREWELL
Your C.O.C. #: A134521

Attention: NICOLE WILLS

KLOHN CRIPPEN BERGER LTD
500-2618
HOPEWELL PLACE NE
CALGARY, AB
CANADA T1Y 7J7

Report Date: 2013/08/08

CERTIFICATE OF ANALYSIS

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.

Total cover pages: 2

Maxxam Job #: B367746
Report Date: 2013/08/08

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: NW

AT1 BTEX AND F1-F4 IN SOIL (SOIL)

Maxxam ID		HC5247	HC5323	HC5325	HC5327	HC5328		
Sampling Date		2013/08/01	2013/08/01	2013/08/01	2013/08/01	2013/08/01		
COC Number		A134521	A134521	A134521	A134521	A134521		
	UNITS	**EX-13-3KE**	**EX-13-2JE**	**EX-13-3JE**	**EX-13-3LN**	**EX-13-4LN**	**RDL**	**QC Batch**
Physical Properties								
Moisture	%	18	18	15	17	18	0.30	7054085
Ext. Pet. Hydrocarbon								
F2 (C10-C16 Hydrocarbons)	mg/kg	<10	<10	13	<10	<10	10	7051832
F3 (C16-C34 Hydrocarbons)	mg/kg	<50	<50	<50	<50	<50	50	7051832
F4 (C34-C50 Hydrocarbons)	mg/kg	<50	<50	<50	<50	<50	50	7051832
Reached Baseline at C50	mg/kg	Yes	Yes	Yes	Yes	Yes	N/A	7051832
Volatiles								
Benzene	mg/kg	0.088	<0.0050	0.040	0.075	0.040	0.0050	7051944
Toluene	mg/kg	0.35	<0.020	0.12	0.12	0.33	0.020	7051944
Ethylbenzene	mg/kg	0.16	0.019	0.075	0.076	0.16	0.010	7051944
Xylenes (Total)	mg/kg	0.86	0.11	0.38	0.45	0.80	0.040	7051944
m & p-Xylene	mg/kg	0.59	0.081	0.25	0.28	0.63	0.040	7051944
o-Xylene	mg/kg	0.27	0.031	0.13	0.17	0.18	0.020	7051944
F1 (C6-C10) - BTEX	mg/kg	19	<12	19	<12	<12	12	7051944
(C6-C10)	mg/kg	21	<12	20	<12	<12	12	7051944
Surrogate Recovery (%)								
1,4-Difluorobenzene (sur.)	%	105	108	111	130	114	N/A	7051944
4-BROMOFLUOROBENZENE (sur.)	%	105	103	107	118	103	N/A	7051944
D10-ETHYLBENZENE (sur.)	%	96	98	100	100	105	N/A	7051944
D4-1,2-DICHLOROETHANE (sur.)	%	95	99	105	117	103	N/A	7051944
O-TERPHENYL (sur.)	%	86	84	89	88	79	N/A	7051832

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Job #: B367746
Report Date: 2013/08/08

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: NW

AT1 BTEX AND F1-F4 IN SOIL (SOIL)

Maxxam ID		HC5329	HC5329		
Sampling Date		2013/08/01	2013/08/01		
COC Number		A134521	A134521		
	UNITS	**EX-13-2LE**	**EX-13-2LE Lab-Dup**	**RDL**	**QC Batch**
Physical Properties					
Moisture	%	21	20	0.30	7054085
Ext. Pet. Hydrocarbon					
F2 (C10-C16 Hydrocarbons)	mg/kg	<10	N/A	10	7051832
F3 (C16-C34 Hydrocarbons)	mg/kg	<50	N/A	50	7051832
F4 (C34-C50 Hydrocarbons)	mg/kg	<50	N/A	50	7051832
Reached Baseline at C50	mg/kg	Yes	N/A	N/A	7051832
Volatiles					
Benzene	mg/kg	0.090	N/A	0.0050	7051944
Toluene	mg/kg	0.17	N/A	0.020	7051944
Ethylbenzene	mg/kg	0.081	N/A	0.010	7051944
Xylenes (Total)	mg/kg	0.50	N/A	0.040	7051944
m & p-Xylene	mg/kg	0.38	N/A	0.040	7051944
o-Xylene	mg/kg	0.12	N/A	0.020	7051944
F1 (C6-C10) - BTEX	mg/kg	<12	N/A	12	7051944
(C6-C10)	mg/kg	<12	N/A	12	7051944
Surrogate Recovery (%)					
1,4-Difluorobenzene (sur.)	%	132	N/A	N/A	7051944
4-BROMOFLUOROBENZENE (sur.)	%	100	N/A	N/A	7051944
D10-ETHYLBENZENE (sur.)	%	122	N/A	N/A	7051944
D4-1,2-DICHLOROETHANE (sur.)	%	121	N/A	N/A	7051944
O-TERPHENYL (sur.)	%	83	N/A	N/A	7051832

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Job #: B367746
Report Date: 2013/08/08

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: NW

SOIL SALINITY 4 (SOIL)

Maxxam ID		HC5247		HC5323		HC5325		HC5327		
Sampling Date		2013/08/01		2013/08/01		2013/08/01		2013/08/01		
COC Number		A134521		A134521		A134521		A134521		
	UNITS	**EX-13-3KE**	**RDL**	**EX-13-2JE**	**RDL**	**EX-13-3JE**	**RDL**	**EX-13-3LN**	**RDL**	**QC Batch**
Calculated Parameters										
Anion Sum	meq/L	13	N/A	23	N/A	11	N/A	9.7	N/A	7049797
Cation Sum	meq/L	13	N/A	24	N/A	11	N/A	9.9	N/A	7049797
Cation/EC Ratio	N/A	9.5	0.10	9.8	0.10	8.6	0.10	9.8	0.10	7049783
Ion Balance	N/A	0.97	0.010	1.0	0.010	1.0	0.010	1.0	0.010	7049795
Calculated Calcium (Ca)	mg/kg	36	0.47	63	0.47	28	0.48	27	0.47	7050162
Calculated Magnesium (Mg)	mg/kg	11	0.32	20	0.31	7.5	0.32	8.1	0.31	7050162
Calculated Sodium (Na)	mg/kg	30	0.79	57	0.78	31	0.80	23	0.78	7050162
Calculated Potassium (K)	mg/kg	4.2	0.41	5.8	0.40	3.8	0.42	3.9	0.41	7050162
Calculated Chloride (Cl)	mg/kg	82	1.6	150	3.1	29	1.6	36	1.6	7050162
Calculated Sulphate (SO4)	mg/kg	93	1.6	140	1.6	120	1.6	97	1.6	7050162
Soluble Parameters										
Soluble Chloride (Cl)	mg/L	260	5.0	480 (1)	10	91	5.0	120	5.0	7056078
Soluble Conductivity	dS/m	1.4	0.020	2.4	0.020	1.3	0.020	1.0	0.020	7053928
Soluble (CaCl2) pH	N/A	7.58	N/A	7.51	N/A	7.54	N/A	7.61	N/A	7054708
Sodium Adsorption Ratio	N/A	2.0	0.10	2.9	0.10	2.4	0.10	1.7	0.10	7049802
Soluble Calcium (Ca)	mg/L	110	1.5	200	1.5	88	1.5	88	1.5	7056147
Soluble Magnesium (Mg)	mg/L	35	1.0	65	1.0	23	1.0	26	1.0	7056147
Soluble Sodium (Na)	mg/L	96	2.5	180	2.5	96	2.5	72	2.5	7056147
Soluble Potassium (K)	mg/L	13	1.3	19	1.3	12	1.3	13	1.3	7056147
Saturation %	%	32	N/A	31	N/A	32	N/A	31	N/A	7053443
Soluble Sulphate (SO4)	mg/L	290	5.0	450	5.0	380	5.0	310	5.0	7056147
Theoretical Gypsum Requirement	tonnes/ha	<0.10	0.10	<0.10	0.10	<0.10	0.10	<0.10	0.10	7049806

RDL = Reportable Detection Limit
(1) Detection limits raised due to dilution to bring analyte within the calibrated range.

Maxxam Job #: B367746
Report Date: 2013/08/08

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: NW

SOIL SALINITY 4 (SOIL)

Maxxam ID		HC5328		HC5329		
Sampling Date		2013/08/01		2013/08/01		
COC Number		A134521		A134521		
	UNITS	**EX-13-4LN**	**RDL**	**EX-13-2LE**	**RDL**	**QC Batch**
Calculated Parameters						
Anion Sum	meq/L	14	N/A	20	N/A	7049797
Cation Sum	meq/L	14	N/A	22	N/A	7049797
Cation/EC Ratio	N/A	9.7	0.10	9.8	0.10	7049783
Ion Balance	N/A	0.97	0.010	1.1	0.010	7049795
Calculated Calcium (Ca)	mg/kg	37	0.43	66	0.50	7050162
Calculated Magnesium (Mg)	mg/kg	11	0.29	22	0.33	7050162
Calculated Sodium (Na)	mg/kg	27	0.72	49	0.83	7050162
Calculated Potassium (K)	mg/kg	4.0	0.38	5.0	0.43	7050162
Calculated Chloride (Cl)	mg/kg	55	1.4	130	3.3	7050162
Calculated Sulphate (SO4)	mg/kg	120	1.4	150	1.7	7050162
Soluble Parameters						
Soluble Chloride (Cl)	mg/L	190	5.0	380 (1)	10	7056078
Soluble Conductivity	dS/m	1.4	0.020	2.2	0.020	7053928
Soluble (CaCl2) pH	N/A	7.53	N/A	7.28	N/A	7054708
Sodium Adsorption Ratio	N/A	1.9	0.10	2.3	0.10	7049802
Soluble Calcium (Ca)	mg/L	130	1.5	200	1.5	7056147
Soluble Magnesium (Mg)	mg/L	38	1.0	65	1.0	7056147
Soluble Sodium (Na)	mg/L	93	2.5	150	2.5	7056147
Soluble Potassium (K)	mg/L	14	1.3	15	1.3	7056147
Saturation %	%	29	N/A	33	N/A	7053443
Soluble Sulphate (SO4)	mg/L	430	5.0	460	5.0	7056147
Theoretical Gypsum Requirement	tonnes/ha	<0.10	0.10	<0.10	0.10	7049806

RDL = Reportable Detection Limit
(1) Detection limits raised due to matrix interference.

Maxxam Job #: B367746
Report Date: 2013/08/08

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: NW

REGULATED METALS (CCME/AT1) - SOILS

Maxxam ID		HC5247	HC5247	HC5323	HC5325	HC5327	HC5328		
Sampling Date		2013/08/01	2013/08/01	2013/08/01	2013/08/01	2013/08/01	2013/08/01		
COC Number		A134521	A134521	A134521	A134521	A134521	A134521		
	UNITS	**EX-13-3KE**	**EX-13-3KE Lab-Dup**	**EX-13-2JE**	**EX-13-3JE**	**EX-13-3LN**	**EX-13-4LN**	**RDL**	**QC Batch**
Elements									
Soluble (Hot water) Boron (B)	mg/kg	0.30	N/A	0.95	0.28	0.21	0.36	0.10	7055254
Hex. Chromium (Cr 6+)	mg/kg	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	0.15	7053951
Total Antimony (Sb)	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	7055900
Total Arsenic (As)	mg/kg	5.4	5.6	6.8	5.1	5.2	5.3	1.0	7055900
Total Barium (Ba)	mg/kg	61	61	91	64	71	71	10	7055900
Total Beryllium (Be)	mg/kg	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	0.40	7055900
Total Cadmium (Cd)	mg/kg	<0.10	<0.10	0.11	<0.10	<0.10	<0.10	0.10	7055900
Total Chromium (Cr)	mg/kg	5.6	5.4	5.7	5.5	5.4	5.4	1.0	7055900
Total Cobalt (Co)	mg/kg	3.5	3.7	4.7	3.6	3.5	3.5	1.0	7055900
Total Copper (Cu)	mg/kg	<5.0	<5.0	5.3	<5.0	<5.0	<5.0	5.0	7055900
Total Lead (Pb)	mg/kg	2.8	3.1	3.5	2.7	2.7	3.0	1.0	7055900
Total Mercury (Hg)	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	7055900
Total Molybdenum (Mo)	mg/kg	0.51	0.44	0.73	0.41	0.47	0.47	0.40	7055900
Total Nickel (Ni)	mg/kg	10	10	12	10	9.7	10	1.0	7055900
Total Selenium (Se)	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	7055900
Total Silver (Ag)	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	7055900
Total Thallium (Tl)	mg/kg	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	0.30	7055900
Total Tin (Sn)	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	7055900
Total Uranium (U)	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	7055900
Total Vanadium (V)	mg/kg	11	10	12	10	11	11	1.0	7055900
Total Zinc (Zn)	mg/kg	27	39	30	27	25	25	10	7055900

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Job #: B367746
Report Date: 2013/08/08

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: NW

REGULATED METALS (CCME/AT1) - SOILS

Maxxam ID		HC5329		
Sampling Date		2013/08/01		
COC Number		A134521		
	UNITS	**EX-13-2LE**	**RDL**	**QC Batch**
Elements				
Soluble (Hot water) Boron (B)	mg/kg	1.1	0.10	7055254
Hex. Chromium (Cr 6+)	mg/kg	<0.15	0.15	7053951
Total Antimony (Sb)	mg/kg	<1.0	1.0	7055900
Total Arsenic (As)	mg/kg	5.4	1.0	7055900
Total Barium (Ba)	mg/kg	71	10	7055900
Total Beryllium (Be)	mg/kg	<0.40	0.40	7055900
Total Cadmium (Cd)	mg/kg	<0.10	0.10	7055900
Total Chromium (Cr)	mg/kg	5.4	1.0	7055900
Total Cobalt (Co)	mg/kg	3.8	1.0	7055900
Total Copper (Cu)	mg/kg	<5.0	5.0	7055900
Total Lead (Pb)	mg/kg	2.7	1.0	7055900
Total Mercury (Hg)	mg/kg	<0.050	0.050	7055900
Total Molybdenum (Mo)	mg/kg	0.53	0.40	7055900
Total Nickel (Ni)	mg/kg	11	1.0	7055900
Total Selenium (Se)	mg/kg	<0.50	0.50	7055900
Total Silver (Ag)	mg/kg	<1.0	1.0	7055900
Total Thallium (Tl)	mg/kg	<0.30	0.30	7055900
Total Tin (Sn)	mg/kg	<1.0	1.0	7055900
Total Uranium (U)	mg/kg	<1.0	1.0	7055900
Total Vanadium (V)	mg/kg	11	1.0	7055900
Total Zinc (Zn)	mg/kg	26	10	7055900

RDL = Reportable Detection Limit

Package 1	7.3°C

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

General Comments

Results relate only to the items tested.

Maxxam

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: CAMP FAREWELL
P.O. #: A04012A05
Site Location:

Quality Assurance Report

Maxxam Job Number: EB367746

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7051832	GG3	Matrix Spike	O-TERPHENYL (sur.)	2013/08/06		84	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/08/06		89	%	50 - 130
			F3 (C16-C34 Hydrocarbons)	2013/08/06		89	%	50 - 130
			F4 (C34-C50 Hydrocarbons)	2013/08/06		91	%	50 - 130
		Spiked Blank	O-TERPHENYL (sur.)	2013/08/06		88	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/08/06		104	%	70 - 130
			F3 (C16-C34 Hydrocarbons)	2013/08/06		107	%	70 - 130
			F4 (C34-C50 Hydrocarbons)	2013/08/06		104	%	70 - 130
		Method Blank	O-TERPHENYL (sur.)	2013/08/06		92	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/08/06	<10		mg/kg	
			F3 (C16-C34 Hydrocarbons)	2013/08/06	<50		mg/kg	
			F4 (C34-C50 Hydrocarbons)	2013/08/06	<50		mg/kg	
		RPD	F2 (C10-C16 Hydrocarbons)	2013/08/06	NC		%	50
			F3 (C16-C34 Hydrocarbons)	2013/08/06	NC		%	50
			F4 (C34-C50 Hydrocarbons)	2013/08/06	NC		%	50
7051944	PS7	Matrix Spike	1,4-Difluorobenzene (sur.)	2013/08/07		75	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/08/07		110	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/08/07		102	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/08/07		79	%	60 - 140
			Benzene	2013/08/07		70	%	60 - 140
			Toluene	2013/08/07		74	%	60 - 140
			Ethylbenzene	2013/08/07		104	%	60 - 140
			m & p-Xylene	2013/08/07		118	%	60 - 140
			o-Xylene	2013/08/07		104	%	60 - 140
			(C6-C10)	2013/08/07		115	%	60 - 140
		Spiked Blank	1,4-Difluorobenzene (sur.)	2013/08/07		93	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/08/07		88	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/08/07		103	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/08/07		96	%	60 - 140
			Benzene	2013/08/07		97	%	60 - 140
			Toluene	2013/08/07		98	%	60 - 140
			Ethylbenzene	2013/08/07		102	%	60 - 140
			m & p-Xylene	2013/08/07		105	%	60 - 140
			o-Xylene	2013/08/07		109	%	60 - 140
			(C6-C10)	2013/08/07		117	%	60 - 140
		Method Blank	1,4-Difluorobenzene (sur.)	2013/08/07		69	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/08/07		113	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/08/07		98	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/08/07		76	%	60 - 140
			Benzene	2013/08/07	<0.0050		mg/kg	
			Toluene	2013/08/07	<0.020		mg/kg	
			Ethylbenzene	2013/08/07	<0.010		mg/kg	
			Xylenes (Total)	2013/08/07	<0.040		mg/kg	
			m & p-Xylene	2013/08/07	<0.040		mg/kg	
			o-Xylene	2013/08/07	<0.020		mg/kg	
			F1 (C6-C10) - BTEX	2013/08/07	<12		mg/kg	
			(C6-C10)	2013/08/07	<12		mg/kg	
		RPD	Benzene	2013/08/07	NC		%	50
			Toluene	2013/08/07	NC		%	50
			Ethylbenzene	2013/08/07	NC		%	50
			Xylenes (Total)	2013/08/07	NC		%	50
			m & p-Xylene	2013/08/07	NC		%	50
			o-Xylene	2013/08/07	NC		%	50
			F1 (C6-C10) - BTEX	2013/08/07	NC		%	50
			(C6-C10)	2013/08/07	NC		%	50

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: CAMP FAREWELL
P.O. #: A04012A05
Site Location:

Quality Assurance Report (Continued)

Maxxam Job Number: EB367746

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7053443	AD7	QC Standard	Saturation %	2013/08/07		103	%	93 - 107
		RPD	Saturation %	2013/08/07	1.5		%	12
7053928	LZ2	QC Standard	Soluble Conductivity	2013/08/07		92	%	85 - 115
		Spiked Blank	Soluble Conductivity	2013/08/07		100	%	90 - 110
		Method Blank	Soluble Conductivity	2013/08/07	<0.020		dS/m	
		RPD	Soluble Conductivity	2013/08/07	0.2		%	35
7053951	KD5	Matrix Spike						
		[HC5247-01]	Hex. Chromium (Cr 6+)	2013/08/07		93	%	75 - 125
		Spiked Blank	Hex. Chromium (Cr 6+)	2013/08/07		98	%	90 - 110
		Method Blank	Hex. Chromium (Cr 6+)	2013/08/07	<0.15		mg/kg	
		RPD [HC5247-01]	Hex. Chromium (Cr 6+)	2013/08/07	NC		%	35
7054085	ABH	Method Blank	Moisture	2013/08/07	<0.30		%	
		RPD [HC5329-01]	Moisture	2013/08/07	6.8		%	20
7054708	MA4	QC Standard	Soluble (CaCl2) pH	2013/08/07		102	%	97 - 103
		Spiked Blank	Soluble (CaCl2) pH	2013/08/07		101	%	97 - 103
7055254	JHC	Matrix Spike	Soluble (Hot water) Boron (B)	2013/08/07		106	%	75 - 125
		Spiked Blank	Soluble (Hot water) Boron (B)	2013/08/07		104	%	75 - 125
		Method Blank	Soluble (Hot water) Boron (B)	2013/08/07	<0.10		mg/kg	
		RPD	Soluble (Hot water) Boron (B)	2013/08/07	NC		%	35
7055900	WAU	Matrix Spike						
		[HC5247-01]	Total Antimony (Sb)	2013/08/07		96	%	75 - 125
			Total Arsenic (As)	2013/08/07		94	%	75 - 125
			Total Barium (Ba)	2013/08/07		NC	%	75 - 125
			Total Beryllium (Be)	2013/08/07		99	%	75 - 125
			Total Cadmium (Cd)	2013/08/07		92	%	75 - 125
			Total Chromium (Cr)	2013/08/07		91	%	75 - 125
			Total Cobalt (Co)	2013/08/07		88	%	75 - 125
			Total Copper (Cu)	2013/08/07		89	%	75 - 125
			Total Lead (Pb)	2013/08/07		85	%	75 - 125
			Total Magnesium (Mg)	2013/08/07		NC	%	75 - 125
			Total Mercury (Hg)	2013/08/07		92	%	75 - 125
			Total Molybdenum (Mo)	2013/08/07		96	%	75 - 125
			Total Nickel (Ni)	2013/08/07		92	%	75 - 125
			Total Selenium (Se)	2013/08/07		93	%	75 - 125
			Total Silver (Ag)	2013/08/07		99	%	75 - 125
			Total Thallium (Tl)	2013/08/07		88	%	75 - 125
			Total Tin (Sn)	2013/08/07		99	%	75 - 125
			Total Uranium (U)	2013/08/07		94	%	75 - 125
			Total Vanadium (V)	2013/08/07		97	%	75 - 125
			Total Zinc (Zn)	2013/08/07		NC	%	75 - 125
		QC Standard	Total Arsenic (As)	2013/08/07		110	%	50 - 150
			Total Barium (Ba)	2013/08/07		106	%	69 - 131
			Total Chromium (Cr)	2013/08/07		94	%	41 - 159
			Total Cobalt (Co)	2013/08/07		96	%	75 - 125
			Total Copper (Cu)	2013/08/07		96	%	73 - 127
			Total Lead (Pb)	2013/08/07		98	%	54 - 146
			Total Magnesium (Mg)	2013/08/07		88	%	69 - 131
			Total Nickel (Ni)	2013/08/07		104	%	61 - 139
			Total Vanadium (V)	2013/08/07		112	%	50 - 150
			Total Zinc (Zn)	2013/08/07		101	%	72 - 128
		Spiked Blank	Total Antimony (Sb)	2013/08/07		95	%	75 - 125
			Total Arsenic (As)	2013/08/07		92	%	75 - 125
			Total Barium (Ba)	2013/08/07		94	%	75 - 125
			Total Beryllium (Be)	2013/08/07		95	%	75 - 125
			Total Cadmium (Cd)	2013/08/07		90	%	75 - 125

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: CAMP FAREWELL
P.O. #: A04012A05
Site Location:

Quality Assurance Report (Continued)

Maxxam Job Number: EB367746

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7055900	WAU	Spiked Blank	Total Chromium (Cr)	2013/08/07		89	%	75 - 125
			Total Cobalt (Co)	2013/08/07		88	%	75 - 125
			Total Copper (Cu)	2013/08/07		89	%	75 - 125
			Total Lead (Pb)	2013/08/07		84	%	75 - 125
			Total Magnesium (Mg)	2013/08/07		86	%	75 - 125
			Total Mercury (Hg)	2013/08/07		96	%	75 - 125
			Total Molybdenum (Mo)	2013/08/07		92	%	75 - 125
			Total Nickel (Ni)	2013/08/07		89	%	75 - 125
			Total Selenium (Se)	2013/08/07		93	%	75 - 125
			Total Silver (Ag)	2013/08/07		97	%	75 - 125
			Total Thallium (Tl)	2013/08/07		88	%	75 - 125
			Total Tin (Sn)	2013/08/07		95	%	75 - 125
			Total Uranium (U)	2013/08/07		94	%	75 - 125
			Total Vanadium (V)	2013/08/07		93	%	75 - 125
			Total Zinc (Zn)	2013/08/07		91	%	75 - 125
		Method Blank	Total Antimony (Sb)	2013/08/07	<1.0		mg/kg	
			Total Arsenic (As)	2013/08/07	<1.0		mg/kg	
			Total Barium (Ba)	2013/08/07	<10		mg/kg	
			Total Beryllium (Be)	2013/08/07	<0.40		mg/kg	
			Total Cadmium (Cd)	2013/08/07	<0.10		mg/kg	
			Total Chromium (Cr)	2013/08/07	<1.0		mg/kg	
			Total Cobalt (Co)	2013/08/07	<1.0		mg/kg	
			Total Copper (Cu)	2013/08/07	<5.0		mg/kg	
			Total Lead (Pb)	2013/08/07	<1.0		mg/kg	
			Total Magnesium (Mg)	2013/08/07	<100		mg/kg	
			Total Mercury (Hg)	2013/08/07	<0.050		mg/kg	
			Total Molybdenum (Mo)	2013/08/07	<0.40		mg/kg	
			Total Nickel (Ni)	2013/08/07	<1.0		mg/kg	
			Total Selenium (Se)	2013/08/07	<0.50		mg/kg	
			Total Silver (Ag)	2013/08/07	<1.0		mg/kg	
			Total Thallium (Tl)	2013/08/07	<0.30		mg/kg	
			Total Tin (Sn)	2013/08/07	<1.0		mg/kg	
			Total Uranium (U)	2013/08/07	<1.0		mg/kg	
			Total Vanadium (V)	2013/08/07	<1.0		mg/kg	
			Total Zinc (Zn)	2013/08/07	<10		mg/kg	
		RPD [HC5247-01]	Total Antimony (Sb)	2013/08/07	NC		%	35
			Total Arsenic (As)	2013/08/07	4.3		%	35
			Total Barium (Ba)	2013/08/07	0.1		%	35
			Total Beryllium (Be)	2013/08/07	NC		%	35
			Total Cadmium (Cd)	2013/08/07	NC		%	35
			Total Chromium (Cr)	2013/08/07	3.8		%	35
			Total Cobalt (Co)	2013/08/07	NC		%	35
			Total Copper (Cu)	2013/08/07	NC		%	35
			Total Lead (Pb)	2013/08/07	NC		%	35
			Total Mercury (Hg)	2013/08/07	NC		%	35
			Total Molybdenum (Mo)	2013/08/07	NC		%	35
			Total Nickel (Ni)	2013/08/07	3.9		%	35
			Total Selenium (Se)	2013/08/07	NC		%	35
			Total Silver (Ag)	2013/08/07	NC		%	35
			Total Thallium (Tl)	2013/08/07	NC		%	35
			Total Tin (Sn)	2013/08/07	NC		%	35
			Total Uranium (U)	2013/08/07	NC		%	35
			Total Vanadium (V)	2013/08/07	2.6		%	35
			Total Zinc (Zn)	2013/08/07	NC		%	35
7056078	KD5	Matrix Spike	Soluble Chloride (Cl)	2013/08/07		99	%	75 - 125

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: CAMP FAREWELL
P.O. #: A04012A05
Site Location:

Quality Assurance Report (Continued)

Maxxam Job Number: EB367746

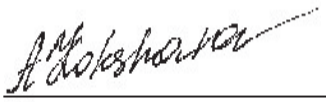
QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7056078	KD5	QC Standard	Soluble Chloride (Cl)	2013/08/07		92	%	75 - 125
		Spiked Blank	Soluble Chloride (Cl)	2013/08/07		106	%	75 - 125
		Method Blank	Soluble Chloride (Cl)	2013/08/07	<5.0		mg/L	
		RPD	Soluble Chloride (Cl)	2013/08/07	NC		%	35
7056147	JSM	Matrix Spike	Soluble Calcium (Ca)	2013/08/07		113	%	75 - 125
			Soluble Magnesium (Mg)	2013/08/07		113	%	75 - 125
			Soluble Sodium (Na)	2013/08/07		109	%	75 - 125
			Soluble Potassium (K)	2013/08/07		107	%	75 - 125
		QC Standard	Soluble Calcium (Ca)	2013/08/07		87	%	75 - 125
			Soluble Magnesium (Mg)	2013/08/07		86	%	75 - 125
			Soluble Sodium (Na)	2013/08/07		96	%	75 - 125
			Soluble Potassium (K)	2013/08/07		107	%	75 - 125
			Soluble Sulphate (SO4)	2013/08/07		86	%	78 - 122
		Spiked Blank	Soluble Calcium (Ca)	2013/08/07		105	%	75 - 125
			Soluble Magnesium (Mg)	2013/08/07		105	%	75 - 125
			Soluble Sodium (Na)	2013/08/07		102	%	75 - 125
			Soluble Potassium (K)	2013/08/07		100	%	75 - 125
		Method Blank	Soluble Calcium (Ca)	2013/08/07	<1.5		mg/L	
			Soluble Magnesium (Mg)	2013/08/07	<1.0		mg/L	
			Soluble Sodium (Na)	2013/08/07	<2.5		mg/L	
			Soluble Potassium (K)	2013/08/07	<1.3		mg/L	
			Soluble Sulphate (SO4)	2013/08/07	<5.0		mg/L	
		RPD	Soluble Calcium (Ca)	2013/08/07	2.0		%	35
			Soluble Magnesium (Mg)	2013/08/07	2.5		%	35
			Soluble Sodium (Na)	2013/08/07	0.6		%	35
			Soluble Potassium (K)	2013/08/07	NC		%	35
			Soluble Sulphate (SO4)	2013/08/07	NC		%	35

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 spiked amount was not sufficiently significant to permit a reliable recovery calculation.
NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

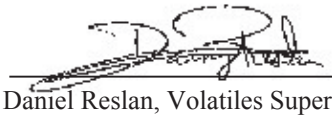
Validation Signature Page

Maxxam Job #: B367746

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

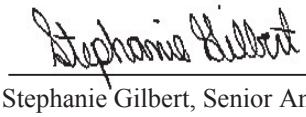


Anna Koksharova, Senior Analyst



Daniel Reslan, Volatiles Supervisor

Poonam Sharma, Senior Analyst, Organics Department



Stephanie Gilbert, Senior Analyst

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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.

Maxxam

Calgary: 4000 19st St. NE, T2E 6P8. Ph: (403) 291-3077, Fax: (403) 735-2240, Toll free: (800) 386-7247
Edmonton: 9331 - 48 Street, T6B 2R4. Ph: (780) 577-7100, Fax: (780) 450-4187, Toll free: (877) 485-8889
www.maxxamanalytics.com

08/216

Chain of Custody A134521

Page: 1 of 1

	Invoice To: C/O Report Address ☐	Report To: Same as Invoice ☒	Report Distribution (E-Mail):	REGULATORY GUIDELINES:
Company:	IEG Consultants LTD.		NWills@Klohn.com	☐ AT1
Contact:	Nicole Wills		jcollins@Klohn.com	☐ CCME
Address:	2618 Hopewell Place NE			☐ Regulated Drinking Water
	Prov: Calgary AB PC: T1Y 7J7	Prov: PC:		☐ Other:
Contact #s:	Ph: 403 829 3048 Cell:	Ph: Cell:		

All samples are held for 60 calendar days after sample receipt, unless specified otherwise.

PO #: A04012A05
Project # / Name:
Site Location: Camp Farewell
Quote #:
Sampled By: Nicole Wills / Jesse Collins

SERVICE REQUESTED: ☒ RUSH (Contact lab to reserve) Date Required: Aug 6 ☐ REGULAR (5 to 7 Days)

See reverse for package specifics

	Sample ID	Depth (unit)	Matrix GW / SW Soil	Date/Time Sampled YY/MM/DD 24:00	SOIL: BTEX F1-F4	Sieve (75 micron)	Regulated Metals (CCME / AT1)	Salinity 4	Assessment ICP Metals	Basic Class II Landfill	WATER: ☐VOCs ☐BTEX F1 ☐BTEX F1-F2	☐BTEX F1-F4 ☐Routine Water ☐Turb ☐F	☐TOC ☐DOC	Regulated Metals (CCME / AT1) Total	Dissolved	Mercury ☐Total ☐Dissolved	Other Analysis	HOLD - Do not Analyze	# of Containers Submitted
1	Ex-13-3KE	4.0m	Soil	13/08/01	X		X	X											
2	Ex-13-2JE	4.0m			X		X	X											
3	Ex-13-3JE	4.0m			X		X	X											
4	Ex-13-3LN	4.0m			X		X	X											
5	Ex-13-4LN	7.0m			X		X	X											
6	Ex-13-2LE	4.0m			X		X	X											
7																			
8																			
9																			
10																			
11																			
12																			

$55/cm F/P

Please indicate Filtered, Preserved or Both (F, P, F/P)

Relinquished By (Signature/Print):	Date (YY/MM/DD):	Time (24:00):
Nicole Wills	13/08	
Relinquished By (Signature/Print):	Date (YY/MM/DD):	Time (24:00):
Special Instructions:		# of Jars Used & Not Submitted

LAB USE ONLY

Received By:	Date:	Time:	Maxxam Job #: B367746
Rachel Davies	20130806	10:55	
Lab Comments:	Custody Seal: absent	Temperature: 7.7, 8	Ice: present

CONFIRMATION-RECEIPT OF SAMPLES FOR ANALYSIS

Maxxam Job # B370030

Client Project #: CAMP FAREWELL
PO #: A04012A05

11 Samples

Samples Received 2013/08/12
Client Confirmation 2013/08/12
Expected Report Delivery 2013/08/13 18:00

Report will be sent to:

NICOLE WILLS
KLOHN CRIPPEN BERGER LTD
HOPEWELL PLACE NE
CALGARY
T1Y 7J7
Ph 403-274-3424
Fax 403-274-5349
NWills@klohn.com

Invoice will be sent to:

Accounts Payable
IEG CONSULTANTS LTD.
500-2618 HOPEWELL PLACE NE
CALGARY
T1Y 7J7

We have received the following samples:

EX-13-5JE (2.0M) Sampled 2013/08/08 COC# A134686 Matrix: SOIL
Maxxam #: HD8621

AT1 BTEX and F1-F4 in Soil
Regulated Metals (CCME/AT1) - Soils
SOIL SALINITY 4
Acid Digestion for Metals - Soils
Drying and Grinding
Environmental Sample Disposal Fee
Hexavalent Chromium Prep Code
Sub Sample for Dry Grind
Sub-sample for metals

EX-13-5JE (4.0M) Sampled 2013/08/08
Maxxam #: HD8624

AT1 BTEX and F1-F4 in Soil
Regulated Metals (CCME/AT1) - Soils
SOIL SALINITY 4
Acid Digestion for Metals - Soils
Drying and Grinding
Environmental Sample Disposal Fee
Hexavalent Chromium Prep Code
Sub Sample for Dry Grind
Sub-sample for metals

EX-13-6KE (2.0M) Sampled 2013/08/08
Maxxam #: HD8625

AT1 BTEX and F1-F4 in Soil
Regulated Metals (CCME/AT1) - Soils
SOIL SALINITY 4
Acid Digestion for Metals - Soils

Drying and Grinding
Environmental Sample Disposal Fee
Hexavalent Chromium Prep Code
Sub Sample for Dry Grind
Sub-sample for metals

EX-13-6KE (4.0M) Sampled 2013/08/08
Maxxam #: HD8626
AT1 BTEX and F1-F4 in Soil
Regulated Metals (CCME/AT1) - Soils
SOIL SALINITY 4
Acid Digestion for Metals - Soils
Drying and Grinding
Environmental Sample Disposal Fee
Hexavalent Chromium Prep Code
Sub Sample for Dry Grind
Sub-sample for metals

EX-13-6KE (6.0M) Sampled 2013/08/08
Maxxam #: HD8627
AT1 BTEX and F1-F4 in Soil
Regulated Metals (CCME/AT1) - Soils
SOIL SALINITY 4
Acid Digestion for Metals - Soils
Drying and Grinding
Environmental Sample Disposal Fee
Hexavalent Chromium Prep Code
Sub Sample for Dry Grind
Sub-sample for metals

EX-13-7KE (2.0M) Sampled 2013/08/08
Maxxam #: HD8628
AT1 BTEX and F1-F4 in Soil
Regulated Metals (CCME/AT1) - Soils
SOIL SALINITY 4
Acid Digestion for Metals - Soils
Drying and Grinding
Environmental Sample Disposal Fee
Hexavalent Chromium Prep Code
Sub Sample for Dry Grind
Sub-sample for metals

EX-13-7KE (4.0M) Sampled 2013/08/08
Maxxam #: HD8629
AT1 BTEX and F1-F4 in Soil
Regulated Metals (CCME/AT1) - Soils
SOIL SALINITY 4
Acid Digestion for Metals - Soils
Drying and Grinding
Environmental Sample Disposal Fee

Hexavalent Chromium Prep Code
Sub Sample for Dry Grind
Sub-sample for metals

EX-13-7KE (6.0M) Sampled 2013/08/08
Maxxam #: HD8630
AT1 BTEX and F1-F4 in Soil
Regulated Metals (CCME/AT1) - Soils
SOIL SALINITY 4
Acid Digestion for Metals - Soils
Drying and Grinding
Environmental Sample Disposal Fee
Hexavalent Chromium Prep Code
Sub Sample for Dry Grind
Sub-sample for metals

EX-13-5JE (1M TRENCH) Sampled 2013/08/08
Maxxam #: HD8631
AT1 BTEX and F1-F4 in Soil
Regulated Metals (CCME/AT1) - Soils
SOIL SALINITY 4
Acid Digestion for Metals - Soils
Drying and Grinding
Environmental Sample Disposal Fee
Hexavalent Chromium Prep Code
Sub Sample for Dry Grind
Sub-sample for metals

EX-13-6KE (1M TRENCH) Sampled 2013/08/08
Maxxam #: HD8632
AT1 BTEX and F1-F4 in Soil
Regulated Metals (CCME/AT1) - Soils
SOIL SALINITY 4
Acid Digestion for Metals - Soils
Drying and Grinding
Environmental Sample Disposal Fee
Hexavalent Chromium Prep Code
Sub Sample for Dry Grind
Sub-sample for metals

EX-13-7KE (1M TRENCH) Sampled 2013/08/08
Maxxam #: HD8634
AT1 BTEX and F1-F4 in Soil
Regulated Metals (CCME/AT1) - Soils
SOIL SALINITY 4
Acid Digestion for Metals - Soils
Drying and Grinding
Environmental Sample Disposal Fee
Hexavalent Chromium Prep Code
Sub Sample for Dry Grind

Sub-sample for metals

Comments:

- Unless special storage arrangements are made, all samples will be discarded 60 days after receipt of samples.
- Non-regular samples are flagged as (C) Composite by lab, (H) Hold, or (L) Leachate.
- If there are any problems with the submitted samples, a Sample Integrity Form (SIF) detailing conditions will be included in this confirmation.
- For revisions please contact your Maxxam Project Management team at Ph (780) 577-7100.
  Your Project Manager is: Tanya Eugine

Maxxam Job # B370030 PARAMETERS FOR ANALYSIS REQUESTED

The values listed below are RDL's and not results. Report Detection Limit (RDL) may be elevated if there are matrix interferences or limited sample amounts.

Maxxam # HD8621, Sample IDN: **EX-13-5JE (2.0M)**
Maxxam # HD8624, Sample IDN: **EX-13-5JE (4.0M)**
Maxxam # HD8625, Sample IDN: **EX-13-6KE (2.0M)**
Maxxam # HD8626, Sample IDN: **EX-13-6KE (4.0M)**
Maxxam # HD8627, Sample IDN: **EX-13-6KE (6.0M)**
Maxxam # HD8628, Sample IDN: **EX-13-7KE (2.0M)**
Maxxam # HD8629, Sample IDN: **EX-13-7KE (4.0M)**
Maxxam # HD8630, Sample IDN: **EX-13-7KE (6.0M)**
Maxxam # HD8631, Sample IDN: **EX-13-5JE (1M TRENCH)**
Maxxam # HD8632, Sample IDN: **EX-13-6KE (1M TRENCH)**
Maxxam # HD8634, Sample IDN: **EX-13-7KE (1M TRENCH)**

AT1 BTEX AND F1-F4 IN SOIL			
F2 (C10-C16 Hydrocarbons)	10 mg/kg	F3 (C16-C34 Hydrocarbons)	50 mg/kg
F4 (C34-C50 Hydrocarbons)	50 mg/kg	Reached Baseline at C50	
F1 (C6-C10) - BTEX	12 mg/kg	(C6-C10)	12 mg/kg
Benzene	0.005 mg/kg	m & p-Xylene	0.04 mg/kg
Xylenes (Total)	0.04 mg/kg	Toluene	0.02 mg/kg
Ethylbenzene	0.01 mg/kg	o-Xylene	0.02 mg/kg
Moisture	0.3 %	F4G-SG (Heavy Hydrocarbons-Grav.)	500 mg/kg
SOIL SALINITY 4			
+Fluoride (F)	0.1 mg/kg	pH	
Conductivity	0.02 dS/m	Chloride (Cl)	5 mg/L
Chloride (Cl)	1 mg/kg	Sulphate (SO4)	5 mg/L
Sulphate (SO4)	1 mg/kg	+Bicarbonate (HCO3)	1 mg/kg
Anion Sum		Cation Sum	
Ion Balance	0.01 N/A	Cation/EC Ratio	0.1 N/A
Magnesium (Mg)	1 mg/L	Magnesium (Mg)	0.1 mg/kg
Potassium (K)	1.3 mg/L	Potassium (K)	0.2 mg/kg
Sodium (Na)	2.5 mg/L	Sodium (Na)	0.1 mg/kg
Calcium (Ca)	1.5 mg/L	Calcium (Ca)	0.1 mg/kg
Sodium Adsorption Ratio	0.1 N/A	Saturation %	
Theoretical Gypsum Requirement	0.1 tonnes/ha		
REGULATED METALS (CCME/AT1) - SOILS			
Hex. Chromium (Cr 6+)	0.15 mg/kg	Chromium (Cr)	1 mg/kg
Cobalt (Co)	1 mg/kg	Copper (Cu)	5 mg/kg
Mercury (Hg)	0.05 mg/kg	Lead (Pb)	1 mg/kg
Antimony (Sb)	1 mg/kg	Molybdenum (Mo)	0.4 mg/kg
Nickel (Ni)	1 mg/kg	Selenium (Se)	0.5 mg/kg
Silver (Ag)	1 mg/kg	Arsenic (As)	1 mg/kg
Thallium (Tl)	0.3 mg/kg	Tin (Sn)	1 mg/kg
Uranium (U)	1 mg/kg	Vanadium (V)	1 mg/kg
Zinc (Zn)	10 mg/kg	Barium (Ba)	10 mg/kg
Beryllium (Be)	0.4 mg/kg	Boron (B)	0.1 mg/kg
Cadmium (Cd)	0.1 mg/kg		

Maxxam

Calgary: 4000 19st St. NE, T2E 6P8. Ph: (403) 291-3077 Fax: (403) 735-2240, Toll free: (800) 386-7247
Edmonton: 9331 - 48 Street, T6B 2R4. Ph: (780) 577-7100, Fax: (780) 450-4187. Toll free: (877) 465-8889
www.maxxamanalytics.com

08/480

Chain of Custody

A134686

Page: 1 of 1

	Invoice To: C/O Report Address ☐	Report To: Same as Invoice ☑	Report Distribution (E-Mail):
Company:	JEG Consultants LTD.		NW: llx@klohn.com
Contact:	Nicole Wills		jcollins@klohn.com
Address:	2618 Hopewell Place NE		
	Prov: Calgary AB PC: T1Y 7S7	Prov: PC:	
Contact #s:	Ph: 403-825-3048 Cell:	Ph: Cell:	

REGULATORY GUIDELINES:
☐ AT1
☐ CCME
☐ Regulated Drinking Water
☐ Other:

All samples are held for 60 calendar days after sample receipt, unless specified otherwise.

PO #: A04012A05
Project # / Name: Camp Forewell
Site Location:
Quote #:
Sampled By: Jesse Collins / Nathan Shirley

SERVICE REQUESTED:
☒ RUSH (Contact lab to reserve) Date Required: ASAP
☐ REGULAR (5 to 7 Days)

See reverse for package specifics

	Sample ID	Depth (unit)	Matrix GW. / SW Soil	Date/Time Sampled YY/MM/DD 24:00	SOIL: BTEX F1-F4	SOIL: Sieve (75 micron)	SOIL: Regulated Metals (CCME / AT1)	SOIL: Salinity 4	SOIL: Assessment ICP Metals	SOIL: Basic Class II Landfill	WATER: ☐BTEX F1 ☐VOCs	WATER: ☐BTEX F1-F2 ☐BTEX F1-F4	WATER: ☐ Routine Water ☐ Turb ☐ F	WATER: ☐ TOC ☐ DOC	WATER: Regulated Metals (CCME / AT1) Total	WATER: Regulated Metals (CCME / AT1) Dissolved	WATER: Mercury ☐ Total ☐ Dissolved	Other Analysis	HOLD - Do not Analyze	# of Containers Submitted
1	EX-13-5JE (2.0m)	2.0m	Soil	13/08/08	X		X	X												2
2	EX-13-5JE (4.0m)	4.0m			X		X	X												2
3	~~EX-13-5JE~~	"	"	"	X		X	X												~~2~~
4	EX-13-6KE (2.0m)	2.0m			X		X	X												2
5	EX-13-6KE (4.0m)	4.0m			X		X	X												2
6	EX-13-6KE (6.0m)	6.0m			X		X	X												2
7	EX-13-7KE (2.0m)	2.0m			X		X	X												2
8	EX-13-7KE (4.0m)	4.0m			X		X	X												2
9	EX-13-7KE (6.0m)	6.0m			X		X	X												2
10	EX-13-5JE (1m Trench)	→			X		X	X												2
11	EX-13-6KE (1m Trench)	→			X		X	X												2
12	EX-13-7KE (1m Trench)	→			X		X	X										JRC/CMC		2
																				F/P

Please indicate Filtered, Preserved or Both (F, P, F/P)

Relinquished By (Signature/Print)	Date (YY/MM/DD):	Time (24:00):
Jesse Collins	13/08/08	1700
Relinquished By (Signature/Print):	Date (YY/MM/DD):	Time (24:00):

Special Instructions:

# of Jars Used & Not Submitted:

LAB USE ONLY

Received By:	Date:	Time:	Maxxam Job #: B370030
Jenna Walter	20130812	0945	

Custody Seal	Temperature	Ice
present	7, 6, 9	present

Lab Comments:

Your P.O. #: A04012A05
Your Project #: CAMP FAREWELL
Your C.O.C. #: A134686

Attention: NICOLE WILLS

KLOHN CRIPPEN BERGER LTD
500-2618
HOPEWELL PLACE NE
CALGARY, AB
CANADA T1Y 7J7

Report Date: 2013/08/13

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B370030
Received: 2013/08/12, 9:45

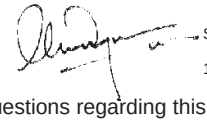
Sample Matrix: Soil
Samples Received: 11

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Boron (Hot Water Soluble)	11	2013/08/13	2013/08/13	AB SOP-00042	EPA 200.7
BTEX/F1 by HS GC/MS (MeOH extract)	10	2013/08/12	2013/08/12	AB SOP-00039	CCME, EPA 8260
BTEX/F1 by HS GC/MS (MeOH extract)	1	2013/08/12	2013/08/13	AB SOP-00039	CCME, EPA 8260
Cation/EC Ratio	11	N/A	2013/08/13		CALCULATION
Chloride (Soluble)	11	2013/08/13	2013/08/13	AB SOP-00020	SSMA 4500 CL-E
Hexavalent Chromium	11	2013/08/12	2013/08/13	EENVSOP-00131	SM 3500-Cr B
Conductivity @25C (Soluble)	11	2013/08/13	2013/08/13	AB SOP-00004	SSMA 15.3
CCME Hydrocarbons (F2-F4 in soil)	11	2013/08/12	2013/08/13	AB SOP-00040 AB SOP-00036	CCME PHC-CWS
Ion Balance	11	N/A	2013/08/13	AB WI-00065	SM 1030E
Sum of Cations, Anions	11	N/A	2013/08/13	AB WI-00065	SM 1030E
Moisture	11	N/A	2013/08/13	AB SOP-00002	CCME PHC-CWS
pH @25C (1:2 Calcium Chloride Extract)	11	2013/08/13	2013/08/13	AB SOP-00006	SSMA 16.3
Sodium Adsorption Ratio	11	N/A	2013/08/13	AB WI-00065	SSMA 15.4.4
Ca,Mg,Na,K,SO4 (Soluble)	11	2013/08/13	2013/08/13	AB SOP-00042	EPA 200.7
Soluble Paste	11	2013/08/13	2013/08/13	AB SOP-00033	SSMA 15.2
Soluble Ions Calculation	11	N/A	2013/08/13		CALCULATION
Theoretical Gypsum Requirement (1)	11	N/A	2013/08/13	CAL WI-00087	CJSS 79:449-455

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

(1) Units for TGR have changed from tons/acre to tonnes/ha

Encryption Key



Sherlyne Sim
13 Aug 2013 17:47:38 -06:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Tanya Eugine, M.Sc., Project Manager
Email: TEugine@maxxam.ca
Phone# (780) 577-7144

==========

Your P.O. #: A04012A05
Your Project #: CAMP FAREWELL
Your C.O.C. #: A134686

Attention: NICOLE WILLS

KLOHN CRIPPEN BERGER LTD
500-2618
HOPEWELL PLACE NE
CALGARY, AB
CANADA T1Y 7J7

Report Date: 2013/08/13

CERTIFICATE OF ANALYSIS

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.

Total cover pages: 2

Maxxam Job #: B370030
Report Date: 2013/08/13

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JC

AT1 BTEX AND F1-F4 IN SOIL (SOIL)

Maxxam ID		HD8621	HD8624	HD8625	HD8626	HD8627		
Sampling Date		2013/08/08	2013/08/08	2013/08/08	2013/08/08	2013/08/08		
COC Number		A134686	A134686	A134686	A134686	A134686		
	UNITS	**EX-13-5JE (2.0M)**	**EX-13-5JE (4.0M)**	**EX-13-6KE (2.0M)**	**EX-13-6KE (4.0M)**	**EX-13-6KE (6.0M)**	**RDL**	**QC Batch**
Physical Properties								
Moisture	%	11	19	22	18	24	0.30	7072679
Ext. Pet. Hydrocarbon								
F2 (C10-C16 Hydrocarbons)	mg/kg	<10	11	15	<10	<10	10	7070482
F3 (C16-C34 Hydrocarbons)	mg/kg	<50	<50	<50	<50	<50	50	7070482
F4 (C34-C50 Hydrocarbons)	mg/kg	<50	<50	<50	<50	<50	50	7070482
Reached Baseline at C50	mg/kg	Yes	Yes	Yes	Yes	Yes		7070482
Volatiles								
Benzene	mg/kg	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	7070533
Toluene	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	7070533
Ethylbenzene	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	7070533
Xylenes (Total)	mg/kg	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	7070533
m & p-Xylene	mg/kg	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	7070533
o-Xylene	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	7070533
F1 (C6-C10) - BTEX	mg/kg	<12	<12	<12	<12	<12	12	7070533
(C6-C10)	mg/kg	<12	<12	<12	<12	<12	12	7070533
Surrogate Recovery (%)								
1,4-Difluorobenzene (sur.)	%	104	110	108	107	112		7070533
4-BROMOFLUOROBENZENE (sur.)	%	97	100	98	98	102		7070533
D10-ETHYLBENZENE (sur.)	%	101	102	102	102	104		7070533
D4-1,2-DICHLOROETHANE (sur.)	%	100	102	102	103	102		7070533
O-TERPHENYL (sur.)	%	100	108	107	95	103		7070482

RDL = Reportable Detection Limit

Maxxam Job #: B370030
Report Date: 2013/08/13

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JC

AT1 BTEX AND F1-F4 IN SOIL (SOIL)

Maxxam ID		HD8628	HD8629	HD8630	HD8631	HD8632		
Sampling Date		2013/08/08	2013/08/08	2013/08/08	2013/08/08	2013/08/08		
COC Number		A134686	A134686	A134686	A134686	A134686		
	UNITS	**EX-13-7KE (2.0M)**	**EX-13-7KE (4.0M)**	**EX-13-7KE (6.0M)**	**EX-13-5JE (1M TRENCH)**	**EX-13-6KE (1M TRENCH)**	**RDL**	**QC Batch**
Physical Properties								
Moisture	%	20	20	22	19	19	0.30	7072679
Ext. Pet. Hydrocarbon								
F2 (C10-C16 Hydrocarbons)	mg/kg	130	<10	<10	<10	<10	10	7070482
F3 (C16-C34 Hydrocarbons)	mg/kg	<50	<50	<50	<50	<50	50	7070482
F4 (C34-C50 Hydrocarbons)	mg/kg	<50	<50	<50	<50	<50	50	7070482
Reached Baseline at C50	mg/kg	Yes	Yes	Yes	Yes	Yes		7070482
Volatiles								
Benzene	mg/kg	0.013	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	7070533
Toluene	mg/kg	0.037	<0.020	<0.020	<0.020	<0.020	0.020	7070533
Ethylbenzene	mg/kg	0.084	<0.010	<0.010	<0.010	<0.010	0.010	7070533
Xylenes (Total)	mg/kg	0.77	<0.040	<0.040	<0.040	<0.040	0.040	7070533
m & p-Xylene	mg/kg	0.30	<0.040	<0.040	<0.040	<0.040	0.040	7070533
o-Xylene	mg/kg	0.47	<0.020	<0.020	<0.020	<0.020	0.020	7070533
F1 (C6-C10) - BTEX	mg/kg	16	<12	<12	<12	<12	12	7070533
(C6-C10)	mg/kg	17	<12	<12	<12	<12	12	7070533
Surrogate Recovery (%)								
1,4-Difluorobenzene (sur.)	%	108	109	111	111	109		7070533
4-BROMOFLUOROBENZENE (sur.)	%	97	97	99	98	97		7070533
D10-ETHYLBENZENE (sur.)	%	102	101	103	103	101		7070533
D4-1,2-DICHLOROETHANE (sur.)	%	103	102	103	103	102		7070533
O-TERPHENYL (sur.)	%	96	101	96	92	115		7070482

RDL = Reportable Detection Limit

Maxxam Job #: B370030
Report Date: 2013/08/13

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JC

AT1 BTEX AND F1-F4 IN SOIL (SOIL)

Maxxam ID		HD8634		
Sampling Date		2013/08/08		
COC Number		A134686		
	UNITS	**EX-13-7KE (1M TRENCH)**	**RDL**	**QC Batch**
Physical Properties				
Moisture	%	20	0.30	7072679
Ext. Pet. Hydrocarbon				
F2 (C10-C16 Hydrocarbons)	mg/kg	<10	10	7070482
F3 (C16-C34 Hydrocarbons)	mg/kg	<50	50	7070482
F4 (C34-C50 Hydrocarbons)	mg/kg	<50	50	7070482
Reached Baseline at C50	mg/kg	Yes		7070482
Volatiles				
Benzene	mg/kg	<0.0050	0.0050	7070533
Toluene	mg/kg	<0.020	0.020	7070533
Ethylbenzene	mg/kg	<0.010	0.010	7070533
Xylenes (Total)	mg/kg	<0.040	0.040	7070533
m & p-Xylene	mg/kg	<0.040	0.040	7070533
o-Xylene	mg/kg	<0.020	0.020	7070533
F1 (C6-C10) - BTEX	mg/kg	<12	12	7070533
(C6-C10)	mg/kg	<12	12	7070533
Surrogate Recovery (%)				
1,4-Difluorobenzene (sur.)	%	108		7070533
4-BROMOFLUOROBENZENE (sur.)	%	99		7070533
D10-ETHYLBENZENE (sur.)	%	102		7070533
D4-1,2-DICHLOROETHANE (sur.)	%	103		7070533
O-TERPHENYL (sur.)	%	105		7070482

RDL = Reportable Detection Limit

Maxxam Job #: B370030
Report Date: 2013/08/13

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JC

SOIL SALINITY 4 (SOIL)

Maxxam ID		HD8621			HD8624		HD8625		
Sampling Date		2013/08/08			2013/08/08		2013/08/08		
COC Number		A134686			A134686		A134686		
	UNITS	**EX-13-5JE (2.0M)**	**RDL**	**QC Batch**	**EX-13-5JE (4.0M)**	**RDL**	**EX-13-6KE (2.0M)**	**RDL**	**QC Batch**
Calculated Parameters									
Anion Sum	meq/L	1.1	N/A	7068953	23	N/A	17	N/A	7068953
Cation Sum	meq/L	2.3	N/A	7068953	23	N/A	17	N/A	7068953
Cation/EC Ratio	N/A	11	0.10	7068947	11	0.10	11	0.10	7068947
Ion Balance	N/A	2.2	0.010	7068951	1.0	0.010	1.0	0.010	7068951
Calculated Calcium (Ca)	mg/kg	8.3	0.47	7069204	88	0.48	51	0.51	7069204
Calculated Magnesium (Mg)	mg/kg	2.1	0.31	7069204	21	0.32	22	0.34	7069204
Calculated Sodium (Na)	mg/kg	2.7	0.78	7069204	28	0.80	34	0.85	7069204
Calculated Potassium (K)	mg/kg	0.50	0.41	7069204	3.7	0.42	4.1	0.44	7069204
Calculated Chloride (Cl)	mg/kg	5.9	1.6	7069204	61	1.6	70	1.7	7069204
Calculated Sulphate (SO4)	mg/kg	7.7	1.6	7069204	270	1.6	180	1.7	7069204
Soluble Parameters									
Soluble Chloride (Cl)	mg/L	19	5.0	7073775	190	5.0	210	5.0	7073866
Soluble Conductivity	dS/m	0.22	0.020	7072454	2.1	0.020	1.6	0.020	7072647
Soluble (CaCl2) pH	N/A	7.68	N/A	7072631	7.51	N/A	7.39	N/A	7072631
Sodium Adsorption Ratio	N/A	0.39	0.10	7068956	1.3	0.10	1.7	0.10	7068956
Soluble Calcium (Ca)	mg/L	26	1.5	7073706	270	1.5	150	1.5	7073786
Soluble Magnesium (Mg)	mg/L	6.8	1.0	7073706	65	1.0	66	1.0	7073786
Soluble Sodium (Na)	mg/L	8.7	2.5	7073706	89	2.5	98	2.5	7073786
Soluble Potassium (K)	mg/L	1.6	1.3	7073706	12	1.3	12	1.3	7073786
Saturation %	%	31	N/A	7072433	32	N/A	34	N/A	7072459
Soluble Sulphate (SO4)	mg/L	25	5.0	7073706	830	5.0	530	5.0	7073786
Theoretical Gypsum Requirement	tonnes/ha	<0.10	0.10	7068960	<0.10	0.10	<0.10	0.10	7068960

RDL = Reportable Detection Limit

Maxxam Job #: B370030
Report Date: 2013/08/13

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JC

SOIL SALINITY 4 (SOIL)

Maxxam ID		HD8626			HD8627		HD8628		
Sampling Date		2013/08/08			2013/08/08		2013/08/08		
COC Number		A134686			A134686		A134686		
	UNITS	**EX-13-6KE (4.0M)**	**RDL**	**QC Batch**	**EX-13-6KE (6.0M)**	**RDL**	**EX-13-7KE (2.0M)**	**RDL**	**QC Batch**
Calculated Parameters									
Anion Sum	meq/L	19	N/A	7068953	14	N/A	24	N/A	7068953
Cation Sum	meq/L	20	N/A	7068953	14	N/A	24	N/A	7068953
Cation/EC Ratio	N/A	11	0.10	7068947	9.5	0.10	12	0.10	7068947
Ion Balance	N/A	1.0	0.010	7068951	1.0	0.010	1.0	0.010	7068951
Calculated Calcium (Ca)	mg/kg	65	0.47	7069204	39	0.53	100	0.52	7069204
Calculated Magnesium (Mg)	mg/kg	18	0.31	7069204	14	0.35	24	0.35	7069204
Calculated Sodium (Na)	mg/kg	34	0.79	7069204	42	0.88	26	0.87	7069204
Calculated Potassium (K)	mg/kg	3.5	0.41	7069204	4.3	0.46	4.4	0.45	7069204
Calculated Chloride (Cl)	mg/kg	82	1.6	7069204	110	1.8	54	1.8	7069204
Calculated Sulphate (SO4)	mg/kg	180	1.6	7069204	85	1.8	320	1.8	7069204
Soluble Parameters									
Soluble Chloride (Cl)	mg/L	260	5.0	7073775	320	5.0	160	5.0	7073866
Soluble Conductivity	dS/m	1.9	0.020	7072454	1.5	0.020	2.1	0.020	7072647
Soluble (CaCl2) pH	N/A	7.49	N/A	7072631	7.46	N/A	7.30	N/A	7072631
Sodium Adsorption Ratio	N/A	1.7	0.10	7068956	2.4	0.10	1.0	0.10	7068956
Soluble Calcium (Ca)	mg/L	210	1.5	7073706	110	1.5	300	1.5	7073786
Soluble Magnesium (Mg)	mg/L	58	1.0	7073706	41	1.0	70	1.0	7073786
Soluble Sodium (Na)	mg/L	110	2.5	7073706	120	2.5	74	2.5	7073786
Soluble Potassium (K)	mg/L	11	1.3	7073706	12	1.3	13	1.3	7073786
Saturation %	%	31	N/A	7072433	35	N/A	35	N/A	7072459
Soluble Sulphate (SO4)	mg/L	580	5.0	7073706	240	5.0	920	5.0	7073786
Theoretical Gypsum Requirement	tonnes/ha	<0.10	0.10	7068960	<0.10	0.10	<0.10	0.10	7068960

RDL = Reportable Detection Limit

Maxxam Job #: B370030
Report Date: 2013/08/13

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JC

SOIL SALINITY 4 (SOIL)

Maxxam ID		HD8629		HD8630		HD8631		
Sampling Date		2013/08/08		2013/08/08		2013/08/08		
COC Number		A134686		A134686		A134686		
	UNITS	**EX-13-7KE (4.0M)**	**RDL**	**EX-13-7KE (6.0M)**	**RDL**	**EX-13-5JE (1M TRENCH)**	**RDL**	**QC Batch**
Calculated Parameters								
Anion Sum	meq/L	15	N/A	10	N/A	18	N/A	7068953
Cation Sum	meq/L	15	N/A	10	N/A	19	N/A	7068953
Cation/EC Ratio	N/A	10	0.10	9.1	0.10	11	0.10	7068947
Ion Balance	N/A	1.0	0.010	0.99	0.010	1.0	0.010	7068951
Calculated Calcium (Ca)	mg/kg	47	0.51	25	0.52	60	0.49	7069204
Calculated Magnesium (Mg)	mg/kg	16	0.34	10	0.35	20	0.33	7069204
Calculated Sodium (Na)	mg/kg	29	0.84	31	0.87	33	0.82	7069204
Calculated Potassium (K)	mg/kg	3.7	0.44	3.7	0.45	4.5	0.42	7069204
Calculated Chloride (Cl)	mg/kg	53	1.7	72	1.8	74	1.6	7069204
Calculated Sulphate (SO4)	mg/kg	170	1.7	72	1.8	180	1.6	7069204
Soluble Parameters								
Soluble Chloride (Cl)	mg/L	160	5.0	210	5.0	230	5.0	7073866
Soluble Conductivity	dS/m	1.4	0.020	1.1	0.020	1.8	0.020	7072647
Soluble (CaCl2) pH	N/A	7.43	N/A	7.47	N/A	7.55	N/A	7072631
Sodium Adsorption Ratio	N/A	1.6	0.10	2.3	0.10	1.7	0.10	7068956
Soluble Calcium (Ca)	mg/L	140	1.5	71	1.5	180	1.5	7073786
Soluble Magnesium (Mg)	mg/L	48	1.0	29	1.0	60	1.0	7073786
Soluble Sodium (Na)	mg/L	85	2.5	89	2.5	100	2.5	7073786
Soluble Potassium (K)	mg/L	11	1.3	10	1.3	14	1.3	7073786
Saturation %	%	34	N/A	35	N/A	33	N/A	7072459
Soluble Sulphate (SO4)	mg/L	500	5.0	210	5.0	560	5.0	7073786
Theoretical Gypsum Requirement	tonnes/ha	<0.10	0.10	<0.10	0.10	<0.10	0.10	7068960

RDL = Reportable Detection Limit

Maxxam Job #: B370030
Report Date: 2013/08/13

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JC

SOIL SALINITY 4 (SOIL)

Maxxam ID		HD8632			HD8634		
Sampling Date		2013/08/08			2013/08/08		
COC Number		A134686			A134686		
	UNITS	**EX-13-6KE (1M TRENCH)**	**RDL**	**QC Batch**	**EX-13-7KE (1M TRENCH)**	**RDL**	**QC Batch**
Calculated Parameters							
Anion Sum	meq/L	15	N/A	7070228	22	N/A	7070228
Cation Sum	meq/L	15	N/A	7070228	22	N/A	7070228
Cation/EC Ratio	N/A	9.3	0.10	7070221	10	0.10	7070221
Ion Balance	N/A	1.0	0.010	7070227	1.0	0.010	7070227
Calculated Calcium (Ca)	mg/kg	45	0.52	7069204	64	0.49	7070230
Calculated Magnesium (Mg)	mg/kg	16	0.35	7069204	21	0.33	7070230
Calculated Sodium (Na)	mg/kg	34	0.87	7069204	53	0.82	7070230
Calculated Potassium (K)	mg/kg	4.5	0.45	7069204	5.9	0.43	7070230
Calculated Chloride (Cl)	mg/kg	110	1.7	7069204	130	1.7	7070230
Calculated Sulphate (SO4)	mg/kg	91	1.7	7069204	180	1.7	7070230
Soluble Parameters							
Soluble Chloride (Cl)	mg/L	330	5.0	7073866	380	5.0	7073866
Soluble Conductivity	dS/m	1.6	0.020	7072647	2.2	0.020	7072647
Soluble (CaCl2) pH	N/A	7.52	N/A	7072631	7.58	N/A	7072631
Sodium Adsorption Ratio	N/A	1.9	0.10	7070229	2.5	0.10	7070229
Soluble Calcium (Ca)	mg/L	130	1.5	7073786	190	1.5	7073786
Soluble Magnesium (Mg)	mg/L	45	1.0	7073786	63	1.0	7073786
Soluble Sodium (Na)	mg/L	99	2.5	7073786	160	2.5	7073786
Soluble Potassium (K)	mg/L	13	1.3	7073786	18	1.3	7073786
Saturation %	%	35	N/A	7072459	33	N/A	7072459
Soluble Sulphate (SO4)	mg/L	260	5.0	7073786	550	5.0	7073786
Theoretical Gypsum Requirement	tonnes/ha	<0.10	0.10	7070231	<0.10	0.10	7070231

RDL = Reportable Detection Limit

Maxxam Job #: B370030
Report Date: 2013/08/13

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JC

REGULATED METALS (CCME/AT1) - SOILS

Maxxam ID		HD8621	HD8624	HD8625	HD8626	HD8627	HD8628		
Sampling Date		2013/08/08	2013/08/08	2013/08/08	2013/08/08	2013/08/08	2013/08/08		
COC Number		A134686	A134686	A134686	A134686	A134686	A134686		
	UNITS	**EX-13-5JE (2.0M)**	**EX-13-5JE (4.0M)**	**EX-13-6KE (2.0M)**	**EX-13-6KE (4.0M)**	**EX-13-6KE (6.0M)**	**EX-13-7KE (2.0M)**	**RDL**	**QC Batch**
Elements									
Soluble (Hot water) Boron (B)	mg/kg	<0.10	0.26	0.27	0.32	0.22	0.27	0.10	7073614
Hex. Chromium (Cr 6+)	mg/kg	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	0.15	7072962

RDL = Reportable Detection Limit

Maxxam ID		HD8629	HD8630	HD8631	HD8632	HD8634		
Sampling Date		2013/08/08	2013/08/08	2013/08/08	2013/08/08	2013/08/08		
COC Number		A134686	A134686	A134686	A134686	A134686		
	UNITS	**EX-13-7KE (4.0M)**	**EX-13-7KE (6.0M)**	**EX-13-5JE (1M TRENCH)**	**EX-13-6KE (1M TRENCH)**	**EX-13-7KE (1M TRENCH)**	**RDL**	**QC Batch**
Elements								
Soluble (Hot water) Boron (B)	mg/kg	0.22	0.16	0.15	0.19	0.46	0.10	7073614
Hex. Chromium (Cr 6+)	mg/kg	<0.15	<0.15	<0.15	<0.15	<0.15	0.15	7072962

RDL = Reportable Detection Limit

Maxxam Job #: B370030
Report Date: 2013/08/13

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JC

General Comments

Results relate only to the items tested.

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: CAMP FAREWELL
P.O. #: A04012A05
Site Location:

Quality Assurance Report

Maxxam Job Number: EB370030

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7070482	SHM	Matrix Spike [HD8624-01]	O-TERPHENYL (sur.)	2013/08/13		101	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/08/13		112	%	50 - 130
			F3 (C16-C34 Hydrocarbons)	2013/08/13		114	%	50 - 130
			F4 (C34-C50 Hydrocarbons)	2013/08/13		115	%	50 - 130
		Spiked Blank	O-TERPHENYL (sur.)	2013/08/13		97	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/08/13		109	%	70 - 130
			F3 (C16-C34 Hydrocarbons)	2013/08/13		111	%	70 - 130
			F4 (C34-C50 Hydrocarbons)	2013/08/13		111	%	70 - 130
		Method Blank	O-TERPHENYL (sur.)	2013/08/13		100	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/08/13	<10		mg/kg	
			F3 (C16-C34 Hydrocarbons)	2013/08/13	<50		mg/kg	
			F4 (C34-C50 Hydrocarbons)	2013/08/13	<50		mg/kg	
		RPD [HD8621-01]	F2 (C10-C16 Hydrocarbons)	2013/08/13	NC		%	50
			F3 (C16-C34 Hydrocarbons)	2013/08/13	NC		%	50
			F4 (C34-C50 Hydrocarbons)	2013/08/13	NC		%	50
7070533	RC6	Matrix Spike [HD8624-01]	1,4-Difluorobenzene (sur.)	2013/08/12		109	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/08/12		97	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/08/12		106	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/08/12		101	%	60 - 140
			Benzene	2013/08/12		108	%	60 - 140
			Toluene	2013/08/12		101	%	60 - 140
			Ethylbenzene	2013/08/12		102	%	60 - 140
			m & p-Xylene	2013/08/12		103	%	60 - 140
			o-Xylene	2013/08/12		103	%	60 - 140
			(C6-C10)	2013/08/12		102	%	60 - 140
		Spiked Blank	1,4-Difluorobenzene (sur.)	2013/08/12		99	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/08/12		97	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/08/12		100	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/08/12		102	%	60 - 140
			Benzene	2013/08/12		105	%	60 - 140
			Toluene	2013/08/12		96	%	60 - 140
			Ethylbenzene	2013/08/12		97	%	60 - 140
			m & p-Xylene	2013/08/12		96	%	60 - 140
			o-Xylene	2013/08/12		98	%	60 - 140
			(C6-C10)	2013/08/12		112	%	60 - 140
		Method Blank	1,4-Difluorobenzene (sur.)	2013/08/12		99	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/08/12		96	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/08/12		98	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/08/12		103	%	60 - 140
			Benzene	2013/08/12	<0.0050		mg/kg	
			Toluene	2013/08/12	<0.020		mg/kg	
			Ethylbenzene	2013/08/12	<0.010		mg/kg	
			Xylenes (Total)	2013/08/12	<0.040		mg/kg	
			m & p-Xylene	2013/08/12	<0.040		mg/kg	
			o-Xylene	2013/08/12	<0.020		mg/kg	
			F1 (C6-C10) - BTEX	2013/08/12	<12		mg/kg	
			(C6-C10)	2013/08/12	<12		mg/kg	
		RPD [HD8621-01]	Benzene	2013/08/12	NC		%	50
			Toluene	2013/08/12	NC		%	50
			Ethylbenzene	2013/08/12	NC		%	50
			Xylenes (Total)	2013/08/12	NC		%	50
			m & p-Xylene	2013/08/12	NC		%	50
			o-Xylene	2013/08/12	NC		%	50

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: CAMP FAREWELL
P.O. #: A04012A05
Site Location:

Quality Assurance Report (Continued)

Maxxam Job Number: EB370030

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7070533	RC6	RPD [HD8621-01]	F1 (C6-C10) - BTEX	2013/08/12	NC		%	50
			(C6-C10)	2013/08/12	NC		%	50
7072433	CH7	QC Standard	Saturation %	2013/08/13		103	%	93 - 107
		RPD	Saturation %	2013/08/13	1.3		%	12
7072454	LZ2	QC Standard	Soluble Conductivity	2013/08/13		87	%	85 - 115
		Spiked Blank	Soluble Conductivity	2013/08/13		100	%	90 - 110
		Method Blank	Soluble Conductivity	2013/08/13	<0.020		dS/m	
		RPD	Soluble Conductivity	2013/08/13	0.4		%	35
7072459	AD7	QC Standard	Saturation %	2013/08/13		101	%	93 - 107
		RPD	Saturation %	2013/08/13	0.2		%	12
7072631	MA4	QC Standard	Soluble (CaCl2) pH	2013/08/13		100	%	97 - 103
		Spiked Blank	Soluble (CaCl2) pH	2013/08/13		100	%	97 - 103
		RPD	Soluble (CaCl2) pH	2013/08/13	0.1		%	5
7072647	LZ2	QC Standard	Soluble Conductivity	2013/08/13		88	%	85 - 115
		Spiked Blank	Soluble Conductivity	2013/08/13		100	%	90 - 110
		Method Blank	Soluble Conductivity	2013/08/13	<0.020		dS/m	
		RPD	Soluble Conductivity	2013/08/13	2.9		%	35
7072679	ABH	Method Blank	Moisture	2013/08/13	<0.30		%	
		RPD [HD8621-01]	Moisture	2013/08/13	3.8		%	20
7072962	LCA	Matrix Spike						
		[HD8634-01]	Hex. Chromium (Cr 6+)	2013/08/13		88	%	75 - 125
		Spiked Blank	Hex. Chromium (Cr 6+)	2013/08/13		105	%	90 - 110
		Method Blank	Hex. Chromium (Cr 6+)	2013/08/13	<0.15		mg/kg	
		RPD [HD8634-01]	Hex. Chromium (Cr 6+)	2013/08/13	NC		%	35
7073614	JHC	Matrix Spike	Soluble (Hot water) Boron (B)	2013/08/13		105	%	75 - 125
		Spiked Blank	Soluble (Hot water) Boron (B)	2013/08/13		101	%	75 - 125
		Method Blank	Soluble (Hot water) Boron (B)	2013/08/13	<0.10		mg/kg	
		RPD	Soluble (Hot water) Boron (B)	2013/08/13	NC		%	35
7073706	JSM	Matrix Spike	Soluble Calcium (Ca)	2013/08/13		96	%	75 - 125
			Soluble Magnesium (Mg)	2013/08/13		105	%	75 - 125
			Soluble Sodium (Na)	2013/08/13		104	%	75 - 125
			Soluble Potassium (K)	2013/08/13		100	%	75 - 125
		QC Standard	Soluble Calcium (Ca)	2013/08/13		84	%	75 - 125
			Soluble Magnesium (Mg)	2013/08/13		89	%	75 - 125
			Soluble Sodium (Na)	2013/08/13		94	%	75 - 125
			Soluble Potassium (K)	2013/08/13		101	%	75 - 125
			Soluble Sulphate (SO4)	2013/08/13		81	%	78 - 122
		Spiked Blank	Soluble Calcium (Ca)	2013/08/13		95	%	75 - 125
			Soluble Magnesium (Mg)	2013/08/13		104	%	75 - 125
			Soluble Sodium (Na)	2013/08/13		104	%	75 - 125
			Soluble Potassium (K)	2013/08/13		100	%	75 - 125
		Method Blank	Soluble Calcium (Ca)	2013/08/13	<1.5		mg/L	
			Soluble Magnesium (Mg)	2013/08/13	<1.0		mg/L	
			Soluble Sodium (Na)	2013/08/13	<2.5		mg/L	
			Soluble Potassium (K)	2013/08/13	<1.3		mg/L	
			Soluble Sulphate (SO4)	2013/08/13	<5.0		mg/L	
		RPD	Soluble Calcium (Ca)	2013/08/13	1.3		%	35
			Soluble Magnesium (Mg)	2013/08/13	1.3		%	35
			Soluble Sodium (Na)	2013/08/13	NC		%	35
			Soluble Potassium (K)	2013/08/13	NC		%	35
			Soluble Sulphate (SO4)	2013/08/13	NC		%	35
7073775	LCA	Matrix Spike	Soluble Chloride (Cl)	2013/08/13		104	%	75 - 125
		QC Standard	Soluble Chloride (Cl)	2013/08/13		88	%	75 - 125
		Spiked Blank	Soluble Chloride (Cl)	2013/08/13		102	%	75 - 125
		Method Blank	Soluble Chloride (Cl)	2013/08/13	5.1, RDL=5.0		mg/L	

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: CAMP FAREWELL
P.O. #: A04012A05
Site Location:

Quality Assurance Report (Continued)

Maxxam Job Number: EB370030

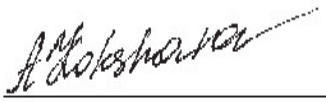
QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7073775	LCA	RPD	Soluble Chloride (Cl)	2013/08/13	NC		%	35
7073786	JSM	Matrix Spike	Soluble Calcium (Ca)	2013/08/13		97	%	75 - 125
			Soluble Magnesium (Mg)	2013/08/13		107	%	75 - 125
			Soluble Sodium (Na)	2013/08/13		106	%	75 - 125
			Soluble Potassium (K)	2013/08/13		102	%	75 - 125
		QC Standard	Soluble Calcium (Ca)	2013/08/13		85	%	75 - 125
			Soluble Magnesium (Mg)	2013/08/13		90	%	75 - 125
			Soluble Sodium (Na)	2013/08/13		94	%	75 - 125
			Soluble Potassium (K)	2013/08/13		102	%	75 - 125
			Soluble Sulphate (SO4)	2013/08/13		83	%	78 - 122
		Spiked Blank	Soluble Calcium (Ca)	2013/08/13		95	%	75 - 125
			Soluble Magnesium (Mg)	2013/08/13		103	%	75 - 125
			Soluble Sodium (Na)	2013/08/13		103	%	75 - 125
			Soluble Potassium (K)	2013/08/13		98	%	75 - 125
		Method Blank	Soluble Calcium (Ca)	2013/08/13	<1.5		mg/L	
			Soluble Magnesium (Mg)	2013/08/13	<1.0		mg/L	
			Soluble Sodium (Na)	2013/08/13	<2.5		mg/L	
			Soluble Potassium (K)	2013/08/13	<1.3		mg/L	
			Soluble Sulphate (SO4)	2013/08/13	<5.0		mg/L	
		RPD	Soluble Calcium (Ca)	2013/08/13	0.8		%	35
			Soluble Magnesium (Mg)	2013/08/13	0.7		%	35
			Soluble Sodium (Na)	2013/08/13	2.0		%	35
			Soluble Potassium (K)	2013/08/13	NC		%	35
			Soluble Sulphate (SO4)	2013/08/13	4.0		%	35
7073866	EP1	Matrix Spike	Soluble Chloride (Cl)	2013/08/13		101	%	75 - 125
		QC Standard	Soluble Chloride (Cl)	2013/08/13		87	%	75 - 125
		Spiked Blank	Soluble Chloride (Cl)	2013/08/13		98	%	75 - 125
		Method Blank	Soluble Chloride (Cl)	2013/08/13	<5.0		mg/L	
		RPD	Soluble Chloride (Cl)	2013/08/13	NC		%	35

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 (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

Validation Signature Page

Maxxam Job #: B370030

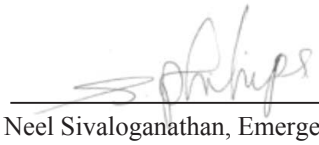
The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Anna Koksharova, Senior Analyst

Carol Gebhart, Senior Analyst

Dina Tleugabulova, Ph.D., Scientific Specialist, Inorganics Department



Neel Sivaloganathan, Emergency Spill Response Manager

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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.

Maxxam

Calgary: 4000 19st St. NE, T2E 6P8. Ph: (403) 291-3077 Fax: (403) 735-2240, Toll free: (800) 386-7247
Edmonton: 9331 - 48 Street, T6B 2R4. Ph: (780) 577-7100, Fax: (780) 450-4187. Toll free: (877) 465-8889
www.maxxamanalytics.com

08/480

Chain of Custody

A134686

Page: 1 of 1

	Invoice To: C/O Report Address ☐	Report To: Same as Invoice ☑	Report Distribution (E-Mail):
Company:	JEG Consultants LTD.		NW.llx@klohn.com
Contact:	Nicole Wills		jcollins@klohn.com
Address:	2618 Hopewell Place NE		
	Prov: Calgary AB PC: T1Y 7S7	Prov: PC:	
Contact #s:	Ph: 403-825-3048 Cell:	Ph: Cell:	

REGULATORY GUIDELINES:
- ☐ AT1
- ☐ CCME
- ☐ Regulated Drinking Water
- ☐ Other:

All samples are held for 60 calendar days after sample receipt, unless specified otherwise.

PO #: A040120A05
Project # / Name: Camp Farewell
Site Location:
Quote #:
Sampled By: Jesse Collins / Nathan Shirley

SERVICE REQUESTED: ☒ RUSH (Contact lab to reserve) Date Required: ASAP ☐ REGULAR (5 to 7 Days)

See reverse for package specifics

	Sample ID	Depth (unit)	Matrix GW / SW Soil	Date/Time Sampled YY/MM/DD 24:00	SOIL: BTEX F1-F4	Sieve (75 micron)	Regulated Metals (CCME / AT1)	Salinity 4	Assessment ICP Metals	Basic Class II Landfill	WATER: ☐VOCs ☐BTEX F1	☐BTEX F1-F4 ☐BTEX F2	☐ Routine Water ☐ Turb ☐ F	☐ TOC ☐ DOC	Regulated Metals (CCME / AT1): Total	Dissolved	☐ Total ☐ Dissolved Mercury	Other Analysis	HOLD - Do not Analyze	# of Containers Submitted
1	EX-13-5JE (2.0m)	2.0m	Soil	13/08/08	X		X	X												2
2	EX-13-5JE (4.0m)	4.0m			X		X	X												2
3	~~EX-13-5JE~~	"	"	"	X		X	X												~~2~~
4	EX-13-6KE (2.0m)	2.0m			X		X	X												2
5	EX-13-6KE (4.0m)	4.0m			X		X	X												2
6	EX-13-6KE (6.0m)	6.0m			X		X	X												2
7	EX-13-7KE (2.0m)	2.0m			X		X	X												2
8	EX-13-7KE (4.0m)	4.0m			X		X	X												2
9	EX-13-7KE (6.0m)	6.0m			X		X	X												2
10	EX-13-5JE (1m Trench)	→			X		X	X												2
11	EX-13-6KE (1m Trench)	→			X		X	X												2
12	EX-13-7KE (1m Trench)	→	↓	↓	X		X	X										JRC/CMC		2
																				F/P

Please indicate Filtered, Preserved or Both (F, P, F/P)

Relinquished By (Signature/Print)	Date (YY/MM/DD)	Time (24:00)
Jesse Collins	13/08/08	1700
Relinquished By (Signature/Print):	Date (YY/MM/DD):	Time (24:00):

Special Instructions:

# of Jars Used & Not Submitted

LAB USE ONLY

Received By:	Date:	Time:	Maxxam Job #: B370030
Jennifer Walter	20130812	0945	Custody Seal: present / Temperature: 7, 6, 9 / Ice: present

Lab Comments:

Maxxam

Your P.O. #: A04012A05
Your Project #: CAMP FAREWELL
Your C.O.C. #: A134686

Attention: NICOLE WILLS

KLOHN CRIPPEN BERGER LTD
500-2618
HOPEWELL PLACE NE
CALGARY, AB
CANADA T1Y 7J7

Report Date: 2013/08/14

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B370030
Received: 2013/08/12, 9:45

Sample Matrix: Soil
Samples Received: 11

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Boron (Hot Water Soluble)	11	2013/08/13	2013/08/13	AB SOP-00042	EPA 200.7
BTEX/F1 by HS GC/MS (MeOH extract)	10	2013/08/12	2013/08/12	AB SOP-00039	CCME, EPA 8260
BTEX/F1 by HS GC/MS (MeOH extract)	1	2013/08/12	2013/08/13	AB SOP-00039	CCME, EPA 8260
Cation/EC Ratio	11	N/A	2013/08/13		CALCULATION
Chloride (Soluble)	11	2013/08/13	2013/08/13	AB SOP-00020	SSMA 4500 CL-E
Hexavalent Chromium	11	2013/08/12	2013/08/13	EENVSOP-00131	SM 3500-Cr B
Conductivity @25C (Soluble)	11	2013/08/13	2013/08/13	AB SOP-00004	SSMA 15.3
CCME Hydrocarbons (F2-F4 in soil)	11	2013/08/12	2013/08/13	AB SOP-00040 AB SOP-00036	CCME PHC-CWS
Elements by ICPMS - Soils	11	2013/08/13	2013/08/13	AB SOP-00043	EPA 200.8
Ion Balance	11	N/A	2013/08/13	AB WI-00065	SM 1030E
Sum of Cations, Anions	11	N/A	2013/08/13	AB WI-00065	SM 1030E
Moisture	11	N/A	2013/08/13	AB SOP-00002	CCME PHC-CWS
pH @25C (1:2 Calcium Chloride Extract)	11	2013/08/13	2013/08/13	AB SOP-00006	SSMA 16.3
Sodium Adsorption Ratio	11	N/A	2013/08/13	AB WI-00065	SSMA 15.4.4
Ca,Mg,Na,K,SO4 (Soluble)	11	2013/08/13	2013/08/13	AB SOP-00042	EPA 200.7
Soluble Paste	11	2013/08/13	2013/08/13	AB SOP-00033	SSMA 15.2
Soluble Ions Calculation	11	N/A	2013/08/13		CALCULATION
Theoretical Gypsum Requirement (1)	11	N/A	2013/08/13	CAL WI-00087	CJSS 79:449-455

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

(1) Units for TGR have changed from tons/acre to tonnes/ha

Encryption Key

Sherlyne Sim
14 Aug 2013 12:31:49 -06:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Tanya Eugine, M.Sc., Project Manager
Email: TEugine@maxxam.ca
Phone# (780) 577-7144

Your P.O. #: A04012A05
Your Project #: CAMP FAREWELL
Your C.O.C. #: A134686

Attention: NICOLE WILLS

KLOHN CRIPPEN BERGER LTD
500-2618
HOPEWELL PLACE NE
CALGARY, AB
CANADA T1Y 7J7

Report Date: 2013/08/14

CERTIFICATE OF ANALYSIS

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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.

Total cover pages: 2

Maxxam Job #: B370030
Report Date: 2013/08/14

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JC

AT1 BTEX AND F1-F4 IN SOIL (SOIL)

Maxxam ID		HD8621	HD8621	HD8624	HD8625	HD8626		
Sampling Date		2013/08/08	2013/08/08	2013/08/08	2013/08/08	2013/08/08		
COC Number		A134686	A134686	A134686	A134686	A134686		
	UNITS	**EX-13-5JE (2.0M)**	**EX-13-5JE (2.0M) Lab-Dup**	**EX-13-5JE (4.0M)**	**EX-13-6KE (2.0M)**	**EX-13-6KE (4.0M)**	**RDL**	**QC Batch**
Physical Properties								
Moisture	%	11	10	19	22	18	0.30	7072679
Ext. Pet. Hydrocarbon								
F2 (C10-C16 Hydrocarbons)	mg/kg	<10	<10	11	15	<10	10	7070482
F3 (C16-C34 Hydrocarbons)	mg/kg	<50	<50	<50	<50	<50	50	7070482
F4 (C34-C50 Hydrocarbons)	mg/kg	<50	<50	<50	<50	<50	50	7070482
Reached Baseline at C50	mg/kg	Yes	Yes	Yes	Yes	Yes	N/A	7070482
Volatiles								
Benzene	mg/kg	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	7070533
Toluene	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	7070533
Ethylbenzene	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	7070533
Xylenes (Total)	mg/kg	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	7070533
m & p-Xylene	mg/kg	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	7070533
o-Xylene	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	7070533
F1 (C6-C10) - BTEX	mg/kg	<12	<12	<12	<12	<12	12	7070533
(C6-C10)	mg/kg	<12	<12	<12	<12	<12	12	7070533
Surrogate Recovery (%)								
1,4-Difluorobenzene (sur.)	%	104	104	110	108	107	N/A	7070533
4-BROMOFLUOROBENZENE (sur.)	%	97	98	100	98	98	N/A	7070533
D10-ETHYLBENZENE (sur.)	%	101	101	102	102	102	N/A	7070533
D4-1,2-DICHLOROETHANE (sur.)	%	100	103	102	102	103	N/A	7070533
O-TERPHENYL (sur.)	%	100	100	108	107	95	N/A	7070482

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Job #: B370030
Report Date: 2013/08/14

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JC

AT1 BTEX AND F1-F4 IN SOIL (SOIL)

Maxxam ID		HD8627	HD8628	HD8629	HD8630	HD8631		
Sampling Date		2013/08/08	2013/08/08	2013/08/08	2013/08/08	2013/08/08		
COC Number		A134686	A134686	A134686	A134686	A134686		
	UNITS	**EX-13-6KE (6.0M)**	**EX-13-7KE (2.0M)**	**EX-13-7KE (4.0M)**	**EX-13-7KE (6.0M)**	**EX-13-5JE (1M TRENCH)**	**RDL**	**QC Batch**
Physical Properties								
Moisture	%	24	20	20	22	19	0.30	7072679
Ext. Pet. Hydrocarbon								
F2 (C10-C16 Hydrocarbons)	mg/kg	<10	130	<10	<10	<10	10	7070482
F3 (C16-C34 Hydrocarbons)	mg/kg	<50	<50	<50	<50	<50	50	7070482
F4 (C34-C50 Hydrocarbons)	mg/kg	<50	<50	<50	<50	<50	50	7070482
Reached Baseline at C50	mg/kg	Yes	Yes	Yes	Yes	Yes	N/A	7070482
Volatiles								
Benzene	mg/kg	<0.0050	0.013	<0.0050	<0.0050	<0.0050	0.0050	7070533
Toluene	mg/kg	<0.020	0.037	<0.020	<0.020	<0.020	0.020	7070533
Ethylbenzene	mg/kg	<0.010	0.084	<0.010	<0.010	<0.010	0.010	7070533
Xylenes (Total)	mg/kg	<0.040	0.77	<0.040	<0.040	<0.040	0.040	7070533
m & p-Xylene	mg/kg	<0.040	0.30	<0.040	<0.040	<0.040	0.040	7070533
o-Xylene	mg/kg	<0.020	0.47	<0.020	<0.020	<0.020	0.020	7070533
F1 (C6-C10) - BTEX	mg/kg	<12	16	<12	<12	<12	12	7070533
(C6-C10)	mg/kg	<12	17	<12	<12	<12	12	7070533
Surrogate Recovery (%)								
1,4-Difluorobenzene (sur.)	%	112	108	109	111	111	N/A	7070533
4-BROMOFLUOROBENZENE (sur.)	%	102	97	97	99	98	N/A	7070533
D10-ETHYLBENZENE (sur.)	%	104	102	101	103	103	N/A	7070533
D4-1,2-DICHLOROETHANE (sur.)	%	102	103	102	103	103	N/A	7070533
O-TERPHENYL (sur.)	%	103	96	101	96	92	N/A	7070482

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Job #: B370030
Report Date: 2013/08/14

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JC

AT1 BTEX AND F1-F4 IN SOIL (SOIL)

Maxxam ID		HD8632	HD8634		
Sampling Date		2013/08/08	2013/08/08		
COC Number		A134686	A134686		
	UNITS	**EX-13-6KE (1M TRENCH)**	**EX-13-7KE (1M TRENCH)**	**RDL**	**QC Batch**
Physical Properties					
Moisture	%	19	20	0.30	7072679
Ext. Pet. Hydrocarbon					
F2 (C10-C16 Hydrocarbons)	mg/kg	<10	<10	10	7070482
F3 (C16-C34 Hydrocarbons)	mg/kg	<50	<50	50	7070482
F4 (C34-C50 Hydrocarbons)	mg/kg	<50	<50	50	7070482
Reached Baseline at C50	mg/kg	Yes	Yes	N/A	7070482
Volatiles					
Benzene	mg/kg	<0.0050	<0.0050	0.0050	7070533
Toluene	mg/kg	<0.020	<0.020	0.020	7070533
Ethylbenzene	mg/kg	<0.010	<0.010	0.010	7070533
Xylenes (Total)	mg/kg	<0.040	<0.040	0.040	7070533
m & p-Xylene	mg/kg	<0.040	<0.040	0.040	7070533
o-Xylene	mg/kg	<0.020	<0.020	0.020	7070533
F1 (C6-C10) - BTEX	mg/kg	<12	<12	12	7070533
(C6-C10)	mg/kg	<12	<12	12	7070533
Surrogate Recovery (%)					
1,4-Difluorobenzene (sur.)	%	109	108	N/A	7070533
4-BROMOFLUOROBENZENE (sur.)	%	97	99	N/A	7070533
D10-ETHYLBENZENE (sur.)	%	101	102	N/A	7070533
D4-1,2-DICHLOROETHANE (sur.)	%	102	103	N/A	7070533
O-TERPHENYL (sur.)	%	115	105	N/A	7070482

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Job #: B370030
Report Date: 2013/08/14

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JC

SOIL SALINITY 4 (SOIL)

Maxxam ID		HD8621			HD8624		HD8625		
Sampling Date		2013/08/08			2013/08/08		2013/08/08		
COC Number		A134686			A134686		A134686		
	UNITS	**EX-13-5JE (2.0M)**	**RDL**	**QC Batch**	**EX-13-5JE (4.0M)**	**RDL**	**EX-13-6KE (2.0M)**	**RDL**	**QC Batch**
Calculated Parameters									
Anion Sum	meq/L	1.1	N/A	7068953	23	N/A	17	N/A	7068953
Cation Sum	meq/L	2.3	N/A	7068953	23	N/A	17	N/A	7068953
Cation/EC Ratio	N/A	11	0.10	7068947	11	0.10	11	0.10	7068947
Ion Balance	N/A	2.2	0.010	7068951	1.0	0.010	1.0	0.010	7068951
Calculated Calcium (Ca)	mg/kg	8.3	0.47	7069204	88	0.48	51	0.51	7069204
Calculated Magnesium (Mg)	mg/kg	2.1	0.31	7069204	21	0.32	22	0.34	7069204
Calculated Sodium (Na)	mg/kg	2.7	0.78	7069204	28	0.80	34	0.85	7069204
Calculated Potassium (K)	mg/kg	0.50	0.41	7069204	3.7	0.42	4.1	0.44	7069204
Calculated Chloride (Cl)	mg/kg	5.9	1.6	7069204	61	1.6	70	1.7	7069204
Calculated Sulphate (SO4)	mg/kg	7.7	1.6	7069204	270	1.6	180	1.7	7069204
Soluble Parameters									
Soluble Chloride (Cl)	mg/L	19	5.0	7073775	190	5.0	210	5.0	7073866
Soluble Conductivity	dS/m	0.22	0.020	7072454	2.1	0.020	1.6	0.020	7072647
Soluble (CaCl2) pH	N/A	7.68	N/A	7072631	7.51	N/A	7.39	N/A	7072631
Sodium Adsorption Ratio	N/A	0.39	0.10	7068956	1.3	0.10	1.7	0.10	7068956
Soluble Calcium (Ca)	mg/L	26	1.5	7073706	270	1.5	150	1.5	7073786
Soluble Magnesium (Mg)	mg/L	6.8	1.0	7073706	65	1.0	66	1.0	7073786
Soluble Sodium (Na)	mg/L	8.7	2.5	7073706	89	2.5	98	2.5	7073786
Soluble Potassium (K)	mg/L	1.6	1.3	7073706	12	1.3	12	1.3	7073786
Saturation %	%	31	N/A	7072433	32	N/A	34	N/A	7072459
Soluble Sulphate (SO4)	mg/L	25	5.0	7073706	830	5.0	530	5.0	7073786
Theoretical Gypsum Requirement	tonnes/ha	<0.10	0.10	7068960	<0.10	0.10	<0.10	0.10	7068960

RDL = Reportable Detection Limit

Maxxam Job #: B370030
Report Date: 2013/08/14

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JC

SOIL SALINITY 4 (SOIL)

Maxxam ID		HD8626			HD8627		HD8628		
Sampling Date		2013/08/08			2013/08/08		2013/08/08		
COC Number		A134686			A134686		A134686		
	UNITS	**EX-13-6KE (4.0M)**	**RDL**	**QC Batch**	**EX-13-6KE (6.0M)**	**RDL**	**EX-13-7KE (2.0M)**	**RDL**	**QC Batch**
Calculated Parameters									
Anion Sum	meq/L	19	N/A	7068953	14	N/A	24	N/A	7068953
Cation Sum	meq/L	20	N/A	7068953	14	N/A	24	N/A	7068953
Cation/EC Ratio	N/A	11	0.10	7068947	9.5	0.10	12	0.10	7068947
Ion Balance	N/A	1.0	0.010	7068951	1.0	0.010	1.0	0.010	7068951
Calculated Calcium (Ca)	mg/kg	65	0.47	7069204	39	0.53	100	0.52	7069204
Calculated Magnesium (Mg)	mg/kg	18	0.31	7069204	14	0.35	24	0.35	7069204
Calculated Sodium (Na)	mg/kg	34	0.79	7069204	42	0.88	26	0.87	7069204
Calculated Potassium (K)	mg/kg	3.5	0.41	7069204	4.3	0.46	4.4	0.45	7069204
Calculated Chloride (Cl)	mg/kg	82	1.6	7069204	110	1.8	54	1.8	7069204
Calculated Sulphate (SO4)	mg/kg	180	1.6	7069204	85	1.8	320	1.8	7069204
Soluble Parameters									
Soluble Chloride (Cl)	mg/L	260	5.0	7073775	320	5.0	160	5.0	7073866
Soluble Conductivity	dS/m	1.9	0.020	7072454	1.5	0.020	2.1	0.020	7072647
Soluble (CaCl2) pH	N/A	7.49	N/A	7072631	7.46	N/A	7.30	N/A	7072631
Sodium Adsorption Ratio	N/A	1.7	0.10	7068956	2.4	0.10	1.0	0.10	7068956
Soluble Calcium (Ca)	mg/L	210	1.5	7073706	110	1.5	300	1.5	7073786
Soluble Magnesium (Mg)	mg/L	58	1.0	7073706	41	1.0	70	1.0	7073786
Soluble Sodium (Na)	mg/L	110	2.5	7073706	120	2.5	74	2.5	7073786
Soluble Potassium (K)	mg/L	11	1.3	7073706	12	1.3	13	1.3	7073786
Saturation %	%	31	N/A	7072433	35	N/A	35	N/A	7072459
Soluble Sulphate (SO4)	mg/L	580	5.0	7073706	240	5.0	920	5.0	7073786
Theoretical Gypsum Requirement	tonnes/ha	<0.10	0.10	7068960	<0.10	0.10	<0.10	0.10	7068960

RDL = Reportable Detection Limit

Maxxam Job #: B370030
Report Date: 2013/08/14

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JC

SOIL SALINITY 4 (SOIL)

Maxxam ID		HD8629		HD8630		HD8631		
Sampling Date		2013/08/08		2013/08/08		2013/08/08		
COC Number		A134686		A134686		A134686		
	UNITS	**EX-13-7KE (4.0M)**	**RDL**	**EX-13-7KE (6.0M)**	**RDL**	**EX-13-5JE (1M TRENCH)**	**RDL**	**QC Batch**
Calculated Parameters								
Anion Sum	meq/L	15	N/A	10	N/A	18	N/A	7068953
Cation Sum	meq/L	15	N/A	10	N/A	19	N/A	7068953
Cation/EC Ratio	N/A	10	0.10	9.1	0.10	11	0.10	7068947
Ion Balance	N/A	1.0	0.010	0.99	0.010	1.0	0.010	7068951
Calculated Calcium (Ca)	mg/kg	47	0.51	25	0.52	60	0.49	7069204
Calculated Magnesium (Mg)	mg/kg	16	0.34	10	0.35	20	0.33	7069204
Calculated Sodium (Na)	mg/kg	29	0.84	31	0.87	33	0.82	7069204
Calculated Potassium (K)	mg/kg	3.7	0.44	3.7	0.45	4.5	0.42	7069204
Calculated Chloride (Cl)	mg/kg	53	1.7	72	1.8	74	1.6	7069204
Calculated Sulphate (SO4)	mg/kg	170	1.7	72	1.8	180	1.6	7069204
Soluble Parameters								
Soluble Chloride (Cl)	mg/L	160	5.0	210	5.0	230	5.0	7073866
Soluble Conductivity	dS/m	1.4	0.020	1.1	0.020	1.8	0.020	7072647
Soluble (CaCl2) pH	N/A	7.43	N/A	7.47	N/A	7.55	N/A	7072631
Sodium Adsorption Ratio	N/A	1.6	0.10	2.3	0.10	1.7	0.10	7068956
Soluble Calcium (Ca)	mg/L	140	1.5	71	1.5	180	1.5	7073786
Soluble Magnesium (Mg)	mg/L	48	1.0	29	1.0	60	1.0	7073786
Soluble Sodium (Na)	mg/L	85	2.5	89	2.5	100	2.5	7073786
Soluble Potassium (K)	mg/L	11	1.3	10	1.3	14	1.3	7073786
Saturation %	%	34	N/A	35	N/A	33	N/A	7072459
Soluble Sulphate (SO4)	mg/L	500	5.0	210	5.0	560	5.0	7073786
Theoretical Gypsum Requirement	tonnes/ha	<0.10	0.10	<0.10	0.10	<0.10	0.10	7068960

RDL = Reportable Detection Limit

Maxxam Job #: B370030
Report Date: 2013/08/14

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JC

SOIL SALINITY 4 (SOIL)

Maxxam ID		HD8632			HD8634		
Sampling Date		2013/08/08			2013/08/08		
COC Number		A134686			A134686		
	UNITS	**EX-13-6KE (1M TRENCH)**	**RDL**	**QC Batch**	**EX-13-7KE (1M TRENCH)**	**RDL**	**QC Batch**
Calculated Parameters							
Anion Sum	meq/L	15	N/A	7070228	22	N/A	7070228
Cation Sum	meq/L	15	N/A	7070228	22	N/A	7070228
Cation/EC Ratio	N/A	9.3	0.10	7070221	10	0.10	7070221
Ion Balance	N/A	1.0	0.010	7070227	1.0	0.010	7070227
Calculated Calcium (Ca)	mg/kg	45	0.52	7069204	64	0.49	7070230
Calculated Magnesium (Mg)	mg/kg	16	0.35	7069204	21	0.33	7070230
Calculated Sodium (Na)	mg/kg	34	0.87	7069204	53	0.82	7070230
Calculated Potassium (K)	mg/kg	4.5	0.45	7069204	5.9	0.43	7070230
Calculated Chloride (Cl)	mg/kg	110	1.7	7069204	130	1.7	7070230
Calculated Sulphate (SO4)	mg/kg	91	1.7	7069204	180	1.7	7070230
Soluble Parameters							
Soluble Chloride (Cl)	mg/L	330	5.0	7073866	380	5.0	7073866
Soluble Conductivity	dS/m	1.6	0.020	7072647	2.2	0.020	7072647
Soluble (CaCl2) pH	N/A	7.52	N/A	7072631	7.58	N/A	7072631
Sodium Adsorption Ratio	N/A	1.9	0.10	7070229	2.5	0.10	7070229
Soluble Calcium (Ca)	mg/L	130	1.5	7073786	190	1.5	7073786
Soluble Magnesium (Mg)	mg/L	45	1.0	7073786	63	1.0	7073786
Soluble Sodium (Na)	mg/L	99	2.5	7073786	160	2.5	7073786
Soluble Potassium (K)	mg/L	13	1.3	7073786	18	1.3	7073786
Saturation %	%	35	N/A	7072459	33	N/A	7072459
Soluble Sulphate (SO4)	mg/L	260	5.0	7073786	550	5.0	7073786
Theoretical Gypsum Requirement	tonnes/ha	<0.10	0.10	7070231	<0.10	0.10	7070231

RDL = Reportable Detection Limit

Maxxam Job #: B370030
Report Date: 2013/08/14

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JC

REGULATED METALS (CCME/AT1) - SOILS

Maxxam ID		HD8621	HD8624	HD8625	HD8626	HD8627	HD8628		
Sampling Date		2013/08/08	2013/08/08	2013/08/08	2013/08/08	2013/08/08	2013/08/08		
COC Number		A134686	A134686	A134686	A134686	A134686	A134686		
	UNITS	**EX-13-5JE (2.0M)**	**EX-13-5JE (4.0M)**	**EX-13-6KE (2.0M)**	**EX-13-6KE (4.0M)**	**EX-13-6KE (6.0M)**	**EX-13-7KE (2.0M)**	**RDL**	**QC Batch**
Elements									
Soluble (Hot water) Boron (B)	mg/kg	<0.10	0.26	0.27	0.32	0.22	0.27	0.10	7073614
Hex. Chromium (Cr 6+)	mg/kg	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	0.15	7072962
Total Antimony (Sb)	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	7074673
Total Arsenic (As)	mg/kg	5.8	5.7	4.8	5.9	4.6	5.2	1.0	7074673
Total Barium (Ba)	mg/kg	74	100	70	86	59	83	10	7074673
Total Beryllium (Be)	mg/kg	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	0.40	7074673
Total Cadmium (Cd)	mg/kg	0.11	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	7074673
Total Chromium (Cr)	mg/kg	6.2	5.9	5.9	5.3	5.9	5.6	1.0	7074673
Total Cobalt (Co)	mg/kg	3.8	3.5	3.7	3.4	3.6	3.4	1.0	7074673
Total Copper (Cu)	mg/kg	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	5.0	7074673
Total Lead (Pb)	mg/kg	3.0	3.3	2.8	3.2	2.6	3.2	1.0	7074673
Total Mercury (Hg)	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	7074673
Total Molybdenum (Mo)	mg/kg	0.41	0.54	0.51	0.48	0.42	0.48	0.40	7074673
Total Nickel (Ni)	mg/kg	11	9.8	11	9.5	10	9.7	1.0	7074673
Total Selenium (Se)	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	7074673
Total Silver (Ag)	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	7074673
Total Thallium (Tl)	mg/kg	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	0.30	7074673
Total Tin (Sn)	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	7074673
Total Uranium (U)	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	7074673
Total Vanadium (V)	mg/kg	12	12	11	11	11	11	1.0	7074673
Total Zinc (Zn)	mg/kg	27	26	25	25	25	25	10	7074673

RDL = Reportable Detection Limit

Maxxam Job #: B370030
Report Date: 2013/08/14

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JC

REGULATED METALS (CCME/AT1) - SOILS

Maxxam ID		HD8629	HD8630	HD8631	HD8632	HD8634	HD8634		
Sampling Date		2013/08/08	2013/08/08	2013/08/08	2013/08/08	2013/08/08	2013/08/08		
COC Number		A134686	A134686	A134686	A134686	A134686	A134686		
	UNITS	**EX-13-7KE (4.0M)**	**EX-13-7KE (6.0M)**	**EX-13-5JE (1M TRENCH)**	**EX-13-6KE (1M TRENCH)**	**EX-13-7KE (1M TRENCH)**	**EX-13-7KE (1M TRENCH) Lab-Dup**	**RDL**	**QC Batch**
Elements									
Soluble (Hot water) Boron (B)	mg/kg	0.22	0.16	0.15	0.19	0.46	N/A	0.10	7073614
Hex. Chromium (Cr 6+)	mg/kg	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	0.15	7072962
Total Antimony (Sb)	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	N/A	1.0	7074673
Total Arsenic (As)	mg/kg	5.6	4.9	5.0	5.0	6.0	N/A	1.0	7074673
Total Barium (Ba)	mg/kg	72	66	71	88	86	N/A	10	7074673
Total Beryllium (Be)	mg/kg	<0.40	<0.40	<0.40	<0.40	<0.40	N/A	0.40	7074673
Total Cadmium (Cd)	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10	N/A	0.10	7074673
Total Chromium (Cr)	mg/kg	5.5	5.8	5.4	6.3	7.7	N/A	1.0	7074673
Total Cobalt (Co)	mg/kg	3.7	3.6	3.3	3.7	4.2	N/A	1.0	7074673
Total Copper (Cu)	mg/kg	<5.0	<5.0	<5.0	<5.0	<5.0	N/A	5.0	7074673
Total Lead (Pb)	mg/kg	3.0	2.8	2.8	3.6	3.9	N/A	1.0	7074673
Total Mercury (Hg)	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050	N/A	0.050	7074673
Total Molybdenum (Mo)	mg/kg	0.44	0.41	0.41	0.44	0.87	N/A	0.40	7074673
Total Nickel (Ni)	mg/kg	10	10	9.7	11	12	N/A	1.0	7074673
Total Selenium (Se)	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	N/A	0.50	7074673
Total Silver (Ag)	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	N/A	1.0	7074673
Total Thallium (Tl)	mg/kg	<0.30	<0.30	<0.30	<0.30	<0.30	N/A	0.30	7074673
Total Tin (Sn)	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	N/A	1.0	7074673
Total Uranium (U)	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0	N/A	1.0	7074673
Total Vanadium (V)	mg/kg	11	11	11	11	13	N/A	1.0	7074673
Total Zinc (Zn)	mg/kg	25	25	23	32	28	N/A	10	7074673

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Job #: B370030
Report Date: 2013/08/14

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JC

Package 1	7.3°C

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

General Comments

Results relate only to the items tested.

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: CAMP FAREWELL
P.O. #: A04012A05
Site Location:

Quality Assurance Report

Maxxam Job Number: EB370030

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7070482	SHM	Matrix Spike [HD8624-01]	O-TERPHENYL (sur.)	2013/08/13		101	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/08/13		112	%	50 - 130
			F3 (C16-C34 Hydrocarbons)	2013/08/13		114	%	50 - 130
			F4 (C34-C50 Hydrocarbons)	2013/08/13		115	%	50 - 130
		Spiked Blank	O-TERPHENYL (sur.)	2013/08/13		97	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/08/13		109	%	70 - 130
			F3 (C16-C34 Hydrocarbons)	2013/08/13		111	%	70 - 130
			F4 (C34-C50 Hydrocarbons)	2013/08/13		111	%	70 - 130
		Method Blank	O-TERPHENYL (sur.)	2013/08/13		100	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/08/13	<10		mg/kg	
			F3 (C16-C34 Hydrocarbons)	2013/08/13	<50		mg/kg	
			F4 (C34-C50 Hydrocarbons)	2013/08/13	<50		mg/kg	
		RPD [HD8621-01]	F2 (C10-C16 Hydrocarbons)	2013/08/13	NC		%	50
			F3 (C16-C34 Hydrocarbons)	2013/08/13	NC		%	50
			F4 (C34-C50 Hydrocarbons)	2013/08/13	NC		%	50
7070533	RC6	Matrix Spike [HD8624-01]	1,4-Difluorobenzene (sur.)	2013/08/12		109	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/08/12		97	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/08/12		106	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/08/12		101	%	60 - 140
			Benzene	2013/08/12		108	%	60 - 140
			Toluene	2013/08/12		101	%	60 - 140
			Ethylbenzene	2013/08/12		102	%	60 - 140
			m & p-Xylene	2013/08/12		103	%	60 - 140
			o-Xylene	2013/08/12		103	%	60 - 140
			(C6-C10)	2013/08/12		102	%	60 - 140
		Spiked Blank	1,4-Difluorobenzene (sur.)	2013/08/12		99	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/08/12		97	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/08/12		100	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/08/12		102	%	60 - 140
			Benzene	2013/08/12		105	%	60 - 140
			Toluene	2013/08/12		96	%	60 - 140
			Ethylbenzene	2013/08/12		97	%	60 - 140
			m & p-Xylene	2013/08/12		96	%	60 - 140
			o-Xylene	2013/08/12		98	%	60 - 140
			(C6-C10)	2013/08/12		112	%	60 - 140
		Method Blank	1,4-Difluorobenzene (sur.)	2013/08/12		99	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/08/12		96	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/08/12		98	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/08/12		103	%	60 - 140
			Benzene	2013/08/12	<0.0050		mg/kg	
			Toluene	2013/08/12	<0.020		mg/kg	
			Ethylbenzene	2013/08/12	<0.010		mg/kg	
			Xylenes (Total)	2013/08/12	<0.040		mg/kg	
			m & p-Xylene	2013/08/12	<0.040		mg/kg	
			o-Xylene	2013/08/12	<0.020		mg/kg	
			F1 (C6-C10) - BTEX	2013/08/12	<12		mg/kg	
			(C6-C10)	2013/08/12	<12		mg/kg	
		RPD [HD8621-01]	Benzene	2013/08/12	NC		%	50
			Toluene	2013/08/12	NC		%	50
			Ethylbenzene	2013/08/12	NC		%	50
			Xylenes (Total)	2013/08/12	NC		%	50
			m & p-Xylene	2013/08/12	NC		%	50
			o-Xylene	2013/08/12	NC		%	50

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: CAMP FAREWELL
P.O. #: A04012A05
Site Location:

Quality Assurance Report (Continued)

Maxxam Job Number: EB370030

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7070533	RC6	RPD [HD8621-01]	F1 (C6-C10) - BTEX	2013/08/12	NC		%	50
			(C6-C10)	2013/08/12	NC		%	50
7072433	CH7	QC Standard	Saturation %	2013/08/13		103	%	93 - 107
		RPD	Saturation %	2013/08/13	1.3		%	12
7072454	LZ2	QC Standard	Soluble Conductivity	2013/08/13		87	%	85 - 115
		Spiked Blank	Soluble Conductivity	2013/08/13		100	%	90 - 110
		Method Blank	Soluble Conductivity	2013/08/13	<0.020		dS/m	
		RPD	Soluble Conductivity	2013/08/13	0.4		%	35
7072459	AD7	QC Standard	Saturation %	2013/08/13		101	%	93 - 107
		RPD	Saturation %	2013/08/13	0.2		%	12
7072631	MA4	QC Standard	Soluble (CaCl2) pH	2013/08/13		100	%	97 - 103
		Spiked Blank	Soluble (CaCl2) pH	2013/08/13		100	%	97 - 103
		RPD	Soluble (CaCl2) pH	2013/08/13	0.1		%	5
7072647	LZ2	QC Standard	Soluble Conductivity	2013/08/13		88	%	85 - 115
		Spiked Blank	Soluble Conductivity	2013/08/13		100	%	90 - 110
		Method Blank	Soluble Conductivity	2013/08/13	<0.020		dS/m	
		RPD	Soluble Conductivity	2013/08/13	2.9		%	35
7072679	ABH	Method Blank	Moisture	2013/08/13	<0.30		%	
		RPD [HD8621-01]	Moisture	2013/08/13	3.8		%	20
7072962	LCA	Matrix Spike						
		[HD8634-01]	Hex. Chromium (Cr 6+)	2013/08/13		88	%	75 - 125
		Spiked Blank	Hex. Chromium (Cr 6+)	2013/08/13		105	%	90 - 110
		Method Blank	Hex. Chromium (Cr 6+)	2013/08/13	<0.15		mg/kg	
		RPD [HD8634-01]	Hex. Chromium (Cr 6+)	2013/08/13	NC		%	35
7073614	JHC	Matrix Spike	Soluble (Hot water) Boron (B)	2013/08/13		105	%	75 - 125
		Spiked Blank	Soluble (Hot water) Boron (B)	2013/08/13		101	%	75 - 125
		Method Blank	Soluble (Hot water) Boron (B)	2013/08/13	<0.10		mg/kg	
		RPD	Soluble (Hot water) Boron (B)	2013/08/13	NC		%	35
7073706	JSM	Matrix Spike	Soluble Calcium (Ca)	2013/08/13		96	%	75 - 125
			Soluble Magnesium (Mg)	2013/08/13		105	%	75 - 125
			Soluble Sodium (Na)	2013/08/13		104	%	75 - 125
			Soluble Potassium (K)	2013/08/13		100	%	75 - 125
		QC Standard	Soluble Calcium (Ca)	2013/08/13		84	%	75 - 125
			Soluble Magnesium (Mg)	2013/08/13		89	%	75 - 125
			Soluble Sodium (Na)	2013/08/13		94	%	75 - 125
			Soluble Potassium (K)	2013/08/13		101	%	75 - 125
			Soluble Sulphate (SO4)	2013/08/13		81	%	78 - 122
		Spiked Blank	Soluble Calcium (Ca)	2013/08/13		95	%	75 - 125
			Soluble Magnesium (Mg)	2013/08/13		104	%	75 - 125
			Soluble Sodium (Na)	2013/08/13		104	%	75 - 125
			Soluble Potassium (K)	2013/08/13		100	%	75 - 125
		Method Blank	Soluble Calcium (Ca)	2013/08/13	<1.5		mg/L	
			Soluble Magnesium (Mg)	2013/08/13	<1.0		mg/L	
			Soluble Sodium (Na)	2013/08/13	<2.5		mg/L	
			Soluble Potassium (K)	2013/08/13	<1.3		mg/L	
			Soluble Sulphate (SO4)	2013/08/13	<5.0		mg/L	
		RPD	Soluble Calcium (Ca)	2013/08/13	1.3		%	35
			Soluble Magnesium (Mg)	2013/08/13	1.3		%	35
			Soluble Sodium (Na)	2013/08/13	NC		%	35
			Soluble Potassium (K)	2013/08/13	NC		%	35
			Soluble Sulphate (SO4)	2013/08/13	NC		%	35
7073775	LCA	Matrix Spike	Soluble Chloride (Cl)	2013/08/13		104	%	75 - 125
		QC Standard	Soluble Chloride (Cl)	2013/08/13		88	%	75 - 125
		Spiked Blank	Soluble Chloride (Cl)	2013/08/13		102	%	75 - 125
		Method Blank	Soluble Chloride (Cl)	2013/08/13	5.1, RDL=5.0		mg/L	

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: CAMP FAREWELL
P.O. #: A04012A05
Site Location:

Quality Assurance Report (Continued)

Maxxam Job Number: EB370030

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7073775	LCA	RPD	Soluble Chloride (Cl)	2013/08/13	NC		%	35
7073786	JSM	Matrix Spike	Soluble Calcium (Ca)	2013/08/13		97	%	75 - 125
			Soluble Magnesium (Mg)	2013/08/13		107	%	75 - 125
			Soluble Sodium (Na)	2013/08/13		106	%	75 - 125
			Soluble Potassium (K)	2013/08/13		102	%	75 - 125
		QC Standard	Soluble Calcium (Ca)	2013/08/13		85	%	75 - 125
			Soluble Magnesium (Mg)	2013/08/13		90	%	75 - 125
			Soluble Sodium (Na)	2013/08/13		94	%	75 - 125
			Soluble Potassium (K)	2013/08/13		102	%	75 - 125
			Soluble Sulphate (SO4)	2013/08/13		83	%	78 - 122
		Spiked Blank	Soluble Calcium (Ca)	2013/08/13		95	%	75 - 125
			Soluble Magnesium (Mg)	2013/08/13		103	%	75 - 125
			Soluble Sodium (Na)	2013/08/13		103	%	75 - 125
			Soluble Potassium (K)	2013/08/13		98	%	75 - 125
		Method Blank	Soluble Calcium (Ca)	2013/08/13	<1.5		mg/L	
			Soluble Magnesium (Mg)	2013/08/13	<1.0		mg/L	
			Soluble Sodium (Na)	2013/08/13	<2.5		mg/L	
			Soluble Potassium (K)	2013/08/13	<1.3		mg/L	
			Soluble Sulphate (SO4)	2013/08/13	<5.0		mg/L	
		RPD	Soluble Calcium (Ca)	2013/08/13	0.8		%	35
			Soluble Magnesium (Mg)	2013/08/13	0.7		%	35
			Soluble Sodium (Na)	2013/08/13	2.0		%	35
			Soluble Potassium (K)	2013/08/13	NC		%	35
			Soluble Sulphate (SO4)	2013/08/13	4.0		%	35
7073866	EP1	Matrix Spike	Soluble Chloride (Cl)	2013/08/13		101	%	75 - 125
		QC Standard	Soluble Chloride (Cl)	2013/08/13		87	%	75 - 125
		Spiked Blank	Soluble Chloride (Cl)	2013/08/13		98	%	75 - 125
		Method Blank	Soluble Chloride (Cl)	2013/08/13	<5.0		mg/L	
		RPD	Soluble Chloride (Cl)	2013/08/13	NC		%	35
7074673	WAU	Matrix Spike	Total Antimony (Sb)	2013/08/13		88	%	75 - 125
			Total Arsenic (As)	2013/08/13		90	%	75 - 125
			Total Barium (Ba)	2013/08/13		NC	%	75 - 125
			Total Beryllium (Be)	2013/08/13		95	%	75 - 125
			Total Cadmium (Cd)	2013/08/13		87	%	75 - 125
			Total Chromium (Cr)	2013/08/13		NC	%	75 - 125
			Total Cobalt (Co)	2013/08/13		90	%	75 - 125
			Total Copper (Cu)	2013/08/13		97	%	75 - 125
			Total Lead (Pb)	2013/08/13		87	%	75 - 125
			Total Magnesium (Mg)	2013/08/13		NC	%	75 - 125
			Total Mercury (Hg)	2013/08/13		95	%	75 - 125
			Total Molybdenum (Mo)	2013/08/13		93	%	75 - 125
			Total Nickel (Ni)	2013/08/13		87	%	75 - 125
			Total Selenium (Se)	2013/08/13		88	%	75 - 125
			Total Silver (Ag)	2013/08/13		95	%	75 - 125
			Total Thallium (Tl)	2013/08/13		84	%	75 - 125
			Total Tin (Sn)	2013/08/13		91	%	75 - 125
			Total Uranium (U)	2013/08/13		83	%	75 - 125
			Total Vanadium (V)	2013/08/13		NC	%	75 - 125
			Total Zinc (Zn)	2013/08/13		NC	%	75 - 125
		QC Standard	Total Arsenic (As)	2013/08/13		109	%	50 - 150
			Total Barium (Ba)	2013/08/13		107	%	69 - 131
			Total Chromium (Cr)	2013/08/13		105	%	41 - 159
			Total Cobalt (Co)	2013/08/13		100	%	75 - 125
			Total Copper (Cu)	2013/08/13		97	%	73 - 127
			Total Lead (Pb)	2013/08/13		94	%	54 - 146

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: CAMP FAREWELL
P.O. #: A04012A05
Site Location:

Quality Assurance Report (Continued)

Maxxam Job Number: EB370030

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7074673	WAU	QC Standard	Total Magnesium (Mg)	2013/08/13		89	%	69 - 131
			Total Nickel (Ni)	2013/08/13		108	%	61 - 139
			Total Vanadium (V)	2013/08/13		122	%	50 - 150
			Total Zinc (Zn)	2013/08/13		98	%	72 - 128
		Spiked Blank	Total Antimony (Sb)	2013/08/13		93	%	75 - 125
			Total Arsenic (As)	2013/08/13		94	%	75 - 125
			Total Barium (Ba)	2013/08/13		94	%	75 - 125
			Total Beryllium (Be)	2013/08/13		95	%	75 - 125
			Total Cadmium (Cd)	2013/08/13		89	%	75 - 125
			Total Chromium (Cr)	2013/08/13		93	%	75 - 125
			Total Cobalt (Co)	2013/08/13		93	%	75 - 125
			Total Copper (Cu)	2013/08/13		94	%	75 - 125
			Total Lead (Pb)	2013/08/13		92	%	75 - 125
			Total Magnesium (Mg)	2013/08/13		94	%	75 - 125
			Total Mercury (Hg)	2013/08/13		98	%	75 - 125
			Total Molybdenum (Mo)	2013/08/13		94	%	75 - 125
			Total Nickel (Ni)	2013/08/13		94	%	75 - 125
			Total Selenium (Se)	2013/08/13		90	%	75 - 125
			Total Silver (Ag)	2013/08/13		96	%	75 - 125
			Total Thallium (Tl)	2013/08/13		86	%	75 - 125
			Total Tin (Sn)	2013/08/13		92	%	75 - 125
			Total Uranium (U)	2013/08/13		97	%	75 - 125
			Total Vanadium (V)	2013/08/13		96	%	75 - 125
			Total Zinc (Zn)	2013/08/13		92	%	75 - 125
		Method Blank	Total Antimony (Sb)	2013/08/13	<1.0		mg/kg	
			Total Arsenic (As)	2013/08/13	<1.0		mg/kg	
			Total Barium (Ba)	2013/08/13	<10		mg/kg	
			Total Beryllium (Be)	2013/08/13	<0.40		mg/kg	
			Total Cadmium (Cd)	2013/08/13	<0.10		mg/kg	
			Total Chromium (Cr)	2013/08/13	<1.0		mg/kg	
			Total Cobalt (Co)	2013/08/13	<1.0		mg/kg	
			Total Copper (Cu)	2013/08/13	<5.0		mg/kg	
			Total Lead (Pb)	2013/08/13	<1.0		mg/kg	
			Total Magnesium (Mg)	2013/08/13	<100		mg/kg	
			Total Mercury (Hg)	2013/08/13	<0.050		mg/kg	
			Total Molybdenum (Mo)	2013/08/13	<0.40		mg/kg	
			Total Nickel (Ni)	2013/08/13	<1.0		mg/kg	
			Total Selenium (Se)	2013/08/13	<0.50		mg/kg	
			Total Silver (Ag)	2013/08/13	<1.0		mg/kg	
			Total Thallium (Tl)	2013/08/13	<0.30		mg/kg	
			Total Tin (Sn)	2013/08/13	<1.0		mg/kg	
			Total Uranium (U)	2013/08/13	<1.0		mg/kg	
			Total Vanadium (V)	2013/08/13	<1.0		mg/kg	
			Total Zinc (Zn)	2013/08/13	<10		mg/kg	
		RPD	Total Antimony (Sb)	2013/08/13	NC		%	35
			Total Arsenic (As)	2013/08/13	2.1		%	35
			Total Barium (Ba)	2013/08/13	1.1		%	35
			Total Beryllium (Be)	2013/08/13	NC		%	35
			Total Cadmium (Cd)	2013/08/13	NC		%	35
			Total Chromium (Cr)	2013/08/13	3.9		%	35
			Total Cobalt (Co)	2013/08/13	2.8		%	35
			Total Copper (Cu)	2013/08/13	NC		%	35
			Total Lead (Pb)	2013/08/13	0.9		%	35
			Total Mercury (Hg)	2013/08/13	NC		%	35
			Total Molybdenum (Mo)	2013/08/13	NC		%	35

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: CAMP FAREWELL
P.O. #: A04012A05
Site Location:

Quality Assurance Report (Continued)

Maxxam Job Number: EB370030

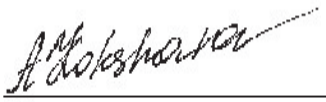
QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7074673	WAU	RPD	Total Nickel (Ni)	2013/08/13	4.5		%	35
			Total Selenium (Se)	2013/08/13	NC		%	35
			Total Silver (Ag)	2013/08/13	NC		%	35
			Total Thallium (Tl)	2013/08/13	NC		%	35
			Total Tin (Sn)	2013/08/13	NC		%	35
			Total Uranium (U)	2013/08/13	NC		%	35
			Total Vanadium (V)	2013/08/13	4.5		%	35
			Total Zinc (Zn)	2013/08/13	NC		%	35

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 spiked amount was not sufficiently significant to permit a reliable recovery calculation.
NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

Validation Signature Page

Maxxam Job #: B370030

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

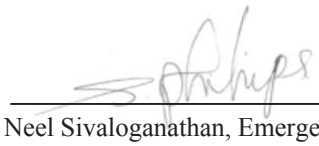


Anna Koksharova, Senior Analyst

Carol Gebhart, Senior Analyst

Dina Tleugabulova, Ph.D., Scientific Specialist, Inorganics Department

Michael Chae, Ph.D, Scientific Specialist



Neel Sivaloganathan, Emergency Spill Response Manager

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Maxxam

Calgary: 4000 19st St. NE, T2E 6P8. Ph: (403) 291-3077 Fax: (403) 735-2240, Toll free: (800) 386-7247
Edmonton: 9331 - 48 Street, T6B 2R4. Ph: (780) 577-7100, Fax: (780) 450-4187. Toll free: (877) 465-8889
www.maxxamanalytics.com

08/480

Chain of Custody A134686

Page: 1 of 1

	Invoice To: C/O Report Address ☐	Report To: Same as Invoice ☑
Company:	JEG Consultants LTD.	
Contact:	Nicole Wills	
Address:	2618 Hopewell Place NE	
	Prov: Calgary AB PC: T1Y 7S7	Prov: PC:
Contact #s:	Ph: 403-825-3048 Cell:	Ph: Cell:

Report Distribution (E-Mail):
NWills@klohn.com
jcollins@klohn.com

REGULATORY GUIDELINES:
☐ AT1
☐ CCME
☐ Regulated Drinking Water
☐ Other:

All samples are held for 60 calendar days after sample receipt, unless specified otherwise.

PO #: A04012A05
Project # / Name: Camp Forewell
Site Location:
Quote #:
Sampled By: Jesse Collins / Nathan Shirley

SERVICE REQUESTED:
☒ RUSH (Contact lab to reserve) Date Required: ASAP
☐ REGULAR (5 to 7 Days)

See reverse for package specifics

	Sample ID	Depth (unit)	Matrix GW. / SW Soil	Date/Time Sampled YY/MM/DD 24:00	SOIL: BTEX F1-F4	SOIL: Sieve (75 micron)	SOIL: Regulated Metals (CCME / AT1)	SOIL: Salinity 4	SOIL: Assessment ICP Metals	SOIL: Basic Class II Landfill	WATER: ☐VOCs ☐BTEX F1 ☐BTEX F1-F2	WATER: ☐BTEX F1-F4 ☐BTEX F1-F2	WATER: ☐ Routine Water ☐ Turb ☐ F	WATER: ☐ TOC ☐ DOC	WATER: Regulated Metals (CCME / AT1) Total	WATER: Regulated Metals (CCME / AT1) Dissolved	WATER: Mercury ☐ Total ☐ Dissolved	Other Analysis	HOLD - Do not Analyze	# of Containers Submitted
1	EX-13-5JE (2.0m)	2.0m	Soil	13/08/08	X		X	X												2
2	EX-13-5JE (4.0m)	4.0m			X		X	X												2
3	~~EX-13-5JE~~	″	″	″	X		X	X												~~2~~
4	EX-13-6KE (2.0m)	2.0m			X		X	X												2
5	EX-13-6KE (4.0m)	4.0m			X		X	X												2
6	EX-13-6KE (6.0m)	6.0m			X		X	X												2
7	EX-13-7KE (2.0m)	2.0m			X		X	X												2
8	EX-13-7KE (4.0m)	4.0m			X		X	X												2
9	EX-13-7KE (6.0m)	6.0m			X		X	X												2
10	EX-13-5JE (1m Trench)	→			X		X	X												2
11	EX-13-6KE (1m Trench)	→			X		X	X												2
12	EX-13-7KE (1m Trench)	→			X		X	X										JRC/CMC		2

Please indicate Filtered, Preserved or Both (F, P, F/P) → F/P

Relinquished By (Signature/Print)	Date (YY/MM/DD):	Time (24:00):
Jesse Collins	13/08/08	1700
Relinquished By (Signature/Print):	Date (YY/MM/DD):	Time (24:00):

Special Instructions:

# of Jars Used & Not Submitted:

LAB USE ONLY

Received By:	Date:	Time:	Maxxam Job #: B370030		
Jenna Walter	20130812	0945	Custody Seal	Temperature	Ice
Lab Comments:			present	7, 6, 9	present

Your P.O. #: A04012A05
Your Project #: CAMP FAREWELL
Your C.O.C. #: A134686

Attention: NICOLE WILLS

KLOHN CRIPPEN BERGER LTD
500-2618
HOPEWELL PLACE NE
CALGARY, AB
CANADA T1Y 7J7

Report Date: 2013/08/13

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B370030
Received: 2013/08/12, 9:45

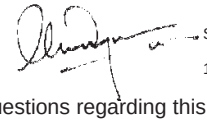
Sample Matrix: Soil
Samples Received: 11

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Boron (Hot Water Soluble)	11	2013/08/13	2013/08/13	AB SOP-00042	EPA 200.7
BTEX/F1 by HS GC/MS (MeOH extract)	10	2013/08/12	2013/08/12	AB SOP-00039	CCME, EPA 8260
BTEX/F1 by HS GC/MS (MeOH extract)	1	2013/08/12	2013/08/13	AB SOP-00039	CCME, EPA 8260
Cation/EC Ratio	11	N/A	2013/08/13		CALCULATION
Chloride (Soluble)	11	2013/08/13	2013/08/13	AB SOP-00020	SSMA 4500 CL-E
Hexavalent Chromium	11	2013/08/12	2013/08/13	EENVSOP-00131	SM 3500-Cr B
Conductivity @25C (Soluble)	11	2013/08/13	2013/08/13	AB SOP-00004	SSMA 15.3
CCME Hydrocarbons (F2-F4 in soil)	11	2013/08/12	2013/08/13	AB SOP-00040 AB SOP-00036	CCME PHC-CWS
Ion Balance	11	N/A	2013/08/13	AB WI-00065	SM 1030E
Sum of Cations, Anions	11	N/A	2013/08/13	AB WI-00065	SM 1030E
Moisture	11	N/A	2013/08/13	AB SOP-00002	CCME PHC-CWS
pH @25C (1:2 Calcium Chloride Extract)	11	2013/08/13	2013/08/13	AB SOP-00006	SSMA 16.3
Sodium Adsorption Ratio	11	N/A	2013/08/13	AB WI-00065	SSMA 15.4.4
Ca,Mg,Na,K,SO4 (Soluble)	11	2013/08/13	2013/08/13	AB SOP-00042	EPA 200.7
Soluble Paste	11	2013/08/13	2013/08/13	AB SOP-00033	SSMA 15.2
Soluble Ions Calculation	11	N/A	2013/08/13		CALCULATION
Theoretical Gypsum Requirement (1)	11	N/A	2013/08/13	CAL WI-00087	CJSS 79:449-455

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

(1) Units for TGR have changed from tons/acre to tonnes/ha

Encryption Key



Sherlyne Sim
13 Aug 2013 17:47:38 -06:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Tanya Eugine, M.Sc., Project Manager
Email: TEugine@maxxam.ca
Phone# (780) 577-7144

==========

Your P.O. #: A04012A05
Your Project #: CAMP FAREWELL
Your C.O.C. #: A134686

Attention: NICOLE WILLS

KLOHN CRIPPEN BERGER LTD
500-2618
HOPEWELL PLACE NE
CALGARY, AB
CANADA T1Y 7J7

Report Date: 2013/08/13

CERTIFICATE OF ANALYSIS

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.

Total cover pages: 2

Maxxam Job #: B370030
Report Date: 2013/08/13

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JC

AT1 BTEX AND F1-F4 IN SOIL (SOIL)

Maxxam ID		HD8621	HD8624	HD8625	HD8626	HD8627		
Sampling Date		2013/08/08	2013/08/08	2013/08/08	2013/08/08	2013/08/08		
COC Number		A134686	A134686	A134686	A134686	A134686		
	UNITS	**EX-13-5JE (2.0M)**	**EX-13-5JE (4.0M)**	**EX-13-6KE (2.0M)**	**EX-13-6KE (4.0M)**	**EX-13-6KE (6.0M)**	**RDL**	**QC Batch**
Physical Properties								
Moisture	%	11	19	22	18	24	0.30	7072679
Ext. Pet. Hydrocarbon								
F2 (C10-C16 Hydrocarbons)	mg/kg	<10	11	15	<10	<10	10	7070482
F3 (C16-C34 Hydrocarbons)	mg/kg	<50	<50	<50	<50	<50	50	7070482
F4 (C34-C50 Hydrocarbons)	mg/kg	<50	<50	<50	<50	<50	50	7070482
Reached Baseline at C50	mg/kg	Yes	Yes	Yes	Yes	Yes		7070482
Volatiles								
Benzene	mg/kg	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	7070533
Toluene	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	7070533
Ethylbenzene	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	7070533
Xylenes (Total)	mg/kg	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	7070533
m & p-Xylene	mg/kg	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	7070533
o-Xylene	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	7070533
F1 (C6-C10) - BTEX	mg/kg	<12	<12	<12	<12	<12	12	7070533
(C6-C10)	mg/kg	<12	<12	<12	<12	<12	12	7070533
Surrogate Recovery (%)								
1,4-Difluorobenzene (sur.)	%	104	110	108	107	112		7070533
4-BROMOFLUOROBENZENE (sur.)	%	97	100	98	98	102		7070533
D10-ETHYLBENZENE (sur.)	%	101	102	102	102	104		7070533
D4-1,2-DICHLOROETHANE (sur.)	%	100	102	102	103	102		7070533
O-TERPHENYL (sur.)	%	100	108	107	95	103		7070482

RDL = Reportable Detection Limit

Maxxam Job #: B370030
Report Date: 2013/08/13

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JC

AT1 BTEX AND F1-F4 IN SOIL (SOIL)

Maxxam ID		HD8628	HD8629	HD8630	HD8631	HD8632		
Sampling Date		2013/08/08	2013/08/08	2013/08/08	2013/08/08	2013/08/08		
COC Number		A134686	A134686	A134686	A134686	A134686		
	UNITS	**EX-13-7KE (2.0M)**	**EX-13-7KE (4.0M)**	**EX-13-7KE (6.0M)**	**EX-13-5JE (1M TRENCH)**	**EX-13-6KE (1M TRENCH)**	**RDL**	**QC Batch**
Physical Properties								
Moisture	%	20	20	22	19	19	0.30	7072679
Ext. Pet. Hydrocarbon								
F2 (C10-C16 Hydrocarbons)	mg/kg	130	<10	<10	<10	<10	10	7070482
F3 (C16-C34 Hydrocarbons)	mg/kg	<50	<50	<50	<50	<50	50	7070482
F4 (C34-C50 Hydrocarbons)	mg/kg	<50	<50	<50	<50	<50	50	7070482
Reached Baseline at C50	mg/kg	Yes	Yes	Yes	Yes	Yes		7070482
Volatiles								
Benzene	mg/kg	0.013	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	7070533
Toluene	mg/kg	0.037	<0.020	<0.020	<0.020	<0.020	0.020	7070533
Ethylbenzene	mg/kg	0.084	<0.010	<0.010	<0.010	<0.010	0.010	7070533
Xylenes (Total)	mg/kg	0.77	<0.040	<0.040	<0.040	<0.040	0.040	7070533
m & p-Xylene	mg/kg	0.30	<0.040	<0.040	<0.040	<0.040	0.040	7070533
o-Xylene	mg/kg	0.47	<0.020	<0.020	<0.020	<0.020	0.020	7070533
F1 (C6-C10) - BTEX	mg/kg	16	<12	<12	<12	<12	12	7070533
(C6-C10)	mg/kg	17	<12	<12	<12	<12	12	7070533
Surrogate Recovery (%)								
1,4-Difluorobenzene (sur.)	%	108	109	111	111	109		7070533
4-BROMOFLUOROBENZENE (sur.)	%	97	97	99	98	97		7070533
D10-ETHYLBENZENE (sur.)	%	102	101	103	103	101		7070533
D4-1,2-DICHLOROETHANE (sur.)	%	103	102	103	103	102		7070533
O-TERPHENYL (sur.)	%	96	101	96	92	115		7070482

RDL = Reportable Detection Limit

Maxxam Job #: B370030
Report Date: 2013/08/13

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JC

AT1 BTEX AND F1-F4 IN SOIL (SOIL)

Maxxam ID		HD8634		
Sampling Date		2013/08/08		
COC Number		A134686		
	UNITS	**EX-13-7KE (1M TRENCH)**	**RDL**	**QC Batch**
Physical Properties				
Moisture	%	20	0.30	7072679
Ext. Pet. Hydrocarbon				
F2 (C10-C16 Hydrocarbons)	mg/kg	<10	10	7070482
F3 (C16-C34 Hydrocarbons)	mg/kg	<50	50	7070482
F4 (C34-C50 Hydrocarbons)	mg/kg	<50	50	7070482
Reached Baseline at C50	mg/kg	Yes		7070482
Volatiles				
Benzene	mg/kg	<0.0050	0.0050	7070533
Toluene	mg/kg	<0.020	0.020	7070533
Ethylbenzene	mg/kg	<0.010	0.010	7070533
Xylenes (Total)	mg/kg	<0.040	0.040	7070533
m & p-Xylene	mg/kg	<0.040	0.040	7070533
o-Xylene	mg/kg	<0.020	0.020	7070533
F1 (C6-C10) - BTEX	mg/kg	<12	12	7070533
(C6-C10)	mg/kg	<12	12	7070533
Surrogate Recovery (%)				
1,4-Difluorobenzene (sur.)	%	108		7070533
4-BROMOFLUOROBENZENE (sur.)	%	99		7070533
D10-ETHYLBENZENE (sur.)	%	102		7070533
D4-1,2-DICHLOROETHANE (sur.)	%	103		7070533
O-TERPHENYL (sur.)	%	105		7070482

RDL = Reportable Detection Limit

Maxxam Job #: B370030
Report Date: 2013/08/13

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JC

SOIL SALINITY 4 (SOIL)

Maxxam ID		HD8621			HD8624		HD8625		
Sampling Date		2013/08/08			2013/08/08		2013/08/08		
COC Number		A134686			A134686		A134686		
	UNITS	**EX-13-5JE (2.0M)**	**RDL**	**QC Batch**	**EX-13-5JE (4.0M)**	**RDL**	**EX-13-6KE (2.0M)**	**RDL**	**QC Batch**
Calculated Parameters									
Anion Sum	meq/L	1.1	N/A	7068953	23	N/A	17	N/A	7068953
Cation Sum	meq/L	2.3	N/A	7068953	23	N/A	17	N/A	7068953
Cation/EC Ratio	N/A	11	0.10	7068947	11	0.10	11	0.10	7068947
Ion Balance	N/A	2.2	0.010	7068951	1.0	0.010	1.0	0.010	7068951
Calculated Calcium (Ca)	mg/kg	8.3	0.47	7069204	88	0.48	51	0.51	7069204
Calculated Magnesium (Mg)	mg/kg	2.1	0.31	7069204	21	0.32	22	0.34	7069204
Calculated Sodium (Na)	mg/kg	2.7	0.78	7069204	28	0.80	34	0.85	7069204
Calculated Potassium (K)	mg/kg	0.50	0.41	7069204	3.7	0.42	4.1	0.44	7069204
Calculated Chloride (Cl)	mg/kg	5.9	1.6	7069204	61	1.6	70	1.7	7069204
Calculated Sulphate (SO4)	mg/kg	7.7	1.6	7069204	270	1.6	180	1.7	7069204
Soluble Parameters									
Soluble Chloride (Cl)	mg/L	19	5.0	7073775	190	5.0	210	5.0	7073866
Soluble Conductivity	dS/m	0.22	0.020	7072454	2.1	0.020	1.6	0.020	7072647
Soluble (CaCl2) pH	N/A	7.68	N/A	7072631	7.51	N/A	7.39	N/A	7072631
Sodium Adsorption Ratio	N/A	0.39	0.10	7068956	1.3	0.10	1.7	0.10	7068956
Soluble Calcium (Ca)	mg/L	26	1.5	7073706	270	1.5	150	1.5	7073786
Soluble Magnesium (Mg)	mg/L	6.8	1.0	7073706	65	1.0	66	1.0	7073786
Soluble Sodium (Na)	mg/L	8.7	2.5	7073706	89	2.5	98	2.5	7073786
Soluble Potassium (K)	mg/L	1.6	1.3	7073706	12	1.3	12	1.3	7073786
Saturation %	%	31	N/A	7072433	32	N/A	34	N/A	7072459
Soluble Sulphate (SO4)	mg/L	25	5.0	7073706	830	5.0	530	5.0	7073786
Theoretical Gypsum Requirement	tonnes/ha	<0.10	0.10	7068960	<0.10	0.10	<0.10	0.10	7068960

RDL = Reportable Detection Limit

Maxxam Job #: B370030
Report Date: 2013/08/13

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JC

SOIL SALINITY 4 (SOIL)

Maxxam ID		HD8626			HD8627		HD8628		
Sampling Date		2013/08/08			2013/08/08		2013/08/08		
COC Number		A134686			A134686		A134686		
	UNITS	**EX-13-6KE (4.0M)**	**RDL**	**QC Batch**	**EX-13-6KE (6.0M)**	**RDL**	**EX-13-7KE (2.0M)**	**RDL**	**QC Batch**
Calculated Parameters									
Anion Sum	meq/L	19	N/A	7068953	14	N/A	24	N/A	7068953
Cation Sum	meq/L	20	N/A	7068953	14	N/A	24	N/A	7068953
Cation/EC Ratio	N/A	11	0.10	7068947	9.5	0.10	12	0.10	7068947
Ion Balance	N/A	1.0	0.010	7068951	1.0	0.010	1.0	0.010	7068951
Calculated Calcium (Ca)	mg/kg	65	0.47	7069204	39	0.53	100	0.52	7069204
Calculated Magnesium (Mg)	mg/kg	18	0.31	7069204	14	0.35	24	0.35	7069204
Calculated Sodium (Na)	mg/kg	34	0.79	7069204	42	0.88	26	0.87	7069204
Calculated Potassium (K)	mg/kg	3.5	0.41	7069204	4.3	0.46	4.4	0.45	7069204
Calculated Chloride (Cl)	mg/kg	82	1.6	7069204	110	1.8	54	1.8	7069204
Calculated Sulphate (SO4)	mg/kg	180	1.6	7069204	85	1.8	320	1.8	7069204
Soluble Parameters									
Soluble Chloride (Cl)	mg/L	260	5.0	7073775	320	5.0	160	5.0	7073866
Soluble Conductivity	dS/m	1.9	0.020	7072454	1.5	0.020	2.1	0.020	7072647
Soluble (CaCl2) pH	N/A	7.49	N/A	7072631	7.46	N/A	7.30	N/A	7072631
Sodium Adsorption Ratio	N/A	1.7	0.10	7068956	2.4	0.10	1.0	0.10	7068956
Soluble Calcium (Ca)	mg/L	210	1.5	7073706	110	1.5	300	1.5	7073786
Soluble Magnesium (Mg)	mg/L	58	1.0	7073706	41	1.0	70	1.0	7073786
Soluble Sodium (Na)	mg/L	110	2.5	7073706	120	2.5	74	2.5	7073786
Soluble Potassium (K)	mg/L	11	1.3	7073706	12	1.3	13	1.3	7073786
Saturation %	%	31	N/A	7072433	35	N/A	35	N/A	7072459
Soluble Sulphate (SO4)	mg/L	580	5.0	7073706	240	5.0	920	5.0	7073786
Theoretical Gypsum Requirement	tonnes/ha	<0.10	0.10	7068960	<0.10	0.10	<0.10	0.10	7068960

RDL = Reportable Detection Limit

Maxxam Job #: B370030
Report Date: 2013/08/13

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JC

SOIL SALINITY 4 (SOIL)

Maxxam ID		HD8629		HD8630		HD8631		
Sampling Date		2013/08/08		2013/08/08		2013/08/08		
COC Number		A134686		A134686		A134686		
	UNITS	**EX-13-7KE (4.0M)**	**RDL**	**EX-13-7KE (6.0M)**	**RDL**	**EX-13-5JE (1M TRENCH)**	**RDL**	**QC Batch**
Calculated Parameters								
Anion Sum	meq/L	15	N/A	10	N/A	18	N/A	7068953
Cation Sum	meq/L	15	N/A	10	N/A	19	N/A	7068953
Cation/EC Ratio	N/A	10	0.10	9.1	0.10	11	0.10	7068947
Ion Balance	N/A	1.0	0.010	0.99	0.010	1.0	0.010	7068951
Calculated Calcium (Ca)	mg/kg	47	0.51	25	0.52	60	0.49	7069204
Calculated Magnesium (Mg)	mg/kg	16	0.34	10	0.35	20	0.33	7069204
Calculated Sodium (Na)	mg/kg	29	0.84	31	0.87	33	0.82	7069204
Calculated Potassium (K)	mg/kg	3.7	0.44	3.7	0.45	4.5	0.42	7069204
Calculated Chloride (Cl)	mg/kg	53	1.7	72	1.8	74	1.6	7069204
Calculated Sulphate (SO4)	mg/kg	170	1.7	72	1.8	180	1.6	7069204
Soluble Parameters								
Soluble Chloride (Cl)	mg/L	160	5.0	210	5.0	230	5.0	7073866
Soluble Conductivity	dS/m	1.4	0.020	1.1	0.020	1.8	0.020	7072647
Soluble (CaCl2) pH	N/A	7.43	N/A	7.47	N/A	7.55	N/A	7072631
Sodium Adsorption Ratio	N/A	1.6	0.10	2.3	0.10	1.7	0.10	7068956
Soluble Calcium (Ca)	mg/L	140	1.5	71	1.5	180	1.5	7073786
Soluble Magnesium (Mg)	mg/L	48	1.0	29	1.0	60	1.0	7073786
Soluble Sodium (Na)	mg/L	85	2.5	89	2.5	100	2.5	7073786
Soluble Potassium (K)	mg/L	11	1.3	10	1.3	14	1.3	7073786
Saturation %	%	34	N/A	35	N/A	33	N/A	7072459
Soluble Sulphate (SO4)	mg/L	500	5.0	210	5.0	560	5.0	7073786
Theoretical Gypsum Requirement	tonnes/ha	<0.10	0.10	<0.10	0.10	<0.10	0.10	7068960

RDL = Reportable Detection Limit

Maxxam Job #: B370030
Report Date: 2013/08/13

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JC

SOIL SALINITY 4 (SOIL)

Maxxam ID		HD8632			HD8634		
Sampling Date		2013/08/08			2013/08/08		
COC Number		A134686			A134686		
	UNITS	**EX-13-6KE (1M TRENCH)**	**RDL**	**QC Batch**	**EX-13-7KE (1M TRENCH)**	**RDL**	**QC Batch**
Calculated Parameters							
Anion Sum	meq/L	15	N/A	7070228	22	N/A	7070228
Cation Sum	meq/L	15	N/A	7070228	22	N/A	7070228
Cation/EC Ratio	N/A	9.3	0.10	7070221	10	0.10	7070221
Ion Balance	N/A	1.0	0.010	7070227	1.0	0.010	7070227
Calculated Calcium (Ca)	mg/kg	45	0.52	7069204	64	0.49	7070230
Calculated Magnesium (Mg)	mg/kg	16	0.35	7069204	21	0.33	7070230
Calculated Sodium (Na)	mg/kg	34	0.87	7069204	53	0.82	7070230
Calculated Potassium (K)	mg/kg	4.5	0.45	7069204	5.9	0.43	7070230
Calculated Chloride (Cl)	mg/kg	110	1.7	7069204	130	1.7	7070230
Calculated Sulphate (SO4)	mg/kg	91	1.7	7069204	180	1.7	7070230
Soluble Parameters							
Soluble Chloride (Cl)	mg/L	330	5.0	7073866	380	5.0	7073866
Soluble Conductivity	dS/m	1.6	0.020	7072647	2.2	0.020	7072647
Soluble (CaCl2) pH	N/A	7.52	N/A	7072631	7.58	N/A	7072631
Sodium Adsorption Ratio	N/A	1.9	0.10	7070229	2.5	0.10	7070229
Soluble Calcium (Ca)	mg/L	130	1.5	7073786	190	1.5	7073786
Soluble Magnesium (Mg)	mg/L	45	1.0	7073786	63	1.0	7073786
Soluble Sodium (Na)	mg/L	99	2.5	7073786	160	2.5	7073786
Soluble Potassium (K)	mg/L	13	1.3	7073786	18	1.3	7073786
Saturation %	%	35	N/A	7072459	33	N/A	7072459
Soluble Sulphate (SO4)	mg/L	260	5.0	7073786	550	5.0	7073786
Theoretical Gypsum Requirement	tonnes/ha	<0.10	0.10	7070231	<0.10	0.10	7070231

RDL = Reportable Detection Limit

Maxxam Job #: B370030
Report Date: 2013/08/13

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JC

REGULATED METALS (CCME/AT1) - SOILS

Maxxam ID		HD8621	HD8624	HD8625	HD8626	HD8627	HD8628		
Sampling Date		2013/08/08	2013/08/08	2013/08/08	2013/08/08	2013/08/08	2013/08/08		
COC Number		A134686	A134686	A134686	A134686	A134686	A134686		
	UNITS	**EX-13-5JE (2.0M)**	**EX-13-5JE (4.0M)**	**EX-13-6KE (2.0M)**	**EX-13-6KE (4.0M)**	**EX-13-6KE (6.0M)**	**EX-13-7KE (2.0M)**	**RDL**	**QC Batch**
Elements									
Soluble (Hot water) Boron (B)	mg/kg	<0.10	0.26	0.27	0.32	0.22	0.27	0.10	7073614
Hex. Chromium (Cr 6+)	mg/kg	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	0.15	7072962

RDL = Reportable Detection Limit

Maxxam ID		HD8629	HD8630	HD8631	HD8632	HD8634		
Sampling Date		2013/08/08	2013/08/08	2013/08/08	2013/08/08	2013/08/08		
COC Number		A134686	A134686	A134686	A134686	A134686		
	UNITS	**EX-13-7KE (4.0M)**	**EX-13-7KE (6.0M)**	**EX-13-5JE (1M TRENCH)**	**EX-13-6KE (1M TRENCH)**	**EX-13-7KE (1M TRENCH)**	**RDL**	**QC Batch**
Elements								
Soluble (Hot water) Boron (B)	mg/kg	0.22	0.16	0.15	0.19	0.46	0.10	7073614
Hex. Chromium (Cr 6+)	mg/kg	<0.15	<0.15	<0.15	<0.15	<0.15	0.15	7072962

RDL = Reportable Detection Limit

Maxxam Job #: B370030
Report Date: 2013/08/13

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JC

General Comments

Results relate only to the items tested.

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: CAMP FAREWELL
P.O. #: A04012A05
Site Location:

Quality Assurance Report

Maxxam Job Number: EB370030

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7070482	SHM	Matrix Spike [HD8624-01]	O-TERPHENYL (sur.)	2013/08/13		101	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/08/13		112	%	50 - 130
			F3 (C16-C34 Hydrocarbons)	2013/08/13		114	%	50 - 130
			F4 (C34-C50 Hydrocarbons)	2013/08/13		115	%	50 - 130
		Spiked Blank	O-TERPHENYL (sur.)	2013/08/13		97	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/08/13		109	%	70 - 130
			F3 (C16-C34 Hydrocarbons)	2013/08/13		111	%	70 - 130
			F4 (C34-C50 Hydrocarbons)	2013/08/13		111	%	70 - 130
		Method Blank	O-TERPHENYL (sur.)	2013/08/13		100	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/08/13	<10		mg/kg	
			F3 (C16-C34 Hydrocarbons)	2013/08/13	<50		mg/kg	
			F4 (C34-C50 Hydrocarbons)	2013/08/13	<50		mg/kg	
		RPD [HD8621-01]	F2 (C10-C16 Hydrocarbons)	2013/08/13	NC		%	50
			F3 (C16-C34 Hydrocarbons)	2013/08/13	NC		%	50
			F4 (C34-C50 Hydrocarbons)	2013/08/13	NC		%	50
7070533	RC6	Matrix Spike [HD8624-01]	1,4-Difluorobenzene (sur.)	2013/08/12		109	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/08/12		97	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/08/12		106	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/08/12		101	%	60 - 140
			Benzene	2013/08/12		108	%	60 - 140
			Toluene	2013/08/12		101	%	60 - 140
			Ethylbenzene	2013/08/12		102	%	60 - 140
			m & p-Xylene	2013/08/12		103	%	60 - 140
			o-Xylene	2013/08/12		103	%	60 - 140
			(C6-C10)	2013/08/12		102	%	60 - 140
		Spiked Blank	1,4-Difluorobenzene (sur.)	2013/08/12		99	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/08/12		97	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/08/12		100	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/08/12		102	%	60 - 140
			Benzene	2013/08/12		105	%	60 - 140
			Toluene	2013/08/12		96	%	60 - 140
			Ethylbenzene	2013/08/12		97	%	60 - 140
			m & p-Xylene	2013/08/12		96	%	60 - 140
			o-Xylene	2013/08/12		98	%	60 - 140
			(C6-C10)	2013/08/12		112	%	60 - 140
		Method Blank	1,4-Difluorobenzene (sur.)	2013/08/12		99	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/08/12		96	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/08/12		98	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/08/12		103	%	60 - 140
			Benzene	2013/08/12	<0.0050		mg/kg	
			Toluene	2013/08/12	<0.020		mg/kg	
			Ethylbenzene	2013/08/12	<0.010		mg/kg	
			Xylenes (Total)	2013/08/12	<0.040		mg/kg	
			m & p-Xylene	2013/08/12	<0.040		mg/kg	
			o-Xylene	2013/08/12	<0.020		mg/kg	
			F1 (C6-C10) - BTEX	2013/08/12	<12		mg/kg	
			(C6-C10)	2013/08/12	<12		mg/kg	
		RPD [HD8621-01]	Benzene	2013/08/12	NC		%	50
			Toluene	2013/08/12	NC		%	50
			Ethylbenzene	2013/08/12	NC		%	50
			Xylenes (Total)	2013/08/12	NC		%	50
			m & p-Xylene	2013/08/12	NC		%	50
			o-Xylene	2013/08/12	NC		%	50

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: CAMP FAREWELL
P.O. #: A04012A05
Site Location:

Quality Assurance Report (Continued)

Maxxam Job Number: EB370030

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7070533	RC6	RPD [HD8621-01]	F1 (C6-C10) - BTEX	2013/08/12	NC		%	50
			(C6-C10)	2013/08/12	NC		%	50
7072433	CH7	QC Standard	Saturation %	2013/08/13		103	%	93 - 107
		RPD	Saturation %	2013/08/13	1.3		%	12
7072454	LZ2	QC Standard	Soluble Conductivity	2013/08/13		87	%	85 - 115
		Spiked Blank	Soluble Conductivity	2013/08/13		100	%	90 - 110
		Method Blank	Soluble Conductivity	2013/08/13	<0.020		dS/m	
		RPD	Soluble Conductivity	2013/08/13	0.4		%	35
7072459	AD7	QC Standard	Saturation %	2013/08/13		101	%	93 - 107
		RPD	Saturation %	2013/08/13	0.2		%	12
7072631	MA4	QC Standard	Soluble (CaCl2) pH	2013/08/13		100	%	97 - 103
		Spiked Blank	Soluble (CaCl2) pH	2013/08/13		100	%	97 - 103
		RPD	Soluble (CaCl2) pH	2013/08/13	0.1		%	5
7072647	LZ2	QC Standard	Soluble Conductivity	2013/08/13		88	%	85 - 115
		Spiked Blank	Soluble Conductivity	2013/08/13		100	%	90 - 110
		Method Blank	Soluble Conductivity	2013/08/13	<0.020		dS/m	
		RPD	Soluble Conductivity	2013/08/13	2.9		%	35
7072679	ABH	Method Blank	Moisture	2013/08/13	<0.30		%	
		RPD [HD8621-01]	Moisture	2013/08/13	3.8		%	20
7072962	LCA	Matrix Spike						
		[HD8634-01]	Hex. Chromium (Cr 6+)	2013/08/13		88	%	75 - 125
		Spiked Blank	Hex. Chromium (Cr 6+)	2013/08/13		105	%	90 - 110
		Method Blank	Hex. Chromium (Cr 6+)	2013/08/13	<0.15		mg/kg	
		RPD [HD8634-01]	Hex. Chromium (Cr 6+)	2013/08/13	NC		%	35
7073614	JHC	Matrix Spike	Soluble (Hot water) Boron (B)	2013/08/13		105	%	75 - 125
		Spiked Blank	Soluble (Hot water) Boron (B)	2013/08/13		101	%	75 - 125
		Method Blank	Soluble (Hot water) Boron (B)	2013/08/13	<0.10		mg/kg	
		RPD	Soluble (Hot water) Boron (B)	2013/08/13	NC		%	35
7073706	JSM	Matrix Spike	Soluble Calcium (Ca)	2013/08/13		96	%	75 - 125
			Soluble Magnesium (Mg)	2013/08/13		105	%	75 - 125
			Soluble Sodium (Na)	2013/08/13		104	%	75 - 125
			Soluble Potassium (K)	2013/08/13		100	%	75 - 125
		QC Standard	Soluble Calcium (Ca)	2013/08/13		84	%	75 - 125
			Soluble Magnesium (Mg)	2013/08/13		89	%	75 - 125
			Soluble Sodium (Na)	2013/08/13		94	%	75 - 125
			Soluble Potassium (K)	2013/08/13		101	%	75 - 125
			Soluble Sulphate (SO4)	2013/08/13		81	%	78 - 122
		Spiked Blank	Soluble Calcium (Ca)	2013/08/13		95	%	75 - 125
			Soluble Magnesium (Mg)	2013/08/13		104	%	75 - 125
			Soluble Sodium (Na)	2013/08/13		104	%	75 - 125
			Soluble Potassium (K)	2013/08/13		100	%	75 - 125
		Method Blank	Soluble Calcium (Ca)	2013/08/13	<1.5		mg/L	
			Soluble Magnesium (Mg)	2013/08/13	<1.0		mg/L	
			Soluble Sodium (Na)	2013/08/13	<2.5		mg/L	
			Soluble Potassium (K)	2013/08/13	<1.3		mg/L	
			Soluble Sulphate (SO4)	2013/08/13	<5.0		mg/L	
		RPD	Soluble Calcium (Ca)	2013/08/13	1.3		%	35
			Soluble Magnesium (Mg)	2013/08/13	1.3		%	35
			Soluble Sodium (Na)	2013/08/13	NC		%	35
			Soluble Potassium (K)	2013/08/13	NC		%	35
			Soluble Sulphate (SO4)	2013/08/13	NC		%	35
7073775	LCA	Matrix Spike	Soluble Chloride (Cl)	2013/08/13		104	%	75 - 125
		QC Standard	Soluble Chloride (Cl)	2013/08/13		88	%	75 - 125
		Spiked Blank	Soluble Chloride (Cl)	2013/08/13		102	%	75 - 125
		Method Blank	Soluble Chloride (Cl)	2013/08/13	5.1, RDL=5.0		mg/L	

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: CAMP FAREWELL
P.O. #: A04012A05
Site Location:

Quality Assurance Report (Continued)

Maxxam Job Number: EB370030

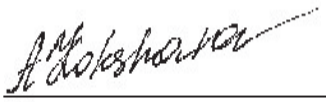
QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7073775	LCA	RPD	Soluble Chloride (Cl)	2013/08/13	NC		%	35
7073786	JSM	Matrix Spike	Soluble Calcium (Ca)	2013/08/13		97	%	75 - 125
			Soluble Magnesium (Mg)	2013/08/13		107	%	75 - 125
			Soluble Sodium (Na)	2013/08/13		106	%	75 - 125
			Soluble Potassium (K)	2013/08/13		102	%	75 - 125
		QC Standard	Soluble Calcium (Ca)	2013/08/13		85	%	75 - 125
			Soluble Magnesium (Mg)	2013/08/13		90	%	75 - 125
			Soluble Sodium (Na)	2013/08/13		94	%	75 - 125
			Soluble Potassium (K)	2013/08/13		102	%	75 - 125
			Soluble Sulphate (SO4)	2013/08/13		83	%	78 - 122
		Spiked Blank	Soluble Calcium (Ca)	2013/08/13		95	%	75 - 125
			Soluble Magnesium (Mg)	2013/08/13		103	%	75 - 125
			Soluble Sodium (Na)	2013/08/13		103	%	75 - 125
			Soluble Potassium (K)	2013/08/13		98	%	75 - 125
		Method Blank	Soluble Calcium (Ca)	2013/08/13	<1.5		mg/L	
			Soluble Magnesium (Mg)	2013/08/13	<1.0		mg/L	
			Soluble Sodium (Na)	2013/08/13	<2.5		mg/L	
			Soluble Potassium (K)	2013/08/13	<1.3		mg/L	
			Soluble Sulphate (SO4)	2013/08/13	<5.0		mg/L	
		RPD	Soluble Calcium (Ca)	2013/08/13	0.8		%	35
			Soluble Magnesium (Mg)	2013/08/13	0.7		%	35
			Soluble Sodium (Na)	2013/08/13	2.0		%	35
			Soluble Potassium (K)	2013/08/13	NC		%	35
			Soluble Sulphate (SO4)	2013/08/13	4.0		%	35
7073866	EP1	Matrix Spike	Soluble Chloride (Cl)	2013/08/13		101	%	75 - 125
		QC Standard	Soluble Chloride (Cl)	2013/08/13		87	%	75 - 125
		Spiked Blank	Soluble Chloride (Cl)	2013/08/13		98	%	75 - 125
		Method Blank	Soluble Chloride (Cl)	2013/08/13	<5.0		mg/L	
		RPD	Soluble Chloride (Cl)	2013/08/13	NC		%	35

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 (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

Validation Signature Page

Maxxam Job #: B370030

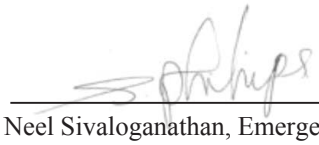
The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Anna Koksharova, Senior Analyst

Carol Gebhart, Senior Analyst

Dina Tleugabulova, Ph.D., Scientific Specialist, Inorganics Department



Neel Sivaloganathan, Emergency Spill Response Manager

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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.

Maxxam

Calgary: 4000 19st St. NE, T2E 6P8. Ph: (403) 291-3077 Fax: (403) 735-2240, Toll free: (800) 386-7247
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08/480

Chain of Custody

A134686

Page: 1 of 1

	Invoice To: C/O Report Address ☐	Report To: Same as Invoice ☑	Report Distribution (E-Mail):
Company:	JEG Consultants LTD.		NW.llx@klohn.com
Contact:	Nicole Wills		jcollins@klohn.com
Address:	2618 Hopewell Place NE		
	Prov: Calgary AB PC: T1Y 7S7	Prov: PC:	
Contact #s:	Ph: 403-825-3048 Cell:	Ph: Cell:	

REGULATORY GUIDELINES:
- ☐ AT1
- ☐ CCME
- ☐ Regulated Drinking Water
- ☐ Other:

All samples are held for 60 calendar days after sample receipt, unless specified otherwise.

PO #: A040120A05
Project # / Name: Camp Farewell
Site Location:
Quote #:
Sampled By: Jesse Collins / Nathan Shirley

SERVICE REQUESTED: ☒ RUSH (Contact lab to reserve) Date Required: ASAP ☐ REGULAR (5 to 7 Days)

See reverse for package specifics

	Sample ID	Depth (unit)	Matrix GW / SW Soil	Date/Time Sampled YY/MM/DD 24:00	SOIL: BTEX F1-F4	Sieve (75 micron)	Regulated Metals (CCME / AT1)	Salinity 4	Assessment ICP Metals	Basic Class II Landfill	WATER: ☐VOCs ☐BTEX F1	☐BTEX F1-F4 ☐BTEX F2	☐ Routine Water ☐ Turb ☐ F	☐ TOC ☐ DOC	Regulated Metals (CCME / AT1): Total	Dissolved	☐ Total ☐ Dissolved Mercury	Other Analysis	HOLD - Do not Analyze	# of Containers Submitted
1	EX-13-5JE (2.0m)	2.0m	Soil	13/08/08	X		X	X												2
2	EX-13-5JE (4.0m)	4.0m			X		X	X												2
3	~~EX-13-5JE~~	"	"	"	X		X	X												~~2~~
4	EX-13-6KE (2.0m)	2.0m			X		X	X												2
5	EX-13-6KE (4.0m)	4.0m			X		X	X												2
6	EX-13-6KE (6.0m)	6.0m			X		X	X												2
7	EX-13-7KE (2.0m)	2.0m			X		X	X												2
8	EX-13-7KE (4.0m)	4.0m			X		X	X												2
9	EX-13-7KE (6.0m)	6.0m			X		X	X												2
10	EX-13-5JE (1m Trench)	→			X		X	X												2
11	EX-13-6KE (1m Trench)	→			X		X	X												2
12	EX-13-7KE (1m Trench)	→	↓	↓	X		X	X										JRC/CMC		2
																				F/P

Please indicate Filtered, Preserved or Both (F, P, F/P)

Relinquished By (Signature/Print)	Date (YY/MM/DD)	Time (24:00)
Jesse Collins	13/08/08	1700
Relinquished By (Signature/Print):	Date (YY/MM/DD):	Time (24:00):

Special Instructions:

# of Jars Used & Not Submitted

LAB USE ONLY

Received By:	Date:	Time:	Maxxam Job #: B370030
Jennifer Walter	20130812	0945	Custody Seal: present / Temperature: 7, 6, 9 / Ice: present

Lab Comments:

CONFIRMATION-RECEIPT OF SAMPLES FOR ANALYSIS

Maxxam Job # B370034

Client Project #: CAMP FAREWELL
PO #: A04012A05

21 Samples

Samples Received 2013/08/12
Client Confirmation 2013/08/12
Expected Report Delivery 2013/08/13 18:00
(Results to be reported early are indicated)

Report will be sent to:

NICOLE WILLS
KLOHN CRIPPEN BERGER LTD
HOPEWELL PLACE NE
CALGARY
T1Y 7J7
Ph 403-274-3424
Fax 403-274-5349
NWills@klohn.com

Invoice will be sent to:

Accounts Payable
IEG CONSULTANTS LTD.
500-2618 HOPEWELL PLACE NE
CALGARY
T1Y 7J7

We have received the following samples:

PILE #4 Sampled 2013/08/06 14:00 COC# A134684 Matrix: SOIL

Maxxam #: HD8612	Test Result Delivery Due
AT1 BTEX and F1-F4 in Soil	2013/08/19 6:00 PM
Regulated Metals (CCME/AT1) - Soils	2013/08/19 6:00 PM
SOIL SALINITY 4	2013/08/19 6:00 PM
Acid Digestion for Metals - Soils	2013/08/19 6:00 PM
Drying and Grinding	2013/08/19 6:00 PM
Environmental Sample Disposal Fee	2013/08/19 6:00 PM
Hexavalent Chromium Prep Code	2013/08/19 6:00 PM
Sub Sample for Dry Grind	2013/08/19 6:00 PM
Sub-sample for metals	2013/08/19 6:00 PM

PILE #5 Sampled 2013/08/06 14:00 COC# A134684

Maxxam #: HD8614	Test Result Delivery Due
AT1 BTEX and F1-F4 in Soil	2013/08/19 6:00 PM
Regulated Metals (CCME/AT1) - Soils	2013/08/19 6:00 PM
SOIL SALINITY 4	2013/08/19 6:00 PM
Acid Digestion for Metals - Soils	2013/08/19 6:00 PM
Drying and Grinding	2013/08/19 6:00 PM
Environmental Sample Disposal Fee	2013/08/19 6:00 PM
Hexavalent Chromium Prep Code	2013/08/19 6:00 PM
Sub Sample for Dry Grind	2013/08/19 6:00 PM
Sub-sample for metals	2013/08/19 6:00 PM

PILE #6 Sampled 2013/08/06 14:00 COC# A134684

Maxxam #: HD8615	Test Result Delivery Due
AT1 BTEX and F1-F4 in Soil	2013/08/19 6:00 PM
Regulated Metals (CCME/AT1) - Soils	2013/08/19 6:00 PM
SOIL SALINITY 4	2013/08/19 6:00 PM

Acid Digestion for Metals - Soils	2013/08/19 6:00 PM
Drying and Grinding	2013/08/19 6:00 PM
Environmental Sample Disposal Fee	2013/08/19 6:00 PM
Hexavalent Chromium Prep Code	2013/08/19 6:00 PM
Sub Sample for Dry Grind	2013/08/19 6:00 PM
Sub-sample for metals	2013/08/19 6:00 PM

EX-13-2JB (6.5M) Sampled 2013/08/06 14:00 COC# A134684

Maxxam #: HD8616

AT1 BTEX and F1-F4 in Soil
Regulated Metals (CCME/AT1) - Soils
SOIL SALINITY 4
Acid Digestion for Metals - Soils
Drying and Grinding
Environmental Sample Disposal Fee
Hexavalent Chromium Prep Code
Sub Sample for Dry Grind
Sub-sample for metals

EX-13-1J STEPOUT (1.5M) Sampled 2013/08/06 14:00 COC# A134684

Maxxam #: HD8617

AT1 BTEX and F1-F4 in Soil
Regulated Metals (CCME/AT1) - Soils
SOIL SALINITY 4
Acid Digestion for Metals - Soils
Drying and Grinding
Environmental Sample Disposal Fee
Hexavalent Chromium Prep Code
Sub Sample for Dry Grind
Sub-sample for metals

EX-13-2J STEPOUT (1.5M) Sampled 2013/08/06 14:00 COC# A134684

Maxxam #: HD8618

AT1 BTEX and F1-F4 in Soil
Regulated Metals (CCME/AT1) - Soils
SOIL SALINITY 4
Acid Digestion for Metals - Soils
Drying and Grinding
Environmental Sample Disposal Fee
Hexavalent Chromium Prep Code
Sub Sample for Dry Grind
Sub-sample for metals

EX-13-1K STEPOUT (1.0M) Sampled 2013/08/06 14:00 COC# A134684

Maxxam #: HD8619

AT1 BTEX and F1-F4 in Soil
Regulated Metals (CCME/AT1) - Soils
SOIL SALINITY 4
Acid Digestion for Metals - Soils
Benzo[a]pyrene Equivalency

Drying and Grinding
Environmental Sample Disposal Fee
Hexavalent Chromium Prep Code
PAH Extraction
PAH in Soil by GC/MS
Sub Sample for Dry Grind
Sub-sample for metals

EX-13-2K STEPOUT (1.0M) Sampled 2013/08/06 14:00 COC# A134684
Maxxam #: HD8620
AT1 BTEX and F1-F4 in Soil
Regulated Metals (CCME/AT1) - Soils
SOIL SALINITY 4
Acid Digestion for Metals - Soils
Benzo[a]pyrene Equivalency
Drying and Grinding
Environmental Sample Disposal Fee
Hexavalent Chromium Prep Code
PAH Extraction
PAH in Soil by GC/MS
Sub Sample for Dry Grind
Sub-sample for metals

EX-13-4JE (4.0M) Sampled 2013/08/06 14:00 COC# A134684
Maxxam #: HD8622
AT1 BTEX and F1-F4 in Soil
Regulated Metals (CCME/AT1) - Soils
SOIL SALINITY 4
Acid Digestion for Metals - Soils
Drying and Grinding
Environmental Sample Disposal Fee
Hexavalent Chromium Prep Code
Sub Sample for Dry Grind
Sub-sample for metals

EX-13-4JE (6.0M) Sampled 2013/08/06 14:00 COC# A134684
Maxxam #: HD8623
AT1 BTEX and F1-F4 in Soil
Regulated Metals (CCME/AT1) - Soils
SOIL SALINITY 4
Acid Digestion for Metals - Soils
Drying and Grinding
Environmental Sample Disposal Fee
Hexavalent Chromium Prep Code
Sub Sample for Dry Grind
Sub-sample for metals

EX-13-4KE (4.0M) Sampled 2013/08/06 14:00 COC# A134684
Maxxam #: HD8633
AT1 BTEX and F1-F4 in Soil

Regulated Metals (CCME/AT1) - Soils
SOIL SALINITY 4
Acid Digestion for Metals - Soils
Drying and Grinding
Environmental Sample Disposal Fee
Hexavalent Chromium Prep Code
Sub Sample for Dry Grind
Sub-sample for metals

EX-13-4KE (7.0M) Sampled 2013/08/06 14:00 COC# A134684
Maxxam #: HD8636
AT1 BTEX and F1-F4 in Soil
Regulated Metals (CCME/AT1) - Soils
SOIL SALINITY 4
Acid Digestion for Metals - Soils
Drying and Grinding
Environmental Sample Disposal Fee
Hexavalent Chromium Prep Code
Sub Sample for Dry Grind
Sub-sample for metals

EX-13-5KE (3.5M) Sampled 2013/08/06 14:00 COC# A134685
Maxxam #: HD8637
AT1 BTEX and F1-F4 in Soil
Regulated Metals (CCME/AT1) - Soils
SOIL SALINITY 4
Acid Digestion for Metals - Soils
Drying and Grinding
Environmental Sample Disposal Fee
Hexavalent Chromium Prep Code
Sub Sample for Dry Grind
Sub-sample for metals

EX-13-5KE (5.5M) Sampled 2013/08/06 14:00 COC# A134685
Maxxam #: HD8638
AT1 BTEX and F1-F4 in Soil
Regulated Metals (CCME/AT1) - Soils
SOIL SALINITY 4
Acid Digestion for Metals - Soils
Drying and Grinding
Environmental Sample Disposal Fee
Hexavalent Chromium Prep Code
Sub Sample for Dry Grind
Sub-sample for metals

EX-13-1L STEPOUT (1.25M) Sampled 2013/08/06 14:00 COC# A134685
Maxxam #: HD8639
AT1 BTEX and F1-F4 in Soil
Regulated Metals (CCME/AT1) - Soils
SOIL SALINITY 4

Acid Digestion for Metals - Soils
Drying and Grinding
Environmental Sample Disposal Fee
Hexavalent Chromium Prep Code
Sub Sample for Dry Grind
Sub-sample for metals

EX-13-2L STEPOUT (1.0M) Sampled 2013/08/06 14:00 COC# A134685
Maxxam #: HD8640
AT1 BTEX and F1-F4 in Soil
Regulated Metals (CCME/AT1) - Soils
SOIL SALINITY 4
Acid Digestion for Metals - Soils
Drying and Grinding
Environmental Sample Disposal Fee
Hexavalent Chromium Prep Code
Sub Sample for Dry Grind
Sub-sample for metals

EX-13-5LN (4.0M) Sampled 2013/08/06 14:00 COC# A134685
Maxxam #: HD8641
AT1 BTEX and F1-F4 in Soil
Regulated Metals (CCME/AT1) - Soils
SOIL SALINITY 4
Acid Digestion for Metals - Soils
Drying and Grinding
Environmental Sample Disposal Fee
Hexavalent Chromium Prep Code
Sub Sample for Dry Grind
Sub-sample for metals

EX-13-5LN (7.0M) Sampled 2013/08/06 14:00 COC# A134685
Maxxam #: HD8642
AT1 BTEX and F1-F4 in Soil
Regulated Metals (CCME/AT1) - Soils
SOIL SALINITY 4
Acid Digestion for Metals - Soils
Drying and Grinding
Environmental Sample Disposal Fee
Hexavalent Chromium Prep Code
Sub Sample for Dry Grind
Sub-sample for metals

EX-13-3LE (4.0M) Sampled 2013/08/06 14:00 COC# A134685
Maxxam #: HD8643
AT1 BTEX and F1-F4 in Soil
Regulated Metals (CCME/AT1) - Soils
SOIL SALINITY 4
Acid Digestion for Metals - Soils
Drying and Grinding

Environmental Sample Disposal Fee
Hexavalent Chromium Prep Code
Sub Sample for Dry Grind
Sub-sample for metals

EX-13-3LE (7.0M) Sampled 2013/08/06 14:00 COC# A134685
Maxxam #: HD8644

AT1 BTEX and F1-F4 in Soil
Regulated Metals (CCME/AT1) - Soils
SOIL SALINITY 4
Acid Digestion for Metals - Soils
Drying and Grinding
Environmental Sample Disposal Fee
Hexavalent Chromium Prep Code
Sub Sample for Dry Grind
Sub-sample for metals

EX-13-I STEPOUT (2.0M) Sampled 2013/08/06 14:00 COC# A134685
Maxxam #: HD8645

AT1 BTEX and F1-F4 in Soil
Regulated Metals (CCME/AT1) - Soils
SOIL SALINITY 4
Acid Digestion for Metals - Soils
Drying and Grinding
Environmental Sample Disposal Fee
Hexavalent Chromium Prep Code
Sub Sample for Dry Grind
Sub-sample for metals

Comments:

- Unless special storage arrangements are made, all samples will be discarded 60 days after receipt of samples.
- Non-regular samples are flagged as (C) Composite by lab, (H) Hold, or (L) Leachate.
- If there are any problems with the submitted samples, a Sample Integrity Form (SIF) detailing conditions will be included in this confirmation.
- For revisions please contact your Maxxam Project Management team at Ph (780) 577-7100.
  Your Project Manager is: Tanya Eugine

Maxxam Job # B370034 PARAMETERS FOR ANALYSIS REQUESTED

The values listed below are RDL's and not results. Report Detection Limit (RDL) may be elevated if there are matrix interferences or limited sample amounts.

Maxxam # HD8612, Sample IDN: **PILE #4**
Maxxam # HD8614, Sample IDN: **PILE #5**
Maxxam # HD8615, Sample IDN: **PILE #6**
Maxxam # HD8616, Sample IDN: **EX-13-2JB (6.5M)**
Maxxam # HD8617, Sample IDN: **EX-13-1J STEPOUT (1.5M)**
Maxxam # HD8618, Sample IDN: **EX-13-2J STEPOUT (1.5M)**
Maxxam # HD8619, Sample IDN: **EX-13-1K STEPOUT (1.0M)**
Maxxam # HD8620, Sample IDN: **EX-13-2K STEPOUT (1.0M)**
Maxxam # HD8622, Sample IDN: **EX-13-4JE (4.0M)**
Maxxam # HD8623, Sample IDN: **EX-13-4JE (6.0M)**
Maxxam # HD8633, Sample IDN: **EX-13-4KE (4.0M)**
Maxxam # HD8636, Sample IDN: **EX-13-4KE (7.0M)**
Maxxam # HD8637, Sample IDN: **EX-13-5KE (3.5M)**
Maxxam # HD8638, Sample IDN: **EX-13-5KE (5.5M)**
Maxxam # HD8639, Sample IDN: **EX-13-1L STEPOUT (1.25M)**
Maxxam # HD8640, Sample IDN: **EX-13-2L STEPOUT (1.0M)**
Maxxam # HD8641, Sample IDN: **EX-13-5LN (4.0M)**
Maxxam # HD8642, Sample IDN: **EX-13-5LN (7.0M)**
Maxxam # HD8643, Sample IDN: **EX-13-3LE (4.0M)**
Maxxam # HD8644, Sample IDN: **EX-13-3LE (7.0M)**
Maxxam # HD8645, Sample IDN: **EX-13-I STEPOUT (2.0M)**

AT1 BTEX AND F1-F4 IN SOIL			
F2 (C10-C16 Hydrocarbons)	10 mg/kg	F3 (C16-C34 Hydrocarbons)	50 mg/kg
F4 (C34-C50 Hydrocarbons)	50 mg/kg	Reached Baseline at C50	
F1 (C6-C10) - BTEX	12 mg/kg	(C6-C10)	12 mg/kg
Benzene	0.005 mg/kg	m & p-Xylene	0.04 mg/kg
Xylenes (Total)	0.04 mg/kg	Toluene	0.02 mg/kg
Ethylbenzene	0.01 mg/kg	o-Xylene	0.02 mg/kg
Moisture	0.3 %	F4G-SG (Heavy Hydrocarbons-Grav.)	500 mg/kg
SOIL SALINITY 4			
+Fluoride (F)	0.1 mg/kg	pH	
Conductivity	0.02 dS/m	Chloride (Cl)	5 mg/L
Chloride (Cl)	1 mg/kg	Sulphate (SO4)	5 mg/L
Sulphate (SO4)	1 mg/kg	+Bicarbonate (HCO3)	1 mg/kg
Anion Sum		Cation Sum	
Ion Balance	0.01 N/A	Cation/EC Ratio	0.1 N/A
Magnesium (Mg)	1 mg/L	Magnesium (Mg)	0.1 mg/kg
Potassium (K)	1.3 mg/L	Potassium (K)	0.2 mg/kg
Sodium (Na)	2.5 mg/L	Sodium (Na)	0.1 mg/kg
Calcium (Ca)	1.5 mg/L	Calcium (Ca)	0.1 mg/kg
Sodium Adsorption Ratio	0.1 N/A	Saturation %	
Theoretical Gypsum Requirement	0.1 tonnes/ha		
REGULATED METALS (CCME/AT1) - SOILS			
Hex. Chromium (Cr 6+)	0.15 mg/kg		

REGULATED METALS (CCME/AT1) - SOILS

Chromium (Cr)	1 mg/kg		
Cobalt (Co)	1 mg/kg	Copper (Cu)	5 mg/kg
Mercury (Hg)	0.05 mg/kg	Lead (Pb)	1 mg/kg
Antimony (Sb)	1 mg/kg	Molybdenum (Mo)	0.4 mg/kg
Nickel (Ni)	1 mg/kg	Selenium (Se)	0.5 mg/kg
Silver (Ag)	1 mg/kg	Arsenic (As)	1 mg/kg
Thallium (Tl)	0.3 mg/kg	Tin (Sn)	1 mg/kg
Uranium (U)	1 mg/kg	Vanadium (V)	1 mg/kg
Zinc (Zn)	10 mg/kg	Barium (Ba)	10 mg/kg
Beryllium (Be)	0.4 mg/kg	Boron (B)	0.1 mg/kg
Cadmium (Cd)	0.1 mg/kg		

Maxxam # HD8619, Sample IDN: **EX-13-1K STEPOUT (1.0M)**
Maxxam # HD8620, Sample IDN: **EX-13-2K STEPOUT (1.0M)**

BENZO[A]PYRENE EQUIVALENCY

Benzo[a]pyrene equivalency	0.1 mg/kg

PAH IN SOIL BY GC/MS

Quinoline	0.01 mg/kg	Naphthalene	0.005 mg/kg
Chrysene	0.005 mg/kg	Benzo(k)fluoranthene	0.005 mg/kg
Benzo[e]pyrene	0.005 mg/kg	Benzo(a)pyrene	0.005 mg/kg
Perylene	0.005 mg/kg	Acenaphthylene	0.005 mg/kg
Indeno(1,2,3-cd)pyrene	0.005 mg/kg	Dibenz(a,h)anthracene	0.005 mg/kg
2-Methylnaphthalene	0.005 mg/kg	Acenaphthene	0.005 mg/kg
Fluorene	0.005 mg/kg	Benzo(a)anthracene	0.005 mg/kg
Phenanthrene	0.005 mg/kg	Anthracene	0.004 mg/kg
Benzo(c)phenanthrene	0.005 mg/kg	Fluoranthene	0.005 mg/kg
Benzo(g,h,i)perylene	0.005 mg/kg	Benzo(b&j)fluoranthene	0.005 mg/kg
Acridine	0.01 mg/kg	Pyrene	0.005 mg/kg

Maxxam

Calgary: 4000 19st St. NE, T2E 6P8. Ph: (403) 291-3077, Fax: (403) 735-2240, Toll free: (800) 386-7247
Edmonton: 9331 - 48 Street, T6B 2R4. Ph: (780) 577-7100, Fax: (780) 450-4187, Toll free: (877) 485-8889
www.maxxamanalytics.com

08/1482(2)

Chain of Custody A134684

Page: 1 of 2

	Invoice To: C/O Report Address ☐	Report To: Same as Invoice ☒	Report Distribution (E-Mail):
Company:	JEG Consultants Ltd.	NWills@jklohn.com	
Contact:	Nicole Wills	jcollins@jklohn.com	
Address:	268 Hopewell Place NE		
	Prov: Calgary AB PC: T1Y 7J7	Prov: PC:	
Contact #s:	Ph: 403-829-3048 Cell: —	Ph: Cell:	

REGULATORY GUIDELINES:
- ☐ AT1
- ☐ CCME
- ☐ Regulated Drinking Water
- ☐ Other:

All samples are held for 60 calendar days after sample receipt, unless specified otherwise.

PO #: A04012A05
Project # / Name: Camp Farewell
Site Location:
Quote #:
Sampled By: JC/NS

SERVICE REQUESTED: ☒ RUSH (Contact lab to reserve) Date Required: ☐ REGULAR (5 to 7 Days)

	Sample ID	Depth (unit)	Matrix GW / SW Soil	Date/Time Sampled YY/MM/DD 24:00	SOIL: BTEX F1-F4	Sieve (75 micron)	Regulated Metals (CCME / AT1)	Salinity 4	Assessment ICP Metals	Basic Class II Landfill	PAH	ASAP RUSH	REGULAR TAT	WATER: ☐BTEX F1	☐BTEX F1-F2	☐VOCs	☐Routine Water ☐Turb ☐F	☐TOC ☐DOC	Regulated Metals (CCME / AT1) Total	Dissolved	Mercury	☐Total ☐Dissolved	Other Analysis	HOLD - Do not Analyze	# of Containers Submitted
1	Pile #4	—	Soil	13/08/06 1400	X		X	X					X												2
2	Pile #5	—			X		X	X					X												2
3	Pile #6	—			X		X	X					X												2
4	EX-13-2JB (6.5m)	6.5m			X		X	X				X													2
5	EX-13-1J Stepout (1.5m)	1.5m			X		X	X				X													2
6	EX-13-2J Stepout (1.5m)	1.5m			X		X	X				X													2
7	EX-13-1K Stepout (1.0m)	1.0m			X		X	X			X	X													3
8	EX-13-2K Stepout (1.0m)	1.0m			X		X	X			X	X													3
9	EX-13-4JE (4.0m)	4.0m			X		X	X				X													2
10	EX-13-4JE (6.0m)	6.0m			X		X	X				X													2
11	EX-13-4KE (4.0m)	4.0m			X		X	X				X													2
12	EX-13-4KE (7.0m)	7.0m			X		X	X				X													2

See reverse for package specifics

Please indicate Filtered, Preserved or Both (F, P, F/P) → JWF/SBF

Relinquished By (Signature/Print):	Date (YY/MM/DD):	Time (24:00):
Jesse Collins	13/08/06	1830
Relinquished By (Signature/Print):	Date (YY/MM/DD):	Time (24:00):

Special Instructions: please provide fastest TAT possible for samples indicated ASAP. Results by August 10 if possible

# of Jars Used & Not Submitted

LAB USE ONLY

Received By:	Date:	Time:	Maxxam Job #: B370034
Jenna Walter	20130812	0945	
Lab Comments:	Custody Seal	Temperature	Ice
	absent	8, 9, 7	present
		13, 9, 7	

Maxxam

Calgary: 4000 19st St. NE, T2E 6P8. Ph: (403) 291-3077, Fax: (403) 735-2240, Toll free: (800) 386-7247
Edmonton: 9331 - 48 Street, T6B 2R4. Ph: (780) 577-7100, Fax: (780) 450-4187, Toll free: (877) 465-8889
www.maxxamanalytics.com

Chain of Custody A134685

Page: 2 of 2

	Invoice To:	C/O Report Address ☐
Company:		
Contact:	Same as PG 1	
Address:		
	Prov:	PC:
Contact #s:	Ph:	Cell:

Report To:	Same as Invoice ☐
	Pg 1
Prov:	PC:
Ph:	Cell:

Report Distribution (E-Mail): Pg 1

REGULATORY GUIDELINES:
- ☐ AT1
- ☐ CCME
- ☐ Regulated Drinking Water
- ☐ Other:

All samples are held for 60 calendar days after sample receipt, unless specified otherwise.

PO #:	
Project # / Name:	Pg 1
Site Location:	
Quote #:	
Sampled By:	

SERVICE REQUESTED: ☒ RUSH (Contact lab to reserve) Date Required: ____ ☐ REGULAR (5 to 7 Days)

See reverse for package specifics

	Sample ID	Depth (unit)	Matrix GW / SW Soil	Date/Time Sampled YY/MM/DD 24:00	SOIL: BTEX F1-F4	Sieve (75 micron)	Regulated Metals (CCME / AT1)	Salinity 4	Assessment ICP Metals	Basic Class II Landfill	ASAP RUSH	WATER: ☐BTEX F1 ☐VOCs	☐BTEX F1-F4 ☐BTEX F1-F4	☐ Routine Water ☐ Turb ☐ F	☐ TOC ☐ DOC	Regulated Metals (CCME / AT1) Total	Dissolved	☐ Total ☐ Dissolved Mercury	Other Analysis	HOLD - Do not Analyze	# of Containers Submitted
1	EX-13-5KE (3.5m)	3.5m	Soil	13/08/06 1400	X		X	X			X										2
2	EX-13-5KE (5.5m)	5.5m			X		X	X			X										2
3	EX-13-1L Stepout (1.25m)	1.25m			X		X	X			X										2
4	EX-13-2L Stepout (1.0m)	1.0m			X		X	X			X										2
5	EX-13-5LN (4.0m)	4.0m			X		X	X			X										2
6	EX-13-5LN (7.0m)	7.0m			X		X	X			X										2
7	EX-13-3LE (4.0m)	4.0m			X		X	X			X										2
8	EX-13-3LE (7.0m)	7.0m			X		X	X			X										2
9	EX-13-I Stepout (2.0m)	2.0m			X		X	X			X										2
10																					
11																					
12																					

Other Analysis: JLW F/SBF F/P

Please indicate Filtered, Preserved or Both (F, P, F/P)

Relinquished By (Signature/Print): Jesse Collins	Date (YY/MM/DD): 13/08/06	Time (24:00): 1830
Relinquished By (Signature/Print):	Date (YY/MM/DD):	Time (24:00):

Special Instructions: Pg 1

# of Jars Used & Not Submitted

LAB USE ONLY

Received By:	Date:	Time:	Maxxam Job #: B370034		
Jenna Walter	20130812	0945	Custody Seal	Temperature	Ice
Lab Comments:			absent	8, 9, 7 13, 9, 7	present with jars

Your P.O. #: A04012A05
Your Project #: CAMP FAREWELL
Your C.O.C. #: A134684, A134685

Attention: NICOLE WILLS

KLOHN CRIPPEN BERGER LTD
500-2618
HOPEWELL PLACE NE
CALGARY, AB
CANADA T1Y 7J7

Report Date: 2013/08/13

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B370034
Received: 2013/08/12, 9:45

Sample Matrix: Soil
Samples Received: 18

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Boron (Hot Water Soluble)	18	2013/08/13	2013/08/13	AB SOP-00042	EPA 200.7
BTEX/F1 by HS GC/MS (MeOH extract)	15	2013/08/12	2013/08/12	AB SOP-00039	CCME, EPA 8260
BTEX/F1 by HS GC/MS (MeOH extract)	3	2013/08/12	2013/08/13	AB SOP-00039	CCME, EPA 8260
Cation/EC Ratio	18	N/A	2013/08/13		CALCULATION
Chloride (Soluble)	18	2013/08/13	2013/08/13	AB SOP-00020	SSMA 4500 CL-E
Hexavalent Chromium	18	2013/08/12	2013/08/13	EENVSOP-00131	SM 3500-Cr B
Conductivity @25C (Soluble)	18	2013/08/13	2013/08/13	AB SOP-00004	SSMA 15.3
CCME Hydrocarbons (F2-F4 in soil)	18	2013/08/12	2013/08/12	AB SOP-00040 AB SOP-00036	CCME PHC-CWS
Elements by ICPMS - Soils	18	2013/08/13	2013/08/13	AB SOP-00043	EPA 200.8
Ion Balance	18	N/A	2013/08/13	AB WI-00065	SM 1030E
Sum of Cations, Anions	18	N/A	2013/08/13	AB WI-00065	SM 1030E
Moisture	18	N/A	2013/08/13	AB SOP-00002	CCME PHC-CWS
Benzo[a]pyrene Equivalency	2	N/A	2013/08/13	AB SOP-00003	EPA 8270D
PAH in Soil by GC/MS	2	2013/08/12	2013/08/13	AB SOP-00003 AB SOP-00036	EPA 3540C/8270D
pH @25C (1:2 Calcium Chloride Extract)	18	2013/08/13	2013/08/13	AB SOP-00006	SSMA 16.3
Sodium Adsorption Ratio	18	N/A	2013/08/13	AB WI-00065	SSMA 15.4.4
Ca,Mg,Na,K,SO4 (Soluble)	18	2013/08/13	2013/08/13	AB SOP-00042	EPA 200.7
Soluble Paste	18	2013/08/13	2013/08/13	AB SOP-00033	SSMA 15.2
Soluble Ions Calculation	18	N/A	2013/08/13		CALCULATION
Theoretical Gypsum Requirement (1)	18	N/A	2013/08/13	CAL WI-00087	CJSS 79:449-455

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

(1) Units for TGR have changed from tons/acre to tonnes/ha

Your P.O. #: A04012A05
Your Project #: CAMP FAREWELL
Your C.O.C. #: A134684, A134685

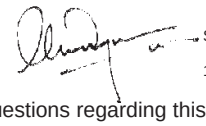
Attention: NICOLE WILLS

KLOHN CRIPPEN BERGER LTD
500-2618
HOPEWELL PLACE NE
CALGARY, AB
CANADA T1Y 7J7

Report Date: 2013/08/13

CERTIFICATE OF ANALYSIS

Encryption Key



Sherlyne Sim
13 Aug 2013 18:19:35 -06:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Tanya Eugine, M.Sc., Project Manager
Email: TEugine@maxxam.ca
Phone# (780) 577-7144

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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.

Total cover pages: 2

Maxxam Job #: B370034
Report Date: 2013/08/13

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JTC

AT1 BTEX AND F1-F4 IN SOIL (SOIL)

Maxxam ID		HD8616	HD8617	HD8618	HD8619		
Sampling Date		2013/08/06 14:00	2013/08/06 14:00	2013/08/06 14:00	2013/08/06 14:00		
COC Number		A134684	A134684	A134684	A134684		
	UNITS	**EX-13-2JB (6.5M)**	**EX-13-1J STEPOUT (1.5M)**	**EX-13-2J STEPOUT (1.5M)**	**EX-13-1K STEPOUT (1.0M)**	**RDL**	**QC Batch**
Physical Properties							
Moisture	%	18	36	18	7.4	0.30	7072636
Ext. Pet. Hydrocarbon							
F2 (C10-C16 Hydrocarbons)	mg/kg	11	<10	38	4900	10	7070205
F3 (C16-C34 Hydrocarbons)	mg/kg	<50	<50	<50	790	50	7070205
F4 (C34-C50 Hydrocarbons)	mg/kg	<50	<50	<50	<50	50	7070205
Reached Baseline at C50	mg/kg	Yes	Yes	Yes	Yes		7070205
Volatiles							
Benzene	mg/kg	0.016	<0.0050	<0.0050	0.042	0.0050	7072196
Toluene	mg/kg	0.032	<0.020	<0.020	0.043	0.020	7072196
Ethylbenzene	mg/kg	<0.010	<0.010	<0.010	6.9	0.010	7072196
Xylenes (Total)	mg/kg	<0.040	<0.040	<0.040	29	0.040	7072196
m & p-Xylene	mg/kg	<0.040	<0.040	<0.040	9.4	0.040	7072196
o-Xylene	mg/kg	<0.020	<0.020	<0.020	20	0.020	7072196
F1 (C6-C10) - BTEX	mg/kg	<12	<12	<12	760	12	7072196
(C6-C10)	mg/kg	<12	<12	<12	800	12	7072196
Surrogate Recovery (%)							
1,4-Difluorobenzene (sur.)	%	105	116	107	101		7072196
4-BROMOFLUOROBENZENE (sur.)	%	103	103	105	114		7072196
D10-ETHYLBENZENE (sur.)	%	94	107	96	128		7072196
D4-1,2-DICHLOROETHANE (sur.)	%	107	105	107	99		7072196
O-TERPHENYL (sur.)	%	104	98	98	99		7070205

RDL = Reportable Detection Limit

Maxxam Job #: B370034
Report Date: 2013/08/13

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JTC

AT1 BTEX AND F1-F4 IN SOIL (SOIL)

Maxxam ID		HD8620	HD8622	HD8623	HD8633		
Sampling Date		2013/08/06 14:00	2013/08/06 14:00	2013/08/06 14:00	2013/08/06 14:00		
COC Number		A134684	A134684	A134684	A134684		
	UNITS	**EX-13-2K STEPOUT (1.0M)**	**EX-13-4JE (4.0M)**	**EX-13-4JE (6.0M)**	**EX-13-4KE (4.0M)**	**RDL**	**QC Batch**
Physical Properties							
Moisture	%	12	13	16	5.4	0.30	7072636
Ext. Pet. Hydrocarbon							
F2 (C10-C16 Hydrocarbons)	mg/kg	7600	<10	<10	49	10	7070205
F3 (C16-C34 Hydrocarbons)	mg/kg	1300	<50	<50	<50	50	7070205
F4 (C34-C50 Hydrocarbons)	mg/kg	<50	<50	<50	<50	50	7070205
Reached Baseline at C50	mg/kg	Yes	Yes	Yes	Yes		7070205
Volatiles							
Benzene	mg/kg	0.038	0.045	0.014	0.030	0.0050	7072196
Toluene	mg/kg	1.0	0.18	0.087	0.10	0.020	7072196
Ethylbenzene	mg/kg	6.1	0.076	0.047	0.092	0.010	7072196
Xylenes (Total)	mg/kg	34	0.38	0.26	0.71	0.040	7072196
m & p-Xylene	mg/kg	12	0.26	0.18	0.49	0.040	7072196
o-Xylene	mg/kg	22	0.11	0.080	0.22	0.020	7072196
F1 (C6-C10) - BTEX	mg/kg	1000	<12	<12	<12	12	7072196
(C6-C10)	mg/kg	1000	<12	<12	<12	12	7072196
Surrogate Recovery (%)							
1,4-Difluorobenzene (sur.)	%	112	109	105	100		7072196
4-BROMOFLUOROBENZENE (sur.)	%	117	96	103	101		7072196
D10-ETHYLBENZENE (sur.)	%	200 (1)	90	97	94		7072196
D4-1,2-DICHLOROETHANE (sur.)	%	86	85	108	102		7072196
O-TERPHENYL (sur.)	%	101	104	103	104		7070205

RDL = Reportable Detection Limit
(1) Surrogate recovery above acceptance criteria due to matrix interference. Reanalysis yields similar results.

Maxxam Job #: B370034
Report Date: 2013/08/13

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JTC

AT1 BTEX AND F1-F4 IN SOIL (SOIL)

Maxxam ID		HD8636	HD8637	HD8638		
Sampling Date		2013/08/06 14:00	2013/08/06 14:00	2013/08/06 14:00		
COC Number		A134684	A134685	A134685		
	UNITS	**EX-13-4KE (7.0M)**	**EX-13-5KE (3.5M)**	**EX-13-5KE (5.5M)**	**RDL**	**QC Batch**
Physical Properties						
Moisture	%	20	15	12	0.30	7072636
Ext. Pet. Hydrocarbon						
F2 (C10-C16 Hydrocarbons)	mg/kg	<10	<10	20	10	7070205
F3 (C16-C34 Hydrocarbons)	mg/kg	<50	<50	<50	50	7070205
F4 (C34-C50 Hydrocarbons)	mg/kg	<50	<50	<50	50	7070205
Reached Baseline at C50	mg/kg	Yes	Yes	Yes		7070205
Volatiles						
Benzene	mg/kg	<0.0050	0.010	<0.0050	0.0050	7072196
Toluene	mg/kg	0.054	0.034	<0.020	0.020	7072196
Ethylbenzene	mg/kg	0.020	<0.010	<0.010	0.010	7072196
Xylenes (Total)	mg/kg	0.11	<0.040	<0.040	0.040	7072196
m & p-Xylene	mg/kg	0.078	<0.040	<0.040	0.040	7072196
o-Xylene	mg/kg	0.029	<0.020	<0.020	0.020	7072196
F1 (C6-C10) - BTEX	mg/kg	<12	<12	<12	12	7072196
(C6-C10)	mg/kg	<12	<12	<12	12	7072196
Surrogate Recovery (%)						
1,4-Difluorobenzene (sur.)	%	107	104	103		7072196
4-BROMOFLUOROBENZENE (sur.)	%	101	104	104		7072196
D10-ETHYLBENZENE (sur.)	%	95	95	95		7072196
D4-1,2-DICHLOROETHANE (sur.)	%	105	108	110		7072196
O-TERPHENYL (sur.)	%	96	103	99		7070205

RDL = Reportable Detection Limit

Maxxam Job #: B370034
Report Date: 2013/08/13

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JTC

AT1 BTEX AND F1-F4 IN SOIL (SOIL)

Maxxam ID		HD8639		HD8640		HD8641		
Sampling Date		2013/08/06 14:00		2013/08/06 14:00		2013/08/06 14:00		
COC Number		A134685		A134685		A134685		
	UNITS	**EX-13-1L STEPOUT (1.25M)**	**RDL**	**EX-13-2L STEPOUT (1.0M)**	**RDL**	**EX-13-5LN (4.0M)**	**RDL**	**QC Batch**
Physical Properties								
Moisture	%	14	0.30	57	0.30	7.4	0.30	7072636
Ext. Pet. Hydrocarbon								
F2 (C10-C16 Hydrocarbons)	mg/kg	<23	23	18 (1)	10	<10	10	7070205
F3 (C16-C34 Hydrocarbons)	mg/kg	<120	120	140 (1)	50	<50	50	7070205
F4 (C34-C50 Hydrocarbons)	mg/kg	<120	120	<50 (1)	50	<50	50	7070205
Reached Baseline at C50	mg/kg	Yes		Yes		Yes		7070205
Volatiles								
Benzene	mg/kg	<0.0050	0.0050	<0.012 (1)	0.012	0.019	0.0050	7072196
Toluene	mg/kg	0.030	0.020	0.63 (1)	0.047	0.034	0.020	7072196
Ethylbenzene	mg/kg	<0.010	0.010	<0.023 (1)	0.023	0.023	0.010	7072196
Xylenes (Total)	mg/kg	<0.040	0.040	<0.093 (1)	0.093	0.11	0.040	7072196
m & p-Xylene	mg/kg	<0.040	0.040	<0.093 (1)	0.093	0.074	0.040	7072196
o-Xylene	mg/kg	<0.020	0.020	<0.047 (1)	0.047	0.038	0.020	7072196
F1 (C6-C10) - BTEX	mg/kg	<12	12	<28 (1)	28	<12	12	7072196
(C6-C10)	mg/kg	<12	12	<28 (1)	28	<12	12	7072196
Surrogate Recovery (%)								
1,4-Difluorobenzene (sur.)	%	105		125		101		7072196
4-BROMOFLUOROBENZENE (sur.)	%	103		104		105		7072196
D10-ETHYLBENZENE (sur.)	%	93		93		96		7072196
D4-1,2-DICHLOROETHANE (sur.)	%	99		109		108		7072196
O-TERPHENYL (sur.)	%	98		95		100		7070205

RDL = Reportable Detection Limit
(1) Detection limits raised due to high moisture content.

Maxxam Job #: B370034
Report Date: 2013/08/13

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JTC

AT1 BTEX AND F1-F4 IN SOIL (SOIL)

Maxxam ID		HD8642	HD8643	HD8644		
Sampling Date		2013/08/06 14:00	2013/08/06 14:00	2013/08/06 14:00		
COC Number		A134685	A134685	A134685		
	UNITS	**EX-13-5LN (7.0M)**	**EX-13-3LE (4.0M)**	**EX-13-3LE (7.0M)**	**RDL**	**QC Batch**
Physical Properties						
Moisture	%	19	9.0	16	0.30	7072636
Ext. Pet. Hydrocarbon						
F2 (C10-C16 Hydrocarbons)	mg/kg	<10	<10	<10	10	7070205
F3 (C16-C34 Hydrocarbons)	mg/kg	<50	<50	<50	50	7070205
F4 (C34-C50 Hydrocarbons)	mg/kg	<50	<50	<50	50	7070205
Reached Baseline at C50	mg/kg	Yes	Yes	Yes		7070205
Volatiles						
Benzene	mg/kg	0.039	0.015	0.019	0.0050	7072196
Toluene	mg/kg	0.28	0.034	0.091	0.020	7072196
Ethylbenzene	mg/kg	0.076	0.023	0.027	0.010	7072196
Xylenes (Total)	mg/kg	0.45	0.13	0.16	0.040	7072196
m & p-Xylene	mg/kg	0.30	0.089	0.097	0.040	7072196
o-Xylene	mg/kg	0.15	0.037	0.058	0.020	7072196
F1 (C6-C10) - BTEX	mg/kg	<12	<12	<12	12	7072196
(C6-C10)	mg/kg	<12	<12	<12	12	7072196
Surrogate Recovery (%)						
1,4-Difluorobenzene (sur.)	%	107	101	104		7072196
4-BROMOFLUOROBENZENE (sur.)	%	101	102	103		7072196
D10-ETHYLBENZENE (sur.)	%	96	94	94		7072196
D4-1,2-DICHLOROETHANE (sur.)	%	101	106	109		7072196
O-TERPHENYL (sur.)	%	102	101	103		7070205

RDL = Reportable Detection Limit

Maxxam Job #: B370034
Report Date: 2013/08/13

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JTC

AT1 BTEX AND F1-F4 IN SOIL (SOIL)

Maxxam ID		HD8645		
Sampling Date		2013/08/06 14:00		
COC Number		A134685		
	UNITS	**EX-13-I STEPOUT (2.0M)**	**RDL**	**QC Batch**
Physical Properties				
Moisture	%	21	0.30	7073150
Ext. Pet. Hydrocarbon				
F2 (C10-C16 Hydrocarbons)	mg/kg	<10	10	7070205
F3 (C16-C34 Hydrocarbons)	mg/kg	<50	50	7070205
F4 (C34-C50 Hydrocarbons)	mg/kg	<50	50	7070205
Reached Baseline at C50	mg/kg	Yes		7070205
Volatiles				
Benzene	mg/kg	<0.0050	0.0050	7070533
Toluene	mg/kg	<0.020	0.020	7070533
Ethylbenzene	mg/kg	<0.010	0.010	7070533
Xylenes (Total)	mg/kg	<0.040	0.040	7070533
m & p-Xylene	mg/kg	<0.040	0.040	7070533
o-Xylene	mg/kg	<0.020	0.020	7070533
F1 (C6-C10) - BTEX	mg/kg	<12	12	7070533
(C6-C10)	mg/kg	<12	12	7070533
Surrogate Recovery (%)				
1,4-Difluorobenzene (sur.)	%	111		7070533
4-BROMOFLUOROBENZENE (sur.)	%	98		7070533
D10-ETHYLBENZENE (sur.)	%	103		7070533
D4-1,2-DICHLOROETHANE (sur.)	%	103		7070533
O-TERPHENYL (sur.)	%	100		7070205

RDL = Reportable Detection Limit

Maxxam Job #: B370034
Report Date: 2013/08/13

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JTC

SOIL SALINITY 4 (SOIL)

Maxxam ID		HD8616		HD8617		HD8618		
Sampling Date		2013/08/06 14:00		2013/08/06 14:00		2013/08/06 14:00		
COC Number		A134684		A134684		A134684		
	UNITS	**EX-13-2JB (6.5M)**	**RDL**	**EX-13-1J STEPOUT (1.5M)**	**RDL**	**EX-13-2J STEPOUT (1.5M)**	**RDL**	**QC Batch**
Calculated Parameters								
Anion Sum	meq/L	15	N/A	2.1	N/A	2.3	N/A	7070228
Cation Sum	meq/L	15	N/A	3.7	N/A	3.6	N/A	7070228
Cation/EC Ratio	N/A	9.3	0.10	11	0.10	10	0.10	7070221
Ion Balance	N/A	1.0	0.010	1.8	0.010	1.6	0.010	7070227
Calculated Calcium (Ca)	mg/kg	32	0.43	9.2	0.44	7.5	0.43	7070230
Calculated Magnesium (Mg)	mg/kg	11	0.29	2.8	0.30	3.0	0.29	7070230
Calculated Sodium (Na)	mg/kg	40	0.71	8.6	0.74	8.7	0.71	7070230
Calculated Potassium (K)	mg/kg	4.0	0.37	1.0	0.38	1.0	0.37	7070230
Calculated Chloride (Cl)	mg/kg	110	1.4	5.3	1.5	6.3	1.4	7070230
Calculated Sulphate (SO4)	mg/kg	60	1.4	22	1.5	22	1.4	7070230
Soluble Parameters								
Soluble Chloride (Cl)	mg/L	370	5.0	18	5.0	22	5.0	7074230
Soluble Conductivity	dS/m	1.6	0.020	0.33	0.020	0.35	0.020	7072960
Soluble (CaCl2) pH	N/A	7.45	N/A	7.41	N/A	7.38	N/A	7072652
Sodium Adsorption Ratio	N/A	2.9	0.10	1.2	0.10	1.3	0.10	7070229
Soluble Calcium (Ca)	mg/L	110	1.5	31	1.5	26	1.5	7073815
Soluble Magnesium (Mg)	mg/L	38	1.0	9.5	1.0	10	1.0	7073815
Soluble Sodium (Na)	mg/L	140	2.5	29	2.5	31	2.5	7073815
Soluble Potassium (K)	mg/L	14	1.3	3.5	1.3	3.5	1.3	7073815
Saturation %	%	29	N/A	30	N/A	29	N/A	7072594
Soluble Sulphate (SO4)	mg/L	210	5.0	75	5.0	78	5.0	7073815
Theoretical Gypsum Requirement	tonnes/ha	<0.10	0.10	<0.10	0.10	<0.10	0.10	7070231

RDL = Reportable Detection Limit

Maxxam Job #: B370034
Report Date: 2013/08/13

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JTC

SOIL SALINITY 4 (SOIL)

Maxxam ID		HD8619		HD8620		HD8622		
Sampling Date		2013/08/06 14:00		2013/08/06 14:00		2013/08/06 14:00		
COC Number		A134684		A134684		A134684		
	UNITS	**EX-13-1K STEPOUT (1.0M)**	**RDL**	**EX-13-2K STEPOUT (1.0M)**	**RDL**	**EX-13-4JE (4.0M)**	**RDL**	**QC Batch**
Calculated Parameters								
Anion Sum	meq/L	0.84	N/A	0.65	N/A	26	N/A	7070228
Cation Sum	meq/L	2.6	N/A	1.9	N/A	27	N/A	7070228
Cation/EC Ratio	N/A	12	0.10	12	0.10	12	0.10	7070221
Ion Balance	N/A	3.1	0.010	2.9	0.010	1.1	0.010	7070227
Calculated Calcium (Ca)	mg/kg	11	0.57	6.4	0.56	83	0.42	7070230
Calculated Magnesium (Mg)	mg/kg	2.8	0.38	2.3	0.37	26	0.28	7070230
Calculated Sodium (Na)	mg/kg	5.0	0.94	4.2	0.94	29	0.71	7070230
Calculated Potassium (K)	mg/kg	0.85	0.49	1.1	0.49	3.8	0.37	7070230
Calculated Chloride (Cl)	mg/kg	2.7	1.9	3.9	1.9	32	1.4	7070230
Calculated Sulphate (SO4)	mg/kg	12	1.9	6.4	1.9	310	1.4	7070230
Soluble Parameters								
Soluble Chloride (Cl)	mg/L	7.2	5.0	10	5.0	110	5.0	7074230
Soluble Conductivity	dS/m	0.21	0.020	0.16	0.020	2.2	0.020	7072960
Soluble (CaCl2) pH	N/A	7.20	N/A	6.22	N/A	7.50	N/A	7072652
Sodium Adsorption Ratio	N/A	0.57	0.10	0.59	0.10	1.4	0.10	7070229
Soluble Calcium (Ca)	mg/L	28	1.5	17	1.5	290	1.5	7073815
Soluble Magnesium (Mg)	mg/L	7.4	1.0	6.0	1.0	92	1.0	7073815
Soluble Sodium (Na)	mg/L	13	2.5	11	2.5	100	2.5	7073815
Soluble Potassium (K)	mg/L	2.3	1.3	3.0	1.3	13	1.3	7073815
Saturation %	%	38	N/A	37	N/A	28	N/A	7072594
Soluble Sulphate (SO4)	mg/L	31	5.0	17	5.0	1100	5.0	7073815
Theoretical Gypsum Requirement	tonnes/ha	<0.10	0.10	<0.10	0.10	<0.10	0.10	7070231

RDL = Reportable Detection Limit

Maxxam Job #: B370034
Report Date: 2013/08/13

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JTC

SOIL SALINITY 4 (SOIL)

Maxxam ID		HD8623		HD8633		HD8636		
Sampling Date		2013/08/06 14:00		2013/08/06 14:00		2013/08/06 14:00		
COC Number		A134684		A134684		A134684		
	UNITS	**EX-13-4JE (6.0M)**	**RDL**	**EX-13-4KE (4.0M)**	**RDL**	**EX-13-4KE (7.0M)**	**RDL**	**QC Batch**
Calculated Parameters								
Anion Sum	meq/L	13	N/A	7.4	N/A	21	N/A	7070228
Cation Sum	meq/L	14	N/A	7.8	N/A	23	N/A	7070228
Cation/EC Ratio	N/A	10	0.10	9.4	0.10	10	0.10	7070221
Ion Balance	N/A	1.0	0.010	1.1	0.010	1.1	0.010	7070227
Calculated Calcium (Ca)	mg/kg	33	0.40	19	0.42	67	0.48	7070230
Calculated Magnesium (Mg)	mg/kg	9.4	0.27	6.5	0.28	19	0.32	7070230
Calculated Sodium (Na)	mg/kg	26	0.67	14	0.70	57	0.80	7070230
Calculated Potassium (K)	mg/kg	3.7	0.35	2.7	0.36	5.8	0.42	7070230
Calculated Chloride (Cl)	mg/kg	45	1.4	25	1.4	130	8.0	7070230
Calculated Sulphate (SO4)	mg/kg	110	1.4	65	1.4	150	1.6	7070230
Soluble Parameters								
Soluble Chloride (Cl)	mg/L	170	5.0	89	5.0	410 (1)	25	7074230
Soluble Conductivity	dS/m	1.3	0.020	0.83	0.020	2.4	0.020	7072960
Soluble (CaCl2) pH	N/A	7.42	N/A	7.55	N/A	7.39	N/A	7072652
Sodium Adsorption Ratio	N/A	2.0	0.10	1.3	0.10	2.8	0.10	7070229
Soluble Calcium (Ca)	mg/L	120	1.5	69	1.5	210	1.5	7073815
Soluble Magnesium (Mg)	mg/L	35	1.0	23	1.0	59	1.0	7073815
Soluble Sodium (Na)	mg/L	96	2.5	50	2.5	180	2.5	7073815
Soluble Potassium (K)	mg/L	14	1.3	9.5	1.3	18	1.3	7073815
Saturation %	%	27	N/A	28	N/A	32	N/A	7072594
Soluble Sulphate (SO4)	mg/L	420	5.0	230	5.0	460	5.0	7073815
Theoretical Gypsum Requirement	tonnes/ha	<0.10	0.10	<0.10	0.10	<0.10	0.10	7070231

RDL = Reportable Detection Limit
(1) Detection limits raised due to dilution to bring analyte within the calibrated range.

Maxxam Job #: B370034
Report Date: 2013/08/13

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JTC

SOIL SALINITY 4 (SOIL)

Maxxam ID		HD8637		HD8638		HD8639		
Sampling Date		2013/08/06 14:00		2013/08/06 14:00		2013/08/06 14:00		
COC Number		A134685		A134685		A134685		
	UNITS	**EX-13-5KE (3.5M)**	**RDL**	**EX-13-5KE (5.5M)**	**RDL**	**EX-13-1L STEPOUT (1.25M)**	**RDL**	**QC Batch**
Calculated Parameters								
Anion Sum	meq/L	14	N/A	8.3	N/A	0.66	N/A	7070228
Cation Sum	meq/L	15	N/A	9.3	N/A	1.6	N/A	7070228
Cation/EC Ratio	N/A	10	0.10	10	0.10	10	0.10	7070221
Ion Balance	N/A	1.0	0.010	1.1	0.010	2.4	0.010	7070227
Calculated Calcium (Ca)	mg/kg	43	0.46	24	0.44	3.3	0.41	7070230
Calculated Magnesium (Mg)	mg/kg	13	0.31	8.3	0.29	0.75	0.27	7070230
Calculated Sodium (Na)	mg/kg	29	0.77	17	0.73	4.1	0.68	7070230
Calculated Potassium (K)	mg/kg	3.2	0.40	3.2	0.38	0.75	0.36	7070230
Calculated Chloride (Cl)	mg/kg	34	1.5	16	1.5	2.7	1.4	7070230
Calculated Sulphate (SO4)	mg/kg	160	1.5	95	1.5	5.1	1.4	7070230
Soluble Parameters								
Soluble Chloride (Cl)	mg/L	110	5.0	55	5.0	9.8	5.0	7074230
Soluble Conductivity	dS/m	1.4	0.020	0.93	0.020	0.15	0.020	7072960
Soluble (CaCl2) pH	N/A	7.54	N/A	7.57	N/A	7.21	N/A	7072652
Sodium Adsorption Ratio	N/A	1.8	0.10	1.4	0.10	1.0	0.10	7070229
Soluble Calcium (Ca)	mg/L	140	1.5	82	1.5	12	1.5	7073815
Soluble Magnesium (Mg)	mg/L	41	1.0	28	1.0	2.7	1.0	7073815
Soluble Sodium (Na)	mg/L	96	2.5	59	2.5	15	2.5	7073815
Soluble Potassium (K)	mg/L	10	1.3	11	1.3	2.8	1.3	7073815
Saturation %	%	31	N/A	29	N/A	27	N/A	7072594
Soluble Sulphate (SO4)	mg/L	540	5.0	330	5.0	18	5.0	7073815
Theoretical Gypsum Requirement	tonnes/ha	<0.10	0.10	<0.10	0.10	<0.10	0.10	7070231

RDL = Reportable Detection Limit

Maxxam Job #: B370034
Report Date: 2013/08/13

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JTC

SOIL SALINITY 4 (SOIL)

Maxxam ID		HD8640		HD8641		HD8642		
Sampling Date		2013/08/06 14:00		2013/08/06 14:00		2013/08/06 14:00		
COC Number		A134685		A134685		A134685		
	UNITS	**EX-13-2L STEPOUT (1.0M)**	**RDL**	**EX-13-5LN (4.0M)**	**RDL**	**EX-13-5LN (7.0M)**	**RDL**	**QC Batch**
Calculated Parameters								
Anion Sum	meq/L	2.0	N/A	7.2	N/A	15	N/A	7070228
Cation Sum	meq/L	2.6	N/A	7.6	N/A	15	N/A	7070228
Cation/EC Ratio	N/A	9.7	0.10	9.6	0.10	10	0.10	7070221
Ion Balance	N/A	1.3	0.010	1.0	0.010	0.97	0.010	7070227
Calculated Calcium (Ca)	mg/kg	76	4.6	24	0.42	40	0.44	7070230
Calculated Magnesium (Mg)	mg/kg	23	3.1	5.0	0.28	12	0.29	7070230
Calculated Sodium (Na)	mg/kg	48	7.6	11	0.71	30	0.73	7070230
Calculated Potassium (K)	mg/kg	6.3	4.0	2.6	0.37	4.2	0.38	7070230
Calculated Chloride (Cl)	mg/kg	40	15	5.2	1.4	51	1.5	7070230
Calculated Sulphate (SO4)	mg/kg	240	15	91	1.4	150	1.5	7070230
Soluble Parameters								
Soluble Chloride (Cl)	mg/L	13	5.0	18	5.0	170	5.0	7074230
Soluble Conductivity	dS/m	0.27	0.020	0.79	0.020	1.4	0.020	7072960
Soluble (CaCl2) pH	N/A	5.61	N/A	7.50	N/A	7.44	N/A	7072652
Sodium Adsorption Ratio	N/A	0.70	0.10	0.96	0.10	2.0	0.10	7070229
Soluble Calcium (Ca)	mg/L	25	1.5	85	1.5	130	1.5	7073815
Soluble Magnesium (Mg)	mg/L	7.6	1.0	18	1.0	40	1.0	7073815
Soluble Sodium (Na)	mg/L	16	2.5	37	2.5	100	2.5	7073815
Soluble Potassium (K)	mg/L	2.1	1.3	9.0	1.3	14	1.3	7073815
Saturation %	%	310	N/A	28	N/A	29	N/A	7072594
Soluble Sulphate (SO4)	mg/L	77	5.0	320	5.0	500	5.0	7073815
Theoretical Gypsum Requirement	tonnes/ha	<0.10	0.10	<0.10	0.10	<0.10	0.10	7070231

RDL = Reportable Detection Limit

Maxxam Job #: B370034
Report Date: 2013/08/13

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JTC

SOIL SALINITY 4 (SOIL)

Maxxam ID		HD8643		HD8644		HD8645		
Sampling Date		2013/08/06 14:00		2013/08/06 14:00		2013/08/06 14:00		
COC Number		A134685		A134685		A134685		
	UNITS	**EX-13-3LE (4.0M)**	**RDL**	**EX-13-3LE (7.0M)**	**RDL**	**EX-13-I STEPOUT (2.0M)**	**RDL**	**QC Batch**
Calculated Parameters								
Anion Sum	meq/L	8.6	N/A	20	N/A	1.1	N/A	7070228
Cation Sum	meq/L	9.1	N/A	21	N/A	2.2	N/A	7070228
Cation/EC Ratio	N/A	9.6	0.10	10	0.10	10	0.10	7070221
Ion Balance	N/A	1.1	0.010	1.0	0.010	2.0	0.010	7070227
Calculated Calcium (Ca)	mg/kg	16	0.42	58	0.47	6.0	0.42	7070230
Calculated Magnesium (Mg)	mg/kg	6.8	0.28	18	0.31	1.1	0.28	7070230
Calculated Sodium (Na)	mg/kg	25	0.70	48	0.78	4.8	0.71	7070230
Calculated Potassium (K)	mg/kg	3.0	0.36	4.6	0.41	0.75	0.37	7070230
Calculated Chloride (Cl)	mg/kg	30	1.4	95	1.6	2.9	1.4	7070230
Calculated Sulphate (SO4)	mg/kg	74	1.4	180	1.6	11	1.4	7070230
Soluble Parameters								
Soluble Chloride (Cl)	mg/L	110	5.0	300	5.0	10	5.0	7074230
Soluble Conductivity	dS/m	0.95	0.020	2.0	0.020	0.21	0.020	7072960
Soluble (CaCl2) pH	N/A	7.60	N/A	7.52	N/A	7.23	N/A	7072652
Sodium Adsorption Ratio	N/A	2.5	0.10	2.5	0.10	0.89	0.10	7070229
Soluble Calcium (Ca)	mg/L	59	1.5	190	1.5	21	1.5	7073815
Soluble Magnesium (Mg)	mg/L	24	1.0	57	1.0	4.0	1.0	7073815
Soluble Sodium (Na)	mg/L	90	2.5	150	2.5	17	2.5	7073815
Soluble Potassium (K)	mg/L	11	1.3	15	1.3	2.7	1.3	7073815
Saturation %	%	28	N/A	31	N/A	28	N/A	7072594
Soluble Sulphate (SO4)	mg/L	270	5.0	570	5.0	40	5.0	7073815
Theoretical Gypsum Requirement	tonnes/ha	<0.10	0.10	<0.10	0.10	<0.10	0.10	7070231

RDL = Reportable Detection Limit

Maxxam Job #: B370034
Report Date: 2013/08/13

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JTC

REGULATED METALS (CCME/AT1) - SOILS

Maxxam ID		HD8616	HD8617	HD8618	HD8619		
Sampling Date		2013/08/06 14:00	2013/08/06 14:00	2013/08/06 14:00	2013/08/06 14:00		
COC Number		A134684	A134684	A134684	A134684		
	UNITS	**EX-13-2JB (6.5M)**	**EX-13-1J STEPOUT (1.5M)**	**EX-13-2J STEPOUT (1.5M)**	**EX-13-1K STEPOUT (1.0M)**	**RDL**	**QC Batch**
Elements							
Soluble (Hot water) Boron (B)	mg/kg	0.22	0.33	0.13	0.30	0.10	7074319
Hex. Chromium (Cr 6+)	mg/kg	<0.15	<0.15	<0.15	<0.15	0.15	7073047
Total Antimony (Sb)	mg/kg	<1.0	<1.0	<1.0	<1.0	1.0	7074378
Total Arsenic (As)	mg/kg	5.7	6.1	5.6	8.0	1.0	7074378
Total Barium (Ba)	mg/kg	77	97	80	160	10	7074378
Total Beryllium (Be)	mg/kg	<0.40	<0.40	<0.40	0.43	0.40	7074378
Total Cadmium (Cd)	mg/kg	<0.10	0.12	<0.10	0.13	0.10	7074378
Total Chromium (Cr)	mg/kg	6.2	7.6	6.8	13	1.0	7074378
Total Cobalt (Co)	mg/kg	3.7	4.0	4.1	6.1	1.0	7074378
Total Copper (Cu)	mg/kg	<5.0	5.1	<5.0	8.8	5.0	7074378
Total Lead (Pb)	mg/kg	3.3	3.7	3.5	5.9	1.0	7074378
Total Mercury (Hg)	mg/kg	<0.050	<0.050	<0.050	<0.050	0.050	7074378
Total Molybdenum (Mo)	mg/kg	0.62	0.60	0.57	0.93	0.40	7074378
Total Nickel (Ni)	mg/kg	10	13	11	18	1.0	7074378
Total Selenium (Se)	mg/kg	<0.50	<0.50	<0.50	<0.50	0.50	7074378
Total Silver (Ag)	mg/kg	<1.0	<1.0	<1.0	<1.0	1.0	7074378
Total Thallium (Tl)	mg/kg	<0.30	<0.30	<0.30	<0.30	0.30	7074378
Total Tin (Sn)	mg/kg	<1.0	<1.0	<1.0	<1.0	1.0	7074378
Total Uranium (U)	mg/kg	<1.0	<1.0	<1.0	<1.0	1.0	7074378
Total Vanadium (V)	mg/kg	12	14	14	23	1.0	7074378
Total Zinc (Zn)	mg/kg	28	29	28	34	10	7074378

RDL = Reportable Detection Limit

Maxxam Job #: B370034
Report Date: 2013/08/13

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JTC

REGULATED METALS (CCME/AT1) - SOILS

Maxxam ID		HD8620	HD8622	HD8623	HD8633		
Sampling Date		2013/08/06 14:00	2013/08/06 14:00	2013/08/06 14:00	2013/08/06 14:00		
COC Number		A134684	A134684	A134684	A134684		
	UNITS	**EX-13-2K STEPOUT (1.0M)**	**EX-13-4JE (4.0M)**	**EX-13-4JE (6.0M)**	**EX-13-4KE (4.0M)**	**RDL**	**QC Batch**
Elements							
Soluble (Hot water) Boron (B)	mg/kg	0.44	0.57	0.27	0.25	0.10	7074319
Hex. Chromium (Cr 6+)	mg/kg	<0.15	<0.15	<0.15	<0.15	0.15	7073047
Total Antimony (Sb)	mg/kg	<1.0	<1.0	<1.0	<1.0	1.0	7074378
Total Arsenic (As)	mg/kg	6.1	5.6	5.7	7.1	1.0	7074378
Total Barium (Ba)	mg/kg	200	110	92	140	10	7074378
Total Beryllium (Be)	mg/kg	<0.40	<0.40	<0.40	<0.40	0.40	7074378
Total Cadmium (Cd)	mg/kg	0.15	<0.10	<0.10	<0.10	0.10	7074378
Total Chromium (Cr)	mg/kg	11	6.5	6.7	4.8	1.0	7074378
Total Cobalt (Co)	mg/kg	5.0	3.8	4.0	3.3	1.0	7074378
Total Copper (Cu)	mg/kg	6.5	<5.0	<5.0	<5.0	5.0	7074378
Total Lead (Pb)	mg/kg	5.2	3.4	3.3	3.9	1.0	7074378
Total Mercury (Hg)	mg/kg	<0.050	<0.050	<0.050	<0.050	0.050	7074378
Total Molybdenum (Mo)	mg/kg	0.53	0.49	0.56	0.52	0.40	7074378
Total Nickel (Ni)	mg/kg	14	10	11	8.9	1.0	7074378
Total Selenium (Se)	mg/kg	<0.50	<0.50	<0.50	<0.50	0.50	7074378
Total Silver (Ag)	mg/kg	<1.0	<1.0	<1.0	<1.0	1.0	7074378
Total Thallium (Tl)	mg/kg	<0.30	<0.30	<0.30	<0.30	0.30	7074378
Total Tin (Sn)	mg/kg	<1.0	<1.0	<1.0	<1.0	1.0	7074378
Total Uranium (U)	mg/kg	<1.0	<1.0	<1.0	<1.0	1.0	7074378
Total Vanadium (V)	mg/kg	20	12	13	17	1.0	7074378
Total Zinc (Zn)	mg/kg	29	25	28	24	10	7074378

RDL = Reportable Detection Limit

Maxxam Job #: B370034
Report Date: 2013/08/13

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JTC

REGULATED METALS (CCME/AT1) - SOILS

Maxxam ID		HD8636	HD8637	HD8638	HD8639		
Sampling Date		2013/08/06 14:00	2013/08/06 14:00	2013/08/06 14:00	2013/08/06 14:00		
COC Number		A134684	A134685	A134685	A134685		
	UNITS	**EX-13-4KE (7.0M)**	**EX-13-5KE (3.5M)**	**EX-13-5KE (5.5M)**	**EX-13-1L STEPOUT (1.25M)**	**RDL**	**QC Batch**
Elements							
Soluble (Hot water) Boron (B)	mg/kg	0.28	1.1	0.22	<0.10	0.10	7074319
Hex. Chromium (Cr 6+)	mg/kg	<0.15	<0.15	<0.15	<0.15	0.15	7073047
Total Antimony (Sb)	mg/kg	<1.0	<1.0	<1.0	<1.0	1.0	7074378
Total Arsenic (As)	mg/kg	5.4	6.8	5.1	6.1	1.0	7074378
Total Barium (Ba)	mg/kg	90	100	110	110	10	7074378
Total Beryllium (Be)	mg/kg	<0.40	<0.40	<0.40	<0.40	0.40	7074378
Total Cadmium (Cd)	mg/kg	<0.10	<0.10	<0.10	0.10	0.10	7074378
Total Chromium (Cr)	mg/kg	6.7	6.4	7.4	7.2	1.0	7074378
Total Cobalt (Co)	mg/kg	3.9	3.8	4.0	3.9	1.0	7074378
Total Copper (Cu)	mg/kg	<5.0	<5.0	<5.0	<5.0	5.0	7074378
Total Lead (Pb)	mg/kg	3.5	3.4	3.5	3.8	1.0	7074378
Total Mercury (Hg)	mg/kg	<0.050	<0.050	<0.050	<0.050	0.050	7074378
Total Molybdenum (Mo)	mg/kg	0.61	0.59	0.52	0.54	0.40	7074378
Total Nickel (Ni)	mg/kg	11	10	12	11	1.0	7074378
Total Selenium (Se)	mg/kg	<0.50	<0.50	<0.50	<0.50	0.50	7074378
Total Silver (Ag)	mg/kg	<1.0	<1.0	<1.0	<1.0	1.0	7074378
Total Thallium (Tl)	mg/kg	<0.30	<0.30	<0.30	<0.30	0.30	7074378
Total Tin (Sn)	mg/kg	<1.0	<1.0	<1.0	<1.0	1.0	7074378
Total Uranium (U)	mg/kg	<1.0	<1.0	<1.0	<1.0	1.0	7074378
Total Vanadium (V)	mg/kg	14	14	13	14	1.0	7074378
Total Zinc (Zn)	mg/kg	30	27	30	28	10	7074378

RDL = Reportable Detection Limit

Maxxam Job #: B370034
Report Date: 2013/08/13

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JTC

REGULATED METALS (CCME/AT1) - SOILS

Maxxam ID		HD8640		HD8641	HD8642	HD8643		
Sampling Date		2013/08/06 14:00		2013/08/06 14:00	2013/08/06 14:00	2013/08/06 14:00		
COC Number		A134685		A134685	A134685	A134685		
	UNITS	**EX-13-2L STEPOUT (1.0M)**	**RDL**	**EX-13-5LN (4.0M)**	**EX-13-5LN (7.0M)**	**EX-13-3LE (4.0M)**	**RDL**	**QC Batch**
Elements								
Soluble (Hot water) Boron (B)	mg/kg	3.9 (1)	0.40	0.47	0.21	0.14	0.10	7074319
Hex. Chromium (Cr 6+)	mg/kg	<0.15	0.15	<0.15	<0.15	<0.15	0.15	7073047
Total Antimony (Sb)	mg/kg	<2.0	2.0	<1.0	<1.0	<1.0	1.0	7074378
Total Arsenic (As)	mg/kg	4.4	2.0	5.9	5.7	6.6	1.0	7074378
Total Barium (Ba)	mg/kg	350	20	110	86	91	10	7074378
Total Beryllium (Be)	mg/kg	<0.80	0.80	<0.40	<0.40	<0.40	0.40	7074378
Total Cadmium (Cd)	mg/kg	0.39	0.20	<0.10	<0.10	<0.10	0.10	7074378
Total Chromium (Cr)	mg/kg	5.3	2.0	5.0	6.5	5.1	1.0	7074378
Total Cobalt (Co)	mg/kg	5.1	2.0	3.5	4.0	3.2	1.0	7074378
Total Copper (Cu)	mg/kg	10	10	<5.0	<5.0	<5.0	5.0	7074378
Total Lead (Pb)	mg/kg	3.4	2.0	3.6	3.6	3.6	1.0	7074378
Total Mercury (Hg)	mg/kg	<0.10	0.10	<0.050	<0.050	<0.050	0.050	7074378
Total Molybdenum (Mo)	mg/kg	<0.80	0.80	0.44	0.65	0.51	0.40	7074378
Total Nickel (Ni)	mg/kg	18	2.0	8.6	11	8.4	1.0	7074378
Total Selenium (Se)	mg/kg	1.4	1.0	<0.50	<0.50	<0.50	0.50	7074378
Total Silver (Ag)	mg/kg	<2.0	2.0	<1.0	<1.0	<1.0	1.0	7074378
Total Thallium (Tl)	mg/kg	<0.60	0.60	<0.30	<0.30	<0.30	0.30	7074378
Total Tin (Sn)	mg/kg	<2.0	2.0	<1.0	<1.0	<1.0	1.0	7074378
Total Uranium (U)	mg/kg	2.9	2.0	<1.0	<1.0	<1.0	1.0	7074378
Total Vanadium (V)	mg/kg	11	2.0	11	12	11	1.0	7074378
Total Zinc (Zn)	mg/kg	<20	20	25	29	25	10	7074378

RDL = Reportable Detection Limit
(1) Detection limits raised based on sample weight used for analysis.

Maxxam Job #: B370034
Report Date: 2013/08/13

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JTC

REGULATED METALS (CCME/AT1) - SOILS

Maxxam ID		HD8644	HD8645		
Sampling Date		2013/08/06 14:00	2013/08/06 14:00		
COC Number		A134685	A134685		
	UNITS	**EX-13-3LE (7.0M)**	**EX-13-I STEPOUT (2.0M)**	**RDL**	**QC Batch**
Elements					
Soluble (Hot water) Boron (B)	mg/kg	0.19	<0.10	0.10	7074319
Hex. Chromium (Cr 6+)	mg/kg	<0.15	<0.15	0.15	7073047
Total Antimony (Sb)	mg/kg	<1.0	<1.0	1.0	7074378
Total Arsenic (As)	mg/kg	4.9	6.2	1.0	7074378
Total Barium (Ba)	mg/kg	87	91	10	7074378
Total Beryllium (Be)	mg/kg	<0.40	<0.40	0.40	7074378
Total Cadmium (Cd)	mg/kg	<0.10	<0.10	0.10	7074378
Total Chromium (Cr)	mg/kg	6.6	6.6	1.0	7074378
Total Cobalt (Co)	mg/kg	3.6	3.8	1.0	7074378
Total Copper (Cu)	mg/kg	<5.0	<5.0	5.0	7074378
Total Lead (Pb)	mg/kg	3.1	3.4	1.0	7074378
Total Mercury (Hg)	mg/kg	<0.050	<0.050	0.050	7074378
Total Molybdenum (Mo)	mg/kg	0.48	0.51	0.40	7074378
Total Nickel (Ni)	mg/kg	10	10	1.0	7074378
Total Selenium (Se)	mg/kg	<0.50	<0.50	0.50	7074378
Total Silver (Ag)	mg/kg	<1.0	<1.0	1.0	7074378
Total Thallium (Tl)	mg/kg	<0.30	<0.30	0.30	7074378
Total Tin (Sn)	mg/kg	<1.0	<1.0	1.0	7074378
Total Uranium (U)	mg/kg	<1.0	<1.0	1.0	7074378
Total Vanadium (V)	mg/kg	11	13	1.0	7074378
Total Zinc (Zn)	mg/kg	27	28	10	7074378

RDL = Reportable Detection Limit

Maxxam Job #: B370034
Report Date: 2013/08/13

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JTC

SEMIVOLATILE ORGANICS BY GC-MS (SOIL)

Maxxam ID		HD8619		HD8620		
Sampling Date		2013/08/06 14:00		2013/08/06 14:00		
COC Number		A134684		A134684		
	UNITS	**EX-13-1K STEPOUT (1.0M)**	**RDL**	**EX-13-2K STEPOUT (1.0M)**	**RDL**	**QC Batch**
Polycyclic Aromatics						
Acenaphthene	mg/kg	0.43	0.0050	<0.80 (1)	0.80	7067945
Benzo[a]pyrene equivalency	mg/kg	<0.10	0.10	<0.10	0.10	7070603
Acenaphthylene	mg/kg	<0.19 (1)	0.19	0.33	0.0050	7067945
Acridine	mg/kg	0.40	0.010	0.85	0.010	7067945
Anthracene	mg/kg	<0.0040	0.0040	<0.0040	0.0040	7067945
Benzo(a)anthracene	mg/kg	<0.0050	0.0050	<0.0050	0.0050	7067945
Benzo(b&j)fluoranthene	mg/kg	0.0078	0.0050	<0.0050	0.0050	7067945
Benzo(k)fluoranthene	mg/kg	<0.0050	0.0050	<0.0050	0.0050	7067945
Benzo(g,h,i)perylene	mg/kg	0.0067	0.0050	<0.0050	0.0050	7067945
Benzo(c)phenanthrene	mg/kg	<0.0050	0.0050	<0.0050	0.0050	7067945
Benzo(a)pyrene	mg/kg	<0.0050	0.0050	<0.0050	0.0050	7067945
Benzo[e]pyrene	mg/kg	0.0069	0.0050	<0.0050	0.0050	7067945
Chrysene	mg/kg	<0.0050	0.0050	<0.0050	0.0050	7067945
Dibenz(a,h)anthracene	mg/kg	<0.0050	0.0050	<0.0050	0.0050	7067945
Fluoranthene	mg/kg	<0.0050	0.0050	0.0054	0.0050	7067945
Fluorene	mg/kg	0.86	0.0050	<2.0 (1)	2.0	7067945
Indeno(1,2,3-cd)pyrene	mg/kg	<0.0050	0.0050	<0.0050	0.0050	7067945
2-Methylnaphthalene	mg/kg	19 (2)	0.050	44 (2)	0.050	7067945
Naphthalene	mg/kg	7.9	0.0050	15 (2)	0.050	7067945
Phenanthrene	mg/kg	0.70	0.0050	1.6	0.0050	7067945
Perylene	mg/kg	0.016	0.0050	<0.0050	0.0050	7067945
Pyrene	mg/kg	0.0064	0.0050	0.010	0.0050	7067945
Quinoline	mg/kg	<0.98 (1)	0.98	<2.1 (1)	2.1	7067945
Surrogate Recovery (%)						
D10-ANTHRACENE (sur.)	%	107		102		7067945
D12-BENZO(A)PYRENE (sur.)	%	108		106		7067945
D8-ACENAPHTHYLENE (sur.)	%	116		117		7067945
TERPHENYL-D14 (sur.)	%	124		122		7067945

RDL = Reportable Detection Limit
(1) Detection limits raised due to matrix interference.
(2) Detection limits raised due to dilution to bring analyte within the calibrated range.

Maxxam Job #: B370034
Report Date: 2013/08/13

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JTC

General Comments

Sample HD8640-01: Detection limits raised due to sample matrix. Parameters affected are total Cr, Co, Cu, Pb, Sb, Mo, Ni, Se, Ag, As, Tl, Sn, U, V, Zn, Be, Cd, Ba, Hg.

Results relate only to the items tested.

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: CAMP FAREWELL
P.O. #: A04012A05
Site Location:

Quality Assurance Report

Maxxam Job Number: EB370034

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7067945	BC5	Matrix Spike	D10-ANTHRACENE (sur.)	2013/08/11		99	%	50 - 130
			D12-BENZO(A)PYRENE (sur.)	2013/08/11		99	%	50 - 130
			D8-ACENAPHTHYLENE (sur.)	2013/08/11		97	%	50 - 130
			TERPHENYL-D14 (sur.)	2013/08/11		119	%	50 - 130
			Acenaphthene	2013/08/11		94	%	50 - 130
			Acenaphthylene	2013/08/11		90	%	50 - 130
			Acridine	2013/08/11		71	%	50 - 130
			Anthracene	2013/08/11		93	%	50 - 130
			Benzo(a)anthracene	2013/08/11		97	%	50 - 130
			Benzo(b&j)fluoranthene	2013/08/11		89	%	50 - 130
			Benzo(k)fluoranthene	2013/08/11		101	%	50 - 130
			Benzo(g,h,i)perylene	2013/08/11		100	%	50 - 130
			Benzo(c)phenanthrene	2013/08/11		86	%	50 - 130
			Benzo(a)pyrene	2013/08/11		97	%	50 - 130
			Benzo[e]pyrene	2013/08/11		83	%	50 - 130
			Chrysene	2013/08/11		103	%	50 - 130
			Dibenz(a,h)anthracene	2013/08/11		111	%	50 - 130
			Fluoranthene	2013/08/11		99	%	50 - 130
			Fluorene	2013/08/11		97	%	50 - 130
			Indeno(1,2,3-cd)pyrene	2013/08/11		106	%	50 - 130
			2-Methylnaphthalene	2013/08/11		85	%	50 - 130
			Naphthalene	2013/08/11		90	%	50 - 130
			Phenanthrene	2013/08/11		92	%	50 - 130
			Perylene	2013/08/11		84	%	50 - 130
			Pyrene	2013/08/11		95	%	50 - 130
			Quinoline	2013/08/11		92	%	50 - 130
		Spiked Blank	D10-ANTHRACENE (sur.)	2013/08/11		99	%	50 - 130
			D12-BENZO(A)PYRENE (sur.)	2013/08/11		98	%	50 - 130
			D8-ACENAPHTHYLENE (sur.)	2013/08/11		98	%	50 - 130
			TERPHENYL-D14 (sur.)	2013/08/11		111	%	50 - 130
			Acenaphthene	2013/08/11		109	%	50 - 130
			Acenaphthylene	2013/08/11		105	%	50 - 130
			Acridine	2013/08/11		89	%	50 - 130
			Anthracene	2013/08/11		110	%	50 - 130
			Benzo(a)anthracene	2013/08/11		116	%	50 - 130
			Benzo(b&j)fluoranthene	2013/08/11		105	%	50 - 130
			Benzo(k)fluoranthene	2013/08/11		118	%	50 - 130
			Benzo(g,h,i)perylene	2013/08/11		121	%	50 - 130
			Benzo(c)phenanthrene	2013/08/11		103	%	50 - 130
			Benzo(a)pyrene	2013/08/11		112	%	50 - 130
			Benzo[e]pyrene	2013/08/11		98	%	50 - 130
			Chrysene	2013/08/11		125	%	50 - 130
			Dibenz(a,h)anthracene	2013/08/11		129	%	50 - 130
			Fluoranthene	2013/08/11		109	%	50 - 130
			Fluorene	2013/08/11		123	%	50 - 130
			Indeno(1,2,3-cd)pyrene	2013/08/11		129	%	50 - 130
			2-Methylnaphthalene	2013/08/11		101	%	50 - 130
			Naphthalene	2013/08/11		107	%	50 - 130
			Phenanthrene	2013/08/11		110	%	50 - 130
			Perylene	2013/08/11		100	%	50 - 130
			Pyrene	2013/08/11		105	%	50 - 130
			Quinoline	2013/08/11		111	%	50 - 130
		Method Blank	D10-ANTHRACENE (sur.)	2013/08/11		103	%	50 - 130
			D12-BENZO(A)PYRENE (sur.)	2013/08/11		101	%	50 - 130
			D8-ACENAPHTHYLENE (sur.)	2013/08/11		100	%	50 - 130

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: CAMP FAREWELL
P.O. #: A04012A05
Site Location:

Quality Assurance Report (Continued)

Maxxam Job Number: EB370034

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7067945	BC5	Method Blank	TERPHENYL-D14 (sur.)	2013/08/11		116	%	50 - 130
			Acenaphthene	2013/08/11	<0.0050		mg/kg	
			Acenaphthylene	2013/08/11	<0.0050		mg/kg	
			Acridine	2013/08/11	<0.010		mg/kg	
			Anthracene	2013/08/11	<0.0040		mg/kg	
			Benzo(a)anthracene	2013/08/11	<0.0050		mg/kg	
			Benzo(b&j)fluoranthene	2013/08/11	<0.0050		mg/kg	
			Benzo(k)fluoranthene	2013/08/11	<0.0050		mg/kg	
			Benzo(g,h,i)perylene	2013/08/11	<0.0050		mg/kg	
			Benzo(c)phenanthrene	2013/08/11	<0.0050		mg/kg	
			Benzo(a)pyrene	2013/08/11	<0.0050		mg/kg	
			Benzo[e]pyrene	2013/08/11	<0.0050		mg/kg	
			Chrysene	2013/08/11	<0.0050		mg/kg	
			Dibenz(a,h)anthracene	2013/08/11	<0.0050		mg/kg	
			Fluoranthene	2013/08/11	<0.0050		mg/kg	
			Fluorene	2013/08/11	<0.0050		mg/kg	
			Indeno(1,2,3-cd)pyrene	2013/08/11	<0.0050		mg/kg	
			2-Methylnaphthalene	2013/08/11	<0.0050		mg/kg	
			Naphthalene	2013/08/11	<0.0050		mg/kg	
			Phenanthrene	2013/08/11	<0.0050		mg/kg	
			Perylene	2013/08/11	<0.0050		mg/kg	
			Pyrene	2013/08/11	<0.0050		mg/kg	
			Quinoline	2013/08/11	<0.010		mg/kg	
		RPD	Acenaphthene	2013/08/11	NC		%	50
			Acenaphthylene	2013/08/11	NC		%	50
			Anthracene	2013/08/11	NC		%	50
			Benzo(a)anthracene	2013/08/11	NC		%	50
			Benzo(b&j)fluoranthene	2013/08/11	NC		%	50
			Benzo(k)fluoranthene	2013/08/11	NC		%	50
			Benzo(g,h,i)perylene	2013/08/11	NC		%	50
			Benzo(a)pyrene	2013/08/11	NC		%	50
			Chrysene	2013/08/11	NC		%	50
			Dibenz(a,h)anthracene	2013/08/11	NC		%	50
			Fluoranthene	2013/08/11	NC		%	50
			Fluorene	2013/08/11	NC		%	50
			Indeno(1,2,3-cd)pyrene	2013/08/11	NC		%	50
			Naphthalene	2013/08/11	NC		%	50
			Phenanthrene	2013/08/11	NC		%	50
			Pyrene	2013/08/11	NC		%	50
7070205	SHM	Matrix Spike	O-TERPHENYL (sur.)	2013/08/12		91	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/08/12		90	%	50 - 130
			F3 (C16-C34 Hydrocarbons)	2013/08/12		90	%	50 - 130
			F4 (C34-C50 Hydrocarbons)	2013/08/12		88	%	50 - 130
		Spiked Blank	O-TERPHENYL (sur.)	2013/08/12		87	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/08/12		110	%	70 - 130
			F3 (C16-C34 Hydrocarbons)	2013/08/12		109	%	70 - 130
			F4 (C34-C50 Hydrocarbons)	2013/08/12		106	%	70 - 130
		Method Blank	O-TERPHENYL (sur.)	2013/08/12		96	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/08/12	<10		mg/kg	
			F3 (C16-C34 Hydrocarbons)	2013/08/12	<50		mg/kg	
			F4 (C34-C50 Hydrocarbons)	2013/08/12	<50		mg/kg	
		RPD	F2 (C10-C16 Hydrocarbons)	2013/08/12	10.1		%	50
			F3 (C16-C34 Hydrocarbons)	2013/08/12	NC		%	50
			F4 (C34-C50 Hydrocarbons)	2013/08/12	NC		%	50
7070533	RC6	Matrix Spike	1,4-Difluorobenzene (sur.)	2013/08/12		109	%	60 - 140

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: CAMP FAREWELL
P.O. #: A04012A05
Site Location:

Quality Assurance Report (Continued)

Maxxam Job Number: EB370034

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7070533	RC6	Matrix Spike	4-BROMOFLUOROBENZENE (sur.)	2013/08/12		97	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/08/12		106	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/08/12		101	%	60 - 140
			Benzene	2013/08/12		108	%	60 - 140
			Toluene	2013/08/12		101	%	60 - 140
			Ethylbenzene	2013/08/12		102	%	60 - 140
			m & p-Xylene	2013/08/12		103	%	60 - 140
			o-Xylene	2013/08/12		103	%	60 - 140
			(C6-C10)	2013/08/12		102	%	60 - 140
		Spiked Blank	1,4-Difluorobenzene (sur.)	2013/08/12		99	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/08/12		97	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/08/12		100	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/08/12		102	%	60 - 140
			Benzene	2013/08/12		105	%	60 - 140
			Toluene	2013/08/12		96	%	60 - 140
			Ethylbenzene	2013/08/12		97	%	60 - 140
			m & p-Xylene	2013/08/12		96	%	60 - 140
			o-Xylene	2013/08/12		98	%	60 - 140
			(C6-C10)	2013/08/12		112	%	60 - 140
		Method Blank	1,4-Difluorobenzene (sur.)	2013/08/12		99	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/08/12		96	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/08/12		98	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/08/12		103	%	60 - 140
			Benzene	2013/08/12	<0.0050		mg/kg	
			Toluene	2013/08/12	<0.020		mg/kg	
			Ethylbenzene	2013/08/12	<0.010		mg/kg	
			Xylenes (Total)	2013/08/12	<0.040		mg/kg	
			m & p-Xylene	2013/08/12	<0.040		mg/kg	
			o-Xylene	2013/08/12	<0.020		mg/kg	
			F1 (C6-C10) - BTEX	2013/08/12	<12		mg/kg	
			(C6-C10)	2013/08/12	<12		mg/kg	
		RPD	Benzene	2013/08/12	NC		%	50
			Toluene	2013/08/12	NC		%	50
			Ethylbenzene	2013/08/12	NC		%	50
			Xylenes (Total)	2013/08/12	NC		%	50
			m & p-Xylene	2013/08/12	NC		%	50
			o-Xylene	2013/08/12	NC		%	50
			F1 (C6-C10) - BTEX	2013/08/12	NC		%	50
			(C6-C10)	2013/08/12	NC		%	50
7072196	NSE	Matrix Spike [HD8614-01]	1,4-Difluorobenzene (sur.)	2013/08/12		106	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/08/12		106	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/08/12		95	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/08/12		107	%	60 - 140
			Benzene	2013/08/12		103	%	60 - 140
			Toluene	2013/08/12		101	%	60 - 140
			Ethylbenzene	2013/08/12		103	%	60 - 140
			m & p-Xylene	2013/08/12		104	%	60 - 140
			o-Xylene	2013/08/12		100	%	60 - 140
			(C6-C10)	2013/08/12		65	%	60 - 140
		Spiked Blank	1,4-Difluorobenzene (sur.)	2013/08/12		98	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/08/12		104	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/08/12		95	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/08/12		104	%	60 - 140
			Benzene	2013/08/12		102	%	60 - 140

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: CAMP FAREWELL
P.O. #: A04012A05
Site Location:

Quality Assurance Report (Continued)

Maxxam Job Number: EB370034

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7072196	NSE	Spiked Blank	Toluene	2013/08/12		102	%	60 - 140
			Ethylbenzene	2013/08/12		102	%	60 - 140
			m & p-Xylene	2013/08/12		104	%	60 - 140
			o-Xylene	2013/08/12		99	%	60 - 140
			(C6-C10)	2013/08/12		93	%	60 - 140
		Method Blank	1,4-Difluorobenzene (sur.)	2013/08/12		98	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/08/12		101	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/08/12		94	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/08/12		99	%	60 - 140
			Benzene	2013/08/12	<0.0050		mg/kg	
			Toluene	2013/08/12	<0.020		mg/kg	
			Ethylbenzene	2013/08/12	<0.010		mg/kg	
			Xylenes (Total)	2013/08/12	<0.040		mg/kg	
			m & p-Xylene	2013/08/12	<0.040		mg/kg	
			o-Xylene	2013/08/12	<0.020		mg/kg	
			F1 (C6-C10) - BTEX	2013/08/12	<12		mg/kg	
			(C6-C10)	2013/08/12	<12		mg/kg	
7072594	CH7	QC Standard	Saturation %	2013/08/13		101	%	93 - 107
		RPD [HD8620-01]	Saturation %	2013/08/13	0.4		%	12
7072636	ABH	Method Blank	Moisture	2013/08/13	<0.30		%	
		RPD [HD8644-01]	Moisture	2013/08/13	3.7		%	20
7072652	MA4	QC Standard	Soluble (CaCl2) pH	2013/08/13		100	%	97 - 103
		Spiked Blank	Soluble (CaCl2) pH	2013/08/13		100	%	97 - 103
		RPD [HD8617-01]	Soluble (CaCl2) pH	2013/08/13	0.5		%	5
7072960	LZ2	QC Standard	Soluble Conductivity	2013/08/13		87	%	85 - 115
		Spiked Blank	Soluble Conductivity	2013/08/13		100	%	90 - 110
		Method Blank	Soluble Conductivity	2013/08/13	<0.020		dS/m	
		RPD [HD8620-01]	Soluble Conductivity	2013/08/13	2.8		%	35
7073047	LCA	Matrix Spike						
		[HD8618-01]	Hex. Chromium (Cr 6+)	2013/08/13		97	%	75 - 125
		Spiked Blank	Hex. Chromium (Cr 6+)	2013/08/13		104	%	90 - 110
		Method Blank	Hex. Chromium (Cr 6+)	2013/08/13	<0.15		mg/kg	
		RPD [HD8618-01]	Hex. Chromium (Cr 6+)	2013/08/13	NC		%	35
7073150	ABH	Method Blank	Moisture	2013/08/13	<0.30		%	
		RPD	Moisture	2013/08/13	0		%	20
7073815	JSM	Matrix Spike						
		[HD8620-01]	Soluble Calcium (Ca)	2013/08/13		94	%	75 - 125
			Soluble Magnesium (Mg)	2013/08/13		105	%	75 - 125
			Soluble Sodium (Na)	2013/08/13		105	%	75 - 125
			Soluble Potassium (K)	2013/08/13		100	%	75 - 125
		QC Standard	Soluble Calcium (Ca)	2013/08/13		80	%	75 - 125
			Soluble Magnesium (Mg)	2013/08/13		89	%	75 - 125
			Soluble Sodium (Na)	2013/08/13		99	%	75 - 125
			Soluble Potassium (K)	2013/08/13		106	%	75 - 125
			Soluble Sulphate (SO4)	2013/08/13		85	%	78 - 122
		Spiked Blank	Soluble Calcium (Ca)	2013/08/13		97	%	75 - 125
			Soluble Magnesium (Mg)	2013/08/13		108	%	75 - 125
			Soluble Sodium (Na)	2013/08/13		107	%	75 - 125
			Soluble Potassium (K)	2013/08/13		102	%	75 - 125
		Method Blank	Soluble Calcium (Ca)	2013/08/13	<1.5		mg/L	
			Soluble Magnesium (Mg)	2013/08/13	<1.0		mg/L	
			Soluble Sodium (Na)	2013/08/13	<2.5		mg/L	
			Soluble Potassium (K)	2013/08/13	<1.3		mg/L	
			Soluble Sulphate (SO4)	2013/08/13	<5.0		mg/L	
		RPD [HD8620-01]	Soluble Calcium (Ca)	2013/08/13	4.3		%	35

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: CAMP FAREWELL
P.O. #: A04012A05
Site Location:

Quality Assurance Report (Continued)

Maxxam Job Number: EB370034

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7073815	JSM	RPD [HD8620-01]	Soluble Magnesium (Mg)	2013/08/13	7.5		%	35
			Soluble Sodium (Na)	2013/08/13	NC		%	35
			Soluble Potassium (K)	2013/08/13	NC		%	35
			Soluble Sulphate (SO4)	2013/08/13	NC		%	35
7074230	EP1	Matrix Spike						
		[HD8620-01]	Soluble Chloride (Cl)	2013/08/13		97	%	75 - 125
		QC Standard	Soluble Chloride (Cl)	2013/08/13		88	%	75 - 125
		Spiked Blank	Soluble Chloride (Cl)	2013/08/13		98	%	75 - 125
		Method Blank	Soluble Chloride (Cl)	2013/08/13	<5.0		mg/L	
		RPD [HD8620-01]	Soluble Chloride (Cl)	2013/08/13	NC		%	35
7074319	NC3	Matrix Spike						
		[HD8618-01]	Soluble (Hot water) Boron (B)	2013/08/13		106	%	75 - 125
		Spiked Blank	Soluble (Hot water) Boron (B)	2013/08/13		100	%	75 - 125
		Method Blank	Soluble (Hot water) Boron (B)	2013/08/13	<0.10		mg/kg	
		RPD [HD8618-01]	Soluble (Hot water) Boron (B)	2013/08/13	NC		%	35
7074378	SF3	Matrix Spike						
		[HD8618-01]	Total Antimony (Sb)	2013/08/13		93	%	75 - 125
			Total Arsenic (As)	2013/08/13		92	%	75 - 125
			Total Barium (Ba)	2013/08/13		NC	%	75 - 125
			Total Beryllium (Be)	2013/08/13		103	%	75 - 125
			Total Cadmium (Cd)	2013/08/13		91	%	75 - 125
			Total Chromium (Cr)	2013/08/13		93	%	75 - 125
			Total Cobalt (Co)	2013/08/13		90	%	75 - 125
			Total Copper (Cu)	2013/08/13		90	%	75 - 125
			Total Lead (Pb)	2013/08/13		92	%	75 - 125
			Total Mercury (Hg)	2013/08/13		104	%	75 - 125
			Total Molybdenum (Mo)	2013/08/13		96	%	75 - 125
			Total Nickel (Ni)	2013/08/13		90	%	75 - 125
			Total Selenium (Se)	2013/08/13		95	%	75 - 125
			Total Silver (Ag)	2013/08/13		98	%	75 - 125
			Total Thallium (Tl)	2013/08/13		91	%	75 - 125
			Total Tin (Sn)	2013/08/13		96	%	75 - 125
			Total Uranium (U)	2013/08/13		96	%	75 - 125
			Total Vanadium (V)	2013/08/13		96	%	75 - 125
			Total Zinc (Zn)	2013/08/13		NC	%	75 - 125
		QC Standard	Total Arsenic (As)	2013/08/13		121	%	50 - 150
			Total Barium (Ba)	2013/08/13		115	%	69 - 131
			Total Chromium (Cr)	2013/08/13		110	%	41 - 159
			Total Cobalt (Co)	2013/08/13		113	%	75 - 125
			Total Copper (Cu)	2013/08/13		102	%	73 - 127
			Total Lead (Pb)	2013/08/13		103	%	54 - 146
			Total Nickel (Ni)	2013/08/13		112	%	61 - 139
			Total Vanadium (V)	2013/08/13		130	%	50 - 150
			Total Zinc (Zn)	2013/08/13		106	%	72 - 128
		Spiked Blank	Total Antimony (Sb)	2013/08/13		95	%	75 - 125
			Total Arsenic (As)	2013/08/13		93	%	75 - 125
			Total Barium (Ba)	2013/08/13		95	%	75 - 125
			Total Beryllium (Be)	2013/08/13		103	%	75 - 125
			Total Cadmium (Cd)	2013/08/13		91	%	75 - 125
			Total Chromium (Cr)	2013/08/13		93	%	75 - 125
			Total Cobalt (Co)	2013/08/13		92	%	75 - 125
			Total Copper (Cu)	2013/08/13		93	%	75 - 125
			Total Lead (Pb)	2013/08/13		94	%	75 - 125
			Total Mercury (Hg)	2013/08/13		104	%	75 - 125
			Total Molybdenum (Mo)	2013/08/13		95	%	75 - 125

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: CAMP FAREWELL
P.O. #: A04012A05
Site Location:

Quality Assurance Report (Continued)

Maxxam Job Number: EB370034

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7074378	SF3	Spiked Blank	Total Nickel (Ni)	2013/08/13		94	%	75 - 125
			Total Selenium (Se)	2013/08/13		96	%	75 - 125
			Total Silver (Ag)	2013/08/13		99	%	75 - 125
			Total Thallium (Tl)	2013/08/13		92	%	75 - 125
			Total Tin (Sn)	2013/08/13		95	%	75 - 125
			Total Uranium (U)	2013/08/13		97	%	75 - 125
			Total Vanadium (V)	2013/08/13		96	%	75 - 125
			Total Zinc (Zn)	2013/08/13		92	%	75 - 125
		Method Blank	Total Antimony (Sb)	2013/08/13	<1.0		mg/kg	
			Total Arsenic (As)	2013/08/13	<1.0		mg/kg	
			Total Barium (Ba)	2013/08/13	<10		mg/kg	
			Total Beryllium (Be)	2013/08/13	<0.40		mg/kg	
			Total Cadmium (Cd)	2013/08/13	<0.10		mg/kg	
			Total Chromium (Cr)	2013/08/13	<1.0		mg/kg	
			Total Cobalt (Co)	2013/08/13	<1.0		mg/kg	
			Total Copper (Cu)	2013/08/13	<5.0		mg/kg	
			Total Lead (Pb)	2013/08/13	<1.0		mg/kg	
			Total Mercury (Hg)	2013/08/13	<0.050		mg/kg	
			Total Molybdenum (Mo)	2013/08/13	<0.40		mg/kg	
			Total Nickel (Ni)	2013/08/13	<1.0		mg/kg	
			Total Selenium (Se)	2013/08/13	<0.50		mg/kg	
			Total Silver (Ag)	2013/08/13	<1.0		mg/kg	
			Total Thallium (Tl)	2013/08/13	<0.30		mg/kg	
			Total Tin (Sn)	2013/08/13	<1.0		mg/kg	
			Total Uranium (U)	2013/08/13	<1.0		mg/kg	
			Total Vanadium (V)	2013/08/13	<1.0		mg/kg	
			Total Zinc (Zn)	2013/08/13	<10		mg/kg	
		RPD [HD8618-01]	Total Antimony (Sb)	2013/08/13	NC		%	35
			Total Arsenic (As)	2013/08/13	8.5		%	35
			Total Barium (Ba)	2013/08/13	10		%	35
			Total Beryllium (Be)	2013/08/13	NC		%	35
			Total Cadmium (Cd)	2013/08/13	NC		%	35
			Total Chromium (Cr)	2013/08/13	8.2		%	35
			Total Cobalt (Co)	2013/08/13	NC		%	35
			Total Copper (Cu)	2013/08/13	NC		%	35
			Total Lead (Pb)	2013/08/13	NC		%	35
			Total Mercury (Hg)	2013/08/13	NC		%	35
			Total Molybdenum (Mo)	2013/08/13	NC		%	35
			Total Nickel (Ni)	2013/08/13	6.0		%	35
			Total Selenium (Se)	2013/08/13	NC		%	35
			Total Silver (Ag)	2013/08/13	NC		%	35
			Total Thallium (Tl)	2013/08/13	NC		%	35
			Total Tin (Sn)	2013/08/13	NC		%	35
			Total Uranium (U)	2013/08/13	NC		%	35
			Total Vanadium (V)	2013/08/13	18.3		%	35
			Total Zinc (Zn)	2013/08/13	NC		%	35

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

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: CAMP FAREWELL
P.O. #: A04012A05
Site Location:

Quality Assurance Report (Continued)

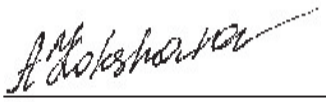
Maxxam Job Number: EB370034

spiked amount was not sufficiently significant to permit a reliable recovery calculation.
NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

Validation Signature Page

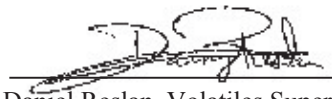
Maxxam Job #: B370034

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

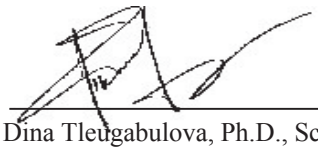


Anna Koksharova, Senior Analyst

Carol Gebhart, Senior Analyst



Daniel Reslan, Volatiles Supervisor



Dina Tleugabulova, Ph.D., Scientific Specialist, Inorganics Department

Neel Sivaloganathan, Emergency Spill Response Manager

Validation Signature Page

Maxxam Job #: B370034

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

Stephanie Gilbert, Senior Analyst

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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.

Maxxam

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Edmonton: 9331 - 48 Street, T6B 2R4. Ph: (780) 577-7100, Fax: (780) 450-4187, Toll free: (877) 465-8889
www.maxxamanalytics.com

08/482(2)

Chain of Custody

A134684

Page: 1 of 2

Invoice To:	C/O Report Address ☐
Company:	IEG Consultants Ltd.
Contact:	Nicole Wells
Address:	268 Hopewell Place NE
Prov:	Calgary AB PC: T1Y 7J7
Contact #s:	Ph: 403-829-3048 Cell: —

Report To: Same as Invoice ☒
NWills@klohn.com
jcollins@klohn.com
Prov: PC:
Ph: Cell:

Report Distribution (E-Mail): → (as above)

REGULATORY GUIDELINES:
☐ AT1
☐ CCME
☐ Regulated Drinking Water
☐ Other:

All samples are held for 60 calendar days after sample receipt, unless specified otherwise.

PO #: A04012A05
Project # / Name: Camp Farewell
Site Location:
Quote #:
Sampled By: JTC/NS

SERVICE REQUESTED: ☒ RUSH (Contact lab to reserve) Date Required:
☐ REGULAR (5 to 7 Days)

See reverse for package specifics

#	Sample ID	Depth (unit)	Matrix GW / SW Soil	Date/Time Sampled YY/MM/DD 24:00	SOIL: BTEX F1-F4	Sieve (75 micron)	Regulated Metals (CCME / AT1)	Salinity 4	Assessment ICP Metals	Basic Class II Landfill	PAH	ASAP RUSH	REGULAR TAT	WATER: ☐BTEX F1 ☐VOCs	☐BTEX F1-F2 ☐BTEX F1-F4	☐ Routine Water ☐ Turb ☐ F	☐ TOC ☐ DOC	Regulated Metals (CCME / AT1) Total	Dissolved	Mercury ☐ Total ☐ Dissolved	Other Analysis	HOLD - Do not Analyze	# of Containers Submitted
1	Pile #4	—	Soil	13/08/06 1400	X		X	X					X										2
2	Pile #5	—	Soil	13/08/06 1400	X		X	X					X										2
3	Pile #6	—	Soil	13/08/06 1400	X		X	X					X										2
4	EX-13-2JB (6.5m)	6.5m	Soil	13/08/06 1400	X		X	X				X											2
5	Ex-13-1J Stepout (1.5m)	1.5m	Soil	13/08/06 1400	X		X	X				X											2
6	Ex-13-2J Stepout (1.5m)	1.5m	Soil	13/08/06 1400	X		X	X				X											2
7	EX-13-1K Stepout (1.0m)	1.0m	Soil	13/08/06 1400	X		X	X			X	X											3
8	Ex-13-2K Stepout (1.0m)	1.0m	Soil	13/08/06 1400	X		X	X			X	X											3
9	Ex-13-4JE (4.0m)	4.0m	Soil	13/08/06 1400	X		X	X				X											2
10	Ex-13-4JE (6.0m)	6.0m	Soil	13/08/06 1400	X		X	X				X											2
11	EX-13-4KE (4.0m)	4.0m	Soil	13/08/06 1400	X		X	X				X											2
12	Ex-13-4KE (7.0m)	7.0m	Soil	13/08/06 1400	X		X	X				X											2

Please indicate Filtered, Preserved or Both (F, P, F/P) → JLF/SBF F/P

Relinquished By (Signature/Print):	Date (YY/MM/DD):	Time (24:00):
Jesse Collins	13/08/06	1830
Relinquished By (Signature/Print):	Date (YY/MM/DD):	Time (24:00):

Special Instructions: Please provide fastest TAT possible for samples indicated ASAP. Results by August 10 if possible

# of Jars Used & Not Submitted

LAB USE ONLY

Received By: Jenna Walter [signature] Date: 20130812 Time: 0945

Maxxam Job #: B370034

Custody Seal	Temperature	Ice
absent	8, 9, 7 / 13, 9, 7	present with

Lab Comments:

AB FCD-00331 Rev3 2010/05 Maxxam Analytics International Corporation o/a Maxxam Analytics

Maxxam

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Chain of Custody A134685

Page: 2 of 2

	Invoice To:	C/O Report Address ☐
Company:		
Contact:	Same as PG 1	
Address:		
	Prov:	PC:
Contact #s:	Ph:	Cell:

Report To:	Same as Invoice ☐
	Pg 1
Prov:	PC:
Ph:	Cell:

Report Distribution (E-Mail): Pg 1

REGULATORY GUIDELINES:
☐ AT1
☐ CCME
☐ Regulated Drinking Water
☐ Other:

All samples are held for 60 calendar days after sample receipt, unless specified otherwise.

PO #:
Project # / Name: Pg 1
Site Location:
Quote #:
Sampled By:

SERVICE REQUESTED: ☒ RUSH (Contact lab to reserve) Date Required: ☐ REGULAR (5 to 7 Days)

See reverse for package specifics

	Sample ID	Depth (unit)	Matrix GW / SW Soil	Date/Time Sampled YY/MM/DD 24:00	SOIL: BTEX F1-F4	Sieve (75 micron)	Regulated Metals (CCME / AT1)	Salinity 4	Assessment ICP Metals	Basic Class II Landfill	ASAP RUSH	WATER: ☐BTEX F1 ☐VOCs	☐BTEX F1-F2 ☐BTEX F1-F4	☐ Routine Water ☐ Turb ☐ F	☐ TOC ☐ DOC	Regulated Metals (CCME / AT1) Total	Dissolved	Mercury ☐ Total ☐ Dissolved	Other Analysis	HOLD - Do not Analyze	# of Containers Submitted
1	EX-13-5KE (3.5m)	3.5m	Soil	13/08/06 1400	X		X	X			X										2
2	EX-13-5KE (5.5m)	5.5m			X		X	X			X										2
3	EX-13-1L Stepout (1.25m)	1.25m			X		X	X			X										2
4	EX-13-2L Stepout (1.0m)	1.0m			X		X	X			X										2
5	EX-13-5LN (4.0m)	4.0m			X		X	X			X										2
6	EX-13-5LN (7.0m)	7.0m			X		X	X			X										2
7	EX-13-3LE (4.0m)	4.0m			X		X	X			X										2
8	EX-13-3LE (7.0m)	7.0m			X		X	X			X										2
9	EX-13-T Stepout (2.0m)	2.0m			X		X	X			X										2
10																					
11																					
12																					

Please indicate Filtered, Preserved or Both (F, P, F/P)

JCWF/SBF F/P

Relinquished By (Signature/Print):	Date (YY/MM/DD):	Time (24:00):
Jesse Collins	13/08/06	1830
Relinquished By (Signature/Print):	Date (YY/MM/DD):	Time (24:00):

Special Instructions: Pg 1

# of Jars Used & Not Submitted

LAB USE ONLY

Received By:	Date:	Time:	Maxxam Job #: B370034		
Jenna Walter	20130812	0945	Custody Seal	Temperature	Ice
Lab Comments:			absent	8, 9, 7 13, 9, 7	present with jars

Maxxam

Your P.O. #: A04012A05
Your Project #: CAMP FAREWELL
Your C.O.C. #: A134684, A134685

Attention: NICOLE WILLS

KLOHN CRIPPEN BERGER LTD
500-2618
HOPEWELL PLACE NE
CALGARY, AB
CANADA T1Y 7J7

Report Date: 2013/08/16

CERTIFICATE OF ANALYSIS

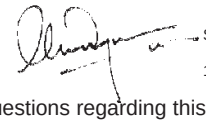
MAXXAM JOB #: B370034
Received: 2013/08/12, 9:45

Sample Matrix: Soil
Samples Received: 21

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Boron (Hot Water Soluble)	18	2013/08/13	2013/08/13	AB SOP-00042	EPA 200.7
Boron (Hot Water Soluble)	3	2013/08/16	2013/08/16	AB SOP-00042	EPA 200.7
BTEX/F1 by HS GC/MS (MeOH extract)	18	2013/08/12	2013/08/12	AB SOP-00039	CCME, EPA 8260
BTEX/F1 by HS GC/MS (MeOH extract)	3	2013/08/12	2013/08/13	AB SOP-00039	CCME, EPA 8260
Cation/EC Ratio	18	N/A	2013/08/13		CALCULATION
Cation/EC Ratio	3	N/A	2013/08/15		CALCULATION
Chloride (Soluble)	18	2013/08/13	2013/08/13	AB SOP-00020	SSMA 4500 CL-E
Chloride (Soluble)	3	2013/08/14	2013/08/15	AB SOP-00020	SSMA 4500 CL-E
Hexavalent Chromium	21	2013/08/12	2013/08/13	EENVSOP-00131	SM 3500-Cr B
Conductivity @25C (Soluble)	18	2013/08/13	2013/08/13	AB SOP-00004	SSMA 15.3
Conductivity @25C (Soluble)	3	2013/08/13	2013/08/14	AB SOP-00004	SSMA 15.3
CCME Hydrocarbons (F2-F4 in soil)	18	2013/08/12	2013/08/12	AB SOP-00040 AB SOP-00036	CCME PHC-CWS
CCME Hydrocarbons (F2-F4 in soil)	3	2013/08/12	2013/08/13	AB SOP-00040 AB SOP-00036	CCME PHC-CWS
Elements by ICPMS - Soils	18	2013/08/13	2013/08/13	AB SOP-00043	EPA 200.8
Elements by ICPMS - Soils	3	2013/08/14	2013/08/14	AB SOP-00043	EPA 200.8
Ion Balance	18	N/A	2013/08/13	AB WI-00065	SM 1030E
Ion Balance	3	N/A	2013/08/15	AB WI-00065	SM 1030E
Sum of Cations, Anions	18	N/A	2013/08/13	AB WI-00065	SM 1030E
Sum of Cations, Anions	3	N/A	2013/08/15	AB WI-00065	SM 1030E
Moisture	21	N/A	2013/08/13	AB SOP-00002	CCME PHC-CWS
Benzo[a]pyrene Equivalency	2	N/A	2013/08/13	AB SOP-00003	EPA 8270D
PAH in Soil by GC/MS	2	2013/08/12	2013/08/13	AB SOP-00003 AB SOP-00036	EPA 3540C/8270D
pH @25C (1:2 Calcium Chloride Extract)	21	2013/08/13	2013/08/13	AB SOP-00006	SSMA 16.3
Sodium Adsorption Ratio	18	N/A	2013/08/13	AB WI-00065	SSMA 15.4.4
Sodium Adsorption Ratio	3	N/A	2013/08/15	AB WI-00065	SSMA 15.4.4
Ca,Mg,Na,K,SO4 (Soluble)	18	2013/08/13	2013/08/13	AB SOP-00042	EPA 200.7
Ca,Mg,Na,K,SO4 (Soluble)	3	2013/08/14	2013/08/14	AB SOP-00042	EPA 200.7
Soluble Paste	18	2013/08/13	2013/08/13	AB SOP-00033	SSMA 15.2
Soluble Paste	3	2013/08/14	2013/08/14	AB SOP-00033	SSMA 15.2
Soluble Ions Calculation	21	N/A	2013/08/13		CALCULATION
Theoretical Gypsum Requirement (1)	18	N/A	2013/08/13	CAL WI-00087	CJSS 79:449-455
Theoretical Gypsum Requirement (1)	3	N/A	2013/08/15	CAL WI-00087	CJSS 79:449-455

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

(1) Units for TGR have changed from tons/acre to tonnes/ha

Encryption Key 
Sherlyne Sim
16 Aug 2013 16:00:28 -06:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Tanya Eugine, M.Sc., Project Manager
Email: TEugine@maxxam.ca
Phone# (780) 577-7144

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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.

Total cover pages: 1

Maxxam Job #: B370034
Report Date: 2013/08/16

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JTC

AT1 BTEX AND F1-F4 IN SOIL (SOIL)

Maxxam ID		HD8612	HD8612	HD8614	HD8615		
Sampling Date		2013/08/06 14:00	2013/08/06 14:00	2013/08/06 14:00	2013/08/06 14:00		
COC Number		A134684	A134684	A134684	A134684		
	UNITS	**PILE #4**	**PILE #4 Lab-Dup**	**PILE #5**	**PILE #6**	**RDL**	**QC Batch**
Physical Properties							
Moisture	%	17	N/A	16	23	0.30	7072636
Ext. Pet. Hydrocarbon							
F2 (C10-C16 Hydrocarbons)	mg/kg	81	N/A	540	910	10	7072325
F3 (C16-C34 Hydrocarbons)	mg/kg	200	N/A	260	320	50	7072325
F4 (C34-C50 Hydrocarbons)	mg/kg	<50	N/A	<50	<50	50	7072325
Reached Baseline at C50	mg/kg	Yes	N/A	Yes	Yes	N/A	7072325
Volatiles							
Benzene	mg/kg	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	7072196
Toluene	mg/kg	0.028	<0.020	0.034	0.030	0.020	7072196
Ethylbenzene	mg/kg	<0.010	<0.010	<0.010	<0.010	0.010	7072196
Xylenes (Total)	mg/kg	<0.040	<0.040	<0.040	<0.040	0.040	7072196
m & p-Xylene	mg/kg	<0.040	<0.040	<0.040	<0.040	0.040	7072196
o-Xylene	mg/kg	<0.020	<0.020	<0.020	<0.020	0.020	7072196
F1 (C6-C10) - BTEX	mg/kg	<12	<12	<12	56	12	7072196
(C6-C10)	mg/kg	<12	<12	<12	56	12	7072196
Surrogate Recovery (%)							
1,4-Difluorobenzene (sur.)	%	107	105	106	109	N/A	7072196
4-BROMOFLUOROBENZENE (sur.)	%	102	100	106	104	N/A	7072196
D10-ETHYLBENZENE (sur.)	%	91	92	93	98	N/A	7072196
D4-1,2-DICHLOROETHANE (sur.)	%	102	100	101	104	N/A	7072196
O-TERPHENYL (sur.)	%	79	N/A	105	95	N/A	7072325

N/A = Not Applicable
RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate

Maxxam

Maxxam Job #: B370034
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KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

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Sampler Initials: JTC

AT1 BTEX AND F1-F4 IN SOIL (SOIL)

Maxxam ID		HD8616	HD8617	HD8618	HD8619		
Sampling Date		2013/08/06 14:00	2013/08/06 14:00	2013/08/06 14:00	2013/08/06 14:00		
COC Number		A134684	A134684	A134684	A134684		
	UNITS	**EX-13-2JB (6.5M)**	**EX-13-1J STEPOUT (1.5M)**	**EX-13-2J STEPOUT (1.5M)**	**EX-13-1K STEPOUT (1.0M)**	**RDL**	**QC Batch**
Physical Properties							
Moisture	%	18	36	18	7.4	0.30	7072636
Ext. Pet. Hydrocarbon							
F2 (C10-C16 Hydrocarbons)	mg/kg	11	<10	38	4900	10	7070205
F3 (C16-C34 Hydrocarbons)	mg/kg	<50	<50	<50	790	50	7070205
F4 (C34-C50 Hydrocarbons)	mg/kg	<50	<50	<50	<50	50	7070205
Reached Baseline at C50	mg/kg	Yes	Yes	Yes	Yes	N/A	7070205
Volatiles							
Benzene	mg/kg	0.016	<0.0050	<0.0050	0.042	0.0050	7072196
Toluene	mg/kg	0.032	<0.020	<0.020	0.043	0.020	7072196
Ethylbenzene	mg/kg	<0.010	<0.010	<0.010	6.9	0.010	7072196
Xylenes (Total)	mg/kg	<0.040	<0.040	<0.040	29	0.040	7072196
m & p-Xylene	mg/kg	<0.040	<0.040	<0.040	9.4	0.040	7072196
o-Xylene	mg/kg	<0.020	<0.020	<0.020	20	0.020	7072196
F1 (C6-C10) - BTEX	mg/kg	<12	<12	<12	760	12	7072196
(C6-C10)	mg/kg	<12	<12	<12	800	12	7072196
Surrogate Recovery (%)							
1,4-Difluorobenzene (sur.)	%	105	116	107	101	N/A	7072196
4-BROMOFLUOROBENZENE (sur.)	%	103	103	105	114	N/A	7072196
D10-ETHYLBENZENE (sur.)	%	94	107	96	128	N/A	7072196
D4-1,2-DICHLOROETHANE (sur.)	%	107	105	107	99	N/A	7072196
O-TERPHENYL (sur.)	%	104	98	98	99	N/A	7070205

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam

Maxxam Job #: B370034
Report Date: 2013/08/16

KLOHN CRIPPEN BERGER LTD
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Sampler Initials: JTC

AT1 BTEX AND F1-F4 IN SOIL (SOIL)

Maxxam ID		HD8620	HD8622	HD8623	HD8633		
Sampling Date		2013/08/06 14:00	2013/08/06 14:00	2013/08/06 14:00	2013/08/06 14:00		
COC Number		A134684	A134684	A134684	A134684		
	UNITS	**EX-13-2K STEPOUT (1.0M)**	**EX-13-4JE (4.0M)**	**EX-13-4JE (6.0M)**	**EX-13-4KE (4.0M)**	**RDL**	**QC Batch**
Physical Properties							
Moisture	%	12	13	16	5.4	0.30	7072636
Ext. Pet. Hydrocarbon							
F2 (C10-C16 Hydrocarbons)	mg/kg	7600	<10	<10	49	10	7070205
F3 (C16-C34 Hydrocarbons)	mg/kg	1300	<50	<50	<50	50	7070205
F4 (C34-C50 Hydrocarbons)	mg/kg	<50	<50	<50	<50	50	7070205
Reached Baseline at C50	mg/kg	Yes	Yes	Yes	Yes	N/A	7070205
Volatiles							
Benzene	mg/kg	0.038	0.045	0.014	0.030	0.0050	7072196
Toluene	mg/kg	1.0	0.18	0.087	0.10	0.020	7072196
Ethylbenzene	mg/kg	6.1	0.076	0.047	0.092	0.010	7072196
Xylenes (Total)	mg/kg	34	0.38	0.26	0.71	0.040	7072196
m & p-Xylene	mg/kg	12	0.26	0.18	0.49	0.040	7072196
o-Xylene	mg/kg	22	0.11	0.080	0.22	0.020	7072196
F1 (C6-C10) - BTEX	mg/kg	1000	<12	<12	<12	12	7072196
(C6-C10)	mg/kg	1000	<12	<12	<12	12	7072196
Surrogate Recovery (%)							
1,4-Difluorobenzene (sur.)	%	112	109	105	100	N/A	7072196
4-BROMOFLUOROBENZENE (sur.)	%	117	96	103	101	N/A	7072196
D10-ETHYLBENZENE (sur.)	%	200 (1)	90	97	94	N/A	7072196
D4-1,2-DICHLOROETHANE (sur.)	%	86	85	108	102	N/A	7072196
O-TERPHENYL (sur.)	%	101	104	103	104	N/A	7070205

N/A = Not Applicable
RDL = Reportable Detection Limit
(1) Surrogate recovery above acceptance criteria due to matrix interference. Reanalysis yields similar results.

Maxxam Job #: B370034
Report Date: 2013/08/16

KLOHN CRIPPEN BERGER LTD
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AT1 BTEX AND F1-F4 IN SOIL (SOIL)

Maxxam ID		HD8636	HD8637	HD8638		
Sampling Date		2013/08/06 14:00	2013/08/06 14:00	2013/08/06 14:00		
COC Number		A134684	A134685	A134685		
	UNITS	**EX-13-4KE (7.0M)**	**EX-13-5KE (3.5M)**	**EX-13-5KE (5.5M)**	**RDL**	**QC Batch**
Physical Properties						
Moisture	%	20	15	12	0.30	7072636
Ext. Pet. Hydrocarbon						
F2 (C10-C16 Hydrocarbons)	mg/kg	<10	<10	20	10	7070205
F3 (C16-C34 Hydrocarbons)	mg/kg	<50	<50	<50	50	7070205
F4 (C34-C50 Hydrocarbons)	mg/kg	<50	<50	<50	50	7070205
Reached Baseline at C50	mg/kg	Yes	Yes	Yes	N/A	7070205
Volatiles						
Benzene	mg/kg	<0.0050	0.010	<0.0050	0.0050	7072196
Toluene	mg/kg	0.054	0.034	<0.020	0.020	7072196
Ethylbenzene	mg/kg	0.020	<0.010	<0.010	0.010	7072196
Xylenes (Total)	mg/kg	0.11	<0.040	<0.040	0.040	7072196
m & p-Xylene	mg/kg	0.078	<0.040	<0.040	0.040	7072196
o-Xylene	mg/kg	0.029	<0.020	<0.020	0.020	7072196
F1 (C6-C10) - BTEX	mg/kg	<12	<12	<12	12	7072196
(C6-C10)	mg/kg	<12	<12	<12	12	7072196
Surrogate Recovery (%)						
1,4-Difluorobenzene (sur.)	%	107	104	103	N/A	7072196
4-BROMOFLUOROBENZENE (sur.)	%	101	104	104	N/A	7072196
D10-ETHYLBENZENE (sur.)	%	95	95	95	N/A	7072196
D4-1,2-DICHLOROETHANE (sur.)	%	105	108	110	N/A	7072196
O-TERPHENYL (sur.)	%	96	103	99	N/A	7070205

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Job #: B370034
Report Date: 2013/08/16

KLOHN CRIPPEN BERGER LTD
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Your P.O. #: A04012A05
Sampler Initials: JTC

AT1 BTEX AND F1-F4 IN SOIL (SOIL)

Maxxam ID		HD8639		HD8640		HD8641		
Sampling Date		2013/08/06 14:00		2013/08/06 14:00		2013/08/06 14:00		
COC Number		A134685		A134685		A134685		
	UNITS	**EX-13-1L STEPOUT (1.25M)**	**RDL**	**EX-13-2L STEPOUT (1.0M)**	**RDL**	**EX-13-5LN (4.0M)**	**RDL**	**QC Batch**
Physical Properties								
Moisture	%	14	0.30	57	0.30	7.4	0.30	7072636
Ext. Pet. Hydrocarbon								
F2 (C10-C16 Hydrocarbons)	mg/kg	<23	23	18 (1)	10	<10	10	7070205
F3 (C16-C34 Hydrocarbons)	mg/kg	<120	120	140 (1)	50	<50	50	7070205
F4 (C34-C50 Hydrocarbons)	mg/kg	<120	120	<50 (1)	50	<50	50	7070205
Reached Baseline at C50	mg/kg	Yes	N/A	Yes	N/A	Yes	N/A	7070205
Volatiles								
Benzene	mg/kg	<0.0050	0.0050	<0.012 (1)	0.012	0.019	0.0050	7072196
Toluene	mg/kg	0.030	0.020	0.63 (1)	0.047	0.034	0.020	7072196
Ethylbenzene	mg/kg	<0.010	0.010	<0.023 (1)	0.023	0.023	0.010	7072196
Xylenes (Total)	mg/kg	<0.040	0.040	<0.093 (1)	0.093	0.11	0.040	7072196
m & p-Xylene	mg/kg	<0.040	0.040	<0.093 (1)	0.093	0.074	0.040	7072196
o-Xylene	mg/kg	<0.020	0.020	<0.047 (1)	0.047	0.038	0.020	7072196
F1 (C6-C10) - BTEX	mg/kg	<12	12	<28 (1)	28	<12	12	7072196
(C6-C10)	mg/kg	<12	12	<28 (1)	28	<12	12	7072196
Surrogate Recovery (%)								
1,4-Difluorobenzene (sur.)	%	105	N/A	125	N/A	101	N/A	7072196
4-BROMOFLUOROBENZENE (sur.)	%	103	N/A	104	N/A	105	N/A	7072196
D10-ETHYLBENZENE (sur.)	%	93	N/A	93	N/A	96	N/A	7072196
D4-1,2-DICHLOROETHANE (sur.)	%	99	N/A	109	N/A	108	N/A	7072196
O-TERPHENYL (sur.)	%	98	N/A	95	N/A	100	N/A	7070205

N/A = Not Applicable
RDL = Reportable Detection Limit
(1) Detection limits raised due to high moisture content.

Maxxam Job #: B370034
Report Date: 2013/08/16

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

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Sampler Initials: JTC

AT1 BTEX AND F1-F4 IN SOIL (SOIL)

Maxxam ID		HD8642	HD8643	HD8644	HD8644		
Sampling Date		2013/08/06 14:00	2013/08/06 14:00	2013/08/06 14:00	2013/08/06 14:00		
COC Number		A134685	A134685	A134685	A134685		
	UNITS	**EX-13-5LN (7.0M)**	**EX-13-3LE (4.0M)**	**EX-13-3LE (7.0M)**	**EX-13-3LE (7.0M) Lab-Dup**	**RDL**	**QC Batch**
Physical Properties							
Moisture	%	19	9.0	16	17	0.30	7072636
Ext. Pet. Hydrocarbon							
F2 (C10-C16 Hydrocarbons)	mg/kg	<10	<10	<10	N/A	10	7070205
F3 (C16-C34 Hydrocarbons)	mg/kg	<50	<50	<50	N/A	50	7070205
F4 (C34-C50 Hydrocarbons)	mg/kg	<50	<50	<50	N/A	50	7070205
Reached Baseline at C50	mg/kg	Yes	Yes	Yes	N/A	N/A	7070205
Volatiles							
Benzene	mg/kg	0.039	0.015	0.019	N/A	0.0050	7072196
Toluene	mg/kg	0.28	0.034	0.091	N/A	0.020	7072196
Ethylbenzene	mg/kg	0.076	0.023	0.027	N/A	0.010	7072196
Xylenes (Total)	mg/kg	0.45	0.13	0.16	N/A	0.040	7072196
m & p-Xylene	mg/kg	0.30	0.089	0.097	N/A	0.040	7072196
o-Xylene	mg/kg	0.15	0.037	0.058	N/A	0.020	7072196
F1 (C6-C10) - BTEX	mg/kg	<12	<12	<12	N/A	12	7072196
(C6-C10)	mg/kg	<12	<12	<12	N/A	12	7072196
Surrogate Recovery (%)							
1,4-Difluorobenzene (sur.)	%	107	101	104	N/A	N/A	7072196
4-BROMOFLUOROBENZENE (sur.)	%	101	102	103	N/A	N/A	7072196
D10-ETHYLBENZENE (sur.)	%	96	94	94	N/A	N/A	7072196
D4-1,2-DICHLOROETHANE (sur.)	%	101	106	109	N/A	N/A	7072196
O-TERPHENYL (sur.)	%	102	101	103	N/A	N/A	7070205

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Job #: B370034
Report Date: 2013/08/16

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

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Sampler Initials: JTC

AT1 BTEX AND F1-F4 IN SOIL (SOIL)

Maxxam ID		HD8645		
Sampling Date		2013/08/06 14:00		
COC Number		A134685		
	UNITS	**EX-13-I STEPOUT (2.0M)**	**RDL**	**QC Batch**
Physical Properties				
Moisture	%	21	0.30	7073150
Ext. Pet. Hydrocarbon				
F2 (C10-C16 Hydrocarbons)	mg/kg	<10	10	7070205
F3 (C16-C34 Hydrocarbons)	mg/kg	<50	50	7070205
F4 (C34-C50 Hydrocarbons)	mg/kg	<50	50	7070205
Reached Baseline at C50	mg/kg	Yes	N/A	7070205
Volatiles				
Benzene	mg/kg	<0.0050	0.0050	7070533
Toluene	mg/kg	<0.020	0.020	7070533
Ethylbenzene	mg/kg	<0.010	0.010	7070533
Xylenes (Total)	mg/kg	<0.040	0.040	7070533
m & p-Xylene	mg/kg	<0.040	0.040	7070533
o-Xylene	mg/kg	<0.020	0.020	7070533
F1 (C6-C10) - BTEX	mg/kg	<12	12	7070533
(C6-C10)	mg/kg	<12	12	7070533
Surrogate Recovery (%)				
1,4-Difluorobenzene (sur.)	%	111	N/A	7070533
4-BROMOFLUOROBENZENE (sur.)	%	98	N/A	7070533
D10-ETHYLBENZENE (sur.)	%	103	N/A	7070533
D4-1,2-DICHLOROETHANE (sur.)	%	103	N/A	7070533
O-TERPHENYL (sur.)	%	100	N/A	7070205

N/A = Not Applicable
RDL = Reportable Detection Limit

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SOIL SALINITY 4 (SOIL)

Maxxam ID		HD8612			HD8614		HD8615		
Sampling Date		2013/08/06 14:00			2013/08/06 14:00		2013/08/06 14:00		
COC Number		A134684			A134684		A134684		
	UNITS	**PILE #4**	**RDL**	**QC Batch**	**PILE #5**	**RDL**	**PILE #6**	**RDL**	**QC Batch**
Calculated Parameters									
Anion Sum	meq/L	1.8	N/A	7070228	2.3	N/A	3.5	N/A	7070228
Cation Sum	meq/L	6.6	N/A	7070228	5.0	N/A	8.2	N/A	7070228
Cation/EC Ratio	N/A	13	0.10	7070221	13	0.10	13	0.10	7070221
Ion Balance	N/A	3.7	0.010	7070227	2.2	0.010	2.4	0.010	7070227
Calculated Calcium (Ca)	mg/kg	42	0.87	7070230	28	0.75	46	0.64	7070230
Calculated Magnesium (Mg)	mg/kg	13	0.58	7070230	9.3	0.50	12	0.43	7070230
Calculated Sodium (Na)	mg/kg	13	1.4	7070230	6.6	1.2	4.4	1.1	7070230
Calculated Potassium (K)	mg/kg	3.1	0.75	7070230	1.5	0.65	1.8	0.55	7070230
Calculated Chloride (Cl)	mg/kg	11	2.9	7070230	9.5	2.5	6.3	2.1	7070230
Calculated Sulphate (SO4)	mg/kg	35	2.9	7070230	41	2.5	62	2.1	7070230
Soluble Parameters									
Soluble Chloride (Cl)	mg/L	18	5.0	7078176	19	5.0	15	5.0	7078176
Soluble Conductivity	dS/m	0.49	0.020	7075965	0.38	0.020	0.63	0.020	7075965
Soluble (CaCl2) pH	N/A	6.92	N/A	7072666	6.55	N/A	6.72	N/A	7072652
Sodium Adsorption Ratio	N/A	0.57	0.10	7070229	0.39	0.10	0.23	0.10	7070229
Soluble Calcium (Ca)	mg/L	73	1.5	7078293	56	1.5	110	1.5	7078293
Soluble Magnesium (Mg)	mg/L	22	1.0	7078293	19	1.0	28	1.0	7078293
Soluble Sodium (Na)	mg/L	22	2.5	7078293	13	2.5	10	2.5	7078293
Soluble Potassium (K)	mg/L	5.3	1.3	7078293	3.0	1.3	4.1	1.3	7078293
Saturation %	%	58	N/A	7075813	50	N/A	43	N/A	7075813
Soluble Sulphate (SO4)	mg/L	60	5.0	7078293	83	5.0	150	5.0	7078293
Theoretical Gypsum Requirement	tonnes/ha	<0.10	0.10	7070231	<0.10	0.10	<0.10	0.10	7070231

RDL = Reportable Detection Limit

Maxxam Job #: B370034
Report Date: 2013/08/16

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JTC

SOIL SALINITY 4 (SOIL)

Maxxam ID		HD8616		HD8617	HD8617		
Sampling Date		2013/08/06 14:00		2013/08/06 14:00	2013/08/06 14:00		
COC Number		A134684		A134684	A134684		
	UNITS	**EX-13-2JB (6.5M)**	**RDL**	**EX-13-1J STEPOUT (1.5M)**	**EX-13-1J STEPOUT (1.5M) Lab-Dup**	**RDL**	**QC Batch**
Calculated Parameters							
Anion Sum	meq/L	15	N/A	2.1	N/A	N/A	7070228
Cation Sum	meq/L	15	N/A	3.7	N/A	N/A	7070228
Cation/EC Ratio	N/A	9.3	0.10	11	N/A	0.10	7070221
Ion Balance	N/A	1.0	0.010	1.8	N/A	0.010	7070227
Calculated Calcium (Ca)	mg/kg	32	0.43	9.2	N/A	0.44	7070230
Calculated Magnesium (Mg)	mg/kg	11	0.29	2.8	N/A	0.30	7070230
Calculated Sodium (Na)	mg/kg	40	0.71	8.6	N/A	0.74	7070230
Calculated Potassium (K)	mg/kg	4.0	0.37	1.0	N/A	0.38	7070230
Calculated Chloride (Cl)	mg/kg	110	1.4	5.3	N/A	1.5	7070230
Calculated Sulphate (SO4)	mg/kg	60	1.4	22	N/A	1.5	7070230
Soluble Parameters							
Soluble Chloride (Cl)	mg/L	370	5.0	18	N/A	5.0	7074230
Soluble Conductivity	dS/m	1.6	0.020	0.33	N/A	0.020	7072960
Soluble (CaCl2) pH	N/A	7.45	N/A	7.41	7.37	N/A	7072652
Sodium Adsorption Ratio	N/A	2.9	0.10	1.2	N/A	0.10	7070229
Soluble Calcium (Ca)	mg/L	110	1.5	31	N/A	1.5	7073815
Soluble Magnesium (Mg)	mg/L	38	1.0	9.5	N/A	1.0	7073815
Soluble Sodium (Na)	mg/L	140	2.5	29	N/A	2.5	7073815
Soluble Potassium (K)	mg/L	14	1.3	3.5	N/A	1.3	7073815
Saturation %	%	29	N/A	30	N/A	N/A	7072594
Soluble Sulphate (SO4)	mg/L	210	5.0	75	N/A	5.0	7073815
Theoretical Gypsum Requirement	tonnes/ha	<0.10	0.10	<0.10	N/A	0.10	7070231

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Job #: B370034
Report Date: 2013/08/16

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JTC

SOIL SALINITY 4 (SOIL)

Maxxam ID		HD8618		HD8619		HD8620		
Sampling Date		2013/08/06 14:00		2013/08/06 14:00		2013/08/06 14:00		
COC Number		A134684		A134684		A134684		
	UNITS	**EX-13-2J STEPOUT (1.5M)**	**RDL**	**EX-13-1K STEPOUT (1.0M)**	**RDL**	**EX-13-2K STEPOUT (1.0M)**	**RDL**	**QC Batch**
Calculated Parameters								
Anion Sum	meq/L	2.3	N/A	0.84	N/A	0.65	N/A	7070228
Cation Sum	meq/L	3.6	N/A	2.6	N/A	1.9	N/A	7070228
Cation/EC Ratio	N/A	10	0.10	12	0.10	12	0.10	7070221
Ion Balance	N/A	1.6	0.010	3.1	0.010	2.9	0.010	7070227
Calculated Calcium (Ca)	mg/kg	7.5	0.43	11	0.57	6.4	0.56	7070230
Calculated Magnesium (Mg)	mg/kg	3.0	0.29	2.8	0.38	2.3	0.37	7070230
Calculated Sodium (Na)	mg/kg	8.7	0.71	5.0	0.94	4.2	0.94	7070230
Calculated Potassium (K)	mg/kg	1.0	0.37	0.85	0.49	1.1	0.49	7070230
Calculated Chloride (Cl)	mg/kg	6.3	1.4	2.7	1.9	3.9	1.9	7070230
Calculated Sulphate (SO4)	mg/kg	22	1.4	12	1.9	6.4	1.9	7070230
Soluble Parameters								
Soluble Chloride (Cl)	mg/L	22	5.0	7.2	5.0	10	5.0	7074230
Soluble Conductivity	dS/m	0.35	0.020	0.21	0.020	0.16	0.020	7072960
Soluble (CaCl2) pH	N/A	7.38	N/A	7.20	N/A	6.22	N/A	7072652
Sodium Adsorption Ratio	N/A	1.3	0.10	0.57	0.10	0.59	0.10	7070229
Soluble Calcium (Ca)	mg/L	26	1.5	28	1.5	17	1.5	7073815
Soluble Magnesium (Mg)	mg/L	10	1.0	7.4	1.0	6.0	1.0	7073815
Soluble Sodium (Na)	mg/L	31	2.5	13	2.5	11	2.5	7073815
Soluble Potassium (K)	mg/L	3.5	1.3	2.3	1.3	3.0	1.3	7073815
Saturation %	%	29	N/A	38	N/A	37	N/A	7072594
Soluble Sulphate (SO4)	mg/L	78	5.0	31	5.0	17	5.0	7073815
Theoretical Gypsum Requirement	tonnes/ha	<0.10	0.10	<0.10	0.10	<0.10	0.10	7070231

RDL = Reportable Detection Limit

Maxxam Job #: B370034
Report Date: 2013/08/16

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JTC

SOIL SALINITY 4 (SOIL)

Maxxam ID		HD8620		HD8622		HD8623		
Sampling Date		2013/08/06 14:00		2013/08/06 14:00		2013/08/06 14:00		
COC Number		A134684		A134684		A134684		
	UNITS	**EX-13-2K STEPOUT (1.0M) Lab-Dup**	**RDL**	**EX-13-4JE (4.0M)**	**RDL**	**EX-13-4JE (6.0M)**	**RDL**	**QC Batch**
Calculated Parameters								
Anion Sum	meq/L	N/A	N/A	26	N/A	13	N/A	7070228
Cation Sum	meq/L	N/A	N/A	27	N/A	14	N/A	7070228
Cation/EC Ratio	N/A	N/A	0.10	12	0.10	10	0.10	7070221
Ion Balance	N/A	N/A	0.010	1.1	0.010	1.0	0.010	7070227
Calculated Calcium (Ca)	mg/kg	N/A	0.56	83	0.42	33	0.40	7070230
Calculated Magnesium (Mg)	mg/kg	N/A	0.37	26	0.28	9.4	0.27	7070230
Calculated Sodium (Na)	mg/kg	N/A	0.94	29	0.71	26	0.67	7070230
Calculated Potassium (K)	mg/kg	N/A	0.49	3.8	0.37	3.7	0.35	7070230
Calculated Chloride (Cl)	mg/kg	N/A	1.9	32	1.4	45	1.4	7070230
Calculated Sulphate (SO4)	mg/kg	N/A	1.9	310	1.4	110	1.4	7070230
Soluble Parameters								
Soluble Chloride (Cl)	mg/L	11	5.0	110	5.0	170	5.0	7074230
Soluble Conductivity	dS/m	0.15	0.020	2.2	0.020	1.3	0.020	7072960
Soluble (CaCl2) pH	N/A	N/A	N/A	7.50	N/A	7.42	N/A	7072652
Sodium Adsorption Ratio	N/A	N/A	0.10	1.4	0.10	2.0	0.10	7070229
Soluble Calcium (Ca)	mg/L	16	1.5	290	1.5	120	1.5	7073815
Soluble Magnesium (Mg)	mg/L	5.6	1.0	92	1.0	35	1.0	7073815
Soluble Sodium (Na)	mg/L	12	2.5	100	2.5	96	2.5	7073815
Soluble Potassium (K)	mg/L	3.3	1.3	13	1.3	14	1.3	7073815
Saturation %	%	38	N/A	28	N/A	27	N/A	7072594
Soluble Sulphate (SO4)	mg/L	20	5.0	1100	5.0	420	5.0	7073815
Theoretical Gypsum Requirement	tonnes/ha	N/A	0.10	<0.10	0.10	<0.10	0.10	7070231

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Job #: B370034
Report Date: 2013/08/16

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JTC

SOIL SALINITY 4 (SOIL)

Maxxam ID		HD8633		HD8636		HD8637		
Sampling Date		2013/08/06 14:00		2013/08/06 14:00		2013/08/06 14:00		
COC Number		A134684		A134684		A134685		
	UNITS	**EX-13-4KE (4.0M)**	**RDL**	**EX-13-4KE (7.0M)**	**RDL**	**EX-13-5KE (3.5M)**	**RDL**	**QC Batch**
Calculated Parameters								
Anion Sum	meq/L	7.4	N/A	21	N/A	14	N/A	7070228
Cation Sum	meq/L	7.8	N/A	23	N/A	15	N/A	7070228
Cation/EC Ratio	N/A	9.4	0.10	10	0.10	10	0.10	7070221
Ion Balance	N/A	1.1	0.010	1.1	0.010	1.0	0.010	7070227
Calculated Calcium (Ca)	mg/kg	19	0.42	67	0.48	43	0.46	7070230
Calculated Magnesium (Mg)	mg/kg	6.5	0.28	19	0.32	13	0.31	7070230
Calculated Sodium (Na)	mg/kg	14	0.70	57	0.80	29	0.77	7070230
Calculated Potassium (K)	mg/kg	2.7	0.36	5.8	0.42	3.2	0.40	7070230
Calculated Chloride (Cl)	mg/kg	25	1.4	130	8.0	34	1.5	7070230
Calculated Sulphate (SO4)	mg/kg	65	1.4	150	1.6	160	1.5	7070230
Soluble Parameters								
Soluble Chloride (Cl)	mg/L	89	5.0	410 (1)	25	110	5.0	7074230
Soluble Conductivity	dS/m	0.83	0.020	2.4	0.020	1.4	0.020	7072960
Soluble (CaCl2) pH	N/A	7.55	N/A	7.39	N/A	7.54	N/A	7072652
Sodium Adsorption Ratio	N/A	1.3	0.10	2.8	0.10	1.8	0.10	7070229
Soluble Calcium (Ca)	mg/L	69	1.5	210	1.5	140	1.5	7073815
Soluble Magnesium (Mg)	mg/L	23	1.0	59	1.0	41	1.0	7073815
Soluble Sodium (Na)	mg/L	50	2.5	180	2.5	96	2.5	7073815
Soluble Potassium (K)	mg/L	9.5	1.3	18	1.3	10	1.3	7073815
Saturation %	%	28	N/A	32	N/A	31	N/A	7072594
Soluble Sulphate (SO4)	mg/L	230	5.0	460	5.0	540	5.0	7073815
Theoretical Gypsum Requirement	tonnes/ha	<0.10	0.10	<0.10	0.10	<0.10	0.10	7070231

RDL = Reportable Detection Limit
(1) Detection limits raised due to dilution to bring analyte within the calibrated range.

Maxxam Job #: B370034
Report Date: 2013/08/16

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JTC

SOIL SALINITY 4 (SOIL)

Maxxam ID		HD8638		HD8639		HD8640		
Sampling Date		2013/08/06 14:00		2013/08/06 14:00		2013/08/06 14:00		
COC Number		A134685		A134685		A134685		
	UNITS	**EX-13-5KE (5.5M)**	**RDL**	**EX-13-1L STEPOUT (1.25M)**	**RDL**	**EX-13-2L STEPOUT (1.0M)**	**RDL**	**QC Batch**
Calculated Parameters								
Anion Sum	meq/L	8.3	N/A	0.66	N/A	2.0	N/A	7070228
Cation Sum	meq/L	9.3	N/A	1.6	N/A	2.6	N/A	7070228
Cation/EC Ratio	N/A	10	0.10	10	0.10	9.7	0.10	7070221
Ion Balance	N/A	1.1	0.010	2.4	0.010	1.3	0.010	7070227
Calculated Calcium (Ca)	mg/kg	24	0.44	3.3	0.41	76	4.6	7070230
Calculated Magnesium (Mg)	mg/kg	8.3	0.29	0.75	0.27	23	3.1	7070230
Calculated Sodium (Na)	mg/kg	17	0.73	4.1	0.68	48	7.6	7070230
Calculated Potassium (K)	mg/kg	3.2	0.38	0.75	0.36	6.3	4.0	7070230
Calculated Chloride (Cl)	mg/kg	16	1.5	2.7	1.4	40	15	7070230
Calculated Sulphate (SO4)	mg/kg	95	1.5	5.1	1.4	240	15	7070230
Soluble Parameters								
Soluble Chloride (Cl)	mg/L	55	5.0	9.8	5.0	13	5.0	7074230
Soluble Conductivity	dS/m	0.93	0.020	0.15	0.020	0.27	0.020	7072960
Soluble (CaCl2) pH	N/A	7.57	N/A	7.21	N/A	5.61	N/A	7072652
Sodium Adsorption Ratio	N/A	1.4	0.10	1.0	0.10	0.70	0.10	7070229
Soluble Calcium (Ca)	mg/L	82	1.5	12	1.5	25	1.5	7073815
Soluble Magnesium (Mg)	mg/L	28	1.0	2.7	1.0	7.6	1.0	7073815
Soluble Sodium (Na)	mg/L	59	2.5	15	2.5	16	2.5	7073815
Soluble Potassium (K)	mg/L	11	1.3	2.8	1.3	2.1	1.3	7073815
Saturation %	%	29	N/A	27	N/A	310	N/A	7072594
Soluble Sulphate (SO4)	mg/L	330	5.0	18	5.0	77	5.0	7073815
Theoretical Gypsum Requirement	tonnes/ha	<0.10	0.10	<0.10	0.10	<0.10	0.10	7070231

RDL = Reportable Detection Limit

Maxxam Job #: B370034
Report Date: 2013/08/16

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JTC

SOIL SALINITY 4 (SOIL)

Maxxam ID		HD8641		HD8642		HD8643		
Sampling Date		2013/08/06 14:00		2013/08/06 14:00		2013/08/06 14:00		
COC Number		A134685		A134685		A134685		
	UNITS	**EX-13-5LN (4.0M)**	**RDL**	**EX-13-5LN (7.0M)**	**RDL**	**EX-13-3LE (4.0M)**	**RDL**	**QC Batch**
Calculated Parameters								
Anion Sum	meq/L	7.2	N/A	15	N/A	8.6	N/A	7070228
Cation Sum	meq/L	7.6	N/A	15	N/A	9.1	N/A	7070228
Cation/EC Ratio	N/A	9.6	0.10	10	0.10	9.6	0.10	7070221
Ion Balance	N/A	1.0	0.010	0.97	0.010	1.1	0.010	7070227
Calculated Calcium (Ca)	mg/kg	24	0.42	40	0.44	16	0.42	7070230
Calculated Magnesium (Mg)	mg/kg	5.0	0.28	12	0.29	6.8	0.28	7070230
Calculated Sodium (Na)	mg/kg	11	0.71	30	0.73	25	0.70	7070230
Calculated Potassium (K)	mg/kg	2.6	0.37	4.2	0.38	3.0	0.36	7070230
Calculated Chloride (Cl)	mg/kg	5.2	1.4	51	1.5	30	1.4	7070230
Calculated Sulphate (SO4)	mg/kg	91	1.4	150	1.5	74	1.4	7070230
Soluble Parameters								
Soluble Chloride (Cl)	mg/L	18	5.0	170	5.0	110	5.0	7074230
Soluble Conductivity	dS/m	0.79	0.020	1.4	0.020	0.95	0.020	7072960
Soluble (CaCl2) pH	N/A	7.50	N/A	7.44	N/A	7.60	N/A	7072652
Sodium Adsorption Ratio	N/A	0.96	0.10	2.0	0.10	2.5	0.10	7070229
Soluble Calcium (Ca)	mg/L	85	1.5	130	1.5	59	1.5	7073815
Soluble Magnesium (Mg)	mg/L	18	1.0	40	1.0	24	1.0	7073815
Soluble Sodium (Na)	mg/L	37	2.5	100	2.5	90	2.5	7073815
Soluble Potassium (K)	mg/L	9.0	1.3	14	1.3	11	1.3	7073815
Saturation %	%	28	N/A	29	N/A	28	N/A	7072594
Soluble Sulphate (SO4)	mg/L	320	5.0	500	5.0	270	5.0	7073815
Theoretical Gypsum Requirement	tonnes/ha	<0.10	0.10	<0.10	0.10	<0.10	0.10	7070231

RDL = Reportable Detection Limit

Maxxam Job #: B370034
Report Date: 2013/08/16

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JTC

SOIL SALINITY 4 (SOIL)

Maxxam ID		HD8644		HD8645		
Sampling Date		2013/08/06 14:00		2013/08/06 14:00		
COC Number		A134685		A134685		
	UNITS	**EX-13-3LE (7.0M)**	**RDL**	**EX-13-I STEPOUT (2.0M)**	**RDL**	**QC Batch**
Calculated Parameters						
Anion Sum	meq/L	20	N/A	1.1	N/A	7070228
Cation Sum	meq/L	21	N/A	2.2	N/A	7070228
Cation/EC Ratio	N/A	10	0.10	10	0.10	7070221
Ion Balance	N/A	1.0	0.010	2.0	0.010	7070227
Calculated Calcium (Ca)	mg/kg	58	0.47	6.0	0.42	7070230
Calculated Magnesium (Mg)	mg/kg	18	0.31	1.1	0.28	7070230
Calculated Sodium (Na)	mg/kg	48	0.78	4.8	0.71	7070230
Calculated Potassium (K)	mg/kg	4.6	0.41	0.75	0.37	7070230
Calculated Chloride (Cl)	mg/kg	95	1.6	2.9	1.4	7070230
Calculated Sulphate (SO4)	mg/kg	180	1.6	11	1.4	7070230
Soluble Parameters						
Soluble Chloride (Cl)	mg/L	300	5.0	10	5.0	7074230
Soluble Conductivity	dS/m	2.0	0.020	0.21	0.020	7072960
Soluble (CaCl2) pH	N/A	7.52	N/A	7.23	N/A	7072652
Sodium Adsorption Ratio	N/A	2.5	0.10	0.89	0.10	7070229
Soluble Calcium (Ca)	mg/L	190	1.5	21	1.5	7073815
Soluble Magnesium (Mg)	mg/L	57	1.0	4.0	1.0	7073815
Soluble Sodium (Na)	mg/L	150	2.5	17	2.5	7073815
Soluble Potassium (K)	mg/L	15	1.3	2.7	1.3	7073815
Saturation %	%	31	N/A	28	N/A	7072594
Soluble Sulphate (SO4)	mg/L	570	5.0	40	5.0	7073815
Theoretical Gypsum Requirement	tonnes/ha	<0.10	0.10	<0.10	0.10	7070231

RDL = Reportable Detection Limit

Maxxam Job #: B370034
Report Date: 2013/08/16

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JTC

REGULATED METALS (CCME/AT1) - SOILS

Maxxam ID		HD8612	HD8614		HD8615		
Sampling Date		2013/08/06 14:00	2013/08/06 14:00		2013/08/06 14:00		
COC Number		A134684	A134684		A134684		
	UNITS	**PILE #4**	**PILE #5**	**QC Batch**	**PILE #6**	**RDL**	**QC Batch**
Elements							
Soluble (Hot water) Boron (B)	mg/kg	0.52	0.32	7085761	0.35	0.10	7085761
Hex. Chromium (Cr 6+)	mg/kg	<0.15	<0.15	7073138	<0.15	0.15	7072962
Total Antimony (Sb)	mg/kg	<1.0	<1.0	7076487	<1.0	1.0	7076487
Total Arsenic (As)	mg/kg	5.6	3.5	7076487	4.3	1.0	7076487
Total Barium (Ba)	mg/kg	1600	330	7076487	150	10	7076487
Total Beryllium (Be)	mg/kg	<0.40	<0.40	7076487	<0.40	0.40	7076487
Total Cadmium (Cd)	mg/kg	0.16	<0.10	7076487	<0.10	0.10	7076487
Total Chromium (Cr)	mg/kg	15	12	7076487	7.5	1.0	7076487
Total Cobalt (Co)	mg/kg	3.3	1.9	7076487	2.6	1.0	7076487
Total Copper (Cu)	mg/kg	6.8	<5.0	7076487	<5.0	5.0	7076487
Total Lead (Pb)	mg/kg	16	5.7	7076487	3.5	1.0	7076487
Total Mercury (Hg)	mg/kg	0.067	<0.050	7076487	<0.050	0.050	7076487
Total Molybdenum (Mo)	mg/kg	0.61	0.45	7076487	0.41	0.40	7076487
Total Nickel (Ni)	mg/kg	13	8.7	7076487	8.4	1.0	7076487
Total Selenium (Se)	mg/kg	<0.50	<0.50	7076487	<0.50	0.50	7076487
Total Silver (Ag)	mg/kg	<1.0	<1.0	7076487	<1.0	1.0	7076487
Total Thallium (Tl)	mg/kg	<0.30	<0.30	7076487	<0.30	0.30	7076487
Total Tin (Sn)	mg/kg	<1.0	<1.0	7076487	<1.0	1.0	7076487
Total Uranium (U)	mg/kg	<1.0	<1.0	7076487	<1.0	1.0	7076487
Total Vanadium (V)	mg/kg	17	10	7076487	10	1.0	7076487
Total Zinc (Zn)	mg/kg	35	14	7076487	17	10	7076487

RDL = Reportable Detection Limit

Maxxam

Maxxam Job #: B370034
Report Date: 2013/08/16

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JTC

REGULATED METALS (CCME/AT1) - SOILS

Maxxam ID		HD8616	HD8617	HD8618	HD8618		
Sampling Date		2013/08/06 14:00	2013/08/06 14:00	2013/08/06 14:00	2013/08/06 14:00		
COC Number		A134684	A134684	A134684	A134684		
	UNITS	**EX-13-2JB (6.5M)**	**EX-13-1J STEPOUT (1.5M)**	**EX-13-2J STEPOUT (1.5M)**	**EX-13-2J STEPOUT (1.5M) Lab-Dup**	**RDL**	**QC Batch**
Elements							
Soluble (Hot water) Boron (B)	mg/kg	0.22	0.33	0.13	0.12	0.10	7074319
Hex. Chromium (Cr 6+)	mg/kg	<0.15	<0.15	<0.15	<0.15	0.15	7073047
Total Antimony (Sb)	mg/kg	<1.0	<1.0	<1.0	<1.0	1.0	7074378
Total Arsenic (As)	mg/kg	5.7	6.1	5.6	5.2	1.0	7074378
Total Barium (Ba)	mg/kg	77	97	80	72	10	7074378
Total Beryllium (Be)	mg/kg	<0.40	<0.40	<0.40	<0.40	0.40	7074378
Total Cadmium (Cd)	mg/kg	<0.10	0.12	<0.10	<0.10	0.10	7074378
Total Chromium (Cr)	mg/kg	6.2	7.6	6.8	6.3	1.0	7074378
Total Cobalt (Co)	mg/kg	3.7	4.0	4.1	3.8	1.0	7074378
Total Copper (Cu)	mg/kg	<5.0	5.1	<5.0	<5.0	5.0	7074378
Total Lead (Pb)	mg/kg	3.3	3.7	3.5	3.0	1.0	7074378
Total Mercury (Hg)	mg/kg	<0.050	<0.050	<0.050	<0.050	0.050	7074378
Total Molybdenum (Mo)	mg/kg	0.62	0.60	0.57	0.49	0.40	7074378
Total Nickel (Ni)	mg/kg	10	13	11	10	1.0	7074378
Total Selenium (Se)	mg/kg	<0.50	<0.50	<0.50	<0.50	0.50	7074378
Total Silver (Ag)	mg/kg	<1.0	<1.0	<1.0	<1.0	1.0	7074378
Total Thallium (Tl)	mg/kg	<0.30	<0.30	<0.30	<0.30	0.30	7074378
Total Tin (Sn)	mg/kg	<1.0	<1.0	<1.0	<1.0	1.0	7074378
Total Uranium (U)	mg/kg	<1.0	<1.0	<1.0	<1.0	1.0	7074378
Total Vanadium (V)	mg/kg	12	14	14	12	1.0	7074378
Total Zinc (Zn)	mg/kg	28	29	28	25	10	7074378

RDL = Reportable Detection Limit

Maxxam

Maxxam Job #: B370034
Report Date: 2013/08/16

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JTC

REGULATED METALS (CCME/AT1) - SOILS

Maxxam ID		HD8619	HD8620	HD8622	HD8623		
Sampling Date		2013/08/06 14:00	2013/08/06 14:00	2013/08/06 14:00	2013/08/06 14:00		
COC Number		A134684	A134684	A134684	A134684		
	UNITS	**EX-13-1K STEPOUT (1.0M)**	**EX-13-2K STEPOUT (1.0M)**	**EX-13-4JE (4.0M)**	**EX-13-4JE (6.0M)**	**RDL**	**QC Batch**
Elements							
Soluble (Hot water) Boron (B)	mg/kg	0.30	0.44	0.57	0.27	0.10	7074319
Hex. Chromium (Cr 6+)	mg/kg	<0.15	<0.15	<0.15	<0.15	0.15	7073047
Total Antimony (Sb)	mg/kg	<1.0	<1.0	<1.0	<1.0	1.0	7074378
Total Arsenic (As)	mg/kg	8.0	6.1	5.6	5.7	1.0	7074378
Total Barium (Ba)	mg/kg	160	200	110	92	10	7074378
Total Beryllium (Be)	mg/kg	0.43	<0.40	<0.40	<0.40	0.40	7074378
Total Cadmium (Cd)	mg/kg	0.13	0.15	<0.10	<0.10	0.10	7074378
Total Chromium (Cr)	mg/kg	13	11	6.5	6.7	1.0	7074378
Total Cobalt (Co)	mg/kg	6.1	5.0	3.8	4.0	1.0	7074378
Total Copper (Cu)	mg/kg	8.8	6.5	<5.0	<5.0	5.0	7074378
Total Lead (Pb)	mg/kg	5.9	5.2	3.4	3.3	1.0	7074378
Total Mercury (Hg)	mg/kg	<0.050	<0.050	<0.050	<0.050	0.050	7074378
Total Molybdenum (Mo)	mg/kg	0.93	0.53	0.49	0.56	0.40	7074378
Total Nickel (Ni)	mg/kg	18	14	10	11	1.0	7074378
Total Selenium (Se)	mg/kg	<0.50	<0.50	<0.50	<0.50	0.50	7074378
Total Silver (Ag)	mg/kg	<1.0	<1.0	<1.0	<1.0	1.0	7074378
Total Thallium (Tl)	mg/kg	<0.30	<0.30	<0.30	<0.30	0.30	7074378
Total Tin (Sn)	mg/kg	<1.0	<1.0	<1.0	<1.0	1.0	7074378
Total Uranium (U)	mg/kg	<1.0	<1.0	<1.0	<1.0	1.0	7074378
Total Vanadium (V)	mg/kg	23	20	12	13	1.0	7074378
Total Zinc (Zn)	mg/kg	34	29	25	28	10	7074378

RDL = Reportable Detection Limit

Maxxam

Maxxam Job #: B370034
Report Date: 2013/08/16

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JTC

REGULATED METALS (CCME/AT1) - SOILS

Maxxam ID		HD8633	HD8636	HD8637	HD8638		
Sampling Date		2013/08/06 14:00	2013/08/06 14:00	2013/08/06 14:00	2013/08/06 14:00		
COC Number		A134684	A134684	A134685	A134685		
	UNITS	**EX-13-4KE (4.0M)**	**EX-13-4KE (7.0M)**	**EX-13-5KE (3.5M)**	**EX-13-5KE (5.5M)**	**RDL**	**QC Batch**
Elements							
Soluble (Hot water) Boron (B)	mg/kg	0.25	0.28	1.1	0.22	0.10	7074319
Hex. Chromium (Cr 6+)	mg/kg	<0.15	<0.15	<0.15	<0.15	0.15	7073047
Total Antimony (Sb)	mg/kg	<1.0	<1.0	<1.0	<1.0	1.0	7074378
Total Arsenic (As)	mg/kg	7.1	5.4	6.8	5.1	1.0	7074378
Total Barium (Ba)	mg/kg	140	90	100	110	10	7074378
Total Beryllium (Be)	mg/kg	<0.40	<0.40	<0.40	<0.40	0.40	7074378
Total Cadmium (Cd)	mg/kg	<0.10	<0.10	<0.10	<0.10	0.10	7074378
Total Chromium (Cr)	mg/kg	4.8	6.7	6.4	7.4	1.0	7074378
Total Cobalt (Co)	mg/kg	3.3	3.9	3.8	4.0	1.0	7074378
Total Copper (Cu)	mg/kg	<5.0	<5.0	<5.0	<5.0	5.0	7074378
Total Lead (Pb)	mg/kg	3.9	3.5	3.4	3.5	1.0	7074378
Total Mercury (Hg)	mg/kg	<0.050	<0.050	<0.050	<0.050	0.050	7074378
Total Molybdenum (Mo)	mg/kg	0.52	0.61	0.59	0.52	0.40	7074378
Total Nickel (Ni)	mg/kg	8.9	11	10	12	1.0	7074378
Total Selenium (Se)	mg/kg	<0.50	<0.50	<0.50	<0.50	0.50	7074378
Total Silver (Ag)	mg/kg	<1.0	<1.0	<1.0	<1.0	1.0	7074378
Total Thallium (Tl)	mg/kg	<0.30	<0.30	<0.30	<0.30	0.30	7074378
Total Tin (Sn)	mg/kg	<1.0	<1.0	<1.0	<1.0	1.0	7074378
Total Uranium (U)	mg/kg	<1.0	<1.0	<1.0	<1.0	1.0	7074378
Total Vanadium (V)	mg/kg	17	14	14	13	1.0	7074378
Total Zinc (Zn)	mg/kg	24	30	27	30	10	7074378

RDL = Reportable Detection Limit

Maxxam

Maxxam Job #: B370034
Report Date: 2013/08/16

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JTC

REGULATED METALS (CCME/AT1) - SOILS

Maxxam ID		HD8639		HD8640		HD8641	HD8642		
Sampling Date		2013/08/06 14:00		2013/08/06 14:00		2013/08/06 14:00	2013/08/06 14:00		
COC Number		A134685		A134685		A134685	A134685		
	UNITS	**EX-13-1L STEPOUT (1.25M)**	**RDL**	**EX-13-2L STEPOUT (1.0M)**	**RDL**	**EX-13-5LN (4.0M)**	**EX-13-5LN (7.0M)**	**RDL**	**QC Batch**
Elements									
Soluble (Hot water) Boron (B)	mg/kg	<0.10	0.10	3.9 (1)	0.40	0.47	0.21	0.10	7074319
Hex. Chromium (Cr 6+)	mg/kg	<0.15	0.15	<0.15	0.15	<0.15	<0.15	0.15	7073047
Total Antimony (Sb)	mg/kg	<1.0	1.0	<2.0	2.0	<1.0	<1.0	1.0	7074378
Total Arsenic (As)	mg/kg	6.1	1.0	4.4	2.0	5.9	5.7	1.0	7074378
Total Barium (Ba)	mg/kg	110	10	350	20	110	86	10	7074378
Total Beryllium (Be)	mg/kg	<0.40	0.40	<0.80	0.80	<0.40	<0.40	0.40	7074378
Total Cadmium (Cd)	mg/kg	0.10	0.10	0.39	0.20	<0.10	<0.10	0.10	7074378
Total Chromium (Cr)	mg/kg	7.2	1.0	5.3	2.0	5.0	6.5	1.0	7074378
Total Cobalt (Co)	mg/kg	3.9	1.0	5.1	2.0	3.5	4.0	1.0	7074378
Total Copper (Cu)	mg/kg	<5.0	5.0	10	10	<5.0	<5.0	5.0	7074378
Total Lead (Pb)	mg/kg	3.8	1.0	3.4	2.0	3.6	3.6	1.0	7074378
Total Mercury (Hg)	mg/kg	<0.050	0.050	<0.10	0.10	<0.050	<0.050	0.050	7074378
Total Molybdenum (Mo)	mg/kg	0.54	0.40	<0.80	0.80	0.44	0.65	0.40	7074378
Total Nickel (Ni)	mg/kg	11	1.0	18	2.0	8.6	11	1.0	7074378
Total Selenium (Se)	mg/kg	<0.50	0.50	1.4	1.0	<0.50	<0.50	0.50	7074378
Total Silver (Ag)	mg/kg	<1.0	1.0	<2.0	2.0	<1.0	<1.0	1.0	7074378
Total Thallium (Tl)	mg/kg	<0.30	0.30	<0.60	0.60	<0.30	<0.30	0.30	7074378
Total Tin (Sn)	mg/kg	<1.0	1.0	<2.0	2.0	<1.0	<1.0	1.0	7074378
Total Uranium (U)	mg/kg	<1.0	1.0	2.9	2.0	<1.0	<1.0	1.0	7074378
Total Vanadium (V)	mg/kg	14	1.0	11	2.0	11	12	1.0	7074378
Total Zinc (Zn)	mg/kg	28	10	<20	20	25	29	10	7074378

RDL = Reportable Detection Limit
(1) Detection limits raised based on sample weight used for analysis.

Maxxam Job #: B370034
Report Date: 2013/08/16

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JTC

REGULATED METALS (CCME/AT1) - SOILS

Maxxam ID		HD8643	HD8644	HD8645		
Sampling Date		2013/08/06 14:00	2013/08/06 14:00	2013/08/06 14:00		
COC Number		A134685	A134685	A134685		
	UNITS	**EX-13-3LE (4.0M)**	**EX-13-3LE (7.0M)**	**EX-13-I STEPOUT (2.0M)**	**RDL**	**QC Batch**
Elements						
Soluble (Hot water) Boron (B)	mg/kg	0.14	0.19	<0.10	0.10	7074319
Hex. Chromium (Cr 6+)	mg/kg	<0.15	<0.15	<0.15	0.15	7073047
Total Antimony (Sb)	mg/kg	<1.0	<1.0	<1.0	1.0	7074378
Total Arsenic (As)	mg/kg	6.6	4.9	6.2	1.0	7074378
Total Barium (Ba)	mg/kg	91	87	91	10	7074378
Total Beryllium (Be)	mg/kg	<0.40	<0.40	<0.40	0.40	7074378
Total Cadmium (Cd)	mg/kg	<0.10	<0.10	<0.10	0.10	7074378
Total Chromium (Cr)	mg/kg	5.1	6.6	6.6	1.0	7074378
Total Cobalt (Co)	mg/kg	3.2	3.6	3.8	1.0	7074378
Total Copper (Cu)	mg/kg	<5.0	<5.0	<5.0	5.0	7074378
Total Lead (Pb)	mg/kg	3.6	3.1	3.4	1.0	7074378
Total Mercury (Hg)	mg/kg	<0.050	<0.050	<0.050	0.050	7074378
Total Molybdenum (Mo)	mg/kg	0.51	0.48	0.51	0.40	7074378
Total Nickel (Ni)	mg/kg	8.4	10	10	1.0	7074378
Total Selenium (Se)	mg/kg	<0.50	<0.50	<0.50	0.50	7074378
Total Silver (Ag)	mg/kg	<1.0	<1.0	<1.0	1.0	7074378
Total Thallium (Tl)	mg/kg	<0.30	<0.30	<0.30	0.30	7074378
Total Tin (Sn)	mg/kg	<1.0	<1.0	<1.0	1.0	7074378
Total Uranium (U)	mg/kg	<1.0	<1.0	<1.0	1.0	7074378
Total Vanadium (V)	mg/kg	11	11	13	1.0	7074378
Total Zinc (Zn)	mg/kg	25	27	28	10	7074378

RDL = Reportable Detection Limit

Maxxam Job #: B370034
Report Date: 2013/08/16

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JTC

SEMIVOLATILE ORGANICS BY GC-MS (SOIL)

Maxxam ID		HD8619		HD8620		
Sampling Date		2013/08/06 14:00		2013/08/06 14:00		
COC Number		A134684		A134684		
	UNITS	**EX-13-1K STEPOUT (1.0M)**	**RDL**	**EX-13-2K STEPOUT (1.0M)**	**RDL**	**QC Batch**
Polycyclic Aromatics						
Acenaphthene	mg/kg	0.43	0.0050	<0.80 (1)	0.80	7067945
Benzo[a]pyrene equivalency	mg/kg	<0.10	0.10	<0.10	0.10	7070603
Acenaphthylene	mg/kg	<0.19 (1)	0.19	0.33	0.0050	7067945
Acridine	mg/kg	0.40	0.010	0.85	0.010	7067945
Anthracene	mg/kg	<0.0040	0.0040	<0.0040	0.0040	7067945
Benzo(a)anthracene	mg/kg	<0.0050	0.0050	<0.0050	0.0050	7067945
Benzo(b&j)fluoranthene	mg/kg	0.0078	0.0050	<0.0050	0.0050	7067945
Benzo(k)fluoranthene	mg/kg	<0.0050	0.0050	<0.0050	0.0050	7067945
Benzo(g,h,i)perylene	mg/kg	0.0067	0.0050	<0.0050	0.0050	7067945
Benzo(c)phenanthrene	mg/kg	<0.0050	0.0050	<0.0050	0.0050	7067945
Benzo(a)pyrene	mg/kg	<0.0050	0.0050	<0.0050	0.0050	7067945
Benzo[e]pyrene	mg/kg	0.0069	0.0050	<0.0050	0.0050	7067945
Chrysene	mg/kg	<0.0050	0.0050	<0.0050	0.0050	7067945
Dibenz(a,h)anthracene	mg/kg	<0.0050	0.0050	<0.0050	0.0050	7067945
Fluoranthene	mg/kg	<0.0050	0.0050	0.0054	0.0050	7067945
Fluorene	mg/kg	0.86	0.0050	<2.0 (1)	2.0	7067945
Indeno(1,2,3-cd)pyrene	mg/kg	<0.0050	0.0050	<0.0050	0.0050	7067945
2-Methylnaphthalene	mg/kg	19 (2)	0.050	44 (2)	0.050	7067945
Naphthalene	mg/kg	7.9	0.0050	15 (2)	0.050	7067945
Phenanthrene	mg/kg	0.70	0.0050	1.6	0.0050	7067945
Perylene	mg/kg	0.016	0.0050	<0.0050	0.0050	7067945
Pyrene	mg/kg	0.0064	0.0050	0.010	0.0050	7067945
Quinoline	mg/kg	<0.98 (1)	0.98	<2.1 (1)	2.1	7067945
Surrogate Recovery (%)						
D10-ANTHRACENE (sur.)	%	107	N/A	102	N/A	7067945
D12-BENZO(A)PYRENE (sur.)	%	108	N/A	106	N/A	7067945
D8-ACENAPHTHYLENE (sur.)	%	116	N/A	117	N/A	7067945
TERPHENYL-D14 (sur.)	%	124	N/A	122	N/A	7067945

N/A = Not Applicable
RDL = Reportable Detection Limit
(1) Detection limits raised due to matrix interference.
(2) Detection limits raised due to dilution to bring analyte within the calibrated range.

Package 1	8.0°C
Package 2	9.7°C

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

General Comments

Sample HD8640-01: Detection limits raised due to sample matrix. Parameters affected are total Cr, Co, Cu, Pb, Sb, Mo, Ni, Se, Ag, As, Tl, Sn, U, V, Zn, Be, Cd, Ba, Hg.

Results relate only to the items tested.

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: CAMP FAREWELL
P.O. #: A04012A05
Site Location:

Quality Assurance Report

Maxxam Job Number: EB370034

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7067945 BC5	Matrix Spike	D10-ANTHRACENE (sur.)	2013/08/11		99	%	50 - 130
		D12-BENZO(A)PYRENE (sur.)	2013/08/11		99	%	50 - 130
		D8-ACENAPHTHYLENE (sur.)	2013/08/11		97	%	50 - 130
		TERPHENYL-D14 (sur.)	2013/08/11		119	%	50 - 130
		Acenaphthene	2013/08/11		94	%	50 - 130
		Acenaphthylene	2013/08/11		90	%	50 - 130
		Acridine	2013/08/11		71	%	50 - 130
		Anthracene	2013/08/11		93	%	50 - 130
		Benzo(a)anthracene	2013/08/11		97	%	50 - 130
		Benzo(b&j)fluoranthene	2013/08/11		89	%	50 - 130
		Benzo(k)fluoranthene	2013/08/11		101	%	50 - 130
		Benzo(g,h,i)perylene	2013/08/11		100	%	50 - 130
		Benzo(c)phenanthrene	2013/08/11		86	%	50 - 130
		Benzo(a)pyrene	2013/08/11		97	%	50 - 130
		Benzo[e]pyrene	2013/08/11		83	%	50 - 130
		Chrysene	2013/08/11		103	%	50 - 130
		Dibenz(a,h)anthracene	2013/08/11		111	%	50 - 130
		Fluoranthene	2013/08/11		99	%	50 - 130
		Fluorene	2013/08/11		97	%	50 - 130
		Indeno(1,2,3-cd)pyrene	2013/08/11		106	%	50 - 130
		2-Methylnaphthalene	2013/08/11		85	%	50 - 130
		Naphthalene	2013/08/11		90	%	50 - 130
		Phenanthrene	2013/08/11		92	%	50 - 130
		Perylene	2013/08/11		84	%	50 - 130
		Pyrene	2013/08/11		95	%	50 - 130
		Quinoline	2013/08/11		92	%	50 - 130
	Spiked Blank	D10-ANTHRACENE (sur.)	2013/08/11		99	%	50 - 130
		D12-BENZO(A)PYRENE (sur.)	2013/08/11		98	%	50 - 130
		D8-ACENAPHTHYLENE (sur.)	2013/08/11		98	%	50 - 130
		TERPHENYL-D14 (sur.)	2013/08/11		111	%	50 - 130
		Acenaphthene	2013/08/11		109	%	50 - 130
		Acenaphthylene	2013/08/11		105	%	50 - 130
		Acridine	2013/08/11		89	%	50 - 130
		Anthracene	2013/08/11		110	%	50 - 130
		Benzo(a)anthracene	2013/08/11		116	%	50 - 130
		Benzo(b&j)fluoranthene	2013/08/11		105	%	50 - 130
		Benzo(k)fluoranthene	2013/08/11		118	%	50 - 130
		Benzo(g,h,i)perylene	2013/08/11		121	%	50 - 130
		Benzo(c)phenanthrene	2013/08/11		103	%	50 - 130
		Benzo(a)pyrene	2013/08/11		112	%	50 - 130
		Benzo[e]pyrene	2013/08/11		98	%	50 - 130
		Chrysene	2013/08/11		125	%	50 - 130
		Dibenz(a,h)anthracene	2013/08/11		129	%	50 - 130
		Fluoranthene	2013/08/11		109	%	50 - 130
		Fluorene	2013/08/11		123	%	50 - 130
		Indeno(1,2,3-cd)pyrene	2013/08/11		129	%	50 - 130
		2-Methylnaphthalene	2013/08/11		101	%	50 - 130
		Naphthalene	2013/08/11		107	%	50 - 130
		Phenanthrene	2013/08/11		110	%	50 - 130
		Perylene	2013/08/11		100	%	50 - 130
		Pyrene	2013/08/11		105	%	50 - 130
		Quinoline	2013/08/11		111	%	50 - 130
	Method Blank	D10-ANTHRACENE (sur.)	2013/08/11		103	%	50 - 130
		D12-BENZO(A)PYRENE (sur.)	2013/08/11		101	%	50 - 130
		D8-ACENAPHTHYLENE (sur.)	2013/08/11		100	%	50 - 130

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Attention: NICOLE WILLS
Client Project #: CAMP FAREWELL
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Maxxam Job Number: EB370034

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7067945	BC5	Method Blank	TERPHENYL-D14 (sur.)	2013/08/11		116	%	50 - 130
			Acenaphthene	2013/08/11	<0.0050		mg/kg	
			Acenaphthylene	2013/08/11	<0.0050		mg/kg	
			Acridine	2013/08/11	<0.010		mg/kg	
			Anthracene	2013/08/11	<0.0040		mg/kg	
			Benzo(a)anthracene	2013/08/11	<0.0050		mg/kg	
			Benzo(b&j)fluoranthene	2013/08/11	<0.0050		mg/kg	
			Benzo(k)fluoranthene	2013/08/11	<0.0050		mg/kg	
			Benzo(g,h,i)perylene	2013/08/11	<0.0050		mg/kg	
			Benzo(c)phenanthrene	2013/08/11	<0.0050		mg/kg	
			Benzo(a)pyrene	2013/08/11	<0.0050		mg/kg	
			Benzo[e]pyrene	2013/08/11	<0.0050		mg/kg	
			Chrysene	2013/08/11	<0.0050		mg/kg	
			Dibenz(a,h)anthracene	2013/08/11	<0.0050		mg/kg	
			Fluoranthene	2013/08/11	<0.0050		mg/kg	
			Fluorene	2013/08/11	<0.0050		mg/kg	
			Indeno(1,2,3-cd)pyrene	2013/08/11	<0.0050		mg/kg	
			2-Methylnaphthalene	2013/08/11	<0.0050		mg/kg	
			Naphthalene	2013/08/11	<0.0050		mg/kg	
			Phenanthrene	2013/08/11	<0.0050		mg/kg	
			Perylene	2013/08/11	<0.0050		mg/kg	
			Pyrene	2013/08/11	<0.0050		mg/kg	
			Quinoline	2013/08/11	<0.010		mg/kg	
		RPD	Acenaphthene	2013/08/11	NC		%	50
			Acenaphthylene	2013/08/11	NC		%	50
			Anthracene	2013/08/11	NC		%	50
			Benzo(a)anthracene	2013/08/11	NC		%	50
			Benzo(b&j)fluoranthene	2013/08/11	NC		%	50
			Benzo(k)fluoranthene	2013/08/11	NC		%	50
			Benzo(g,h,i)perylene	2013/08/11	NC		%	50
			Benzo(a)pyrene	2013/08/11	NC		%	50
			Chrysene	2013/08/11	NC		%	50
			Dibenz(a,h)anthracene	2013/08/11	NC		%	50
			Fluoranthene	2013/08/11	NC		%	50
			Fluorene	2013/08/11	NC		%	50
			Indeno(1,2,3-cd)pyrene	2013/08/11	NC		%	50
			Naphthalene	2013/08/11	NC		%	50
			Phenanthrene	2013/08/11	NC		%	50
			Pyrene	2013/08/11	NC		%	50
7070205	SHM	Matrix Spike	O-TERPHENYL (sur.)	2013/08/12		91	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/08/12		90	%	50 - 130
			F3 (C16-C34 Hydrocarbons)	2013/08/12		90	%	50 - 130
			F4 (C34-C50 Hydrocarbons)	2013/08/12		88	%	50 - 130
		Spiked Blank	O-TERPHENYL (sur.)	2013/08/12		87	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/08/12		110	%	70 - 130
			F3 (C16-C34 Hydrocarbons)	2013/08/12		109	%	70 - 130
			F4 (C34-C50 Hydrocarbons)	2013/08/12		106	%	70 - 130
		Method Blank	O-TERPHENYL (sur.)	2013/08/12		96	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/08/12	<10		mg/kg	
			F3 (C16-C34 Hydrocarbons)	2013/08/12	<50		mg/kg	
			F4 (C34-C50 Hydrocarbons)	2013/08/12	<50		mg/kg	
		RPD	F2 (C10-C16 Hydrocarbons)	2013/08/12	10.1		%	50
			F3 (C16-C34 Hydrocarbons)	2013/08/12	NC		%	50
			F4 (C34-C50 Hydrocarbons)	2013/08/12	NC		%	50
7070533	RC6	Matrix Spike	1,4-Difluorobenzene (sur.)	2013/08/12		109	%	60 - 140

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Maxxam Job Number: EB370034

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7070533	RC6	Matrix Spike	4-BROMOFLUOROBENZENE (sur.)	2013/08/12		97	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/08/12		106	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/08/12		101	%	60 - 140
			Benzene	2013/08/12		108	%	60 - 140
			Toluene	2013/08/12		101	%	60 - 140
			Ethylbenzene	2013/08/12		102	%	60 - 140
			m & p-Xylene	2013/08/12		103	%	60 - 140
			o-Xylene	2013/08/12		103	%	60 - 140
			(C6-C10)	2013/08/12		102	%	60 - 140
		Spiked Blank	1,4-Difluorobenzene (sur.)	2013/08/12		99	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/08/12		97	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/08/12		100	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/08/12		102	%	60 - 140
			Benzene	2013/08/12		105	%	60 - 140
			Toluene	2013/08/12		96	%	60 - 140
			Ethylbenzene	2013/08/12		97	%	60 - 140
			m & p-Xylene	2013/08/12		96	%	60 - 140
			o-Xylene	2013/08/12		98	%	60 - 140
			(C6-C10)	2013/08/12		112	%	60 - 140
		Method Blank	1,4-Difluorobenzene (sur.)	2013/08/12		99	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/08/12		96	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/08/12		98	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/08/12		103	%	60 - 140
			Benzene	2013/08/12	<0.0050		mg/kg	
			Toluene	2013/08/12	<0.020		mg/kg	
			Ethylbenzene	2013/08/12	<0.010		mg/kg	
			Xylenes (Total)	2013/08/12	<0.040		mg/kg	
			m & p-Xylene	2013/08/12	<0.040		mg/kg	
			o-Xylene	2013/08/12	<0.020		mg/kg	
			F1 (C6-C10) - BTEX	2013/08/12	<12		mg/kg	
			(C6-C10)	2013/08/12	<12		mg/kg	
		RPD	Benzene	2013/08/12	NC		%	50
			Toluene	2013/08/12	NC		%	50
			Ethylbenzene	2013/08/12	NC		%	50
			Xylenes (Total)	2013/08/12	NC		%	50
			m & p-Xylene	2013/08/12	NC		%	50
			o-Xylene	2013/08/12	NC		%	50
			F1 (C6-C10) - BTEX	2013/08/12	NC		%	50
			(C6-C10)	2013/08/12	NC		%	50
7072196	NSE	Matrix Spike						
		[HD8614-01]	1,4-Difluorobenzene (sur.)	2013/08/12		106	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/08/12		106	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/08/12		95	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/08/12		107	%	60 - 140
			Benzene	2013/08/12		103	%	60 - 140
			Toluene	2013/08/12		101	%	60 - 140
			Ethylbenzene	2013/08/12		103	%	60 - 140
			m & p-Xylene	2013/08/12		104	%	60 - 140
			o-Xylene	2013/08/12		100	%	60 - 140
			(C6-C10)	2013/08/12		65	%	60 - 140
		Spiked Blank	1,4-Difluorobenzene (sur.)	2013/08/12		98	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/08/12		104	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/08/12		95	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/08/12		104	%	60 - 140
			Benzene	2013/08/12		102	%	60 - 140

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Attention: NICOLE WILLS
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Maxxam Job Number: EB370034

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7072196	NSE	Spiked Blank	Toluene	2013/08/12		102	%	60 - 140
			Ethylbenzene	2013/08/12		102	%	60 - 140
			m & p-Xylene	2013/08/12		104	%	60 - 140
			o-Xylene	2013/08/12		99	%	60 - 140
			(C6-C10)	2013/08/12		93	%	60 - 140
		Method Blank	1,4-Difluorobenzene (sur.)	2013/08/12		98	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/08/12		101	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/08/12		94	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/08/12		99	%	60 - 140
			Benzene	2013/08/12	<0.0050		mg/kg	
			Toluene	2013/08/12	<0.020		mg/kg	
			Ethylbenzene	2013/08/12	<0.010		mg/kg	
			Xylenes (Total)	2013/08/12	<0.040		mg/kg	
			m & p-Xylene	2013/08/12	<0.040		mg/kg	
			o-Xylene	2013/08/12	<0.020		mg/kg	
			F1 (C6-C10) - BTEX	2013/08/12	<12		mg/kg	
			(C6-C10)	2013/08/12	<12		mg/kg	
		RPD [HD8612-01]	Benzene	2013/08/12	NC		%	50
			Toluene	2013/08/12	NC		%	50
			Ethylbenzene	2013/08/12	NC		%	50
			Xylenes (Total)	2013/08/12	NC		%	50
			m & p-Xylene	2013/08/12	NC		%	50
			o-Xylene	2013/08/12	NC		%	50
			F1 (C6-C10) - BTEX	2013/08/12	NC		%	50
			(C6-C10)	2013/08/12	NC		%	50
7072325	SHM	Matrix Spike	O-TERPHENYL (sur.)	2013/08/13		96	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/08/13		105	%	50 - 130
			F3 (C16-C34 Hydrocarbons)	2013/08/13		110	%	50 - 130
			F4 (C34-C50 Hydrocarbons)	2013/08/13		110	%	50 - 130
		Spiked Blank	O-TERPHENYL (sur.)	2013/08/13		92	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/08/13		114	%	70 - 130
			F3 (C16-C34 Hydrocarbons)	2013/08/13		119	%	70 - 130
			F4 (C34-C50 Hydrocarbons)	2013/08/13		120	%	70 - 130
		Method Blank	O-TERPHENYL (sur.)	2013/08/13		79	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/08/13	<10		mg/kg	
			F3 (C16-C34 Hydrocarbons)	2013/08/13	<50		mg/kg	
			F4 (C34-C50 Hydrocarbons)	2013/08/13	<50		mg/kg	
		RPD	F2 (C10-C16 Hydrocarbons)	2013/08/13	NC		%	50
			F3 (C16-C34 Hydrocarbons)	2013/08/13	NC (1)		%	50
			F4 (C34-C50 Hydrocarbons)	2013/08/13	NC		%	50
7072594	CH7	QC Standard	Saturation %	2013/08/13		101	%	93 - 107
		RPD [HD8620-01]	Saturation %	2013/08/13	0.4		%	12
7072636	ABH	Method Blank	Moisture	2013/08/13	<0.30		%	
		RPD [HD8644-01]	Moisture	2013/08/13	3.7		%	20
7072652	MA4	QC Standard	Soluble (CaCl2) pH	2013/08/13		100	%	97 - 103
		Spiked Blank	Soluble (CaCl2) pH	2013/08/13		100	%	97 - 103
		RPD [HD8617-01]	Soluble (CaCl2) pH	2013/08/13	0.5		%	5
7072666	MA4	QC Standard	Soluble (CaCl2) pH	2013/08/13		101	%	97 - 103
		Spiked Blank	Soluble (CaCl2) pH	2013/08/13		100	%	97 - 103
		RPD	Soluble (CaCl2) pH	2013/08/13	1.1		%	5
7072960	LZ2	QC Standard	Soluble Conductivity	2013/08/13		87	%	85 - 115
		Spiked Blank	Soluble Conductivity	2013/08/13		100	%	90 - 110
		Method Blank	Soluble Conductivity	2013/08/13	<0.020		dS/m	
		RPD [HD8620-01]	Soluble Conductivity	2013/08/13	2.8		%	35
7072962	LCA	Matrix Spike	Hex. Chromium (Cr 6+)	2013/08/13		88	%	75 - 125

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Maxxam Job Number: EB370034

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7072962	LCA	Spiked Blank	Hex. Chromium (Cr 6+)	2013/08/13		105	%	90 - 110
		Method Blank	Hex. Chromium (Cr 6+)	2013/08/13	<0.15		mg/kg	
		RPD	Hex. Chromium (Cr 6+)	2013/08/13	NC		%	35
7073047	LCA	Matrix Spike						
		[HD8618-01]	Hex. Chromium (Cr 6+)	2013/08/13		97	%	75 - 125
		Spiked Blank	Hex. Chromium (Cr 6+)	2013/08/13		104	%	90 - 110
		Method Blank	Hex. Chromium (Cr 6+)	2013/08/13	<0.15		mg/kg	
		RPD [HD8618-01]	Hex. Chromium (Cr 6+)	2013/08/13	NC		%	35
7073138	LCA	Matrix Spike	Hex. Chromium (Cr 6+)	2013/08/13		103	%	75 - 125
		Spiked Blank	Hex. Chromium (Cr 6+)	2013/08/13		104	%	90 - 110
		Method Blank	Hex. Chromium (Cr 6+)	2013/08/13	<0.15		mg/kg	
		RPD	Hex. Chromium (Cr 6+)	2013/08/13	NC		%	35
7073150	ABH	Method Blank	Moisture	2013/08/13	<0.30		%	
		RPD	Moisture	2013/08/13	0		%	20
7073815	JSM	Matrix Spike						
		[HD8620-01]	Soluble Calcium (Ca)	2013/08/13		94	%	75 - 125
			Soluble Magnesium (Mg)	2013/08/13		105	%	75 - 125
			Soluble Sodium (Na)	2013/08/13		105	%	75 - 125
			Soluble Potassium (K)	2013/08/13		100	%	75 - 125
		QC Standard	Soluble Calcium (Ca)	2013/08/13		80	%	75 - 125
			Soluble Magnesium (Mg)	2013/08/13		89	%	75 - 125
			Soluble Sodium (Na)	2013/08/13		99	%	75 - 125
			Soluble Potassium (K)	2013/08/13		106	%	75 - 125
			Soluble Sulphate (SO4)	2013/08/13		85	%	78 - 122
		Spiked Blank	Soluble Calcium (Ca)	2013/08/13		97	%	75 - 125
			Soluble Magnesium (Mg)	2013/08/13		108	%	75 - 125
			Soluble Sodium (Na)	2013/08/13		107	%	75 - 125
			Soluble Potassium (K)	2013/08/13		102	%	75 - 125
		Method Blank	Soluble Calcium (Ca)	2013/08/13	<1.5		mg/L	
			Soluble Magnesium (Mg)	2013/08/13	<1.0		mg/L	
			Soluble Sodium (Na)	2013/08/13	<2.5		mg/L	
			Soluble Potassium (K)	2013/08/13	<1.3		mg/L	
			Soluble Sulphate (SO4)	2013/08/13	<5.0		mg/L	
		RPD [HD8620-01]	Soluble Calcium (Ca)	2013/08/13	4.3		%	35
			Soluble Magnesium (Mg)	2013/08/13	7.5		%	35
			Soluble Sodium (Na)	2013/08/13	NC		%	35
			Soluble Potassium (K)	2013/08/13	NC		%	35
			Soluble Sulphate (SO4)	2013/08/13	NC		%	35
7074230	EP1	Matrix Spike						
		[HD8620-01]	Soluble Chloride (Cl)	2013/08/13		97	%	75 - 125
		QC Standard	Soluble Chloride (Cl)	2013/08/13		88	%	75 - 125
		Spiked Blank	Soluble Chloride (Cl)	2013/08/13		98	%	75 - 125
		Method Blank	Soluble Chloride (Cl)	2013/08/13	<5.0		mg/L	
		RPD [HD8620-01]	Soluble Chloride (Cl)	2013/08/13	NC		%	35
7074319	NC3	Matrix Spike						
		[HD8618-01]	Soluble (Hot water) Boron (B)	2013/08/13		106	%	75 - 125
		Spiked Blank	Soluble (Hot water) Boron (B)	2013/08/13		100	%	75 - 125
		Method Blank	Soluble (Hot water) Boron (B)	2013/08/13	<0.10		mg/kg	
		RPD [HD8618-01]	Soluble (Hot water) Boron (B)	2013/08/13	NC		%	35
7074378	SF3	Matrix Spike						
		[HD8618-01]	Total Antimony (Sb)	2013/08/13		93	%	75 - 125
			Total Arsenic (As)	2013/08/13		92	%	75 - 125
			Total Barium (Ba)	2013/08/13		NC	%	75 - 125
			Total Beryllium (Be)	2013/08/13		103	%	75 - 125
			Total Cadmium (Cd)	2013/08/13		91	%	75 - 125

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Maxxam Job Number: EB370034

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7074378	SF3	Matrix Spike						
		[HD8618-01]	Total Chromium (Cr)	2013/08/13		93	%	75 - 125
			Total Cobalt (Co)	2013/08/13		90	%	75 - 125
			Total Copper (Cu)	2013/08/13		90	%	75 - 125
			Total Lead (Pb)	2013/08/13		92	%	75 - 125
			Total Magnesium (Mg)	2013/08/13		NC	%	75 - 125
			Total Mercury (Hg)	2013/08/13		104	%	75 - 125
			Total Molybdenum (Mo)	2013/08/13		96	%	75 - 125
			Total Nickel (Ni)	2013/08/13		90	%	75 - 125
			Total Selenium (Se)	2013/08/13		95	%	75 - 125
			Total Silver (Ag)	2013/08/13		98	%	75 - 125
			Total Thallium (Tl)	2013/08/13		91	%	75 - 125
			Total Tin (Sn)	2013/08/13		96	%	75 - 125
			Total Uranium (U)	2013/08/13		96	%	75 - 125
			Total Vanadium (V)	2013/08/13		96	%	75 - 125
			Total Zinc (Zn)	2013/08/13		NC	%	75 - 125
		QC Standard	Total Arsenic (As)	2013/08/13		121	%	50 - 150
			Total Barium (Ba)	2013/08/13		115	%	69 - 131
			Total Chromium (Cr)	2013/08/13		110	%	41 - 159
			Total Cobalt (Co)	2013/08/13		113	%	75 - 125
			Total Copper (Cu)	2013/08/13		102	%	73 - 127
			Total Lead (Pb)	2013/08/13		103	%	54 - 146
			Total Magnesium (Mg)	2013/08/13		95	%	69 - 131
			Total Nickel (Ni)	2013/08/13		112	%	61 - 139
			Total Vanadium (V)	2013/08/13		130	%	50 - 150
			Total Zinc (Zn)	2013/08/13		106	%	72 - 128
		Spiked Blank	Total Antimony (Sb)	2013/08/13		95	%	75 - 125
			Total Arsenic (As)	2013/08/13		93	%	75 - 125
			Total Barium (Ba)	2013/08/13		95	%	75 - 125
			Total Beryllium (Be)	2013/08/13		103	%	75 - 125
			Total Cadmium (Cd)	2013/08/13		91	%	75 - 125
			Total Chromium (Cr)	2013/08/13		93	%	75 - 125
			Total Cobalt (Co)	2013/08/13		92	%	75 - 125
			Total Copper (Cu)	2013/08/13		93	%	75 - 125
			Total Lead (Pb)	2013/08/13		94	%	75 - 125
			Total Magnesium (Mg)	2013/08/13		95	%	75 - 125
			Total Mercury (Hg)	2013/08/13		104	%	75 - 125
			Total Molybdenum (Mo)	2013/08/13		95	%	75 - 125
			Total Nickel (Ni)	2013/08/13		94	%	75 - 125
			Total Selenium (Se)	2013/08/13		96	%	75 - 125
			Total Silver (Ag)	2013/08/13		99	%	75 - 125
			Total Thallium (Tl)	2013/08/13		92	%	75 - 125
			Total Tin (Sn)	2013/08/13		95	%	75 - 125
			Total Uranium (U)	2013/08/13		97	%	75 - 125
			Total Vanadium (V)	2013/08/13		96	%	75 - 125
			Total Zinc (Zn)	2013/08/13		92	%	75 - 125
		Method Blank	Total Antimony (Sb)	2013/08/13	<1.0		mg/kg	
			Total Arsenic (As)	2013/08/13	<1.0		mg/kg	
			Total Barium (Ba)	2013/08/13	<10		mg/kg	
			Total Beryllium (Be)	2013/08/13	<0.40		mg/kg	
			Total Cadmium (Cd)	2013/08/13	<0.10		mg/kg	
			Total Chromium (Cr)	2013/08/13	<1.0		mg/kg	
			Total Cobalt (Co)	2013/08/13	<1.0		mg/kg	
			Total Copper (Cu)	2013/08/13	<5.0		mg/kg	
			Total Lead (Pb)	2013/08/13	<1.0		mg/kg	

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: CAMP FAREWELL
P.O. #: A04012A05
Site Location:

Quality Assurance Report (Continued)

Maxxam Job Number: EB370034

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7074378	SF3	Method Blank	Total Magnesium (Mg)	2013/08/13	<100		mg/kg	
			Total Mercury (Hg)	2013/08/13	<0.050		mg/kg	
			Total Molybdenum (Mo)	2013/08/13	<0.40		mg/kg	
			Total Nickel (Ni)	2013/08/13	<1.0		mg/kg	
			Total Selenium (Se)	2013/08/13	<0.50		mg/kg	
			Total Silver (Ag)	2013/08/13	<1.0		mg/kg	
			Total Thallium (Tl)	2013/08/13	<0.30		mg/kg	
			Total Tin (Sn)	2013/08/13	<1.0		mg/kg	
			Total Uranium (U)	2013/08/13	<1.0		mg/kg	
			Total Vanadium (V)	2013/08/13	<1.0		mg/kg	
			Total Zinc (Zn)	2013/08/13	<10		mg/kg	
		RPD [HD8618-01]	Total Antimony (Sb)	2013/08/13	NC		%	35
			Total Arsenic (As)	2013/08/13	8.5		%	35
			Total Barium (Ba)	2013/08/13	10		%	35
			Total Beryllium (Be)	2013/08/13	NC		%	35
			Total Cadmium (Cd)	2013/08/13	NC		%	35
			Total Chromium (Cr)	2013/08/13	8.2		%	35
			Total Cobalt (Co)	2013/08/13	NC		%	35
			Total Copper (Cu)	2013/08/13	NC		%	35
			Total Lead (Pb)	2013/08/13	NC		%	35
			Total Mercury (Hg)	2013/08/13	NC		%	35
			Total Molybdenum (Mo)	2013/08/13	NC		%	35
			Total Nickel (Ni)	2013/08/13	6.0		%	35
			Total Selenium (Se)	2013/08/13	NC		%	35
			Total Silver (Ag)	2013/08/13	NC		%	35
			Total Thallium (Tl)	2013/08/13	NC		%	35
			Total Tin (Sn)	2013/08/13	NC		%	35
			Total Uranium (U)	2013/08/13	NC		%	35
			Total Vanadium (V)	2013/08/13	18.3		%	35
			Total Zinc (Zn)	2013/08/13	NC		%	35
7075813	CH7	QC Standard	Saturation %	2013/08/14		103	%	93 - 107
		RPD	Saturation %	2013/08/14	0.4		%	12
7075965	LZ2	QC Standard	Soluble Conductivity	2013/08/14		99	%	85 - 115
		Spiked Blank	Soluble Conductivity	2013/08/14		100	%	90 - 110
		Method Blank	Soluble Conductivity	2013/08/14	<0.020		dS/m	
		RPD	Soluble Conductivity	2013/08/14	0.4		%	35
7076487	WAU	Matrix Spike	Total Antimony (Sb)	2013/08/15		101	%	75 - 125
			Total Arsenic (As)	2013/08/15		102	%	75 - 125
			Total Barium (Ba)	2013/08/15		NC	%	75 - 125
			Total Beryllium (Be)	2013/08/15		99	%	75 - 125
			Total Cadmium (Cd)	2013/08/15		97	%	75 - 125
			Total Chromium (Cr)	2013/08/15		99	%	75 - 125
			Total Cobalt (Co)	2013/08/15		98	%	75 - 125
			Total Copper (Cu)	2013/08/15		101	%	75 - 125
			Total Lead (Pb)	2013/08/15		98	%	75 - 125
			Total Magnesium (Mg)	2013/08/15		NC	%	75 - 125
			Total Mercury (Hg)	2013/08/15		99	%	75 - 125
			Total Molybdenum (Mo)	2013/08/15		101	%	75 - 125
			Total Nickel (Ni)	2013/08/15		103	%	75 - 125
			Total Selenium (Se)	2013/08/15		96	%	75 - 125
			Total Silver (Ag)	2013/08/15		96	%	75 - 125
			Total Thallium (Tl)	2013/08/15		95	%	75 - 125
			Total Tin (Sn)	2013/08/15		102	%	75 - 125
			Total Uranium (U)	2013/08/15		95	%	75 - 125
			Total Vanadium (V)	2013/08/15		104	%	75 - 125

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: CAMP FAREWELL
P.O. #: A04012A05
Site Location:

Quality Assurance Report (Continued)

Maxxam Job Number: EB370034

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7076487	WAU	Matrix Spike	Total Zinc (Zn)	2013/08/15		100	%	75 - 125
		QC Standard	Total Arsenic (As)	2013/08/14		115	%	50 - 150
			Total Barium (Ba)	2013/08/14		114	%	69 - 131
			Total Chromium (Cr)	2013/08/14		106	%	41 - 159
			Total Cobalt (Co)	2013/08/14		99	%	75 - 125
			Total Copper (Cu)	2013/08/14		96	%	73 - 127
			Total Lead (Pb)	2013/08/14		97	%	54 - 146
			Total Magnesium (Mg)	2013/08/14		92	%	69 - 131
			Total Nickel (Ni)	2013/08/14		105	%	61 - 139
			Total Vanadium (V)	2013/08/14		123	%	50 - 150
			Total Zinc (Zn)	2013/08/14		98	%	72 - 128
		Spiked Blank	Total Antimony (Sb)	2013/08/14		92	%	75 - 125
			Total Arsenic (As)	2013/08/14		90	%	75 - 125
			Total Barium (Ba)	2013/08/14		92	%	75 - 125
			Total Beryllium (Be)	2013/08/14		88	%	75 - 125
			Total Cadmium (Cd)	2013/08/14		87	%	75 - 125
			Total Chromium (Cr)	2013/08/14		87	%	75 - 125
			Total Cobalt (Co)	2013/08/14		87	%	75 - 125
			Total Copper (Cu)	2013/08/14		87	%	75 - 125
			Total Lead (Pb)	2013/08/14		85	%	75 - 125
			Total Magnesium (Mg)	2013/08/14		91	%	75 - 125
			Total Mercury (Hg)	2013/08/14		98	%	75 - 125
			Total Molybdenum (Mo)	2013/08/14		92	%	75 - 125
			Total Nickel (Ni)	2013/08/14		89	%	75 - 125
			Total Selenium (Se)	2013/08/14		89	%	75 - 125
			Total Silver (Ag)	2013/08/14		95	%	75 - 125
			Total Thallium (Tl)	2013/08/14		83	%	75 - 125
			Total Tin (Sn)	2013/08/14		94	%	75 - 125
			Total Uranium (U)	2013/08/14		93	%	75 - 125
			Total Vanadium (V)	2013/08/14		91	%	75 - 125
			Total Zinc (Zn)	2013/08/14		89	%	75 - 125
		Method Blank	Total Antimony (Sb)	2013/08/14	<1.0		mg/kg	
			Total Arsenic (As)	2013/08/14	<1.0		mg/kg	
			Total Barium (Ba)	2013/08/14	<10		mg/kg	
			Total Beryllium (Be)	2013/08/14	<0.40		mg/kg	
			Total Cadmium (Cd)	2013/08/14	<0.10		mg/kg	
			Total Chromium (Cr)	2013/08/14	<1.0		mg/kg	
			Total Cobalt (Co)	2013/08/14	<1.0		mg/kg	
			Total Copper (Cu)	2013/08/14	<5.0		mg/kg	
			Total Lead (Pb)	2013/08/14	<1.0		mg/kg	
			Total Magnesium (Mg)	2013/08/14	<100		mg/kg	
			Total Mercury (Hg)	2013/08/14	<0.050		mg/kg	
			Total Molybdenum (Mo)	2013/08/14	<0.40		mg/kg	
			Total Nickel (Ni)	2013/08/14	<1.0		mg/kg	
			Total Selenium (Se)	2013/08/14	<0.50		mg/kg	
			Total Silver (Ag)	2013/08/14	<1.0		mg/kg	
			Total Thallium (Tl)	2013/08/14	<0.30		mg/kg	
			Total Tin (Sn)	2013/08/14	<1.0		mg/kg	
			Total Uranium (U)	2013/08/14	<1.0		mg/kg	
			Total Vanadium (V)	2013/08/14	<1.0		mg/kg	
			Total Zinc (Zn)	2013/08/14	<10		mg/kg	
		RPD	Total Antimony (Sb)	2013/08/14	NC		%	35
			Total Arsenic (As)	2013/08/14	3.7		%	35
			Total Barium (Ba)	2013/08/14	5.2		%	35
			Total Beryllium (Be)	2013/08/14	NC		%	35

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: CAMP FAREWELL
P.O. #: A04012A05
Site Location:

Quality Assurance Report (Continued)

Maxxam Job Number: EB370034

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7076487	WAU	RPD	Total Cadmium (Cd)	2013/08/14	NC		%	35
			Total Chromium (Cr)	2013/08/14	14.1		%	35
			Total Cobalt (Co)	2013/08/14	4.9		%	35
			Total Copper (Cu)	2013/08/14	NC		%	35
			Total Lead (Pb)	2013/08/14	0.8		%	35
			Total Magnesium (Mg)	2013/08/14	0.2		%	35
			Total Mercury (Hg)	2013/08/14	NC		%	35
			Total Molybdenum (Mo)	2013/08/14	NC		%	35
			Total Nickel (Ni)	2013/08/14	3.0		%	35
			Total Selenium (Se)	2013/08/14	NC		%	35
			Total Silver (Ag)	2013/08/14	NC		%	35
			Total Thallium (Tl)	2013/08/14	NC		%	35
			Total Tin (Sn)	2013/08/14	NC		%	35
			Total Uranium (U)	2013/08/14	NC		%	35
			Total Vanadium (V)	2013/08/14	6.3		%	35
			Total Zinc (Zn)	2013/08/14	NC		%	35
7078176	LCA	Matrix Spike	Soluble Chloride (Cl)	2013/08/15		103	%	75 - 125
		QC Standard	Soluble Chloride (Cl)	2013/08/15		99	%	75 - 125
		Spiked Blank	Soluble Chloride (Cl)	2013/08/15		102	%	75 - 125
		Method Blank	Soluble Chloride (Cl)	2013/08/15	5.2, RDL=5.0		mg/L	
		RPD	Soluble Chloride (Cl)	2013/08/15	1.9		%	35
7078293	NC3	Matrix Spike	Soluble Calcium (Ca)	2013/08/14		107	%	75 - 125
			Soluble Magnesium (Mg)	2013/08/14		110	%	75 - 125
			Soluble Sodium (Na)	2013/08/14		105	%	75 - 125
			Soluble Potassium (K)	2013/08/14		105	%	75 - 125
		QC Standard	Soluble Calcium (Ca)	2013/08/14		111	%	75 - 125
			Soluble Magnesium (Mg)	2013/08/14		115	%	75 - 125
			Soluble Sodium (Na)	2013/08/14		107	%	75 - 125
			Soluble Potassium (K)	2013/08/14		122	%	75 - 125
			Soluble Sulphate (SO4)	2013/08/14		111	%	78 - 122
		Spiked Blank	Soluble Calcium (Ca)	2013/08/14		107	%	75 - 125
			Soluble Magnesium (Mg)	2013/08/14		109	%	75 - 125
			Soluble Sodium (Na)	2013/08/14		104	%	75 - 125
			Soluble Potassium (K)	2013/08/14		103	%	75 - 125
		Method Blank	Soluble Calcium (Ca)	2013/08/14	<1.5		mg/L	
			Soluble Magnesium (Mg)	2013/08/14	<1.0		mg/L	
			Soluble Sodium (Na)	2013/08/14	<2.5		mg/L	
			Soluble Potassium (K)	2013/08/14	<1.3		mg/L	
			Soluble Sulphate (SO4)	2013/08/14	<5.0		mg/L	
		RPD	Soluble Calcium (Ca)	2013/08/14	1.9		%	35
			Soluble Magnesium (Mg)	2013/08/14	1.0		%	35
			Soluble Sodium (Na)	2013/08/14	1.6		%	35
			Soluble Potassium (K)	2013/08/14	1.4		%	35
			Soluble Sulphate (SO4)	2013/08/14	0.9		%	35
7085761	NC3	Matrix Spike	Soluble (Hot water) Boron (B)	2013/08/16		109	%	75 - 125
		Spiked Blank	Soluble (Hot water) Boron (B)	2013/08/16		104	%	75 - 125
		Method Blank	Soluble (Hot water) Boron (B)	2013/08/16	<0.10		mg/kg	
		RPD	Soluble (Hot water) Boron (B)	2013/08/16	NC		%	35

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.

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: CAMP FAREWELL
P.O. #: A04012A05
Site Location:

Quality Assurance Report (Continued)

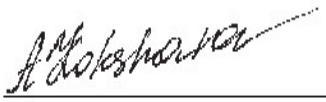
Maxxam Job Number: EB370034

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 spiked amount was not sufficiently significant to permit a reliable recovery calculation.
NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.
(1) Sample extracted past method-specified hold time for F24.

Validation Signature Page

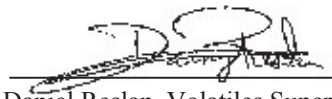
Maxxam Job #: B370034

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

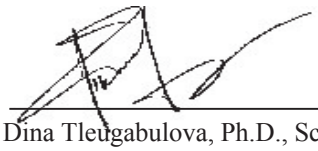


Anna Koksharova, Senior Analyst

Carol Gebhart, Senior Analyst



Daniel Reslan, Volatiles Supervisor



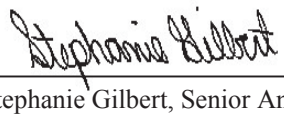
Dina Tleugabulova, Ph.D., Scientific Specialist, Inorganics Department

Neel Sivaloganathan, Emergency Spill Response Manager

Validation Signature Page

Maxxam Job #: B370034

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



Stephanie Gilbert, Senior Analyst

==========

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.

Maxxam

Calgary: 4000 19st St. NE, T2E 6P8. Ph: (403) 291-3077, Fax: (403) 735-2240, Toll free: (800) 386-7247
Edmonton: 9331 - 48 Street, T6B 2R4. Ph: (780) 577-7100, Fax: (780) 450-4187, Toll free: (877) 485-8889
www.maxxamanalytics.com

08/1482(2)

Chain of Custody

A134684

Page: 1 of 2

	Invoice To: C/O Report Address ☐	Report To: Same as Invoice ☒	Report Distribution (E-Mail):
Company:	JEG Consultants Ltd.	NWills@jklohn.com	
Contact:	Nicole Wills	jcollins@jklohn.com	
Address:	268 Hopewell Place NE		
	Prov: Calgary AB PC: T1Y 7J7	Prov: PC:	
Contact #s:	Ph: 403-829-3048 Cell: —	Ph: Cell:	

REGULATORY GUIDELINES:
- ☐ AT1
- ☐ CCME
- ☐ Regulated Drinking Water
- ☐ Other:

All samples are held for 60 calendar days after sample receipt, unless specified otherwise.

PO #: A04012A05
Project # / Name: Camp Farewell
Site Location:
Quote #:
Sampled By: JC/NS

SERVICE REQUESTED: ☒ RUSH (Contact lab to reserve) Date Required: ☐ REGULAR (5 to 7 Days)

See reverse for package specifics

	Sample ID	Depth (unit)	Matrix GW / SW Soil	Date/Time Sampled YY/MM/DD 24:00	SOIL: BTEX F1-F4	Sieve (75 micron)	Regulated Metals (CCME / AT1)	Salinity 4	Assessment ICP Metals	Basic Class II Landfill	PAH	ASAP RUSH	REGULAR TAT	WATER: ☐BTEX F1	☐BTEX F1-F2	☐VOCs	☐Routine Water ☐Turb ☐F	☐TOC ☐DOC	Regulated Metals (CCME/AT1) Total	Dissolved	Mercury	☐Total ☐Dissolved	Other Analysis	HOLD - Do not Analyze	# of Containers Submitted
1	Pile #4	—	Soil	13/08/06 1400	X		X	X					X												2
2	Pile #5	—			X		X	X					X												2
3	Pile #6	—			X		X	X					X												2
4	Ex-13-2JB (6.5m)	6.5m			X		X	X				X													2
5	Ex-13-1J Stepout (1.5m)	1.5m			X		X	X				X													2
6	Ex-13-2J Stepout (1.5m)	1.5m			X		X	X				X													2
7	Ex-13-1K Stepout (1.0m)	1.0m			X		X	X			X	X													3
8	Ex-13-2K Stepout (1.0m)	1.0m			X		X	X			X	X													3
9	Ex-13-4JE (4.0m)	4.0m			X		X	X				X													2
10	Ex-13-4JE (6.0m)	6.0m			X		X	X				X													2
11	Ex-13-4KE (4.0m)	4.0m			X		X	X				X													2
12	Ex-13-4KE (7.0m)	7.0m			X		X	X				X													2

Please indicate Filtered, Preserved or Both (F, P, F/P) → JWF/SBF

F/P

Relinquished By (Signature/Print):	Date (YY/MM/DD):	Time (24:00):
Jesse Collins	13/08/06	1830
Relinquished By (Signature/Print):	Date (YY/MM/DD):	Time (24:00):

Special Instructions: please provide fastest TAT possible for samples indicated ASAP. Results by August 10 if possible

# of Jars Used & Not Submitted:

LAB USE ONLY

Received By:	Date:	Time:	Maxxam Job #: B370034
Jenna Walter	20130812	0945	

Lab Comments:

Custody Seal	Temperature	Ice
absent	8, 9, 7	present
	13, 9, 7	with

Maxxam

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Chain of Custody

A134685

Page: 2 of 2

Company:	Invoice To: C/O Report Address ☐	Report To: Same as Invoice ☐	Report Distribution (E-Mail):	REGULATORY GUIDELINES:
Contact:	Same as PG 1	Pg 1	Pg 1	☐ AT1
Address:				☐ CCME
	Prov: PC:	Prov: PC:		☐ Regulated Drinking Water
Contact #s:	Ph: Cell:	Ph: Cell:		☐ Other:

All samples are held for 60 calendar days after sample receipt, unless specified otherwise.

PO #:	Pg 1
Project # / Name:	
Site Location:	
Quote #:	
Sampled By:	

SERVICE REQUESTED: ☒ RUSH (Contact lab to reserve) Date Required: ☐ REGULAR (5 to 7 Days)

See reverse for package specifics

#	Sample ID	Depth (unit)	Matrix GW / SW Soil	Date/Time Sampled YY/MM/DD 24:00	SOIL: BTEX F1-F4	Sieve (75 micron)	Regulated Metals (CCME / AT1)	Salinity 4	Assessment ICP Metals	Basic Class II Landfill	ASAP RUSH		WATER: ☐BTEX F1 ☐VOCs	☐BTEX F1-F2 ☐BTEX F1-F4	☐ Routine Water ☐ Turb ☐ F	☐ TOC ☐ DOC	Regulated Metals (CCME / AT1) Total	Dissolved	Mercury ☐ Total ☐ Dissolved	Other Analysis											HOLD - Do not Analyze	# of Containers Submitted
1	EX-13-5KE (3.5m)	3.5m	Soil	13/08/06 1400	X		X	X			X																					2
2	EX-13-5KE (5.5m)	5.5m			X		X	X			X																					2
3	EX-13-1L Stepout (1.25m)	1.25m			X		X	X			X																					2
4	EX-13-2L Stepout (1.0m)	1.0m			X		X	X			X																					2
5	EX-13-5LN (4.0m)	4.0m			X		X	X			X																					2
6	EX-13-5LN (7.0m)	7.0m			X		X	X			X																					2
7	EX-13-3LE (4.0m)	4.0m			X		X	X			X																					2
8	EX-13-3LE (7.0m)	7.0m			X		X	X			X																					2
9	EX-13-I Stepout (2.0m)	2.0m			X		X	X			X																					2
10																																
11																																
12																																

Please indicate Filtered, Preserved or Both (F, P, F/P) → JLWF/8BF F/P

Relinquished By (Signature/Print):	Date (YY/MM/DD):	Time (24:00):
Jesse Collins	13/08/06	1830
Relinquished By (Signature/Print):	Date (YY/MM/DD):	Time (24:00):

Special Instructions: Pg 1

# of Jars Used & Not Submitted:

LAB USE ONLY					
Received By: Jenna Walter	Date: 20130812	Time: 0945	Maxxam Job #: B370034		
Lab Comments:			Custody Seal: absent	Temperature: 8, 9, 7 / 13, 9, 7	Ice: present with jars

AB FCD-00331 Rev3 2010/05

Maxxam Analytics International Corporation o/a Maxxam Analytics

CONFIRMATION-RECEIPT OF SAMPLES FOR ANALYSIS

Maxxam Job # B370060

Client Project #: CAMP FAREWELL
PO #: A04012A05

6 Samples

Samples Received 2013/08/12
Client Confirmation 2013/08/12
Expected Report Delivery 2013/08/13 18:00

Report will be sent to:

NICOLE WILLS
KLOHN CRIPPEN BERGER LTD
HOPEWELL PLACE NE
CALGARY
T1Y 7J7
Ph 403-274-3424
Fax 403-274-5349
NWills@klohn.com

Invoice will be sent to:

Accounts Payable
IEG CONSULTANTS LTD.
500-2618 HOPEWELL PLACE NE
CALGARY
T1Y 7J7

We have received the following samples:

EX-13-2AW (2.0M) Sampled 2013/08/09 COC# A134522 Matrix: SOIL
Maxxam #: HD8744

AT1 BTEX and F1-F4 in Soil
Regulated Metals (CCME/AT1) - Soils
SOIL SALINITY 4
Acid Digestion for Metals - Soils
Drying and Grinding
Environmental Sample Disposal Fee
Hexavalent Chromium Prep Code
Sub Sample for Dry Grind
Sub-sample for metals

EX-13-2AW (5.0M) Sampled 2013/08/09
Maxxam #: HD8745

AT1 BTEX and F1-F4 in Soil
Regulated Metals (CCME/AT1) - Soils
SOIL SALINITY 4
Acid Digestion for Metals - Soils
Drying and Grinding
Environmental Sample Disposal Fee
Hexavalent Chromium Prep Code
Sub Sample for Dry Grind
Sub-sample for metals

EX-13-2AS (1.0M) Sampled 2013/08/09
Maxxam #: HD8746

AT1 BTEX and F1-F4 in Soil
Regulated Metals (CCME/AT1) - Soils
SOIL SALINITY 4
Acid Digestion for Metals - Soils

Drying and Grinding
Environmental Sample Disposal Fee
Hexavalent Chromium Prep Code
Sub Sample for Dry Grind
Sub-sample for metals

EX-13-2BW (4.0M) Sampled 2013/08/09
Maxxam #: HD8747
AT1 BTEX and F1-F4 in Soil
Regulated Metals (CCME/AT1) - Soils
SOIL SALINITY 4
Acid Digestion for Metals - Soils
Drying and Grinding
Environmental Sample Disposal Fee
Hexavalent Chromium Prep Code
Sub Sample for Dry Grind
Sub-sample for metals

EX-13-2CW (3.0M) Sampled 2013/08/09
Maxxam #: HD8748
AT1 BTEX and F1-F4 in Soil
Regulated Metals (CCME/AT1) - Soils
SOIL SALINITY 4
Acid Digestion for Metals - Soils
Drying and Grinding
Environmental Sample Disposal Fee
Hexavalent Chromium Prep Code
Sub Sample for Dry Grind
Sub-sample for metals

EX-13-2DW (3.0M) Sampled 2013/08/09
Maxxam #: HD8749
AT1 BTEX and F1-F4 in Soil
Regulated Metals (CCME/AT1) - Soils
SOIL SALINITY 4
Acid Digestion for Metals - Soils
Drying and Grinding
Environmental Sample Disposal Fee
Hexavalent Chromium Prep Code
Sub Sample for Dry Grind
Sub-sample for metals

Comments:

- Unless special storage arrangements are made, all samples will be discarded 60 days after receipt of samples.
- Non-regular samples are flagged as (C) Composite by lab, (H) Hold, or (L) Leachate.
- If there are any problems with the submitted samples, a Sample Integrity Form (SIF) detailing conditions will be included in this confirmation.
- For revisions please contact your Maxxam Project Management team at Ph (780) 577-7100.
  Your Project Manager is: Tanya Eugine

Maxxam Job # B370060 PARAMETERS FOR ANALYSIS REQUESTED

The values listed below are RDL's and not results. Report Detection Limit (RDL) may be elevated if there are matrix interferences or limited sample amounts.

Maxxam # HD8744, Sample IDN: **EX-13-2AW (2.0M)**
Maxxam # HD8745, Sample IDN: **EX-13-2AW (5.0M)**
Maxxam # HD8746, Sample IDN: **EX-13-2AS (1.0M)**
Maxxam # HD8747, Sample IDN: **EX-13-2BW (4.0M)**
Maxxam # HD8748, Sample IDN: **EX-13-2CW (3.0M)**
Maxxam # HD8749, Sample IDN: **EX-13-2DW (3.0M)**

AT1 BTEX AND F1-F4 IN SOIL			
F2 (C10-C16 Hydrocarbons)	10 mg/kg	F3 (C16-C34 Hydrocarbons)	50 mg/kg
F4 (C34-C50 Hydrocarbons)	50 mg/kg	Reached Baseline at C50	
F1 (C6-C10) - BTEX	12 mg/kg	(C6-C10)	12 mg/kg
Benzene	0.005 mg/kg	m & p-Xylene	0.04 mg/kg
Xylenes (Total)	0.04 mg/kg	Toluene	0.02 mg/kg
Ethylbenzene	0.01 mg/kg	o-Xylene	0.02 mg/kg
Moisture	0.3 %	F4G-SG (Heavy Hydrocarbons-Grav.)	500 mg/kg
SOIL SALINITY 4			
+Fluoride (F)	0.1 mg/kg	pH	
Conductivity	0.02 dS/m	Chloride (Cl)	5 mg/L
Chloride (Cl)	1 mg/kg	Sulphate (SO4)	5 mg/L
Sulphate (SO4)	1 mg/kg	+Bicarbonate (HCO3)	1 mg/kg
Anion Sum		Cation Sum	
Ion Balance	0.01 N/A	Cation/EC Ratio	0.1 N/A
Magnesium (Mg)	1 mg/L	Magnesium (Mg)	0.1 mg/kg
Potassium (K)	1.3 mg/L	Potassium (K)	0.2 mg/kg
Sodium (Na)	2.5 mg/L	Sodium (Na)	0.1 mg/kg
Calcium (Ca)	1.5 mg/L	Calcium (Ca)	0.1 mg/kg
Sodium Adsorption Ratio	0.1 N/A	Saturation %	
Theoretical Gypsum Requirement	0.1 tonnes/ha		
REGULATED METALS (CCME/AT1) - SOILS			
Hex. Chromium (Cr 6+)	0.15 mg/kg	Chromium (Cr)	1 mg/kg
Cobalt (Co)	1 mg/kg	Copper (Cu)	5 mg/kg
Mercury (Hg)	0.05 mg/kg	Lead (Pb)	1 mg/kg
Antimony (Sb)	1 mg/kg	Molybdenum (Mo)	0.4 mg/kg
Nickel (Ni)	1 mg/kg	Selenium (Se)	0.5 mg/kg
Silver (Ag)	1 mg/kg	Arsenic (As)	1 mg/kg
Thallium (Tl)	0.3 mg/kg	Tin (Sn)	1 mg/kg
Uranium (U)	1 mg/kg	Vanadium (V)	1 mg/kg
Zinc (Zn)	10 mg/kg	Barium (Ba)	10 mg/kg
Beryllium (Be)	0.4 mg/kg	Boron (B)	0.1 mg/kg
Cadmium (Cd)	0.1 mg/kg		

Maxxam

Calgary: 4000 19st St. NE, T2E 6P8. Ph: (403) 291-3077, Fax: (403) 735-2240, Toll free: (800) 386-7247
Edmonton: 9331 - 48 Street, T6B 2R4. Ph: (780) 577-7100, Fax: (780) 450-4187, Toll free: (877) 485-8889
www.maxxamanalytics.com

08/481

Chain of Custody A134522

Page: 1 of 1

	Invoice To: C/O Report Address ☐	Report To: Same as Invoice ☒	Report Distribution (E-Mail):
Company:	IEG Consultants LTD.		NWills@klohn.com
Contact:	Nicole Wills		jcollins@klohn.com
Address:	2618 Hopewell Place NE		
	Prov: Calgary AB PC: T1Y 7J7	Prov: PC:	
Contact #s:	Ph: 403 824 3048 Cell:	Ph: Cell:	

REGULATORY GUIDELINES:
☐ AT1
☐ CCME
☐ Regulated Drinking Water
☐ Other:

All samples are held for 60 calendar days after sample receipt, unless specified otherwise.

PO #: A04012A05
Project # / Name: Camp Farewell
Site Location:
Quote #:
Sampled By: Jesse Collins / Nathan Shirley

SERVICE REQUESTED: ☒ RUSH (Contact lab to reserve) Date Required: ASAP ☐ REGULAR (5 to 7 Days)

See reverse for package specifics

	Sample ID	Depth (unit)	Matrix GW / SW Soil	Date/Time Sampled YY/MM/DD 24:00	SOIL: BTEX F1-F4	Sieve (75 micron)	Regulated Metals (CCME / AT1)	Salinity 4	Assessment ICP Metals	Basic Class II Landfill	WATER: ☐BTEX F1 ☐VOCs	☐BTEX F1-F2 ☐BTEX F1-F4	☐ Routine Water ☐ Turb ☐ F	☐ TOC ☐ DOC	Regulated Metals (CCME/AT1) Total	Dissolved	Mercury ☐ Total ☐ Dissolved	Other Analysis	HOLD - Do not Analyze	# of Containers Submitted
1	EX-13-2AW (2.0m)	2.0m	Soil	13/08/09	X		X	X												2
2	EX-13-2AW (5.0m)	5.0m			X		X	X												2
3	EX-13-2AS (1.0m)	1.0m			X		X	X												2
4	EX-13-2BW (4.0m)	4.0m			X		X	X												2
5	EX-13-2CW (3.0m)	3.0m			X		X	X												2
6	EX-13-2DW (3.0m)	3.0m	↓	↓	X		X	X												2
7																				
8																				
9																				
10																				
11																				
12																				

Please indicate Filtered, Preserved or Both (F, P, F/P) → SBF/CMG F/P

Relinquished By (Signature/Print):	Date (YY/MM/DD):	Time (24:00):
Jesse Collins	13/08/10	1900
Relinquished By (Signature/Print):	Date (YY/MM/DD):	Time (24:00):

Special Instructions:

# of Jars Used & Not Submitted

LAB USE ONLY

Received By:	Date:	Time:	Maxxam Job #: B370060
Jenna Walter	20130812	0945	
Lab Comments:	Custody Seal	Temperature	Ice
	present	11, 9, 10	present

Your P.O. #: A04012A05
Your Project #: CAMP FAREWELL
Your C.O.C. #: A134522

Attention: NICOLE WILLS

KLOHN CRIPPEN BERGER LTD
500-2618
HOPEWELL PLACE NE
CALGARY, AB
CANADA T1Y 7J7

Report Date: 2013/08/13

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B370060
Received: 2013/08/12, 9:45

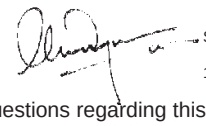
Sample Matrix: Soil
Samples Received: 6

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
BTEX/F1 by HS GC/MS (MeOH extract)	6	2013/08/12	2013/08/13	AB SOP-00039	CCME, EPA 8260
Cation/EC Ratio	6	N/A	2013/08/13		CALCULATION
Chloride (Soluble)	6	2013/08/13	2013/08/13	AB SOP-00020	SSMA 4500 CL-E
Hexavalent Chromium	6	2013/08/12	2013/08/13	EENVSOP-00131	SM 3500-Cr B
Conductivity @25C (Soluble)	6	2013/08/13	2013/08/13	AB SOP-00004	SSMA 15.3
CCME Hydrocarbons (F2-F4 in soil)	6	2013/08/12	2013/08/13	AB SOP-00040 AB SOP-00036	CCME PHC-CWS
Ion Balance	6	N/A	2013/08/13	AB WI-00065	SM 1030E
Sum of Cations, Anions	6	N/A	2013/08/13	AB WI-00065	SM 1030E
Moisture	6	N/A	2013/08/13	AB SOP-00002	CCME PHC-CWS
pH @25C (1:2 Calcium Chloride Extract)	6	2013/08/13	2013/08/13	AB SOP-00006	SSMA 16.3
Sodium Adsorption Ratio	6	N/A	2013/08/13	AB WI-00065	SSMA 15.4.4
Ca,Mg,Na,K,SO4 (Soluble)	6	2013/08/13	2013/08/13	AB SOP-00042	EPA 200.7
Soluble Paste	6	2013/08/13	2013/08/13	AB SOP-00033	SSMA 15.2
Soluble Ions Calculation	6	N/A	2013/08/13		CALCULATION
Theoretical Gypsum Requirement (1)	6	N/A	2013/08/13	CAL WI-00087	CJSS 79:449-455

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

(1) Units for TGR have changed from tons/acre to tonnes/ha

Encryption Key



Sherlyne Sim
13 Aug 2013 16:25:22 -06:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Tanya Eugine, M.Sc., Project Manager
Email: TEugine@maxxam.ca
Phone# (780) 577-7144

==========

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.

Total cover pages: 1

Maxxam Job #: B370060
Report Date: 2013/08/13

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JC

AT1 BTEX AND F1-F4 IN SOIL (SOIL)

Maxxam ID		HD8744		HD8745	HD8746	HD8747	HD8748		
Sampling Date		2013/08/09		2013/08/09	2013/08/09	2013/08/09	2013/08/09		
COC Number		A134522		A134522	A134522	A134522	A134522		
	UNITS	**EX-13-2AW (2.0M)**	**RDL**	**EX-13-2AW (5.0M)**	**EX-13-2AS (1.0M)**	**EX-13-2BW (4.0M)**	**EX-13-2CW (3.0M)**	**RDL**	**QC Batch**
Physical Properties									
Moisture	%	51	0.30	7.8	9.4	8.1	7.6	0.30	7072679
Ext. Pet. Hydrocarbon									
F2 (C10-C16 Hydrocarbons)	mg/kg	<20 (1)	20	<10	<10	<10	<10	10	7070482
F3 (C16-C34 Hydrocarbons)	mg/kg	390 (1)	100	<50	<50	<50	<50	50	7070482
F4 (C34-C50 Hydrocarbons)	mg/kg	<100 (1)	100	<50	<50	<50	<50	50	7070482
Reached Baseline at C50	mg/kg	Yes		Yes	Yes	Yes	Yes		7070482
Volatiles									
Benzene	mg/kg	<0.010 (1)	0.010	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	7070533
Toluene	mg/kg	<0.040 (1)	0.040	<0.020	0.034	<0.020	<0.020	0.020	7070533
Ethylbenzene	mg/kg	<0.020 (1)	0.020	<0.010	<0.010	<0.010	<0.010	0.010	7070533
Xylenes (Total)	mg/kg	<0.081 (1)	0.081	<0.040	<0.040	<0.040	<0.040	0.040	7070533
m & p-Xylene	mg/kg	<0.081 (1)	0.081	<0.040	<0.040	<0.040	<0.040	0.040	7070533
o-Xylene	mg/kg	<0.040 (1)	0.040	<0.020	<0.020	<0.020	<0.020	0.020	7070533
F1 (C6-C10) - BTEX	mg/kg	<24 (1)	24	<12	<12	<12	<12	12	7070533
(C6-C10)	mg/kg	<24 (1)	24	<12	<12	<12	<12	12	7070533
Surrogate Recovery (%)									
1,4-Difluorobenzene (sur.)	%	125		102	104	104	104		7070533
4-BROMOFLUOROBENZENE (sur.)	%	98		98	99	98	98		7070533
D10-ETHYLBENZENE (sur.)	%	95		101	99	101	103		7070533
D4-1,2-DICHLOROETHANE (sur.)	%	103		103	104	104	103		7070533
O-TERPHENYL (sur.)	%	105		93	96	96	96		7070482

RDL = Reportable Detection Limit
(1) Detection limits raised due to high moisture content.

Maxxam Job #: B370060
Report Date: 2013/08/13

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JC

AT1 BTEX AND F1-F4 IN SOIL (SOIL)

Maxxam ID		HD8749		
Sampling Date		2013/08/09		
COC Number		A134522		
	UNITS	**EX-13-2DW (3.0M)**	**RDL**	**QC Batch**
Physical Properties				
Moisture	%	4.3	0.30	7072679
Ext. Pet. Hydrocarbon				
F2 (C10-C16 Hydrocarbons)	mg/kg	<10	10	7070482
F3 (C16-C34 Hydrocarbons)	mg/kg	<50	50	7070482
F4 (C34-C50 Hydrocarbons)	mg/kg	<50	50	7070482
Reached Baseline at C50	mg/kg	Yes		7070482
Volatiles				
Benzene	mg/kg	<0.0050	0.0050	7070533
Toluene	mg/kg	<0.020	0.020	7070533
Ethylbenzene	mg/kg	<0.010	0.010	7070533
Xylenes (Total)	mg/kg	<0.040	0.040	7070533
m & p-Xylene	mg/kg	<0.040	0.040	7070533
o-Xylene	mg/kg	<0.020	0.020	7070533
F1 (C6-C10) - BTEX	mg/kg	<12	12	7070533
(C6-C10)	mg/kg	<12	12	7070533
Surrogate Recovery (%)				
1,4-Difluorobenzene (sur.)	%	101		7070533
4-BROMOFLUOROBENZENE (sur.)	%	97		7070533
D10-ETHYLBENZENE (sur.)	%	101		7070533
D4-1,2-DICHLOROETHANE (sur.)	%	102		7070533
O-TERPHENYL (sur.)	%	100		7070482

RDL = Reportable Detection Limit

Maxxam Job #: B370060
Report Date: 2013/08/13

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JC

SOIL SALINITY 4 (SOIL)

Maxxam ID		HD8744		HD8745			HD8746		
Sampling Date		2013/08/09		2013/08/09			2013/08/09		
COC Number		A134522		A134522			A134522		
	UNITS	**EX-13-2AW (2.0M)**	**RDL**	**EX-13-2AW (5.0M)**	**RDL**	**QC Batch**	**EX-13-2AS (1.0M)**	**RDL**	**QC Batch**
Calculated Parameters									
Anion Sum	meq/L	2.6	N/A	6.1	N/A	7070228	1.3	N/A	7070228
Cation Sum	meq/L	4.3	N/A	6.5	N/A	7070228	3.1	N/A	7070228
Cation/EC Ratio	N/A	12	0.10	9.1	0.10	7070221	9.2	0.10	7070221
Ion Balance	N/A	1.6	0.010	1.1	0.010	7070227	2.3	0.010	7070227
Calculated Calcium (Ca)	mg/kg	35	1.8	19	0.46	7070230	15	0.70	7070230
Calculated Magnesium (Mg)	mg/kg	11	1.2	5.0	0.31	7070230	3.1	0.47	7070230
Calculated Sodium (Na)	mg/kg	57	3.0	12	0.77	7070230	6.4	1.2	7070230
Calculated Potassium (K)	mg/kg	3.9	1.6	4.2	0.40	7070230	6.9	0.61	7070230
Calculated Chloride (Cl)	mg/kg	60	6.1	7.0	1.6	7070230	8.2	2.3	7070230
Calculated Sulphate (SO4)	mg/kg	73	6.1	82	1.6	7070230	19	2.3	7070230
Soluble Parameters									
Soluble Chloride (Cl)	mg/L	50	5.0	23	5.0	7074230	18	5.0	7074528
Soluble Conductivity	dS/m	0.37	0.020	0.71	0.020	7072960	0.33	0.020	7073363
Soluble (CaCl2) pH	N/A	6.87	N/A	7.58	N/A	7072666	7.24	N/A	7072666
Sodium Adsorption Ratio	N/A	1.9	0.10	1.1	0.10	7070229	0.58	0.10	7070229
Soluble Calcium (Ca)	mg/L	29	1.5	62	1.5	7073815	31	1.5	7074362
Soluble Magnesium (Mg)	mg/L	9.4	1.0	16	1.0	7073815	6.6	1.0	7074362
Soluble Sodium (Na)	mg/L	47	2.5	39	2.5	7073815	14	2.5	7074362
Soluble Potassium (K)	mg/L	3.2	1.3	14	1.3	7073815	15	1.3	7074362
Saturation %	%	120	N/A	31	N/A	7072594	47	N/A	7072604
Soluble Sulphate (SO4)	mg/L	60	5.0	260	5.0	7073815	40	5.0	7074362
Theoretical Gypsum Requirement	tonnes/ha	<0.10	0.10	<0.10	0.10	7070231	<0.10	0.10	7070231

RDL = Reportable Detection Limit

Maxxam Job #: B370060
Report Date: 2013/08/13

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JC

SOIL SALINITY 4 (SOIL)

Maxxam ID		HD8747		HD8748		HD8749		
Sampling Date		2013/08/09		2013/08/09		2013/08/09		
COC Number		A134522		A134522		A134522		
	UNITS	**EX-13-2BW (4.0M)**	**RDL**	**EX-13-2CW (3.0M)**	**RDL**	**EX-13-2DW (3.0M)**	**RDL**	**QC Batch**
Calculated Parameters								
Anion Sum	meq/L	1.0	N/A	1.1	N/A	0.61	N/A	7070228
Cation Sum	meq/L	1.8	N/A	2.1	N/A	1.8	N/A	7070228
Cation/EC Ratio	N/A	9.9	0.10	11	0.10	12	0.10	7070221
Ion Balance	N/A	1.8	0.010	1.9	0.010	2.9	0.010	7070227
Calculated Calcium (Ca)	mg/kg	4.7	0.48	3.9	0.51	4.0	0.42	7070230
Calculated Magnesium (Mg)	mg/kg	0.70	0.32	0.73	0.34	1.1	0.28	7070230
Calculated Sodium (Na)	mg/kg	5.8	0.80	9.9	0.84	4.5	0.69	7070230
Calculated Potassium (K)	mg/kg	1.1	0.41	1.1	0.44	0.53	0.36	7070230
Calculated Chloride (Cl)	mg/kg	2.8	1.6	3.9	1.7	2.3	1.4	7070230
Calculated Sulphate (SO4)	mg/kg	12	1.6	13	1.7	5.1	1.4	7070230
Soluble Parameters								
Soluble Chloride (Cl)	mg/L	8.8	5.0	12	5.0	8.3	5.0	7074528
Soluble Conductivity	dS/m	0.18	0.020	0.19	0.020	0.15	0.020	7073363
Soluble (CaCl2) pH	N/A	7.56	N/A	7.02	N/A	7.49	N/A	7072666
Sodium Adsorption Ratio	N/A	1.2	0.10	2.1	0.10	0.96	0.10	7070229
Soluble Calcium (Ca)	mg/L	15	1.5	12	1.5	14	1.5	7074362
Soluble Magnesium (Mg)	mg/L	2.2	1.0	2.2	1.0	4.1	1.0	7074362
Soluble Sodium (Na)	mg/L	18	2.5	29	2.5	16	2.5	7074362
Soluble Potassium (K)	mg/L	3.4	1.3	3.1	1.3	1.9	1.3	7074362
Saturation %	%	32	N/A	34	N/A	28	N/A	7072604
Soluble Sulphate (SO4)	mg/L	37	5.0	39	5.0	18	5.0	7074362
Theoretical Gypsum Requirement	tonnes/ha	<0.10	0.10	<0.10	0.10	<0.10	0.10	7070231

RDL = Reportable Detection Limit

Maxxam Job #: B370060
Report Date: 2013/08/13

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JC

REGULATED METALS (CCME/AT1) - SOILS

Maxxam ID		HD8744	HD8745	HD8746	HD8747		HD8748		
Sampling Date		2013/08/09	2013/08/09	2013/08/09	2013/08/09		2013/08/09		
COC Number		A134522	A134522	A134522	A134522		A134522		
	UNITS	**EX-13-2AW (2.0M)**	**EX-13-2AW (5.0M)**	**EX-13-2AS (1.0M)**	**EX-13-2BW (4.0M)**	**QC Batch**	**EX-13-2CW (3.0M)**	**RDL**	**QC Batch**
Elements									
Hex. Chromium (Cr 6+)	mg/kg	<0.15	<0.15	<0.15	<0.15	7072962	<0.15	0.15	7073047

RDL = Reportable Detection Limit

Maxxam ID		HD8749		
Sampling Date		2013/08/09		
COC Number		A134522		
	UNITS	**EX-13-2DW (3.0M)**	**RDL**	**QC Batch**
Elements				
Hex. Chromium (Cr 6+)	mg/kg	<0.15	0.15	7073047

RDL = Reportable Detection Limit

Maxxam Job #: B370060
Report Date: 2013/08/13

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JC

General Comments

Results relate only to the items tested.

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: CAMP FAREWELL
P.O. #: A04012A05
Site Location:

Quality Assurance Report

Maxxam Job Number: EB370060

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7070482	SHM	Matrix Spike	O-TERPHENYL (sur.)	2013/08/13		101	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/08/13		112	%	50 - 130
			F3 (C16-C34 Hydrocarbons)	2013/08/13		114	%	50 - 130
			F4 (C34-C50 Hydrocarbons)	2013/08/13		115	%	50 - 130
		Spiked Blank	O-TERPHENYL (sur.)	2013/08/13		97	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/08/13		109	%	70 - 130
			F3 (C16-C34 Hydrocarbons)	2013/08/13		111	%	70 - 130
			F4 (C34-C50 Hydrocarbons)	2013/08/13		111	%	70 - 130
		Method Blank	O-TERPHENYL (sur.)	2013/08/13		100	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/08/13	<10		mg/kg	
			F3 (C16-C34 Hydrocarbons)	2013/08/13	<50		mg/kg	
			F4 (C34-C50 Hydrocarbons)	2013/08/13	<50		mg/kg	
		RPD	F2 (C10-C16 Hydrocarbons)	2013/08/13	NC		%	50
			F3 (C16-C34 Hydrocarbons)	2013/08/13	NC		%	50
			F4 (C34-C50 Hydrocarbons)	2013/08/13	NC		%	50
7070533	RC6	Matrix Spike	1,4-Difluorobenzene (sur.)	2013/08/12		109	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/08/12		97	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/08/12		106	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/08/12		101	%	60 - 140
			Benzene	2013/08/12		108	%	60 - 140
			Toluene	2013/08/12		101	%	60 - 140
			Ethylbenzene	2013/08/12		102	%	60 - 140
			m & p-Xylene	2013/08/12		103	%	60 - 140
			o-Xylene	2013/08/12		103	%	60 - 140
			(C6-C10)	2013/08/12		102	%	60 - 140
		Spiked Blank	1,4-Difluorobenzene (sur.)	2013/08/12		99	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/08/12		97	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/08/12		100	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/08/12		102	%	60 - 140
			Benzene	2013/08/12		105	%	60 - 140
			Toluene	2013/08/12		96	%	60 - 140
			Ethylbenzene	2013/08/12		97	%	60 - 140
			m & p-Xylene	2013/08/12		96	%	60 - 140
			o-Xylene	2013/08/12		98	%	60 - 140
			(C6-C10)	2013/08/12		112	%	60 - 140
		Method Blank	1,4-Difluorobenzene (sur.)	2013/08/12		99	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/08/12		96	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/08/12		98	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/08/12		103	%	60 - 140
			Benzene	2013/08/12	<0.0050		mg/kg	
			Toluene	2013/08/12	<0.020		mg/kg	
			Ethylbenzene	2013/08/12	<0.010		mg/kg	
			Xylenes (Total)	2013/08/12	<0.040		mg/kg	
			m & p-Xylene	2013/08/12	<0.040		mg/kg	
			o-Xylene	2013/08/12	<0.020		mg/kg	
			F1 (C6-C10) - BTEX	2013/08/12	<12		mg/kg	
			(C6-C10)	2013/08/12	<12		mg/kg	
		RPD	Benzene	2013/08/12	NC		%	50
			Toluene	2013/08/12	NC		%	50
			Ethylbenzene	2013/08/12	NC		%	50
			Xylenes (Total)	2013/08/12	NC		%	50
			m & p-Xylene	2013/08/12	NC		%	50
			o-Xylene	2013/08/12	NC		%	50
			F1 (C6-C10) - BTEX	2013/08/12	NC		%	50
			(C6-C10)	2013/08/12	NC		%	50

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: CAMP FAREWELL
P.O. #: A04012A05
Site Location:

Quality Assurance Report (Continued)

Maxxam Job Number: EB370060

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7072594	CH7	QC Standard	Saturation %	2013/08/13		101	%	93 - 107
		RPD	Saturation %	2013/08/13	0.4		%	12
7072604	JSM	QC Standard	Saturation %	2013/08/13		103	%	93 - 107
		RPD	Saturation %	2013/08/13	1.3		%	12
7072666	MA4	QC Standard	Soluble (CaCl2) pH	2013/08/13		101	%	97 - 103
		Spiked Blank	Soluble (CaCl2) pH	2013/08/13		100	%	97 - 103
		RPD	Soluble (CaCl2) pH	2013/08/13	1.1		%	5
7072679	ABH	Method Blank	Moisture	2013/08/13	<0.30		%	
		RPD	Moisture	2013/08/13	3.8		%	20
7072960	LZ2	QC Standard	Soluble Conductivity	2013/08/13		87	%	85 - 115
		Spiked Blank	Soluble Conductivity	2013/08/13		100	%	90 - 110
		Method Blank	Soluble Conductivity	2013/08/13	<0.020		dS/m	
		RPD	Soluble Conductivity	2013/08/13	2.8		%	35
7072962	LCA	Matrix Spike	Hex. Chromium (Cr 6+)	2013/08/13		88	%	75 - 125
		Spiked Blank	Hex. Chromium (Cr 6+)	2013/08/13		105	%	90 - 110
		Method Blank	Hex. Chromium (Cr 6+)	2013/08/13	<0.15		mg/kg	
		RPD	Hex. Chromium (Cr 6+)	2013/08/13	NC		%	35
7073047	LCA	Matrix Spike	Hex. Chromium (Cr 6+)	2013/08/13		97	%	75 - 125
		Spiked Blank	Hex. Chromium (Cr 6+)	2013/08/13		104	%	90 - 110
		Method Blank	Hex. Chromium (Cr 6+)	2013/08/13	<0.15		mg/kg	
		RPD	Hex. Chromium (Cr 6+)	2013/08/13	NC		%	35
7073363	LZ2	QC Standard	Soluble Conductivity	2013/08/13		87	%	85 - 115
		Spiked Blank	Soluble Conductivity	2013/08/13		100	%	90 - 110
		Method Blank	Soluble Conductivity	2013/08/13	<0.020		dS/m	
		RPD	Soluble Conductivity	2013/08/13	8.2		%	35
7073815	JSM	Matrix Spike	Soluble Calcium (Ca)	2013/08/13		94	%	75 - 125
			Soluble Magnesium (Mg)	2013/08/13		105	%	75 - 125
			Soluble Sodium (Na)	2013/08/13		105	%	75 - 125
			Soluble Potassium (K)	2013/08/13		100	%	75 - 125
		QC Standard	Soluble Calcium (Ca)	2013/08/13		80	%	75 - 125
			Soluble Magnesium (Mg)	2013/08/13		89	%	75 - 125
			Soluble Sodium (Na)	2013/08/13		99	%	75 - 125
			Soluble Potassium (K)	2013/08/13		106	%	75 - 125
			Soluble Sulphate (SO4)	2013/08/13		85	%	78 - 122
		Spiked Blank	Soluble Calcium (Ca)	2013/08/13		97	%	75 - 125
			Soluble Magnesium (Mg)	2013/08/13		108	%	75 - 125
			Soluble Sodium (Na)	2013/08/13		107	%	75 - 125
			Soluble Potassium (K)	2013/08/13		102	%	75 - 125
		Method Blank	Soluble Calcium (Ca)	2013/08/13	<1.5		mg/L	
			Soluble Magnesium (Mg)	2013/08/13	<1.0		mg/L	
			Soluble Sodium (Na)	2013/08/13	<2.5		mg/L	
			Soluble Potassium (K)	2013/08/13	<1.3		mg/L	
			Soluble Sulphate (SO4)	2013/08/13	<5.0		mg/L	
		RPD	Soluble Calcium (Ca)	2013/08/13	4.3		%	35
			Soluble Magnesium (Mg)	2013/08/13	7.5		%	35
			Soluble Sodium (Na)	2013/08/13	NC		%	35
			Soluble Potassium (K)	2013/08/13	NC		%	35
			Soluble Sulphate (SO4)	2013/08/13	NC		%	35
7074230	EP1	Matrix Spike	Soluble Chloride (Cl)	2013/08/13		97	%	75 - 125
		QC Standard	Soluble Chloride (Cl)	2013/08/13		88	%	75 - 125
		Spiked Blank	Soluble Chloride (Cl)	2013/08/13		98	%	75 - 125
		Method Blank	Soluble Chloride (Cl)	2013/08/13	<5.0		mg/L	
		RPD	Soluble Chloride (Cl)	2013/08/13	NC		%	35
7074362	JSM	Matrix Spike	Soluble Calcium (Ca)	2013/08/13		107	%	75 - 125
			Soluble Magnesium (Mg)	2013/08/13		105	%	75 - 125

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: CAMP FAREWELL
P.O. #: A04012A05
Site Location:

Quality Assurance Report (Continued)

Maxxam Job Number: EB370060

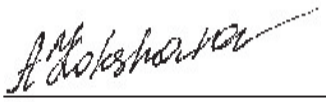
QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7074362	JSM	Matrix Spike	Soluble Sodium (Na)	2013/08/13		103	%	75 - 125
			Soluble Potassium (K)	2013/08/13		104	%	75 - 125
		QC Standard	Soluble Calcium (Ca)	2013/08/13		82	%	75 - 125
			Soluble Magnesium (Mg)	2013/08/13		80	%	75 - 125
			Soluble Sodium (Na)	2013/08/13		93	%	75 - 125
			Soluble Potassium (K)	2013/08/13		103	%	75 - 125
			Soluble Sulphate (SO4)	2013/08/13		84	%	78 - 122
		Spiked Blank	Soluble Calcium (Ca)	2013/08/13		108	%	75 - 125
			Soluble Magnesium (Mg)	2013/08/13		105	%	75 - 125
			Soluble Sodium (Na)	2013/08/13		103	%	75 - 125
			Soluble Potassium (K)	2013/08/13		104	%	75 - 125
		Method Blank	Soluble Calcium (Ca)	2013/08/13	<1.5		mg/L	
			Soluble Magnesium (Mg)	2013/08/13	<1.0		mg/L	
			Soluble Sodium (Na)	2013/08/13	<2.5		mg/L	
			Soluble Potassium (K)	2013/08/13	<1.3		mg/L	
			Soluble Sulphate (SO4)	2013/08/13	<5.0		mg/L	
		RPD	Soluble Calcium (Ca)	2013/08/13	10.9		%	35
			Soluble Magnesium (Mg)	2013/08/13	7.7		%	35
			Soluble Sodium (Na)	2013/08/13	2.8		%	35
			Soluble Potassium (K)	2013/08/13	0.3		%	35
			Soluble Sulphate (SO4)	2013/08/13	0.07		%	35
7074528	LCA	Matrix Spike	Soluble Chloride (Cl)	2013/08/13		105	%	75 - 125
		QC Standard	Soluble Chloride (Cl)	2013/08/13		91	%	75 - 125
		Spiked Blank	Soluble Chloride (Cl)	2013/08/13		99	%	75 - 125
		Method Blank	Soluble Chloride (Cl)	2013/08/13	<5.0		mg/L	
		RPD	Soluble Chloride (Cl)	2013/08/13	NC		%	35

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 (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

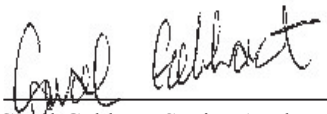
Validation Signature Page

Maxxam Job #: B370060

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

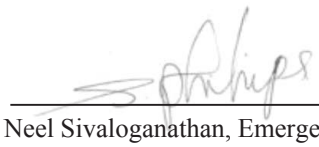


Anna Koksharova, Senior Analyst



Carol Gebhart, Senior Analyst

Michael Chae, Ph.D, Scientific Specialist



Neel Sivaloganathan, Emergency Spill Response Manager

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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.

Maxxam

Calgary: 4000 19st St. NE, T2E 6P8. Ph: (403) 291-3077, Fax: (403) 735-2240, Toll free: (800) 386-7247
Edmonton: 9331 - 48 Street, T6B 2R4. Ph: (780) 577-7100, Fax: (780) 450-4187, Toll free: (877) 485-8889
www.maxxamanalytics.com

08/481

Chain of Custody A134522

Page: 1 of 1

	Invoice To: C/O Report Address ☐	Report To: Same as Invoice ☒	Report Distribution (E-Mail):
Company:	IEG Consultants LTD.		NWills@klohn.com
Contact:	Nicole Wills		jcollins@klohn.com
Address:	2618 Hopewell Place NE		
	Prov: Calgary AB PC: T1Y 7J7	Prov: PC:	
Contact #s:	Ph: 403 824 3048 Cell:	Ph: Cell:	

REGULATORY GUIDELINES:
- ☐ AT1
- ☐ CCME
- ☐ Regulated Drinking Water
- ☐ Other:

All samples are held for 60 calendar days after sample receipt, unless specified otherwise.

PO #: A04012A05
Project # / Name: Comp Farewell
Site Location:
Quote #:
Sampled By: Jesse Collins / Nathan Shirley

SERVICE REQUESTED: ☒ RUSH (Contact lab to reserve) Date Required: ASAP ☐ REGULAR (5 to 7 Days)

See reverse for package specifics

	Sample ID	Depth (unit)	Matrix GW / SW Soil	Date/Time Sampled YY/MM/DD 24:00	SOIL: BTEX F1-F4	Sieve (75 micron)	Regulated Metals (CCME / AT1)	Salinity 4	Assessment ICP Metals	Basic Class II Landfill	WATER: ☐BTEX F1 ☐VOCs	☐BTEX F1-F2 ☐BTEX F1-F4	☐ Routine Water ☐ Turb ☐ F	☐ TOC ☐ DOC	Regulated Metals (CCME/ AT1) Total	Dissolved	Mercury ☐ Total ☐ Dissolved	Other Analysis	HOLD - Do not Analyze	# of Containers Submitted
1	EX-13-2AW (2.0m)	2.0m	Soil	13/08/09	X		X	X												2
2	EX-13-2AW (5.0m)	5.0m			X		X	X												2
3	EX-13-2AS (1.0m)	1.0m			X		X	X												2
4	EX-13-2BW (4.0m)	4.0m			X		X	X												2
5	EX-13-2CW (3.0m)	3.0m			X		X	X												2
6	EX-13-2DW (3.0m)	3.0m	↓	↓	X		X	X												2
7																				
8																				
9																				
10																				
11																				
12																				

Please indicate Filtered, Preserved or Both (F, P, F/P) → SBF/CMC F/P

Relinquished By (Signature/Print):	Date (YY/MM/DD):	Time (24:00):
Jesse Collins	13/08/10	1900
Relinquished By (Signature/Print):	Date (YY/MM/DD):	Time (24:00):

Special Instructions: | **# of Jars Used & Not Submitted**

LAB USE ONLY

Received By:	Date:	Time:	Maxxam Job #: B370060
Jenna Walter	20130812	0945	

Lab Comments:

Custody Seal	Temperature	Ice
present	11, 9, 10	present

Your P.O. #: A04012A05
Your Project #: CAMP FAREWELL
Your C.O.C. #: A134522

Attention: NICOLE WILLS

KLOHN CRIPPEN BERGER LTD
500-2618
HOPEWELL PLACE NE
CALGARY, AB
CANADA T1Y 7J7

Report Date: 2013/08/13

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B370060
Received: 2013/08/12, 9:45

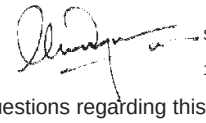
Sample Matrix: Soil
Samples Received: 6

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
BTEX/F1 by HS GC/MS (MeOH extract)	6	2013/08/12	2013/08/13	AB SOP-00039	CCME, EPA 8260
Cation/EC Ratio	6	N/A	2013/08/13		CALCULATION
Chloride (Soluble)	6	2013/08/13	2013/08/13	AB SOP-00020	SSMA 4500 CL-E
Hexavalent Chromium	6	2013/08/12	2013/08/13	EENVSOP-00131	SM 3500-Cr B
Conductivity @25C (Soluble)	6	2013/08/13	2013/08/13	AB SOP-00004	SSMA 15.3
CCME Hydrocarbons (F2-F4 in soil)	6	2013/08/12	2013/08/13	AB SOP-00040 AB SOP-00036	CCME PHC-CWS
Elements by ICPMS - Soils	6	2013/08/13	2013/08/13	AB SOP-00043	EPA 200.8
Ion Balance	6	N/A	2013/08/13	AB WI-00065	SM 1030E
Sum of Cations, Anions	6	N/A	2013/08/13	AB WI-00065	SM 1030E
Moisture	6	N/A	2013/08/13	AB SOP-00002	CCME PHC-CWS
pH @25C (1:2 Calcium Chloride Extract)	6	2013/08/13	2013/08/13	AB SOP-00006	SSMA 16.3
Sodium Adsorption Ratio	6	N/A	2013/08/13	AB WI-00065	SSMA 15.4.4
Ca,Mg,Na,K,SO4 (Soluble)	6	2013/08/13	2013/08/13	AB SOP-00042	EPA 200.7
Soluble Paste	6	2013/08/13	2013/08/13	AB SOP-00033	SSMA 15.2
Soluble Ions Calculation	6	N/A	2013/08/13		CALCULATION
Theoretical Gypsum Requirement (1)	6	N/A	2013/08/13	CAL WI-00087	CJSS 79:449-455

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

(1) Units for TGR have changed from tons/acre to tonnes/ha

Encryption Key



Sherlyne Sim
13 Aug 2013 18:20:15 -06:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Tanya Eugine, M.Sc., Project Manager
Email: TEugine@maxxam.ca
Phone# (780) 577-7144

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section

Your P.O. #: A04012A05
Your Project #: CAMP FAREWELL
Your C.O.C. #: A134522

Attention: NICOLE WILLS

KLOHN CRIPPEN BERGER LTD
500-2618
HOPEWELL PLACE NE
CALGARY, AB
CANADA T1Y 7J7

Report Date: 2013/08/13

CERTIFICATE OF ANALYSIS

5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Analytics International Corporation o/a Maxxam Analytics Edmonton: 9331 - 48th Street T6B 2R4 Telephone(780)577-7100 Fax(780)450-4187

Maxxam Job #: B370060
Report Date: 2013/08/13

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JC

AT1 BTEX AND F1-F4 IN SOIL (SOIL)

Maxxam ID		HD8744		HD8745	HD8746	HD8747	HD8748		
Sampling Date		2013/08/09		2013/08/09	2013/08/09	2013/08/09	2013/08/09		
COC Number		A134522		A134522	A134522	A134522	A134522		
	UNITS	**EX-13-2AW (2.0M)**	**RDL**	**EX-13-2AW (5.0M)**	**EX-13-2AS (1.0M)**	**EX-13-2BW (4.0M)**	**EX-13-2CW (3.0M)**	**RDL**	**QC Batch**
Physical Properties									
Moisture	%	51	0.30	7.8	9.4	8.1	7.6	0.30	7072679
Ext. Pet. Hydrocarbon									
F2 (C10-C16 Hydrocarbons)	mg/kg	<20 (1)	20	<10	<10	<10	<10	10	7070482
F3 (C16-C34 Hydrocarbons)	mg/kg	390 (1)	100	<50	<50	<50	<50	50	7070482
F4 (C34-C50 Hydrocarbons)	mg/kg	<100 (1)	100	<50	<50	<50	<50	50	7070482
Reached Baseline at C50	mg/kg	Yes		Yes	Yes	Yes	Yes		7070482
Volatiles									
Benzene	mg/kg	<0.010 (1)	0.010	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	7070533
Toluene	mg/kg	<0.040 (1)	0.040	<0.020	0.034	<0.020	<0.020	0.020	7070533
Ethylbenzene	mg/kg	<0.020 (1)	0.020	<0.010	<0.010	<0.010	<0.010	0.010	7070533
Xylenes (Total)	mg/kg	<0.081 (1)	0.081	<0.040	<0.040	<0.040	<0.040	0.040	7070533
m & p-Xylene	mg/kg	<0.081 (1)	0.081	<0.040	<0.040	<0.040	<0.040	0.040	7070533
o-Xylene	mg/kg	<0.040 (1)	0.040	<0.020	<0.020	<0.020	<0.020	0.020	7070533
F1 (C6-C10) - BTEX	mg/kg	<24 (1)	24	<12	<12	<12	<12	12	7070533
(C6-C10)	mg/kg	<24 (1)	24	<12	<12	<12	<12	12	7070533
Surrogate Recovery (%)									
1,4-Difluorobenzene (sur.)	%	125		102	104	104	104		7070533
4-BROMOFLUOROBENZENE (sur.)	%	98		98	99	98	98		7070533
D10-ETHYLBENZENE (sur.)	%	95		101	99	101	103		7070533
D4-1,2-DICHLOROETHANE (sur.)	%	103		103	104	104	103		7070533
O-TERPHENYL (sur.)	%	105		93	96	96	96		7070482

RDL = Reportable Detection Limit
(1) Detection limits raised due to high moisture content.

Maxxam Job #: B370060
Report Date: 2013/08/13

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JC

AT1 BTEX AND F1-F4 IN SOIL (SOIL)

Maxxam ID		HD8749		
Sampling Date		2013/08/09		
COC Number		A134522		
	UNITS	**EX-13-2DW (3.0M)**	**RDL**	**QC Batch**
Physical Properties				
Moisture	%	4.3	0.30	7072679
Ext. Pet. Hydrocarbon				
F2 (C10-C16 Hydrocarbons)	mg/kg	<10	10	7070482
F3 (C16-C34 Hydrocarbons)	mg/kg	<50	50	7070482
F4 (C34-C50 Hydrocarbons)	mg/kg	<50	50	7070482
Reached Baseline at C50	mg/kg	Yes		7070482
Volatiles				
Benzene	mg/kg	<0.0050	0.0050	7070533
Toluene	mg/kg	<0.020	0.020	7070533
Ethylbenzene	mg/kg	<0.010	0.010	7070533
Xylenes (Total)	mg/kg	<0.040	0.040	7070533
m & p-Xylene	mg/kg	<0.040	0.040	7070533
o-Xylene	mg/kg	<0.020	0.020	7070533
F1 (C6-C10) - BTEX	mg/kg	<12	12	7070533
(C6-C10)	mg/kg	<12	12	7070533
Surrogate Recovery (%)				
1,4-Difluorobenzene (sur.)	%	101		7070533
4-BROMOFLUOROBENZENE (sur.)	%	97		7070533
D10-ETHYLBENZENE (sur.)	%	101		7070533
D4-1,2-DICHLOROETHANE (sur.)	%	102		7070533
O-TERPHENYL (sur.)	%	100		7070482

RDL = Reportable Detection Limit

Maxxam Job #: B370060
Report Date: 2013/08/13

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JC

SOIL SALINITY 4 (SOIL)

Maxxam ID		HD8744		HD8745			HD8746		
Sampling Date		2013/08/09		2013/08/09			2013/08/09		
COC Number		A134522		A134522			A134522		
	UNITS	**EX-13-2AW (2.0M)**	**RDL**	**EX-13-2AW (5.0M)**	**RDL**	**QC Batch**	**EX-13-2AS (1.0M)**	**RDL**	**QC Batch**
Calculated Parameters									
Anion Sum	meq/L	2.6	N/A	6.1	N/A	7070228	1.3	N/A	7070228
Cation Sum	meq/L	4.3	N/A	6.5	N/A	7070228	3.1	N/A	7070228
Cation/EC Ratio	N/A	12	0.10	9.1	0.10	7070221	9.2	0.10	7070221
Ion Balance	N/A	1.6	0.010	1.1	0.010	7070227	2.3	0.010	7070227
Calculated Calcium (Ca)	mg/kg	35	1.8	19	0.46	7070230	15	0.70	7070230
Calculated Magnesium (Mg)	mg/kg	11	1.2	5.0	0.31	7070230	3.1	0.47	7070230
Calculated Sodium (Na)	mg/kg	57	3.0	12	0.77	7070230	6.4	1.2	7070230
Calculated Potassium (K)	mg/kg	3.9	1.6	4.2	0.40	7070230	6.9	0.61	7070230
Calculated Chloride (Cl)	mg/kg	60	6.1	7.0	1.6	7070230	8.2	2.3	7070230
Calculated Sulphate (SO4)	mg/kg	73	6.1	82	1.6	7070230	19	2.3	7070230
Soluble Parameters									
Soluble Chloride (Cl)	mg/L	50	5.0	23	5.0	7074230	18	5.0	7074528
Soluble Conductivity	dS/m	0.37	0.020	0.71	0.020	7072960	0.33	0.020	7073363
Soluble (CaCl2) pH	N/A	6.87	N/A	7.58	N/A	7072666	7.24	N/A	7072666
Sodium Adsorption Ratio	N/A	1.9	0.10	1.1	0.10	7070229	0.58	0.10	7070229
Soluble Calcium (Ca)	mg/L	29	1.5	62	1.5	7073815	31	1.5	7074362
Soluble Magnesium (Mg)	mg/L	9.4	1.0	16	1.0	7073815	6.6	1.0	7074362
Soluble Sodium (Na)	mg/L	47	2.5	39	2.5	7073815	14	2.5	7074362
Soluble Potassium (K)	mg/L	3.2	1.3	14	1.3	7073815	15	1.3	7074362
Saturation %	%	120	N/A	31	N/A	7072594	47	N/A	7072604
Soluble Sulphate (SO4)	mg/L	60	5.0	260	5.0	7073815	40	5.0	7074362
Theoretical Gypsum Requirement	tonnes/ha	<0.10	0.10	<0.10	0.10	7070231	<0.10	0.10	7070231

RDL = Reportable Detection Limit

Maxxam Job #: B370060
Report Date: 2013/08/13

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JC

SOIL SALINITY 4 (SOIL)

Maxxam ID		HD8747		HD8748		HD8749		
Sampling Date		2013/08/09		2013/08/09		2013/08/09		
COC Number		A134522		A134522		A134522		
	UNITS	**EX-13-2BW (4.0M)**	**RDL**	**EX-13-2CW (3.0M)**	**RDL**	**EX-13-2DW (3.0M)**	**RDL**	**QC Batch**
Calculated Parameters								
Anion Sum	meq/L	1.0	N/A	1.1	N/A	0.61	N/A	7070228
Cation Sum	meq/L	1.8	N/A	2.1	N/A	1.8	N/A	7070228
Cation/EC Ratio	N/A	9.9	0.10	11	0.10	12	0.10	7070221
Ion Balance	N/A	1.8	0.010	1.9	0.010	2.9	0.010	7070227
Calculated Calcium (Ca)	mg/kg	4.7	0.48	3.9	0.51	4.0	0.42	7070230
Calculated Magnesium (Mg)	mg/kg	0.70	0.32	0.73	0.34	1.1	0.28	7070230
Calculated Sodium (Na)	mg/kg	5.8	0.80	9.9	0.84	4.5	0.69	7070230
Calculated Potassium (K)	mg/kg	1.1	0.41	1.1	0.44	0.53	0.36	7070230
Calculated Chloride (Cl)	mg/kg	2.8	1.6	3.9	1.7	2.3	1.4	7070230
Calculated Sulphate (SO4)	mg/kg	12	1.6	13	1.7	5.1	1.4	7070230
Soluble Parameters								
Soluble Chloride (Cl)	mg/L	8.8	5.0	12	5.0	8.3	5.0	7074528
Soluble Conductivity	dS/m	0.18	0.020	0.19	0.020	0.15	0.020	7073363
Soluble (CaCl2) pH	N/A	7.56	N/A	7.02	N/A	7.49	N/A	7072666
Sodium Adsorption Ratio	N/A	1.2	0.10	2.1	0.10	0.96	0.10	7070229
Soluble Calcium (Ca)	mg/L	15	1.5	12	1.5	14	1.5	7074362
Soluble Magnesium (Mg)	mg/L	2.2	1.0	2.2	1.0	4.1	1.0	7074362
Soluble Sodium (Na)	mg/L	18	2.5	29	2.5	16	2.5	7074362
Soluble Potassium (K)	mg/L	3.4	1.3	3.1	1.3	1.9	1.3	7074362
Saturation %	%	32	N/A	34	N/A	28	N/A	7072604
Soluble Sulphate (SO4)	mg/L	37	5.0	39	5.0	18	5.0	7074362
Theoretical Gypsum Requirement	tonnes/ha	<0.10	0.10	<0.10	0.10	<0.10	0.10	7070231

RDL = Reportable Detection Limit

Maxxam Job #: B370060
Report Date: 2013/08/13

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JC

REGULATED METALS (CCME/AT1) - SOILS

Maxxam ID		HD8744	HD8745	HD8746	HD8747		HD8748		
Sampling Date		2013/08/09	2013/08/09	2013/08/09	2013/08/09		2013/08/09		
COC Number		A134522	A134522	A134522	A134522		A134522		
	UNITS	**EX-13-2AW (2.0M)**	**EX-13-2AW (5.0M)**	**EX-13-2AS (1.0M)**	**EX-13-2BW (4.0M)**	**QC Batch**	**EX-13-2CW (3.0M)**	**RDL**	**QC Batch**
Elements									
Hex. Chromium (Cr 6+)	mg/kg	<0.15	<0.15	<0.15	<0.15	7072962	<0.15	0.15	7073047
Total Antimony (Sb)	mg/kg	<1.0	<1.0	<1.0	<1.0	7074978	<1.0	1.0	7074978
Total Arsenic (As)	mg/kg	4.1	5.2	3.2	4.9	7074978	6.9	1.0	7074978
Total Barium (Ba)	mg/kg	220	62	170	71	7074978	150	10	7074978
Total Beryllium (Be)	mg/kg	<0.40	<0.40	<0.40	<0.40	7074978	<0.40	0.40	7074978
Total Cadmium (Cd)	mg/kg	0.18	<0.10	<0.10	<0.10	7074978	0.11	0.10	7074978
Total Chromium (Cr)	mg/kg	7.4	6.4	5.9	5.6	7074978	8.9	1.0	7074978
Total Cobalt (Co)	mg/kg	3.2	3.9	2.8	3.7	7074978	5.1	1.0	7074978
Total Copper (Cu)	mg/kg	6.2	<5.0	<5.0	<5.0	7074978	6.7	5.0	7074978
Total Lead (Pb)	mg/kg	3.4	2.8	4.4	2.7	7074978	4.8	1.0	7074978
Total Mercury (Hg)	mg/kg	0.068	<0.050	<0.050	<0.050	7074978	<0.050	0.050	7074978
Total Molybdenum (Mo)	mg/kg	0.51	0.41	<0.40	<0.40	7074978	0.66	0.40	7074978
Total Nickel (Ni)	mg/kg	11	11	8.4	10	7074978	14	1.0	7074978
Total Selenium (Se)	mg/kg	0.59	<0.50	<0.50	<0.50	7074978	<0.50	0.50	7074978
Total Silver (Ag)	mg/kg	<1.0	<1.0	<1.0	<1.0	7074978	<1.0	1.0	7074978
Total Thallium (Tl)	mg/kg	<0.30	<0.30	<0.30	<0.30	7074978	<0.30	0.30	7074978
Total Tin (Sn)	mg/kg	<1.0	<1.0	<1.0	<1.0	7074978	<1.0	1.0	7074978
Total Uranium (U)	mg/kg	<1.0	<1.0	<1.0	<1.0	7074978	<1.0	1.0	7074978
Total Vanadium (V)	mg/kg	13	12	11	11	7074978	18	1.0	7074978
Total Zinc (Zn)	mg/kg	26	26	27	26	7074978	29	10	7074978

RDL = Reportable Detection Limit

Maxxam Job #: B370060
Report Date: 2013/08/13

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JC

REGULATED METALS (CCME/AT1) - SOILS

Maxxam ID		HD8749		
Sampling Date		2013/08/09		
COC Number		A134522		
	UNITS	**EX-13-2DW (3.0M)**	**RDL**	**QC Batch**
Elements				
Hex. Chromium (Cr 6+)	mg/kg	<0.15	0.15	7073047
Total Antimony (Sb)	mg/kg	<1.0	1.0	7074978
Total Arsenic (As)	mg/kg	5.9	1.0	7074978
Total Barium (Ba)	mg/kg	97	10	7074978
Total Beryllium (Be)	mg/kg	<0.40	0.40	7074978
Total Cadmium (Cd)	mg/kg	<0.10	0.10	7074978
Total Chromium (Cr)	mg/kg	5.2	1.0	7074978
Total Cobalt (Co)	mg/kg	3.5	1.0	7074978
Total Copper (Cu)	mg/kg	<5.0	5.0	7074978
Total Lead (Pb)	mg/kg	3.5	1.0	7074978
Total Mercury (Hg)	mg/kg	<0.050	0.050	7074978
Total Molybdenum (Mo)	mg/kg	0.50	0.40	7074978
Total Nickel (Ni)	mg/kg	9.6	1.0	7074978
Total Selenium (Se)	mg/kg	<0.50	0.50	7074978
Total Silver (Ag)	mg/kg	<1.0	1.0	7074978
Total Thallium (Tl)	mg/kg	<0.30	0.30	7074978
Total Tin (Sn)	mg/kg	<1.0	1.0	7074978
Total Uranium (U)	mg/kg	<1.0	1.0	7074978
Total Vanadium (V)	mg/kg	12	1.0	7074978
Total Zinc (Zn)	mg/kg	24	10	7074978

RDL = Reportable Detection Limit

Maxxam Job #: B370060
Report Date: 2013/08/13

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JC

General Comments

Results relate only to the items tested.

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: CAMP FAREWELL
P.O. #: A04012A05
Site Location:

Quality Assurance Report

Maxxam Job Number: EB370060

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7070482	SHM	Matrix Spike	O-TERPHENYL (sur.)	2013/08/13		101	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/08/13		112	%	50 - 130
			F3 (C16-C34 Hydrocarbons)	2013/08/13		114	%	50 - 130
			F4 (C34-C50 Hydrocarbons)	2013/08/13		115	%	50 - 130
		Spiked Blank	O-TERPHENYL (sur.)	2013/08/13		97	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/08/13		109	%	70 - 130
			F3 (C16-C34 Hydrocarbons)	2013/08/13		111	%	70 - 130
			F4 (C34-C50 Hydrocarbons)	2013/08/13		111	%	70 - 130
		Method Blank	O-TERPHENYL (sur.)	2013/08/13		100	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/08/13	<10		mg/kg	
			F3 (C16-C34 Hydrocarbons)	2013/08/13	<50		mg/kg	
			F4 (C34-C50 Hydrocarbons)	2013/08/13	<50		mg/kg	
		RPD	F2 (C10-C16 Hydrocarbons)	2013/08/13	NC		%	50
			F3 (C16-C34 Hydrocarbons)	2013/08/13	NC		%	50
			F4 (C34-C50 Hydrocarbons)	2013/08/13	NC		%	50
7070533	RC6	Matrix Spike	1,4-Difluorobenzene (sur.)	2013/08/12		109	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/08/12		97	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/08/12		106	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/08/12		101	%	60 - 140
			Benzene	2013/08/12		108	%	60 - 140
			Toluene	2013/08/12		101	%	60 - 140
			Ethylbenzene	2013/08/12		102	%	60 - 140
			m & p-Xylene	2013/08/12		103	%	60 - 140
			o-Xylene	2013/08/12		103	%	60 - 140
			(C6-C10)	2013/08/12		102	%	60 - 140
		Spiked Blank	1,4-Difluorobenzene (sur.)	2013/08/12		99	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/08/12		97	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/08/12		100	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/08/12		102	%	60 - 140
			Benzene	2013/08/12		105	%	60 - 140
			Toluene	2013/08/12		96	%	60 - 140
			Ethylbenzene	2013/08/12		97	%	60 - 140
			m & p-Xylene	2013/08/12		96	%	60 - 140
			o-Xylene	2013/08/12		98	%	60 - 140
			(C6-C10)	2013/08/12		112	%	60 - 140
		Method Blank	1,4-Difluorobenzene (sur.)	2013/08/12		99	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/08/12		96	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/08/12		98	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/08/12		103	%	60 - 140
			Benzene	2013/08/12	<0.0050		mg/kg	
			Toluene	2013/08/12	<0.020		mg/kg	
			Ethylbenzene	2013/08/12	<0.010		mg/kg	
			Xylenes (Total)	2013/08/12	<0.040		mg/kg	
			m & p-Xylene	2013/08/12	<0.040		mg/kg	
			o-Xylene	2013/08/12	<0.020		mg/kg	
			F1 (C6-C10) - BTEX	2013/08/12	<12		mg/kg	
			(C6-C10)	2013/08/12	<12		mg/kg	
		RPD	Benzene	2013/08/12	NC		%	50
			Toluene	2013/08/12	NC		%	50
			Ethylbenzene	2013/08/12	NC		%	50
			Xylenes (Total)	2013/08/12	NC		%	50
			m & p-Xylene	2013/08/12	NC		%	50
			o-Xylene	2013/08/12	NC		%	50
			F1 (C6-C10) - BTEX	2013/08/12	NC		%	50
			(C6-C10)	2013/08/12	NC		%	50

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: CAMP FAREWELL
P.O. #: A04012A05
Site Location:

Quality Assurance Report (Continued)

Maxxam Job Number: EB370060

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7072594	CH7	QC Standard	Saturation %	2013/08/13		101	%	93 - 107
		RPD	Saturation %	2013/08/13	0.4		%	12
7072604	JSM	QC Standard	Saturation %	2013/08/13		103	%	93 - 107
		RPD	Saturation %	2013/08/13	1.3		%	12
7072666	MA4	QC Standard	Soluble (CaCl2) pH	2013/08/13		101	%	97 - 103
		Spiked Blank	Soluble (CaCl2) pH	2013/08/13		100	%	97 - 103
		RPD	Soluble (CaCl2) pH	2013/08/13	1.1		%	5
7072679	ABH	Method Blank	Moisture	2013/08/13	<0.30		%	
		RPD	Moisture	2013/08/13	3.8		%	20
7072960	LZ2	QC Standard	Soluble Conductivity	2013/08/13		87	%	85 - 115
		Spiked Blank	Soluble Conductivity	2013/08/13		100	%	90 - 110
		Method Blank	Soluble Conductivity	2013/08/13	<0.020		dS/m	
		RPD	Soluble Conductivity	2013/08/13	2.8		%	35
7072962	LCA	Matrix Spike	Hex. Chromium (Cr 6+)	2013/08/13		88	%	75 - 125
		Spiked Blank	Hex. Chromium (Cr 6+)	2013/08/13		105	%	90 - 110
		Method Blank	Hex. Chromium (Cr 6+)	2013/08/13	<0.15		mg/kg	
		RPD	Hex. Chromium (Cr 6+)	2013/08/13	NC		%	35
7073047	LCA	Matrix Spike	Hex. Chromium (Cr 6+)	2013/08/13		97	%	75 - 125
		Spiked Blank	Hex. Chromium (Cr 6+)	2013/08/13		104	%	90 - 110
		Method Blank	Hex. Chromium (Cr 6+)	2013/08/13	<0.15		mg/kg	
		RPD	Hex. Chromium (Cr 6+)	2013/08/13	NC		%	35
7073363	LZ2	QC Standard	Soluble Conductivity	2013/08/13		87	%	85 - 115
		Spiked Blank	Soluble Conductivity	2013/08/13		100	%	90 - 110
		Method Blank	Soluble Conductivity	2013/08/13	<0.020		dS/m	
		RPD	Soluble Conductivity	2013/08/13	8.2		%	35
7073815	JSM	Matrix Spike	Soluble Calcium (Ca)	2013/08/13		94	%	75 - 125
			Soluble Magnesium (Mg)	2013/08/13		105	%	75 - 125
			Soluble Sodium (Na)	2013/08/13		105	%	75 - 125
			Soluble Potassium (K)	2013/08/13		100	%	75 - 125
		QC Standard	Soluble Calcium (Ca)	2013/08/13		80	%	75 - 125
			Soluble Magnesium (Mg)	2013/08/13		89	%	75 - 125
			Soluble Sodium (Na)	2013/08/13		99	%	75 - 125
			Soluble Potassium (K)	2013/08/13		106	%	75 - 125
			Soluble Sulphate (SO4)	2013/08/13		85	%	78 - 122
		Spiked Blank	Soluble Calcium (Ca)	2013/08/13		97	%	75 - 125
			Soluble Magnesium (Mg)	2013/08/13		108	%	75 - 125
			Soluble Sodium (Na)	2013/08/13		107	%	75 - 125
			Soluble Potassium (K)	2013/08/13		102	%	75 - 125
		Method Blank	Soluble Calcium (Ca)	2013/08/13	<1.5		mg/L	
			Soluble Magnesium (Mg)	2013/08/13	<1.0		mg/L	
			Soluble Sodium (Na)	2013/08/13	<2.5		mg/L	
			Soluble Potassium (K)	2013/08/13	<1.3		mg/L	
			Soluble Sulphate (SO4)	2013/08/13	<5.0		mg/L	
		RPD	Soluble Calcium (Ca)	2013/08/13	4.3		%	35
			Soluble Magnesium (Mg)	2013/08/13	7.5		%	35
			Soluble Sodium (Na)	2013/08/13	NC		%	35
			Soluble Potassium (K)	2013/08/13	NC		%	35
			Soluble Sulphate (SO4)	2013/08/13	NC		%	35
7074230	EP1	Matrix Spike	Soluble Chloride (Cl)	2013/08/13		97	%	75 - 125
		QC Standard	Soluble Chloride (Cl)	2013/08/13		88	%	75 - 125
		Spiked Blank	Soluble Chloride (Cl)	2013/08/13		98	%	75 - 125
		Method Blank	Soluble Chloride (Cl)	2013/08/13	<5.0		mg/L	
		RPD	Soluble Chloride (Cl)	2013/08/13	NC		%	35
7074362	JSM	Matrix Spike	Soluble Calcium (Ca)	2013/08/13		107	%	75 - 125
			Soluble Magnesium (Mg)	2013/08/13		105	%	75 - 125

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: CAMP FAREWELL
P.O. #: A04012A05
Site Location:

Quality Assurance Report (Continued)

Maxxam Job Number: EB370060

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7074362	JSM	Matrix Spike	Soluble Sodium (Na)	2013/08/13		103	%	75 - 125
			Soluble Potassium (K)	2013/08/13		104	%	75 - 125
		QC Standard	Soluble Calcium (Ca)	2013/08/13		82	%	75 - 125
			Soluble Magnesium (Mg)	2013/08/13		80	%	75 - 125
			Soluble Sodium (Na)	2013/08/13		93	%	75 - 125
			Soluble Potassium (K)	2013/08/13		103	%	75 - 125
			Soluble Sulphate (SO4)	2013/08/13		84	%	78 - 122
		Spiked Blank	Soluble Calcium (Ca)	2013/08/13		108	%	75 - 125
			Soluble Magnesium (Mg)	2013/08/13		105	%	75 - 125
			Soluble Sodium (Na)	2013/08/13		103	%	75 - 125
			Soluble Potassium (K)	2013/08/13		104	%	75 - 125
		Method Blank	Soluble Calcium (Ca)	2013/08/13	<1.5		mg/L	
			Soluble Magnesium (Mg)	2013/08/13	<1.0		mg/L	
			Soluble Sodium (Na)	2013/08/13	<2.5		mg/L	
			Soluble Potassium (K)	2013/08/13	<1.3		mg/L	
			Soluble Sulphate (SO4)	2013/08/13	<5.0		mg/L	
		RPD	Soluble Calcium (Ca)	2013/08/13	10.9		%	35
			Soluble Magnesium (Mg)	2013/08/13	7.7		%	35
			Soluble Sodium (Na)	2013/08/13	2.8		%	35
			Soluble Potassium (K)	2013/08/13	0.3		%	35
			Soluble Sulphate (SO4)	2013/08/13	0.07		%	35
7074528	LCA	Matrix Spike	Soluble Chloride (Cl)	2013/08/13		105	%	75 - 125
		QC Standard	Soluble Chloride (Cl)	2013/08/13		91	%	75 - 125
		Spiked Blank	Soluble Chloride (Cl)	2013/08/13		99	%	75 - 125
		Method Blank	Soluble Chloride (Cl)	2013/08/13	<5.0		mg/L	
		RPD	Soluble Chloride (Cl)	2013/08/13	NC		%	35
7074978	WAU	Matrix Spike						
		[HD8745-01]	Total Antimony (Sb)	2013/08/13		91	%	75 - 125
			Total Arsenic (As)	2013/08/13		89	%	75 - 125
			Total Barium (Ba)	2013/08/13		NC	%	75 - 125
			Total Beryllium (Be)	2013/08/13		94	%	75 - 125
			Total Cadmium (Cd)	2013/08/13		88	%	75 - 125
			Total Chromium (Cr)	2013/08/13		91	%	75 - 125
			Total Cobalt (Co)	2013/08/13		89	%	75 - 125
			Total Copper (Cu)	2013/08/13		89	%	75 - 125
			Total Lead (Pb)	2013/08/13		87	%	75 - 125
			Total Mercury (Hg)	2013/08/13		95	%	75 - 125
			Total Molybdenum (Mo)	2013/08/13		94	%	75 - 125
			Total Nickel (Ni)	2013/08/13		89	%	75 - 125
			Total Selenium (Se)	2013/08/13		89	%	75 - 125
			Total Silver (Ag)	2013/08/13		95	%	75 - 125
			Total Thallium (Tl)	2013/08/13		83	%	75 - 125
			Total Tin (Sn)	2013/08/13		93	%	75 - 125
			Total Uranium (U)	2013/08/13		91	%	75 - 125
			Total Vanadium (V)	2013/08/13		99	%	75 - 125
			Total Zinc (Zn)	2013/08/13		NC	%	75 - 125
		QC Standard	Total Arsenic (As)	2013/08/13		116	%	50 - 150
			Total Barium (Ba)	2013/08/13		107	%	69 - 131
			Total Chromium (Cr)	2013/08/13		104	%	41 - 159
			Total Cobalt (Co)	2013/08/13		101	%	75 - 125
			Total Copper (Cu)	2013/08/13		101	%	73 - 127
			Total Lead (Pb)	2013/08/13		97	%	54 - 146
			Total Nickel (Ni)	2013/08/13		110	%	61 - 139
			Total Vanadium (V)	2013/08/13		122	%	50 - 150
			Total Zinc (Zn)	2013/08/13		101	%	72 - 128

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: CAMP FAREWELL
P.O. #: A04012A05
Site Location:

Quality Assurance Report (Continued)

Maxxam Job Number: EB370060

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7074978	WAU	Spiked Blank	Total Antimony (Sb)	2013/08/13		94	%	75 - 125
			Total Arsenic (As)	2013/08/13		94	%	75 - 125
			Total Barium (Ba)	2013/08/13		94	%	75 - 125
			Total Beryllium (Be)	2013/08/13		96	%	75 - 125
			Total Cadmium (Cd)	2013/08/13		91	%	75 - 125
			Total Chromium (Cr)	2013/08/13		94	%	75 - 125
			Total Cobalt (Co)	2013/08/13		94	%	75 - 125
			Total Copper (Cu)	2013/08/13		95	%	75 - 125
			Total Lead (Pb)	2013/08/13		93	%	75 - 125
			Total Mercury (Hg)	2013/08/13		100	%	75 - 125
			Total Molybdenum (Mo)	2013/08/13		95	%	75 - 125
			Total Nickel (Ni)	2013/08/13		95	%	75 - 125
			Total Selenium (Se)	2013/08/13		94	%	75 - 125
			Total Silver (Ag)	2013/08/13		98	%	75 - 125
			Total Thallium (Tl)	2013/08/13		87	%	75 - 125
			Total Tin (Sn)	2013/08/13		95	%	75 - 125
			Total Uranium (U)	2013/08/13		97	%	75 - 125
			Total Vanadium (V)	2013/08/13		96	%	75 - 125
			Total Zinc (Zn)	2013/08/13		93	%	75 - 125
		Method Blank	Total Antimony (Sb)	2013/08/13	<1.0		mg/kg	
			Total Arsenic (As)	2013/08/13	<1.0		mg/kg	
			Total Barium (Ba)	2013/08/13	<10		mg/kg	
			Total Beryllium (Be)	2013/08/13	<0.40		mg/kg	
			Total Cadmium (Cd)	2013/08/13	<0.10		mg/kg	
			Total Chromium (Cr)	2013/08/13	<1.0		mg/kg	
			Total Cobalt (Co)	2013/08/13	<1.0		mg/kg	
			Total Copper (Cu)	2013/08/13	<5.0		mg/kg	
			Total Lead (Pb)	2013/08/13	<1.0		mg/kg	
			Total Mercury (Hg)	2013/08/13	<0.050		mg/kg	
			Total Molybdenum (Mo)	2013/08/13	<0.40		mg/kg	
			Total Nickel (Ni)	2013/08/13	<1.0		mg/kg	
			Total Selenium (Se)	2013/08/13	<0.50		mg/kg	
			Total Silver (Ag)	2013/08/13	<1.0		mg/kg	
			Total Thallium (Tl)	2013/08/13	<0.30		mg/kg	
			Total Tin (Sn)	2013/08/13	<1.0		mg/kg	
			Total Uranium (U)	2013/08/13	<1.0		mg/kg	
			Total Vanadium (V)	2013/08/13	<1.0		mg/kg	
			Total Zinc (Zn)	2013/08/13	<10		mg/kg	
		RPD [HD8745-01]	Total Antimony (Sb)	2013/08/13	NC		%	35
			Total Arsenic (As)	2013/08/13	3.8		%	35
			Total Barium (Ba)	2013/08/13	8.4		%	35
			Total Beryllium (Be)	2013/08/13	NC		%	35
			Total Cadmium (Cd)	2013/08/13	NC		%	35
			Total Chromium (Cr)	2013/08/13	14.3		%	35
			Total Cobalt (Co)	2013/08/13	NC		%	35
			Total Copper (Cu)	2013/08/13	NC		%	35
			Total Lead (Pb)	2013/08/13	NC		%	35
			Total Mercury (Hg)	2013/08/13	NC		%	35
			Total Molybdenum (Mo)	2013/08/13	NC		%	35
			Total Nickel (Ni)	2013/08/13	7.5		%	35
			Total Selenium (Se)	2013/08/13	NC		%	35
			Total Silver (Ag)	2013/08/13	NC		%	35
			Total Thallium (Tl)	2013/08/13	NC		%	35
			Total Tin (Sn)	2013/08/13	NC		%	35
			Total Uranium (U)	2013/08/13	NC		%	35

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: CAMP FAREWELL
P.O. #: A04012A05
Site Location:

Quality Assurance Report (Continued)

Maxxam Job Number: EB370060

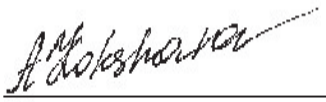
QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7074978	WAU	RPD [HD8745-01]	Total Vanadium (V)	2013/08/13	2.6		%	35
			Total Zinc (Zn)	2013/08/13	NC		%	35

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 spiked amount was not sufficiently significant to permit a reliable recovery calculation.
NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

Validation Signature Page

Maxxam Job #: B370060

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

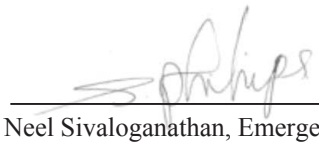


Anna Koksharova, Senior Analyst

Carol Gebhart, Senior Analyst

Dina Tleugabulova, Ph.D., Scientific Specialist, Inorganics Department

Michael Chae, Ph.D, Scientific Specialist



Neel Sivaloganathan, Emergency Spill Response Manager

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Maxxam

Calgary: 4000 19st St. NE, T2E 6P8. Ph: (403) 291-3077, Fax: (403) 735-2240, Toll free: (800) 386-7247
Edmonton: 9331 - 48 Street, T6B 2R4. Ph: (780) 577-7100, Fax: (780) 450-4187, Toll free: (877) 485-8889
www.maxxamanalytics.com

08/481

Chain of Custody

A134522

Page: 1 of 1

	Invoice To: C/O Report Address ☐	Report To: Same as Invoice ☒	Report Distribution (E-Mail):
Company:	IEG Consultants LTD.		NWills@klohn.com
Contact:	Nicole Wills		jcollins@klohn.com
Address:	2618 Hopewell Place NE		
	Prov: Calgary AB PC: T1Y 7J7	Prov: PC:	
Contact #s:	Ph: 403 824 3048 Cell:	Ph: Cell:	

REGULATORY GUIDELINES:
- ☐ AT1
- ☐ CCME
- ☐ Regulated Drinking Water
- ☐ Other:

All samples are held for 60 calendar days after sample receipt, unless specified otherwise.

PO #: A04012A05
Project # / Name: Comp Farewell
Site Location:
Quote #:
Sampled By: Jesse Collins / Nathan Shirley

SERVICE REQUESTED: ☒ RUSH (Contact lab to reserve) Date Required: ASAP ☐ REGULAR (5 to 7 Days)

See reverse for package specifics

	Sample ID	Depth (unit)	Matrix GW / SW Soil	Date/Time Sampled YY/MM/DD 24:00	SOIL: BTEX F1-F4	Sieve (75 micron)	Regulated Metals (CCME / AT1)	Salinity 4	Assessment ICP Metals	Basic Class II Landfill	WATER: ☐BTEX F1 ☐VOCs	☐BTEX F1-F2 ☐BTEX F1-F4	☐ Routine Water ☐ Turb ☐ F	☐ TOC ☐ DOC	Regulated Metals (CCME/ AT1) Total	Dissolved	Mercury ☐ Total ☐ Dissolved	Other Analysis	HOLD - Do not Analyze	# of Containers Submitted
1	EX-13-2AW (2.0m)	2.0m	Soil	13/08/09	X		X	X												2
2	EX-13-2AW (5.0m)	5.0m			X		X	X												2
3	EX-13-2AS (1.0m)	1.0m			X		X	X												2
4	EX-13-2BW (4.0m)	4.0m			X		X	X												2
5	EX-13-2CW (3.0m)	3.0m			X		X	X												2
6	EX-13-2DW (3.0m)	3.0m	↓	↓	X		X	X												2
7																				
8																				
9																				
10																				
11																				
12																				

Please indicate Filtered, Preserved or Both (F, P, F/P) → SBF/CMC F/P

Relinquished By (Signature/Print):	Date (YY/MM/DD):	Time (24:00):
Jesse Collins	13/08/10	1900
Relinquished By (Signature/Print):	Date (YY/MM/DD):	Time (24:00):

Special Instructions:

# of Jars Used & Not Submitted

LAB USE ONLY

Received By:	Date:	Time:	Maxxam Job #: B370060
Jenna Walter	20130812	0945	

Lab Comments:

Custody Seal	Temperature	Ice
present	11, 9, 10	present

Maxxam

Your P.O. #: A04012A05
Your Project #: CAMP FAREWELL
Your C.O.C. #: A134522

Attention: NICOLE WILLS

KLOHN CRIPPEN BERGER LTD
500-2618
HOPEWELL PLACE NE
CALGARY, AB
CANADA T1Y 7J7

Report Date: 2013/08/14

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B370060
Received: 2013/08/12, 9:45

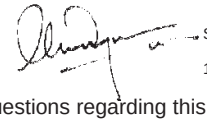
Sample Matrix: Soil
Samples Received: 6

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Boron (Hot Water Soluble)	6	2013/08/13	2013/08/14	AB SOP-00042	EPA 200.7
BTEX/F1 by HS GC/MS (MeOH extract)	6	2013/08/12	2013/08/13	AB SOP-00039	CCME, EPA 8260
Cation/EC Ratio	6	N/A	2013/08/13		CALCULATION
Chloride (Soluble)	6	2013/08/13	2013/08/13	AB SOP-00020	SSMA 4500 CL-E
Hexavalent Chromium	6	2013/08/12	2013/08/13	EENVSOP-00131	SM 3500-Cr B
Conductivity @25C (Soluble)	6	2013/08/13	2013/08/13	AB SOP-00004	SSMA 15.3
CCME Hydrocarbons (F2-F4 in soil)	6	2013/08/12	2013/08/13	AB SOP-00040 AB SOP-00036	CCME PHC-CWS
Elements by ICPMS - Soils	6	2013/08/13	2013/08/13	AB SOP-00043	EPA 200.8
Ion Balance	6	N/A	2013/08/13	AB WI-00065	SM 1030E
Sum of Cations, Anions	6	N/A	2013/08/13	AB WI-00065	SM 1030E
Moisture	6	N/A	2013/08/13	AB SOP-00002	CCME PHC-CWS
pH @25C (1:2 Calcium Chloride Extract)	6	2013/08/13	2013/08/13	AB SOP-00006	SSMA 16.3
Sodium Adsorption Ratio	6	N/A	2013/08/13	AB WI-00065	SSMA 15.4.4
Ca,Mg,Na,K,SO4 (Soluble)	6	2013/08/13	2013/08/13	AB SOP-00042	EPA 200.7
Soluble Paste	6	2013/08/13	2013/08/13	AB SOP-00033	SSMA 15.2
Soluble Ions Calculation	6	N/A	2013/08/13		CALCULATION
Theoretical Gypsum Requirement (1)	6	N/A	2013/08/13	CAL WI-00087	CJSS 79:449-455

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

(1) Units for TGR have changed from tons/acre to tonnes/ha

Encryption Key



Sherlyne Sim
14 Aug 2013 16:10:44 -06:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Tanya Eugine, M.Sc., Project Manager
Email: TEugine@maxxam.ca
Phone# (780) 577-7144

==========

Your P.O. #: A04012A05
Your Project #: CAMP FAREWELL
Your C.O.C. #: A134522

Attention: NICOLE WILLS

KLOHN CRIPPEN BERGER LTD
500-2618
HOPEWELL PLACE NE
CALGARY, AB
CANADA T1Y 7J7

Report Date: 2013/08/14

CERTIFICATE OF ANALYSIS

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.

Total cover pages: 2

Maxxam Job #: B370060
Report Date: 2013/08/14

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JC

AT1 BTEX AND F1-F4 IN SOIL (SOIL)

Maxxam ID		HD8744		HD8745	HD8746	HD8747	HD8748		
Sampling Date		2013/08/09		2013/08/09	2013/08/09	2013/08/09	2013/08/09		
COC Number		A134522		A134522	A134522	A134522	A134522		
	UNITS	**EX-13-2AW (2.0M)**	**RDL**	**EX-13-2AW (5.0M)**	**EX-13-2AS (1.0M)**	**EX-13-2BW (4.0M)**	**EX-13-2CW (3.0M)**	**RDL**	**QC Batch**
Physical Properties									
Moisture	%	51	0.30	7.8	9.4	8.1	7.6	0.30	7072679
Ext. Pet. Hydrocarbon									
F2 (C10-C16 Hydrocarbons)	mg/kg	<20 (1)	20	<10	<10	<10	<10	10	7070482
F3 (C16-C34 Hydrocarbons)	mg/kg	390 (1)	100	<50	<50	<50	<50	50	7070482
F4 (C34-C50 Hydrocarbons)	mg/kg	<100 (1)	100	<50	<50	<50	<50	50	7070482
Reached Baseline at C50	mg/kg	Yes	N/A	Yes	Yes	Yes	Yes	N/A	7070482
Volatiles									
Benzene	mg/kg	<0.010 (1)	0.010	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	7070533
Toluene	mg/kg	<0.040 (1)	0.040	<0.020	0.034	<0.020	<0.020	0.020	7070533
Ethylbenzene	mg/kg	<0.020 (1)	0.020	<0.010	<0.010	<0.010	<0.010	0.010	7070533
Xylenes (Total)	mg/kg	<0.081 (1)	0.081	<0.040	<0.040	<0.040	<0.040	0.040	7070533
m & p-Xylene	mg/kg	<0.081 (1)	0.081	<0.040	<0.040	<0.040	<0.040	0.040	7070533
o-Xylene	mg/kg	<0.040 (1)	0.040	<0.020	<0.020	<0.020	<0.020	0.020	7070533
F1 (C6-C10) - BTEX	mg/kg	<24 (1)	24	<12	<12	<12	<12	12	7070533
(C6-C10)	mg/kg	<24 (1)	24	<12	<12	<12	<12	12	7070533
Surrogate Recovery (%)									
1,4-Difluorobenzene (sur.)	%	125	N/A	102	104	104	104	N/A	7070533
4-BROMOFLUOROBENZENE (sur.)	%	98	N/A	98	99	98	98	N/A	7070533
D10-ETHYLBENZENE (sur.)	%	95	N/A	101	99	101	103	N/A	7070533
D4-1,2-DICHLOROETHANE (sur.)	%	103	N/A	103	104	104	103	N/A	7070533
O-TERPHENYL (sur.)	%	105	N/A	93	96	96	96	N/A	7070482

N/A = Not Applicable
RDL = Reportable Detection Limit
(1) Detection limits raised due to high moisture content.

Maxxam Job #: B370060
Report Date: 2013/08/14

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JC

AT1 BTEX AND F1-F4 IN SOIL (SOIL)

Maxxam ID		HD8749		
Sampling Date		2013/08/09		
COC Number		A134522		
	UNITS	**EX-13-2DW (3.0M)**	**RDL**	**QC Batch**
Physical Properties				
Moisture	%	4.3	0.30	7072679
Ext. Pet. Hydrocarbon				
F2 (C10-C16 Hydrocarbons)	mg/kg	<10	10	7070482
F3 (C16-C34 Hydrocarbons)	mg/kg	<50	50	7070482
F4 (C34-C50 Hydrocarbons)	mg/kg	<50	50	7070482
Reached Baseline at C50	mg/kg	Yes	N/A	7070482
Volatiles				
Benzene	mg/kg	<0.0050	0.0050	7070533
Toluene	mg/kg	<0.020	0.020	7070533
Ethylbenzene	mg/kg	<0.010	0.010	7070533
Xylenes (Total)	mg/kg	<0.040	0.040	7070533
m & p-Xylene	mg/kg	<0.040	0.040	7070533
o-Xylene	mg/kg	<0.020	0.020	7070533
F1 (C6-C10) - BTEX	mg/kg	<12	12	7070533
(C6-C10)	mg/kg	<12	12	7070533
Surrogate Recovery (%)				
1,4-Difluorobenzene (sur.)	%	101	N/A	7070533
4-BROMOFLUOROBENZENE (sur.)	%	97	N/A	7070533
D10-ETHYLBENZENE (sur.)	%	101	N/A	7070533
D4-1,2-DICHLOROETHANE (sur.)	%	102	N/A	7070533
O-TERPHENYL (sur.)	%	100	N/A	7070482

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Job #: B370060
Report Date: 2013/08/14

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JC

SOIL SALINITY 4 (SOIL)

Maxxam ID		HD8744		HD8745			HD8746		
Sampling Date		2013/08/09		2013/08/09			2013/08/09		
COC Number		A134522		A134522			A134522		
	UNITS	**EX-13-2AW (2.0M)**	**RDL**	**EX-13-2AW (5.0M)**	**RDL**	**QC Batch**	**EX-13-2AS (1.0M)**	**RDL**	**QC Batch**
Calculated Parameters									
Anion Sum	meq/L	2.6	N/A	6.1	N/A	7070228	1.3	N/A	7070228
Cation Sum	meq/L	4.3	N/A	6.5	N/A	7070228	3.1	N/A	7070228
Cation/EC Ratio	N/A	12	0.10	9.1	0.10	7070221	9.2	0.10	7070221
Ion Balance	N/A	1.6	0.010	1.1	0.010	7070227	2.3	0.010	7070227
Calculated Calcium (Ca)	mg/kg	35	1.8	19	0.46	7070230	15	0.70	7070230
Calculated Magnesium (Mg)	mg/kg	11	1.2	5.0	0.31	7070230	3.1	0.47	7070230
Calculated Sodium (Na)	mg/kg	57	3.0	12	0.77	7070230	6.4	1.2	7070230
Calculated Potassium (K)	mg/kg	3.9	1.6	4.2	0.40	7070230	6.9	0.61	7070230
Calculated Chloride (Cl)	mg/kg	60	6.1	7.0	1.6	7070230	8.2	2.3	7070230
Calculated Sulphate (SO4)	mg/kg	73	6.1	82	1.6	7070230	19	2.3	7070230
Soluble Parameters									
Soluble Chloride (Cl)	mg/L	50	5.0	23	5.0	7074230	18	5.0	7074528
Soluble Conductivity	dS/m	0.37	0.020	0.71	0.020	7072960	0.33	0.020	7073363
Soluble (CaCl2) pH	N/A	6.87	N/A	7.58	N/A	7072666	7.24	N/A	7072666
Sodium Adsorption Ratio	N/A	1.9	0.10	1.1	0.10	7070229	0.58	0.10	7070229
Soluble Calcium (Ca)	mg/L	29	1.5	62	1.5	7073815	31	1.5	7074362
Soluble Magnesium (Mg)	mg/L	9.4	1.0	16	1.0	7073815	6.6	1.0	7074362
Soluble Sodium (Na)	mg/L	47	2.5	39	2.5	7073815	14	2.5	7074362
Soluble Potassium (K)	mg/L	3.2	1.3	14	1.3	7073815	15	1.3	7074362
Saturation %	%	120	N/A	31	N/A	7072594	47	N/A	7072604
Soluble Sulphate (SO4)	mg/L	60	5.0	260	5.0	7073815	40	5.0	7074362
Theoretical Gypsum Requirement	tonnes/ha	<0.10	0.10	<0.10	0.10	7070231	<0.10	0.10	7070231

RDL = Reportable Detection Limit

Maxxam Job #: B370060
Report Date: 2013/08/14

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JC

SOIL SALINITY 4 (SOIL)

Maxxam ID		HD8747		HD8748		HD8749		
Sampling Date		2013/08/09		2013/08/09		2013/08/09		
COC Number		A134522		A134522		A134522		
	UNITS	**EX-13-2BW (4.0M)**	**RDL**	**EX-13-2CW (3.0M)**	**RDL**	**EX-13-2DW (3.0M)**	**RDL**	**QC Batch**
Calculated Parameters								
Anion Sum	meq/L	1.0	N/A	1.1	N/A	0.61	N/A	7070228
Cation Sum	meq/L	1.8	N/A	2.1	N/A	1.8	N/A	7070228
Cation/EC Ratio	N/A	9.9	0.10	11	0.10	12	0.10	7070221
Ion Balance	N/A	1.8	0.010	1.9	0.010	2.9	0.010	7070227
Calculated Calcium (Ca)	mg/kg	4.7	0.48	3.9	0.51	4.0	0.42	7070230
Calculated Magnesium (Mg)	mg/kg	0.70	0.32	0.73	0.34	1.1	0.28	7070230
Calculated Sodium (Na)	mg/kg	5.8	0.80	9.9	0.84	4.5	0.69	7070230
Calculated Potassium (K)	mg/kg	1.1	0.41	1.1	0.44	0.53	0.36	7070230
Calculated Chloride (Cl)	mg/kg	2.8	1.6	3.9	1.7	2.3	1.4	7070230
Calculated Sulphate (SO4)	mg/kg	12	1.6	13	1.7	5.1	1.4	7070230
Soluble Parameters								
Soluble Chloride (Cl)	mg/L	8.8	5.0	12	5.0	8.3	5.0	7074528
Soluble Conductivity	dS/m	0.18	0.020	0.19	0.020	0.15	0.020	7073363
Soluble (CaCl2) pH	N/A	7.56	N/A	7.02	N/A	7.49	N/A	7072666
Sodium Adsorption Ratio	N/A	1.2	0.10	2.1	0.10	0.96	0.10	7070229
Soluble Calcium (Ca)	mg/L	15	1.5	12	1.5	14	1.5	7074362
Soluble Magnesium (Mg)	mg/L	2.2	1.0	2.2	1.0	4.1	1.0	7074362
Soluble Sodium (Na)	mg/L	18	2.5	29	2.5	16	2.5	7074362
Soluble Potassium (K)	mg/L	3.4	1.3	3.1	1.3	1.9	1.3	7074362
Saturation %	%	32	N/A	34	N/A	28	N/A	7072604
Soluble Sulphate (SO4)	mg/L	37	5.0	39	5.0	18	5.0	7074362
Theoretical Gypsum Requirement	tonnes/ha	<0.10	0.10	<0.10	0.10	<0.10	0.10	7070231

RDL = Reportable Detection Limit

Maxxam Job #: B370060
Report Date: 2013/08/14

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JC

REGULATED METALS (CCME/AT1) - SOILS

Maxxam ID		HD8744		HD8745	HD8745	HD8746	HD8747		
Sampling Date		2013/08/09		2013/08/09	2013/08/09	2013/08/09	2013/08/09		
COC Number		A134522		A134522	A134522	A134522	A134522		
	UNITS	**EX-13-2AW (2.0M)**	**RDL**	**EX-13-2AW (5.0M)**	**EX-13-2AW (5.0M) Lab-Dup**	**EX-13-2AS (1.0M)**	**EX-13-2BW (4.0M)**	**RDL**	**QC Batch**
Elements									
Soluble (Hot water) Boron (B)	mg/kg	1.4 (1)	0.20	0.11	N/A	0.19	<0.10	0.10	7075074
Hex. Chromium (Cr 6+)	mg/kg	<0.15	0.15	<0.15	N/A	<0.15	<0.15	0.15	7072962
Total Antimony (Sb)	mg/kg	<1.0	1.0	<1.0	<1.0	<1.0	<1.0	1.0	7074978
Total Arsenic (As)	mg/kg	4.1	1.0	5.2	5.0	3.2	4.9	1.0	7074978
Total Barium (Ba)	mg/kg	220	10	62	67	170	71	10	7074978
Total Beryllium (Be)	mg/kg	<0.40	0.40	<0.40	<0.40	<0.40	<0.40	0.40	7074978
Total Cadmium (Cd)	mg/kg	0.18	0.10	<0.10	<0.10	<0.10	<0.10	0.10	7074978
Total Chromium (Cr)	mg/kg	7.4	1.0	6.4	5.6	5.9	5.6	1.0	7074978
Total Cobalt (Co)	mg/kg	3.2	1.0	3.9	3.6	2.8	3.7	1.0	7074978
Total Copper (Cu)	mg/kg	6.2	5.0	<5.0	<5.0	<5.0	<5.0	5.0	7074978
Total Lead (Pb)	mg/kg	3.4	1.0	2.8	2.9	4.4	2.7	1.0	7074978
Total Mercury (Hg)	mg/kg	0.068	0.050	<0.050	<0.050	<0.050	<0.050	0.050	7074978
Total Molybdenum (Mo)	mg/kg	0.51	0.40	0.41	0.45	<0.40	<0.40	0.40	7074978
Total Nickel (Ni)	mg/kg	11	1.0	11	10	8.4	10	1.0	7074978
Total Selenium (Se)	mg/kg	0.59	0.50	<0.50	<0.50	<0.50	<0.50	0.50	7074978
Total Silver (Ag)	mg/kg	<1.0	1.0	<1.0	<1.0	<1.0	<1.0	1.0	7074978
Total Thallium (Tl)	mg/kg	<0.30	0.30	<0.30	<0.30	<0.30	<0.30	0.30	7074978
Total Tin (Sn)	mg/kg	<1.0	1.0	<1.0	<1.0	<1.0	<1.0	1.0	7074978
Total Uranium (U)	mg/kg	<1.0	1.0	<1.0	<1.0	<1.0	<1.0	1.0	7074978
Total Vanadium (V)	mg/kg	13	1.0	12	11	11	11	1.0	7074978
Total Zinc (Zn)	mg/kg	26	10	26	26	27	26	10	7074978

N/A = Not Applicable
RDL = Reportable Detection Limit
(1) Detection limits raised based on sample weight used for analysis.

Maxxam Job #: B370060
Report Date: 2013/08/14

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JC

REGULATED METALS (CCME/AT1) - SOILS

Maxxam ID		HD8748	HD8749		
Sampling Date		2013/08/09	2013/08/09		
COC Number		A134522	A134522		
	UNITS	**EX-13-2CW (3.0M)**	**EX-13-2DW (3.0M)**	**RDL**	**QC Batch**
Elements					
Soluble (Hot water) Boron (B)	mg/kg	0.23	<0.10	0.10	7075074
Hex. Chromium (Cr 6+)	mg/kg	<0.15	<0.15	0.15	7073047
Total Antimony (Sb)	mg/kg	<1.0	<1.0	1.0	7074978
Total Arsenic (As)	mg/kg	6.9	5.9	1.0	7074978
Total Barium (Ba)	mg/kg	150	97	10	7074978
Total Beryllium (Be)	mg/kg	<0.40	<0.40	0.40	7074978
Total Cadmium (Cd)	mg/kg	0.11	<0.10	0.10	7074978
Total Chromium (Cr)	mg/kg	8.9	5.2	1.0	7074978
Total Cobalt (Co)	mg/kg	5.1	3.5	1.0	7074978
Total Copper (Cu)	mg/kg	6.7	<5.0	5.0	7074978
Total Lead (Pb)	mg/kg	4.8	3.5	1.0	7074978
Total Mercury (Hg)	mg/kg	<0.050	<0.050	0.050	7074978
Total Molybdenum (Mo)	mg/kg	0.66	0.50	0.40	7074978
Total Nickel (Ni)	mg/kg	14	9.6	1.0	7074978
Total Selenium (Se)	mg/kg	<0.50	<0.50	0.50	7074978
Total Silver (Ag)	mg/kg	<1.0	<1.0	1.0	7074978
Total Thallium (Tl)	mg/kg	<0.30	<0.30	0.30	7074978
Total Tin (Sn)	mg/kg	<1.0	<1.0	1.0	7074978
Total Uranium (U)	mg/kg	<1.0	<1.0	1.0	7074978
Total Vanadium (V)	mg/kg	18	12	1.0	7074978
Total Zinc (Zn)	mg/kg	29	24	10	7074978

RDL = Reportable Detection Limit

Maxxam Job #: B370060
Report Date: 2013/08/14

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JC

Package 1	10.0°C

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

General Comments

Results relate only to the items tested.

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: CAMP FAREWELL
P.O. #: A04012A05
Site Location:

Quality Assurance Report

Maxxam Job Number: EB370060

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7070482	SHM	Matrix Spike	O-TERPHENYL (sur.)	2013/08/13		101	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/08/13		112	%	50 - 130
			F3 (C16-C34 Hydrocarbons)	2013/08/13		114	%	50 - 130
			F4 (C34-C50 Hydrocarbons)	2013/08/13		115	%	50 - 130
		Spiked Blank	O-TERPHENYL (sur.)	2013/08/13		97	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/08/13		109	%	70 - 130
			F3 (C16-C34 Hydrocarbons)	2013/08/13		111	%	70 - 130
			F4 (C34-C50 Hydrocarbons)	2013/08/13		111	%	70 - 130
		Method Blank	O-TERPHENYL (sur.)	2013/08/13		100	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/08/13	<10		mg/kg	
			F3 (C16-C34 Hydrocarbons)	2013/08/13	<50		mg/kg	
			F4 (C34-C50 Hydrocarbons)	2013/08/13	<50		mg/kg	
		RPD	F2 (C10-C16 Hydrocarbons)	2013/08/13	NC		%	50
			F3 (C16-C34 Hydrocarbons)	2013/08/13	NC		%	50
			F4 (C34-C50 Hydrocarbons)	2013/08/13	NC		%	50
7070533	RC6	Matrix Spike	1,4-Difluorobenzene (sur.)	2013/08/12		109	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/08/12		97	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/08/12		106	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/08/12		101	%	60 - 140
			Benzene	2013/08/12		108	%	60 - 140
			Toluene	2013/08/12		101	%	60 - 140
			Ethylbenzene	2013/08/12		102	%	60 - 140
			m & p-Xylene	2013/08/12		103	%	60 - 140
			o-Xylene	2013/08/12		103	%	60 - 140
			(C6-C10)	2013/08/12		102	%	60 - 140
		Spiked Blank	1,4-Difluorobenzene (sur.)	2013/08/12		99	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/08/12		97	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/08/12		100	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/08/12		102	%	60 - 140
			Benzene	2013/08/12		105	%	60 - 140
			Toluene	2013/08/12		96	%	60 - 140
			Ethylbenzene	2013/08/12		97	%	60 - 140
			m & p-Xylene	2013/08/12		96	%	60 - 140
			o-Xylene	2013/08/12		98	%	60 - 140
			(C6-C10)	2013/08/12		112	%	60 - 140
		Method Blank	1,4-Difluorobenzene (sur.)	2013/08/12		99	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/08/12		96	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/08/12		98	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/08/12		103	%	60 - 140
			Benzene	2013/08/12	<0.0050		mg/kg	
			Toluene	2013/08/12	<0.020		mg/kg	
			Ethylbenzene	2013/08/12	<0.010		mg/kg	
			Xylenes (Total)	2013/08/12	<0.040		mg/kg	
			m & p-Xylene	2013/08/12	<0.040		mg/kg	
			o-Xylene	2013/08/12	<0.020		mg/kg	
			F1 (C6-C10) - BTEX	2013/08/12	<12		mg/kg	
			(C6-C10)	2013/08/12	<12		mg/kg	
		RPD	Benzene	2013/08/12	NC		%	50
			Toluene	2013/08/12	NC		%	50
			Ethylbenzene	2013/08/12	NC		%	50
			Xylenes (Total)	2013/08/12	NC		%	50
			m & p-Xylene	2013/08/12	NC		%	50
			o-Xylene	2013/08/12	NC		%	50
			F1 (C6-C10) - BTEX	2013/08/12	NC		%	50
			(C6-C10)	2013/08/12	NC		%	50

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: CAMP FAREWELL
P.O. #: A04012A05
Site Location:

Quality Assurance Report (Continued)

Maxxam Job Number: EB370060

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7072594	CH7	QC Standard	Saturation %	2013/08/13		101	%	93 - 107
		RPD	Saturation %	2013/08/13	0.4		%	12
7072604	JSM	QC Standard	Saturation %	2013/08/13		103	%	93 - 107
		RPD	Saturation %	2013/08/13	1.3		%	12
7072666	MA4	QC Standard	Soluble (CaCl2) pH	2013/08/13		101	%	97 - 103
		Spiked Blank	Soluble (CaCl2) pH	2013/08/13		100	%	97 - 103
		RPD	Soluble (CaCl2) pH	2013/08/13	1.1		%	5
7072679	ABH	Method Blank	Moisture	2013/08/13	<0.30		%	
		RPD	Moisture	2013/08/13	3.8		%	20
7072960	LZ2	QC Standard	Soluble Conductivity	2013/08/13		87	%	85 - 115
		Spiked Blank	Soluble Conductivity	2013/08/13		100	%	90 - 110
		Method Blank	Soluble Conductivity	2013/08/13	<0.020		dS/m	
		RPD	Soluble Conductivity	2013/08/13	2.8		%	35
7072962	LCA	Matrix Spike	Hex. Chromium (Cr 6+)	2013/08/13		88	%	75 - 125
		Spiked Blank	Hex. Chromium (Cr 6+)	2013/08/13		105	%	90 - 110
		Method Blank	Hex. Chromium (Cr 6+)	2013/08/13	<0.15		mg/kg	
		RPD	Hex. Chromium (Cr 6+)	2013/08/13	NC		%	35
7073047	LCA	Matrix Spike	Hex. Chromium (Cr 6+)	2013/08/13		97	%	75 - 125
		Spiked Blank	Hex. Chromium (Cr 6+)	2013/08/13		104	%	90 - 110
		Method Blank	Hex. Chromium (Cr 6+)	2013/08/13	<0.15		mg/kg	
		RPD	Hex. Chromium (Cr 6+)	2013/08/13	NC		%	35
7073363	LZ2	QC Standard	Soluble Conductivity	2013/08/13		87	%	85 - 115
		Spiked Blank	Soluble Conductivity	2013/08/13		100	%	90 - 110
		Method Blank	Soluble Conductivity	2013/08/13	<0.020		dS/m	
		RPD	Soluble Conductivity	2013/08/13	8.2		%	35
7073815	JSM	Matrix Spike	Soluble Calcium (Ca)	2013/08/13		94	%	75 - 125
			Soluble Magnesium (Mg)	2013/08/13		105	%	75 - 125
			Soluble Sodium (Na)	2013/08/13		105	%	75 - 125
			Soluble Potassium (K)	2013/08/13		100	%	75 - 125
		QC Standard	Soluble Calcium (Ca)	2013/08/13		80	%	75 - 125
			Soluble Magnesium (Mg)	2013/08/13		89	%	75 - 125
			Soluble Sodium (Na)	2013/08/13		99	%	75 - 125
			Soluble Potassium (K)	2013/08/13		106	%	75 - 125
			Soluble Sulphate (SO4)	2013/08/13		85	%	78 - 122
		Spiked Blank	Soluble Calcium (Ca)	2013/08/13		97	%	75 - 125
			Soluble Magnesium (Mg)	2013/08/13		108	%	75 - 125
			Soluble Sodium (Na)	2013/08/13		107	%	75 - 125
			Soluble Potassium (K)	2013/08/13		102	%	75 - 125
		Method Blank	Soluble Calcium (Ca)	2013/08/13	<1.5		mg/L	
			Soluble Magnesium (Mg)	2013/08/13	<1.0		mg/L	
			Soluble Sodium (Na)	2013/08/13	<2.5		mg/L	
			Soluble Potassium (K)	2013/08/13	<1.3		mg/L	
			Soluble Sulphate (SO4)	2013/08/13	<5.0		mg/L	
		RPD	Soluble Calcium (Ca)	2013/08/13	4.3		%	35
			Soluble Magnesium (Mg)	2013/08/13	7.5		%	35
			Soluble Sodium (Na)	2013/08/13	NC		%	35
			Soluble Potassium (K)	2013/08/13	NC		%	35
			Soluble Sulphate (SO4)	2013/08/13	NC		%	35
7074230	EP1	Matrix Spike	Soluble Chloride (Cl)	2013/08/13		97	%	75 - 125
		QC Standard	Soluble Chloride (Cl)	2013/08/13		88	%	75 - 125
		Spiked Blank	Soluble Chloride (Cl)	2013/08/13		98	%	75 - 125
		Method Blank	Soluble Chloride (Cl)	2013/08/13	<5.0		mg/L	
		RPD	Soluble Chloride (Cl)	2013/08/13	NC		%	35
7074362	JSM	Matrix Spike	Soluble Calcium (Ca)	2013/08/13		107	%	75 - 125
			Soluble Magnesium (Mg)	2013/08/13		105	%	75 - 125

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: CAMP FAREWELL
P.O. #: A04012A05
Site Location:

Quality Assurance Report (Continued)

Maxxam Job Number: EB370060

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7074362	JSM	Matrix Spike	Soluble Sodium (Na)	2013/08/13		103	%	75 - 125
			Soluble Potassium (K)	2013/08/13		104	%	75 - 125
		QC Standard	Soluble Calcium (Ca)	2013/08/13		82	%	75 - 125
			Soluble Magnesium (Mg)	2013/08/13		80	%	75 - 125
			Soluble Sodium (Na)	2013/08/13		93	%	75 - 125
			Soluble Potassium (K)	2013/08/13		103	%	75 - 125
			Soluble Sulphate (SO4)	2013/08/13		84	%	78 - 122
		Spiked Blank	Soluble Calcium (Ca)	2013/08/13		108	%	75 - 125
			Soluble Magnesium (Mg)	2013/08/13		105	%	75 - 125
			Soluble Sodium (Na)	2013/08/13		103	%	75 - 125
			Soluble Potassium (K)	2013/08/13		104	%	75 - 125
		Method Blank	Soluble Calcium (Ca)	2013/08/13	<1.5		mg/L	
			Soluble Magnesium (Mg)	2013/08/13	<1.0		mg/L	
			Soluble Sodium (Na)	2013/08/13	<2.5		mg/L	
			Soluble Potassium (K)	2013/08/13	<1.3		mg/L	
			Soluble Sulphate (SO4)	2013/08/13	<5.0		mg/L	
		RPD	Soluble Calcium (Ca)	2013/08/13	10.9		%	35
			Soluble Magnesium (Mg)	2013/08/13	7.7		%	35
			Soluble Sodium (Na)	2013/08/13	2.8		%	35
			Soluble Potassium (K)	2013/08/13	0.3		%	35
			Soluble Sulphate (SO4)	2013/08/13	0.07		%	35
7074528	LCA	Matrix Spike	Soluble Chloride (Cl)	2013/08/13		105	%	75 - 125
		QC Standard	Soluble Chloride (Cl)	2013/08/13		91	%	75 - 125
		Spiked Blank	Soluble Chloride (Cl)	2013/08/13		99	%	75 - 125
		Method Blank	Soluble Chloride (Cl)	2013/08/13	<5.0		mg/L	
		RPD	Soluble Chloride (Cl)	2013/08/13	NC		%	35
7074978	WAU	Matrix Spike						
		[HD8745-01]	Total Antimony (Sb)	2013/08/13		91	%	75 - 125
			Total Arsenic (As)	2013/08/13		89	%	75 - 125
			Total Barium (Ba)	2013/08/13		NC	%	75 - 125
			Total Beryllium (Be)	2013/08/13		94	%	75 - 125
			Total Cadmium (Cd)	2013/08/13		88	%	75 - 125
			Total Chromium (Cr)	2013/08/13		91	%	75 - 125
			Total Cobalt (Co)	2013/08/13		89	%	75 - 125
			Total Copper (Cu)	2013/08/13		89	%	75 - 125
			Total Lead (Pb)	2013/08/13		87	%	75 - 125
			Total Magnesium (Mg)	2013/08/13		NC	%	75 - 125
			Total Mercury (Hg)	2013/08/13		95	%	75 - 125
			Total Molybdenum (Mo)	2013/08/13		94	%	75 - 125
			Total Nickel (Ni)	2013/08/13		89	%	75 - 125
			Total Selenium (Se)	2013/08/13		89	%	75 - 125
			Total Silver (Ag)	2013/08/13		95	%	75 - 125
			Total Thallium (Tl)	2013/08/13		83	%	75 - 125
			Total Tin (Sn)	2013/08/13		93	%	75 - 125
			Total Uranium (U)	2013/08/13		91	%	75 - 125
			Total Vanadium (V)	2013/08/13		99	%	75 - 125
			Total Zinc (Zn)	2013/08/13		NC	%	75 - 125
		QC Standard	Total Arsenic (As)	2013/08/13		116	%	50 - 150
			Total Barium (Ba)	2013/08/13		107	%	69 - 131
			Total Chromium (Cr)	2013/08/13		104	%	41 - 159
			Total Cobalt (Co)	2013/08/13		101	%	75 - 125
			Total Copper (Cu)	2013/08/13		101	%	73 - 127
			Total Lead (Pb)	2013/08/13		97	%	54 - 146
			Total Magnesium (Mg)	2013/08/13		92	%	69 - 131
			Total Nickel (Ni)	2013/08/13		110	%	61 - 139

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: CAMP FAREWELL
P.O. #: A04012A05
Site Location:

Quality Assurance Report (Continued)

Maxxam Job Number: EB370060

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7074978	WAU	QC Standard	Total Vanadium (V)	2013/08/13		122	%	50 - 150
			Total Zinc (Zn)	2013/08/13		101	%	72 - 128
		Spiked Blank	Total Antimony (Sb)	2013/08/13		94	%	75 - 125
			Total Arsenic (As)	2013/08/13		94	%	75 - 125
			Total Barium (Ba)	2013/08/13		94	%	75 - 125
			Total Beryllium (Be)	2013/08/13		96	%	75 - 125
			Total Cadmium (Cd)	2013/08/13		91	%	75 - 125
			Total Chromium (Cr)	2013/08/13		94	%	75 - 125
			Total Cobalt (Co)	2013/08/13		94	%	75 - 125
			Total Copper (Cu)	2013/08/13		95	%	75 - 125
			Total Lead (Pb)	2013/08/13		93	%	75 - 125
			Total Magnesium (Mg)	2013/08/13		96	%	75 - 125
			Total Mercury (Hg)	2013/08/13		100	%	75 - 125
			Total Molybdenum (Mo)	2013/08/13		95	%	75 - 125
			Total Nickel (Ni)	2013/08/13		95	%	75 - 125
			Total Selenium (Se)	2013/08/13		94	%	75 - 125
			Total Silver (Ag)	2013/08/13		98	%	75 - 125
			Total Thallium (Tl)	2013/08/13		87	%	75 - 125
			Total Tin (Sn)	2013/08/13		95	%	75 - 125
			Total Uranium (U)	2013/08/13		97	%	75 - 125
			Total Vanadium (V)	2013/08/13		96	%	75 - 125
			Total Zinc (Zn)	2013/08/13		93	%	75 - 125
		Method Blank	Total Antimony (Sb)	2013/08/13	<1.0		mg/kg	
			Total Arsenic (As)	2013/08/13	<1.0		mg/kg	
			Total Barium (Ba)	2013/08/13	<10		mg/kg	
			Total Beryllium (Be)	2013/08/13	<0.40		mg/kg	
			Total Cadmium (Cd)	2013/08/13	<0.10		mg/kg	
			Total Chromium (Cr)	2013/08/13	<1.0		mg/kg	
			Total Cobalt (Co)	2013/08/13	<1.0		mg/kg	
			Total Copper (Cu)	2013/08/13	<5.0		mg/kg	
			Total Lead (Pb)	2013/08/13	<1.0		mg/kg	
			Total Magnesium (Mg)	2013/08/13	<100		mg/kg	
			Total Mercury (Hg)	2013/08/13	<0.050		mg/kg	
			Total Molybdenum (Mo)	2013/08/13	<0.40		mg/kg	
			Total Nickel (Ni)	2013/08/13	<1.0		mg/kg	
			Total Selenium (Se)	2013/08/13	<0.50		mg/kg	
			Total Silver (Ag)	2013/08/13	<1.0		mg/kg	
			Total Thallium (Tl)	2013/08/13	<0.30		mg/kg	
			Total Tin (Sn)	2013/08/13	<1.0		mg/kg	
			Total Uranium (U)	2013/08/13	<1.0		mg/kg	
			Total Vanadium (V)	2013/08/13	<1.0		mg/kg	
			Total Zinc (Zn)	2013/08/13	<10		mg/kg	
		RPD [HD8745-01]	Total Antimony (Sb)	2013/08/13	NC		%	35
			Total Arsenic (As)	2013/08/13	3.8		%	35
			Total Barium (Ba)	2013/08/13	8.4		%	35
			Total Beryllium (Be)	2013/08/13	NC		%	35
			Total Cadmium (Cd)	2013/08/13	NC		%	35
			Total Chromium (Cr)	2013/08/13	14.3		%	35
			Total Cobalt (Co)	2013/08/13	NC		%	35
			Total Copper (Cu)	2013/08/13	NC		%	35
			Total Lead (Pb)	2013/08/13	NC		%	35
			Total Mercury (Hg)	2013/08/13	NC		%	35
			Total Molybdenum (Mo)	2013/08/13	NC		%	35
			Total Nickel (Ni)	2013/08/13	7.5		%	35
			Total Selenium (Se)	2013/08/13	NC		%	35

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: CAMP FAREWELL
P.O. #: A04012A05
Site Location:

Quality Assurance Report (Continued)

Maxxam Job Number: EB370060

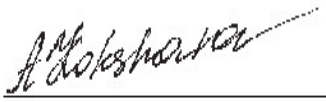
QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7074978	WAU	RPD [HD8745-01]	Total Silver (Ag)	2013/08/13	NC		%	35
			Total Thallium (Tl)	2013/08/13	NC		%	35
			Total Tin (Sn)	2013/08/13	NC		%	35
			Total Uranium (U)	2013/08/13	NC		%	35
			Total Vanadium (V)	2013/08/13	2.6		%	35
			Total Zinc (Zn)	2013/08/13	NC		%	35
7075074	JHC	Matrix Spike	Soluble (Hot water) Boron (B)	2013/08/14		101	%	75 - 125
		Spiked Blank	Soluble (Hot water) Boron (B)	2013/08/14		99	%	75 - 125
		Method Blank	Soluble (Hot water) Boron (B)	2013/08/14	<0.10		mg/kg	
		RPD	Soluble (Hot water) Boron (B)	2013/08/14	NC		%	35

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 spiked amount was not sufficiently significant to permit a reliable recovery calculation.
NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

Validation Signature Page

Maxxam Job #: B370060

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

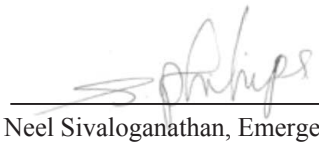


Anna Koksharova, Senior Analyst

Carol Gebhart, Senior Analyst

Dina Tleugabulova, Ph.D., Scientific Specialist, Inorganics Department

Michael Chae, Ph.D, Scientific Specialist



Neel Sivaloganathan, Emergency Spill Response Manager

==========

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.

Maxxam

Calgary: 4000 19st St. NE, T2E 6P8. Ph: (403) 291-3077, Fax: (403) 735-2240, Toll free: (800) 386-7247
Edmonton: 9331 - 48 Street, T6B 2R4. Ph: (780) 577-7100, Fax: (780) 450-4187, Toll free: (877) 485-8889
www.maxxamanalytics.com

08/481

Chain of Custody

A134522

Page: 1 of 1

	Invoice To: C/O Report Address ☐	Report To: Same as Invoice ☒
Company:	IEG Consultants LTD.	
Contact:	Nicole Wills	
Address:	2618 Hopewell Place NE	
	Prov: Calgary AB PC: T1Y 7J7	Prov: PC:
Contact #s:	Ph: 403 824 3048 Cell:	Ph: Cell:

Report Distribution (E-Mail):
NWills@klohn.com
jcollins@klohn.com

REGULATORY GUIDELINES:
☐ AT1
☐ CCME
☐ Regulated Drinking Water
☐ Other:

All samples are held for 60 calendar days after sample receipt, unless specified otherwise.

PO #: A04012A05
Project # / Name: Camp Farewell
Site Location:
Quote #:
Sampled By: Jesse Collins / Nathan Shirley

SERVICE REQUESTED:
☒ RUSH (Contact lab to reserve) Date Required: ASAP
☐ REGULAR (5 to 7 Days)

See reverse for package specifics

	Sample ID	Depth (unit)	Matrix GW / SW Soil	Date/Time Sampled YY/MM/DD 24:00	SOIL: BTEX F1-F4	SOIL: Sieve (75 micron)	SOIL: Regulated Metals (CCME / AT1)	SOIL: Salinity 4	SOIL: Assessment ICP Metals	SOIL: Basic Class II Landfill	WATER: ☐BTEX F1 ☐VOCs	WATER: ☐BTEX F1-F2 ☐BTEX F1-F4	WATER: ☐Routine Water ☐Turb ☐F	WATER: ☐TOC ☐DOC	WATER: Regulated Metals (CCME/AT1) Total	WATER: Regulated Metals (CCME/AT1) Dissolved	WATER: Regulated Metals (CCME/AT1) Mercury ☐Total ☐Dissolved	Other Analysis	HOLD - Do not Analyze	# of Containers Submitted
1	EX-13-2AW (2.0m)	2.0m	Soil	13/08/09	X		X	X												2
2	EX-13-2AW (5.0m)	5.0m			X		X	X												2
3	EX-13-2AS (1.0m)	1.0m			X		X	X												2
4	EX-13-2BW (4.0m)	4.0m			X		X	X												2
5	EX-13-2CW (3.0m)	3.0m			X		X	X												2
6	EX-13-2DW (3.0m)	3.0m	↓	↓	X		X	X												2
7																				
8																				
9																				
10																				
11																				
12																				

Please indicate Filtered, Preserved or Both (F, P, F/P) →

SBF/CMF/P

Relinquished By (Signature/Print):	Date (YY/MM/DD):	Time (24:00):
Jesse Collins	13/08/10	1900
Relinquished By (Signature/Print):	Date (YY/MM/DD):	Time (24:00):

Special Instructions:

# of Jars Used & Not Submitted

LAB USE ONLY

Received By:	Date:	Time:	Maxxam Job #: B370060
Jenna Walter	20130812	0945	

Lab Comments:

Custody Seal	Temperature	Ice
present	11, 9, 10	present

Maxxam

Your P.O. #: A04012A05
Your Project #: CAMP FAREWELL
Your C.O.C. #: A134687

Attention: NICOLE WILLS

KLOHN CRIPPEN BERGER LTD
500-2618
HOPEWELL PLACE NE
CALGARY, AB
CANADA T1Y 7J7

Report Date: 2013/08/20

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B372840
Received: 2013/08/19, 10:41

Sample Matrix: Soil
Samples Received: 4

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Boron (Hot Water Soluble)	4	2013/08/20	2013/08/20	AB SOP-00042	EPA 200.7
BTEX/F1 by HS GC/MS (MeOH extract)	4	2013/08/19	2013/08/20	AB SOP-00039	CCME, EPA 8260
Cation/EC Ratio	4	N/A	2013/08/20		CALCULATION
Chloride (Soluble)	4	2013/08/20	2013/08/20	AB SOP-00020	SSMA 4500 CL-E
Hexavalent Chromium	3	2013/08/19	2013/08/20	EENVSOP-00131	SM 3500-Cr B
Hexavalent Chromium	1	2013/08/20	2013/08/20	EENVSOP-00131	SM 3500-Cr B
Conductivity @25C (Soluble)	4	2013/08/20	2013/08/20	AB SOP-00004	SSMA 15.3
CCME Hydrocarbons (F2-F4 in soil)	4	2013/08/19	2013/08/19	AB SOP-00040 AB SOP-00036	CCME PHC-CWS
Elements by ICPMS - Soils	4	2013/08/20	2013/08/20	AB SOP-00043	EPA 200.8
Ion Balance	4	N/A	2013/08/20	AB WI-00065	SM 1030E
Sum of Cations, Anions	4	N/A	2013/08/20	AB WI-00065	SM 1030E
Moisture	4	N/A	2013/08/20	AB SOP-00002	CCME PHC-CWS
pH @25C (1:2 Calcium Chloride Extract)	4	2013/08/20	2013/08/20	AB SOP-00006	SSMA 16.3
Sodium Adsorption Ratio	4	N/A	2013/08/20	AB WI-00065	SSMA 15.4.4
Ca,Mg,Na,K,SO4 (Soluble)	4	2013/08/20	2013/08/20	AB SOP-00042	EPA 200.7
Soluble Paste	4	2013/08/20	2013/08/20	AB SOP-00033	SSMA 15.2
Soluble Ions Calculation	4	N/A	2013/08/20		CALCULATION
Theoretical Gypsum Requirement (1)	4	N/A	2013/08/20	CAL WI-00087	CJSS 79:449-455

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

(1) Units for TGR have changed from tons/acre to tonnes/ha

Encryption Key

Tanya Eugine
20 Aug 2013 16:40:22 -06:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Tanya Eugine, M.Sc., Project Manager
Email: TEugine@maxxam.ca
Phone# (780) 577-7144

Your P.O. #: A04012A05
Your Project #: CAMP FAREWELL
Your C.O.C. #: A134687

Attention: NICOLE WILLS

KLOHN CRIPPEN BERGER LTD
500-2618
HOPEWELL PLACE NE
CALGARY, AB
CANADA T1Y 7J7

Report Date: 2013/08/20

CERTIFICATE OF ANALYSIS

==========

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.

Maxxam Analytics International Corporation o/a Maxxam Analytics Edmonton: 9331 - 48th Street T6B 2R4 Telephone(780)577-7100 Fax(780)450-4187

Maxxam Job #: B372840
Report Date: 2013/08/20

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: NS

AT1 BTEX AND F1-F4 IN SOIL (SOIL)

Maxxam ID		HF9176	HF9177	HF9178	HF9179		
Sampling Date		2013/08/14	2013/08/14	2013/08/14	2013/08/14		
COC Number		A134687	A134687	A134687	A134687		
	UNITS	**EX-13-2HB (7.0M)**	**EX-13-H5 (3.0M)**	**EX-13-H5 (5.0M)**	**EX-13-I5 (3.0M)**	**RDL**	**QC Batch**
Physical Properties							
Moisture	%	17	11	14	17	0.30	7095092
Ext. Pet. Hydrocarbon							
F2 (C10-C16 Hydrocarbons)	mg/kg	<10	<10	<10	110	10	7090831
F3 (C16-C34 Hydrocarbons)	mg/kg	<50	<50	<50	<50	50	7090831
F4 (C34-C50 Hydrocarbons)	mg/kg	<50	<50	<50	<50	50	7090831
Reached Baseline at C50	mg/kg	Yes	Yes	Yes	Yes	N/A	7090831
Volatiles							
Benzene	mg/kg	0.0089	<0.0050	<0.0050	0.080	0.0050	7089057
Toluene	mg/kg	<0.020	<0.020	<0.020	0.054	0.020	7089057
Ethylbenzene	mg/kg	<0.010	<0.010	<0.010	0.18	0.010	7089057
Xylenes (Total)	mg/kg	<0.040	<0.040	<0.040	0.42	0.040	7089057
m & p-Xylene	mg/kg	<0.040	<0.040	<0.040	0.33	0.040	7089057
o-Xylene	mg/kg	<0.020	<0.020	<0.020	0.087	0.020	7089057
F1 (C6-C10) - BTEX	mg/kg	<12	<12	<12	110	12	7089057
(C6-C10)	mg/kg	<12	<12	<12	110	12	7089057
Surrogate Recovery (%)							
1,4-Difluorobenzene (sur.)	%	103	100	105	107	N/A	7089057
4-BROMOFLUOROBENZENE (sur.)	%	94	96	94	94	N/A	7089057
D10-ETHYLBENZENE (sur.)	%	104	106	106	111	N/A	7089057
D4-1,2-DICHLOROETHANE (sur.)	%	95	92	91	94	N/A	7089057
O-TERPHENYL (sur.)	%	89	96	90	91	N/A	7090831

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Job #: B372840
Report Date: 2013/08/20

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: NS

SOIL SALINITY 4 (SOIL)

Maxxam ID		HF9176		HF9177			HF9178		
Sampling Date		2013/08/14		2013/08/14			2013/08/14		
COC Number		A134687		A134687			A134687		
	UNITS	**EX-13-2HB (7.0M)**	**RDL**	**EX-13-H5 (3.0M)**	**RDL**	**QC Batch**	**EX-13-H5 (5.0M)**	**RDL**	**QC Batch**
Calculated Parameters									
Anion Sum	meq/L	8.6	N/A	2.8	N/A	7091500	2.6	N/A	7091500
Cation Sum	meq/L	10	N/A	4.7	N/A	7091500	3.0	N/A	7091500
Cation/EC Ratio	N/A	10	0.10	11	0.10	7091496	7.8	0.10	7091496
Ion Balance	N/A	1.2	0.010	1.7	0.010	7091499	1.2	0.010	7091499
Calculated Calcium (Ca)	mg/kg	35	0.47	17	0.45	7091502	8.5	0.47	7091502
Calculated Magnesium (Mg)	mg/kg	9.3	0.32	3.1	0.30	7091502	1.8	0.31	7091502
Calculated Sodium (Na)	mg/kg	12	0.79	6.4	0.75	7091502	6.1	0.79	7091502
Calculated Potassium (K)	mg/kg	6.3	0.41	2.0	0.39	7091502	4.5	0.41	7091502
Calculated Chloride (Cl)	mg/kg	36	1.6	13	1.5	7091502	7.5	1.6	7091502
Calculated Sulphate (SO4)	mg/kg	83	1.6	23	1.5	7091502	29	1.6	7091502
Soluble Parameters									
Soluble Chloride (Cl)	mg/L	110	5.0	42	5.0	7095152	24	5.0	7095385
Soluble Conductivity	dS/m	0.97	0.020	0.41	0.020	7094398	0.39	0.020	7094758
Soluble (CaCl2) pH	N/A	7.20	N/A	7.52	N/A	7094348	7.55	N/A	7094348
Sodium Adsorption Ratio	N/A	0.84	0.10	0.69	0.10	7091501	0.89	0.10	7091501
Soluble Calcium (Ca)	mg/L	110	1.5	55	1.5	7095255	27	1.5	7095702
Soluble Magnesium (Mg)	mg/L	29	1.0	10	1.0	7095255	5.6	1.0	7095702
Soluble Sodium (Na)	mg/L	39	2.5	21	2.5	7095255	19	2.5	7095702
Soluble Potassium (K)	mg/L	20	1.3	6.6	1.3	7095255	14	1.3	7095702
Saturation %	%	32	N/A	30	N/A	7093999	31	N/A	7094529
Soluble Sulphate (SO4)	mg/L	260	5.0	75	5.0	7095255	92	5.0	7095702
Theoretical Gypsum Requirement	tonnes/ha	<0.10	0.10	<0.10	0.10	7091503	<0.10	0.10	7091503

RDL = Reportable Detection Limit

Maxxam Job #: B372840
Report Date: 2013/08/20

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: NS

SOIL SALINITY 4 (SOIL)

Maxxam ID		HF9178		HF9179		
Sampling Date		2013/08/14		2013/08/14		
COC Number		A134687		A134687		
	UNITS	**EX-13-H5 (5.0M) Lab-Dup**	**RDL**	**EX-13-I5 (3.0M)**	**RDL**	**QC Batch**
Calculated Parameters						
Anion Sum	meq/L	N/A	N/A	3.0	N/A	7091500
Cation Sum	meq/L	N/A	N/A	3.2	N/A	7091500
Cation/EC Ratio	N/A	N/A	0.10	9.1	0.10	7091496
Ion Balance	N/A	N/A	0.010	1.1	0.010	7091499
Calculated Calcium (Ca)	mg/kg	N/A	0.47	9.6	0.48	7091502
Calculated Magnesium (Mg)	mg/kg	N/A	0.31	2.6	0.32	7091502
Calculated Sodium (Na)	mg/kg	N/A	0.79	6.6	0.80	7091502
Calculated Potassium (K)	mg/kg	N/A	0.41	2.4	0.42	7091502
Calculated Chloride (Cl)	mg/kg	N/A	1.6	9.9	1.6	7091502
Calculated Sulphate (SO4)	mg/kg	N/A	1.6	33	1.6	7091502
Soluble Parameters						
Soluble Chloride (Cl)	mg/L	N/A	5.0	31	5.0	7095385
Soluble Conductivity	dS/m	0.36	0.020	0.36	0.020	7094758
Soluble (CaCl2) pH	N/A	N/A	N/A	7.39	N/A	7094348
Sodium Adsorption Ratio	N/A	N/A	0.10	0.86	0.10	7091501
Soluble Calcium (Ca)	mg/L	24	1.5	30	1.5	7095702
Soluble Magnesium (Mg)	mg/L	4.8	1.0	8.0	1.0	7095702
Soluble Sodium (Na)	mg/L	18	2.5	21	2.5	7095702
Soluble Potassium (K)	mg/L	13	1.3	7.6	1.3	7095702
Saturation %	%	31	N/A	32	N/A	7094529
Soluble Sulphate (SO4)	mg/L	84	5.0	100	5.0	7095702
Theoretical Gypsum Requirement	tonnes/ha	N/A	0.10	<0.10	0.10	7091503

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Job #: B372840
Report Date: 2013/08/20

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: NS

REGULATED METALS (CCME/AT1) - SOILS

Maxxam ID		HF9176	HF9177	HF9178	HF9179	HF9179		
Sampling Date		2013/08/14	2013/08/14	2013/08/14	2013/08/14	2013/08/14		
COC Number		A134687	A134687	A134687	A134687	A134687		
	UNITS	**EX-13-2HB (7.0M)**	**EX-13-H5 (3.0M)**	**EX-13-H5 (5.0M)**	**EX-13-I5 (3.0M)**	**EX-13-I5 (3.0M) Lab-Dup**	**RDL**	**QC Batch**
Elements								
Soluble (Hot water) Boron (B)	mg/kg	1.2	0.15	0.29	0.12	N/A	0.10	7095089
Hex. Chromium (Cr 6+)	mg/kg	<0.15	<0.15	<0.15	<0.15	<0.15	0.15	7094538
Total Antimony (Sb)	mg/kg	<1.0	<1.0	<1.0	<1.0	N/A	1.0	7094649
Total Arsenic (As)	mg/kg	5.8	6.2	5.9	5.3	N/A	1.0	7094649
Total Barium (Ba)	mg/kg	83	90	73	69	N/A	10	7094649
Total Beryllium (Be)	mg/kg	<0.40	<0.40	<0.40	<0.40	N/A	0.40	7094649
Total Cadmium (Cd)	mg/kg	<0.10	<0.10	<0.10	<0.10	N/A	0.10	7094649
Total Chromium (Cr)	mg/kg	6.1	5.0	5.2	5.3	N/A	1.0	7094649
Total Cobalt (Co)	mg/kg	4.0	3.4	3.6	3.7	N/A	1.0	7094649
Total Copper (Cu)	mg/kg	<5.0	<5.0	<5.0	<5.0	N/A	5.0	7094649
Total Lead (Pb)	mg/kg	3.2	3.3	3.1	3.2	N/A	1.0	7094649
Total Mercury (Hg)	mg/kg	<0.050	<0.050	<0.050	<0.050	N/A	0.050	7094649
Total Molybdenum (Mo)	mg/kg	0.63	0.50	0.56	0.47	N/A	0.40	7094649
Total Nickel (Ni)	mg/kg	12	9.2	10	11	N/A	1.0	7094649
Total Selenium (Se)	mg/kg	<0.50	<0.50	<0.50	<0.50	N/A	0.50	7094649
Total Silver (Ag)	mg/kg	<1.0	<1.0	<1.0	<1.0	N/A	1.0	7094649
Total Thallium (Tl)	mg/kg	<0.30	<0.30	<0.30	<0.30	N/A	0.30	7094649
Total Tin (Sn)	mg/kg	<1.0	<1.0	<1.0	<1.0	N/A	1.0	7094649
Total Uranium (U)	mg/kg	<1.0	<1.0	<1.0	<1.0	N/A	1.0	7094649
Total Vanadium (V)	mg/kg	12	11	11	9.8	N/A	1.0	7094649
Total Zinc (Zn)	mg/kg	30	26	25	26	N/A	10	7094649

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Job #: B372840
Report Date: 2013/08/20

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: NS

Package 1	9.3°C

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

General Comments

Sample HF9176-01: Sample extracted from a jar with headspace fro BTEX/F1.

Results relate only to the items tested.

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: CAMP FAREWELL
P.O. #: A04012A05
Site Location:

Quality Assurance Report

Maxxam Job Number: EB372840

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7089057 YS5	Matrix Spike	1,4-Difluorobenzene (sur.)	2013/08/19		106	%	60 - 140
		4-BROMOFLUOROBENZENE (sur.)	2013/08/19		100	%	60 - 140
		D10-ETHYLBENZENE (sur.)	2013/08/19		98	%	60 - 130
		D4-1,2-DICHLOROETHANE (sur.)	2013/08/19		101	%	60 - 140
		Benzene	2013/08/19		87	%	60 - 140
		Toluene	2013/08/19		89	%	60 - 140
		Ethylbenzene	2013/08/19		93	%	60 - 140
		m & p-Xylene	2013/08/19		98	%	60 - 140
		o-Xylene	2013/08/19		96	%	60 - 140
		(C6-C10)	2013/08/19		124	%	60 - 140
	Spiked Blank	1,4-Difluorobenzene (sur.)	2013/08/19		101	%	60 - 140
		4-BROMOFLUOROBENZENE (sur.)	2013/08/19		100	%	60 - 140
		D10-ETHYLBENZENE (sur.)	2013/08/19		102	%	60 - 130
		D4-1,2-DICHLOROETHANE (sur.)	2013/08/19		102	%	60 - 140
		Benzene	2013/08/19		85	%	60 - 140
		Toluene	2013/08/19		86	%	60 - 140
		Ethylbenzene	2013/08/19		91	%	60 - 140
		m & p-Xylene	2013/08/19		96	%	60 - 140
		o-Xylene	2013/08/19		93	%	60 - 140
		(C6-C10)	2013/08/19		112	%	60 - 140
	Method Blank	1,4-Difluorobenzene (sur.)	2013/08/19		100	%	60 - 140
		4-BROMOFLUOROBENZENE (sur.)	2013/08/19		97	%	60 - 140
		D10-ETHYLBENZENE (sur.)	2013/08/19		105	%	60 - 130
		D4-1,2-DICHLOROETHANE (sur.)	2013/08/19		100	%	60 - 140
		Benzene	2013/08/19	<0.0050		mg/kg	
		Toluene	2013/08/19	<0.020		mg/kg	
		Ethylbenzene	2013/08/19	<0.010		mg/kg	
		Xylenes (Total)	2013/08/19	<0.040		mg/kg	
		m & p-Xylene	2013/08/19	<0.040		mg/kg	
		o-Xylene	2013/08/19	<0.020		mg/kg	
		F1 (C6-C10) - BTEX	2013/08/19	<12		mg/kg	
		(C6-C10)	2013/08/19	<12		mg/kg	
	RPD	Benzene	2013/08/19	NC		%	50
		Toluene	2013/08/19	NC		%	50
		Ethylbenzene	2013/08/19	NC		%	50
		Xylenes (Total)	2013/08/19	NC		%	50
		m & p-Xylene	2013/08/19	NC		%	50
		o-Xylene	2013/08/19	NC		%	50
		F1 (C6-C10) - BTEX	2013/08/19	NC		%	50
		(C6-C10)	2013/08/19	NC		%	50
7090831 YP3	Matrix Spike	O-TERPHENYL (sur.)	2013/08/19		88	%	50 - 130
		F2 (C10-C16 Hydrocarbons)	2013/08/19		83	%	50 - 130
		F3 (C16-C34 Hydrocarbons)	2013/08/19		86	%	50 - 130
		F4 (C34-C50 Hydrocarbons)	2013/08/19		87	%	50 - 130
	Spiked Blank	O-TERPHENYL (sur.)	2013/08/19		77	%	50 - 130
		F2 (C10-C16 Hydrocarbons)	2013/08/19		100	%	70 - 130
		F3 (C16-C34 Hydrocarbons)	2013/08/19		104	%	70 - 130
		F4 (C34-C50 Hydrocarbons)	2013/08/19		105	%	70 - 130
	Method Blank	O-TERPHENYL (sur.)	2013/08/19		94	%	50 - 130
		F2 (C10-C16 Hydrocarbons)	2013/08/19	<10		mg/kg	
		F3 (C16-C34 Hydrocarbons)	2013/08/19	<50		mg/kg	
		F4 (C34-C50 Hydrocarbons)	2013/08/19	<50		mg/kg	
	RPD	F2 (C10-C16 Hydrocarbons)	2013/08/19	NC (1)		%	50
		F3 (C16-C34 Hydrocarbons)	2013/08/19	NC (1)		%	50
		F4 (C34-C50 Hydrocarbons)	2013/08/19	NC (1)		%	50

Maxxam

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: CAMP FAREWELL
P.O. #: A04012A05
Site Location:

Quality Assurance Report (Continued)

Maxxam Job Number: EB372840

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7093999	CH7	QC Standard	Saturation %	2013/08/20		102	%	93 - 107
		RPD	Saturation %	2013/08/20	0.04		%	12
7094348	MA4	QC Standard	Soluble (CaCl2) pH	2013/08/20		99	%	97 - 103
		Spiked Blank	Soluble (CaCl2) pH	2013/08/20		100	%	97 - 103
		RPD	Soluble (CaCl2) pH	2013/08/20	2.0		%	5
7094398	LZ2	QC Standard	Soluble Conductivity	2013/08/20		92	%	85 - 115
		Spiked Blank	Soluble Conductivity	2013/08/20		100	%	90 - 110
		Method Blank	Soluble Conductivity	2013/08/20	<0.020		dS/m	
		RPD	Soluble Conductivity	2013/08/20	10.7		%	35
7094529	CH7	QC Standard	Saturation %	2013/08/20		102	%	93 - 107
		RPD [HF9178-01]	Saturation %	2013/08/20	0.1		%	12
7094538	AL2	Matrix Spike						
		[HF9179-01]	Hex. Chromium (Cr 6+)	2013/08/20		78	%	75 - 125
		Spiked Blank	Hex. Chromium (Cr 6+)	2013/08/20		97	%	90 - 110
		Method Blank	Hex. Chromium (Cr 6+)	2013/08/20	<0.15		mg/kg	
		RPD [HF9179-01]	Hex. Chromium (Cr 6+)	2013/08/20	NC		%	35
7094649	WAU	Matrix Spike	Total Antimony (Sb)	2013/08/20		81	%	75 - 125
			Total Arsenic (As)	2013/08/20		92	%	75 - 125
			Total Barium (Ba)	2013/08/20		NC	%	75 - 125
			Total Beryllium (Be)	2013/08/20		90	%	75 - 125
			Total Cadmium (Cd)	2013/08/20		89	%	75 - 125
			Total Chromium (Cr)	2013/08/20		96	%	75 - 125
			Total Cobalt (Co)	2013/08/20		94	%	75 - 125
			Total Copper (Cu)	2013/08/20		97	%	75 - 125
			Total Lead (Pb)	2013/08/20		90	%	75 - 125
			Total Magnesium (Mg)	2013/08/20		NC	%	75 - 125
			Total Mercury (Hg)	2013/08/20		92	%	75 - 125
			Total Molybdenum (Mo)	2013/08/20		94	%	75 - 125
			Total Nickel (Ni)	2013/08/20		98	%	75 - 125
			Total Selenium (Se)	2013/08/20		90	%	75 - 125
			Total Silver (Ag)	2013/08/20		97	%	75 - 125
			Total Thallium (Tl)	2013/08/20		84	%	75 - 125
			Total Tin (Sn)	2013/08/20		94	%	75 - 125
			Total Uranium (U)	2013/08/20		93	%	75 - 125
			Total Vanadium (V)	2013/08/20		106	%	75 - 125
			Total Zinc (Zn)	2013/08/20		NC	%	75 - 125
		QC Standard	Total Arsenic (As)	2013/08/20		115	%	50 - 150
			Total Barium (Ba)	2013/08/20		108	%	69 - 131
			Total Chromium (Cr)	2013/08/20		104	%	41 - 159
			Total Cobalt (Co)	2013/08/20		101	%	75 - 125
			Total Copper (Cu)	2013/08/20		104	%	73 - 127
			Total Lead (Pb)	2013/08/20		98	%	54 - 146
			Total Magnesium (Mg)	2013/08/20		93	%	69 - 131
			Total Nickel (Ni)	2013/08/20		108	%	61 - 139
			Total Vanadium (V)	2013/08/20		121	%	50 - 150
			Total Zinc (Zn)	2013/08/20		103	%	72 - 128
		Spiked Blank	Total Antimony (Sb)	2013/08/20		95	%	75 - 125
			Total Arsenic (As)	2013/08/20		94	%	75 - 125
			Total Barium (Ba)	2013/08/20		96	%	75 - 125
			Total Beryllium (Be)	2013/08/20		93	%	75 - 125
			Total Cadmium (Cd)	2013/08/20		92	%	75 - 125
			Total Chromium (Cr)	2013/08/20		93	%	75 - 125
			Total Cobalt (Co)	2013/08/20		93	%	75 - 125
			Total Copper (Cu)	2013/08/20		93	%	75 - 125
			Total Lead (Pb)	2013/08/20		92	%	75 - 125

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: CAMP FAREWELL
P.O. #: A04012A05
Site Location:

Quality Assurance Report (Continued)

Maxxam Job Number: EB372840

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7094649	WAU	Spiked Blank	Total Magnesium (Mg)	2013/08/20		96	%	75 - 125
			Total Mercury (Hg)	2013/08/20		97	%	75 - 125
			Total Molybdenum (Mo)	2013/08/20		96	%	75 - 125
			Total Nickel (Ni)	2013/08/20		95	%	75 - 125
			Total Selenium (Se)	2013/08/20		94	%	75 - 125
			Total Silver (Ag)	2013/08/20		99	%	75 - 125
			Total Thallium (Tl)	2013/08/20		84	%	75 - 125
			Total Tin (Sn)	2013/08/20		97	%	75 - 125
			Total Uranium (U)	2013/08/20		98	%	75 - 125
			Total Vanadium (V)	2013/08/20		97	%	75 - 125
			Total Zinc (Zn)	2013/08/20		94	%	75 - 125
		Method Blank	Total Antimony (Sb)	2013/08/20	<1.0		mg/kg	
			Total Arsenic (As)	2013/08/20	<1.0		mg/kg	
			Total Barium (Ba)	2013/08/20	<10		mg/kg	
			Total Beryllium (Be)	2013/08/20	<0.40		mg/kg	
			Total Cadmium (Cd)	2013/08/20	<0.10		mg/kg	
			Total Chromium (Cr)	2013/08/20	<1.0		mg/kg	
			Total Cobalt (Co)	2013/08/20	<1.0		mg/kg	
			Total Copper (Cu)	2013/08/20	<5.0		mg/kg	
			Total Lead (Pb)	2013/08/20	<1.0		mg/kg	
			Total Magnesium (Mg)	2013/08/20	<100		mg/kg	
			Total Mercury (Hg)	2013/08/20	<0.050		mg/kg	
			Total Molybdenum (Mo)	2013/08/20	<0.40		mg/kg	
			Total Nickel (Ni)	2013/08/20	<1.0		mg/kg	
			Total Selenium (Se)	2013/08/20	<0.50		mg/kg	
			Total Silver (Ag)	2013/08/20	<1.0		mg/kg	
			Total Thallium (Tl)	2013/08/20	<0.30		mg/kg	
			Total Tin (Sn)	2013/08/20	<1.0		mg/kg	
			Total Uranium (U)	2013/08/20	<1.0		mg/kg	
			Total Vanadium (V)	2013/08/20	<1.0		mg/kg	
			Total Zinc (Zn)	2013/08/20	<10		mg/kg	
		RPD	Total Antimony (Sb)	2013/08/20	NC		%	35
			Total Arsenic (As)	2013/08/20	1.9		%	35
			Total Barium (Ba)	2013/08/20	10.1		%	35
			Total Beryllium (Be)	2013/08/20	NC		%	35
			Total Cadmium (Cd)	2013/08/20	NC		%	35
			Total Chromium (Cr)	2013/08/20	14.4		%	35
			Total Cobalt (Co)	2013/08/20	2.7		%	35
			Total Copper (Cu)	2013/08/20	NC		%	35
			Total Lead (Pb)	2013/08/20	1		%	35
			Total Magnesium (Mg)	2013/08/20	4.7		%	35
			Total Mercury (Hg)	2013/08/20	NC		%	35
			Total Molybdenum (Mo)	2013/08/20	NC		%	35
			Total Nickel (Ni)	2013/08/20	2.3		%	35
			Total Selenium (Se)	2013/08/20	NC		%	35
			Total Silver (Ag)	2013/08/20	NC		%	35
			Total Thallium (Tl)	2013/08/20	NC		%	35
			Total Tin (Sn)	2013/08/20	NC		%	35
			Total Uranium (U)	2013/08/20	NC		%	35
			Total Vanadium (V)	2013/08/20	2.6		%	35
			Total Zinc (Zn)	2013/08/20	NC		%	35
7094758	LZ2	QC Standard	Soluble Conductivity	2013/08/20		89	%	85 - 115
		Spiked Blank	Soluble Conductivity	2013/08/20		99	%	90 - 110
		Method Blank	Soluble Conductivity	2013/08/20	<0.020		dS/m	
		RPD [HF9178-01]	Soluble Conductivity	2013/08/20	6.4		%	35

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: CAMP FAREWELL
P.O. #: A04012A05
Site Location:

Quality Assurance Report (Continued)

Maxxam Job Number: EB372840

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7095089	JHC	Matrix Spike	Soluble (Hot water) Boron (B)	2013/08/20		98	%	75 - 125
		Spiked Blank	Soluble (Hot water) Boron (B)	2013/08/20		99	%	75 - 125
		Method Blank	Soluble (Hot water) Boron (B)	2013/08/20	<0.10		mg/kg	
		RPD	Soluble (Hot water) Boron (B)	2013/08/20	NC		%	35
7095092	ABH	Method Blank	Moisture	2013/08/20	<0.30		%	
		RPD	Moisture	2013/08/20	0		%	20
7095152	LCA	Matrix Spike	Soluble Chloride (Cl)	2013/08/20		NC	%	75 - 125
		QC Standard	Soluble Chloride (Cl)	2013/08/20		91	%	75 - 125
		Spiked Blank	Soluble Chloride (Cl)	2013/08/20		101	%	75 - 125
		Method Blank	Soluble Chloride (Cl)	2013/08/20	<5.0		mg/L	
		RPD	Soluble Chloride (Cl)	2013/08/20	14.4		%	35
7095255	NC3	Matrix Spike	Soluble Calcium (Ca)	2013/08/20		110	%	75 - 125
			Soluble Magnesium (Mg)	2013/08/20		106	%	75 - 125
			Soluble Sodium (Na)	2013/08/20		95	%	75 - 125
			Soluble Potassium (K)	2013/08/20		96	%	75 - 125
		QC Standard	Soluble Calcium (Ca)	2013/08/20		105	%	75 - 125
			Soluble Magnesium (Mg)	2013/08/20		97	%	75 - 125
			Soluble Sodium (Na)	2013/08/20		101	%	75 - 125
			Soluble Potassium (K)	2013/08/20		117	%	75 - 125
			Soluble Sulphate (SO4)	2013/08/20		85	%	78 - 122
		Spiked Blank	Soluble Calcium (Ca)	2013/08/20		117	%	75 - 125
			Soluble Magnesium (Mg)	2013/08/20		112	%	75 - 125
			Soluble Sodium (Na)	2013/08/20		102	%	75 - 125
			Soluble Potassium (K)	2013/08/20		101	%	75 - 125
		Method Blank	Soluble Calcium (Ca)	2013/08/20	<1.5		mg/L	
			Soluble Magnesium (Mg)	2013/08/20	<1.0		mg/L	
			Soluble Sodium (Na)	2013/08/20	<2.5		mg/L	
			Soluble Potassium (K)	2013/08/20	<1.3		mg/L	
			Soluble Sulphate (SO4)	2013/08/20	<5.0		mg/L	
		RPD	Soluble Calcium (Ca)	2013/08/20	3.7		%	35
			Soluble Magnesium (Mg)	2013/08/20	4.7		%	35
			Soluble Sodium (Na)	2013/08/20	13.0		%	35
			Soluble Potassium (K)	2013/08/20	NC		%	35
			Soluble Sulphate (SO4)	2013/08/20	9.3		%	35
7095385	LCA	Matrix Spike	Soluble Chloride (Cl)	2013/08/20		101	%	75 - 125
		QC Standard	Soluble Chloride (Cl)	2013/08/20		90	%	75 - 125
		Spiked Blank	Soluble Chloride (Cl)	2013/08/20		98	%	75 - 125
		Method Blank	Soluble Chloride (Cl)	2013/08/20	<5.0		mg/L	
		RPD	Soluble Chloride (Cl)	2013/08/20	NC		%	35
7095702	JSM	Matrix Spike						
		[HF9178-01]	Soluble Calcium (Ca)	2013/08/20		96	%	75 - 125
			Soluble Magnesium (Mg)	2013/08/20		102	%	75 - 125
			Soluble Sodium (Na)	2013/08/20		103	%	75 - 125
			Soluble Potassium (K)	2013/08/20		104	%	75 - 125
		QC Standard	Soluble Calcium (Ca)	2013/08/20		85	%	75 - 125
			Soluble Magnesium (Mg)	2013/08/20		93	%	75 - 125
			Soluble Sodium (Na)	2013/08/20		103	%	75 - 125
			Soluble Potassium (K)	2013/08/20		125	%	75 - 125
			Soluble Sulphate (SO4)	2013/08/20		86	%	78 - 122
		Spiked Blank	Soluble Calcium (Ca)	2013/08/20		96	%	75 - 125
			Soluble Magnesium (Mg)	2013/08/20		105	%	75 - 125
			Soluble Sodium (Na)	2013/08/20		105	%	75 - 125
			Soluble Potassium (K)	2013/08/20		107	%	75 - 125
		Method Blank	Soluble Calcium (Ca)	2013/08/20	<1.5		mg/L	
			Soluble Magnesium (Mg)	2013/08/20	<1.0		mg/L	

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: CAMP FAREWELL
P.O. #: A04012A05
Site Location:

Quality Assurance Report (Continued)

Maxxam Job Number: EB372840

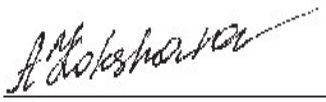
QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7095702	JSM	Method Blank	Soluble Sodium (Na)	2013/08/20	<2.5		mg/L	
			Soluble Potassium (K)	2013/08/20	<1.3		mg/L	
			Soluble Sulphate (SO4)	2013/08/20	<5.0		mg/L	
		RPD [HF9178-01]	Soluble Calcium (Ca)	2013/08/20	11.6		%	35
			Soluble Magnesium (Mg)	2013/08/20	NC		%	35
			Soluble Sodium (Na)	2013/08/20	7.7		%	35
			Soluble Potassium (K)	2013/08/20	8.0		%	35
			Soluble Sulphate (SO4)	2013/08/20	9.6		%	35

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 spiked amount was not sufficiently significant to permit a reliable recovery calculation.
NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.
(1) Detection limits raised due to high moisture content.

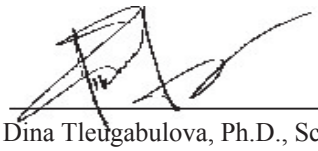
Validation Signature Page

Maxxam Job #: B372840

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



Anna Koksharova, Senior Analyst



Dina Tleugabulova, Ph.D., Scientific Specialist, Inorganics Department

Neel Sivaloganathan, Emergency Spill Response Manager

Poonam Sharma, Senior Analyst, Organics Department

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Maxxam

Calgary: 4000 19st St. NE, T2E 6P8. Ph: (403) 291-3077, Fax: (403) 735-2240, Toll free: (800) 386-7247
Edmonton: 9331 - 48 Street, T6B 2R4. Ph: (780) 577-7100, Fax: (780) 450-4187. Toll free: (877) 465-8889
www.maxxamanalytics.com

Chain of Custody

A134687

081822

Page: 1 of 1

	Invoice To: C/O Report Address ☐	Report To: Same as Invoice ☒	Report Distribution (E-Mail):
Company:	IEC Consultants LTD.		NWills@klohn.com
Contact:	Nicole Wills		jcollins@klohn.com
Address:			
	Prov: PC:	Prov: PC:	
Contact #s:	Ph: Cell:	Ph: Cell:	

REGULATORY GUIDELINES:
☐ AT1
☐ CCME
☐ Regulated Drinking Water
☐ Other:

All samples are held for 60 calendar days after sample receipt, unless specified otherwise.

PO #: A04012A05
Project # / Name: Camp Farewell
Site Location:
Quote #:
Sampled By: ~~JTC~~ Jesse Collins, Nathan Shirley

SERVICE REQUESTED:
☒ **RUSH** (Contact lab to reserve) **Date Required:** ASAP
☐ REGULAR (5 to 7 Days)

See reverse for package specifics

	Sample ID	Depth (unit)	Matrix GW / SW Soil	Date/Time Sampled YY/MM/DD 24:00	SOIL: BTEX F1-F4	SOIL: Sieve (75 micron)	SOIL: Regulated Metals (CCME / AT1)	SOIL: Salinity 4	SOIL: Assessment ICP Metals	SOIL: Basic Class II Landfill	WATER: ☐VOCs ☐BTEX F1 ☐BTEX F1-F2	WATER: ☐BTEX F1-F4 ☐BTEX F1-F2	WATER: ☐ Routine Water ☐ Turb ☐ F	WATER: ☐ TOC ☐ DOC	WATER: Regulated Metals (CCME / AT1) Total	WATER: Regulated Metals (CCME / AT1) Dissolved	WATER: Mercury ☐ Total ☐ Dissolved	Other Analysis	HOLD - Do not Analyze	# of Containers Submitted
1	EX-13-2HB (7.0m)	7.0m	Soil	13/08/14	X		X	X												2
2	EX-13-H5 (3.0m)	3.0m			X		X	X												2
3	EX-13-H5 (5.0m)	5.0m			X		X	X												2
4	EX-13-IS (3.0m)	3.0m			X		X	X												2
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																		CMC/MW2		

Please indicate Filtered, Preserved or Both (F, P, F/P) → F/P

Relinquished By (Signature/Print):	Date (YY/MM/DD):	Time (24:00):
Jesse Collins	13/08/14	
Relinquished By (Signature/Print):	Date (YY/MM/DD):	Time (24:00):

Special Instructions:

# of Jars Used & Not Submitted

LAB USE ONLY

Received By:	Date:	Time:	Maxxam Job #: B372840
Shaun Bale	2013/08/19	10:41	

Custody Seal	Temperature	Ice
Absent	9/10/9	Present

Lab Comments:

Your P.O. #: A04012A05
Your Project #: CAMP FAREWELL
Your C.O.C. #: A134688

IEG CONSULTANTS LTD.
500-2618 HOPEWELL PLACE NE
CALGARY, AB
CANADA T1Y 7J7

Report Date: 2013/08/22

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B373676
Received: 2013/08/21, 8:00

Sample Matrix: Soil
Samples Received: 5

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
BTEX/F1 by HS GC/MS (MeOH extract)	5	2013/08/21	2013/08/21	AB SOP-00039	CCME, EPA 8260
Hexavalent Chromium	5	2013/08/21	2013/08/21	EENVSOP-00131	SM 3500-Cr B
Conductivity @25C (Soluble)	5	2013/08/22	2013/08/22	AB SOP-00004	SSMA 15.3
CCME Hydrocarbons (F2-F4 in soil)	5	2013/08/21	2013/08/21	AB SOP-00040 AB SOP-00036	CCME PHC-CWS
Moisture	5	N/A	2013/08/21	AB SOP-00002	CCME PHC-CWS
pH @25C (1:2 Calcium Chloride Extract)	5	2013/08/21	2013/08/21	AB SOP-00006	SSMA 16.3
Soluble Paste	5	2013/08/22	2013/08/22	AB SOP-00033	SSMA 15.2

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

Encryption Key

aynatonique

Tanya Eugine

22 Aug 2013 11:41:10 -06:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Tanya Eugine, M.Sc., Project Manager
Email: TEugine@maxxam.ca
Phone# (780) 577-7144

==========

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.

Total cover pages: 1

Maxxam Job #: B373676
Report Date: 2013/08/22

IEG CONSULTANTS LTD.
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JTC

AT1 BTEX AND F1-F4 IN SOIL (SOIL)

Maxxam ID		HG5161	HG5162	HG5163	HG5164		
Sampling Date		2013/08/18	2013/08/18	2013/08/18	2013/08/18		
COC Number		A134688	A134688	A134688	A134688		
	UNITS	**EX-13-2IB(7.0M)**	**EX-13-2IE(3.0M)**	**EX-13-2IE(6.0M)**	**EX-13-2IS(3.5M)**	**RDL**	**QC Batch**
Physical Properties							
Moisture	%	19	5.6	19	18	0.30	7099737
Ext. Pet. Hydrocarbon							
F2 (C10-C16 Hydrocarbons)	mg/kg	<10	450	<10	<10	10	7099156
F3 (C16-C34 Hydrocarbons)	mg/kg	<50	130	<50	<50	50	7099156
F4 (C34-C50 Hydrocarbons)	mg/kg	<50	<50	<50	<50	50	7099156
Reached Baseline at C50	mg/kg	Yes	Yes	Yes	Yes		7099156
Volatiles							
Benzene	mg/kg	<0.0050	<0.0050	0.041	0.022	0.0050	7094718
Toluene	mg/kg	<0.020	<0.020	0.029	<0.020	0.020	7094718
Ethylbenzene	mg/kg	<0.010	<0.010	0.10	<0.010	0.010	7094718
Xylenes (Total)	mg/kg	<0.040	<0.040	0.16	<0.040	0.040	7094718
m & p-Xylene	mg/kg	<0.040	<0.040	0.16	<0.040	0.040	7094718
o-Xylene	mg/kg	<0.020	<0.020	<0.020	<0.020	0.020	7094718
F1 (C6-C10) - BTEX	mg/kg	<12	18	<12	<12	12	7094718
(C6-C10)	mg/kg	<12	17	<12	<12	12	7094718
Surrogate Recovery (%)							
1,4-Difluorobenzene (sur.)	%	110	105	109	112		7094718
4-BROMOFLUOROBENZENE (sur.)	%	100	96	101	100		7094718
D10-ETHYLBENZENE (sur.)	%	110	110	113	116		7094718
D4-1,2-DICHLOROETHANE (sur.)	%	100	100	102	99		7094718
O-TERPHENYL (sur.)	%	91	103	93	95		7099156

RDL = Reportable Detection Limit

Maxxam Job #: B373676
Report Date: 2013/08/22

IEG CONSULTANTS LTD.
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JTC

AT1 BTEX AND F1-F4 IN SOIL (SOIL)

Maxxam ID		HG5165		
Sampling Date		2013/08/18		
COC Number		A134688		
	UNITS	**EX-13-2IS(6.0M)**	**RDL**	**QC Batch**
Physical Properties				
Moisture	%	20	0.30	7099737
Ext. Pet. Hydrocarbon				
F2 (C10-C16 Hydrocarbons)	mg/kg	<10	10	7099156
F3 (C16-C34 Hydrocarbons)	mg/kg	<50	50	7099156
F4 (C34-C50 Hydrocarbons)	mg/kg	<50	50	7099156
Reached Baseline at C50	mg/kg	Yes		7099156
Volatiles				
Benzene	mg/kg	0.18	0.0050	7094718
Toluene	mg/kg	0.034	0.020	7094718
Ethylbenzene	mg/kg	0.20	0.010	7094718
Xylenes (Total)	mg/kg	0.17	0.040	7094718
m & p-Xylene	mg/kg	0.17	0.040	7094718
o-Xylene	mg/kg	<0.020	0.020	7094718
F1 (C6-C10) - BTEX	mg/kg	<12	12	7094718
(C6-C10)	mg/kg	<12	12	7094718
Surrogate Recovery (%)				
1,4-Difluorobenzene (sur.)	%	110		7094718
4-BROMOFLUOROBENZENE (sur.)	%	99		7094718
D10-ETHYLBENZENE (sur.)	%	122		7094718
D4-1,2-DICHLOROETHANE (sur.)	%	99		7094718
O-TERPHENYL (sur.)	%	96		7099156

RDL = Reportable Detection Limit

Maxxam Job #: B373676
Report Date: 2013/08/22

IEG CONSULTANTS LTD.
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JTC

SOIL SALINITY 4 (SOIL)

Maxxam ID		HG5161	HG5162	HG5163	HG5164	HG5165		
Sampling Date		2013/08/18	2013/08/18	2013/08/18	2013/08/18	2013/08/18		
COC Number		A134688	A134688	A134688	A134688	A134688		
	UNITS	**EX-13-2IB(7.0M)**	**EX-13-2IE(3.0M)**	**EX-13-2IE(6.0M)**	**EX-13-2IS(3.5M)**	**EX-13-2IS(6.0M)**	**RDL**	**QC Batch**
Soluble Parameters								
Soluble Conductivity	dS/m	0.96	0.18	0.33	1.2	0.44	0.020	7102938
Soluble (CaCl2) pH	N/A	7.37	7.38	7.40	7.40	7.20	N/A	7099237
Saturation %	%	33	34	34	30	30	N/A	7102447

RDL = Reportable Detection Limit

Maxxam Job #: B373676
Report Date: 2013/08/22

IEG CONSULTANTS LTD.
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JTC

REGULATED METALS (CCME/AT1) - SOILS

Maxxam ID		HG5161	HG5162	HG5163	HG5164	HG5165		
Sampling Date		2013/08/18	2013/08/18	2013/08/18	2013/08/18	2013/08/18		
COC Number		A134688	A134688	A134688	A134688	A134688		
	UNITS	**EX-13-2IB(7.0M)**	**EX-13-2IE(3.0M)**	**EX-13-2IE(6.0M)**	**EX-13-2IS(3.5M)**	**EX-13-2IS(6.0M)**	**RDL**	**QC Batch**
Elements								
Hex. Chromium (Cr 6+)	mg/kg	<0.15	<0.15	<0.15	<0.15	<0.15	0.15	7099363

RDL = Reportable Detection Limit

Maxxam Job #: B373676
Report Date: 2013/08/22

IEG CONSULTANTS LTD.
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JTC

Package 1	5.7°C

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

General Comments

Sample HG5161-01: Sample extracted from a jar with headspace for BTEX/F1.

Results relate only to the items tested.

IEG CONSULTANTS LTD.
Attention:
Client Project #: CAMP FAREWELL
P.O. #: A04012A05
Site Location:

Quality Assurance Report

Maxxam Job Number: EB373676

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7094718 RC6	Matrix Spike	1,4-Difluorobenzene (sur.)	2013/08/20		108	%	60 - 140
		4-BROMOFLUOROBENZENE (sur.)	2013/08/20		95	%	60 - 140
		D10-ETHYLBENZENE (sur.)	2013/08/20		121	%	60 - 130
		D4-1,2-DICHLOROETHANE (sur.)	2013/08/20		103	%	60 - 140
		Benzene	2013/08/20		84	%	60 - 140
		Toluene	2013/08/20		86	%	60 - 140
		Ethylbenzene	2013/08/20		78	%	60 - 140
		m & p-Xylene	2013/08/20		77	%	60 - 140
		o-Xylene	2013/08/20		88	%	60 - 140
		(C6-C10)	2013/08/20		NC	%	60 - 140
	Spiked Blank	1,4-Difluorobenzene (sur.)	2013/08/20		99	%	60 - 140
		4-BROMOFLUOROBENZENE (sur.)	2013/08/20		96	%	60 - 140
		D10-ETHYLBENZENE (sur.)	2013/08/20		101	%	60 - 130
		D4-1,2-DICHLOROETHANE (sur.)	2013/08/20		98	%	60 - 140
		Benzene	2013/08/20		101	%	60 - 140
		Toluene	2013/08/20		95	%	60 - 140
		Ethylbenzene	2013/08/20		90	%	60 - 140
		m & p-Xylene	2013/08/20		92	%	60 - 140
		o-Xylene	2013/08/20		94	%	60 - 140
		(C6-C10)	2013/08/20		104	%	60 - 140
	Method Blank	1,4-Difluorobenzene (sur.)	2013/08/20		96	%	60 - 140
		4-BROMOFLUOROBENZENE (sur.)	2013/08/20		96	%	60 - 140
		D10-ETHYLBENZENE (sur.)	2013/08/20		103	%	60 - 130
		D4-1,2-DICHLOROETHANE (sur.)	2013/08/20		95	%	60 - 140
		Benzene	2013/08/20	<0.0050		mg/kg	
		Toluene	2013/08/20	<0.020		mg/kg	
		Ethylbenzene	2013/08/20	<0.010		mg/kg	
		Xylenes (Total)	2013/08/20	<0.040		mg/kg	
		m & p-Xylene	2013/08/20	<0.040		mg/kg	
		o-Xylene	2013/08/20	<0.020		mg/kg	
		F1 (C6-C10) - BTEX	2013/08/20	<12		mg/kg	
		(C6-C10)	2013/08/20	<12		mg/kg	
	RPD	Benzene	2013/08/20	NC		%	50
		Toluene	2013/08/20	NC		%	50
		Ethylbenzene	2013/08/20	NC		%	50
		Xylenes (Total)	2013/08/20	NC		%	50
		m & p-Xylene	2013/08/20	NC		%	50
		o-Xylene	2013/08/20	NC		%	50
		F1 (C6-C10) - BTEX	2013/08/20	NC		%	50
		(C6-C10)	2013/08/20	NC		%	50
7099156 GG3	Matrix Spike	O-TERPHENYL (sur.)	2013/08/21		86	%	50 - 130
		F2 (C10-C16 Hydrocarbons)	2013/08/21		93	%	50 - 130
		F3 (C16-C34 Hydrocarbons)	2013/08/21		95	%	50 - 130
		F4 (C34-C50 Hydrocarbons)	2013/08/21		95	%	50 - 130
	Spiked Blank	O-TERPHENYL (sur.)	2013/08/21		78	%	50 - 130
		F2 (C10-C16 Hydrocarbons)	2013/08/21		93	%	70 - 130
		F3 (C16-C34 Hydrocarbons)	2013/08/21		96	%	70 - 130
		F4 (C34-C50 Hydrocarbons)	2013/08/21		94	%	70 - 130
	Method Blank	O-TERPHENYL (sur.)	2013/08/21		85	%	50 - 130
		F2 (C10-C16 Hydrocarbons)	2013/08/21	<10		mg/kg	
		F3 (C16-C34 Hydrocarbons)	2013/08/21	<50		mg/kg	
		F4 (C34-C50 Hydrocarbons)	2013/08/21	<50		mg/kg	
	RPD	F2 (C10-C16 Hydrocarbons)	2013/08/21	NC (1)		%	50
		F3 (C16-C34 Hydrocarbons)	2013/08/21	NC (1)		%	50
		F4 (C34-C50 Hydrocarbons)	2013/08/21	NC (1)		%	50

IEG CONSULTANTS LTD.
Attention:
Client Project #: CAMP FAREWELL
P.O. #: A04012A05
Site Location:

Quality Assurance Report (Continued)

Maxxam Job Number: EB373676

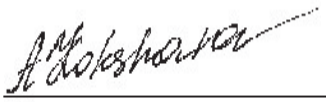
QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7099237	MA4	QC Standard	Soluble (CaCl2) pH	2013/08/21		100	%	97 - 103
		Spiked Blank	Soluble (CaCl2) pH	2013/08/21		101	%	97 - 103
		RPD	Soluble (CaCl2) pH	2013/08/21	0.7		%	5
7099363	AL2	Matrix Spike	Hex. Chromium (Cr 6+)	2013/08/21		92	%	75 - 125
		Spiked Blank	Hex. Chromium (Cr 6+)	2013/08/21		99	%	90 - 110
		Method Blank	Hex. Chromium (Cr 6+)	2013/08/21	<0.15		mg/kg	
		RPD	Hex. Chromium (Cr 6+)	2013/08/21	NC		%	35
7099737	ABH	Method Blank	Moisture	2013/08/21	<0.30		%	
		RPD [HG5161-01]	Moisture	2013/08/21	2.5		%	20
7102447	CH7	QC Standard	Saturation %	2013/08/22		102	%	93 - 107
		RPD [HG5165-01]	Saturation %	2013/08/22	0.4		%	12
7102938	LZ2	QC Standard	Soluble Conductivity	2013/08/22		92	%	85 - 115
		Spiked Blank	Soluble Conductivity	2013/08/22		100	%	90 - 110
		Method Blank	Soluble Conductivity	2013/08/22	<0.020		dS/m	
		RPD	Soluble Conductivity	2013/08/22	5.0		%	35

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 spiked amount was not sufficiently significant to permit a reliable recovery calculation.
NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.
(1) Detection limits raised due to high moisture content.

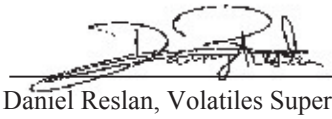
Validation Signature Page

Maxxam Job #: B373676

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



Anna Koksharova, Senior Analyst



Daniel Reslan, Volatiles Supervisor

Michael Chae, Ph.D, Scientific Specialist

==========

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Maxxam

Calgary: 4000 19st St. NE, T2E 6P8, Ph: (403) 291-3077, Fax: (403) 735-2240, Toll free: (800) 386-7247
Edmonton: 9331 - 48 Street, T6B 2R4, Ph: (780) 577-7100, Fax: (780) 450-4187, Toll free: (877) 465-8889
www.maxxamanalytics.com

08/916

Chain of Custody A134688

Page: 1 of 1

	Invoice To: / C/O Report Address ☐	Report To: / Same as Invoice ☒	Report Distribution (E-Mail):
Company:	IEG Consultants LTD.		NWills@klohn.com
Contact:	Nicole Wills		jcollins@klohn.com
Address:	Prov: PC:	Prov: PC:	
Contact #s:	Ph: Cell:	Ph: Cell:	

REGULATORY GUIDELINES:
- ☐ AT1
- ☐ CCME
- ☐ Regulated Drinking Water
- ☐ Other:

All samples are held for 60 calendar days after sample receipt, unless specified otherwise.

PO #: A04012A05
Project # / Name: Camp Farewell
Site Location:
Quote #:
Sampled By: JTC

SERVICE REQUESTED:
☒ **RUSH** (Contact lab to reserve)
Date Required: ASAP!
☐ REGULAR (5 to 7 Days)

See reverse for package specifics

#	Sample ID	Depth (unit)	Matrix GW / SW Soil	Date/Time Sampled YY/MM/DD 24:00	SOIL: BTEX F1-F4	Sieve (75 micron)	Regulated Metals (CCME / AT1)	Salinity 4	Assessment ICP Metals	Basic Class II Landfill	WATER: ☐BTEX F1 ☐VOCs	☐BTEX F1-F2 ☐BTEX F1-F4	☐ Routine Water ☐ Turb ☐ F	☐ TOC ☐ DOC	Regulated Metals (CCME / AT1) Total	Dissolved	Mercury ☐ Total ☐ Dissolved	Other Analysis	HOLD - Do not Analyze	# of Containers Submitted
1	EX-13-2IB (7.0m)	7.0 m	Soil	13/08/18	X		X	X												2
2	EX-13-2IE (3.0m)	3.0m	↓	↓	X		X	X												2
3	EX-13-2IE (6.0m)	6.0m	↓	↓	X		X	X												2
4	EX-13-2IS (3.5m)	3.5m	↓	↓	X		X	X												2
5	EX-13-2IS (6.0m)	6.0m	↓	↓	X		X	X												2
6																				
7																				
8																				
9																				
10																				
11																				
12																		CK4/SBF		

Please indicate Filtered, Preserved or Both (F, P, F/P) → F/P

Relinquished By (Signature/Print):	Date (YY/MM/DD):	Time (24:00):
Jesse Collins	13/08/18	1930
Relinquished By (Signature/Print):	Date (YY/MM/DD):	Time (24:00):

Special Instructions:

# of Jars Used & Not Submitted

LAB USE ONLY

Received By:	Date:	Time:	Maxxam Job #: B373676
Amanda L'Hirondelle	20130821 @	0800	

Lab Comments:

Custody Seal	Temperature	Ice
absent	5, 4, 8	present

AB FCD-00331 Rev3 2010/05

Maxxam Analytics International Corporation o/a Maxxam Analytics

Maxxam

Your P.O. #: A04012A05
Your Project #: CAMP FAREWELL
Your C.O.C. #: A134689

Attention: NICOLE WILLS

KLOHN CRIPPEN BERGER LTD
500-2618
HOPEWELL PLACE NE
CALGARY, AB
CANADA T1Y 7J7

Report Date: 2013/08/25

CERTIFICATE OF ANALYSIS

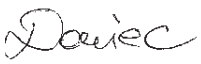
MAXXAM JOB #: B375499
Received: 2013/08/25, 9:00

Sample Matrix: Soil
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
BTEX/F1 by HS GC/MS (MeOH extract)	2	2013/08/25	2013/08/25	AB SOP-00039	CCME, EPA 8260
CCME Hydrocarbons (F2-F4 in soil)	2	2013/08/25	2013/08/25	AB SOP-00040	CCME PHC-CWS
Moisture	2	N/A	2013/08/25	AB SOP-00036 AB SOP-00002	CCME PHC-CWS

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

Encryption Key



Izabela Doniec
25 Aug 2013 18:52:47 -06:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Tanya Eugine, M.Sc., Project Manager
Email: TEugine@maxxam.ca
Phone# (780) 577-7144

==========

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.

Total cover pages: 1

Maxxam Job #: B375499
Report Date: 2013/08/25

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JTC

AT1 BTEX AND F1-F4 IN SOIL (SOIL)

Maxxam ID		HH6803	HH6811		
Sampling Date		2013/08/22	2013/08/22		
COC Number		A134689	A134689		
	UNITS	**EX-13-3IE (3.0M)**	**EX-13-31E STEPOUT (3.0M)**	**RDL**	**QC Batch**
Physical Properties					
Moisture	%	18	17	0.30	7112697
Ext. Pet. Hydrocarbon					
F2 (C10-C16 Hydrocarbons)	mg/kg	15	14	10	7097994
F3 (C16-C34 Hydrocarbons)	mg/kg	<50	<50	50	7097994
F4 (C34-C50 Hydrocarbons)	mg/kg	<50	<50	50	7097994
Reached Baseline at C50	mg/kg	Yes	Yes	N/A	7097994
Volatiles					
Benzene	mg/kg	0.12	0.020	0.0050	7110655
Toluene	mg/kg	0.034	0.079	0.020	7110655
Ethylbenzene	mg/kg	0.042	0.022	0.010	7110655
Xylenes (Total)	mg/kg	0.20	0.14	0.040	7110655
m & p-Xylene	mg/kg	0.096	0.089	0.040	7110655
o-Xylene	mg/kg	0.11	0.047	0.020	7110655
F1 (C6-C10) - BTEX	mg/kg	<12	<12	12	7110655
(C6-C10)	mg/kg	<12	<12	12	7110655
Surrogate Recovery (%)					
1,4-Difluorobenzene (sur.)	%	108	107	N/A	7110655
4-BROMOFLUOROBENZENE (sur.)	%	94	96	N/A	7110655
D10-ETHYLBENZENE (sur.)	%	103	103	N/A	7110655
D4-1,2-DICHLOROETHANE (sur.)	%	97	96	N/A	7110655
O-TERPHENYL (sur.)	%	90	105	N/A	7097994

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Job #: B375499
Report Date: 2013/08/25

KLOHN CRIPPEN BERGER LTD
Client Project #: CAMP FAREWELL

Your P.O. #: A04012A05
Sampler Initials: JTC

Package 1	9.3°C

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

General Comments

Results relate only to the items tested.

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: CAMP FAREWELL
P.O. #: A04012A05
Site Location:

Quality Assurance Report

Maxxam Job Number: EB375499

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7097994	RPA	Matrix Spike	O-TERPHENYL (sur.)	2013/08/24		81	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/08/24		83	%	50 - 130
			F3 (C16-C34 Hydrocarbons)	2013/08/24		85	%	50 - 130
			F4 (C34-C50 Hydrocarbons)	2013/08/24		85	%	50 - 130
		Spiked Blank	O-TERPHENYL (sur.)	2013/08/24		97	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/08/24		107	%	70 - 130
			F3 (C16-C34 Hydrocarbons)	2013/08/24		110	%	70 - 130
			F4 (C34-C50 Hydrocarbons)	2013/08/24		107	%	70 - 130
		Method Blank	O-TERPHENYL (sur.)	2013/08/24		86	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/08/24	<10		mg/kg	
			F3 (C16-C34 Hydrocarbons)	2013/08/24	<50		mg/kg	
			F4 (C34-C50 Hydrocarbons)	2013/08/24	<50		mg/kg	
		RPD	F2 (C10-C16 Hydrocarbons)	2013/08/24	NC		%	50
			F3 (C16-C34 Hydrocarbons)	2013/08/24	NC		%	50
			F4 (C34-C50 Hydrocarbons)	2013/08/24	NC		%	50
7110655	YS5	Matrix Spike	1,4-Difluorobenzene (sur.)	2013/08/25		109	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/08/25		100	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/08/25		119	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/08/25		105	%	60 - 140
			Benzene	2013/08/25		82	%	60 - 140
			Toluene	2013/08/25		77	%	60 - 140
			Ethylbenzene	2013/08/25		77	%	60 - 140
			m & p-Xylene	2013/08/25		74	%	60 - 140
			o-Xylene	2013/08/25		74	%	60 - 140
			(C6-C10)	2013/08/25		90	%	60 - 140
		Spiked Blank	1,4-Difluorobenzene (sur.)	2013/08/25		100	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/08/25		102	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/08/25		119	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/08/25		103	%	60 - 140
			Benzene	2013/08/25		83	%	60 - 140
			Toluene	2013/08/25		76	%	60 - 140
			Ethylbenzene	2013/08/25		78	%	60 - 140
			m & p-Xylene	2013/08/25		77	%	60 - 140
			o-Xylene	2013/08/25		75	%	60 - 140
			(C6-C10)	2013/08/25		71	%	60 - 140
		Method Blank	1,4-Difluorobenzene (sur.)	2013/08/25		101	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/08/25		99	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/08/25		121	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/08/25		105	%	60 - 140
			Benzene	2013/08/25	<0.0050		mg/kg	
			Toluene	2013/08/25	<0.020		mg/kg	
			Ethylbenzene	2013/08/25	<0.010		mg/kg	
			Xylenes (Total)	2013/08/25	<0.040		mg/kg	
			m & p-Xylene	2013/08/25	<0.040		mg/kg	
			o-Xylene	2013/08/25	<0.020		mg/kg	
			F1 (C6-C10) - BTEX	2013/08/25	<12		mg/kg	
			(C6-C10)	2013/08/25	<12		mg/kg	
		RPD	Benzene	2013/08/25	NC		%	50
			Toluene	2013/08/25	NC		%	50
			Ethylbenzene	2013/08/25	NC		%	50
			Xylenes (Total)	2013/08/25	NC		%	50
			m & p-Xylene	2013/08/25	NC		%	50
			o-Xylene	2013/08/25	NC		%	50
			F1 (C6-C10) - BTEX	2013/08/25	NC		%	50
			(C6-C10)	2013/08/25	NC		%	50

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: CAMP FAREWELL
P.O. #: A04012A05
Site Location:

Quality Assurance Report (Continued)

Maxxam Job Number: EB375499

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7112697	NM5	Method Blank	Moisture	2013/08/25	0.30, RDL=0.30		%	
		RPD	Moisture	2013/08/25	3.0		%	20

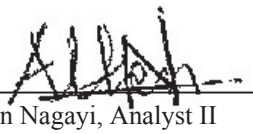
Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.
Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.
Spiked Blank: A blank matrix sample to which a 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 (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

Maxxam

Validation Signature Page

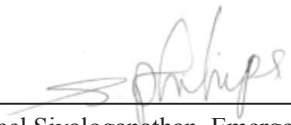
Maxxam Job #: B375499

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



Allen Nagayi, Analyst II

Halina Solway, Lab Supervisor



Neel Sivaloganathan, Emergency Spill Response Manager

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Edmonton: 9331 - 48 Street, T6B 2R4. Ph: (780) 577-7100, Fax: (780) 450-4187, Toll free: (877) 465-8889
www.maxxamanalytics.com

08/1196

Chain of Custody

A134689

Page: 1 of 1

	Invoice To: C/O Report Address ☐	Report To: Same as Invoice ☒	Report Distribution (E-Mail):
Company:	IEG Consultants LTD.		NWills@kbhn.com
Contact:	Nicole Wills		jcollins@kbhn.com
Address:			
	Prov: PC:	Prov: PC:	
Contact #s:	Ph: 403-825-3048 Cell:	Ph: Cell:	

REGULATORY GUIDELINES:
- ☐ AT1
- ☐ CCME
- ☐ Regulated Drinking Water
- ☐ Other:

All samples are held for 60 calendar days after sample receipt, unless specified otherwise.

PO #: A040ZA05
Project # / Name: Camp Farewell
Site Location:
Quote #:
Sampled By: JTC

SERVICE REQUESTED: ☒ RUSH (Contact lab to reserve) Date Required: ASAP ☐ REGULAR (5 to 7 Days)

	Sample ID	Depth (unit)	Matrix GW / SW Soil	Date/Time Sampled YY/MM/DD 24:00	SOIL: BTEX F1-F4	SOIL: Sieve (75 micron)	SOIL: Regulated Metals (CCME / AT1)	SOIL: Salinity 4	SOIL: Assessment ICP Metals	SOIL: Basic Class II Landfill	WATER: ☐BTEX F1 ☐VOCs	WATER: ☐BTEX F1-F2 ☐BTEX F1-F4	WATER: ☐ Routine Water ☐ Turb ☐ F	WATER: ☐ TOC ☐ DOC	WATER: Regulated Metals (CCME / AT1) Total	WATER: Regulated Metals (CCME / AT1) Dissolved	WATER: Mercury ☐ Total ☐ Dissolved	Other Analysis	HOLD - Do not Analyze	# of Containers Submitted
1	EX-13-3IE (3.0m)	3.0m	Soil	13/08/22	X															2
2	EX-13-3IE Stepout (3.0m)	3.0m	1		X															2
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				

See reverse for package specifics

Please indicate Filtered, Preserved or Both (F, P, F/P) → F/P

Relinquished By (Signature/Print):	Date (YY/MM/DD):	Time (24:00):
Jesse Collins	13/08/23	1150
Relinquished By (Signature/Print):	Date (YY/MM/DD):	Time (24:00):

Special Instructions:

# of Jars Used & Not Submitted

LAB USE ONLY

Received By:	Date:	Time:	Maxxam Job #:
Jenna Walter	20130825	0900	B375499

Lab Comments:

Custody Seal	Temperature	Ice
absent	9, 10, 9	present

Maxxam

Success Through Science®

Your Project #: A04012A05
Site Location: CAMP FAREWELL
Your C.O.C. #: A134527, A134528, A134516

Attention: NICOLE WILLS

KLOHN CRIPPEN BERGER LTD
500-2618
HOPEWELL PLACE NE
CALGARY, AB
CANADA T1Y 7J7

Report Date: 2013/08/13
This report supersedes all previous reports with the same Maxxam job number

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B363840
Received: 2013/07/25, 10:23

Sample Matrix: Soil
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Boron (Hot Water Soluble)	1	2013/07/26	2013/07/26	AB SOP-00042	EPA 200.7
BTEX/F1 by HS GC/MS (MeOH extract)	1	2013/07/25	2013/07/26	AB SOP-00039	CCME, EPA 8260
BTEX in Leachates by HS GC/MS	1	2013/07/25	2013/07/26	AB SOP-00039	EPA 1311/8260C
Cation/EC Ratio	1	N/A	2013/07/26		CALCULATION
Chloride (Soluble)	1	2013/07/26	2013/07/26	AB SOP-00020	SSMA 4500 CL-E
Hexavalent Chromium	1	2013/07/25	2013/07/26	EENVSOP-00131	SM 3500-Cr B
Conductivity @25C (Soluble)	1	2013/07/26	2013/07/26	AB SOP-00004	SSMA 15.3
CCME Hydrocarbons (F2-F4 in soil)	1	2013/07/25	2013/07/25	AB SOP-00040 AB SOP-00036	CCME PHC-CWS
Flash Point	1	N/A	2013/07/26	AB SOP-00062	ASTM D3828-12 A
ICPMS Metals on TCLP Leachate	1	2013/07/25	2013/07/26	AB SOP-00043	EPA 200.8
Elements by ICPMS - Soils	1	2013/07/26	2013/07/26	AB SOP-00043	EPA 200.8
Ion Balance	1	N/A	2013/07/26	AB WI-00065	SM 1030E
Sum of Cations, Anions	1	N/A	2013/07/26	AB WI-00065	SM 1030E
Moisture	1	N/A	2013/07/26	AB SOP-00002	CCME PHC-CWS
Free Liquid (Paint filter)	1	N/A	2013/07/26	AB SOP-00047	EPA SW846/9095B
pH @25C (1:2 Calcium Chloride Extract)	1	2013/07/26	2013/07/26	AB SOP-00006	SSMA 16.3
pH @25C (1:1 extract, solid waste)	1	2013/07/26	2013/07/26	AB SOP-00006	SSMA 16.2
Sodium Adsorption Ratio	1	N/A	2013/07/26	AB WI-00065	SSMA 15.4.4
Ca,Mg,Na,K,SO4 (Soluble)	1	2013/07/26	2013/07/26	AB SOP-00042	EPA 200.7
Soluble Paste	1	2013/07/26	2013/07/26	AB SOP-00033	SSMA 15.2
Soluble Ions Calculation	1	N/A	2013/07/26		CALCULATION
Theoretical Gypsum Requirement (1)	1	N/A	2013/07/26	CAL WI-00087	CJSS 79:449-455

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

(1) Units for TGR have changed from tons/acre to tonnes/ha

Your Project #: A04012A05
Site Location: CAMP FAREWELL
Your C.O.C. #: A134527, A134528, A134516

Attention: NICOLE WILLS

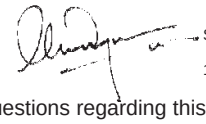
KLOHN CRIPPEN BERGER LTD
500-2618
HOPEWELL PLACE NE
CALGARY, AB
CANADA T1Y 7J7

Report Date: 2013/08/13

This report supersedes all previous reports with the same Maxxam job number

CERTIFICATE OF ANALYSIS

Encryption Key



Sherlyne Sim
13 Aug 2013 10:59:29 -06:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Tanya Eugine, M.Sc., Project Manager
Email: TEugine@maxxam.ca
Phone# (780) 577-7144

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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.

Total cover pages: 2

Maxxam Job #: B363840
Report Date: 2013/08/13

KLOHN CRIPPEN BERGER LTD
Client Project #: A04012A05
Site Location: CAMP FAREWELL
Sampler Initials: NW

AT1 BTEX AND F1-F4 IN SOIL (SOIL)

Maxxam ID		GZ9443		
Sampling Date		2013/07/20		
COC Number		A134527		
	UNITS	**DS13-001**	**RDL**	**QC Batch**
Physical Properties				
Moisture	%	22	0.30	7024996
Ext. Pet. Hydrocarbon				
F2 (C10-C16 Hydrocarbons)	mg/kg	860	10	7022792
F3 (C16-C34 Hydrocarbons)	mg/kg	790	50	7022792
F4 (C34-C50 Hydrocarbons)	mg/kg	200	50	7022792
Reached Baseline at C50	mg/kg	Yes	N/A	7022792
Volatiles				
Benzene	mg/kg	0.059	0.0050	7024383
Toluene	mg/kg	0.83	0.020	7024383
Ethylbenzene	mg/kg	0.38	0.010	7024383
Xylenes (Total)	mg/kg	4.5	0.040	7024383
m & p-Xylene	mg/kg	2.9	0.040	7024383
o-Xylene	mg/kg	1.7	0.020	7024383
F1 (C6-C10) - BTEX	mg/kg	100	12	7024383
(C6-C10)	mg/kg	110	12	7024383
Surrogate Recovery (%)				
1,4-Difluorobenzene (sur.)	%	114	N/A	7024383
4-BROMOFLUOROBENZENE (sur.)	%	78	N/A	7024383
D10-ETHYLBENZENE (sur.)	%	124	N/A	7024383
D4-1,2-DICHLOROETHANE (sur.)	%	110	N/A	7024383
O-TERPHENYL (sur.)	%	111	N/A	7022792

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Job #: B363840
Report Date: 2013/08/13

KLOHN CRIPPEN BERGER LTD
Client Project #: A04012A05
Site Location: CAMP FAREWELL
Sampler Initials: NW

SOIL SALINITY 4 (SOIL)

Maxxam ID		GZ9443		
Sampling Date		2013/07/20		
COC Number		A134527		
	UNITS	**DS13-001**	**RDL**	**QC Batch**
Calculated Parameters				
Anion Sum	meq/L	12	N/A	7022359
Cation Sum	meq/L	12	N/A	7022359
Cation/EC Ratio	N/A	9.3	0.10	7021708
Ion Balance	N/A	1.0	0.010	7022358
Calculated Calcium (Ca)	mg/kg	28	0.55	7022361
Calculated Magnesium (Mg)	mg/kg	7.4	0.37	7022361
Calculated Sodium (Na)	mg/kg	50	0.92	7022361
Calculated Potassium (K)	mg/kg	5.8	0.48	7022361
Calculated Chloride (Cl)	mg/kg	72	1.8	7022361
Calculated Sulphate (SO4)	mg/kg	110	1.8	7022361
Soluble Parameters				
Soluble Chloride (Cl)	mg/L	200	5.0	7026083
Soluble Conductivity	dS/m	1.3	0.020	7024503
Soluble (CaCl2) pH	N/A	7.16	N/A	7024030
Sodium Adsorption Ratio	N/A	3.6	0.10	7021713
Soluble Calcium (Ca)	mg/L	76	1.5	7026327
Soluble Magnesium (Mg)	mg/L	20	1.0	7026327
Soluble Sodium (Na)	mg/L	130	2.5	7026327
Soluble Potassium (K)	mg/L	16	1.3	7026327
Saturation %	%	37	N/A	7024196
Soluble Sulphate (SO4)	mg/L	290	5.0	7026327
Theoretical Gypsum Requirement	tonnes/ha	<0.10	0.10	7021714

RDL = Reportable Detection Limit

Maxxam Job #: B363840
Report Date: 2013/08/13

KLOHN CRIPPEN BERGER LTD
Client Project #: A04012A05
Site Location: CAMP FAREWELL
Sampler Initials: NW

BASIC CLASS II LANDFILL PACKAGE (SOIL)

Maxxam ID		GZ9443		
Sampling Date		2013/07/20		
COC Number		A134527		
	UNITS	**DS13-001**	**RDL**	**QC Batch**
Soluble Parameters				
Soluble (1:1) pH	N/A	7.44	N/A	7024529
Physical Properties				
Closed Cup Flash point	deg. C	>61	N/A	7026825
Free Liquid	N/A	PASS	N/A	7026879
Elements				
Leachable Antimony (Sb)	mg/L	<1.0	1.0	7023787
Leachable Arsenic (As)	mg/L	<0.50	0.50	7023787
Leachable Barium (Ba)	mg/L	2.2	1.0	7023787
Leachable Beryllium (Be)	mg/L	<0.50	0.50	7023787
Leachable Boron (B)	mg/L	<1.0	1.0	7023787
Leachable Cadmium (Cd)	mg/L	<0.10	0.10	7023787
Leachable Chromium (Cr)	mg/L	<0.50	0.50	7023787
Leachable Cobalt (Co)	mg/L	<1.0	1.0	7023787
Leachable Copper (Cu)	mg/L	<1.0	1.0	7023787
Leachable Iron (Fe)	mg/L	11	1.0	7023787
Leachable Lead (Pb)	mg/L	<0.50	0.50	7023787
Leachable Mercury (Hg)	mg/L	<0.020	0.020	7023787
Leachable Nickel (Ni)	mg/L	<0.50	0.50	7023787
Leachable Selenium (Se)	mg/L	<0.10	0.10	7023787
Leachable Silver (Ag)	mg/L	<0.50	0.50	7023787
Leachable Thallium (Tl)	mg/L	<0.50	0.50	7023787
Leachable Uranium (U)	mg/L	<0.20	0.20	7023787
Leachable Vanadium (V)	mg/L	<1.0	1.0	7023787
Leachable Zinc (Zn)	mg/L	<1.0	1.0	7023787
Leachable Zirconium (Zr)	mg/L	<1.0	1.0	7023787
Volatiles				
Leachable (ZH) Benzene	mg/L	<0.010	0.010	7024500
Leachable (ZH) Toluene	mg/L	0.018	0.010	7024500
Leachable (ZH) Ethylbenzene	mg/L	<0.010	0.010	7024500
Leachable (ZH) o-Xylene	mg/L	0.053	0.010	7024500
Leachable (ZH) m & p-Xylene	mg/L	0.080	0.020	7024500
Leachable (ZH) Xylenes (Total)	mg/L	0.13	0.020	7024500
Surrogate Recovery (%)				
Leachable (ZH) 1,4-Difluorobenzene (sur.)	%	91	N/A	7024500

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Job #: B363840
Report Date: 2013/08/13

KLOHN CRIPPEN BERGER LTD
Client Project #: A04012A05
Site Location: CAMP FAREWELL
Sampler Initials: NW

BASIC CLASS II LANDFILL PACKAGE (SOIL)

Maxxam ID		GZ9443		
Sampling Date		2013/07/20		
COC Number		A134527		
	UNITS	**DS13-001**	**RDL**	**QC Batch**
Leachable (ZH) 4-BROMOFLUOROBENZENE (sur.)	%	98	N/A	7024500
Leachable (ZH) D4-1,2-DICHLOROETHANE (sur.)	%	87	N/A	7024500

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Job #: B363840
Report Date: 2013/08/13

KLOHN CRIPPEN BERGER LTD
Client Project #: A04012A05
Site Location: CAMP FAREWELL
Sampler Initials: NW

REGULATED METALS (CCME/AT1) - SOILS

Maxxam ID		GZ9443		
Sampling Date		2013/07/20		
COC Number		A134527		
	UNITS	**DS13-001**	**RDL**	**QC Batch**
Elements				
Soluble (Hot water) Boron (B)	mg/kg	0.72	0.10	7026671
Hex. Chromium (Cr 6+)	mg/kg	<0.15	0.15	7024524
Total Antimony (Sb)	mg/kg	1.2	1.0	7026100
Total Arsenic (As)	mg/kg	5.5	1.0	7026100
Total Barium (Ba)	mg/kg	420	10	7026100
Total Beryllium (Be)	mg/kg	<0.40	0.40	7026100
Total Cadmium (Cd)	mg/kg	0.18	0.10	7026100
Total Chromium (Cr)	mg/kg	11	1.0	7026100
Total Cobalt (Co)	mg/kg	3.8	1.0	7026100
Total Copper (Cu)	mg/kg	11	5.0	7026100
Total Lead (Pb)	mg/kg	16	1.0	7026100
Total Mercury (Hg)	mg/kg	<0.050	0.050	7026100
Total Molybdenum (Mo)	mg/kg	0.67	0.40	7026100
Total Nickel (Ni)	mg/kg	12	1.0	7026100
Total Selenium (Se)	mg/kg	<0.50	0.50	7026100
Total Silver (Ag)	mg/kg	<1.0	1.0	7026100
Total Thallium (Tl)	mg/kg	<0.30	0.30	7026100
Total Tin (Sn)	mg/kg	1.3	1.0	7026100
Total Uranium (U)	mg/kg	<1.0	1.0	7026100
Total Vanadium (V)	mg/kg	11	1.0	7026100
Total Zinc (Zn)	mg/kg	46	10	7026100

RDL = Reportable Detection Limit

Maxxam Job #: B363840
Report Date: 2013/08/13

KLOHN CRIPPEN BERGER LTD
Client Project #: A04012A05
Site Location: CAMP FAREWELL
Sampler Initials: NW

Package 1	6.7°C
Package 2	6.3°C

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

General Comments

Results relate only to the items tested.

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: A04012A05
P.O. #:
Site Location: CAMP FAREWELL

Quality Assurance Report

Maxxam Job Number: EB363840

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7022792	JR1	Matrix Spike						
		[GZ9455-01]	O-TERPHENYL (sur.)	2013/07/25		87	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/07/25		87	%	50 - 130
			F3 (C16-C34 Hydrocarbons)	2013/07/25		89	%	50 - 130
			F4 (C34-C50 Hydrocarbons)	2013/07/25		88	%	50 - 130
		Spiked Blank	O-TERPHENYL (sur.)	2013/07/25		92	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/07/25		103	%	70 - 130
			F3 (C16-C34 Hydrocarbons)	2013/07/25		105	%	70 - 130
			F4 (C34-C50 Hydrocarbons)	2013/07/25		103	%	70 - 130
		Method Blank	O-TERPHENYL (sur.)	2013/07/25		94	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/07/25	<10		mg/kg	
			F3 (C16-C34 Hydrocarbons)	2013/07/25	<50		mg/kg	
			F4 (C34-C50 Hydrocarbons)	2013/07/25	<50		mg/kg	
7023787	WAU	Matrix Spike	Leachable Antimony (Sb)	2013/07/26		97	%	75 - 125
			Leachable Arsenic (As)	2013/07/26		103	%	75 - 125
			Leachable Barium (Ba)	2013/07/26		NC	%	75 - 125
			Leachable Beryllium (Be)	2013/07/26		101	%	75 - 125
			Leachable Boron (B)	2013/07/26		105	%	75 - 125
			Leachable Cadmium (Cd)	2013/07/26		104	%	75 - 125
			Leachable Chromium (Cr)	2013/07/26		102	%	75 - 125
			Leachable Cobalt (Co)	2013/07/26		99	%	75 - 125
			Leachable Copper (Cu)	2013/07/26		96	%	75 - 125
			Leachable Iron (Fe)	2013/07/26		NC	%	75 - 125
			Leachable Lead (Pb)	2013/07/26		93	%	75 - 125
			Leachable Mercury (Hg)	2013/07/26		97	%	75 - 125
			Leachable Nickel (Ni)	2013/07/26		100	%	75 - 125
			Leachable Selenium (Se)	2013/07/26		111	%	75 - 125
			Leachable Silver (Ag)	2013/07/26		101	%	75 - 125
			Leachable Thallium (Tl)	2013/07/26		106	%	75 - 125
			Leachable Uranium (U)	2013/07/26		91	%	75 - 125
			Leachable Vanadium (V)	2013/07/26		109	%	75 - 125
			Leachable Zinc (Zn)	2013/07/26		97	%	75 - 125
			Leachable Zirconium (Zr)	2013/07/26		116	%	75 - 125
		Spiked Blank	Leachable Antimony (Sb)	2013/07/26		86	%	80 - 120
			Leachable Arsenic (As)	2013/07/26		97	%	80 - 120
			Leachable Barium (Ba)	2013/07/26		101	%	80 - 120
			Leachable Beryllium (Be)	2013/07/26		99	%	80 - 120
			Leachable Boron (B)	2013/07/26		101	%	80 - 120
			Leachable Cadmium (Cd)	2013/07/26		99	%	80 - 120
			Leachable Chromium (Cr)	2013/07/26		99	%	80 - 120
			Leachable Cobalt (Co)	2013/07/26		97	%	80 - 120
			Leachable Copper (Cu)	2013/07/26		98	%	80 - 120
			Leachable Iron (Fe)	2013/07/26		105	%	80 - 120
			Leachable Lead (Pb)	2013/07/26		95	%	80 - 120
			Leachable Mercury (Hg)	2013/07/26		95	%	80 - 120
			Leachable Nickel (Ni)	2013/07/26		98	%	80 - 120
			Leachable Selenium (Se)	2013/07/26		104	%	80 - 120
			Leachable Silver (Ag)	2013/07/26		98	%	80 - 120
			Leachable Thallium (Tl)	2013/07/26		108	%	80 - 120
			Leachable Uranium (U)	2013/07/26		88	%	80 - 120
			Leachable Vanadium (V)	2013/07/26		101	%	80 - 120
			Leachable Zinc (Zn)	2013/07/26		99	%	80 - 120
			Leachable Zirconium (Zr)	2013/07/26		103	%	80 - 120
		Method Blank	Leachable Antimony (Sb)	2013/07/26	<1.0		mg/L	
			Leachable Arsenic (As)	2013/07/26	<0.50		mg/L	

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: A04012A05
P.O. #:
Site Location: CAMP FAREWELL

Quality Assurance Report (Continued)

Maxxam Job Number: EB363840

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7023787	WAU	Method Blank	Leachable Barium (Ba)	2013/07/26	<1.0		mg/L	
			Leachable Beryllium (Be)	2013/07/26	<0.50		mg/L	
			Leachable Boron (B)	2013/07/26	<1.0		mg/L	
			Leachable Cadmium (Cd)	2013/07/26	<0.10		mg/L	
			Leachable Chromium (Cr)	2013/07/26	<0.50		mg/L	
			Leachable Cobalt (Co)	2013/07/26	<1.0		mg/L	
			Leachable Copper (Cu)	2013/07/26	<1.0		mg/L	
			Leachable Iron (Fe)	2013/07/26	<1.0		mg/L	
			Leachable Lead (Pb)	2013/07/26	<0.50		mg/L	
			Leachable Mercury (Hg)	2013/07/26	<0.020		mg/L	
			Leachable Nickel (Ni)	2013/07/26	<0.50		mg/L	
			Leachable Selenium (Se)	2013/07/26	<0.10		mg/L	
			Leachable Silver (Ag)	2013/07/26	<0.50		mg/L	
			Leachable Thallium (Tl)	2013/07/26	<0.50		mg/L	
			Leachable Uranium (U)	2013/07/26	<0.20		mg/L	
			Leachable Vanadium (V)	2013/07/26	<1.0		mg/L	
			Leachable Zinc (Zn)	2013/07/26	<1.0		mg/L	
			Leachable Zirconium (Zr)	2013/07/26	<1.0		mg/L	
		RPD	Leachable Antimony (Sb)	2013/07/26	NC		%	35
			Leachable Arsenic (As)	2013/07/26	NC		%	35
			Leachable Barium (Ba)	2013/07/26	NC		%	35
			Leachable Beryllium (Be)	2013/07/26	NC		%	35
			Leachable Boron (B)	2013/07/26	NC		%	35
			Leachable Cadmium (Cd)	2013/07/26	NC		%	35
			Leachable Chromium (Cr)	2013/07/26	NC		%	35
			Leachable Cobalt (Co)	2013/07/26	NC		%	35
			Leachable Copper (Cu)	2013/07/26	NC		%	35
			Leachable Iron (Fe)	2013/07/26	NC		%	35
			Leachable Lead (Pb)	2013/07/26	NC		%	35
			Leachable Mercury (Hg)	2013/07/26	NC		%	35
			Leachable Nickel (Ni)	2013/07/26	NC		%	35
			Leachable Selenium (Se)	2013/07/26	NC		%	35
			Leachable Silver (Ag)	2013/07/26	NC		%	35
			Leachable Thallium (Tl)	2013/07/26	NC		%	35
			Leachable Uranium (U)	2013/07/26	NC		%	35
			Leachable Vanadium (V)	2013/07/26	NC		%	35
			Leachable Zinc (Zn)	2013/07/26	NC		%	35
			Leachable Zirconium (Zr)	2013/07/26	NC		%	35
7024030	SSF	QC Standard	Soluble (CaCl2) pH	2013/07/26		100	%	97 - 103
		Spiked Blank	Soluble (CaCl2) pH	2013/07/26		100	%	97 - 103
7024196	LX	QC Standard	Saturation %	2013/07/26		99	%	93 - 107
7024383	CG7	Matrix Spike						
		[GZ9453-01]	1,4-Difluorobenzene (sur.)	2013/07/26		107	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/07/26		95	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/07/26		110	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/07/26		89	%	60 - 140
			Benzene	2013/07/26		103	%	60 - 140
			Toluene	2013/07/26		98	%	60 - 140
			Ethylbenzene	2013/07/26		94	%	60 - 140
			m & p-Xylene	2013/07/26		97	%	60 - 140
			o-Xylene	2013/07/26		95	%	60 - 140
			(C6-C10)	2013/07/26		91	%	60 - 140
		Spiked Blank	1,4-Difluorobenzene (sur.)	2013/07/26		104	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/07/26		100	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/07/26		129	%	60 - 130

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: A04012A05
P.O. #:
Site Location: CAMP FAREWELL

Quality Assurance Report (Continued)

Maxxam Job Number: EB363840

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7024383	CG7	Spiked Blank	D4-1,2-DICHLOROETHANE (sur.)	2013/07/26		101	%	60 - 140
			Benzene	2013/07/26		102	%	60 - 140
			Toluene	2013/07/26		97	%	60 - 140
			Ethylbenzene	2013/07/26		96	%	60 - 140
			m & p-Xylene	2013/07/26		95	%	60 - 140
			o-Xylene	2013/07/26		94	%	60 - 140
			(C6-C10)	2013/07/26		92	%	60 - 140
		Method Blank	1,4-Difluorobenzene (sur.)	2013/07/26		100	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/07/26		101	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/07/26		122	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/07/26		105	%	60 - 140
			Benzene	2013/07/26	<0.0050		mg/kg	
			Toluene	2013/07/26	<0.020		mg/kg	
			Ethylbenzene	2013/07/26	<0.010		mg/kg	
			Xylenes (Total)	2013/07/26	<0.040		mg/kg	
			m & p-Xylene	2013/07/26	<0.040		mg/kg	
			o-Xylene	2013/07/26	<0.020		mg/kg	
			F1 (C6-C10) - BTEX	2013/07/26	<12		mg/kg	
			(C6-C10)	2013/07/26	<12		mg/kg	
7024500	NSE	Matrix Spike	Leachable (ZH) 1,4-Difluorobenzene (sur.)	2013/07/26		95	%	70 - 130
			Leachable (ZH) 4-BROMOFLUOROBENZEN	2013/07/26		99	%	70 - 130
			Leachable (ZH) D4-1,2-DICHLOROETHANE	2013/07/26		102	%	70 - 130
			Leachable (ZH) Benzene	2013/07/26		84	%	70 - 130
			Leachable (ZH) Toluene	2013/07/26		83	%	70 - 130
			Leachable (ZH) Ethylbenzene	2013/07/26		81	%	70 - 130
			Leachable (ZH) o-Xylene	2013/07/26		93	%	70 - 130
			Leachable (ZH) m & p-Xylene	2013/07/26		91	%	70 - 130
		Spiked Blank	Leachable (ZH) 1,4-Difluorobenzene (sur.)	2013/07/26		90	%	70 - 130
			Leachable (ZH) 4-BROMOFLUOROBENZEN	2013/07/26		100	%	70 - 130
			Leachable (ZH) D4-1,2-DICHLOROETHANE	2013/07/26		95	%	70 - 130
			Leachable (ZH) Benzene	2013/07/26		77	%	70 - 130
			Leachable (ZH) Toluene	2013/07/26		82	%	70 - 130
			Leachable (ZH) Ethylbenzene	2013/07/26		83	%	70 - 130
			Leachable (ZH) o-Xylene	2013/07/26		91	%	70 - 130
			Leachable (ZH) m & p-Xylene	2013/07/26		87	%	70 - 130
		Method Blank	Leachable (ZH) 1,4-Difluorobenzene (sur.)	2013/07/26		99	%	70 - 130
			Leachable (ZH) 4-BROMOFLUOROBENZEN	2013/07/26		101	%	70 - 130
			Leachable (ZH) D4-1,2-DICHLOROETHANE	2013/07/26		98	%	70 - 130
			Leachable (ZH) Benzene	2013/07/26	<0.010		mg/L	
			Leachable (ZH) Toluene	2013/07/26	<0.010		mg/L	
			Leachable (ZH) Ethylbenzene	2013/07/26	<0.010		mg/L	
			Leachable (ZH) o-Xylene	2013/07/26	<0.010		mg/L	
			Leachable (ZH) m & p-Xylene	2013/07/26	<0.020		mg/L	
			Leachable (ZH) Xylenes (Total)	2013/07/26	<0.020		mg/L	
		RPD	Leachable (ZH) Benzene	2013/07/26	NC		%	50
			Leachable (ZH) Toluene	2013/07/26	NC		%	50
			Leachable (ZH) Ethylbenzene	2013/07/26	NC		%	50
			Leachable (ZH) o-Xylene	2013/07/26	NC		%	50
			Leachable (ZH) m & p-Xylene	2013/07/26	NC		%	50
			Leachable (ZH) Xylenes (Total)	2013/07/26	NC		%	50
7024503	SSF	QC Standard	Soluble Conductivity	2013/07/26		92	%	75 - 125
		Spiked Blank	Soluble Conductivity	2013/07/26		99	%	90 - 110
		Method Blank	Soluble Conductivity	2013/07/26	<0.020		dS/m	
7024524	KD5	Matrix Spike	Hex. Chromium (Cr 6+)	2013/07/26		86	%	75 - 125
		Spiked Blank	Hex. Chromium (Cr 6+)	2013/07/26		99	%	90 - 110

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: A04012A05
P.O. #:
Site Location: CAMP FAREWELL

Quality Assurance Report (Continued)

Maxxam Job Number: EB363840

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7024524	KD5	Method Blank	Hex. Chromium (Cr 6+)	2013/07/26	<0.15		mg/kg	
		RPD	Hex. Chromium (Cr 6+)	2013/07/26	NC		%	35
7024529	SSF	QC Standard	Soluble (1:1) pH	2013/07/26		100	%	97 - 103
		Spiked Blank	Soluble (1:1) pH	2013/07/26		100	%	99 - 101
		RPD	Soluble (1:1) pH	2013/07/26	2.2		%	5
7024996	ABH	Method Blank	Moisture	2013/07/26	<0.30		%	
7026083	KD5	Matrix Spike						
		[GZ9455-01]	Soluble Chloride (Cl)	2013/07/26		103	%	75 - 125
		QC Standard	Soluble Chloride (Cl)	2013/07/26		91	%	75 - 125
		Spiked Blank	Soluble Chloride (Cl)	2013/07/26		100	%	75 - 125
		Method Blank	Soluble Chloride (Cl)	2013/07/26	<5.0		mg/L	
7026100	WAU	Matrix Spike	Total Antimony (Sb)	2013/07/26		91	%	75 - 125
			Total Arsenic (As)	2013/07/26		95	%	75 - 125
			Total Barium (Ba)	2013/07/26		NC	%	75 - 125
			Total Beryllium (Be)	2013/07/26		103	%	75 - 125
			Total Cadmium (Cd)	2013/07/26		97	%	75 - 125
			Total Chromium (Cr)	2013/07/26		94	%	75 - 125
			Total Cobalt (Co)	2013/07/26		98	%	75 - 125
			Total Copper (Cu)	2013/07/26		93	%	75 - 125
			Total Lead (Pb)	2013/07/26		97	%	75 - 125
			Total Mercury (Hg)	2013/07/26		97	%	75 - 125
			Total Molybdenum (Mo)	2013/07/26		98	%	75 - 125
			Total Nickel (Ni)	2013/07/26		93	%	75 - 125
			Total Selenium (Se)	2013/07/26		100	%	75 - 125
			Total Silver (Ag)	2013/07/26		101	%	75 - 125
			Total Thallium (Tl)	2013/07/26		95	%	75 - 125
			Total Tin (Sn)	2013/07/26		103	%	75 - 125
			Total Uranium (U)	2013/07/26		100	%	75 - 125
			Total Vanadium (V)	2013/07/26		100	%	75 - 125
			Total Zinc (Zn)	2013/07/26		NC	%	75 - 125
		QC Standard	Total Arsenic (As)	2013/07/26		131	%	50 - 150
			Total Barium (Ba)	2013/07/26		116	%	69 - 131
			Total Chromium (Cr)	2013/07/26		108	%	41 - 159
			Total Cobalt (Co)	2013/07/26		114	%	75 - 125
			Total Copper (Cu)	2013/07/26		116	%	73 - 127
			Total Lead (Pb)	2013/07/26		110	%	54 - 146
			Total Nickel (Ni)	2013/07/26		122	%	61 - 139
			Total Vanadium (V)	2013/07/26		126	%	50 - 150
			Total Zinc (Zn)	2013/07/26		124	%	72 - 128
		Spiked Blank	Total Antimony (Sb)	2013/07/26		91	%	75 - 125
			Total Arsenic (As)	2013/07/26		94	%	75 - 125
			Total Barium (Ba)	2013/07/26		93	%	75 - 125
			Total Beryllium (Be)	2013/07/26		96	%	75 - 125
			Total Cadmium (Cd)	2013/07/26		93	%	75 - 125
			Total Chromium (Cr)	2013/07/26		92	%	75 - 125
			Total Cobalt (Co)	2013/07/26		93	%	75 - 125
			Total Copper (Cu)	2013/07/26		94	%	75 - 125
			Total Lead (Pb)	2013/07/26		96	%	75 - 125
			Total Mercury (Hg)	2013/07/26		94	%	75 - 125
			Total Molybdenum (Mo)	2013/07/26		93	%	75 - 125
			Total Nickel (Ni)	2013/07/26		94	%	75 - 125
			Total Selenium (Se)	2013/07/26		95	%	75 - 125
			Total Silver (Ag)	2013/07/26		96	%	75 - 125
			Total Thallium (Tl)	2013/07/26		94	%	75 - 125
			Total Tin (Sn)	2013/07/26		95	%	75 - 125

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: A04012A05
P.O. #:
Site Location: CAMP FAREWELL

Quality Assurance Report (Continued)

Maxxam Job Number: EB363840

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7026100	WAU	Spiked Blank	Total Uranium (U)	2013/07/26		98	%	75 - 125
			Total Vanadium (V)	2013/07/26		94	%	75 - 125
			Total Zinc (Zn)	2013/07/26		94	%	75 - 125
		Method Blank	Total Antimony (Sb)	2013/07/26	<1.0		mg/kg	
			Total Arsenic (As)	2013/07/26	<1.0		mg/kg	
			Total Barium (Ba)	2013/07/26	<10		mg/kg	
			Total Beryllium (Be)	2013/07/26	<0.40		mg/kg	
			Total Cadmium (Cd)	2013/07/26	<0.10		mg/kg	
			Total Chromium (Cr)	2013/07/26	<1.0		mg/kg	
			Total Cobalt (Co)	2013/07/26	<1.0		mg/kg	
			Total Copper (Cu)	2013/07/26	<5.0		mg/kg	
			Total Lead (Pb)	2013/07/26	<1.0		mg/kg	
			Total Mercury (Hg)	2013/07/26	<0.050		mg/kg	
			Total Molybdenum (Mo)	2013/07/26	<0.40		mg/kg	
			Total Nickel (Ni)	2013/07/26	<1.0		mg/kg	
			Total Selenium (Se)	2013/07/26	<0.50		mg/kg	
			Total Silver (Ag)	2013/07/26	<1.0		mg/kg	
			Total Thallium (Tl)	2013/07/26	<0.30		mg/kg	
			Total Tin (Sn)	2013/07/26	<1.0		mg/kg	
			Total Uranium (U)	2013/07/26	<1.0		mg/kg	
			Total Vanadium (V)	2013/07/26	<1.0		mg/kg	
			Total Zinc (Zn)	2013/07/26	<10		mg/kg	
		RPD	Total Antimony (Sb)	2013/07/26	NC		%	35
			Total Arsenic (As)	2013/07/26	NC		%	35
			Total Barium (Ba)	2013/07/26	4.4		%	35
			Total Beryllium (Be)	2013/07/26	NC		%	35
			Total Cadmium (Cd)	2013/07/26	NC		%	35
			Total Chromium (Cr)	2013/07/26	15.6		%	35
			Total Cobalt (Co)	2013/07/26	1.8		%	35
			Total Copper (Cu)	2013/07/26	NC		%	35
			Total Lead (Pb)	2013/07/26	3.2		%	35
			Total Mercury (Hg)	2013/07/26	NC		%	35
			Total Molybdenum (Mo)	2013/07/26	NC		%	35
			Total Nickel (Ni)	2013/07/26	8.6		%	35
			Total Selenium (Se)	2013/07/26	NC		%	35
			Total Silver (Ag)	2013/07/26	NC		%	35
			Total Thallium (Tl)	2013/07/26	NC		%	35
			Total Tin (Sn)	2013/07/26	NC		%	35
			Total Uranium (U)	2013/07/26	NC		%	35
			Total Vanadium (V)	2013/07/26	2.7		%	35
			Total Zinc (Zn)	2013/07/26	NC		%	35
7026327	JSM	Matrix Spike [GZ9455-01]	Soluble Calcium (Ca)	2013/07/26		101	%	75 - 125
			Soluble Magnesium (Mg)	2013/07/26		104	%	75 - 125
			Soluble Sodium (Na)	2013/07/26		109	%	75 - 125
			Soluble Potassium (K)	2013/07/26		104	%	75 - 125
		QC Standard	Soluble Calcium (Ca)	2013/07/26		87	%	75 - 125
			Soluble Magnesium (Mg)	2013/07/26		85	%	75 - 125
			Soluble Sodium (Na)	2013/07/26		101	%	75 - 125
			Soluble Potassium (K)	2013/07/26		107	%	75 - 125
			Soluble Sulphate (SO4)	2013/07/26		91	%	78 - 122
		Spiked Blank	Soluble Calcium (Ca)	2013/07/26		102	%	75 - 125
			Soluble Magnesium (Mg)	2013/07/26		101	%	75 - 125
			Soluble Sodium (Na)	2013/07/26		103	%	75 - 125
			Soluble Potassium (K)	2013/07/26		99	%	75 - 125

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: A04012A05
P.O. #:
Site Location: CAMP FAREWELL

Quality Assurance Report (Continued)

Maxxam Job Number: EB363840

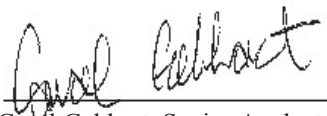
QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7026327	JSM	Method Blank	Soluble Calcium (Ca)	2013/07/26	<1.5		mg/L	
			Soluble Magnesium (Mg)	2013/07/26	<1.0		mg/L	
			Soluble Sodium (Na)	2013/07/26	<2.5		mg/L	
			Soluble Potassium (K)	2013/07/26	<1.3		mg/L	
			Soluble Sulphate (SO4)	2013/07/26	<5.0		mg/L	
7026671	NC3	Matrix Spike	Soluble (Hot water) Boron (B)	2013/07/26		103	%	75 - 125
		Spiked Blank	Soluble (Hot water) Boron (B)	2013/07/26		104	%	75 - 125
		Method Blank	Soluble (Hot water) Boron (B)	2013/07/26	<0.10		mg/kg	
		RPD	Soluble (Hot water) Boron (B)	2013/07/26	NC		%	35

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 spiked amount was not sufficiently significant to permit a reliable recovery calculation.
NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

Validation Signature Page

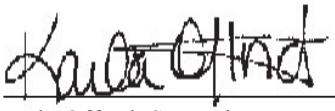
Maxxam Job #: B363840

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



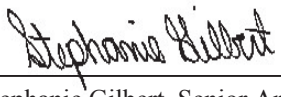
Carol Gebhart, Senior Analyst

Daniel Reslan, Volatiles Supervisor



Karla Offord, Supervisor, Extractable Hydrocarbons

Michael Chae, Ph.D, Scientific Specialist



Stephanie Gilbert, Senior Analyst

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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.

Maxxam

Calgary: 4000 19st St. NE, T2E 6P8. Ph: (403) 291-3077, Fax: (403) 735-2240, Toll free: (800) 386-7247
Edmonton: 9331 - 48 Street, T6B 2R4. Ph: (780) 577-7100, Fax: (780) 450-4187, Toll free: (877) 465-8889
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07/1220(4)

Chain of Custody A134527

Page: 1 of 3

	Invoice To: C/O Report Address ☐	Report To: Same as Invoice ☒	Report Distribution (E-Mail):
Company:	IEG Consultants Ltd		nwills@klohn.com
Contact:	Nicole Wills		
Address:	2618 Hopewell Place NE		
	Prov: Calgary, AB PC: T1Y 7J7	Prov: PC:	
Contact #s:	Ph: 403.829.3048 Cell:	Ph: Cell:	

REGULATORY GUIDELINES:
- ☐ AT1
- ☐ CCME
- ☐ Regulated Drinking Water
- ☐ Other:

All samples are held for 60 calendar days after sample receipt, unless specified otherwise.

PO #:
Project # / Name: A04012A05
Site Location: Camp Farewell
Quote #:
Sampled By: Nicole Wills

SERVICE REQUESTED: ☐ RUSH (Contact lab to reserve) Date Required: ☐ REGULAR (5 to 7 Days)

See reverse for package specifics

	Sample ID	Depth (unit)	Matrix GW / SW Soil	Date/Time Sampled YY/MM/DD 24:00	SOIL: BTEX F1-F4	Sieve (75 micron)	Regulated Metals (CCME / AT1)	Salinity 4	Assessment ICP Metals	Basic Class II Landfill	WATER: ☐VOCs ☐BTEX F1	☐BTEX F1-F2 ☐BTEX F1-F4	☐ Routine Water ☐ Turb ☐ F	☐ TOC ☐ DOC	Regulated Metals (CCME / AT1) Total	Dissolved	Mercury ☐ Total ☐ Dissolved	Other Analysis: RUSH	HOLD - Do not Analyze	# of Containers Submitted
1	TP#1	0-0.6m	Soil	13/07/23 15:30	X		X	X												BJ/1B
2	TP#2	↓	↓	↓	X		X	X												BJ/1B
3	TP#3				X		X	X												BJ/1B
4	TP#4				X		X	X												BJ/1B
5	TP#5				X		X	X												BJ/1B
6	TP#17				X		X	X												BJ/1B
7	TP#18	↓	↓	↓	X		X	X												BJ/1B
8	DS13-001			07-20-13	X	yes	X	X		X								X		
9	EX-13-1AB	7m		07-21-13	X		X	X												
10	EX-13-1JB	6m		07-21-13	X		X	X												
11	EX-13-1KE	3.5m		07-21-13	X		X	X												
12	EX-13-1LE	4m	↓	07-21-13	X		X	X												RDS/MMM

Please indicate Filtered, Preserved or Both (F, P, F/P) → F/P

Relinquished By (Signature/Print): Nicole Wills	Date (YY/MM/DD): 13/07/23	Time (24:00): 20:00	
Relinquished By (Signature/Print):	Date (YY/MM/DD):	Time (24:00):	
Special Instructions: Please rush the analysis of DS13-001		# of Jars Used & Not Submitted	

LAB USE ONLY

Received By:	Date:	Time:	Maxxam Job #: B363840		
Amanda L'Hirondelle	20130725@	1023	Custody Seal	Temperature	Ice
Lab Comments:	14,14,13 > B 15,14,15	absent		7,6,7 8,5,6 > J present	

Maxxam

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Chain of Custody A134528

Page: 2 of 3

Company:	Invoice To: See page 1	C/O Report Address ☐	Report To:	Same as Invoice ☐	Report Distribution (E-Mail): nwills@Klohn.com
Contact:					
Address:	Prov:	PC:	Prov:	PC:	
Contact #s:	Ph:	Cell:	Ph:	Cell:	

REGULATORY GUIDELINES:
- ☐ AT1
- ☐ CCME
- ☐ Regulated Drinking Water
- ☐ Other:

All samples are held for 60 calendar days after sample receipt, unless specified otherwise.

PO #:
Project # / Name:
Site Location:
Quote #:
Sampled By:

SERVICE REQUESTED: ☐ **RUSH** (Contact lab to reserve) Date Required: ☐ REGULAR (5 to 7 Days)

See reverse for package specifics

#	Sample ID	Depth (unit)	Matrix GW / SW Soil	Date/Time Sampled YY/MM/DD 24:00	SOIL: BTEX F1-F4	Sieve (75 micron)	Regulated Metals (CCME / AT1)	Salinity 4	Assessment ICP Metals	Basic Class II Landfill	PAH	Barite		WATER: ☐BTEX F1 ☐VOCs	☐BTEX F1-F2 ☐BTEX F1-F4	☐ Routine Water ☐ Turb ☐ F	☐ TOC ☐ DOC	Regulated Metals (CCME / AT1): Total	Dissolved	Mercury ☐ Total ☐ Dissolved	Other Analysis	HOLD - Do not Analyze	# of Containers Submitted
1	EX-13-1EB	7m	Soil	07-21-13	X		X	X															
2	EX-13-1DB	7m		07-21-13	X		X	X															
3	EX-13-AW (3m)	3m		07-22-13	X		X	X			X	X											
4	EX-13-AW (7m)	7m		07-22-13	X		X	X															
5	EX-13-BW (1m)	1m		07-22-13	X		X	X															
6	EX-13-BW (6m)	6m		07-22-13	X		X	X															
7	EX-13-CW (5m)	5m			X		X	X															
8	EX-13-DW (6m)	6m			X		X	X															
9	EX-13-DN (0-1m)	0-1			X		X	X															
10	EX-13-DN (7m)	7m			X		X	X															
11	EX-13-EN (3m)	3m			X		X	X											RDS/MMM		
12	EX-13-EN (6m)	7m			X		X	X															

Please indicate Filtered, Preserved or Both (F, P, F/P) → F/P

Relinquished By (Signature/Print): Nicole Wills / Nicole Wills	Date (YY/MM/DD): 13/07/23	Time (24:00): 20:00
Relinquished By (Signature/Print):	Date (YY/MM/DD):	Time (24:00):
Special Instructions:		# of Jars Used & Not Submitted

LAB USE ONLY

Received By: Amanda Lahirondelle	Date: 20130725 @	Time: 1023	Maxxam Job #: B363840
Lab Comments: 14,14,13 / 15,14,15 > B		Custody Seal: absent	Temperature: 7,6,7 / 8,5,6 > J	Ice: present

Maxxam

Calgary: 4000 19st St. NE, T2E 6P8. Ph: (403) 291-3077, Fax: (403) 735-2240, Toll free: (800) 386-7247
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Chain of Custody A134516

Page: 3 of 3

Company:	Invoice To: Same as page 1	C/O Report Address ☐
Contact:		
Address:		
	Prov:	PC:
Contact #s:	Ph:	Cell:

Report To: Same as Invoice ☒

Report Distribution (E-Mail): nwills@klohn.com

REGULATORY GUIDELINES:
- ☐ AT1
- ☐ CCME
- ☐ Regulated Drinking Water
- ☐ Other:

All samples are held for 60 calendar days after sample receipt, unless specified otherwise.

PO #:
Project # / Name:
Site Location:
Quote #:
Sampled By:

SERVICE REQUESTED: ☐ RUSH (Contact lab to reserve) Date Required: ☐ REGULAR (5 to 7 Days)

See reverse for package specifics

	Sample ID	Depth (unit)	Matrix GW / SW Soil	Date/Time Sampled YY/MM/DD 24:00	SOIL: BTEX F1-F4	Sieve (75 micron)	Regulated Metals (CCME / AT1)	Salinity 4	Assessment ICP Metals	Basic Class II Landfill			WATER: ☐VOCs / ☐BTEX F1	☐BTEX F1-F4 / ☐BTEX F1-F2	☐ Routine Water ☐ Turb ☐ F	☐ DOC / ☐ TOC	Regulated Metals (CCME / AT1) Total	Dissolved	☐ Total ☐ Dissolved Mercury	Other Analysis	HOLD - Do not Analyze	# of Containers Submitted
* 1	EX-13-LN (0-1m)	0-1m	Soil	07-22-13	X		X	X														
2	~~EX-13-LN (3m)~~	~~3m~~	~~Soil~~	~~2~~	~~X~~		~~X~~	~~X~~														
* 3	EX-13-LN (6m)	6m	Soil	07-22-13	X		X	X														
4																						
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																			ROB/[illegible]			

Please indicate Filtered, Preserved or Both (F, P, F/P) → F/P

Relinquished By (Signature/Print): Nicole Wills / [signature] Date (YY/MM/DD): 13/07/23 Time (24:00): 20:00
Relinquished By (Signature/Print): Date (YY/MM/DD): Time (24:00):

Special Instructions:

# of Jars Used & Not Submitted

LAB USE ONLY

Received By: Amanda Date: [illegible] Time: 1023 Maxxam Job #: B363840
Lethbridge 20130725 @

Custody Seal	Temperature	Ice
absent	7,6,7 8,5,6	present

Lab Comments: 14,14,13 15,14,15 7B

WASTE APPROVAL APPLICATION (WAA)

WAA # (Tervita use only)

Important: This form is to be completed when you have received all of the analytical results identified from the Solid Waste Acceptance Protocol form. The waste generator or authorized representative must complete this form and email a scanned copy or fax to the facility you wish to take the waste to. Please ensure the WAA is signed and dated and be sure to include all supporting analytical documents.

1. GENERATOR INFORMATION

ERCB operator code (Alberta only):

a) Generator's name	Company: Shell Global Solutions Canada			
b) Generator's address	Street: 400-4 Ave SW			
	City/town: Calgary	Province: AB	Postal code:	
c) Generating location	LSD or physical address: Camp Farewell (~125 NW of Inuvik)			
	City/town:	Province: NWT	Postal code:	
d) Generator's contact	Name: Randall Warren	Company: Shell Global Solutions Canada		
	Phone: 403-691-2521	Fax:		

2. INVOICING INFORMATION

a) Check here ☐ if invoicing information is the same as generator information above.

b) Company/Consultant	Company:		
c) Company/Consultant address	Street:		
	City/town:	Province:	Postal code:
d) Contact	Name:		
	Phone:	Fax:	
e) Job identification	EDI code:	AFE #:	PO #:

3. ENVIRONMENTAL CONSULTANT INFORMATION

a) Consultant/Company	Name: IEG Consultants Ltd.		
b) Consultant/ Company address	Street: 500, 2618 Hopewell Place NE		
	City/town: Calgary	Province: AB	Postal code: T1Y 7J7
c) Consultant/ Company contact	Name: Nicole Wills		
	Phone: 403-730-6809	Fax: 403-274-5349	

4. LANDFILL DESTINATION

Alberta
- ☐ Bonnyville
- ☐ Judy Creek
- ☒ Rainbow Lake
- ☐ Spirit River
- ☐ Willow Creek
- ☐ Fox Creek
- ☐ La Glace
- ☐ Rocky Mtn. House
- ☐ Tower Road
- ☐ Willesden Green
- ☐ Janvier
- ☐ Mitsue
- ☐ South GP
- ☐ Wabasca

Saskatchewan
- ☐ Gull Lake
- ☐ Lomond
- ☐ Lomond Treatment Pad
- ☐ Marshall
- ☐ Kindersley
- ☐ Regina Treatment Pad

British Columbia
- ☐ Northern Rockies
- ☐ Silverberry

Partnered Facilities
- ☐ Medicine Hat
- ☐ Pincher Creek
- ☐ Peace River
- ☐ Virden

5. ATTACHMENTS

☒ Supporting analytical — Supporting analytical I.D. #: B363840 (Sample ID: DS13-001)

☐ MSDS ☐ Memo/letter ☐ Other (specify): _____

6. WASTE STREAM INFORMATION

a) Waste description: *check only one below*
(a separate WAA is required for each waste stream)

ERCB waste code (**AB Only**):

- ☐ Absorbent
- ☐ Activated carbon[1]
- ☐ Asbestos*
- ☐ Catalyst, sulphur[1] (% sulphur analysis and % ANC / CCE required)
- ☐ Catalyst, non-sulphur[1]
- ☐ Construction and demolition debris
- ☐ Dessicant (drying agent/ molecular sieve)[2]
- ☐ Drilling mud: (specify)_____
- ☐ Elemental sulphur*
- ☐ Flare pit soil*
- ☐ Invert drill cuttings
- ☐ Produced sand
- ☐ Soils with crude oil
- ☐ Soil with refined fuel or solvent: (specify)_____
- ☐ Soil with dioxin*
- ☐ Soil with gasoline (leaded)
- ☐ Soil with gasoline (unleaded)
- ☐ Soil with herbicide*: (specify)_____
- ☐ Soil with metals
- ☐ Soil impacted with dry cleaning and/or industrial related chemicals*: (specify)_____
- ☐ Soil with PCBs*
- ☐ Soil with pesticide: (specify)_____
- ☐ Soil with produced water (0% hydrocarbon) ☐ Yes ☐ No
- ☐ Soil with sulphur (% sulphur analysis and % ANC/CCE required)
- ☒ Other*: Sewage lagoon with (specify) hydrocarbon, metals, salinities, minor debris

*Refer to the specific Tervita Provincial Waste Acceptance Protocols or contact your Tervita representative for specific details.

b) Process generating waste — Clearly explain generating process, use separate sheet if required.
Former sewage lagoon

c) Volume *(estimated)* — Tonnes_____ m^3_____

d) Shipping mode — ☐ Bulk ☐ Bag ☐ Other (describe)

e) Frequency — ☐ One time ☐ Week ☐ Month ☐ Year

f) Recomended PPE and special handling instructions
Avoid direct contact; wear nitrile gloves

7. PHYSICAL PROPERTIES

a) Physical state — ☐ Dry solid ☒ Damp solid ☒ Sludge ☐ Powder/dust (friable)
Describe: Passed Paint Filter Test

b) Odour — ☒ Strong ☒ Slight ☒ None
Describe: odour varied. Passed Flash Point

c) Debris in waste — ☐ Yes ☒ No
Describe: Efforts were made to remove debris before bagging

d) Waste composition — 5 % top soil 5 % clay ____ % gravel 90 % sand

e) Passes paint filter test? — ☒ Yes ☐ No

8. WASTE CHARACTERIZATION/CLASSIFICATION

a) Flash point	☒ ≤ 60.5 °C Alberta ☐ > 60.5° C (As per AB WCR) <61 ☐ ≤ 60 °C British Columbia and Saskatchewan ☐ > 60 °C (As per TDGR)
b) pH	☐ < 2.0 ☐ > 12.5 ☒ Between 2.0 and 12.5
c) BTEX (check one only)	☒ Leachable BTEX (each ≤ limits listed in Table 2 of **Alberta** User Guide for Waste Managers) ☐ Leachable BTEX (each < limits listed in Schedule 4, Table 1 **British Columbia** Hazardous Waste Regulation) ☐ Total BTEX (Combined Total ≤ 1000 mg/kg **British Columbia** secure landfills only) ☐ Total BTEX (All BTEX components < 100 mg/kg, TDGR-SOR / 85-77 **Manitoba**) ☐ Leachable Benzene (Benzene components < 5 mg/L, TDGR Appendix 4 **Saskatchewan**) ☐ Total TEX (All TEX components < 100 mg/kg, TDGR Appendix 5 **Saskatchewan**)
d) Hydrocarbon (waste oil content)	☒ < 3% ☐ > 3% **(B.C. Only)**
e) Check those that apply	☒ Waste **does not** exhibit properties of TDG Class 1 – 9 substances ☒ Waste **does not** contain materials from TDG Column 3, schedule 1 ☐ Halogenated organic compounds (except tetrachloroethylene) ≤ 100 mg/kg **(B.C. landfills only)**[3] ☐ Tetrachloroethylene ≤ 500 mg/kg and/or < 3.0 mg/L **(B.C. landfills only)**[3] [3] Refer to the B.C. Hazardous Waste Regulations Schedule 1 for additional leachable (mg/L) discrete parameters.

f) Is the waste classed hazardous under applicable waste regulations?

☐ Yes ☒ No

g) Is this a treatment residue of a waste which was previously a regulated waste?

☐ Yes ☒ No

If yes, an attached signed letter and other applicable supporting documentation explaining is required.

h) Is the waste classified as non-hazardous due to the generator's knowledge of the waste or an exemption under applicable waste regulations?

☒ Yes ☐ No

If yes, please provide reasoning supporting non-hazardous classification.

i) Regulated under Transportation of Dangerous Goods?

☐ Yes ☒ No

TDG information: Shipping name:_____

Class:_____ UN no.:_____ Packing group:_____

j) **PCB contamination present?** ☐ Yes ☒ No

Extractable Organic Halides (EOX) present? ☐ Yes ☒ No

k) **[1]Spontaneous combustion testing may be required and a valid MSDS sheet (if available) e.g. catalyst(s) and/or activated Carbon(s)**

[2]Water reactivity testing may be required and a valid MSDS sheet (if available) e.g. dessicant(s)

☒ Non-applicable

l) **NORM (Natural Occurring Radioactive Material)** ☐ Yes ☒ No **(Silverberry Landfill Only)**

≤ 70 Bq/g and Radium 226 ≤ 5 Bq/g ☐ Yes ☒ No

9. GENERATOR'S CERTIFICATION

I understand that it is the responsibility of the Generator or the Generator's Authorized Representative to determine the characteristics of the aforementioned material and its proper classification, I hereby certify that the aforementioned material complies with all federal, provincial and local laws and regulatory criteria, and is acceptable material for landfill at the above selected Tervita landfill. Additionally, I hereby indemnify Tervita and save it harmless from and against any claims, actions, damages, liabilities and expenses including lawyers and other professional fees, in connection with the loss or injury whatsoever arising from or out of any inaccuracy or untruthfulness in the information herein provided. I further agree that this section 9 shall survive the expiry or termination of any agreements entered into between Tervita and the Generator.

Generator or generator's representative signature

Date:	Print Name:	Signature:	Title:
August 16, 2013	Nicole Wills	Nicole Wills	Environmental Scientist.

Maxxam

Success Through Science®

Your Project #: A04012A05
Site Location: CAMP FAREWELL
Your C.O.C. #: A134527, A134528, A134516

Attention: NICOLE WILLS

KLOHN CRIPPEN BERGER LTD
500-2618
HOPEWELL PLACE NE
CALGARY, AB
CANADA T1Y 7J7

Report Date: 2013/08/13
This report supersedes all previous reports with the same Maxxam job number

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B363840
Received: 2013/07/25, 10:23

Sample Matrix: Soil
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Boron (Hot Water Soluble)	1	2013/07/26	2013/07/26	AB SOP-00042	EPA 200.7
BTEX/F1 by HS GC/MS (MeOH extract)	1	2013/07/25	2013/07/26	AB SOP-00039	CCME, EPA 8260
BTEX in Leachates by HS GC/MS	1	2013/07/25	2013/07/26	AB SOP-00039	EPA 1311/8260C
Cation/EC Ratio	1	N/A	2013/07/26		CALCULATION
Chloride (Soluble)	1	2013/07/26	2013/07/26	AB SOP-00020	SSMA 4500 CL-E
Hexavalent Chromium	1	2013/07/25	2013/07/26	EENVSOP-00131	SM 3500-Cr B
Conductivity @25C (Soluble)	1	2013/07/26	2013/07/26	AB SOP-00004	SSMA 15.3
CCME Hydrocarbons (F2-F4 in soil)	1	2013/07/25	2013/07/25	AB SOP-00040 AB SOP-00036	CCME PHC-CWS
Flash Point	1	N/A	2013/07/26	AB SOP-00062	ASTM D3828-12 A
ICPMS Metals on TCLP Leachate	1	2013/07/25	2013/07/26	AB SOP-00043	EPA 200.8
Elements by ICPMS - Soils	1	2013/07/26	2013/07/26	AB SOP-00043	EPA 200.8
Ion Balance	1	N/A	2013/07/26	AB WI-00065	SM 1030E
Sum of Cations, Anions	1	N/A	2013/07/26	AB WI-00065	SM 1030E
Moisture	1	N/A	2013/07/26	AB SOP-00002	CCME PHC-CWS
Free Liquid (Paint filter)	1	N/A	2013/07/26	AB SOP-00047	EPA SW846/9095B
pH @25C (1:2 Calcium Chloride Extract)	1	2013/07/26	2013/07/26	AB SOP-00006	SSMA 16.3
pH @25C (1:1 extract, solid waste)	1	2013/07/26	2013/07/26	AB SOP-00006	SSMA 16.2
Sodium Adsorption Ratio	1	N/A	2013/07/26	AB WI-00065	SSMA 15.4.4
Ca,Mg,Na,K,SO4 (Soluble)	1	2013/07/26	2013/07/26	AB SOP-00042	EPA 200.7
Soluble Paste	1	2013/07/26	2013/07/26	AB SOP-00033	SSMA 15.2
Soluble Ions Calculation	1	N/A	2013/07/26		CALCULATION
Theoretical Gypsum Requirement (1)	1	N/A	2013/07/26	CAL WI-00087	CJSS 79:449-455

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

(1) Units for TGR have changed from tons/acre to tonnes/ha

Your Project #: A04012A05
Site Location: CAMP FAREWELL
Your C.O.C. #: A134527, A134528, A134516

Attention: NICOLE WILLS
KLOHN CRIPPEN BERGER LTD
500-2618
HOPEWELL PLACE NE
CALGARY, AB
CANADA T1Y 7J7

Report Date: 2013/08/13
This report supersedes all previous reports with the same Maxxam job number

CERTIFICATE OF ANALYSIS

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Tanya Eugine, M.Sc., Project Manager
Email: TEugine@maxxam.ca
Phone# (780) 577-7144

==========

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.

Total cover pages: 2

Maxxam Job #: B363840
Report Date: 2013/08/13

KLOHN CRIPPEN BERGER LTD
Client Project #: A04012A05
Site Location: CAMP FAREWELL
Sampler Initials: NW

AT1 BTEX AND F1-F4 IN SOIL (SOIL)

Maxxam ID		GZ9443		
Sampling Date		2013/07/20		
COC Number		A134527		
	UNITS	**DS13-001**	**RDL**	**QC Batch**
Physical Properties				
Moisture	%	22	0.30	7024996
Ext. Pet. Hydrocarbon				
F2 (C10-C16 Hydrocarbons)	mg/kg	860	10	7022792
F3 (C16-C34 Hydrocarbons)	mg/kg	790	50	7022792
F4 (C34-C50 Hydrocarbons)	mg/kg	200	50	7022792
Reached Baseline at C50	mg/kg	Yes	N/A	7022792
Volatiles				
Benzene	mg/kg	0.059	0.0050	7024383
Toluene	mg/kg	0.83	0.020	7024383
Ethylbenzene	mg/kg	0.38	0.010	7024383
Xylenes (Total)	mg/kg	4.5	0.040	7024383
m & p-Xylene	mg/kg	2.9	0.040	7024383
o-Xylene	mg/kg	1.7	0.020	7024383
F1 (C6-C10) - BTEX	mg/kg	100	12	7024383
(C6-C10)	mg/kg	110	12	7024383
Surrogate Recovery (%)				
1,4-Difluorobenzene (sur.)	%	114	N/A	7024383
4-BROMOFLUOROBENZENE (sur.)	%	78	N/A	7024383
D10-ETHYLBENZENE (sur.)	%	124	N/A	7024383
D4-1,2-DICHLOROETHANE (sur.)	%	110	N/A	7024383
O-TERPHENYL (sur.)	%	111	N/A	7022792

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Job #: B363840
Report Date: 2013/08/13

KLOHN CRIPPEN BERGER LTD
Client Project #: A04012A05
Site Location: CAMP FAREWELL
Sampler Initials: NW

SOIL SALINITY 4 (SOIL)

Maxxam ID		GZ9443		
Sampling Date		2013/07/20		
COC Number		A134527		
	UNITS	**DS13-001**	**RDL**	**QC Batch**
Calculated Parameters				
Anion Sum	meq/L	12	N/A	7022359
Cation Sum	meq/L	12	N/A	7022359
Cation/EC Ratio	N/A	9.3	0.10	7021708
Ion Balance	N/A	1.0	0.010	7022358
Calculated Calcium (Ca)	mg/kg	28	0.55	7022361
Calculated Magnesium (Mg)	mg/kg	7.4	0.37	7022361
Calculated Sodium (Na)	mg/kg	50	0.92	7022361
Calculated Potassium (K)	mg/kg	5.8	0.48	7022361
Calculated Chloride (Cl)	mg/kg	72	1.8	7022361
Calculated Sulphate (SO4)	mg/kg	110	1.8	7022361
Soluble Parameters				
Soluble Chloride (Cl)	mg/L	200	5.0	7026083
Soluble Conductivity	dS/m	1.3	0.020	7024503
Soluble (CaCl2) pH	N/A	7.16	N/A	7024030
Sodium Adsorption Ratio	N/A	3.6	0.10	7021713
Soluble Calcium (Ca)	mg/L	76	1.5	7026327
Soluble Magnesium (Mg)	mg/L	20	1.0	7026327
Soluble Sodium (Na)	mg/L	130	2.5	7026327
Soluble Potassium (K)	mg/L	16	1.3	7026327
Saturation %	%	37	N/A	7024196
Soluble Sulphate (SO4)	mg/L	290	5.0	7026327
Theoretical Gypsum Requirement	tonnes/ha	<0.10	0.10	7021714

RDL = Reportable Detection Limit

Maxxam Job #: B363840
Report Date: 2013/08/13

KLOHN CRIPPEN BERGER LTD
Client Project #: A04012A05
Site Location: CAMP FAREWELL
Sampler Initials: NW

BASIC CLASS II LANDFILL PACKAGE (SOIL)

Maxxam ID		GZ9443		
Sampling Date		2013/07/20		
COC Number		A134527		
	UNITS	**DS13-001**	**RDL**	**QC Batch**
Soluble Parameters				
Soluble (1:1) pH	N/A	7.44	N/A	7024529
Physical Properties				
Closed Cup Flash point	deg. C	>61	N/A	7026825
Free Liquid	N/A	PASS	N/A	7026879
Elements				
Leachable Antimony (Sb)	mg/L	<1.0	1.0	7023787
Leachable Arsenic (As)	mg/L	<0.50	0.50	7023787
Leachable Barium (Ba)	mg/L	2.2	1.0	7023787
Leachable Beryllium (Be)	mg/L	<0.50	0.50	7023787
Leachable Boron (B)	mg/L	<1.0	1.0	7023787
Leachable Cadmium (Cd)	mg/L	<0.10	0.10	7023787
Leachable Chromium (Cr)	mg/L	<0.50	0.50	7023787
Leachable Cobalt (Co)	mg/L	<1.0	1.0	7023787
Leachable Copper (Cu)	mg/L	<1.0	1.0	7023787
Leachable Iron (Fe)	mg/L	11	1.0	7023787
Leachable Lead (Pb)	mg/L	<0.50	0.50	7023787
Leachable Mercury (Hg)	mg/L	<0.020	0.020	7023787
Leachable Nickel (Ni)	mg/L	<0.50	0.50	7023787
Leachable Selenium (Se)	mg/L	<0.10	0.10	7023787
Leachable Silver (Ag)	mg/L	<0.50	0.50	7023787
Leachable Thallium (Tl)	mg/L	<0.50	0.50	7023787
Leachable Uranium (U)	mg/L	<0.20	0.20	7023787
Leachable Vanadium (V)	mg/L	<1.0	1.0	7023787
Leachable Zinc (Zn)	mg/L	<1.0	1.0	7023787
Leachable Zirconium (Zr)	mg/L	<1.0	1.0	7023787
Volatiles				
Leachable (ZH) Benzene	mg/L	<0.010	0.010	7024500
Leachable (ZH) Toluene	mg/L	0.018	0.010	7024500
Leachable (ZH) Ethylbenzene	mg/L	<0.010	0.010	7024500
Leachable (ZH) o-Xylene	mg/L	0.053	0.010	7024500
Leachable (ZH) m & p-Xylene	mg/L	0.080	0.020	7024500
Leachable (ZH) Xylenes (Total)	mg/L	0.13	0.020	7024500
Surrogate Recovery (%)				
Leachable (ZH) 1,4-Difluorobenzene (sur.)	%	91	N/A	7024500

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Job #: B363840
Report Date: 2013/08/13

KLOHN CRIPPEN BERGER LTD
Client Project #: A04012A05
Site Location: CAMP FAREWELL
Sampler Initials: NW

BASIC CLASS II LANDFILL PACKAGE (SOIL)

Maxxam ID		GZ9443		
Sampling Date		2013/07/20		
COC Number		A134527		
	UNITS	**DS13-001**	**RDL**	**QC Batch**
Leachable (ZH) 4-BROMOFLUOROBENZENE (sur.)	%	98	N/A	7024500
Leachable (ZH) D4-1,2-DICHLOROETHANE (sur.)	%	87	N/A	7024500

N/A = Not Applicable
RDL = Reportable Detection Limit

Maxxam Job #: B363840
Report Date: 2013/08/13

KLOHN CRIPPEN BERGER LTD
Client Project #: A04012A05
Site Location: CAMP FAREWELL
Sampler Initials: NW

REGULATED METALS (CCME/AT1) - SOILS

Maxxam ID		GZ9443		
Sampling Date		2013/07/20		
COC Number		A134527		
	UNITS	**DS13-001**	**RDL**	**QC Batch**
Elements				
Soluble (Hot water) Boron (B)	mg/kg	0.72	0.10	7026671
Hex. Chromium (Cr 6+)	mg/kg	<0.15	0.15	7024524
Total Antimony (Sb)	mg/kg	1.2	1.0	7026100
Total Arsenic (As)	mg/kg	5.5	1.0	7026100
Total Barium (Ba)	mg/kg	420	10	7026100
Total Beryllium (Be)	mg/kg	<0.40	0.40	7026100
Total Cadmium (Cd)	mg/kg	0.18	0.10	7026100
Total Chromium (Cr)	mg/kg	11	1.0	7026100
Total Cobalt (Co)	mg/kg	3.8	1.0	7026100
Total Copper (Cu)	mg/kg	11	5.0	7026100
Total Lead (Pb)	mg/kg	16	1.0	7026100
Total Mercury (Hg)	mg/kg	<0.050	0.050	7026100
Total Molybdenum (Mo)	mg/kg	0.67	0.40	7026100
Total Nickel (Ni)	mg/kg	12	1.0	7026100
Total Selenium (Se)	mg/kg	<0.50	0.50	7026100
Total Silver (Ag)	mg/kg	<1.0	1.0	7026100
Total Thallium (Tl)	mg/kg	<0.30	0.30	7026100
Total Tin (Sn)	mg/kg	1.3	1.0	7026100
Total Uranium (U)	mg/kg	<1.0	1.0	7026100
Total Vanadium (V)	mg/kg	11	1.0	7026100
Total Zinc (Zn)	mg/kg	46	10	7026100

RDL = Reportable Detection Limit

Maxxam Job #: B363840
Report Date: 2013/08/13

KLOHN CRIPPEN BERGER LTD
Client Project #: A04012A05
Site Location: CAMP FAREWELL
Sampler Initials: NW

Package 1	6.7°C
Package 2	6.3°C

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

General Comments

Results relate only to the items tested.

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: A04012A05
P.O. #:
Site Location: CAMP FAREWELL

Quality Assurance Report

Maxxam Job Number: EB363840

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7022792	JR1	Matrix Spike						
		[GZ9455-01]	O-TERPHENYL (sur.)	2013/07/25		87	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/07/25		87	%	50 - 130
			F3 (C16-C34 Hydrocarbons)	2013/07/25		89	%	50 - 130
			F4 (C34-C50 Hydrocarbons)	2013/07/25		88	%	50 - 130
		Spiked Blank	O-TERPHENYL (sur.)	2013/07/25		92	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/07/25		103	%	70 - 130
			F3 (C16-C34 Hydrocarbons)	2013/07/25		105	%	70 - 130
			F4 (C34-C50 Hydrocarbons)	2013/07/25		103	%	70 - 130
		Method Blank	O-TERPHENYL (sur.)	2013/07/25		94	%	50 - 130
			F2 (C10-C16 Hydrocarbons)	2013/07/25	<10		mg/kg	
			F3 (C16-C34 Hydrocarbons)	2013/07/25	<50		mg/kg	
			F4 (C34-C50 Hydrocarbons)	2013/07/25	<50		mg/kg	
7023787	WAU	Matrix Spike	Leachable Antimony (Sb)	2013/07/26		97	%	75 - 125
			Leachable Arsenic (As)	2013/07/26		103	%	75 - 125
			Leachable Barium (Ba)	2013/07/26		NC	%	75 - 125
			Leachable Beryllium (Be)	2013/07/26		101	%	75 - 125
			Leachable Boron (B)	2013/07/26		105	%	75 - 125
			Leachable Cadmium (Cd)	2013/07/26		104	%	75 - 125
			Leachable Chromium (Cr)	2013/07/26		102	%	75 - 125
			Leachable Cobalt (Co)	2013/07/26		99	%	75 - 125
			Leachable Copper (Cu)	2013/07/26		96	%	75 - 125
			Leachable Iron (Fe)	2013/07/26		NC	%	75 - 125
			Leachable Lead (Pb)	2013/07/26		93	%	75 - 125
			Leachable Mercury (Hg)	2013/07/26		97	%	75 - 125
			Leachable Nickel (Ni)	2013/07/26		100	%	75 - 125
			Leachable Selenium (Se)	2013/07/26		111	%	75 - 125
			Leachable Silver (Ag)	2013/07/26		101	%	75 - 125
			Leachable Thallium (Tl)	2013/07/26		106	%	75 - 125
			Leachable Uranium (U)	2013/07/26		91	%	75 - 125
			Leachable Vanadium (V)	2013/07/26		109	%	75 - 125
			Leachable Zinc (Zn)	2013/07/26		97	%	75 - 125
			Leachable Zirconium (Zr)	2013/07/26		116	%	75 - 125
		Spiked Blank	Leachable Antimony (Sb)	2013/07/26		86	%	80 - 120
			Leachable Arsenic (As)	2013/07/26		97	%	80 - 120
			Leachable Barium (Ba)	2013/07/26		101	%	80 - 120
			Leachable Beryllium (Be)	2013/07/26		99	%	80 - 120
			Leachable Boron (B)	2013/07/26		101	%	80 - 120
			Leachable Cadmium (Cd)	2013/07/26		99	%	80 - 120
			Leachable Chromium (Cr)	2013/07/26		99	%	80 - 120
			Leachable Cobalt (Co)	2013/07/26		97	%	80 - 120
			Leachable Copper (Cu)	2013/07/26		98	%	80 - 120
			Leachable Iron (Fe)	2013/07/26		105	%	80 - 120
			Leachable Lead (Pb)	2013/07/26		95	%	80 - 120
			Leachable Mercury (Hg)	2013/07/26		95	%	80 - 120
			Leachable Nickel (Ni)	2013/07/26		98	%	80 - 120
			Leachable Selenium (Se)	2013/07/26		104	%	80 - 120
			Leachable Silver (Ag)	2013/07/26		98	%	80 - 120
			Leachable Thallium (Tl)	2013/07/26		108	%	80 - 120
			Leachable Uranium (U)	2013/07/26		88	%	80 - 120
			Leachable Vanadium (V)	2013/07/26		101	%	80 - 120
			Leachable Zinc (Zn)	2013/07/26		99	%	80 - 120
			Leachable Zirconium (Zr)	2013/07/26		103	%	80 - 120
		Method Blank	Leachable Antimony (Sb)	2013/07/26	<1.0		mg/L	
			Leachable Arsenic (As)	2013/07/26	<0.50		mg/L	

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QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7023787	WAU	Method Blank	Leachable Barium (Ba)	2013/07/26	<1.0		mg/L	
			Leachable Beryllium (Be)	2013/07/26	<0.50		mg/L	
			Leachable Boron (B)	2013/07/26	<1.0		mg/L	
			Leachable Cadmium (Cd)	2013/07/26	<0.10		mg/L	
			Leachable Chromium (Cr)	2013/07/26	<0.50		mg/L	
			Leachable Cobalt (Co)	2013/07/26	<1.0		mg/L	
			Leachable Copper (Cu)	2013/07/26	<1.0		mg/L	
			Leachable Iron (Fe)	2013/07/26	<1.0		mg/L	
			Leachable Lead (Pb)	2013/07/26	<0.50		mg/L	
			Leachable Mercury (Hg)	2013/07/26	<0.020		mg/L	
			Leachable Nickel (Ni)	2013/07/26	<0.50		mg/L	
			Leachable Selenium (Se)	2013/07/26	<0.10		mg/L	
			Leachable Silver (Ag)	2013/07/26	<0.50		mg/L	
			Leachable Thallium (Tl)	2013/07/26	<0.50		mg/L	
			Leachable Uranium (U)	2013/07/26	<0.20		mg/L	
			Leachable Vanadium (V)	2013/07/26	<1.0		mg/L	
			Leachable Zinc (Zn)	2013/07/26	<1.0		mg/L	
			Leachable Zirconium (Zr)	2013/07/26	<1.0		mg/L	
		RPD	Leachable Antimony (Sb)	2013/07/26	NC		%	35
			Leachable Arsenic (As)	2013/07/26	NC		%	35
			Leachable Barium (Ba)	2013/07/26	NC		%	35
			Leachable Beryllium (Be)	2013/07/26	NC		%	35
			Leachable Boron (B)	2013/07/26	NC		%	35
			Leachable Cadmium (Cd)	2013/07/26	NC		%	35
			Leachable Chromium (Cr)	2013/07/26	NC		%	35
			Leachable Cobalt (Co)	2013/07/26	NC		%	35
			Leachable Copper (Cu)	2013/07/26	NC		%	35
			Leachable Iron (Fe)	2013/07/26	NC		%	35
			Leachable Lead (Pb)	2013/07/26	NC		%	35
			Leachable Mercury (Hg)	2013/07/26	NC		%	35
			Leachable Nickel (Ni)	2013/07/26	NC		%	35
			Leachable Selenium (Se)	2013/07/26	NC		%	35
			Leachable Silver (Ag)	2013/07/26	NC		%	35
			Leachable Thallium (Tl)	2013/07/26	NC		%	35
			Leachable Uranium (U)	2013/07/26	NC		%	35
			Leachable Vanadium (V)	2013/07/26	NC		%	35
			Leachable Zinc (Zn)	2013/07/26	NC		%	35
			Leachable Zirconium (Zr)	2013/07/26	NC		%	35
7024030	SSF	QC Standard	Soluble (CaCl2) pH	2013/07/26		100	%	97 - 103
		Spiked Blank	Soluble (CaCl2) pH	2013/07/26		100	%	97 - 103
7024196	LX	QC Standard	Saturation %	2013/07/26		99	%	93 - 107
7024383	CG7	Matrix Spike						
		[GZ9453-01]	1,4-Difluorobenzene (sur.)	2013/07/26		107	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/07/26		95	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/07/26		110	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/07/26		89	%	60 - 140
			Benzene	2013/07/26		103	%	60 - 140
			Toluene	2013/07/26		98	%	60 - 140
			Ethylbenzene	2013/07/26		94	%	60 - 140
			m & p-Xylene	2013/07/26		97	%	60 - 140
			o-Xylene	2013/07/26		95	%	60 - 140
			(C6-C10)	2013/07/26		91	%	60 - 140
		Spiked Blank	1,4-Difluorobenzene (sur.)	2013/07/26		104	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/07/26		100	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/07/26		129	%	60 - 130

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7024383	CG7	Spiked Blank	D4-1,2-DICHLOROETHANE (sur.)	2013/07/26		101	%	60 - 140
			Benzene	2013/07/26		102	%	60 - 140
			Toluene	2013/07/26		97	%	60 - 140
			Ethylbenzene	2013/07/26		96	%	60 - 140
			m & p-Xylene	2013/07/26		95	%	60 - 140
			o-Xylene	2013/07/26		94	%	60 - 140
			(C6-C10)	2013/07/26		92	%	60 - 140
		Method Blank	1,4-Difluorobenzene (sur.)	2013/07/26		100	%	60 - 140
			4-BROMOFLUOROBENZENE (sur.)	2013/07/26		101	%	60 - 140
			D10-ETHYLBENZENE (sur.)	2013/07/26		122	%	60 - 130
			D4-1,2-DICHLOROETHANE (sur.)	2013/07/26		105	%	60 - 140
			Benzene	2013/07/26	<0.0050		mg/kg	
			Toluene	2013/07/26	<0.020		mg/kg	
			Ethylbenzene	2013/07/26	<0.010		mg/kg	
			Xylenes (Total)	2013/07/26	<0.040		mg/kg	
			m & p-Xylene	2013/07/26	<0.040		mg/kg	
			o-Xylene	2013/07/26	<0.020		mg/kg	
			F1 (C6-C10) - BTEX	2013/07/26	<12		mg/kg	
			(C6-C10)	2013/07/26	<12		mg/kg	
7024500	NSE	Matrix Spike	Leachable (ZH) 1,4-Difluorobenzene (sur.)	2013/07/26		95	%	70 - 130
			Leachable (ZH) 4-BROMOFLUOROBENZEN	2013/07/26		99	%	70 - 130
			Leachable (ZH) D4-1,2-DICHLOROETHANE	2013/07/26		102	%	70 - 130
			Leachable (ZH) Benzene	2013/07/26		84	%	70 - 130
			Leachable (ZH) Toluene	2013/07/26		83	%	70 - 130
			Leachable (ZH) Ethylbenzene	2013/07/26		81	%	70 - 130
			Leachable (ZH) o-Xylene	2013/07/26		93	%	70 - 130
			Leachable (ZH) m & p-Xylene	2013/07/26		91	%	70 - 130
		Spiked Blank	Leachable (ZH) 1,4-Difluorobenzene (sur.)	2013/07/26		90	%	70 - 130
			Leachable (ZH) 4-BROMOFLUOROBENZEN	2013/07/26		100	%	70 - 130
			Leachable (ZH) D4-1,2-DICHLOROETHANE	2013/07/26		95	%	70 - 130
			Leachable (ZH) Benzene	2013/07/26		77	%	70 - 130
			Leachable (ZH) Toluene	2013/07/26		82	%	70 - 130
			Leachable (ZH) Ethylbenzene	2013/07/26		83	%	70 - 130
			Leachable (ZH) o-Xylene	2013/07/26		91	%	70 - 130
			Leachable (ZH) m & p-Xylene	2013/07/26		87	%	70 - 130
		Method Blank	Leachable (ZH) 1,4-Difluorobenzene (sur.)	2013/07/26		99	%	70 - 130
			Leachable (ZH) 4-BROMOFLUOROBENZEN	2013/07/26		101	%	70 - 130
			Leachable (ZH) D4-1,2-DICHLOROETHANE	2013/07/26		98	%	70 - 130
			Leachable (ZH) Benzene	2013/07/26	<0.010		mg/L	
			Leachable (ZH) Toluene	2013/07/26	<0.010		mg/L	
			Leachable (ZH) Ethylbenzene	2013/07/26	<0.010		mg/L	
			Leachable (ZH) o-Xylene	2013/07/26	<0.010		mg/L	
			Leachable (ZH) m & p-Xylene	2013/07/26	<0.020		mg/L	
			Leachable (ZH) Xylenes (Total)	2013/07/26	<0.020		mg/L	
		RPD	Leachable (ZH) Benzene	2013/07/26	NC		%	50
			Leachable (ZH) Toluene	2013/07/26	NC		%	50
			Leachable (ZH) Ethylbenzene	2013/07/26	NC		%	50
			Leachable (ZH) o-Xylene	2013/07/26	NC		%	50
			Leachable (ZH) m & p-Xylene	2013/07/26	NC		%	50
			Leachable (ZH) Xylenes (Total)	2013/07/26	NC		%	50
7024503	SSF	QC Standard	Soluble Conductivity	2013/07/26		92	%	75 - 125
		Spiked Blank	Soluble Conductivity	2013/07/26		99	%	90 - 110
		Method Blank	Soluble Conductivity	2013/07/26	<0.020		dS/m	
7024524	KD5	Matrix Spike	Hex. Chromium (Cr 6+)	2013/07/26		86	%	75 - 125
		Spiked Blank	Hex. Chromium (Cr 6+)	2013/07/26		99	%	90 - 110

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7024524	KD5	Method Blank	Hex. Chromium (Cr 6+)	2013/07/26	<0.15		mg/kg	
		RPD	Hex. Chromium (Cr 6+)	2013/07/26	NC		%	35
7024529	SSF	QC Standard	Soluble (1:1) pH	2013/07/26		100	%	97 - 103
		Spiked Blank	Soluble (1:1) pH	2013/07/26		100	%	99 - 101
		RPD	Soluble (1:1) pH	2013/07/26	2.2		%	5
7024996	ABH	Method Blank	Moisture	2013/07/26	<0.30		%	
7026083	KD5	Matrix Spike						
		[GZ9455-01]	Soluble Chloride (Cl)	2013/07/26		103	%	75 - 125
		QC Standard	Soluble Chloride (Cl)	2013/07/26		91	%	75 - 125
		Spiked Blank	Soluble Chloride (Cl)	2013/07/26		100	%	75 - 125
		Method Blank	Soluble Chloride (Cl)	2013/07/26	<5.0		mg/L	
7026100	WAU	Matrix Spike	Total Antimony (Sb)	2013/07/26		91	%	75 - 125
			Total Arsenic (As)	2013/07/26		95	%	75 - 125
			Total Barium (Ba)	2013/07/26		NC	%	75 - 125
			Total Beryllium (Be)	2013/07/26		103	%	75 - 125
			Total Cadmium (Cd)	2013/07/26		97	%	75 - 125
			Total Chromium (Cr)	2013/07/26		94	%	75 - 125
			Total Cobalt (Co)	2013/07/26		98	%	75 - 125
			Total Copper (Cu)	2013/07/26		93	%	75 - 125
			Total Lead (Pb)	2013/07/26		97	%	75 - 125
			Total Mercury (Hg)	2013/07/26		97	%	75 - 125
			Total Molybdenum (Mo)	2013/07/26		98	%	75 - 125
			Total Nickel (Ni)	2013/07/26		93	%	75 - 125
			Total Selenium (Se)	2013/07/26		100	%	75 - 125
			Total Silver (Ag)	2013/07/26		101	%	75 - 125
			Total Thallium (Tl)	2013/07/26		95	%	75 - 125
			Total Tin (Sn)	2013/07/26		103	%	75 - 125
			Total Uranium (U)	2013/07/26		100	%	75 - 125
			Total Vanadium (V)	2013/07/26		100	%	75 - 125
			Total Zinc (Zn)	2013/07/26		NC	%	75 - 125
		QC Standard	Total Arsenic (As)	2013/07/26		131	%	50 - 150
			Total Barium (Ba)	2013/07/26		116	%	69 - 131
			Total Chromium (Cr)	2013/07/26		108	%	41 - 159
			Total Cobalt (Co)	2013/07/26		114	%	75 - 125
			Total Copper (Cu)	2013/07/26		116	%	73 - 127
			Total Lead (Pb)	2013/07/26		110	%	54 - 146
			Total Nickel (Ni)	2013/07/26		122	%	61 - 139
			Total Vanadium (V)	2013/07/26		126	%	50 - 150
			Total Zinc (Zn)	2013/07/26		124	%	72 - 128
		Spiked Blank	Total Antimony (Sb)	2013/07/26		91	%	75 - 125
			Total Arsenic (As)	2013/07/26		94	%	75 - 125
			Total Barium (Ba)	2013/07/26		93	%	75 - 125
			Total Beryllium (Be)	2013/07/26		96	%	75 - 125
			Total Cadmium (Cd)	2013/07/26		93	%	75 - 125
			Total Chromium (Cr)	2013/07/26		92	%	75 - 125
			Total Cobalt (Co)	2013/07/26		93	%	75 - 125
			Total Copper (Cu)	2013/07/26		94	%	75 - 125
			Total Lead (Pb)	2013/07/26		96	%	75 - 125
			Total Mercury (Hg)	2013/07/26		94	%	75 - 125
			Total Molybdenum (Mo)	2013/07/26		93	%	75 - 125
			Total Nickel (Ni)	2013/07/26		94	%	75 - 125
			Total Selenium (Se)	2013/07/26		95	%	75 - 125
			Total Silver (Ag)	2013/07/26		96	%	75 - 125
			Total Thallium (Tl)	2013/07/26		94	%	75 - 125
			Total Tin (Sn)	2013/07/26		95	%	75 - 125

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7026100	WAU	Spiked Blank	Total Uranium (U)	2013/07/26		98	%	75 - 125
			Total Vanadium (V)	2013/07/26		94	%	75 - 125
			Total Zinc (Zn)	2013/07/26		94	%	75 - 125
		Method Blank	Total Antimony (Sb)	2013/07/26	<1.0		mg/kg	
			Total Arsenic (As)	2013/07/26	<1.0		mg/kg	
			Total Barium (Ba)	2013/07/26	<10		mg/kg	
			Total Beryllium (Be)	2013/07/26	<0.40		mg/kg	
			Total Cadmium (Cd)	2013/07/26	<0.10		mg/kg	
			Total Chromium (Cr)	2013/07/26	<1.0		mg/kg	
			Total Cobalt (Co)	2013/07/26	<1.0		mg/kg	
			Total Copper (Cu)	2013/07/26	<5.0		mg/kg	
			Total Lead (Pb)	2013/07/26	<1.0		mg/kg	
			Total Mercury (Hg)	2013/07/26	<0.050		mg/kg	
			Total Molybdenum (Mo)	2013/07/26	<0.40		mg/kg	
			Total Nickel (Ni)	2013/07/26	<1.0		mg/kg	
			Total Selenium (Se)	2013/07/26	<0.50		mg/kg	
			Total Silver (Ag)	2013/07/26	<1.0		mg/kg	
			Total Thallium (Tl)	2013/07/26	<0.30		mg/kg	
			Total Tin (Sn)	2013/07/26	<1.0		mg/kg	
			Total Uranium (U)	2013/07/26	<1.0		mg/kg	
			Total Vanadium (V)	2013/07/26	<1.0		mg/kg	
			Total Zinc (Zn)	2013/07/26	<10		mg/kg	
		RPD	Total Antimony (Sb)	2013/07/26	NC		%	35
			Total Arsenic (As)	2013/07/26	NC		%	35
			Total Barium (Ba)	2013/07/26	4.4		%	35
			Total Beryllium (Be)	2013/07/26	NC		%	35
			Total Cadmium (Cd)	2013/07/26	NC		%	35
			Total Chromium (Cr)	2013/07/26	15.6		%	35
			Total Cobalt (Co)	2013/07/26	1.8		%	35
			Total Copper (Cu)	2013/07/26	NC		%	35
			Total Lead (Pb)	2013/07/26	3.2		%	35
			Total Mercury (Hg)	2013/07/26	NC		%	35
			Total Molybdenum (Mo)	2013/07/26	NC		%	35
			Total Nickel (Ni)	2013/07/26	8.6		%	35
			Total Selenium (Se)	2013/07/26	NC		%	35
			Total Silver (Ag)	2013/07/26	NC		%	35
			Total Thallium (Tl)	2013/07/26	NC		%	35
			Total Tin (Sn)	2013/07/26	NC		%	35
			Total Uranium (U)	2013/07/26	NC		%	35
			Total Vanadium (V)	2013/07/26	2.7		%	35
			Total Zinc (Zn)	2013/07/26	NC		%	35
7026327	JSM	Matrix Spike						
		[GZ9455-01]	Soluble Calcium (Ca)	2013/07/26		101	%	75 - 125
			Soluble Magnesium (Mg)	2013/07/26		104	%	75 - 125
			Soluble Sodium (Na)	2013/07/26		109	%	75 - 125
			Soluble Potassium (K)	2013/07/26		104	%	75 - 125
		QC Standard	Soluble Calcium (Ca)	2013/07/26		87	%	75 - 125
			Soluble Magnesium (Mg)	2013/07/26		85	%	75 - 125
			Soluble Sodium (Na)	2013/07/26		101	%	75 - 125
			Soluble Potassium (K)	2013/07/26		107	%	75 - 125
			Soluble Sulphate (SO4)	2013/07/26		91	%	78 - 122
		Spiked Blank	Soluble Calcium (Ca)	2013/07/26		102	%	75 - 125
			Soluble Magnesium (Mg)	2013/07/26		101	%	75 - 125
			Soluble Sodium (Na)	2013/07/26		103	%	75 - 125
			Soluble Potassium (K)	2013/07/26		99	%	75 - 125

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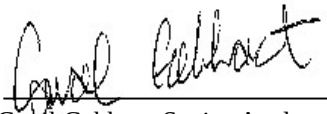
QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7026327	JSM	Method Blank	Soluble Calcium (Ca)	2013/07/26	<1.5		mg/L	
			Soluble Magnesium (Mg)	2013/07/26	<1.0		mg/L	
			Soluble Sodium (Na)	2013/07/26	<2.5		mg/L	
			Soluble Potassium (K)	2013/07/26	<1.3		mg/L	
			Soluble Sulphate (SO4)	2013/07/26	<5.0		mg/L	
7026671	NC3	Matrix Spike	Soluble (Hot water) Boron (B)	2013/07/26		103	%	75 - 125
		Spiked Blank	Soluble (Hot water) Boron (B)	2013/07/26		104	%	75 - 125
		Method Blank	Soluble (Hot water) Boron (B)	2013/07/26	<0.10		mg/kg	
		RPD	Soluble (Hot water) Boron (B)	2013/07/26	NC		%	35

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 spiked amount was not sufficiently significant to permit a reliable recovery calculation.
NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

Validation Signature Page

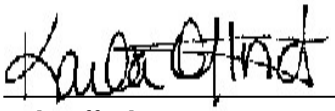
Maxxam Job #: B363840

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



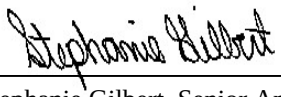
Carol Gebhart, Senior Analyst

Daniel Reslan, Volatiles Supervisor



Karla Offord, Supervisor, Extractable Hydrocarbons

Michael Chae, Ph.D, Scientific Specialist



Stephanie Gilbert, Senior Analyst

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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.

Work Order 13C 762266

Company

40038-07 TERVITA (CCS)
500,140 10 AVENUE SE
CALGARY AB T2G0R1
Tel: (855)234-6421 Fax: (403)718-1299

Contact

Contact Name: Accounts Payable
Tel: 4037306809 Fax: 403
E-Mail: nwills@klohn.com

Other Information

PO:
AFE:
Project Number: A04053A01
Submission Date: 24-Sep-2013 Effective Date: 24-Sep-13 0:00
Due Date: 25-Sep-2013 - 26-Sep-2013

Operations, analysis, materials included in work order

Product ID	Description	Quantity
50-002	Environmental Disposal Fee (per sample ID)	10
58-850	Escherichia coli	10
58-851	Total Coliforms	10
58-852	Fecal Coliforms	10
58-853	Heterotrophic Plate Count (HPC)	10

Sample Identification Information. Provided by client.

Sample ID	Type Sampl.date	LSD Sampling Point	Container Type Preserve	Analysis Required Sample Description Other Information
4767961A	Soil 23-Sep-2013		Plastic Bag NONE	E. Coli, Total & Fecal Coliforms, HPC CS13-01 Rec'd in good condition
4767962A	Soil 23-Sep-2013		Plastic Bag NONE	E. Coli, Total & Fecal Coliforms, HPC CS13-02 Rec'd in good condition
4767963A	Soil 23-Sep-2013		Plastic Bag NONE	E. Coli, Total & Fecal Coliforms, HPC CS13-03 Rec'd in good condition
4767964A	Soil 23-Sep-2013		Plastic Bag NONE	E. Coli, Total & Fecal Coliforms, HPC CS13-04 Rec'd in good condition
4767965A	Soil 23-Sep-2013		Plastic Bag NONE	E. Coli, Total & Fecal Coliforms, HPC CS13-05 Rec'd in good condition
4767966A	Soil 23-Sep-2013		Plastic Bag NONE	E. Coli, Total & Fecal Coliforms, HPC CS13-06 Rec'd in good condition
4767967A	Soil 23-Sep-2013		Plastic Bag NONE	E. Coli, Total & Fecal Coliforms, HPC CS13-07 Rec'd in good condition

Sample Identification Information. Provided by client.

Sample ID	Type Sampl.date	LSD Sampling Point	Container Type Preserve	Analysis Required Sample Description Other Information
4767968A	Soil 23-Sep-2013		Plastic Bag NONE	E. Coli, Total & Fecal Coliforms, HPC CS13-08 Rec'd in good condition
4767969A	Soil 23-Sep-2013		Plastic Bag NONE	E. Coli, Total & Fecal Coliforms, HPC CS13-09 Rec'd in good condition
4767970A	Soil 23-Sep-2013		Plastic Bag NONE	E. Coli, Total & Fecal Coliforms, HPC CS13-010 Rec'd in good condition

AGAT Laboratories

2910 12TH STREET NE
CALGARY, ALBERTA
CANADA T2E 7P7
TEL (403)735-2005
FAX (403)735-2771
http://www.agatlabs.com

CLIENT NAME: TERVITA (CCS)
500,140 10 AVENUE SE
CALGARY, AB T2G0R1
(855) 234-6421

ATTENTION TO: Accounts Payable

PROJECT NO: A04053A01

AGAT WORK ORDER: 13C762266

WATER ANALYSIS REVIEWED BY: Krystyna Krauze, Senior Analyst

DATE REPORTED: Sep 26, 2013

PAGES (INCLUDING COVER): 4

VERSION*: 1

Should you require any information regarding this analysis please contact your client services representative at (403) 735-2005

*NOTES

All samples will be disposed of within 30 days following analysis. Please contact the lab if you require additional sample storage time.

AGAT Laboratories

2910 12TH STREET NE
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CANADA T2E 7P7
TEL (403)735-2005
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http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 13C762266

PROJECT NO: A04053A01

CLIENT NAME: TERVITA (CCS)

ATTENTION TO: Accounts Payable

Microbial Analysis

DATE RECEIVED: 2013-09-24

DATE REPORTED: 2013-09-26

		SAMPLE DESCRIPTION:		CS13-01	CS13-02	CS13-03	CS13-04	CS13-05		CS13-06
		SAMPLE TYPE:		Soil	Soil	Soil	Soil	Soil		Soil
		DATE SAMPLED:		9/23/2013	9/23/2013	9/23/2013	9/23/2013	9/23/2013		9/23/2013
Parameter	**Unit**	**G / S**	**RDL**	**4767961**	**4767962**	**4767963**	**4767964**	**4767965**	**RDL**	**4767966**
Total Coliforms (MF)	Coliforms/g		10	5790	74	262	63	269	10	<10
Fecal Coliforms (MF)	Coliforms/g		10	<10	<10	<10	<10	<10	10	<10
Escherichia coli in Water	Coliforms/g		10	<10	<10	<10	<10	<10	10	<10
Heterotrophic Plate Count	CFU/g		10000	580000	550000	390000	530000	470000	1000	36000

		SAMPLE DESCRIPTION:		CS13-07	CS13-08	CS13-09	CS13-010
		SAMPLE TYPE:		Soil	Soil	Soil	Soil
		DATE SAMPLED:		9/23/2013	9/23/2013	9/23/2013	9/23/2013
Parameter	**Unit**	**G / S**	**RDL**	**4767967**	**4767968**	**4767969**	**4767970**
Total Coliforms (MF)	Coliforms/g		10	546	336	414	75
Fecal Coliforms (MF)	Coliforms/g		10	<10	<10	<10	<10
Escherichia coli in Water	Coliforms/g		10	<10	<10	<10	<10
Heterotrophic Plate Count	CFU/g		10000	340000	430000	420000	560000

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

Certified By:

AGAT Laboratories

2910 12TH STREET NE
CALGARY, ALBERTA
CANADA T2E 7P7
TEL (403)735-2005
FAX (403)735-2771
http://www.agatlabs.com

Quality Assurance

CLIENT NAME: TERVITA (CCS)

AGAT WORK ORDER: 13C762266

PROJECT NO: A04053A01

ATTENTION TO: Accounts Payable

Water Analysis

RPT Date: Sep 26, 2013			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
Microbial Analysis															
Total Coliforms (MF)	1058	962	74	75	1.3%	< 10									
Fecal Coliforms (MF)	1058	962	< 10	< 10	NA	< 10									
Escherichia coli in Water	1058	962	< 10	< 10	NA	< 10									
Heterotrophic Plate Count	154	962	550	575	4.4%	< 10									

Certified By:

AGAT Laboratories

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TEL (403)735-2005
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Method Summary

CLIENT NAME: TERVITA (CCS)

AGAT WORK ORDER: 13C762266

PROJECT NO: A04053A01

ATTENTION TO: Accounts Payable

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Water Analysis			
Total Coliforms (MF)	MIC 0202	SM 9222 B	INCUBATOR
Fecal Coliforms (MF)	MIC 0203	SM 9222 D	INCUBATOR
Escherichia coli in Water	MIC 0202	SM 9222 B	INCUBATOR
Heterotrophic Plate Count	MIC 0300	SM 9215 C	INCUBATOR

AGAT Laboratories

2910 - 12 Street N.E.
Calgary, Alberta, T2E 7P7
http://webearth.agatlabs.com

Phone: 403-735-2005
Fax: 403-735-2771
Toll free: 1-866-764-7554
www.agatlabs.com

Laboratory use Only
Arrival Condition: ☒ Good ☐ Poor (complete 'notes')
Arrival Temperature: _____ AGAT Job Number: 1BC742266
Notes: _____
*13 SEP-24 15:35

Report To:
Company: **IEG Consultants**
Contact: **Nicole Wills**
Address: **500 -2618 Hopewell Place NE**
Calgary, AB T1Y 7J7
Phone: 403-730-6809 FAX:
PO#:
Client Project #:

Invoice to: Same (Y)N) - Circle
Company: _____
Contact: _____
Address: _____
Phone: _____ Fax: _____
PO#: _____

Report Information
1. Name: Nicole Wills
Email: nwills@klohn.com
2. Name:
Email:

Regulatory Requirements (Check):
☐ Alberta Tier 1 ☐ Canadian Drinking Water
☐ PST (1994) ☐ PST (2001) ☐ Upstream Oil & Gas
☐ G - 50 ☐ B.C. CSR
☐ CCME (Indicate one)
☐ *Industrial*
☐ *Commercial*
☐ *Res/Park*
☐ *Ag*
☐ *FWAL*

Report Format
☐ Single Sample per Page
☒ Multiple Samples per Page
☒ Excel Format Included

Turnaround Time (TAT) Required
Regular TAT:
☐ 5 to 7 working days
Rush TAT:
☒ 24 to 48 hours
☐ 48 to 72 hours
Date Required: 2013.09.26
Time Required:

SAMPLE IDENTIFICATION	DATE / TIME SAMPLED	SAMPLE MATRIX	# OF CONTAINERS	COMMENTS - Site/Sample Info, Sample Containment	E COLI	TOTAL COLIFORMS	FECAL COLIFORMS	HPC (Plate Count)	Hazardous (Y/N)	Lab Sample #
CS13-001	2013.09.23 10:46	sed./soil	1	Composite	X	X	X	X	Y	967961
CS13-002	2013.09.23 11:10	sed./soil	1	Composite	X	X	X	X	Y	962
CS13-003	2013.09.23 13:31	sed./soil	1	Composite	X	X	X	X	Y	963
CS13-004	2013.09.23 13:42	sed./soil	1	Composite	X	X	X	X	Y	964
CS13-005	2013.09.23 13:48	sed./soil	1	Composite	X	X	X	X	Y	965
CS13-006	2013.09.23 12:12	sed./soil	1	Composite	X	X	X	X	Y	966
CS13-007	2013.09.23 12:21	sed./soil	1	Composite	X	X	X	X	Y	967
CS13-008	2013.09.23 12:27	sed./soil	1	Composite	X	X	X	X	Y	968
CS13-009	2013.09.23 12:33	sed./soil	1	Composite	X	X	X	X	Y	969
CS13-010	2013.09.23 12:39	sed./soil	1	Composite	X	X	X	X	Y	970

E 35987

Sample Relinquished By (print name & sign)	Date/Time	Samples Received By (print name and sign)	Date/Time	Special Instructions
AMBER LAPSHINOFF	2013.09.23 14:15			samples are from a sewage lagoon.
Sample Relinquished By (print name & sign)	Date/Time	Samples Received By (print name and sign)	Date/Time	Page of
BETH WILSON	2013.09.23 14:15	SEP 24/13	1535	

AGAT Laboratories

SAMPLE INTEGRITY RECEIPT FORM – Calgary

RECEIVING BASICS

Received By: RSOM Date & Time: SEPT 24/13 1535 am/pm

Company/Consultant: IEG

Relinquished By: _____ Courier: BUFFALO Prepaid/Collect

Waybill #: _____ Branch Received From: _____

Client left without count verified: Yes/No Custody Seal Intact: Yes/No/NA

COC INFORMATION

Workorder #: 13C762266 COC received: Yes/No/Emailed to CPM

TAT: <24hr ~~24-48hr~~ 48-72hr Reg Other SEPT 26/13

COC Complete? Yes/No *If NO why: _____

COC Numbers: E35987

Sample Quantities: Coolers: 1 Bottles/Jars: — Bags: 10 Other: —

COC Container Count: 10

*Differs from what was received why: _____

TIME SENSITIVE ISSUES

Earliest Date Sampled: SEPT 23/13 1046 ALREADY EXCEEDED? Yes/No

MIBI/Time Sensitive Test*: EtOH Expiry: SEPT 24/13 1646

Hydrocarbon Test: _____ Expiry: _____

Are samples received more than **5 days** after sampling: Yes/No

**Residual Chlorine, DO, Turbidity, BOD, Nitrate/Nitrite, Microtox*

SAMPLE INTEGRITY

Hazardous Samples Why Hazardous: _____ Precaution taken: _____

Specialty Issues Legal Samples: Yes/No

International Samples: Yes/No Proper tape/labels applied: Yes/No

Damaged: Yes/No If YES why? No Bubble Wrap/Frozen/Courier

Other: _____

Temperature (to be recorder from bottles/jars only)

N/A – Only Soil Bags Received

(1) (Bottle/Jar)___+___+___=____°C (2) (Bottle/Jar)___+___+___=____°C

(3) (Bottle/Jar)___+___+___=____°C (4) (Bottle/Jar)___+___+___=____°C

(5) (Bottle/Jar)___+___+___=____°C (6) (Bottle/Jar)___+___+___=____°C

(If more than 6 coolers are received use another sheet of paper and attach)

Coolant used: Icepack (Top/Bottom/Side) Bagged Ice (Top/Bottom/Side)

Free Ice None

Correct Sample Requirements for Testing (to be completed by Logistics staff during login process)

Bottles: Yes/No Amount: Yes/No Labels: Yes/No

If NO to any of the above, explain why: _____

Visible Sediment (NA if soil): Yes/No/NA

Additional Integrity Issues: _____

_____

_____

Account Project Manager: _____ have they been notified of the above issues: Yes/No

Whom spoken to: _____ Date/Time: _____ CPM Initial_____

AGAT Laboratories

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Laboratory use Only
Arrival Condition: ☒ Good ☐ Poor (complete 'notes')
Arrival Temperature: _____ AGAT Job Number: 1BC742266
Notes: _____
*13 SEP-24 15:35

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Calgary, AB T1Y 7J7
Phone: 403-730-6809 FAX:
PO#:
Client Project #:

Invoice to: Same (Y)N) - Circle
Company: _____
Contact: _____
Address: _____
Phone: _____ Fax: _____
PO#: _____

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Email: nwills@klohn.com
2. Name:
Email:

Regulatory Requirements (Check):
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☐ PST (1994) ☐ PST (2001) ☐ Upstream Oil & Gas
☐ G - 50 ☐ B.C. CSR
☐ CCME (Indicate one)
☐ *Industrial*
☐ *Commercial*
☐ *Res/Park*
☐ *Ag*
☐ *FWAL*

Report Format
☐ Single Sample per Page
☒ Multiple Samples per Page
☒ Excel Format Included

Turnaround Time (TAT) Required
Regular TAT:
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Rush TAT:
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☐ 48 to 72 hours
Date Required: 2013.09.26
Time Required:

SAMPLE IDENTIFICATION	DATE / TIME SAMPLED	SAMPLE MATRIX	# OF CONTAINERS	COMMENTS - Site/Sample Info, Sample Containment	E COLI	TOTAL COLIFORMS	FECAL COLIFORMS	HPC (Plate Count)	Hazardous (Y/N)	Lab Sample #
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CS13-007	2013.09.23 12:21	sed./soil	1	Composite	X	X	X	X	Y	967
CS13-008	2013.09.23 12:27	sed./soil	1	Composite	X	X	X	X	Y	968
CS13-009	2013.09.23 12:33	sed./soil	1	Composite	X	X	X	X	Y	969
CS13-010	2013.09.23 12:39	sed./soil	1	Composite	X	X	X	X	Y	970

E 35987

Sample Relinquished By (print name & sign)	Date/Time	Samples Received By (print name and sign)	Date/Time	Special Instructions
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Sample Relinquished By (print name & sign)	Date/Time	Samples Received By (print name and sign)	Date/Time	Page of
BETH WILSON	2013.09.23 14:15	SEP 24/13	1535	

AGAT Laboratories

SAMPLE INTEGRITY RECEIPT FORM – Calgary

RECEIVING BASICS

Received By: RSOM Date & Time: SEPT 24/13 1535 am/pm

Company/Consultant: IEG

Relinquished By: _____ Courier: BUFFALO Prepaid/Collect

Waybill #: _____ Branch Received From: _____

Client left without count verified: Yes/No Custody Seal Intact: Yes/No/NA

COC INFORMATION

Workorder #: 13C762266 COC received: Yes/No/Emailed to CPM

TAT: <24hr ~~24-48hr~~ 48-72hr Reg Other SEPT 26/13

COC Complete? Yes/No *If NO why: _____

COC Numbers: E35987

Sample Quantities: Coolers: 1 Bottles/Jars: — Bags: 10 Other: —

COC Container Count: 10

*Differs from what was received why: _____

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Specialty Issues Legal Samples: Yes/No

International Samples: Yes/No Proper tape/labels applied: Yes/No

Damaged: Yes/No If YES why? No Bubble Wrap/Frozen/Courier

Other: _____

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(1) (Bottle/Jar)___+___+___=____°C (2) (Bottle/Jar)___+___+___=____°C

(3) (Bottle/Jar)___+___+___=____°C (4) (Bottle/Jar)___+___+___=____°C

(5) (Bottle/Jar)___+___+___=____°C (6) (Bottle/Jar)___+___+___=____°C

(If more than 6 coolers are received use another sheet of paper and attach)

Coolant used: Icepack (Top/Bottom/Side) Bagged Ice (Top/Bottom/Side)

Free Ice None

Correct Sample Requirements for Testing (to be completed by Logistics staff during login process)

Bottles: Yes/No Amount: Yes/No Labels: Yes/No

If NO to any of the above, explain why: _____

Visible Sediment (NA if soil): Yes/No/NA

Additional Integrity Issues: _____

_____

_____

Account Project Manager: _____ have they been notified of the above issues: Yes/No

Whom spoken to: _____ Date/Time: _____ CPM Initial_____

IEG CONSULTANTS LTD.
ATTN: Nicole Wills
500-2618 Hopewell Place NE
Calgary AB T1Y7J7

Date Received: 13-JUN-13
Report Date: 25-JUN-13 13:34 (MT)
Version: FINAL

Client Phone: 403-829-3048

Certificate of Analysis

Lab Work Order #: L1316639

Project P.O. #:	NOT SUBMITTED
Job Reference:	A04012A03
C of C Numbers:	10-186493
Legal Site Desc:	Campr Farewell

Jessica Spira
Senior Account Manager

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1316639-1 CAMP FAREWELL							
Sampled By: XX on 12-JUN-13 @ 10:45							
Matrix: Water							
Miscellaneous Parameters							
Ammonia, Total (as N)	<0.050		0.050	mg/L		20-JUN-13	R2635067
Chlorine, Total	<0.10		0.10	mg/L		15-JUN-13	R2633491
Oil and Grease	<1.0		1.0	mg/L		17-JUN-13	R2633108
Special Request	See Attached					14-JUN-13	R2635429
Phosphorus (P)-Total	0.070		0.020	mg/L	19-JUN-13	20-JUN-13	R2635966
Total Suspended Solids	18.0		3.0	mg/L		18-JUN-13	R2633325
Routine Water Analysis							
Chloride by IC							
Chloride (Cl)	16.5		0.50	mg/L		15-JUN-13	R2632795
Dissolved Metals in Water by CRC ICPMS							
Calcium (Ca)-Dissolved	28.9		0.50	mg/L		24-JUN-13	R2637095
Magnesium (Mg)-Dissolved	7.84		0.10	mg/L		24-JUN-13	R2637095
Potassium (K)-Dissolved	1.19		0.50	mg/L		24-JUN-13	R2637095
Sodium (Na)-Dissolved	11.2		1.0	mg/L		24-JUN-13	R2637095
Ion Balance Calculation							
Ion Balance	113	BL:INT		%		24-JUN-13	
TDS (Calculated)	129			mg/L		24-JUN-13	
Hardness (as CaCO3)	104			mg/L		24-JUN-13	
Nitrate as N by IC							
Nitrate (as N)	0.094		0.050	mg/L		15-JUN-13	R2632795
Nitrate+Nitrite							
Nitrate and Nitrite (as N)	0.094		0.071	mg/L		20-JUN-13	
Nitrite as N by IC							
Nitrite (as N)	<0.050		0.050	mg/L		15-JUN-13	R2632795
Sulfate by IC							
Sulfate (SO4)	19.4		0.50	mg/L		15-JUN-13	R2632795
pH, Conductivity and Total Alkalinity							
pH	7.86		0.10	pH		15-JUN-13	R2632887
Conductivity (EC)	235		0.20	uS/cm		15-JUN-13	R2632887
Bicarbonate (HCO3)	87.8		5.0	mg/L		15-JUN-13	R2632887
Carbonate (CO3)	<5.0		5.0	mg/L		15-JUN-13	R2632887
Hydroxide (OH)	<5.0		5.0	mg/L		15-JUN-13	R2632887
Alkalinity, Total (as CaCO3)	72.0		5.0	mg/L		15-JUN-13	R2632887

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

Sample Parameter Qualifier Key:

Qualifier	Description
BL:INT	Balance Reviewed: Interference Or Non-Measured Component
MS-B	Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
CL-IC-ED	Water	Chloride by IC	APHA 4110 B-ION CHROMATOGRAPHY
CL2-TOT-ED	Water	Chlorine, Total	APHA 4500 Cl G-Colorimetry
FC-MF-TG	Water	Fecal Coliforms by MF	SM9222D
IONBALANCE-ED	Water	Ion Balance Calculation	APHA 1030E
MET-D-CCMS-ED	Water	Dissolved Metals in Water by CRC ICPMS	APHA 3030 B&E / EPA SW-846 6020A
NH3-CFA-ED	Water	Ammonia in Water by Colour	APHA 4500 NH3-NITROGEN (AMMONIA)
This analysis is carried out using procedures adapted from APHA Method 4500 NH3 "NITROGEN (AMMONIA)". Ammonia is determined using the automated phenate colourimetric method.			
NO2+NO3-CALC-ED	Water	Nitrate+Nitrite	CALCULATION
NO2-IC-ED	Water	Nitrite as N by IC	APHA 4110 B-ION CHROMATOGRAPHY
NO3-IC-ED	Water	Nitrate as N by IC	APHA 4110 B-ION CHROMATOGRAPHY
OGG-LLE-ED	Water	Oil and Grease-Gra	APHA 5520 B HEXANE MTBE EXT. GRAVIME
P-T-COL-ED	Water	Total P in Water by Colour	APHA 4500-P PHOSPHORUS
This analysis is carried out using procedures adapted from APHA Method 4500-P "Phosphorus". Total Phosphorus is determined colourimetrically after persulphate digestion of the sample.			
PH/EC/ALK-ED	Water	pH, Conductivity and Total Alkalinity	APHA 4500-H, 2510, 2320
All samples analyzed by this method for pH will have exceeded the 15 minute recommended hold time from time of sampling (field analysis is recommended for pH where highly accurate results are needed)			
SO4-IC-ED	Water	Sulfate by IC	APHA 4110 B-ION CHROMATOGRAPHY
SOLIDS-TOTSUS-ED	Water	Total Suspended Solids	APHA 2540 D-Gravimetric
SPECIAL REQUEST-TG	Misc.	Special Request Taiga Yellowknife	SEE SUBLET LAB RESULTS

** 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)

Chain of Custody Numbers:

10-186493

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**

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.

Taiga Environmental Laboratory
4601-52nd Ave., Box 1500, Yellowknife, NT. X1A 2R3
Tel: (867)-669-2788 Fax: (867)-669-2718

Taiga Batch No.: 130372

- FINAL REPORT -

Prepared For: ALS Environmental

Address: 314 Old Airport Road
Unit 116
Yellowknife, NT
X1A 2R1

Attn: **Bruce Stuart** **Facsimile:**

Final report has been reviewed and approved by:

Angelique Ruzindana
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) 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: Thursday, June 20, 2013
Print Date: Thursday, June 20, 2013

Taiga Environmental Laboratory
4601-52nd Ave., Box 1500, Yellowknife, NT. X1A 2R3
Tel: (867)-669-2788 Fax: (867)-669-2718

Taiga Batch No.: 130372

- CERTIFICATE OF ANALYSIS -

Client Sample ID: L1316639-1 Camp Farewell **Taiga Sample ID:** 001

Client Project:
Sample Type: Water
Received Date: 14-Jun-13
Sampling Date: 12-Jun-13
Sampling Time: 10:45
Location:
Report Status: **Final**

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifer
Inorganics - Nutrients						
Biochemical Oxygen Demand	4	2	mg/L	14-Jun-13	SM5210:B	
Microbiology						
Coliforms, Fecal (other)	< 1	1	CFU/100mL	14-Jun-13	SM9222:D	88

ReportDate: Thursday, June 20, 2013
Print Date: Thursday, June 20, 2013

Taiga Environmental Laboratory
4601-52nd Ave., Box 1500, Yellowknife, NT. X1A 2R3
Tel: (867)-669-2788 Fax: (867)-669-2718

Taiga Batch No.: 130372

- CERTIFICATE OF ANALYSIS -

Client Sample ID: L1316639-1 Camp Farewell **Taiga Sample ID:** 001

- DATA QUALIFERS -

Data Qualifier Descriptions:

88 *Samples analysed past holding time, as per client request.*

*** 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

ReportDate: Thursday, June 20, 2013
Print Date: Thursday, June 20, 2013

ALS QC data 2013 (TC/Ec/FS)

Date	TEL	ALS ID	Test	Blank Result MPN/100mL	Original MPN/100mL	Duplicate MPN/100mL	Pass/Fail	Comments
14-Jun	130373-001	L1316645-1	TC	<1.0	45.7	<1.0	P	
14-Jun	130373-001	L1316645-1	Ec	<1.0	41.4	<1.0	P	

ALS QC data 2013 (FC)

Date	TEL	ALS ID	Test	Blank Result FC/100 mL	Original FC/100 mL	Duplicate FC/100 mL	Pass/Fail	Comments
14-Jun	130373-002	l1316645-2	FC	<1	1	0	P	

10-186493

ALS Environmental

Chain of Custody / Analytical Request Form
Canada Toll Free: 1 800 668 9878
www.alsglobal.com

Page 1 of 1

Report To	Nicole Wills	**Report Format / Distribution**	**Service Request:** (Rush subject to availability - Contact ALS to confirm TAT)
Company:	iEG Consultants Ltd.	Standard: ✓ Other (specify):	X Regular (Standard Turnaround Times - Business Days)
Contact:	Nicole Wills	Select: PDF ✓ Excel ✓ Digital Fax	Priority(2-4 Business Days)-50% surcharge - Contact ALS to confirm TAT
Address:	500-2618 Hopewell Place NE Calgary, AB	Email 1: nwills@iehn.com	Emergency (1-2 Business Days)-100% Surcharge - Contact ALS to confirm TAT
		Email 2:	Same Day or Weekend Emergency - Contact ALS to confirm TAT
Phone:	(403) 829-3048 Fax: (403) 274-5349		**Analysis Request**
Invoice To	Same as Report ? (circle) Yes or No (if No, provide details)	**Client / Project Information**	(Indicate Filtered or Preserved, F/P)
	Copy of Invoice with Report? (circle) Yes or No	Job #: A04012A03	
Company:		PO / AFE:	
Contact:		LSD: Camp Farewell	
Address:			
Phone:	Fax:	Quote #:	
Lab Work Order # (lab use only)	L1316639	**ALS Contact:**	**Sampler:**

Sample #	Sample Identification (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	Routine	Nutrients	Oil and grease	Biological oxygen demand	Total suspended solids	Fecal coliforms	Total Residual chlorine	pH	Ammonia	Phosphorous	Total chlorine		Number of Containers
1	Camp Farewell	12-Jun-13	10:45 a.m.	water	X	X	X	X	X	X	X	X	X	X	X		7
							✓	✓	✓	✓	✓	✓	✓	✓	✓		

L1316639-COFC

Special Instructions / Regulation with water or land use (CCME- Freshwater Aquatic Life/BC CSR-Commercial/AB Tier 1-Natural/ETC) / Hazardous Details

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.

SHIPMENT RELEASE (client use)			SHIPMENT RECEPTION (lab use only)				SHIPMENT VERIFICATION (lab use only)			
Released by:	Date:	Time:	Received by:	Date:	Time:	Temperature:	Verified by:	Date:	Time:	Observations: Yes / No ? If Yes add SIF
	June 12/13			Jun. 13/13	5:20	Max 6.4 Avg 6 °C				

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

GENF 18.01 Front

Your Project #: A04012A05
Your C.O.C. #: 1 OF 1

Attention: NICOLE WILLS

KLOHN CRIPPEN BERGER LTD
500-2618
HOPEWELL PLACE NE
CALGARY, AB
CANADA T1Y 7J7

Report Date: 2013/07/26

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B362235
Received: 2013/07/19, 8:50

Sample Matrix: Water
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Biochemical Oxygen Demand (1)	2	2013/07/21	2013/07/26	AB SOP-00017	SM 5210 B
Chlorine (Free) (1)	2	N/A	2013/07/22	AB SOP-00032	SM Method 4500-Cl G
Chlorine (Total) (1)	2	N/A	2013/07/22	AB SOP-00032	SM Method 4500-Cl G
Oil and Grease by IR (1)	2	2013/07/24	2013/07/25	CAL SOP-00096	SM 5520C
Total Suspended Solids (NFR) (1)	2	2013/07/25	2013/07/25	AB SOP-00061	SM 2540-D

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

(1) This test was performed by Maxxam Calgary Environmental

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Tanya Eugine, M.Sc., Project Manager
Email: TEugine@maxxam.ca
Phone# (780) 577-7144

==========

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.

Total cover pages: 1

KLOHN CRIPPEN BERGER LTD
Client Project #: A04012A05

Maxxam Job #: B362235
Report Date: 2013/07/26

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		GY9632	GY9633		
Sampling Date					
COC Number		1 OF 1	1 OF 1		
	UNITS	**#2**	**#3**	**RDL**	**QC Batch**
Demand Parameters					
Biochemical Oxygen Demand	mg/L	<5.0 (1)	<5.0 (2)	5.0	7006665
Misc. Inorganics					
Free Chlorine	mg/L	0.050 (3)	0.020 (3)	0.020	7009264
Total Chlorine	mg/L	0.060 (3)	0.020 (3)	0.020	7009265
Total Suspended Solids	mg/L	8.0 (4)	8.0 (4)	1.5	7019938
Misc. Organics					
Oil and grease	mg/L	<20 (5)	<20 (5)	20	7007935

RDL = Reportable Detection Limit
(1) Detection limits raised due to insufficient sample volume. Sample analyzed 194.5 hrs. after sample collection. Sample analysis is recomended within 48 hrs. of sampling to obtained the most probable number.
(2) Detection limit raised based on sample volume used for analysis. Sample analyzed 194.5 hrs. after sample collection. Sample analysis is recomended within 48 hrs. of sampling to obtained the most probable number.
(3) Sample received past method-specified hold time.
(4) Detection limits raised due to insufficient sample volume.
(5) Detection limit raised based on sample volume used for analysis.

KLOHN CRIPPEN BERGER LTD
Client Project #: A04012A05

Maxxam Job #: B362235
Report Date: 2013/07/26

Package 1	6.3°C

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

General Comments

Results relate only to the items tested.

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: A04012A05
P.O. #:
Site Location:

Quality Assurance Report

Maxxam Job Number: CB362235

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7006665	LH8	Spiked Blank	Biochemical Oxygen Demand	2013/07/26		93	%	85 - 115
		Method Blank	Biochemical Oxygen Demand	2013/07/26	<2.0		mg/L	
		RPD [GY9632-01]	Biochemical Oxygen Demand	2013/07/26	NC		%	20
7007935	ABG	Spiked Blank	Oil and grease	2013/07/25		106	%	70 - 130
		Method Blank	Oil and grease	2013/07/25	<2.0		mg/L	
7009264	LS0	Matrix Spike [GY9632-01]	Free Chlorine	2013/07/22		85	%	80 - 120
		Spiked Blank	Free Chlorine	2013/07/22		90	%	80 - 120
		Method Blank	Free Chlorine	2013/07/22	<0.020		mg/L	
		RPD [GY9632-01]	Free Chlorine	2013/07/22	NC		%	20
7009265	LS0	Matrix Spike	Total Chlorine	2013/07/22		81	%	80 - 120
		Spiked Blank	Total Chlorine	2013/07/22		96	%	80 - 120
		Method Blank	Total Chlorine	2013/07/22	<0.020		mg/L	
		RPD	Total Chlorine	2013/07/22	NC		%	20
7019938	KKV	Matrix Spike	Total Suspended Solids	2013/07/25		93	%	80 - 120
		Spiked Blank	Total Suspended Solids	2013/07/25		96	%	80 - 120
		Method Blank	Total Suspended Solids	2013/07/25	<1.0		mg/L	
		RPD	Total Suspended Solids	2013/07/25	9.0		%	20

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.
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.
NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

Validation Signature Page

Maxxam Job #: B362235

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

Ghayasuddin Khan, M.Sc., B.Ed., P.Chem, Scientific Specialist

Janet Gao, Senior Analyst, Organics Department

==========

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.

Your Project #: A04012A05
Your C.O.C. #: 1 OF 1

Attention: NICOLE WILLS

KLOHN CRIPPEN BERGER LTD
500-2618
HOPEWELL PLACE NE
CALGARY, AB
CANADA T1Y 7J7

Report Date: 2013/07/26

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B362235
Received: 2013/07/19, 8:50

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Samples Received: 2

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Chlorine (Total) (1)	2	N/A	2013/07/22	AB SOP-00032	SM Method 4500-Cl G
Oil and Grease by IR (1)	2	2013/07/24	2013/07/25	CAL SOP-00096	SM 5520C
Total Suspended Solids (NFR) (1)	2	2013/07/25	2013/07/25	AB SOP-00061	SM 2540-D

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

(1) This test was performed by Maxxam Calgary Environmental

Encryption Key

Tanya Eugine
26 Jul 2013 17:58:20 -06:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Tanya Eugine, M.Sc., Project Manager
Email: TEugine@maxxam.ca
Phone# (780) 577-7144

==========

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Total cover pages: 1

KLOHN CRIPPEN BERGER LTD
Client Project #: A04012A05

Maxxam Job #: B362235
Report Date: 2013/07/26

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		GY9632	GY9633		
Sampling Date					
COC Number		1 OF 1	1 OF 1		
	UNITS	**#2**	**#3**	**RDL**	**QC Batch**
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Oil and grease	mg/L	<20 (5)	<20 (5)	20	7007935

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Maxxam Job #: B362235
Report Date: 2013/07/26

KLOHN CRIPPEN BERGER LTD
Client Project #: A04012A05

Package 1	6.3°C

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

General Comments

Results relate only to the items tested.

KLOHN CRIPPEN BERGER LTD
Attention: NICOLE WILLS
Client Project #: A04012A05
P.O. #:
Site Location:

Quality Assurance Report

Maxxam Job Number: CB362235

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		Method Blank	Free Chlorine	2013/07/22	<0.020		mg/L	
		RPD [GY9632-01]	Free Chlorine	2013/07/22	NC		%	20
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		Method Blank	Total Chlorine	2013/07/22	<0.020		mg/L	
		RPD	Total Chlorine	2013/07/22	NC		%	20
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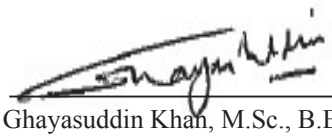
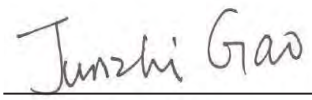
Validation Signature Page

Maxxam Job #: B362235

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



Ghayasuddin Khan, M.Sc., B.Ed., P.Chem, Scientific Specialist



Janet Gao, Senior Analyst, Organics Department

==========

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AGAT Laboratories

6310 Roper Road NW
Edmonton, Alberta
T6B 3P9
webearth.agatlabs.com

Chain of Custody Record

Ph: 780.395.2525 • Fax: 780.462.2490

Rush Turnaround Requests
Upon filling out this section, client accepts that surcharges will be attached to this analysis. If NOT completed, regular TAT will be default.

- ☐ Less than 24 hours (200%)
- ☐ 24 to 48 hours (100%)
- ☐ 48 to 72 hours (50%)

Date Required: ____________
Please contact laboratory to notify

Report To:
Company: IEG Consultants Ltd.
Contact: Nicole Wills
Address: 2618 Hopewell Place NE Calgary, AB Postal Code: T1Y 7J7
Phone: 403.829.3048 Fax: ____
LSD: Camp Farewell
Client Project #: A04012A05

Report Information
1. Name: nwills@klohn.com
Email: Nicole Wills
2. Name: ____
Email: ____

Report Format
- ☒ Single Sample per page
- ☐ Multiple Samples per page
- ☒ Excel Format Included

Laboratory Use Only
Date and Time:
Arrival Temperature: ____
AGAT Job Number: ____

Invoice To: Same (Y) N) – Circle
Company: ____
Contact: ____
Address: ____
Postal code: ____
Phone: ____ Fax: ____
PO/AFE #: ____

Regulatory Requirements (Check one):
- ☐ CCME
  - ☐ Agricultural
  - ☐ Residential/Park
  - ☐ Commercial
  - ☐ Industrial
  - ☐ Drinking Water
  - ☐ FWAL
- ☐ AB Tier 1
  - ☐ Natural Area
  - ☐ Agricultural
  - ☐ Residential/Park
  - ☐ Commercial
  - ☐ Industrial
- ☐ Other
  - ☐ D50 (Drilling) ☐ SPIGEC

Laboratory Use (Lab ID #)	Sample Identification	Sample Matrix	Date/Time Sampled	Comments – Site/Sample Info. Sample Containment	Number of Containers	Detailed Soil Salinity (Sat. Paste)	CCME BTEX/F1-F4	Metals ☐ HWS-B, Cr6 & Hg	Routine Water Potability	Metals ☐ Diss ☐ Total ☐ Hg	AB Class 2 Landfill	Microtox	D50 Detailed Soil Salinity (As received)	Residual chlorine	Total chlorine	BOD5	oil and grease	Total suspended solids	Hold for	Contaminated/Hazardous (Y/N)
	#1	Water	07-13-13						X					X	X	X	X	X		
	#2	↓							X					X	X	X	X	X		
	#3	↓							X					X	X	X	X	X		

20-Jul-13 15:59
B362235
JF9 INS-0033

RECEIVED IN YELLOWKNIFE
By: [signature] 08:50
2013-07-19
Temp: 3, 3, 2

Samples Relinquished by (print name & sign):	Date/Time	Samples Received by (Print name & sign):	Date/Time		
Nicole Wills / [signature]	07-18-13	[signature] Jenelle Feller	2013/07/20	Pink Copy – Client	Page 1 of 1
Samples Relinquished by (print name & sign):	Date/Time	Samples Received by (Print name & sign):	Date/Time 15:59	Yellow Copy – AGAT	NO: 052646
Samples Relinquished by (print name & sign):	Date/Time	Samples Received by (Print name & sign):	Date/Time	White Copy – AGAT	

Ice - yes 6, 7, 6 07-823