

AUGUST 2002

Q.C.



**NORWEST
LABS**

Agri-Food & Environmental Group
Calgary Edmonton Winnipeg Lethbridge Surrey

Quality Control

Norwest Labs
9938-67 Avenue
Edmonton, AB. T6E 0P5
Phone: (780) 438-5522
Fax: (780) 438-0396

Bill to: Echo Bay Mines Ltd.
Report to: Echo Bay Mines Ltd.

9818 International Airport
Edmonton, AB, Canada
T5J2T2

Attn: David Hohnstein

Sampled By: M. Sawyer
Company:

Project

ID:
Name: Lupin Operation
Location:
LSD:
P.O.:
Acct. Code:

NWL Lot ID: 184897

Control Number:
Date Received: Aug 01, 2002
Date Reported: Aug 08, 2002
Report Number: 287065

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Inorganic Nonmetallic Parameters

Blanks	Units	Measured	Target	Lower Limit	Upper Limit	Passed QC
Cyanide	mg/L	<0.001	0.00000	-0.00100	0.00100	✓
Material Used:	Edmonton Method Blank					
Date Acquired:	Aug 08, 2002					
Acquired By:						

Control Sample	Units	Measured	Target	Lower Limit	Upper Limit	Passed QC
Cyanide	mg/L	0.071	0.0750	0.0680	0.0870	✓
Material Used:	Water High					
Date Acquired:	Aug 08, 2002					
Acquired By:						
Cyanide	mg/L	0.016	0.0150	0.0135	0.0165	✓
Material Used:	Water Low					
Date Acquired:	Aug 08, 2002					
Acquired By:						

Physical and Aggregate Properties

Replicates	Units	Replicate1	Replicate2	% RSD Criteria	Absolute Criteria	Passed QC
Solids	mg/L	6	7	10.0	5.0	✓
Material Used:	Edmonton Duplicate					
Date Acquired:	Aug 02, 2002					
Acquired By:	Stef Pavlyshyn					



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Routine Water

Replicates	Units	Replicate1	Replicate2	% RSD Criteria	Absolute Criteria	Passed QC
pH		7.79	7.80	10.00	0.10	✓

Material Used: Edmonton Duplicate
Date Acquired: Aug 02, 2002
Acquired By:

Control Sample	Units	Measured	Target	Lower Limit	Upper Limit	Passed QC
pH		9.07	9.18	8.73	9.67	✓

Material Used: Water High
Date Acquired: Aug 02, 2002
Acquired By:

pH		6.84	6.86	6.82	6.91	✓
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Material Used: Water Low
Date Acquired: Aug 02, 2002
Acquired By: Shane Knapp



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Metals Total

Control Sample	Units	Measured	Target	Lower Limit	Upper Limit	Passed QC
Arsenic	ug/L	53.7	50.0	45.0	55.0	✓
Copper	ug/L	11	10.00	9.00	11.00	✓
Zinc	ug/L	10	10.00	9.00	11.00	✓

Material Used: Metals Low
Date Acquired: Aug 02, 2002
Acquired By: Darren Crichton

Arsenic	ug/L	5.3	5.00	4.50	5.50	✓
Copper	ug/L	1	1.000	0.900	1.100	✓
Zinc	ug/L	<1	1.000	0.900	1.100	✓

Material Used: Metals Trace
Date Acquired: Aug 02, 2002
Acquired By: Darren Crichton



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NWL Lot ID: 185316
Control Number:
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Metals Dissolved

Replicates	Units	Replicate1	Replicate2	% RSD Criteria	Absolute Criteria	Passed QC
Sulphur	mg/L	9.58	9.71	10.000	0.024	✓
Material Used:	Edmonton Duplicate					
Date Acquired:	Aug 06, 2002					
Acquired By:	Jesse Dang					
Control Sample	Units	Measured	Target	Lower Limit	Upper Limit	Passed QC
Sulphur	mg/L	20.4	20.000	18.000	22.000	✓
Material Used:	Metals High					
Date Acquired:	Aug 06, 2002					
Acquired By:	Jesse Dang					
Sulphur	mg/L	0.183	0.200	0.160	0.240	✓
Material Used:	Metals Low					
Date Acquired:	Aug 06, 2002					
Acquired By:	Jesse Dang					



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Control Number:
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Inorganic Nonmetallic Parameters

Blanks	Units	Measured	Target	Lower Limit	Upper Limit	Passed QC
Cyanide	mg/L	<0.001	0.00000	-0.00100	0.00100	✓
Material Used:	Edmonton Method Blank					
Date Acquired:	Aug 09, 2002					
Acquired By:	Gordon Grensman					

Replicates	Units	Replicate1	Replicate2	% RSD Criteria	Absolute Criteria	Passed QC
Ammonium - N	mg/L	UNDEFINED	1.03	10.00	0.10	✓
Material Used:	Edmonton Duplicate					
Date Acquired:	Aug 12, 2002					
Acquired By:	Gordon Grensman					

Control Sample	Units	Measured	Target	Lower Limit	Upper Limit	Passed QC
Ammonium - N	mg/L	3.09	3.00	2.70	3.30	✓
Cyanide	mg/L	0.073	0.0750	0.0680	0.0870	✓
Material Used:	Water High					
Date Acquired:	Aug 09, 2002					
Acquired By:	Gordon Grensman					
Ammonium - N	mg/L	0.76	0.800	0.720	0.880	✓
Cyanide	mg/L	0.016	0.0150	0.0135	0.0165	✓
Material Used:	Water Low					
Date Acquired:	Aug 08, 2002					
Acquired By:						



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Physical and Aggregate Properties

Replicates	Units	Replicate1	Replicate2	% RSD Criteria	Absolute Criteria	Passed QC
Solids	mg/L	47	36	10.0	5.0	✓
Material Used:	Edmonton Duplicate					
Date Acquired:	Aug 07, 2002					
Acquired By:	Iona McCloughan					



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Routine Water

Replicates	Units	Replicate1	Replicate2	% RSD Criteria	Absolute Criteria	Passed QC
pH		8.54	8.55	10.00	0.10	✓
Conductivity	dS/m	1.34	1.34	10.000	0.002	✓
Calcium	mg/L	62.0	62.1	10.0	0.6	✓
Magnesium	mg/L	3.40	3.35	10.00	0.15	✓
P-Alkalinity	mg/L	43	45	10.0	5.0	✓
T-Alkalinity	mg/L	627	626	10.0	5.0	✓

Material Used: Edmonton Duplicate
Date Acquired: Aug 07, 2002
Acquired By:



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Routine Water (Continued...)

Control Sample	Units	Measured	Target	Lower Limit	Upper Limit	Passed QC
Calcium	mg/L	9.4	10.00	9.00	11.00	✓
Magnesium	mg/L	49.2	50.00	45.00	55.00	✓
Material Used:	Metals High					
Date Acquired:	Aug 06, 2002					
Acquired By:	Jesse Dang					
Calcium	mg/L	<0.2	0.1000	0.0800	0.1200	✓
Magnesium	mg/L	0.52	0.500	0.400	0.600	✓
Material Used:	Metals Low					
Date Acquired:	Aug 06, 2002					
Acquired By:	Jesse Dang					
pH		9.08	9.18	8.73	9.67	✓
Conductivity	dS/m	2.73	2.765	2.680	2.840	✓
P-Alkalinity	mg/L	545		490	557	✓
T-Alkalinity	mg/L	1010	1000	972	1035	✓
Material Used:	Water High					
Date Acquired:	Aug 07, 2002					
Acquired By:	Shane Knapp					
pH		6.84	6.86	6.82	6.91	✓
Conductivity	dS/m	0.076	0.0739	0.0740	0.0790	✓
P-Alkalinity	mg/L	64		46.8	71.0	✓
T-Alkalinity	mg/L	127	125	121	133	✓
Material Used:	Water Low					
Date Acquired:	Aug 07, 2002					
Acquired By:						



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Metals Total

Blanks	Units	Measured	Target	Lower Limit	Upper Limit	Passed QC
Calcium	mg/L	<0.2	0.0000	-0.0312	0.2000	✓
Iron	mg/L	<0.003	0.0000	-0.0149	0.0290	✓
Magnesium	mg/L	<0.05	0.0000	-0.0305	0.0500	✓
Manganese	mg/L	0.0008	0.000000	-0.000700	0.001200	✓
Potassium	mg/L	<0.4	0.000	-0.102	0.400	✓
Silicon	mg/L	0.030	0.0000	-0.0435	0.0933	✓
Sodium	mg/L	<0.4	0.000	-0.194	0.400	✓
Sulphur	mg/L	<0.008	0.0000	-0.0333	0.0447	✓

Material Used: Edmonton Method Blank
Date Acquired: Aug 06, 2002
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Metals Total (Continued...)

Replicates	Units	Replicate1	Replicate2	% RSD Criteria	Absolute Criteria	Passed QC
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Metals Total (Continued...)

Replicates	Units	Replicate1	Replicate2	% RSD Criteria	Absolute Criteria	Passed QC
Calcium	mg/L	71.9	70.9	10.0	0.6	✓
Iron	mg/L	0.065	0.065	10.000	0.009	✓
Magnesium	mg/L	3.75	3.77	10.00	0.18	✓
Manganese	mg/L	3.20	3.16	10.0000	0.0006	✓
Potassium	mg/L	2.7	2.7	10.0	1.2	✓
Silicon	mg/L	10.8	10.7	10.000	0.012	✓
Sodium	mg/L	9.2	9.0	10.0	1.2	✓
Sulphur	mg/L	42.0	42.1	10.000	0.027	✓
Aluminum	ug/L	9	8	10.0	11.0	✓
Antimony	ug/L	<0.2	<0.2	10.0	0.4	✓
Arsenic	ug/L	10.4	10.4	10.0	0.4	✓
Barium	ug/L	3	3	10.0	2.2	✓
Beryllium	ug/L	<0.1	<0.1	10.0	0.2	✓
Bismuth	ug/L	<0.5	<0.5	10.0	1.1	✓
Boron	ug/L	47	44	10.0	4.4	✓
Cadmium	ug/L	0.19	0.18	10.00	0.02	✓
Chromium	ug/L	<0.5	<0.5	10.0	1.1	✓
Cobalt	ug/L	52.2	52.9	10.0	0.2	✓
Copper	ug/L	6	9	10.0	2.2	✓
Lead	ug/L	0.6	0.5	10.0	0.2	✓
Lithium	ug/L	24	24	10.0	2.2	✓
Molybdenum	ug/L	2	2	10.0	2.2	✓
Nickel	ug/L	89.3	90.4	10.0	1.1	✓
Selenium	ug/L	<0.2	<0.2	10.0	0.4	✓
Silver	ug/L	<0.1	<0.1	10.0	0.2	✓
Strontium	ug/L	41	40	10.0	2.2	✓
Thallium	ug/L	<0.05	<0.05	10.00	0.11	✓
Titanium	ug/L	3.9	3.9	10.0	1.1	✓
Uranium	ug/L	<0.5	<0.5	10.0	1.1	✓
Vanadium	ug/L	0.4	0.4	10.0	0.2	✓
Zinc	ug/L	4	4	10.0	2.2	✓
Zirconium	ug/L	<1	<1	10.0	2.2	✓



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Metals Total (Continued...)

Replicates	Units	Replicate1	Replicate2	% RSD Criteria	Absolute Criteria	Passed QC
Material Used:	Edmonton Duplicate					
Date Acquired:	Aug 06, 2002					
Acquired By:	Darren Crichton					



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Metals Total (Continued...)

Control Sample	Units	Measured	Target	Lower Limit	Upper Limit	Passed QC
Calcium	mg/L	0.9	1.000	0.900	1.100	✓
Iron	mg/L	0.493	0.500	0.478	0.552	✓
Magnesium	mg/L	5.02	5.00	4.48	5.19	✓
Manganese	mg/L	0.0500	0.0500	0.0412	0.0539	✓
Potassium	mg/L	4.3	5.00	4.30	5.06	✓
Silicon	mg/L	1.66	2.000	1.700	2.160	✓
Sodium	mg/L	4.8	5.00	4.08	5.25	✓
Sulphur	mg/L	1.44	2.000	1.730	2.110	✓

Material Used: Edmonton Digestion Check
Date Acquired: Aug 06, 2002
Acquired By: To Thong

Calcium	mg/L	10.4	10.00	9.00	11.00	✓
Iron	mg/L	5.02	5.000	4.500	5.500	✓
Magnesium	mg/L	50.6	50.00	45.00	55.00	✓
Manganese	mg/L	0.510	0.5000	0.4500	0.5500	✓
Potassium	mg/L	49.7	50.0	45.0	55.0	✓
Silicon	mg/L	22.2	20.000	16.000	24.000	✓
Sodium	mg/L	50.4	50.0	45.0	55.0	✓
Sulphur	mg/L	20.1	20.000	18.000	22.000	✓

Material Used: Metals High
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Metals Total (Continued...)

Control Sample	Units	Measured	Target	Lower Limit	Upper Limit	Passed QC
Calcium	mg/L	<0.2	0.1000	0.0800	0.1200	✓
Iron	mg/L	0.041	0.0500	0.0400	0.0600	✓
Magnesium	mg/L	0.55	0.500	0.400	0.600	✓
Manganese	mg/L	0.0051	0.00500	0.00400	0.00600	✓
Potassium	mg/L	0.5	0.500	0.400	0.600	✓
Silicon	mg/L	0.225	0.200	0.160	0.240	✓
Sodium	mg/L	0.5	0.500	0.400	0.600	✓
Sulphur	mg/L	0.200	0.200	0.160	0.240	✓
Aluminum	ug/L	216	200	180	220	✓
Antimony	ug/L	52.0	50.0	45.0	55.0	✓
Arsenic	ug/L	54.6	50.0	45.0	55.0	✓
Barium	ug/L	5	5.00	4.50	5.50	✓
Beryllium	ug/L	5.3	5.00	4.50	5.50	✓
Bismuth	ug/L	52.7	50.0	45.0	55.0	✓
Boron	ug/L	214	200	180	220	✓
Cadmium	ug/L	5.07	5.00	4.50	5.50	✓
Chromium	ug/L	10.5	10.00	9.00	11.00	✓
Cobalt	ug/L	9.8	10.00	9.00	11.00	✓
Copper	ug/L	11	10.00	9.00	11.00	✓
Lead	ug/L	20.1	20.0	18.0	22.0	✓
Lithium	ug/L	5	5.00	4.50	5.50	✓
Molybdenum	ug/L	11	10.00	9.00	11.00	✓
Nickel	ug/L	10.6	10.00	9.00	11.00	✓
Selenium	ug/L	53.3	50.0	45.0	55.0	✓
Silver	ug/L	10.1	10.00	9.00	11.00	✓
Strontium	ug/L	5	5.00	4.50	5.50	✓
Thallium	ug/L	51.8	50.00	45.00	55.00	✓
Titanium	ug/L	5.5	5.00	4.50	5.50	✓
Uranium	ug/L	546	500.0	450.0	550.0	✓
Vanadium	ug/L	9.6	10.00	9.00	11.00	✓
Zinc	ug/L	10	10.00	9.00	11.00	✓
Zirconium	ug/L	9	10.00	9.00	11.00	✓

Material Used: Metals Low
Date Acquired: Aug 06, 2002
Acquired By: Darren Crichton



**NORWEST
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Agri-Food & Environmental Group
Calgary Edmonton Winnipeg Lethbridge Surrey

Bill to: Echo Bay Mines Ltd.
Report to: Echo Bay Mines Ltd.

9818 International Airport
Edmonton, AB, Canada
T5J2T2

Attn: David Hohnstein
Sampled By: M. Sawyer
Company: Echo Bay Mines

Quality Control

Project
ID:
Name: Lupin Operation
Location:
LSD:
P.O.:
Acct. Code:

Norwest Labs
9938-67 Avenue
Edmonton, AB. T6E 0P5
Phone: (780) 438-5522
Fax: (780) 438-0396

NWL Lot ID: 185316
Control Number:
Date Received: Aug 06, 2002
Date Reported: Aug 12, 2002
Report Number: 288087

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Metals Total (Continued...)

Control Sample	Units	Measured	Target	Lower Limit	Upper Limit	Passed QC
Aluminum	ug/L	21	20.0	18.0	22.0	✓
Antimony	ug/L	5.0	5.00	4.50	5.50	✓
Arsenic	ug/L	5.3	5.00	4.50	5.50	✓
Barium	ug/L	<1	0.500	0.450	0.550	✓
Beryllium	ug/L	0.5	0.500	0.450	0.550	✓
Bismuth	ug/L	4.7	5.00	4.50	5.50	✓
Boron	ug/L	22	20.0	18.0	22.0	✓
Cadmium	ug/L	0.49	0.500	0.450	0.550	✓
Chromium	ug/L	1.1	1.000	0.900	1.100	✓
Cobalt	ug/L	0.9	1.000	0.900	1.100	✓
Copper	ug/L	1	1.000	0.900	1.100	✓
Lead	ug/L	1.9	2.00	1.80	2.20	✓
Lithium	ug/L	<1	0.500	0.450	0.550	✓
Molybdenum	ug/L	1	1.000	0.900	1.100	✓
Nickel	ug/L	1.1	1.000	0.900	1.100	✓
Selenium	ug/L	5.2	5.00	4.50	5.50	✓
Silver	ug/L	1.0	1.000	0.900	1.100	✓
Strontium	ug/L	<1	0.500	0.450	0.550	✓
Thallium	ug/L	4.63	5.00	4.50	5.50	✓
Titanium	ug/L	0.6	0.500	0.450	0.550	✓
Uranium	ug/L	53.5	50.0	45.0	55.0	✓
Vanadium	ug/L	0.9	1.000	0.900	1.100	✓
Zinc	ug/L	<1	1.000	0.900	1.100	✓
Zirconium	ug/L	<1	1.000	0.900	1.100	✓

Material Used: Metals Trace
Date Acquired: Aug 06, 2002
Acquired By: Darren Crichton



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Fax: (780) 438-0396

Bill to: Echo Bay Mines Ltd.
Report to: Echo Bay Mines Ltd.

9818 International Airport
Edmonton, AB, Canada
T5J2T2

Attn: David Hohnstein

Sampled By:
Company:

Project
ID: L48906
Name:
Location:
LSD:
P.O.:
Acct. Code:

NWL Lot ID: 185874
Control Number:
Date Received: Aug 08, 2002
Date Reported: Aug 21, 2002
Report Number: 292821

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Inorganic Nonmetallic Parameters

Blanks	Units	Measured	Target	Lower Limit	Upper Limit	Passed QC
Cyanide	mg/L	<0.001	0.00000	-0.00100	0.00100	✓

Material Used: Edmonton Method Blank
Date Acquired: Aug 21, 2002
Acquired By:

Replicates	Units	Replicate1	Replicate2	% RSD Criteria	Absolute Criteria	Passed QC
Ammonium - N	mg/L	0.22	0.21	10.00	0.10	✓

Material Used: Edmonton Duplicate
Date Acquired: Aug 13, 2002
Acquired By:

Control Sample	Units	Measured	Target	Lower Limit	Upper Limit	Passed QC
Ammonium - N	mg/L	2.80	3.00	2.70	3.30	✓
Cyanide	mg/L	0.079	0.0750	0.0680	0.0870	✓

Material Used: Water High
Date Acquired: Aug 21, 2002
Acquired By:

Ammonium - N	mg/L	0.85	0.800	0.720	0.880	✓
Cyanide	mg/L	0.017	0.0150	0.0135	0.0165	✓

Material Used: Water Low
Date Acquired: Aug 21, 2002
Acquired By:



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Report to: Echo Bay Mines Ltd.

9818 International Airport
Edmonton, AB, Canada
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Attn: David Hohnstein

Sampled By:

Company:

Project

ID: L48906

Name:

Location:

LSD:

P.O.:

Acct. Code:

NWL Lot ID: 185874

Control Number:

Date Received: Aug 08, 2002

Date Reported: Aug 21, 2002

Report Number: 292821

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Physical and Aggregate Properties

Replicates	Units	Replicate1	Replicate2	% RSD Criteria	Absolute Criteria	Passed QC
Solids	mg/L	6	9	10.0	5.0	✓
Material Used:	Edmonton Duplicate					
Date Acquired:	Aug 09, 2002					
Acquired By:	Iona McCloughan					



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Edmonton, AB, Canada
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Attn: David Hohnstein
Sampled By:
Company:

Project
ID: L48906
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Acct. Code:

NWL Lot ID: **185874**
Control Number:
Date Received: Aug 08, 2002
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Routine Water

Replicates	Units	Replicate1	Replicate2	% RSD Criteria	Absolute Criteria	Passed QC
pH		7.07		10.00	0.10	✓
Conductivity	dS/m	1.14		10.000	0.002	✓
Calcium	mg/L	428	437	10.0	0.6	✓
Magnesium	mg/L	766	785	10.0	0.2	✓
P-Alkalinity	mg/L	<5		10.0	5.0	✓
T-Alkalinity	mg/L	485		10.0	5.0	✓

Material Used: Edmonton Duplicate
Date Acquired: Aug 08, 2002
Acquired By:



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T5J2T2

Attn: David Hohnstein
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NWL Lot ID: **185874**
Control Number:
Date Received: Aug 08, 2002
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Routine Water (Continued...)

Control Sample	Units	Measured	Target	Lower Limit	Upper Limit	Passed QC
Calcium	mg/L	10.1	10.00	9.00	11.00	✓
Magnesium	mg/L	50.2	50.0	45.0	55.0	✓
Material Used:	Metals High					
Date Acquired:	Aug 09, 2002					
Acquired By:						
Calcium	mg/L	<0.2	0.1000	0.0800	0.1200	✓
Magnesium	mg/L	0.49	0.500	0.400	0.600	✓
Material Used:	Metals Low					
Date Acquired:	Aug 09, 2002					
Acquired By:	Jesse Dang					
pH		9.03	9.18	8.73	9.67	✓
Conductivity	dS/m	2.72	2.765	2.680	2.840	✓
P-Alkalinity	mg/L	531		490	557	✓
T-Alkalinity	mg/L	1010	1000	972	1035	✓
Material Used:	Water High					
Date Acquired:	Aug 08, 2002					
Acquired By:						
pH		6.85	6.86	6.82	6.91	✓
Conductivity	dS/m	0.077	0.0739	0.0740	0.0790	✓
P-Alkalinity	mg/L	60		46.8	71.0	✓
T-Alkalinity	mg/L	127	125	121	133	✓
Material Used:	Water Low					
Date Acquired:	Aug 08, 2002					
Acquired By:						



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Bill to: Echo Bay Mines Ltd.
Report to: Echo Bay Mines Ltd.

9818 International Airport
Edmonton, AB, Canada
T5J2T2

Attn: David Hohnstein

Sampled By:
Company:

Project
ID: L48906
Name:
Location:
LSD:
P.O.:
Acct. Code:

NWL Lot ID: 185874
Control Number:
Date Received: Aug 08, 2002
Date Reported: Aug 21, 2002
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Metals Total

Blanks	Units	Measured	Target	Lower Limit	Upper Limit	Passed QC
Calcium	mg/L	<0.2	0.0000	-0.0312	0.2000	✓
Iron	mg/L	<0.003	0.0000	-0.0149	0.0290	✓
Magnesium	mg/L	<0.05	0.0000	-0.0305	0.0500	✓
Manganese	mg/L	0.0012	0.000000	-0.000700	0.001200	✓
Potassium	mg/L	<0.4	0.000	-0.102	0.400	✓
Silicon	mg/L	0.061	0.0000	-0.0435	0.0933	✓
Sodium	mg/L	<0.4	0.000	-0.194	0.400	✓
Sulphur	mg/L	<0.008	0.0000	-0.0333	0.0447	✓

Material Used: Edmonton Method Blank
Date Acquired: Aug 08, 2002
Acquired By: Jesse Dang

Replicates	Units	Replicate1	Replicate2	% RSD Criteria	Absolute Criteria	Passed QC
Calcium	mg/L	72.6	73.1	10.0	0.6	✓
Iron	mg/L	0.107	0.101	10.0	0.0	✓
Magnesium	mg/L	7.70	7.56	10.0	0.2	✓
Manganese	mg/L	0.904	0.917	10.000	0.001	✓
Potassium	mg/L	6.0	5.9	10.0	1.2	✓
Silicon	mg/L	1.99	1.92	10.00	0.01	✓
Sodium	mg/L	78.4	79.2	10.0	1.2	✓
Sulphur	mg/L	102	103	10.00	0.03	✓
Arsenic	ug/L	11.5	11.6	10.0	0.4	✓
Copper	ug/L	6	6	10.0	2.2	✓
Zinc	ug/L	201	203	10.0	2.2	✓

Material Used: Edmonton Duplicate
Date Acquired: Aug 08, 2002
Acquired By: Darren Crichton



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Report to: Echo Bay Mines Ltd.

9818 International Airport
Edmonton, AB, Canada
T5J2T2

Attn: David Hohnstein

Sampled By:
Company:

Project
ID: L48906
Name:
Location:
LSD:
P.O.:
Acct. Code:

NWL Lot ID: **185874**
Control Number:
Date Received: Aug 08, 2002
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Metals Total (Continued...)

Control Sample	Units	Measured	Target	Lower Limit	Upper Limit	Passed QC
Calcium	mg/L	0.9	1.000	0.900	1.100	✓
Iron	mg/L	0.501	0.500	0.478	0.552	✓
Magnesium	mg/L	4.75	5.00	4.48	5.19	✓
Manganese	mg/L	0.0491	0.0500	0.0412	0.0539	✓
Potassium	mg/L	4.2	5.00	4.30	5.06	✓
Silicon	mg/L	1.80	2.00	1.70	2.16	✓
Sodium	mg/L	4.9	5.00	4.08	5.25	✓
Sulphur	mg/L	1.84	2.00	1.73	2.11	✓

Material Used: Edmonton Digestion Check

Date Acquired: Aug 08, 2002

Acquired By: Jesse Dang

Calcium	mq/L	9.3	10.00	9.00	11.00	✓
Iron	mq/L	4.97	5.00	4.50	5.50	✓
Magnesium	mq/L	49.3	50.0	45.0	55.0	✓
Manganese	mq/L	0.495	0.500	0.450	0.550	✓
Potassium	mq/L	46.0	50.0	45.0	55.0	✓
Silicon	mq/L	22.1	20.00	16.00	24.00	✓
Sodium	mq/L	48.0	50.0	45.0	55.0	✓
Sulphur	mq/L	19.7	20.00	18.00	22.00	✓

Material Used: Metals High

Date Acquired: Aug 08, 2002

Acquired By: Jesse Dang



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Report to: Echo Bay Mines Ltd.

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Edmonton, AB, Canada
T5J2T2

Attn: David Hohnstein

Sampled By:
Company:

Project
ID: L48906
Name:
Location:
LSD:
P.O.:
Acct. Code:

NWL Lot ID: 185874
Control Number:
Date Received: Aug 08, 2002
Date Reported: Aug 21, 2002
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Metals Total (Continued...)

Control Sample	Units	Measured	Target	Lower Limit	Upper Limit	Passed QC
Calcium	mg/L	<0.2	0.1000	0.0800	0.1200	✓
Iron	mg/L	0.049	0.0500	0.0400	0.0600	✓
Magnesium	mg/L	0.49	0.500	0.400	0.600	✓
Manganese	mg/L	0.0056	0.00500	0.00400	0.00600	✓
Potassium	mg/L	0.5	0.500	0.400	0.600	✓
Silicon	mg/L	0.238	0.200	0.160	0.240	✓
Sodium	mg/L	0.5	0.500	0.400	0.600	✓
Sulphur	mg/L	0.170	0.200	0.160	0.240	✓
Aluminum	ug/L	194	200	180	220	✓
Antimony	ug/L	52.3	50.0	45.0	55.0	✓
Arsenic	ug/L	53.5	50.0	45.0	55.0	✓
Barium	ug/L	5	5.00	4.50	5.50	✓
Beryllium	ug/L	5.4	5.00	4.50	5.50	✓
Bismuth	ug/L	52.5	50.0	45.0	55.0	✓
Boron	ug/L	219	200	180	220	✓
Cadmium	ug/L	5.03	5.00	4.50	5.50	✓
Chromium	ug/L	10.3	10.00	9.00	11.00	✓
Cobalt	ug/L	10.5	10.00	9.00	11.00	✓
Copper	ug/L	11	10.00	9.00	11.00	✓
Lead	ug/L	20.9	20.0	18.0	22.0	✓
Lithium	ug/L	6	5.00	4.50	5.50	✓
Molybdenum	ug/L	10	10.00	9.00	11.00	✓
Nickel	ug/L	10.5	10.00	9.00	11.00	✓
Selenium	ug/L	52.7	50.0	45.0	55.0	✓
Silver	ug/L	10.2	10.00	9.00	11.00	✓
Strontium	ug/L	5	5.00	4.50	5.50	✓
Thallium	ug/L	52.6	50.00	45.00	55.00	✓
Titanium	ug/L	5.3	5.00	4.50	5.50	✓
Uranium	ug/L	529	500.0	450.0	550.0	✓
Vanadium	ug/L	10.3	10.00	9.00	11.00	✓
Zinc	ug/L	11	10.00	9.00	11.00	✓
Zirconium	ug/L	11	10.00	9.00	11.00	✓

Material Used: Metals Low
Date Acquired: Aug 08, 2002
Acquired By: Darren Crichton



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Report to: Echo Bay Mines Ltd.

9818 International Airport
Edmonton, AB, Canada
T5J2T2

Attn: David Hohnstein

Sampled By:
Company:

Project

ID: L48906

Name:

Location:

LSD:

P.O.:

Acct. Code:

NWL Lot ID: 185874

Control Number:

Date Received: Aug 08, 2002

Date Reported: Aug 21, 2002

Report Number: 292821

Page: 16 of 17

Metals Total (Continued...)

Control Sample	Units	Measured	Target	Lower Limit	Upper Limit	Passed QC
Aluminum	ug/L	20	20.0	18.0	22.0	✓
Antimony	ug/L	5.0	5.00	4.50	5.50	✓
Arsenic	ug/L	5.4	5.00	4.50	5.50	✓
Barium	ug/L	<1	0.500	0.450	0.550	✓
Beryllium	ug/L	0.5	0.500	0.450	0.550	✓
Bismuth	ug/L	5.2	5.00	4.50	5.50	✓
Boron	ug/L	22	20.0	18.0	22.0	✓
Cadmium	ug/L	0.48	0.500	0.450	0.550	✓
Chromium	ug/L	1.0	1.000	0.900	1.100	✓
Cobalt	ug/L	1.1	1.000	0.900	1.100	✓
Copper	ug/L	1	1.000	0.900	1.100	✓
Lead	ug/L	2.1	2.00	1.80	2.20	✓
Lithium	ug/L	<1	0.500	0.450	0.550	✓
Molybdenum	ug/L	1	1.000	0.900	1.100	✓
Nickel	ug/L	1.0	1.000	0.900	1.100	✓
Selenium	ug/L	5.3	5.00	4.50	5.50	✓
Silver	ug/L	1.0	1.000	0.900	1.100	✓
Strontium	ug/L	<1	0.500	0.450	0.550	✓
Thallium	ug/L	5.13	5.00	4.50	5.50	✓
Titanium	ug/L	0.5	0.500	0.450	0.550	✓
Uranium	ug/L	52.8	50.0	45.0	55.0	✓
Vanadium	ug/L	1.0	1.000	0.900	1.100	✓
Zinc	ug/L	<1	1.000	0.900	1.100	✓
Zirconium	ug/L	1	1.000	0.900	1.100	✓

Material Used: Metals Trace
Date Acquired: Aug 08, 2002
Acquired By: Darren Crichton