

APRIL/JUNE

Q.C.



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: D. Hohnstein
Company: Echo Bay Mines Ltd.

Project
ID: Requisition No. L48906
Name: Lupin Operation
Location:
LSD:
P.O.:
Acct. Code:

NWL Lot ID: 167256
Control Number:
Date Received: Apr 16, 2002
Date Reported: Apr 22, 2002
Report Number: 253536

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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:	Apr 22, 2002					
Acquired By:						

Replicates	Units	Replicate1	Replicate2	% RSD Criteria	Absolute Criteria	Passed QC
Ammonium - N	mg/L	0.07	0.08	10.00	0.10	✓
Cyanide	mg/L	0.018	0.016	10.000	0.002	✓
Material Used:	Edmonton Duplicate					
Date Acquired:	Apr 22, 2002					
Acquired By:						

Control Sample	Units	Measured	Target	Lower Limit	Upper Limit	Passed QC
Ammonium - N	mg/L	3.20	3.00	2.70	3.30	✓
Cyanide	mg/L	0.079	0.0750	0.0680	0.0870	✓
Material Used:	Water High					
Date Acquired:	Apr 22, 2002					
Acquired By:	Jodi Johnston					

Ammonium - N	mg/L	0.77	0.800	0.720	0.880	✓
Cyanide	mg/L	0.015	0.0150	0.0135	0.0165	✓
Material Used:	Water Low					
Date Acquired:	Apr 22, 2002					
Acquired By:	Jodi Johnston					



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Physical and Aggregate Properties

Replicates	Units	Replicate1	Replicate2	% RSD Criteria	Absolute Criteria	Passed QC
Solids	mg/L	2080	2140	10.0	5.0	✓
Material Used:	Edmonton Duplicate					
Date Acquired:	Apr 17, 2002					
Acquired By:	Tina Knott					



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Project
ID: Requisition No. L48906
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NWL Lot ID: 167256
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Routine Water

Replicates	Units	Replicate1	Replicate2	% RSD Criteria	Absolute Criteria	Passed QC
pH		5.37	5.25	10.00	0.10	✓
Conductivity	dS/m	1.20	1.22	10.000	0.002	✓
P-Alkalinity	mg/L	<5	<5	10.0	5.0	✓
T-Alkalinity	mg/L	<5	<5	10.0	5.0	✓
Material Used:	Edmonton Duplicate					
Date Acquired:	Apr 16, 2002					
Acquired By:	Tina Knott					

Control Sample	Units	Measured	Target	Lower Limit	Upper Limit	Passed QC
pH		9.09	9.18	8.73	9.67	✓
Conductivity	dS/m	2.77	2.765	2.680	2.840	✓
P-Alkalinity	mg/L	527		490	557	✓
T-Alkalinity	mg/L	986	1000	972	1035	✓
Material Used:	Water High					
Date Acquired:	Apr 16, 2002					
Acquired By:	Tina Knott					
pH		6.82	6.86	6.82	6.91	✓
Conductivity	dS/m	0.077	0.0739	0.0740	0.0790	✓
P-Alkalinity	mg/L	53		46.8	71.0	✓
T-Alkalinity	mg/L	126	125	121	133	✓
Material Used:	Water Low					
Date Acquired:	Apr 16, 2002					
Acquired By:	Tina Knott					



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Project
ID: Requisition No. L48906
Name: Lupin Operation
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NWL Lot ID: 167256
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Date Received: Apr 16, 2002
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Metals Total

Blanks	Units	Measured	Target	Lower Limit	Upper Limit	Passed QC
Aluminum	mg/L	0.021	0.00000	-0.00650	0.03290	✓
Antimony	mg/L	<0.005	0.00000	-0.00980	0.00910	✓
Arsenic	mg/L	<0.0002	0.000000	-0.000200	0.000200	✓
Barium	mg/L	<0.0002	0.000000	-0.000300	0.000600	✓
Beryllium	mg/L	<0.0005	0.000000	-0.000600	0.000600	✓
Bismuth	mg/L	<0.007	0.0000	-0.0176	0.0174	✓
Boron	mg/L	0.009	0.0000	-0.0272	0.0534	✓
Cadmium	mg/L	<0.0005	0.000000	-0.000300	0.000600	✓
Calcium	mg/L	<0.2	0.0000	-0.0312	0.2000	✓
Chromium	mg/L	<0.0008	0.00000	-0.00130	0.00180	✓
Cobalt	mg/L	<0.0007	0.00000	-0.00110	0.00110	✓
Copper	mg/L	0.002	0.00000	-0.00280	0.00390	✓
Iron	mg/L	0.009	0.0000	-0.0149	0.0290	✓
Lead	mg/L	<0.002	0.00000	-0.00590	0.00780	✓
Lithium	mg/L	<0.001	0.00000	-0.00210	0.00240	✓
Magnesium	mg/L	<0.05	0.0000	-0.0305	0.0500	✓
Manganese	mg/L	0.0011	0.000000	-0.000700	0.001200	✓
Molybdenum	mg/L	<0.001	0.00000	-0.00250	0.00280	✓
Nickel	mg/L	<0.001	0.00000	-0.00400	0.00370	✓
Phosphorus	mg/L	<0.03	0.0000	-0.0227	0.0300	✓
Potassium	mg/L	<0.4	0.000	-0.102	0.400	✓
Selenium	mg/L	<0.0002	0.000000	-0.000200	0.000200	✓
Silicon	mg/L	<0.004	0.0000	-0.0435	0.0933	✓
Silver	mg/L	<0.001	0.00000	-0.00200	0.00200	✓
Sodium	mg/L	<0.4	0.000	-0.194	0.400	✓
Strontium	mg/L	0.0002	0.000000	-0.000100	0.000300	✓
Sulphur	mg/L	0.039	0.0000	-0.0333	0.0447	✓
Thallium	mg/L	<0.004	0.0000	-0.0157	0.0175	✓
Tin	mg/L	<0.003	0.00000	-0.00730	0.00970	✓
Titanium	mg/L	<0.0004	0.00000	-0.00580	0.00570	✓
Vanadium	mg/L	<0.001	0.00000	-0.00450	0.00310	✓
Zinc	mg/L	0.0036	0.00000	-0.00530	0.01220	✓
Mercury	mg/L	<0.0002	0.000000	-0.000111	0.000111	✓

Material Used: Edmonton Method Blank
Date Acquired: Apr 16, 2002
Acquired By: Stef Pavlyshyn



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ID: Requisition No. L48906
Name: Lupin Operation
Location:
LSD:
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NWL Lot ID: 167256
Control Number:
Date Received: Apr 16, 2002
Date Reported: Apr 22, 2002
Report Number: 253536

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Metals Total (Continued...)

Replicates	Units	Replicate1	Replicate2	% RSD Criteria	Absolute Criteria	Passed QC
Calcium	mg/L	272	269	10.0	0.6	✓
Magnesium	mg/L	1010	1000	10.00	0.18	✓
Potassium	mg/L	326	323	10.0	1.2	✓
Sodium	mg/L	8520	8350	10.0	1.2	✓
Mercury	mg/L	<0.0002	<0.0002	10.0000	0.0003	✓

Material Used: Edmonton Duplicate

Date Acquired: Apr 16, 2002

Acquired By: Stef Pavlyshyn



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NWL Lot ID: 167256
Control Number:
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Metals Total (Continued...)

Control Sample	Units	Measured	Target	Lower Limit	Upper Limit	Passed QC
Aluminum	mg/L	0.197	0.200	0.160	0.240	✓
Antimony	mg/L	0.049	0.0500	0.0400	0.0600	✓
Arsenic	mg/L	0.0019	0.00200	0.00160	0.00240	✓
Barium	mg/L	0.0049	0.00500	0.00400	0.00600	✓
Beryllium	mg/L	0.0048	0.00500	0.00400	0.00600	✓
Bismuth	mg/L	0.057	0.0500	0.0400	0.0600	✓
Boron	mg/L	0.197	0.200	0.160	0.240	✓
Cadmium	mg/L	0.0053	0.00500	0.00400	0.00600	✓
Calcium	mg/L	<0.2	0.1000	0.0800	0.1200	✓
Chromium	mg/L	0.0092	0.01000	0.00800	0.01200	✓
Cobalt	mg/L	0.0105	0.01000	0.00800	0.01200	✓
Copper	mg/L	0.010	0.01000	0.00800	0.01200	✓
Iron	mg/L	0.051	0.0500	0.0400	0.0600	✓
Lead	mg/L	0.020	0.0200	0.0160	0.0240	✓
Lithium	mg/L	0.004	0.00500	0.00400	0.00600	✓
Magnesium	mg/L	0.49	0.500	0.400	0.600	✓
Manganese	mg/L	0.0040	0.00500	0.00400	0.00600	✓
Molybdenum	mg/L	0.010	0.01000	0.00800	0.01200	✓
Nickel	mg/L	0.011	0.01000	0.00800	0.01200	✓
Phosphorus	mg/L	0.52	0.500	0.400	0.600	✓
Potassium	mg/L	0.5	0.500	0.400	0.600	✓
Selenium	mg/L	0.0020	0.00200	0.00160	0.00240	✓
Silicon	mg/L	0.199	0.200	0.160	0.240	✓
Silver	mg/L	0.010	0.01000	0.00800	0.01200	✓
Sodium	mg/L	0.4	0.500	0.400	0.600	✓
Strontium	mg/L	0.0048	0.00500	0.00400	0.00600	✓
Sulphur	mg/L	0.211	0.200	0.160	0.240	✓
Thallium	mg/L	0.049	0.0500	0.0400	0.0600	✓
Tin	mg/L	0.048	0.0500	0.0400	0.0600	✓
Titanium	mg/L	0.0056	0.00500	0.00400	0.00600	✓
Vanadium	mg/L	0.010	0.01000	0.00800	0.01200	✓
Zinc	mg/L	0.0105	0.01000	0.00800	0.01200	✓
Mercury	mg/L	0.0007	0.000800	0.000720	0.000880	✓

Material Used: 1303 - Metals Low
Date Acquired: Apr 16, 2002
Acquired By: Stef Pavlyshyn



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Attn: David Hohnstein
Sampled By: D. Hohnstein
Company: Echo Bay Mines Ltd.

Project
ID: Requisition No. L48906
Name: Lupin Operation
Location:
LSD:
P.O.:
Acct. Code:

NWL Lot ID: 167256
Control Number:
Date Received: Apr 16, 2002
Date Reported: Apr 22, 2002
Report Number: 253536

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Metals Total (Continued...)

Control Sample	Units	Measured	Target	Lower Limit	Upper Limit	Passed QC
Aluminum	mg/L	19.3	20.000	18.000	22.000	✓
Antimony	mg/L	4.72	5.000	4.500	5.500	✓
Arsenic	mg/L	0.0205	0.0200	0.0180	0.0220	✓
Barium	mg/L	0.533	0.5000	0.4500	0.5500	✓
Beryllium	mg/L	0.494	0.5000	0.4500	0.5500	✓
Bismuth	mg/L	5.01	5.000	4.500	5.500	✓
Boron	mg/L	20.1	20.000	18.000	22.000	✓
Cadmium	mg/L	0.506	0.5000	0.4500	0.5500	✓
Calcium	mg/L	9.2	10.00	9.00	11.00	✓
Chromium	mg/L	0.962	1.0000	0.9000	1.1000	✓
Cobalt	mg/L	1.01	1.0000	0.9000	1.1000	✓
Copper	mg/L	1.01	1.000	0.900	1.100	✓
Iron	mg/L	5.11	5.000	4.500	5.500	✓
Lead	mg/L	2.10	2.000	1.800	2.200	✓
Lithium	mg/L	0.521	0.500	0.450	0.550	✓
Magnesium	mg/L	46.5	50.00	45.00	55.00	✓
Manganese	mg/L	0.498	0.5000	0.4500	0.5500	✓
Molybdenum	mg/L	0.956	1.000	0.900	1.100	✓
Nickel	mg/L	1.04	1.000	0.900	1.100	✓
Phosphorus	mg/L	53.0	50.00	45.00	55.00	✓
Potassium	mg/L	46.5	50.0	45.0	55.0	✓
Selenium	mg/L	0.0182	0.0200	0.0180	0.0220	✓
Silicon	mg/L	21.8	20.000	16.000	24.000	✓
Silver	mg/L	0.942	1.000	0.900	1.100	✓
Sodium	mg/L	48.8	50.0	45.0	55.0	✓
Strontium	mg/L	0.484	0.5000	0.4000	0.6000	✓
Sulphur	mg/L	20.4	20.000	18.000	22.000	✓
Thallium	mg/L	4.65	5.000	4.500	5.500	✓
Tin	mg/L	4.69	5.000	4.500	5.500	✓
Titanium	mg/L	0.484	0.5000	0.4500	0.5500	✓
Vanadium	mg/L	0.928	1.000	0.900	1.100	✓
Zinc	mg/L	1.00	1.0000	0.9000	1.1000	✓
Mercury	mg/L	0.0028	0.00300	0.00270	0.00330	✓

Material Used: 1304 - Metals High

Date Acquired: Apr 16, 2002

Acquired By: Stef Pavlyshyn



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Sampled By: D. Hohnstein
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ID: Requisition No. L48906
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NWL Lot ID: 167256
Control Number:
Date Received: Apr 16, 2002
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Report Number: 253536

Page: 12 of 13

Metals Total (Continued...)

Control Sample	Units	Measured	Target	Lower Limit	Upper Limit	Passed QC
Aluminum	mg/L	1.94	2.000	1.800	2.200	✓
Antimony	mg/L	0.451	0.500	0.450	0.550	✓
Arsenic	mg/L	0.48	0.500	0.450	0.550	✓
Barium	mg/L	0.0550	0.0500	0.0450	0.0550	✓
Beryllium	mg/L	0.0472	0.0500	0.0450	0.0550	✓
Bismuth	mg/L	0.492	0.500	0.450	0.550	✓
Boron	mg/L	1.80	2.000	1.800	2.200	✓
Cadmium	mg/L	0.0496	0.0500	0.0450	0.0550	✓
Calcium	mg/L	1.0	1.000	0.900	1.100	✓
Chromium	mg/L	0.0989	0.1000	0.0900	0.1100	✓
Cobalt	mg/L	0.0991	0.1000	0.0900	0.1100	✓
Copper	mg/L	0.108	0.1000	0.0900	0.1100	✓
Iron	mg/L	0.541	0.500	0.450	0.550	✓
Lead	mg/L	0.206	0.200	0.180	0.220	✓
Lithium	mg/L	0.048	0.0500	0.0450	0.0550	✓
Magnesium	mg/L	4.81	5.00	4.50	5.50	✓
Manganese	mg/L	0.0450	0.0500	0.0450	0.0550	✓
Molybdenum	mg/L	0.096	0.1000	0.0900	0.1100	✓
Nickel	mg/L	0.104	0.1000	0.0900	0.1100	✓
Phosphorus	mg/L	4.99	5.00	4.50	5.50	✓
Potassium	mg/L	4.6	5.00	4.50	5.50	✓
Silicon	mg/L	1.93	2.000	1.800	2.200	✓
Titanium	mg/L	0.0508	0.0500	0.0450	0.0550	✓
Vanadium	mg/L	0.099	0.1000	0.0900	0.1100	✓
Zinc	mg/L	0.0957	0.1000	0.0900	0.1100	✓
Mercury	mg/L	0.0009	0.000800	0.000720	0.000880	✓

Material Used: Edmonton Digestion Check
Date Acquired: Apr 16, 2002
Acquired By: Stef Pavlyshyn



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Attn: David Hohnstein
Sampled By:
Company:

Project
ID:
Name: Monitoring Requirements 2002
Location:
LSD:
P.O.:
Acct. Code:

NWL Lot ID: 175242
Control Number: LP 50525
Date Received: Jun 07, 2002
Date Reported: Jun 17, 2002
Report Number: 270337

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Inorganic Nonmetallic Parameters

Blanks	Units	Measured	Target	Lower Limit	Upper Limit	Passed QC
Kjeldahl Nitrogen	mg/L		0.000000	-0.000980	0.050000	✓
Phosphorus	mg/L		0.000000	-0.00260	0.050000	✓
Phosphate	mg/L	<0.05	0.00000	-0.0500	0.0500	✓
Material Used:	Edmonton Method Blank					
Date Acquired:	Jun 11, 2002					
Acquired By:	Hanmei Li					

Replicates	Units	Replicate1	Replicate2	% RSD Criteria	Absolute Criteria	Passed QC
Kjeldahl Nitrogen	mg/L	68.7		10.00	0.30	✓
Ammonium - N	mg/L	0.14	0.14	10.00	0.10	✓
Phosphate	mg/L	0.24	0.25	10.00	0.05	✓
Material Used:	Edmonton Duplicate					
Date Acquired:	Jun 11, 2002					
Acquired By:	Hanmei Li					

Control Sample	Units	Measured	Target	Lower Limit	Upper Limit	Passed QC
Kjeldahl Nitrogen	mg/L		30.00	27.70	32.50	✓
Ammonium - N	mg/L	3.27	3.00	2.70	3.30	✓
Phosphorus	mg/L		4.00	3.52	4.24	✓
Material Used:	Water High					
Date Acquired:	Jun 11, 2002					
Acquired By:						

Kjeldahl Nitrogen	mg/L		5.00	4.40	5.40	✓
Ammonium - N	mg/L	0.81	0.800	0.720	0.880	✓
Phosphorus	mg/L		0.400	0.360	0.440	✓
Phosphate	mg/L	0.40	0.400	0.390	0.450	✓
Material Used:	Water Low					
Date Acquired:	Jun 11, 2002					
Acquired By:	Hanmei Li					



**NORWEST
LABS**

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Attn: David Hohnstein
Sampled By:
Company:

Project
ID:
Name: Monitoring Requirements 2002
Location:
LSD:
P.O.:
Acct. Code:

NWL Lot ID: 175242
Control Number: LP 50525
Date Received: Jun 07, 2002
Date Reported: Jun 17, 2002
Report Number: 270337

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Aggregate Organic Constituents

Control Sample	Units	Measured	Target	Lower Limit	Upper Limit	Passed QC
Biochemical Oxygen Demand	mg/L	188	200	166	211	✓
Material Used:	Water High					
Date Acquired:	Jun 07, 2002					
Acquired By:						

Physical and Aggregate Properties

Replicates	Units	Replicate1	Replicate2	% RSD Criteria	Absolute Criteria	Passed QC
Solids	mg/L	12	12	10.0	5.0	✓
Material Used:	Edmonton Duplicate					
Date Acquired:	Jun 07, 2002					
Acquired By:	Tina Knott					



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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:
Company:

Project

ID:

Name: Monitoring Requirements 2002

Location:

LSD:

P.O.:

Acct. Code:

NWL Lot ID: 175242

Control Number: LP 50525

Date Received: Jun 07, 2002

Date Reported: Jun 17, 2002

Report Number: 270337

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Routine Water

Blanks	Units	Measured	Target	Lower Limit	Upper Limit	Passed QC
Nitrate - N	mg/L	<0.004	0.0000	-0.0100	0.0100	✓
Nitrite - N	mg/L	<0.002	0.0000	-0.0100	0.0100	✓
Material Used:	Edmonton Method Blank					
Date Acquired:	Jun 07, 2002					
Acquired By:	Matt Cummings					

Replicates	Units	Replicate1	Replicate2	% RSD Criteria	Absolute Criteria	Passed QC
pH		7.42	7.36	10.00	0.10	✓
Nitrate - N	mg/L	<0.004	<0.004	10.000	0.010	✓
Nitrite - N	mg/L	<0.002	<0.002	10.000	0.010	✓
Material Used:	Edmonton Duplicate					
Date Acquired:	Jun 07, 2002					
Acquired By:	Matt Cummings					



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NWL Lot ID: 175242
Control Number: LP 50525
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Routine Water (Continued...)

Control Sample	Units	Measured	Target	Lower Limit	Upper Limit	Passed QC
Calcium	mg/L	9.8	10.00	9.00	11.00	✓
Magnesium	mg/L	48.9	50.00	45.00	55.00	✓
Material Used:	Metals High					
Date Acquired:	Jun 07, 2002					
Acquired By:	To Thong					
Calcium	mg/L	<0.2	0.1000	0.0800	0.1200	✓
Magnesium	mg/L	0.51	0.500	0.400	0.600	✓
Material Used:	Metals Low					
Date Acquired:	Jun 07, 2002					
Acquired By:	To Thong					
pH		9.20	9.18	8.73	9.67	✓
Conductivity	dS/m	2.79	2.765	2.680	2.840	✓
Nitrate - N	mg/L	10.1	10.000	9.700	10.700	✓
Nitrite - N	mg/L	9.98	10.000	9.400	10.600	✓
P-Alkalinity	mg/L	549		490	557	✓
T-Alkalinity	mg/L	1010	1000	972	1035	✓
Material Used:	Water High					
Date Acquired:	Jun 08, 2002					
Acquired By:	Tina Knott					
pH		6.87	6.86	6.82	6.91	✓
Conductivity	dS/m	0.077	0.0739	0.0740	0.0790	✓
Nitrate - N	mg/L	0.501	0.500	0.439	0.555	✓
Nitrite - N	mg/L	0.474	0.500	0.439	0.522	✓
P-Alkalinity	mg/L	60		46.8	71.0	✓
T-Alkalinity	mg/L	125	125	121	133	✓
Material Used:	Water Low					
Date Acquired:	Jun 08, 2002					
Acquired By:	Tina Knott					



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Name: Monitoring Requirements 2002
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Acct. Code:

NWL Lot ID: 175242
Control Number: LP 50525
Date Received: Jun 07, 2002
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Metals Total

Blanks	Units	Measured	Target	Lower Limit	Upper Limit	Passed QC
Arsenic	mg/L	<0.0002	0.000000	-0.000200	0.000200	✓
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	0.0002	0.000000	-0.000700	0.001200	✓
Potassium	mg/L	<0.4	0.000	-0.102	0.400	✓
Silicon	mg/L	<0.004	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: Jun 07, 2002

Acquired By:

Replicates	Units	Replicate1	Replicate2	% RSD Criteria	Absolute Criteria	Passed QC
Calcium	mg/L	43.8	44.6	10.0	0.6	✓
Iron	mg/L	<0.003	<0.003	10.000	0.009	✓
Magnesium	mg/L	14.0	14.5	10.00	0.18	✓
Manganese	mg/L	0.0062	0.0067	10.0000	0.0006	✓
Potassium	mg/L	2.6	2.7	10.0	1.2	✓
Silicon	mg/L	0.079	0.083	10.000	0.012	✓
Sodium	mg/L	17.6	18.0	10.0	1.2	✓
Sulphur	mg/L	26.4	27.1	10.000	0.027	✓

Material Used: Edmonton Duplicate

Date Acquired: Jun 07, 2002

Acquired By: Jesse Dang



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NWL Lot ID: 175242
Control Number: LP 50525
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Metals Total (Continued...)

Control Sample	Units	Measured	Target	Lower Limit	Upper Limit	Passed QC
Calcium	mg/L	1.1	1.000	0.900	1.100	✓
Iron	mg/L	0.548	0.500	0.450	0.550	✓
Magnesium	mg/L	5.00	5.00	4.50	5.50	✓
Manganese	mg/L	0.0547	0.0500	0.0450	0.0550	✓
Potassium	mg/L	4.7	5.00	4.50	5.50	✓
Silicon	mg/L	2.09	2.000	1.800	2.200	✓
Sodium	mg/L	4.8	5.00	4.50	5.50	✓
Sulphur	mg/L	1.88	2.000	1.800	2.200	✓

Material Used: Edmonton Digestion Check
Date Acquired: Jun 07, 2002
Acquired By:

Arsenic	mq/L	0.0212	0.0200	0.0180	0.0220	✓
Calcium	mq/L	9.4	10.00	9.00	11.00	✓
Iron	mq/L	4.92	5.000	4.500	5.500	✓
Magnesium	mq/L	46.7	50.00	45.00	55.00	✓
Manganese	mq/L	0.482	0.5000	0.4500	0.5500	✓
Potassium	mq/L	47.1	50.0	45.0	55.0	✓
Silicon	mq/L	22.0	20.000	16.000	24.000	✓
Sodium	mq/L	47.4	50.0	45.0	55.0	✓
Sulphur	mq/L	19.1	20.000	18.000	22.000	✓

Material Used: Metals High
Date Acquired: Jun 07, 2002
Acquired By:



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Attn: David Hohnstein

Sampled By:
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NWL Lot ID: 175242
Control Number: LP 50525
Date Received: Jun 07, 2002
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Metals Total (Continued...)

Control Sample	Units	Measured	Target	Lower Limit	Upper Limit	Passed QC
Arsenic	mg/L	0.0020	0.00200	0.00160	0.00240	✓
Calcium	mg/L	<0.2	0.1000	0.0800	0.1200	✓
Iron	mg/L	0.058	0.0500	0.0400	0.0600	✓
Magnesium	mg/L	0.55	0.500	0.400	0.600	✓
Manganese	mg/L	0.0052	0.00500	0.00400	0.00600	✓
Potassium	mg/L	0.5	0.500	0.400	0.600	✓
Silicon	mg/L	0.203	0.200	0.160	0.240	✓
Sodium	mg/L	0.5	0.500	0.400	0.600	✓
Sulphur	mg/L	0.177	0.200	0.160	0.240	✓
Aluminum	ug/L	206	200	180	220	✓
Antimony	ug/L	50.8	50.0	45.0	55.0	✓
Arsenic	ug/L	54.9	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	52.7	50.0	45.0	55.0	✓
Boron	ug/L	211	200	180	220	✓
Cadmium	ug/L	5.0	5.00	4.50	5.50	✓
Chromium	ug/L	9.9	10.00	9.00	11.00	✓
Cobalt	ug/L	9.9	10.00	9.00	11.00	✓
Copper	ug/L	10	10.00	9.00	11.00	✓
Lead	ug/L	19.9	20.0	18.0	22.0	✓
Lithium	ug/L	5	5.00	4.50	5.50	✓
Molybdenum	ug/L	10	10.00	9.00	11.00	✓
Nickel	ug/L	10.2	10.00	9.00	11.00	✓
Selenium	ug/L	51.5	50.0	45.0	55.0	✓
Silver	ug/L	9.8	10.00	9.00	11.00	✓
Strontium	ug/L	5	5.00	4.50	5.50	✓
Thallium	ug/L	52.3	50.00	45.00	55.00	✓
Titanium	ug/L	5.2	5.00	4.50	5.50	✓
Uranium	ug/L	>250	500.0	450.0	550.0	✓
Vanadium	ug/L	9.9	10.00	9.00	11.00	✓
Zinc	ug/L	10	10.00	9.00	11.00	✓
Zirconium	ug/L	10	10.00	9.00	11.00	✓

Material Used: Metals Low
Date Acquired: Jun 07, 2002
Acquired By: Stef Pavlyshyn



**NORWEST
LABS**

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9818 International Airport
Edmonton, AB, Canada
T5J2T2

Attn: David Hohnstein
Sampled By:
Company:

Quality Control

Project
ID:
Name: Monitoring Requirements 2002
Location:
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Metals Total (Continued...)

Control Sample	Units	Measured	Target	Lower Limit	Upper Limit	Passed QC
Aluminum	ug/L	17	20.0	18.0	22.0	✓
Antimony	ug/L	4.9	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	5.1	5.00	4.50	5.50	✓
Boron	ug/L	21	20.0	18.0	22.0	✓
Cadmium	ug/L	0.5	0.500	0.450	0.550	✓
Chromium	ug/L	1.1	1.000	0.900	1.100	✓
Cobalt	ug/L	1.0	1.000	0.900	1.100	✓
Copper	ug/L	1	1.000	0.900	1.100	✓
Lead	ug/L	2.0	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	5.2	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	5.06	5.00	4.50	5.50	✓
Titanium	ug/L	0.5	0.500	0.450	0.550	✓
Uranium	ug/L	50.7	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: Jun 07, 2002
Acquired By: Stef Pavlyshyn