

ECHO BAY MINES LTD.

9818 International Airport
Edmonton, Alberta
T5J 2T2

September 26, 2002

Our File: NWB1LUP0008-Monthly02
Your File: Water Register
NWB1LUP0008

Executive Director
Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU
X0B 1J0

Dear Sir:

**RE: Echo Bay Mines Ltd., Lupin Gold Mine, Contwoyto Lake, NU.; Water Licence
NWB1LUP0008; Surveillance Network Program Monthly Report**

As required by Part A, Item 6 of the Surveillance Network Program (Schedule 1) of the Water Licence, please accept this report as our **Preliminary** monthly report for **August, 2002**.

All monitoring analyses have been completed by Norwest Labs. Ltd. in Edmonton and is summarized in the tables included, with the exception of the monthly metals scan for station 925-10 and the QC reports completed by Norwest. These items will be forwarded with a final cover letter when they become available in a hard copy format. Most of this information is available if required but not all as some lab checks and repeat analyses on several samples have delayed receiving the reports.

Monthly Water Use and Mill Production

The monthly water use and mill production data are included in the attached report for your review. In addition, the production data for July is also included as it was unintentionally omitted from the previous report.

Sewage Lakes Discharge

The Lupin Sewage Lakes discharge from the culvert had ceased on July 29th and the syphon stopped running sometime during the night of July 31st and August 1st, 2002 as reported in the July SNP. Neither system was started during August. During the visit by the DIAND Inspector, August 19-20, 2002, the culvert was discovered to be leaking at a flow rate of



August SNP Preliminary Report

approximately 2 usgpm or 8 Lpm. A sample for water quality testing was obtained by the Inspector at that time, to be submitted for analysis. The estimated monthly flow (due to this leakage) was determined to be approximately 90 m³ for the period August 18 through to August 31, 2002.

In the spring when discharge first began, flow was determined to be entering the culvert from the upstream side and possibly the underside of the actual culvert pipe and repairs were planned prior to winter freeze up. With the pH decreasing during the month of July (determined through regular checks), a lime addition program was also planned before the end of August to allow for release of enough water in September to allow work on the culvert. Considerable precipitation events during August and the continued flow of water from the upper sewage lake were responsible for the increased water levels within the second sewage lake and the resultant flow through the previous locations in the culvert with the gate closed.

Tailings Containment Area Discharge

The Tailings Containment Area discharge for 2002 continued through the month of August. Flowrates continued to decrease slowly during the month from a peak of 34,613 m³/day per syphon down to 23,904 m³/day. The table included with this report shows the daily flowrates, total daily flows and monthly total. The summary includes flows at each syphon indicating the change of syphons once flow stopped at Syphon No.1 and the spare was started up. Flows for this spare syphon were calculated using a portable flow meter that was read daily.

The total volume discharged for August was 1,876,076 m³ with an average daily total flow of 58,420 m³/day. There was approximately 2,777,984 m³ of water released since the start of decant on July 15, 2002. During the period of August 2nd through to August 31st 2002, there was approximately 670,607 m³ of water transferred from Pond No.1 through to Pond No.2. This was carried out concurrent with discharge at 925-10 as water quality within Pond No.1 was comparable to that of Pond No.2. A sample of water from Pond No.1 was submitted to Norwest Labs Ltd. in Edmonton for Bioassay test purposes. Both the rainbow trout and the daphnia bioassay tests indicated a "pass" result. Hard copies of these tests have not yet been received and will be forwarded with the next month's SNP report.

A bioassay sample for 925-10 was also collected on August 29, 2002 to complete the Licence requirements for toxicity testing. Due to unforeseen weather delays at Lupin and the Labor Day long weekend the sample did not make it to the Env. Can. Ecotoxicology lab until Tuesday September 3, 2002. It was considered too old by the lab for completion of the test. Another sample was not obtained as the syphons were shut down on the 8th of September, 2002 to conclude the 2002 discharge.

In order to provide as much information needed to complete the requirements of the Licence, a copy of a daphnia toxicity bioassay, completed the two weeks prior to the end of decant can be provided to the NWB. This bioassay also indicated a "pass" and considered non-toxic by the lab. A hard copy will be provided with other final data once received from the lab.

August SNP Preliminary Report

By the end of August, the overall water elevation in Pond No.2 has been lowered approximately 2.28 metres. The corresponding drop in elevation of Pond No.1 was 2.5 metres during this same time period.

Analytical results are included in the tables for all SNP sampling requirements during discharge of the TCA for the month of August. Quality Control sample results are also included in the tables which include replicate samples and a field blank submitted to the lab with each sample set. The Norwest Labs Ltd. laboratory Quality Control Reports for each sample set will be forwarded when all final reports are received in hard copy format.

Analytical summary tables for July have been included as well and indicate several results which were being re-run in the lab and have changed from the original submission in August.

Should you have any questions or comments regarding this report, please feel free to contact the undersigned at (780) 890-8794, Lupin.

Yours truly,

*Original to be forwarded
with signature*

D. Hohnstein
Environmental Coordinator, Lupin

Attachments include;

July mill production data
July revised analytical summary for TCA discharge and 925-14
August mill production data
August analytical summary for TCA discharge
August TCA discharge flow monitoring information
Sewage discharge flow estimate

cc B. Danyluk
 H. Ducasse
 Mill Operations

WATER LICENCE NWB1LUP0008

 SURVEILLANCE NETWORK PROGRAM
 MONTHLY REPORT

JULY 2002

 - all units are in mg/L except pH which is
 unitless and where otherwise indicated.

DATE	SAMPLING STATION	TEMP °C	pH	TSS	Total CN	Total As	TOTAL METALS						F-col	
							Cd	Cu	Hg	Ni	Pb	Zn	#/100mL	BOD ₅

Total Nitrate-N	Total Nitrite-N	TK-N	NH ₄ -N	Total Ortho-P	Total Phosph.	Total O&G	Alk.	Hard.	uS/cm Cond.
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Note: For analytical results see attached summary tables.

	MONTHLY		YTD
TOTAL FRESHWATER METERED AT PUMPHOUSE (925-01)	84,321	CUBIC METERS	500,771
PROCESS	76,074	CUBIC METERS	451,547
POTABLE	8,247	CUBIC METERS	49,224
TOTAL TAILINGS AT 925-12 (CALCULATED TO TCA)	75,068	CUBIC METERS	474,125
SOLUTION	60,103	CUBIC METERS	392,119
SOLIDS	14,964	CUBIC METERS	82,006
DRY TAILINGS SOLIDS TO BACKFILL	2,877	CUBIC METERS	28,026
QUANTITY OF ORE MILLED	51,738	TONNES	319,093
MINE WATER PUMPED FROM UNDERGROUND	3,436	CUBIC METERS	27,791
SEWAGE LAKES DISCHARGE	95,242	CUBIC METERS	208,397

COMMENTS :


 ENVIRONMENTAL COORDINATOR



ECHO BAY MINES LTD.

LUPIN GOLD MINE, Nunavut
Licence NWB1LUP008

July SNP Sampling Report Rev.1 - Water Quality Results

*D-Daily *W-Weekly *M-Monthly				Routine Analysis				Total As	Total CN	Total Metals (mg/L)					Alk.	NH ₄	Hard.
Log No.	Date		Station	Temp (C)	pH	Cond (us)	TSS (mg/L)	(mg/L)	(mg/L)	Zn	Cu	Pb	Ni	Cd	(mg/L)	(mg/L)	(mg/L)
20014	7/3/2002	W	925-22	18.2	6.49	13.78	<1	0.0008	0.010	0.006	0.002	0.0001	0.0010	0.00002	<5	<0.05	4.5
20015	7/3/2002	W	925-24	11.6	6.34	14.09	2	0.0007	0.002	0.003	0.002	<0.0001	0.0011	<0.00001	<5	<0.05	4.5
20016	7/3/2002	W	925-25	8.4	6.33	14.07	1	0.0008	0.010	0.003	0.001	<0.0001	0.0011	<0.00001	<5	<0.05	4.5
20018	7/5/2002	M	925-14	16.3	6.96	442	<1	0.0094		0.030	0.004	0.0002	0.0128	0.00004	10	5.54	529
20037	7/9/2002	W	925-22	14.6	6.51	13.83	----	0.0007	<0.002	0.004	0.002	<0.0001	0.0006	<0.00001	----	<0.05	<7
20038	7/9/2002	W	925-24	9.67	6.39	14.13	----	0.0008	0.006	0.004	0.002	0.0002	0.0011	0.00001	----	<0.05	3.4
20039	7/9/2002	W	925-25	8.17	6.39	14.13	----	0.0007	0.004	0.004	<0.001	<0.0001	0.0007	<0.00001	----	<0.05	6.4
20046	7/15/2002	D	925-10	14.7	7.01	858	<1	0.0149	0.004	0.191	0.012	0.0005	0.0807	0.00019	20	1.08	245
20047	7/16/2002	W	925-20	14.7	6.45	163	4	0.0084	<0.002	0.022	0.007	<0.0001	0.0228	0.00004	9	<0.05	50.3
20048	7/16/2002	W	925-21	14.3	6.26	12.4	<1	0.0004	<0.002	<0.001	0.002	<0.0001	0.0005	<0.00001	<5	<0.05	4.6
20049	7/16/2002	W	925-22-1	14.4	6.27	13.5	1	0.0007	<0.002	0.001	0.002	<0.0001	0.0009	<0.00001	<5	<0.05	4.7
20052	7/16/2002	W	925-24	13.4	6.26	13.4	<1	0.0007	<0.002	<0.001	0.004	<0.0001	0.0008	<0.00001	<5	<0.05	4.4
20053	7/16/2002	W	925-25	9.5	6.24	13.3	1	0.0006	<0.002	0.002	0.003	0.0001	0.0007	<0.00001	<5	<0.05	3.7
20055	7/16/2002	D	925-10	14.2	6.68	---	<1	0.0075	<0.002	0.194	0.007	---	---	---	---	---	---
20068	7/17/2002	D	925-10	13.4	6.97	---	1	0.0087	0.006	0.206	0.014	---	---	---	---	---	---
20069	7/18/2002	D	925-10	13.3	7.17	853	<1	0.0070	0.008	0.185	0.007	---	---	---	---	---	---
20070	7/19/2002	D	925-10-1	14.2	7.12	851	<1	0.0071	0.012	0.185	0.007	---	---	---	---	---	---
20073	7/20/2002	D	925-10	14.4	7.19	880	<1	0.0111	0.022	0.225	0.010	---	---	---	---	---	---
20074	7/21/2002	D	925-10	15.6	7.00	866	<1	0.0071	0.018	0.190	0.007	---	---	---	---	---	---
20075	7/22/2002	W	925-10	15.6	7.20	878	<1	0.0069	0.014	0.186	0.007	0.0002	0.0775	0.00017	10	1.06	233
20077	7/23/2002	D	925-10	16.2	6.90	855	<1	0.0074	0.098	0.196	0.007	---	---	---	---	---	---
20078	7/23/2002	W	925-20	21.1	6.34	802	<1	0.0038	0.046	0.131	0.003	0.0003	0.0775	0.00019	<5	0.56	217
20079	7/23/2002	W	925-21	20.8	6.50	11.9	<1	0.0005	0.002	0.001	0.002	0.0001	0.0007	<0.00001	<5	<0.05	5.1
20080	7/23/2002	W	925-22-1	20.4	6.43	179	<1	0.0011	0.014	0.021	0.001	<0.0001	0.0134	0.00002	<5	<0.05	45.1
20083	7/23/2002	W	925-24	15.4	6.56	53.7	<1	0.0008	0.004	0.011	0.002	<0.0001	0.0035	<0.00001	<5	<0.05	14.2
20084	7/23/2002	W	925-25	11.2	6.43	12.9	<1	0.0006	0.002	0.002	0.001	<0.0001	0.0011	<0.00001	<5	<0.05	4.3
20086	7/24/2002	D	925-10	16.7	6.93	853	<1	0.0073	0.104	0.194	0.007	---	---	---	---	---	---
20090	7/25/2002	D	925-10	17.9	7.05	843	<1	0.0078	0.096	0.201	0.007	---	---	---	---	---	---
20091	7/26/2002	D	925-10	18.1	7.16	852	<1	0.0076	0.140	0.205	0.008	---	---	---	---	---	---
20092	7/27/2002	D	925-10	15.8	7.14	846	<1	0.0079	0.132	0.213	0.007	---	---	---	---	---	---
20093	7/28/2002	D	925-10	15.1	7.14	847	<1	0.0085	0.136	0.209	0.007	---	---	---	---	---	---
20094	7/29/2002	W	925-10-1	12.8	7.10	---	2	0.0121	0.144	0.209	0.007	0.0003	0.0866	0.00022	13	1.32	243
20098	7/30/2002	D	925-10	11.6	6.91	---	5	0.0109	0.092	0.207	0.007	---	---	---	---	---	---
20099	7/31/2002	D	925-10	10.8	6.79	---	2	0.0800	0.080	0.206	0.006	---	---	---	---	---	---

*D-Daily *W-Weekly *M-Monthly				Nutrient Analysis												
Log No.	Date		Station	Total Nitrate (mg/L)	Total N (mg/L)	Total Nitrite (mg/L)	Total OrthoP (mg/L)	Total Phosphorus (mg/L)	Faecal Coliform (CFU/100mL)	G/O Sheen (mg/L)	BOD (mg/L)					
20018	7/5/2002	M	925-14	9.5	5.93	<0.002	<0.05	0.15	<1	5	<4					

Revised results; Sept.11, 2002



ECHO BAY MINES LTD.

LUPIN GOLD MINE, Nunavut

Licence NWBILUP008

July SNP Sampling Quality Control Rev.1

*D-Daily *W-Weekly *M-Monthly				Routine Analysis				Total As	Total CN	Total Metals (mg/L)					Alk.	NH ₄	Hard.
Log No.	Date		Station	Temp (C)	pH	Cond (us)	TSS (mg/L)	(mg/L)	(mg/L)	Zn	Cu	Pb	Ni	Cd	(mg/L)	(mg/L)	(mg/L)
20017	7/4/2002	W	Blank	---	5.40	---	<1	<0.0002	<0.002	0.002	0.006	0.0008	<0.0005	<0.00001	<5	<0.05	<0.7
20030	7/9/2002	W	Blank	----	----	----	----	<0.0002	<0.002	0.004	0.003	0.0002	<0.0005	<0.00001	----	<0.05	3.9
20054	7/16/2002	W	Blank		7.14	1.2	1	<0.0002	<0.002	0.002	0.001	<0.0001	<0.0005	<0.00001	9	<0.05	<0.7
20076	7/22/2002	W	Blank		5.33	2.3	<1	<0.0002	0.004	0.002	0.004	0.0003	<0.0005	<0.00001	<5	<0.05	1.3
20085	7/23/2002	W	Blank		5.31	1.1	<1	<0.0002	0.002	0.003	0.002	0.0002	<0.0005	<0.00001	<5	<0.05	<0.7
20097	7/29/2002	W	Blank	---	4.91	1.3	<1	<0.0002	<0.002	0.002	0.005	0.0002	<0.0005	<0.00001	<5	<0.05	1.7
20070	7/19/2002	W	925-10-1	14.2	7.12	851	<1	0.0071	0.012	0.185	0.007	---	---	---	---	---	---
20071	7/19/2002	W	925-10-2	14.2	7.18	851	<1	0.0070	0.014	0.187	0.007	---	---	---	---	---	---
20072	7/19/2002	W	925-10-3	14.1	7.19	844	<1	0.0069	0.012	0.184	0.007	---	---	---	---	---	---
20094	7/29/2002	W	925-10-1	12.8	7.10	840	2	0.0121	0.144	0.209	0.007	0.0003	0.0866	0.00022	13	1.32	243
20095	7/29/2002	W	925-10-2	12.7	7.06	841	2	0.0105	0.136	0.205	0.006	0.0002	0.0851	0.00021	10	1.30	245
20096	7/29/2002	W	925-10-3	12.8	7.00	849	<1	0.0112	0.130	0.213	0.007	0.0003	0.0877	0.00024	9	1.29	245
20049	7/16/2002	W	925-22-1	14.4	6.27	13.5	1	0.0007	<0.002	0.001	0.002	<0.0001	0.0009	<0.00001	<5	<0.05	4.7
20050	7/16/2002	W	925-22-2	14.4	6.26	13.7	<1	0.0008	<0.002	<0.001	0.003	<0.0001	0.0008	<0.00001	<5	<0.05	4.7
20051	7/16/2002	W	925-22-3	14.4	6.26	14.1	<1	0.0008	<0.002	<0.001	0.001	<0.0001	0.0012	<0.00001	<5	<0.05	4.5
20080	7/23/2002	W	925-22-1	20.4	6.43	179	<1	0.0011	0.014	0.021	0.001	<0.0001	0.0134	0.00002	<5	<0.05	45.1
20081	7/23/2002	W	925-22-2	20.7	6.46	178	<1	0.0012	0.010	0.021	0.002	<0.0001	0.0130	0.00003	<5	<0.05	45.1
20082	7/23/2002	W	925-22-3	20.3	6.42	178	<1	0.0012	0.010	0.019	0.001	<0.0001	0.0125	0.00003	5	0.11	44.5

Revised results; Sept.11, 2002

WATER LICENCE NWB1LUP0008

 SURVEILLANCE NETWORK PROGRAM
 MONTHLY REPORT

AUGUST 2002

 - all units are in mg/L except pH which is
 unitless and where otherwise indicated.

DATE	SAMPLING STATION	TEMP °C	pH	TSS	Total CN	Total As	Cd	Cu	Hg	Ni	Pb	Zn	F-col #/100mL	BOD ₅
------	------------------	---------	----	-----	----------	----------	----	----	----	----	----	----	---------------	------------------

Total Nitrate-N	Total Nitrite-N	TK-N	NH ₄ -N	Total Ortho-P	Total Phosph.	Total O&G	Alk.	Hard.	uS/cm Cond.
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Note: For analytical results see attached summary tables.

	MONTHLY		YTD
TOTAL FRESHWATER METERED AT PUMPHOUSE (925-01)	80,412	CUBIC METERS	581,183
PROCESS	73,424	CUBIC METERS	524,971
POTABLE	6,988	CUBIC METERS	56,212
TOTAL TAILINGS AT 925-12 (CALCULATED TO TCA)	65,722	CUBIC METERS	539,847
SOLUTION	52,203	CUBIC METERS	444,322
SOLIDS	13,519	CUBIC METERS	95,525
DRY TAILINGS SOLIDS TO BACKFILL	2,773	CUBIC METERS	30,799
QUANTITY OF ORE MILLED	47,247	TONNES	366,341
MINE WATER PUMPED FROM UNDERGROUND	5,140	CUBIC METERS	32,931
SEWAGE LAKES DISCHARGE	90	CUBIC METERS	208,487

COMMENTS :

Sewage discharge for the month of August was estimated based on the amount of seepage measured during the period August 18th and August 31, 2002. The culvert was closed at the end of July when water levels were reduced beyond the culvert with the syphon.

**Original to be forwarded
with signature**

 ENVIRONMENTAL COORDINATOR



ECHO BAY MINES LTD.

LUPIN GOLD MINE, Nunavut

Licence NWB1LUP008

August 2002 Discharge Flow Monitoring from Pond No.2

Date	Time	Hours of Flow	Syphon No.1(4)			Hours of Flow	Syphon No.2(3)			Hours of Flow	Spare Syphon*			Total Daily Discharge (m³)	Cumulative Discharge (m³)	Daily Water Drop (cm)	Cumulative Water Drop
			Meter Reading	m³/ Minute	m³/day		Meter Reading	m³/ Minute	m³/day		Meter Reading	m³/ Minute	m³/day				
7/31/02	6:30 AM		542436				4351946										
8/1/02	6:30 AM	24.0	575798	22.8	33362	24.0	4383646	23.0	31700		----	0	0	65062	65062	7	0
8/2/02	6:30 AM	24.0	609059	23.1	33261	24.0	4416633	23.2	32987		----	0	0	66248	131310	6	0
8/3/02	6:30 AM	24.0	643108	22.3	34049	24.0	4449749	21.9	33116		----	0	0	67165	198475	4	0
8/4/02	6:30 AM	24.0	676331	22.0	33224	24.0	4481816	22.2	32067		----	0	0	65290	263765	3	3
8/5/02	6:30 AM	24.0	708283	22.1	31952	24.0	4513244	22.3	31428		----	0	0	63380	327145	3	6
8/6/02	6:30 AM	24.0	741280	22.1	32996	24.0	4545603	22.8	32359		----	0	0	65356	392501	3	9
8/7/02	6:30 AM	24.0	773119	22.0	31839	24.0	4576974	21.4	31371		----	----	0	63210	455710	3	12
8/8/02	6:30 AM	24.0	805259	22.1	32140	24.0	4608100	21.8	31126		----	----	0	63266	518976	3	15
8/9/02	8:00 AM	22.5	839872	22.9	34613	22.5	4642169	21.3	34069		----	----	0	68683	587659	4	19
8/10/02	7:00 AM	22.5	870827	21.8	30955	22.5	4673266	21.5	31097		----	----	0	62052	649711	2	21
8/11/02	8:00 AM	25.0	902339	21.9	31512	25.0	4704482	21.3	31216		----	----	0	62728	712439	2	23
8/12/02	6:30 AM	22.5	932833	21.8	30494	22.5	4733590	22.2	29108		----	----	0	59602	772041	4	27
8/13/02	7:00 AM	24.5	965144	21.5	32311	24.5	4765185	21.2	31595		----	----	0	63906	835947	0	27
8/14/02	6:30 AM	23.5	996053	21.4	30909	23.5	4794602	21.2	29417		----	----	0	60326	896273	4	31
8/15/02	6:30 AM	24.0	1027042	21.8	30988	24.0	4824504	21.4	29903		----	----	0	60891	957164	3	34
8/16/02	6:30 AM	24.0	1058443	20.5	31401	24.0	4855188	21.1	30683		----	----	0	62084	1019249	1	35
8/17/02	6:30 AM	24.0	1088957	20.6	30514	24.0	4885546	21.1	30358					60873	1080121	1	36
8/18/02	6:30 AM	24.0	1119880	21.3	30922	24.0	4914946	20.6	29400					60322	1140443	1	37
8/19/02	6:30 AM	24.0	1150550	20.9	30670	24.0	4944714	19.9	29768					60438	1200881	3	40
8/20/02	6:30 AM	24.0	1180840	21.6	30290	24.0	4973763	19.9	29049					59339	1260221	4	44
8/21/02	6:30 AM	24.0	1210614	20.7	29774	24.0	5002013	19.4	28250					58024	1318245	0	44
8/22/02	6:30 AM	24.0	1239838	20.4	29224	24.0	5029879	18.9	27866					57090	1375335	0	44
8/23/02	6:30 AM	24.0	1269148	19.6	29310	24.0	5058137	19.0	28258					57568	1432903	0	44
8/24/02	6:30 AM	24.0	1297699	19.9	28551	24.0	5085818	19.8	27680					56231	1489134	0	44
8/25/02	6:30 AM	24.0	1325791	19.4	28092	24.0	5112884	18.3	27066					55159	1544293	0	44
8/26/02	6:30 AM	24.0	1353250	18.8	27459	24.0	5138957	17.4	26073					53532	1597825	8	52
8/27/02	7:00 AM	24.5	1381738	18.9	28488	24.5	5166419	17.9	27462					55950	1653775	4	56
8/28/02	6:30 AM	23.5	1402555	0.0	20818	23.5	5192033	18.4	25614					46432	1700206	4	60
8/29/02	7:00 AM		Spare Syphon (started at 7:45am)			24.0	5219088	18.1	27055	23.3				27055	1727261	3	63
8/30/02	7:00 AM		---		0	24.0	5244937	18.6	25849	23.3		17.4	24273	50122	1777383	0	63
8/31/02	7:00 AM		---		0	24.0	5270496	17.5	25559	24.0		16.8	24192	49751	1827134	3	66
9/1/02	7:00 AM		---		0	24.0	5295822	16.9	25326	24.0	----	16.4	23616	48942	1876076	5	71
August Totals/Averages			826758	20.5	27559		912176	20.0	28984		----	17	24027	58420	1876076	3	71

*Spare syphon discharge was calculated based on flow rate (m³/min) and hours of flow using the following formula:

$$\text{Daily Flow (m}^3\text{/day)} = \text{flow rate (m}^3\text{/min)} \times (60\text{min/hour}) \times \text{hours of flow}$$

July 2002 Discharge from Sewage Pond:

Culvert total	90 m3	
Syphon Total	0 m3	
Total discharge for August	90 m3	



ECHO BAY MINES LTD.

LUPIN GOLD MINE, Nunavut

Licence NWB1LUP008

August SNP Sampling Report - Water Quality Results

*D-Daily *W-Weekly *M-Monthly				Routine Analysis				Total As	Total CN	Total Metals (mg/L)					Alk.	NH ₄	Hard.
Log No.	Date		Station	Temp (C)	pH	Cond (us)	TSS (mg/L)	(mg/L)	(mg/L)	Zn	Cu	Pb	Ni	Cd	(mg/L)	(mg/L)	(mg/L)
20108	8/1/2002	D	925-10	9.0	6.85	---	2	0.0085	0.076	0.204	0.006	---	---	---	---	---	---
20110	8/2/2002	D	925-10	9.7	6.74	---	1	0.0080	0.062	0.197	0.006	---	---	---	---	---	---
20100	8/2/2002	W	925-20	10.7	6.41	820	<1	0.0028	0.006	0.151	0.003	0.0001	0.0804	0.00017	5	0.53	228
20101	8/2/2002	W	925-21	10.1	6.14	11.8	<1	0.0004	<0.002	<0.001	0.001	<0.0001	<0.0005	<0.00001	<5	0.07	4.9
20102	8/2/2002	W	925-22-1	8.4	6.19	392	<1	0.0013	0.002	0.055	0.002	0.0001	0.0317	0.00005	<5	0.21	100
20103	8/2/2002	W	925-22-2	8.2	6.18	396	1	0.0013	0.004	0.056	0.002	0.0002	0.0319	0.00006	<5	0.23	101
20104	8/2/2002	W	925-22-3	8.5	6.19	368	<1	0.0012	0.002	0.046	0.001	<0.0001	0.0280	0.00005	<5	0.18	92
20105	8/2/2002	W	925-24	9.2	5.81	184	<1	0.0008	<0.002	0.034	0.001	<0.0001	0.0102	<0.00001	5	0.12	44.9
20106	8/2/2002	W	925-25	8.6	5.69	34.2	<1	0.0005	<0.002	0.004	0.001	<0.0001	0.0015	<0.00001	<5	0.09	8.5
20111	8/3/2002	D	925-10	10.2	6.86	---	<1	0.0099	0.060	0.200	0.006	---	---	---	---	---	---
20118	8/4/2002	D	925-10	10.4	6.55	---	<1	0.0071	0.080	0.173	0.004	---	---	---	---	---	---
20123	8/5/2002	W	925-10	10.8	6.85	847	2	0.0104	0.082	0.197	0.006	0.0006	0.0893	0.00019	9	0.81	228
20124	8/6/2002	D	925-10	11.4	6.98	---	1	0.0115	0.104	0.201	0.006	---	---	---	---	---	---
20125	8/6/2002	W	925-20	11.3	6.45	832	<1	0.0028	0.008	0.176	0.003	0.0001	0.0870	0.00023	5	0.46	232
20126	8/6/2002	W	925-21	11.4	6.28	12.3	<1	0.0005	0.002	0.006	0.001	0.0002	0.0006	<0.00001	<5	<0.05	5.2
20127	8/6/2002	W	925-22-1	11.2	6.28	335	2	0.0012	0.002	0.058	0.003	0.0006	0.0249	0.00004	<5	0.22	88.1
20128	8/6/2002	W	925-22-2	11.7	6.29	326	<1	0.0012	0.006	0.045	0.002	0.0003	0.0237	0.00004	<5	0.17	86.3
20129	8/6/2002	W	925-22-3	11.8	6.29	334	<1	0.0012	0.008	0.050	0.002	0.0004	0.0246	0.00006	<5	0.17	87.3
20130	8/6/2002	W	925-24	11.6	6.26	271	<1	0.0012	0.006	0.035	0.003	0.0008	0.0152	0.00003	<5	0.08	69.1
20131	8/6/2002	W	925-25	10.0	6.34	26.4	<1	0.0005	0.002	0.008	0.002	0.0002	0.0017	<0.00001	<5	<0.05	7.3
20133	8/7/2002	D	925-10	11.2	6.75	---	<1	0.0132	0.092	0.201	0.006	---	---	---	---	---	---
20134	8/8/2002	D	925-10	11.3	6.89	---	<1	0.0123	0.092	0.247	0.007	---	---	---	---	---	---
20135	8/9/2002	D	925-10	12.4	6.83	---	<1	0.0157	0.098	0.195	0.006	---	---	---	---	---	---
20136	8/10/2002	D	925-10	12.2	6.77	---	1	0.0145	0.088	0.194	0.006	---	---	---	---	---	---
20137	8/11/2002	D	925-10	12.1	6.73	---	2	0.0146	0.080	0.195	0.006	---	---	---	---	---	---
20138	8/12/2002	W	925-10-1	15.9	6.95	855	<1	0.0108	0.078	0.193	0.006	0.0004	0.0838	0.00018	10	1.36	218
20141	8/12/2002	W	925-10-2	---	6.33	881	1	0.0132	0.074	0.190	0.005	0.0003	0.0831	0.00017	9	1.36	223
20142	8/12/2002	W	925-10-3	---	6.64	880	<1	0.0131	0.070	0.195	0.005	0.0004	0.0841	0.00016	8	1.31	222
20143	8/13/2002	D	925-10	11.6	6.98	---	2	0.0149	0.080	0.177	0.005	---	---	---	---	---	---
20144	8/14/2002	D	925-10	10.8	7.07	---	<1	0.0160	0.084	0.173	0.006	---	---	---	---	---	---
20145	8/14/2002	W	925-20	12.7	6.58	802	2	0.0034	0.012	0.153	0.003	0.0006	0.0751	0.00017	28	0.66	210
20146	8/14/2002	W	925-21	12.3	6.46	11.9	<1	0.0005	0.002	<0.001	<0.001	0.0002	0.0005	<0.00001	<5	<0.05	4.8
20147	8/14/2002	W	925-22-1	10.9	6.36	383	<1	0.0013	0.006	0.060	0.002	<0.0001	0.0303	0.00007	<5	0.21	92.8
20148	8/14/2002	W	925-22-2	11.0	6.39	384	<1	0.0020	0.010	0.061	0.002	<0.0001	0.0297	0.00007	<5	0.2	92.9
20149	8/14/2002	W	925-22-3	11.1	6.42	383	<1	0.0013	0.008	0.062	0.002	<0.0001	0.0293	0.00007	<5	0.21	91.3
20150	8/14/2002	W	925-24	11.1	6.29	342	<1	0.0010	0.006	0.041	0.002	<0.0001	0.0187	0.00005	<5	0.11	82.8
20151	8/14/2002	W	925-25	10.4	6.48	52.2	<1	0.0005	0.002	0.005	0.001	<0.0001	0.0026	<0.00001	<5	<0.05	12
20153	8/15/2002	D	925-10	11.3	6.61	---	2	0.0162	0.086	0.189	0.006	---	---	---	---	---	---
20155	8/16/2002	D	925-10	10.8	6.73	---	<1	0.0160	0.088	0.186	0.007	---	---	---	---	---	---

August SNP Sampling Report - Water Quality Results

*D-Daily *W-Weekly *M-Monthly				Routine Analysis				Total As (mg/L)	Total CN (mg/L)	Total Metals (mg/L)					Alk. (mg/L)	NH ₄ (mg/L)	Hard. (mg/L)
Log No.	Date		Station	Temp (C)	pH	Cond (us)	TSS (mg/L)			Zn	Cu	Pb	Ni	Cd			
20156	8/17/2002	D	925-10	10.4	6.77	---	<1	0.0179	0.088	0.181	0.007	---	---	---	---	---	---
20157	8/18/2002	D	925-10	10.4	6.84	---	2	0.0195	0.088	0.176	0.008	---	---	---	---	---	---
20164	8/19/2002	W	925-10-1	9.7	7.12	884	2	0.0196	0.084	0.181	0.008	0.0006	0.0813	0.00020	<5	2.09	224
20165	8/19/2002	W	925-10-2	9.7	7.18	885	<1	0.0194	0.084	0.176	0.007	0.0004	0.0816	0.00018	<5	2.09	223
20166	8/19/2002	W	925-10-3	9.6	7.21	885	2	0.0187	0.084	0.177	0.008	0.0005	0.0796	0.00018	<5	2.1	223
20168	8/20/2002	D	925-10	7.9	7.23	---	2	0.0201	0.080	0.186	0.007	---	---	---	---	---	---
20169	8/20/2002	W	925-20	8.7	6.79	792	<1	0.0044	0.016	0.153	0.007	0.0002	0.0771	0.00015	6	1.18	208
20170	8/20/2002	W	925-21	9.3	5.44	12.3	<1	0.0005	0.012	0.008	0.003	0.0001	0.0012	<0.00001	<5	<0.05	4.4
20171	8/20/2002	W	925-22-1	7.1	6.39	420	<1	0.0017	0.006	0.072	0.002	0.0002	0.0330	0.00008	<5	0.32	103
20172	8/20/2002	W	925-22-2	7.3	6.39	421	<1	0.0015	0.008	0.073	0.006	0.0001	0.0332	0.00006	<5	0.34	103
20173	8/20/2002	W	925-22-3	6.8	6.38	403	<1	0.0013	0.010	0.082	0.002	0.0001	0.0293	0.00007	<5	0.24	99.2
20174	8/20/2002	W	925-24	8.3	6.43	295	<1	0.0013	0.004	0.045	0.001	0.0001	0.0198	0.00004	<5	0.14	70.4
20175	8/20/2002	W	925-25	8.5	6.38	28	1	0.0006	0.002	0.011	0.005	0.0012	0.0038	<0.00001	<5	<0.05	7.1
20177	8/21/2002	D	925-10	8.6	6.95	---	2	0.0207	0.076	0.187	0.006	---	---	---	---	---	---
20178	8/22/2002	D	925-10	8.7	7.60	---	3	0.0200	0.078	0.192	0.006	---	---	---	---	---	---
20179	8/23/2002	D	925-10	8.9	6.99	---	2	0.0198	0.080	0.176	0.013	---	---	---	---	---	---
20180	8/24/2002	D	925-10	9.6	7.01	---	2	0.0183	0.078	0.175	0.007	---	---	---	---	---	---
20181	8/25/2002	D	925-10	9.4	7.00	---	1	0.0184	0.066	0.186	0.018	---	---	---	---	---	---
20182	8/26/2002	W	925-10-1	9.8	7.03	874	3	0.0182	0.080	0.172	0.006	0.0003	0.0181	0.00016	11	2.43	226
20183	8/26/2002	W	925-10-2	9.7	6.95	879	2	0.0185	0.078	0.173	0.034	0.0003	0.0803	0.00016	10	2.38	227
20184	8/26/2002	W	925-10-3	9.8	6.94	877	1	0.0182	0.066	0.169	0.007	0.0003	0.0881	0.00016	10	2.37	228
20186	8/27/2002	D	925-10	10.2	7.12	---	1	0.0179	0.060	0.195	0.006	---	---	---	---	---	---
20187	8/31/2002	W	925-20	11.9	6.35	519	2	0.0043	0.008	0.130	0.004	0.0001	0.0598	0.00014	<5	0.48	129
20188	8/31/2002	W	925-22-2	11.4	6.46	400	<1	0.0022	0.006	0.077	0.003	0.0003	0.0333	0.00009	<5	0.4	96.3
20190	8/31/2002	W	925-22-1	11.4	6.42	387	2	0.0019	0.006	0.069	0.002	<0.0001	0.0326	0.00008	<5	0.38	91.1
20191	8/31/2002	W	925-21	14.2	6.69	13	<1	0.0003	<0.002	0.004	<0.001	<0.0001	0.0006	<0.00001	6	<0.05	4.4
20192	8/31/2002	W	925-22-3	11.4	6.69	375	<1	0.0019	0.006	0.064	0.002	<0.0001	0.0308	0.00007	<5	0.33	85.7
20193	8/31/2002	W	925-24	11.2	6.75	389	<1	0.0013	0.004	0.056	0.001	<0.0001	0.0236	0.00005	5	0.2	90.9
20194	8/31/2002	W	925-25	9.6	6.83	39	<1	0.0005	<0.002	0.006	0.001	<0.0001	0.0021	<0.00001	<5	<0.05	9.3
20196	8/28/2002	D	925-10	10.4	6.94	---	<1	0.0171	0.066	0.183	0.01	---	---	---	---	---	---
20197	8/29/2002	D	925-10	10.1	6.95	---	2	0.0198	0.066	0.189	0.006	---	---	---	---	---	---
20198	8/30/2002	D	925-10	10.7	6.94	---	1	0.0191	0.070	0.187	0.008	---	---	---	---	---	---
20199	8/31/2002	D	925-10	10.6	7.10	---	1	0.0180	0.072	0.177	0.006	---	---	---	---	---	---

 Results to be confirmed

 Revised results

Note: See attached analyses Report from Norwest Labs. Ltd. for the monthly metal scan at station 925-10 on the 19th August 2002.



ECHO BAY MINES LTD.

LUPIN GOLD MINE, Nunavut

Licence NWB1LUP008

August SNP Sampling Quality Control

*D-Daily *W-Weekly *M-Monthly				Routine Analysis				Total As	Total CN	Total Metals (mg/L)					Alk.	NH ₄	Hard.
Log No.	Date		Station	Temp (C)	pH	Cond (us)	TSS (mg/L)	(mg/L)	(mg/L)	Zn	Cu	Pb	Ni	Cd	(mg/L)	(mg/L)	(mg/L)
20109	8/1/2002	W	Blank	---	4.90	---	<1	<0.0002	<0.002	0.002	0.005	---	---	---	---	---	---
20107	8/2/2002	W	Blank	---	4.67	2.1	<1	<0.0002	<0.002	<0.001	0.005	0.0002	<0.0005	<0.00001	<5	0.08	<0.7
20132	8/6/2002	W	Blank	---	5.09	1.2	<1	<0.0002	0.004	0.005	0.006	0.0004	<0.0005	0.00001	<5	<0.05	<0.7
20139	8/12/2002	W	Blank	---	5.55	1.0	<1	<0.0002	0.008	0.002	0.004	0.0004	<0.0005	<0.00001	<5	<0.05	0.6
20152	8/14/2002	W	Blank	---	4.72	1.8	<1	<0.0002	0.002	<0.001	0.004	0.0004	<0.0005	<0.00001	<5	<0.05	<1
20167	8/19/2002	W	Blank	---	3.56	3.6	<1	<0.0002	0.002	0.006	0.003	0.0003	<0.0005	<0.00001	<5	<0.05	<1
20176	8/20/2002	W	Blank	---	5.35	1.0	1	<0.0002	0.004	0.009	0.004	0.0003	0.0006	<0.00001	<5	<0.05	<1
20185	8/26/2002	W	Blank	---	3.96	3.9	1	<0.0002	0.004	0.007	0.005	0.0002	<0.0005	<0.00001	<5	<0.05	1
20195	8/28/2002	W	Blank	---	5.90	1.1	<1	<0.0002	<0.002	0.002	0.002	<0.0001	<0.0005	<0.00001	<5	<0.05	2.3
20200	8/31/2002	W	Blank	---	5.77	1.3	<1	<0.0002	<0.002	0.003	0.002	0.0002	<0.0005	<0.00001	<5	<0.05	<1
20102	8/2/2002	W	925-22-1	8.4	6.19	392	<1	0.0013	0.002	0.055	0.002	0.0001	0.0317	0.00005	<5	0.21	100
20103	8/2/2002	W	925-22-2	8.2	6.18	396	1	0.0013	0.004	0.056	0.002	0.0002	0.0319	0.00006	<5	0.23	101
20104	8/2/2002	W	925-22-3	8.5	6.19	368	<1	0.0012	0.002	0.046	0.001	<0.0001	0.0280	0.00005	<5	0.18	92
20127	8/6/2002	W	925-22-1	11.2	6.28	335	2	0.0012	0.002	0.058	0.003	0.0006	0.0249	0.00004	<5	0.22	88.1
20128	8/6/2002	W	925-22-2	11.7	6.29	326	<1	0.0012	0.006	0.045	0.002	0.0003	0.0237	0.00004	<5	0.17	86.3
20129	8/6/2002	W	925-22-3	11.8	6.29	334	<1	0.0012	0.008	0.050	0.002	0.0004	0.0246	0.00006	<5	0.17	87.3
20138	8/12/2002	W	925-10-1	15.9	6.95	855	<1	0.0108	0.078	0.193	0.006	0.0004	0.0838	0.00018	10	1.36	218
20141	8/12/2002	W	925-10-2	---	6.33	881	1	0.0132	0.074	0.190	0.005	0.0003	0.0831	0.00017	9	1.36	223
20142	8/12/2002	W	925-10-3	---	6.64	880	<1	0.0131	0.070	0.195	0.005	0.0004	0.0841	0.00016	8	1.31	222
20147	8/14/2002	W	925-22-1	10.9	6.36	383	<1	0.0013	0.006	0.060	0.002	<0.0001	0.0303	0.00007	<5	0.21	92.8
20148	8/14/2002	W	925-22-2	11.0	6.39	384	<1	0.0020	0.010	0.061	0.002	<0.0001	0.0297	0.00007	<5	0.20	92.9
20149	8/14/2002	W	925-22-3	11.1	6.42	383	<1	0.0013	0.008	0.062	0.002	<0.0001	0.0293	0.00007	<5	0.21	91.3
20164	8/19/2002	M	925-10-1	9.7	7.12	884	2	0.0196	0.084	0.181	0.008	0.0006	0.0813	0.00020	<5	2.09	224

August SNP Sampling Quality Control

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