

CULLATON LAKE GOLD MINES LTD

WATER LICENCE N6L2-0940

**ANNUAL
WATER LICENCE REPORT
1995**

PREPARED BY:
HOMESTAKE CANADA INC
1000 - 700 WEST PENDER STREET
VANCOUVER, B.C.
V6C 1G8

TABLE OF CONTENTS

PREAMBLE

1.0 HIGHLIGHTS

2.0 SUMMARY

2.1 WATER LICENCE RENEWAL

2.2 WATER QUALITY MONITORING

2.3 TAILINGS

2.4 THERMISTORS

2.5 PHASE 2 OF THE COLD STORAGE KINETIC TESTS

2.6 ROCK QUARRY

2.7 MILL COMPLEX DISMANTLING

2.8 SHEER LAKE

2.9 MISCELLANEOUS

3.0 1996 TENTATIVE WORK PROGRAM

APPENDIX 1 Map of Tailings Area Water Sampling Locations
 Water Quality Data
 Thermistor Data
 Inspection Report

APPENDIX 2 Excerpts from Phase 2: Cold Temperature Leaching

PREAMBLE

The Cullaton Lake Gold Mines property is located in the southern part of the District of Keewatin in the Northwest Territories. The property is 250 km west of Arviat, N.W.T., 400 km northwest of Churchill, Manitoba and 645 km north of Thompson Manitoba. The mine was in operation for four years, from 1981 to 1985. Since September 1985 the mine has remained in a care, maintenance and decommissioning phase.

Cullaton Lake Gold Mines Ltd. is wholly owned by Homestake Canada Inc.

The current water licence (N6L2 - 0940) from the Northwest Territories Water Board was renewed on September 1, 1995 and is effective until August 31, 1999.

As per this Water Licence, the Company is required to file a yearly report pursuant to Section 13(2) of the Northern Inland Waters Act and Section 15(1) of the Regulations, outlining details on water use or waste disposal at Cullaton Lake Gold Mine.

1.0 HIGHLIGHTS

The Draft Abandonment and Restoration Plan was submitted to DIAND in April 1995. In December 1995 the Company was requested to submit a revised plan to DIAND (A. McRobert to W. Napier, December 15, 1995).

The water licence was renewed as a B Licence on September 1, 1995 for a period of 4 years. It expires August 31, 1999. As part of this renewal a revised Abandonment and Restoration Plan must be submitted by March 31, 1996 (G. Wray to W. Napier, July 27, 1995). One document has been prepared to cover the requirements of both DIAND and the Water Board.

McKay Environmental Industries' crew was on site from June 13 to July 21, 1995 and again from September 23-29, 1995 to perform decommissioning work. Portions of the mill structure were dismantled. Non-salvageable materials were crushed and placed in the quarry pit and then covered with overburden. Some salvageable equipment was flown to Thompson, Manitoba, for storage.

Personnel from J. P. Consulting & Services, contracted by Homestake, visited the area to assess the remaining decommissioning work and inventory salvageable material.

Water samples were taken on June 24 and September 28, 1995. Thermistor readings were taken on June 17, September 20 and October 3 as part of ongoing monitoring of the temperature regime in the tailings.

Dan Elliott, Inspector under the Northwest Territories Water Act, carried out a water licence inspection on August 22, 1995.

The executive summary and tables from *Phase 2 of the Cold Storage Kinetic Tests* report is attached as Appendix 2.

2.0 SUMMARY

2.1 WATER LICENCE RENEWAL

Homestake applied for a water licence renewal on April 28, 1995. At this time the request included a change of category from an 'A' Licence to a 'B' Licence. A 'B' Licence was received this summer, effective September 1, 1995 expiring August 31, 1999. As part of the licence renewal, the Company is submitting, with this report, a Final Abandonment and Restoration Plan. Required revisions (G. Wray to W. Napier, July 27, 1995) include the following:

1. Estimates for volumes of non-salvageable materials and proposed locations for disposal;
2. Intentions for the disposal of sludges, petroleum residues, batteries, contaminated soils and other hazardous materials; and
3. A description of the removal of salvageable materials from the site.

2.2 WATER QUALITY MONITORING

Water sampling continued at Cullaton Lake Mine this year. Water was sampled three times during the summer season, in June, August, and early September. The June and September samples were collected, as in past years, by Mr. Rodney McKay of McKay Environmental Industries Ltd. The August samples were collected during the water licence inspection of August 22, 1995. The sampling results from this inspection were well within the limits prescribed in the Water Licence N6L2-0940. See Appendix 1 for water quality results, a copy of the inspection report and the Company's response.

2.3 TAILINGS

The Tailings area was inspected this summer; and no additional fill was required.

2.4 THERMISTORS

In order to prevent any possible acid generation, reclamation of the tailings area has involved two oxygen-limiting methods; a water cover overlying the eastern portion of the tailings impoundment area and a till/mine waste rock cover on the remaining Shear and B-Zone tailings area. The application of the till/mine waste rock cover was intended to reduce oxygen infiltration, and to raise the level of permafrost in the tailings. Raising the permafrost level in the tailings helps retain them in a permanently frozen condition which may prevent development and migration of acid drainage. Thermistors were installed in the covered tailings in August 1991 in order to monitor any rise in permafrost levels.

Thermistor readings have been taken during the spring and late summer months since 1991. Readings from 1992 to 1994 show an upward trend in the permafrost levels. The depth of the summer active zone has been observed to have decreased over the years from 2.8 m to approximately 2.3 m in depth.

In 1995 thermistor readings were taken at Thermistors # 1, 2, 3, and 4 in Tailings Area #1 in June, July and September (see Appendix 1). At the end of the 1995 summer season, the depth of the active zone remained at the 1994 level, maintaining the higher permafrost levels in the tailings.

2.5 PHASE 2 OF THE COLD STORAGE KINETIC TESTS

A draft copy of *Phase 2: Cold Temperature Leaching* was completed by CANMET and received by Homestake Canada early in 1996. The report requires revision by CANMET. As discussed with Water Board personnel, the executive summary and tables from that report have been attached as Appendix 2, and the revised report will be forwarded under separate cover when received by Homestake.

2.6 ROCK QUARRY

During the May 25, 1995 meeting with DIAND and the N.W.T. Water Board, agreement was reached regarding use of the quarry pit for disposal of non-salvageable materials. The quarry pit was de-watered before any of the non-salvageable materials were placed in the quarry. The primary mill building was dismantled and non-salvageable material was crushed and placed in the quarry pit. Fill was placed over this crushed material. The compacted debris filled approximately one third of the pit.

In September the quarry pit was de-watered again, and more fill was pushed over the material in the pit.

2.7 MILL COMPLEX DISMANTLING

The primary mill building was dismantled this summer and non-salvageable material was placed into the north end of the quarry pit.

A part of the infrastructure adjoining the milling facility for the new mill expansion and both air intakes were removed and buried.

The fuel distribution house was dismantled and hauled away. Salvageable equipment was flown to Thompson, Manitoba for storage (including a 250 HP

motor, transmission and fuel drums). Tanks, pumps, piping and cable trays remain on site.

2.8 SHEAR LAKE

Non-salvageable underground equipment from Shear Zone was placed in the quarry pit. The contouring of the Shear Lake waste rock dump was completed in September.

2.9 MISCELLANEOUS

Equipment required for hauling and spreading fill, and for general maintenance remains at the site. This includes a 426 JCI truck, a D8K, 415 JCI truck, 966D loader, 950 loader, cargo truck, fuel truck and two jeeps.

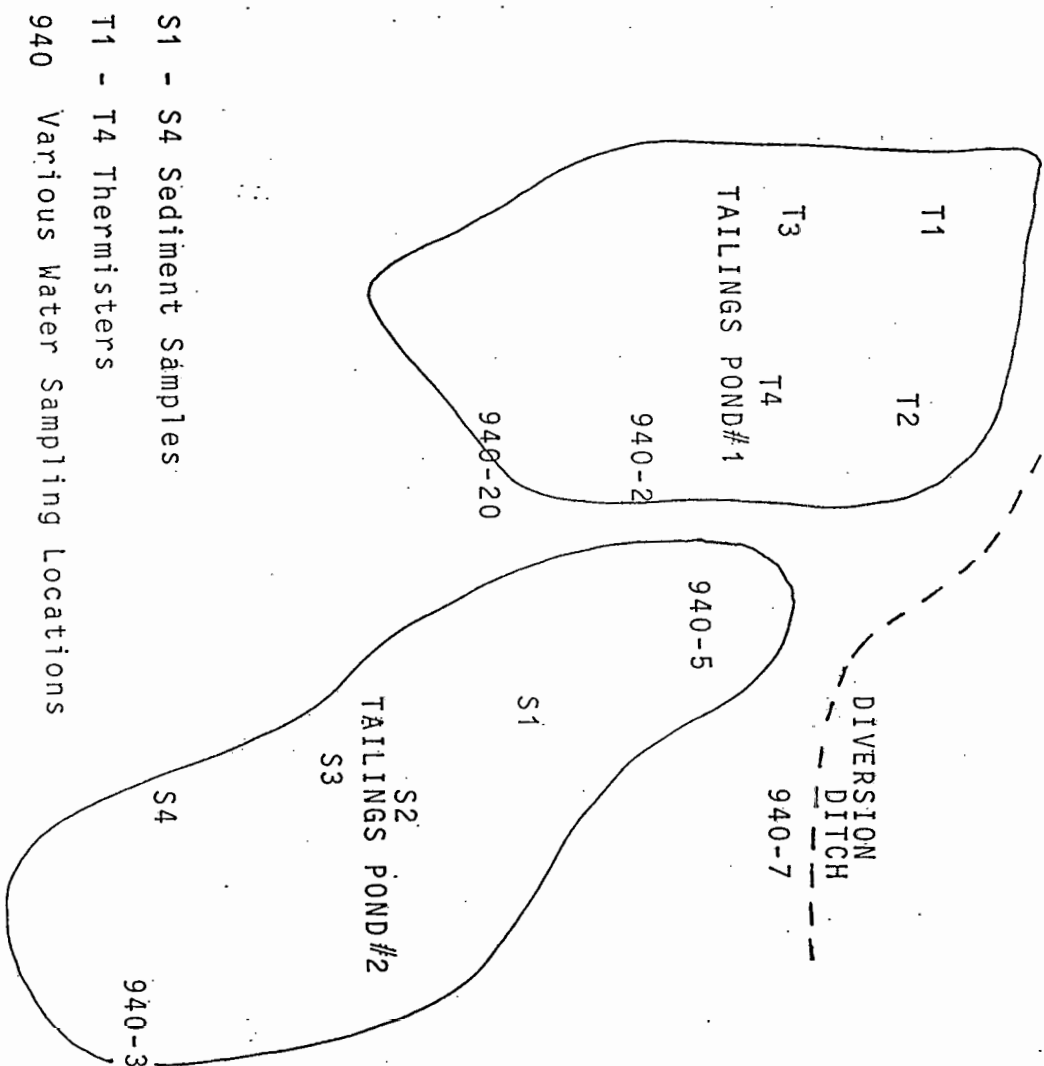
3.0 1996 TENTATIVE WORK SCHEDULE

Homestake Canada Inc. intends to complete the remaining decommissioning work in 1996. This includes dismantling the fuel tank farm, dismantling the remaining buildings, removing all salvageable material and disposing of all non-salvageable material as per our revised 1995 Abandonment and Restoration Plan. Some mobile equipment will remain on site in case further reclamation work is required.

APPENDIX 1

Map of Tailings Area Water Sampling Locations
Water Quality Data
Thermistor Data
Inspection Report

CAMP
MILL



CULLATON LAKE TAILINGS AREA SAMPLE LOCATIONS

CULLATON GOLD MINES LTD.

EFFLUENT WATER QUALITY REQUIREMENTS (LICENCE N6L2-0940)

All wastes discharged by the Licensee from the Tailings Containment Area shall meet the following effluent quality requirements:

Parameter	Maximum Average Concentration	Maximum Concentration of Any Grab Sample
Total Arsenic	0.30 mg/L	0.60 mg/L
Total Copper	0.20 mg/L	0.40 mg/L
Total Cyanide	0.80 mg/L	1.60 mg/L
Total Lead	0.20 mg/L	0.40 mg/L
Total Nickel	0.30 mg/L	0.60 mg/L
Total Zinc	0.30 mg/L	0.60 mg/L
Total Suspended Solids	25 mg/L	50 mg/L

The waste discharged shall have a pH between 6.0 and 9.5, and no visible sheen of oil and grease.

HOMESTAKE CANADA INC.
CULLATON LAKE WATER QUALITY
1994 - 1995 DATA

P.1

STATION: 940-2: POND #1 DISCHARGE

Date	LAB PH pH unit	SUSPENDED SOLIDS mg/l	TOTAL CYANIDE mg/l	TOTAL ARSENIC mg/l		
07/03/94	7.93	1	0.019	0.0019		
07/31/94	7.89	1	0.023	0.0038		
09/06/94	7.92	57	0.017	0.032		
JAN 1994 - DEC 1994						
Mean	7.91	20	0.020	0.0126		
Minimum Value	7.89	1	0.017	0.0019		
Maximum Value	7.93	57	0.023	0.0320		
06/21/95	7.47		.007			
08/22/95	7.87		.002			
09/27/95	7.93	1	.016	.002		
JAN 1995 - DEC 1995						
Mean	7.76	1	0.008	0.002		
Minimum Value	7.47	1	0.002	0.002		
Maximum Value	7.93	1	0.016	0.002		
Date	TOTAL COPPER mg/l	TOTAL NICKEL mg/l	TOTAL MERCURY ug/l	TOTAL LEAD mg/l	TOTAL ZINC mg/l	
07/03/94	0.002	0.003	0.05	0.005	0.005	
07/31/94	0.002	0.005	0.05	0.005	0.005	
09/06/94	0.005	0.004	0.05	0.005	0.005	
JAN 1994 - DEC 1994						
Mean	0.003	0.004	0.05	0.005	0.005	
Minimum Value	0.002	0.003	0.05	0.005	0.005	
Maximum Value	0.005	0.005	0.05	0.005	0.005	
06/21/95	.0025	.0045	0.02	.0009	.020	
08/22/95	.0014	.0040	0.02	.0018	.005	
09/27/95	<.0010	<.0010	0.05	<.0050	<.005	
JAN 1995 - DEC 1995						
Mean	0.0016	0.0032	0.03	0.0026	0.010	
Minimum Value	0.0010	0.0010	0.02	0.0009	0.005	
Maximum Value	0.0025	0.0045	0.05	0.0050	0.020	

HOMESTAKE CANADA INC.
CULLATON LAKE WATER QUALITY
1994 - 1995 DATA

P.2

STATION: 940-3: POND #2 DISCHARGE

Date	LAB PH pH unit	SUSPENDED SOLIDS mg/l	TOTAL CYANIDE mg/l	TOTAL ARSENIC mg/l
07/03/94	7.73	1	0.002	0.0020
07/31/94	8.63	5	0.004	0.0049
09/06/94	7.82	26	0.004	0.0047
JAN 1994 - DEC 1994				
Mean	8.06	11	0.003	0.0039
Minimum Value	7.73	1	0.002	0.0020
Maximum Value	8.63	26	0.004	0.0049
06/21/95	7.34		.005	
08/22/95	8.13		.005	
09/27/95	7.84	3	.004	.0017
JAN 1995 - DEC 1995				
Mean	7.77	3	0.005	0.0017
Minimum Value	7.34	3	0.004	0.0017
Maximum Value	8.13	3	0.005	0.0017

Date	TOTAL COPPER mg/l	TOTAL NICKEL mg/l	TOTAL MERCURY ug/l	TOTAL LEAD mg/l	TOTAL ZINC mg/l
07/03/94	0.007	0.007	0.05	0.005	0.005
07/31/94	0.005	0.009	0.05	0.005	0.007
09/06/94	0.007	0.005	0.05	0.005	0.011
JAN 1994 - DEC 1994					
Mean	0.006	0.007	0.05	0.005	0.008
Minimum Value	0.005	0.005	0.05	0.005	0.005
Maximum Value	0.007	0.009	0.05	0.005	0.011
06/21/95	.0042	.0044	0.02	.0003	.009
08/22/95	.0048	.0053	0.02	.0016	.006
09/27/95	.0030	.0010	0.05	<.0050	<.005
JAN 1995 - DEC 1995					
Mean	0.0040	0.0036	0.03	0.0023	0.007
Minimum Value	0.0030	0.0010	0.02	0.0003	0.005
Maximum Value	0.0048	0.0053	0.05	0.0050	0.009

HOMESTAKE CANADA INC.
CULLATON LAKE WATER QUALITY
1994 - 1995 DATA

P.3

STATION: 940-18: TAILINGS POND #1 SPILLWAY

Date	LAB PH pH unit	SUSPENDED SOLIDS mg/l	TOTAL CYANIDE mg/l	TOTAL ARSENIC mg/l
06/21/94	7.9		0.004	0.002
08/09/94	8.3		0.005	0.0014
JAN 1994 - DEC 1994				
Mean	8.1		0.005	0.0017
Minimum Value	7.9		0.004	0.0014
Maximum Value	8.3		0.005	0.0020
06/21/95	7.53		.005	
08/22/95	7.83		.008	
JAN 1995 - DEC 1995				
Mean	7.68		0.007	
Minimum Value	7.53		0.005	
Maximum Value	7.83		0.008	

Date	TOTAL COPPER mg/l	TOTAL NICKEL mg/l	TOTAL MERCURY ug/l	TOTAL LEAD mg/l	TOTAL ZINC mg/l
06/21/94	0.002	0.004	0.02	0.003	<0.005
08/09/94	0.007	0.005	0.02	0.001	<0.005
JAN 1994 - DEC 1994					
Mean	0.005	0.005	0.02	0.002	0.005
Minimum Value	0.002	0.004	0.02	0.001	0.005
Maximum Value	0.007	0.005	0.02	0.003	0.005
06/21/95	.0021	.0050	.02	.0008	.005
08/22/95	.0019	.0032	.02	.0016	.0005
JAN 1995 - DEC 1995					
Mean	0.0020	0.0041	0.02	0.0012	0.0027
Minimum Value	0.0019	0.0032	0.02	0.0008	0.0005
Maximum Value	0.0021	0.0050	0.02	0.0016	0.0050

HOMESTAKE CANADA INC.
CULLATON LAKE WATER QUALITY
1994 - 1995 DATA

P.4

STATION: 940-19: TAILINGS POND #1 PIESOMETER

Date	LAB PH pH unit	SUSPENDED SOLIDS mg/l	TOTAL CYANIDE mg/l	TOTAL ARSENIC mg/l
06/21/94	7.9		0.004	0.002
07/03/94	8.0	1.0	0.016	0.004
07/31/94	7.9	1.0	0.022	0.003
08/09/94	8.3		0.005	0.001
09/06/94	8.0	2.0	0.013	0.003
JAN 1994 - DEC 1994				
Mean	8.0	1.3	0.012	0.003
Minimum Value	7.9	1.0	0.004	0.001
Maximum Value	8.3	2.0	0.022	0.004
09/27/95	7.89	1	.017	.0017
JAN 1995 - DEC 1995				
Mean	7.89	1	0.017	0.0017
Minimum Value	7.89	1	0.017	0.0017
Maximum Value	7.89	1	0.017	0.0017

Date	TOTAL COPPER mg/l	TOTAL NICKEL mg/l	TOTAL MERCURY ug/l	TOTAL LEAD mg/l	TOTAL ZINC mg/l
06/21/94	0.002	0.004	0.02	0.003	0.005
07/03/94	0.001	0.002	0.05	0.005	0.005
07/31/94	0.003	0.004	0.05	0.005	0.009
08/09/94	0.007	0.005	0.02	0.001	0.005
09/06/94	0.002	0.001	0.08	0.005	0.022
09/27/94			0.05		
JAN 1994 - DEC 1994					
Mean	0.003	0.003	0.04	0.004	0.009
Minimum Value	0.001	0.001	0.02	0.001	0.005
Maximum Value	0.007	0.005	0.08	0.005	0.022
09/27/95	.0010	<.0010	<.05	<.0050	<.005
JAN 1995 - DEC 1995					
Mean	0.0010	0.0010	0.05	0.0050	0.005
Minimum Value	0.0010	0.0010	0.05	0.0050	0.005
Maximum Value	0.0010	0.0010	0.05	0.0050	0.005

HOMESTAKE CANADA INC.
CULLATON LAKE WATER QUALITY
1994 - 1995 DATA

P.5

STATION: 940-20: EAST SIDE OF TAILINGS POND #1

Date	LAB PH pH unit	SUSPENDED SOLIDS mg/l	TOTAL CYANIDE mg/l	TOTAL ARSENIC mg/l
06/21/94	7.9		0.081	0.002
07/03/94	7.9	1.0	0.017	0.003
07/31/94	8.1	3.0	0.005	0.002
08/09/94	8.4		0.004	0.002
09/06/94	8.0	13.0	0.008	0.004

JAN 1994 - DEC 1994

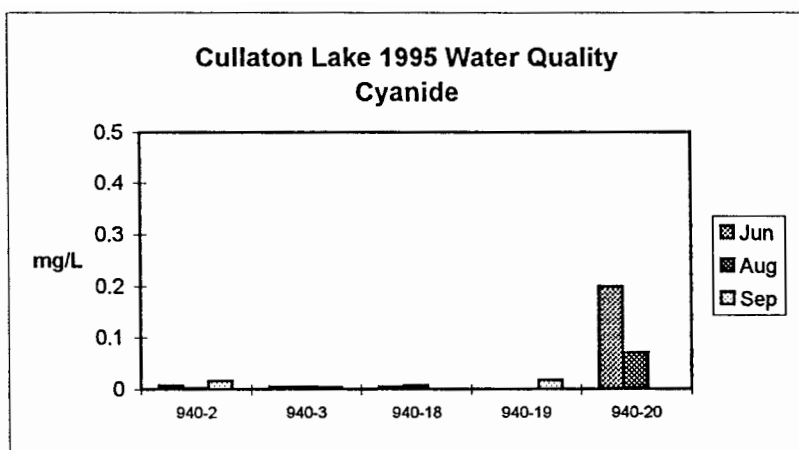
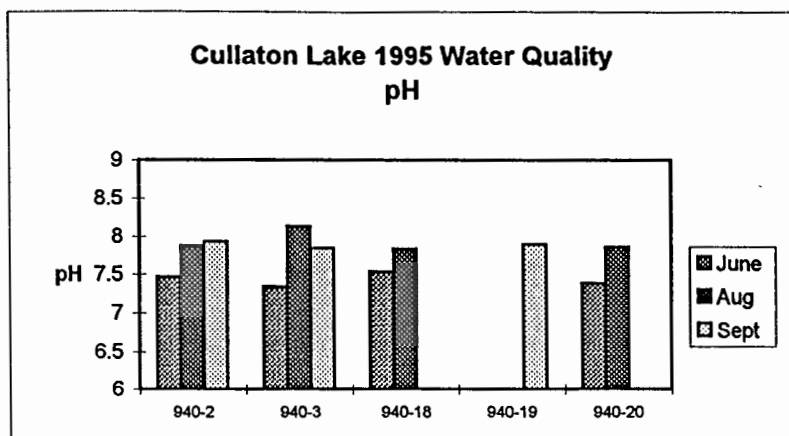
Mean	8.1	5.7	0.023	0.003
Minimum Value	7.9	1.0	0.004	0.002
Maximum Value	8.4	13.0	0.081	0.004

06/21/95	7.38		.200	
08/22/95	7.86		.070	

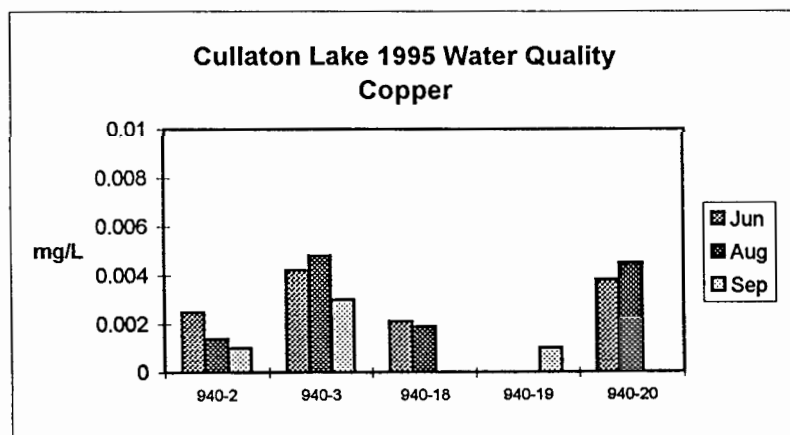
JAN 1995 - DEC 1995

Mean	7.62		0.135	
Minimum Value	7.38		0.070	
Maximum Value	7.86		0.200	

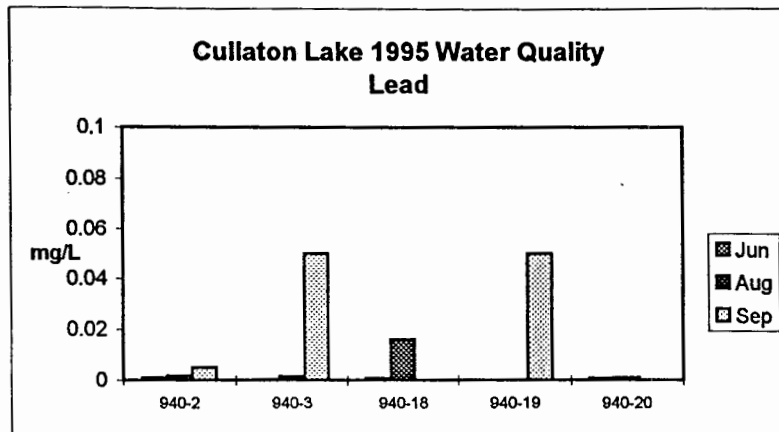
Date	TOTAL COPPER mg/l	TOTAL NICKEL mg/l	TOTAL MERCURY ug/l	TOTAL LEAD mg/l	TOTAL ZINC mg/l
06/21/94	0.005	0.011		0.003	0.005
07/03/94	0.002	0.004	0.05	0.005	0.005
07/31/94	0.008	0.009	0.05	0.005	0.005
08/09/94	0.010	0.011	0.02	0.001	0.005
09/06/94	0.009	0.008	0.05	0.005	0.005
JAN 1994 - DEC 1994					
Mean	0.007	0.009	0.04	0.004	0.005
Minimum Value	0.002	0.004	0.02	0.001	0.005
Maximum Value	0.010	0.011	0.05	0.005	0.005
06/21/95	.0038	.0176	0.02	.0007	.005
08/22/95	.0045	.0251	0.02	.0010	.005
JAN 1995 - DEC 1995					
Mean	0.0041	0.0214	0.02	0.0009	0.005
Minimum Value	0.0038	0.0176	0.02	0.0007	0.005
Maximum Value	0.0045	0.0251	0.02	0.0010	0.005



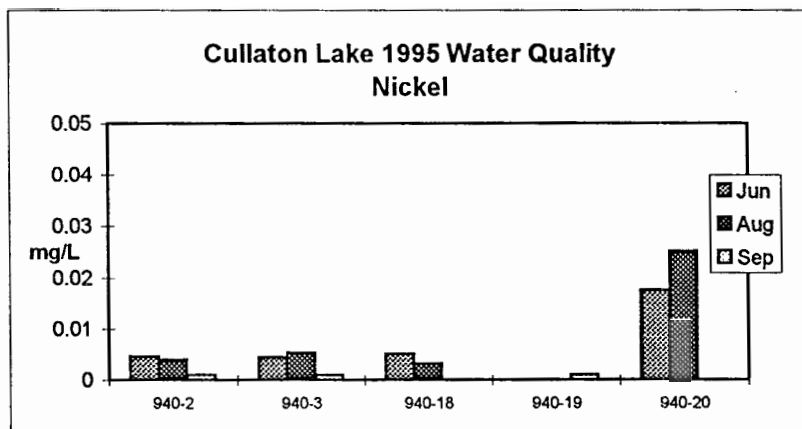
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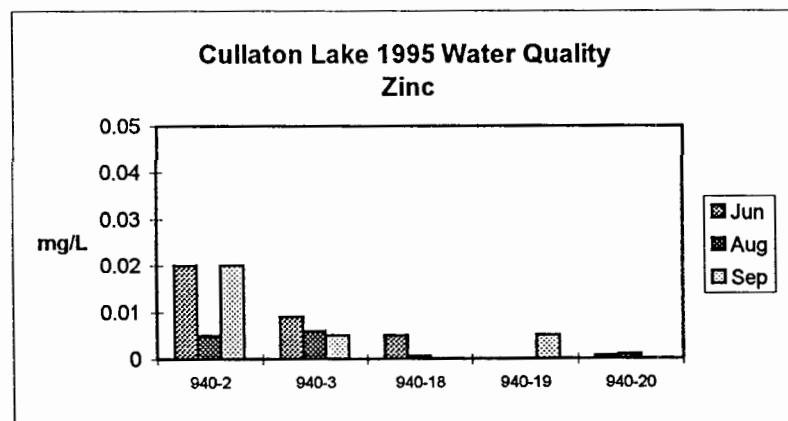
Permit Requirements - Max. Average concentration - 0.20 mg/L



Permit Requirements - Max. Average concentration - 0.20 mg/L



Permit Requirements - Max. Average concentration - 0.30 mg/L



Permit Requirements - Max. Average concentration - 0.30 mg/L



Indian and Northern
Affairs Canada

Affaires indiennes
et du Nord Canada

Box 100
Iqaluit, NT.
X0A 0H0

Your file Votre référence

Our file Notre référence

October 12, 1995

N6L3-0940

Mr. W. Napier
Director Environmental Affairs
Homestake Canada Ltd.
1000 - 700 West Pender St.
Vancouver, BC. V6C 1G8

Dear Mr. Napier:

RE: CULLATON LAKE, SAMPLE ANALYSIS REPORTS FOR AUGUST 22, 1995

Enclosed are copies of the Sample Analysis Reports for the samples collected by the undersigned on August 22, 1995. The sample results are well within the limits prescribed in the Water Licence N6L3-0940.

The reports are self explanatory but should you have any questions please feel free to contact the undersigned at (819) 979-4405.

Sincerely,

Dan Elliott
A/District Manager
Nunavut District

encl: Analysis Reports

cc: Keewatin Area Office
Water Resources Division

RECEIVED

OCT 02 1995

DIAN & NORTHERN AFFAIRS
WATER RESOURCES LABORATORY
Box 1500
Yellowknife, NT. X1A 2R3
Tel. (403) 920-8129
Fax. (403) 873-9300

To: Cullaton Lake Area
c/o INAC/NAP
Water Resources
Yellowknife District office
==> Yellowknife NT
D.Elliott

D.I.A.N.D.
IGALUIT, NT

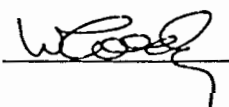
SAMPLE INFORMATION

Our Lab # : 950865
Your Sample ID: 940-20
Sample Matrix : effluent

Account No.: N6L30940

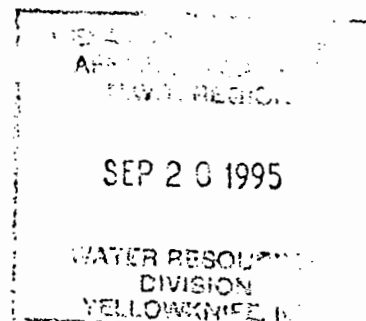
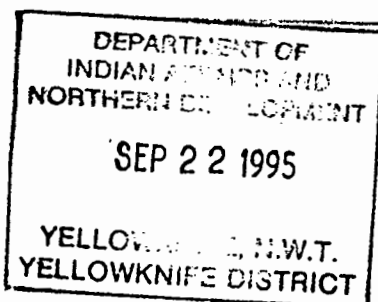
Collection:
Location: Cullaton Lake Minesite
Date: 08/22/95
By: DE/HK

Report Date: 09/20/95

Approved by: 

- SAMPLE ANALYSIS REPORT -

Lab#	Parameter	Result Units	Detect Limit	Method Code
950865	T.Cadmium ICP-MS	0.2 ug/L	0.100	100133
	Conductivity	687.0 uS/cm	0.100	02041
	T.Cobalt ICP-MS	32.3 ug/L	0.100	100115
	T.Chromium ICP-MS	1.0 ug/L	0.200	100111
	T.Copper ICP-MS	4.5 ug/L	0.100	100119
	T.Manganese ICP-MS	3220.0 ug/L	0.100	100113
	Non-Filt Res.	16 mg/L	3.000	10406
	Ammonia-N	0.772 mg/L	0.002	07562
	T.Nickel ICP-MS	25.1 ug/L	0.100	100117
	NO3-N+NO2-N	1.590 mg/L	0.008	07110
	T.Lead ICP-MS	1.0 ug/L	0.200	100145
	pH	7.86 pH	0.050	10301
	T.Arsenic-Hyd.	3.5 ug/L	0.300	33011
	Tot.Cyanide	0.070 mg/L	0.004	06613
	T.Iron	811 ug/L	20.000	26004
	T.Iron	N/A ug/L	3.000	26002
	T.Mercury-C/V	LO.02 ug/L	0.020	80011
	T.Zinc ICP-MS	5.0 ug/L	5.000	100121



INDIAN & NORTHERN AFFAIRS
WATER RESOURCES LABORATORY
Box 1500
Yellowknife, NT. X1A 2R3
Tel. (403) 920-8129
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To: Cullaton Lake Area
c/o INAC/NAP
Water Resources
Yellowknife District Office
==> Yellowknife NT
D.Elliott

SAMPLE INFORMATION

Our Lab # : 950869
Your Sample ID: 940-18
Sample Matrix : effluent

Account No.: N6L30940

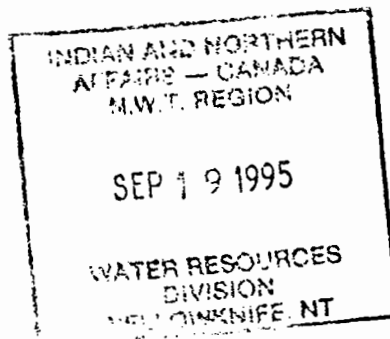
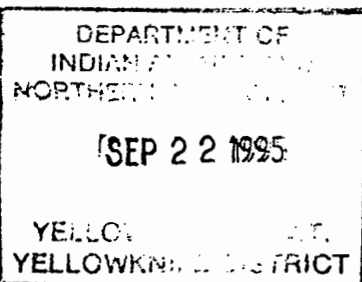
Collection:
Location: Cullaton Lake Minesite
Date: 08/22/95
By: DE/HK

Report Date: 09/08/95

Approved by: Wood

- SAMPLE ANALYSIS REPORT -

Lab#	Parameter	Result Units	Detect Limit	Method Code
950869	T.Cadmium ICP-MS	L0.1 ug/L	0.100	100133
	Conductivity	595.0 uS/cm	0.100	02041
	T.Cobalt ICP-MS	5.6 ug/L	0.100	100115
	T.Chromium ICP-MS	0.9 ug/L	0.200	100111
	T.Copper ICP-MS	1.9 ug/L	0.100	100119
	T.Manganese ICP-MS	57.3 ug/L	0.100	100113
	Non-Filt Res.	L3 mg/L	3.000	10406
	Ammonia-N	0.079 mg/L	0.002	07562
	T.Nickel ICP-MS	3.2 ug/L	0.100	100117
	NO3-N+NO2-N	0.276 mg/L	0.008	07110
	T.Lead ICP-MS	1.6 ug/L	0.200	100145
	pH	7.83 pH	0.050	10301
	T.Arsenic-Hyd.	3.5 ug/L	0.300	33011
	Tot.Cyanide(low)	0.008 mg/L	0.001	06612
	T.Iron	201 ug/L	20.000	26004
	T.Iron	N/A ug/L	3.000	26002
	T.Mercury-C/V	L0.02 ug/L	0.020	80011
	T.Zinc ICP-MS	L0.5 ug/L	0.500	100121



INDIAN & NORTHERN AFFAIRS
WATER RESOURCES LABORATORY
Box 1500
Yellowknife, NT. X1A 2R3
Tel. (403) 920-8129
Fax. (403) 873-9300

To: Cullaton Lake Area
c/o INAC/NAP
Water Resources
Yellowknife District Office
==> Yellowknife NT
D.Elliott

SAMPLE INFORMATION

Our Lab # : 950868
Your Sample ID: 940-7
Sample Matrix : effluent

Account No.: N6L30940

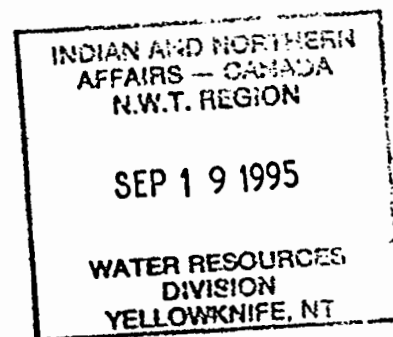
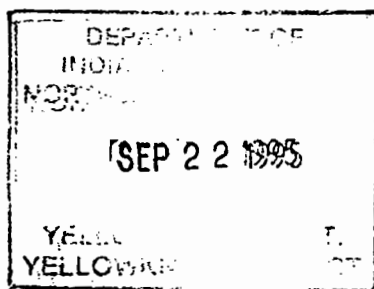
Collection:
Location: Cullaton Lake Minesite
Date: 08/22/95
By: DE/HK

Report Date: 09/08/95

Approved by: W. Wood

- SAMPLE ANALYSIS REPORT -

Lab#	Parameter	Result Units	Detect Limit	Method Code
950868	T.Cadmium ICP-MS	L0.1 ug/L	0.100	100133
	Conductivity	110.0 uS/cm	0.100	02041
	T.Cobalt ICP-MS	0.5 ug/L	0.100	100115
	T.Chromium ICP-MS	0.7 ug/L	0.200	100111
	T.Copper ICP-MS	1.6 ug/L	0.100	100119
	T.Manganese ICP-MS	19.6 ug/L	0.100	100113
	Non-Filt Res.	18 mg/L	3.000	10406
	Ammonia-N	0.013 mg/L	0.002	07562
	T.Nickel ICP-MS	3.9 ug/L	0.100	100117
	NO3-N+NO2-N	0.124 mg/L	0.008	07110
	T.Lead ICP-MS	0.7 ug/L	0.200	100145
	pH	7.09 pH	0.050	10301
	T.Arsenic-Hyd.	1.7 ug/L	0.300	33011
	Tot.Cyanide(low)	0.005 mg/L	0.001	06612
	T.Iron	209 ug/L	20.000	26004
	T.Iron	N/A ug/L	3.000	26002
	T.Mercury-C/V	L0.02 ug/L	0.020	80011
	T.Zinc ICP-MS	7.0 ug/L	5.000	100121



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Fax. (403) 873-9300

To: Cullaton Lake Area
c/o INAC/NAP
Water Resources
Yellowknife District Office
==> Yellowknife NT
D.Elliott

SAMPLE INFORMATION

Our Lab # : 950867
Your Sample ID: 940-3
Sample Matrix : effluent

Account No.: N6L30940

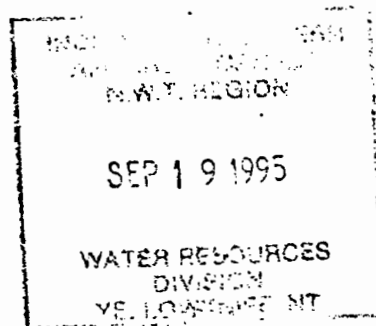
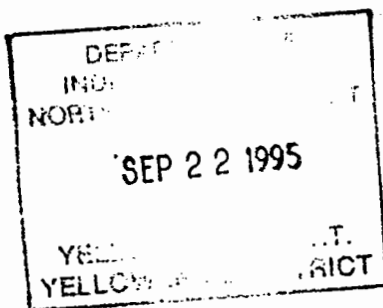
Collection:
Location: Cullaton Lake Minesite
Date: 08/22/95
By: DE/HK

Report Date: 09/08/95

Approved by: W. Elliott

- SAMPLE ANALYSIS REPORT -

Lab#	Parameter	Result	Units	Detect Limit	Method Code
950867	T.Cadmium ICP-MS	LO.1	ug/L	0.100	100133
	Conductivity	373.0	uS/cm	0.100	02041
	T.Cobalt ICP-MS	2.2	ug/L	0.100	100115
	T.Chromium ICP-MS	1.0	ug/L	0.200	100111
	T.Copper ICP-MS	4.8	ug/L	0.100	100119
	T.Manganese ICP-MS	57.4	ug/L	0.100	100113
	Non-Filt Res.	L3	mg/L	3.000	10406
	Ammonia-N	0.031	mg/L	0.002	07562
	T.Nickel ICP-MS	5.3	ug/L	0.100	100117
	NO3-N+NO2-N	0.086	mg/L	0.008	07110
	T.Lead ICP-MS	1.6	ug/L	0.200	100145
	pH	8.13	pH	0.050	10301
	T.Arsenic-Hyd.	2.3	ug/L	0.300	33011
	Tot.Cyanide(low)	0.005	mg/L	0.001	06612
	T.Iron	190	ug/L	20.000	26004
	T.Iron	N/A	ug/L	3.000	26002
	T.Mercury-C/V	LO.02	ug/L	0.020	80011
	T.Zinc ICP-MS	6.0	ug/L	5.000	100121



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WATER RESOURCES LABORATORY
Box 1500
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Fax. (403) 873-9300

To: Cullaton Lake Area
c/o INAC/NAP
Water Resources
Yellowknife District Office
==> Yellowknife NT
D.Elliott

SAMPLE INFORMATION

Our Lab # : 950866
Your Sample ID: 940-2
Sample Matrix : effluent

Account No.: N6L30940

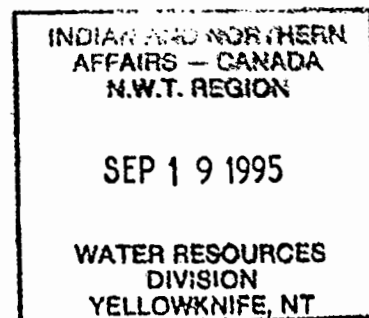
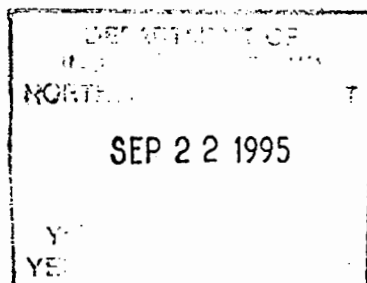
Collection:
Location: Cullaton Lake Minesite
Date: 08/22/95
By: DE/HK

Report Date: 09/08/95

Approved by: W. Wood

- SAMPLE ANALYSIS REPORT -

Lab#	Parameter	Result Units	Detect Limit	Method Code
950866	T.Cadmium ICP-MS	L0.1 ug/L	0.100	100133
	Conductivity	583.0 uS/cm	0.100	02041
	T.Cobalt ICP-MS	6.0 ug/L	0.100	100115
	T.Chromium ICP-MS	1.0 ug/L	0.200	100111
	T.Copper ICP-MS	1.4 ug/L	0.100	100119
	T.Manganese ICP-MS	47.1 ug/L	0.100	100113
	Non-Filt Res.	3 mg/L	3.000	10406
	Ammonia-N	0.070 mg/L	0.002	07562
	T.Nickel ICP-MS	4.0 ug/L	0.100	100117
	NO3-N+NO2-N	0.265 mg/L	0.008	07110
	T.Lead ICP-MS	1.8 ug/L	0.200	100145
	pH	7.87 pH	0.050	10301
	T.Arsenic-Hyd.	4.2 ug/L	0.300	33011
	Tot.Cyanide(low)	0.002 mg/L	0.001	06612
	T.Iron	381 ug/L	20.000	26004
	T.Iron	N/A ug/L	3.000	26002
	T.Mercury-C/V	L0.02 ug/L	0.020	80011
	T.Zinc ICP-MS	L5 ug/L	5.000	100121



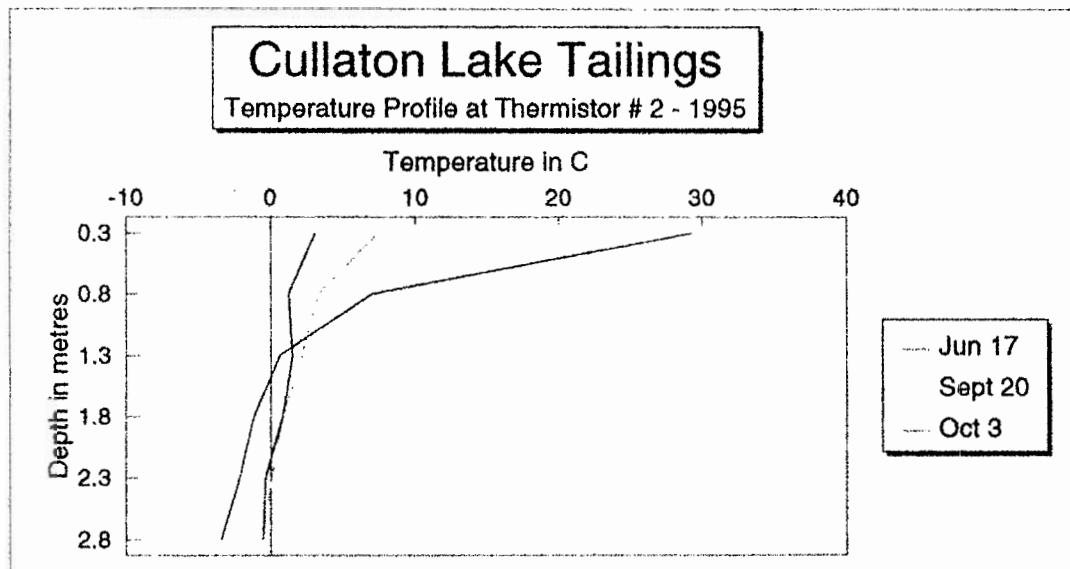
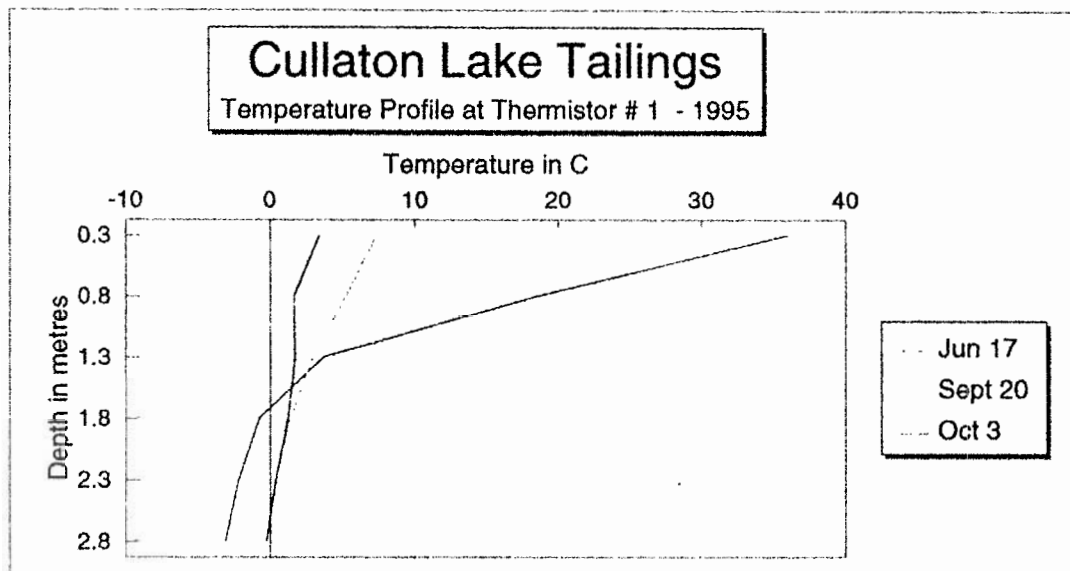
CULLATON LAKE TAILINGS AREA
THERMISTOR READINGS
1995

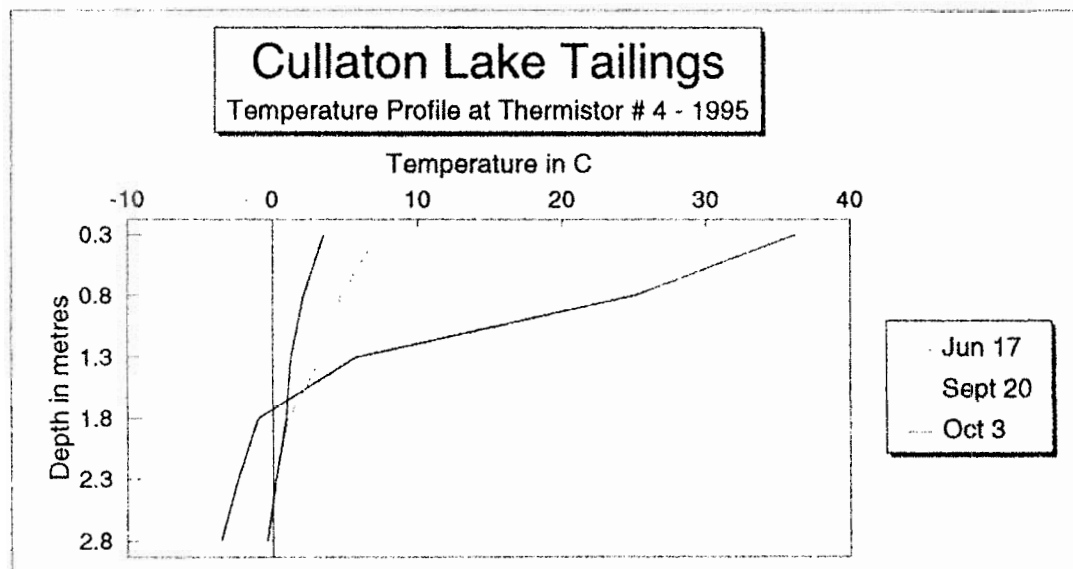
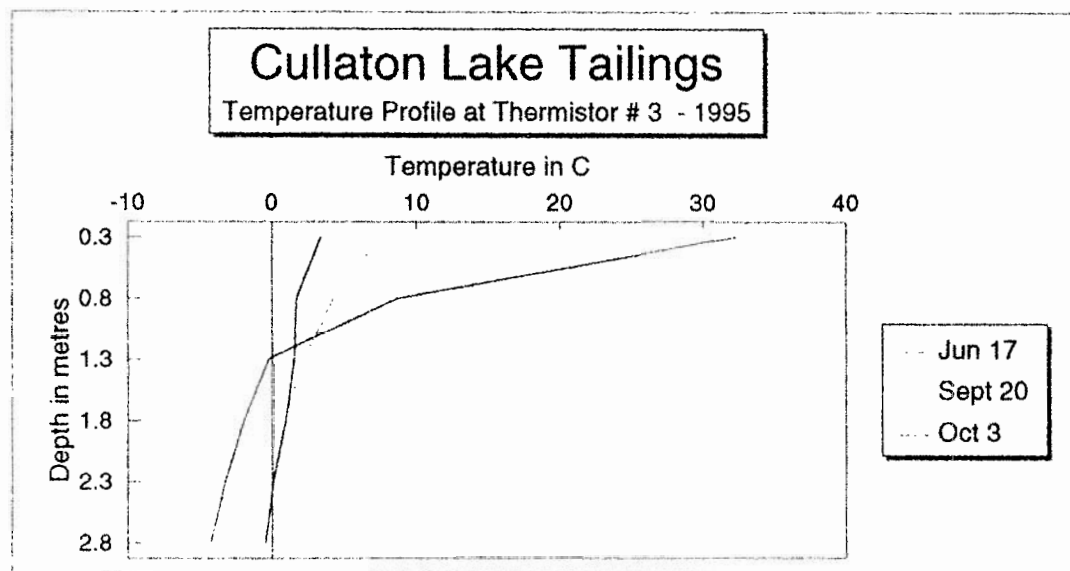
Readings In Kilohms

Date	Thermistor Number	Position 0	Position 1	Position 2	Position 3	Position 4	Position 5
17-Jun-95	#1	3.17	6.68	13.52	16.99	18.28	19.20
20-Sep-95	#1	11.31	12.55	14.03	15.19	16.07	16.56
3-Oct-95	#1	13.74	14.95	14.96	15.33	16.00	16.55
17-Jun-95	#2	4.14	11.47	15.81	17.33	18.25	19.50
20-Sep-95	#2	11.26	13.80	14.64	15.67	16.17	16.84
3-Oct-95	#2	13.96	15.35	15.13	15.65	16.66	16.81
17-Jun-95	#3	3.64	10.59	16.50	18.04	19.30	20.30
20-Sep-95	#3	11.22	13.12	14.57	15.61	16.23	16.74
3-Oct-95	#3	13.72	14.94	15.09	15.58	16.23	16.71
17-Jun-95	#4	3.10	4.99	12.22	17.21	18.47	19.60
20-Sep-95	#4	11.35	12.83	13.73	15.42	16.18	16.67
3-Oct-95	#4	13.64	14.64	15.30	15.56	16.15	16.67

Readings in Celcius

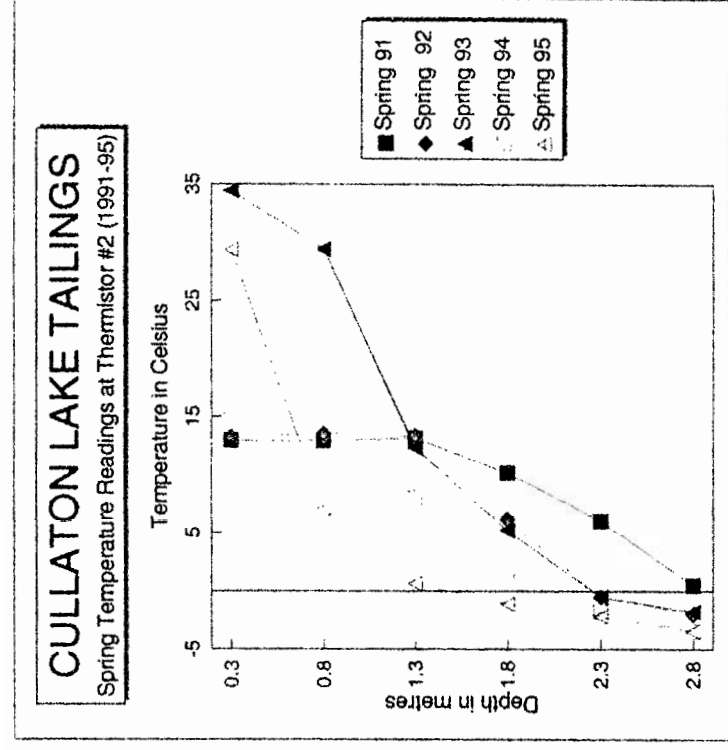
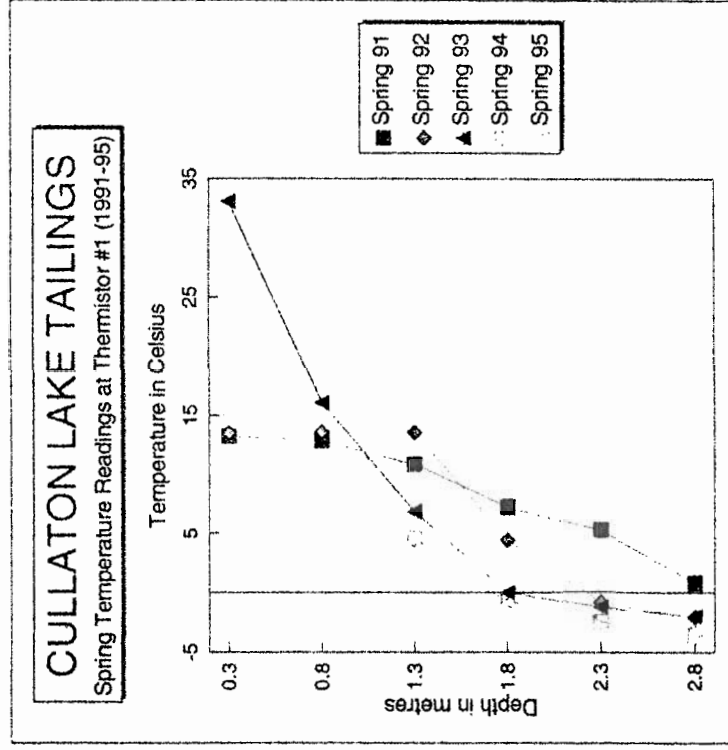
Date	Thermistor Number	Position 0	Position 1	Position 2	Position 3	Position 4	Position 5
17-Jun-95	#1	35.99	18.51	3.74	-0.76	-2.18	-3.13
20-Sep-95	#1	7.36	5.25	2.97	1.44	0.32	-0.27
3-Oct-95	#1	3.42	1.64	1.73	1.25	0.41	-0.26
17-Jun-95	#2	29.36	7.07	0.64	-1.15	-2.16	-3.43
20-Sep-95	#2	7.45	3.33	2.16	0.82	0.08	-0.60
3-Oct-95	#2	3.11	1.23	1.51	0.84	-0.38	-0.56
17-Jun-95	#3	32.39	8.71	-0.20	-1.93	-3.23	-4.20
20-Sep-95	#3	7.53	4.34	2.25	0.89	0.12	-0.48
3-Oct-95	#3	3.45	1.76	1.57	1.00	0.12	-0.44
17-Jun-95	#4	36.25	25.04	5.79	-1.02	-2.38	-3.53
20-Sep-95	#4	7.29	4.79	3.43	1.13	0.18	-0.39
3-Oct-95	#4	3.57	2.16	1.29	0.95	0.22	-0.39





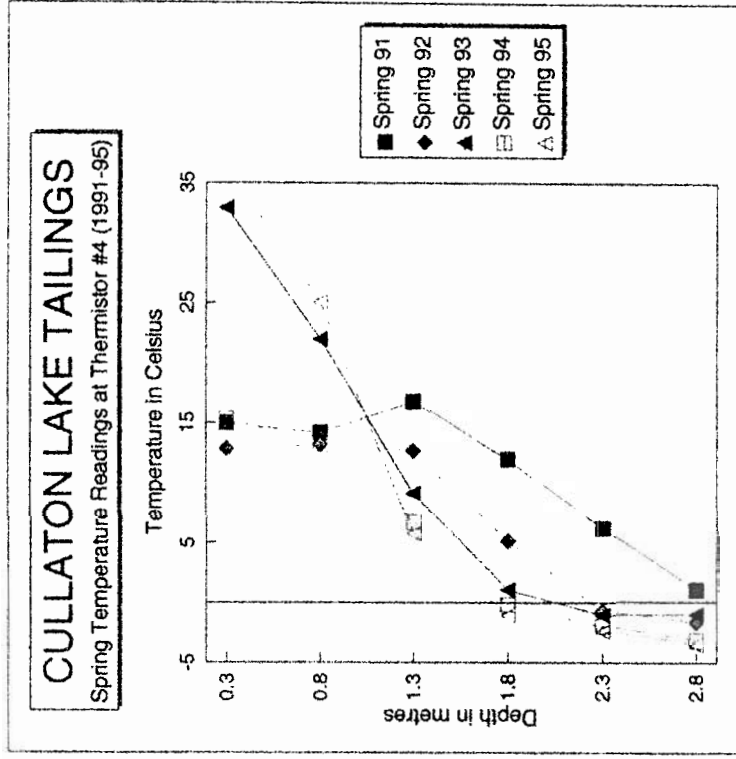
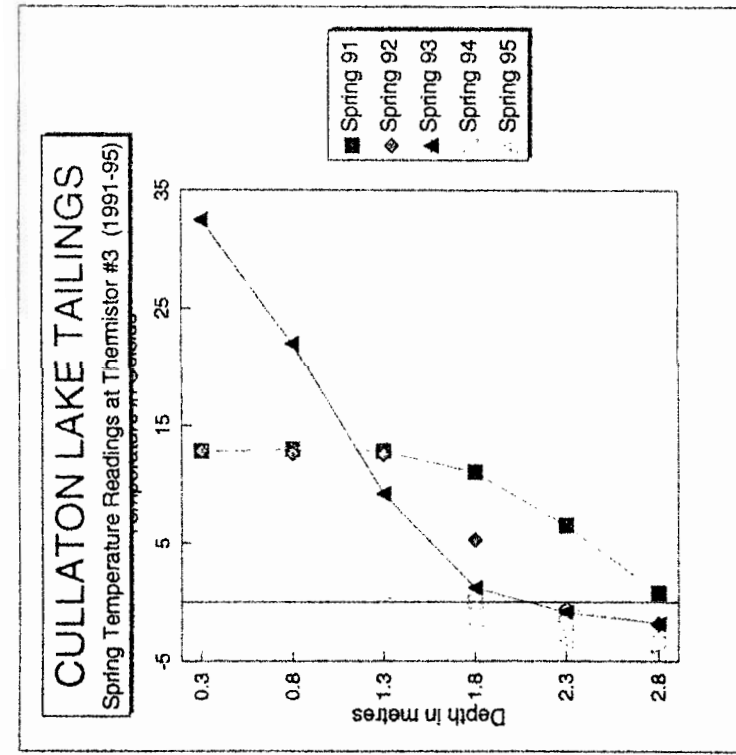
CULLATON LAKE

1995 THERMISTOR DATA



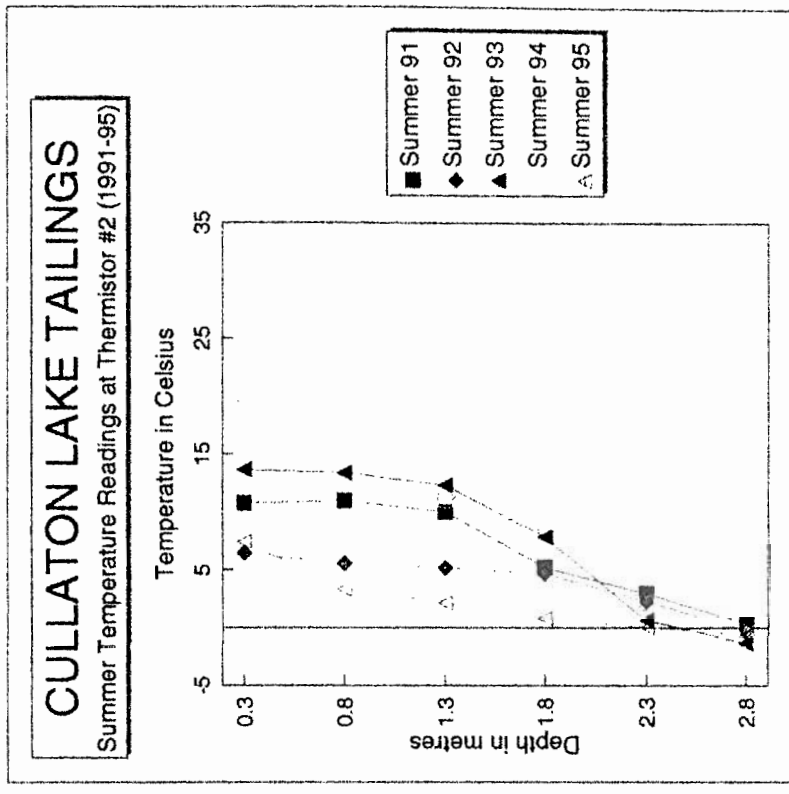
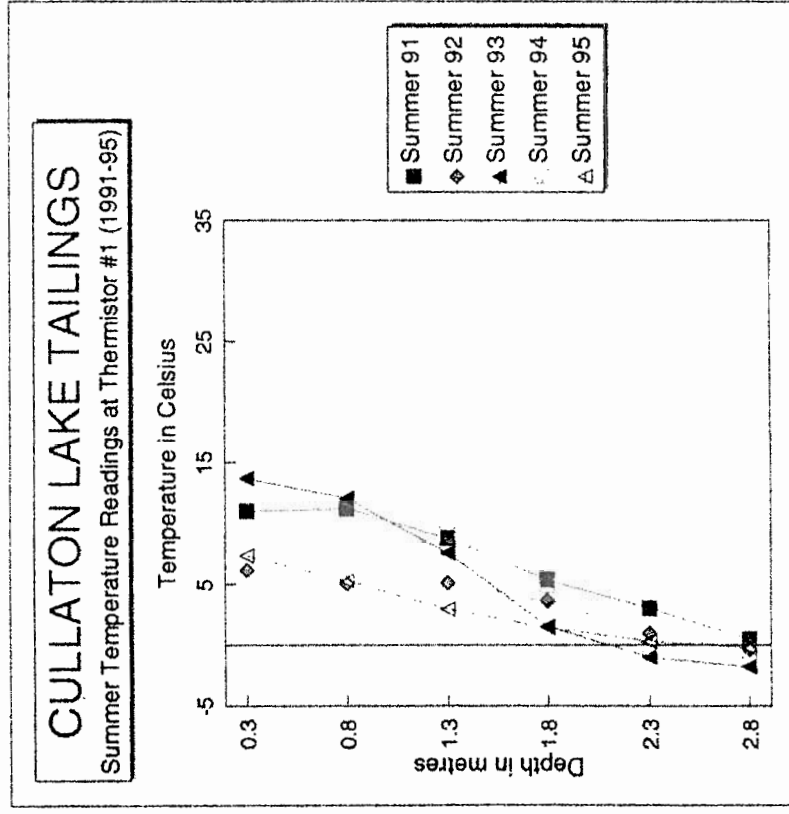
CULLATON LAKE

1995 THERMISTOR DATA



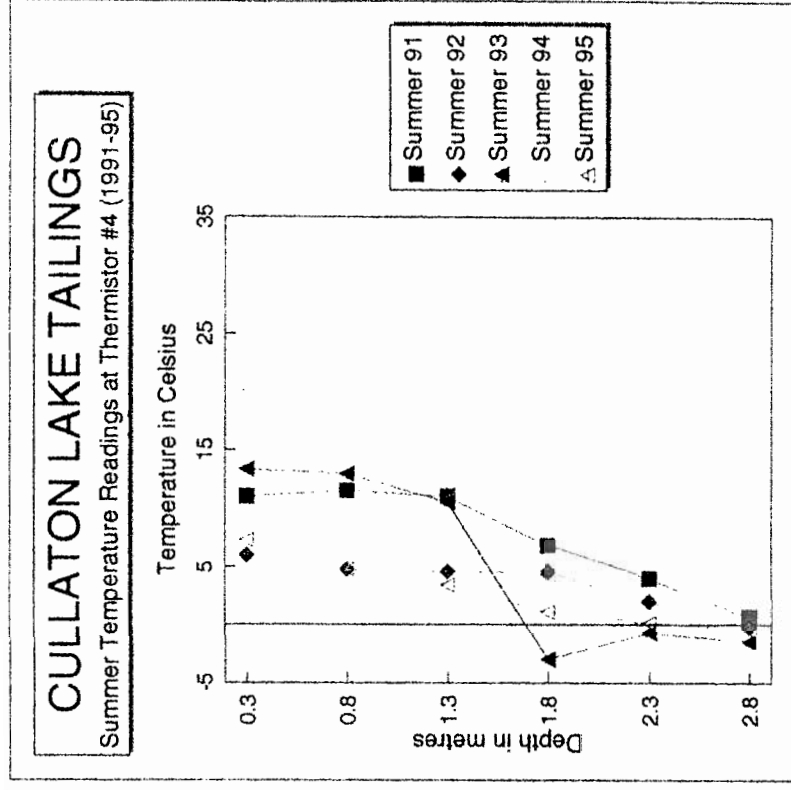
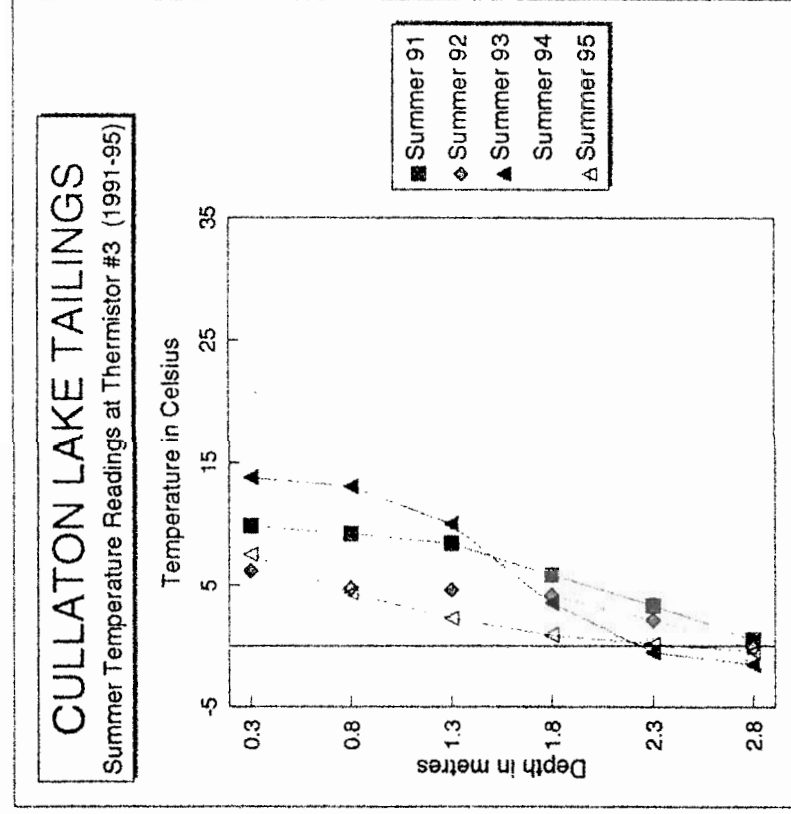
CULLATON LAKE

1995 THERMISTOR DATA



CULLATON LAKE

1995 THERMISTOR DATA





Indian and Northern
Affairs Canada

Affaires indiennes
et du Nord Canada

P.O. Box 100
Iqaluit, N.W.T.
X0A 0H0

Your file Votre référence

Our file Notre référence

September 11, 1995

N6L3-0940

Mr. W. Napier
Director Environmental Affairs
Homestake Canada Ltd.
1000 - 700 West Pender St.
Vancouver, BC. V6C 1G8

Dear Mr. Napier:

**RE: CULLATON LAKE, HOMESTAKE CANADA LTD. - AUGUST 22, 1995
INSPECTION REPORT - NORTHWEST TERRITORIES WATERS ACT -
WATER LICENCE N6L3-0940**

Enclosed is a copy of the inspection report prepared by the undersigned, an Inspector designated under the Northwest Territories Waters Act. The report is self explanatory as are the concerns raised in the text of the report. There are some concerns related to some minor spills on the site as well as the actual use/operation of the Quarry Pit as a bulky waste disposal area.

It is realized that due to recent storm events, there was a considerable increase in the precipitation in the area but the Inspector was concerned as to whether or not the pit was dewatered prior to its use as a disposal site and if not, why? There remains the concern, as stated in the TAC forum prior to the drafting of the renewed Water Licence, that, if water is allowed into the pit area prior to capping of the site, then frost heaving of materials due to the expansion of water as it freezes, was likely to happen. I was under the impression that the pit was to be drained or pumped out and the materials to be disposed of in the pit were to be made to lie flat and compacted. From the evidence I saw at the site, greater efforts are required to compact the materials prior to the abandonment of the pit area.

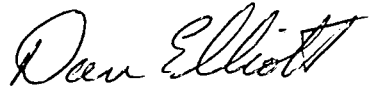
The samples taken while on site were forwarded to the Northern Analytical Lab for analysis. Once the results of this analysis have been received, they will be forwarded to your office for your consideration.

.../2

Canada

If you have any questions related to this report please feel free to contact the undersigned at (819) 979-4405.

Sincerely,

A handwritten signature in cursive script that reads "Dan Elliott".

Dan Elliott
A/District Manager, Nunavut District
Department of Indian and Northern Affairs

DME/de

encl: Inspection Report

cc: Water Resources Division DIAND
Land Resources Division DIAND
Keewatin Area Office



INDUSTRIAL WATER USE INSPECTION REPORT

DATE: 95-08-22 COMPANY REP.: Mr. B. Napier
LICENSEE: Homestake Canada Inc LICENCE #: N6L2-0940

WATER SUPPLY

Source: Kogonk R. Quantity Used: minimal Meter Rdg.: N/A

Indicate: A - Acceptable U - Unacceptable N/A - Not Applicable

Intake Facilities	<u>A</u>	Storage Structures	<u>N/A</u>	Treatment Systems	<u>N/A</u>	Recycling	<u>N/A</u>
Flow Meas. Device	<u>N/A</u>	Conveyance Lines	<u>N/A</u>	Pumping Stations	<u>N/A</u>	Modifications	<u>N/A</u>

Comments: Minimal water used at present only for domestic purposes
for very small camp. - Dock, constructed of granular
material remains on site.

WASTE DISPOSAL

Tailings: Tailings Pond ☒ Natural Lake ☐ Underground ☐

Sewage: Sewage Treat. System ☐ Tailings Pond ☐ Natural Water Body ☐
Continuous Discharge ☐ Inter. Dischg. ☒

Solid Waste: Open Dump ☐ Landfill ☐ Burn & Bury ☒ Underground ☐

Indicate: A - Acceptable U - Unacceptable N/A - Not Applicable

Discharge Quality	<u>A</u>	Conveyance Lines	<u>N/A</u>	Disch. Meas. Dev.	<u>N/A</u>	Freeboard	<u>A</u>
Decant Structures	<u>A</u>	Pond Treatment	<u>A</u>	Dams, Dykes	<u>A</u>	Seepages	<u>N/A</u>
Dyke Inspections	<u>N/A</u>	Runoff Diversion	<u>A</u>	Erosion	<u>A</u>	Spills	<u>NA</u>

Effluent Discharge Rate: _____ Samples Collected: 0940-3, 0940-2, 0940-7, 0940-20, 0940-18

Comments: Dump site is, at present a concrete foundation where domestic
wastes are burnt on an irregular basis - There was a flow
of about 10-20 gpm at the spillway from pond 2 see pg 2 for note on spills

GENERAL CONDITIONS

Indicate: A - Acceptable U - Unacceptable N/A - Not Applicable

Ore & Waste Rock Stockpiles	<u>A</u>	Records & Reporting	<u>A*note 1</u>	Surv. Net. Prog.	<u>A</u>
Geotechnical Inspection	<u>A</u>	Posting, Signage	<u>A</u>	Contingency Plan	<u>A</u>
Restoration Activities	<u>A ongoing</u>	New Construction	<u>N/A</u>	Fuel Storage	<u>A</u>
Mine Water Discharge	<u>N/A</u>	Chemical Storage	<u>N/A</u>	Annual Report	<u>A*note 1</u>

Comments: Note 1 Annual Report was very complete but missing some cold weather
ARD data/report - report was not complete at time of submission - licensee
also provided a small report on progress of Restoration which dealt mainly with land
issues

Violations of Act or Licence: spills, see next page

General Comments: As far as water related concerns go, all is well with
the exception of some minor spills to be reported.

Page 2 attached ☒ Yes ☐ No

NOT AVAILABLE
Licensee Representative's Title

DAN ELLIOTT
Inspector's Name

Licensee Representative's Signature

Dan Elliott
Inspector's Signature



WATER USE INSPECTION REPORT

(continued)

Date: 95-08-22

Licence #: 11617-0940

General Comments: (Continued)

All restoration activities as they relate to water issues are progressing.

Spills: While on site there were a few minor spills and they cause some concern over the methods of dealing with the disposal of the equipment and facilities on site

① by area of Quarry pit there was an area beside one of the underground mining pieces of equipment that exhibited an area of spilled oil on the ground. The equipment was on its side and it appears as if they had tipped the machine over on its side to drain the oil. If this is the case it is an unacceptable method of draining the equipment - care should be made to collect and properly dispose of the oils and hydraulic fluids from the equipment

② By Generators - evidence of oil in a trough that went around the generator engines - this oil is to be cleaned up as it ^{some} the trough (floor sump?) is near full and exposed to the outside therefore precipitation could increase the level to overflowing.

③ By Garage - considerable amount of staining in front that is to be expected this material is to be scraped up & disposed of properly - As well, at side of building there is evidence of a spill not noted before (side of building going towards B Zone Portal). This "spill" is located in a trench below the utilidor - it could be just compressor blowby that has escaped below the pipes in the utilidor. First noted this time because part of wooden utilidor structure was open. This will also have to be properly restored.

- Concern over quarry pit disposal area as follows

Dan Elliott

Water Inspector



WATER USE INSPECTION REPORT (continued)

Date: 95-08-22

Licence #: N6L2-0940

General Comments: (Continued)

Quarry Pit continued

There are some concerns that stem from the Quarry Pit Disposal site. They are as follows:

- ① considerable volume of water present in the pit at time of inspection. Syphon lines still in place but were they used this year? With the volume of water present how are materials carefully made to lie flat so as to minimize frost heaving (materials were to be compacted so as to minimize voids and thus chances for water to get into voids and thus minimize water entrainment and "jacking" upon freezing)
- ② As well, while on site, there was evidence that not all materials in the pit were compacted as well as could be expected. What efforts will be made to make some of the equipment lie flat? Will the pit be dewatered next season to reduce the water entrainment?

Water related concerns associated directly with the A & R of the site progress in a satisfactory manner.

It was unfortunate that no one was on site to accompany the Inspector during his inspection, however scheduling of time for the Inspector was difficult and thus being on site when company representative were on site was difficult.

Dan Elliott

Water Inspector



September 25, 1995

Mr. D. Elliott A/District Manager
Nunavut District
Department of Indian and Northern Affairs
P.O. Box 100
Iqaluit, N.W.T.
X0A 0H0

Dear Mr. Elliott;

Re: Response to Cullaton Lake Inspection Report
Water Licence N6L3-0940

This is to acknowledge the receipt of your inspection report dated September 11, 1995 summarizing your inspection of the Cullaton Lake site on August 22, 1995.

Our response to the issues identified in your letter of transmittal and inspection report is as follows:

1. *Quarry Pit - Syphoning.* The quarry pit was syphoned in early June 1995, prior to the deposition of non-salvageable material into the pit. During the deposition of material into the quarry pit there was no discharge of water. However, during the 5-week dismantling period this summer, over 80 cm of rainfall was measured and, prior to the crew departing the site, approximately 0.5 metres of water was measured in the quarry pit. During the period of September 23 to September 28, 1995, M.E.I. staff will be at Cullaton Lake and the quarry pit will be syphoned out at this time. Prior to the transport of material during the 1996 dismantling season, the quarry pit water will be syphoned once again.

2. *Quarry Pit - Placement of Material.* Both the Company and the decommissioning contractor are aware of the necessity of compacting the material placed in the quarry pit. The material placed in the pit this summer was crushed prior to the placement of a cap. For example, all tanks were opened at both ends, and crushed by the D-8 cat prior to the placement of the capping material.

The uncovered material currently in the quarry pit will be crushed once sufficient material has been placed in the pit and prior to the placement of a cap. This work will be completed in the summer of 1996 with the commencement of further decommissioning.

3. *Quarry Pit - Oil Contaminated Soil.* The underground equipment located near the quarry pit originated from Shear Zone, part of the area that was decommissioned this year. Prior to the transport of the material to the quarry pit, the drain plugs were removed and the oil was drained from the

engines. The oil was collected in a 0.3 m high oil pan and was incinerated. As discussed during our May 25, 1995 meeting, oil-stained areas will be identified and the material will be collected and transported to either B-Zone or S-Zone for placement in the collar.

4. *Generators - Oil Contaminated Soil.* During the fall work period, September 23 to September 28, 1995, oil located in the generator trough will be collected and disposed of, and gravel will be placed in the trough.

5. *Garage - Oil Stained Area.* The oil staining identified by the side of the garage was a result of the compressor blow-by during operations (as you are aware this was part of the Utilidor servicing the fuel air-lines for the B-Zone). The Utilidor was dismantled of 1992. We are not aware of any new oil spills in this area during the past year. As indicated in the previous section, it is our intention to collect the oil-stained material and place it in the collar of one of the mine portals.

We agree it is unfortunate that no Company representative was able to accompany you during the site inspection. Homestake Canada intends to have a project manager at the site for the duration of the decommissioning work in 1996. Once a contractor has been selected and the schedule for work completed, we will inform your office of the period when personnel will be at the site. Perhaps the next inspection will coincide with the presence of Homestake staff.

I trust this response addresses your concerns. Should you have any questions or queries, or wish to discuss these matters further, please do not hesitate to contact me.

Yours truly,
HOMESTAKE CANADA INC.



For W. A. Napier
Manager, Environmental Affairs

APPENDIX 2

Excerpts from *Phase 2: Cold Temperature Leaching*

Column leaching characteristics of Cullaton Lake B and Shear Zone tailings.**Phase 2: Cold temperature leaching.**

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P3E 2C6

EXECUTIVE SUMMARY

Cold temperature column leaching tests at 2° and 10°C were conducted for Cullaton Lake B and Shear (S) Zone tailings to evaluate their oxidation and leaching characteristics at low ambient temperatures. The tests were an extension of the earlier room temperature study in which both B- and S-Zone tailings produced acidic drainage under laboratory simulation conditions.

The tests were conducted in clear acrylic columns, 12.5 cm in diameter and 80 cm tall. Duplicate columns were filled with well mixed tailings from each zone, inoculated with *Thiobacillus ferrooxidans* culture solutions and placed in a walk-in refrigerated chamber. The tailings were leached under unsaturated conditions with well aerated natural lake water chilled to the experimental temperature.

The leaching scheme consisted of batch additions of 1 L natural lake water, once every one, or two, weeks, to each column undergoing oxidation, leaching, and drainage during the intermediate period. Effluent was collected and was analyzed for pH, redox potential (Eh), electrical conductance (Ec), total acidity, total alkalinity, and dissolved concentrations of SO_4^{2-} , total Fe, Ca, Mg, Al, Mn, Sb, As, Cu, Ni, Zn, Pb, Hg, Si, and

keywords: Acid Mine Drainage, leaching, sulphide tailings, cold temperature, Permafrost Region, Gold Mining

CN¹. The tailings were first leached at 2°C for two years, and then at 10°C for another year. The results were as follows.

- Oxidation and acid generation occurred in both B and S tailings columns at low (2°C) and intermediate (10°C) temperatures. The rate of acid generation was lower and its onset was delayed at these temperatures compared to 25°C.
- For B-Zone tailings, containing relatively high sulphide (2.34% S), high total available alkalinity (41.5 Kg CaCO₃/tonne tailings) and a large negative net neutralization potential (NNP of -31.65 Kg CaCO₃/tonne tailings), the acid generation rate at 2°C was low with the result that there was a reasonable degree of acid neutralization and acid drainage was prevented during most of the leaching period at that temperature.
- Acidic breakthrough and drainage occurred near the end of the leaching cycle but the overall impact in terms of total acidity and effluent metal loadings was low.
- Near the end of the two year leaching cycle at 2°C, the drainage effluent was characterized by a pH of ~6.6, acidity ~300mg CaCO₃/L, and concentrations of SO₄²⁻ at ~2,000mg/L, Fe ~150mg/L, Ca ~500mg/L, Mg ~100mg/L, Al ~0.15mg/L, and Mn ~20 mg/L. Trace amounts of As (~0.1mg/L), Ni (0.1mg/L), and Pb (~0.5mg/L) were also observed. Cu, Sb, Hg, and Zn levels were below detection limits.
- The severity of acidic drainage increased for B-Zone tailings during leaching at 10°C. Concentration peaks for acidity and some metals were observed. The effluent was characterized by a pH of ~5.0, moderate acidity ~850mg CaCO₃/L, and concentrations of SO₄²⁻ at ~3,500mg/L, Fe ~450mg/L, Ca ~500mg/L, Mg ~100mg/L, Al ~0.2mg/L, and Mn ~22 mg/L. Low concentrations of As (~0.2mg/L), Ni (0.15mg/L), Pb (~0.5mg/L), and Sb (~0.05mg/L), were also observed, but Cu, Hg, and Zn levels were below detection limits.
- In comparison to the previous room temperature (25°C) leaching study of Davé (1992), the overall impact of acidic drainage from B-Zone tailings was low at the colder temperatures. The tailings retained appreciable amounts of moisture (85-100% saturation) that limited the oxidation to the upper, exposed, layer, thereby controlling the acidity and reducing the impact.

- For S-Zone tailings, containing relatively low sulphide (0.51% S), low total available alkalinity (1.65Kg CaCO₃/tonne tailings) and a moderately negative net neutralization potential (NNP) of -14.3Kg CaCO₃/tonne tailings, the acid generation rate was also low at cold temperatures but because of low available alkalinity there was insufficient acid neutralization and acidic breakthrough and drainage occurred early in the 2°C leaching cycle.
- During the middle of the two year 2°C leaching cycle, acid drainage peaked when effluent was characterized with a pH of ~3.0, moderate acidity ~600mg CaCO₃/L, and dissolved concentrations of SO₄²⁻ at ~700mg/L, Fe ~175mg/L, Al ~25mg/L, Mn ~30mg/L, As ~0.4mg/L, Cu ~1.2mg/L, Ni ~1.0mg/L, Zn ~0.4mg/L, Pb ~2.0mg/L, and Si 50mg/L. Effluent concentrations of Ca and Mg were low at 30 and 10mg/L respectively, Sb was present at trace levels (~0.03mg/L), and Hg levels were below detection limits.
- Acidic drainage continued, and increased, for S-Zone tailings as the leaching temperature was raised to 10°C. Similar to B-Zone tailings, effluent concentration peaks for acidity and metal loading were observed during initial leaching at 10°C. The effluent was characterized by a pH of ~3.0, moderate acidity ~650mg CaCO₃/L, and dissolved concentrations of SO₄²⁻ at ~1,500mg/L, Fe ~225mg/L, Ca ~500mg/L, Mg ~100mg/L, Al ~25mg/L, Mn ~30mg/L, As ~0.2mg/L, Cu ~1.2mg/L, Ni ~1.5mg/L, Zn ~1.0mg/L, Pb ~2.0mg/L, and Si 50mg/L. As was the case in 2°C leaching, the effluent concentrations of Sb were at trace levels (~0.06mg/L) and Hg levels were below detection limits.
- The S-Zone tailings were also characterized by high moisture retention and poor drainage that limited the oxidation and overall impact to the upper surface.
- In contrast to what was seen with B-Zone tailings, no significant reduction in acidic drainage of S-Zone tailings was seen at lower temperatures (compared to room temperature (25°C) leaching) reflecting the low total available alkalinity in the S-Zone tailings.
- It is recommended that the data should be further examined and analyzed to obtain acid generation and metal loading rates at the three study temperatures (25°C, 10°C,

and 2°C). Quantitative microbiological studies should be undertaken to distinguish between (and measure) chemical and biotic oxidation at low temperature.

Table 1: Effluent Water Quality and Leaching Characteristics of B-Zone Tailings

SAMPLE DATE	Days From Start	VOLUME (mL)		VOLUME (mL) CBZ2	VOLUME (mL) AVERAGE	CUMULATIVE VOLUME (ml)	LAB. pH pH(LAB) CBZ1		LAB. pH pH(LAB) CBZ2		LAB. pH pH(LAB) CBZ2	
		CBZ1	CBZ2				CBZ1	Cold	CBZ1	Warm	CBZ2	Warm
30-Jan-92	0	927.4	958.5	943.0	943.0	943.0	7.93				7.92	
6-Feb-92	7	927.4	958.5	943.0	943.0	1886.0	7.41				7.49	
13-Feb-92	14	927.4	958.5	943.0	943.0	2829.0	7.00				7.61	
20-Feb-92	21	927.4	958.5	943.0	943.0	3772.0	7.04				7.43	
27-Feb-92	28	927.4	958.5	943.0	943.0	4715.0	7.31				7.36	
5-Mar-92	35	927.4	958.5	943.0	943.0	5658.0	7.18				7.43	
12-Mar-92	42	927.4	958.5	943.0	943.0	6601.0	7.16				7.20	
19-Mar-92	49	927.4	958.5	943.0	943.0	7544.0	6.97				7.22	
26-Mar-92	56	927.4	958.5	943.0	943.0	8486.9	7.03				7.22	
2-Apr-92	63	966.3	1091.1	1028.7	1028.7	9515.6	6.60		7.59		7.30	7.64
9-Apr-92	70	971.0	974.5	972.7	972.7	10488.3	6.49		7.23		7.04	7.38
16-Apr-92	77	973.1	962.3	967.7	967.7	11456.0	6.75		7.48		7.18	8.00
23-Apr-92	84	973.2	837.2	905.2	905.2	12361.2	6.98		7.03		6.69	7.35
30-Apr-92	91	969.8	1092.8	1031.3	1031.3	13392.5	6.98		7.07		7.12	7.16
7-May-92	98	952.0	905.7	928.9	928.9	14321.4	6.91		7.14		7.04	7.43
14-May-92	105	1011.3	993.4	1002.4	1002.4	15323.8	6.74		6.78		6.68	6.72
22-May-92	113	982.3	901.4	941.8	941.8	16265.6	6.86		7.01		6.84	6.66
29-May-92	120	983.7	903.6	943.6	943.6	17209.2	6.61		6.82		6.68	6.89
5-Jun-92	127	946.2	833.6	889.9	889.9	18099.1	6.63		6.63		6.68	6.69
12-Jun-92	134	964.8	937.7	951.3	951.3	19050.4	6.63		6.71		6.72	6.65
19-Jun-92	141	435.7	1069.3	752.5	752.5	19802.9	6.58		6.77		6.78	7.00
29-Jun-92	151	993.4	797.4	895.4	895.4	20698.3	6.45		6.75		6.71	6.96
3-Jul-92	155	933.2	1073.7	1003.5	1003.5	21701.7	6.40		6.67		6.51	6.72
10-Jul-92	162	960.4	824.6	892.5	892.5	22594.2	6.56		6.72		6.47	6.62
17-Jul-92	169	946.7	941.9	944.3	944.3	23538.5	6.73		6.75		6.69	6.72

SAMPLE DATE	Days From Start	VOLUME		VOLUME (mL) CBZ1	VOLUME		VOLUME (mL) CBZ2	AVERAGE (mL)	CUMULATIVE VOLUME (ml)	LAB. pH		LAB. pH	
		(mL)	(mL)		pH(LAB) CBZ1	Warm				pH(LAB) CBZ2	Cold		
24-Jul-92	176	941.8	1107.4	1024.6	24563.1	6.63	6.61	6.61	6.55				
1-Aug-92	184	909.2	850.8	880.0	25443.1	6.75	6.72	6.54	6.78				
7-Aug-92	190	931.8	1065.3	998.6	26441.6	6.65	6.73	6.70	6.67				
14-Aug-92	197	923.9	919.9	921.9	27363.5	6.77	6.60	6.84	6.67				
21-Aug-92	204	925.0	884.9	905.0	28268.5	6.80	6.52	6.48	6.62				
28-Aug-92	211	936.4	844.2	890.3	29158.8	6.19	6.99	6.59	6.59				
4-Sep-92	218	931.4	975.7	953.5	30112.3	6.75	6.72	6.65	6.59				
11-Sep-92	225	937.3	852.2	894.8	31007.1	6.74	6.32	6.78	6.59				
18-Sep-92	232	953.9	944.6	949.3	31956.3	6.61	6.51	6.68	6.57				
25-Sep-92	239	832.0	916.4	874.2	32830.5	6.80	6.53	6.83	6.56				
2-Oct-92	246	962.0	965.0	963.5	33794.0	6.53	6.57	6.71	6.60				
8-Oct-92	252	951.6	985.8	968.7	34762.6	6.39	6.60	6.55	6.52				
16-Oct-92	260	955.8	1008.3	982.1	35744.7	6.53	6.40	6.55	6.61				
30-Oct-92	274	955.9	812.3	884.1	36628.8	6.64	7.11	6.85	7.28				
13-Nov-92	288	929.5	1035.4	982.5	37611.2	6.96	6.59	7.06	6.88				
27-Nov-92	302	936.7	912.3	924.5	38535.7	6.94	6.78	6.78	6.67				
11-Dec-92	316	945.7	930.7	938.2	39473.9	6.97	6.70	7.09	6.93				
24-Dec-92	329	909.1	896.4	902.8	40376.7	6.69	6.70	6.91	6.88				
8-Jan-93	344	933.5	929.9	931.7	41308.4	6.34	7.10	6.90	6.79				
22-Jan-93	358	905.7	896.9	901.3	42209.7	6.88	7.09	7.04	7.36				
5-Feb-93	372	874.6	855.7	865.2	43074.8	6.98	7.20	6.94	7.28				
19-Feb-93	386	920.4	920.7	920.6	43995.4	6.93	7.29	6.86	7.15				
5-Mar-93	400	902.3	818.8	860.5	44855.9	6.82	7.07	6.82	6.90				
19-Mar-93	414	908.5	889.7	899.1	45755.0	7.16	7.17	7.22	7.61				
2-Apr-93	428	894.5	891.7	893.1	46648.1	6.89	6.94	6.74	6.69				

Table 1: Effluent Water Quality and Leaching Characteristics of B-Zone Tailings

SAMPLE DATE	Days From Start	VOLUME (mL)		VOLUME (mL) CBZ2	VOLUME (mL) AVERAGE	CUMULATIVE VOLUME (ml)	LAB. pH pH(LAB) CBZ1		LAB. pH pH(LAB) CBZ2		LAB. pH pH(LAB) CBZ2	
		CBZ1	CBZ2				Cold	Warm	Cold	Warm	Cold	Warm
16-Apr-93	442	930.6	970.3	950.5	950.5	47598.6	6.41	6.90	6.62	6.68	6.62	6.68
30-Apr-93	456	960.6	906.6	933.6	933.6	48532.2	6.19	6.75	6.64	6.48	6.64	6.48
14-May-93	470	926.2	913.3	919.8	919.8	49451.9	6.01	6.72	6.31	6.44	6.31	6.44
28-May-93	484	939.5	954.0	946.8	946.8	50398.7	6.07	6.73	6.23	6.38	6.23	6.38
11-Jun-93	498	947.7	917.0	932.3	932.3	51331.0	6.39	6.67	6.24	6.39	6.24	6.39
25-Jun-93	512	987.2	913.7	950.5	950.5	52281.5	6.35	6.77	5.77	6.26	5.77	6.26
9-Jul-93	526	928.6	945.6	937.1	937.1	53218.6	6.24	6.63	6.35	6.28	6.35	6.28
23-Jul-93	540	932.4	911.0	921.7	921.7	54140.3	6.00	6.43	5.91	6.50	5.91	6.50
9-Aug-93	557	939.2	939.1	939.1	939.1	55079.4	5.51	6.19	6.11	6.21	6.11	6.21
20-Aug-93	568	947.3	916.6	931.9	931.9	56011.3	6.39	6.82	6.49	6.34	6.49	6.34
3-Sep-93	582	976.8	974.1	975.5	975.5	56986.8	6.05	6.92	6.05	6.56	6.05	6.56
17-Sep-93	596	934.6	870.2	902.4	902.4	57889.2	6.81	6.80	6.57	6.54	6.57	6.54
1-Oct-93	610	945.8	962.3	954.1	954.1	58843.3	6.05	6.58	6.11	6.58	6.11	6.58
15-Oct-93	624	907.7	741.5	824.6	824.6	59667.9	6.00	6.07	6.02	5.83	6.02	5.83
29-Oct-93	638	935.3	868.5	901.9	901.9	60569.7	6.44	6.35	6.98	6.74	6.98	6.74
12-Nov-93	652	962.1	982.7	972.4	972.4	61542.1	6.27	6.43	6.25	6.22	6.25	6.22
26-Nov-93	666	889.7	669.7	779.7	779.7	62321.8	6.62	6.67	6.56	6.45	6.56	6.45
10-Dec-93	680	988.2	1113.8	1051.0	1051.0	63372.8	6.21	6.57	6.00	6.60	6.00	6.60
24-Dec-93	694	821.3	935.7	878.5	878.5	64251.3	6.06	6.52	6.37	6.17	6.37	6.17
7-Jan-94	708	931.8	793.8	862.8	862.8	65114.1	6.24	6.89	6.60	6.64	6.60	6.64
21-Jan-94	722	840.8	733.7	787.2	787.2	65901.3	6.58	6.73	6.53	6.63	6.53	6.63
11-Mar-94	771	851.19	878.05	864.6	864.6	66766.0	5.80	5.80	5.65	5.52	5.65	5.52
25-Mar-94	785	897.39	825.41	861.4	861.4	67627.4	5.84	5.87	5.59	5.55	5.59	5.55
15-Apr-94	806	865.12	911.68	888.4	888.4	68515.8	5.18	5.32	4.84	4.77	4.84	4.77
29-Apr-94	820	861.08	873.04	867.1	867.1	69382.8	4.88	4.93	4.64	4.59	4.64	4.59

Table 1: Effluent Water Quality and Leaching Characteristics of B-Zone Tailings

SAMPLE DATE	Days From Start	VOLUME (mL)		VOLUME (mL)	VOLUME AVERAGE	CUMULATIVE VOLUME (ml)	LAB. pH		LAB. pH		LAB. pH	
		CBZ1	CBZ2				pH(LAB) CBZ1	Cold	pH(LAB) CBZ1	Warm	pH(LAB) CBZ2	Cold
13-May-94	834	790.40	782.21	786.3	70169.1	5.31	5.26	5.00	5.36	5.36	5.00	5.36
27-May-94	848	845.52	869.16	857.3	71026.5	5.27	5.36	4.77	4.73	4.73	4.77	4.73
10-Jun-94	862	766.06	893.91	830.0	71856.4	5.03	5.13	4.73	4.81	4.81	4.73	4.81
24-Jun-94	876	943.58	939.44	941.5	72798.0	4.99	NSS	5.04	NSS	NSS	5.04	NSS
8-Jul-94	890	920.50	1001.40	961.0	73758.9	4.97	5.05	5.60	6.21	6.21	5.60	6.21
22-Jul-94	904	920.50	1001.40	961.0	74719.9	4.85	4.80	5.38	5.28	5.28	5.38	5.28
5-Aug-94	918	883.80	834.10	859.0	75578.8	5.25	5.20	5.35	5.56	5.56	5.35	5.56
19-Aug-94	932	901.68	914.54	908.1	76486.9	5.51	5.60	5.09	4.94	4.94	5.09	4.94
2-Sep-94	946	880.30	883.90	882.1	77369.0	5.36	5.40	5.16	5.19	5.19	5.16	5.19
16-Sep-94	960	972.90	741.30	857.1	78226.1	5.68	5.84	5.23	5.01	5.01	5.23	5.01
30-Sep-94	974	963.80	1017.90	990.9	79217.0	5.42	5.69	5.00	5.10	5.10	5.00	5.10
14-Oct-94	988	943.20	989.30	966.3	80183.2	4.81	4.84	5.65	5.93	5.93	5.65	5.93
28-Oct-94	1002	687.80	1049.40	868.6	81051.8	5.01	4.99	5.62	5.68	5.68	5.62	5.68
10-Nov-94	1015	932.90	811.00	872.0	81923.8	5.46	5.90	5.87	6.17	6.17	5.87	6.17
25-Nov-94	1030	986.38	895.20	940.8	82864.6	5.17	5.12	5.83	5.87	5.87	5.83	5.87
9-Dec-94	1044	938.30	758.30	848.3	83712.9	5.78	5.69	5.78	5.69	5.69	5.78	5.69
23-Dec-94	1058	862.60	715.50	789.1	84501.9	6.21	6.16	6.11	6.03	6.03	6.11	6.03
6-Jan-95	1072	949.34	715.24	832.3	85334.2	6.12	6.20	6.15	6.24	6.24	6.15	6.24
20-Jan-95	1086	873.21	1372.72	1123.0	86457.2	5.88	5.95	5.83	6.01	6.01	5.83	6.01
3-Feb-95	1100	846.50	934.52	890.5	87347.7	6.26	6.28	6.51	6.52	6.52	6.51	6.52

Table 1: Effluent Water Quality and Leaching Characteristics of B-Zone Tailings

SAMPLE DATE	Days From Start	LAB. pH pH(LAB) AVERAGE	LAB. pH pH(LAB) AVERAGE	EH		EH		EH		EH		EH		EH		EH	
				Eh(mV) CBZ1	Eh(mV) CBZ2	Eh(mV) CBZ1	Eh(mV) CBZ2	Eh(mV) CBZ1	Eh(mV) CBZ2	Eh(mV) CBZ1	Eh(mV) CBZ2	Eh(mV) CBZ1	Eh(mV) CBZ2	Eh(mV) CBZ1	Eh(mV) CBZ2	Eh(mV) CBZ1	Eh(mV) CBZ2
30-Jan-92	0	7.92		202.2			163.7					183.0				446.2	
6-Feb-92	7	7.45		150.0			154.2					152.1				394.0	
13-Feb-92	14	7.21		178.5			170.4					174.5				422.5	
20-Feb-92	21	7.20		182.2			177.7					180.0				426.2	
27-Feb-92	28	7.33		203.5			167.3					185.4				447.5	
5-Mar-92	35	7.29		196.9			188.5					192.7				440.9	
12-Mar-92	42	7.18		200.6			198.5					199.6				444.6	
19-Mar-92	49	7.08		249.7			221.7					235.7				493.7	
26-Mar-92	56	7.11		238.2			219.9					229.1				482.2	
2-Apr-92	63	6.84	7.61	235.8		177.4	223.1			120.1		229.5		148.8		479.8	
9-Apr-92	70	6.68	7.30	130.1		179.0	142.7			93.0		136.4		136.0		374.1	
16-Apr-92	77	6.92	7.66	135.4		111.2	143.4			143.2		139.4		127.2		379.4	
23-Apr-92	84	6.82	7.15	269.4		218.7	277.5			181.8		273.5		200.3		513.4	
30-Apr-92	91	7.05	7.11	287.6		220.0	286.4			210.0		287.0		215.0		531.6	
7-May-92	98	6.97	7.26	328.5		222.4	321.6			226.5		325.1		224.5		572.5	
14-May-92	105	6.71	6.75	235.5		212.7	249.8			215.3		242.7		214.0		479.5	
22-May-92	113	6.85	6.81	220.4		217.4	256.9			210.5		238.7		214.0		464.4	
29-May-92	120	6.64	6.85	204.6		228.3	222.7			214.0		213.7		221.2		448.6	
5-Jun-92	127	6.65	6.66	224.2		202.9	215.4			202.2		219.8		202.6		468.2	
12-Jun-92	134	6.67	6.68	191.5		204.2	190.0			193.9		190.8		199.1		435.5	
19-Jun-92	141	6.71	6.92	219.0		222.0	220.0			217.0		219.5		219.5		463.0	
29-Jun-92	151	6.55	6.83	151.7		205.0	177.7			249.4		164.7		227.2		395.7	
3-Jul-92	155	6.46	6.69	230.0		276.2	230.0			199.7		230.0		238.0		474.0	
10-Jul-92	162	6.52	6.67	189.5		191.3	179.3			178.5		184.4		184.9		433.5	
17-Jul-92	169	6.71	6.73	248.9		264.0	252.0			163.7		250.5		213.9		492.9	

Table 1: Effluent Water Quality and Leaching Characteristics of B-Zone Tailings

SAMPLE DATE	Days From Start	LAB. pH		LAB. pH		EH		EH		EH		EH		EH		EH	
		pH(LAB)		pH(LAB)		Eh(mV)		Eh(mV)		Eh(mV)		Eh(mV)		Eh(mV)		Eh(mV)	
		AVERAGE		AVERAGE		CBZ1		CBZ1		CBZ2		CBZ2		CBZ2		CBZ1	
		Cold		Warm		Cold		Warm		Cold		Warm		Cold		Warm	
		AVERAGE		AVERAGE		CBZ1		CBZ1		CBZ2		CBZ2		CBZ2		CBZ1	
		Cold		Warm		Cold		Warm		Cold		Warm		Cold		Warm	
		AVERAGE		AVERAGE		CBZ1		CBZ1		CBZ2		CBZ2		CBZ2		CBZ1	
		Cold		Warm		Cold		Warm		Cold		Warm		Cold		Warm	
		AVERAGE		AVERAGE		CBZ1		CBZ1		CBZ2		CBZ2		CBZ2		CBZ1	
		Cold		Warm		Cold		Warm		Cold		Warm		Cold		Warm	
		AVERAGE		AVERAGE		CBZ1		CBZ1		CBZ2		CBZ2		CBZ2		CBZ1	
		Cold		Warm		Cold		Warm		Cold		Warm		Cold		Warm	
		AVERAGE		AVERAGE		CBZ1		CBZ1		CBZ2		CBZ2		CBZ2		CBZ1	
		Cold		Warm		Cold		Warm		Cold		Warm		Cold		Warm	
		AVERAGE		AVERAGE		CBZ1		CBZ1		CBZ2		CBZ2		CBZ2		CBZ1	
		Cold		Warm		Cold		Warm		Cold		Warm		Cold		Warm	
		AVERAGE		AVERAGE		CBZ1		CBZ1		CBZ2		CBZ2		CBZ2		CBZ1	
		Cold		Warm		Cold		Warm		Cold		Warm		Cold		Warm	
		AVERAGE		AVERAGE		CBZ1		CBZ1		CBZ2		CBZ2		CBZ2		CBZ1	
		Cold		Warm		Cold		Warm		Cold		Warm		Cold		Warm	
		AVERAGE		AVERAGE		CBZ1		CBZ1		CBZ2		CBZ2		CBZ2		CBZ1	
		Cold		Warm		Cold		Warm		Cold		Warm		Cold		Warm	
		AVERAGE		AVERAGE		CBZ1		CBZ1		CBZ2		CBZ2		CBZ2		CBZ1	
		Cold		Warm		Cold		Warm		Cold		Warm		Cold		Warm	
		AVERAGE		AVERAGE		CBZ1		CBZ1		CBZ2		CBZ2		CBZ2		CBZ1	
		Cold		Warm		Cold		Warm		Cold		Warm		Cold		Warm	
		AVERAGE		AVERAGE		CBZ1		CBZ1		CBZ2		CBZ2		CBZ2		CBZ1	
		Cold		Warm		Cold		Warm		Cold		Warm		Cold		Warm	
		AVERAGE		AVERAGE		CBZ1		CBZ1		CBZ2		CBZ2		CBZ2		CBZ1	
		Cold		Warm		Cold		Warm		Cold		Warm		Cold		Warm	
		AVERAGE		AVERAGE		CBZ1		CBZ1		CBZ2		CBZ2		CBZ2		CBZ1	
		Cold		Warm		Cold		Warm		Cold		Warm		Cold		Warm	
		AVERAGE		AVERAGE		CBZ1		CBZ1		CBZ2		CBZ2		CBZ2		CBZ1	
		Cold		Warm		Cold		Warm		Cold		Warm		Cold		Warm	
		AVERAGE		AVERAGE		CBZ1		CBZ1		CBZ2		CBZ2		CBZ2		CBZ1	
		Cold		Warm		Cold		Warm		Cold		Warm		Cold		Warm	
		AVERAGE		AVERAGE		CBZ1		CBZ1		CBZ2		CBZ2		CBZ2		CBZ1	
		Cold		Warm		Cold		Warm		Cold		Warm		Cold		Warm	
		AVERAGE		AVERAGE		CBZ1		CBZ1		CBZ2		CBZ2		CBZ2		CBZ1	
		Cold		Warm		Cold		Warm		Cold		Warm		Cold		Warm	
		AVERAGE		AVERAGE		CBZ1		CBZ1		CBZ2		CBZ2		CBZ2		CBZ1	
		Cold		Warm		Cold		Warm		Cold		Warm		Cold		Warm	
		AVERAGE		AVERAGE		CBZ1		CBZ1		CBZ2		CBZ2		CBZ2		CBZ1	
		Cold		Warm		Cold		Warm		Cold		Warm		Cold		Warm	
		AVERAGE		AVERAGE		CBZ1		CBZ1		CBZ2		CBZ2		CBZ2		CBZ1	
		Cold		Warm		Cold		Warm		Cold		Warm		Cold		Warm	
		AVERAGE		AVERAGE		CBZ1		CBZ1		CBZ2		CBZ2		CBZ2		CBZ1	
		Cold		Warm		Cold		Warm		Cold		Warm		Cold		Warm	
		AVERAGE		AVERAGE		CBZ1		CBZ1		CBZ2		CBZ2		CBZ2		CBZ1	
		Cold		Warm		Cold		Warm		Cold		Warm		Cold		Warm	
		AVERAGE		AVERAGE		CBZ1		CBZ1		CBZ2		CBZ2		CBZ2		CBZ1	
		Cold		Warm		Cold		Warm		Cold		Warm		Cold		Warm	
		AVERAGE		AVERAGE		CBZ1		CBZ1		CBZ2		CBZ2		CBZ2		CBZ1	
		Cold		Warm		Cold		Warm		Cold		Warm		Cold		Warm	
		AVERAGE		AVERAGE		CBZ1		CBZ1		CBZ2		CBZ2		CBZ2		CBZ1	
		Cold		Warm		Cold		Warm		Cold		Warm		Cold		Warm	
		AVERAGE		AVERAGE		CBZ1		CBZ1		CBZ2		CBZ2		CBZ2		CBZ1	
		Cold		Warm		Cold		Warm		Cold		Warm		Cold		Warm	
		AVERAGE		AVERAGE		CBZ1		CBZ1		CBZ2		CBZ2		CBZ2		CBZ1	
		Cold		Warm		Cold		Warm		Cold		Warm		Cold		Warm	
		AVERAGE		AVERAGE		CBZ1		CBZ1		CBZ2		CBZ2		CBZ2		CBZ1	
		Cold		Warm		Cold		Warm		Cold		Warm		Cold		Warm	
		AVERAGE		AVERAGE		CBZ1		CBZ1		CBZ2		CBZ2		CBZ2		CBZ1	
		Cold		Warm		Cold		Warm		Cold		Warm		Cold		Warm	
		AVERAGE		AVERAGE		CBZ1		CBZ1		CBZ2		CBZ2		CBZ2		CBZ1	
		Cold		Warm		Cold		Warm		Cold		Warm		Cold		Warm	
		AVERAGE		AVERAGE		CBZ1		CBZ1		CBZ2		CBZ2		CBZ2		CBZ1	
		Cold		Warm		Cold		Warm		Cold		Warm		Cold		Warm	
		AVERAGE		AVERAGE		CBZ1		CBZ1		CBZ2		CBZ2		CBZ2		CBZ1	
		Cold		Warm		Cold		Warm		Cold		Warm		Cold		Warm	
		AVERAGE		AVERAGE		CBZ1		CBZ1		CBZ2		CBZ2		CBZ2		CBZ1	
		Cold		Warm		Cold		Warm		Cold		Warm		Cold		Warm	
		AVERAGE		AVERAGE		CBZ1		CBZ1		CBZ2		CBZ2		CBZ2		CBZ1	
		Cold		Warm		Cold		Warm		Cold		Warm		Cold		Warm	
		AVERAGE		AVERAGE		CBZ1		CBZ1		CBZ2		CBZ2		CBZ2		CBZ1	
		Cold		Warm		Cold		Warm		Cold		Warm		Cold		Warm	
		AVERAGE		AVERAGE		CBZ1		CBZ1		CBZ2		CBZ2		CBZ2		CBZ1	
		Cold		Warm		Cold		Warm		Cold		Warm		Cold		Warm	
		AVERAGE		AVERAGE		CBZ1		CBZ1		CBZ2		CBZ2		CBZ2		CBZ1	
		Cold		Warm		Cold		Warm		Cold		Warm		Cold		Warm	
		AVERAGE		AVERAGE		CBZ1		CBZ1		CBZ2		CBZ2		CBZ2		CBZ1	
		Cold		Warm		Cold		Warm		Cold		Warm		Cold		Warm	
		AVERAGE		AVERAGE		CBZ1		CBZ1		CBZ2		CBZ2		CBZ2		CBZ1	
		Cold		Warm		Cold		Warm		Cold		Warm		Cold		Warm	
		AVERAGE		AVERAGE		CBZ1		CBZ1		CBZ2		CBZ2		CBZ2		CBZ1	
		Cold		Warm		Cold		Warm		Cold		Warm		Cold		Warm	
		AVERAGE		AVERAGE		CBZ1		CBZ1		CBZ2		CBZ2		CBZ2		CBZ1	
		Cold		Warm		Cold		Warm		Cold		Warm		Cold		Warm	
		AVERAGE		AVERAGE		CBZ1		CBZ1		CBZ2		CBZ2		CBZ2		CBZ1	
		Cold		Warm		Cold		Warm		Cold		Warm		Cold		Warm	
		AVERAGE		AVERAGE		CBZ1		CBZ1		CBZ2		CBZ2		CBZ2		CBZ1	
		Cold		Warm		Cold		Warm		Cold		Warm		Cold		Warm	
		AVERAGE		AVERAGE		CBZ1		CBZ1		CBZ2		CBZ2		CBZ2		CBZ1	
		Cold		Warm		Cold		Warm		Cold		Warm		Cold		Warm	
		AVERAGE		AVERAGE		CBZ1		CBZ1		CBZ2		CBZ2		CBZ2		CBZ1	
		Cold		Warm		Cold		Warm		Cold		Warm		Cold		Warm	
		AVERAGE		AVERAGE		CBZ1		CBZ1		CBZ2		CBZ2		CBZ2		CBZ1	
		Cold		Warm		Cold		Warm		Cold		Warm		Cold		Warm	
		AVERAGE		AVERAGE		CBZ1		CBZ1		CBZ2		CBZ2		CBZ2		CBZ1	
		Cold		Warm		Cold		Warm		Cold		Warm		Cold		Warm	
		AVERAGE		AVERAGE		CBZ1		CBZ1		CBZ2		CBZ2		CBZ2		CBZ1	
		Cold		Warm		Cold		Warm		Cold		Warm		Cold		Warm	
		AVERAGE		AVERAGE		CBZ1		CBZ1		CBZ2		CBZ2		CBZ2		CBZ1	
		Cold		Warm		Cold		Warm		Cold		Warm		Cold		Warm	
		AVERAGE		AVERAGE		CBZ1		CBZ1		CBZ2		CBZ2		CBZ2		CBZ1	
		Cold		Warm		Cold		Warm		Cold		Warm		Cold		Warm	
		AVERAGE		AVERAGE		CBZ1		CBZ1		CBZ2		CBZ2		CBZ2		CBZ1	
		Cold		Warm		Cold		Warm		Cold		Warm		Cold		Warm	
		AVERAGE		AVERAGE		CBZ1		CBZ1		CBZ2		CBZ2		CBZ2		CBZ1	
		Cold		Warm		Cold		Warm		Cold		Warm		Cold		Warm	
		AVERAGE		AVERAGE		CBZ1		CBZ1		CBZ2		CBZ2		CBZ2		CBZ1	
		Cold		Warm		Cold		Warm		Cold		Warm		Cold		Warm	
		AVERAGE		AVERAGE		CBZ1		CBZ1		CBZ2		CBZ2		CBZ2		CBZ1	
		Cold		Warm		Cold		Warm		Cold		Warm		Cold		Warm	
		AVERAGE		AVERAGE		CBZ1		CBZ1		CBZ2		CBZ2		CBZ2		CBZ1	
		Cold		Warm		Cold		Warm		Cold		Warm		Cold		Warm	
		AVERAGE		AVERAGE		CBZ1		CBZ1		CBZ2		CBZ2		CBZ2		CBZ1	
		Cold		Warm		Cold		Warm		Cold		Warm		Cold		Warm	
		AVERAGE		AVERAGE		CBZ1		CBZ1		CBZ2		CBZ2		CBZ2		CBZ1	
		Cold		Warm		Cold		Warm		Cold		Warm		Cold		Warm	
		AVERAGE		AVERAGE		CBZ1		CBZ1		CBZ2		CBZ2		CBZ2		CBZ1	
		Cold		Warm		Cold		Warm		Cold		Warm		Cold		Warm	
		AVERAGE		AVERAGE		CBZ1		CBZ1		CBZ2		CBZ2		CBZ2		CBZ1	
		Cold		Warm		Cold		Warm		Cold		Warm		Cold		Warm	
		AVERAGE		AVERAGE		CBZ1		CBZ1		CBZ2		CBZ2		CBZ2		CBZ1	
		Cold		Warm		Cold		Warm		Cold		Warm		Cold		Warm	
		AVERAGE		AVERAGE		CBZ1		CBZ1		CBZ2		CBZ2		CBZ2		CBZ1	
		Cold		Warm		Cold		Warm		Cold		Warm		Cold		Warm	
		AVERAGE		AVERAGE		CBZ1		CBZ1		CBZ2		CBZ2		CBZ2		CBZ1	
		Cold		Warm		Cold		Warm		Cold		Warm		Cold		Warm	
		AVERAGE		AVERAGE		CBZ1		CBZ1		CBZ2		CBZ2		CBZ2		CBZ1	
		Cold		Warm		Cold		Warm		Cold		Warm		Cold		Warm	
		AVERAGE		AVERAGE		CBZ1		CBZ1		CBZ2		CBZ2		CBZ2		CBZ1	
		Cold		Warm		Cold		Warm		Cold		Warm		Cold		Warm	
		AVERAGE		AVERAGE		CBZ1		CBZ1		CBZ2		CBZ2		CBZ2		CBZ1	
		Cold		Warm		Cold		Warm		Cold		Warm					

Table 1: Effluent Water Quality and Leaching Characteristics of B-Zone Tailings

SAMPLE DATE	Days From Start	LAB. pH		LAB. pH		EH		EH		EH		EH		EH		EH		EH	
		AVERAGE	Cold	AVERAGE	Warm	Eh(mV)	CBZ1	Eh(mV)	CBZ1	Eh(mV)	CBZ2	Eh(mV)	CBZ2	Eh(mV)	AVERAGE	Eh(mV)	AVERAGE	Eh(mV)	EH(NHE)
13-May-94	834	5.13		5.31		219.0		98.4		195.5		116.8		207.3		107.6		463.0	
27-May-94	848	4.94		4.94		220.9		152.3		232.2		270.3		226.6		211.3		464.9	
10-Jun-94	862	4.84		4.93		308.8		229.5		311.8		289.3		310.3		259.4		552.8	
24-Jun-94	876	5.01		NSS		181.2		NSS		181.7		NSS		181.5		NSS		425.2	
8-Jul-94	890	5.19		5.34		184.5		158.3		131.6		-32.4		158.1		63.0		428.5	
22-Jul-94	904	5.05		4.98		270.2		293.8		239.2		265.5		254.7		279.7		514.2	
5-Aug-94	918	5.30		5.34		276.8		143.5		268.2		166.2		272.5		154.9		520.8	
19-Aug-94	932	5.25		5.15		250.3		159.9		262.0		229.5		256.2		194.7		494.3	
2-Sep-94	946	5.25		5.28		271.7		145.3		244.4		244.3		258.1		194.8		515.7	
16-Sep-94	960	5.43		5.29		201.5		182.9		247.8		277.8		224.7		230.4		445.5	
30-Sep-94	974	5.16		5.29		128.6		57.3		167.2		158.1		147.9		107.7		372.6	
14-Oct-94	988	5.06		5.11		215.4		228.1		118.3		70.2		166.9		149.2		459.4	
28-Oct-94	1002	5.27		5.27		198.8		184.4		177.1		125.0		188.0		154.7		442.8	
10-Nov-94	1015	5.61		6.01		175.1		42.6		117.9		22.1		146.5		32.4		419.1	
25-Nov-94	1030	5.37		5.34		194.1		214.7		149.7		119.0		171.9		166.9		438.1	
9-Dec-94	1044	5.78		5.69		151.4		140.9		91.9		57.8		121.7		99.4		395.4	
23-Dec-94	1058	6.16		6.09		231.3		272.1		222.0		220.8		226.7		246.5		475.3	
6-Jan-95	1072	6.13		6.22		183.8		155.2		103.0		68.1		143.4		111.7		427.8	
20-Jan-95	1086	5.85		5.99		218.4		108.5		202.7		165.3		210.6		136.9		462.4	
3-Feb-95	1100	6.37		6.39		209.5		107.1		179.2		138.1		194.4		122.6		453.5	

Table 1: Effluent Water Quality and Leaching Characteristics of B-Zone Tailings

SAMPLE DATE	Days From Start	EH(NHE)		EH(NHE)		EH(NHE)		EH(NHE)		LAB. Ec		LAB. Ec		LAB. Ec	
		CBZ1	CBZ2	CBZ1	CBZ2	AVERAGE	AVERAGE	CBZ1	CBZ2	Ec(LAB)	Ec(LAB)	Ec(LAB)	Ec(LAB)	Ec(LAB)	Ec(LAB)
		Warm	Cold	Warm	Cold	Warm	Cold	Warm	Cold	Warm	Cold	Warm	Cold	Warm	Cold
30-Jan-92	0		407.7		427.0		15460		12500						
6-Feb-92	7		398.2		396.1		15350		14140						
13-Feb-92	14		414.4		418.5		10690		10800						
20-Feb-92	21		421.7		424.0		5990		6080						
27-Feb-92	28		411.3		429.4		4240		4260						
5-Mar-92	35		432.5		436.7		4170		3560						
12-Mar-92	42		442.5		443.6		3740		2820						
19-Mar-92	49		465.7		479.7		3260		3040						
26-Mar-92	56		463.9		473.1		2870		3040						
2-Apr-92	63	421.4	467.1	364.1	473.5	392.8	2750	2700	3030	2640					
9-Apr-92	70	423.0	386.7	337.0	380.4	380.0	2490	2720	2710	2560					
16-Apr-92	77	355.2	387.4	387.2	383.4	371.2	2580	2750	2370	2940					
23-Apr-92	84	462.7	521.5	425.8	517.5	444.3	2010	2260	2450	2530					
30-Apr-92	91	464.0	530.4	454.0	531.0	459.0	2400	2580	2540	2540					
7-May-92	98	466.4	565.6	470.5	569.1	468.5	2480	2520	2360	2570					
14-May-92	105	456.7	493.8	459.3	486.7	458.0	2460	2760	2670	2580					
22-May-92	113	461.4	500.9	454.5	482.7	458.0	2160	2560	2240	2610					
29-May-92	120	472.3	466.7	458.0	457.7	465.2	2320	2570	2390	2580					
5-Jun-92	127	446.9	459.4	446.2	463.8	446.6	2410	2410	2600	2450					
12-Jun-92	134	448.2	434.0	437.9	434.8	443.1	2810	2690	2710	2630					
19-Jun-92	141	466.0	464.0	461.0	463.5	463.5	2810	2520	2740	2420					
29-Jun-92	151	449.0	421.7	493.4	408.7	471.2	2710	2310	2470	2250					
3-Jul-92	155	520.2	474.0	443.7	474.0	482.0	2430	2340	2330	2230					
10-Jul-92	162	435.3	423.3	422.5	428.4	428.9	2380	2190	2270	2250					
17-Jul-92	169	508.0	496.0	407.7	494.5	457.9	2280	2440	2110	2400					

Table 1: Effluent Water Quality and Leaching Characteristics of B-Zone Tailings

SAMPLE DATE	Days From Start	EH(NHE)		EH(NHE)		EH(NHE)		EH(NHE)		EH(NHE)		LAB. Ec Ec(LAB)		LAB. Ec Ec(LAB)		LAB. Ec Ec(LAB)	
		CBZ1	CBZ2	CBZ1	CBZ2	AVERAGE	Cold	AVERAGE	Warm	CBZ1	CBZ2	CBZ1	CBZ2	CBZ1	CBZ2	CBZ1	CBZ2
24-Jul-92	176	546.2	539.1	536.2	533.2	541.2		533.2		2120	2210	1979	2150				
1-Aug-92	184	524.4	493.6	478.0	481.2	501.2		481.2		2130	1996	2190	2170				
7-Aug-92	190	417.5	560.3	525.2	577.5	471.4		577.5		2370	2090	2230	1980				
14-Aug-92	197	481.0	475.8	475.0	474.2	478.0		474.2		2830	2560	2840	2570				
21-Aug-92	204	458.0	372.4	464.0	428.9	461.0		428.9		2850	2510	2830	2590				
28-Aug-92	211	528.9	451.5	513.1	440.0	521.0		440.0		2860	2690	2810	2660				
4-Sep-92	218	450.0	438.9	457.0	368.3	453.5		368.3		2730	2650	2750	2680				
11-Sep-92	225	476.0	349.2	480.0	350.9	478.0		350.9		2640	2530	2700	2560				
18-Sep-92	232	410.7	380.2	405.7	409.1	408.2		409.1		2970	2710	2740	2620				
25-Sep-92	239	423.7	454.3	409.7	423.2	416.7		423.2		2970	2740	2930	2730				
2-Oct-92	246	480.0	487.7	477.0	484.5	478.5		484.5		2970	2650	2880	2580				
8-Oct-92	252	475.0	527.5	471.0	549.0	473.0		549.0		2840	2610	2830	2490				
16-Oct-92	260	455.0	527.5	446.0	471.3	450.5		471.3		2880	2380	2830	2340				
30-Oct-92	274	516.1	451.6	510.6	431.1	513.4		431.1		2950	2290	2730	2300				
13-Nov-92	288	475.0	497.5	399.3	508.1	437.2		508.1		3010	3000	2710	2640				
27-Nov-92	302	435.0	416.6	322.7	424.8	378.9		424.8		3370	2950	2900	2640				
11-Dec-92	316	539.0	433.0	446.0	460.3	492.5		460.3		3580	2820	2890	2430				
24-Dec-92	329	457.0	427.5	414.3	436.1	435.7		436.1		3050	2820	2440	2460				
8-Jan-93	344	591.3	454.4	476.0	502.5	533.7		502.5		3070	2960	3350	2600				
22-Jan-93	358	555.0	399.4	347.6	402.2	451.3		402.2		3030	3020	2040	2610				
5-Feb-93	372	322.5	404.3	276.1	422.0	299.3		422.0		2880	2740	2340	2360				
19-Feb-93	386	484.3	374.3	409.2	384.9	446.8		384.9		2950	2540	2970	2240				
5-Mar-93	400	351.0	373.8	324.7	381.1	337.9		381.1		2910	2610	2910	2390				
19-Mar-93	414	307.1	389.7	454.1	385.8	380.6		385.8		2610	2550	2830	2420				
2-Apr-93	428	335.3	362.4	318.4	364.9	326.9		364.9		2650	2390	2590	2350				

Table 1: Effluent Water Quality and Leaching Characteristics of B-Zone Tailings

SAMPLE DATE	Days From Start	EH(NHE)		EH(NHE)		EH(NHE)		EH(NHE)		EH(NHE)		LAB. Ec Ec(LAB)		LAB. Ec Ec(LAB)		LAB. Ec Ec(LAB)	
		CBZ1	CBZ2	CBZ1	CBZ2	AVERAGE	Cold	AVERAGE	Warm	CBZ1	CBZ2	CBZ1	CBZ2	CBZ1	CBZ2	CBZ1	CBZ2
16-Apr-93	442	331.7	291.5	289.8	331.0	310.8	2650	2380	2510	2340							
30-Apr-93	456	317.0	388.3	324.6	401.5	320.8	2460	2390	2540	2460							
14-May-93	470	173.3	388.6	193.3	379.6	183.3	2600	2310	2520	2320							
28-May-93	484	168.8	366.1	188.5	375.1	178.7	2750	2390	2630	2430							
11-Jun-93	498	145.8	333.7	156.2	338.0	151.0	2860	3040	2570	2580							
25-Jun-93	512	187.3	352.7	178.6	355.6	183.0	2810	2470	2510	2370							
9-Jul-93	526	134.5	328.4	142.3	339.3	138.4	2660	2610	2370	2430							
23-Jul-93	540	146.1	359.6	162.3	353.3	154.2	2840	2520	2440	2340							
9-Aug-93	557	358.2	467.3	206.8	508.0	282.5	3030	2600	2210	2590							
20-Aug-93	568	232.3	396.3	189.2	416.8	210.8	2710	2650	2190	2170							
3-Sep-93	582	217.4	374.7	218.9	377.9	218.2	2840	2510	2210	1986							
17-Sep-93	596	184.4	370.4	250.3	377.8	217.4	2840	2710	2160	2240							
1-Oct-93	610	234.9	351.1	188.4	371.4	211.7	2530	2290	2410	2180							
15-Oct-93	624	333.7	369.1	179.6	383.5	256.7	2340	2250	2360	2200							
29-Oct-93	638	148.0	332.5	141.2	349.1	144.6	2600	2480	2510	2380							
12-Nov-93	652	270.3	344.5	273.8	353.2	272.1	2500	2190	2360	2180							
26-Nov-93	666	314.5	378.7	288.9	347.3	301.7	2910	2480	2420	2210							
10-Dec-93	680	161.2	359.6	172.6	339.4	166.9	2340	2150	2330	2190							
24-Dec-93	694	392.8	406.3	358.4	450.3	375.6	2270	1960	2010	1814							
7-Jan-94	708	616.6	439.2	385.3	439.6	501.0	2290	2010	2060	2020							
21-Jan-94	722	535.6	399.4	392.8	446.6	464.2	3350	2850	3220	2850							
11-Mar-94	771	189.8	344.7	263.8	352.4	226.8	3260	3200	3170	3170							
25-Mar-94	785	192.2	328.4	238.8	327.9	215.5	3010	2980	3150	3100							
15-Apr-94	806	293.3	363.7	394.1	383.9	343.7	2750	2690	2620	2730							
29-Apr-94	820	416.5	434.0	431.0	430.3	423.8	2560	2430	2520	2440							

Table 1: Effluent Water Quality and Leaching Characteristics of B-Zone Tailings

SAMPLE DATE	Days From Start	EH(NHE)		EH(NHE)		EH(NHE)		EH(NHE)		EH(NHE)		LAB. Ec Ec(LAB)		LAB. Ec Ec(LAB)		LAB. Ec Ec(LAB)	
		CBZ1	CBZ2	CBZ1	CBZ2	CBZ1	CBZ2	CBZ1	CBZ2	AVERAGE	AVERAGE	CBZ1	CBZ2	CBZ1	CBZ2	CBZ1	CBZ2
		Warm	Cold	Warm	Cold	Warm	Cold	Warm	Cold	Warm	Cold	Warm	Cold	Warm	Cold	Warm	Cold
13-May-94	834	342.4	439.5	360.8	451.3	351.6	2480	2180	2440	2230							
27-May-94	848	396.3	476.2	514.3	470.6	455.3	2300	2100	2220	2220							
10-Jun-94	862	473.5	555.8	533.3	554.3	503.4	2330	2280	2160	2140							
24-Jun-94	876	NSS	425.7	NSS	425.5	NSS	2170	NSS	2200	NSS							
8-Jul-94	890	402.3	375.6	211.6	402.1	307.0	1967	1923	1929	1946							
22-Jul-94	904	537.8	483.2	509.5	498.7	523.7	2040	1900	2050	1935							
5-Aug-94	918	387.5	512.2	410.2	516.5	398.9	2210	2040	2060	2010							
19-Aug-94	932	403.9	506.0	473.5	500.2	438.7	1942	1860	1982	1915							
2-Sep-94	946	389.3	488.4	488.3	502.1	438.8	2070	1888	2040	1902							
16-Sep-94	960	426.9	491.8	521.8	468.7	474.4	2300	1905	2310	1928							
30-Sep-94	974	301.3	411.2	402.1	391.9	351.7	2280	1890	2340	1876							
14-Oct-94	988	472.1	362.3	314.2	410.9	393.2	2170	2070	2150	2020							
28-Oct-94	1002	428.4	421.1	369.0	432.0	398.7	2010	1795	2020	1827							
10-Nov-94	1015	286.6	361.9	266.1	390.5	276.4	2020	1807	2000	1804							
25-Nov-94	1030	458.7	393.7	363.0	415.9	410.9	1962	N.S.S.	1940	N.S.S.							
9-Dec-94	1044	384.9	335.9	301.8	365.7	343.4	1872	1711	1851	1649							
23-Dec-94	1058	516.1	466.0	464.8	470.7	490.5	1864	1857	1846	1827							
6-Jan-95	1072	399.2	347.0	312.1	387.4	355.7	1900	1724	1863	1776							
20-Jan-95	1086	352.5	446.7	409.3	454.6	380.9	1637	2070	1760	2200							
3-Feb-95	1100	351.1	423.2	382.1	438.4	366.6	2020	1515	2020	1511							

Table 1: Effluent Water Quality and Leaching Characteristics of B-Zone Tailings

SAMPLE DATE	Days From Start	LAB. Ec		Field		Field		Field		Field		Field	
		Ec(LAB) AVERAGE	Ec(LAB) AVERAGE	Temp.(C) Cold	Temp.(C) Warm	Temp.(C) CBZ1	Temp.(C) CBZ1	Temp.(C) CBZ2	Temp.(C) CBZ2	Temp.(C) CBZ2	Temp.(C) CBZ2	Temp.(C) AVERAGE	Temp.(C) AVERAGE
		Cold	Warm					Cold	Warm	Cold	Warm	Cold	Warm
24-Jul-92	176	2050	2180	4.1	22.8	4.2	21.3	4.2	21.3	4.2	21.3	4.2	22.1
1-Aug-92	184	2160	2083	4.6	20.9	4.5	22.2	4.5	22.2	4.5	22.2	4.6	21.6
7-Aug-92	190	2300	2035	5.1	25.1	4.2	21.4	4.2	21.4	4.2	21.4	4.7	23.3
14-Aug-92	197	2835	2565	4.6	22.9	4.5	21.4	4.5	21.4	4.5	21.4	4.6	22.2
21-Aug-92	204	2840	2550	4.2	20.4	4.5	21.6	4.5	21.6	4.4	21.6	4.4	21.0
28-Aug-92	211	2835	2675	4.3	21.0	4.4	24.3	4.4	24.3	4.4	24.3	4.4	22.7
4-Sep-92	218	2740	2665	4.1	20.9	4.0	20.4	4.0	20.4	4.1	20.4	4.1	20.7
11-Sep-92	225	2670	2545	4.2	20.7	3.9	20.9	3.9	20.9	4.1	20.9	4.1	20.8
18-Sep-92	232	2855	2665	5.5	24.4	5.0	22.2	5.0	22.2	5.3	22.2	5.3	23.3
25-Sep-92	239	2950	2735	4.3	23.9	4.7	22.7	4.7	22.7	4.5	22.7	4.5	23.3
2-Oct-92	246	2925	2615	4.9	21.9	4.5	19.6	4.5	19.6	4.7	19.6	4.7	20.8
8-Oct-92	252	2835	2550	4.9	21.3	5.0	19.7	5.0	19.7	5.0	19.7	5.0	20.5
16-Oct-92	260	2855	2360	4.5	19.7	5.0	18.9	5.0	18.9	4.8	18.9	4.8	19.3
30-Oct-92	274	2840	2295	4.3	17.1	3.9	18.7	3.9	18.7	4.1	18.7	4.1	17.9
13-Nov-92	288	2860	2820	5.2	22.2	5.2	20.8	5.2	20.8	5.2	20.8	5.2	21.5
27-Nov-92	302	3135	2795	5.3	22.4	5.0	24.1	5.0	24.1	5.2	24.1	5.2	23.3
11-Dec-92	316	3235	2625	5.3	24.6	5.1	23.5	5.1	23.5	5.2	23.5	5.2	24.1
24-Dec-92	329	2745	2640	4.5	21.9	4.2	21.6	4.2	21.6	4.4	21.6	4.4	21.8
8-Jan-93	344	3210	2780	4.8	21.3	4.6	22.9	4.6	22.9	4.7	22.9	4.7	22.1
22-Jan-93	358	2535	2815	4.7	19.2	4.6	21.1	4.6	21.1	4.7	21.1	4.7	20.2
5-Feb-93	372	2610	2550	4.7	22.1	5.1	23.2	5.1	23.2	4.9	23.2	4.9	22.7
19-Feb-93	386	2960	2390	4.6	22.8	4.1	21.9	4.1	21.9	4.4	21.9	4.4	22.4
5-Mar-93	400	2910	2500	4.7	20.9	4.0	20.3	4.0	20.3	4.4	20.3	4.4	20.6
19-Mar-93	414	2720	2485	4.0	21.6	4.6	21.6	4.6	21.6	4.3	21.6	4.3	21.6
2-Apr-93	428	2620	2370	4.7	20.0	5.4	19.8	5.4	19.8	5.1	19.8	5.1	19.9

SAMPLE DATE	Days From Start	LAB. Ec		LAB. Ec Ec(LAB) AVERAGE	Field		Field Temp.(C) CBZ1	Field Temp.(C) CBZ2	Field Temp.(C) AVERAGE	Field Temp.(C) AVERAGE	Field Temp.(C) AVERAGE
		AVERAGE Cold	AVERAGE Warm		Cold	Warm					
16-Apr-93	442	2580	2360	5.2	23.0	4.7	21.5	5.0	22.3		
30-Apr-93	456	2500	2425	4.5	22.2	4.2	22.4	4.4	22.3		
14-May-93	470	2560	2315	4.7	19.6	4.0	21.4	4.4	20.5		
28-May-93	484	2690	2410	4.9	21.8	4.5	21.3	4.7	21.6		
11-Jun-93	498	2715	2810	4.6	24.8	4.4	24.5	4.5	24.7		
25-Jun-93	512	2660	2420	4.1	21.5	4.5	22.9	4.3	22.2		
9-Jul-93	526	2515	2520	4.5	24.6	4.5	23.9	4.5	24.3		
23-Jul-93	540	2640	2430	4.4	23.1	4.7	23.2	4.6	23.2		
9-Aug-93	557	2620	2595	5.0	23.5	5.2	24.3	5.1	23.9		
20-Aug-93	568	2450	2410	5.1	24.9	4.6	24.9	4.9	24.9		
3-Sep-93	582	2525	2248	4.7	21.3	4.6	20.8	4.7	21.1		
17-Sep-93	596	2500	2475	4.1	18.9	4.4	19.4	4.3	19.2		
1-Oct-93	610	2470	2235	4.4	23.4	4.9	23.3	4.7	23.4		
15-Oct-93	624	2350	2225	4.7	22.4	5.2	24.0	5.0	23.2		
29-Oct-93	638	2555	2430	4.2	22.9	4.4	22.1	4.3	22.5		
12-Nov-93	652	2430	2185	4.6	20.5	4.9	19.8	4.8	20.2		
26-Nov-93	666	2665	2345	4.4	22.4	4.5	24.8	4.5	23.6		
10-Dec-93	680	2335	2170	5.0	25.1	5.0	24.6	5.0	24.9		
24-Dec-93	694	2140	1887	6.5	17.9	6.6	16.6	6.6	17.3		
7-Jan-94	708	2175	2015	6.0	20.8	6.1	21.2	6.1	21.0		
21-Jan-94	722	3285	2850	6.4	24.9	6.8	24.8	6.6	24.9		
11-Mar-94	771	3215	3185	10.5	27.3	10.5	23.6	10.5	25.5		
25-Mar-94	785	3080	3040	10.2	21.7	9.9	24.8	10.1	23.3		
15-Apr-94	806	2685	2710	10.7	24.1	10.6	27.9	10.7	26.0		
29-Apr-94	820	2540	2435	10.6	23.7	10.4	24.8	10.5	24.3		

Table 1: Effluent Water Quality and Leaching Characteristics of B-Zone Tailings

SAMPLE DATE	Days From Start	LAB. Ec		Field Temp.(C) CBZ1	Field Temp.(C) CBZ2	Field Temp.(C) CBZ2		Field Temp.(C) AVERAGE	Field Temp.(C) AVERAGE
		AVERAGE	Cold			Warm	Cold		
13-May-94	834	2460		10.4	23.6	10.6	22.3	10.5	23.0
27-May-94	848	2260		10.3	20.8	10.9	21.8	10.6	21.3
10-Jun-94	862	2245		10.9	24.0	10.8	22.3	10.9	23.2
24-Jun-94	876	2185		15.5	NSS	15.8	NSS	15.7	NSS
8-Jul-94	890	1948		13.6	21.5	14.0	21.7	13.8	21.6
22-Jul-94	904	2045		11.9	21.6	10.8	22.5	11.4	22.1
5-Aug-94	918	2135		11.2	26.0	12.8	24.8	12.0	25.4
19-Aug-94	932	1962		11.3	25.4	11.4	28.8	11.4	27.1
2-Sep-94	946	2055		11.8	26.4	12.7	24.7	12.3	25.6
16-Sep-94	960	2305		13.2	21.5	15.0	21.4	14.1	21.5
30-Sep-94	974	2310		11.9	22.5	12.5	22.5	12.2	22.5
14-Oct-94	988	2160		15.0	21.2	15.0	21.0	15.0	21.1
28-Oct-94	1002	2015		11.8	21.3	11.9	21.3	11.9	21.3
10-Nov-94	1015	2010		12.1	21.9	11.8	21.8	12.0	21.9
25-Nov-94	1030	1951		15.6	21.2	15.1	21.1	15.4	21.2
9-Dec-94	1044	1862		11.7	20.2	11.0	20.1	11.4	20.2
23-Dec-94	1058	1855		12.4	19.9	11.8	19.6	12.1	19.8
6-Jan-95	1072	1882		14.3	20.7	15.3	21.3	14.8	21.0
20-Jan-95	1086	1699		10.9	21.4	11.5	21.2	11.2	21.3
3-Feb-95	1100	2020		11.6	19.5	11.9	18.9	11.8	19.2

Table 1: Effluent Water Quality and Leaching Characteristics of B-Zone Tailings

SAMPLE DATE	Days From Start	ACIDITY (mg/L)		ALKALINITY (mg/L)		ALKALINITY (mg/L)		AI (mg/L) CBZ1
		CBZ1	CBZ2	AVERAGE	CBZ1	CBZ2	AVERAGE	
30-Jan-92	0	0.00	0.00	0.00	149.18	159.12	154.15	NA
6-Feb-92	7	0.00	0.00	0.00	272.49	286.42	279.45	<0.04
13-Feb-92	14	0.00	0.00	0.00	336.14	362.00	349.07	<0.04
20-Feb-92	21	0.00	0.00	0.00	326.20	344.10	335.15	0.07
27-Feb-92	28	0.00	0.00	0.00	312.27	328.19	320.23	0.13
5-Mar-92	35	0.00	0.00	0.00	320.23	318.24	319.23	0.11
12-Mar-92	42	0.00	0.00	0.00	320.23	302.33	311.28	0.14
19-Mar-92	49	0.00	0.00	0.00	310.28	306.31	308.30	0.12
26-Mar-92	56	0.00	0.00	0.00	308.30	304.32	306.31	0.17
2-Apr-92	63	0.00	0.00	0.00	306.31	300.34	303.32	0.14
9-Apr-92	70	0.00	0.00	0.00	306.31	306.31	306.31	0.13
16-Apr-92	77	0.00	0.00	0.00	310.28	312.27	311.28	0.10
23-Apr-92	84	0.00	0.00	0.00	310.28	310.28	310.28	0.09
30-Apr-92	91	0.00	0.00	0.00	315.26	314.26	314.76	0.14
7-May-92	98	0.00	0.00	0.00	308.30	322.22	315.26	0.11
14-May-92	105	0.00	0.00	0.00	312.27	316.25	314.26	0.12
22-May-92	113	0.00	0.00	0.00	301.33	311.28	306.31	0.07
29-May-92	120	0.00	0.00	0.00	307.30	312.27	309.79	0.13
5-Jun-92	127	0.00	0.00	0.00	306.31	309.29	307.80	0.12
12-Jun-92	134	0.00	0.00	0.00	302.33	299.34	300.84	0.12
19-Jun-92	141	0.00	0.00	0.00	295.37	295.37	295.37	0.11
29-Jun-92	151	0.00	0.00	0.00	290.39	286.42	288.41	0.16
3-Jul-92	155	0.00	0.00	0.00	290.39	280.45	285.42	0.20
10-Jul-92	162	0.00	0.00	0.00	283.43	276.47	279.95	0.17
17-Jul-92	169	0.00	0.00	0.00	277.47	270.50	273.98	0.15

Table 1: Effluent Water Quality and Leaching Characteristics of B-Zone Tailings

SAMPLE DATE	Days From Start	ACIDITY (mg/L)		ALKALINITY (mg/L)		ALKALINITY (mg/L)		ALKALINITY (mg/L)		AI (mg/L) CBZ1
		CBZ1	CBZ2 AVERAGE	CBZ1	CBZ2 AVERAGE	CBZ1	CBZ2	AVERAGE	CBZ1	
24-Jul-92	176	0.00	0.00	288.41	285.42	286.91	0.13			
1-Aug-92	184	0.00	0.00	280.45	285.42	282.94	0.27			
7-Aug-92	190	0.00	0.00	270.50	275.48	272.99	0.16			
14-Aug-92	197	0.00	0.00	274.48	278.46	276.47	0.16			
21-Aug-92	204	0.00	0.00	278.46	282.44	280.45	0.12			
28-Aug-92	211	0.00	0.00	276.47	284.43	280.45	0.22			
4-Sep-92	218	0.00	0.00	280.45	281.44	280.95	0.16			
11-Sep-92	225	0.00	0.00	278.46	282.44	280.45	0.15			
18-Sep-92	232	0.00	0.00	287.91	287.91	287.91	0.15			
25-Sep-92	239	0.00	0.00	287.91	287.91	287.91	0.11			
2-Oct-92	246	0.00	0.00	293.83	287.91	290.87	0.31			
8-Oct-92	252	0.00	0.00	288.90	291.86	290.38	0.13			
16-Oct-92	260	0.00	0.00	285.94	288.90	287.42	0.09			
30-Oct-92	274									
13-Nov-92	288	0.00	0.00	299.74	278.05	288.90	0.17			
27-Nov-92	302									
11-Dec-92	316	0.00	0.00	301.18	239.07	270.12	0.12			
24-Dec-92	329									
8-Jan-93	344	0.00	0.00	303.51	213.98	258.75	0.14			
22-Jan-93	358									
5-Feb-93	372	0.00	0.00	322.84	197.97	260.40	0.14			
19-Feb-93	386									
5-Mar-93	400	0.00	0.00	264.31	176.00	220.15	0.19			
19-Mar-93	414									
2-Apr-93	428	0.00	0.00	233.15	124.99	179.07	0.15			

Table 1: Effluent Water Quality and Leaching Characteristics of B-Zone Tailings

SAMPLE DATE	Days From Start	ACIDITY (mg/L)		ACIDITY (mg/L) CBZ2	ACIDITY (mg/L) AVERAGE		ALKALINITY (mg/L)		ALKALINITY (mg/L) CBZ2	ALKALINITY (mg/L) AVERAGE		Al (mg/L) CBZ1
		CBZ1			CBZ1		CBZ1					
16-Apr-93	442											
30-Apr-93	456	0.00	37.09	18.54		216.57	99.11	157.84			0.04	
14-May-93	470											
28-May-93	484	0.00	245.62	122.81		226.90	83.18	155.04			0.04	
11-Jun-93	498	0.00	268.02	134.01		208.86	56.46	132.66				
25-Jun-93	512	0.00	284.06	142.03		177.06	69.70	123.38			<0.04	
9-Jul-93	526	0.00	305.94	152.97		175.75	79.91	127.83				
23-Jul-93	540	175.48	347.20	261.34		218.76	68.11	143.44			0.04	
9-Aug-93	557											
20-Aug-93	568	0.00	356.30	178.15		218.45	54.40	136.43			0.30	
3-Sep-93	582											
17-Sep-93	596	210.92	194.04	202.48		199.29	63.40	131.35			<0.04	
1-Oct-93	610											
15-Oct-93	624	0.00	492.07	246.04		105.84	53.53	79.69			0.18	
29-Oct-93	638											
12-Nov-93	652	160.12	379.63	269.88		144.33	90.54	117.44			0.19	
26-Nov-93	666											
10-Dec-93	680	272.44	292.63	282.54		130.13	65.30	97.72			0.19	
24-Dec-93	694	N.S.S.	N.S.S.	N.S.S.		N.S.S.	N.S.S.	N.S.S.				
7-Jan-94	708	0.00	0.00	0.00		163.21	113.21	138.21			0.16	
21-Jan-94	722	0.00	0.00	0.00		177.70	155.17	166.44			0.19	
11-Mar-94	771	297.75	395.96	346.86		36.64	14.67	25.66			0.18	
25-Mar-94	785	764.07	776.11	770.09		46.79	16.66	31.73			0.15	
15-Apr-94	806	861.63	875.69	868.66		7.70	0.00	3.85			0.14	
29-Apr-94	820	719.69	731.98	725.84		6.46	0.00	3.23			0.17	

Table 1: Effluent Water Quality and Leaching Characteristics of B-Zone Tailings

SAMPLE DATE	Days From Start	ACIDITY (mg/L)		ACIDITY (mg/L)		ALKALINITY (mg/L)		ALKALINITY (mg/L)		AI (mg/L) CBZ1
		CBZ1	CBZ2	AVERAGE	CBZ1	CBZ2	AVERAGE	CBZ1	CBZ2	
13-May-94	834	574.88	574.39	574.63	19.94	26.80	23.37			0.15
27-May-94	848	470.38	487.32	478.85	15.83	1.53	8.68			0.17
10-Jun-94	862	382.63	387.25	384.94	5.60	0.98	3.29			0.17
24-Jun-94	876	307.64	312.34	309.99	3.28	2.26	2.77			0.18
8-Jul-94	890	280.00	292.90	286.45	1.83	18.94	10.38			0.18
22-Jul-94	904	231.80	234.08	232.94	0.08	6.92	3.50			0.21
5-Aug-94	918	210.12	210.88	210.50	4.19	7.14	5.66			0.18
19-Aug-94	932	190.46	189.05	189.75	10.56	2.52	6.54			0.19
2-Sep-94	946	168.67	167.09	167.88	7.29	2.12	4.71			0.17
16-Sep-94	960	138.27	143.86	141.06	17.70	2.69	10.20			0.17
30-Sep-94	974	112.78	114.26	113.52	9.73	1.95	5.84			0.16
14-Oct-94	988	74.88	86.73	80.81	1.34	17.77	9.56			0.15
28-Oct-94	1002	67.88	68.90	68.39	1.28	5.96	3.62			
10-Nov-94	1015	46.61	58.13	52.37	14.31	21.67	17.99			
25-Nov-94	1030	44.13	47.08	45.61	2.01	6.27	4.14			0.08
9-Dec-94	1044	23.19	38.89	31.04	3.46	9.01	6.24			0.08
23-Dec-94	1058	17.80	32.02	24.91	7.37	8.14	7.76			0.11
6-Jan-95	1072	19.35	28.04	23.70	6.78	11.09	8.94			0.07
20-Jan-95	1086	12.79	17.53	15.16	12.51	23.50	18.01			0.13
3-Feb-95	1100	8.03	6.34	7.19	8.08	13.94	11.01			0.10

Table 1: Effluent Water Quality and Leaching Characteristics of B-Zone Tailings

SAMPLE DATE	Days From Start	Al (mg/L) CBZ2	Al (mg/L) Average	As (mg/L) CBZ1	As (mg/L) CBZ2	As (mg/L) Average	Ca (mg/L) CBZ1	Ca (mg/L) CBZ2	Ca (mg/L) Average	Cu (mg/L) CBZ1
30-Jan-92	0	<0.04			<0.044			523.0	523.0	
6-Feb-92	7	0.04	0.04	<0.044	<0.044		383.5	377.8	380.7	0.012
13-Feb-92	14	0.05	0.05	<0.044	<0.044		370.7	370.8	370.8	<0.004
20-Feb-92	21	<0.04	0.07	<0.044	<0.044		413.6	398.1	405.9	<0.004
27-Feb-92	28	0.14	0.14	<0.044	<0.044		462.9	427.0	445.0	<0.004
5-Mar-92	35	<0.04	0.11	<0.044	<0.044		487.4	473.0	480.2	<0.004
12-Mar-92	42	<0.04	0.14	<0.044	<0.044		505.1	504.9	505.0	<0.004
19-Mar-92	49	<0.04	0.12	<0.044	<0.044		547.8	553.0	550.4	<0.004
26-Mar-92	56	0.07	0.12	<0.044	<0.044		559.3	574.4	566.9	<0.004
2-Apr-92	63	0.19	0.17	<0.044	<0.044		572.5	563.0	567.8	<0.004
9-Apr-92	70	<0.04	0.13	<0.044	<0.044		595.2	619.6	607.4	<0.004
16-Apr-92	77	<0.04	0.10	<0.044	<0.044		681.7	619.4	650.6	<0.004
23-Apr-92	84	0.19	0.14	<0.044	<0.044		661.5	593.9	627.7	<0.004
30-Apr-92	91	<0.04	0.14	0.06	<0.044	0.06	685.6	603.7	644.7	<0.004
7-May-92	98	0.06	0.09	<0.044	<0.044		663.9	644.3	654.1	<0.004
14-May-92	105	0.10	0.11	<0.044	<0.044		642.3	609.6	626.0	<0.004
22-May-92	113	0.05	0.06	<0.044	<0.044		649.6	643.1	646.4	<0.004
29-May-92	120	0.25	0.19	<0.044	<0.044		639.6	610.4	625.0	<0.004
5-Jun-92	127	0.09	0.11	<0.044	<0.044		628.6	613.6	621.1	<0.004
12-Jun-92	134	0.09	0.11	<0.044	<0.044		642.6	603.7	623.2	<0.004
19-Jun-92	141	0.05	0.08	<0.044	<0.044		608.4	609.3	608.9	<0.004
29-Jun-92	151	<0.04	0.16	<0.044	<0.044		606.1	606.0	606.1	<0.004
3-Jul-92	155	0.28	0.24	<0.044	0.10	0.10	680.8	623.0	651.9	<0.004
10-Jul-92	162	0.13	0.15	<0.044	0.042	0.04	632.9	603.8	618.4	<0.004
17-Jul-92	169	<0.04	0.15	<0.044	<0.044		610.3	63.9	337.1	<0.004

Table 1: Effluent Water Quality and Leaching Characteristics of B-Zone Tailings

SAMPLE DATE	Days From Start	Al (mg/L) CBZ2	Al (mg/L) Average	As (mg/L) CBZ1	As (mg/L) CBZ2	As (mg/L) Average	Ca (mg/L) CBZ1	Ca (mg/L) CBZ2	Ca (mg/L) Average	Cu (mg/L) CBZ1
24-Jul-92	176	0.08	0.11	<0.044	0.01	0.01	638.4	653.9	646.2	<0.004
1-Aug-92	184	<0.04	0.27	<0.044	<0.044		700.5	645.3	672.9	<0.004
7-Aug-92	190	0.18	0.17	<0.044	<0.044		615.9	624.8	620.4	<0.004
14-Aug-92	197	0.09	0.13	<0.044	<0.044		672.0	611.0	641.5	<0.004
21-Aug-92	204	0.30	0.21	<0.044	0.13	0.13	617.9	624.5	621.2	<0.004
28-Aug-92	211	0.15	0.19	<0.044	<0.044		642.9	670.5	656.7	<0.004
4-Sep-92	218	0.16	0.16	<0.044	<0.044		660.0	634.0	647.0	<0.004
11-Sep-92	225	0.55	0.35	<0.044	0.16	0.16	647.5	678.8	663.2	<0.004
18-Sep-92	232	0.16	0.16	<0.044	<0.044		629.2	631.5	630.4	<0.004
25-Sep-92	239	0.17	0.14	<0.044	<0.044		632.3	652.1	642.2	<0.004
2-Oct-92	246	0.07	0.19	<0.044	<0.044		625.8	613.8	619.8	<0.004
8-Oct-92	252	0.08	0.11	<0.044	<0.044		624.6	639.0	631.8	<0.004
16-Oct-92	260	0.06	0.08	<0.044	<0.044		656.9	637.1	647.0	<0.004
30-Oct-92	274									
13-Nov-92	288	0.14	0.16	<0.044	<0.044		625.6	637.9	631.8	<0.004
27-Nov-92	302									
11-Dec-92	316	0.08	0.10	<0.044	<0.044		633.9	605.8	619.9	<0.004
24-Dec-92	329									
8-Jan-93	344	0.09	0.12	<0.044	<0.044		615.5	582.8	599.2	<0.004
22-Jan-93	358									
5-Feb-93	372	0.10	0.12	<0.044	<0.044		584.3	599.7	592.0	<0.004
19-Feb-93	386									
5-Mar-93	400	0.17	0.18	<0.044	<0.044		548.8	583.7	566.3	<0.004
19-Mar-93	414									
2-Apr-93	428	0.08	0.12	<0.044	<0.044		573.9	591.9	582.9	<0.004

Table 1: Effluent Water Quality and Leaching Characteristics of B-Zone Tailings

SAMPLE DATE	Days From Start	Al (mg/L) CBZ2	Al (mg/L) Average	As (mg/L) CBZ1	As (mg/L) CBZ2	As (mg/L) Average	Ca (mg/L) CBZ1	Ca (mg/L) CBZ2	Ca (mg/L) Average	Cu (mg/L) CBZ1
16-Apr-93	442									
30-Apr-93	456	0.08	0.06	<0.044	<0.044		557.8	566.1	562.0	<0.004
14-May-93	470									
28-May-93	484	0.07	0.06	<0.044	<0.044		594.3	567.7	581.0	<0.004
11-Jun-93	498									
25-Jun-93	512	0.07	0.07	<0.044	0.06	0.06	594.3	571.5	582.9	<0.004
9-Jul-93	526									
23-Jul-93	540	0.05	0.05	<0.044	0.07	0.07	570.9	566.5	568.7	<0.004
9-Aug-93	557									
20-Aug-93	568	0.07	0.19	<0.044	0.1	0.10	598.5	551.0	574.8	<0.004
3-Sep-93	582									
17-Sep-93	596	0.12	0.12	<0.044	0.07	0.07	528.6	565.1	546.9	<0.004
1-Oct-93	610									
15-Oct-93	624	0.16	0.17	<0.044	0.14	0.14	547.5	550.2	548.9	<0.004
29-Oct-93	638									
12-Nov-93	652	0.15	0.17	0.05	0.16	0.11	528.4	514.5	521.5	<0.004
26-Nov-93	666									
10-Dec-93	680	0.16	0.18	0.09	0.07	0.08	534.3	564.6	549.5	<0.004
24-Dec-93	694									
7-Jan-94	708	0.17	0.17	<0.044	<0.044		543.8	541.2	542.5	<0.004
21-Jan-94	722	0.15	0.17	<0.044	<0.044		574.8	564.7	569.8	<0.004
11-Mar-94	771	0.13	0.16	0.14	0.08	0.11	555.5	556.6	556.1	<0.004
25-Mar-94	785	0.05	0.10	0.31	0.15	0.23	532.0	522.0	527.0	<0.004
15-Apr-94	806	0.06	0.10	0.29	0.14	0.22	523.3	512.2	517.8	<0.004
29-Apr-94	820	0.09	0.13	0.25	0.14	0.20	511.7	517.9	514.8	<0.004

Table 1: Effluent Water Quality and Leaching Characteristics of B-Zone Tailings

SAMPLE DATE	Days From Start	Al (mg/L) CBZ2	Al (mg/L) Average	As (mg/L) CBZ1	As (mg/L) CBZ2	As (mg/L) Average	Ca (mg/L) CBZ1	Ca (mg/L) CBZ2	Ca (mg/L) Average	Cu (mg/L) CBZ1
13-May-94	834	0.09	0.12	0.18	0.10	0.14	529.4	541.1	535.3	<0.004
27-May-94	848	0.08	0.13	0.16	0.08	0.12	538.6	536.1	537.4	<0.004
10-Jun-94	862	0.08	0.13	0.13	0.049	0.09	544.8	538.3	541.6	<0.004
24-Jun-94	876	0.11	0.15	0.12	<0.044	0.12	539.2	544.1	541.7	<0.004
8-Jul-94	890	0.10	0.14	0.09	<0.044	0.09	544.9	552.5	548.7	<0.004
22-Jul-94	904	0.12	0.17	0.08	<0.044	0.08	560.5	562.7	561.6	<0.004
5-Aug-94	918	0.13	0.16	0.05	0.06	0.06	564.6	549.5	557.1	<0.004
19-Aug-94	932	0.11	0.15	<0.044	<0.044		561.4	558.0	559.7	<0.004
2-Sep-94	946	0.11	0.14	<0.044	<0.044		556.5	550.7	553.6	<0.004
16-Sep-94	960	0.12	0.15	<0.044	<0.044		560.4	569.8	565.1	<0.004
30-Sep-94	974	0.09	0.13	<0.044	<0.044		562.6	566.1	564.4	<0.004
14-Oct-94	988	0.05	0.10	<0.044	<0.044		558.6	560.7	559.7	<0.004
28-Oct-94	1002									
10-Nov-94	1015									
25-Nov-94	1030	0.08	0.08	<0.044	<0.044			561.2	561.2	<0.004
9-Dec-94	1044	0.07	0.08	<0.044	0.045	0.05		559.5	559.5	<0.004
23-Dec-94	1058	0.08	0.10	<0.044	<0.044			567.0	567.0	<0.004
6-Jan-95	1072	0.09	0.08	<0.044	<0.044			569.8	569.8	<0.004
20-Jan-95	1086	0.10	0.12	<0.044	<0.044			540.3	540.3	<0.004
3-Feb-95	1100	0.08	0.09	<0.044	<0.044			558.5	558.5	<0.004

Table 1: Effluent Water Quality and Leaching Characteristics of B-Zone Tailings

SAMPLE DATE	Days From Start	Cu (mg/L) CBZ2	Cu (mg/L) Average	Fe TOTAL (mg/L) CBZ1	Fe TOTAL (mg/L) CBZ2	Fe TOTAL (mg/L) Average	Hg (mg/L) CBZ1	Hg (mg/L) CBZ2	Hg (mg/L) Average	Mg (mg/L) CBZ1
30-Jan-92	0	0.010	0.010		0.48	0.48		<.15		
6-Feb-92	7	0.030	0.021	0.35	0.33	0.34	<.15	<.15		3240.0
13-Feb-92	14	0.030	0.030	0.16	0.15	0.16	<.15	<.15		2242.0
20-Feb-92	21	<0.004		0.042	0.03	0.04	<.15	<.15		1086.0
27-Feb-92	28	<0.004		0.17	0.01	0.09	<.15	<.15		581.6
5-Mar-92	35	<0.004		0.006	<0.005	0.01	<.15	<.15		395.3
12-Mar-92	42	<0.004		<0.005	<0.005		<.15	<.15		350.1
19-Mar-92	49	<0.004		<0.005	<0.005		<.15	<.15		269.4
26-Mar-92	56	<0.004		<0.005	<0.005		<.15	<.15		196.9
2-Apr-92	63	<0.004		<0.005	<0.005		<.15	<.15		151.9
9-Apr-92	70	<0.004		<0.005	<0.005		<.15	<.15		125.9
16-Apr-92	77	<0.004		<0.005	<0.005		<.15	<.15		119.7
23-Apr-92	84	<0.004		<0.005	<0.005		<.15	<.15		105.4
30-Apr-92	91	<0.004		0.0078	<0.005	0.01	<.15	<.15		101.4
7-May-92	98	<0.004		<0.005	<0.005		<.15	<.15		91.1
14-May-92	105	<0.004		<0.005	<0.005		<.15	<.15		89.0
22-May-92	113	<0.004		<0.005	<0.005		<.15	<.15		92.7
29-May-92	120	<0.004		<0.005	<0.005		<.15	<.15		85.2
5-Jun-92	127	<0.004		<0.005	<0.005		<.15	<.15		93.9
12-Jun-92	134	<0.004		<0.005	<0.005		<.15	<.15		95.9
19-Jun-92	141	<0.004		<0.005	<0.005		<.15	<.15		91.6
29-Jun-92	151	<0.004		<0.005	<0.005		<.15	<.15		88.6
3-Jul-92	155	0.004	0.004	<0.005	<0.005		<.15	<.15		91.4
10-Jul-92	162	<0.004		<0.005	<0.005		<.15	<.15		93.3
17-Jul-92	169	<0.004		<0.005	<0.005		<.15	<.15		91.1

Table 1: Effluent Water Quality and Leaching Characteristics of B-Zone Tailings

SAMPLE DATE	Days From Start	Cu (mg/L) CBZ2	Cu (mg/L) Average	Fe TOTAL (mg/L) CBZ1	Fe TOTAL (mg/L) CBZ2	Fe TOTAL (mg/L) Average	Hg (mg/L) CBZ1	Hg (mg/L) CBZ2	Hg (mg/L) Average	Mg (mg/L) CBZ1
24-Jul-92	176	<0.004		<0.005	<0.005		<.15	<.15		84.8
1-Aug-92	184	<0.004		<0.005	<0.005		<.15	<.15		86.8
7-Aug-92	190	<0.004		<0.005	<0.005		<.15	<.15		90.1
14-Aug-92	197	<0.004		0.04	<0.005		<.15	<.15		90.5
21-Aug-92	204	0.006	0.006	<0.005	<0.005		<.15	<.15		88.1
28-Aug-92	211	<0.004		<0.005	<0.005		<.15	<.15		79.3
4-Sep-92	218	<0.004		<0.005	<0.005		<.15	<.15		76.5
11-Sep-92	225	<0.004		<0.005	0.01	0.01	<.15	<.15		81.9
18-Sep-92	232	<0.004		<0.005	<0.005		<.15	<.15		83.1
25-Sep-92	239	<0.004		<0.005	<0.005		<.15	<.15		91.2
2-Oct-92	246	<0.004		<0.005	<0.005		<.15	<.15		84.9
8-Oct-92	252	<0.004		<0.005	<0.005		<.15	<.15		81.7
16-Oct-92	260	<0.004		<0.005	<0.005		<.15	<.15		77.4
30-Oct-92	274									
13-Nov-92	288	<0.004		<0.005	0.01	0.01	<.15	<.15		80.1
27-Nov-92	302									
11-Dec-92	316	<0.004		<0.005	0.12	0.12	<.15	<.15		107.7
24-Dec-92	329									
8-Jan-93	344	<0.004		<0.005	0.35	0.35	<.15	<.15		117.3
22-Jan-93	358									
5-Feb-93	372	<0.004		<0.005	0.94	0.94	<.15	<.15		110.6
19-Feb-93	386									
5-Mar-93	400	<0.004		0.34	0.74	0.54	<.15	<.15		90.9
19-Mar-93	414									
2-Apr-93	428	<0.004		2.5	4.3	3.40	<.15	<.15		60.6

Table 1: Effluent Water Quality and Leaching Characteristics of B-Zone Tailings

SAMPLE DATE	Days From Start	Cu (mg/L) CBZ2	Cu (mg/L) Average	Fe TOTAL (mg/L) CBZ1	Fe TOTAL (mg/L) CBZ2	Fe TOTAL (mg/L) Average	Hg (mg/L) CBZ1	Hg (mg/L) CBZ2	Hg (mg/L) Average	Mg (mg/L) CBZ1
16-Apr-93	442									
30-Apr-93	456	<0.004		3.1	20.68	11.89	<.15	<.15		41.5
14-May-93	470									
28-May-93	484	<0.004		14.05	81.26	47.66	<.15	<.15		41.6
11-Jun-93	498									
25-Jun-93	512	<0.004		14.78	152.9	83.84	<.15	<.15		75.4
9-Jul-93	526									
23-Jul-93	540	<0.004		56.67	171.6	114.14	<.15	<.15		67.2
9-Aug-93	557									
20-Aug-93	568	<0.004		15.82	186.1	100.96	<.15	<.15		141.4
3-Sep-93	582									
17-Sep-93	596	<0.004		118.3	140.9	129.60	<.15	<.15		162.9
1-Oct-93	610									
15-Oct-93	624	<0.004		31.2	254.2	142.70	<.15	<.15		137.3
29-Oct-93	638									
12-Nov-93	652	<0.004		87.48	233.4	160.44	<.15	<.15		129.4
26-Nov-93	666									
10-Dec-93	680	<0.004		173.8	134.1	153.95	<.15	<.15		112.3
24-Dec-93	694									
7-Jan-94	708	<0.004		<0.005	18.48	18.48	<.15	<.15		127.0
21-Jan-94	722	<0.004		0.0056	2.2	1.10	<.15	<.15		191.6
11-Mar-94	771	<0.004		168.8	210.3	189.55	<.15	<.15		229.6
25-Mar-94	785	<0.004		441.7	430.4	436.05	<.15	0.16		108.0
15-Apr-94	806	<0.004		454.8	463.3	459.05	<.15	<.15		85.6
29-Apr-94	820	<0.004		374	385.1	379.55	<.15	<.15		45.8

Table 1: Effluent Water Quality and Leaching Characteristics of B-Zone Tailings

SAMPLE DATE	Days From Start	Cu (mg/L) CBZ2	Cu (mg/L) Average	Fe TOTAL (mg/L) CBZ1	Fe TOTAL (mg/L) CBZ2	Fe TOTAL (mg/L) Average	Hg (mg/L) CBZ1	Hg (mg/L) CBZ2	Hg (mg/L) Average	Mg (mg/L) CBZ1
13-May-94	834	<0.004		301.4	313	307.20	<.15	<.15		24.8
27-May-94	848	<0.004		248.3	252.2	250.25	<.15	<.15		16.1
10-Jun-94	862	<0.004		200.6	197.5	199.05	<.15	<.15		13.2
24-Jun-94	876	<0.004		160.6	163.1	161.85	<.15	<.15		21.4
8-Jul-94	890	<0.004		138.1	144.3	141.20	<.15	<.15		10.1
22-Jul-94	904	<0.004		116.7	115.8	116.25	<.15	<.15		10.0
5-Aug-94	918	<0.004		102.8	105.5	104.15	<.15	<.15		9.3
19-Aug-94	932	<0.004		92.06	92.08	92.07	<.15	<.15		9.1
2-Sep-94	946	<0.004		76.06	74.97	75.52	<.15	<.15		8.2
16-Sep-94	960	<0.004		65.92	66.59	66.26	<.15	<.15		8.8
30-Sep-94	974	<0.004		51.89	52.02	51.96	<.15	<.15		7.9
14-Oct-94	988	<0.004		36.23	46.33	41.28	<.15	<.15		8.6
28-Oct-94	1002									
10-Nov-94	1015									
25-Nov-94	1030	<0.004		17.51	19.82	18.67	<.15	<.15		7.4
9-Dec-94	1044	<0.004		8.41	16.19	12.30	<.15	<.15		7.9
23-Dec-94	1058	<0.004		6.2	12.54	9.37	<.15	<.15		7.6
6-Jan-95	1072	<0.004		6.4	10.41	8.41	<.15	<.15		7.1
20-Jan-95	1086	<0.004		6.2	11.29	8.75	<.15	<.15		6.9
3-Feb-95	1100	<0.004		1	0.4625	0.73	<.15	<.15		7.5

Table 1: Effluent Water Quality and Leaching Characteristics of B-Zone Tailings

SAMPLE DATE	Days From Start	Mg (mg/L) CBZ2	Mg (mg/L) Average	Mn (mg/L) CBZ1	Mn (mg/L) CBZ2	Mn (mg/L) Average	Ni (mg/L) CBZ1	Ni (mg/L) CBZ2	Ni (mg/L) Average	Pb (mg/L) CBZ1
30-Jan-92	0				4.1	4.1		<0.02		
6-Feb-92	7		3240.0	4.0	4.3	4.2	<0.02	<0.02		0.18
13-Feb-92	14		2242.0	4.2	4.4	4.3	<0.02	<0.02		0.04
20-Feb-92	21		1086.0	3.5	3.7	3.6	0.038	<0.02	0.04	0.05
27-Feb-92	28	610.9	596.3	3.3	3.4	3.4	<0.02	0.021	0.02	0.04
5-Mar-92	35	417.6	406.5	3.5	3.7	3.6	<0.02	<0.02		<0.04
12-Mar-92	42	256.6	303.4	4.1	4.9	4.5	<0.02	0.03	0.03	<0.04
19-Mar-92	49	188.6	229.0	5.0	4.1	4.5	0.038	<0.02	0.04	<0.04
26-Mar-92	56	158.1	177.5	4.5	4.6	4.6	0.023	0.04	0.03	0.06
2-Apr-92	63	133.1	142.5	5.0	4.5	4.8	<0.02	0.0208	0.02	<0.04
9-Apr-92	70	118.4	122.2	4.8	5.1	5.0	<0.02	<0.02		<0.04
16-Apr-92	77	105.5	112.6	5.2	4.9	5.1	<0.02	<0.02		<0.04
23-Apr-92	84	82.2	93.8	5.0	4.4	4.7	<0.02	0.028	0.03	<0.04
30-Apr-92	91	84.7	93.0	5.2	5.3	5.3	<0.02	0.03	0.03	0.04
7-May-92	98	81.5	86.3	5.4	5.6	5.5	<0.02	0.03	0.03	0.09
14-May-92	105	73.9	81.4	5.7	5.4	5.6	<0.02	0.04	0.04	<0.04
22-May-92	113	84.5	88.6	6.1	6.2	6.1	<0.02	<0.02		<0.04
29-May-92	120	78.9	82.0	6.4	5.7	6.1	<0.02	0.05	0.05	<0.04
5-Jun-92	127	79.0	86.4	7.4	6.2	6.8	<0.02	<0.02		<0.04
12-Jun-92	134	81.1	88.5	7.9	7.1	7.5	<0.02	0.03	0.03	<0.04
19-Jun-92	141	88.3	89.9	8.6	6.8	7.7	<0.02	0.03	0.03	<0.04
29-Jun-92	151	77.6	83.1	9.0	6.7	7.9	<0.02	0.04	0.04	<0.04
3-Jul-92	155	74.5	83.0	10.1	7.7	8.9	0.04	0.03	0.04	0.05
10-Jul-92	162	65.0	79.2	9.9	7.7	8.8	0.08	0.03	0.06	<0.04
17-Jul-92	169	11.0	51.0	9.2		9.2	<0.02	0.25	0.25	<0.04

Table 1: Effluent Water Quality and Leaching Characteristics of B-Zone Tailings

SAMPLE DATE	Days From Start	Mg (mg/L) CBZ2	Mg (mg/L) Average	Mn (mg/L) CBZ1	Mn (mg/L) CBZ2	Mn (mg/L) Average	Ni (mg/L) CBZ1	Ni (mg/L) CBZ2	Ni (mg/L) Average	Pb (mg/L) CBZ1
24-Jul-92	176	71.8	78.3	10.1	8.8	9.4	<0.02	<0.02		<0.04
1-Aug-92	184	91.2	89.0	10.9	9.1	10.0	0.03	<0.02	0.03	<0.04
7-Aug-92	190	86.7	88.4	9.4		9.4	0.021	0.11	0.07	<0.04
14-Aug-92	197	82.5	86.5	10.2		10.2	0.021	0.13	0.08	<0.04
21-Aug-92	204	85.2	86.7	9.6		9.6	0.0208	0.07	0.05	<0.04
28-Aug-92	211	97.6	88.5	10.0		10.0	<0.02	<0.02		<0.04
4-Sep-92	218	98.3	87.4	9.6		9.6	<0.02	<0.02		<0.04
11-Sep-92	225	92.0	87.0	10.1		10.1	<0.02	0.04	0.04	<0.04
18-Sep-92	232	84.6	83.8	9.2	9.9	9.6	<0.02	0.023	0.02	<0.04
25-Sep-92	239	79.9	85.6	9.4	9.5	9.5	<0.02	<0.02		<0.04
2-Oct-92	246	48.5	66.7	9.6	5.8	7.7	0.07	<0.02	0.07	0.05
8-Oct-92	252	78.8	80.3	9.2	9.4	9.3	<0.02	<0.02		<0.04
16-Oct-92	260	75.6	76.5	9.4	9.2	9.3	<0.02	<0.02		<0.04
30-Oct-92	274									
13-Nov-92	288	70.7	75.4	9.1	9.1	9.1	<0.02	<0.02		<0.04
27-Nov-92	302									
11-Dec-92	316	64.7	86.2	9.5	9.1	9.3	<0.02	<0.02		<0.04
24-Dec-92	329									
8-Jan-93	344	43.0	80.2	8.7	7.7	8.2	<0.02	<0.02		<0.04
22-Jan-93	358									
5-Feb-93	372	30.2	70.4	8.4	6.8	7.6	<0.02	<0.02		<0.04
19-Feb-93	386									
5-Mar-93	400	26.0	58.4	9.2	6.8	8.0	<0.02	<0.02		<0.04
19-Mar-93	414									
2-Apr-93	428	25.7	43.2	9.4	6.7	8.1	<0.02	<0.02		<0.04

Table 1: Effluent Water Quality and Leaching Characteristics of B-Zone Tailings

SAMPLE DATE	Days From Start	Mg (mg/L) CBZ2	Mg (mg/L) Average	Mn (mg/L) CBZ1	Mn (mg/L) CBZ2	Mn (mg/L) Average	Ni (mg/L) CBZ1	Ni (mg/L) CBZ2	Ni (mg/L) Average	Pb (mg/L) CBZ1
16-Apr-93	442									
30-Apr-93	456	23.3	32.4	7.9	7.8	7.9	<0.02	<0.02		<0.04
14-May-93	470									
28-May-93	484	18.9	30.2	9.6	9.6	9.6	<0.02	<0.02		<0.04
11-Jun-93	498									
25-Jun-93	512	17.4	46.4	9.8	9.1	9.5	<0.02	0.021	0.02	<0.04
9-Jul-93	526									
23-Jul-93	540	15.8	41.5	12.5	8.4	10.5	<0.02	<0.02		<0.04
9-Aug-93	557									
20-Aug-93	568	14.9	78.2	14.1	8.1	11.1	<0.02	<0.02		<0.04
3-Sep-93	582									
17-Sep-93	596	18.4	90.6	20.3		20.3	0.08	0.024	0.05	<0.04
1-Oct-93	610									
15-Oct-93	624	50.8	94.0	19.5		19.5	0.06	0.07	0.07	<0.04
29-Oct-93	638									
12-Nov-93	652	96.3	112.9	23.6	7.3	15.4	0.07	0.04	0.06	<0.04
26-Nov-93	666									
10-Dec-93	680	79.1	95.7	19.8		19.8	0.13	0.04	0.09	0.04
24-Dec-93	694									
7-Jan-94	708	97.6	112.3	8.5	7.7	8.1	0.026	<0.02	0.03	<0.04
21-Jan-94	722	175.8	183.7	13.2	9.6	11.4	0.05	<0.02	0.05	<0.04
11-Mar-94	771	222.9	226.3	16.9		16.9	0.04	0.1	0.07	0.04
25-Mar-94	785	133.3	120.7	23.2		23.2	0.14	0.1	0.12	0.05
15-Apr-94	806	93.8	89.7	22.8		22.8	0.13	0.14	0.14	0.05
29-Apr-94	820	52.1	48.9	17.7		17.7	0.11	0.09	0.10	0.05

Table 1: Effluent Water Quality and Leaching Characteristics of B-Zone Tailings

SAMPLE DATE	Days From Start	Mg (mg/L) CBZ2	Mg (mg/L) Average	Mn (mg/L) CBZ1	Mn (mg/L) CBZ2	Mn (mg/L) Average	Ni (mg/L) CBZ1	Ni (mg/L) CBZ2	Ni (mg/L) Average	Pb (mg/L) CBZ1
13-May-94	834	27.9	26.4	14.5		14.5	0.07	0.07	0.07	<0.04
27-May-94	848	18.0	17.1	11.0		11.0	0.06	0.06	0.06	<0.04
10-Jun-94	862	13.7	13.4	9.2	9.4	9.3	0.047	0.04	0.04	0.05
24-Jun-94	876	12.2	16.8	8.5	8.0	8.3	0.03	0.04	0.04	0.04
8-Jul-94	890	10.3	10.2	6.9	6.9	6.9	<0.02	<0.02	<0.02	<0.04
22-Jul-94	904	9.8	9.9	6.3	6.1	6.2	<0.02	<0.02	<0.02	<0.04
5-Aug-94	918	10.2	9.7	5.6	5.6	5.6	<0.02	<0.02	<0.02	<0.04
19-Aug-94	932	10.1	9.6	5.2	5.1	5.2	<0.02	<0.02	<0.02	<0.04
2-Sep-94	946	9.1	8.6	4.4	4.4	4.4	<0.02	<0.02	<0.02	<0.04
16-Sep-94	960	9.2	9.0	4.1	4.1	4.1	<0.02	<0.02	<0.02	<0.04
30-Sep-94	974	8.4	8.2	3.6	3.5	3.6	<0.02	0.021	0.02	<0.04
14-Oct-94	988	8.6	8.6	3.3	3.2	3.3	<0.02	0.024	0.02	<0.04
28-Oct-94	1002									
10-Nov-94	1015									
25-Nov-94	1030	7.4	7.4	2.5	2.4	2.5	<0.02	<0.02	<0.02	<0.04
9-Dec-94	1044	7.2	7.6	2.3	2.3	2.3	<0.02	<0.02	<0.02	<0.04
23-Dec-94	1058	7.2	7.4	2.2	2.2	2.2	<0.02	<0.02	<0.02	<0.04
6-Jan-95	1072	6.9	7.0	2.1	2.1	2.1	<0.02	<0.02	<0.02	<0.04
20-Jan-95	1086	6.7	6.8	1.9	1.9	1.9	<0.02	<0.02	<0.02	<0.04
3-Feb-95	1100	6.8	7.2	1.9	1.8	1.9	<0.02	<0.02	<0.02	<0.04

Table 1: Effluent Water Quality and Leaching Characteristics of B-Zone Tailings

SAMPLE DATE	Days From Start	Pb (mg/L) CBZ2	Pb (mg/L) Average	Sb (mg/L) CBZ1	Sb (mg/L) CBZ2	Sb (mg/L) Average	Si (mg/L) CBZ1	Si (mg/L) CBZ2	Si (mg/L) Average	Zn (mg/L) CBZ1
30-Jan-92	0	0.05			0.12	0.12		2.8	2.8	
6-Feb-92	7	0.07	0.13	0.11	0.09	0.10	2.1	2.5	2.3	0.005
13-Feb-92	14	0.05	0.05	0.10	0.10	0.10	2.4	2.4	2.4	0.002
20-Feb-92	21	0.04	0.05	0.09	<0.03	0.09	2.6	2.6	2.6	0.002
27-Feb-92	28	0.05	0.05	0.09	0.11	0.10	2.8	2.8	2.8	0.008
5-Mar-92	35	0.05	0.05	0.06	<0.03	0.06	3.1	2.4	2.8	0.003
12-Mar-92	42	<0.04		0.04	<0.03	0.04	2.9	2.9	2.9	0.004
19-Mar-92	49	0.08	0.08	<0.03	0.03	0.03	3.2	2.7	3.0	<0.001
26-Mar-92	56	0.17	0.11	0.06	0.09	0.07	3.1	2.9	3.0	0.005
2-Apr-92	63	<0.04		0.04	0.03	0.04	3.1	2.7	2.9	0.003
9-Apr-92	70	<0.04		0.03	<0.03	0.03	3.1	3.5	3.3	0.004
16-Apr-92	77	<0.04		0.03	<0.03	0.03	3.1	3.3	3.2	0.002
23-Apr-92	84	<0.04		0.03	0.46	0.25	2.9	2.6	2.8	0.003
30-Apr-92	91	<0.04	0.04	<0.03	<0.03		3.1	3.3	3.2	0.004
7-May-92	98	0.07	0.08	<0.03	<0.03		2.9	3.5	3.2	0.003
14-May-92	105	<0.04		<0.03	<0.03		2.7	3.1	2.9	0.003
22-May-92	113	0.07	0.07	<0.03	<0.03		2.7	3.8	3.3	0.002
29-May-92	120	<0.04		<0.03	<0.03		2.9	3.1	3.0	0.002
5-Jun-92	127	<0.04		0.03	0.06	0.05	2.9	2.8	2.9	0.003
12-Jun-92	134	<0.04		<0.03	0.13	0.13	2.9	3.1	3.0	<0.001
19-Jun-92	141	<0.04		<0.03	<0.03		2.9	2.7	2.8	0.004
29-Jun-92	151	0.04	0.04	<0.03	<0.03		2.8	2.3	2.6	0.003
3-Jul-92	155	<0.04	0.05	0.09	0.07	0.08	3.1	3.1	3.1	0.006
10-Jul-92	162	<0.04		<0.03	<0.03		2.8	2.9	2.9	0.003
17-Jul-92	169	<0.04		0.05	<0.03	0.05	2.7		2.7	0.003

Table 1: Effluent Water Quality and Leaching Characteristics of B-Zone Tailings

SAMPLE DATE	Days From Start	Pb (mg/L) CBZ2	Pb (mg/L) Average	Sb (mg/L) CBZ1	Sb (mg/L) CBZ2	Sb (mg/L) Average	Si (mg/L) CBZ1	Si (mg/L) CBZ2	Si (mg/L) Average	Zn (mg/L) CBZ1
24-Jul-92	176	<0.04		<0.03	<0.03		2.9	3.2	3.1	0.003
1-Aug-92	184	<0.04		<0.03	<0.03		2.9	2.8	2.9	0.003
7-Aug-92	190	0.05	0.05	<0.03	0.07	0.07	2.4	2.8	2.6	0.004
14-Aug-92	197	0.06	0.06	0.05	<0.03	0.05	2.8	2.7	2.8	0.010
21-Aug-92	204	0.04	0.04	0.03	0.16	0.10	2.4	2.6	2.5	0.005
28-Aug-92	211	<0.04		0.05	<0.03	0.05	2.6	3.1	2.8	0.006
4-Sep-92	218	<0.04		<0.03	<0.03		2.6	2.7	2.7	0.007
11-Sep-92	225	<0.04		<0.03	0.22	0.22	2.6	3.1	2.9	0.003
18-Sep-92	232	0.04	0.04	<0.03	<0.03		2.3	2.9	2.6	0.003
25-Sep-92	239	<0.04	0.05	<0.03	0.10	0.10	2.2	2.7	2.5	0.003
2-Oct-92	246	<0.04	0.05	0.19	<0.03	0.19	2.3	2.6	2.5	0.009
8-Oct-92	252	<0.04		<0.03	0.04	0.04	2.6	2.7	2.7	0.004
16-Oct-92	260	<0.04		<0.03	0.04	0.04	2.6	2.7	2.7	<0.001
30-Oct-92	274									
13-Nov-92	288	0.05	0.05	0.04	0.05	0.04	2.5	2.8	2.7	0.005
27-Nov-92	302									
11-Dec-92	316	<0.04		0.04	<0.03	0.04	2.4	2.4	2.4	0.002
24-Dec-92	329									
8-Jan-93	344	<0.04		0.04	<0.03	0.04	2.2	2.1	2.2	0.004
22-Jan-93	358									
5-Feb-93	372	<0.04		0.04	<0.03	0.04	2.3	1.9	2.1	0.007
19-Feb-93	386									
5-Mar-93	400	<0.04		0.03	<0.03	0.03	2.1	1.6	1.9	0.008
19-Mar-93	414									
2-Apr-93	428	<0.04		<0.03	<0.03		1.9	1.6	1.8	0.002

Table 1: Effluent Water Quality and Leaching Characteristics of B-Zone Tailings

SAMPLE DATE	Days From Start	Pb (mg/L) CBZ2	Pb (mg/L) Average	Sb (mg/L) CBZ1	Sb (mg/L) CBZ2	Sb (mg/L) Average	Si (mg/L) CBZ1	Si (mg/L) CBZ2	Si (mg/L) Average	Zn (mg/L) CBZ1
16-Apr-93	442									
30-Apr-93	456	<0.04		<0.03	<0.03		1.7	1.3	1.5	0.001
14-May-93	470									
28-May-93	484	<0.04		<0.03	<0.03		1.7	2.0	1.9	0.001
11-Jun-93	498									
25-Jun-93	512	<0.04		<0.03	<0.03		1.6	2.1	1.9	0.001
9-Jul-93	526									
23-Jul-93	540	0.04	0.04	<0.03	<0.03		1.9	2.1	2.0	<0.001
9-Aug-93	557									
20-Aug-93	568	<0.04		<0.03	<0.03		3.6	2.1	2.9	<0.001
3-Sep-93	582									
17-Sep-93	596	<0.04		<0.03	<0.03		2.8	2.9	2.9	<0.001
1-Oct-93	610									
15-Oct-93	624	<0.04		<0.03	0.04	0.04	3.3	3.1	3.2	0.002
29-Oct-93	638									
12-Nov-93	652	<0.04		0.05	0.03	0.04	3.1	2.4	2.7	<0.001
26-Nov-93	666									
10-Dec-93	680	<0.04	0.04	0.03	<0.03	0.03	3.4	4.2	3.8	<0.001
24-Dec-93	694									
7-Jan-94	708	<0.04		<0.03	0.04	0.04	3.1	3.5	3.3	0.001
21-Jan-94	722	<0.04		0.04	<0.03	0.04	3.1	4.1	3.6	0.005
11-Mar-94	771	<0.04	0.04	0.08	0.04	0.06	3.1	3.3	3.2	0.003
25-Mar-94	785	<0.04	0.05	0.05	0.04	0.05	4.2	4.5	4.4	<0.001
15-Apr-94	806	<0.04	0.05	0.04	0.04	0.04	4.1	3.9	4.0	<0.001
29-Apr-94	820	<0.04	0.05	<0.03	<0.03		3.4	3.2	3.3	<0.001

Table 1: Effluent Water Quality and Leaching Characteristics of B-Zone Tailings

SAMPLE DATE	Days From Start	Pb (mg/L) CBZ2	Pb (mg/L) Average	Sb (mg/L) CBZ1	Sb (mg/L) CBZ2	Sb (mg/L) Average	Si (mg/L) CBZ1	Si (mg/L) CBZ2	Si (mg/L) Average	Zn (mg/L) CBZ1
13-May-94	834	<0.04		<0.03	<0.03		3.4	3.4	3.4	<0.001
27-May-94	848	<0.04		<0.03	<0.03		3.1	3.1	3.1	<0.001
10-Jun-94	862	<0.04	0.05	0.04	0.04	0.04	2.9	2.7	2.8	<0.001
24-Jun-94	876	<0.04	0.04	0.03	0.04	0.03	2.8	2.5	2.7	0.001
8-Jul-94	890	<0.04		<0.03	<0.03		2.7	2.3	2.5	<0.001
22-Jul-94	904	<0.04		<0.03	<0.03		2.8	2.6	2.7	0.004
5-Aug-94	918	<0.04		<0.03	0.05	0.05	2.5	2.2	2.4	<0.001
19-Aug-94	932	<0.04		<0.03	<0.03		2.5	2.3	2.4	<0.001
2-Sep-94	946	<0.04		<0.03	<0.03		2.2	2.1	2.2	<0.001
16-Sep-94	960	<0.04		<0.03	<0.03		2.3	2.1	2.2	0.001
30-Sep-94	974	<0.04		<0.03	<0.03		2.1	1.9	2.0	<0.001
14-Oct-94	988	<0.04		<0.03	<0.03		2.3	2.0	2.2	0.030
28-Oct-94	1002									
10-Nov-94	1015									
25-Nov-94	1030	<0.04		<0.03	<0.03		2.0	1.8	1.9	0.002
9-Dec-94	1044	<0.04		<0.03	<0.03		2.0	1.8	1.9	<0.001
23-Dec-94	1058	<0.04		<0.03	<0.03		2.0	1.7	1.9	<0.001
6-Jan-95	1072	<0.04		<0.03	<0.03		1.8	1.7	1.8	<0.001
20-Jan-95	1086	<0.04		<0.03	<0.03		1.6	1.6	1.6	<0.001
3-Feb-95	1100	<0.04		<0.03	<0.03		1.7	1.6	1.6	<0.001

Table 1: Effluent Water Quality and Leaching Characteristics of B-Zone Tailings

SAMPLE DATE	Days From Start	Zn (mg/L) CBZ2	Zn (mg/L) Average	Sulphate (mg/L) CBZ1	Sulphate (mg) CBZ1	Sulphate ($\mu\text{g/kg/d}$) CBZ1	Cum Sul (mg) CBZ1	% Cum Sul	Sulphate (mg/L) CBZ2
30-Jan-92	0	0.010	0.010	15912	14757.9		14758	2.2	15383
6-Feb-92	7	0.009	0.007	15259	14152.3	208429	28910	4.2	15522
13-Feb-92	14	0.005	0.004	11139	10331.0	152150	39241	5.8	10578
20-Feb-92	21	0.003	0.003	5786	5366.3	79032	44607	6.6	5971
27-Feb-92	28	0.004	0.006	3490	3236.9	47672	47844	7.0	3721
5-Mar-92	35	0.003	0.003	2438	2261.3	33303	50106	7.4	2662
12-Mar-92	42	0.007	0.006	2329	2159.8	31809	52266	7.7	2155
19-Mar-92	49	0.002	0.002	2038	1890.3	27839	54156	8.0	1760
26-Mar-92	56	0.004	0.005	1825	1692.3	24923	55848	8.2	1633
2-Apr-92	63	0.005	0.004	1716	1658.4	24424	57506	8.4	1697
9-Apr-92	70	0.002	0.003	1667	1618.3	23833	59125	8.7	1410
16-Apr-92	77	0.002	0.002	1324	1288.3	18974	60413	8.9	1533
23-Apr-92	84	0.003	0.003	1424	1385.7	20407	61799	9.1	1200
30-Apr-92	91	0.002	0.003	1568	1520.1	22388	63319	9.3	1440
7-May-92	98	0.005	0.004	1519	1445.7	21292	64765	9.5	1542
14-May-92	105	<0.001	0.003	1399	1414.8	20837	66179	9.7	1469
22-May-92	113	0.002	0.002	1297	1273.7	16414	67453	9.9	1438
29-May-92	120	0.002	0.002	1532	1507.0	22195	68960	10.1	1460
5-Jun-92	127	0.002	0.003	1515	1434.0	21119	70394	10.3	1154
12-Jun-92	134	<0.001		1546	1491.3	21963	71886	10.6	1498
19-Jun-92	141	<0.001	0.004	995	433.7	6387	72319	10.6	972
29-Jun-92	151	<0.001	0.003	1340	1330.9	13720	73650	10.8	1321
3-Jul-92	155	0.002	0.004	1278	1193.0	30747	74843	11.0	1346
10-Jul-92	162	0.001	0.002	1330	1277.5	18815	76121	11.2	1327
17-Jul-92	169	0.010	0.007	1484	1404.5	20684	77525	11.4	1543

Table 1: Effluent Water Quality and Leaching Characteristics of B-Zone Tailings

SAMPLE DATE	Days From Start	Zn (mg/L) CBZ2	Zn (mg/L) Average	Sulphate (mg/L) CBZ1	Sulphate (mg) CBZ1	Sulphate (µg/kg/d) CBZ1	Cum Sul (mg) CBZ1	% Cum Sul	Sulphate (mg/L) CBZ2
24-Jul-92	176	<0.001	0.003	1314	1237.5	18225	78762	11.6	1366
1-Aug-92	184	<0.001	0.003	1321	1201.4	15482	79964	11.7	1430
7-Aug-92	190	0.004	0.004	1520	1416.1	24331	81380	12.0	2304
14-Aug-92	197	0.006	0.008	1310	1210.2	17823	82590	12.1	1526
21-Aug-92	204	0.008	0.007	1176	1087.5	16016	83678	12.3	1338
28-Aug-92	211	0.004	0.005	1477	1383.1	20369	85061	12.5	1391
4-Sep-92	218	0.005	0.006	1322	1231.0	18129	86292	12.7	1431
11-Sep-92	225	0.007	0.005	1548	1450.9	21368	87743	12.9	1577
18-Sep-92	232	0.002	0.003	1388	1323.7	19495	89066	13.1	1398
25-Sep-92	239	0.002	0.003	1377	1145.4	16870	90212	13.2	1440
2-Oct-92	246	0.003	0.006	1360	1308.7	19273	91520	13.4	1404
8-Oct-92	252	<0.001	0.004	1444	1374.5	23616	92895	13.6	3058
16-Oct-92	260	0.002	0.002	1469	1404.2	18095	94299	13.8	1529
30-Oct-92	274	<0.001	0.005	1425	1361.9	10029	95661	14.0	1469
13-Nov-92	288	<0.001	0.002	1380	1283.2	9449	96944	14.2	1410
27-Nov-92	302	<0.001	0.002	1435	1344.3	9899	98288	14.4	1325
11-Dec-92	316	<0.001	0.003	1490	1408.9	10375	99697	14.6	1239
24-Dec-92	329	0.002	0.003	1566	1423.8	11291	101121	14.9	1286
8-Jan-93	344	<0.001	0.007	1643	1533.4	10539	102655	15.1	1333
22-Jan-93	358	<0.001	0.005	1497	1355.8	9984	104010	15.3	1488
5-Feb-93	372	0.001	0.002	1351	1181.9	8704	105192	15.4	1644
19-Feb-93	386	0.001	0.002	1468	1351.0	9948	106543	15.6	1542
5-Mar-93	400	<0.001	0.002	1584	1429.4	10526	107973	15.9	1440
19-Mar-93	414	<0.001	0.002	1525	1385.1	10199	109358	16.1	1419
2-Apr-93	428	<0.001	0.002	1465	1310.4	9649	110668	16.3	1399

Table 1: Effluent Water Quality and Leaching Characteristics of B-Zone Tailings

SAMPLE DATE	Days From Start	Zn (mg/L) CBZ2	Zn (mg/L) Average	Sulphate (mg/L) CBZ1	Sulphate (mg) CBZ1	Sulphate (µg/kg/d) CBZ1	Cum Sul (mg) CBZ1	% Cum Sul	Sulphate (mg/L) CBZ2
16-Apr-93	442			1489	1385.4	10202	112054	16.5	1495
30-Apr-93	456	<0.001	0.001	1513	1452.9	10699	113507	16.7	1591
14-May-93	470			1462	1353.9	9970	114860	16.9	1577
28-May-93	484	<0.001	0.001	1411	1325.8	9763	116186	17.1	1563
11-Jun-93	498			1435	1359.6	10012	117546	17.3	1550
25-Jun-93	512	<0.001	0.001	1458	1439.5	10600	118985	17.5	1537
9-Jul-93	526			1620	1504.3	11077	120490	17.7	1678
23-Jul-93	540	<0.001		1782	1661.4	12234	122151	17.9	1818
9-Aug-93	557			1772	1663.8	10090	123815	18.2	1717
20-Aug-93	568	<0.001		1761	1668.6	15638	125483	18.4	1615
3-Sep-93	582			1864	1820.6	13406	127304	18.7	1597
17-Sep-93	596	<0.001		1966	1837.4	13530	129141	19.0	1579
1-Oct-93	610			1998	1889.4	13913	131031	19.2	1839
15-Oct-93	624	<0.001	0.002	2029	1842.1	13565	132873	19.5	2099
29-Oct-93	638			2137	1998.3	14715	134871	19.8	2212
12-Nov-93	652	0.003	0.003	2244	2158.6	15895	137030	20.1	2325
26-Nov-93	666			2127	1892.7	13937	138923	20.4	2115
10-Dec-93	680	<0.001		2011	1987.3	14634	140910	20.7	1906
24-Dec-93	694			1495	1228.1	9044	142138	20.9	1723
7-Jan-94	708	0.002	0.001	980	1717.6	12648	143856	21.1	1541
21-Jan-94	722	0.003	0.004	3224	2710.6	19960	146566	21.5	2969
11-Mar-94	771	0.010	0.007	2636	2243.8	4721	148810	21.9	2594
25-Mar-94	785	<0.001		2481	2226.7	16397	151037	22.2	2562
15-Apr-94	806	<0.001		2462	2129.8	10455	153166	22.5	2578
29-Apr-94	820	<0.001		2209	1902.1	14006	155068	22.8	2280

Table 1: Effluent Water Quality and Leaching Characteristics of B-Zone Tailings

SAMPLE DATE	Days From Start	Zn (mg/L) CBZ2	Zn (mg/L) Average	Sulphate (mg/L) CBZ1	Sulphate (mg) CBZ1	Sulphate (µg/kg/d) CBZ1	Cum Sul (mg) CBZ1	% Cum Sul	Sulphate (mg/L) CBZ2
13-May-94	834	<0.001		1941	1533.9	11295	156602	23.0	1922
27-May-94	848	<0.001		1853	1566.9	11538	158169	23.2	1864
10-Jun-94	862	<0.001		1769	1355.0	9978	159524	23.4	1752
24-Jun-94	876	<0.001	0.001	1770	1670.5	12301	161195	23.7	1717
8-Jul-94	890	<0.001		1662	1530.1	11267	162725	23.9	1682
22-Jul-94	904	<0.001	0.004	1691	1556.9	11465	164282	24.1	1650
5-Aug-94	918	<0.001		1640	1449.9	10676	165732	24.3	1615
19-Aug-94	932	<0.001		1575	1419.8	10455	167151	24.5	1631
2-Sep-94	946	<0.001		1558	1371.8	10101	168523	24.7	1608
16-Sep-94	960	<0.001	0.001	1465	1424.9	10492	169948	25.0	1468
30-Sep-94	974	<0.001		1530	1475.0	10862	171423	25.2	1512
14-Oct-94	988	<0.001	0.030	1509	1423.7	10484	172847	25.4	1503
28-Oct-94	1002			1495	1027.9	7569	173875	25.5	1509
10-Nov-94	1015			1465	1366.3	10835	175241	25.7	1453
25-Nov-94	1030	0.002	0.001	1495	1474.2	10132	176715	26.0	1489
9-Dec-94	1044	<0.001	0.001	1459	1368.6	10078	178084	26.2	1459
23-Dec-94	1058	<0.001	0.001	1500	1294.3	9531	179378	26.3	1498
6-Jan-95	1072	0.003	0.001	1530	1452.9	10699	180831	26.6	1447
20-Jan-95	1086	0.002	0.002	1255	1095.8	8069	181927	26.7	1402
3-Feb-95	1100	<0.001	0.002	1474	1247.4	9185	183174	26.9	1459

Table 1: Effluent Water Quality and Leaching Characteristics of B-Zone Tailings

SAMPLE DATE	Days From Start	Sulphate (mg) CBZ2	Sulphate (µg/kg/d) CBZ2	Cum Sul (mg) CBZ2	% Cum Sul	Sulphate (mg/L) AVERAGE	Sulphate % Cum AVERAGE	Sulphate (µg/kg/d) AVERAGE
30-Jan-92	0	14745.1		14745	2.2	15648	2.2	
6-Feb-92	7	14878.7	219126	29624	4.4	15391	4.3	213778
13-Feb-92	14	10139.5	149330	39763	5.8	10859	5.8	150740
20-Feb-92	21	5723.6	84295	45487	6.7	5879	6.6	81663
27-Feb-92	28	3567.0	52533	49054	7.2	3606	7.1	50103
5-Mar-92	35	2551.9	37584	51606	7.6	2550	7.5	35444
12-Mar-92	42	2065.5	30419	53671	7.9	2242	7.8	31114
19-Mar-92	49	1686.8	24842	55358	8.1	1899	8.0	26341
26-Mar-92	56	1565.4	23055	56924	8.4	1729	8.3	23989
2-Apr-92	63	1851.5	27268	58775	8.6	1707	8.5	25846
9-Apr-92	70	1373.5	20229	60149	8.8	1538	8.8	22031
16-Apr-92	77	1475.6	21732	61624	9.0	1429	9.0	20353
23-Apr-92	84	1004.2	14789	62628	9.2	1312	9.1	17598
30-Apr-92	91	1573.4	23173	64202	9.4	1504	9.4	22780
7-May-92	98	1396.6	20568	65598	9.6	1530	9.6	20930
14-May-92	105	1459.7	21497	67058	9.8	1434	9.8	21167
22-May-92	113	1296.5	16707	68355	10.0	1367	10.0	16560
29-May-92	120	1319.4	19432	69674	10.2	1496	10.2	20814
5-Jun-92	127	962.3	14172	70636	10.4	1335	10.4	17645
12-Jun-92	134	1404.5	20685	72041	10.6	1522	10.6	21324
19-Jun-92	141	1039.9	15315	73081	10.7	984	10.7	10851
29-Jun-92	151	1053.5	10861	74134	10.9	1330	10.9	12291
3-Jul-92	155	1445.4	37253	75580	11.1	1312	11.0	34000
10-Jul-92	162	1094.0	16112	76674	11.3	1328	11.2	17464
17-Jul-92	169	1453.8	21410	78127	11.5	1514	11.4	21047

Table 1: Effluent Water Quality and Leaching Characteristics of B-Zone Tailings

SAMPLE DATE	Days From Start	Sulphate (mg) CBZ2	Sulphate ($\mu\text{g/kg/d}$) CBZ2	Cum Sul (mg) CBZ2	% Cum Sul	Sulphate (mg/L) AVERAGE	Sulphate % Cum AVERAGE	Sulphate ($\mu\text{g/kg/d}$) AVERAGE
24-Jul-92	176	1512.3	22272	79640	11.7	1340	11.6	20248
1-Aug-92	184	1216.6	15678	80856	11.9	1376	11.8	15580
7-Aug-92	190	2454.8	42179	83311	12.2	1912	12.1	33255
14-Aug-92	197	1404.0	20677	84715	12.4	1418	12.3	19250
21-Aug-92	204	1184.3	17442	85899	12.6	1257	12.5	16729
28-Aug-92	211	1174.4	17296	87074	12.8	1434	12.6	18833
4-Sep-92	218	1396.0	20559	88470	13.0	1376	12.8	19344
11-Sep-92	225	1344.0	19793	89814	13.2	1563	13.0	20581
18-Sep-92	232	1320.3	19445	91134	13.4	1393	13.2	19470
25-Sep-92	239	1319.2	19429	92453	13.6	1408	13.4	18149
2-Oct-92	246	1355.3	19960	93808	13.8	1382	13.6	19617
8-Oct-92	252	3014.9	51802	96823	14.2	2251	13.9	37709
16-Oct-92	260	1541.6	19865	98365	14.4	1499	14.1	18980
30-Oct-92	274	1193.6	8789	99558	14.6	1447	14.3	9409
13-Nov-92	288	1459.8	10750	101018	14.8	1395	14.5	10099
27-Nov-92	302	1208.5	8899	102227	15.0	1380	14.7	9399
11-Dec-92	316	1153.5	8494	103380	15.2	1365	14.9	9435
24-Dec-92	329	1152.7	9141	104533	15.4	1426	15.1	10216
8-Jan-93	344	1239.1	8516	105772	15.5	1488	15.3	9528
22-Jan-93	358	1334.6	9828	107107	15.7	1493	15.5	9906
5-Feb-93	372	1406.4	10357	108513	15.9	1498	15.7	9530
19-Feb-93	386	1419.6	10454	109933	16.1	1505	15.9	10201
5-Mar-93	400	1179.2	8683	111112	16.3	1512	16.1	9605
19-Mar-93	414	1262.9	9300	112375	16.5	1472	16.3	9750
2-Apr-93	428	1247.3	9185	113622	16.7	1432	16.5	9417

Table 1: Effluent Water Quality and Leaching Characteristics of B-Zone Tailings

SAMPLE DATE	Days From Start	Sulphate (mg) CBZ2	Sulphate (µg/kg/d) CBZ2	Cum Sul (mg) CBZ2	% Cum Sul	Sulphate (mg/L) AVERAGE	Sulphate % Cum AVERAGE	Sulphate (µg/kg/d) AVERAGE
16-Apr-93	442	1450.6	10682	115073	16.9	1492	16.7	10442
30-Apr-93	456	1442.6	10623	116515	17.1	1552	16.9	10661
14-May-93	470	1440.4	10607	117956	17.3	1519	17.1	10288
28-May-93	484	1491.2	10981	119447	17.5	1487	17.3	10372
11-Jun-93	498	1421.2	10466	120868	17.8	1492	17.5	10239
25-Jun-93	512	1404.2	10340	122272	18.0	1497	17.7	10470
9-Jul-93	526	1586.3	11681	123859	18.2	1649	17.9	11379
23-Jul-93	540	1656.5	12198	125515	18.4	1800	18.2	12216
9-Aug-93	557	1612.2	9777	127128	18.7	1744	18.4	9933
20-Aug-93	568	1480.2	13873	128608	18.9	1688	18.7	14756
3-Sep-93	582	1555.7	11456	130164	19.1	1730	18.9	12431
17-Sep-93	596	1374.1	10119	131538	19.3	1773	19.1	11825
1-Oct-93	610	1769.7	13032	133307	19.6	1918	19.4	13473
15-Oct-93	624	1556.3	11461	134864	19.8	2064	19.7	12513
29-Oct-93	638	1920.8	14144	136785	20.1	2174	19.9	14430
12-Nov-93	652	2284.3	16821	139069	20.4	2284	20.3	16358
26-Nov-93	666	1416.5	10431	140485	20.6	2121	20.5	12184
10-Dec-93	680	2122.8	15632	142608	20.9	1958	20.8	15133
24-Dec-93	694	1612.7	11876	144221	21.2	1609	21.0	10460
7-Jan-94	708	1223.2	9007	145444	21.4	1260	21.2	10827
21-Jan-94	722	2178.7	16044	147623	21.7	3097	21.6	18002
11-Mar-94	771	2277.7	4792	149900	22.0	2615	21.9	4756
25-Mar-94	785	2114.8	15573	152015	22.3	2522	22.3	15985
15-Apr-94	806	2350.5	11539	154366	22.7	2520	22.6	10997
29-Apr-94	820	1990.2	14655	156356	23.0	2244	22.9	14331

Table 1: Effluent Water Quality and Leaching Characteristics of B-Zone Tailings

SAMPLE DATE	Days From Start	Sulphate (mg) CBZ2	Sulphate (µg/kg/d) CBZ2	Cum Sul (mg) CBZ2	% Cum Sul	Sulphate (mg/L) AVERAGE	Sulphate % Cum AVERAGE	Sulphate (µg/kg/d) AVERAGE
13-May-94	834	1503.6	11072	157859	23.2	1931	23.1	11184
27-May-94	848	1619.8	11928	159479	23.4	1858	23.3	11733
10-Jun-94	862	1566.6	11536	161046	23.7	1761	23.5	10757
24-Jun-94	876	1613.1	11879	162659	23.9	1744	23.8	12090
8-Jul-94	890	1684.2	12402	164343	24.1	1672	24.0	11835
22-Jul-94	904	1652.6	12169	165996	24.4	1671	24.3	11817
5-Aug-94	918	1346.8	9918	167342	24.6	1628	24.5	10297
19-Aug-94	932	1491.9	10986	168834	24.8	1603	24.7	10720
2-Sep-94	946	1421.7	10469	170256	25.0	1583	24.9	10285
16-Sep-94	960	1087.9	8011	171344	25.2	1466	25.1	9252
30-Sep-94	974	1539.6	11337	172883	25.4	1521	25.3	11099
14-Oct-94	988	1487.4	10953	174371	25.6	1506	25.5	10719
28-Oct-94	1002	1584.1	11665	175955	25.8	1502	25.7	9617
10-Nov-94	1015	1178.0	9342	177133	26.0	1459	25.9	10089
25-Nov-94	1030	1332.5	9158	178465	26.2	1492	26.1	9645
9-Dec-94	1044	1106.0	8145	179571	26.4	1459	26.3	9111
23-Dec-94	1058	1071.5	7890	180643	26.5	1499	26.4	8711
6-Jan-95	1072	1034.7	7619	181678	26.7	1489	26.6	9159
20-Jan-95	1086	1924.1	14169	183602	27.0	1328	26.8	11119
3-Feb-95	1100	1363.1	10037	184965	27.2	1466	27.0	9611

Table 1: Effluent Water Quality and Leaching Characteristics of B-Zone Tailings

SAMPLE DATE	Days From Start	TOTAL CN		TOTAL CN		TOTAL CN	
		PPB	CBZ1	PPB	CBZ2	PPB	AVERAGE
30-Jan-92	0						
6-Feb-92	7	840		770		805	
13-Feb-92	14	310		350		330	
20-Feb-92	21	106		109		107.5	
27-Feb-92	28	46		46		46	
5-Mar-92	35	21		35		28	
12-Mar-92	42	25		24		24.5	
19-Mar-92	49	19		20		19.5	
26-Mar-92	56	12		13		12.5	
2-Apr-92	63	10		16		13	
9-Apr-92	70	12		14		13	
16-Apr-92	77	12		14		13	
23-Apr-92	84	10		12		11	
30-Apr-92	91	8		9		8.5	
7-May-92	98	10		12		11	
14-May-92	105						
22-May-92	113						
29-May-92	120	8		9		8.5	
5-Jun-92	127	7		4		5.5	
12-Jun-92	134	7		8		7.5	
19-Jun-92	141	2		6		4	
29-Jun-92	151	7		3		5	
3-Jul-92	155	7		4		5.5	
10-Jul-92	162	6		3		4.5	
17-Jul-92	169	4		<2		4	

Table 1: Effluent Water Quality and Leaching Characteristics of B-Zone Tailings

SAMPLE DATE	Days From Start	TOTAL CN		TOTAL CN		TOTAL CN	
		PPB	CBZ1	PPB	CBZ2	PPB	AVERAGE
24-Jul-92	176	2		<2		2	
1-Aug-92	184	3		<2		3	
7-Aug-92	190	5		4		4.5	
14-Aug-92	197	4		3		3.5	
21-Aug-92	204	4		5		4.5	
28-Aug-92	211	<2		<2			
4-Sep-92	218	<2		<2			
11-Sep-92	225	<2		<2			
18-Sep-92	232	<2		<2			
25-Sep-92	239	<2		<2			
2-Oct-92	246	<2		<2			
8-Oct-92	252	<2		<2			
16-Oct-92	260	<2		<2			
30-Oct-92	274						
13-Nov-92	288						
27-Nov-92	302						
11-Dec-92	316						
24-Dec-92	329						
8-Jan-93	344						
22-Jan-93	358						
5-Feb-93	372						
19-Feb-93	386						
5-Mar-93	400						
19-Mar-93	414						
2-Apr-93	428						

Table 2: Effluent Water Quality and Leaching Characteristics of S-Zone Tailings

SAMPLE DATE	DAYS FROM START	VOLUME (mL)		VOLUME AVERAGE (mL)	CUMMULATIVE VOLUME (ml)	LAB. pH		LAB. pH		LAB. pH	
		CSZ1	CSZ2			pH(LAB) CSZ1	Cold	pH(LAB) CSZ1	Warm	pH(LAB) CSZ2	Cold
30-Jan-92	0	955.7	902.3	929.0	929.0	6.92				5.75	
6-Feb-92	7	955.7	902.3	929.0	1858.0	6.31				6.15	
13-Feb-92	14	955.7	902.3	929.0	2787.0	6.34				6.34	
20-Feb-92	21	955.7	902.3	929.0	3716.0	6.21				6.36	
27-Feb-92	28	955.7	902.3	929.0	4645.0	6.44				6.53	
5-Mar-92	35	955.7	902.3	929.0	5574.1	6.42				6.69	
12-Mar-92	42	955.7	902.3	929.0	6503.1	6.58				6.71	
19-Mar-92	49	955.7	902.3	929.0	7432.1	6.63				6.73	
26-Mar-92	56	955.7	902.3	929.0	8361.1	6.59				6.85	
2-Apr-92	63	960.5	952.7	956.6	9317.7	6.65		6.77		6.98	6.99
9-Apr-92	70	968.6	947.2	957.9	10275.5	6.50		6.74		6.96	7.18
16-Apr-92	77	982.9	980.5	981.7	11257.2	6.67		7.05		6.87	7.18
23-Apr-92	84	922.7	962.4	942.6	12199.8	6.41		6.83		6.66	7.43
30-Apr-92	91	944.7	910.8	927.8	13127.5	6.70		6.98		6.57	6.94
7-May-92	98	943.4	869.4	906.4	14033.9	6.64		7.02		6.46	6.93
14-May-92	105	962.9	964.6	963.7	14997.7	6.55		6.55		6.97	7.09
22-May-92	113	940.6	877.3	909.0	15906.6	6.56		6.54		6.67	6.93
29-May-92	120	973.7	986.0	979.9	16886.5	6.44		6.46		6.46	6.58
5-Jun-92	127	957.7	519.0	738.3	17624.8	6.56		6.63		7.60	7.45
12-Jun-92	134	957.3	996.2	976.7	18601.6	6.54		6.72		6.46	6.63
19-Jun-92	141	953.2	862.0	907.6	19509.2	6.73		6.50		6.70	6.95
29-Jun-92	151	930.8	1013.5	972.2	20481.3	6.82		6.39		6.41	6.81
3-Jul-92	155	934.9	834.8	884.9	21366.2	6.44		6.05		6.17	6.80
10-Jul-92	162	954.0	953.5	953.7	22319.9	6.11		5.69		6.85	6.30
17-Jul-92	169	921.8	944.7	933.3	23253.2	5.88		5.83		6.29	6.29

Table 2: Effluent Water Quality and Leaching Characteristics of S-Zone Tailings

SAMPLE DATE	DAYS FROM START	VOLUME (mL)		VOLUME (mL) CSZ2	VOLUME (mL) AVERAGE	CUMMULATIVE VOLUME (ml)	LAB. pH		LAB. pH (LAB) CSZ1	LAB. pH (LAB) CSZ2	LAB. pH (LAB) CSZ2	LAB. pH (LAB) Warm
		CSZ1	CSZ2				pH(LAB) CSZ1	pH(LAB) CSZ2				
24-Jul-92	176	961.7	955.0	958.3	24211.5	5.90	5.70	6.12	6.19			
1-Aug-92	184	950.8	931.2	941.0	25152.5	5.20	4.64	6.28	6.42			
7-Aug-92	190	955.8	953.5	954.6	26107.2	4.63	4.52	5.51	6.38			
14-Aug-92	197	934.5	957.7	946.1	27053.3	4.37	4.22	6.03	6.54			
21-Aug-92	204	934.8	934.1	934.5	27987.7	4.57	4.23	5.99	5.96			
28-Aug-92	211	922.5	854.4	888.5	28876.2	4.28	4.05	5.80	5.84			
4-Sep-92	218	947.4	936.7	942.1	29818.2	4.29	4.14	5.87	6.05			
11-Sep-92	225	972.1	948.2	960.2	30778.4	4.17	4.05	5.88	5.97			
18-Sep-92	232	946.2	927.5	936.9	31715.2	4.26	4.12	5.97	6.07			
25-Sep-92	239	820.8	854.3	837.6	32552.8	4.29	4.16	6.11	6.09			
2-Oct-92	246	939.4	935.4	937.4	33490.2	4.30	4.17	5.98	6.15			
8-Oct-92	252	937.4	953.7	945.6	34435.7	4.69	4.42	6.31	6.32			
16-Oct-92	260	937.4	953.7	945.6	35381.3	4.63	4.29	6.15	6.33			
30-Oct-92	274	904.5	928.4	916.5	36297.7	4.22	3.95	6.46	6.27			
13-Nov-92	288	955.2	946.7	951.0	37248.7	4.38	4.20	6.28	6.70			
27-Nov-92	302	909.8	932.5	921.2	38169.8	4.30	4.30	6.49	6.42			
11-Dec-92	316	942.6	923.5	933.1	39102.9	3.98	3.41	6.13	5.89			
24-Dec-92	329	921.0	924.0	922.5	40025.4	3.96	3.79	5.02	4.91			
8-Jan-93	344	948.0	953.3	950.7	40976.0	3.96	3.40	3.70	3.39			
22-Jan-93	358	891.2	918.7	905.0	41881.0	3.98	3.92	4.13	3.88			
5-Feb-93	372	912.7	910.5	911.6	42792.6	3.97	3.72	4.43	4.25			
19-Feb-93	386	896.6	904.4	900.5	43693.1	3.87	3.59	4.11	3.93			
5-Mar-93	400	949.6	897.1	923.4	44616.4	3.59	3.24	3.87	3.68			
19-Mar-93	414	879.3	883.4	881.4	45497.8	3.72	3.03	3.95	3.84			
2-Apr-93	428	902.6	889.6	896.1	46393.9	3.50	3.27	3.80	3.61			

Table 2: Effluent Water Quality and Leaching Characteristics of S-Zone Tailings

SAMPLE DATE	DAYS FROM START	VOLUME (mL)		VOLUME (mL) CSZ2	VOLUME (mL) AVERAGE	CUMMULATIVE VOLUME (ml)	LAB. pH		LAB. pH		LAB. pH	
		CSZ1	CSZ2				pH(LAB) CSZ1	Cold	pH(LAB) CSZ1	Warm	pH(LAB) CSZ2	Cold
16-Apr-93	442	900.5	929.3	914.9	47308.8	3.65	3.30	3.86	3.44			
30-Apr-93	456	910.3	933.1	921.7	48230.5	3.50	3.22	3.64	3.46			
14-May-93	470	911.4	916.5	914.0	49144.4	3.33	3.20	3.72	3.54			
28-May-93	484	933.1	936.4	934.8	50079.2	3.23	3.02	3.34	3.34			
11-Jun-93	498	916.5	897.1	906.8	50986.0	3.33	2.99	3.69	3.36			
25-Jun-93	512	910.0	928.4	919.2	51905.2	3.51	3.04	3.46	3.29			
9-Jul-93	526	920.4	778.6	849.5	52754.7	3.27	2.97	3.69	3.28			
23-Jul-93	540	836.7	1023.5	930.1	53684.8	3.55	3.34	3.54	3.46			
9-Aug-93	557	983.3	871.6	927.4	54612.3	3.10	3.11	3.30	3.34			
20-Aug-93	568	901.0	888.7	894.9	55507.1	3.15	3.13	3.50	3.39			
3-Sep-93	582	981.2	999.3	990.2	56497.4	3.01	3.28	3.28	3.33			
17-Sep-93	596	945.9	907.2	926.6	57423.9	3.49	3.31	3.70	3.00			
1-Oct-93	610	912.2	929.8	921.0	58344.9	3.03	2.73	3.64	2.93			
15-Oct-93	624	597.9	963.3	780.6	59125.5	2.99	2.65	3.22	2.91			
29-Oct-93	638	883.4	927.0	905.2	60030.7	2.98	2.70	3.29	3.46			
12-Nov-93	652	920.2	1011.9	966.0	60996.8	3.11	2.89	3.51	3.19			
26-Nov-93	666	908.9	698.1	803.5	61800.3	3.52	3.18	3.68	3.43			
10-Dec-93	680	954.8	1119.0	1036.9	62837.2	3.07	2.63	3.24	3.34			
24-Dec-93	694	918.7	791.8	855.2	63692.4	3.24	2.83	3.22	2.92			
7-Jan-94	708	926.1	1015.8	970.9	64663.4	3.33	3.19	3.41	3.26			
21-Jan-94	722	739.4	756.6	748.0	65411.4	3.00	2.88	3.03	2.94			
11-Mar-94	771	941.8	441.2	691.5	66102.9	3.32	2.94	3.02	2.96			
25-Mar-94	785	804.5	1027.2	915.9	67018.7	3.12	2.97	3.08	3.00			
15-Apr-94	806	869.7	1021.8	945.8	67964.5	3.16	2.91	3.18	3.08			
29-Apr-94	820	839.3	846.3	842.8	68807.3	3.22	3.00	3.22	3.02			

Table 2: Effluent Water Quality and Leaching Characteristics of S-Zone Tailings

SAMPLE DATE	DAYS FROM START	VOLUME (mL)		VOLUME AVERAGE (mL)	CUMMULATIVE VOLUME (mL)		LAB. pH pH(LAB) CSZ1		LAB. pH pH(LAB) CSZ1		LAB. pH pH(LAB) CSZ2		LAB. pH pH(LAB) CSZ2	
		CSZ1	CSZ2				Cold	Warm			Cold	Warm		
13-May-94	834	851.2	725.8	788.5	69595.8		3.18	3.03	3.21	3.03	3.21	3.03	3.21	3.03
27-May-94	848	819.6	807.2	813.4	70409.2		3.27	3.14	3.25	3.11	3.25	3.11	3.25	3.11
10-Jun-94	862	823.1	782.9	803.0	71212.2		3.10	3.09	3.13	3.14	3.13	3.14	3.13	3.14
24-Jun-94	876	989.5	958.6	974.0	72186.2		3.10	NSS	3.12	NSS	3.12	NSS	3.12	NSS
8-Jul-94	890	949.0	830.5	889.8	73076.0		3.27	3.21	3.40	3.32	3.40	3.32	3.40	3.32
22-Jul-94	904	915.3	910.4	912.8	73988.8		3.29	3.18	3.23	3.11	3.23	3.11	3.23	3.11
5-Aug-94	918	852.9	759.5	806.2	74795.0		3.26	3.04	3.22	2.99	3.22	2.99	3.22	2.99
19-Aug-94	932	898.9	861.0	879.9	75674.9		3.31	3.05	3.31	3.09	3.31	3.09	3.31	3.09
2-Sep-94	946	840.8	850.1	845.5	76520.4		3.12	2.99	3.26	3.08	3.26	3.08	3.26	3.08
16-Sep-94	960	948.8	906.0	927.4	77447.8		3.17	3.20	3.17	3.21	3.17	3.21	3.17	3.21
30-Sep-94	974	900.8	981.0	940.9	78388.7		3.04	3.13	3.13	3.26	3.13	3.26	3.13	3.26
14-Oct-94	988	952.2	870.5	911.4	79300.0		3.06	3.20	2.96	3.01	2.96	3.01	2.96	3.01
28-Oct-94	1002	949.6	768.1	858.9	80158.9		3.05	3.08	2.95	3.00	2.95	3.00	2.95	3.00
10-Nov-94	1015	977.0	946.4	961.7	81120.6		3.05	3.20	2.89	3.00	2.89	3.00	2.89	3.00
25-Nov-94	1030	946.1	896.2	921.2	82041.7		3.18	3.23	3.00	3.05	3.00	3.05	3.00	3.05
9-Dec-94	1044	900.1	971.8	936.0	82977.7		3.09	3.06	2.98	3.03	2.98	3.03	2.98	3.03
23-Dec-94	1058	857.2	862.5	859.9	83837.5		3.09	3.05	3.07	2.99	3.07	2.99	3.07	2.99
6-Jan-95	1072	928.9	948.8	938.9	84776.4		3.23	3.21	3.02	3.03	3.02	3.03	3.02	3.03
20-Jan-95	1086	877.5	804.4	840.9	85617.3		3.03	3.07	2.97	3.02	2.97	3.02	2.97	3.02
3-Feb-95	1100	907.2	787.3	847.3	86464.6		3.10	3.07	3.24	3.22	3.24	3.22	3.24	3.22

Table 2: Effluent Water Quality and Leaching Characteristics of S-Zone Tailings

SAMPLE DATE	DAYS FROM START	LAB. pH		LAB. pH AVERAGE	EH (mV)		EH (mV) CSZ1	EH (mV) CSZ2	EH (mV) AVERAGE		EH (mV) AVERAGE	EH (NHE)
		LAB. pH AVERAGE	LAB. pH		EH (mV) CSZ1	EH (mV) CSZ2			EH (mV) Cold	EH (mV) Warm		
30-Jan-92	0	6.04		182.2	174.7					178.5		426.2
6-Feb-92	7	6.23		186.6	194.5					190.6		430.6
13-Feb-92	14	6.34		193.3	194.3					193.8		437.3
20-Feb-92	21	6.28		185.5	197.3					191.4		429.5
27-Feb-92	28	6.49		193.6	218.3					206.0		437.6
5-Mar-92	35	6.53		212.0	198.2					205.1		456.0
12-Mar-92	42	6.64		215.4	206.6					211.0		459.4
19-Mar-92	49	6.68		243.1	212.3					227.7		487.1
26-Mar-92	56	6.70		215.1	185.1					200.1		459.1
2-Apr-92	63	6.78	6.86	223.0	165.9	202.0	199.8	200.9	200.9	194.5	200.9	467.0
9-Apr-92	70	6.67	6.90	158.7	176.4	138.8	143.6	141.2	141.2	167.6	141.2	402.7
16-Apr-92	77	6.75	7.11	136.6	148.7	177.1	183.9	180.5	180.5	142.7	180.5	380.6
23-Apr-92	84	6.52	7.04	285.6	278.4	235.6	202.6	219.1	219.1	282.0	219.1	529.6
30-Apr-92	91	6.63	6.95	281.9	288.9	217.0	230.0	223.5	223.5	285.4	223.5	525.9
7-May-92	98	6.54	6.98	328.7	328.5	263.6	255.3	259.5	259.5	328.6	259.5	572.7
14-May-92	105	6.71	6.74	224.0	228.3	214.3	208.2	211.3	211.3	226.2	211.3	468.0
22-May-92	113	6.61	6.69	274.0	270.6	212.1	216.6	214.4	214.4	272.3	214.4	518.0
29-May-92	120	6.45	6.52	254.8	262.7	235.5	237.7	236.6	236.6	258.8	236.6	498.8
5-Jun-92	127	6.72	6.78	230.3	230.2	221.2	210.8	216.0	216.0	230.3	216.0	474.3
12-Jun-92	134	6.50	6.67	202.6	201.5	234.5	216.0	225.3	225.3	202.1	225.3	446.6
19-Jun-92	141	6.72	6.66	226.0	222.0	223.0	227.0	225.0	225.0	224.0	225.0	470.0
29-Jun-92	151	6.56	6.56	197.7	215.0	211.0	217.4	214.2	214.2	206.4	214.2	441.7
3-Jul-92	155	6.29	6.27	144.5	161.7	93.6	222.2	157.9	157.9	153.1	157.9	388.5
10-Jul-92	162	6.34	5.90	143.7	186.0	238.6	295.3	267.0	267.0	164.9	267.0	387.7
17-Jul-92	169	6.04	6.01	157.7	228.0	153.3	278.5	215.9	215.9	192.9	215.9	401.7

Table 2: Effluent Water Quality and Leaching Characteristics of S-Zone Tailings

SAMPLE DATE	DAYS FROM START	LAB. pH		LAB. pH		EH (mV)		EH (mV)		EH (mV)		EH (mV)		EH (mV)		EH(NHE)
		AVERAGE	Cold	AVERAGE	Warm	CSZ1	Cold	CSZ1	Warm	CSZ2	Cold	CSZ2	Warm	AVERAGE	Cold	
24-Jul-92	176	5.99		5.88		135.0		100.5		242.2		289.7		188.6		379.0
1-Aug-92	184	5.46		4.93		259.9		233.0		263.6		286.1		261.8		503.9
7-Aug-92	190	4.88		4.82		265.6		249.0		316.2		317.4		290.9		509.6
14-Aug-92	197	4.67		4.52		362.6		358.3		303.2		299.2		332.9		606.6
21-Aug-92	204	4.85		4.52		314.2		345.1		186.0		127.7		250.1		558.2
28-Aug-92	211	4.55		4.33		354.6		349.7		191.2		109.5		272.9		598.6
4-Sep-92	218	4.57		4.43		345.8		348.9		190.3		150.4		268.1		589.8
11-Sep-92	225	4.45		4.34		295.1		354.3		145.2		113.4		220.2		539.1
18-Sep-92	232	4.55		4.41		348.2		346.3		121.7		103.5		235.0		592.2
25-Sep-92	239	4.59		4.46		340.4		335.4		444.8		96.3		392.6		584.4
2-Oct-92	246	4.59		4.46		329.8		329.5		204.9		120.5		267.4		573.8
8-Oct-92	252	4.98		4.72		293.8		293.1		174.9		53.0		234.4		537.8
16-Oct-92	260	4.92		4.59		314.7		312.5		125.6		69.1		220.2		558.7
30-Oct-92	274	4.53		4.25		343.2		345.8		160.2		121.1		251.7		587.2
13-Nov-92	288	4.67		4.50		317.5		312.1		142.6		15.0		230.1		561.5
27-Nov-92	302	4.60		4.60		317.2		308.9		156.6		66.0		236.9		561.2
11-Dec-92	316	4.27		3.70		373.0		372.0		201.0		193.8		287.0		617.0
24-Dec-92	329	4.22		4.06		360.6		364.2		246.0		234.3		303.3		604.6
8-Jan-93	344	3.81		3.39		366.6		370.6		414.6		389.0		390.6		610.6
22-Jan-93	358	4.05		3.90		361.8		362.8		278.1		381.8		320.0		605.8
5-Feb-93	372	4.14		3.90		370.3		377.0		318.4		307.2		344.4		614.3
19-Feb-93	386	3.97		3.73		338.3		378.7		336.8		356.3		337.6		582.3
5-Mar-93	400	3.70		3.40		403.4		413.8		356.8		362.3		380.1		647.4
19-Mar-93	414	3.82		3.27		394.2		412.0		358.9		358.2		376.6		638.2
2-Apr-93	428	3.62		3.40		413.6		417.4		369.1		370.8		391.4		657.6

Table 2: Effluent Water Quality and Leaching Characteristics of S-Zone Tailings

SAMPLE DATE	DAYS FROM START	LAB. pH		LAB. pH pH(LAB) AVERAGE	EH (mV)		EH (mV)		EH (mV)		EH(NHE)			
		Cold	Warm		CSZ1	Cold	Warm	CSZ1	Cold	Warm		CSZ1	Cold	Warm
16-Apr-93	442	3.74	3.37	401.5	412.5	371.3	368.0	386.4	390.3	645.5				
30-Apr-93	456	3.56	3.33	403.6	415.3	386.0	398.2	394.8	406.8	647.6				
14-May-93	470	3.48	3.34	393.7	398.1	373.3	373.1	383.5	385.6	637.7				
28-May-93	484	3.28	3.15	408.0	418.0	386.4	391.5	397.2	404.8	652.0				
11-Jun-93	498	3.47	3.14	400.7	412.7	371.3	375.8	386.0	394.3	644.7				
25-Jun-93	512	3.48	3.15	395.3	420.4	407.2	410.2	401.3	415.3	639.3				
9-Jul-93	526	3.41	3.09	408.2	418.1	376.8	379.5	392.5	398.8	652.2				
23-Jul-93	540	3.55	3.40	434.7	428.2	446.0	436.8	440.4	432.5	678.7				
9-Aug-93	557	3.18	3.20	422.7	445.2	418.9	436.8	420.8	441.0	666.7				
20-Aug-93	568	3.29	3.24	451.7	452.5	434.1	429.9	442.9	441.2	695.7				
3-Sep-93	582	3.12	3.30	416.3	438.7	420.6	445.4	418.5	442.1	660.3				
17-Sep-93	596	3.58	3.13	408.3	425.2	419.7	431.6	414.0	428.4	652.3				
1-Oct-93	610	3.24	2.82	419.6	437.1	425.5	426.6	422.6	431.9	663.6				
15-Oct-93	624	3.12	2.79	412.2	429.1	424.7	436.7	418.5	432.9	656.2				
29-Oct-93	638	3.11	2.93	416.0	435.4	407.9	432.6	412.0	434.0	660.0				
12-Nov-93	652	3.28	3.02	465.4	475.0	451.8	463.7	458.6	469.4	709.4				
26-Nov-93	666	3.58	3.27	440.4	456.4	421.0	427.8	430.7	442.1	684.4				
10-Dec-93	680	3.15	2.87	474.4	464.6	400.5	438.0	437.5	451.3	718.4				
24-Dec-93	694	3.23	2.87	449.7	472.2	469.0	476.8	459.4	474.5	693.7				
7-Jan-94	708	3.37	3.22	460.6	467.0	463.0	471.8	461.8	469.4	704.6				
21-Jan-94	722	3.01	2.91	417.7	468.1	450.3	503.7	434.0	485.9	661.7				
11-Mar-94	771	3.20	2.94	422.6	430.0	445.0	453.0	433.8	441.5	666.6				
25-Mar-94	785	3.10	2.99	393.3	399.1	419.4	425.8	406.4	412.5	637.3				
15-Apr-94	806	3.17	2.99	437.2	446.3	477.4	488.3	457.3	467.3	681.2				
29-Apr-94	820	3.22	3.01	454.0	465.0	454.1	462.7	454.1	463.9	698.0				

Table 2: Effluent Water Quality and Leaching Characteristics of S-Zone Tailings

SAMPLE DATE	DAYS FROM START	LAB. pH		LAB. pH		EH		EH		EH		EH		EH(NHE)
		pH(LAB) AVERAGE		pH(LAB) AVERAGE		Eh(mV) CSZ1		Eh(mV) CSZ1		Eh(mV) CSZ2		Eh(mV) AVERAGE		
		Cold		Warm		Cold		Warm		Cold		Warm		
13-May-94	834	3.19	3.03	424.3	464.1	522.7	532.4	473.5	498.3	668.3				
27-May-94	848	3.26	3.12	461.2	462.1	517.4	518.4	489.3	490.3	705.2				
10-Jun-94	862	3.12	3.11	463.7	446.3	456.4	443.4	460.1	444.9	707.7				
24-Jun-94	876	3.11	NSS	454.5	NSS	453.8	NSS	454.2	NSS	698.5				
8-Jul-94	890	3.33	3.25	438.8	437.5	402.7	399.5	420.8	418.5	682.8				
22-Jul-94	904	3.26	3.14	451.4	475.4	494.8	514.8	473.1	495.1	695.4				
5-Aug-94	918	3.24	3.01	429.7	456.7	497.6	541.5	463.7	499.1	673.7				
19-Aug-94	932	3.31	3.07	437.9	441.0	463.2	471.8	450.6	456.4	681.9				
2-Sep-94	946	3.19	3.03	446.7	448.6	419.7	414.0	433.2	431.3	690.7				
16-Sep-94	960	3.17	3.21	415.4	412.4	427.0	425.3	421.2	418.9	659.4				
30-Sep-94	974	3.08	3.19	418.7	415.3	388.9	385.9	403.8	400.6	662.7				
14-Oct-94	988	3.01	3.10	441.5	444.0	541.8	542.3	491.7	493.2	685.5				
28-Oct-94	1002	3.00	3.04	476.3	479.1	511.0	517.2	493.7	498.2	720.3				
10-Nov-94	1015	2.96	3.09	406.3	410.3	532.9	545.3	469.6	477.8	650.3				
25-Nov-94	1030	3.08	3.13	406.4	407.0	549.4	542.5	477.9	474.8	650.4				
9-Dec-94	1044	3.03	3.04	561.5	552.7	546.3	538.4	553.9	545.6	805.5				
23-Dec-94	1058	3.08	3.02	484.1	509.4	493.9	529.8	489.0	519.6	728.1				
6-Jan-95	1072	3.11	3.11	412.4	412.3	527.1	534.0	469.8	473.2	656.4				
20-Jan-95	1086	3.00	3.05	506.0	511.4	508.4	512.6	507.2	512.0	750.0				
3-Feb-95	1100	3.16	3.13	509.9	542.1	406.4	406.7	458.2	474.4	753.9				

Table 2: Effluent Water Quality and Leaching Characteristics of S-Zone Tailings

SAMPLE DATE	DAYS FROM START	EH(NHE)		EH(NHE)		EH(NHE)		EH(NHE)		EH(NHE)		LAB. Ec		LAB. Ec		LAB. Ec		LAB. Ec	
		CSZ1	CSZ2	Cold	Warm	CSZ2	Warm	AVERAGE	Cold	Warm	AVERAGE	Ec(LAB)	CSZ1	Cold	Warm	Ec(LAB)	CSZ1	Cold	Warm
30-Jan-92	0			418.7				422.5				8360				7660			
6-Feb-92	7			438.5				434.6				7560				7480			
13-Feb-92	14			438.3				437.8				6580				6620			
20-Feb-92	21			441.3				435.4				4030				4990			
27-Feb-92	28			462.3				450.0				2990				2700			
5-Mar-92	35			442.2				449.1				2420				2330			
12-Mar-92	42			450.6				455.0				2170				2220			
19-Mar-92	49			456.3				471.7				2030				2050			
26-Mar-92	56			429.1				444.1				2110				2010			
2-Apr-92	63	446.0		409.9		443.8		438.5		444.9		2310	2020			2210	1960		
9-Apr-92	70	382.8		420.4		387.6		411.6		385.2		2200	2020			2080	1940		
16-Apr-92	77	421.1		392.7		427.9		386.7		424.5		2050	2050			2010	1710		
23-Apr-92	84	479.6		522.4		446.6		526.0		463.1		1960	1710			1970	1740		
30-Apr-92	91	461.0		532.9		474.0		529.4		467.5		1930	1760			1940	1760		
7-May-92	98	507.6		572.5		499.3		572.6		503.5		1670	1980			1820	1780		
14-May-92	105	458.3		472.3		452.2		470.2		455.3		1510	1650			1710	1640		
22-May-92	113	456.1		514.6		460.6		516.3		458.4		1440	1550			1470	1210		
29-May-92	120	479.5		506.7		481.7		502.8		480.6		1240	1310			893	924		
5-Jun-92	127	465.2		474.2		454.8		474.3		460.0		1190	1130			901	840		
12-Jun-92	134	478.5		445.5		460.0		446.1		469.3		986	937			730	711		
19-Jun-92	141	467.0		466.0		471.0		468.0		469.0		914	839			593	655		
29-Jun-92	151	455.0		459.0		461.4		450.4		458.2		732	667			539	521		
3-Jul-92	155	337.6		405.7		466.2		397.1		401.9		608	680			502	519		
10-Jul-92	162	482.6		430.0		539.3		408.9		511.0		548	516			515	634		
17-Jul-92	169	397.3		472.0		522.5		436.9		459.9		509	470			418	432		

Table 2: Effluent Water Quality and Leaching Characteristics of S-Zone Tailings

SAMPLE DATE	DAYS FROM START	EH(NHE)		EH(NHE)		EH(NHE)		EH(NHE)		LAB. Ec		LAB. Ec		LAB. Ec	
		CSZ1	CSZ2	Cold	Warm	CSZ2	AVERAGE	Cold	Warm	Ec(LAB)	CSZ1	Ec(LAB)	CSZ1	Ec(LAB)	CSZ2
		Warm				Warm					Warm		Warm		Warm
16-Apr-93	442	656.5	615.3	612.0	630.4	634.3	1357	1299	1101	1013					
30-Apr-93	456	659.3	630.0	642.2	638.8	650.8	1378	1431	1048	1089					
14-May-93	470	642.1	617.3	617.1	627.5	629.6	1513	1417	1017	1057					
28-May-93	484	662.0	630.4	635.5	641.2	648.8	1690	1488	1205	1137					
11-Jun-93	498	656.7	615.3	619.8	630.0	638.3	1548	1539	1133	1192					
25-Jun-93	512	664.4	651.2	654.2	645.3	659.3	1556	1378	1212	1129					
9-Jul-93	526	662.1	620.8	623.5	636.5	642.8	1369	1426	1117	1125					
23-Jul-93	540	672.2	690.0	680.8	684.4	676.5	1441	1345		977					
9-Aug-93	557	689.2	662.9	680.8	664.8	685.0	1430	1491	1046	1128					
20-Aug-93	568	696.5	678.1	673.9	686.9	685.2	1386	1346	933	1053					
3-Sep-93	582	682.7	664.6	689.4	662.5	686.1	1257	1014	976	974					
17-Sep-93	596	669.2	663.7	675.6	658.0	672.4	1237	1303	1006	1061					
1-Oct-93	610	681.1	669.5	670.6	666.6	675.9	1274	1442	1031	1155					
15-Oct-93	624	673.1	668.7	680.7	662.5	676.9	1351	1245	925	909					
29-Oct-93	638	679.4	651.9	676.6	656.0	678.0	1312	1273	928	971					
12-Nov-93	652	719.0	695.8	707.7	702.6	713.4	1293	1168	948	910					
26-Nov-93	666	700.4	665.0	671.8	674.7	686.1	1574	1401	1168	1097					
10-Dec-93	680	708.6	644.5	682.0	681.5	695.3	1440	1405	1151	1125					
24-Dec-93	694	716.2	713.0	720.8	703.4	718.5	1550	1393	1174	1059					
7-Jan-94	708	711.0	707.0	715.8	705.8	713.4	1410	1221	884	825					
21-Jan-94	722	712.1	694.3	747.7	678.0	729.9	1726	1435	1507	1287					
11-Mar-94	771	674.0	689.0	697.0	677.8	685.5	2880	2970	2940	2920					
25-Mar-94	785	643.1	663.4	669.8	650.4	656.5	2830	2720	2710	2866					
15-Apr-94	806	690.3	721.4	732.3	701.3	711.3	2420	2530	2280	2360					
29-Apr-94	820	709.0	698.1	706.7	698.1	707.9	2250	2280	2190	2200					

Table 2: Effluent Water Quality and Leaching Characteristics of S-Zone Tailings

SAMPLE DATE	DAYS FROM START	EH(NHE)		EH(NHE)		EH(NHE)		EH(NHE)		EH(NHE)		EH(NHE)		LAB. Ec Ec(LAB)		LAB. Ec Ec(LAB)		LAB. Ec Ec(LAB)		LAB. Ec Ec(LAB)	
		CSZ1	CSZ2	CSZ1	CSZ2	CSZ2	Warm	AVERAGE	Cold	AVERAGE	Warm	CSZ1	CSZ2	CSZ1	Warm	CSZ1	Warm	CSZ1	Warm	CSZ1	Warm
13-May-94	834	708.1	766.7	776.4	717.5	742.3						2230	1935	2180	1948						
27-May-94	848	706.1	761.4	762.4	733.3	734.3						2060	1940	2170	1960						
10-Jun-94	862	690.3	700.4	687.4	704.1	688.9						1750	1720	2000	2020						
24-Jun-94	876	NSS	697.8	NSS	698.2	NSS						1650	NSS	1980	NSS						
8-Jul-94	890	681.5	646.7	643.5	664.8	662.5						1158	1159	1488	1479						
22-Jul-94	904	719.4	738.8	758.8	717.1	739.1						1095	1012	1564	1420						
5-Aug-94	918	700.7	741.6	785.5	707.7	743.1						974	907	1412	1366						
19-Aug-94	932	685.0	707.2	715.8	694.6	700.4						833	839	1179	1192						
2-Sep-94	946	692.6	663.7	658.0	677.2	675.3						831	765	1084	1038						
16-Sep-94	960	656.4	671.0	669.3	665.2	662.9						882	729	1132	958						
30-Sep-94	974	659.3	632.9	629.9	647.8	644.6						858	693	1010	819						
14-Oct-94	988	688.0	785.8	786.3	735.7	737.2						781	740	984	874						
28-Oct-94	1002	723.1	755.0	761.2	737.7	742.2						763	682	820	707						
10-Nov-94	1015	654.3	776.9	789.3	713.6	721.8						720	657	801	712						
25-Nov-94	1030	651.0	793.4	786.5	721.9	718.8						749	652	832	718						
9-Dec-94	1044	796.7	790.3	782.4	797.9	789.6						726	648	790	690						
23-Dec-94	1058	753.4	737.9	773.8	733.0	763.6						738	793	800	766						
6-Jan-95	1072	656.3	771.1	778.0	713.8	717.2						674	635	801	750						
20-Jan-95	1086	755.4	752.4	756.6	751.2	756.0						781	916	875	1062						
3-Feb-95	1100	786.1	650.4	650.7	702.2	718.4						819	619	754	582						

Table 2: Effluent Water Quality and Leaching Characteristics of S-Zone Tailings

SAMPLE DATE	DAYS FROM START	LAB. Ec Ec(LAB) AVERAGE	LAB. Ec Ec(LAB) AVERAGE	Field		Field		Field		Field		Field		Field Temp.(C) AVERAGE	Field Temp.(C) AVERAGE	Field Temp.(C) AVERAGE
				Cold	Warm	CSZ1	Temp.(C) CSZ1	Temp.(C) CSZ1	Temp.(C) CSZ1	Cold	Warm	CSZ2	Temp.(C) CSZ2	Cold	Warm	Warm
30-Jan-92	0	8010				7.8				7.8				7.8		
6-Feb-92	7	7520				5.9				4.5				5.2		
13-Feb-92	14	6600				4.1				3.9				4.0		
20-Feb-92	21	4510				9.4				4.2				6.8		
27-Feb-92	28	2845				6.0				8.6				7.3		
5-Mar-92	35	2375				2.1				2.9				2.5		
12-Mar-92	42	2195				0.9				1.4				1.2		
19-Mar-92	49	2040				2.0				1.0				1.5		
26-Mar-92	56	2060				2.1				2.7				2.4		
2-Apr-92	63	2260	1990			2.2	23.9			1.0		25.2		1.6		24.6
9-Apr-92	70	2140	1980			1.0	19.1			1.6		20.3		1.3		19.7
16-Apr-92	77	2030	1880			2.2	19.5			1.8		18.2		2.0		18.9
23-Apr-92	84	1965	1725			2.4	20.9			1.6		24.2		2.0		22.6
30-Apr-92	91	1935	1760			2.7	21.4			3.1		22.1		2.9		21.8
7-May-92	98	1745	1880			3.1	23.8			3.6		27.7		3.4		25.8
14-May-92	105	1610	1645			4.2	20.9			4.1		20.1		4.2		20.5
22-May-92	113	1455	1380			4.1	21.2			4.3		20.3		4.2		20.8
29-May-92	120	1067	1117			4.0	22.0			4.1		21.9		4.1		22.0
5-Jun-92	127	1046	985			4.6	23.2			4.6		19.1		4.6		21.2
12-Jun-92	134	858	824			4.6	17.6			5.0		24.6		4.8		21.1
19-Jun-92	141	754	747			4.4	22.5			4.7		24.0		4.6		23.3
29-Jun-92	151	636	594			3.8	21.6			3.7		23.5		3.8		22.6
3-Jul-92	155	555	600			3.6	21.3			3.8		23.1		3.7		22.2
10-Jul-92	162	532	575			4.1	20.3			4.2		21.0		4.2		20.7
17-Jul-92	169	464	451			4.7	22.6			5.4		23.5		5.1		23.1

Table 2: Effluent Water Quality and Leaching Characteristics of S-Zone Tailings

SAMPLE DATE	DAYS FROM START	LAB. Ec		Field Temp.(C) CSZ1	Field Temp.(C) CSZ1	Field Temp.(C) CSZ2	Field Temp.(C) CSZ2	Field Temp.(C) AVERAGE	
		AVERAGE Cold	AVERAGE Warm					Cold	Warm
24-Jul-92	176	445	495	4.1	22.9	4.4	23.3	4.3	23.1
1-Aug-92	184	534	501	4.2	20.5	4.3	20.1	4.3	20.3
7-Aug-92	190	459	523	4.6	23.8	4.7	21.6	4.7	22.7
14-Aug-92	197	550	491	4.2	20.0	4.7	20.6	4.5	20.3
21-Aug-92	204	653	579	3.8	20.0	4.3	20.2	4.1	20.1
28-Aug-92	211	644	718	4.1	21.5	4.1	24.4	4.1	23.0
4-Sep-92	218	640	556	4.4	16.6	4.2	17.3	4.3	17.0
11-Sep-92	225	622	551	4.4	17.0	4.0	17.6	4.2	17.3
18-Sep-92	232	617	574	5.0	20.6	5.0	21.6	5.0	21.1
25-Sep-92	239	655	558	4.6	21.1	4.8	20.0	4.7	20.6
2-Oct-92	246	702	612	4.5	19.1	4.2	19.6	4.4	19.4
8-Oct-92	252	713	634	4.7	18.9	4.5	19.5	4.6	19.2
16-Oct-92	260	657	571	4.3	19.1	4.5	17.9	4.4	18.5
30-Oct-92	274	658	557	3.9	18.3	4.5	18.9	4.2	18.6
13-Nov-92	288	679	686	5.2	20.5	5.2	21.3	5.2	20.9
27-Nov-92	302	896	792	4.9	20.3	5.8	20.6	5.4	20.5
11-Dec-92	316	1116	852	5.4	21.9	5.1	21.5	5.3	21.7
24-Dec-92	329	921	893	4.5	20.7	4.8	19.8	4.7	20.3
8-Jan-93	344	1095	1007	5.1	21.0	5.0	21.4	5.1	21.2
22-Jan-93	358	1017	1060	5.7	21.1	4.4	19.3	5.1	20.2
5-Feb-93	372	1003	970	4.6	23.7	4.8	23.8	4.7	23.8
19-Feb-93	386	1250	1034	5.1	23.1	4.6	21.7	4.9	22.4
5-Mar-93	400	1375	1135	4.3	20.5	4.6	19.8	4.5	20.2
19-Mar-93	414	1299	1128	4.2	23.4	5.7	20.9	5.0	22.2
2-Apr-93	428	1104	1052	6.1	19.9	5.7	20.4	5.9	20.2

Table 2: Effluent Water Quality and Leaching Characteristics of S-Zone Tailings

SAMPLE DATE	DAYS FROM START	LAB. Ec		Field		Field		Field		Field		Field	
		Ec(LAB) AVERAGE	Ec(LAB) AVERAGE	Temp.(C) CSZ1	Temp.(C) CSZ1	Temp.(C) CSZ1	Temp.(C) CSZ1	Temp.(C) CSZ2	Temp.(C) CSZ2	Temp.(C) CSZ2	Temp.(C) CSZ2	Temp.(C) AVERAGE	Temp.(C) AVERAGE
		Cold	Warm	Cold	Warm	Cold	Warm	Cold	Warm	Cold	Warm	Cold	Warm
16-Apr-93	442	1229	1156	4.7	23.7	5.4	22.7	5.1	23.2				
30-Apr-93	456	1213	1260	4.6	22.3	4.8	22.2	4.7	22.3				
14-May-93	470	1265	1237	4.2	20.9	5.1	21.0	4.7	21.0				
28-May-93	484	1448	1313	4.8	21.3	4.6	21.1	4.7	21.2				
11-Jun-93	498	1341	1366	4.6	24.5	4.6	23.3	4.6	23.9				
25-Jun-93	512	1384	1254	4.9	21.0	4.8	21.2	4.9	21.1				
9-Jul-93	526	1243	1276	5.2	24.1	5.0	24.3	5.1	24.2				
23-Jul-93	540	1441	1161	4.4	23.4	4.7	22.3	4.6	22.9				
9-Aug-93	557	1238	1310	4.6	23.6	5.2	22.8	4.9	23.2				
20-Aug-93	568	1160	1200	4.8	23.3	4.6	23.1	4.7	23.2				
3-Sep-93	582	1117	994	4.7	21.4	4.9	21.0	4.8	21.2				
17-Sep-93	596	1122	1182	4.1	19.3	4.1	18.8	4.1	19.1				
1-Oct-93	610	1153	1299	4.6	24.0	4.7	23.6	4.7	23.8				
15-Oct-93	624	1138	1077	4.8	23.2	5.3	21.6	5.1	22.4				
29-Oct-93	638	1120	1122	4.4	22.0	4.4	21.6	4.4	21.8				
12-Nov-93	652	1121	1039	5.5	20.1	5.3	19.4	5.4	19.8				
26-Nov-93	666	1371	1249	4.5	21.8	4.5	24.2	4.5	23.0				
10-Dec-93	680	1296	1265	4.8	23.4	4.9	23.2	4.9	23.3				
24-Dec-93	694	1362	1226	6.7	20.0	6.7	20.0	6.7	20.0				
7-Jan-94	708	1147	1023	3.3	20.6	3.4	21.7	3.4	21.2				
21-Jan-94	722	1617	1361	6.0	24.9	6.8	25.0	6.4	25.0				
11-Mar-94	771	2910	2945	10.2	21.8	10.5	23.0	10.4	22.4				
25-Mar-94	785	2770	2793	10.2	22.4	10.0	23.4	10.1	22.9				
15-Apr-94	806	2350	2445	10.8	24.3	10.3	24.1	10.6	24.2				
29-Apr-94	820	2220	2240	11.1	23.8	11.1	25.1	11.1	24.5				

Table 2: Effluent Water Quality and Leaching Characteristics of S-Zone Tailings

SAMPLE DATE	DAYS FROM START	LAB. Ec		LAB. Ec		Field		Field		Field		Field		Field	
		Ec(LAB) AVERAGE		Ec(LAB) AVERAGE		Temp.(C) CSZ1		Temp.(C) CSZ1		Temp.(C) CSZ2		Temp.(C) CSZ2		Temp.(C) AVERAGE	
		Cold		Warm		Cold		Warm		Cold		Warm		Cold	
13-May-94	834	2205	1942	11.1	22.5	10.9	23.9	11.0	23.2						
27-May-94	848	2115	1950	11.7	20.3	11.5	21.5	11.6	20.9						
10-Jun-94	862	1875	1870	11.3	24.5	10.9	24.4	11.1	24.5						
24-Jun-94	876	1815	NSS	16.0	NSS	16.9	NSS	16.5	NSS						
8-Jul-94	890	1323	1319	14.3	22.6	15.1	23.0	14.7	22.8						
22-Jul-94	904	1330	1216	11.5	20.3	11.1	21.9	11.3	21.1						
5-Aug-94	918	1193	1137	11.7	27.4	12.8	27.0	12.3	27.2						
19-Aug-94	932	1006	1016	11.0	27.6	11.5	24.5	11.3	26.1						
2-Sep-94	946	958	902	11.9	24.1	12.9	26.7	12.4	25.4						
16-Sep-94	960	1007	844	15.7	21.4	14.2	21.4	15.0	21.4						
30-Sep-94	974	934	756	12.9	22.3	12.6	22.2	12.8	22.3						
14-Oct-94	988	883	807	15.8	21.2	16.0	21.0	15.9	21.1						
28-Oct-94	1002	792	695	13.1	21.4	12.8	21.4	13.0	21.4						
10-Nov-94	1015	761	685	13.3	21.8	12.8	21.9	13.1	21.9						
25-Nov-94	1030	791	685	21.2	21.2	21.2	21.2	21.2	21.2						
9-Dec-94	1044	758	669	12.7	20.4	12.8	20.7	12.8	20.6						
23-Dec-94	1058	769	780	11.5	19.3	11.7	19.0	11.6	19.2						
6-Jan-95	1072	738	693	15.0	20.8	15.4	21.0	15.2	20.9						
20-Jan-95	1086	828	989	12.6	21.2	12.8	21.2	12.7	21.2						
3-Feb-95	1100	787	601	12.4	18.7	13.6	18.7	13.0	18.7						

Table 2: Effluent Water Quality and Leaching Characteristics of S-Zone Tailings

SAMPLE DATE	DAYS FROM START	ACIDITY (mg/L)		ACIDITY (mg/L)		ALKALINITY (mg/L)		ALKALINITY (mg/L)		ALKALINITY (mg/L)		AI (mg/L) CSZ2
		CSZ1	CSZ2	AVERAGE	CSZ1	CSZ2	AVERAGE	CSZ1	CSZ2	AVERAGE	CSZ1	
30-Jan-92	0	141.53	196.80	169.17	0.00	0.00	0.00	0.38	0.73			
6-Feb-92	7	155.48	127.29	141.38	35.80	39.78	37.79	0.45	0.37			
13-Feb-92	14	154.06	207.06	180.56	39.78	43.76	41.77	0.36	0.29			
20-Feb-92	21	193.94	168.77	181.36	39.78	43.76	41.77	0.34	0.23			
27-Feb-92	28	121.34	90.06	105.70	33.81	41.77	37.79	0.28	0.24			
5-Mar-92	35	53.89	16.00	34.94	37.79	43.76	40.77	0.15	0.18			
12-Mar-92	42	39.05	22.62	30.84	39.78	45.75	42.76	0.22	0.23			
19-Mar-92	49	4.46	0.49	2.48	41.77	45.75	43.76	0.18	0.14			
26-Mar-92	56	-3.53	-7.56	-5.54	45.75	45.75	45.75	0.25	0.14			
2-Apr-92	63	0.50	-9.57	-4.53	47.74	43.76	45.75	0.22	0.09			
9-Apr-92	70	0.49	-11.57	-5.54	47.74	45.75	46.74	0.19	0.11			
16-Apr-92	77	-5.54	-19.60	-12.57	47.74	43.76	45.75	0.22	0.13			
23-Apr-92	84	0.45	-21.65	-10.60	43.76	43.76	43.76	0.18	0.11			
30-Apr-92	91	-12.61	-29.67	-21.14	41.77	40.77	41.27	0.18	0.107			
7-May-92	98	-10.60	-40.64	-25.62	42.76	43.76	43.26	0.18	0.13			
14-May-92	105	-7.60	-33.71	-20.65	41.77	39.78	40.77	0.23	<0.04			
22-May-92	113	-5.59	-39.75	-22.67	39.78	42.76	41.27	0.19	0.1			
29-May-92	120	-14.65	-37.77	-26.21	38.79	39.78	39.28	0.11	0.05			
5-Jun-92	127	3.43	-18.63	-7.60	40.77	42.76	41.77	0.16	0.05			
12-Jun-92	134	11.42	-24.69	-6.64	36.80	40.77	38.79	0.09	<0.04			
19-Jun-92	141	5.38	-16.66	-5.64	35.80	38.79	37.29	0.06	0.0405			
29-Jun-92	151	37.47	-5.66	15.91	33.81	34.81	34.31	0.041	0.047			
3-Jul-92	155	39.44	-1.66	18.89	27.85	31.82	29.84	<0.04	0.044			
10-Jul-92	162	45.64	-2.04	21.80	33.81	29.84	31.82	0.06	0.07			
17-Jul-92	169	74.44	2.93	38.69	29.84	27.85	28.84	<0.04	0.12			

Table 2: Effluent Water Quality and Leaching Characteristics of S-Zone Tailings

SAMPLE DATE	DAYS FROM START	ACIDITY (mg/L)		ACIDITY (mg/L)		ALKALINITY (mg/L)		ALKALINITY (mg/L)		ALKALINITY (mg/L)		AI (mg/L) CSZ2
		CSZ1	CSZ2	AVERAGE	CSZ1	CSZ2	AVERAGE	CSZ1	CSZ2	AVERAGE	CSZ1	
24-Jul-92	176	78.41	-1.04	38.68	32.82	27.85	30.33	0.08	<0.04			
1-Aug-92	184	109.22	8.89	59.06	-1.99	27.85	12.93	0.63	0.044			
7-Aug-92	190	125.11	8.89	67.00	0.00	27.85	13.92	0.605	0.044			
14-Aug-92	197	133.06	11.87	72.47	0.00	26.85	13.43	0.36	0.06			
21-Aug-92	204	231.37	47.60	139.49	0.00	33.81	16.91	0.85	0.046			
28-Aug-92	211	202.16	62.34	132.25	0.00	23.87	11.93	2.09	0.06			
4-Sep-92	218	386.49	81.15	233.82	0.00	21.88	10.94	3.93	0.043			
11-Sep-92	225	393.43	108.87	251.15	0.00	26.85	13.43	7.25	0.13			
18-Sep-92	232	380.54	127.06	253.80	0.00	29.58	14.79	8.2	<0.04			
25-Sep-92	239	358.74	138.01	248.38	0.00	38.45	19.23	8.9	<0.04			
2-Oct-92	246	493.52	218.30	355.91	0.00	37.47	18.73	10.42	0.05			
8-Oct-92	252	357.21	214.40	285.80	0.00	49.30	24.65	10.7	0.07			
16-Oct-92	260	400.11	176.69	288.40	0.00	44.37	22.19	11.7	0.046			
30-Oct-92	274											
13-Nov-92	288	351.22	134.12	242.67	0.00	49.30	0.00	9.3	0.08			
27-Nov-92	302											
11-Dec-92	316	533.82	187.59	360.70	0.00	0.00	0.00	31.1	0.13			
24-Dec-92	329											
8-Jan-93	344	492.98	178.72	335.85	0.00	0.00	0.00	33.43	2.5			
22-Jan-93	358											
5-Feb-93	372	596.39	236.95	416.67	0.00	0.00	0.00	40.2	4.7			
19-Feb-93	386											
5-Mar-93	400	807.24	359.44	583.34	0.00	0.00	#REF!	47.8	11.21			
19-Mar-93	414											
2-Apr-93	428	591.43	356.90	474.16	0.00	0.00	0.00	43.4	16.47			

Table 2: Effluent Water Quality and Leaching Characteristics of S-Zone Tailings

SAMPLE DATE	DAYS FROM START	ACIDITY		ACIDITY		ALKALINITY		ALKALINITY		ALKALINITY		AI (mg/L) CSZ1	AI (mg/L) CSZ2
		(mg/L) CSZ1	(mg/L) CSZ2	(mg/L) AVERAGE	(mg/L) CSZ1	(mg/L) CSZ2	(mg/L) AVERAGE	(mg/L) CSZ1	(mg/L) CSZ2	(mg/L) AVERAGE	(mg/L) CSZ1		
16-Apr-93	442												
30-Apr-93	456	760.23	463.62	611.92	0.00	0.00	0.00	0.00	0.00	0.00	30.8	21.46	
14-May-93	470												
28-May-93	484	787.21	579.66	683.43	0.00	0.00	0.00	0.00	0.00	0.00	28.8	27.72	
11-Jun-93	498	362.37	275.93	319.15	0.00	0.00	0.00	0.00	0.00	0.00			
25-Jun-93	512	647.03	574.00	610.52	0.00	0.00	0.00	0.00	0.00	0.00	22.1	31.45	
9-Jul-93	526	646.50	572.49	609.50	0.00	0.00	0.00	0.00	0.00	0.00			
23-Jul-93	540	674.55	503.16	588.86	0.00	0.00	0.00	0.00	0.00	0.00	18.1	33.02	
9-Aug-93	557												
20-Aug-93	568	674.68	545.15	609.92	0.00	0.00	0.00	0.00	0.00	0.00	19.4	35.16	
3-Sep-93	582												
17-Sep-93	596	568.37	577.72	573.05	0.00	0.00	0.00	0.00	0.00	0.00	12.3	35.45	
1-Oct-93	610												
15-Oct-93	624	658.11	524.25	591.18	0.00	0.00	0.00	0.00	0.00	0.00	16.6	32.16	
29-Oct-93	638												
12-Nov-93	652	617.09	549.77	583.43	0.00	0.00	0.00	0.00	0.00	0.00	14		
26-Nov-93	666												
10-Dec-93	680	N.S.S.	N.S.S.	N.S.S.	0.00	0.00	0.00	0.00	0.00	0.00	15.07		
24-Dec-93	694												
7-Jan-94	708	538.61	341.71	440.16	0.00	0.00	0.00	0.00	0.00	0.00	11.5		
21-Jan-94	722	588.70	493.40	541.05	0.00	0.00	0.00	0.00	0.00	0.00	9.12		
11-Mar-94	771	727.56	542.12	634.84	0.00	0.00	0.00	0.00	0.00	0.00	21.1		
25-Mar-94	785	714.74	639.97	677.36	0.00	0.00	0.00	0.00	0.00	0.00	8.78	9.09	
15-Apr-94	806	626.33	518.47	572.40	0.00	0.00	0.00	0.00	0.00	0.00	5.23	3.81	
29-Apr-94	820	461.42	390.67	426.05	0.00	0.00	0.00	0.00	0.00	0.00	2.44	1.61	

Table 2: Effluent Water Quality and Leaching Characteristics of S-Zone Tailings

SAMPLE DATE	DAYS FROM START	ACIDITY (mg/L)		ACIDITY (mg/L)		ALKALINITY (mg/L)		ALKALINITY (mg/L)		ALKALINITY (mg/L)	
		CSZ1	CSZ2	AVERAGE	CSZ1	CSZ2	AVERAGE	CSZ1	CSZ2	CSZ1	CSZ2
13-May-94	834	327.90	260.35	294.12	0.00	0.00	0.00	1.804	1.89		
27-May-94	848	234.70	222.18	228.44	0.00	0.00	0.00	1.27	1.21		
10-Jun-94	862	182.09	179.56	180.82	0.00	0.00	0.00	0.84	0.68		
24-Jun-94	876	217.06	154.85	185.95	0.00	0.00	0.00	0.79	0.83		
8-Jul-94	890	121.70	149.63	135.66	0.00	0.00	0.00	0.42	0.48		
22-Jul-94	904	120.30	101.63	110.96	0.00	0.00	0.00	0.41	0.71		
5-Aug-94	918	126.56	107.93	117.25	0.00	0.00	0.00	0.38	0.59		
19-Aug-94	932	131.23	125.69	128.46	0.00	0.00	0.00	0.47	0.702		
2-Sep-94	946	123.01	126.36	124.69	0.00	0.00	0.00	0.29	0.21		
16-Sep-94	960	126.04	126.12	126.08	0.00	0.00	0.00	0.407	0.37		
30-Sep-94	974	157.76	122.37	140.07	0.00	0.00	0.00	0.25	0.19		
14-Oct-94	988	110.16	83.63	96.90	0.00	0.00	0.00	0.37	0.4		
28-Oct-94	1002	109.13	86.36	97.75	0.00	0.00	0.00				
10-Nov-94	1015	105.80	79.35	92.58	0.00	0.00	0.00				
25-Nov-94	1030	427.64	417.34	422.49	0.00	0.00	0.00	0.25			
9-Dec-94	1044	101.56	87.39	94.48	0.00	0.00	0.00	0.28			
23-Dec-94	1058	89.29	83.39	86.34	0.00	0.00	0.00	0.34			
6-Jan-95	1072	97.45	89.61	93.53	0.00	0.00	0.00	0.36			
20-Jan-95	1086	89.96	89.92	89.94	0.00	0.00	0.00	0.42			
3-Feb-95	1100	97.17	101.44	99.31	0.00	0.00	0.00	0.5			

Table 2: Effluent Water Quality and Leaching Characteristics of S-Zone Tailings

SAMPLE DATE	DAYS FROM START	Al (mg/L) Average	As (mg/L) CSZ1	As (mg/L) CSZ2	As (mg/L) Average	Ca (mg/L) CSZ1	Ca (mg/L) CSZ2	Ca (mg/L) Average	Cu (mg/L) CSZ1	Cu (mg/L) CSZ2
30-Jan-92	0	0.56	<0.044	<0.044		480.1	508.8	494.45	<0.003	<0.003
6-Feb-92	7	0.41	<0.044	<0.044		431.7	415.6	423.65	<0.003	<0.003
13-Feb-92	14	0.33	<0.044	<0.044		449.2	413.3	431.25	<0.003	<0.003
20-Feb-92	21	0.29	<0.044	<0.044		464.6	421.8	443.20	<0.003	<0.003
27-Feb-92	28	0.26	<0.044	<0.044		497.9	470.5	484.20	<0.003	<0.003
5-Mar-92	35	0.17	<0.044	<0.044					<0.003	<0.003
12-Mar-92	42	0.23	<0.044	<0.044		565.3	526	545.65	<0.003	<0.003
19-Mar-92	49	0.16	<0.044	<0.044		576.2	530.6	553.40	<0.003	<0.003
26-Mar-92	56	0.20	<0.044	<0.044		585.2	538.8	562.00	<0.003	<0.003
2-Apr-92	63	0.16	<0.044	<0.044		604.5	539.1	571.80	<0.003	<0.003
9-Apr-92	70	0.15	<0.044	<0.044		546.2	571.9	559.05	<0.003	<0.003
16-Apr-92	77	0.18	<0.044	<0.044		554.1	542.2	548.15	<0.003	<0.003
23-Apr-92	84	0.15	<0.044	<0.044		554.2	553.1	553.65	<0.003	<0.003
30-Apr-92	91	0.14	<0.044	<0.044		517.6	559.3	538.45	<0.003	<0.003
7-May-92	98	0.16	<0.044	<0.044		502.7	617.9	560.30	<0.003	<0.003
14-May-92	105	0.23	<0.044	<0.044		435.2	446.3	440.75	<0.003	<0.003
22-May-92	113	0.15	<0.044	<0.044		398.2	287.8	343.00	<0.003	<0.003
29-May-92	120	0.08	<0.044	<0.044		307.8	212.7	260.25	<0.003	<0.003
5-Jun-92	127	0.11	<0.044	<0.044		281.3	201.5	241.40	<0.003	<0.003
12-Jun-92	134	0.09	<0.044	<0.044		194	125.5	159.75	<0.003	<0.003
19-Jun-92	141	0.05	0.047	<0.044	0.047	159	93.5	126.25	<0.003	<0.003
29-Jun-92	151	0.04	<0.044	<0.044		114.5	98.7	106.60	<0.003	<0.003
3-Jul-92	155	0.04	<0.044	<0.044		92.5	87.69	90.10	<0.003	<0.003
10-Jul-92	162	0.07	<0.044	<0.044		89.6	82.96	86.28	<0.003	<0.003
17-Jul-92	169	0.12	<0.044	<0.044		75.36	647.5	361.43	<0.003	<0.003

Table 2: Effluent Water Quality and Leaching Characteristics of S-Zone Tailings

SAMPLE DATE	DAYS FROM START	Al (mg/L) Average	As (mg/L) CSZ1	As (mg/L) CSZ2	As (mg/L) Average	Ca (mg/L) CSZ1	Ca (mg/L) CSZ2	Ca (mg/L) Average	Cu (mg/L) CSZ1	Cu (mg/L) CSZ2
24-Jul-92	176	0.08	<0.044	<0.044		83.62	82.48	83.05	<0.003	<0.003
1-Aug-92	184	0.34	<0.044	<0.044		78.73	86.61	82.67	<0.003	<0.003
7-Aug-92	190	0.32	<0.044	<0.044		54.26	70.32	62.29	<0.003	<0.003
14-Aug-92	197	0.21	<0.044	<0.044		49.38	73.17	61.28	<0.003	<0.003
21-Aug-92	204	0.45	<0.044	<0.044		51.76	76.67	64.22	0.020	<0.003
28-Aug-92	211	1.08	<0.044	<0.044		48.55	77.48	63.02	0.070	<0.003
4-Sep-92	218	1.99	0.07	<0.044	0.070	48.05	58.76	53.41	0.150	0.008
11-Sep-92	225	3.69	0.11	<0.044	0.110	46.03	52.52	49.28	0.300	0.007
18-Sep-92	232	8.20	0.12	<0.044	0.120	37.27	45.12	41.20	0.390	<0.003
25-Sep-92	239	8.90	0.12	<0.044	0.120	33.65	42.07	37.86	0.420	<0.003
2-Oct-92	246	5.24	0.16	<0.044	0.160	35.82	39.44	37.63	0.440	<0.003
8-Oct-92	252	5.39	0.15	<0.044	0.150	42.73	41.75	42.24	0.370	<0.003
16-Oct-92	260	5.87	0.17	<0.044	0.170	38.79	34.99	36.89	0.420	<0.003
30-Oct-92	274									
13-Nov-92	288	4.69	0.13	<0.044	0.130	30.62	32.88	31.75	0.240	<0.003
27-Nov-92	302									
11-Dec-92	316	15.62	0.36	<0.044	0.360	38.88	43.06	40.97	1.070	<0.003
24-Dec-92	329									
8-Jan-93	344	17.97	0.34	<0.044	0.340	31.37	50.24	40.81	1.660	0.150
22-Jan-93	358									
5-Feb-93	372	22.45	0.42	<0.044	0.420	28.71	50.39	39.55	2.200	0.310
19-Feb-93	386									
5-Mar-93	400	29.51	0.509	0.09	0.300	27.44	39.77	33.61	2.300	0.490
19-Mar-93	414									
2-Apr-93	428	29.94	0.48	0.12	0.300	24.57	33.51	29.04	1.850	0.640

Table 2: Effluent Water Quality and Leaching Characteristics of S-Zone Tailings

SAMPLE DATE	DAYS FROM START	Al (mg/L) Average	As (mg/L) CSZ1	As (mg/L) CSZ2	As (mg/L) Average	Ca (mg/L) CSZ1	Ca (mg/L) CSZ2	Ca (mg/L) Average	Cu (mg/L) CSZ1	Cu (mg/L) CSZ2
16-Apr-93	442									
30-Apr-93	456	26.13	0.41	0.18	0.295	23.09	29.75	26.42	0.960	0.720
14-May-93	470									
28-May-93	484	28.26	0.44	0.26	0.350	22.58	26.61	24.60	0.830	0.760
11-Jun-93	498									
25-Jun-93	512	26.78	0.36	0.29	0.325	16.97	20.76	18.87	0.610	0.730
9-Jul-93	526									
23-Jul-93	540	25.56	0.305	0.28	0.293	14.4	15.32	14.86	0.510	0.730
9-Aug-93	557									
20-Aug-93	568	27.28	0.32	0.32	0.320	14.01	13.61	13.81	0.540	0.810
3-Sep-93	582									
17-Sep-93	596	23.88	0.22	0.33	0.275	12.35	11.84	12.10	0.330	0.810
1-Oct-93	610									
15-Oct-93	624	24.38	0.26	0.28	0.270	10.92	9.101	10.01	0.390	0.805
29-Oct-93	638									
12-Nov-93	652	14.00	0.23	0.28	0.255	9.23	9.46	9.35	0.330	0.850
26-Nov-93	666									
10-Dec-93	680	15.07	0.23	0.33	0.280	10.13	9.23	9.68	0.390	1.910
24-Dec-93	694									
7-Jan-94	708	11.50	0.22	0.15	0.185	8.5	5.93	7.22	0.309	0.950
21-Jan-94	722	9.12	0.22	0.19	0.205	8.96	7.08	8.02	0.270	0.870
11-Mar-94	771	21.10	0.28	0.17	0.225	531.3		531.30	0.160	0.150
25-Mar-94	785	8.94	0.204	0.16	0.182	534.5		534.50	0.020	0.030
15-Apr-94	806	4.52	0.18	0.08	0.130	502.6		502.60	0.010	0.003
29-Apr-94	820	2.03	0.13	0.05	0.090	515.2		515.20	<0.003	<0.003

Table 2: Effluent Water Quality and Leaching Characteristics of S-Zone Tailings

SAMPLE DATE	DAYS FROM START	Al (mg/L) Average	As (mg/L) CSZ1	As (mg/L) CSZ2	As (mg/L) Average	Ca (mg/L) CSZ1	Ca (mg/L) CSZ2	Ca (mg/L) Average	Cu (mg/L) CSZ1	Cu (mg/L) CSZ2
13-May-94	834	1.85	0.05	<0.044	0.050	526		526.00	<0.003	<0.003
27-May-94	848	1.24	0.1	<0.044	0.100	465.7		465.70	0.007	<0.003
10-Jun-94	862	0.76	<0.044	<0.044		379.8		379.80	0.006	<0.003
24-Jun-94	876	0.81	0.05	<0.044	0.050	306.1		306.10	0.008	<0.003
8-Jul-94	890	0.45	<0.044	<0.044		220.4		220.40	0.004	<0.003
22-Jul-94	904	0.56	<0.044	<0.044		157.1		157.10	0.004	0.009
5-Aug-94	918	0.49	<0.044	<0.044		107		107.00	0.005	<0.003
19-Aug-94	932	0.59	<0.044	<0.044		85.72		85.72	0.005	<0.003
2-Sep-94	946	0.25	<0.044	<0.044		63.87		63.87	0.006	<0.003
16-Sep-94	960	0.39	<0.044	<0.044		62.43		62.43	0.004	<0.003
30-Sep-94	974	0.22	<0.044	<0.044		51.32	99.09	75.21	<0.003	<0.003
14-Oct-94	988	0.39	<0.044	<0.044		49.63	87.28	68.46	0.004	0.007
28-Oct-94	1002									
10-Nov-94	1015									
25-Nov-94	1030	0.25	<0.044			34.39		34.39	<0.003	
9-Dec-94	1044	0.28				33.22		33.22	0.004	
23-Dec-94	1058	0.34				32.95		32.95	0.006	
6-Jan-95	1072	0.36	0.051		0.051	32.13		32.13	<0.003	
20-Jan-95	1086	0.42				31.73		31.73	0.006	
3-Feb-95	1100	0.50				30.73		30.73	0.008	

SAMPLE DATE	DAYS FROM START	Cu (mg/L) Average	Fe TOTAL		Fe TOTAL (mg/L) Average	Hg (mg/L) CSZ1	Hg (mg/L) CSZ2	Hg (mg/L) Average	Mg (mg/L) CSZ1	Mg (mg/L) CSZ2
			(mg/L) CSZ1	(mg/L) CSZ2						
30-Jan-92	0		<0.005	0.6	0.6	<.15	<.15		730	713.9
6-Feb-92	7		<0.005	<0.005	<0.005	<.15	<.15		691.6	647.2
13-Feb-92	14		<0.005	<0.005	<0.005	<.15	<.15		604.9	599.6
20-Feb-92	21		<0.005	<0.005	<0.005	<.15	<.15		334.6	357.3
27-Feb-92	28		<0.005	<0.005	<0.005	<.15	<.15		156.7	139.5
5-Mar-92	35		<0.005	<0.005	<0.005	<.15	<.15		<0.001	76.78
12-Mar-92	42		<0.005	<0.005	<0.005	<.15	<.15		53.05	40.44
19-Mar-92	49		<0.005	<0.005	<0.005	<.15	<.15		35.84	30.81
26-Mar-92	56		<0.005	<0.005	<0.005	<.15	<.15		31.46	20.88
2-Apr-92	63		<0.005	<0.005	<0.005	<.15	<.15		31.68	16.94
9-Apr-92	70		<0.005	<0.005	<0.005	<.15	<.15		23.31	11.86
16-Apr-92	77		<0.005	<0.005	<0.005	<.15	<.15		21.68	9.47
23-Apr-92	84		<0.005	<0.005	<0.005	<.15	<.15		17.65	8.57
30-Apr-92	91		<0.005	<0.005	<0.005	<.15	<.15		15.1	8.32
7-May-92	98		<0.005	<0.005	<0.005	<.15	<.15		12.55	9.03
14-May-92	105		<0.005	<0.005	<0.005	<.15	<.15		10.86	7.6
22-May-92	113		<0.005	<0.005	<0.005	<.15	<.15		10.19	7.5
29-May-92	120		<0.005	<0.005	<0.005	<.15	<.15		9.73	8.6
5-Jun-92	127		<0.005	<0.005	<0.005	<.15	<.15		12.47	10.8
12-Jun-92	134		<0.005	<0.005	<0.005	<.15	<.15		11.83	11.27
19-Jun-92	141		<0.005	<0.005	<0.005	<.15	<.15		12.4	14.28
29-Jun-92	151		<0.005	<0.005	<0.005	<.15	<.15		11.87	14.99
3-Jul-92	155	0.8			0.8	<.15	<.15		11.68	14.61
10-Jul-92	162	2.1			2.1	<.15	<.15		12.63	14.1
17-Jul-92	169	9.4			9.4	<.15	<.15		11.66	80.8

Table 2: Effluent Water Quality and Leaching Characteristics of S-Zone Tailings

SAMPLE DATE	DAYS FROM START	Cu (mg/L) Average	Fe TOTAL		Hg (mg/L) CSZ1	Hg (mg/L) CSZ2	Hg (mg/L) Average	Mg (mg/L) CSZ1	Mg (mg/L) CSZ2
			(mg/L) CSZ1	(mg/L) CSZ2					
24-Jul-92	176		19.2	<0.005	<.15	<.15	<.15	14.48	14.51
1-Aug-92	184		21.5	<0.005	<.15	<.15	<.15	13.08	15.38
7-Aug-92	190		23.0	<0.005	<.15	<.15	<.15	10.3	12.37
14-Aug-92	197		25.5	<0.005	<.15	<.15	<.15	9.73	13.03
21-Aug-92	204	0.020	45.4	4.2	<.15	<.15	<.15	10.03	13.76
28-Aug-92	211	0.070	56.0	4.3	<.15	<.15	<.15	9.2	13.38
4-Sep-92	218	0.079	69.3	11.5	<.15	<.15	<.15	9.04	9.81
11-Sep-92	225	0.154	81.7	23.7	<.15	<.15	<.15	8.61	8.83
18-Sep-92	232	0.390	82.1	25.9	<.15	<.15	<.15	7.19	7.73
25-Sep-92	239	0.420	82.1	34.2	<.15	<.15	<.15	6.56	7.26
2-Oct-92	246	0.440	109.0	50.4	<.15	<.15	<.15	7.19	6.8
8-Oct-92	252	0.370	117.9	56.4	<.15	<.15	<.15	8.37	7.1
16-Oct-92	260	0.420	106.8	49.8	<.15	<.15	<.15	7.49	5.97
30-Oct-92	274								
13-Nov-92	288	0.240	103.9	45.9	<.15	<.15	<.15	6.76	5.6
27-Nov-92	302								
11-Dec-92	316	1.070	120.6	42.1	<.15	<.15	<.15	10.97	8.59
24-Dec-92	329								
8-Jan-93	344	0.905	97.0	30.7	<.15	<.15	<.15	9.34	10.42
22-Jan-93	358								
5-Feb-93	372	1.255	102.9	44.5	<.15	<.15	<.15	10.06	11.65
19-Feb-93	386								
5-Mar-93	400	1.395	105.6	53.9	<.15	<.15	<.15	11.12	11.05
19-Mar-93	414								
2-Apr-93	428	1.245	108.1	74.0	<.15	<.15	<.15	10.45	10.76

Table 2: Effluent Water Quality and Leaching Characteristics of S-Zone Tailings

SAMPLE DATE	DAYS FROM START	Cu (mg/L) Average	Fe TOTAL		Hg (mg/L) CSZ1	Hg (mg/L) Average	Hg (mg/L) CSZ2	Hg (mg/L) Average	Mg (mg/L) CSZ1	Mg (mg/L) CSZ2
			(mg/L) CSZ1	(mg/L) CSZ2						
16-Apr-93	442									
30-Apr-93	456	0.840	163.4	84.9	124.1	<.15	<.15	<.15	11.63	11.4
14-May-93	470									
28-May-93	484	0.795	198.5	113.7	156.1	<.15	<.15	<.15	12.33	12.64
11-Jun-93	498									
25-Jun-93	512	0.670	173.3	105.7	139.5	<.15	<.15	<.15	10.3	11.88
9-Jul-93	526									
23-Jul-93	540	0.620	173.2	88.8	131.0	<.15	<.15	<.15	9.49	10.2
9-Aug-93	557									
20-Aug-93	568	0.675	180.4	85.2	132.8	<.15	<.15	<.15	9.707	10.39
3-Sep-93	582									
17-Sep-93	596	0.570	159.6	137.1	148.4	<.15	<.15	<.15	7.29	9.73
1-Oct-93	610									
15-Oct-93	624	0.598	187.4	109.4	148.4	<.15	<.15	<.15	8.42	8.75
29-Oct-93	638									
12-Nov-93	652	0.590	168.3		168.3	<.15	<.15	<.15	6.99	13.34
26-Nov-93	666									
10-Dec-93	680	1.150	189.7		189.7	<.15	<.15	<.15	7.18	9.66
24-Dec-93	694									
7-Jan-94	708	0.630	172.4		172.4	<.15	<.15	<.15	5.44	5.23
21-Jan-94	722	0.570	191.2		191.2	<.15	<.15	<.15	5.68	6.24
11-Mar-94	771	0.155	225.1		225.1	<.15	0.158	0.158	75.51	80.36
25-Mar-94	785	0.025	218.1		218.1	0.158	0.16	0.16	47.27	61.52
15-Apr-94	806	0.007	209.8		209.8	<.15	<.15	<.15	55.78	30.61
29-Apr-94	820		154.3		154.3	<.15	<.15	<.15	30.12	16.63

Table 2: Effluent Water Quality and Leaching Characteristics of S-Zone Tailings

SAMPLE DATE	DAYS FROM START	Cu (mg/L) Average	Fe TOTAL		Hg (mg/L) CSZ1	Hg (mg/L) CSZ2	Hg (mg/L) Average	Mg (mg/L) CSZ1	Mg (mg/L) CSZ2
			(mg/L) CSZ1	(mg/L) CSZ2					
13-May-94	834		101.2		<.15	<.15		14.93	8.47
27-May-94	848	0.007	70.2		<.15	<.15		7.15	5.65
10-Jun-94	862	0.006	48.1		<.15	<.15		4.86	4.48
24-Jun-94	876	0.008	36.1		<.15	<.15		4.2	3.92
8-Jul-94	890	0.004	35.0		<.15	<.15		3.53	3.606
22-Jul-94	904	0.007	25.2		<.15	<.15		3.73	3.62
5-Aug-94	918	0.005	28.8		<.15	<.15		3.49	3.56
19-Aug-94	932	0.005	33.3		<.15	<.15		3.69	4.01
2-Sep-94	946	0.006	21.7		<.15	<.15		3.37	3.54
16-Sep-94	960	0.004	34.6		<.15	<.15		3.63	3.77
30-Sep-94	974		34.2		<.15	<.15		3.28	3.32
14-Oct-94	988	0.006	27.9	7.1	<.15	<.15		3.43	3.57
28-Oct-94	1002								
10-Nov-94	1015								
25-Nov-94	1030		30.2		<.15	<.15		2.71	
9-Dec-94	1044	0.004	16.3		<.15	<.15		2.71	
23-Dec-94	1058	0.006	12.8		<.15	<.15		2.76	
6-Jan-95	1072		24.2		<.15	<.15		2.73	
20-Jan-95	1086	0.006	11.2		<.15	<.15		2.7	
3-Feb-95	1100	0.008	16.6		<.15	<.15		2.8	

Table 2: Effluent Water Quality and Leaching Characteristics of S-Zone Tailings

SAMPLE DATE	DAYS FROM START	Mg (mg/L) Average	Mn (mg/L) CSZ1	Mn (mg/L) CSZ2	Mn (mg/L) Average	Ni (mg/L) CSZ1	Ni (mg/L) CSZ2	Ni (mg/L) Average	Pb (mg/L) CSZ1	Pb (mg/L) CSZ2
30-Jan-92	0	721.95	165.40	172.60	169.00	2.100	2.370	2.235	<0.04	<0.04
6-Feb-92	7	669.40	153.60	143.50	148.55	1.900	1.910	1.905	<0.04	<0.04
13-Feb-92	14	602.25	147.80	142.60	145.20	1.900	2.230	2.065	<0.04	<0.04
20-Feb-92	21	345.95	103.20	101.10	102.15	1.800	1.810	1.805	<0.04	<0.04
27-Feb-92	28	148.10	68.13	61.80	64.97	1.500	1.440	1.470	<0.04	<0.04
5-Mar-92	35	76.78				1.600	1.200	1.400	<0.04	<0.04
12-Mar-92	42	46.75	37.60	33.10	35.35	1.100	0.970	1.035	<0.04	<0.04
19-Mar-92	49	33.33	29.57	25.30	27.44	0.990	0.909	0.950	<0.04	<0.04
26-Mar-92	56	26.17	26.70	20.20	23.45	0.850	0.680	0.765	<0.04	<0.04
2-Apr-92	63	24.31	28.45	16.50	22.48	0.790	0.608	0.699	<0.04	<0.04
9-Apr-92	70	17.59	24.74	14.30	19.52	0.690	0.480	0.585	<0.04	<0.04
16-Apr-92	77	15.58	24.80	11.05	17.93	0.640	0.420	0.530	<0.04	<0.04
23-Apr-92	84	13.11	22.94	9.40	16.17	0.640	0.370	0.505	0.07	<0.04
30-Apr-92	91	11.71	20.78	8.20	14.49	0.600	0.350	0.475	<0.04	<0.04
7-May-92	98	10.79	19.70	7.60	13.65	0.480	0.330	0.405	<0.04	<0.04
14-May-92	105	9.23	18.30	5.60	11.95	0.550	0.210	0.380	<0.04	<0.04
22-May-92	113	8.85	17.50	4.60	11.05	0.340	0.140	0.240	<0.04	<0.04
29-May-92	120	9.17	17.70	4.80	11.25	0.280	0.102	0.191	<0.04	<0.04
5-Jun-92	127	11.64	24.60	6.06	15.33	0.340	0.110	0.225	<0.04	<0.04
12-Jun-92	134	11.55	28.10	7.30	17.70	0.370	0.090	0.230	<0.04	<0.04
19-Jun-92	141	13.34	30.20	10.20	20.20	0.430	0.130	0.280	<0.04	<0.04
29-Jun-92	151	13.43	31.90	14.08	22.99	0.520	0.190	0.355	<0.04	<0.04
3-Jul-92	155	13.15	32.90	15.60	24.25	0.610	0.310	0.460	<0.04	<0.04
10-Jul-92	162	13.37	35.60	18.10	26.85	0.820	0.370	0.595	<0.04	<0.04
17-Jul-92	169	46.23	31.70	9.00	20.35	0.760	0.029	0.395	<0.04	<0.04

Table 2: Effluent Water Quality and Leaching Characteristics of S-Zone Tailings

SAMPLE DATE	DAYS FROM START	Mg (mg/L) Average	Mn (mg/L) CSZ1	Mn (mg/L) CSZ2	Mn (mg/L) Average	Ni (mg/L) CSZ1	Ni (mg/L) CSZ2	Ni (mg/L) Average	Pb (mg/L) CSZ1	Pb (mg/L) CSZ2
24-Jul-92	176	14.50	37.50	22.40	29.95	0.940	0.410	0.675	<0.04	<0.04
1-Aug-92	184	14.23	39.80	27.08	33.44	1.040	0.510	0.775	<0.04	<0.04
7-Aug-92	190	11.34	27.20	22.70	24.95	0.890	0.490	0.690	<0.04	<0.04
14-Aug-92	197	11.38	27.30	25.05	26.18	0.720	0.570	0.645	<0.04	<0.04
21-Aug-92	204	11.90	31.20	30.60	30.90	0.780	0.609	0.695	<0.04	<0.04
28-Aug-92	211	11.29	31.02	36.30	33.66	0.770	0.690	0.730	<0.04	<0.04
4-Sep-92	218	9.43	30.90	29.40	30.15	0.750	0.550	0.650	<0.04	<0.04
11-Sep-92	225	8.72	30.07	27.70	28.89	0.740	0.480	0.610	<0.04	<0.04
18-Sep-92	232	7.46	25.80	25.10	25.45	0.590	0.390	0.490	0.07	<0.04
25-Sep-92	239	6.91	23.40	24.70	24.05	0.540	0.340	0.440	0.09	<0.04
2-Oct-92	246	7.00	25.70	26.30	26.00	0.590	0.370	0.480	<0.04	<0.04
8-Oct-92	252	7.74	28.20	27.06	27.63	0.690	0.406	0.548	<0.04	<0.04
16-Oct-92	260	6.73	25.40	24.60	25.00	0.640	0.320	0.480	<0.04	<0.04
30-Oct-92	274									
13-Nov-92	288	6.18	24.10	24.90	24.50	0.550	0.270	0.410	<0.04	<0.04
27-Nov-92	302									
11-Dec-92	316	9.78	28.90	35.20	32.05	0.840	0.480	0.660	0.047	<0.04
24-Dec-92	329									
8-Jan-93	344	9.88	21.20	40.80	31.00	0.680	0.760	0.720	<0.04	<0.04
22-Jan-93	358									
5-Feb-93	372	10.86	18.00	41.80	29.90	0.710	1.120	0.915	0.401	<0.04
19-Feb-93	386									
5-Mar-93	400	11.09	14.90	33.40	24.15	0.720	1.130	0.925	1.5	<0.04
19-Mar-93	414									
2-Apr-93	428	10.61	12.20	27.30	19.75	0.630	1.090	0.860	2.32	<0.04

Table 2: Effluent Water Quality and Leaching Characteristics of S-Zone Tailings

SAMPLE DATE	DAYS FROM START	Mg (mg/L) Average	Mn (mg/L) CSZ1	Mn (mg/L) CSZ2	Mn (mg/L) Average	Ni (mg/L) CSZ1	Ni (mg/L) CSZ2	Ni (mg/L) Average	Pb (mg/L) CSZ1	Pb (mg/L) CSZ2
16-Apr-93	442									
30-Apr-93	456	11.52	10.70	24.30	17.50	0.660	1.070	0.865	2.15	0.13
14-May-93	470									
28-May-93	484	12.49	9.70	22.60	16.15	0.690	1.090	0.890	2.12	0.36
11-Jun-93	498									
25-Jun-93	512	11.09	7.30	18.40	12.85	0.580	0.930	0.755	1.92	0.51
9-Jul-93	526									
23-Jul-93	540	9.85	5.90	14.20	10.05	0.540	0.750	0.645	1.8	0.66
9-Aug-93	557									
20-Aug-93	568	10.05	5.10	11.50	8.30	0.680	0.730	0.705	1.79	0.95
3-Sep-93	582									
17-Sep-93	596	8.51	3.70	8.60	6.15	0.410	0.720	0.565	1.41	1.33
1-Oct-93	610									
15-Oct-93	624	8.59	3.80	6.60	5.20	0.540	0.620	0.580	1.65	1.52
29-Oct-93	638									
12-Nov-93	652	10.17	2.90	5.40	4.15	0.560	0.590	0.575	1.47	1.77
26-Nov-93	666									
10-Dec-93	680	8.42	2.80	5.40	4.10	0.530	0.680	0.605	1.51	2.3
24-Dec-93	694									
7-Jan-94	708	5.34	2.03	2.90	2.47	0.420	0.420	0.420	1.2	1.24
21-Jan-94	722	5.96	2.10	4.03	3.07	0.390	0.650	0.520	1.14	1.54
11-Mar-94	771	77.94	44.80		44.80	1.540	1.630	1.585	<0.04	0.21
25-Mar-94	785	54.40	30.10		30.10	1.550	1.340	1.445	0.108	0.041
15-Apr-94	806	43.20	29.80		29.80	1.280	0.820	1.050	<0.04	0.102
29-Apr-94	820	23.38	16.30		16.30	0.920	0.670	0.795	<0.04	0.05

Table 2: Effluent Water Quality and Leaching Characteristics of S-Zone Tailings

SAMPLE DATE	DAYS FROM START	Mg (mg/L)		Mn (mg/L)		Mn (mg/L)		Ni (mg/L)		Ni (mg/L)		Pb (mg/L)	
		Average	CSZ1	CSZ2	Average	CSZ1	CSZ2	Average	CSZ1	CSZ2	Average	CSZ1	CSZ2
13-May-94	834	11.70	8.40	6.60	7.50	0.610	0.510	0.560	<0.04	<0.04	0.05	<0.04	<0.04
27-May-94	848	6.40	4.40	4.60	4.50	0.420	1.160	0.790	<0.04	<0.04	<0.04	<0.04	<0.04
10-Jun-94	862	4.67	2.80	3.30	3.05	0.220	0.270	0.245	<0.04	<0.04	0.0401	<0.04	<0.04
24-Jun-94	876	4.06	2.30	2.70	2.50	0.190	0.210	0.200	<0.04	<0.04	<0.04	<0.04	<0.04
8-Jul-94	890	3.57	1.80	2.30	2.05	0.140	0.180	0.160	<0.04	<0.04	<0.04	<0.04	<0.04
22-Jul-94	904	3.68	1.80	2.20	2.00	0.140	0.150	0.145	<0.04	<0.04	0.06	<0.04	<0.04
5-Aug-94	918	3.53	1.70	2.03	1.87	0.130	0.120	0.125	<0.04	<0.04	<0.04	<0.04	<0.04
19-Aug-94	932	3.85	1.70	1.90	1.80	0.140	0.160	0.150	<0.04	<0.04	0.049	<0.04	<0.04
2-Sep-94	946	3.46	1.40	1.50	1.45	0.130	0.120	0.125	<0.04	<0.04	<0.04	<0.04	<0.04
16-Sep-94	960	3.70	1.50	1.60	1.55	0.140	0.150	0.145	<0.04	<0.04	<0.04	<0.04	<0.04
30-Sep-94	974	3.30	1.30	1.40	1.35	0.120	0.130	0.125	<0.04	<0.04	<0.04	<0.04	<0.04
14-Oct-94	988	3.50	1.30	1.40	1.35	0.120	0.120	0.120	<0.04	<0.04	<0.04	<0.04	<0.04
28-Oct-94	1002												
10-Nov-94	1015												
25-Nov-94	1030	2.71	1.00		1.00	0.110		0.110	<0.04	<0.04			
9-Dec-94	1044	2.71	1.07		1.07	0.099		0.099	<0.04	<0.04			
23-Dec-94	1058	2.76	1.08		1.08	0.090		0.090					
6-Jan-95	1072	2.73	1.05		1.05	0.100		0.100					
20-Jan-95	1086	2.70	1.03		1.03	0.100		0.100					
3-Feb-95	1100	2.80	1.10		1.10	0.100		0.100					

Table 2: Effluent Water Quality and Leaching Characteristics of S-Zone Tailings

SAMPLE DATE	DAYS FROM START	Pb (mg/L) Average	Sb (mg/L) CSZ1	Sb (mg/L) CSZ2	Sb (mg/L) Average	Si (mg/L) CSZ1	Si (mg/L) CSZ2	Si (mg/L) Average	Zn (mg/L) CSZ1	Zn (mg/L) CSZ2
30-Jan-92	0		0.08	0.04	0.06	13	13.9	13.45	0.230	0.350
6-Feb-92	7		0.07	0.06	0.07	11.3	11.06	11.18	0.120	0.110
13-Feb-92	14		0.09	0.04	0.06	11.4	11.1	11.25	0.080	0.080
20-Feb-92	21		0.03	<0.03	0.03	11.08	10.3	10.69	0.060	0.050
27-Feb-92	28		0.05	<0.03	0.05	10.57	9.1	9.84	0.040	0.030
5-Mar-92	35		<0.03	0.04	0.04	<0.001			0.050	0.040
12-Mar-92	42		0.02	<0.03	0.02	9.9	8.7	9.30	0.020	0.020
19-Mar-92	49		<0.03	<0.03		10.39	8.5	9.45	0.010	0.020
26-Mar-92	56		0.07	<0.03	0.07	9.6	8.2	8.90	0.020	0.010
2-Apr-92	63		<0.03	<0.03		9.9	7.9	8.90	0.010	0.010
9-Apr-92	70		0.04	<0.03	0.04	10.5	8.03	9.27	0.010	0.010
16-Apr-92	77		<0.03	<0.03		10.7	7.6	9.15	0.010	0.010
23-Apr-92	84	0.07	<0.03	<0.03		11.08	7.7	9.39	0.010	0.008
30-Apr-92	91		<0.03	<0.03		11.66	7.5	9.58	0.010	0.010
7-May-92	98		<0.03	<0.03		12.3	8.02	10.16	0.010	0.010
14-May-92	105		0.03	<0.03	0.03	12.7	6.7	9.70	0.020	0.009
22-May-92	113		<0.03	<0.03		12.15	6.9	9.53	0.010	0.005
29-May-92	120		<0.03	<0.03		12.9	6.8	9.85	0.010	0.007
5-Jun-92	127		<0.03	<0.03		14.7	8.02	11.36	0.020	0.006
12-Jun-92	134		<0.03	<0.03		17.03	7.7	12.37	0.020	0.004
19-Jun-92	141		<0.03	<0.03		19.3	7.2	13.25	0.020	0.006
29-Jun-92	151		<0.03	<0.03		22.8	8.4	15.60	0.040	0.190
3-Jul-92	155		<0.03	<0.03		22.7	9.6	16.15	0.080	0.008
10-Jul-92	162		<0.03	<0.03		26.9	10.2	18.55	0.190	0.010
17-Jul-92	169		<0.03	<0.03		25.3	3.05	14.18	0.250	0.006

Table 2: Effluent Water Quality and Leaching Characteristics of S-Zone Tailings

SAMPLE DATE	DAYS FROM START	Pb (mg/L) Average	Sb (mg/L) CSZ1	Sb (mg/L) CSZ2	Sb (mg/L) Average	Si (mg/L) CSZ1	Si (mg/L) CSZ2	Si (mg/L) Average	Zn (mg/L) CSZ1	Zn (mg/L) CSZ2
24-Jul-92	176		0.07	<0.03	0.07	30.5	12.4	21.45	0.370	0.010
1-Aug-92	184		<0.03	<0.03		35.6	15.4	25.50	0.540	0.030
7-Aug-92	190		<0.03	<0.03		27.8	13.5	20.65	0.390	0.050
14-Aug-92	197		<0.03	<0.03		28.8	15.02	21.91	0.370	0.080
21-Aug-92	204		<0.03	<0.03		33.3	15.3	24.30	0.450	0.080
28-Aug-92	211		<0.03	<0.03		36.3	17.9	27.10	0.490	0.130
4-Sep-92	218		<0.03	<0.03		37.2	15.5	26.35	0.500	0.106
11-Sep-92	225		<0.03	<0.03		40.3	14.7	27.50	0.470	0.090
18-Sep-92	232	0.07	<0.03	<0.03		37.7	13.3	25.50	0.370	0.080
25-Sep-92	239	0.09	<0.03	<0.03		34.8	11.9	23.35	0.310	0.060
2-Oct-92	246		<0.03	<0.03		39.5	13.3	26.40	0.320	0.090
8-Oct-92	252		<0.03	<0.03		41.2	13.6	27.40	0.350	0.060
16-Oct-92	260		<0.03	<0.03		40.2	14.5	27.35	0.330	0.080
30-Oct-92	274		0.03	<0.03	0.03	40.9	13.01	26.96	0.280	0.050
13-Nov-92	288									
27-Nov-92	302		<0.03	<0.03		55.5	17.8	36.65	0.370	0.090
11-Dec-92	316	0.05								
24-Dec-92	329		<0.03	<0.03		55.2	26.9	41.05	0.320	0.190
8-Jan-93	344									
22-Jan-93	358		<0.03	<0.03						
5-Feb-93	372	0.40	<0.03	<0.03		57.9	33.8	45.85	0.310	0.310
19-Feb-93	386									
5-Mar-93	400	1.50	<0.03	<0.03		64.2	38.1	51.15	0.330	0.380
19-Mar-93	414									
2-Apr-93	428	2.32	<0.03	<0.03		65.4	42.8	54.10	0.290	0.390

Table 2: Effluent Water Quality and Leaching Characteristics of S-Zone Tailings

SAMPLE DATE	DAYS FROM START	Pb (mg/L) Average	Sb (mg/L) CSZ1	Sb (mg/L) CSZ2	Sb (mg/L) Average	Si (mg/L) CSZ1	Si (mg/L) CSZ2	Si (mg/L) Average	Zn (mg/L) CSZ1	Zn (mg/L) CSZ2
16-Apr-93	442									
30-Apr-93	456	1.14	0.04	<0.03	0.04	62.2	47.6	54.90	0.250	0.490
14-May-93	470									
28-May-93	484	1.24	0.03	<0.03	0.03	63.04	53.9	58.47	0.240	0.610
11-Jun-93	498									
25-Jun-93	512	1.22	<0.03	<0.03		57.8	56.1	56.95	0.180	0.580
9-Jul-93	526									
23-Jul-93	540	1.23	0.03	<0.03	0.03	54.7	56.6	55.65	0.160	0.490
9-Aug-93	557									
20-Aug-93	568	1.37	<0.03	<0.03		53.9	58.5	56.20	0.160	0.420
3-Sep-93	582									
17-Sep-93	596	1.37	<0.03	<0.03		42.7	56.6	49.65	0.120	0.330
1-Oct-93	610									
15-Oct-93	624	1.59	0.04	<0.03	0.04	49.7	54.1	51.90	0.140	0.270
29-Oct-93	638									
12-Nov-93	652	1.62	<0.03	<0.03		41.6		41.60	0.130	0.240
26-Nov-93	666									
10-Dec-93	680	1.91	0.04	0.04	0.04	42.6		42.60	0.130	0.240
24-Dec-93	694									
7-Jan-94	708	1.22	0.03	<0.03	0.03	33.7		33.70	0.108	0.140
21-Jan-94	722	1.34	0.04	<0.03	0.04	40.9		40.90	0.110	0.170
11-Mar-94	771	0.21	0.03	<0.03	0.03	45.2		45.20	0.960	1.320
25-Mar-94	785	0.07	<0.03	<0.03		34.5		34.50	0.820	0.601
15-Apr-94	806	0.10	0.08	<0.03	0.08	31.8		31.80	0.470	0.430
29-Apr-94	820	0.05	0.04	<0.03	0.04	27.1		27.10	0.310	0.260

Table 2: Effluent Water Quality and Leaching Characteristics of S-Zone Tailings

SAMPLE DATE	DAYS FROM START	Pb (mg/L) Average	Sb (mg/L) CSZ1	Sb (mg/L) CSZ2	Sb (mg/L) Average	Si (mg/L) CSZ1	Si (mg/L) CSZ2	Si (mg/L) Average	Zn (mg/L) CSZ1	Zn (mg/L) CSZ2
13-May-94	834	0.05	<0.03	<0.03		25.2		25.20	0.210	0.190
27-May-94	848		0.07	<0.03	0.07	23.9		23.90	0.130	0.140
10-Jun-94	862	0.04	0.04	<0.03	0.04	21.09		21.09	0.090	0.105
24-Jun-94	876		0.07	<0.03	0.07	20.9		20.90	0.090	0.090
8-Jul-94	890		<0.03	<0.03		20.1		20.10	0.060	0.070
22-Jul-94	904	0.06	<0.03	<0.03		21.2		21.20	0.060	0.130
5-Aug-94	918		<0.03	<0.03		21.8		21.80	0.103	0.070
19-Aug-94	932	0.05	<0.03	<0.03		20.9		20.90	0.060	0.080
2-Sep-94	946		<0.03	<0.03		19.9		19.90	0.050	0.050
16-Sep-94	960		<0.03	0.04	0.04	21.06		21.06	0.060	0.060
30-Sep-94	974		0.03	<0.03	0.03	19.4		19.40	0.050	0.050
14-Oct-94	988		<0.03	<0.03		20.5		20.50	0.050	0.100
28-Oct-94	1002									
10-Nov-94	1015									
25-Nov-94	1030		<0.03			18.13		18.13	0.050	
9-Dec-94	1044					18.16		18.16	0.052	
23-Dec-94	1058					18.63		18.63	0.053	
6-Jan-95	1072					18.15		18.15	0.052	
20-Jan-95	1086					17.77		17.77	0.054	
3-Feb-95	1100					19.56		19.56	0.060	

Table 2: Effluent Water Quality and Leaching Characteristics of S-Zone Tailings

SAMPLE DATE	DAYS FROM START	Zn (mg/L) Average	Sulphate (mg/L) CSZ1	Sulphate (mg) CSZ1	Sulphate (µg/kg/d) CSZ1	Cum Sul (mg) CSZ1	% Cum Sul	Sulphate (mg/L) CSZ2
30-Jan-92	0	0.290	4916	4697.9		4698	3.2	4812.7
6-Feb-92	7	0.115	5020	4797.6	70657	9496	6.5	4897.3
13-Feb-92	14	0.080	4484	4285.3	63111	13781	9.5	4578.2
20-Feb-92	21	0.055	3154	3014.4	44394	16795	11.5	3226.3
27-Feb-92	28	0.035	2205	2107.3	31035	18902	13.0	2140.7
5-Mar-92	35	0.045	1858	1776.1	26157	20678	14.2	1777.3
12-Mar-92	42	0.020	1512	1444.9	21279	22123	15.2	1413.8
19-Mar-92	49	0.015	1389	1327.0	19543	23450	16.1	1341.5
26-Mar-92	56	0.015	1355	1295.1	19073	24745	17.0	1258.8
2-Apr-92	63	0.010	1300	1249.1	18396	25994	17.9	1268.7
9-Apr-92	70	0.010	1144	1107.6	16313	27102	18.6	1038.9
16-Apr-92	77	0.010	1232	1211.1	17837	28313	19.5	1279.2
23-Apr-92	84	0.009	1671	1541.7	22705	29855	20.5	1223.6
30-Apr-92	91	0.010	1174	1109.2	16337	30964	21.3	1173.0
7-May-92	98	0.010	1088	1026.4	15117	31991	22.0	1128.1
14-May-92	105	0.015	1029	990.5	14587	32981	22.7	954.7
22-May-92	113	0.008	776	729.7	9404	33711	23.2	644.6
29-May-92	120	0.009	740	720.5	10611	34431	23.7	495.0
5-Jun-92	127	0.013	662	634.4	9344	35066	24.1	394.8
12-Jun-92	134	0.012	416	398.7	5871	35464	24.4	276.2
19-Jun-92	141	0.013	185	176.1	2594	35641	24.5	341.7
29-Jun-92	151	0.115	188	175.3	1807	35816	24.6	192.8
3-Jul-92	155	0.044	205	192.1	4951	36008	24.7	146.0
10-Jul-92	162	0.100	223	212.3	3126	36220	24.9	174.1
17-Jul-92	169	0.128	212	195.6	2880	36416	25.0	145.6

Table 2: Effluent Water Quality and Leaching Characteristics of S-Zone Tailings

SAMPLE DATE	DAYS FROM START	Zn (mg/L) Average	Sulphate (mg/L) CSZ1	Sulphate (mg) CSZ1	Sulphate (µg/kg/d) CSZ1	Cum Sul (mg) CSZ1	% Cum Sul	Sulphate (mg/L) CSZ2
24-Jul-92	176	0.190	489	470.7	6932	36886	25.4	160.2
1-Aug-92	184	0.285	307	292.3	3766	37179	25.6	182.5
7-Aug-92	190	0.220	224	214.2	3681	37393	25.7	160.7
14-Aug-92	197	0.225	236	220.6	3249	37614	25.9	164.4
21-Aug-92	204	0.265	213	199.2	2934	37813	26.0	205.9
28-Aug-92	211	0.310	275	253.5	3733	38066	26.2	237.9
4-Sep-92	218	0.303	134	126.7	1867	38193	26.2	210.7
11-Sep-92	225	0.280	368	357.8	5270	38551	26.5	182.7
18-Sep-92	232	0.225	328	310.4	4572	38861	26.7	164.3
25-Sep-92	239	0.185	1524	1251.1	18425	40112	27.6	143.8
2-Oct-92	246	0.205	365	343.1	5052	40455	27.8	143.0
8-Oct-92	252	0.205	416	390.2	6704	40845	28.1	167.1
16-Oct-92	260	0.205	364	341.5	4400	41187	28.3	99.4
30-Oct-92	274		357	323.0	2379	41510	28.5	123.3
13-Nov-92	288	0.165	350	334.3	2461	41844	28.8	147.3
27-Nov-92	302		443	403.2	2969	42247	29.0	167.2
11-Dec-92	316	0.230	536	505.6	3723	42753	29.4	187.1
24-Dec-92	329		529	487.5	3866	43241	29.7	238.5
8-Jan-93	344	0.255	522	495.1	3403	43736	30.1	289.9
22-Jan-93	358		583	519.3	3824	44255	30.4	306.3
5-Feb-93	372	0.310	643	587.1	4323	44842	30.8	322.8
19-Feb-93	386		702	629.0	4632	45471	31.3	383.9
5-Mar-93	400	0.355	760	721.7	5314	46193	31.7	445.0
19-Mar-93	414		719	632.3	4656	46825	32.2	445.1
2-Apr-93	428	0.340	678	612.2	4508	47437	32.6	445.1

Table 2: Effluent Water Quality and Leaching Characteristics of S-Zone Tailings

SAMPLE DATE	DAYS FROM START	Zn (mg/L) Average	Sulphate (mg/L) CSZ1	Sulphate (mg) CSZ1	Sulphate (µg/kg/d) CSZ1	Cum Sul (mg) CSZ1	% Cum Sul	Sulphate (mg/L) CSZ2
16-Apr-93	442		735	661.6	4872	48099	33.1	497.5
30-Apr-93	456	0.370	791	720.1	5303	48819	33.6	549.8
14-May-93	470		767	698.6	5145	49518	34.0	551.7
28-May-93	484	0.425	742	692.3	5098	50210	34.5	553.6
11-Jun-93	498		703	644.6	4747	50855	35.0	555.5
25-Jun-93	512	0.380	665	604.9	4455	51459	35.4	557.4
9-Jul-93	526		721	663.9	4889	52123	35.8	572.6
23-Jul-93	540	0.325	778	650.9	4793	52774	36.3	587.9
9-Aug-93	557		738	726.0	4403	53500	36.8	577.8
20-Aug-93	568	0.290	699	629.6	5901	54130	37.2	567.7
3-Sep-93	582		599	587.9	4329	54718	37.6	577.1
17-Sep-93	596	0.225	499	472.5	3479	55190	37.9	586.5
1-Oct-93	610		613	559.2	4118	55749	38.3	608.2
15-Oct-93	624	0.205	727	434.4	3199	56184	38.6	629.8
29-Oct-93	638		724	639.4	4708	56823	39.1	646.3
12-Nov-93	652	0.185	721	663.3	4885	57486	39.5	662.8
26-Nov-93	666		711	646.4	4760	58133	40.0	648.5
10-Dec-93	680	0.185	701	669.7	4931	58802	40.4	634.2
24-Dec-93	694		613	563.0	4146	59365	40.8	509.2
7-Jan-94	708	0.124	524	485.5	3575	59851	41.1	384.2
21-Jan-94	722	0.140	567	419.2	3087	60270	41.4	434.6
11-Mar-94	771	1.140	2303	2168.7	4563	62439	42.9	2042
25-Mar-94	785	0.711	2075	1669.7	12295	64108	44.1	2238
15-Apr-94	806	0.450	2090	1817.6	8923	65926	45.3	2015
29-Apr-94	820	0.285	1897	1591.7	11721	67518	46.4	1697

Table 2: Effluent Water Quality and Leaching Characteristics of S-Zone Tailings

SAMPLE DATE	DAYS FROM START	Zn (mg/L) Average	Sulphate (mg/L) CSZ1	Sulphate (mg) CSZ1	Sulphate (µg/kg/d) CSZ1	Cum Sul (mg) CSZ1	% Cum Sul	Sulphate (mg/L) CSZ2
13-May-94	834	0.200	1595	1357.9	9999	68876	47.3	1553
27-May-94	848	0.135	1405	1151.3	8478	70027	48.1	1559
10-Jun-94	862	0.098	1131	931.1	6857	70958	48.8	1401
24-Jun-94	876	0.090	912	902.2	6644	71860	49.4	1242
8-Jul-94	890	0.065	686	650.8	4792	72511	49.8	999
22-Jul-94	904	0.095	529	483.8	3563	72995	50.2	849
5-Aug-94	918	0.087	414	353.3	2602	73348	50.4	727
19-Aug-94	932	0.070	363	326.5	2404	73675	50.6	676
2-Sep-94	946	0.050	280	235.2	1732	73910	50.8	498
16-Sep-94	960	0.060	283	268.3	1975	74178	51.0	458
30-Sep-94	974	0.050	259	233.6	1720	74412	51.1	371
14-Oct-94	988	0.075	252	239.6	1764	74651	51.3	317
28-Oct-94	1002		236	223.8	1648	74875	51.5	226
10-Nov-94	1015		231	225.6	1789	75101	51.6	206
25-Nov-94	1030	0.050	209	197.8	1359	75299	51.8	200
9-Dec-94	1044	0.052	201	181.2	1334	75480	51.9	211
23-Dec-94	1058	0.053	197	168.9	1244	75649	52.0	213
6-Jan-95	1072	0.052	201	186.4	1373	75835	52.1	211
20-Jan-95	1086	0.054	190	167.1	1231	76002	52.2	218
3-Feb-95	1100	0.060	202	183.4	1351	76186	52.4	212

Table 2: Effluent Water Quality and Leaching Characteristics of S-Zone Tailings

SAMPLE DATE	DAYS FROM START	Sulphate (mg) CSZ2	Sulphate (µg/kg/d) CSZ2	Cum Sul (mg) CSZ2	% Cum Sul	Sulphate (mg/L) AVERAGE	Sulphate % Cum AVERAGE	Sulphate (µg/kg/d) AVERAGE
30-Jan-92	0	4343		4343	3.0	4864	3.1	
6-Feb-92	7	4419	65081	8762	6.0	4959	6.3	67869
13-Feb-92	14	4131	60842	12893	8.9	4531	9.2	61977
20-Feb-92	21	2911	42876	15804	10.9	3190	11.2	43635
27-Feb-92	28	1932	28449	17736	12.2	2173	12.6	29742
5-Mar-92	35	1698	25014	19434	13.4	1818	13.8	25586
12-Mar-92	42	1276	18788	20710	14.2	1463	14.7	20034
19-Mar-92	49	1210	17827	21920	15.1	1365	15.6	18685
26-Mar-92	56	1136	16728	23056	15.8	1307	16.4	17901
2-Apr-92	63	1209	17801	24265	16.7	1285	17.3	18098
9-Apr-92	70	984	14492	25249	17.4	1091	18.0	15402
16-Apr-92	77	1254	18471	26503	18.2	1256	18.8	18154
23-Apr-92	84	1178	17344	27681	19.0	1447	19.8	20024
30-Apr-92	91	1068	15734	28749	19.8	1174	20.5	16035
7-May-92	98	981	14445	29730	20.4	1108	21.2	14781
14-May-92	105	921	13563	30651	21.1	992	21.9	14075
22-May-92	113	566	7288	31217	21.5	710	22.3	8346
29-May-92	120	488	7188	31705	21.8	617	22.7	8899
5-Jun-92	127	205	3018	31909	21.9	529	23.0	6181
12-Jun-92	134	275	4052	32185	22.1	346	23.2	4962
19-Jun-92	141	295	4338	32479	22.3	263	23.4	3466
29-Jun-92	151	195	2014	32675	22.5	191	23.5	1911
3-Jul-92	155	122	3142	32796	22.5	176	23.6	4046
10-Jul-92	162	166	2444	32962	22.7	198	23.8	2785
17-Jul-92	169	138	2026	33100	22.7	179	23.9	2453

Table 2: Effluent Water Quality and Leaching Characteristics of S-Zone Tailings

SAMPLE DATE	DAYS FROM START	Sulphate (mg) CSZ2	Sulphate (µg/kg/d) CSZ2	Cum Sul (mg) CSZ2	% Cum Sul	Sulphate (mg/L) AVERAGE	Sulphate % Cum AVERAGE	Sulphate (µg/kg/d) AVERAGE
24-Jul-92	176	153	2254	33253	22.9	325	24.1	4593
1-Aug-92	184	170	2190	33423	23.0	245	24.3	2978
7-Aug-92	190	153	2633	33576	23.1	192	24.4	3157
14-Aug-92	197	157	2318	33734	23.2	200	24.5	2784
21-Aug-92	204	192	2833	33926	23.3	210	24.7	2883
28-Aug-92	211	203	2994	34129	23.5	256	24.8	3364
4-Sep-92	218	197	2906	34327	23.6	172	24.9	2386
11-Sep-92	225	173	2552	34500	23.7	275	25.1	3911
18-Sep-92	232	152	2245	34652	23.8	246	25.3	3408
25-Sep-92	239	123	1809	34775	23.9	834	25.7	10117
2-Oct-92	246	134	1970	34909	24.0	254	25.9	3511
8-Oct-92	252	159	2738	35068	24.1	292	26.1	4721
16-Oct-92	260	95	1221	35163	24.2	232	26.2	2811
30-Oct-92	274	115	843	35277	24.2	240	26.4	1611
13-Nov-92	288	139	1027	35417	24.3	249	26.6	1744
27-Nov-92	302	156	1148	35573	24.4	305	26.7	2059
11-Dec-92	316	173	1273	35746	24.6	362	27.0	2498
24-Dec-92	329	220	1748	35966	24.7	384	27.2	2807
8-Jan-93	344	276	1899	36242	24.9	406	27.5	2651
22-Jan-93	358	281	2072	36524	25.1	445	27.8	2948
5-Feb-93	372	294	2164	36818	25.3	483	28.1	3244
19-Feb-93	386	347	2557	37165	25.5	543	28.4	3594
5-Mar-93	400	399	2940	37564	25.8	602	28.8	4127
19-Mar-93	414	393	2895	37957	26.1	582	29.1	3776
2-Apr-93	428	396	2916	38353	26.4	562	29.5	3712

Table 2: Effluent Water Quality and Leaching Characteristics of S-Zone Tailings

SAMPLE DATE	DAYS FROM START	Sulphate (mg) CSZ2	Sulphate (µg/kg/d) CSZ2	Cum Sul (mg) CSZ2	% Cum Sul	Sulphate (mg/L) AVERAGE	Sulphate % Cum AVERAGE	Sulphate (µg/kg/d) AVERAGE
16-Apr-93	442	462	3404	38816	26.7	616	29.9	4138
30-Apr-93	456	513	3778	39329	27.0	670	30.3	4540
14-May-93	470	506	3724	39834	27.4	659	30.7	4434
28-May-93	484	518	3818	40353	27.7	648	31.1	4458
11-Jun-93	498	498	3670	40851	28.1	629	31.5	4208
25-Jun-93	512	518	3811	41369	28.4	611	31.9	4133
9-Jul-93	526	446	3283	41814	28.7	647	32.3	4086
23-Jul-93	540	602	4431	42416	29.2	683	32.7	4612
9-Aug-93	557	504	3054	42920	29.5	658	33.1	3728
20-Aug-93	568	504	4728	43424	29.8	633	33.5	5314
3-Sep-93	582	577	4247	44001	30.2	588	33.9	4288
17-Sep-93	596	532	3918	44533	30.6	543	34.3	3699
1-Oct-93	610	565	4164	45098	31.0	611	34.7	4141
15-Oct-93	624	607	4467	45705	31.4	678	35.0	3833
29-Oct-93	638	599	4412	46304	31.8	685	35.4	4560
12-Nov-93	652	671	4939	46975	32.3	692	35.9	4912
26-Nov-93	666	453	3334	47428	32.6	680	36.3	4047
10-Dec-93	680	710	5226	48137	33.1	668	36.7	5079
24-Dec-93	694	403	2969	48541	33.4	561	37.1	3557
7-Jan-94	708	390	2874	48931	33.6	454	37.4	3224
21-Jan-94	722	329	2421	49260	33.9	501	37.6	2754
11-Mar-94	771	901	1895	50161	34.5	2172	38.7	3229
25-Mar-94	785	2299	16930	52460	36.1	2157	40.1	14613
15-Apr-94	806	2059	10108	54519	37.5	2052	41.4	9515
29-Apr-94	820	1436	10574	55955	38.5	1797	42.4	11148

Table 2: Effluent Water Quality and Leaching Characteristics of S-Zone Tailings

SAMPLE DATE	DAYS FROM START	Sulphate (mg) CSZ2	Sulphate (µg/kg/d) CSZ2	Cum Sul (mg) CSZ2	% Cum Sul	Sulphate (mg/L) AVERAGE	Sulphate % Cum AVERAGE	Sulphate (µg/kg/d) AVERAGE
13-May-94	834	1127	8298	57081	39.2	1574	43.3	9149
27-May-94	848	1259	9270	58340	40.1	1482	44.1	8874
10-Jun-94	862	1097	8079	59437	40.9	1266	44.8	7468
24-Jun-94	876	1190	8764	60628	41.7	1077	45.5	7704
8-Jul-94	890	830	6110	61457	42.2	842	46.0	5451
22-Jul-94	904	773	5693	62230	42.8	689	46.5	4628
5-Aug-94	918	552	4067	62783	43.1	571	46.8	3335
19-Aug-94	932	582	4287	63365	43.5	520	47.1	3346
2-Sep-94	946	423	3115	63788	43.8	389	47.3	2423
16-Sep-94	960	415	3057	64203	44.1	370	47.6	2516
30-Sep-94	974	364	2683	64567	44.4	315	47.8	2202
14-Oct-94	988	276	2035	64844	44.6	285	47.9	1900
28-Oct-94	1002	173	1276	65017	44.7	231	48.1	1462
10-Nov-94	1015	195	1546	65212	44.8	218	48.2	1668
25-Nov-94	1030	179	1230	65391	44.9	204	48.3	1295
9-Dec-94	1044	205	1513	65597	45.1	206	48.5	1424
23-Dec-94	1058	184	1354	65781	45.2	205	48.6	1299
6-Jan-95	1072	200	1473	65981	45.3	206	48.7	1423
20-Jan-95	1086	175	1290	66156	45.5	204	48.9	1260
3-Feb-95	1100	167	1229	66323	45.6	207	49.0	1290

Table 2: Effluent Water Quality and Leaching Characteristics of S-Zone Tailings

SAMPLE DATE	DAYS FROM START	TOTAL CN PPB CSZ1	TOTAL CN PPB CSZ2	TOTAL CN PPB AVERAGE
30-Jan-92	0			
6-Feb-92	7	11	11	11
13-Feb-92	14	7	5	6
20-Feb-92	21	2	2	2
27-Feb-92	28	2	2	2
5-Mar-92	35			
12-Mar-92	42	<2	<2	
19-Mar-92	49	<2	<2	
26-Mar-92	56	<2	<2	
2-Apr-92	63	<2	<2	
9-Apr-92	70	<2	<2	
16-Apr-92	77	<2	<2	
23-Apr-92	84	<2	<2	
30-Apr-92	91	<2	<2	
7-May-92	98	<2	<2	
14-May-92	105			
22-May-92	113	<2	<2	
29-May-92	120	<2	<2	
5-Jun-92	127	<2	<2	
12-Jun-92	134	<2	<2	
19-Jun-92	141	<2	<2	
29-Jun-92	151	<2	<2	
3-Jul-92	155	<2	<2	
10-Jul-92	162	<2	<2	
17-Jul-92	169	<2	<2	

Table 2: Effluent Water Quality and Leaching Characteristics of S-Zone Tailings

SAMPLE DATE	DAYS FROM START	TOTAL CN PPB CSZ1	TOTAL CN PPB CSZ2	TOTAL CN PPB AVERAGE
30-Jan-92	0			
6-Feb-92	7	11	11	11
13-Feb-92	14	7	5	6
20-Feb-92	21	2	2	2
27-Feb-92	28	2	2	2
5-Mar-92	35			
12-Mar-92	42	<2	<2	
19-Mar-92	49	<2	<2	
26-Mar-92	56	<2	<2	
2-Apr-92	63	<2	<2	
9-Apr-92	70	<2	<2	
16-Apr-92	77	<2	<2	
23-Apr-92	84	<2	<2	
30-Apr-92	91	<2	<2	
7-May-92	98	<2	<2	
14-May-92	105			
22-May-92	113	<2	<2	
29-May-92	120	<2	<2	
5-Jun-92	127	<2	<2	
12-Jun-92	134	<2	<2	
19-Jun-92	141	<2	<2	
29-Jun-92	151	<2	<2	
3-Jul-92	155	<2	<2	
10-Jul-92	162	<2	<2	
17-Jul-92	169	<2	<2	

Table 2: Effluent Water Quality and Leaching Characteristics of S-Zone Tailings

SAMPLE DATE	DAYS FROM START	TOTAL CN		TOTAL CN		TOTAL CN	
		PPB	CSZ1	PPB	CSZ2	PPB	AVERAGE
24-Jul-92	176	<2		<2			
1-Aug-92	184	<2		<2			
7-Aug-92	190	<2		<2			
14-Aug-92	197	3		4		3.5	
21-Aug-92	204	5		2		3.5	
28-Aug-92	211	<2		<2			
4-Sep-92	218	<2		<2			
11-Sep-92	225	<2		<2			
18-Sep-92	232	<2		<2			
25-Sep-92	239	<2		<2			
2-Oct-92	246	<2		<2			
8-Oct-92	252	<2		<2			
16-Oct-92	260	<2		<2			
30-Oct-92	274						
13-Nov-92	288						
27-Nov-92	302						
11-Dec-92	316						
24-Dec-92	329						
8-Jan-93	344						
22-Jan-93	358						
5-Feb-93	372						
19-Feb-93	386						
5-Mar-93	400						
19-Mar-93	414						
2-Apr-93	428						