

GEOLOGY, GEOPHYSICS AND GEOCHEMISTRY

REPORT

Volume I of II

LOG NO: 0420	RD.
ACTION:	
FILE NO:	

OPAL LAKE PROPERTY

N.T.S. 104J/13

ATLIN MINING DIVISION

BRITISH COLUMBIA

58° 46'  
131° 48'

FOR EQUITY SIVER MINES

#13 - 1155 MELVILLE STREET

VANCOUVER, B.C.

V6E 4C4

BY STETSON RESOURCE MANAGEMENT

#14 - 1155 MELVILLE STREET

VANCOUVER, B.C.

V6E 4C4

GEOLOGICAL BRANCH  
ASSESSMENT REPORT

PART 1  
OF 2  
19,928

J. Wetherill, B.A.Sc.

FEBRUARY 9, 1990

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## SUMMARY

This report discusses the results of the preliminary exploration completed on a group of six claims collectively known as the Opal Lake property. These claims, located on the mapsheet 104J/13, straddle a section of the old Telegraph Trail near Tededeech Lake, in northwestern British Columbia.

The property covers a portion of a regional structure known as the Nahlin Fault. Along this fault, nickel mineralization (millerite) and low gold concentrations (up to 523 ppb Au) are associated with a significant zone of listwanitic and ankerite alteration. The mineralization is structurally controlled, and is hosted by a series of subparallel chalcedonic quartz veins cutting ankerite, and weakly carbonitized Nahlin Formation serpentinite (Pre-Permian age).

The 1989 exploration program included the establishment of a permanent 16.5 km grid centered over alteration exposed in trenches on the east shore of Opal Lake. Comprehensive geological, geophysical, and geochemical surveys were carried out over the grid. The surveys successfully delineated the Nahlin Fault and associated structures, and the listwanite - ankerite alteration zone, over a 1200 metre trend.

Results to date are encouraging, however further reconnaissance exploration of the area is recommended. Targets which were developed during the 1989 exploration program should be prospected and exposed by trenching and ground slicing methods, before drilling exploration commences on this remote property.

### 1.1 Location and Access

Access to the property is by helicopter from Dease Lake, B.C., 105 km to the west-northwest. Tedideech Lake lies 7 km east of Opal Lake, and may be accessed by float plane. A pack trail connects Tededeech and Opal Lake. A small landing strip is located on the northern bank of the Nahlin River, 20 km west-northwest of Opal Lake, and can accomodate fixed-wing aircraft up to Cessna 185 in size. The Telegraph Trail, a horse trail connecting Telegraph Creek and Atlin, passes near the property at Tededeech Lake.

### 1.2 Physiography

The Opal Lake area is part of a large plateau situated at an elevation of 950 meters to 1050 meters above sea level. Local relief on the property is less than 150 meters.

Forest cover is moderate with large open marsh and muskeg areas. Major drainages include the Koshin River which flows north into the Nahlin River.

EQUITY SILVER MINES LTD.

OPAL LAKE GROUP

ATLIN M.D.

104J/12,13E

# LOCATION MAP

SCALE: 1:1,000,000 METRES

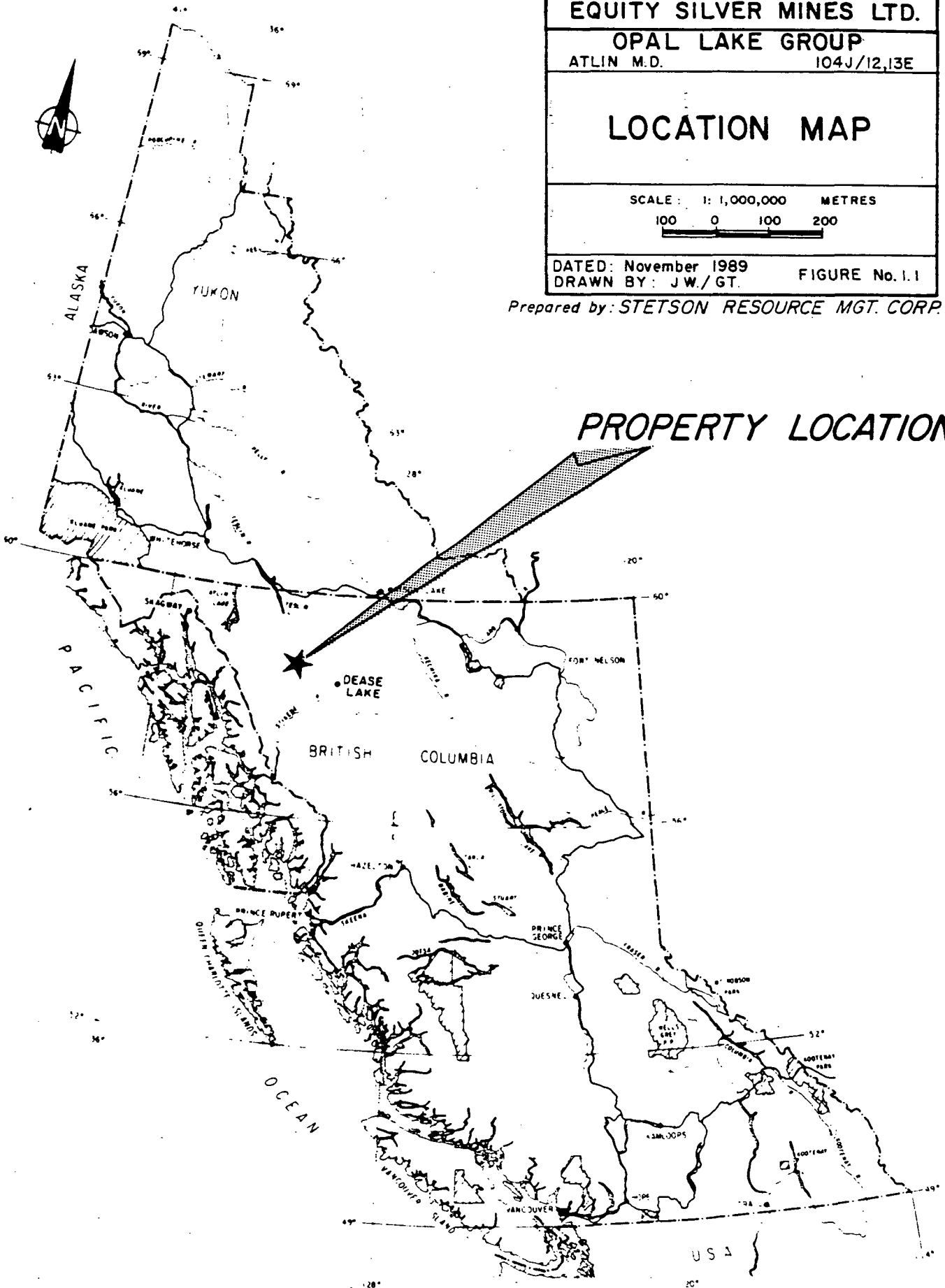
100 0 100 200

DATED: November 1989

DRAWN BY: J.W./G.T.

FIGURE No. 1.1

Prepared by: STETSON RESOURCE MGT. CORP.



**PROPERTY LOCATION**



### 1.3 Property

The Opal Lake property consists of 8 modified grid mineral claims in two contiguous groups (see fig. 1.2).

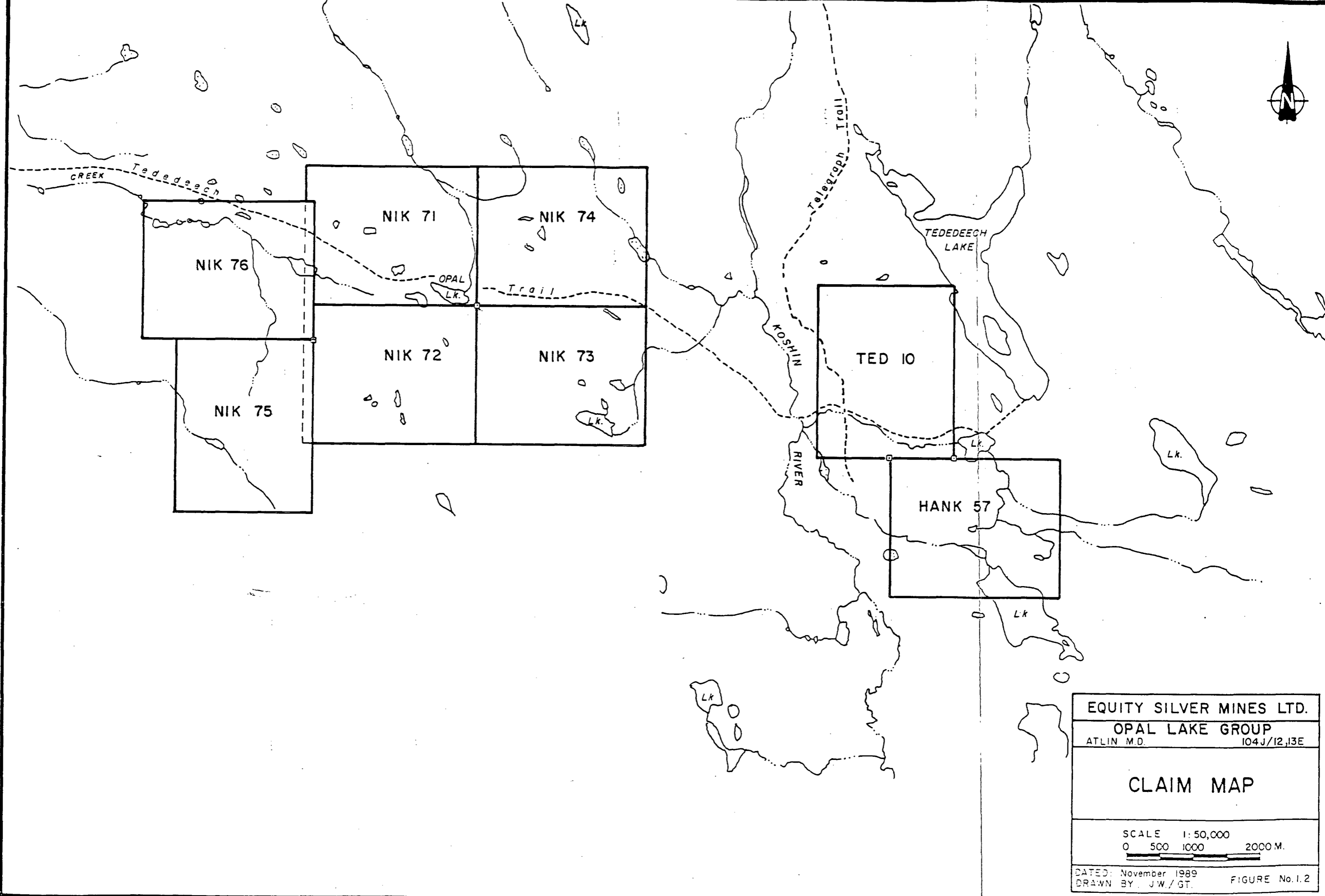
Table 1.3  
Claim Status

Claim Name	Record No.	Record Date	Expiry Date	Units
Ted 10	3202	April 26, 1988	April 26, 1991	20
Hank 57	3310	July 6, 1988	July 6, 1991	20
Nik 71	3187	April 11, 1988	April 11, 1991	20
Nik 72	3188	April 11, 1988	April 11, 1991	20
Nik 73	3189	April 11, 1988	April 11, 1991	20
Nik 74	3190	April 11, 1988	April 11, 1991	20
Nik 75	3191	April 11, 1988	April 11, 1991	20
Nik 76	3201	April 11, 1988	April 11, 1991	20

The claims are located in the Atlin Mining Division and cover a total area of 40 km<sup>2</sup>.

### 1.4 History

In 1956, the Opal Lake area was mapped at a regional scale by the Geological Survey of Canada as part of their 'Operation



EQUITY SILVER MINES LTD.	
OPAL LAKE GROUP	
ATLIN M.D.	104J/12,13E
<b>CLAIM MAP</b>	
SCALE 1:50,000	
0 500 1000 2000 M.	
DATED: November 1989	
DRAWN BY: J.W./GT.	FIGURE No. 1.2

Stikine' program (Monger, Gabrielse, Souther, Roots, 1956). Several small asbestos showings were discovered in the area, but none were reported economically significant. Large areas of the Opal Lake mapsheet (104J/13) were not mapped during the Operation Stikine program, and remain relatively unexplored.

During 1957, reconnaissance exploration for asbestos along the Nahlin ultramafic body led to the discovery of nickel mineralization (millerite) near Opal Lake. Canadian Explorers Limited investigated the mineralization with 1,000 feet of trenching, and 1,290 feet of diamond drilling in an area covered by the Nik claims. Results of the exploration were not recorded as assessment. During the same year, Consolidated Northland Mines Ltd. explored the Tededeech Lake area on claims which adjoined the Canadian Explorers Limited property for similar nickel mineralization (Hodgson 1957). The Hank 57 and Ted 10 claims are located in this area. Dimethyloxene field tests for nickel and geological mapping were carried out by Consolidated Northland, but no significant nickel mineralization was discovered.

During 1988, Ed Asp carried out a trenching program on the north and east shores of Opal Lake, and near a small pond southwest of Tededeech Lake. This trenching exposed fresh

surfaces of a fuchsitic carbonate, which was identified as listwanitic alteration during the 1989 exploration program carried out for Equity Silver Mines Ltd (Bloodgood, pers. comm.).

## 1.5 1989 Exploration Program

### Introduction

Geological, geophysical, and geochemical surveys were carried out on the Opal Lake property. The exploration program was conducted: (1) to test nickel mineralization (millerite) near Opal Lake for its precious metal potential, (2) to map and sample sections of the Nahlin Fault, a regional structure crossing the property, and (3) to map and sample alteration flanking the Nahlin Fault. Details of work on the property are summarized in subsections 1.5.1 through 1.5.4. Work on the property was carried out from August 3 to August 12, 1989.

#### 1.5.1 Grid Establishment

A total of 16.5 line kilometres of permanent grid was estab-

lished on the NIK 71 and NIK 74 claims, and centered on the west shore of Opal Lake. The 800 meter baseline was oriented N45W and all lines were cut, blazed, and flagged. Metal tag pickets were placed at 25 meter intervals along gridlines spaced 100 meters apart.

### 1.5.2 Geological Surveys

Mapping and prospecting were carried out in the grid area by J. Wetherill and B. Dynes at a scale of 1:2,500. Outcrop exposure in the area is roughly 5%. Detailed mapping and sampling of showings and trenches were completed at scales of 1:1,250, 1:500, 1:250, and 1:100. All trenches and outcrops located in the Opal Lake area were tied in to the geochemical and geophysical grid.

### 1.5.3 Geochemical Surveys

#### 1.5.3a Soil Sampling

A total of 532 soil samples were collected from the grid at spacings of 25 meters. Where possible, the samples were taken from the B-Horizon. Notes were taken by the soil samplers concerning the color, texture and composition of each sample.

### 1.5.3b Rock Sampling

A total of 100 rock samples were collected from the property. Sample techniques included, chip samples across recorded widths, selected samples, and grab samples. Samples were taken from mineralized exposures, and from hydrothermal alteration zones.

### 1.5.4 Geophysical Survey

A combined VLF - EM and magnetometer survey was conducted over the grid with readings taken every 12.5 meters. A base station magnetometer recorded spurious and diurnal changes in the earth's magnetic field. These readings were later used to correct data from the field magnetometer. See Appendix I for instrument specifications.

## 2.0 GEOLOGY

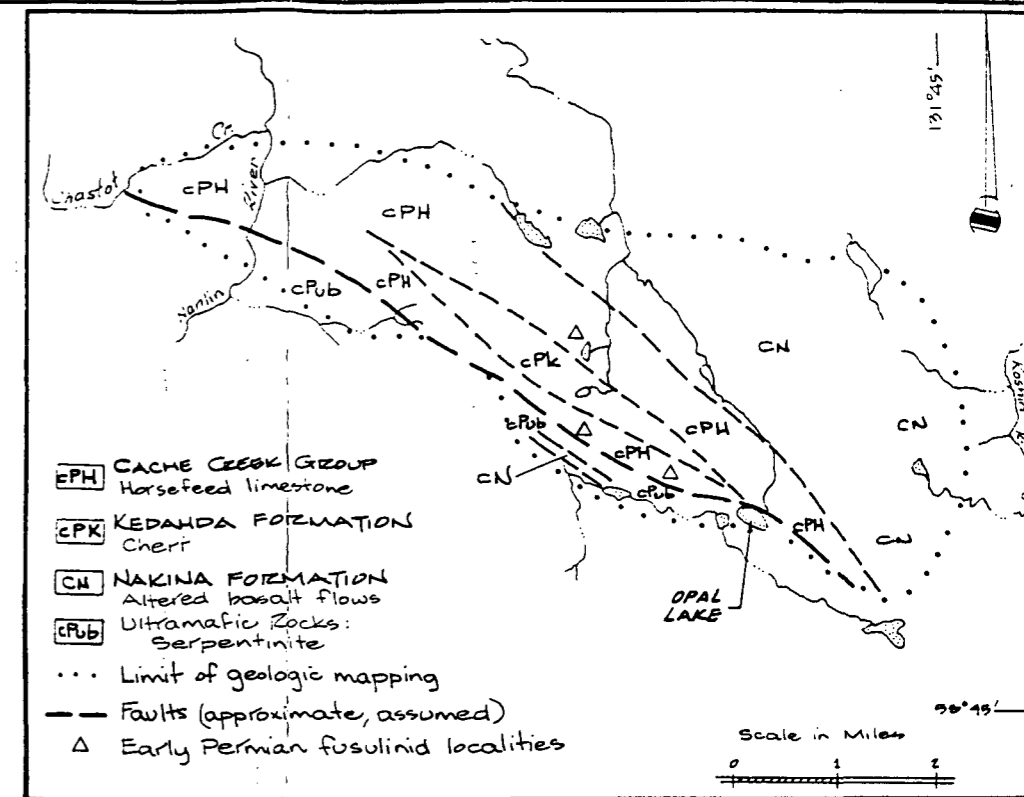
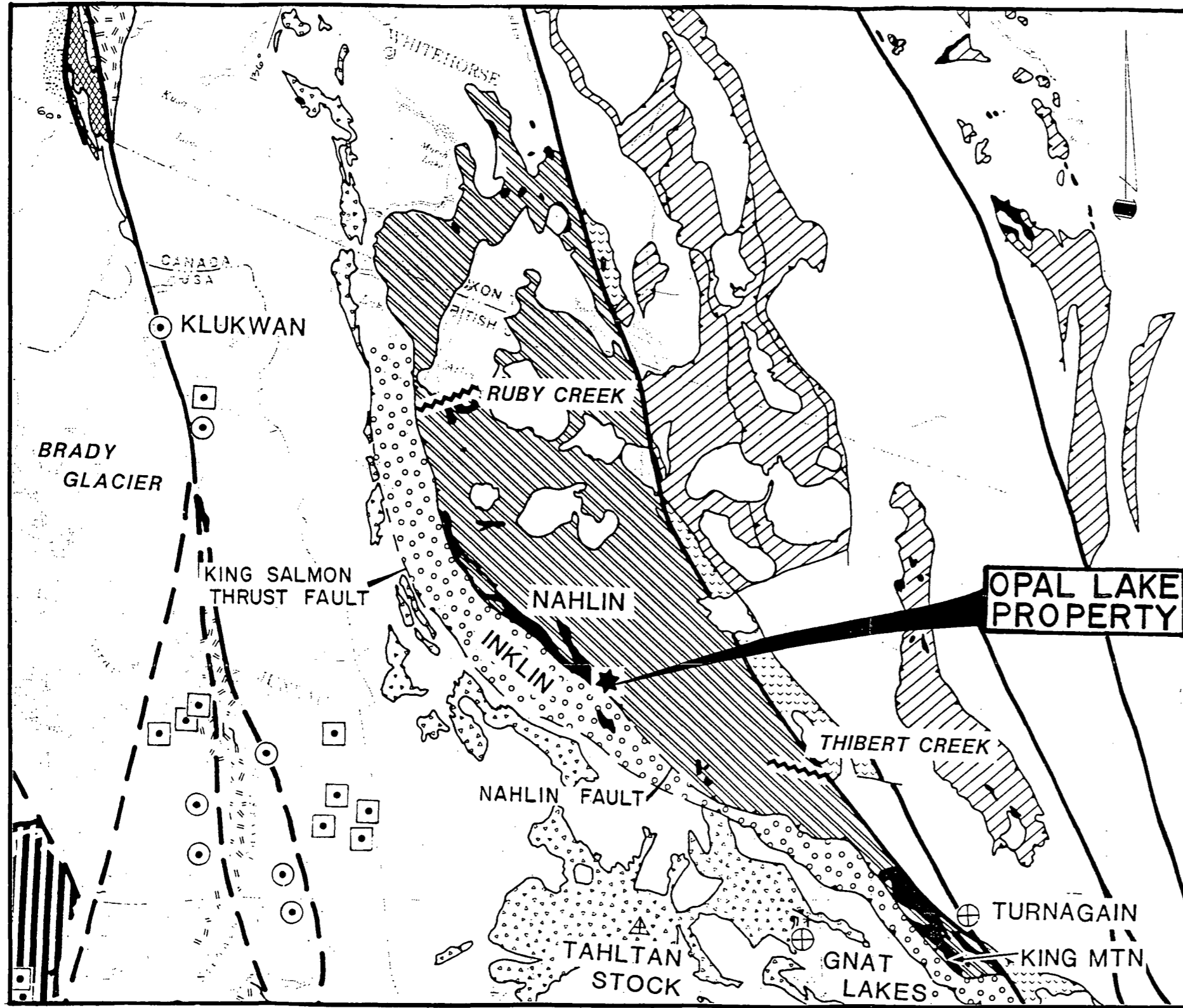
### 2.1 Regional Geology

The Opal Lake area lies on the southeastern edge of the Atlin Terrane. This fault-bounded terrane is one of several coherent geological assemblages which make up the Intermontane Belt of the Canadian Cordillera (Monger, et al, 1986).

The Atlin Terrane is characterized by Upper Paleozoic rocks of the Cache Creek Group. The strata consists of Kedahda cherts and Horsefeed limestones deposited in a shallow marine environment on a platform of Nakina basalts (Monger, 1975).

The Nakina fault, which forms the southern boundary of the Atlin Terrane (see fig 2.1) can be traced for more than 300 km. Tectonically emplaced along this major structure is a large ultramafic massif known as the Nahlin ultramafic body. The Opal Lake area straddles a flexure in the Nahlin fault at the southeastern end of this Alpine-type ultramafic body. Several intrusives invade the Nahlin fault structure including a small hornblende diorite stock 10 km west-northwest of Opal Lake (Gabrielse, et al, 1962).

To the south of the Atlin Terrane a wide folded thrust sheet of Jurassic, Laberge Group, Inklin Formation greywackes parallels the Nahlin Fault. Local blueschist alteration facies within the Atlin Terrane, suggest the Nahlin Fault is part of a subduction zone (Monger, 1975).



**LEGEND ~**

- Placer Gold
- Atlin Terrane
- Ultramafics
- Slide Mountain Terrane
- Stikine Terrane
- Alexander Terrane
- Wrangell Terrane

**EQUITY SILVER MINES LTD.**  
**OPAL LAKE PROJECT**  
 ATLIN MINING DIVISION NTS 104

**REGIONAL GEOLOGY**

Scale 1:200000

Date: Feb 1990 Figure No. 2.1  
 Drawn by: vh

**NOTE:** All data taken from:  
 MONGER - GSC open file 1433  
 MONGER - GSC Paper 74-47



## 2.2 Property Geology

### 2.2.1 Introduction

The geology of the Opal Lake area has been described by Monger (1975). Rocks exposed on the property correlate with Upper Paleozoic Cache Creek Group strata. Formations from the Cache Creek Group have been juxtaposed by the Nahlin Fault and associated structures, which cross the property.

Table 2.2

#### Table of Formations

##### Upper Paleozoic and Lower Triassic

##### Cache Creek Group

cPh - Horsefeed Formation : limestone, dolomitic limestone.

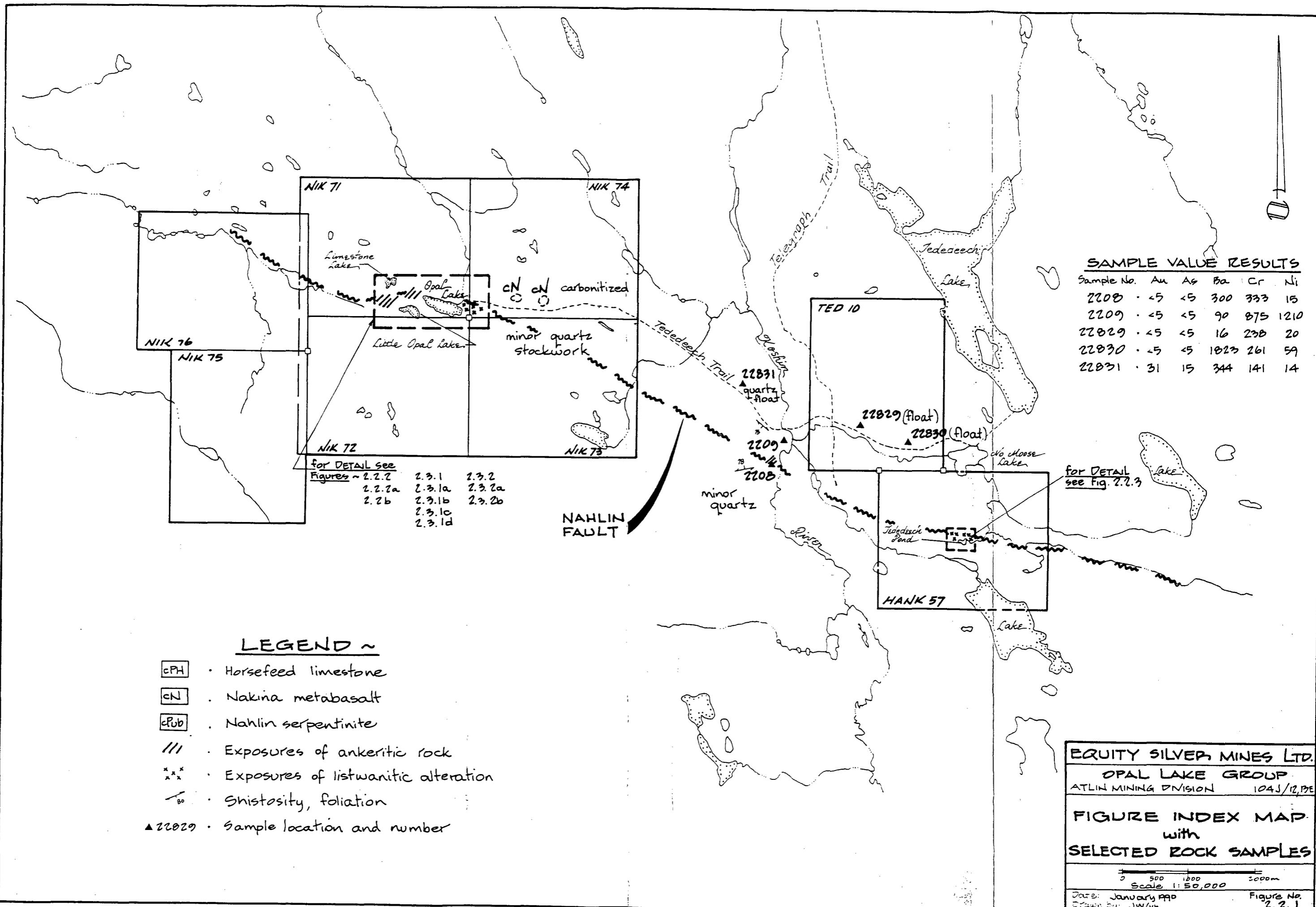
cPk - Kedahda Formation : chert

cN - Nakina Formation : altered basalt flows and  
pyroclastics.

##### Age Unknown, Probably related to Nakina Formation

cPub - Ultramafic Rocks : serpentinite.

### 2.2.2 Lithologies



**SAMPLE VALUE RESULTS**

Sample No.	Au	Ag	Ba	Cr	Ni
2208	<5	<5	300	333	15
2209	<5	<5	90	875	1210
22829	<5	<5	16	238	20
22830	<5	<5	1823	261	59
22831	31	15	344	141	14

for DETAIL see Figures ~ 2.2.2

2.2.2a	2.3.1a	2.3.2a
2.2.2b	2.3.1b	2.3.2b
	2.3.1c	2.3.2c
	2.3.1d	2.3.2d

- LEGEND ~**
- cPH • Horsefeed limestone
  - cN • Nakina metabasalt
  - cPub • Nahlin serpentinite
  - /// • Exposures of ankeritic rock
  - \* \* \* • Exposures of listwanitic alteration
  - • Schistosity, foliation
  - ▲ 22829 • Sample location and number

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**OPAL LAKE GROUP**  
 ATLIN MINING DIVISION 1045/12, 13E

**FIGURE INDEX MAP**  
 with  
**SELECTED ROCK SAMPLES**

0 500 1000 2000  
 Scale 1:50,000

Date: January 1990 Figure No. 2.2.1  
 Drawn by: JW/vh

Prepared by: STETSON RESOURCE MGMT. CORP.

### 2.2.2 Lithologies

The following formations were encountered on the property:

#### **cPh - Horsefeed Formation**

**Description:** Limestone to dolomitic limestone is fine to medium grained, white to light grey on weathered surface and faint pink to dark grey on fresh surfaces. The limestones are locally recrystallized and veined with calcite. Near the Koshin River, silicification was noted in limestone float cut by minor quartz stockwork.

**Mode of Occurrence:** Outcrops of limestone form large knolls and bluffs to the north and north west of Opal Lake. Exposures of limestone near the junction of the Tededeech trail with the Koshin River are moderately to intensely silicified. In the grid area (Fig 2.2) the limestone is in fault contact with altered serpentized ultramafics. To the east, the limestone is in contact with black argillites. Monger (1975) dates the limestone as Mississippian to Permian and indicates they were deposited in a shallow marine environment.

**cPk - Kedahda Formation**

**Description:** Chert and cherty argillite.

**Mode of Occurrence:** Monger describes the units occurrence 1 kilometer north west of Opal Lake as boulders of chert. The area was not traversed by the writer.

**cN - Nakina Formation**

**Description:** Black to dark green andesitic, fine grained, meta basalt are locally cut by veinlets of epidote and dolomite. Weathered surfaces are dark green with occasional pale brown, randomly orientated, silicic lenses. Weak chloritization and carbonitization were observed in all exposures.

**Mode of Occurrence:** Basalts are exposed to the east of the grid and along the Tededeche trail from Opal Lake to Tededeche Lake. The Nakina formation is thought to be genetically related to the Nahlin Ultramafic Body.

**cPub - Nahlin Ultramafic Body**

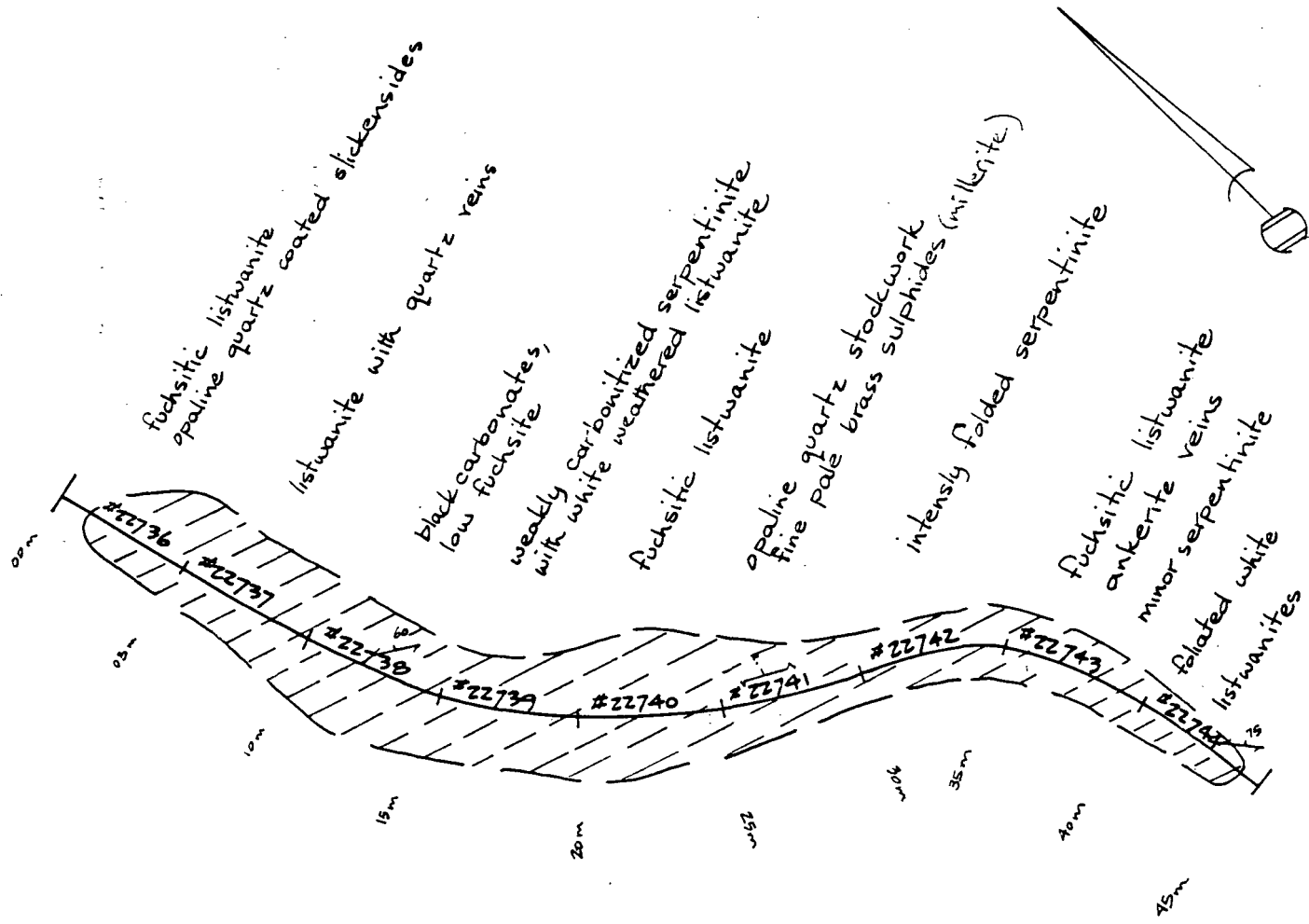
**Description:** The ultramafics outcrop as black to dark green, waxy textured and foliated serpentinite. A light to dark

brown colored serpentinite occurs locally in the selvage of quartz veins. Large areas of the serpentinite have been hydrothermally altered to two main facies:

i) Listwanite - brilliant light green and white layered rock. Medium grained with alternating (to 0.3cm) layers of quartz-carbonate and fuchsite-carbonate. Seams and disseminations of medium to fine grained magnetite locally make up to 2% of the rock. The rock is banded and rusty or buff on weathered surfaces.

ii) Ankerite - buff to rust brown; medium to fine grained with occasional faint foliation fabric.

**Mode of occurrence:** The Nahlin Ultramafic body is spatially associated with the Nahlin Fault (see fig. 2.1). Composed mainly of peridotite the body is believed to be an Alpine type ultramafic occurrence (Monger, 1975). The peridotite is completely serpentinitized in the area of Opal Lake. The serpentinite has been strongly carbonitized along the Nahlin Fault, to both ankeritic and listwanitic alteration facies.



Sample	#22736	#22737	#22738	#22739	#22740	#22741	#22742	#22743	#22744
Au ppb	<5	<5	<5	<5	<5	<5	<5	<5	<5
As ppm	30	31	32	54	13	<5	<5	14	75
Pb ppm	15	42	142	76	50	39	49	101	56
Cr ppm	332	358	244	225	282	854	636	453	294
Ni ppm	2642	967	425	451	766	1427	418	1046	705
Sr ppm	48	103	166	200	54	14	15	43	80

LEGEND ~

- Trench exposure
- Chip sample width
- Foliation
- Shear fracture
- #22736 • Sample number

EQUITY SILVER MINES LTD.

OPAL LAKE PROJECT

ATLIN MINING DIVISION 104J/13W

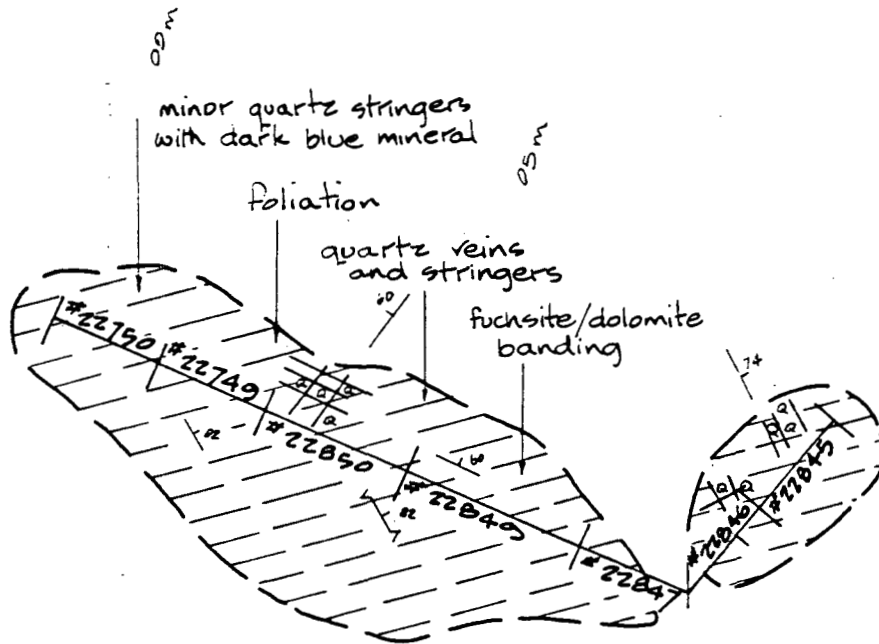
LITTLE OPAL TRENCH  
 5m SKIP CHIP  
 GEOCHEMISTRY

0 5 10  
 Scale 1:250 (metres)

Date: January 1990  
 Drawn by: JW/vh

Figure No  
 Z.2.2a

Prepared by: STETSON RESOURCE MGT. CORP.

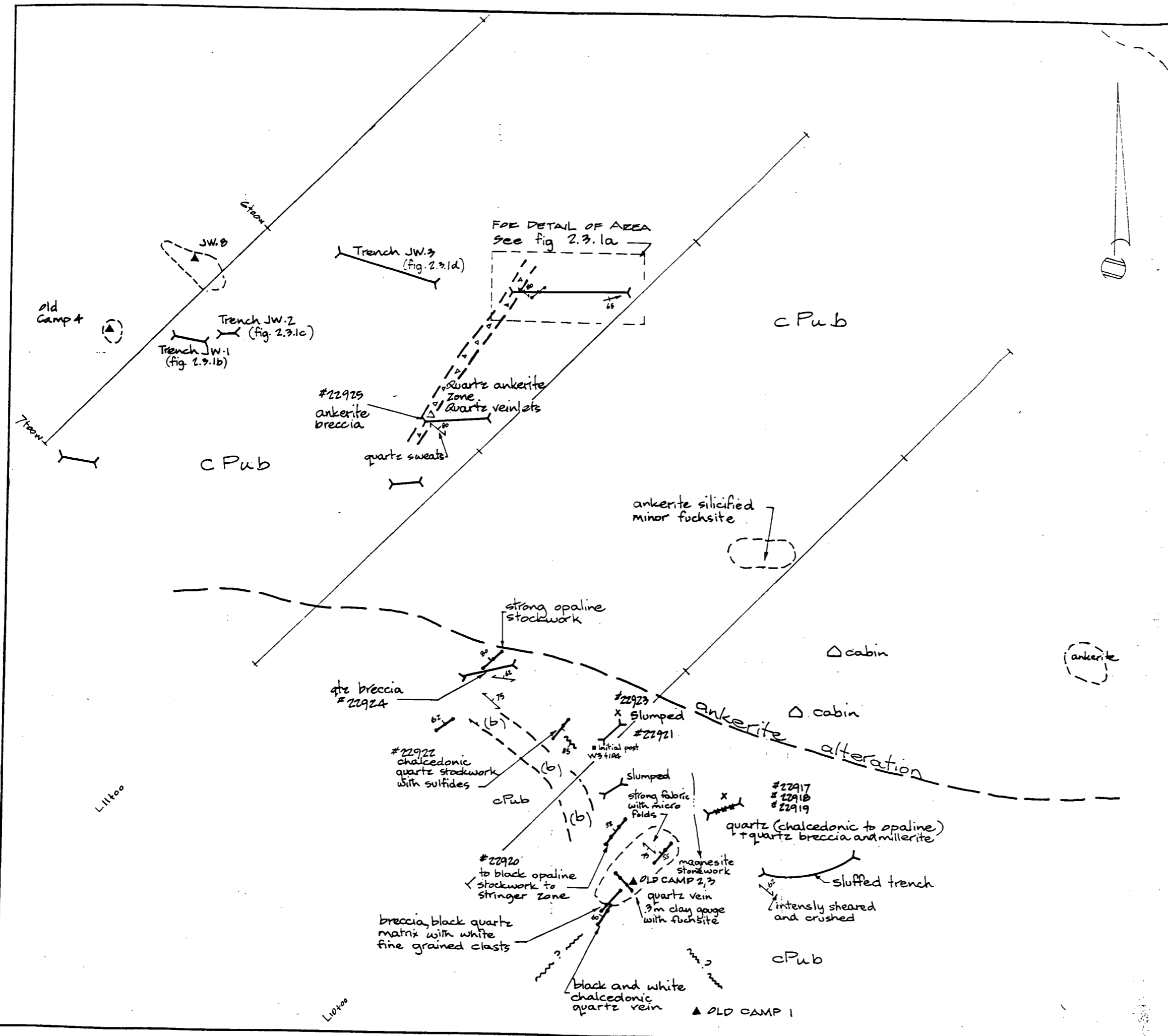


Sample	#22750	#22749	#22850	#22849	#22848	#22847	#22846	#22845
Au ppb.	13	43	26	78	22	0	16	9
Ag ppm.	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
As ppm.	180	181	218	177	214	195	183	147
Ba ppm.	13	15	20	14	19	29	47	42
Cr ppm.	361	390	414	372	376	566	450	529
Ni ppm.	1549	1495	1334	1376	1391	1465	1433	1397

LEGEND ~

- Trench exposure
- Quartz veins/veinlets
- Foliation
- Fuchsite/dolomite banding
- shear, fracture

EQUITY SILVER MINES LTD.	
OPAL LAKE PROJECT	
ATLIN MINING DIVISION	1042/
TRENCH No. 4	
1.5m CHIP SAMPLES	
 Scale 1:100 (metres)	
Date: January 1990	Figure No. 2.2.2b
Drawn by: JW/YH	



### LEGEND ~

- cPH · Horsefeed limestone
- cN · Nakina metabasalts
- cPub · Nahlin serpentine
- Trench exposure
- Mineralized quartz vein
- Alteration contact
- b · Brown serpentine
- Trench
- Chip sample width
- ▲ 22917 · Sample numbers/name
- Foliation
- Fuchsite/dolomite banding
- Breccia

**SAMPLE VALUE RESULTS**

Sample No.	Au	Ag	Pb	Zn	Ni
JW.3	7	45	12	446	1971
22917	45	343	12	389	6336
18	45	543	11	375	720000
19	45	242	16	384	13954
20	5	226	10	393	2385
21	163	215	17	376	1487
22	523	190	27	459	1446
23	167	119	8	360	791
24	213	171	5	259	1544
25	293	183	33	589	1392
Old Camp 1	45	131	9	419	270
2	23	182	35	403	13566
3	45	13	24	696	4157
4	45	45	25	717	1352

**EQUITY SILVER MINES LTD.**

**OPAL LAKE PROJECT**  
ATLIN MINING DIVISION 1043/

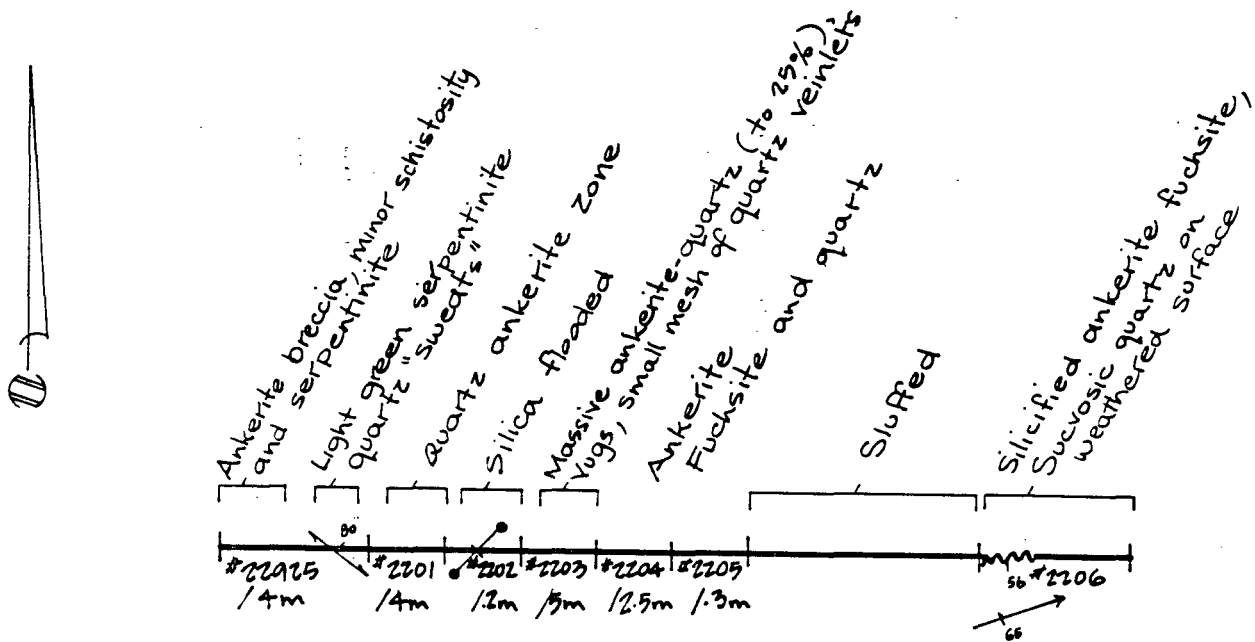
**NICKEL CITY SHOWING  
GEOCHEMISTRY and  
GEOLOGY**

Scale 1:1250

Date: Jan. 1990  
Drawn by: WD/un

Figure No. 2.3.1





Sample	#22025	#2201	#2202	#2203	#2204	#2205	#2206
Au	293	17	9	10	13	13	14
Sb	80	39	40	52	80	73	50
As	183	126	78	134	215	181	169
Ni	1392	1381	868	1485	1821	968	1335

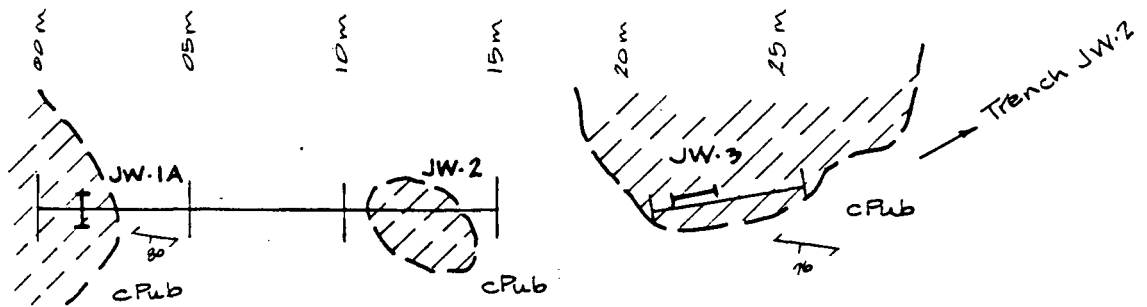
LEGEND ~

- Chip sample with number and width in metres
- quartz vein
- Foliation
- slickensides
- Fault

<b>EQUITY SILVER MINES LTD.</b>	
<b>OPAL LAKE PROJECT</b>	
ATLIN MINING DIVISION	104J/
<b>INSET No. 1</b>	
<b>TRENCH D-1</b>	
 Scale 1:125	
Date: January 1990 Drawn by: ND/vk	Figure No. 2.3.1a

silicification  
with minor fuchsite

chloritic



LEGEND ~

- cPH · Horsefeed limestone
- cN · Nakina metabasalts
- cPub · Nahlin serpentinite
- Trench exposure
- · Chip sample width
- f/80 · Foliation
- f/100 · Fuchsite/dolomite banding

Sample	#JW.1a	#JW.2	#JW.3
Au ppb	85	<5	<5
Ag ppm	<0.2	<0.2	<0.2
Ba ppm	15	34	6
Cr ppm	422	1464	1434
Ni ppm	1088	2199	1751

EQUITY SILVER MINES LTD.

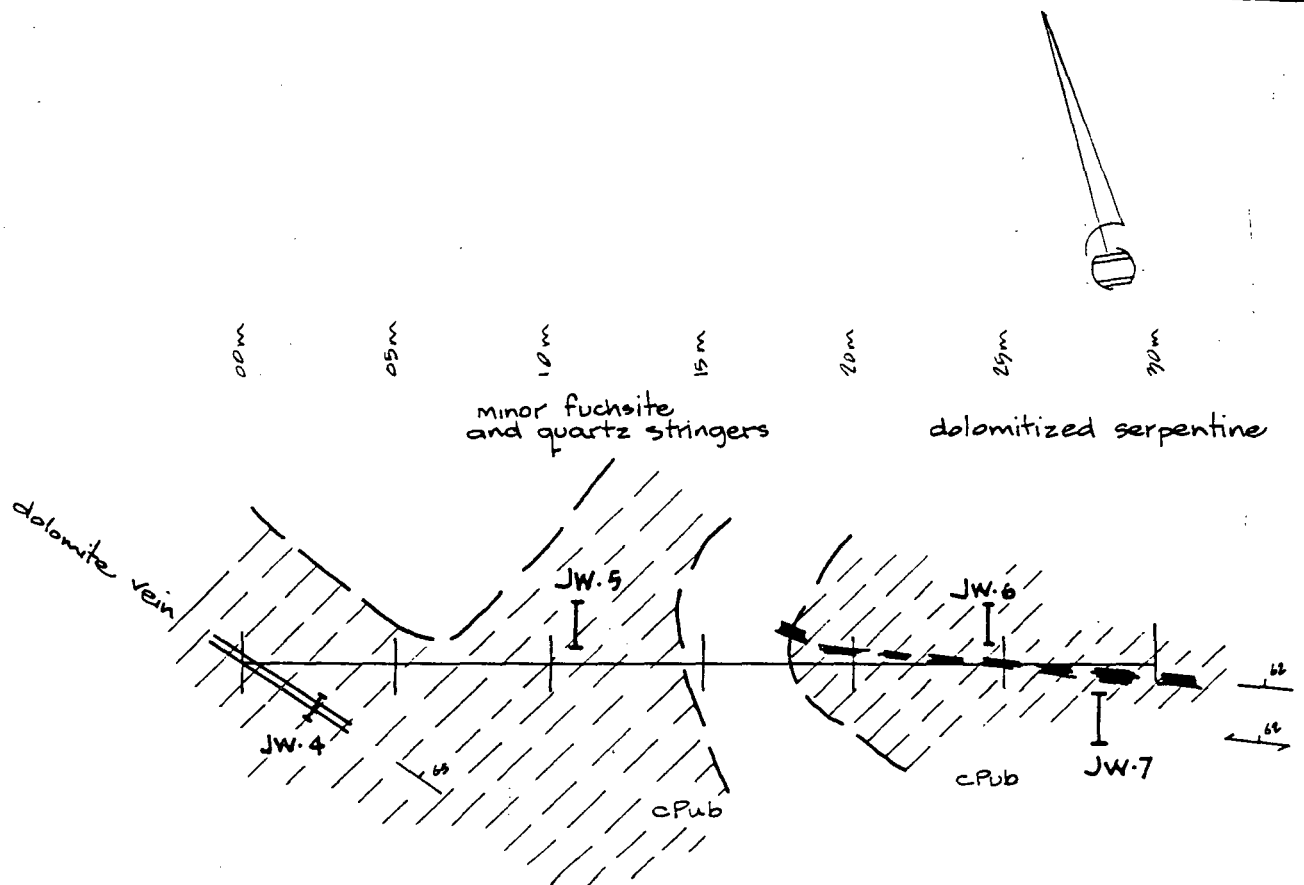
OPAL LAKE PROJECT  
ATLIN MINING DIVISION 1045/13W

TRENCH JW.1

Scale 1: 250 (m)

Date: Jan 1999  
Drawn by: JW/vh

Figure No.  
2.3.16



LEGEND ~

- cPH · Horsefeed limestone
- cN · Nakina metabasalts
- cPub · Nahlin serpentinite
- Trench exposure
- Alteration contact
- Chip sample width
- Foliation
- Fuchsite/dolomite banding

Sample	*JW.4	*JW.5	*JW.6	*JW.7
Au ppb	<5	<5	<5	<5
Ag ppm	<0.2	<0.2	<0.2	<0.2
Pb ppm	19	71	12	127
Cr ppm	176	1301	444	1298
Ni ppm	761	1847	1292	1470

EQUITY SILVER MINES LTD.

OPAL LAKE PROJECT

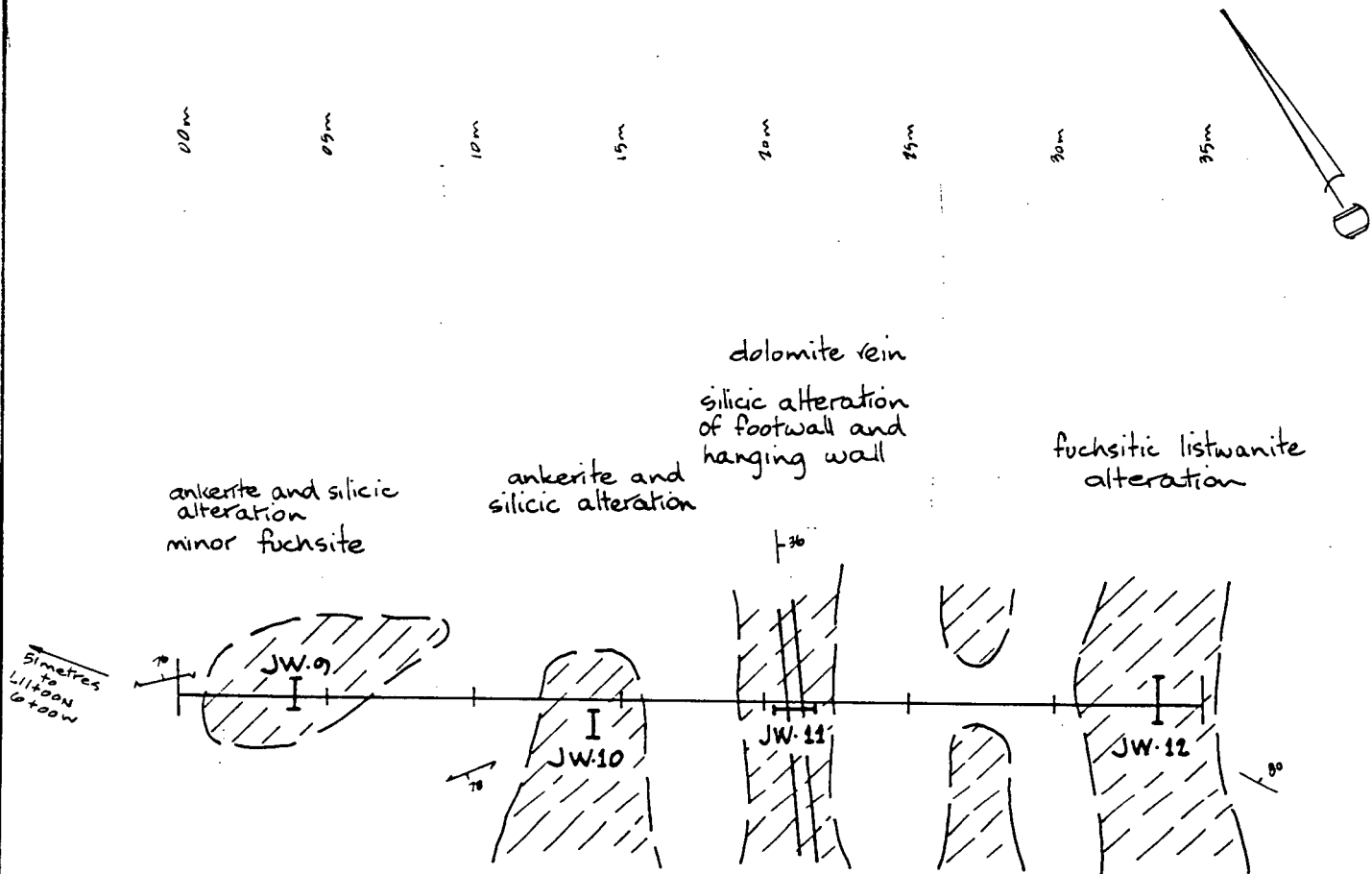
ATLON MINING DIVISION 104J/

TRENCH JW. 2

Scale 1:250 metres)

Date: Jan 1990  
Drawn by: J.W./M

Figure No.  
2.3.1c



Sample	#JW.9	#JW.10	#JW.11	#JW.12
Au ppb	<5	6	<5	
Ag ppm	<0.2	<0.2	<0.2	
Ba ppm	32	20	20	
Cr ppm	305	477	295	
Ni ppm	920	1097	920	

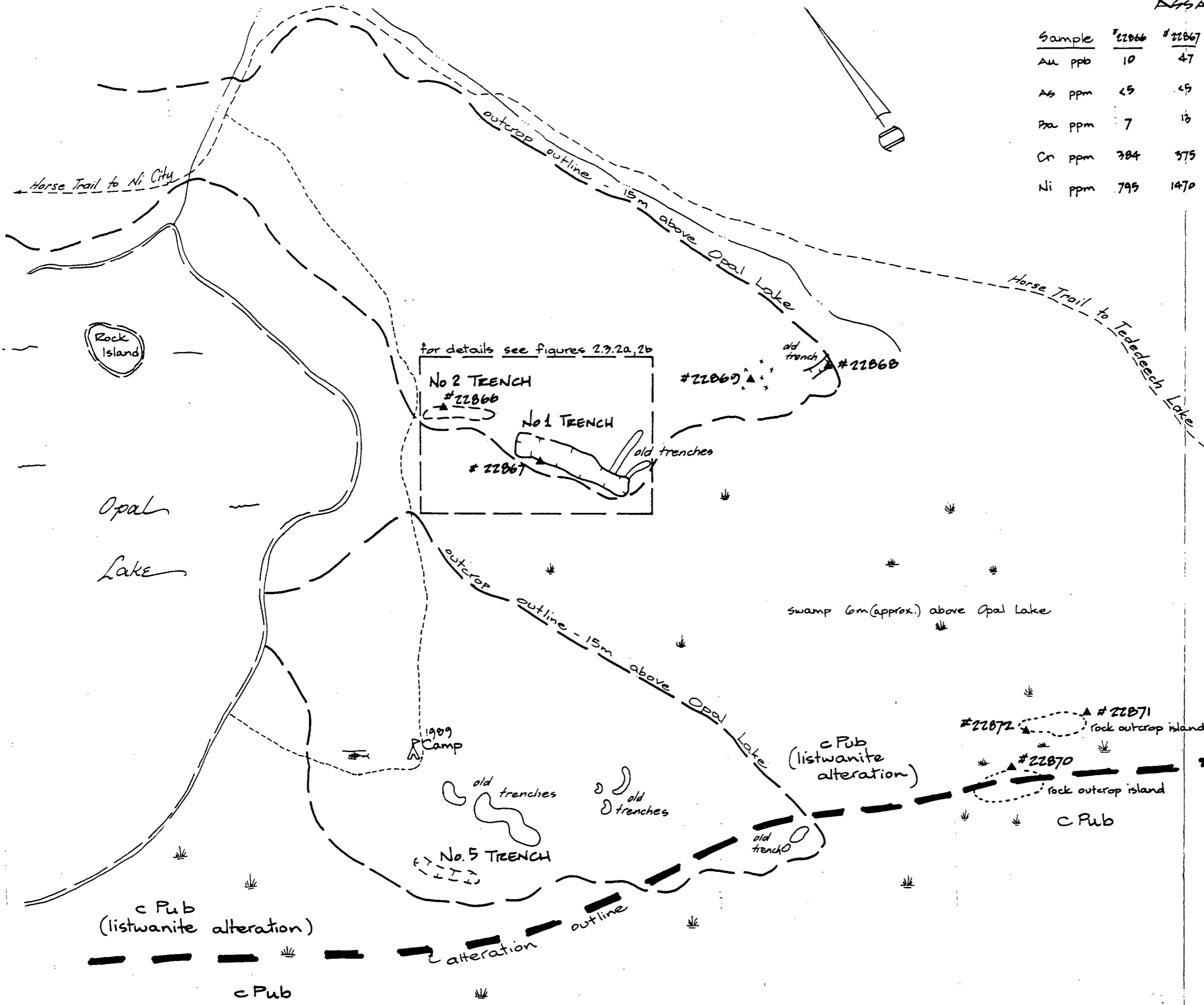
LEGEND ~

- (//) Trench exposure
- Chip sample width
- / / Foliation
- + / Fuchsite/dolomite banding
- / - Shear, fracture

<b>EQUITY SILVER MINES LTD.</b>	
<b>OPAL LAKE PROJECT</b>	
ATLIN MINING DIVISION <span style="float: right;">104J/13W</span>	
<b>TRENCH JW.3</b>	
<p>Scale 1: 250 (metres)</p>	
Date: January 1990	Figure No. 2.3.1d
Drawn by: JW/vh	

ASSAY RESULTS

Sample	#22866	#22867	#22868	#22869	#22870	#22871	#22872
Au ppb	10	47	52	<5	<5	<5	8
As ppm	<5	<5	21	<5	<5	190	49
Pba ppm	7	13	22	4	184	25	73
Cr ppm	384	375	299	315	1070	273	109
Ni ppm	795	1470	1942	126	1223	577	395



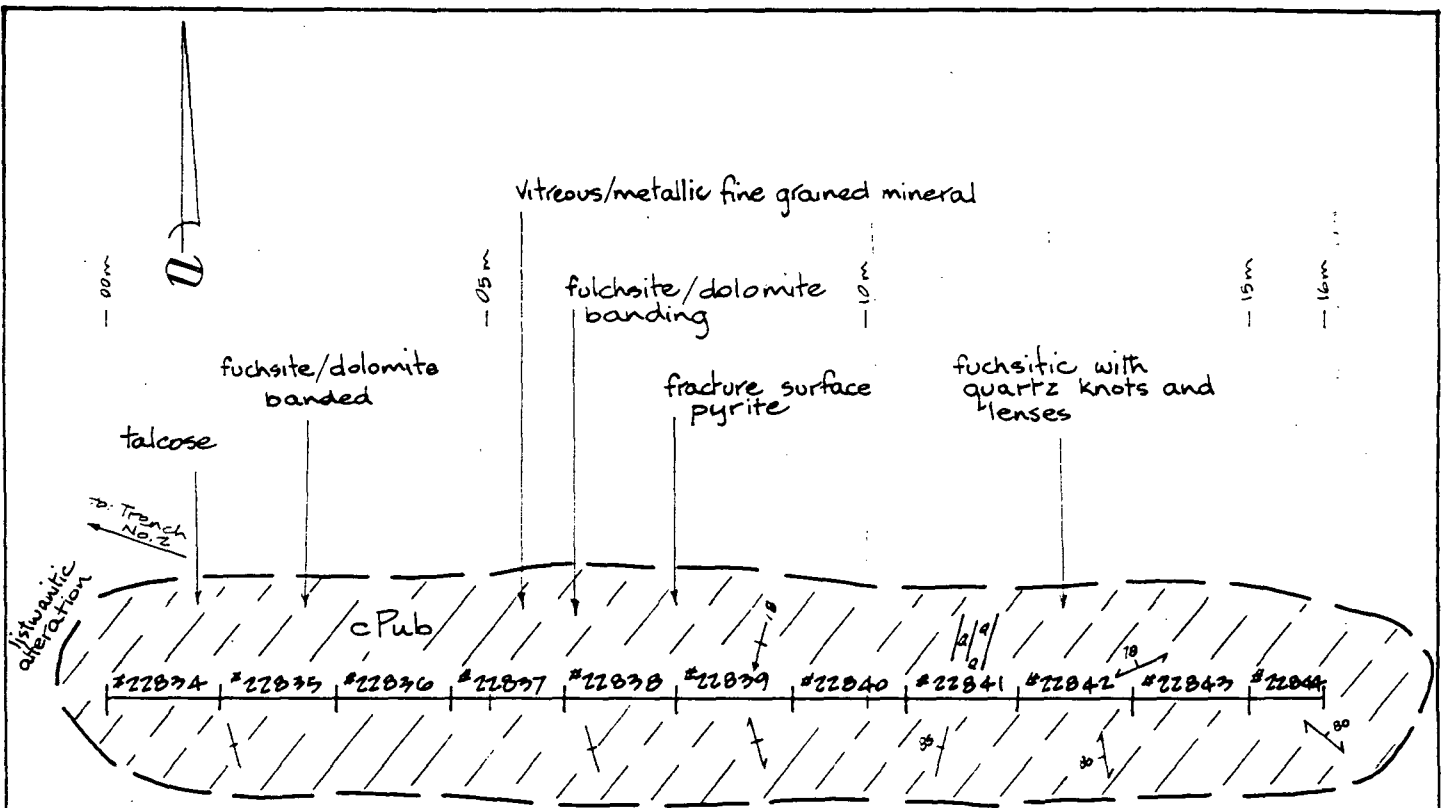
LEGEND ~

- c Pub · Nahlin serpentinite
- Outcrop
- x x · Exposure of listwanitic alteration
- ▲ · Rock Sample
- Alteration outline
- ⚡ · Swamp
- Detail area

**EQUITY SILVER MINES LTD.**  
**OPAL LAKE PROJECT**  
 ATLIN MINING DIVISION 104J/  
**CAMP ZONE**  
**GEOCHEMISTRY and**  
**GEOLOGY**

Scale 1:500

Date: Jan 1990  
 Drawn by: WD/vh  
 Figure No 2.3.2



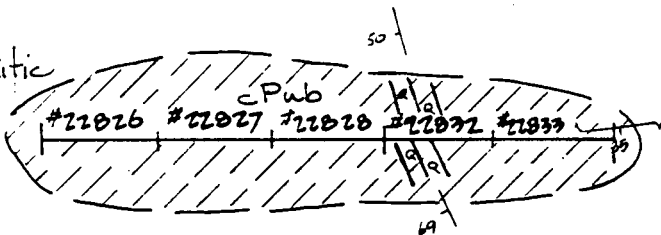
sample	#22834	#22835	#22836	#22837	#22838	#22839	#22840	#22841	#22842	#22843	#22844
Au ppb	18	6	14	36	15	20	6	26	0	34	12
Ag ppm	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Ba ppm	23	20	10	15	14	14	21	42	9	12	15
Cr ppm	864	430	430	451	595	669	505	467	323	327	365
Ni ppm	1347	1430	1393	1232	1492	1487	1260	1323	1040	1180	1241

LEGEND ~

- cPub · Nahlin serpentinite
- Trench exposure
- Quartz veins/veinlets
- Foliation
- Fuchsite/dolomite banding
- Slickensides

<b>EQUITY SILVER MINES LTD.</b>	
OPAL LAKE PROJECT	
ATLIN MINING DIVISION	104J/13W
<b>TRENCH No. 1</b>	
<b>1.5 M CHIP SAMPLES</b>	
Scale 1:100 (metres)	
Date: January 1990	Figure No. 2.3.2a
Drawn by: J.W./M	

listwanitic  
alteration



Sample	# 22826	# 22827	# 22828	# 22832	# 22833
Au ppb	108	31	37	20	19
Ag ppm	<0.2	<0.2	<0.2	<0.2	<0.2
Ba ppm	18	16	12	13	16
Cr ppm	733	424	356	285	417
Ni ppm	1275	1217	1175	914	1178

## LEGEND

• Nahlin serpentinite

• Trench exposure

• Quartz vein, veinlets

• Fuchsite/dolomite banding

• Shear zone

# 22827 • Sample number

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ATLIN MINING DIVISION 104J/13W

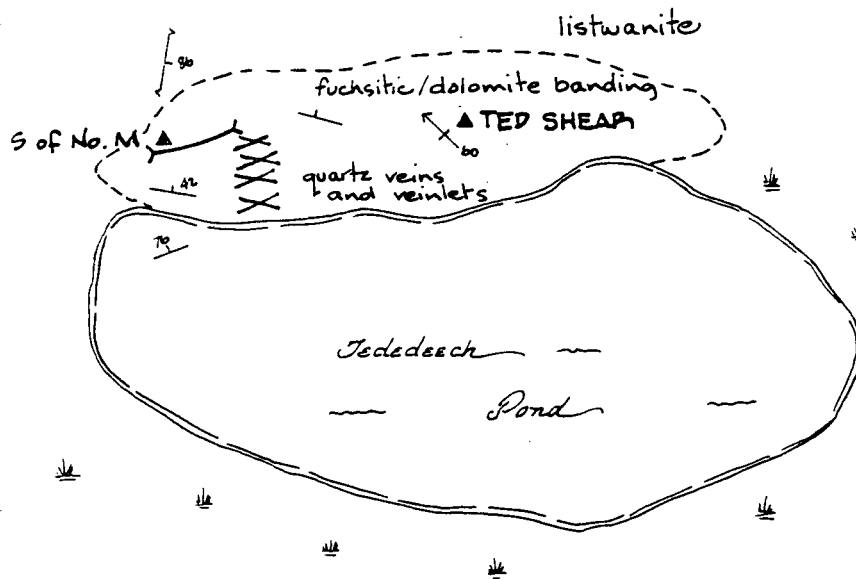
**TRENCH No. 2**

**1.5 m CHIP SAMPLES**

Scale 1:100 (metres)

Date: January, 1990  
Drawn by: JW/vk

Figure No.  
2.3.2b



Sample	S of No. M	TED SHEAR
Au ppb	30	<5
Ag ppm	<0.2	<0.2
Pb ppm	10	10
Cr ppm	400	394
Ni ppm	1065	927

### LEGEND ~

- . Outcrop
- . Quartz vein and veinlets
- . Trench
- . Fuchsite/dolomite banding
- . Slickensides
- . Shear, fracture

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OPAL LAKE PROJECT  
ATLIN MINING DIVISION 104J/13W

POND ZONE

Scale 1:1000(metres)

Date: January 1990  
Drawn by: JW/wh

Figure No.  
2.3.3



### 2.2.3 Structure

Structure on the property is predominated by the northwest trending Nahlin fault which traverses the property. A carbonate alteration zone marks the trace of the structure from south of Tededeech Lake to 7 km north west of Opal Lake. The geophysical survey delineates several splay and parallel structures underlying the grid ( see Appendix I ). Within the Nickel City area, fracture zones host quartz-carbonate veins and breccias mineralized with nickel and iron sulphides. These fracture zones are oriented at high angles to the northwest trend of the Nahlin Fault

### 2.3 Property Mineralization and Alteration

A listwanitic-ankeritic alteration zone is sporadically exposed along the Nahlin Fault structure, and can be traced for at least 15 kilometers. Outcrops of fuchsitic listwanite are exposed to the northeast of Opal Lake, and on the north shore of a small pond near Tededeech Lake (Tededeech Pond). To the west of Opal Lake, millerite, pyrite, and minor arsenopyrite (?), reveal multi-episodic quartz-ankerite breccias in a structurally disrupted zone of the Nahlin Fault. Left lateral movement on the Nahlin Fault may have

provided "en echelon" fault control for the late hydrothermal activity in this zone. Three areas of the property, the Nickel City zone, the Camp zone, and the Pond zone are discussed below.

**Nickel City Zone:** The Nickel City zone is located to the west of Opal Lake, where extensive trenching was carried out in 1957 to test the nickel potential of the property. Roughly twenty trenches or blast pits were located in the Nickel City area, but most of these trenches were too small or eroded to warrant detailed mapping or sampling. Nine trenches exposing bedrock were chip sampled, and four of these trenches were mapped and rock chip sampled along trench axes at measured intervals. (fig. 2.3.1)

The Nickel City zone returned the highest gold values of the property. Values of up to 523 ppb Au, were returned from small opaline and black quartz veins hosted by serpentinite (fig. 2.3.1). Trace element concentrations of  $>2\%$  Ni, 543 ppm As and 372 ppm Sr were detected in quartz and chalcedony breccias exposed in trenches and outcrops immediately south of the 1957 camp site. The breccias are characterized by matrix supported, fine-grained, highly altered clasts, which are themselves brecciated. This fabric indicates several

episodes of hydrothermal activity altered these breccias. A definite protolith for the altered fragments is difficult to determine in hand sample, but south of the Nickel City area, serpentinite selvage in opaline quartz breccias is variably altered. Millerite and pyrite are confined to the vuggy, black, chalcedonic quartz matrix, suggesting late hydrothermal emplacement under epithermal conditions.

The breccias and veins generally strike 40 to 50 degrees, dip steeply to the west, and are hosted by both ankerite and relatively unaltered serpentinite. Limited exposure impeded detailed structural analysis, but geophysical data collected from this area indicates an offset in the Nahlin Fault trace.

**Camp Zone:** The Camp Zone is located to the west of Opal Lake, where several exposures of bright green and buff fuchsitic listwanite were trenched by Mr. Asp in 1988. The listwanites are generally moderately foliated and host anastomosing magnetite seams which roughly parallel foliation. Quartz and dolomite veinlets and stockwork crosscut the listwanite foliation. Elevated gold, arsenic and other trace element concentrations tend to be associated with these veins. (fig. 2.3.2)

**Pond Zone:** To the southwest of Tededeech Lake, an outcrop on the north shore of a small pond (Tededeech Pond) exposes weakly foliated fuchsitic listwanite (fig. 2.3.3). No mineralization was observed in the listwanite, or in late stage quartz veinlets crosscutting foliation. Rock chip sample #S.of.N.M., collected from the quartz veinlets, returned 30 ppb Au.

### 3.0 GEOCHEMICAL SURVEYS

#### 3.1 Introduction

A total of 532 soil samples and 100 rock samples were collected from the property. All samples were analyzed for gold and 29 elements using standard fire assay and spectrographic analysis techniques. Soil geochemical analyses for Au, As, Ba, Co, Cu, Cr, Ni, and Sb are plotted on figures 3.1 to 3.5. Rock sample locations and analyses for Au (+/- Ag, As, Ba, Sb, Cr, Ni, and Sr) are plotted on figures 2.2.1 to 2.3.3.

#### 3.2 Soil Geochemistry

The A-horizon of the soil in the area is well developed due to the low topographic relief and poor drainage. The

B-horizon is moderately developed on drained slopes, but poorly developed and difficult or impossible to collect from low lying areas. All soil samples were inspected in the field, and resampled, if organic content exceeded 20% of the sample.

### 3.2.1 Technique

At all sample stations, the nature of the sample (soil, sand, clay, rock or humus), and the color of the sample (white, light brown, dark brown, orange - brown, orange, or black) were recorded for future reference.

All samples were submitted to Bondar-Clegg Laboratories for analysis. Details of laboratory techniques are located in Appendix V.

### 3.2.2 Statistics

Standard cumulative population distribution statistical analyses were carried out on all soil samples collected, utilizing C. Stanley's PROBPLOT program (1988). Actual cumulative frequency distributions for each element were compared with theoretical distribution models to facilitate multi-model distribution decomposition. For all elements

values which exceeded detection limits were reset to the detection limit value. For element values below detection limits, the values were reset to one half of the lower detection limit. Anomalous levels were chosen for each element based on the mode of distribution.

Elements with a single population lognormal distribution had anomalous and highly anomalous levels chosen at 1.5 and 2 standard deviations from the population mean, and the mean was established as the threshold level for the distribution. Elements which exhibited multi-modal lognormal distribution were examined graphically, and divided into background and anomalous populations. Anomalous levels were chosen at inflection points of the background and anomalous populations. Highly anomalous levels were chosen at the mean of the upper population. Elements with fewer than 25% of values above detection limits had anomalies chosen at user defined levels.

The statistical results for each element are summarized in Appendix IV.

### 3.2.3 Results

The following observations were made on the soil geochemistry data. (fig. 3.1 to 3.5)

**Zone A:** Anomalous concentrations of gold (up to 133 ppb Au), arsenic (18 ppm As), barium (up to 344 ppm Ba), cobalt (up to 92 ppm), chromium (661 ppm Cr), nickel (up to 951 ppm), and antimony (13 ppm Sb) are located within Zone A. Two coincident Au, Ni, and Co anomalies are found in this zone, one at L3+00S,3+25E, and the other at L3+00S,4+50E.

Zone A is centered over the eastern disruption of the C2 conductor, which traces the Nahlin Fault. A cluster of anomalous nickel values are outlined by the zone (fig. 3.6).

**Zone B:** Anomalous concentrations of gold (up to 60 ppb Au), arsenic (22 ppm As), barium (up to 347 ppm Ba), cobalt (up to 91 ppm Co), copper (up to 150 ppm Cu), chromium (1830 ppm Cr), nickel (up to 1558 ppm Ni), and antimony (27 ppm Sb) are located within Zone B. Two coincident Au, Cr, Ni, and Co anomalies are located in the zone, one at L5+00N,4+50W, and the other at L3+00N,1+25W. One coincident Au, Sb, and Co anomaly is located at L7+00N,5+00W.

Zone B covers alteration flanking a section of the Nahlin Fault, traced by conductor C2. The zone is bounded to the north by the Nickel City Zone, and to the south by Zone A.

Zone C: Anomalous concentrations of gold (up to 14 ppb Au), barium (up to 411 ppm Ba), cobalt (up to 121 ppm Co), copper (up to 66 ppm Cu), chromium (up to 1110 ppm Cr), nickel (up to 1664 ppm), and antimony (12 ppm Sb) are located within Zone C. One coincident Au, Cr, Ni, and Co anomaly is located at L5+00N,4+25E.

Zone C covers conductor C5, coincident with the boundary of magnetic unit D4, and is interpreted as a mineralized fault contact between limestone and serpentinite.

Zone D: Anomalous concentrations of gold (up to 16 ppb Au), barium (up to 369 ppm Ba), cobalt (up to 65 ppm Co), copper (up to 67 ppm Cu), nickel (up to 830 ppm Ni), and antimony (19 ppm Sb) are located within Zone D. Gold anomalies are weak in this zone, and are not coincident with other trace element anomalies

The narrow Zone D covers a strong conductor (C4) in limestone, interpreted by Matich as possible sulphide mineralization.



**Nickel City Zone:** Anomalous concentrations of gold (up to 219 ppb Au), barium (up to 326 ppm Ba), cobalt ( up to 178 ppm Co), chromium (1647 ppm Cr), nickel (up to 3686 ppm Ni), and antimony (30 ppm Sb) are located within the Nickel City Zone. The highest gold value returned from the soil survey occurs as a spot anomaly of 219 ppb located at L12+00N,7+00W. Two coincident Ni, Cr, Sb, and Co anomalies are located within the zone, one at L10+00N,6+50W, and the other at L10+00N,6+25W.

The Nickel City Zone covers a millerite occurrence in a structurally disrupted section of the Nahlin Fault.

#### **Summary**

Several observations can be made regarding plots of the soil survey data. Geological units on the property with good geochemical contrast were not indicated, mineralized showings were represented as only weak or spot anomalies, and continuity of anomalies between gridlines was poor.

The erroneous response of the soil geochemistry is likely related to the physiography of the area. The low relief, poorly drained region has developed a soil cover with a thick

A-horizon, which contaminates the generally poorly developed B-horizon.

The gold values from the soil survey show poor continuity between gridlines, but good continuity along gridlines. This suggests a horizon exists, probably the C-horizon, where gold concentrations better represent gold concentrations in the underlying bedrock. Data recorded on each soil sample show a generally positive correlation between gold concentrations and sample depth, which supports this assumption.

### 3.3 Rock Geochemistry

The focus of the survey was to determine the previous metal and trace element concentrations in the extensive listwanite alteration zone. Fuchsitic listwanites, nickeliferous opaline quartz and dolomite breccias, quartz and dolomite veins, ankerite zones and pyritic serpentinites were sampled. Rock sample descriptions are listed in Appendix III.

#### 3.3.1 Technique

Field sampling techniques included representative chip sampling across measured widths, select sampling, or grab

sampling. The majority of the rock chip samples were submitted to Bondar-Clegg Laboratories of North Vancouver for analysis. Details of laboratory techniques are located in Appendix V.

### 3.3.2 Results

A total of 100 rock samples were collected and analyzed for Au and 29 elements. The sample distribution was subdivided into 5 basic lithological groups as follows:

- A: **Alteration Samples:** 62 samples, includes listwanite and ankerite altered zones
- B: **Breccia Samples:** 16 samples, includes chalcedonic quartz, opaline quartz, and quartz-carbonate breccia primarily from Nickel City area
- C: **Vein Samples:** 9 samples, includes quartz and dolomite veins, and quartz vein float
- D: **Ultramafic Samples:** 12 samples, includes fresh and carbonitized serpentinites
- E: **Limestone Sample:** 1 sample of white-weathered recrystallized limestone

**A: Alteration Samples**

Listwanites form a 200 to 300 metre wide alteration zone, traceable for at least 15 km along trend. The listwanites returned variable gold values. Sample #22826, from listwanite in Trench #2, returned 108 ppb gold (fig. 2.3.2b). Arsenic and antimony values generally correlate with gold values. Ankeritic alteration zones along the listwanite trend returned low gold values.

Chromium and nickel concentrations are higher in the listwanite and ankerite zones than is typical for carbonate rocks, but are generally slightly lower than concentrations detected in the serpentinites. The elevated chromium and nickel concentrations indicate the listwanites and ankerites are derived from the serpentinitized ultramafics.

**B: Breccia Samples**

The opaline and chalcedonic quartz-ankerite breccias are generally low in gold but enriched in nickel. The presence of late stage nickel mineralization (millerite), which reheals the vuggy, opaline quartz breccias, is responsible for nickel concentrations in excess of 2%. Sample #22925, from ankerite breccia near L11+00N, 6+00W in the Nickel City zone, returned 293 ppb Au, and 183 ppm As.

Late dolomite breccias, which cut all units on the property, have low quartz contents and are gold-poor.

#### C: Vein Samples

Late stage black chalcedonic quartz veins cutting ankerite and weakly carbonitized serpentinite in the Nickel City zone, returned some of the higher gold values of the rock geochem survey. Sample 22922, taken across 2.5 metres of silicic alteration near L10+00N,6+10W, returned the highest gold assay of 523 ppb Au (fig. 2.3.1).

Late stage quartz veins and stockwork, which cut listwanitic alteration near the Camp Zone, and the Pond Zone, returned gold values of up to 30 ppb Au (figs. 2.3.2a and 2.3.3 ). Arsenic values generally correlate with gold values. Late dolomite veins generally have gold values below detection limits.

A quartz vein float sample (#22830) collected from the Tededeech trail, returned anomalous barium concentration of 1823 ppm , but no gold (fig 2.2.1). Quartz float sample #22831 from the same area returned 31 ppb gold.

**D: Ultramafic Samples**

The Nahlin serpentinites are not significantly mineralized (minor fracture surface pyrite), but are possibly the source for later nickel mineralization (millerite) found in the Nickel City area breccias. Chromium and nickel concentrations in the serpentinites are elevated (up to 3556 ppm Ni and 1285ppm Cr)

**E: Limestone Sample**

The recrystallized limestones mapped near Opal Lake were not visibly mineralized in hand specimen. One sample was analyzed for its trace element geochemistry and gold, but no significant concentrations were detected.

**Summary**

From limited rock sampling on the property to date, the main economic targets are chalcedonic quartz veins crosscutting ankerite and serpentinite. The best gold values are associated with opaline and chalcedonic quartz veins cutting ankeritic alteration within the Nickel City area.

Gold assays from two old drill core samples of ankerite and carbonitized serpentinite collected from the north shore of Opal Lake returned 305 and 242 ppb gold, respectively. These

results indicate gold concentration in the alteration zone may increase with depth.

## 5.0 CONCLUSIONS

The geology, structure, alteration, and mineralization found on the Opal Lake property indicate an environment with excellent potential to host a gold deposit (Buisson, et al, 1985). Serpentinized peridotites along Nahlin Fault have been locally hydrothermally altered to listwanitic, ankeritic, and silicic facies. The persistence of the alteration, exposed for at least 15 km along the fault, suggests a large hydrothermal system affected the area. Significant nickel mineralization and low gold concentrations are associated with this alteration zone. An area on the edge of the alteration zone cut by chalcedonic quartz breccias, stockwork and veins, is well mineralized with millerite (Ni > 2%) and finely divided black sulphides (arsenopyrite?) with gold values to 523 ppb.

Although outcrop in the property area is limited (< 5%), geophysics has proved an effective tool for mapping lithologies and delineating structure and possible mineralization.

Rock geochemistry on the property indicates a good correlation between gold and arsenic, and a weak correlation



between gold, cobalt, and antimony.

Soil geochemistry did not correlate well with underlying lithology, or clearly define continuous anomalous zones. Further investigation of the geochemistry of the soil horizons is required.

In conclusion, results indicate gold is associated with a large hydrothermal system, controlled by the Nahlin Fault. The hydrothermal system acted to carbonitize serpentinites related to the Nahlin ultramafic body, forming an extensive listwanite alteration zone. Finally, complex structure found in the Nickel City zone appears to be related to a flexure in the Nahlin Fault.

## 6.0 RECOMMENDATIONS

1. The present grid should be extended to the southwest, southeast, and the northwest along the Nahlin Fault for further geophysical and geochemical surveys.
2. Gridlines should be established at 50 metre intervals.
3. A detailed grid should be established over the Nickel City zone with gridlines cut perpendicular to the trend of mineralization.
4. Investigation of soil sample stations which returned anomalous gold should be undertaken to determine the proper sampling horizon.
5. Soil sampling should be carried out on the extended and detailed grids, following the conclusion of the previous recommendation.
6. Aggressive hand trenching should be carried out over the best conductors and soil sample sites which returned highly anomalous gold values.
7. Nickel City mineralization should be exposed along trend by trenching and ground structuring.
8. The best targets developed by the above recommendations should be tested with diamond drilling.
9. Selected rock sample pulps should be analyzed for platinum group elements.

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**STATEMENT OF QUALIFICATIONS**

**NAME:**

Wetherill, J.F.

**PROFESSION:**

Geologist - Engineer in Training

**EDUCATION:**

1987 B.A.Sc. Geology -  
University of British Columbia

**EXPERIENCE:**

1987 - Present: Geologist with  
Statson Resource Management Corp.  
Field Supervisor for exploration  
programs involving geology, geo-  
chemistry, and geophysics in B.C.  
and Yukon.

1986, June - August: Field Assistant  
-Geologist involved with geological,  
geochemical and geophysical aspects  
of exploration programs in B.C.

COST STATEMENT

Project Preparation

Printing		\$	76.00
Maps		\$	43.50
Drafting		\$	176.80
J. Wetherill	3 days @ \$225/day	\$	675.00
B. Dynes	2 days @ \$200/day	\$	400.00
		=====	
			\$1,371.30

Field Personnel

PROJECT SUPERVISOR

J. Dupuis	(Aug 3,4,9-12) 6 days @ \$300/day	\$	1,800.00
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GEOLOGIST

J. Wetherill	(Aug 3,6-12) 8 days @ \$250/day	\$	2,000.00
--------------	---------------------------------	----	----------

FIELD TECHNICIANS

M. Pym	(Aug 3-12) 10 days @ \$175/day	\$	1,750.00
W. Landers	(Aug 3-12) 10 days @ \$175/day	\$	1,750.00
C. Milonas	(Aug 3-12) 10 days @ \$175/day	\$	1,750.00
R. Herzig	(Aug 3,8-12) 6 days @ \$175/day	\$	1,050.00

EDA OPERATOR

M. Djordjevich	(Aug 3-12) 10 days @ \$250/day	\$	2,500.00
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=====

\$13,950.00

Support

Mobilization/Demobilization:

Ford Bronco	2 days @ \$60.00/day	\$	120.00
	60 km @ \$0.15/km	\$	9.00
F250 4X4	2 days @ \$60.00/day	\$	120.00
	68 km @ \$0.15/km	\$	10.20
Helicopter	6.8 hrs @ \$750/hr	\$	5,100.00
Cessna 185	160 km @ \$1.80/km	\$	288.00
Beaver	160kmx6 @ \$2.25/km	\$	2,160.00
		=====	
			\$ 7,807.20

Support (cont)

Camp:		
Room	54 mandays @ \$25.00/manday	\$ 1,350.00
Board	54 mandays @ \$20.00/manday	\$ 1,080.00
Gasoline		\$ 212.50
Propane		\$ 368.40
General Supplies (Flagging, tags, etc.)		\$ 486.20
Communication (BC Tel)		\$ 78.90
Insured Shipping		\$ 342.60
Expiditing	8 hrs @ \$40/hr	\$ 320.00
		=====
		\$ 4,238.80

Equipment Rental

EDA Mag/VLF-EM : 10 days @ \$200.00/day	\$ 2,000.00
Generator : 10 days @ \$25.00/day	\$ 250.00
Computer : 10 days @ \$25.00/day	\$ 250.00
Radio Rental and Licenses: 4x10 days @ \$25.00/day	\$ 800.00
Chainsaws : 2X10 days @ \$25.00/day	\$ 500.00
Field Equipment : 10 days @ \$15.00/day	\$ 150.00
	=====
	\$ 3,950.00

Assays

Rock	
29 element ICP, Fire Assay Au, and Prep 100 rock samples @ \$20/sample	\$ 2,000.00
Soil	
29 element ICP, Fire Assay Au, and Prep 532 soil samples @ \$15/sample	\$ 7,980.00
	=====
	\$ 9,980.00

Contract Services

Geophysicist (Interpretex)	\$ 3,250.00
	=====
	\$ 3,250.00

Report Writing

Geologist 6 days @ \$250/day	\$ 1,500.00
Drafting 6 days @ \$200/day	\$ 1,200.00
Computer Time 12hrs @ \$40/hr	\$ 480.00
Reproduction	\$ 312.75
Supplies, Typing, Copying	\$ 115.60
	=====
	\$ 3,608.35
Subtotal	\$48,155.45
12% Administrative Overhead	\$ 5,778.65
	=====
TOTAL	\$53,934.10



**APPENDIX I**  
**GEOPHYSICAL REPORT**

## 1.0 INTRODUCTION

A geophysical program consisting of electromagnetic (VLF-EM) and magnetic surveys was carried out on a single grid located on the Opal Lake claim group in the Liard Mining Division near Dease Lake, B.C. The survey was carried out in August 1989.

## 2.0 OBJECTIVES

- to establish a correlation between magnetic minerals and mineralized trends,
- to test the effectiveness of VLF-EM in following possible mineralized trends and to establish new unrecognized conductive trends,
- to establish geophysical areas of interest for future exploration.

## 3.0 SURVEY SPECIFICATIONS

### Survey Parameters

- survey line separation - 100 m.
- survey station spacing - 12.5 m.
- VLF-EM and magnetic survey total 16.3 km.

### Equipment Parameters

- VLF-EM and Magnetic Surveys
  - Scintrex Omni Plus combined VLF-EM and magnetometer
  - Dip Angle (in-phase) and Quadrature (out-of-phase) measured in percent at each station
  - VLF-EM Field Strength measured at each station
  - transmitting stations used - NPM (23.4 kHz) - Lualualei, Hw.  
- NAA (24.0 kHz) - Cutler, Ma.
  - earth's total magnetic field measured in gammas (nT)
  - magnetic variations controlled by automatic magnetic base station recording every 30 seconds
  - instrument accuracy +/- 0.1 nT.

Equipment Specifications - see Appendix I

## 4.0 DATA

### Calculations

#### Total Field Magnetic Survey

Total field magnetic readings were individually corrected for variations in the earth's magnetic field using magnetic base station values. The formula used for magnetic corrections was;

$$CTFR = TFR + (DBL - BSR)$$

where: CTFR = Corrected Total Field Reading

TFR = Total Field Reading

DBL = Datum Base Level = 58400 nT.

BSR = Base Station Reading

## Presentation

- Cutler VLF-EM in-phase, out-of-phase and field strength readings are presented in profile form on Figure # G-1 at a scale of 1:2500
- Magnetic data were profiled and are presented on Figure # G-2 at a scale of 1:2500
- Magnetic data were contoured and are presented on Figure # G-3 at a scale of 1:2500
- The geophysical interpretation is presented on Figure # G-4 at a scale of 1:2500
- A magnetic model over line 600N is presented on Figure # G-5
- A magnetic model over line 800N is presented on Figure # G-6

## 5.0 INTERPRETATION

### Discussion of Results

Total field magnetic data over the Opal Lake grid area were noise free with no cultural sources observed. Magnetic readings range from 57400 nT. to 61000 nT. The magnetic datum value for the total field magnetic profile map, Figure # G-2, was determined by statistical analysis to be 58900 nT. This datum value, which graphically shows if a magnetic reading is above or below the mean value for the grid, was also the threshold between dashed and solid contours on the total field magnetic contour map, Figure # G-3.

Two magnetic units have been defined on the Opal Lake grid based on magnetic intensity and activity. The background magnetic environment in the survey area was quiet and exhibited magnetic readings lower than the mean value for the grid. These areas of background magnetic response, defined by dashed contours on the Total Field Magnetic Contour Map, Figure # G-3, are designated magnetic unit "M1".

Magnetic unit "M2" consists of several 100 m. to 200 m. wide, northwest trending magnetic high features characterized by steep magnetic gradients. "M2" is defined by solid contours on Figure # G-3. Total field magnetic profiles show that "M2" is often made up of a number of long and short wavelength magnetic anomalies. Most magnetic anomalies observed on the grid exhibited monopolar response. Where possible, individual magnetic high trends were delineated and labeled as magnetic lineaments. These magnetic high lineaments are designated "D1" to "D6" on Figure # G-3.

VLF-EM data were noise free and no cultural sources were observed. Only NAA, Cutler, Maine data were interpreted due to weak responses obtained by NPM, Lualualei, Hawaii. To obtain as much detail as possible the VLF-EM profiles were plotted at a vertical scale of 1 cm. to 10%.

Numerous VLF-EM conductors, generally trending northwest, were delineated over the Opal Lake grid. Important conductors are labeled "C1" to "C5" on Figure # G-1. ...3

## Conclusions

Magnetic results over the Opal Lake grid show a quiet magnetic background, labeled magnetic unit "M1", with numerous northwest trending magnetic high features, labeled magnetic unit "M2", crosscutting the grid. The relatively quiet magnetic background indicates that the area defined by magnetic unit "M1" is underlain by either a homogeneous rock type or rock types with similar magnetic susceptibilities.

The 100 m. to 200 m. wide magnetic features making up magnetic unit "M2" are believed to represent basic dykes due to the long, narrow nature of these anomalies. Supporting this interpretation, the monopolar response of the magnetic anomalies making up "M2" suggests that these anomalies extend to great depth. Short wavelength highs reflect narrow, near surface features and longer wavelength highs reflect deeper bodies. Individual magnetic highs within "M2" were interpreted based on anomaly wavelength and magnetic intensity and labeled "D1" to "D6".

Lineament system "D1" is a group of northwest trending, 20 m. to 40 m. wide anomalies forming four parallel lineaments in the northwest corner of the Opal Lake grid. "D1" exhibits moderate to strong magnetic intensity with anomalies ranging from 500 nT to 2000 nT above background and also shows fair correlation with conductor system "C1". "D1" is interpreted to represent a group of narrow, near surface basic dykes. If coincident with a VLF-EM conductors, "D1" might represent pyrrhotite mineralization.

Magnetic high lineament "D2" consists of an individual high trending north from Opal Lake and continuing off grid at line 800N. "D2" is characterized by 50 m. wide magnetic highs ranging from 700 nT to 1500 nT above background. The individual nature of this anomaly permitted a magnetic model to be carried out over "D2" at 250W on line 600N and at 300W on line 800N. The magnetic model makes numerous assumptions regarding magnetic susceptibilities, base levels and other parameters, however, the model does give valuable information about potential sources of individual anomalies as well as providing a visualization of potential anomalous body geometry. The magnetic model for "D2" shows a potential source dipping approximately 40 deg. to the east and a susceptibility of 0.004, which is in the range associated with basalts.

Magnetic high lineament "D3" is located in a magnetically active zone west of Opal Lake. "D3" is a relatively strong, short wavelength lineament trending to the northwest. To the north, "D3" appears to be terminated at line 600N by magnetic low lineament "L1". "D3" appears to continue into Opal Lake to the south. "D3" is thought to represent a basic dyke.

Lineament "D4" is a strong, long wavelength anomalous trend on the eastern edge of the Opal Lake grid. Exhibiting values 1500 nT to 2500 nT above background, "D4" is one of the stronger anomalous trends observed on the grid. "D4" terminates abruptly to the north at line

600N, which exhibits the strongest response of the trend. To the south, "D4" gradually weakens and dies out completely at line 100N. "D4" may continue to the south as two discontinuous lineaments trending approximately the same direction as "D4". "D4" shows good correlation with conductor "C5" and is believed to represent a deeper magnetic body than lineaments discussed previously due to its long wavelength. The magnitude of this anomaly suggests that "D4" represents a basic dyke. Due to its correlation with conductor "C5" the possibility also exists that "D4" might represent pyrrhotite mineralization.

Lineaments "D5" and "D6" are located within a long, broad "M2" zone extending from the south end of Opal Lake to the southern edge of the grid at line 600S. This "M2" zone consists of a number of closely spaced anomalies which are superimposed on each other, thereby making delineation of individual anomalies difficult. "D5" and "D6" were the only individual anomalies interpreted from the superimposed anomalies.

"D5" is a strong, short wavelength anomaly which is clearly defined trending northwest from line 200S to line 0N. "D5" is located approximately 25 m. east of conductor "C6". Lineament "D6" is a strong, long wavelength anomaly trending northwest from line 600S to line 0N. Again, "D5" and "D6" are believed to represent basic dykes.

Three magnetic low lineaments, labeled "L1" to "L3" on Figure # G-3, were delineated on the Opal Lake grid based on magnetic contour terminations and offsets as well as correlation with VLF-EM conductors. Magnetic low lineament "L1" trends northwest and terminates "D1" and "D2". Lineament "L2" is a deep magnetic low feature which was chosen primarily due to its consistent correlation with conductor "C3". Lineament "L3" is a magnetic low feature clearly visible on the magnetic contour map at line 100N to the west of Opal Lake. Magnetic low lineaments are believed to represent oxidization within fault zones. The coincidence of "C3" with "L2" supports this interpretation.

Conductor system "C1" consists of four parallel, northeast trending conductors showing good correlation with lineament "D1". "C1" is characterized by weak to moderate in-phase response with strong quadrature response following the in-phase profile (positive quadrature). Field strength response is weak to non-existent for conductor "C1". It should be noted that due to the weak signal from the Cutler transmitter, a weak to moderate conductor might not exhibit a noticeable field strength anomaly. "C1" is interpreted to have weak conductance and is thought to represent structural features, probably a fracture zone. As discussed above, it may also be possible that when coincident with magnetic high features "C1" might reflect the presence of magnetic pyrrhotite.

Conductor "C2" is the longest conductor system on the Opal Lake grid. "C2" trends northwest from line 300S to line 900N and exhibits strong in-phase response with strong positive quadrature. Field strength response for "C2" is variable, ranging from strong to weak. Conductor

"C2" is located wholly within the magnetically quiet "M1" magnetic unit. The strength and length of "C2" suggest that it represents a major structural feature such as a fault.

Conductor "C3" is a moderate conductor located to the west of Opal Lake. "C3" is coincident with magnetic low lineament "L2". As discussed previously "C3" is believed to represent a fault.

"C4" is the strongest conductor on the grid exhibiting strong in-phase response as well as the strongest field strength response observed on the grid. The strongest response within "C4" are on lines 500N to 700N. "C4" continues off grid to the north and terminates abruptly to the south at line 200N. Like "C2", conductor "C4" is located wholly within magnetic unit "M1". "C4" is quite similar in nature to "C2" and is also thought to reflect a fault. The strong conductive response suggests that this conductor is a candidate for the occurrence of sulphide mineralization.

Conductor "C5" is located on the eastern edge of the Opal Lake grid and is coincident with magnetic high lineament "D4". "C5" exhibits moderate in-phase response with poor positive quadrature response, except for line 500N where the quadrature response is quite strong. "C5" is interpreted to have weak to moderate conductance and is thought to represent a structural feature such as a fault. The coincidence of magnetic high "D4" with "C5" could be explained as a fault controlled basic intrusion or possibly this coincidence could represent magnetic pyrrhotite.

Conductor system "C6" is a group of moderate conductors located in the southern portion of the grid. Trending northwest, "C6" exhibits variable in-phase response, good positive quadrature response and weak field strength response. The northern conductor of system "C6" is coincident with magnetic lineament "D5". Once again, this conductor system is believed to represent structural features, possibly faults or fracture zones.

## 6.0 RECOMMENDATIONS

VLF-EM and magnetic interpretation has delineated magnetic and conductive trends on the Opal Lake grid that warrant follow-up exploration. Surface geological investigations are recommended to determine the importance of the following targets.

Conductor "C4" is, geophysically, the most promising exploration target on the grid based on the strength of the VLF-EM anomalies and the coincidence with magnetic lineament "D3". Detailed investigation is recommended for the following targets along conductor "C4":

- 350E, Line 300N
- 350E, Line 500N

Conductor system "C1" is considered to be a primary exploration target which could possibly represent magnetic prrhotite base on the strength of the VLF-EM conductors and the correlation with magnetic lineament system "D1". Detailed investigation is recommended for the following targets along conductor "C1":

- 400W, Line 800N
- 490W, Line 900N
- 675W, Line 1100N

Conductor system "C6" is considered a promising exploration target based on the strength of the VLF-EM anomalies and the coincidence with magnetic lineament "D5". Detailed investigation is recommended for the following targets along conductor "C6":

- 100W, Line 100S
- 50W, Line 200S

Conductors "C2" and "C4" are thought to be interesting geophysical targets due to their strong VLF-EM response. Conductor "C3" warrants further exploration due to the coincidence of magnetic low lineament "L2".

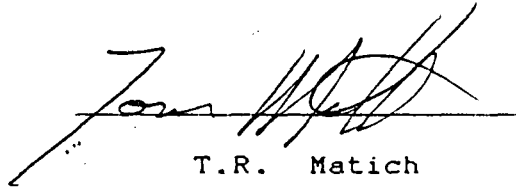
A enlarged VLF-EM and magnetic survey is recommended to determine the extent of the conductors and lineaments dicovered in the present survey.

A horizontal loop electromagnetic survey is recommended to more accurately define the location of strong VLF-EM conductors if fault controlled mineralization is suspected. If disseminated mineralization is believed to be present, an induced polarization/resistivity survey is recommended to determine chargeable and resistive zones. A deep electromagnetic survey, such as UTEM, is recommended to determine the depth extent of conductive bodies discovered in the present survey.

Respectfully Submitted

INTERPRETEX RESOURCES LTD.

Vancouver, British Columbia

A handwritten signature in black ink, appearing to read 'Tom Matich', written over a horizontal line.

T.R. Matich

Geophysicist



CERTIFICATE

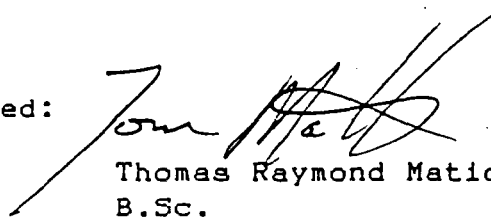
I, Thomas Raymond Matich, Geophysicist of Surrey, British Columbia, Canada, hereby certify that:

1. I received a B.Sc. degree in Geophysics from the University of British Columbia in 1982.
2. I currently reside at 13914 116 Ave, in the Municipality of Surrey, in the Province of British Columbia.
3. I have been practising my profession since graduation.
4. I hold no direct or indirect interest in, nor expect to receive any benefits from, the mineral property or properties described in this report.
5. This report may be used for the development of the property, provided that no portion will be used out of context in such a manner as to convey meanings different from that set out in the whole.
6. Consent is hereby given to the company for which this report was prepared to reproduce the report or any part of it for the purposes of development of the property, or facts relating to the raising of funds by way of a prospectus and/or statement of material facts.

Date: October 23, 1989

Surrey,  
British Columbia

Signed:

  
Thomas Raymond Matich  
B.Sc.

AUTHOR'S NOTE

Data interpreted in this report were accumulated without supervision by Interpretex Resources Ltd. and were supplied by the Client to the writer(s). These data and the locations on the ground from which these data were accumulated are, except when specified otherwise by the writer(s), assumed to be reliable and correct and were interpreted using this assumption.

APPENDIX I

Equipment Specifications

# OMNIV 'Tie-Line' Magnetometer



## Specifications

Dynamic Range .....	18,000 to 110,000 gammas. Roll-over display feature suppresses first significant digit upon exceeding 100,000 gammas.
Tuning Method .....	Tuning value is calculated accurately utilizing a specially developed tuning algorithm
Automatic Fine Tuning .....	± 15% relative to ambient field strength of last stored value
Display Resolution .....	0.1 gamma
Processing Sensitivity .....	± 0.02 gamma
Statistical Error Resolution .....	0.01 gamma
Absolute Accuracy .....	± 1 gamma at 50,000 gammas at 23°C ± 2 gamma over total temperature range
Standard Memory Capacity	
Total Field or Gradient .....	1,200 data blocks or sets of readings
Tie-Line Points .....	100 data blocks or sets of readings
Base Station .....	5,000 data blocks or sets of readings
Display .....	Custom-designed, ruggedized liquid crystal display with an operating temperature range from -40°C to +55°C. The display contains six numeric digits, decimal point, battery status monitor, signal decay rate and signal amplitude monitor and function descriptors.
RS 232 Serial I/O Interface .....	2400 baud, 8 data bits, 2 stop bits, no parity
Gradient Tolerance .....	6,000 gammas per meter (field proven)
Test Mode .....	A. Diagnostic testing (data and programmable memory) B. Self Test (hardware)
Sensor .....	Optimized miniature design. Magnetic cleanliness is consistent with the specified absolute accuracy.
Gradient Sensors .....	0.5 meter sensor separation (standard), normalized to gammas/meter. Optional 1.0 meter sensor separation available. Horizontal sensors optional.
Sensor Cable .....	Remains flexible in temperature range specified, includes strain-relief connector
Cycling Time (Base Station Mode) .....	Programmable from 5 seconds up to 60 minutes in 1 second increments
Operating Environmental Range .....	-40°C to +55°C; 0-100% relative humidity; weatherproof
Power Supply .....	Non-magnetic rechargeable sealed lead-acid battery cartridge or belt; rechargeable NiCad or Disposable battery cartridge or belt; or 12V DC power source option for base station operation.
Battery Cartridge/Belt Life .....	2,000 to 5,000 readings, for sealed lead acid power supply, depending upon ambient temperature and rate of readings
Weights and Dimensions	
Instrument Console Only .....	2.8 kg, 238 x 150 x 250mm
NiCad or Alkaline Battery Cartridge .....	1.2 kg, 235 x 105 x 90mm
NiCad or Alkaline Battery Belt .....	1.2 kg, 540 x 100 x 40mm
Lead-Acid Battery Cartridge .....	1.8 kg, 235 x 105 x 90mm
Lead-Acid Battery Belt .....	1.8 kg, 540 x 100 x 40mm
Sensor .....	1.2 kg, 56mm diameter x 200mm
Gradient Sensor	
(0.5 m separation - standard) .....	2.1 kg, 56mm diameter x 790mm
Gradient Sensor	
(1.0 m separation - optional) .....	2.2 kg, 56mm diameter x 1300mm
Standard System Complement .....	Instrument console; sensor; 3-meter cable, aluminum sectional sensor staff, power supply, harness assembly, operations manual.
Base Station Option .....	Standard system plus 30 meter cable
Gradiometer Option .....	Standard system plus 0.5 meter sensor

EDA Instruments Inc.  
4 Thorncliffe Park Drive  
Toronto, Ontario  
Canada M4H 1H1  
Telex: 06 23222 EDA TOR  
Cable: Instruments Toronto  
(416) 425 7800

In U.S.A.  
EDA Instruments Inc.  
5151 Ward Road  
Wheat Ridge, Colorado  
U.S.A. 80033  
(303) 422 9112

Printed in Canada

# EMNI PLUS VLF Magnetometer System



## Specifications\*

Frequency Tuning Range	15 to 30 kHz, with bandwidth of 150 Hz; tuning range accommodates new Puerto Rico station at 28.5 kHz
Transmitting Stations Measured	Up to 3 stations can be automatically measured at any given grid location within frequency tuning range
Recorded VLF Magnetic Parameters	Total field strength, total dip, vertical quadrature (or alternately, horizontal amplitude)
Standard Memory Capacity	800 combined VLF magnetic and VLF electric measurements as well as gradiometer and magnetometer readings
Display	Custom designed, ruggedized liquid crystal display with built-in heater and an operating temperature range from $-40^{\circ}\text{C}$ to $+55^{\circ}\text{C}$ . The display contains six numeric digits, decimal point, battery status monitor, signal strength status monitor and function descriptors.
RS232C Serial I/O Interface	2400 baud rate, 8 data bits, 2 stop bits, no parity
Test Mode	A. Diagnostic Testing (data and programmable memory) B. Self Test (hardware)
Sensor Head	Contains 3 orthogonally mounted coils with automatic tilt compensation
Operating Environmental Range	$-40^{\circ}\text{C}$ to $+55^{\circ}\text{C}$ ; 0 - 100% relative humidity; Weatherproof
Power Supply	Non-magnetic rechargeable sealed lead-acid 18V DC battery cartridge or belt; 18V DC disposable battery belt; 12V DC external power source for base station operation only.
Weights and Dimensions	
Instrument Console	2.8 kg, 128 x 150 x 250 mm
Sensor Head	2.1 kg, 130 dia. x 130 mm
VLF Electronics Module	1.1 kg, 40 x 150 x 250 mm
Lead Acid Battery Cartridge	1.8 kg, 235 x 105 x 90 mm
Lead Acid Battery Belt	1.8 kg, 540 x 100 x 40 mm
Disposable Battery Belt	1.2 kg, 540 x 100 x 40 mm

\*Preliminary

EDA Instruments Inc.,  
4 Thorncliffe Park Drive,  
Toronto, Ontario  
Canada M4H 1H1  
Telex: 06 23222 EDA TOR,  
Cables: Instruments Toronto  
(416) 425-7800

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EDA Instruments Inc.,  
5151 Ward Road,  
Wheat Ridge, Colorado  
U.S.A. 80033  
(303) 422-9112

Printed in Canada

**APPENDIX II**

**GEOCHEMICAL RESULTS**



# Chemex Labs Ltd.

Analytical Chemists • Geochemists • Registered Assayers  
 212 BROOKSBANK AVENUE, NORTH VANCOUVER, B.C.  
 BRITISH COLUMBIA, CANADA V7J-1C1  
 PHONE (604) 984-0121

TO: STEVENSON RESOURCE MANAGEMENT CORP.

13 - 1155 MILVILLE ST.  
 VANCOUVER, BC  
 V6B 4C4

Project: OPAL LAKE  
 Comments:

OPAL LAKE

Page No.: 1-A  
 Tot. Pages: 1  
 Date: 20-NOV-89  
 Invoice #: I-8930289  
 P.O. #:

## CERTIFICATE OF ANALYSIS A8930289

SAMPLE DESCRIPTION	PRBP CODE		Au ppb	Al %	Ag ppm	As ppm	Ba ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm	
			FA-AA	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	%	ppm	
2208 } YASHIN 2209 } PAPER	205	238	< 5	0.18	< 0.2	< 5	300	< 0.5	< 2	4.04	< 0.5	2	333	14	1.86	< 10	< 1	0.01	< 10	2.67	465
IED SHEAR	205	238	< 5	0.12	< 0.2	< 5	90	< 0.5	< 2	0.66	< 0.5	55	875	15	3.46	< 10	< 1	< 0.01	< 10	14.05	550
S. OF NO. M.	205	238	< 5	0.10	< 0.2	< 5	10	< 0.5	< 2	0.55	0.5	49	394	6	3.78	< 10	< 1	< 0.01	< 10	> 15.00	620
			30	0.09	< 0.2	10	10	< 0.5	< 2	0.62	< 0.5	57	400	< 1	3.12	< 10	< 1	< 0.01	< 10	> 15.00	460

OPAL

018  
 11/22/08 12:54 20604 984 0218 CHEMEX LABS



**Chemex Labs Ltd.**  
 Analytical Chemists • Geochemists • Registered Assayers  
 212 BROOKSBANK AVENUE, NORTH VANCOUVER,  
 BRITISH COLUMBIA, CANADA V7J-1C1  
 PHONE (604) 984-0211

13 - 1155 MELVILLE ST.  
 VANCOUVER, BC  
 V6B 4C4  
 Project: OPAL LAKE  
 Comments:

Page No.: 1-0  
 Tot. Pages: 1  
 Date: 20-NOV-89  
 Invoice #: I-8930289  
 P.O. #:

**CERTIFICATE OF ANALYSIS A8930289**

SAMPLE DESCRIPTION	PREP CODE		Mg	Na	NI	P	Pb	Sb	So	Sc	Tl	Tl	U	V	W	Zn
			ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm
2208	205	238	7	0.01	15	< 10	10	< 3	2	116	< 0.01	< 10	< 10	13	< 10	8
2209	205	238	1	0.01	1210	< 10	< 2	3	6	12	< 0.01	20	< 10	27	< 10	20
FED SHEAR	205	238	< 1	< 0.01	927	< 10	< 2	3	8	20	< 0.01	20	< 10	15	< 10	20
S. OF NO. M.	205	238	< 1	< 0.01	1065	< 10	< 2	< 3	7	10	< 0.01	20	< 10	13	< 10	10

CERTIFICATION: \_\_\_\_\_



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REPORT: V89-05362.0

DATE PRINTED: 12-SEP-89

PROJECT: OPAL LAKE

PAGE 1A

SAMPLE NUMBER	ELEMENT UNITS	Au PPB	Ag PPM	As PPM	Ba PPM	Be PPM	Bi PPM	Cd PPM	Ce PPM	Co PPM	Cr PPM	C PP
R2 JW1A		85	<0.2	<5	15	9.7	<2	<1	<5	48	422	1
R2 JW2		<5	<0.2	<5	34	17.1	<2	<1	<5	105	1464	1
R2 JW3		<5	<0.2	<5	6	14.1	2	<1	<5	75	1434	
R2 JW4		<5	<0.2	<5	19	4.9	<2	<1	<5	31	176	
R2 JW5		<5	<0.2	<5	71	16.4	<2	<1	<5	87	1301	
R2 JW6	<i>Nr. City</i>	<5	<0.2	<5	12	11.4	<2	<1	<5	71	444	5
R2 JW7		<5	<0.2	<5	127	14.0	<2	<1	<5	67	1298	20
R2 JW8		7	<0.2	<5	12	12.7	<2	<1	<5	62	446	12
R2 JW9		<5	<0.2	<5	32	13.3	<2	<1	<5	54	305	12
R2 JW10		6	<0.2	<5	28	11.8	<2	<1	<5	57	477	8
R2 JW11		<5	<0.2	<5	28	12.0	<2	<1	<5	46	295	8
R2 JW12		11	<0.2	<5	9	13.2	<2	<1	<5	37	483	12
R2 OLD CAMP1		<5	<0.2	131	9	7.2	4	<1	<5	248	419	7
R2 OLD CAMP2		23	<0.2	182	35	11.4	2	<1	<5	243	403	10
R2 OLD CAMP3		<5	<0.2	13	24	14.6	<2	<1	<5	93	696	14
R2 OLD CAMP4		<5	<0.2	<5	25	12.2	<2	<1	<5	66	717	17

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Ni PPM	Pb PPM	Rb PPM	Sb PPM	Sc PPM	PF
1088	<2	48	<5	5	2
2199	3	<20	<5	9	2
1751	<2	50	<5	7	<2
761	<2	57	9	2	2
1847	<2	64	5	8	2
1292	<2	87	6	9	3
1470	<2	55	6	8	3
1571	3	93	9	6	3
928	4	80	8	7	2
1097	<2	29	<5	8	3
920	<2	80	7	7	3
611	<2	41	7	6	3
>200000-	12	52	16	2	<2
13566	4	130	27	4	3
4157	3	54	9	6	<2
1352	7	89	5	7	3

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DATE PRINTED: 12-SEP-89

PROJECT: OPAL LAKE

PAGE 1C

SAMPLE NUMBER	ELEMENT UNITS	Sr PPM	Ta PPM	Te PPM	V PPM	W PPM	Y PPM	Zn PPM	Zr PPM
R2 JW1A		5	<10	<10	14	<10	<1	17	<1
R2 JW2		9	<10	<10	27	<10	<1	19	<1
R2 JW3		3	<10	<10	25	<10	<1	19	<1
R2 JW4		8	<10	<10	7	<10	<1	8	<1
R2 JW5		12	<10	<10	27	<10	<1	20	<1
R2 JW6		2	<10	<10	25	<10	<1	10	<1
R2 JW7		26	<10	<10	29	<10	<1	21	<1
R2 JW8		3	<10	<10	17	<10	<1	12	<1
R2 JW9		28	<10	<10	25	<10	2	15	<1
R2 JW10		11	<10	<10	18	<10	<1	8	<1
R2 JW11		28	<10	<10	17	<10	1	9	1
R2 JW12		5	<10	<10	18	<10	<1	16	<1
R2 OLD CAMP1		1	<10	<10	8	<10	<1	<1	<1
R2 OLD CAMP2		9	<10	<10	16	<10	<1	12	<1
R2 OLD CAMP3		7	<10	<10	20	<10	<1	16	<1
R2 OLD CAMP4		6	<10	<10	20	<10	<1	26	<1

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PROJECT: OPAL LAKE

PAGE 1A

SAMPLE NUMBER	ELEMENT UNITS	Au PPB	Ag PPM	As PPM	Ba PPM	Be PPM	Bi PPM	Cd PPM	Ce PPM	Co PPM	Cr PPM	Cu PPM
R2 RIP-1		28	<0.2	208	50	<0.5	17	<1	<5	85	513	11
R2 RIP-2		10	<0.2	174	66	<0.5	16	<1	<5	63	1088	3
✓R2-2201		17	<0.2	126	41	<0.5	10	<1	<5	69	527	4
✓R2 2202		9	<0.2	78	21	<0.5	28	<1	<5	36	468	20
✓R2 2203	<i>Ni contg</i>	10	<0.2	154	44	<0.5	15	2	<5	72	747	3
✓R2 2204		13	<0.2	215	46	<0.5	23	<1	<5	84	721	4
✓R2 2205		13	<0.2	181	144	<0.5	28	2	<5	49	500	<1
✓R2 2206		14	<0.2	169	14	<0.5	34	<1	<5	69	463	11
✓R2 2207		8	<0.2	208	66	<0.5	46	<1	<5	79	938	4
R2 22749	<i>TRENCH 4</i>	34	<0.2	181	15	<0.5	28	<1	<5	80	390	16
R2 22750		13	<0.2	180	13	<0.5	22	<1	<5	30	361	10
R2 22831	<del><i>TRENCH 4</i></del>	31	<0.2	15	344	<0.5	<2	<1	9	2	141	40
R2 22845		9	<0.2	147	42	<0.5	15	<1	<5	69	529	8
R2 22846		16	<0.2	183	47	<0.5	16	<1	<5	77	450	18
R2 22847	<i>TRENCH 4</i>	8	<0.2	195	29	<0.5	26	<1	<5	84	566	11
R2 22848		22	<0.2	214	19	<0.5	35	<1	<5	82	376	8
R2 22849		38	<0.2	177	14	<0.5	39	<1	<5	84	372	13
R2 22850		26	<0.2	218	20	<0.5	26	<1	<5	81	414	9
✓R2 22917		<5	<0.2	343	12	<0.5	24	2	<5	194	389	5
✓R2 22918		<5	<0.2	543	11	<0.5	10	<1	<5	600	375	4
✓R2 22919	<i>Ni contg</i>	<5	<0.2	242	16	<0.5	32	<1	7	219	384	32
✓R2 22920		9	<0.2	226	10	<0.5	38	<1	6	94	393	2
✓R2 22921		163	<0.2	215	17	<0.5	13	<1	<5	77	376	190
✓R2 22922		523	<0.2	190	27	<0.5	39	<1	<5	66	459	5
✓R2 22923		167	<0.2	119	8	<0.5	34	<1	<5	46	360	8
✓R2 22924		213	<0.2	171	5	<0.5	38	<1	<5	50	259	5
✓R2 22925		293	<0.2	183	33	<0.5	17	<1	16	81	588	9
✓D2 OPAL CORE-1		305	<0.2	147	8	<0.5	25	<1	<5	41	290	2
✓D2 OPAL CORE-2		242	<0.2	227	3	<0.5	38	<1	<5	116	1299	10

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SAMPLE NUMBER	ELEMENT UNITS	Ga PPM	La PPM	Li PPM	Mo PPM	Nb PPM	Ni PPM	Pb PPM	Rb PPM	Sb PPM	Sc PPM	Sn PPM
R2 RIP-1		58	<1	8	<1	41	1514	75	<20	75	5	38
R2 RIP-2		52	<1	11	<1	36	955	57	<20	39	6	42
R2 2201		53	<1	11	<1	40	1381	11	<20	39	6	<20
R2 2202		37	<1	10	<1	31	868	47	<20	40	3	<20
R2 2203		55	<1	18	<1	40	1485	46	<20	52	5	21
R2 2204		71	<1	16	<1	44	1821	71	<20	80	6	<20
R2 2205		55	<1	12	<1	41	968	67	<20	73	4	40
R2 2206		52	<1	8	<1	36	1335	72	<20	50	5	<20
R2 2207		69	<1	11	<1	47	1508	72	<20	72	5	<20
R2 22749		59	<1	13	1	39	1495	75	<20	72	7	69
R2 22750		64	<1	13	<1	37	1549	46	<20	64	6	<20
R2 22831		7	5	8	17	3	14	3	26	<5	5	<20
R2 22845		39	<1	11	<1	35	1397	24	<20	26	6	62
R2 22846		58	<1	14	4	34	1433	40	<20	50	7	<20
R2 22847		60	<1	12	3	44	1465	63	<20	61	5	48
R2 22848		62	<1	10	<1	42	1391	68	<20	68	7	<20
R2 22849		60	<1	11	<1	42	1376	82	<20	78	7	<20
R2 22850		62	<1	14	<1	41	1334	86	<20	80	8	42
R2 22917		58	<1	6	7	33	6336	87	<20	94	2	<20
R2 22918		76	<1	6	16	34	>20000	97	<20	372	1	<20
R2 22919		62	<1	7	6	35	13954	98	<20	90	2	<20
R2 22920		52	1	9	4	40	2385	81	<20	77	2	<20
R2 22921		58	<1	6	<1	36	1487	79	<20	74	4	<20
R2 22922		57	<1	6	<1	36	1446	75	<20	68	5	<20
R2 22923		50	<1	4	<1	26	791	84	<20	61	2	<20
R2 22924		55	<1	6	3	29	1544	77	<20	70	2	<20
R2 22925		63	<1	11	3	36	1392	69	<20	80	5	<20
D2 OPAL CORE-1		68	<1	7	<1	41	905	70	<20	71	3	29
D2 OPAL CORE-2		63	<1	5	<1	41	2313	78	<20	72	6	27

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SAMPLE NUMBER	ELEMENT UNITS	Sr PPM	Ta PPM	Te PPM	U PPM	U PPM	Y PPM	Zn PPM	Zr PPM
R2 RIP-1		17	<10	186	15	<10	<1	16	2
R2 RIP-2		11	<10	136	15	<10	<1	16	4
R2 2201		32	<10	140	16	<10	<1	28	3
R2 2202		6	<10	96	9	<10	<1	12	1
R2 2203		21	15	161	14	<10	<1	18	2
R2 2204		35	<10	177	19	<10	<1	22	3
R2 2205		7	<10	163	10	<10	<1	14	1
R2 2206		5	<10	147	14	<10	<1	45	<1
R2 2207		82	17	161	16	<10	<1	18	3
R2 22749		10	11	167	19	<10	1	26	3
R2 22750		12	<10	154	16	<10	<1	25	3
R2 22831		8	<10	<10	120	<10	4	61	24
R2 22845		31	48	139	16	<10	1	29	3
R2 22846		41	45	136	17	<10	<1	33	3
R2 22847		30	<10	163	17	<10	<1	29	3
R2 22848		28	14	175	19	<10	1	33	4
R2 22849		12	<10	186	18	<10	<1	28	2
R2 22850		9	55	181	18	<10	<1	23	3
R2 22917		2	<10	133	6	<10	<1	7	3
R2 22918		2	20	145	7	<10	<1	<1	2
R2 22919		2	26	159	13	<10	<1	5	4
R2 22920		3	46	161	14	<10	<1	13	4
R2 22921		4	24	159	11	<10	<1	67	3
R2 22922		5	<10	162	13	<10	<1	14	3
R2 22923		1	<10	103	7	<10	<1	4	2
R2 22924		1	11	128	7	<10	<1	7	3
R2 22925		13	26	169	16	<10	<1	8	3
D2 OPAL CORE-1		24	<10	150	10	<10	<1	6	4
D2 OPAL CORE-2		8	<10	194	24	<10	<1	18	3

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SAMPLE NUMBER	ELEMENT UNITS	Au PPB	Ag PPM	As PPM	Ba PPM	Be PPM	Bi PPM	Cd PPM	Ce PPM	Co PPM	Cr PPM	Cu PPM
R2 22729		<5	<0.2	<5	18	14.1	<2	<1	<5	59	340	23
R2 22748	TEDECOCH TRAIL	7	<0.2	<5	34	11.8	<2	<1	<5	65	396	6
R2 22826	these must be	108	<0.2	<5	18	14.4	<2	<1	<5	65	733	13
R2 22827	2 inch samples	31	<0.2	<5	16	14.6	<2	<1	<5	65	424	13
R2 22828	cores from	37	<0.2	<5	12	13.9	<2	<1	<5	60	356	13
AGAR CAMP												
R2 22829	NO. 2	<5	<0.2	<5	16	1.3	<2	<1	<5	1	238	6
R2 22830	TRENCH	<5	<0.2	<5	1823	3.0	<2	<1	9	8	261	33
R2 22832		20	<0.2	<5	13	12.5	<2	<1	<5	40	285	16
R2 22833		19	<0.2	<5	16	11.6	<2	<1	<5	44	417	10
R2 22834		18	<0.2	<5	23	14.3	<2	<1	<5	66	864	10
R2 22835		6	<0.2	<5	28	14.5	<2	<1	<5	63	438	15
R2 22836	NO. 1	14	<0.2	<5	18	13.8	<2	<1	<5	63	430	11
R2 22837	TRENCH	36	<0.2	<5	15	13.0	<2	<1	<5	61	451	16
R2 22838		15	<0.2	<5	14	13.1	<2	<1	<5	65	595	8
R2 22839		28	<0.2	<5	14	13.7	<2	<1	<5	65	669	9
R2 22840		16	<0.2	<5	21	12.6	<2	<1	<5	52	505	11
R2 22841		26	<0.2	<5	42	13.9	<2	<1	<5	61	467	11
R2 22842		8	<0.2	<5	9	13.1	<2	<1	<5	47	323	9
R2 22843		34	<0.2	<5	12	15.1	<2	<1	<5	58	327	13
R2 22844		12	<0.2	<5	15	15.5	<2	<1	<5	61	365	11
R2 22971		8	<0.2	<5	16	13.7	<2	<1	<5	50	483	10
R2 22972		12	<0.2	<5	8	14.7	<2	<1	<5	42	358	11
R2 22973		32	<0.2	<5	12	14.6	<2	<1	<5	53	435	15
R2 22975		31	<0.2	<5	20	14.3	<2	<1	<5	53	369	13

NO LOCATION OR DESCRIPTION

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SAMPLE NUMBER	ELEMENT UNITS	Ga PPM	La PPM	Li PPM	Mo PPM	Nb PPM	Ni PPM	Pb PPM	Rb PPM	Sb PPM	Sc PPM	Sr PPM
R2 22729		<2	5	4	1	10	769	2	<20	6	7	34
R2 22748		<2	5	4	<1	10	1384	2	27	20	5	25
R2 22826		<2	4	7	<1	9	1275	<2	52	6	8	34
R2 22827		<2	4	5	<1	9	1217	2	<20	6	8	26
R2 22828		<2	3	7	<1	8	1175	2	43	9	6	25
R2 22829		<2	<1	<1	<1	<1	20	<2	24	<5	<1	<20
R2 22830		2	6	3	1	1	59	5	<20	<5	2	<20
R2 22832		<2	3	3	<1	8	914	<2	62	7	5	25
R2 22833		<2	3	4	<1	8	1178	2	54	5	5	31
R2 22834		<2	4	6	<1	8	1347	3	22	6	8	45
R2 22835		<2	4	8	2	9	1438	2	32	8	7	27
R2 22836		<2	3	8	2	8	1393	<2	24	9	7	33
R2 22837		<2	3	5	<1	8	1232	2	27	7	7	26
R2 22838		2	4	8	<1	9	1492	3	75	9	6	23
R2 22839		<2	4	8	<1	9	1487	4	61	6	7	36
R2 22840		<2	3	9	<1	8	1260	<2	20	7	5	21
R2 22841		<2	3	8	<1	8	1323	2	91	6	6	38
R2 22842		<2	3	4	<1	8	1048	<2	<20	6	5	<20
R2 22843		<2	4	8	<1	9	1188	<2	45	7	8	40
R2 22844		<2	3	11	2	9	1241	3	68	7	8	27
R2 22971		<2	3	13	1	9	1097	3	45	7	6	21
R2 22972		<2	3	6	1	8	813	<2	80	10	6	20
R2 22973		<2	3	8	<1	8	1062	<2	41	9	7	24
R2 22975		<2	5	13	<1	11	1111	<2	47	7	8	39



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SAMPLE NUMBER	ELEMENT UNITS	Sr PPM	Ta PPM	Te PPM	V PPM	W PPM	Y PPM	Zn PPM	Zr PPM
R2 22729		37	<10	<10	25	<10	1	23	<1
R2 22748		130	<10	<10	13	<10	2	32	<1
R2 22826		11	<10	<10	24	<10	1	25	<1
R2 22827		10	<10	<10	18	<10	<1	26	<1
R2 22828		5	<10	<10	13	<10	<1	16	<1
R2 22829		3	<10	<10	4	<10	<1	8	<1
R2 22830		13	<10	<10	9	<10	5	53	4
R2 22832		6	<10	<10	10	<10	<1	15	<1
R2 22833		7	<10	<10	30	<10	<1	13	<1
R2 22834		8	<10	<10	28	<10	<1	20	<1
R2 22835		25	<10	<10	22	<10	<1	22	<1
R2 22836		9	<10	<10	22	<10	<1	23	<1
R2 22837		6	<10	<10	22	<10	<1	16	<1
R2 22838		13	<10	<10	20	<10	<1	17	<1
R2 22839		12	<10	<10	21	<10	<1	17	<1
R2 22840		11	<10	<10	20	<10	<1	16	<1
R2 22841		10	<10	<10	19	<10	<1	15	<1
R2 22842		5	<10	<10	18	<10	<1	14	<1
R2 22843		21	<10	<10	21	<10	<1	20	<1
R2 22844		16	<10	<10	22	<10	<1	22	<1
R2 22971		13	<10	<10	21	<10	<1	20	<1
R2 22972		4	<10	<10	17	<10	<1	21	<1
R2 22973		7	<10	<10	21	<10	<1	21	<1
R2 22975		41	<10	<10	21	<10	1	24	<1

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SAMPLE NUMBER	ELEMENT UNITS	Au PPB	Ag PPM	As PPM	Ba PPM	Be PPM	Bi PPM	Cd PPM	Ce PPM	Co PPM	Cr PPM	Cu PPM
R2 22726	SOUTH SH OPAL LK	<5	<0.2	<5	7	8.0	<2	<1	<5	186	141	4
R2 22727		<5	<0.2	<5	4	5.4	<2	<1	<5	33	171	5
R2 22728		<5	<0.2	<5	3	5.1	<2	<1	<5	38	107	5
-R2 22730		<5	<0.2	<5	17	16.5	<2	<1	<5	70	543	6
-R2 22731		NORTH SHORE	<5	<0.2	<5	31	13.6	<2	<1	<5	65	481
	OPAL LAKE											
R2 22732		<5	<0.2	21	17	13.9	<2	<1	<5	43	288	8
-R2 22733		11	<0.2	<5	12	14.7	<2	<1	<5	50	531	13
-R2 22734		<5	<0.2	<5	16	14.2	<2	<1	<5	54	455	15
-R2 22735		<5	<0.2	<5	4	15.7	<2	<1	<5	82	680	9
-R2 22736		<5	<0.2	50	15	12.2	<2	<1	<5	55	332	8
-R2 22737		<5	<0.2	31	42	14.9	<2	<1	<5	44	358	20
-R2 22738		<5	<0.2	32	145	13.7	<2	<1	5	27	244	22
-R2 22739	OLD TRENCHES	<5	<0.2	54	76	14.5	<2	<1	<5	26	225	22
-R2 22740	LITTLE OPAL	<5	<0.2	13	50	13.3	<2	<1	<5	36	282	29
-R2 22741	LAKE	<5	<0.2	<5	39	17.3	<2	<1	<5	66	854	10
-R2 22742	5m skip chip over 45m	<5	<0.2	<5	49	16.3	<2	<1	<5	64	636	12
-R2 22743		<5	<0.2	14	101	16.0	<2	<1	<5	49	453	17
-R2 22744		<5	<0.2	75	56	14.8	<2	<1	<5	33	294	11
-R2 22745		<5	<0.2	94	109	17.1	<2	<1	10	36	546	11
R2 22746		16	<0.2	<5	79	15.4	<2	<1	<5	58	1285	6
R2 22747		<5	<0.2	<5	7	8.9	<2	<1	<5	41	419	6
R2 22866		10	<0.2	<5	7	16.4	<2	<1	<5	38	384	10
R2 22867		47	<0.2	<5	13	15.7	<2	<1	<5	59	375	16
R2 22868	CAMP	52	<0.2	21	22	15.8	<2	<1	<5	76	299	10
R2 22869	ZONE	<5	<0.2	<5	4	2.9	3	<1	<5	6	315	13
R2 22870		<5	<0.2	<5	184	16.7	<2	<1	<5	63	1076	10
R2 22871		<5	<0.2	190	25	12.2	<2	<1	<5	30	273	7
R2 22872		8	<0.2	49	73	6.2	<2	<1	115	10	109	6
R2 22873		<5	<0.2	<5	5	5.9	<2	<1	<5	35	199	5
R2 22874	SOUTH SHORE	<5	<0.2	<5	8	6.1	<2	<1	<5	39	215	8
R2 22875	OPAL LK	<5	<0.2	<5	8	12.8	<2	<1	<5	69	272	4

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R2 22726		<2	5	3	1	13	3356	<2	28	12	5	<20
R2 22727		13	3	3	<1	9	734	3	32	9	2	<20
R2 22728		14	3	2	<1	9	898	3	25	6	1	39
R2 22730		<2	5	20	1	7	1296	4	28	<5	9	24
R2 22731		<2	7	6	1	12	1461	3	21	6	4	20
R2 22732		<2	7	3	1	11	909	3	88	7	6	35
R2 22733		<2	6	4	1	9	1028	3	64	<5	6	33
R2 22734		7	5	6	<1	8	1258	<2	74	<5	5	27
R2 22735		7	6	26	<1	9	1508	3	108	<5	6	<20
R2 22736		<2	5	4	2	8	2642	5	<20	13	5	28
R2 22737		<2	8	4	3	9	967	3	57	7	8	29
R2 22738		<2	10	4	2	10	425	6	<20	<5	10	<20
R2 22739		<2	9	3	1	10	451	5	<20	5	10	21
R2 22740		<2	6	3	2	8	766	3	72	6	8	27
R2 22741		<2	6	9	2	8	1427	<2	44	<5	7	24
R2 22742		<2	7	9	2	10	1418	4	95	6	6	<20
R2 22743		<2	8	5	1	9	1046	<2	65	<5	7	21
R2 22744		<2	8	3	2	10	705	3	80	<5	9	31
R2 22745		<2	14	7	2	10	631	3	106	5	10	24
R2 22746		2	5	15	3	8	931	<2	<20	<5	8	<20
R2 22747		<2	3	2	<1	6	902	<2	<20	5	4	<20
R2 22866		5	6	7	<1	9	795	<2	<20	5	7	26
R2 22867		<2	5	10	1	8	1470	5	60	8	5	28
R2 22868		<2	5	4	<1	8	1542	3	<20	10	7	29
R2 22869		<2	<1	<1	<1	1	126	<2	<20	<5	<1	<20
R2 22870		<2	7	12	<1	11	1223	2	42	<5	7	34
R2 22871		<2	6	3	<1	12	577	<2	25	13	5	28
R2 22872		31	<1	3	<1	8	395	<2	<20	8	3	33
R2 22873		7	4	2	<1	9	810	<2	64	6	2	<20
R2 22874		<2	4	2	<1	9	769	2	34	6	3	27
R2 22875		12	7	4	1	13	1325	<2	27	7	4	35

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*Opal Lake* Geochemical  
 Lab Report

A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

REPORT: US9-88282.0 ( COMPLETE )

REFERENCE INFO:

CLIENT: STATION RESOURCE MANAGEMENT  
 PROJECT: NONE GIVEN

SUBMITTED BY: UNKNOWN  
 DATE PRINTED: 4-DEC-89

ORDER	ELEMENT	NUMBER OF ANALYSES	LOWER DETECTION LIMIT	EXTRACTION	METHOD
1	As Gold - Fine Assay	203	5 PPM	FINE-ASSAY	Fine Assay AA
2	Ag Silver	203	0.5 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
3	As Arsenic	203	5 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
4	Ba Barium	203	5 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
5	Be Beryllium	203	0.5 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
6	<u>Bi</u> Bismuth	203	2 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
7	Cd Cadmium	203	1 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
8	Ce Cerium	203	5 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
9	Co Cobalt	203	1 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
10	Cr Chromium	203	1 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
11	Cu Copper	203	1 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
12	Ga Gallium	203	2 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
13	La Lanthanum	203	1 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
14	Li Lithium	203	1 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
15	Mo Molybdenum	203	1 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
16	Nb Niobium	203	1 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
17	Ni Nickel	203	1 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
18	Pb Lead	203	2 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
19	Rb Rubidium	203	20 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
20	Sb Antimony	203	5 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
21	Sc Scandium	203	1 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
22	Sn Tin	203	20 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
23	Sr Strontium	203	1 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
24	Ta Tantalum	203	10 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
25	Tb Tellurium	203	10 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
26	V Vanadium	203	1 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
27	W Tungsten	203	10 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
28	Y Yttrium	203	1 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
29	Zn Zinc	203	1 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma
30	Zr Zirconium	203	1 PPM	HNO3-HCL HOT EXTR	Ind. Coupled Plasma

SAMPLE NUMBER	ELEMENT UNITS	Sr PPM	Ta PPM	Te PPM	U PPM	W PPM	Y PPM	Zn PPM	Zr PPM
R2 22726		17	<10	<10	24	<10	1	<1	1
R2 22727		1	<10	<10	7	<10	<1	5	2
R2 22728		<1	<10	<10	8	<10	<1	2	2
R2 22730		10	<10	<10	23	<10	<1	14	3
R2 22731		10	<10	<10	12	<10	<1	1	2
R2 22732		97	<10	<10	13	<10	1	12	2
R2 22733		57	<10	<10	24	<10	<1	6	3
R2 22734		4	<10	<10	14	<10	<1	9	<1
R2 22735		5	<10	<10	15	<10	<1	36	<1
R2 22736		48	<10	<10	19	<10	<1	29	<1
R2 22737		103	<10	<10	32	<10	2	28	3
R2 22738		166	<10	<10	44	<10	4	45	5
R2 22739		200	<10	<10	40	<10	4	42	4
R2 22740		54	<10	<10	28	<10	2	31	3
R2 22741		14	<10	<10	19	<10	<1	29	3
R2 22742		15	<10	<10	19	<10	<1	44	3
R2 22743		43	<10	<10	28	<10	2	25	4
R2 22744		80	<10	<10	34	<10	3	42	4
R2 22745		116	<10	<10	35	<10	4	37	3
R2 22746		4	<10	<10	15	<10	<1	12	2
R2 22747		2	<10	<10	14	<10	<1	<1	1
R2 22866		12	<10	<10	20	<10	<1	17	1
R2 22867		7	<10	<10	16	<10	<1	11	2
R2 22868		5	<10	<10	17	<10	<1	30	2
R2 22869		1	<10	<10	4	<10	<1	1	2
R2 22870		17	<10	<10	29	<10	1	12	2
R2 22871		<1	<10	<10	12	<10	2	12	1
R2 22872		7	<10	<10	9	<10	2	16	2
R2 22873		2	<10	<10	8	<10	<1	<1	2
R2 22874		3	<10	<10	9	<10	<1	9	2
R2 22875		7	<10	<10	15	<10	<1	2	1

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# Geochemical Lab Report

A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

REPORT: V89-88282.0 ( COMPLETE )

REFERENCE INFO:

CLIENT: STETSON RESOURCE MANAGEMENT  
PROJECT: NONE GIVEN

SUBMITTED BY: UNKNOWN  
DATE PRINTED: 4-DEC-89

SAMPLE TYPES	NUMBER	SIZE FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER
SOILS	203	1 -30	203	DRY, SIEVE -30	203

REPORT COPIES TO: #13-1155 MELVILLE STREET  
MR. JOHN DUPUIS

INVOICE TO: #13-1155 MELVILLE STREET

A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

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REPORT: V87-08282.0

PROJECT: NONE GIVEN

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SAMPLE NUMBER	ELEMENT UNITS	Au PPM	Ag PPM	As PPM	Ba PPM	Be PPM	Bi PPM	Cd PPM	Ce PPM	Co PPM	Cr PPM	Cu PPM
S1 L1+00S 5+004		<5	<0.5	15	182	<0.5	<2	<1	20	44	346	24
S1 L1+00S 4+754		<5	<0.5	<5	170	<0.5	<2	<1	35	35	149	23
S1 L1+00S 4+504		11	3.5	<5	263	<0.5	2	<1	27	43	213	31
S1 L1+00S 4+254		<5	<0.5	<5	256	<0.5	<2	<1	27	48	364	35
S1 L1+00S 4+004		<5	<0.5	<5	148	<0.5	2	<1	29	41	462	48
S1 L1+00S 3+754		<5	<0.5	<5	150	<0.5	5	<1	19	53	455	27
S1 L1+00S 3+504		<5	<0.5	<5	166	<0.5	<2	<1	21	55	414	38
S1 L1+00S 3+254		<5	<0.5	9	199	<0.5	<2	<1	32	38	294	46
S1 L1+00S 3+004		<5	<0.5	17	136	<0.5	6	<1	24	45	395	23
S1 L1+00S 2+754		<5	<0.5	<5	134	<0.5	<2	<1	28	40	326	33
S1 L1+00S 2+504		13	<0.5	<5	127	<0.5	3	<1	33	49	472	56
S1 L1+00S 2+254		6	<0.5	<5	117	<0.5	3	<1	27	44	375	26
S1 L1+00S 2+004		<5	<0.5	10	99	<0.5	7	<1	20	36	469	19
S1 L1+00S 1+754		6	<0.5	<5	223	<0.5	<2	<1	29	37	326	28
S1 L1+00S 1+504		5	<0.5	<5	245	0.6	2	<1	46	30	240	90
S1 L1+00S 0+754		<5	<0.5	<5	120	<0.5	2	<1	24	33	363	22
S1 L1+00S 0+504		<5	0.5	<5	162	<0.5	6	<1	26	49	348	27
S1 L1+00S 0+25E		<5	<0.5	<5	223	<0.5	7	<1	37	20	250	59
S1 L1+00S 1+00F		<5	<0.5	<5	344	<0.5	6	<1	21	27	298	31
S1 L1+00S 1+25E		<5	<0.5	<5	288	0.9	6	<1	29	33	279	27
S1 L1+00S 1+50F		<5	<0.5	<5	144	<0.5	6	<1	27	35	423	36
S1 L1+00S 1+75E		6	<0.5	<5	226	<0.5	7	<1	22	40	425	31
S1 L1+00S 2+25E		<5	<0.5	6	104	<0.5	10	<1	20	62	509	26
S1 L1+00S 2+50E		<5	0.5	<5	141	<0.5	8	<1	33	74	505	32
S1 L1+00S 2+75E		<5	<0.5	13	149	<0.5	10	<1	19	40	470	26
S1 L1+00S 3+50E		<5	<0.5	<5	153	<0.5	6	<1	32	54	489	31
S1 L1+00S 3+75E		<5	<0.5	7	188	<0.5	13	<1	19	64	493	24
S1 L1+00S 4+00E		7	<0.5	<5	180	<0.5	7	<1	23	68	559	44
S1 L1+00S 5+00E		<5	<0.5	<5	177	<0.5	7	<1	34	63	535	32
S1 L2+00S 5+004		<5	<0.5	<5	175	2.8	<2	2	31	30	248	33
S1 L2+00S 4+754		26	<0.5	<5	200	0.5	4	<1	29	26	187	30
S1 L2+00S 4+504		<5	<0.5	<5	240	0.5	8	<1	23	26	227	30
S1 L2+00S 4+254		<5	<0.5	10	210	<0.5	11	<1	26	24	285	12
S1 L2+00S 4+004		<5	<0.5	<5	166	<0.5	5	<1	20	33	346	24
S1 L2+00S 3+754		<5	<0.5	6	167	<0.5	2	<1	21	27	300	21
S1 L2+00S 3+254		<5	<0.5	<5	137	<0.5	7	<1	23	31	335	22
S1 L2+00S 3+004		<5	<0.5	5	166	1.2	3	1	30	38	342	55
S1 L2+00S 2+504		6	<0.5	6	159	<0.5	7	<1	22	35	360	35
S1 L2+00S 2+254		15	<0.5	5	191	<0.5	9	<1	19	36	295	37
S1 L2+00S 2+004		15	<0.5	<5	195	<0.5	3	<1	27	31	301	30





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PROJECT: NONE GIVEN

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SAMPLE NUMBER	ELEMENT UNITS	Sr PPM	Ta PPM	Tb PPM	U PPM	V PPM	Y PPM	Zn PPM	Zr PPM
S1 L1+00S 5+00W		28	35	13	134	<10	5	142	<1
S1 L1+00S 4+75W		26	13	15	130	<10	5	175	4
S1 L1+00S 4+50W		42	26	10	100	<10	6	227	<1
S1 L1+00S 4+25W		32	21	14	100	<10	6	133	<1
S1 L1+00S 4+00W		26	53	10	87	<10	11	90	<1
S1 L1+00S 3+75W		25	37	13	110	<10	3	106	<1
S1 L1+00S 3+50W		35	25	12	91	<10	11	173	<1
S1 L1+00S 3+25W		51	37	10	75	<10	11	130	6
S1 L1+00S 3+00W		40	34	<10	82	<10	6	198	<1
S1 L1+00S 2+75W		46	20	<10	84	<10	3	161	<1
S1 L1+00S 2+50W		52	32	<10	76	<10	10	182	<1
S1 L1+00S 2+25W		32	10	<10	90	<10	3	235	<1
S1 L1+00S 2+00W		36	39	<10	74	<10	5	59	<1
S1 L1+00S 1+75W		54	18	<10	81	<10	7	116	<1
S1 L1+00S 1+50W		60	27	<10	71	<10	22	99	19
S1 L1+00S 0+75W		31	22	<10	83	<10	6	67	3
S1 L1+00S 0+50W		17	30	12	119	<10	4	103	<1
S1 L1+00S 0+75E		60	28	<10	79	<10	12	103	4
S1 L1+00S 1+00E		33	39	<10	93	<10	7	85	<1
S1 L1+00S 1+25E		39	26	<10	87	<10	8	93	2
S1 L1+00S 1+50E		30	42	17	91	<10	3	88	<1
S1 L1+00S 1+75E		46	62	12	74	<10	7	70	1
S1 L1+00S 2+25E		17	64	<10	78	<10	5	61	<1
S1 L1+00S 2+50E		27	44	12	85	<10	6	72	2
S1 L1+00S 2+75E		23	46	11	77	<10	5	63	<1
S1 L1+00S 3+50E		35	36	15	86	<10	7	79	4
S1 L1+00S 3+75E		23	53	<10	83	<10	4	90	<1
S1 L1+00S 4+00E		32	56	13	75	<10	9	77	3
S1 L1+00S 5+00E		25	43	13	101	<10	7	109	<1
S1 L2+00S 5+00W		49	19	<10	118	<10	6	151	<1
S1 L2+00S 4+75W		28	30	<10	121	<10	3	99	<1
S1 L2+00S 4+50W		46	22	<10	77	<10	7	84	1
S1 L2+00S 4+25W		33	27	<10	90	<10	6	81	4
S1 L2+00S 4+00W		38	42	12	86	11	5	76	<1
S1 L2+00S 3+75W		35	36	<10	90	<10	5	98	<1
S1 L2+00S 3+25W		40	24	<10	83	<10	4	78	1
S1 L2+00S 2+75W		67	27	<10	78	<10	11	150	3
S1 L2+00S 2+50W		53	30	<10	79	<10	6	100	3
S1 L2+00S 2+25W		51	19	<10	79	<10	8	112	3
S1 L2+00S 2+00W		55	29	<10	78	<10	8	117	3

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PAGE 2A

SAMPLE NUMBER	ELEMENT UNITS	Au PPM	Ag PPM	As PPM	Ba PPM	Cd PPM	Cl PPM	Co PPM	Cu PPM	Cr PPM	Pb PPM	Mn PPM
S1 L2+00S 1+75W		<5	<0.5	<5	138	<0.5	10	<1	32	36	409	59
S1 L2+00S 0+25W		<5	<0.5	10	39	<0.5	7	2	14	39	1360	33
S1 L2+00S 0+00W		<5	<0.5	14	140	<0.5	9	<1	30	58	457	66
S1 L2+00S 1+00E		<5	<0.5	<5	170	<0.5	5	<1	25	23	310	29
S1 L2+00S 1+25E		<5	<0.5	17	205	<0.5	5	<1	26	23	344	17
S1 L2+00S 1+50E		<5	<0.5	<5	122	<0.5	3	<1	24	50	423	34
S1 L2+00S 2+00F		<5	<0.5	<5	175	<0.5	5	<1	29	49	362	39
S1 L2+00S 2+25E		<5	<0.5	<5	125	<0.5	6	<1	23	76	539	48
S1 L2+00S 2+50E		<5	<0.5	<5	107	<0.5	5	<1	13	69	475	23
S1 L2+00S 2+75E		<5	<0.5	<5	159	<0.5	6	<1	19	69	446	37
S1 L2+00S 3+25E		<5	<0.5	7	130	<0.5	7	<1	24	69	421	32
S1 L2+00S 3+50E		5	<0.5	6	137	<0.5	3	<1	23	69	443	36
S1 L2+00S 3+75E		<5	<0.5	7	121	<0.5	4	<1	13	58	493	32
S1 L2+00S 4+00E		8	<0.5	<5	168	<0.5	3	<1	20	72	454	41
S1 L2+00S 4+25E		5	<0.5	6	150	<0.5	10	<1	18	51	452	26
S1 L2+00S 4+50E		<5	<0.5	<5	174	1.0	<2	1	23	43	494	49
S1 L2+00S 4+75E		<5	<0.5	9	237	<0.5	<2	<1	21	35	334	41
S1 L3+00S 5+00W		<5	<0.5	<5	111	<0.5	8	<1	18	25	284	19
S1 L3+00S 4+75W		<5	<0.5	<5	290	0.6	6	<1	39	29	242	57
S1 L3+00S 4+50W		<5	<0.5	<5	366	0.6	5	<1	45	19	111	22
S1 L3+00S 4+25W		<5	<0.5	18	132	<0.5	5	<1	20	29	287	20
S1 L3+00S 4+00W		<5	0.6	<5	336	1.0	6	<1	46	31	133	115
S1 L3+00S 3+75W		14	<0.5	7	190	<0.5	4	<1	21	17	164	16
S1 L3+00S 3+50W		<5	<0.5	<5	249	<0.5	6	<1	28	24	135	28
S1 L3+00S 3+25W		<5	<0.5	<5	326	0.7	7	<1	45	27	208	33
S1 L3+00S 3+00W		<5	<0.5	<5	167	<0.5	6	<1	23	31	306	20
S1 L3+00S 2+75W		<5	<0.5	<5	179	<0.5	3	<1	30	33	298	34
S1 L3+00S 2+50W		<5	<0.5	<5	267	0.6	9	<1	44	35	254	52
S1 L3+00S 2+25W		<5	<0.5	<5	152	<0.5	9	<1	25	31	322	23
S1 L3+00S 2+00W		<5	<0.5	<5	175	<0.5	2	<1	22	26	279	21
S1 L3+00S 1+75W		6	<0.5	7	174	<0.5	5	<1	32	36	302	34
S1 L3+00S 1+50W		<5	<0.5	<5	189	<0.5	5	<1	27	29	279	34
S1 L3+00S 1+25W		<5	<0.5	15	133	0.7	2	<1	30	32	334	53
S1 L3+00S 1+00W		6	<0.5	<5	220	0.7	7	<1	39	18	216	37
S1 L3+00S 0+75W		9	<0.5	10	130	<0.5	7	<1	31	22	232	42
S1 L3+00S 0+25W		<5	<0.5	5	133	<0.5	5	<1	18	37	317	24
S1 L3+00S 0+00W		6	<0.5	<5	131	<0.5	7	<1	21	33	347	34
S1 L3+00S 0+25E		<5	<0.5	<5	244	<0.5	<2	<1	26	33	230	25
S1 L3+00S 1+00E		51	<0.5	<5	136	<0.5	10	<1	22	37	421	37
S1 L3+00S 1+25E		13	<0.5	7	217	<0.5	7	1	21	21	277	31

A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

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SAMPLE NUMBER	ELEMENT UNITS	Ca PPM	Li PPM	Li PPM	Na PPM	Nb PPM	Ni PPM	Pb PPM	Pb PPM	Se PPM	Co PPM	Zn PPM
S1 L2+00S 1+75W		<2	7	12	1	3	452	9	177	<5	<1	<20
S1 L2+00S 0+25W		7	6	4	2	<1	1719	<2	<20	6	<1	<20
S1 L2+00S 0+00W		<2	9	14	2	2	693	<2	57	12	<1	<20
S1 L2+00S 1+00E		<2	7	14	1	4	284	<2	<20	9	<1	<20
S1 L2+00S 1+25E		<2	7	15	<1	4	351	<2	95	7	<1	<20
S1 L2+00S 1+50E		3	4	11	2	2	516	<2	72	5	<1	<20
S1 L2+00S 2+00E		<2	10	12	1	3	508	<2	59	6	<1	<20
S1 L2+00S 2+25E		<2	5	14	<1	2	951	<2	25	9	<1	<20
S1 L2+00S 2+50E		<2	3	13	2	2	566	<2	67	<5	<1	<20
S1 L2+00S 2+75E		<2	5	12	<1	3	722	<2	30	<5	<1	<20
S1 L2+00S 3+25E		<2	4	12	<1	2	663	<2	<20	13	<1	<20
S1 L2+00S 3+50E		<2	4	12	1	2	747	<2	116	<5	<1	<20
S1 L2+00S 3+75E		<2	7	11	1	2	762	<2	49	<5	<1	<20
S1 L2+00S 4+00E		<2	5	11	2	2	765	2	<20	6	<1	<20
S1 L2+00S 4+25E		<2	3	11	<1	2	508	<2	31	<5	<1	<20
S1 L2+00S 4+50E		<2	11	14	5	2	577	<2	88	7	<1	<20
S1 L2+00S 4+75E		<2	8	11	2	3	483	<2	39	<5	<1	<20
S1 L3+00S 5+00W		<2	4	17	3	3	252	<2	87	<5	<1	<20
S1 L3+00S 4+75W		5	16	17	<1	6	473	<2	91	<5	<1	<20
S1 L3+00S 4+50W		<2	16	15	2	10	226	<2	67	8	<1	<20
S1 L3+00S 4+25W		<2	4	20	2	3	368	3	145	<5	<1	<20
S1 L3+00S 4+00W		<2	21	15	2	11	583	<2	43	<5	<1	<20
S1 L3+00S 3+75W		<2	6	9	3	3	143	3	88	<5	<1	<20
S1 L3+00S 3+50W		<2	8	12	3	5	208	<2	57	8	<1	<20
S1 L3+00S 3+25W		3	13	12	<1	8	347	4	<20	<5	<1	<20
S1 L3+00S 3+00W		<2	6	11	<1	3	278	<2	121	<5	<1	<20
S1 L3+00S 2+75W		<2	9	13	1	2	364	<2	104	<5	<1	<20
S1 L3+00S 2+50W		2	11	16	2	5	428	<2	71	<5	<1	<20
S1 L3+00S 2+25W		<2	5	14	1	2	265	<2	39	<5	<1	<20
S1 L3+00S 2+00W		3	6	14	<1	2	238	<2	60	<5	<1	<20
S1 L3+00S 1+75W		<2	8	14	2	2	313	<2	82	16	<1	<20
S1 L3+00S 1+50W		<2	6	13	1	3	305	3	76	<5	<1	<20
S1 L3+00S 1+25W		<2	11	15	5	2	439	<2	<20	<5	<1	<20
S1 L3+00S 1+00W		<2	14	10	4	4	336	<2	41	<5	<1	<20
S1 L3+00S 0+75W		<2	9	12	1	4	327	<2	31	<5	<1	<20
S1 L3+00S 0+25W		<2	4	21	3	5	253	<2	26	<5	<1	<20
S1 L3+00S 0+00W		<2	7	15	3	2	399	<2	102	6	<1	<20
S1 L3+00S 0+25E		4	6	18	4	6	314	5	<20	<5	<1	<20
S1 L3+00S 1+00E		<2	5	11	1	3	505	<2	55	<5	<1	<20
S1 L3+00S 1+25E		<2	8	13	2	4	295	<2	116	<5	<1	<20

A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

DATE PRINTED: 4 DEC 89

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PROJECT: NONE GIVEN

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SAMPLE NUMBER	ELEMENT UNITS	Au PPM	Ag PPM	As PPM	Ba PPM	Ce PPM	Co PPM	Cd PPM	Ce PPM	Co PPM	Cr PPM	Cu PPM
S1 L3+000 1+50E		<5	<0.5	<5	185	<0.5	4	<1	29	27	352	44
S1 L3+000 1+75E		<5	<0.5	<5	170	<0.5	6	<1	24	40	278	28
S1 L3+000 2+00E		<5	<0.5	<5	165	<0.5	8	<1	21	23	304	19
S1 L3+000 2+25E		<5	<0.5	<5	159	<0.5	9	<1	33	27	260	19
S1 L3+000 2+50F		<5	<0.5	<5	155	<0.5	10	<1	20	70	661	24
S1 L3+000 2+75E		110	<0.5	7	204	<0.5	6	<1	28	32	279	30
S1 L3+000 3+00E		<5	<0.5	<5	181	<0.5	6	<1	21	57	315	23
S1 L3+000 3+25E		25	<0.5	<5	152	<0.5	13	<1	22	92	495	39
S1 L3+000 3+50E		<5	<0.5	<5	153	<0.5	8	<1	19	56	384	23
S1 L3+000 3+75E		<5	<0.5	12	113	<0.5	4	<1	15	53	399	17
S1 L3+000 4+00E		<5	<0.5	14	197	<0.5	3	<1	19	58	396	35
S1 L3+000 4+50E		133	<0.5	<5	247	<0.5	7	<1	18	72	488	34
S1 L3+000 4+75E		<5	<0.5	<5	139	<0.5	3	<1	25	73	468	36
S1 L3+000 5+00E		<5	<0.5	<5	149	<0.5	5	<1	29	42	366	25
S1 L4+000 5+00W		<5	<0.5	<5	193	0.9	4	<1	41	27	186	44
S1 L4+000 4+75W		<5	<0.5	<5	192	<0.5	2	<1	31	22	110	28
S1 L4+000 4+50W		<5	<0.5	<5	141	<0.5	9	<1	22	33	366	22
S1 L4+000 4+25W		<5	<0.5	<5	211	<0.5	3	<1	22	18	266	24
S1 L4+000 4+00W		<5	<0.5	<5	203	<0.5	7	<1	27	34	321	27
S1 L4+000 3+75W		<5	<0.5	<5	193	<0.5	<2	<1	23	23	258	22
S1 L4+000 3+50W		<5	<0.5	6	226	<0.5	6	<1	26	22	189	24
S1 L4+000 3+25W		<5	<0.5	22	564	0.9	2	<1	48	25	144	39
S1 L4+000 3+00W		<5	<0.5	<5	178	<0.5	6	<1	21	36	504	23
S1 L4+000 2+75W		<5	<0.5	<5	312	<0.5	6	<1	33	38	285	38
S1 L4+000 2+50W		<5	<0.5	<5	254	<0.5	9	<1	34	36	326	30
S1 L4+000 2+25W		<5	<0.5	<5	237	<0.5	7	<1	33	37	263	32
S1 L4+000 2+00W		<5	<0.5	<5	162	<0.5	3	<1	27	32	334	24
S1 L4+000 1+75W		<5	<0.5	15	174	<0.5	7	<1	31	34	260	25
S1 L4+000 1+50W		7	<0.5	28	143	<0.5	9	<1	22	31	331	25
S1 L4+000 1+25W		<5	<0.5	<5	138	<0.5	3	<1	27	32	352	28
S1 L4+000 1+00W		<5	<0.5	<5	189	<0.5	5	<1	31	34	351	30
S1 L4+000 0+50W		6	<0.5	<5	193	<0.5	7	<1	23	32	333	42
S1 L4+000 0+25W		<5	<0.5	<5	211	0.6	6	<1	35	28	199	28
S1 L4+000 0+00W		<5	<0.5	<5	211	<0.5	3	<1	17	23	252	24
S1 L4+000 0+25E		6	<0.5	12	233	<0.5	2	<1	29	34	333	46
S1 L4+000 0+50E		<5	<0.5	32	216	<0.5	7	<1	14	37	350	22
S1 L4+000 0+75E		<5	<0.5	17	319	<0.5	6	<1	27	54	299	30
S1 L4+000 1+00E		<5	<0.5	<5	222	<0.5	6	<1	24	36	341	40
S1 L4+000 1+25E		<5	<0.5	<5	168	<0.5	11	<1	35	36	349	29
S1 L4+000 1+50E		<5	<0.5	<5	194	<0.5	3	<1	28	38	255	17

A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

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PROJECT: NONE GIVEN

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SAMPLE NUMBER	ELEMENT UNITS	Sa PPM	La PPM	Li PPM	Ba PPM	Pb PPM	Mn PPM	Pb PPM	Rb PPM	Sr PPM	Zn PPM	Mo PPM
S1 L3+00S 1+50E		<2	8	13	1	3	385	<2	75	<5	<1	<20
S1 L3+00S 1+75E		<2	6	14	3	6	309	<2	31	8	<1	<20
S1 L3+00S 2+00F		<2	5	13	2	3	253	<2	67	7	<1	<20
S1 L3+00S 2+25E		5	3	14	2	4	221	3	93	<5	<1	<20
S1 L3+00S 2+50E		<2	5	15	7	4	743	3	52	7	<1	<20
S1 L3+00S 2+75E		<2	6	14	2	5	335	2	<20	10	<1	<20
S1 L3+00S 3+00E		<2	5	8	1	3	339	<2	36	8	<1	<20
S1 L3+00S 3+25E		<2	4	12	1	3	830	<2	84	<5	<1	<20
S1 L3+00S 3+50E		<2	4	10	<1	3	454	<2	32	7	<1	<20
S1 L3+00S 3+75E		<2	3	11	1	3	433	<2	64	<5	<1	<20
S1 L3+00S 4+00E		<2	5	12	3	3	576	4	<20	8	<1	<20
S1 L3+00S 4+50E		<2	5	10	<1	9	683	4	103	8	<1	<20
S1 L3+00S 4+75E		<2	3	11	<1	5	743	2	<20	<5	<1	<20
S1 L3+00S 5+00E		4	7	9	1	5	431	<2	<20	7	<1	<20
S1 L4+00S 5+00W		6	10	12	2	10	324	2	119	<5	<1	<20
S1 L4+00S 4+75W		3	7	16	<1	6	130	<2	53	6	<1	<20
S1 L4+00S 4+50W		<2	5	15	1	2	340	<2	24	<5	<1	<20
S1 L4+00S 4+25W		<2	7	13	2	3	243	<2	134	7	<1	<20
S1 L4+00S 4+00W		<2	7	13	1	3	362	<2	93	7	<1	<20
S1 L4+00S 3+75W		<2	5	14	3	3	215	<2	42	<5	<1	<20
S1 L4+00S 3+50W		<2	7	15	1	4	166	<2	<20	7	<1	<20
S1 L4+00S 3+25W		<2	23	15	1	8	347	<2	104	<5	<1	<20
S1 L4+00S 3+00W		<2	5	14	<1	3	405	<2	44	<5	<1	<20
S1 L4+00S 2+75W		<2	11	15	<1	4	425	<2	42	<5	<1	<20
S1 L4+00S 2+50W		3	8	13	<1	3	372	<2	74	15	<1	<20
S1 L4+00S 2+25W		4	8	14	2	5	316	<2	<20	7	<1	<20
S1 L4+00S 2+00W		<2	6	13	1	3	280	<2	166	6	<1	<20
S1 L4+00S 1+75W		2	8	14	3	5	240	<2	35	8	<1	<20
S1 L4+00S 1+50W		<2	5	13	3	3	331	<2	45	7	<1	<20
S1 L4+00S 1+25W		<2	5	11	2	2	357	<2	56	<5	<1	<20
S1 L4+00S 1+00W		<2	10	13	<1	3	374	5	106	14	<1	<20
S1 L4+00S 0+50W		<2	6	14	<1	3	454	<2	89	<5	<1	<20
S1 L4+00S 0+25W		3	9	11	3	8	238	7	66	10	<1	<20
S1 L4+00S 0+00W		<2	6	13	2	3	241	<2	42	<5	<1	<20
S1 L4+00S 0+25E		<2	9	13	2	3	423	<2	61	<5	<1	<20
S1 L4+00S 0+50E		<2	9	14	<1	2	362	<2	37	5	<1	<20
S1 L4+00S 0+75E		<2	7	10	3	5	336	5	<20	3	<1	<20
S1 L4+00S 1+00E		<2	5	13	3	4	341	<2	33	<5	<1	<20
S1 L4+00S 1+25E		<2	10	13	1	3	533	4	—	6	<1	<20
S1 L4+00S 1+50E		4	7	11	3	3	300	<2	30	15	<1	<20

A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

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PROJECT: NONE GIVEN

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SAMPLE NUMBER	ELEMENT UNITS	Cr PPM	Ta PPM	Te PPM	U PPM	V PPM	Zr PPM	Zn PPM	Zr PPM
S1 L3+00S 1+50E		32	37	<10	87	<10	11	63	<1
S1 L3+00S 1+75E		28	36	<10	117	<10	4	169	<1
S1 L3+00S 2+00E		32	31	<10	74	<10	4	55	<1
S1 L3+00S 2+25E		42	34	<10	111	<10	4	91	<1
S1 L3+00S 2+50E		38	38	17	117	<10	6	80	<1
S1 L3+00S 2+75E		48	42	<10	87	<10	6	91	1
S1 L3+00S 3+00E		30	34	10	86	<10	7	78	<1
S1 L3+00S 3+25E		24	54	<10	87	<10	7	68	<1
S1 L3+00S 3+50E		28	42	<10	81	<10	4	97	<1
S1 L3+00S 3+75E		23	44	<10	92	<10	6	73	<1
S1 L3+00S 4+00E		38	56	<10	83	<10	7	81	<1
S1 L3+00S 4+50E		24	39	14	84	<10	6	78	13
S1 L3+00S 4+75E		32	59	11	85	<10	5	71	4
S1 L3+00S 5+00E		22	42	13	92	<10	4	125	6
S1 L4+00S 5+00W		32	27	<10	113	<10	6	100	11
S1 L4+00S 4+75W		30	<10	<10	100	<10	5	90	7
S1 L4+00S 4+50W		35	36	<10	91	<10	3	64	<1
S1 L4+00S 4+25W		38	22	<10	74	<10	7	63	5
S1 L4+00S 4+00W		50	31	<10	81	<10	6	65	4
S1 L4+00S 3+75W		38	18	<10	92	<10	4	79	<1
S1 L4+00S 3+50W		36	<10	<10	96	<10	4	88	1
S1 L4+00S 3+25W		62	22	<10	87	<10	18	95	38
S1 L4+00S 3+00W		41	34	<10	87	<10	5	73	<1
S1 L4+00S 2+75W		48	16	11	89	<10	7	97	20
S1 L4+00S 2+50W		68	29	11	80	<10	8	76	5
S1 L4+00S 2+25W		70	26	<10	85	<10	8	87	5
S1 L4+00S 2+00W		60	28	<10	71	<10	7	80	4
S1 L4+00S 1+75W		52	35	<10	92	<10	5	96	3
S1 L4+00S 1+50W		38	30	<10	91	<10	4	90	<1
S1 L4+00S 1+25W		46	35	<10	78	<10	6	80	<1
S1 L4+00S 1+00W		58	29	<10	82	<10	10	85	5
S1 L4+00S 0+50W		44	27	11	84	<10	7	84	<1
S1 L4+00S 0+25W		47	13	<10	111	<10	6	136	<1
S1 L4+00S 0+00W		31	22	<10	91	<10	4	72	<1
S1 L4+00S 0+25E		40	34	<10	34	<10	10	87	<1
S1 L4+00S 0+50E		29	28	<10	99	<10	3	91	<1
S1 L4+00S 0+75E		24	14	<10	110	<10	6	240	1
S1 L4+00S 1+00E		37	37	<10	93	<10	6	108	<1
S1 L4+00S 1+25E		49	19	<10	85	<10	19	107	<1
S1 L4+00S 1+50E		37	20	11	103	10	4	101	<1

A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

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PROJECT: NONE GIVEN

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SAMPLE NUMBER	ELEMENT UNITS	Al PPB	Ag PPM	As PPM	Ba PPM	Bi PPM	Br PPM	Ca PPM	Co PPM	Cu PPM	Cr PPM	Mn PPM
S1 L4+00S 1+75F		<5	0.7	10	283	0.3	6	<1	42	42	274	75
S1 L4+00S 2+00E		<5	<0.5	22	121	<0.5	5	<1	23	31	319	39
S1 L4+00S 2+25E		<5	<0.5	<5	196	<0.5	6	<1	30	33	274	31
S1 L4+00S 2+50E		<5	<0.5	<5	209	<0.5	11	<1	30	32	283	33
S1 L4+00S 2+75E		<5	<0.5	<5	224	0.7	12	<1	36	36	242	36
S1 L4+00S 3+00E		<5	<0.5	<5	221	<0.5	<2	<1	23	23	212	19
S1 L4+00S 3+25E		<5	<0.5	<5	207	<0.5	8	<1	20	23	301	19
S1 L4+00S 3+50E		<5	<0.5	<5	217	<0.5	8	<1	21	34	390	25
S1 L4+00S 4+00F		<5	<0.5	<5	153	<0.5	5	<1	23	57	432	18
S1 L4+00S 4+25E		<5	<0.5	<5	288	<0.5	7	<1	39	37	255	27
S1 L4+00S 4+50E		<5	<0.5	13	176	<0.5	9	<1	25	39	401	33
S1 L4+00S 4+75E		<5	<0.5	<5	194	<0.5	11	<1	23	30	515	36
S1 L4+00S 5+00E		<5	<0.5	<5	141	<0.5	7	<1	25	44	427	27
S1 L5+00S 5+00W		<5	<0.5	<5	147	<0.5	3	<1	28	46	356	33
S1 L5+00S 4+75W		<5	<0.5	<5	201	<0.5	8	<1	32	60	381	54
S1 L5+00S 4+25W		<5	<0.5	<5	173	<0.5	6	<1	23	28	289	23
S1 L5+00S 4+00W		<5	<0.5	12	165	<0.5	3	<1	23	18	157	27
S1 L5+00S 3+75W		<5	<0.5	<5	165	<0.5	3	<1	22	27	253	26
S1 L5+00S 3+50W		<5	<0.5	<5	191	<0.5	3	<1	28	29	256	31
S1 L5+00S 3+25W		6	<0.5	<5	181	<0.5	7	<1	21	28	358	25
S1 L5+00S 3+00W		<5	<0.5	7	189	<0.5	9	<1	30	31	316	34
S1 L5+00S 2+75W		<5	<0.5	<5	189	<0.5	8	<1	26	26	266	23
S1 L5+00S 2+50W		<5	<0.5	<5	220	<0.5	8	<1	31	37	335	33
S1 L5+00S 2+25W		<5	<0.5	<5	177	<0.5	10	<1	27	32	298	28
S1 L5+00S 2+00W		<5	<0.5	<5	215	0.3	6	<1	32	35	298	32
S1 L5+00S 1+50W		<5	<0.5	<5	168	<0.5	6	<1	27	28	247	20
S1 L5+00S 1+25W		<5	<0.5	<5	151	<0.5	<2	<1	23	30	313	31
S1 L5+00S 1+00W		<5	<0.5	12	147	<0.5	3	<1	24	32	328	38
S1 L5+00S 0+75W		<5	<0.5	7	139	<0.5	10	<1	29	36	430	42
S1 L5+00S 0+25W		<5	<0.5	<5	90	<0.5	8	<1	37	35	190	64
S1 L5+00S 0+00W		<5	<0.5	<5	157	<0.5	6	<1	19	30	333	36
S1 L5+00S 0+25E		<5	<0.5	<5	251	<0.5	9	<1	17	30	286	25
S1 L5+00S 0+50E		<5	<0.5	13	254	<0.5	<2	<1	24	34	341	29
S1 L5+00S 0+75F		7	<0.5	<5	237	<0.5	<2	<1	21	34	332	39
S1 L5+00S 1+50E		7	<0.5	<5	147	<0.5	7	<1	20	31	333	26
S1 L5+00S 1+75E		<5	<0.5	<5	192	<0.5	5	<1	24	28	292	21
S1 L5+00S 2+25E		<5	<0.5	<5	270	<0.5	7	<1	13	23	328	53
S1 L5+00S 2+50E		<5	<0.5	<5	130	<0.5	7	<1	26	37	327	37
S1 L5+00S 2+75E		<5	<0.5	<5	102	<0.5	10	<1	24	34	475	24
S1 L5+00S 3+00E		<5	<0.5	<5	150	<0.5	3	<1	20	25	202	20

A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

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SAMPLE NUMBER	ELEMENT UNITS	Ca PPM	La PPM	Li PPM	Ni PPM	Nb PPM	Ni PPM	Pb PPM	Rb PPM	Sb PPM	Sc PPM	Sn PPM
S1 L4+00S 1+75E		2	14	13	2	8	415	8	<20	11	<1	<20
S1 L4+00S 2+00E		<2	4	13	<1	2	318	<2	45	7	<1	<20
S1 L4+00S 2+25E		2	9	12	<1	4	311	<2	121	6	<1	<20
S1 L4+00S 2+50E		<2	7	13	1	3	316	3	51	<5	<1	<20
S1 L4+00S 2+75E		4	9	14	3	7	312	<2	<20	10	<1	<20
S1 L4+00S 3+00E		2	6	14	3	4	184	<2	23	5	<1	<20
S1 L4+00S 3+25E		5	5	15	2	3	226	<2	<20	<5	<1	<20
S1 L4+00S 3+50E		<2	5	13	<1	7	405	7	89	<5	<1	<20
S1 L4+00S 4+00E		<2	3	13	1	3	412	3	152	12	<1	<20
S1 L4+00S 4+25E		2	11	12	2	8	450	<2	106	<5	<1	<20
S1 L4+00S 4+50E		4	6	11	<1	3	577	<2	98	<5	<1	<20
S1 L4+00S 4+75E		<2	5	12	1	3	339	3	<20	12	<1	<20
S1 L4+00S 5+00E		<2	5	10	3	5	427	5	43	<5	<1	<20
S1 L5+00S 5+00W		<2	6	15	2	2	429	<2	28	<5	<1	<20
S1 L5+00S 4+75W		<2	9	13	2	3	522	<2	121	10	<1	<20
S1 L5+00S 4+25W		<2	5	12	2	3	275	<2	<20	5	<1	<20
S1 L5+00S 4+00W		<2	6	13	<1	4	127	<2	<20	<5	<1	<20
S1 L5+00S 3+75W		<2	5	14	1	2	271	<2	79	<5	<1	<20
S1 L5+00S 3+50W		<2	7	12	2	3	288	<2	24	5	<1	<20
S1 L5+00S 3+25W		<2	5	13	2	2	298	<2	99	<5	<1	<20
S1 L5+00S 3+00W		4	7	15	1	3	313	3	141	<5	<1	<20
S1 L5+00S 2+75W		<2	6	14	1	2	237	<2	<20	<5	<1	<20
S1 L5+00S 2+50W		<2	10	16	<1	3	404	<2	51	<5	<1	<20
S1 L5+00S 2+25W		<2	7	12	<1	3	323	<2	48	9	<1	<20
S1 L5+00S 2+00W		3	11	12	4	4	296	<2	<20	7	<1	<20
S1 L5+00S 1+50W		5	7	12	2	4	226	3	23	7	<1	<20
S1 L5+00S 1+25W		<2	5	14	2	2	344	2	46	<5	<1	<20
S1 L5+00S 1+00W		<2	8	14	<1	2	421	<2	151	<5	<1	<20
S1 L5+00S 0+75W		<2	3	11	1	2	551	<2	86	<5	<1	<20
S1 L5+00S 0+25W		3	6	86	<1	2	241	<2	168	10	<1	<20
S1 L5+00S 0+00W		3	4	15	5	2	311	<2	89	<5	<1	<20
S1 L5+00S 0+25E		<2	3	22	2	2	225	<2	127	<5	<1	<20
S1 L5+00S 0+50E		2	6	15	<1	2	309	4	60	11	<1	<20
S1 L5+00S 0+75E		<2	6	14	3	2	330	5	149	6	<1	<20
S1 L5+00S 1+50E		<2	5	14	<1	3	263	2	67	10	<1	<20
S1 L5+00S 1+75E		<2	5	14	1	3	268	<2	45	<5	<1	<20
S1 L5+00S 2+25E		<1	12	15	<1	5	466	<2	157	7	<1	<20
S1 L5+00S 2+50E		<2	4	13	<1	2	279	2	20	<5	<1	<20
S1 L5+00S 2+75E		<2	5	11	<1	2	449	<2	95	<5	<1	<20
S1 L5+00S 3+00E		<2	5	10	2	2	267	<2	89	<5	<1	<20



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SAMPLE NUMBER	ELEMENT UNITS	Cr PPM	Ca PPM	Fe PPM	V PPM	Mg PPM	P PPM	Zn PPM	Zr PPM
S1 L4+00S 1+75E		62	29	<10	103	<10	12	163	<1
S1 L4+00S 2+00E		29	30	<10	96	<10	6	65	<1
S1 L4+00S 2+25E		30	<10	<10	101	<10	6	126	4
S1 L4+00S 2+50E		32	36	14	97	<10	6	103	1
S1 L4+00S 2+75E		27	24	<10	119	<10	4	129	5
S1 L4+00S 3+00E		25	29	<10	101	<10	4	99	1
S1 L4+00S 3+25E		32	21	<10	99	<10	3	83	<1
S1 L4+00S 3+50E		29	41	12	93	<10	4	78	7
S1 L4+00S 4+00E		24	42	14	108	12	5	70	3
S1 L4+00S 4+25E		38	35	<10	108	<10	6	116	10
S1 L4+00S 4+50E		27	42	10	83	11	6	65	4
S1 L4+00S 4+75E		26	63	<10	85	<10	7	65	1
S1 L4+00S 5+00E		27	42	11	108	<10	4	153	<1
S1 L5+00S 5+00W		41	46	<10	95	<10	6	85	3
S1 L5+00S 4+75W		52	34	<10	85	<10	10	93	3
S1 L5+00S 4+25W		34	26	12	85	<10	4	83	<1
S1 L5+00S 4+00W		29	<10	<10	86	<10	3	77	<1
S1 L5+00S 3+75W		34	24	<10	91	<10	5	72	<1
S1 L5+00S 3+50W		46	20	<10	85	<10	6	93	<1
S1 L5+00S 3+25W		35	38	<10	80	<10	5	81	<1
S1 L5+00S 3+00W		40	26	<10	89	<10	5	37	<1
S1 L5+00S 2+75W		37	30	<10	88	<10	5	93	<1
S1 L5+00S 2+50W		45	21	<10	85	<10	9	70	8
S1 L5+00S 2+25W		43	16	<10	81	<10	4	81	<1
S1 L5+00S 2+00W		67	27	13	93	<10	7	94	6
S1 L5+00S 1+50W		57	19	<10	83	<10	5	117	5
S1 L5+00S 1+25W		41	35	<10	89	<10	5	99	<1
S1 L5+00S 1+00W		47	29	10	74	<10	9	75	4
S1 L5+00S 0+75W		68	37	16	75	<10	9	95	4
S1 L5+00S 0+25W		122	20	<10	225	<10	16	92	<1
S1 L5+00S 0+00W		32	32	<10	97	<10	5	70	<1
S1 L5+00S 0+25E		32	19	11	116	<10	6	86	<1
S1 L5+00S 0+50E		37	32	<10	98	<10	7	87	7
S1 L5+00S 0+75E		31	34	<10	114	<10	6	110	3
S1 L5+00S 1+50E		27	21	12	105	<10	4	123	<1
S1 L5+00S 1+75E		52	40	<10	74	<10	5	74	3
S1 L5+00S 2+25E		51	25	13	94	<10	13	101	5
S1 L5+00S 2+50E		34	22	<10	93	<10	6	95	1
S1 L5+00S 2+75E		26	44	<10	91	<10	4	71	7
S1 L5+00S 3+00E		34	27	<10	86	<10	5	80	2

A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

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PROJECT: NONE GIVEN

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SAMPLE NUMBER	ELEMENT UNITS	As PPB	Ag PPM	As PPM	Ba PPM	Bp PPM	Bz PPM	Cd PPM	Ce PPM	Co PPM	Cr PPM	Cu PPM
S1 L5+00S 3+25E		<5	<0.5	18	154	<0.5	<2	<1	27	33	333	29
S1 L5+00S 3+50E		<5	<0.5	7	212	<0.5	<2	<1	27	28	304	28
S1 L5+00S 3+75E		<5	<0.5	19	193	<0.5	3	<1	22	25	305	25
S1 L5+00S 4+00E		<5	<0.5	<5	220	<0.5	5	<1	34	30	335	34
S1 L5+00S 4+25E		<5	<0.5	<5	294	0.5	8	<1	34	28	317	53
S1 L5+00S 4+50E		<5	<0.5	<5	248	<0.5	<2	<1	25	32	358	27
S1 L5+00S 4+75E		<5	<0.5	<5	181	<0.5	10	<1	23	37	492	17
S1 L5+00S 5+00E		<5	<0.5	<5	238	<0.5	5	<1	29	55	399	32
S1 L6+00S 5+00W		<5	<0.5	<5	162	<0.5	9	<1	24	26	325	18
S1 L6+00S 4+75W		<5	<0.5	<5	161	<0.5	9	<1	22	27	364	28
S1 L6+00S 4+50W		<5	<0.5	<5	212	<0.5	4	<1	32	31	165	25
S1 L6+00S 4+25W		<5	<0.5	6	179	<0.5	4	<1	24	31	290	37
S1 L6+00S 4+00W		<5	<0.5	<5	208	<0.5	<2	<1	28	28	282	43
S1 L6+00S 3+75W		<5	<0.5	<5	164	<0.5	7	<1	21	25	333	23
S1 L6+00S 3+50W		<5	<0.5	6	311	<0.5	6	<1	36	24	225	83
S1 L6+00S 3+25W		<5	<0.5	14	156	<0.5	12	<1	32	41	299	35
S1 L6+00S 3+00W		7	<0.5	<5	301	<0.5	5	<1	38	32	182	29
S1 L6+00S 2+75W		13	<0.5	<5	80	<0.5	<2	<1	24	20	199	12
S1 L6+00S 2+50W		<5	<0.5	<5	124	<0.5	3	<1	32	34	266	29
S1 L6+00S 2+25W		17	<0.5	<5	125	<0.5	<2	<1	24	36	283	21
S1 L6+00S 1+75W		6	<0.5	<5	149	<0.5	12	<1	33	37	321	47
S1 L6+00S 1+25W		11	<0.5	15	137	<0.5	3	<1	18	26	276	20
S1 L6+00S 1+00W		8	<0.5	<5	210	0.6	<2	<1	40	31	304	106
S1 L6+00S 0+75W		3	<0.5	3	233	<0.5	7	<1	21	32	312	31
S1 L6+00S 0+50W		7	<0.5	<5	132	<0.5	3	<1	27	36	380	46
S1 L6+00S 0+00W		9	<0.5	<5	131	<0.5	4	<1	27	44	354	34
S1 L6+00S 0+50E		3	<0.5	<5	247	<0.5	5	<1	18	39	330	25
S1 L6+00S 0+75E		<5	<0.5	<5	185	<0.5	5	<1	25	29	320	28
S1 L6+00S 1+00E		<5	<0.5	12	227	<0.5	8	<1	27	39	325	36
S1 L6+00S 1+25E		<5	<0.5	<5	291	<0.5	7	<1	21	35	170	32
S1 L6+00S 1+50E		<5	<0.5	<5	225	<0.5	<2	<1	37	25	289	45
S1 L6+00S 1+75E		<5	<0.5	7	301	0.6	4	<1	35	35	221	40
S1 L6+00S 2+00E		<5	<0.5	<5	191	0.6	2	<1	32	30	240	35
S1 L6+00S 2+25E		<5	<0.5	<5	209	<0.5	9	<1	25	28	297	31
S1 L6+00S 2+50E		<5	<0.5	<5	177	<0.5	6	<1	21	30	336	26
S1 L6+00S 3+25E		<5	<0.5	9	117	<0.5	9	<1	20	41	524	25
S1 L6+00S 3+50E		<5	<0.5	<5	102	<0.5	7	<1	24	40	596	31
S1 L6+00S 3+75E		<5	<0.5	5	155	<0.5	6	<1	23	27	340	21
S1 L6+00S 4+00E		<5	<0.5	<5	147	<0.5	5	<1	22	34	384	22
S1 L6+00S 4+25E		<5	<0.5	<5	206	1.0	6	<1	27	27	330	28

A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

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PROJECT: NONE GIVEN

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SAMPLE NUMBER	ELEMENT UNITS	Ca PPM	La PPM	Li PPM	Nb PPM	Ni PPM	Pb PPM	Pr PPM	Rb PPM	Sr PPM	Ta PPM	Ti PPM
S1 L5+00S 3+25E		<2	6	14	<1	2	300	4	142	8	<1	<20
S1 L5+00S 3+50E		3	6	14	<1	3	282	4	47	<5	<1	<20
S1 L5+00S 3+75E		<2	6	16	2	3	266	<2	<20	<5	<1	<20
S1 L5+00S 4+00E		<2	11	13	<1	2	381	<2	80	<5	<1	<20
S1 L5+00S 4+25E		<2	12	15	1	4	465	<2	<20	<5	<1	<20
S1 L5+00S 4+50E		<2	6	14	2	2	360	<2	110	<5	<1	<20
S1 L5+00S 4+75E		3	4	12	<1	2	451	<2	<20	7	<1	<20
S1 L5+00S 5+00E		<2	5	11	<1	3	436	<2	<20	<5	<1	<20
S1 L6+00S 5+00W		<2	6	11	<1	2	247	<2	85	6	<1	<20
S1 L6+00S 4+75W		<2	5	14	1	2	328	3	<20	<5	<1	<20
S1 L6+00S 4+50W		2	7	11	3	7	200	4	106	6	<1	<20
S1 L6+00S 4+25W		<2	6	13	2	2	321	<2	114	<5	<1	<20
S1 L6+00S 4+00W		<2	9	14	<1	2	317	<2	<20	<5	<1	<20
S1 L6+00S 3+75W		<2	5	13	1	2	284	<2	94	5	<1	<20
S1 L6+00S 3+50W		3	16	18	<1	4	413	<2	46	8	<1	<20
S1 L6+00S 3+25W		<2	8	19	3	5	389	4	92	8	<1	<20
S1 L6+00S 3+00W		<2	10	17	3	7	263	<2	82	11	<1	<20
S1 L6+00S 2+75W		5	6	5	3	4	111	11	39	9	<1	<20
S1 L6+00S 2+50W		3	8	20	3	6	301	<2	39	6	<1	<20
S1 L6+00S 2+25W		2	4	14	1	6	228	8	53	7	<1	<20
S1 L6+00S 1+75W		<2	6	15	<1	6	431	2	134	<5	<1	<20
S1 L6+00S 1+25W		<2	4	13	2	5	236	2	104	6	<1	<20
S1 L6+00S 1+00W		<2	23	21	<1	6	638	2	39	11	<1	<20
S1 L6+00S 0+75W		<2	6	12	<1	3	323	<2	<20	6	<1	<20
S1 L6+00S 0+50W		<2	7	11	<1	2	468	<2	<20	<5	<1	<20
S1 L6+00S 0+00W		<2	6	14	1	3	378	3	161	9	<1	<20
S1 L6+00S 0+50E		<2	4	21	<1	4	293	5	<20	<5	<1	<20
S1 L6+00S 0+75E		2	6	10	<1	4	311	<2	69	<5	<1	<20
S1 L6+00S 1+00E		<2	3	13	<1	2	356	<2	93	7	<1	<20
S1 L6+00S 1+25E		4	6	14	2	6	168	7	164	<5	<1	<20
S1 L6+00S 1+50E		<2	10	15	<1	4	349	<2	93	7	<1	<20
S1 L6+00S 1+75E		<2	10	13	1	6	270	3	74	<5	<1	<20
S1 L6+00S 2+00E		3	9	14	3	7	281	<2	<20	<5	<1	<20
S1 L6+00S 2+25E		2	6	15	2	4	283	<2	80	8	<1	<20
S1 L6+00S 2+50E		<2	5	13	<1	4	342	<2	72	6	<1	<20
S1 L6+00S 3+25E		<2	5	10	<1	2	477	<2	80	9	<1	<20
S1 L6+00S 3+50E		<2	5	10	<1	2	400	<2	<20	<5	<1	<20
S1 L6+00S 3+75E		<2	5	12	2	2	311	3	<20	<5	<1	<20
S1 L6+00S 4+00E		<2	4	11	2	2	312	<2	88	<5	<1	<20
S1 L6+00S 4+25E		1	10	13	5	3	331	1	47	5	<1	<20

A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

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PROJECT: NONE GIVEN

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SAMPLE NUMBER	ELEMENT UNITS	Cr PPM	Ta PPM	Ta PPM	U PPM	U PPM	V PPM	Zn PPM	Zr PPM
S1 L5+00S 3+25E		34	16	<10	94	<10	5	68	4
S1 L5+00S 3+50E		29	19	<10	95	<10	5	77	6
S1 L5+00S 3+75E		31	23	12	96	<10	3	75	3
S1 L5+00S 4+00E		38	29	<10	87	<10	9	63	6
S1 L5+00S 4+25E		63	30	11	72	<10	12	75	12
S1 L5+00S 4+50E		37	38	<10	85	<10	6	64	3
S1 L5+00S 4+75E		25	67	18	38	<10	4	58	2
S1 L5+00S 5+00E		32	47	12	94	<10	6	102	<1
S1 L6+00S 5+00W		37	20	<10	68	<10	4	64	1
S1 L6+00S 4+75W		39	32	<10	81	<10	4	70	2
S1 L6+00S 4+50W		33	24	<10	117	<10	5	130	<1
S1 L6+00S 4+25W		39	24	<10	89	<10	4	82	<1
S1 L6+00S 4+00W		43	22	<10	85	<10	7	76	2
S1 L6+00S 3+75W		33	31	<10	87	<10	5	66	1
S1 L6+00S 3+50W		58	25	15	81	<10	18	90	10
S1 L6+00S 3+25W		39	20	11	109	<10	7	115	<1
S1 L6+00S 3+00W		78	23	<10	100	<10	7	103	12
S1 L6+00S 2+75W		25	<10	<10	131	<10	3	117	<1
S1 L6+00S 2+50W		32	22	<10	118	<10	5	176	5
S1 L6+00S 2+25W		42	22	<10	116	<10	4	133	<1
S1 L6+00S 1+75W		64	36	<10	81	<10	6	78	16
S1 L6+00S 1+25W		33	28	<10	101	<10	3	128	<1
S1 L6+00S 1+00W		53	15	<10	97	<10	33	137	9
S1 L6+00S 0+75W		53	21	12	80	<10	8	95	4
S1 L6+00S 0+50W		52	35	<10	30	<10	8	95	5
S1 L6+00S 0+00W		27	29	12	100	<10	7	84	3
S1 L6+00S 0+50E		22	27	13	127	<10	3	119	3
S1 L6+00S 0+75E		28	40	<10	85	<10	5	67	3
S1 L6+00S 1+00E		47	19	<10	82	<10	7	71	5
S1 L6+00S 1+25E		25	19	11	115	<10	3	169	<1
S1 L6+00S 1+50E		42	31	<10	87	<10	6	73	<1
S1 L6+00S 1+75E		49	30	<10	109	<10	5	127	<1
S1 L6+00S 2+00E		30	25	13	112	<10	4	133	<1
S1 L6+00S 2+25E		33	34	12	100	<10	4	88	<1
S1 L6+00S 2+50E		30	30	<10	92	<10	4	87	2
S1 L6+00S 3+25E		25	43	<10	87	<10	6	77	1
S1 L6+00S 3+50E		25	43	<10	36	<10	5	63	2
S1 L6+00S 3+75E		35	37	12	89	<10	4	67	3
S1 L6+00S 4+00E		32	30	<10	36	<10	3	64	3
S1 L6+00S 4+25E		36	37	<10	94	<10	6	103	5

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**Geochemical  
 Lab Report**

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SAMPLE NUMBER	ELEMENT UNITS	As PPB	Ag PPM	As PPM	Ba PPM	Be PPM	Bi PPM	Cl PPM	Co PPM	Ce PPM	Cr PPM	Cu PPM
S1 L6+00S 4+5DE		<5	<0.5	<5	212	<0.5	<2	<1	18	24	325	20
S1 L6+00S 4+7SE		<5	<0.5	<5	165	<0.5	<2	<1	22	25	352	27
S1 L6+00S 5+0DE		<5	<0.5	<5	170	<0.5	5	<1	23	22	201	24

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PROJECT: NONE GIVEN

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SAMPLE NUMBER	ELEMENT UNITS	Ga PPM	La PPM	Li PPM	Mo PPM	Nb PPM	NI PPM	Pb PPM	Rb PPM	Sr PPM	Sc PPM	Zn PPM
01 L6+D0S 4+50E		<2	6	13	1	2	244	<2	<20	<5	<1	<20
01 L6+D0S 4+75E		4	5	14	1	2	289	<2	87	<5	<1	<20
01 L6+D0S 5+00E		3	6	14	<1	2	227	3	<20	<5	<1	<20

Bondar-Clegg & Company Ltd.  
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(604) 985-0681 Telex 04-352667



# Geochemical Lab Report

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PROJECT: NONE GIVEN

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SAMPLE NUMBER	ELEMENT UNITS	Sr PPM	Ca PPM	Fe PPM	V PPM	Mg PPM	P PPM	Zn PPM	Cu PPM
S1 L6+00S 4+50E		32	27	<10	87	<10	4	66	5
S1 L6+00S 4+75E		28	32	<10	85	<10	5	63	2
S1 L6+00S 5+00E		31	27	<10	33	<10	4	69	2

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PROJECT: OPAL LAKE

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SAMPLE NUMBER	ELEMENT UNITS	Ga PPM	La PPM	Li PPM	Mo PPM	Nb PPM	Ni PPM	Pb PPM	Rb PPM	Sb PPM	Sc PPM	Sr PPM
S1 L11+00N 8+00W		20	3	18	<1	2	589	12	<20	<5	10	45
S1 L11+00N 7+75W		17	4	20	<1	<1	570	22	<20	<5	12	35
S1 L11+00N 7+50W		11	4	10	1	5	310	<2	<20	<5	7	<20
S1 L11+00N 7+25W		10	2	15	<1	<1	352	20	<20	<5	6	<20
S1 L11+00N 7+00W		13	3	12	<1	5	330	5	45	<5	6	<20
S1 L11+00N 6+75W		10	2	15	<1	<1	369	7	<20	<5	6	<20
S1 L11+00N 6+50W		15	19	13	1	9	659	4	<20	<5	10	<20
S1 L11+00N 6+25W		<2	2	14	4	<1	506	<2	<20	<5	7	49
S1 L11+00N 6+00W		14	3	15	4	<1	360	21	<20	<5	7	29
S1 L11+00N 5+75W		12	2	15	<1	<1	362	21	<20	<5	6	<20
S1 L11+00N 5+50W		14	4	12	2	5	301	5	<20	<5	5	<20
S1 L10+00N 7+50W		7	4	11	1	4	252	<2	<20	<5	6	<20
S1 L10+00N 7+25W		<2	7	14	<1	<1	424	3	<20	7	10	<20
S1 L10+00N 7+00W		13	5	11	2	5	405	3	54	<5	9	<20
S1 L10+00N 6+75W		11	9	14	1	5	358	<2	<20	<5	8	<20
S1 L10+00N 6+50W		12	<1	15	<1	15	3686	<2	<20	<5	11	56
S1 L10+00N 6+25W		23	4	17	<1	<1	1799	<2	<20	<5	11	41
S1 L10+00N 5+75W		33	4	13	2	<1	625	<2	<20	<5	9	<20
S1 L10+00N 5+25W		15	3	17	<1	<1	391	16	<20	<5	7	<20
S1 L10+00N 5+00W		31	5	18	<1	24	307	25	<20	6	5	23
S1 L10+00N 4+75W		36	6	16	<1	26	298	46	<20	<5	7	32
S1 L9+50N 6+00W		18	5	19	<1	23	369	26	233	<5	8	41
S1 L9+50N 5+25W		26	10	20	<1	25	436	36	<20	10	8	56
S1 L9+50N 5+00W		26	5	16	<1	22	356	26	<20	<5	7	29
S1 L9+00N 7+25W		14	9	15	2	8	548	<2	36	7	10	<20
S1 L9+00N 7+00W		20	5	16	1	23	569	20	<20	7	10	<20
S1 L9+00N 6+75W		25	3	20	<1	20	476	18	<20	<5	9	<20
S1 L9+00N 6+50W		31	4	17	<1	26	439	29	<20	<5	7	<20
S1 L9+00N 6+25W		21	5	16	2	22	392	19	<20	<5	7	37
S1 L9+00N 6+00W		10	6	16	3	8	388	<2	38	<5	9	<20
S1 L9+00N 5+75W		12	3	18	3	7	351	<2	83	<5	7	<20
S1 L9+00N 5+50W		10	6	14	2	6	258	<2	<20	<5	6	<20
S1 L9+00N 5+25W		12	5	16	2	6	165	<2	48	<5	5	<20
S1 L9+00N 4+75W		9	4	13	1	6	211	<2	<20	<5	6	<20
S1 L9+00N 4+50W		22	4	17	<1	19	348	16	59	23	6	<20
S1 L9+00N 4+25W		<2	3	12	<1	<1	294	<2	198	<5	6	<20
S1 L9+00N 4+00W		35	3	15	<1	26	333	24	<20	13	6	<20
S1 L9+00N 3+75W		35	5	12	<1	28	362	30	<20	30	7	27
S1 L9+00N 3+50W		32	3	13	<1	25	270	39	<20	14	7	<20
S1 L9+00N 3+25W		12	9	17	2	7	408	<2	21	<5	9	<20



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SAMPLE NUMBER	ELEMENT UNITS	Sr PPM	Ta PPM	Te PPM	V PPM	W PPM	Y PPM	Zn PPM	Zr PPM
S1 L11+00N 8+00W		30	16	21	73	<10	6	73	16
S1 L11+00N 7+75W		27	<10	<10	115	<10	9	81	24
S1 L11+00N 7+50W		23	<10	<10	76	<10	5	55	9
S1 L11+00N 7+25W		26	19	<10	86	<10	3	86	12
S1 L11+00N 7+00W		27	<10	<10	79	<10	3	60	9
S1 L11+00N 6+75W		31	41	11	83	<10	4	72	12
S1 L11+00N 6+50W		38	<10	<10	76	<10	18	99	15
S1 L11+00N 6+25W		20	<10	<10	92	<10	4	74	9
S1 L11+00N 6+00W		23	<10	28	77	13	4	78	10
S1 L11+00N 5+75W		30	<10	13	90	<10	3	70	11
S1 L11+00N 5+50W		28	<10	<10	78	<10	3	58	12
S1 L10+00N 7+50W		26	<10	<10	77	<10	4	73	6
S1 L10+00N 7+25W		28	<10	14	83	<10	7	78	12
S1 L10+00N 7+00W		21	<10	<10	73	<10	5	57	8
S1 L10+00N 6+75W		28	<10	<10	82	<10	8	79	10
S1 L10+00N 6+50W		9	11	84	28	<10	1	61	5
S1 L10+00N 6+25W		22	<10	34	67	<10	6	94	9
S1 L10+00N 5+75W		48	18	12	73	<10	7	76	6
S1 L10+00N 5+25W		25	<10	20	95	<10	4	59	11
S1 L10+00N 5+00W		28	<10	43	75	29	4	58	16
S1 L10+00N 4+75W		31	24	50	65	<10	5	72	9
S1 L9+50N 6+00W		34	<10	16	75	<10	5	67	8
S1 L9+50N 5+25W		43	<10	37	70	<10	8	88	13
S1 L9+50N 5+00W		28	<10	44	84	19	4	64	11
S1 L9+00N 7+25W		26	<10	16	76	<10	10	74	6
S1 L9+00N 7+00W		27	<10	39	78	15	8	66	11
S1 L9+00N 6+75W		34	<10	44	92	<10	5	65	11
S1 L9+00N 6+50W		29	17	45	76	<10	5	144	6
S1 L9+00N 6+25W		32	33	41	69	<10	5	64	5
S1 L9+00N 6+00W		25	<10	<10	87	<10	6	94	10
S1 L9+00N 5+75W		21	<10	11	87	<10	3	86	4
S1 L9+00N 5+50W		31	<10	<10	75	<10	4	81	4
S1 L9+00N 5+25W		27	<10	<10	82	<10	4	71	6
S1 L9+00N 4+75W		21	<10	<10	85	<10	4	75	6
S1 L9+00N 4+50W		25	23	21	89	<10	4	79	8
S1 L9+00N 4+25W		27	<10	<10	106	<10	3	85	8
S1 L9+00N 4+00W		30	<10	59	82	<10	5	76	6
S1 L9+00N 3+75W		31	<10	47	88	<10	4	69	10
S1 L9+00N 3+50W		28	14	44	96	<10	5	84	10
S1 L9+00N 3+25W		37	<10	<10	83	<10	10	65	8

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SAMPLE NUMBER	ELEMENT UNITS	Au PPB	Ag PPM	As PPH	Ba PPM	Be PPM	Bi PPH	Cd PPM	Ce PPM	Co PPM	Cr PPM	Cu PPM
S1 L9+00N 3+00W		<5	0.2	<5	234	<0.5	<2	<1	18	26	237	33
S1 L8+00N 6+00W		7	<0.2	<5	211	<0.5	<2	<1	12	32	277	27
S1 L8+00N 5+75W		6	<0.2	<5	161	<0.5	<2	<1	9	32	343	24
S1 L8+00N 5+50W		6	<0.2	<5	133	<0.5	<2	<1	7	27	290	20
S1 L8+00N 5+25W		14	<0.2	<5	192	<0.5	<2	<1	7	31	325	20
S1 L7+00N 5+00W		22	<0.2	<5	131	<0.5	<2	<1	32	47	524	28
S1 L7+00N 4+75W		18	<0.2	<5	127	<0.5	<2	<1	16	36	361	27
S1 L7+00N 4+50W		18	<0.2	<5	133	<0.5	<2	<1	9	28	308	22
S1 L7+00N 4+25W		14	<0.2	<5	176	<0.5	<2	<1	8	23	295	26
S1 L7+00N 4+00W		16	<0.2	<5	219	<0.5	<2	<1	13	29	330	35
S1 L7+00N 3+75W		14	<0.2	<5	220	<0.5	3	<1	20	27	338	31
S1 L7+00N 3+50W		9	<0.2	<5	214	<0.5	<2	<1	11	26	251	23
S1 L7+00N 3+25W		28	<0.2	<5	176	<0.5	6	1	33	47	464	43
S1 L7+00N 2+50W		13	<0.2	<5	122	<0.5	<2	<1	17	34	427	31
S1 L7+00N 2+25W		11	<0.2	<5	98	<0.5	24	2	29	33	388	18
S1 L7+00N 2+00W		60	<0.2	<5	165	<0.5	13	<1	33	28	391	29
S1 L7+00N 1+75W		<5	<0.2	<5	147	<0.5	<2	<1	<5	27	309	17
S1 L7+00N 1+00W		<5	<0.2	<5	179	<0.5	6	<1	21	44	389	33
S1 L7+00N 0+75W		52	<0.2	<5	184	<0.5	14	<1	33	35	352	29
S1 L7+00N 0+50W		7	<0.2	<5	150	<0.5	<2	2	16	32	372	24
S1 L7+00N 0+50E		<5	<0.2	<5	202	<0.5	<2	<1	18	38	468	64
S1 L7+00N 0+75E		<5	<0.2	15	177	<0.5	13	<1	21	47	436	34
S1 L7+00N 1+00E		<5	<0.2	<5	177	<0.5	<2	<1	21	49	403	39
S1 L7+00N 1+25E		7	<0.2	<5	184	<0.5	2	<1	16	48	431	22
S1 L7+00N 1+50E		7	<0.2	12	210	<0.5	<2	<1	13	35	298	24
S1 L7+00N 1+75E		15	<0.2	<5	225	<0.5	7	<1	13	32	299	20
S1 L7+00N 2+00E		10	<0.2	<5	235	<0.5	<2	<1	7	42	454	25
S1 L7+00N 2+25E		<5	<0.2	<5	241	<0.5	18	<1	34	35	382	20
S1 L7+00N 2+50E		7	<0.2	<5	272	<0.5	6	<1	15	46	494	37
S1 L7+00N 3+50E		<5	<0.2	<5	234	<0.5	<2	<1	26	94	851	50
S1 L7+00N 3+75E		<5	<0.2	<5	320	<0.5	<2	<1	21	52	531	35
S1 L7+00N 4+00E		<5	<0.2	<5	178	<0.5	<2	1	36	50	433	27
S1 L7+00N 4+25E		8	<0.2	<5	148	<0.5	<2	<1	<5	53	523	20
S1 L7+00N 4+50E		7	0.2	<5	364	<0.5	3	<1	27	32	283	60
S1 L7+00N 4+75E		6	<0.2	<5	175	<0.5	<2	<1	13	42	465	36
S1 L6+00N 0+50E		8	<0.2	<5	127	<0.5	<2	<1	6	58	495	22
S1 L6+00N 1+25E		5	<0.2	10	119	<0.5	<2	<1	22	56	469	28
S1 L6+00N 1+50E		6	<0.2	<5	199	<0.5	<2	<1	23	48	399	25
S1 L6+00N 1+75E		7	<0.2	7	220	<0.5	<2	1	22	43	349	55
S1 L6+00N 2+00E		9	<0.2	<5	168	<0.5	<2	<1	7	34	414	67

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SAMPLE NUMBER	ELEMENT UNITS	Ga PPM	La PPM	Li PPM	Mo PPM	Nb PPM	Ni PPM	Pb PPM	Rb PPM	Sb PPM	Sc PPM	PPM
S1 L9+00N 3+00W		15	9	17	2	10	316	<2	<20	<5	7	<
S1 L8+00N 6+00W		9	4	16	3	7	224	<2	<20	<5	6	<
S1 L8+00N 5+75W		13	5	14	3	7	278	<2	<20	<5	6	<
S1 L8+00N 5+50W		11	4	14	2	5	216	<2	<20	<5	6	<
S1 L8+00N 5+25W		11	3	14	2	5	261	<2	31	<5	6	<
S1 L7+00N 5+00W		36	6	19	<1	27	359	42	<20	17	9	<
S1 L7+00N 4+75W		12	6	13	3	6	266	<2	107	<5	7	<
S1 L7+00N 4+50W		10	3	12	1	6	238	<2	<20	<5	5	<
S1 L7+00N 4+25W		11	4	14	2	6	230	<2	<20	<5	6	<
S1 L7+00N 4+00W		13	5	14	3	6	242	<2	34	<5	7	<
S1 L7+00N 3+75W		36	6	17	<1	27	260	36	<20	<5	7	<
S1 L7+00N 3+50W		13	4	14	2	6	189	2	50	<5	6	<
S1 L7+00N 3+25W		37	9	15	2	27	500	33	<20	11	9	<
S1 L7+00N 2+50W		39	5	15	<1	27	411	36	<20	<5	8	<
S1 L7+00N 2+25W		45	6	14	2	32	299	51	255	24	7	<
S1 L7+00N 2+00W		38	6	13	<1	27	351	40	306	27	9	<
S1 L7+00N 1+75W		20	2	9	<1	21	297	13	<20	<5	5	<
S1 L7+00N 1+00W		22	8	9	<1	24	417	20	<20	<5	11	<
S1 L7+00N 0+75W		39	7	9	2	30	344	43	<20	<5	8	<
S1 L7+00N 0+50W		32	4	9	<1	25	319	33	<20	20	7	<
S1 L7+00N 0+50E		34	11	14	<1	31	682	32	<20	6	12	<
S1 L7+00N 0+75E		45	8	11	<1	34	533	25	<20	9	11	<
S1 L7+00N 1+00E		14	7	12	2	8	428	<2	<20	<5	12	<
S1 L7+00N 1+25E		40	5	9	2	26	403	43	<20	19	8	<
S1 L7+00N 1+50E		14	5	11	2	7	284	<2	<20	<5	7	<
S1 L7+00N 1+75E		44	4	9	<1	27	309	30	<20	<5	6	<
S1 L7+00N 2+00E		12	5	9	<1	18	422	7	<20	<5	8	<
S1 L7+00N 2+25E		35	10	9	1	26	372	32	<20	<5	9	<
S1 L7+00N 2+50E		25	16	9	<1	21	575	10	<20	<5	14	<
S1 L7+00N 3+50E		34	8	19	<1	37	1395	25	35	12	12	<
S1 L7+00N 3+75E		29	9	18	<1	32	680	19	<20	<5	11	<
S1 L7+00N 4+00E		41	11	9	<1	31	494	27	37	<5	8	<
S1 L7+00N 4+25E		11	<1	13	4	<1	439	<2	<20	<5	6	<
S1 L7+00N 4+50E		14	14	15	2	8	427	<2	84	<5	8	<
S1 L7+00N 4+75E		25	3	14	2	<1	515	<2	54	<5	8	<
S1 L6+00N 0+50E		17	<1	15	8	<1	441	<2	264	<5	6	<
S1 L6+00N 1+25E		18	7	15	1	<1	459	<2	<20	<5	12	<
S1 L6+00N 1+50E		10	9	10	2	1	329	<2	56	<5	11	<
S1 L6+00N 1+75E		16	15	14	2	5	420	<2	77	<5	12	<
S1 L6+00N 2+00E		25	9	16	5	<1	549	<2	<20	<5	11	<

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SAMPLE NUMBER	ELEMENT UNITS	Sr PPM	Ta PPM	Te PPM	V PPM	W PPM	Y PPM	Zn PPM	Zr PPM
S1 L9+00N 3+00W		45	<10	11	72	<10	7	76	16
S1 L8+00N 6+00W		30	<10	<10	90	<10	4	81	6
S1 L8+00N 5+75W		27	<10	13	79	<10	4	65	7
S1 L8+00N 5+50W		29	<10	<10	93	<10	4	76	10
S1 L8+00N 5+25W		27	<10	<10	82	<10	3	61	8
S1 L7+00N 5+00W		28	<10	41	102	23	6	86	14
S1 L7+00N 4+75W		22	<10	13	86	<10	5	84	8
S1 L7+00N 4+50W		24	<10	11	76	<10	4	65	9
S1 L7+00N 4+25W		29	<10	13	82	<10	4	66	6
S1 L7+00N 4+00W		32	<10	12	89	<10	5	74	8
S1 L7+00N 3+75W		31	<10	42	84	12	5	77	9
S1 L7+00N 3+50W		25	<10	11	88	<10	4	85	7
S1 L7+00N 3+25W		43	<10	65	91	14	9	95	8
S1 L7+00N 2+50W		26	20	49	93	<10	6	79	7
S1 L7+00N 2+25W		30	<10	77	96	<10	5	71	8
S1 L7+00N 2+00W		44	<10	53	84	<10	6	85	8
S1 L7+00N 1+75W		40	<10	40	85	23	3	87	8
S1 L7+00N 1+00W		41	<10	44	88	30	8	80	14
S1 L7+00N 0+75W		36	21	59	89	19	6	87	8
S1 L7+00N 0+50W		29	<10	55	82	<10	6	81	5
S1 L7+00N 0+50E		42	20	65	79	13	18	84	12
S1 L7+00N 0+75E		35	11	41	85	<10	10	107	17
S1 L7+00N 1+00E		33	<10	<10	87	<10	8	85	13
S1 L7+00N 1+25E		26	<10	40	85	<10	5	86	10
S1 L7+00N 1+50E		24	<10	12	82	<10	5	98	7
S1 L7+00N 1+75E		29	<10	51	85	<10	4	83	11
S1 L7+00N 2+00E		22	10	39	85	<10	5	70	5
S1 L7+00N 2+25E		28	<10	52	82	<10	6	84	15
S1 L7+00N 2+50E		24	18	25	97	<10	23	107	20
S1 L7+00N 3+50E		20	17	93	68	19	10	79	8
S1 L7+00N 3+75E		26	37	57	78	23	10	87	16
S1 L7+00N 4+00E		28	<10	49	82	19	9	85	13
S1 L7+00N 4+25E		23	<10	44	73	<10	4	81	6
S1 L7+00N 4+50E		51	<10	<10	64	<10	12	79	20
S1 L7+00N 4+75E		32	<10	54	74	10	6	61	8
S1 L6+00N 0+50E		33	19	57	77	17	3	102	8
S1 L6+00N 1+25E		27	<10	24	96	<10	9	118	24
S1 L6+00N 1+50E		24	<10	<10	98	<10	8	94	16
S1 L6+00N 1+75E		27	<10	<10	92	<10	21	104	14
S1 L6+00N 2+00E		25	<10	41	83	<10	19	84	11

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SAMPLE NUMBER	ELEMENT UNITS	Ga PPM	La PPM	Li PPM	Mo PPM	Nb PPM	Ni PPM	Pb PPM	Rb PPM	Sb PPM	Sc PPM	Sr PPM
S1 L6+00N 2+50E		12	12	14	2	3	429	<2	35	<5	12	<20
S1 L6+00N 3+50E		27	3	14	<1	<1	438	<2	<20	9	7	<20
S1 L6+00N 3+75E		8	<1	15	6	<1	354	<2	52	<5	7	<20
S1 L6+00N 4+00E		14	4	13	5	<1	234	<2	211	<5	5	<20
S1 L6+00N 4+25E		15	<1	14	1	<1	437	<2	<20	<5	6	<20
S1 L6+00N 4+50E		9	<1	16	5	<1	530	<2	<20	<5	8	<20
S1 L6+00N 4+75E		18	4	15	2	<1	418	<2	280	<5	8	<20
S1 L5+00N 4+50W		8	<1	11	3	<1	1558	<2	70	<5	13	<20
S1 L5+00N 4+25W		8	6	14	3	3	337	<2	39	<5	7	<20
S1 L5+00N 4+00W		7	2	13	3	<1	244	<2	26	<5	5	<20
S1 L5+00N 3+75W		9	3	15	2	2	195	<2	26	<5	5	<20
S1 L5+00N 3+50W		13	2	16	4	<1	313	<2	<20	<5	6	<20
S1 L5+00N 3+25W		5	4	16	1	<1	297	<2	<20	<5	6	<20
S1 L5+00N 2+00W		7	3	14	1	<1	646	<2	<20	<5	10	<20
S1 L5+00N 1+75W		8	3	12	2	2	265	<2	30	<5	6	<20
S1 L5+00N 1+50W		14	<1	14	4	<1	405	<2	212	<5	6	<20
S1 L5+00N 1+25W		12	14	10	3	6	549	<2	83	<5	8	<20
S1 L5+00N 1+00W		10	4	12	2	2	391	<2	24	<5	7	<20
S1 L5+00N 0+75W		8	4	12	2	<1	434	<2	<20	<5	10	<20
S1 L5+00N 0+50W		11	10	13	3	2	497	<2	42	<5	13	<20
S1 L5+00N 0+25W		10	2	12	2	<1	308	<2	<20	<5	7	<20
S1 L5+00N 0+00		11	10	8	2	6	375	<2	32	<5	6	<20
S1 L5+00N 2+25E		9	2	11	3	1	232	<2	<20	<5	6	<20
S1 L4+00N 0+25E		8	<1	11	3	<1	184	<2	28	<5	5	<20
S1 L4+00N 0+50E		13	3	14	5	<1	488	<2	227	<5	8	<20
S1 L4+00N 0+75E		5	11	15	1	<1	572	<2	<20	<5	8	<20
S1 L4+00N 1+00E		10	6	11	3	3	210	<2	<20	<5	5	<20
S1 L4+00N 1+25E		11	8	12	3	5	391	<2	<20	<5	6	<20
S1 L4+00N 1+50E		9	15	13	3	5	358	<2	67	<5	11	<20
S1 L4+00N 1+75E		9	7	15	3	3	315	<2	39	<5	6	<20
S1 L4+00N 2+00E		11	17	13	3	13	253	<2	56	<5	6	<20
S1 L4+00N 2+50E		<2	<1	2	<1	27	26	<2	35	8	<1	<20
S1 L4+00N 3+00E		14	16	15	3	4	497	<2	46	<5	11	<20
S1 L4+00N 3+25E		3	6	16	8	<1	571	<2	176	<5	8	<20
S1 L4+00N 3+75E		8	5	25	4	<1	324	<2	53	<5	4	<20
S1 L4+00N 4+50E		9	5	15	9	<1	534	<2	175	<5	8	<20
S1 L4+00N 4+75E		13	16	12	2	8	331	<2	48	<5	6	<20
S1 L1+00N 5+50W		16	11	13	6	<1	374	<2	422	<5	9	<20
S1 L1+00N 5+25W		11	5	15	2	4	268	<2	<20	<5	7	<20
S1 L1+00N 5+00W		11	12	15	2	5	302	<2	27	<5	7	<20

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SAMPLE NUMBER	ELEMENT UNITS	Sr PPM	Ta PPM	Te PPM	V PPM	W PPM	Y PPM	Zn PPM	Zr PPM
S1 L6+00N 2+50E		23	<10	<10	80	<10	15	91	15
S1 L6+00N 3+50E		29	<10	46	82	<10	8	78	7
S1 L6+00N 3+75E		28	<10	30	87	<10	4	78	8
S1 L6+00N 4+00E		29	<10	26	75	<10	5	69	10
S1 L6+00N 4+25E		23	<10	35	95	<10	2	85	7
S1 L6+00N 4+50E		28	<10	38	79	<10	5	76	8
S1 L6+00N 4+75E		37	<10	45	85	<10	6	83	9
S1 L5+00N 4+50W		15	<10	71	59	<10	4	61	8
S1 L5+00N 4+25W		27	<10	<10	92	<10	5	107	12
S1 L5+00N 4+00W		27	<10	<10	79	<10	3	62	7
S1 L5+00N 3+75W		27	<10	<10	88	<10	3	106	6
S1 L5+00N 3+50W		30	<10	27	88	<10	4	88	9
S1 L5+00N 3+25W		46	<10	31	88	<10	6	89	9
S1 L5+00N 2+00W		29	<10	33	72	<10	7	68	9
S1 L5+00N 1+75W		32	<10	<10	82	<10	3	108	5
S1 L5+00N 1+50W		26	<10	38	78	<10	3	65	9
S1 L5+00N 1+25W		30	<10	<10	85	<10	8	145	36
S1 L5+00N 1+00W		24	<10	<10	84	<10	4	85	12
S1 L5+00N 0+75W		22	<10	<10	91	<10	5	90	13
S1 L5+00N 0+50W		22	<10	<10	89	<10	13	90	20
S1 L5+00N 0+25W		22	<10	<10	84	<10	4	57	7
S1 L5+00N 0+00		22	<10	<10	82	<10	10	224	10
S1 L5+00N 2+25E		21	<10	<10	82	<10	3	85	8
S1 L4+00N 0+25E		36	<10	<10	82	<10	3	77	5
S1 L4+00N 0+50E		27	<10	18	77	20	7	98	6
S1 L4+00N 0+75E		33	<10	22	78	<10	12	127	10
S1 L4+00N 1+00E		21	<10	<10	98	<10	4	138	10
S1 L4+00N 1+25E		20	<10	<10	92	<10	5	146	22
S1 L4+00N 1+50E		55	<10	<10	80	<10	18	108	15
S1 L4+00N 1+75E		23	<10	<10	88	<10	5	96	7
S1 L4+00N 2+00E		54	<10	<10	76	<10	11	116	41
S1 L4+00N 2+50E		167	<10	<10	<1	<10	<1	219	1
S1 L4+00N 3+00E		26	<10	<10	95	<10	16	135	29
S1 L4+00N 3+25E		56	<10	15	73	<10	8	86	13
S1 L4+00N 3+75E		16	<10	<10	113	<10	2	175	2
S1 L4+00N 4+50E		44	<10	36	93	<10	5	80	15
S1 L4+00N 4+75E		27	<10	<10	77	<10	13	135	11
S1 L1+00N 5+50W		65	<10	33	80	<10	15	99	12
S1 L1+00N 5+25W		55	<10	<10	70	<10	5	184	11
S1 L1+00N 5+00W		68	<10	<10	70	<10	12	84	18

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PROJECT: OPAL LAKE

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SAMPLE NUMBER	ELEMENT UNITS	Au PPB	Ag PPM	As PPM	Ba PPM	Be PPM	Bi PPM	Cd PPM	Ce PPM	Co PPM	Cr PPM	Cu PPM
S1 L1+00N 4+75W		<5	<0.2	<5	208	<0.5	<2	2	13	52	368	57
S1 L1+00N 4+50W		7	<0.2	<5	223	<0.5	<2	<1	14	34	216	33
S1 L1+00N 4+25W		7	<0.2	<5	179	<0.5	<2	<1	15	51	392	44
S1 L1+00N 4+00W		8	<0.2	7	151	<0.5	<2	2	6	50	468	49
S1 L1+00N 3+75W		6	0.2	6	152	<0.5	<2	<1	22	35	294	43
S1 L1+00N 3+50W		6	<0.2	17	129	<0.5	<2	<1	<5	60	518	24
S1 L1+00N 2+75W		6	<0.2	<5	156	<0.5	<2	<1	10	43	398	27
S1 L1+00N 2+50W		6	<0.2	<5	183	<0.5	<2	<1	<5	27	380	28
S1 L1+00N 0+25W		8	<0.2	<5	160	<0.5	<2	<1	10	44	416	29
S1 L1+00N 0+00W		<5	<0.2	<5	151	<0.5	<2	<1	10	40	275	24
S1 L1+00N 0+25E		<5	<0.2	7	103	<0.5	<2	<1	<5	53	508	31
S1 L1+00N 0+50E		<5	0.2	<5	145	<0.5	<2	<1	14	37	222	23
S1 L1+00N 0+75E		<5	<0.2	<5	183	<0.5	<2	<1	23	29	276	51
S1 L1+00N 1+00E		6	<0.2	<5	226	<0.5	<2	<1	8	44	405	39
S1 L1+00N 1+25E		6	<0.2	<5	178	<0.5	<2	<1	18	74	561	43
S1 L1+00N 1+50E		10	<0.2	<5	178	<0.5	<2	1	9	78	576	44
S1 L1+00N 1+75E		<5	<0.2	<5	145	<0.5	<2	<1	<5	73	510	38
S1 L1+00N 2+00E		<5	<0.2	<5	221	<0.5	<2	<1	6	51	456	36
S1 L1+00N 2+25E		8	<0.2	<5	137	<0.5	<2	<1	13	54	404	45
S1 L1+00N 2+50E		8	<0.2	<5	140	<0.5	<2	<1	8	96	728	43
S1 L1+00N 2+75E		7	<0.2	<5	270	<0.5	<2	<1	7	40	286	25
S1 L1+00N 3+25E		7	<0.2	<5	263	<0.5	<2	<1	11	74	566	70
S1 L1+00N 3+50E		7	<0.2	<5	295	<0.5	<2	2	7	45	509	38
S1 L1+00N 3+75E		8	<0.2	<5	259	<0.5	<2	1	<5	71	637	65
S1 L1+00N 4+00E		6	<0.2	<5	337	<0.5	<2	<1	<5	33	427	16
S1 L1+00N 4+25E		<5	<0.2	<5	275	<0.5	<2	<1	13	45	385	24
S1 L1+00N 4+50E		9	<0.2	<5	435	<0.5	<2	<1	17	35	361	22
S1 L1+00N 4+75E		9	<0.2	5	180	<0.5	<2	<1	14	54	331	35
S1 L1+00N 5+00E		7	<0.2	<5	417	<0.5	<2	<1	16	52	340	35

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PROJECT: OPAL LAKE

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SAMPLE NUMBER	ELEMENT UNITS	Ga PPM	La PPM	Li PPM	Mo PPM	Nb PPM	Ni PPM	Pb PPM	Rb PPM	Sb PPM	Sc PPM	Sn PPM
S1 L1+00N 4+75W		<2	10	18	6	<1	523	<2	104	<5	10	<20
S1 L1+00N 4+50W		13	7	17	3	7	265	<2	37	<5	6	<20
S1 L1+00N 4+25W		12	9	17	7	<1	432	<2	51	<5	12	<20
S1 L1+00N 4+00W		5	10	22	1	<1	590	<2	<20	6	11	<20
S1 L1+00N 3+75W		13	9	16	5	7	369	<2	84	<5	7	<20
S1 L1+00N 3+50W		8	2	16	4	<1	422	<2	404	<5	6	<20
S1 L1+00N 2+75W		8	5	14	3	<1	295	<2	23	<5	7	<20
S1 L1+00N 2+50W		10	8	13	4	<1	352	<2	526	<5	6	<20
S1 L1+00N 0+25W		8	5	15	4	<1	308	<2	<20	<5	7	<20
S1 L1+00N 0+00W		9	7	11	3	1	249	<2	<20	<5	5	<20
S1 L1+00N 0+25E		<2	3	12	3	<1	478	<2	<20	<5	9	<20
S1 L1+00N 0+50E		10	10	17	4	5	234	<2	<20	<5	4	<20
S1 L1+00N 0+75E		11	14	16	3	5	530	<2	42	<5	8	<20
S1 L1+00N 1+00E		7	3	12	5	<1	409	<2	141	<5	8	<20
S1 L1+00N 1+25E		<2	5	17	7	<1	791	<2	140	<5	13	<20
S1 L1+00N 1+50E		10	4	19	<1	<1	785	<2	246	<5	13	<20
S1 L1+00N 1+75E		<2	3	12	1	<1	686	<2	<20	<5	11	<20
S1 L1+00N 2+00E		<2	4	17	<1	<1	529	<2	<20	<5	7	<20
S1 L1+00N 2+25E		9	11	17	4	<1	487	<2	47	<5	8	<20
S1 L1+00N 2+50E		18	1	16	6	<1	845	<2	<20	<5	16	<20
S1 L1+00N 2+75E		8	6	14	4	<1	366	<2	34	<5	7	<20
S1 L1+00N 3+25E		15	7	16	8	<1	1051	<2	<20	<5	11	<20
S1 L1+00N 3+50E		<2	7	15	2	<1	595	<2	509	<5	10	<20
S1 L1+00N 3+75E		<2	7	21	4	<1	871	<2	<20	<5	15	<20
S1 L1+00N 4+00E		6	2	21	2	<1	339	<2	175	<5	5	<20
S1 L1+00N 4+25E		7	6	16	2	<1	321	<2	39	<5	7	<20
S1 L1+00N 4+50E		8	8	19	3	<1	296	<2	51	<5	7	<20
S1 L1+00N 4+75E		9	7	16	4	<1	429	<2	76	<5	6	<20
S1 L1+00N 5+00E		8	9	17	3	<1	343	<2	56	<5	8	<20



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REPORT: V89-06173.0

DATE PRINTED: 5 OCT 89

PROJECT: OPAL LAKE

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SAMPLE NUMBER	ELEMENT UNITS	Sr PPM	Ta PPM	Te PPM	V PPM	W PPM	Y PPM	Zn PPM	Zr PPM
S1 L1+00N 4+75W		66	<10	35	88	<10	9	112	21
S1 L1+00N 4+50W		74	<10	<10	76	<10	5	118	18
S1 L1+00N 4+25W		63	<10	37	76	<10	10	187	15
S1 L1+00N 4+00W		30	<10	17	108	22	11	106	11
S1 L1+00N 3+75W		65	<10	<10	89	<10	6	204	11
S1 L1+00N 3+50W		21	<10	27	101	<10	3	87	6
S1 L1+00N 2+75W		24	<10	<10	92	<10	4	88	4
S1 L1+00N 2+50W		30	<10	32	76	<10	6	77	7
S1 L1+00N 0+25W		24	<10	<10	95	<10	4	84	4
S1 L1+00N 0+00W		17	<10	<10	100	<10	3	127	12
S1 L1+00N 0+25E		28	<10	39	91	<10	5	74	7
S1 L1+00N 0+50E		26	<10	<10	127	<10	4	138	10
S1 L1+00N 0+75E		37	<10	<10	93	<10	9	90	20
S1 L1+00N 1+00E		42	<10	21	85	<10	5	99	5
S1 L1+00N 1+25E		28	<10	41	96	<10	6	76	13
S1 L1+00N 1+50E		28	<10	52	97	<10	6	84	14
S1 L1+00N 1+75E		25	12	42	90	<10	6	71	9
S1 L1+00N 2+00E		36	<10	37	80	<10	5	75	7
S1 L1+00N 2+25E		22	<10	<10	128	<10	6	146	6
S1 L1+00N 2+50E		19	<10	49	114	<10	7	82	9
S1 L1+00N 2+75E		74	<10	22	91	<10	6	84	18
S1 L1+00N 3+25E		64	<10	66	84	<10	13	106	14
S1 L1+00N 3+50E		38	<10	49	89	<10	7	77	10
S1 L1+00N 3+75E		39	<10	41	97	<10	11	102	15
S1 L1+00N 4+00E		31	<10	37	87	<10	2	106	7
S1 L1+00N 4+25E		24	<10	<10	79	<10	4	69	7
S1 L1+00N 4+50E		27	<10	<10	78	<10	4	71	3
S1 L1+00N 4+75E		20	<10	<10	106	<10	4	108	3
S1 L1+00N 5+00E		23	11	<10	89	<10	6	128	3

Bondar-Clegg & Company Ltd.  
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(604) 985-0681 Telex 04-352667



# Geochemical Lab Report

A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

REPORT: U89-03272.0 ( COMPLETE )

REFERENCE INFO:

CLIENT: STETSON RESOURCE MANAGEMENT  
PROJECT: NONE GIVEN

SUBMITTED BY: UNKNOWN  
DATE PRINTED: 1-DEC-89

SAMPLE TYPES	NUMBER	SIZE FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER
S SOILS	130	1 -80	130	DRY, SIEVE -80	130

REMARKS:

NOTE, "IS" DENOTES INSUFFICIENT SAMPLE.

REPORT COPIES TO: #13-1155 MELVILLE STREET  
MR. JOHN DUPUIS

INVOICE TO: #13-1155 MELVILLE STREET

A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

DATE PRINTED: 1-DEC-89

REPORT: V89-08272.0

PROJECT: NONE GIVEN

PAGE 4A

SAMPLE NUMBER	ELEMENT UNITS	Au PPB	Ag PPM	As PPM	Ba PPM	Ba PPM	Bi PPM	Cd PPM	Ce PPM	Co PPM	Cr PPM	Cu PPM
S1 L3+00N 3+75E		<5	<0.5	<5	250	<0.5	6	<1	20	46	426	21
S1 L3+00N 4+00E		<5	<0.5	<5	294	<0.5	4	<1	16	50	415	27
S1 L3+00N 4+25E		<5	<0.5	<5	411	<0.5	2	<1	21	42	228	21
S1 L3+00N 4+50E		<5	<0.5	<5	386	<0.5	<2	<1	15	57	486	26
S1 L3+00N 5+00F		<5	<0.5	<5	231	<0.5	5	<1	13	56	497	34
S1 L2+00N 3+75W		9	<0.5	<5	171	<0.5	5	<1	17	29	385	25
S1 L2+00N 3+50W		<5	<0.5	<5	100	<0.5	6	<1	20	25	397	36
S1 L2+00N 3+25W		<5	<0.5	<5	137	1.7	<2	1	26	48	448	32
S1 L2+00N 3+00W		6	<0.5	<5	273	0.6	<2	<1	21	40	366	27
S1 L2+00N 0+75W		<5	<0.5	<5	142	<0.5	<2	<1	24	44	323	32
S1 L2+00N 0+50W		6	<0.5	<5	143	<0.5	<2	<1	23	49	434	22
S1 L2+00N 0+25W		<5	<0.5	<5	139	<0.5	6	<1	29	39	363	27
S1 L2+00N 0+00W		<5	<0.5	<5	166	<0.5	3	<1	23	42	379	24
S1 L2+00N 0+25E		9	<0.5	<5	128	<0.5	6	<1	24	31	414	33
S1 L2+00N 0+50E		<5	0.5	<5	157	<0.5	4	<1	18	42	436	22
S1 L2+00N 0+75E		<5	<0.5	22	161	<0.5	6	<1	23	47	438	32
S1 L2+00N 1+00E		<5	<0.5	<5	254	<0.5	<2	<1	18	40	409	43
S1 L2+00N 1+25E		9	<0.5	11	131	<0.5	5	<1	24	51	420	61
S1 L2+00N 1+50F		<5	<0.5	5	135	<0.5	<2	<1	18	43	408	21
S1 L2+00N 2+00E		<5	<0.5	<5	164	<0.5	4	<1	19	56	436	27
S1 L2+00N 2+25E		8	<0.5	22	172	<0.5	2	<1	27	58	450	34
S1 L2+00N 2+50E		<5	<0.5	<5	204	<0.5	<2	<1	21	31	343	17
S1 L2+00N 2+75E		6	<0.5	<5	140	<0.5	3	<1	40	65	406	26
S1 L2+00N 3+00E		<5	<0.5	<5	146	<0.5	3	<1	23	50	435	23
S1 L2+00N 3+50E		<5	<0.5	<5	240	<0.5	5	<1	19	59	529	45
S1 L2+00N 3+75E		<5	<0.5	<5	178	<0.5	<2	<1	19	44	293	19
S1 L2+00N 4+00E		<5	<0.5	6	156	<0.5	<2	<1	17	49	487	19
S1 L2+00N 4+25E		<5	<0.5	<5	277	<0.5	<2	<1	21	53	362	30
S1 L2+00N 4+50E		<5	<0.5	<5	449	<0.5	<2	<1	15	51	320	21
S1 L2+00N 4+75E		<5	<0.5	<5	312	<0.5	2	<1	20	58	482	23
S1 L2+00N 5+00E		<5	<0.5	<5	441	<0.5	4	<1	25	39	266	37
S1 L0+00N 5+00W		<5	<0.5	<5	190	<0.5	8	<1	27	27	263	32
S1 L0+00N 4+75W		<5	<0.5	<5	210	<0.5	4	<1	28	25	238	23
S1 L0+00N 4+50W		<5	<0.5	13	153	<0.5	3	<1	22	45	416	22
S1 L0+00N 4+25W		<5	<0.5	<5	280	<0.5	<2	<1	35	33	229	39
S1 L0+00N 4+00W		6	<0.5	<5	142	<0.5	5	<1	26	29	315	28
S1 L0+00N 3+75W		6	<0.5	<5	445	0.6	<2	<1	54	32	103	32
S1 L0+00N 3+50W		<5	<0.5	5	116	<0.5	<2	<1	18	50	569	25
S1 L0+00N 3+25W		<5	<0.5	<5	178	<0.5	4	<1	42	41	455	110
S1 L0+00N 1+25W		4	<0.5	13	199	<0.5	<2	1	30	37	305	34

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SAMPLE NUMBER	ELEMENT UNITS	Ga PPM	La PPM	Li PPM	Mo PPM	Nb PPM	Ni PPM	Pb PPM	Rb PPM	Sb PPM	Se PPM	Zn PPM
S1 L3+00N 3+75E		<2	4	17	2	5	430	7	<20	<5	<1	<20
S1 L3+00N 4+00E		<2	4	17	<1	5	409	7	77	11	<1	<20
S1 L3+00N 4+25E		4	8	13	1	8	259	10	<20	<5	<1	<20
S1 L3+00N 4+50E		<2	5	18	2	5	493	8	<20	<5	<1	<20
S1 L3+00N 5+00E		<2	5	15	<1	3	531	9	<20	9	<1	<20
S1 L2+00N 3+75W		<2	4	15	1	3	359	10	<20	<5	<1	<20
S1 L2+00N 3+50W		<2	6	13	1	3	439	12	<20	6	<1	<20
S1 L2+00N 3+25W		<2	10	17	12	3	430	15	<20	<5	<1	<20
S1 L2+00N 3+00W		<2	7	15	3	3	348	9	<20	<5	<1	<20
S1 L2+00N 0+75W		<2	5	15	2	3	331	6	<20	13	<1	<20
S1 L2+00N 0+50W		<2	4	16	4	6	353	9	<20	<5	<1	<20
S1 L2+00N 0+25W		<2	7	12	2	3	368	13	21	7	<1	<20
S1 L2+00N 0+00W		<2	5	13	4	3	341	16	<20	<5	<1	<20
S1 L2+00N 0+25E		<2	6	12	2	2	451	12	<20	10	<1	<20
S1 L2+00N 0+50E		<2	4	15	2	3	429	9	<20	<5	<1	<20
S1 L2+00N 0+75E		<2	4	13	<1	2	477	11	<20	6	<1	<20
S1 L2+00N 1+00E		<2	5	14	1	3	509	12	<20	5	<1	<20
S1 L2+00N 1+25E		<2	8	12	1	2	652	6	<20	<5	<1	<20
S1 L2+00N 1+50E		<2	3	14	1	3	391	9	<20	6	<1	<20
S1 L2+00N 2+00E		<2	3	12	1	3	456	6	<20	<5	<1	<20
S1 L2+00N 2+25E		<2	6	14	<1	3	555	10	<20	<5	<1	<20
S1 L2+00N 2+50E		3	5	12	2	3	346	9	<20	9	<1	<20
S1 L2+00N 2+75E		<2	7	13	1	4	609	6	<20	<5	<1	<20
S1 L2+00N 3+00E		<2	4	14	2	4	431	7	<20	<5	<1	<20
S1 L2+00N 3+50E		<2	8	16	2	3	663	5	<20	<5	<1	<20
S1 L2+00N 3+75E		2	6	12	3	7	252	11	<20	7	<1	<20
S1 L2+00N 4+00E		<2	4	16	5	6	292	9	<20	<5	<1	<20
S1 L2+00N 4+25E		3	5	16	3	6	452	10	<20	<5	<1	<20
S1 L2+00N 4+50E		<2	5	15	2	8	262	11	<20	8	<1	<20
S1 L2+00N 4+75E		<2	5	23	3	6	397	13	<20	<5	<1	<20
S1 L2+00N 5+00E		<2	8	18	1	7	329	8	<20	<5	<1	<20
S1 L0+00N 5+00W		2	8	15	3	4	275	10	<20	<5	<1	<20
S1 L0+00N 4+75W		4	8	16	3	7	242	10	<20	9	<1	<20
S1 L0+00N 4+50W		<2	3	16	3	3	396	9	<20	7	<1	<20
S1 L0+00N 4+25W		4	12	13	3	9	323	8	<20	9	<1	<20
S1 L0+00N 4+00W		5	6	10	1	5	281	18	<20	7	<1	<20
S1 L0+00N 3+75W		4	19	19	1	13	328	8	39	13	<1	<20
S1 L0+00N 3+50W		<2	3	17	<1	4	488	7	28	6	<1	<20
S1 L0+00N 3+25W		<2	17	16	1	5	487	11	<20	<5	<1	<20
S1 L0+00N 1+25W		<2	10	15	<1	2	520	7	27	<5	<1	<20

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SAMPLE NUMBER	ELEMENT UNITS	Cr PPM	Ca PPM	Fe PPM	Mg PPM	Mn PPM	P PPM	S PPM	Zn PPM	Zr PPM
S1 L3+00N 3+75E		25	33	<10	103	<10	3	174	<1	
S1 L3+00N 4+00E		24	44	<10	98	<10	4	108	<1	
S1 L3+00N 4+25F		18	30	14	123	<10	4	208	2	
S1 L3+00N 4+50E		25	44	<10	105	<10	3	194	<1	
S1 L3+00N 5+00E		29	40	<10	81	<10	7	94	<1	
S1 L2+00N 3+75W		38	40	<10	82	<10	3	62	<1	
S1 L2+00N 3+50W		25	48	<10	80	<10	9	74	1	
S1 L2+00N 3+25W		35	52	15	103	<10	8	84	2	
S1 L2+00N 3+00W		35	37	<10	92	<10	7	105	<1	
S1 L2+00N 0+75W		32	26	10	82	<10	5	88	<1	
S1 L2+00N 0+50W		30	34	11	110	<10	3	105	<1	
S1 L2+00N 0+25W		34	38	<10	95	<10	7	98	6	
S1 L2+00N 0+00W		30	42	14	99	<10	4	87	<1	
S1 L2+00N 0+25E		31	43	<10	84	<10	6	94	1	
S1 L2+00N 0+50E		28	45	<10	104	12	5	81	<1	
S1 L2+00N 0+75E		30	48	13	88	11	4	71	<1	
S1 L2+00N 1+00E		41	39	10	88	<10	7	87	<1	
S1 L2+00N 1+25E		34	53	<10	81	<10	12	69	3	
S1 L2+00N 1+50E		25	41	<10	103	<10	5	90	<1	
S1 L2+00N 2+00E		23	41	<10	95	<10	5	74	<1	
S1 L2+00N 2+25E		39	49	<10	83	<10	6	73	2	
S1 L2+00N 2+50E		29	42	<10	89	<10	5	72	3	
S1 L2+00N 2+75E		27	43	12	105	<10	5	99	12	
S1 L2+00N 3+00E		29	50	<10	91	<10	3	57	<1	
S1 L2+00N 3+50E		39	49	11	85	<10	11	87	3	
S1 L2+00N 3+75E		21	37	<10	110	<10	3	137	<1	
S1 L2+00N 4+00E		25	34	15	134	<10	3	203	<1	
S1 L2+00N 4+25E		26	23	12	121	<10	5	136	<1	
S1 L2+00N 4+50E		35	26	<10	113	<10	3	181	<1	
S1 L2+00N 4+75E		31	40	10	120	<10	5	135	<1	
S1 L2+00N 5+00E		82	11	<10	81	<10	8	129	3	
S1 L0+00N 5+00W		47	24	<10	87	<10	6	88	3	
S1 L0+00N 4+75W		45	30	<10	101	<10	5	103	2	
S1 L0+00N 4+50W		28	37	<10	96	<10	5	99	<1	
S1 L0+00N 4+25W		45	27	<10	93	<10	9	126	4	
S1 L0+00N 4+00W		63	18	<10	81	<10	4	149	3	
S1 L0+00N 3+75W		81	21	<10	92	<10	13	92	30	
S1 L0+00N 3+50W		32	40	<10	93	<10	3	144	<1	
S1 L0+00N 3+25W		62	29	<10	84	<10	10	110	7	
S1 L0+00N 1+25W		63	50	<10	75	<10	12	101	7	

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S1 LO+OON 1+00W		6	<0.5	<5	277	<0.5	3	<1	22	38	355	33
S1 LO+OON 0+75W		<5	<0.5	<5	199	<0.5	5	<1	21	43	408	30
S1 LO+OON 0+50W		<5	<0.5	7	158	<0.5	3	<1	23	27	358	44
S1 LO+OON 0+25W		<5	0.5	14	133	0.9	5	<1	25	51	414	33
S1 LO+OON 0+00W		<5	0.7	<5	143	<0.5	<2	<1	23	40	344	30
S1 LO+OON 0+25E		9	<0.5	14	110	<0.5	8	<1	24	52	438	31
S1 LO+OON 0+75E		<5	<0.5	<5	139	<0.5	<2	<1	30	57	466	39
S1 LO+OON 1+00E		7	<0.5	7	181	<0.5	5	<1	26	70	462	44
S1 LO+OON 1+25E		6	<0.5	<5	107	<0.5	6	<1	26	63	524	31
S1 LO+OON 1+50E		9	<0.5	<5	211	<0.5	2	<1	35	62	371	21
S1 LO+OON 1+75E		6	<0.5	<5	257	0.7	3	<1	56	33	127	62
S1 LO+OON 2+25E		6	<0.5	<5	119	<0.5	<2	<1	22	75	514	36
S1 LO+OON 2+50E		6	<0.5	<5	110	<0.5	5	<1	23	68	449	22
S1 LO+OON 3+25E		<5	<0.5	<5	161	<0.5	<2	<1	22	57	563	40
S1 LO+OON 3+50E		<5	<0.5	11	168	<0.5	<2	<1	24	63	524	33
S1 LO+OON 3+75E		<5	<0.5	8	328	<0.5	8	<1	21	44	445	35
S1 LO+OON 4+00E		<5	0.7	<5	251	<0.5	8	<1	22	54	488	45
S1 LO+OON 4+25E		8	<0.5	12	285	<0.5	7	<1	32	61	477	57
S1 LO+OON 4+50E		13	<0.5	<5	242	<0.5	5	<1	25	46	408	31
S1 LO+OON 4+75E		7	<0.5	<5	262	<0.5	9	<1	24	52	456	72

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SAMPLE NUMBER	ELEMENT UNITS	Ga PPM	La PPM	Li PPM	Na PPM	Mg PPM	Ni PPM	Pb PPM	Rb PPM	Sr PPM	Ce PPM	Sm PPM
S1 LD+00N 1+00W		<2	7	13	<1	2	350	8	<20	<5	<1	<20
S1 LD+00N 0+75W		<2	5	14	1	3	406	7	<20	8	<1	<20
S1 LD+00N 0+50W		<2	6	13	<1	2	491	6	50	12	<1	<20
S1 LD+00N 0+25W		<2	7	16	7	4	431	15	<20	<5	<1	<20
S1 LD+00N 0+00W		<2	5	16	3	5	358	9	28	7	<1	<20
S1 LD+00N 0+25E		<2	3	13	1	3	414	8	<20	<5	<1	<20
S1 LD+00N 0+75E		<2	8	12	1	3	611	7	<20	6	<1	<20
S1 LD+00N 1+00E		<2	8	12	<1	3	815	<2	<20	<5	<1	<20
S1 LD+00N 1+25E		<2	3	13	2	3	571	3	30	10	<1	<20
S1 LD+00N 1+50E		<2	7	14	<1	5	545	4	<20	<5	<1	<20
S1 LD+00N 1+75E		5	15	14	5	12	305	7	<20	6	<1	<20
S1 LD+00N 2+25E		<2	3	11	<1	3	703	3	<20	7	<1	<20
S1 LD+00N 2+50E		<2	3	13	2	3	554	9	<20	9	<1	<20
S1 LD+00N 3+25E		<2	5	12	<1	3	776	8	<20	6	<1	<20
S1 LD+00N 3+50E		<2	4	16	1	2	606	4	44	<5	<1	<20
S1 LD+00N 3+75E		<2	6	17	3	4	531	13	<20	<5	<1	<20
S1 LD+00N 4+00E		<2	7	18	1	3	668	8	<20	<5	<1	<20
S1 LD+00N 4+25E		<2	15	20	1	3	802	8	32	<5	<1	<20
S1 LD+00N 4+50E		<2	6	13	2	4	478	11	<20	<5	<1	<20
S1 LD+00N 4+75E		<2	12	19	3	3	839	13	<20	7	<1	<20

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SAMPLE NUMBER	ELEMENT UNITS	Sr PPM	Ta PPM	Te PPM	U PPM	W PPM	Y PPM	Zn PPM	Zr PPM
S1 LO+OON 1+00W		53	39	<10	90	<10	8	100	<1
S1 LO+OON 0+75W		32	37	12	89	<10	4	103	<1
S1 LO+OON 0+50W		45	45	<10	66	<10	9	89	3
S1 LO+OON 0+25W		38	18	13	109	<10	5	123	<1
S1 LO+OON 0+00W		15	43	15	141	<10	4	160	<1
S1 LO+OON 0+25E		21	41	<10	105	<10	5	88	<1
S1 LO+OON 0+75E		27	44	11	86	<10	11	83	5
S1 LO+OON 1+00E		33	63	<10	74	<10	9	89	2
S1 LO+OON 1+25E		19	50	<10	102	<10	6	100	2
S1 LO+OON 1+50E		29	49	<10	102	<10	6	117	11
S1 LO+OON 1+75E		35	21	<10	93	<10	10	120	13
S1 LO+OON 2+25E		18	61	12	96	<10	7	67	<1
S1 LO+OON 2+50E		17	63	11	102	<10	5	88	<1
S1 LO+OON 3+25E		25	50	13	84	<10	7	76	1
S1 LO+OON 3+50E		26	52	<10	92	10	7	90	2
S1 LO+OON 3+75E		46	48	<10	87	<10	8	100	<1
S1 LO+OON 4+00E		30	49	<10	86	<10	10	85	4
S1 LO+OON 4+25E		42	41	12	84	<10	15	106	4
S1 LO+OON 4+50E		39	36	<10	72	<10	6	108	2
S1 LO+OON 4+75E		39	57	<10	81	12	16	106	3



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SAMPLE NUMBER	ELEMENT UNITS	Au PPB	Ag PPM	As PPM	Ba PPM	Be PPM	Bi PPM	Cd PPM	Ce PPM	Co PPM	Cr PPM	Cu PPM
S1 L12+00N 9+75W		<5	<0.5	12	241	<0.5	<2	<1	27	30	356	41
S1 L12+00N 9+50W		<5	<0.5	<5	156	<0.5	<2	<1	24	35	419	36
S1 L12+00N 9+25W		<5	<0.5	9	189	<0.5	2	<1	25	34	438	49
S1 L12+00N 9+00W		12	0.5	7	160	<0.5	3	<1	30	63	524	23
S1 L12+00N 8+75W		<5	<0.5	<5	290	<0.5	5	<1	23	63	385	31
S1 L12+00N 8+50W		<5	<0.5	<5	274	<0.5	<2	<1	25	55	441	42
S1 L12+00N 8+25W		<5	<0.5	11	191	<0.5	2	<1	29	44	344	25
S1 L12+00N 8+00W		<5	<0.5	<5	168	<0.5	<2	<1	17	43	367	18
S1 L12+00N 7+75W		<5	<0.5	<5	168	<0.5	3	<1	22	29	293	20
S1 L12+00N 7+50W		<5	<0.5	<5	152	<0.5	<2	<1	19	27	326	23
S1 L12+00N 7+25W		<5	<0.5	<5	163	<0.5	<2	<1	19	36	294	17
S1 L12+00N 7+00W		219	<0.5	<5	176	<0.5	5	<1	15	29	332	15
S1 L12+00N 6+75W		<5	<0.5	<5	167	<0.5	5	<1	16	35	372	17
S1 L12+00N 6+50W		40	<0.5	<5	161	<0.5	3	<1	24	66	407	22
S1 L12+00N 6+25W		<5	<0.5	<5	186	<0.5	3	<1	19	31	287	17
S1 L12+00N 6+00W		<5	<0.5	<5	203	<0.5	<2	<1	16	25	243	16
S1 L12+00N 5+75W		<5	<0.5	<5	326	0.7	9	<1	41	36	276	33
S1 L12+00N 5+50W		12	<0.5	<5	216	<0.5	4	<1	25	35	349	23
S1 L8+00N 5+00W		<5	<0.5	<5	182	<0.5	<2	<1	25	13	175	17
S1 L8+00N 4+75W		<5	<0.5	<5	229	<0.5	<2	<1	18	34	402	26
S1 L8+00N 4+50W		<5	<0.5	<5	181	0.6	4	<1	37	30	244	32
S1 L8+00N 4+25W		<5	<0.5	<5	232	<0.5	<2	<1	34	58	443	29
S1 L8+00N 4+00W		<5	<0.5	<5	154	<0.5	<2	<1	23	27	260	24
S1 L8+00N 3+50W		<5	<0.5	5	330	<0.5	4	<1	26	52	512	30
S1 L8+00N 3+25W		<5	<0.5	<5	198	<0.5	<2	<1	19	139	861	19
S1 L8+00N 3+00W		<5	<0.5	<5	215	<0.5	7	<1	25	63	540	29
S1 L8+00N 2+75W		<5	<0.5	5	184	1.6	<2	<1	28	26	275	31
S1 L8+00N 2+50W		<5	<0.5	<5	347	0.8	<2	<1	47	29	247	51
S1 L8+00N 2+25W		<5	<0.5	<5	219	<0.5	2	<1	27	34	309	23
S1 L8+00N 2+00W		<5	<0.5	<5	114	<0.5	<2	<1	26	31	307	20
S1 L8+00N 1+50W		<5	<0.5	<5	169	<0.5	7	<1	27	27	269	25
S1 L8+00N 1+25W		<5	0.5	7	429	0.6	3	<1	46	29	178	80
S1 L8+00N 0+75W		<5	0.6	<5	393	0.8	5	<1	44	33	285	71
S1 L8+00N 0+50W		<5	<0.5	<5	178	<0.5	4	<1	27	37	419	20
S1 L8+00N 0+25W		<5	<0.5	10	199	<0.5	5	<1	20	74	783	32
S1 L8+00N 0+00W		16	<0.5	24	231	<0.5	2	<1	21	69	714	47
S1 L8+00N 0+25E		<5	<0.5	<5	221	1.5	<2	1	21	41	383	31
S1 L8+00N 1+00E		<5	<0.5	<5	233	0.6	<2	<1	26	32	431	30
S1 L8+00N 1+25E		<5	<0.5	7	371	0.6	<2	1	31	43	351	54
S1 L8+00N 1+50E		<5	<0.5	<5	261	<0.5	1	<1	29	47	409	30

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SAMPLE NUMBER	ELEMENT UNITS	Ga PPM	La PPM	Li PPM	Mo PPM	Nb PPM	Ni PPM	Pb PPM	Rb PPM	Sb PPM	Sc PPM	Sr PPM
S1 L12+00N 9+75W		<2	8	13	<1	3	492	11	<20	<5	<1	<20
S1 L12+00N 9+50W		<2	6	10	1	2	519	8	<20	<5	<1	<20
S1 L12+00N 9+25W		<2	7	12	2	3	600	7	<20	<5	<1	<20
S1 L12+00N 9+00W		<2	6	12	<1	3	449	12	<20	6	<1	<20
S1 L12+00N 8+75W		<2	5	15	2	5	376	8	<20	<5	<1	<20
S1 L12+00N 8+50W		<2	7	12	3	4	488	10	<20	<5	<1	<20
S1 L12+00N 8+25W		<2	7	13	<1	5	598	8	<20	6	<1	<20
S1 L12+00N 8+00W		<2	4	13	1	4	292	5	<20	7	<1	<20
S1 L12+00N 7+75W		5	6	12	1	4	286	11	<20	6	<1	<20
S1 L12+00N 7+50W		<2	4	14	2	2	317	17	<20	<5	<1	<20
S1 L12+00N 7+25W		<2	4	13	<1	2	233	9	68	<5	<1	<20
S1 L12+00N 7+00W		<2	3	11	<1	2	257	10	31	<5	<1	<20
S1 L12+00N 6+75W		3	4	13	<1	2	323	8	<20	7	<1	<20
S1 L12+00N 6+50W		<2	5	12	<1	4	605	6	<20	<5	<1	<20
S1 L12+00N 6+25W		3	4	10	2	5	254	6	<20	8	<1	<20
S1 L12+00N 6+00W		<2	4	14	<1	4	211	6	<20	<5	<1	<20
S1 L12+00N 5+75W		7	9	14	2	7	689	9	<20	7	<1	<20
S1 L12+00N 5+50W		4	5	18	1	4	408	10	<20	<5	<1	<20
S1 L8+00N 5+00W		8	10	4	3	5	34	15	<20	<5	<1	<20
S1 L8+00N 4+75W		<2	5	14	<1	3	363	7	<20	<5	<1	<20
S1 L8+00N 4+50W		6	11	12	<1	7	365	14	37	<5	<1	<20
S1 L8+00N 4+25W		<2	6	17	2	6	605	12	42	7	<1	<20
S1 L8+00N 4+00W		5	5	15	3	4	233	11	<20	<5	<1	<20
S1 L8+00N 3+50W		<2	7	18	2	5	531	13	55	<5	<1	<20
S1 L8+00N 3+25W		<2	1	5	<1	4	1198	5	70	7	<1	<20
S1 L8+00N 3+00W		<2	4	16	3	5	560	11	22	<5	<1	<20
S1 L8+00N 2+75W		3	12	15	11	5	275	15	<20	<5	<1	<20
S1 L8+00N 2+50W		<2	16	14	3	8	384	18	<20	<5	<1	<20
S1 L8+00N 2+25W		4	7	15	1	5	295	13	<20	<5	<1	<20
S1 L8+00N 2+00W		<2	5	15	3	3	264	10	<20	<5	<1	<20
S1 L8+00N 1+50W		4	7	13	3	3	270	10	<20	11	<1	<20
S1 L8+00N 1+25W		4	14	13	3	9	367	11	<20	5	<1	<20
S1 L8+00N 0+75W		4	19	13	3	7	436	10	<20	6	<1	<20
S1 L8+00N 0+50W		2	5	12	3	4	321	10	<20	5	<1	<20
S1 L8+00N 0+25W		<2	5	12	1	2	791	13	<20	<5	<1	<20
S1 L8+00N 0+00W		<2	9	12	1	3	1031	9	<20	9	<1	<20
S1 L8+00N 0+25E		<2	11	15	12	3	308	15	<20	<5	<1	<20
S1 L8+00N 1+00E		<2	13	12	3	4	714	10	<20	10	<1	<20
S1 L8+00N 1+20E		<2	10	19	4	7	576	10	49	<5	<1	<20
S1 L8+00N 1+50E		<2	13	13	3	6	415	10	<20	<5	<1	<20

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SAMPLE NUMBER	ELEMENT UNITS	Sr PPM	Ta PPM	Te PPM	U PPM	V PPM	Y PPM	Zn PPM	Zr PPM
S1 L12+00N 9+75W		57	39	<10	68	<10	10	86	2
S1 L12+00N 9+50W		43	58	<10	71	<10	7	81	<1
S1 L12+00N 9+25W		45	53	11	74	<10	9	77	2
S1 L12+00N 9+00W		31	32	<10	99	<10	7	82	2
S1 L12+00N 8+75W		34	22	11	100	<10	5	126	<1
S1 L12+00N 8+50W		37	38	<10	88	<10	9	107	2
S1 L12+00N 8+25W		28	34	12	96	<10	6	104	<1
S1 L12+00N 8+00W		22	20	13	95	<10	4	96	<1
S1 L12+00N 7+75W		25	34	11	94	<10	3	117	<1
S1 L12+00N 7+50W		29	33	<10	83	<10	2	76	<1
S1 L12+00N 7+25W		24	24	<10	88	<10	4	87	<1
S1 L12+00N 7+00W		24	29	11	82	<10	3	61	<1
S1 L12+00N 6+75W		24	26	<10	86	<10	2	110	<1
S1 L12+00N 6+50W		30	38	<10	75	<10	6	104	<1
S1 L12+00N 6+25W		24	31	<10	94	<10	2	94	<1
S1 L12+00N 6+00W		22	21	<10	96	<10	3	84	<1
S1 L12+00N 5+75W		25	37	12	119	<10	4	111	45
S1 L12+00N 5+50W		29	35	12	100	<10	4	105	<1
S1 L8+00N 5+00W		26	14	<10	68	<10	3	85	<1
S1 L8+00N 4+75W		18	22	<10	86	<10	2	76	<1
S1 L8+00N 4+50W		25	25	<10	97	<10	8	91	5
S1 L8+00N 4+25W		16	47	16	110	<10	5	102	4
S1 L8+00N 4+00W		30	25	10	105	<10	5	87	<1
S1 L8+00N 3+50W		29	44	13	120	<10	8	99	<1
S1 L8+00N 3+25W		72	43	18	72	<10	2	177	<1
S1 L8+00N 3+00W		26	37	13	103	<10	2	113	<1
S1 L8+00N 2+75W		61	22	<10	100	<10	7	85	<1
S1 L8+00N 2+50W		58	29	11	101	<10	11	104	7
S1 L8+00N 2+25W		40	39	<10	102	<10	7	92	<1
S1 L8+00N 2+00W		29	30	<10	106	<10	4	75	<1
S1 L8+00N 1+50W		33	36	11	99	<10	6	73	<1
S1 L8+00N 1+25W		85	23	<10	84	<10	11	106	17
S1 L8+00N 0+75W		46	31	13	103	<10	15	160	3
S1 L8+00N 0+50W		29	29	<10	91	<10	4	74	<1
S1 L8+00N 0+25W		25	71	13	68	<10	4	82	<1
S1 L8+00N 0+00W		19	64	<10	62	<10	8	77	<1
S1 L8+00N 0+25E		33	28	<10	97	<10	5	63	2
S1 L8+00N 1+00E		40	46	<10	58	<10	13	73	3
S1 L8+00N 1+25E		33	40	15	98	<10	10	109	4
S1 L8+00N 1+50E		20	26	11	100	<10	11	114	2

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S1 L8+00N 1+75E		<5	0.5	<5	217	0.6	8	<1	37	46	425	66
S1 L8+00N 2+50E		<5	<0.5	<5	353	0.8	3	6	40	45	449	36
S1 L8+00N 2+75E(A)		<5	0.5	19	268	0.8	6	7	40	33	348	39
S1 L8+00N 2+75E(B)		<5	<0.5	<5	337	0.3	<2	3	37	49	533	37
S1 L8+00N 3+00E		<5	<0.5	<5	236	<0.5	6	3	37	49	554	40
S1 L8+00N 3+25E		<5	<0.5	<5	248	<0.5	<2	4	41	37	381	31
S1 L8+00N 3+50E		<5	<0.5	<5	225	0.7	3	2	46	38	310	37
S1 L8+00N 4+00E		<5	<0.5	<5	204	<0.5	4	<1	36	41	400	22
S1 L8+00N 4+25E		<5	<0.5	<5	219	<0.5	<2	<1	26	35	320	24
S1 L8+00N 4+50E		<5	<0.5	7	244	<0.5	2	<1	27	53	502	47
S1 L8+00N 4+75E		<5	<0.5	13	216	<0.5	3	<1	32	36	351	31
S1 L6+00N 4+75W		9	<0.5	9	76	<0.5	3	1	20	70	956	33
S1 L6+00N 4+50W		<5	<0.5	<5	166	<0.5	5	<1	32	45	480	33
S1 L6+00N 4+25W		<5	<0.5	13	107	<0.5	<2	<1	27	41	400	23
S1 L6+00N 4+00W		<5	<0.5	<5	143	<0.5	<2	<1	23	32	364	27
S1 L6+00N 3+75W		<5	<0.5	<5	138	<0.5	2	<1	20	30	430	24
S1 L6+00N 3+50W		<5	<0.5	<5	177	<0.5	<2	<1	23	25	286	28
S1 L6+00N 3+25W		<5	<0.5	11	165	<0.5	7	<1	30	43	420	65
S1 L6+00N 3+00W		<5	<0.5	18	208	<0.5	10	<1	31	36	425	46
S1 L6+00N 2+50W		6	<0.5	7	142	<0.5	<2	<1	57	18	127	160
S1 L6+00N 2+25W		<5	<0.5	<5	86	<0.5	6	<1	22	47	457	23
S1 L6+00N 2+00W		<5	<0.5	<5	102	<0.5	2	<1	22	37	372	19
S1 L6+00N 1+75W		<5	<0.5	14	136	<0.5	3	<1	27	30	304	22
S1 L6+00N 1+50W		<5	<0.5	<5	205	<0.5	8	<1	28	31	343	39
S1 L6+00N 1+25W		<5	<0.5	<5	196	0.6	2	2	41	47	394	26
S1 L6+00N 1+00W		<5	<0.5	<5	169	0.5	<2	1	42	35	344	31
S1 L6+00N 0+75W		<5	<0.5	18	183	<0.5	5	<1	26	41	344	49
S1 L6+00N 0+50W		<5	<0.5	31	169	<0.5	4	<1	35	44	438	65
S1 L6+00N 0+25W		<5	<0.5	7	209	<0.5	2	<1	31	36	432	46
S1 L5+00N 0+25E		<5	<0.5	<5	203	0.7	4	3	53	44	246	38
S1 L5+00N 0+50E		<5	<0.5	<5	261	0.9	6	3	57	30	159	42
S1 L5+00N 0+75E		<5	<0.5	7	165	<0.5	3	<1	37	28	263	71
S1 L5+00N 1+25E		<5	<0.5	<5	122	1.0	<2	<1	23	29	318	25
S1 L5+00N 1+50E		6	<0.5	<5	176	0.7	<2	<1	32	33	304	24
S1 L5+00N 1+75E		<5	<0.5	<5	234	<0.5	3	<1	25	35	313	23
S1 L5+00N 2+00E		16	<0.5	<5	262	0.8	<2	3	38	36	312	23
S1 L5+00N 2+50E		10	<0.5	<5	269	<0.5	4	2	37	34	224	21
S1 L5+00N 2+75E		6	<0.5	<5	290	<0.5	2	<1	17	30	271	21
S1 L5+00N 3+00E		6	<0.5	<5	168	<0.5	<2	<1	31	32	319	26
S1 L5+00N 3+25E		6	<0.5	<5	193	0.7	<2	<1	37	48	499	66

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S1 L8+00N 1+75E		4	14	16	1	4	655	36	<20	7	<1	<20
S1 L8+00N 2+50E		2	19	12	2	5	504	9	<20	<5	<1	<20
S1 L8+00N 2+75E(A)		5	21	11	2	6	356	21	<20	9	<1	<20
S1 L8+00N 2+75E(B)		2	17	13	2	4	556	11	<20	<5	<1	<20
S1 L8+00N 3+00E		<2	17	14	<1	4	579	14	<20	<5	<1	<20
S1 L8+00N 3+25E		<2	15	12	<1	5	413	12	<20	<5	<1	<20
S1 L8+00N 3+50E		<2	15	12	1	6	430	10	<20	6	<1	<20
S1 L8+00N 4+00E		<2	7	14	2	5	341	9	<20	<5	<1	<20
S1 L8+00N 4+25E		<2	8	12	2	4	297	11	<20	<5	<1	<20
S1 L8+00N 4+50E		<2	9	13	<1	4	614	6	<20	5	<1	<20
S1 L8+00N 4+75E		<2	9	14	2	5	435	7	<20	<5	<1	<20
S1 L6+00N 4+75W		<2	4	15	<1	2	717	6	<20	<5	<1	<20
S1 L6+00N 4+50W		3	3	13	1	4	563	8	<20	<5	<1	<20
S1 L6+00N 4+25W		4	5	11	2	3	341	8	53	6	<1	<20
S1 L6+00N 4+00W		<2	4	12	2	3	275	8	<20	<5	<1	<20
S1 L6+00N 3+75W		<2	3	14	2	2	358	12	<20	6	<1	<20
S1 L6+00N 3+50W		<2	5	14	1	3	215	5	69	<5	<1	<20
S1 L6+00N 3+25W		<2	8	11	1	2	652	6	<20	<5	<1	<20
S1 L6+00N 3+00W		<2	14	12	2	3	565	11	78	11	<1	<20
S1 L6+00N 2+50W		<2	29	11	1	2	309	18	<20	<5	<1	<20
S1 L6+00N 2+25W		<2	4	11	2	2	390	4	<20	8	<1	<20
S1 L6+00N 2+00W		<2	3	10	1	2	339	10	<20	<5	<1	<20
S1 L6+00N 1+75W		2	4	15	2	2	307	13	<20	<5	<1	<20
S1 L6+00N 1+50W		<2	9	11	1	3	430	9	92	<5	<1	<20
S1 L6+00N 1+25W		<2	12	11	<1	6	606	13	<20	<5	<1	<20
S1 L6+00N 1+00W		<2	12	11	2	3	366	10	50	9	<1	<20
S1 L6+00N 0+75W		<2	9	12	<1	2	420	9	<20	6	<1	<20
S1 L6+00N 0+50W		<2	9	11	2	2	682	10	<20	6	<1	<20
S1 L6+00N 0+25W		<2	14	12	1	3	580	15	<20	<5	<1	<20
S1 L5+00N 0+25E		<2	15	11	1	5	373	12	<20	<5	<1	<20
S1 L5+00N 0+50E		<2	23	9	<1	8	475	13	<20	<5	<1	<20
S1 L5+00N 0+75E		<2	6	9	<1	2	463	7	<20	<5	<1	<20
S1 L5+00N 1+25E		<2	7	15	9	3	268	15	<20	<5	<1	<20
S1 L5+00N 1+50E		2	8	12	4	5	361	13	44	<5	<1	<20
S1 L5+00N 1+75E		3	7	12	3	4	293	12	<20	<5	<1	<20
S1 L5+00N 2+00E		<2	17	11	1	5	350	10	<20	8	<1	<20
S1 L5+00N 2+50E		3	9	10	2	4	243	8	<20	10	<1	<20
S1 L5+00N 2+75E		3	5	13	3	4	249	7	<20	<5	<1	<20
S1 L5+00N 3+00E		3	6	13	<1	4	312	5	25	<5	<1	<20
S1 L5+00N 3+25E		<2	21	13	2	5	645	3	<20	<5	<1	<20

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S1 L8+00N 1+75E		25	32	12	97	<10	21	88	11
S1 L8+00N 2+50E		20	35	16	95	<10	23	265	10
S1 L8+00N 2+75E(A)		20	25	11	107	<10	31	253	3
S1 L8+00N 2+75E(B)		22	36	14	96	<10	23	135	5
S1 L8+00N 3+00E		22	32	18	86	<10	25	98	7
S1 L8+00N 3+25E		22	29	<10	86	<10	19	130	6
S1 L8+00N 3+50E		27	19	<10	83	<10	17	107	7
S1 L8+00N 4+00E		32	25	13	88	<10	6	70	8
S1 L8+00N 4+25E		26	30	<10	88	<10	5	107	4
S1 L8+00N 4+50E		25	53	<10	70	<10	11	92	2
S1 L8+00N 4+75E		31	38	<10	93	<10	7	91	4
S1 L6+00N 4+75W		25	106	<10	59	<10	7	58	<1
S1 L6+00N 4+50W		36	48	14	84	<10	10	80	5
S1 L6+00N 4+25W		29	42	<10	92	<10	5	63	2
S1 L6+00N 4+00W		25	19	<10	88	<10	4	70	1
S1 L6+00N 3+75W		27	44	<10	85	12	5	67	<1
S1 L6+00N 3+50W		32	33	<10	89	<10	5	65	<1
S1 L6+00N 3+25W		50	62	<10	67	<10	14	92	3
S1 L6+00N 3+00W		35	38	<10	73	<10	18	98	<1
S1 L6+00N 2+50W		21	20	11	68	<10	9	153	6
S1 L6+00N 2+25W		25	36	<10	89	<10	5	63	<1
S1 L6+00N 2+00W		29	28	<10	82	<10	4	72	<1
S1 L6+00N 1+75W		35	43	<10	84	<10	5	86	<1
S1 L6+00N 1+50W		41	33	<10	73	<10	9	81	4
S1 L6+00N 1+25W		15	46	<10	99	<10	11	209	3
S1 L6+00N 1+00W		20	34	<10	114	<10	13	130	16
S1 L6+00N 0+75W		31	25	<10	92	<10	10	76	3
S1 L6+00N 0+50W		51	47	<10	69	<10	14	96	3
S1 L6+00N 0+25W		35	57	<10	74	<10	18	103	<1
S1 L5+00N 0+25E		27	19	<10	96	<10	17	187	<1
S1 L5+00N 0+50E		33	26	11	92	<10	25	259	6
S1 L5+00N 0+75E		53	34	<10	46	<10	10	92	4
S1 L5+00N 1+25E		34	33	14	103	<10	4	81	<1
S1 L5+00N 1+50E		26	36	<10	101	<10	6	124	8
S1 L5+00N 1+75E		24	29	<10	98	<10	5	143	2
S1 L5+00N 2+00E		19	17	11	92	<10	21	176	9
S1 L5+00N 2+50E		17	11	14	90	<10	5	170	<1
S1 L5+00N 2+75E		19	22	<10	102	<10	4	102	2
S1 L5+00N 3+00E		24	27	<10	91	<10	8	81	<1
S1 L5+00N 3+25E		31	41	14	97	<10	32	109	15

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SAMPLE NUMBER	ELEMENT UNITS	Au PPB	Ag PPM	As PPM	Ba PPM	Bc PPM	Bi PPM	Cd PPM	Ce PPM	Ca PPM	Cr PPM	Cu PPM
S1 L5+00N 3+50E		<5	<0.5	<5	149	<0.5	<2	<1	13	21	163	23
S1 L5+00N 3+75E		9	<0.5	<5	216	<0.5	<2	<1	15	32	374	18
S1 L5+00N 4+00E		<5	<0.5	<5	189	<0.5	<2	<1	25	33	333	20
S1 L5+00N 4+25E		11	<0.5	<5	199	<0.5	<2	<1	18	121	1110	26
S1 L5+00N 4+50E		<5	<0.5	<5	182	<0.5	4	<1	20	30	363	32
S1 L5+00N 5+00E		7	<0.5	<5	255	<0.5	<2	<1	28	51	429	24
S1 L4+00N 4+50W		6	<0.5	<5	154	<0.5	7	<1	25	32	366	31
S1 L4+00N 4+25W		9	<0.5	<5	133	<0.5	<2	<1	30	40	286	24
S1 L4+00N 4+00W		<5	<0.5	<5	226	<0.5	6	<1	31	29	245	30
S1 L4+00N 3+75W		<5	<0.5	<5	163	<0.5	2	<1	19	31	313	19
S1 L4+00N 3+50W		<5	<0.5	<5	211	<0.5	<2	<1	23	35	294	21
S1 L4+00N 3+25W		8	<0.5	<5	153	<0.5	7	<1	16	79	846	30
S1 L4+00N 1+50W		7	<0.5	<5	107	<0.5	6	<1	25	62	590	47
S1 L4+00N 1+25W		<5	<0.5	12	170	<0.5	4	<1	19	29	232	18
S1 L4+00N 1+00W		<5	<0.5	<5	291	<0.5	5	<1	16	36	330	23
S1 L4+00N 0+75W		<5	<0.5	<5	270	<0.5	3	<1	21	28	302	21
S1 L4+00N 0+50W		<5	<0.5	<5	188	<0.5	<2	<1	16	45	348	20
S1 L4+00N 0+00W		<5	0.5	<5	138	<0.5	<2	<1	26	44	392	39
S1 L3+00N 4+25W		8	<0.5	<5	205	0.6	<2	<1	37	29	342	58
S1 L3+00N 4+00W		<5	<0.5	<5	184	0.5	<2	<1	32	36	308	42
S1 L3+00N 3+50W		8	<0.5	<5	156	<0.5	<2	<1	21	27	309	17
S1 L3+00N 3+25W		7	<0.5	<5	181	<0.5	6	<1	17	31	342	24
S1 L3+00N 3+00W		6	<0.5	12	195	<0.5	<2	<1	26	60	587	46
S1 L3+00N 1+25W		28	<0.5	<5	147	<0.5	<2	<1	7	91	1830	31
S1 L3+00N 1+00W		14	<0.5	<5	222	<0.5	5	<1	26	76	485	36
S1 L3+00N 0+75W		<5	<0.5	<5	246	<0.5	3	<1	25	36	271	22
S1 L3+00N 0+00W		<5	<0.5	<5	244	<0.5	3	<1	31	36	260	38
S1 L3+00N 0+25E		8	<0.5	6	198	<0.5	10	<1	25	35	291	25
S1 L3+00N 0+50E		<5	<0.5	<5	271	<0.5	<2	<1	35	31	281	32
S1 L3+00N 0+75E		7	<0.5	10	123	<0.5	<2	<1	20	29	336	18
S1 L3+00N 1+00E		6	<0.5	<5	341	<0.5	<2	<1	24	58	459	21
S1 L3+00N 1+25E		46	<0.5	<5	167	<0.5	5	<1	35	41	275	22
S1 L3+00N 1+50E		15	<0.5	<5	644	<0.5	<2	<1	7	36	280	33
S1 L3+00N 1+75E		8	<0.5	<5	276	<0.5	<2	<1	34	45	228	36
S1 L3+00N 2+25E		<5	<0.5	11	166	<0.5	3	<1	29	44	341	77
S1 L3+00N 2+50E		8	<0.5	<5	106	<0.5	3	<1	18	40	461	37
S1 L3+00N 2+75E		<5	<0.5	12	222	<0.5	5	<1	17	51	444	50
S1 L3+00N 3+00E		7	<0.5	<5	177	<0.5	5	<1	25	38	428	34
S1 L3+00N 3+25E		<5	<0.5	<5	219	<0.5	4	<1	33	52	393	41
S1 L3+00N 3+50E		<5	<0.5	7	166	<0.5	4	<1	18	43	162	25

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S1 L5+00N 3+50F		<2	6	7	<1	3	189	<2	<20	<5	<1	<20	
S1 L5+00N 3+75E		<2	3	16	3	3	249	5	<20	<5	<1	<20	
S1 L5+00N 4+00E		<2	6	11	2	3	264	13	<20	<5	<1	<20	
S1 L5+00N 4+25E		<2	3	15	<1	3	1664	<2	34	<5	<1	<20	
S1 L5+00N 4+50E		<2	6	15	1	3	379	14	<20	<5	<1	<20	
S1 L5+00N 5+00E		<2	5	13	<1	3	358	7	61	<5	<1	<20	
S1 L4+00N 4+50W		<2	6	14	2	4	323	12	<20	<5	<1	<20	
S1 L4+00N 4+25W		3	7	12	<1	4	246	7	<20	<5	<1	<20	
S1 L4+00N 4+00W		<2	10	12	2	6	273	13	<20	<5	<1	<20	
S1 L4+00N 3+75W		<2	4	12	2	2	231	8	<20	<5	<1	<20	
S1 L4+00N 3+50W		4	5	14	4	4	269	11	<20	12	<1	<20	
S1 L4+00N 3+25W		<2	3	10	<1	2	1261	11	<20	<5	<1	<20	
S1 L4+00N 1+50W		<2	8	11	1	4	792	6	<20	<5	<1	<20	
S1 L4+00N 1+25W		<2	5	12	3	6	227	11	<20	<5	<1	<20	
S1 L4+00N 1+00W		<2	5	11	2	4	309	7	<20	<5	<1	<20	
S1 L4+00N 0+75W		<2	7	13	2	5	293	10	<20	<5	<1	<20	
S1 L4+00N 0+50W		<2	3	17	3	4	329	11	<20	<5	<1	<20	
S1 L4+00N 0+00W		<2	9	16	2	2	485	13	<20	<5	<1	<20	
S1 L3+00N 4+25W		3	15	14	<1	6	505	8	<20	9	<1	<20	
S1 L3+00N 4+00W		<2	10	13	<1	4	304	9	<20	<5	<1	<20	
S1 L3+00N 3+50W		3	4	12	1	3	222	10	<20	<5	<1	<20	
S1 L3+00N 3+25W		<2	3	13	1	2	340	7	<20	6	<1	<20	
S1 L3+00N 3+00W		<2	8	14	1	3	828	11	<20	<5	<1	<20	
S1 L3+00N 1+25W		<2	2	13	<1	2	1202	4	<20	<5	<1	<20	
S1 L3+00N 1+00W		<2	7	14	2	5	774	12	<20	8	<1	<20	
S1 L3+00N 0+75W		<2	6	13	2	4	209	10	<20	<5	<1	<20	
S1 L3+00N 0+50W		<2	8	15	1	3	291	13	<20	<5	<1	<20	
S1 L3+00N 0+25E		<2	7	13	2	3	252	7	<20	<5	<1	<20	
S1 L3+00N 0+50E		3	11	16	3	12	272	9	<20	<5	<1	<20	
S1 L3+00N 0+75E		<2	4	14	1	4	270	9	<20	7	<1	<20	
S1 L3+00N 1+00E		<2	6	14	2	7	563	12	<20	8	<1	<20	
S1 L3+00N 1+25E		3	8	15	3	9	319	16	<20	7	<1	<20	
S1 L3+00N 1+50E		<2	7	13	2	5	248	11	<20	<5	<1	<20	
S1 L3+00N 1+75E		4	10	11	2	9	262	13	48	6	<1	<20	
S1 L3+00N 2+25E		<2	14	17	2	5	830	11	21	7	<1	<20	
S1 L3+00N 2+50E		<2	4	11	<1	2	523	8	<20	<5	<1	<20	
S1 L3+00N 2+75E		<2	5	14	<1	3	539	10	<20	<5	<1	<20	
S1 L3+00N 3+00E		<2	6	12	1	3	609	10	<20	<5	<1	<20	
S1 L3+00N 3+25E		<2	6	13	<1	4	532	3	<20	<5	<1	<20	
S1 L3+00N 3+50E		<2	5	12	1	2	596	3	<20	6	<1	<20	



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SAMPLE NUMBER	ELEMENT UNITS	Sr PPM	Ta PPM	Te PPM	U PPM	V PPM	Y PPM	Zn PPM	Zr PPM
S1 L5+00N 3+50E		19	<10	<10	54	<10	7	64	2
S1 L5+00N 3+75E		29	36	13	99	<10	4	92	<1
S1 L5+00N 4+00E		28	32	<10	89	<10	5	71	3
S1 L5+00N 4+25E		20	79	13	62	<10	4	68	<1
S1 L5+00N 4+50E		28	40	11	90	<10	6	88	<1
S1 L5+00N 5+00E		27	40	13	90	<10	5	79	<1
S1 L4+00N 4+50W		35	21	<10	92	<10	6	89	<1
S1 L4+00N 4+25W		33	24	<10	88	<10	5	102	<1
S1 L4+00N 4+00W		29	20	<10	100	<10	4	163	4
S1 L4+00N 3+75W		39	22	<10	80	<10	5	81	<1
S1 L4+00N 3+50W		28	23	<10	98	<10	4	104	1
S1 L4+00N 3+25W		33	81	<10	63	<10	5	71	<1
S1 L4+00N 1+50W		26	44	<10	72	<10	11	83	4
S1 L4+00N 1+25W		19	16	<10	101	<10	3	106	<1
S1 L4+00N 1+00W		35	31	<10	84	<10	4	169	<1
S1 L4+00N 0+75W		37	26	<10	89	<10	5	132	5
S1 L4+00N 0+50W		28	30	<10	95	<10	3	89	<1
S1 L4+00N 0+00W		21	30	<10	92	<10	10	77	9
S1 L3+00N 4+25W		40	32	<10	89	<10	15	137	2
S1 L3+00N 4+00W		34	27	<10	96	<10	9	116	<1
S1 L3+00N 3+50W		35	21	<10	91	<10	5	84	<1
S1 L3+00N 3+25W		31	31	<10	80	<10	4	78	<1
S1 L3+00N 3+00W		44	54	13	76	<10	8	89	2
S1 L3+00N 1+25W		17	48	<10	51	<10	3	83	<1
S1 L3+00N 1+00W		30	29	14	89	<10	9	99	4
S1 L3+00N 0+75W		31	22	<10	96	<10	3	117	<1
S1 L3+00N 0+00W		34	28	<10	98	<10	5	131	<1
S1 L3+00N 0+25E		37	34	<10	86	<10	7	129	<1
S1 L3+00N 0+50E		37	33	14	117	<10	6	231	22
S1 L3+00N 0+75E		26	36	<10	92	<10	4	118	<1
S1 L3+00N 1+00E		20	35	15	122	<10	4	148	7
S1 L3+00N 1+25E		24	30	12	124	<10	5	166	7
S1 L3+00N 1+50E		28	23	11	106	<10	4	141	<1
S1 L3+00N 1+75E		24	32	10	129	<10	7	179	<1
S1 L3+00N 2+25E		44	27	15	98	<10	21	153	<1
S1 L3+00N 2+50E		33	52	10	71	<10	7	71	<1
S1 L3+00N 2+75E		30	38	10	81	<10	8	71	<1
S1 L3+00N 3+00E		56	42	<10	79	<10	8	78	<1
S1 L3+00N 3+25E		58	35	<10	97	<10	10	143	<1
S1 L3+00N 3+50E		29	46	<10	83	<10	8	66	<1

**APPENDIX III**  
**ROCK SAMPLE DESCRIPTIONS**

Sample Descriptions - Opal Lake

<u>Sample #</u>	<u>Attitude</u>	<u>Width</u>	<u>Figure</u>	<u>Description</u>
2201	--	4m		Ankerite - Qz zone
2202	40/90	20 cm		Sil zone in ankerite - Qz, green oxide
2203	--	5 cm		Massive ankerite, vuggy with boxwork Qz
2204	--	2.5m		Ankerite
2205	125/90	30 cm		Serp with Qz and minor fuch
1106		9 m		Green Ankerite
2207		Select		Ankerite with minor fuch and Qz
2209		Grab		Bull Qz float
22829	-	Grab		Rusty Qz float
22830		Grab		Black and Grey Qz float
22831		Select		Qz schist, Imo
22917		Select		Opln Qz Brxx, bleached fine- grained clasts
22918		30 cm		Opln Qz brxx with local Jasper
22919		Select		Opln Qz brxx, and black Qz
22920	35/52N	8 cm		Opln Qz vlts and black Qz
22921	--	Select		Diss su, fine-grained in pal brown dyke
22922	--	2.5m		Beached & Sil altn, white an green with minor diss su
22923	--	Select		Black chal Qz, drusy vugs with minor green oxides.
22924	--	25 cm		Black and white chal Qz brxx

<u>Sample #</u>	<u>Attitude</u>	<u>Width</u>	<u>Figure</u>	<u>Description</u>
22925	--	4m		Ankerite brxx
22866	160/70E	Grab		Banded fuch'c Cb, X cut Qz vns & vlts. No vis Su
22867	155/74E	Grab		Banded dol'c list, fine diss black Su, Qz vns & vlts.
22868	--	Grab		Banded dol'c list, no vis Su
22869	--	Float		Milk white Qz with minor fuch, no vis Su
22870	120/80N	Grab		Serp with minor hem vlt, random slickensides.
22871	--	Select		Dol brxx with buff clasts, xcutting dol vlts, no vis Su
22872	--	Select		Dol brxx, no vis Su, 45/80NW fracture set.
22873	50/70W	Select		Chal and Opln Qz brxx, hem'c no vis Su.
22874	--	Select		Chal brxx with hem'c matrix fine black diss Su.
22875	85/74N	20 cm		Chal brxx with serp selvage, no vis Su.
22726	92/46N	40 cm		Chal brxx with serp and buff clasts, black rimming on top of clasts.
22727	97/72N	30 cm		Chal brxx with fw serp selvage in various altn stages
22728	128/55N	Select		Chal and drusy Qz vn, dolliform banding vuggy.
22729	170/78W	Select		Banded list, lmo, no vis Su.
22730	150/77W	Grab		Dol vn'd list, black cb.
22731	--	Grab		Sil cb, green opln vlts, white dol vns and stwk.

<u>Sample #</u>	<u>Attitude</u>	<u>Width</u>	<u>Figure</u>	<u>Description</u>
22732	135/88NE	Grab		sil list, fine black Su whic parallel banding
22733	120/65N	Select		Banded list with cal stwk fuch'c
22734	--	Select		folded serp with epid and do vn's, fine diss Su
22735	140/90	Select		Folded serp, epid and do un's, fine diss Su.
22832	164/50W	Select		Qz stwk in patchy green list
22833	--	Select		Qz stwk in silicic list
22834	--	1.5m		Lmo, talcose, fuch'c lis with xcutting dol vn's an vlts.
22835	--	1.5m		Banded fuch'c list with fine black diss mafics
22836	--	1.5m		Banded fuch'c list wit xcutting cal vns and fin black su?
22837	--	1.5m		Banded fuch'c list wit xcutting cal vns and fin black su?
22838	--	1.5m		Fuch'c list with remnant serp? fabric, red
22839	--	1.5m		Fuch'c list with remnant serp? fabric, red
22840	164/85E	1.5m		Foliated fuch'c cb, dol band
22841	20/85W	1.5m		Silicic, fuch'c list with mafic blebs
22842	176/80W	1.5m		Fuch'c list xcut by Qz lense and vlts
22843	160/80E	1.5m		Lmo list, fuch'c with dar blue smears
22844	136/86E	1.5m		Fuch'c list, red banding

<u>Sample #</u>	<u>Attitude</u>	<u>Width</u>	<u>Figure</u>	<u>Description</u>
Old Campi	--	Select		Acucular habit millerite in poln Qz brxx
Old Camp3	137/85S	5m		Sil serp fw skip chip sample
JW-1A	147/80SW	1m (approx.)		Sil serp with minor fuch
JW-2 serp	--	1m (approx.)		Folded pale green to blac
JW-3	147/76N	1m (approx.)		Dark green folded serp (almost crenulated)
JW-4	140/65N	10 cm		Cb (magnesite?) vn with red coloration, no vis su
JW-5	--	1.5m		Serp with minor fuch? and Qz vlts
JW-6	--	1m		ankeritic serp with mino fuch?
JW-7	--	1m		fresh serp
JW-8	0/90 (approx.)	grab		ankerite with remnant foliations
JW-9	115/78N	1m		Fractured lmo weathered Qz (ankerite)
JW-10	100/78S	1m		Ankeritic and Sil serp, grey-green matrix with cb clats, remnant foliations
JW-11	--	15 cm		Dol vn and 5 cm of intense sil fw
JW-12	--	1.5		list'c alteration, fuch with lmo weathering
Opal Core 1	--	Select		sil cb brxx
Opal Core 2	--	Select		Black serp
Ted-SH	100/70N	Select		Lmo, fuch'c list with conjugate Az vns
S of N.M	185/86E	Select		Parallel shears with Qz

<u>Sample #</u>	<u>Attitude</u>	<u>Width</u>	<u>Figure</u>	<u>Description</u>
RIP 1	0/50E	Select		fine grained, red, fuch, sil ankerite with powdery green altn on fractures
RIP 2	0/50E	Select		Fresh serp grades into RIP 1
22736	--	5m		1/10 skip ship; fuch list with opln Qz slickensides
22737	--	5m		2/10, list with xcutting Qz, no vis Su
22738	120/60N	5m		3/10, mafic cb altn, xcuttin dol and Qz
22739	--	5m		4/10, mafics and cb with pod of white weathered list, no vis Su
22740	--	5m		5/10, fuch'c list with opln Qz vns
22741	--	5m		6/10, opln Qz stwk in fold serp, Py
22742	--	5m		7/10, pale green weathered serp? minor opln Qz vns
22743				8/10, fuch'c list grading into lmo mafics xcut by cal stwk
22744	145/75N	5m		9/10 fuch list in contact with brown cb mafic dyke?
22745	115/72N	5m		10/10 foliated whit weathered list minor lmo
22746		float?		lmo leucocratic ankerite? with fine black su
22747	--	select		vuggy opln Qz in serp with < xcutting dol vns, no vis Su
22748	--	Select		fuch'c cb, no vis Su
22750	--	1.5m		fuch'c list with crackle texture xcut by Dol vns

<u>Sample #</u>	<u>Attitude</u>	<u>Width</u>	<u>Figure</u>	<u>Description</u>
22749	--	1/5m		fuch'c list with crackle texture xcut by Dol vns
22845	150/74NE	1.5m		Banded and folded fuch'c list, Qz lens parallel foliation
22846	150/74NE	1.5m		Banded and folded fuch'c list, Qz lens parallel foliation
22847	--	1/5m		fuch'c list rubble
22848	150/82NE	1.5m		fuch'c list, 115/60N fractur sets
22849	150/82NE	1.5m		fuch'c list with xcutting Qz vlts, 40/50W & 115/60N
22850	150/82NE	1.5m		fuch'c list with xcutting Qz vlts, 40/50W & 115/60N

DC's AT&T

stetson  
opal-sd



**APPENDIX IV**  
**SOIL SAMPLE STATISTICS**

#####  
 SUMMARY STATISTICS and HISTOGRAM ARITHMETIC VALUES  
 #####

Variable = Au Unit = ppb N = 198  
 Mean = 12.485 Min = 5.000 1st Quartile = 6.000  
 Std. Dev. = 20.175 Max = 219.000 Median = 8.000  
 CV % = 161.596 Skewness = 7.282 3rd Quartile = 11.000

=====  
 (# of bins = 23 - bin size = 9.727)  
 =====

%	cum %	cls int	
0.00	0.25	0.136	
69.19	69.10	9.864	***** --> 97
22.73	91.71	19.591	*****
3.54	95.23	29.318	*****
0.51	95.73	39.045	*
1.01	96.73	48.773	*
1.01	97.74	58.500	*
0.51	98.24	68.227	*
0.00	98.24	77.955	
0.00	98.24	87.682	
0.00	98.24	97.409	
0.00	98.24	107.136	
0.51	98.74	116.864	*
0.00	98.74	126.591	
0.51	99.25	136.318	*
0.00	99.25	146.045	
0.00	99.25	155.773	
0.00	99.25	165.500	
0.00	99.25	175.227	
0.00	99.25	184.955	
0.00	99.25	194.682	
0.00	99.25	204.409	
0.00	99.25	214.136	
0.51	99.75	223.864	*

-----  
 0 1 2 3 4

#####

#####  
SUMMARY STATISTICS and HISTOGRAM LOGARITHMIC VALUES

Variable = Au Unit = ppb N = 198

Mean = 0.9671 Min = 0.6990 1st Quartile = 0.7782  
 Std. Dev. = 0.2527 Max = 2.3404 Median = 0.9031  
 CV % = 26.1340 Skewness = 2.4779 3rd Quartile = 1.0414

Anti-Log Mean = 9.270 Anti-Log Std. Dev. : (-) 5.180  
 (+) 16.590

```
=====
```

%	cum %	antilog	cls int	(# of bins = 23 - bin size = 0.0746)
0.00	0.25	4.588	0.6617	
2.02	2.26	5.448	0.7363	***
25.76	27.89	6.470	0.8109	*****
18.18	45.98	7.682	0.8855	*****
23.23	69.10	9.122	0.9601	*****
4.04	73.12	10.832	1.0347	*****
6.57	79.65	12.863	1.1093	*****
8.59	88.19	15.274	1.1840	*****
3.54	91.71	18.137	1.2586	*****
0.00	91.71	21.537	1.3332	
2.02	93.72	25.573	1.4078	***
1.52	95.23	30.367	1.4824	**
0.00	95.23	36.059	1.5570	
1.01	96.23	42.818	1.6316	*
0.51	96.73	50.844	1.7062	*
1.52	98.24	60.374	1.7809	**
0.00	98.24	71.691	1.8555	
0.00	98.24	85.129	1.9301	
0.00	98.24	101.085	2.0047	
0.51	98.74	120.033	2.0793	*
0.51	99.25	142.532	2.1539	*
0.00	99.25	169.249	2.2285	
0.00	99.25	200.973	2.3031	
0.51	99.75	238.644	2.3778	*

-----  
0 1 2 3 4

#####

#####  
SUMMARY STATISTICS and HISTOGRAM LOGARITHMIC VALUES

Variable = As Unit = ppm N = 119

Mean = 0.9928 Min = 0.6990 1st Quartile = 0.8451  
 Std. Dev. = 0.1987 Max = 1.5051 Median = 1.0000  
 CV % = 20.0112 Skewness = 0.3753 3rd Quartile = 1.1461

Anti-Log Mean = 9.835 Anti-Log Std. Dev. : (-) 6.225  
 (+) 15.540

%	cum %	antilog	cls int	(# of bins = 21 - bin size = 0.0403)
0.00	0.42	4.773	0.6788	
7.56	7.92	5.238	0.7191	*****
0.00	7.92	5.747	0.7594	
12.61	20.42	6.306	0.7997	*****
0.00	20.42	6.919	0.8401	
21.85	42.08	7.592	0.8804	*****
2.52	44.58	8.330	0.9207	**
4.20	48.75	9.141	0.9610	****
6.72	55.42	10.030	1.0013	*****
4.20	59.58	11.005	1.0416	****
9.24	68.75	12.076	1.0819	*****
4.20	72.92	13.250	1.1222	****
4.20	77.08	14.539	1.1625	****
4.20	81.25	15.953	1.2028	****
5.04	86.25	17.504	1.2431	****
6.72	92.92	19.207	1.2835	*****
0.84	93.75	21.075	1.3238	*
3.36	97.08	23.124	1.3641	***
0.84	97.92	25.373	1.4044	*
0.00	97.92	27.841	1.4447	
0.00	97.92	30.549	1.4850	
1.68	99.58	33.520	1.5253	*

0 1 2 3 4

#####

#####  
 SUMMARY STATISTICS and HISTOGRAM ARITHMETIC VALUES  
 #####

Variable = As Unit = ppm N = 119  
 Mean = 10.958 Min = 5.000 1st Quartile = 7.000  
 Std. Dev. = 5.459 Max = 32.000 Median = 10.000  
 CV % = 49.820 Skewness = 1.304 3rd Quartile = 14.000

```
=====
```

%	cum %	cls int	(# of bins = 21 - bin size = 1.350)
0.00	0.42	4.325	
7.56	7.92	5.675	*****
34.45	42.08	7.025	*****
2.52	44.58	8.375	**
4.20	48.75	9.725	****
10.92	59.58	11.075	*****
9.24	68.75	12.425	*****
4.20	72.92	13.775	****
8.40	81.25	15.125	*****
1.68	82.92	16.475	*
3.36	86.25	17.825	***
6.72	92.92	19.175	*****
0.84	93.75	20.525	*
0.00	93.75	21.875	
3.36	97.08	23.225	***
0.84	97.92	24.575	*
0.00	97.92	25.925	
0.00	97.92	27.275	
0.00	97.92	28.625	
0.00	97.92	29.975	
0.84	98.75	31.325	*
0.84	99.58	32.675	*

```
=====
```

0 1 2 3 4

#####

22:00:02  
02/06/90

OPAL LAKE SOIL DATA 1989

LOGARITHMIC VALUES

VARIABLE = As  
UNIT = ppm  
N = 110  
N CI = 35

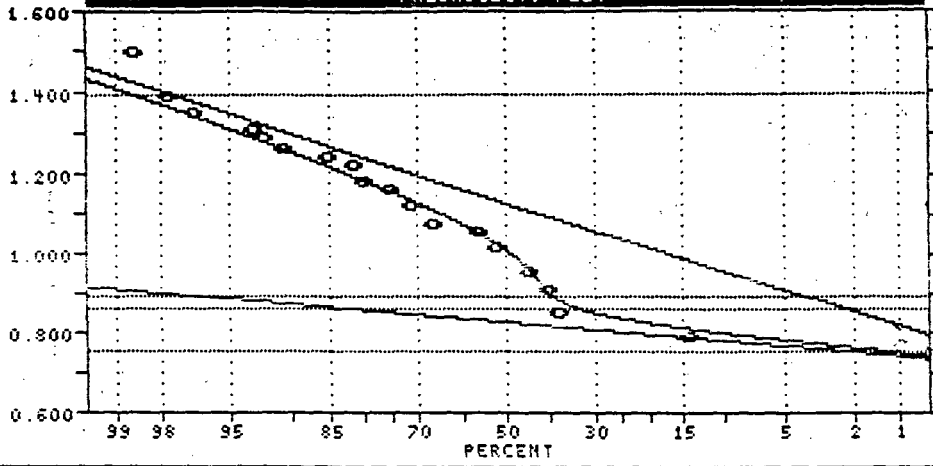
POPULATIONS

Pop.	Mean	Std.Dev.	%
1	0.8202	0.0365	37.0
2	1.1220	0.1333	63.0

Pop.	THRESHOLDS	
1	0.7471	0.8932
2	0.8555	1.3885

CLASS INTERVAL ML  
PARAMETER ESTIMATES

PROBABILITY PLOT



#####

PARAMETER SUMMARY STATISTICS FOR PROBABILITY PLOT ANALYSIS

Data File Name = OPALBOND.PLT

Variable = As Unit = ppm N = 110  
N CI = 36

Transform = Logarithmic Number of Populations = 2

# of Missing Observations = 0.

422 Observations Were Below the Minimum Value of 5.0000  
0 Observations Were Above the Maximum Value of 99999.0000

=====

Class Interval Data Maximum Likelihood Parameter Estimates

Maximum LN Likelihood Value = -364.083

Parameterized Degrees of Freedom = 3

Population	Mean	Std Dev	Percentage
1	6.609	6.076	37.04
2	13.243	9.744	62.96

=====

Default Thresholds.

Standard Deviation Multiplier = 2.0

Pop.	Thresholds
1	5.586 7.820
2	7.169 24.465

#####

#####  
SUMMARY STATISTICS and HISTOGRAM ARITHMETIC VALUES

Variable = Ba Unit = ppm N = 532

Mean = 196.524 Min = 34.000 1st Quartile = 152.000

Std. Dev. = 69.908 Max = 644.000 Median = 181.000

CV % = 35.572 Skewness = 1.685 3rd Quartile = 225.000

```
=====
```

%	cum %	cls int	(# of bins = 28 - bin size = 22.593)
0.00	0.09	22.704	
0.38	0.47	45.296	*
0.00	0.47	67.889	
0.94	1.41	90.481	**
4.14	5.53	113.074	*****
8.08	13.60	135.667	*****
16.35	29.92	158.259	*****
19.36	49.25	180.852	***** --> 42
14.10	63.32	203.444	*****
13.35	76.64	226.037	*****
6.39	83.02	248.630	*****
4.89	87.90	271.222	*****
3.95	91.84	293.815	*****
2.26	94.09	316.407	*****
1.88	95.97	339.000	****
0.94	96.90	361.593	**
0.75	97.65	384.185	**
0.19	97.84	406.778	
0.75	98.59	429.370	**
0.94	99.53	451.963	**
0.00	99.53	474.556	
0.00	99.53	497.148	
0.00	99.53	519.741	
0.00	99.53	542.333	
0.19	99.72	564.926	
0.00	99.72	587.519	
0.00	99.72	610.111	
0.00	99.72	632.704	
0.19	99.91	655.296	

```
-----
```

0 1 2 3 4

Each "\*" represents approximately 2.4 observations.

#####



#####  
SUMMARY STATISTICS and HISTOGRAM LOGARITHMIC VALUES

Variable = Ba Unit = ppm N = 532

Mean = 2.2692 Min = 1.5315 1st Quartile = 2.1818  
 Std. Dev. = 0.1445 Max = 2.8089 Median = 2.2577  
 CV % = 6.3661 Skewness = -0.0661 3rd Quartile = 2.3522

Anti-Log Mean = 185.868 Anti-Log Std. Dev. : (-) 133.274  
 (+) 259.217

```
=====
```

%	cum %	antilog	cls int	(# of bins = 28 - bin size = 0.0473)
0.00	0.09	32.198	1.5078	
0.19	0.28	35.903	1.5551	
0.19	0.47	40.036	1.6024	
0.00	0.47	44.643	1.6498	
0.00	0.47	49.782	1.6971	
0.00	0.47	55.511	1.7444	
0.00	0.47	61.300	1.7917	
0.00	0.47	69.024	1.8390	
0.19	0.66	76.969	1.8863	
0.38	1.03	85.827	1.9336	*
0.38	1.41	95.706	1.9809	*
1.88	3.28	106.721	2.0282	****
3.57	6.85	119.003	2.0756	*****
5.26	12.10	132.700	2.1229	*****
9.59	21.67	147.973	2.1702	*****
13.53	35.18	165.004	2.2175	*****
17.11	52.25	183.995	2.2648	*****
12.41	64.63	205.171	2.3121	*****
12.22	76.83	228.785	2.3594	*****
7.89	84.71	255.117	2.4067	*****
5.08	89.77	284.479	2.4541	*****
4.32	94.09	317.221	2.5014	*****
2.82	96.90	353.731	2.5487	*****
0.94	97.84	394.443	2.5960	**
0.94	98.78	439.841	2.6433	**
0.75	99.53	490.464	2.6906	**
0.00	99.53	546.914	2.7379	
0.19	99.72	609.860	2.7852	
0.19	99.91	680.051	2.8325	

```
-----
```

0 1 2 3 4

Each "\*" represents approximately 2.4 observations.

#####

#####  
SUMMARY STATISTICS and HISTOGRAM LOGARITHMIC VALUE

Variable = Ba Unit = ppm N = 532

Mean = 2.2692 Min = 1.5315 1st Quartile = 2.1818  
 Std. Dev. = 0.1445 Max = 2.8089 Median = 2.2577  
 CV % = 6.3861 Skewness = -0.0661 3rd Quartile = 2.3522

Anti-Log Mean = 185.868 Anti-Log Std. Dev. : (-) 133.274  
 (+) 259.217

=====				
%	cum %	antilog	cls int	(# of bins = 36 - bin size = 0.0365)
-----				
0.00	0.09	32.601	1.5132	
0.19	0.28	35.459	1.5497	
0.00	0.28	38.568	1.5862	
0.19	0.47	41.949	1.6227	
0.00	0.47	45.627	1.6592	
0.00	0.47	49.627	1.6957	
0.00	0.47	53.978	1.7322	
0.00	0.47	58.710	1.7687	
0.00	0.47	63.857	1.8052	
0.00	0.47	69.455	1.8417	
0.00	0.47	75.545	1.8782	
0.56	1.03	82.168	1.9147	*
0.19	1.22	89.371	1.9512	
0.19	1.41	97.207	1.9877	
1.69	3.10	105.729	2.0242	****
2.82	5.91	114.998	2.0607	*****
3.57	9.47	125.080	2.0972	*****
4.70	14.17	136.046	2.1337	*****
7.52	21.67	147.973	2.1702	*****
9.21	30.86	160.946	2.2067	*****
13.35	44.18	175.056	2.2432	*****
12.03	56.19	190.403	2.2797	*****
9.02	65.20	207.096	2.3162	*****
10.53	75.70	225.252	2.3527	*****
6.20	81.89	245.000	2.3892	*****
4.70	86.59	266.479	2.4257	*****
4.14	90.71	289.842	2.4622	*****
3.38	94.09	315.252	2.4987	*****
2.07	96.15	342.891	2.5352	****
1.50	97.65	372.952	2.5717	***
0.19	97.84	405.649	2.6082	
1.13	98.97	441.213	2.6446	**
0.56	99.53	479.894	2.6811	*
0.00	99.53	521.966	2.7176	
0.19	99.72	567.727	2.7541	
0.00	99.72	617.500	2.7906	
0.19	99.91	671.637	2.8271	

0 1 2 3

Each "\*" represents approximately 2.4 observations.

#####

#####

PARAMETER SUMMARY STATISTICS FOR PROBABILITY PLOT ANALYSIS

Data File Name = OPALBOND.PLT

Variable = Ba Unit = ppm N = 532  
N CI = 36

Transform = Logarithmic Number of Populations = 1

# of Missing Observations = 0.

=====

Users Visual Parameter Estimates

Population	Mean	Std Dev	Percentage
1	185.868	- 133.274 + 259.217	100.00

=====

Default Thresholds.

Standard Deviation Multiplier = 1.5

Pop.	Thresholds
1	112.854 306.121

#####

#####

PARAMETER SUMMARY STATISTICS FOR PROBABILITY PLOT ANALYSIS

Data File Name = OPALBOND.PLT

Variable = Ba Unit = ppm N = 532  
N CI = 36

Transform = Logarithmic Number of Populations = 1

# of Missing Observations = 0.

=====  
Users Visual Parameter Estimates

Population	Mean	Std Dev.	Percentage
1	185.868	- 133.274 + 259.217	100.00

=====  
Default Thresholds.

Standard Deviation Multiplier = 2.0

Pop.	Thresholds
1	95.562 361.512

#####

#####  
SUMMARY STATISTICS and HISTOGRAM ARITHMETIC VALUES

Variable = Ni Unit = ppm N = 532

Mean = 425.906 Min = 26.000 1st Quartile = 295.000

Std. Dev. = 249.234 Max = 3686.000 Median = 366.000

CV % = 58.519 Skewness = 5.642 3rd Quartile = 497.000

```
=====
```

%	cum %	cls int	(# of bins = 28 - bin size = 135.556)
0.00	0.09	-41.778	
0.38	0.47	93.778	*
6.58	7.04	229.333	*****
42.86	49.81	364.889	***** --> 93
25.56	75.33	500.444	***** --> 56
13.91	89.21	636.000	*****
5.45	94.65	771.556	*****
3.01	97.65	907.111	*****
0.38	98.03	1042.667	*
0.19	98.22	1178.222	
0.56	98.78	1313.778	*
0.19	98.97	1449.333	
0.19	99.16	1584.889	
0.38	99.53	1720.444	*
0.19	99.72	1856.000	
0.00	99.72	1991.556	
0.00	99.72	2127.111	
0.00	99.72	2262.667	
0.00	99.72	2398.222	
0.00	99.72	2533.778	
0.00	99.72	2669.333	
0.00	99.72	2804.889	
0.00	99.72	2940.444	
0.00	99.72	3076.000	
0.00	99.72	3211.556	
0.00	99.72	3347.111	
0.00	99.72	3482.667	
0.00	99.72	3618.222	
0.19	99.91	3753.778	

```
=====
```

0 1 2 3 4

Each "\*" represents approximately 2.4 observations.

#####

#####  
SUMMARY STATISTICS and HISTOGRAM LOGARITHMIC VALUES

Variable = Ni Unit = ppm N = 532

Mean = 2.5845 Min = 1.4150 1st Quartile = 2.4698  
 Std. Dev. = 0.1912 Max = 3.3666 Median = 2.5635  
 CV % = 7.3965 Skewness = -0.0565 3rd Quartile = 2.6964

Anti-Log Mean = 384.105 Anti-Log Std. Dev. : (-) 247.338  
 (+) 596.498

```
=====
```

%	cum %	antilog	cls int	(# of bins = 36 - bin size = 0.0615)
0.00	0.09	24.223	1.3842	
0.19	0.28	27.907	1.4457	
0.00	0.28	32.150	1.5072	
0.19	0.47	37.039	1.5687	
0.00	0.47	42.671	1.6301	
0.00	0.47	49.159	1.6916	
0.00	0.47	56.634	1.7531	
0.00	0.47	65.246	1.8146	
0.00	0.47	75.167	1.8760	
0.00	0.47	86.597	1.9375	
0.00	0.47	99.764	1.9990	
0.19	0.66	114.934	2.0604	
0.38	1.03	132.410	2.1219	*
0.19	1.22	152.544	2.1834	
0.56	1.78	175.739	2.2449	*
1.50	3.28	202.462	2.3063	***
4.70	7.97	233.247	2.3678	*****
9.96	17.92	268.714	2.4293	*****
12.78	30.68	309.574	2.4908	*****
15.98	46.62	356.647	2.5522	*****
11.84	58.44	410.877	2.6137	*****
12.97	71.39	473.354	2.6752	*****
9.40	80.77	545.330	2.7367	*****
8.46	89.21	628.251	2.7981	*****
4.51	93.71	723.781	2.8596	*****
3.01	96.72	833.836	2.9211	*****
1.13	97.84	960.626	2.9826	**
0.38	98.22	1106.696	3.0440	*
0.56	98.78	1274.976	3.1055	*
0.19	98.97	1468.844	3.1670	
0.38	99.34	1692.192	3.2284	*
0.38	99.72	1949.501	3.2899	*
0.00	99.72	2245.935	3.3514	
0.00	99.72	2587.444	3.4129	
0.00	99.72	2980.881	3.4743	
0.00	99.72	3434.144	3.5358	
0.19	99.91	3956.327	3.5973	

0 1 2 3 4

Each "\*" represents approximately 2.4 observations.

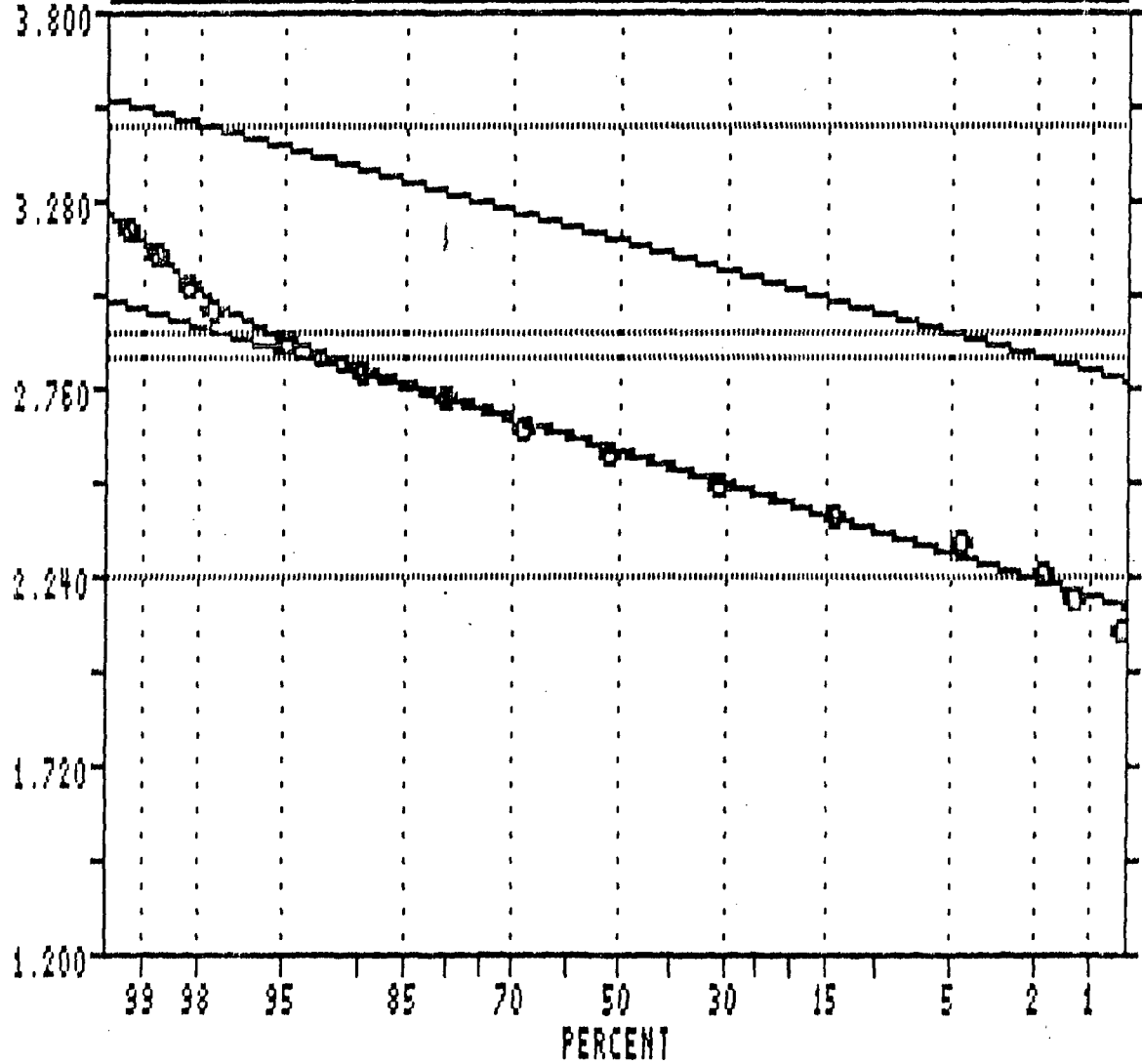
#####

23:39:45  
02/06/90

OPAL LAKE SOIL DATA 1989

LOGARITHMIC VALUES

PROBABILITY PLOT



VARIABLE = Ni  
UNIT = ppm  
N = 532  
N CI = 28

POPULATIONS

Pop.	Mean	Std. Dev.	%
1	2.5720	0.1713	98.0
2	3.1573	0.1582	2.0

THRESHOLDS

Pop.	Lower	Upper
1	2.2293	2.9147
2	2.8409	3.4736

USERS VISUAL  
PARAMETER ESTIMATES

#####

PARAMETER SUMMARY STATISTICS FOR PROBABILITY PLOT ANALYSIS

Data File Name = OPALBOND.FLT

Variable = Ni Unit = ppm N = 532  
N CI = 28

Transform = Logarithmic Number of Populations = 2

# of Missing Observations = 0.

=====  
Users Visual Parameter Estimates

Population	Mean	Std Dev	Percentage
1	373.261	- 251.580 + 553.795	98.00
2	1436.392	- 997.895 + 2067.574	2.00

=====  
Default Thresholds.

Standard Deviation Multiplier = 2.0

Pop.	Thresholds
1	169.566 821.648
2	693.261 2976.111

#####



#####

PARAMETER SUMMARY STATISTICS FOR PROBABILITY PLOT ANALYSIS

Data File Name = OPALBOND.FLT

Variable = Ni Unit = ppm N = 532  
N CI = 28

Transform = Logarithmic Number of Populations = 2

# of Missing Observations = 0.

=====  
Users Visual Parameter Estimates

Population	Mean	Std Dev	Percentage
1	373.261	- 251.580 + 553.795	98.00
2	1436.392	- 997.895 + 2067.574	2.00

=====  
Default Thresholds.

Standard Deviation Multiplier = 1.5

Pop.	Thresholds
1	206.541 674.555
2	831.746 2480.591

#####

#####  
SUMMARY STATISTICS and HISTOGRAM ARITHMETIC VALUES

Variable = Co Unit = ppm N = 531

Mean = 41.235 Min = 17.000 1st Quartile = 31.000  
 Std. Dev. = 16.668 Max = 178.000 Median = 37.000  
 CV % = 40.421 Skewness = 2.645 3rd Quartile = 48.000

=====  
 % cum % cls int (# of bins = 28 - bin size = 5.963)  
 =====

0.00	0.09	14.019	
1.51	1.60	19.981	***
5.84	7.42	25.944	*****
21.47	28.85	31.907	***** --> 47
24.29	53.10	37.870	***** --> 53
12.62	65.70	43.833	*****
11.30	76.97	49.796	*****
8.47	85.43	55.759	*****
5.08	90.51	61.722	*****
2.82	93.33	67.685	*****
2.82	96.15	73.648	*****
1.69	97.84	79.611	****
0.00	97.84	85.574	
0.56	98.40	91.537	*
0.56	98.97	97.500	*
0.19	99.15	103.463	
0.00	99.15	109.426	
0.00	99.15	115.389	
0.19	99.34	121.352	
0.00	99.34	127.315	
0.00	99.34	133.278	
0.38	99.72	139.241	*
0.00	99.72	145.204	
0.00	99.72	151.167	
0.00	99.72	157.130	
0.00	99.72	163.093	
0.00	99.72	169.056	
0.00	99.72	175.019	
0.19	99.91	180.981	

=====  
 0 1 2 3 4

Each "\*" represents approximately 2.4 observations.

#####

#####  
SUMMARY STATISTICS and HISTOGRAM LOGARITHMIC VALUES

Variable = Co Unit = ppm N = 531

Mean = 1.5882 Min = 1.2304 1st Quartile = 1.4914  
 Std. Dev. = 0.1475 Max = 2.2504 Median = 1.5682  
 CV % = 9.2852 Skewness = 0.6503 3rd Quartile = 1.6812

Anti-Log Mean = 38.740 Anti-Log Std. Dev. : (-) 27.586  
 (+) 54.402

%	cum %	antilog	cls int	(# of bins = 28 - bin size = 0.0378)
0.00	0.09	16.276	1.2116	
0.19	0.28	17.756	1.2493	
1.32	1.60	19.369	1.2871	***
0.75	2.35	21.130	1.3249	**
2.26	4.61	23.050	1.3627	*****
2.82	7.42	25.145	1.4004	*****
6.03	13.44	27.430	1.4382	*****
7.53	20.96	29.922	1.4760	*****
12.81	33.74	32.642	1.5138	*****
11.30	45.02	35.608	1.5516	*****
10.17	55.17	38.844	1.5893	*****
7.91	63.06	42.374	1.6271	*****
9.04	72.09	46.225	1.6649	*****
6.59	78.67	50.426	1.7027	*****
6.78	85.43	55.009	1.7404	*****
4.90	90.32	60.008	1.7782	*****
2.82	93.14	65.462	1.8160	*****
2.26	95.39	71.411	1.8538	*****
2.07	97.46	77.901	1.8915	****
0.38	97.84	84.980	1.9293	*
0.75	98.59	92.703	1.9671	**
0.38	98.97	101.128	2.0049	*
0.19	99.15	110.318	2.0426	.
0.00	99.15	120.344	2.0804	
0.19	99.34	131.281	2.1182	
0.38	99.72	143.212	2.1560	*
0.00	99.72	156.227	2.1938	
0.00	99.72	170.424	2.2315	
0.19	99.91	185.912	2.2693	

0 1 2 3 4

Each "\*" represents approximately 2.4 observations.

#####

#####  
SUMMARY STATISTICS and HISTOGRAM LOGARITHMIC VALUES

Variable = Co Unit = ppm N = 531

Mean = 1.5882 Min = 1.2304 1st Quartile = 1.4914  
 Std. Dev. = 0.1475 Max = 2.2504 Median = 1.5682  
 CV % = 9.2852 Skewness = 0.6503 3rd Quartile = 1.6812

Anti-Log Mean = 38.740 Anti-Log Std. Dev. : (-) 27.586  
 (+) 54.402

=====

%	cum %	antilog	cls int	(# of bins = 36 - bin size = 0.0291)
0.00	0.09	16.439	1.2159	
0.19	0.28	17.580	1.2450	
0.94	1.22	18.800	1.2742	**
0.75	1.97	20.105	1.3033	**
0.38	2.35	21.500	1.3324	*
0.56	2.91	22.993	1.3616	*
2.45	5.36	24.588	1.3907	*****
3.95	9.30	26.295	1.4199	*****
6.97	16.26	28.120	1.4490	*****
8.47	24.72	30.072	1.4782	*****
9.04	33.74	32.159	1.5073	*****
7.16	40.88	34.391	1.5364	*****
8.85	49.72	36.778	1.5656	*****
7.16	56.86	39.330	1.5947	*****
6.21	63.06	42.060	1.6239	*****
5.65	68.70	44.979	1.6530	*****
6.40	75.09	48.101	1.6822	*****
5.65	80.73	51.439	1.7113	*****
4.71	85.43	55.009	1.7404	*****
3.95	89.38	58.827	1.7696	*****
1.69	91.07	62.910	1.7987	****
2.26	93.33	67.276	1.8279	****
2.07	95.39	71.945	1.8570	****
2.07	97.46	76.939	1.8861	****
0.38	97.84	82.279	1.9153	*
0.00	97.84	87.989	1.9444	
0.94	98.78	94.096	1.9736	**
0.19	98.97	100.627	2.0027	
0.19	99.15	107.611	2.0319	
0.00	99.15	115.079	2.0610	
0.19	99.34	123.066	2.0901	
0.00	99.34	131.608	2.1193	
0.38	99.72	140.742	2.1484	*
0.00	99.72	150.510	2.1776	
0.00	99.72	160.956	2.2067	
0.00	99.72	172.127	2.2358	
0.19	99.91	184.073	2.2650	

-----

0 1 2 3 4

Each "\*" represents approximately 2.4 observations.

#####

22:36:41  
02/06/90

### OPAL LAKE SOIL DATA 1989

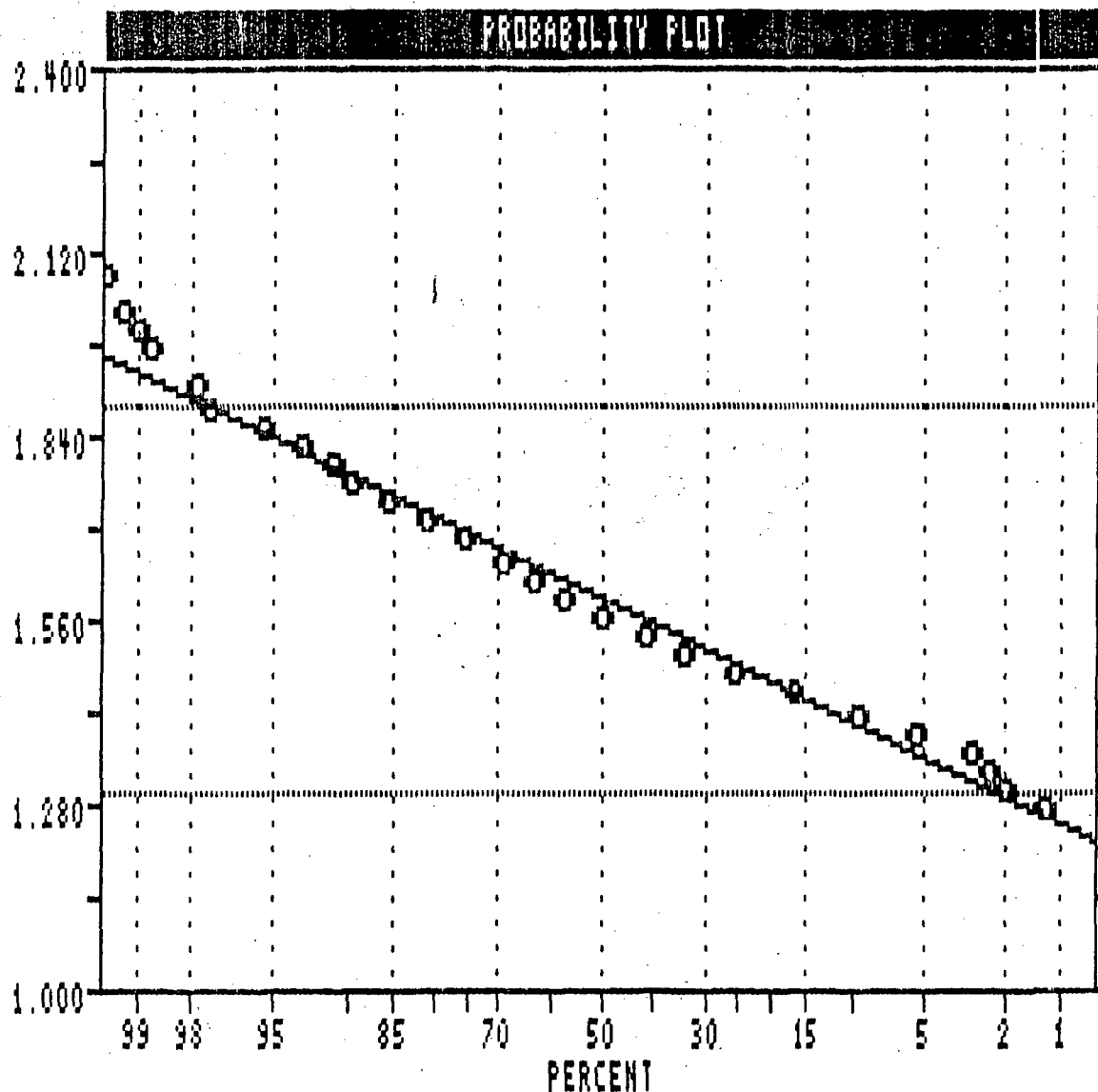
### LOGARITHMIC VALUES

VARIABLE = Co  
UNIT = ppH  
N = 531  
N CI = 36

### POPULATIONS

Pop.	Mean	Std.Dev.	%
1	1.5882	0.1475	100.0

Pop.	THRESHOLDS	
1	1.2932	1.8831



USERS VISUAL  
PARAMETER ESTIMATES

#####

PARAMETER SUMMARY STATISTICS FOR PROBABILITY PLOT ANALYSIS

Data File Name = OPALBOND.FLT

Variable = Co Unit = ppm N = 531  
N CI = 36

Transform = Logarithmic Number of Populations = 1

# of Missing Observations = 0.

1 Observations Were Below the Minimum Value of 1.0000  
0 Observations Were Above the Maximum Value of 99999.0000

=====  
Users Visual Parameter Estimates

Population	Mean	Std Dev	Percentage
1	38.740	- 27.586 + 54.402	100.00

=====  
Default Thresholds.

Standard Deviation Multiplier = 1.5

Pop.	Thresholds
1	23.279 64.469

#####

#####

PARAMETER SUMMARY STATISTICS FOR PROBABILITY PLOT ANALYSIS

Data File Name = OPALBOND.PLT

Variable = Co Unit = ppm N = 531  
N CI = 36

Transform = Logarithmic Number of Populations = 1

# of Missing Observations = 0.

1 Observations Were Below the Minimum Value of 1.0000  
0 Observations Were Above the Maximum Value of 99999.0000

Users Visual Parameter Estimates

Population	Mean	Std Dev	Percentage
1	38.740	- 27.586 + 54.402	100.00

Default Thresholds.

Standard Deviation Multiplier = 2.0

Pop.	Thresholds
1	19.644 76.398

#####

#####  
SUMMARY STATISTICS and HISTOGRAM LOGARITHMIC VALUES

Variable = Cr Unit = ppm N = 532

Mean = 2.5473 Min = 1.8976 1st Quartile = 2.4669  
 Std. Dev. = 0.1528 Max = 3.2625 Median = 2.5453  
 CV % = 5.9972 Skewness = 0.1147 3rd Quartile = 2.6395

Anti-Log Mean = 352.582 Anti-Log Std. Dev. : (-) 248.026  
 (+) 501.216

%	cum %	antilog	cls int	(# of bins = 36 - bin size = 0.0390)
0.00	0.09	75.532	1.8781	
0.19	0.28	82.627	1.9171	
0.00	0.28	90.390	1.9561	
0.00	0.28	98.881	1.9951	
0.38	0.66	108.171	2.0341	*
0.38	1.03	118.333	2.0731	*
0.38	1.41	129.449	2.1121	*
0.19	1.59	141.610	2.1511	
0.38	1.97	154.914	2.1901	*
0.94	2.91	169.467	2.2291	**
0.94	3.85	185.387	2.2681	**
1.50	5.35	202.803	2.3071	***
1.69	7.04	221.855	2.3461	****
3.01	10.04	242.697	2.3851	*****
4.70	14.73	265.497	2.4241	*****
9.96	24.67	290.438	2.4631	*****
10.15	34.80	317.723	2.5020	*****
13.35	48.12	347.571	2.5410	*****
11.09	59.19	380.224	2.5800	*****
10.34	69.51	415.943	2.6190	*****
10.71	80.21	455.018	2.6580	*****
9.02	89.21	497.765	2.6970	*****
5.45	94.65	544.526	2.7360	*****
2.26	96.90	595.681	2.7750	*****
0.38	97.28	651.642	2.8140	*
0.38	97.65	712.859	2.8530	*
0.38	98.03	779.828	2.8920	*
0.38	98.41	853.088	2.9310	*
0.19	98.59	933.230	2.9700	
0.19	98.78	1020.901	3.0090	
0.19	98.97	1116.803	3.0480	
0.00	98.97	1221.726	3.0870	
0.19	99.16	1336.499	3.1260	
0.19	99.34	1462.055	3.1650	
0.19	99.53	1599.406	3.2040	
0.19	99.72	1749.660	3.2430	
0.19	99.91	1914.029	3.2819	

0 1 2 3 4

Each "\*" represents approximately 2.4 observations.

#####



#####

PARAMETER SUMMARY STATISTICS FOR PROBABILITY PLOT ANALYSIS

Data File Name = OPALBOND.PLT

Variable = Dr Unit = ppm N = 532  
N CI = 36

Transform = Logarithmic Number of Populations = 3

# of Missing Observations = 0.

=====  
Class Interval Data Maximum Likelihood Parameter Estimates

Maximum LN Likelihood Value = -1426.299

Parameterized Degrees of Freedom = 5

Population	Mean	Std Dev	Percentage
1	136.739	- 105.455	2.28
		+ 177.303	
2	355.206	- 272.477	96.04
		+ 463.052	
3	1139.211	- 856.279	1.68
		+ 1515.629	

=====  
Default Thresholds.

Standard Deviation Multiplier = 2.0

Pop.	Thresholds	
1	81.328	229.901
2	209.017	603.643
3	643.615	2016.423

#####

#####

PARAMETER SUMMARY STATISTICS FOR PROBABILITY PLOT ANALYSIS

Data File Name = OPALBOND.PLT

Variable = Co Unit = ppm N = 531  
N CI = 36

Transform = Logarithmic Number of Populations = 1

# of Missing Observations = 0.

1 Observations Were Below the Minimum Value of 1.0000

0 Observations Were Above the Maximum Value of 99999.0000

=====  
Users Visual Parameter Estimates

<u>Population</u>	<u>Mean</u>	<u>Std Dev</u>	<u>Percentage</u>
1	38.740	- 27.586 + 54.402	100.00

=====  
Default Thresholds.

Standard Deviation Multiplier = 1.5

<u>Pop.</u>	<u>Thresholds</u>
1	23.279 64.469

#####

#####

PARAMETER SUMMARY STATISTICS FOR PROBABILITY PLOT ANALYSIS

Data File Name = OPALBOND.PLT

Variable = Co Unit = .ppm N = 531  
N CI = 36

Transform = Logarithmic Number of Populations = 1

# of Missing Observations = 0.

1 Observations Were Below the Minimum Value of 1.0000

0 Observations Were Above the Maximum Value of 99999.0000

=====  
Users Visual Parameter Estimates

Population	Mean	Std Dev	Percentage
1	38.740	- 27.586 + 54.402	100.00

=====  
Default Thresholds.

Standard Deviation Multiplier = 2.0

Pop.	Thresholds
1	19.644. 76.398

#####

#####  
SUMMARY STATISTICS and HISTOGRAM LOGARITHMIC VALUES

Variable = Cr Unit = ppm N = 532

Mean = 2.5473 Min = 1.8976 1st Quartile = 2.4669  
 Std. Dev. = 0.1528 Max = 3.2625 Median = 2.5453  
 CV % = 5.9972 Skewness = 0.1147 3rd Quartile = 2.6395

Anti-Log Mean = 352.582 Anti-Log Std. Dev. : (-) 248.026  
 (+) 501.216

%	cum %	antilog	cls int.	(# of bins = 36 - bin size = 0.0390)
0.00	0.09	75.532	1.8781	
0.19	0.28	82.627	1.9171	
0.00	0.28	90.390	1.9561	
0.00	0.28	98.881	1.9951	
0.38	0.66	108.171	2.0341	*
0.38	1.03	118.333	2.0731	*
0.38	1.41	129.449	2.1121	*
0.19	1.59	141.610	2.1511	
0.38	1.97	154.914	2.1901	*
0.94	2.91	169.467	2.2291	**
0.94	3.85	185.387	2.2681	**
1.50	5.35	202.803	2.3071	***
1.69	7.04	221.855	2.3461	****
3.01	10.04	242.697	2.3851	*****
4.70	14.73	265.497	2.4241	*****
9.96	24.67	290.438	2.4631	*****
10.15	34.80	317.723	2.5020	*****
13.35	48.12	347.571	2.5410	*****
11.09	59.19	380.224	2.5800	*****
10.34	69.51	415.943	2.6190	*****
10.71	80.21	455.018	2.6580	*****
9.02	89.21	497.765	2.6970	*****
5.45	94.65	544.526	2.7360	*****
2.26	96.90	595.681	2.7750	*****
0.38	97.28	651.642	2.8140	*
0.38	97.65	712.859	2.8530	*
0.38	98.03	779.828	2.8920	*
0.38	98.41	853.088	2.9310	*
0.19	98.59	933.230	2.9700	
0.19	98.78	1020.901	3.0090	
0.19	98.97	1116.809	3.0480	
0.00	98.97	1221.726	3.0870	
0.19	99.16	1336.499	3.1260	
0.19	99.34	1462.055	3.1650	
0.19	99.53	1599.406	3.2040	
0.19	99.72	1749.660	3.2430	
0.19	99.91	1914.029	3.2819	

0 1 2 3 4

Each "\*" represents approximately 2.4 observations.

#####

22:58:18  
02/06/90

OPAL LAKE SOIL DATA 1989

LOGARITHMIC VALUES

=====

VARIABLE = Cr  
UNIT = ppH  
N = 532  
N CI = 36

POPULATIONS

=====

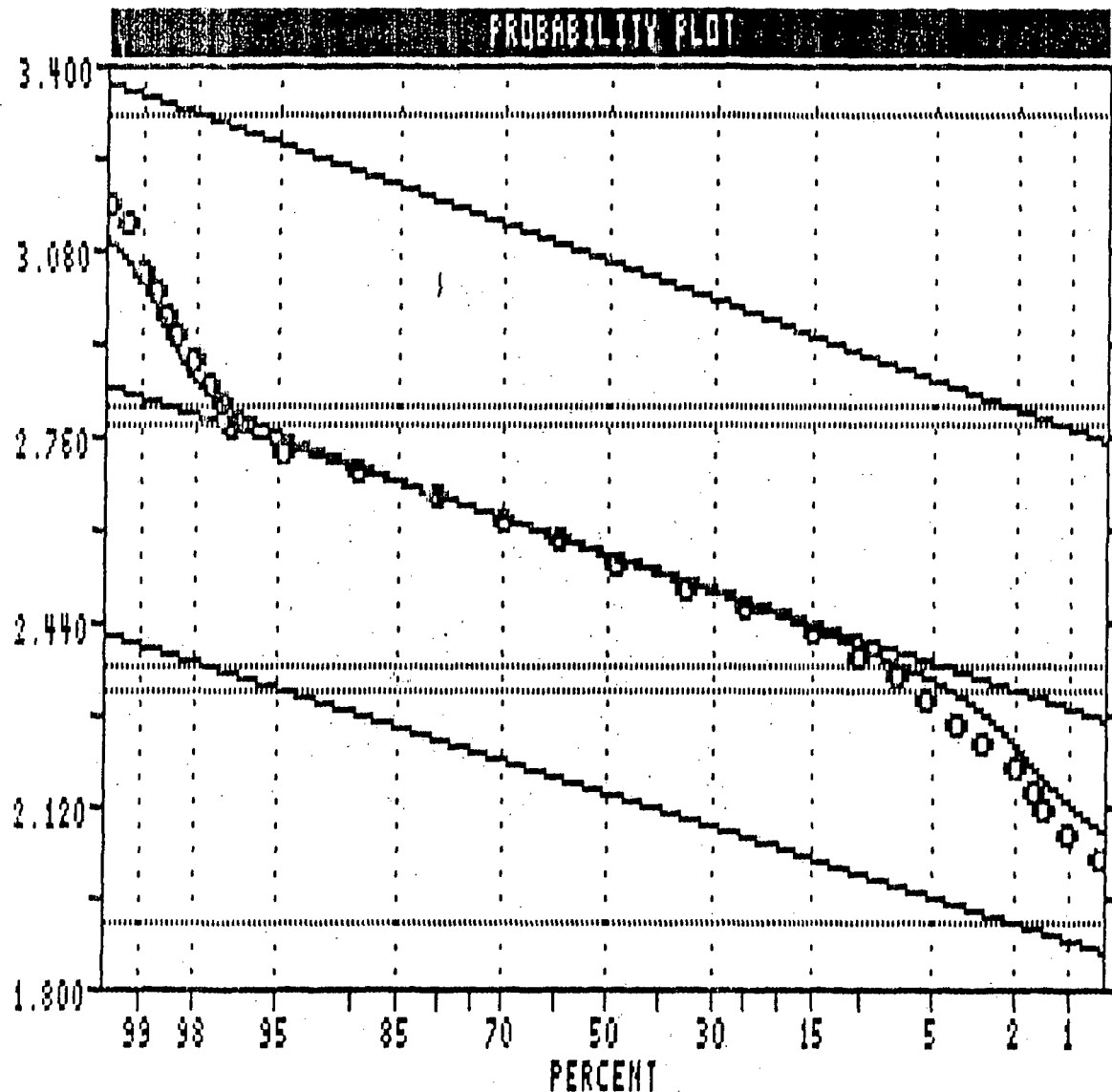
Pop.	Mean	Std.Dev.	%
1	2.1359	0.1128	2.3
2	2.5505	0.1151	96.0
3	3.0566	0.1240	1.7

THRESHOLDS

-----

Pop.	Mean	Std.Dev.
1	1.9102	2.3615
2	2.3202	2.7808
3	2.8086	3.3044

CLASS INTERVAL HL  
PARAMETER ESTIMATES



#####  
SUMMARY STATISTICS and HISTOGRAM ARITHMETIC VALUES

Variable = Cr Unit = ppm N = 532

Mean = 376.318 Min = 79.000 1st Quartile = 293.000

Std. Dev. = 161.750 Max = 1830.000 Median = 351.000

CV % = 42.982 Skewness = 4.014 3rd Quartile = 436.000

```
=====
```

%	cum %	cls int	(# of bins = 28 - bin size = 64.852)
0.00	0.09	46.574	
0.94	1.03	111.426	**
2.26	3.28	176.278	*****
6.39	9.66	241.130	*****
21.24	30.86	305.981	***** --> 46
26.50	57.32	370.833	***** --> 58
17.67	74.95	435.685	*****
14.66	89.59	500.537	*****
5.83	95.40	565.389	*****
1.69	97.09	630.241	*****
0.38	97.47	695.093	*
0.56	98.03	759.944	*
0.00	98.03	824.796	
0.56	98.59	889.648	*
0.00	98.59	954.500	
0.19	98.78	1019.352	
0.00	98.78	1084.204	
0.19	98.97	1149.056	
0.00	98.97	1213.907	
0.00	98.97	1278.759	
0.19	99.16	1343.611	
0.19	99.34	1408.463	
0.00	99.34	1473.315	
0.19	99.53	1538.167	
0.00	99.53	1603.019	
0.19	99.72	1667.870	
0.00	99.72	1732.722	
0.00	99.72	1797.574	
0.19	99.91	1862.426	

```
=====
```

0 1 2 3 4

Each "\*" represents approximately 2.4 observations.

#####

#####  
SUMMARY STATISTICS and HISTOGRAM ARITHMETIC VALUES

Variable =	Cu	Unit =	ppm	N =	532
Mean =	33.038	Min =	12.000	1st Quartile =	23.000
Std. Dev. =	15.256	Max =	160.000	Median =	30.000
CV % =	46.179	Skewness =	2.672	3rd Quartile =	38.000

```
=====
```

%	cum %	cls int	(# of bins = 28 - bin size = 5.481)
0.00	0.09	9.259	
0.56	0.66	14.741	*
12.22	12.85	20.222	*****
22.74	35.53	25.704	***** --> 49
21.24	56.75	31.185	***** --> 46
15.41	72.14	36.667	*****
9.96	82.08	42.148	*****
6.02	88.09	47.630	*****
3.20	91.28	53.111	*****
2.82	94.09	58.593	*****
1.50	95.59	64.074	***
1.32	96.90	69.556	***
1.32	98.22	75.037	***
0.38	98.59	80.519	*
0.19	98.78	86.000	
0.19	98.97	91.481	
0.00	98.97	96.963	
0.19	99.16	102.444	
0.19	99.34	107.926	
0.19	99.53	113.407	
0.19	99.72	118.889	
0.00	99.72	124.370	
0.00	99.72	129.852	
0.00	99.72	135.333	
0.00	99.72	140.815	
0.00	99.72	146.296	
0.00	99.72	151.778	
0.00	99.72	157.259	
0.19	99.91	162.741	

-----  
0 1 2 3 4

Each "\*" represents approximately 2.4 observations.

#####

#####  
SUMMARY STATISTICS and HISTOGRAM LOGARITHMIC VALUES

Variable = Cu Unit = ppm N = 532

Mean = 1.4847 Min = 1.0792 1st Quartile = 1.3617  
 Std. Dev. = 0.1648 Max = 2.2041 Median = 1.4771  
 CV % = 11.1028 Skewness = 0.6928 3rd Quartile = 1.5798

Anti-Log Mean = 30.529 Anti-Log Std. Dev. : (-) 20.886  
 (+) 44.622

%	cum %	antilog	cls int	(# of bins = 36 - bin size = 0.0321)
0.00	0.09	11.564	1.0631	
0.19	0.28	12.452	1.0953	
0.00	0.28	13.409	1.1274	
0.38	0.66	14.439	1.1595	*
0.38	1.03	15.548	1.1917	*
1.32	2.35	16.742	1.2238	***
5.08	7.41	18.028	1.2560	*****
2.44	9.85	19.413	1.2881	*****
3.01	12.85	20.904	1.3202	*****
8.46	21.29	22.510	1.3524	*****
9.96	31.24	24.239	1.3845	*****
7.52	38.74	26.101	1.4167	*****
8.46	47.19	28.106	1.4488	*****
4.89	52.08	30.265	1.4809	*****
8.65	60.69	32.590	1.5131	*****
8.46	69.14	35.094	1.5452	*****
5.64	74.77	37.789	1.5774	*****
5.26	80.02	40.692	1.6095	*****
3.38	83.40	43.818	1.6417	*****
4.70	88.09	47.184	1.6738	*****
1.69	89.77	50.808	1.7059	****
2.26	92.03	54.711	1.7381	*****
2.07	94.09	58.914	1.7702	****
1.13	95.22	63.439	1.8024	**
1.69	96.90	68.312	1.8345	****
0.94	97.84	73.559	1.8666	**
0.56	98.41	79.210	1.8988	*
0.38	98.78	85.294	1.9309	*
0.19	98.97	91.846	1.9631	
0.00	98.97	98.901	1.9952	
0.38	99.34	106.499	2.0273	*
0.19	99.53	114.679	2.0595	
0.19	99.72	123.488	2.0916	
0.00	99.72	132.974	2.1238	
0.00	99.72	143.189	2.1559	
0.00	99.72	154.188	2.1880	
0.19	99.91	166.032	2.2202	

0 1 2 3 4

Each "\*" represents approximately 2.4 observations.

#####

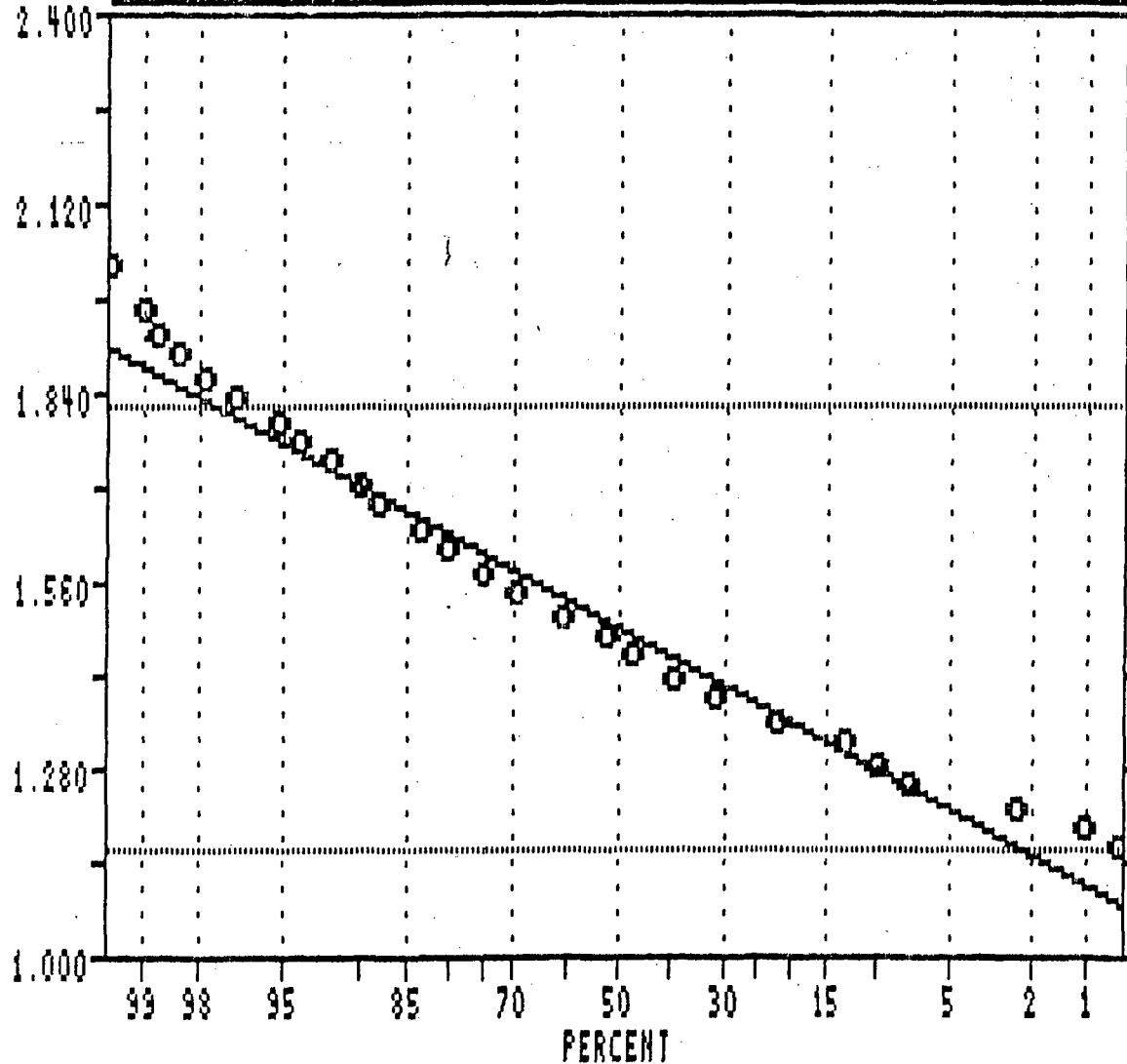


23:06:27  
02/06/90

### DPAL LAKE SOIL DATA 1989

### LOGARITHMIC VALUES

#### PROBABILITY PLOT



VARIABLE = Cu  
UNIT = ppm  
N = 532  
N CI = 36

#### POPULATIONS

Pop.	Mean	Std.Dev.	%
1	1.4847	0.1648	100.0

Pop.	THRESHOLDS	
1	1.1550	1.8144

USERS VISUAL  
PARAMETER ESTIMATES

#####

PARAMETER SUMMARY STATISTICS FOR PROBABILITY PLOT ANALYSIS

Data File Name = OPALBOND.PLT

Variable = Cu Unit = ppm N = 532  
N CI = 36

Transform = Logarithmic Number of Populations = 1

# of Missing Observations = 0.

=====  
Users Visual Parameter Estimates

<u>Population</u>	<u>Mean</u>	<u>Std Dev</u>	<u>Percentage</u>
1	30.529	- 20.886 + 44.622	100.00

=====  
Default Thresholds.

Standard Deviation Multiplier = 2.0

<u>Pop.</u>	<u>Thresholds</u>
1	14.290 65.223

#####

#####

PARAMETER SUMMARY STATISTICS FOR PROBABILITY PLOT ANALYSIS

Data File Name = OPALBOND.PLT

Variable = Cu Unit = ppm N = 532  
N CI = 36

Transform = Logarithmic Number of Populations = 1

# of Missing Observations = 0.

=====  
Users Visual Parameter Estimates

<u>Population</u>	<u>Mean</u>	<u>Std Dev</u>	<u>Percentage</u>
1	30.529	- 20.886 + 44.622	100.00

=====  
Default Thresholds.

Standard Deviation Multiplier = 1.5

<u>Pop.</u>	<u>Thresholds</u>
1	17.276 53.948

#####

#####  
SUMMARY STATISTICS and HISTOGRAM ARITHMETIC VALUES

Variable = Pb Unit = ppm N = 286

Mean = 11.304 Min = 3.000 1st Quartile = 6.500  
 Std. Dev. = 8.311 Max = 51.000 Median = 10.000  
 CV % = 73.519 Skewness = 2.191 3rd Quartile = 13.000

```
=====
```

%	cum %	cls int	(# of bins = 36 - bin size = 1.371)
0.00	0.17	2.314	
8.74	8.89	3.686	*****
11.19	20.03	5.057	*****
4.90	24.91	6.429	*****
8.04	32.93	7.800	*****
16.78	49.65	9.171	*****
10.84	60.45	10.543	*****
8.39	68.82	11.914	*****
11.54	80.31	13.286	*****
1.40	81.71	14.657	**
4.90	86.59	16.029	*****
0.35	86.93	17.400	*
1.05	87.98	18.771	**
1.75	89.72	20.143	***
1.05	90.77	21.514	**
0.35	91.11	22.886	*
0.35	91.46	24.257	*
1.05	92.51	25.629	**
1.05	93.55	27.000	**
0.00	93.55	28.371	
0.35	93.90	29.743	*
0.70	94.60	31.114	*
0.70	95.30	32.486	*
0.70	95.99	33.857	*
0.00	95.99	35.229	.
1.40	97.39	36.600	**
0.00	97.39	37.971	
0.35	97.74	39.343	*
0.35	98.08	40.714	*
0.35	98.43	42.086	*
0.70	99.13	43.457	*
0.00	99.13	44.829	
0.35	99.48	46.200	*
0.00	99.48	47.571	
0.00	99.48	48.943	
0.00	99.48	50.314	
0.35	99.83	51.686	*

-----  
0 1 2 3 4

Each "\*" represents approximately 1.7 observations.

#####

#####  
SUMMARY STATISTICS and HISTOGRAM LOGARITHMIC VALUES

Variable = Pb Unit = ppm N = 286

Mean = 0.9649 Min = 0.4771 1st Quartile = 0.8116

Std. Dev. = 0.2710 Max = 1.7076 Median = 1.0000

CV % = 28.0652 Skewness = 0.2242 3rd Quartile = 1.1139

Anti-Log Mean = 9.224 Anti-Log Std. Dev. : (-) 4.942  
(+) 17.216

```
=====
```

%	cum %	antilog	cls int	(# of bins = 36 - bin size = 0.0352)
0.00	0.17	2.881	0.4595	
8.74	8.89	3.124	0.4947	*****
0.00	8.89	3.387	0.5299	
0.00	8.89	3.673	0.5650	
0.00	8.89	3.983	0.6002	
5.24	14.11	4.318	0.6353	*****
0.00	14.11	4.682	0.6705	
5.94	20.03	5.077	0.7056	*****
0.00	20.03	5.505	0.7408	
0.00	20.03	5.970	0.7759	
4.90	24.91	6.473	0.8111	*****
8.04	32.93	7.019	0.8463	*****
0.00	32.93	7.610	0.8814	
8.39	41.29	8.252	0.9166	*****
0.00	41.29	8.948	0.9517	
8.39	49.65	9.702	0.9869	*****
10.84	60.45	10.520	1.0220	*****
8.39	68.82	11.407	1.0572	*****
5.24	74.04	12.369	1.0923	*****
6.29	80.31	13.412	1.1275	*****
1.40	81.71	14.543	1.1627	**
2.45	84.15	15.769	1.1978	****
2.80	86.93	17.099	1.2330	*****
1.05	87.98	18.541	1.2681	**
1.75	89.72	20.104	1.3033	***
1.05	90.77	21.799	1.3384	**
0.35	91.11	23.637	1.3736	*
1.40	92.51	25.630	1.4087	**
1.05	93.55	27.791	1.4439	**
1.05	94.60	30.134	1.4791	**
0.70	95.30	32.675	1.5142	*
0.70	95.99	35.430	1.5494	*
1.40	97.39	38.417	1.5845	**
0.70	98.08	41.656	1.6197	*
1.05	99.13	45.169	1.6548	**
0.35	99.48	48.977	1.6900	*
0.35	99.83	53.107	1.7251	*

```
-----
```

0 1 2 3 4

Each "\*" represents approximately 1.7 observations.

#####

00:07:28  
02/06/90

OPAL LAKE SOIL DATA 1989

LOGARITHMIC VALUES

=====

VARIABLE = Pb  
UNIT = ppH  
N = 286  
N CI = 36

POPULATIONS

=====

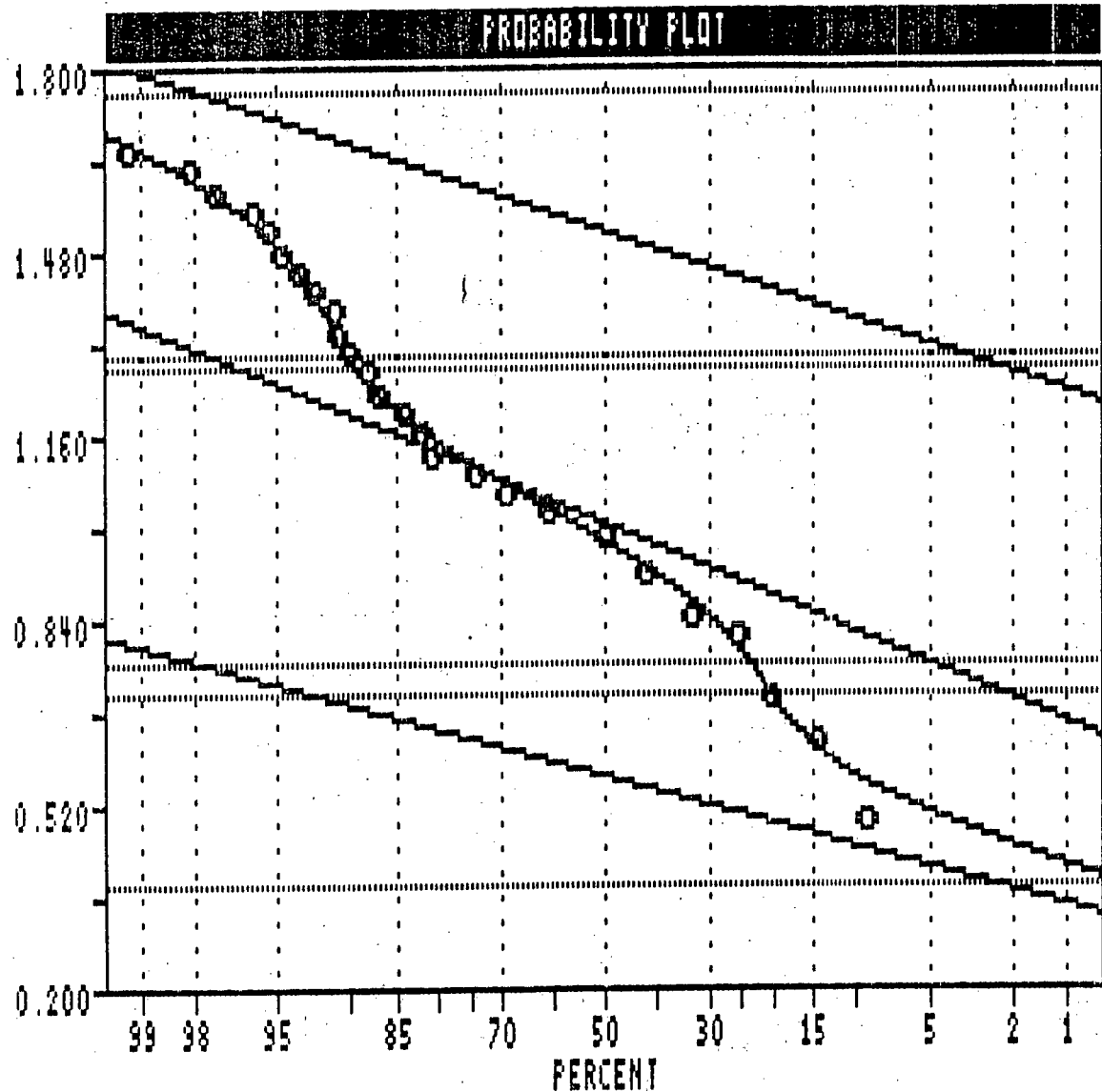
Pop.	Mean	Std.Dev.	%
1	0.5658	0.0956	19.8
2	0.9997	0.1454	71.4
3	1.5097	0.1188	8.8

POP. THRESHOLDS

-----

=====

1	0.3747	0.7570
2	0.7089	1.2906
3	1.2721	1.7474



CLASS INTERVAL ML  
PARAMETER ESTIMATES

#####

PARAMETER SUMMARY STATISTICS FOR PROBABILITY PLOT ANALYSIS

Data File Name = OPALBOND.PLT

Variable = Pb Unit = ppm N = 286  
N CI = 36

Transform = Logarithmic Number of Populations = 3

# of Missing Observations = 0.

246 Observations Were Below the Minimum Value of 2.0000  
0 Observations Were Above the Maximum Value of 99999.0000

=====  
Class Interval Data Maximum Likelihood Parameter Estimates

Maximum LN Likelihood Value = -960.842

Parameterized Degrees of Freedom = 5

Population	Mean	Std Dev	Percentage
1	3.680	- 2.953	19.80
		+ 4.586	
2	9.993	- 7.150	71.41
		+ 13.968	
3	32.338	- 24.598	8.79
		+ 42.515	

=====  
Default Thresholds.

Standard Deviation Multiplier = 2.0

Pop.	Thresholds
1	2.370 5.715
2	5.115 19.524
3	18.710 55.894

#####

#####  
 SUMMARY STATISTICS and HISTOGRAM ARITHMETIC VALUES

Variable = Sb Unit = ppm N = 183  
 Mean = 8.541 Min = 5.000 1st Quartile = 6.000  
 Std. Dev. = 3.688 Max = 30.000 Median = 7.000  
 CV % = 43.180 Skewness = 2.919 3rd Quartile = 9.000

=====  
 % cum % cls int (# of bins = 23 - bin size = 1.136)  
 -----

0.00	0.27	4.432	
6.01	6.25	5.568	*****
21.86	27.99	6.705	*****
24.04	51.90	7.841	*****
11.48	63.32	8.977	*****
19.13	82.34	10.114	*****
6.01	88.32	11.250	*****
3.28	91.58	12.386	****
2.19	93.75	13.523	***
1.09	94.84	14.659	*
0.55	95.38	15.795	*
0.55	95.92	16.932	*
0.55	96.47	18.068	*
0.55	97.01	19.205	*
0.55	97.55	20.341	*
0.00	97.55	21.477	
0.00	97.55	22.614	
0.55	98.10	23.750	*
0.55	98.64	24.886	*
0.00	98.64	26.023	
0.55	99.18	27.159	*
0.00	99.18	28.295	
0.00	99.18	29.432	
0.55	99.73	30.568	*

0 1 2 3 4

#####



#####  
SUMMARY STATISTICS and HISTOGRAM LOGARITHMIC VALUES

Variable = Sb Unit = ppm N = 183

Mean = 0.9042 Min = 0.6990 1st Quartile = 0.7782  
 Std. Dev. = 0.1430 Max = 1.4771 Median = 0.8451  
 CV % = 15.8126 Skewness = 1.2974 3rd Quartile = 0.9542

Anti-Log Mean = 8.021 Anti-Log Std. Dev. : (-) 5.771  
 (+) 11.149

%	cum %	antilog	cls int	(# of bins = 36 - bin size = 0.0222)
0.00	0.27	4.874	0.6879	
6.01	6.25	5.130	0.7101	*****
0.00	6.25	5.399	0.7323	
0.00	6.25	5.683	0.7546	
0.00	6.25	5.981	0.7768	
21.86	27.99	6.295	0.7990	*****
0.00	27.99	6.626	0.8213	
0.00	27.99	6.974	0.8435	
24.04	51.90	7.340	0.8657	*****
0.00	51.90	7.726	0.8879	
11.48	63.32	8.132	0.9102	*****
0.00	63.32	8.559	0.9324	
12.02	75.27	9.008	0.9546	*****
0.00	75.27	9.482	0.9769	
0.00	75.27	9.980	0.9991	
7.10	82.34	10.504	1.0213	*****
6.01	88.32	11.056	1.0436	*****
0.00	88.32	11.636	1.0658	
3.28	91.58	12.247	1.0880	****
0.00	91.58	12.891	1.1103	
2.19	93.75	13.568	1.1325	***
1.09	94.84	14.281	1.1547	*
0.55	95.38	15.031	1.1770	*
0.00	95.38	15.820	1.1992	
0.55	95.92	16.651	1.2214	*
0.55	96.47	17.526	1.2437	*
0.00	96.47	18.446	1.2659	
0.55	97.01	19.415	1.2881	*
0.55	97.55	20.435	1.3104	*
0.00	97.55	21.508	1.3326	
0.00	97.55	22.638	1.3548	
0.55	98.10	23.827	1.3771	*
0.55	98.64	25.079	1.3993	*
0.00	98.64	26.396	1.4215	
0.55	99.18	27.783	1.4438	*
0.00	99.18	29.242	1.4660	
0.55	99.73	30.778	1.4882	*

0 1 2 3 4

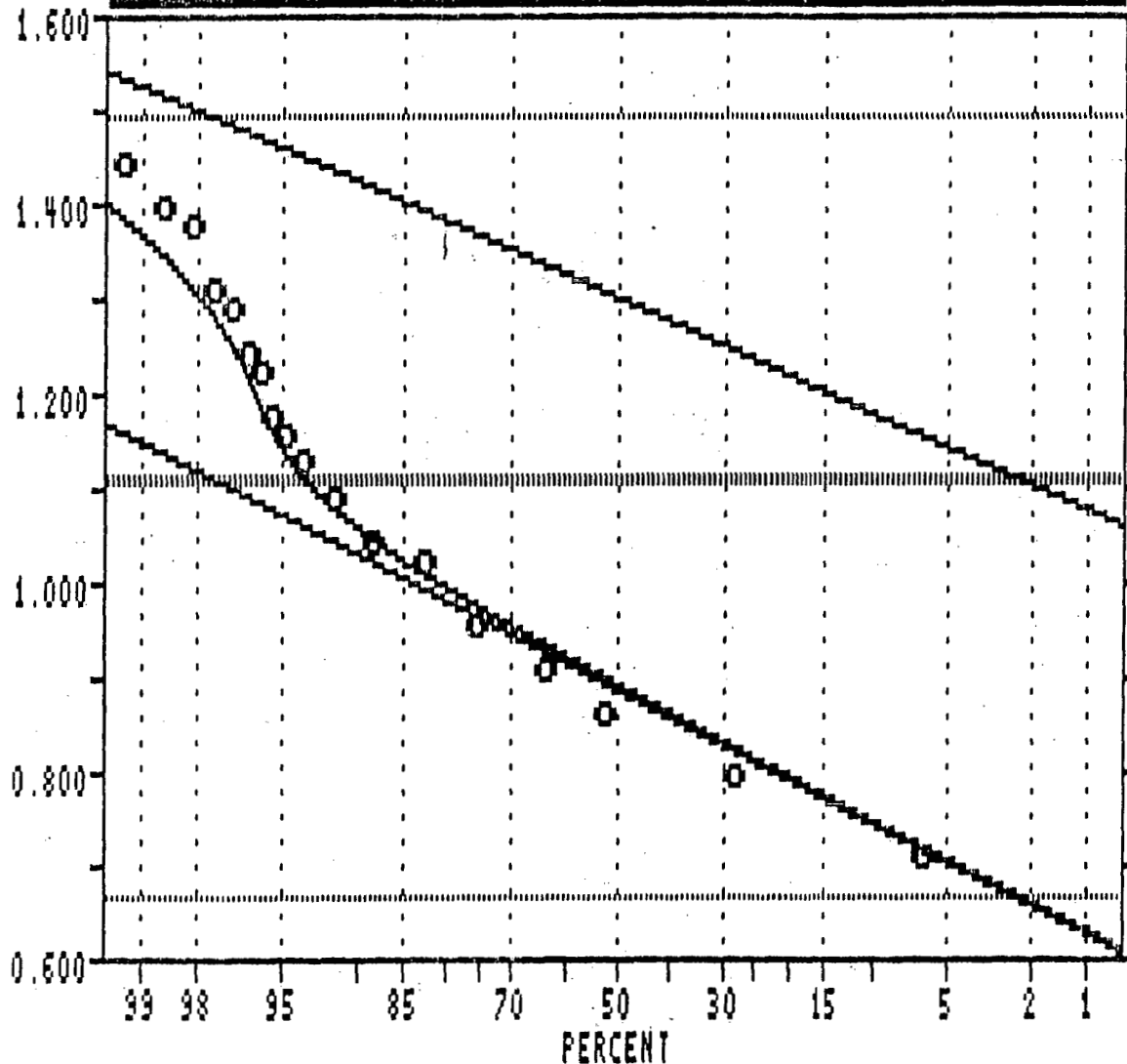
#####

23:19:06  
02/06/90

DPAL LAKE SOIL DATA 1989

LOGARITHMIC VALUES

PROBABILITY PLOT



VARIABLE = Sb  
UNIT = ppm  
N = 183  
N CI = 36

POPULATIONS

Pop.	Mean	Std.Dev.	%
1	0.8845	0.1116	95.8
2	1.2970	0.0958	4.2

POP. THRESHOLDS

Pop.	Mean	Std.Dev.
1	0.6614	1.1076
2	1.1055	1.4885

CLASS INTERVAL ML  
PARAMETER ESTIMATES

#####

PARAMETER SUMMARY STATISTICS FOR PROBABILITY PLOT ANALYSIS

Data File Name = OPALBOND.PLT

Variable = Sb Unit = ppm N = 183  
N CI = 36

Transform = Logarithmic Number of Populations = 2

# of Missing Observations = 0.

349 Observations Were Below the Minimum Value of 5.0000  
0 Observations Were Above the Maximum Value of 99999.0000

=====

Class Interval Data Maximum Likelihood Parameter Estimates

Maximum LN Likelihood Value = -569.494

Parameterized Degrees of Freedom = 3

Population	Mean	Std Dev	Percentage
1	7.665	- 5.929 + 9.910	95.76
2	19.815	- 15.894 + 24.704	4.24

=====

Default Thresholds.

Standard Deviation Multiplier = 2.0

Pop.	Thresholds
1	4.586 12.813
2	12.748 30.799

#####

#####  
SUMMARY STATISTICS and HISTOGRAM ARITHMETIC VALUES

Variable =	Sr	Unit =	ppm	N =	532
Mean =	35.068	Min =	7.000	1st Quartile =	26.000
Std. Dev. =	15.007	Max =	167.000	Median =	31.000
CV % =	42.794	Skewness =	2.527	3rd Quartile =	40.000

%	cum %	cls int	(# of bins = 28 - bin size = 5.926)
0.00	0.09	4.037	
0.38	0.47	9.963	*
0.75	1.22	15.889	**
8.08	9.29	21.815	*****
24.44	33.68	27.741	***** --> 53
26.32	59.94	33.667	***** --> 57
14.10	74.02	39.593	*****
7.89	81.89	45.519	*****
5.26	87.15	51.444	*****
4.32	91.46	57.370	*****
3.38	94.84	63.296	*****
2.44	97.28	69.222	*****
0.75	98.03	75.148	**
0.75	98.78	81.074	**
0.56	99.34	87.000	*
0.19	99.53	92.926	
0.00	99.53	98.852	
0.00	99.53	104.778	
0.00	99.53	110.704	
0.00	99.53	116.630	
0.19	99.72	122.556	
0.00	99.72	128.481	
0.00	99.72	134.407	
0.00	99.72	140.333	
0.00	99.72	146.259	
0.00	99.72	152.185	
0.00	99.72	158.111	
0.00	99.72	164.037	
0.19	99.91	169.963	

0 1 2 3 4

Each "\*" represents approximately 2.4 observations.

#####

#####  
SUMMARY STATISTICS and HISTOGRAM LOGARITHMIC VALUES

Variable = Sr Unit = ppm N = 532

Mean = 1.5139 Min = 0.8451 1st Quartile = 1.4150  
 Std. Dev. = 0.1589 Max = 2.2227 Median = 1.4914  
 CV % = 10.4959 Skewness = 0.4490 3rd Quartile = 1.6021

Anti-Log Mean = 32.653 Anti-Log Std. Dev. : (-) 22.647  
 (+) 47.078

%	cum %	antilog	cls int	(# of bins = 36 - bin size = 0.0394)
0.00	0.09	6.690	0.8254	
0.19	0.28	7.325	0.8648	
0.00	0.28	8.019	0.9041	
0.00	0.28	8.780	0.9435	
0.19	0.47	9.613	0.9829	
0.00	0.47	10.525	1.0222	
0.00	0.47	11.523	1.0616	
0.00	0.47	12.617	1.1009	
0.00	0.47	13.813	1.1403	
0.75	1.22	15.124	1.1797	**
0.38	1.59	16.559	1.2190	*
1.88	3.47	18.129	1.2584	****
1.32	4.78	19.849	1.2977	***
4.51	9.29	21.732	1.3371	*****
5.08	14.35	23.794	1.3765	*****
13.53	27.86	26.051	1.4158	*****
11.28	39.12	28.522	1.4552	*****
13.35	52.44	31.228	1.4945	*****
9.96	62.38	34.191	1.5339	*****
7.33	69.70	37.434	1.5733	*****
5.83	75.52	40.985	1.6126	*****
5.26	80.77	44.873	1.6520	*****
4.70	85.46	49.130	1.6913	*****
3.76	89.21	53.791	1.7307	*****
3.01	92.21	58.894	1.7701	*****
3.20	95.40	64.481	1.8094	*****
2.07	97.47	70.598	1.8488	****
0.56	98.03	77.295	1.8882	*
0.94	98.97	84.628	1.9275	**
0.56	99.53	92.656	1.9669	*
0.00	99.53	101.446	2.0062	
0.00	99.53	111.069	2.0456	
0.00	99.53	121.606	2.0850	
0.19	99.72	133.142	2.1243	
0.00	99.72	145.773	2.1637	
0.00	99.72	159.601	2.2030	
0.19	99.91	174.742	2.2424	

0 1 2 3 4

Each "\*" represents approximately 2.4 observations.

#####

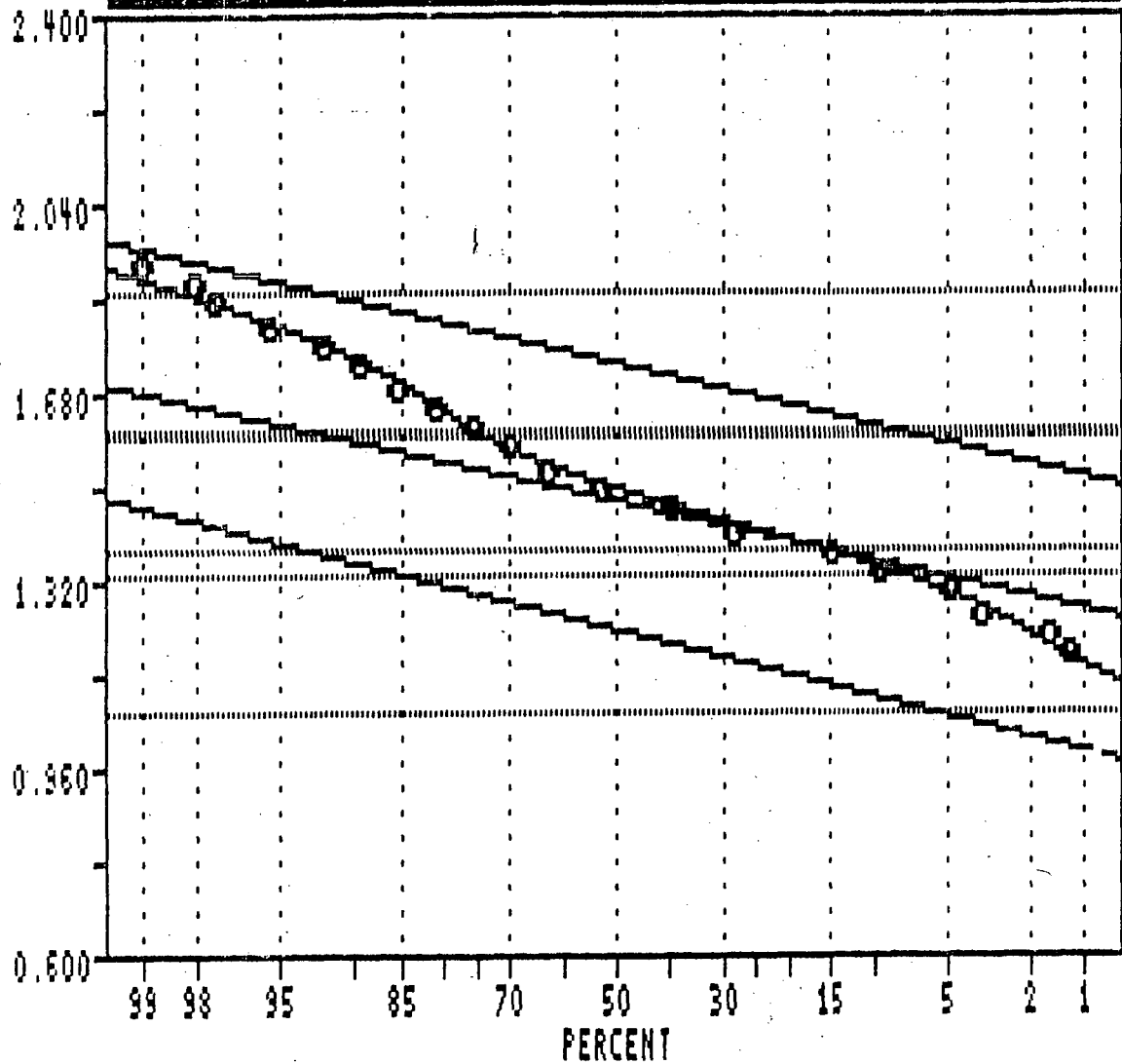
23:51:24  
02/06/90

OPAL LAKE SOIL DATA 1989

LOGARITHMIC VALUES

VARIABLE = SF  
UNIT = ppm  
N = 532  
N CI = 36

PROBABILITY PLOT



POPULATIONS

Pop.	Mean	Std. Dev.	%
1	1.2163	0.1021	3.6
2	1.4622	0.0897	73.9
3	1.7293	0.0950	22.5

Pop.	THRESHOLDS	
1	1.0632	1.3694
2	1.3277	1.5967
3	1.5867	1.8718

CLASS INTERVAL HL  
PARAMETER ESTIMATES

#####

PARAMETER SUMMARY STATISTICS FOR PROBABILITY PLOT ANALYSIS.

Data File Name = OPALBOND.PLT

Variable = Sr Unit = ppm N = 532  
N CI = 36

Transform = Logarithmic Number of Populations = 3

# of Missing Observations = 0.

=====  
Class Interval Data Maximum Likelihood Parameter Estimates

Maximum LN Likelihood Value = -1465.852

Parameterized Degrees of Freedom = 5

Population	Mean	Std Dev	Percentage
1	16.455	13.008	3.60
		20.815	
2	28.988	23.581	73.90
		35.636	
3	53.611	43.078	22.50
		66.720	

=====  
Thresholds Which Minimize Classification Errors.

Thresholds

42.797  
27.932  
17.233

#####

#####

PARAMETER SUMMARY STATISTICS FOR PROBABILITY PLOT ANALYSIS

Data File Name = OPALBOND.FLT

Variable = Sr Unit = ppm N = 532  
N CI = 36

Transform = Logarithmic Number of Populations = 3

# of Missing Observations = 0.

=====  
Class Interval Data Maximum Likelihood Parameter Estimates

Maximum LN Likelihood Value = -1465.852

Parameterized Degrees of Freedom = 5

Population	Mean	Std Dev	Percentage
1	16.455	- 13.008	3.60
		+ 20.815	
2	28.988	- 23.581	73.90
		+ 35.636	
3	53.611	- 43.078	22.50
		+ 66.720	

=====  
Default Thresholds.

Standard Deviation Multiplier = 1.5

Pop.	Thresholds	
1	11.565	23.411
2	21.268	39.511
3	38.614	74.431

#####



**APPENDIX V**  
**LABORATORY TECHNIQUES**

## Sample Preparation Procedures:

### General Organization

Upon arrival the samples are assigned a unique lot number. They are then sorted and catalogued in alphanumeric order. This order is kept throughout the preparation, analytical and reporting process. Any discrepancies between the submittal form and the samples received are noted at this time.

### Rock Crushing

The entire dried sample is put through a primary jaw crusher. This reduces the sample to 1/4" or finer. All of this material is then transferred to a cone crusher which reduces the sample to 10 mesh. The entire crushed sample is passed through a Jones riffle splitter repeatedly until a representative split of about 250 grams is obtained.

### Pulverizing

A ring and puck grinder is used to reduce the sample to 150 mesh. Because this equipment breaks the sample down by impact rather than by shearing, there is less of a contamination problem than with a plate pulverizer and it is also easier to get a finer grind. These grinding heads are a hardened steel alloy with a high chrome content. Because this grinding head may cause some contamination (about .01% Cr and .05%Fe), we also have a ceramic grinding head which can be used in place of the chrome steel head to eliminate this source of contamination.

### Contamination Prevention

Each crushing unit is cleaned out between samples using brushes and compressed air. In addition, a gravel with a low metal content is crushed using both the jaw and cone crushers to clean out these units between different lots. If high samples are indicated then gravel is run through the equipment between samples. Similarly, the grinding heads are cleaned between samples by brushing and blowing with compressed air. A cleaning sand (ie low metal content) is pulverized in each grinding head between different lots or between any high samples which are indicated. This eliminates the possibility of cross contamination between lots. However, there is still a possibility of a contamination train if high grade samples are not indicated and are submitted in the same batch as trace level samples.



Bondar-Clegg & Company Ltd.  
130 Pemberton Ave.  
North Vancouver, B.C.  
V7P 2R5  
(604) 985-0681 Telex 04-352667

#### Procedure for Geochemical Gold Analysis:

A prepared sample of 10 to 60 grams is mixed with a flux which is composed mainly of lead oxide. The proportions of the flux components are adjusted depending on the nature of the sample. Silver is added to help collect the gold. The samples are fused at 1950 F until a clear melt is obtained. The lead button which also contains the precious metals is then separated from the slag. Heating in the cupellation furnace separates the lead from the noble metals. The precious metal beads that remain are transferred to test tubes and dissolved with aqua-regia. The solution is analyzed using Atomic Absorption or a Plasma Emission Spectrograph by comparing the readings of these solutions with readings of standard solutions.

#### Contamination Prevention

The test tubes and cupels are used only once so that there is no possibility of cross contamination. The fusion crucibles are cleared before re-use by discarding any which had high samples in them. During the analysis a blank solution is run between each sample to ensure that there is no carry-over.