#6076 SHEFFIELD OPTION NYLAND LAKE - B. C. 93-A-13, 93-B-16 PART I

GEOLOGY AND GEOCHEMISTRY.

93A/15W

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## SHEFFIELD OPTION

NYLAND LAKE - B. C.

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93-A-13, 93-B-16

### PART I

# GEOLOGY AND GEOCHEMISTRY

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### SHEFFIELD OPTION

### NYLAND LAKE - B. C.

93-A-13, 93-B-16

### PART 1

### GEOLOGY AND GEOCHEMISTRY.

### 1. INTRODUCTION

1.1 The claims near Nyland Lake were acquired under terms of an option agreement, dated 21 June 1976, with Father John C. Sheffield of Salmon Arm, B. C. The option by Rio Tinto was prompted by the examination by E. W. Johnson of reported mineralization on the claims in 1975.

Rio carried out a geochemical soil sampling programme, some geological mapping and an I. P. and magnetic survey in 1976 to determine if the mineralization seen was more extensive and might indicate a larger porphyry type body in the area.

Results of this work are described in this report in two parts;

Part I Geology and Geochemistry

by D. Petersen.

Part II Geophysics

by J. McCance.

#4 GEOCHEMISTRY CUMO RESULTS MI

Maps displaying the results of all the work accompany the report.

MAPS SOIN SAMPLE LOCATION #/ \$2 GEOLOGY & SOIL SAMPLE LOCATION #3 GEOCHEMISTRY CUMO

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### 1.2 Location and Access

The property consisting of seven claims of the MGS type and four older claims lie at approximate geographic coordinates 52°45′N, 122°00′W immediately to the NE and SE of Nyland Lake, 40 km due SE of Quesnel.in N.T.S. areas 93-A-13 W and 93-B-16 E. The accompanying Location Map, DWG L 6433 shows the position.

The property is reached by 2 lane logging road that turns South from the Quesnel-Barkerville highway 16 km east of Quesnel and thence approximately 40 km southwards to Nyland Lake. From there a narrow jeep road continues eastwards through the claims A B. C. Forest Service camp is maintained at Nyland Lake.

#### 1.3 Topography and Vegetation

The area of the claims is gently rolling and covered by mature growths of pine trees. Tag alders occur in swampy low ground.

### 1.4 <u>History</u>

Certainly the area was prospected by the placer miners during the Cariboo rush and later by Homesteaders, but no discoveries were apparently made.

The first work in the area of the property was seemingly in the 1960's when the principles of the present Hogan Mines Ltd. drilled 3 AX holes near the molybdenum showing. One of these holes was located during the current work. Core is found scattered near a cabin shown on the grid at 1800 N, 570 E. (DWG GC 8477.)

P. E. Fox and Associates worked in July 1975 on the Maud claims covering a magnetically high anomaly to the south.

Sheffield and an associate staked the DAPHNE claims in 1974 and the others in 1975, and carried out prospecting and trenching.



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Rio Tinto acquired an option on the claims in 1976.

### 1.5 <u>Property</u>

The property covers approximately 3,000 acres and consists of the following;

<u>Claim</u>	Units
Daphne 1-4	(4)
Alice	2
Augusta	6
Elizabeth	6
Норе	6
Katie	16
June	20

All are in the Cariboo Mining Division and were held in the name of John Sheffield. Bills of Sale transferring the claims to Rio Tinto were executed with signing of the option.

Details of the claims, expiry dates etc., are given in the Appendix A-Schedule of Claim.

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### 2. REGIONAL GEOLOGY

The area of the option falls, structurally, within the Quesnel Trough, a tectonic division trending N-S, that extends from the Canada/U.S. border, south of Princeton to east of Quesnel. This trough is important in that many of the copper and molybdenum producers of B. C. are found within its limits.

The rock types in the Nyland Lake area have been described by Tipper (1959) and Campbell (1961).

The oldest rocks are volcanic, of andesitic composition, of Triassic age, with breccias and interbedded argillites, conglomerates and limestones. Cretaceous intrusions of monzonitic granodioritic and dioritic composition intrude the earlier layered rocks. Tertiary basalts cover some of the area.

The published maps do not recognize intrusives within the optioned claims - showing them only to be covered entirely by glacial drift. No significant mineral prospects are known in the vicinity of the claims.

### 3. WORK BY RIO TINTO

Following agreement on the option, Rio commenced work in June 1976 and completed soil sampling, mapping, magnetic and I. P. surveys by mid-August.

### 3.1 Grid Flagging

To provide survey control for subsequent work, the jeep road was laid out as a base line by chain and compass.

Lines for soil sampling, which was done simultaneously, were run off the road, and flagging marking the location and bearing coordinates was hung at each sample station. Claim posts and the few outcrops were tied into this grid.

Due to magnetic features causing distortions, the lines were later found to deviate. This deviation, while not important for geochemistry, was sufficient to warrant a correction for the geophysical grid. Four lines 14 N, 16 N, 18 N, 22 N, were laid out by picket sighting and cut for the geophysics .

### 3.2 Geological Mapping

Mapping of the few discovered outcrops was done by the writer during and confined to the area and lines covered by the soil sample survey. Only three areas of outcrop were found. Others were noted but not mapped due to the high water level in streams.

### 3.3. Geochemical Soil Sampling

A large part of the optioned area was covered by geochemical soil sampling, which was carried out by R. Basnett, B. Hackett, and the writer. Samples were collected but, due to the lack of encouragement in early results, and as the sampling was of a reconnaissance nature, only some, i.e., those on alternate lines and/or at alternate stations were eventually analyzed. The remainder were held in the event of encouraging results that did not materialize.

Of the total samples collected 664 were finally analyzed for Cu and Mo and of these 364 were also measured for the Pb, Zn and Ag contents.

Samples were collected at stations 25 or 50 metres apart along East-West lines that were spaced 100 metres apart. The sample stations are shown on DWG G.C.8477 & 8 Where, due to ground conditions such as swamp, a sample could not be collected the station is marked N.S., but accorded a number.

Samples were collected by digging into the 'B' horizon with a shovel and placing approximately 200 grams of this material in a brown Kraft paper bag. Each bag was numbered and sent to the Rio Tinto Canadian Exploration laboratory in Vancouver for analysis.

A total of 1439 samples were collected.

There, the samples were dried, sieved to -80 mesh; 0.6 grams of this material was placed in a test tube, and 2 millilitres of nitric acid and 1 millilitre of perchloric acid added to the test tube. After diluting the contents to 12 millilitres by adding water, the resultant sample was analyzed for Cu, Mo and Pb, Zn and Ag on a Techtron AA5 atomic absorbtion spectrophotometer. E. Paski Jr. was the analyst.

The results are shown on drawings GC-8479 and GC-8480 and listed on laboratory reports attached as Appendix B.

#### 3.4 Geophysical Surveys

Magnetic and I. P. surveys were carried out over a restricted portion of the property, centred over the main known occurrence of molybdenite. Details of the work done, the methods used, personnel and results of this work, are described in Part II of this report, by J. McCance and accompanied by maps.

#### 4. RESULTS OF WORK

### 4.1 Geological Mapping

Few outcrops exist and all were within the central area near those of the showings. Except for those uncovered by stripping, the outcrops are in stream beds cut into several feet of glacial cover. As water levels were high at the time of working many of these were inaccessible and observations are drawn from those of E. W. Johnson in 1975.

#### 4.1.1.Showings

The main showing located at 2,000 N, 00' W is located along a 150 m EW bend in a NS flowing creek. Diorite is exposed beneath a steep bank. The diorite is fresh medium grained, but locally fractured and sheared.

Dykes of aplite, of undetermined extent cut the diorite on the creek bed. In the aplite and in fractures and shears in the diorite molybdenite occurs with

quartz in small stringers - as specks in the aplite and dusty fracture coatings in the diorite. The main fracture direction bearing molybdenite is 290°. Alteration is weak, but some pyrite and sericite appears related to the aplite intrusion.

A grab sample of aplite from this location yielded 0.011% MoS<sub>2</sub> and a quartz vein with molybdenite coatings gave 0.501% MoS<sub>2</sub>.

At 2,170 N,075 E, fine grained molybdenite and disseminated pyrite are found in a fresh fractured aplite exposed by stripping beside the creek. Molybdenite also occurs in exposures below water level.

At 1,600 N, 50 W a large bulldozer scraping has exposed fresh diorite with staining by limonite on fractures. Minor ferrimolybdite was noted on fracture coatings, but molybdenite was noted only as a rare discreet speck. Fracturing was of the same strikes etc., as at the main showing.

### 4.2 Geochemical Soil Sampling

Results of the analyses of the 664 samples are shown for Cu and Mo on the map DWG. G.C.- 8479 & 8480 with this report.

Results for analysis for Pb, Zn and Ag were not plotted as they were, on scrutiny, seen to be uniformly low and of no assistance in defining anomalous areas etc. They are listed in Appendix B.

Values for Cu and Mo also appear generally low in background, Cu 10-20 ppm, Mo 1-2 ppm.

No anomalies of any consequence were interpreted from these results. One area of twice to three times background continues from L53 to L57 on the Katie claim (DWG-G.C.-8480 ), but these higher values are restricted to a swamp and accordingly ascribed to concentration within it.

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Higher molybdenite and copper values also occur L51 N near it's western end, but again are ascribed to a poor development of the B soil horizon and generally low swampy ground.

Neither copper nor molybdenite values are seen to be higher near or over the showings.

### 4.3 Geophysical Surveys

### 4.3.1. I. P. Survey

The results of this are discussed fully in the Part II of this report by J. McCance.

The lack of any anomaly indicates that there is no major zone of sulphides as might have been expected from any major body of the molybdenite seen in mineralization in the trenches. This is accompanied by several percent of pyrite that in a large body might also accompany the molybdenite or form a halo around it.

The lack of I. P. targets is also in accord with the distinct lack of anomalous metals in the soils.

#### 4.3.2 Magnetic Survey

The magnetic results do not display any features that are relatable to the known showings or possible extensions of them as larger mineralized masses.

### 5. DISCUSSION

Porphyry-type molybdenum deposits, under conditions normally encountered in the Canadian Cordillera, would be expected to occur as a stockwork or multiple vein system of quartz-molybdenite stringers or veins in an altered host rock. Enveloping this mineralization, either completely or partially, a pyrite or magnetite zone can be expected to occur.

In an area of almost pervasive overburden, a bulk molybdenum deposit would be expected to underlie an area of anomalous geochemical response, and depending on the shape and size of the pyrite and/or magnetite halo, by a corresponding zone of chargeability (pyrite), and/or magnetic susceptibility (magnetite).

The fact that the geochemical soil sampling, the induced polarization, and the magnetometry show no such association, suggests that the area surveyed is unlikely to contain a porphyry-type deposit of mineable size or grade.

### 6. CONCLUSIONS & RECOMMENDATIONS

The programme conducted on the above claims has failed to outline any characteristics that are normally expected to be associated with porphyry-type deposits of mineable size and grade.

There is no reason to suspect that such a body exists in the area that has been explored.

No further work appears warranted.

Vancouver November, 1976 D. B. Petersen Member of Association of Professional Engineers of B.C.

8. Petersen

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### REFERENCES

Campbell, R. B., 1961, Geology Quesnel Lake (West Half), British Columbia; G.S.C. Map 3-1961

Tipper, H. W., 1959, Geology Quesnel, Cariboo District, British Columbia; G.S.C. Map 12-1959.

G. S. C. 1961

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Aeromagnetic Magnetic Map No. 1534 G. Swift River 93-A-13 No. 1539 G Quesnel River 93-B-16

### APPENDIX A

### Schedule of Claims

<u>Claim Name</u>	Record No.	Expiry Date
Alice	64	August 22, 1978
Augusta	68	September 12, 1978
Daphne 1-4	72370-72373	August 19, 1979
Elizabeth	67	September 12, 1977
Норе	66	September 12, 1978
Katie	80	October 9, 1977
June	30	May 16, 1978
Raini	29	May 16, 1978

### All in the Cariboo Mining District Division.

### APPENDIX B

### RESULTS OF GEOCHEM ANALYSES

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## LABORATORY REPORT

PARTS PER MILLION												
LAB Nº.	SAMPLE Nº. (NMBR)		Aa	Cu	Mo	Ph	Zn			COMMENTS		
	7607220		NA	18	ND	2	33			1		
2	221		NO	22	1	2	28					
3	222	1	ND	22		2	33			1		
4	223		NU	21	1	2	33					
5	224		0.1	21		2	38			1		
6	225		ND	12	i	2	22					
7	Z26		N))	22		NIT	48			~		
8	227		0.3	38	<i>i</i> .	Ĩ	69					
9	228		0.6	98	2	3	90					
10	229		0.1	24	1	Ĭ	30					
1	230		0.3	24	. 1.	1	55					
	STD 2		-+.0	- द्वेप	3.3	335	210			1		
3	23/		0.2	16	ND	ND	30			<i>J</i>		
4	232		0.5	19	1	2	48					
5	233		0.4	19	1	2	64					
6	238		0.1	23	1	ND	38	-				
7	239		0.3	16	ND	2	42					
8	240		0.2	19	ND	ĵ	40			~		
9	241		0.1	12	Ĩ	1	50			1		
20	24-2		0.2	28	ND	2	51			~		
1	243		0.2	39	í	2	51					
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3	244	-	0.2	32	Ĩ	2	.40			· · · ·		
4	245		6.1	16	1	2	34		1			
5	246		0.2	15	ND	. بر ۲	38		1			
6	247		6.1	18	1	NA	32					
7	248		0.2	17	1	Í Í	36			, ,		
8	249		0.2	25		Ş	80			~		
9	250		0.1	15	1	1	36					
30	252		0.1	28		2	49			5		
1	253		0.3	19	1	ND	42			V		
2	- 254		6.1	15		Ĩ.	35			V		
3	255		0.2	16		1	34			~		
4	256		0.7	68		2	98			1		
5	257		0.1	24	1	2	38			1		
6	258		0.1	11 5	1	2	36					
7	259		ND	18 13	1	2	36			1.		
8	26.2		0.1	18 14		3	47			/		
9	26.4		ND	110		2	32					
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## LABORATORY REPORT

1.7				P/	ARTS P	PER MI	LLION			
	LAB N <sup>오</sup> .	SAMPLE Nº. (NMBR)		Au	Cu	mo	Pb	Z		COMMENTS
	81	7607306		0.4	8	ND	2	23		-
	2	307		0.1	19	Ĩ	i	36		2
	3	308		0.2	18	1	1	36		
	4	309		6.1	16		2	25		
	5	310		6.2	15	1	1	28		
	6	311		0.2	14		11	33		
	7	3/2		Ad	17	ND	1	.37		
	8	3/3		A.1	24	Nn	2	40		/
	9	314		0.1	22	NI)	1	52		1
	90	315		0.1	28	1	3	50		
	1	316		0.1	13	,	2	34	•	
	2	317		0.2	33	(1)	4	55		
	3	318		0.2	12	Í	3	34		/
	4-	STD 1		0.2			26	820		/
	5	319		A JA	14	1	2	29		1/
	6	.320		Nn	15	,	1	35		/
	7	322		0.1	17	<b>-</b>	2	20		
		323			11		Ĩ	28		
	<u> </u>	324		0.1	19		6.D	40		
1	100	325		6.3	16			35		
	1	326		A.2	15	1	ANN -	24		
		327		6.1	20	พัง	hy j)	36		
		35/			172	1	NI)	30		1/
		RIANE		Ath	F			410		1
		352			24		N0	57		
		353		A.7			A 201	1.4		1
	7	354		0.7	17		2	27		
	, ,	355			19			29		
		25%			10	1		3/1		
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		34.1		<u></u>	20	<b> </b>	.)	24		
		26.7		<u> </u>	- <u>ae</u> 1	- I NII				·····
		21.2		2.2	 / సె	<u> </u>	7	211		
		3/4		- <u>e.</u>	-13	<b>∧</b> ,	2			
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	<u> </u>	31.7			17	<i></i>		1.2		
3	120	707319		- Out	12		2	52		

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## LABORATORY REPORT

PARTS PER MILLION

	LAB Nº	SAMPLE Nº. (NMBR)		AL	Cu	Mo	Pb	2			COMMENTS
	12	7607369		1.3	13	ND	2	46			1
	2	370		6.7	26		2	38			1
	3	371		A 1 A	14		2	31			1
	4	.372		A. 3	10		2	62			/
	5	373		4.2	19	1	1	35			/
	6	374		6.1	15	Ni)	- 3	31			/
	7	.375		A113	5	NI	9	11			1
	8	.377		6.2	18	1		24			1
ĺ	9	378		0.1	19	í	2	39			<b>1</b>
	130	379		6.1	19		- 7	39			/
	1	381		0.1	18	ND	2	55			/
	2	382		NO	17	1	3	36			/
1	3	383		ND	21	1	2	47			1
	4	385		NI	19	1	2	48			/
	5	387		0.2	20		2	50			1
	6	7607388		0.7	57	Э	3	48			1
		STD 2		7.0	26	23	-340	210			
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٦	9	7087229	-	6.2	25	j i		30			
	140	7607246		0.2	16		2	39			
		7607262		0.3	20	ND	2	50			
	2	7607277		0.2	22	1	ND	36			
	3	7607290		X	22	1	ź	45			
	4	7607304		0.1	12	1	1	23			
	5	7607317		0.1	33	$\sim L^{\circ}$	3	54			
	6	7607354		6.2	17	X	2	35			
	7	7607368		0.1	13	1	2	30			
	8	7607388		0.6	54	2	ン	46			
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ſ	LAB	SAMPLE Nº.	A	C	ma	Ph	Z.		COMMENTS
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		97	<u> </u>	9		4	- 30	. /	
	<del>.</del>	93		12	1	4	3.8	. /	 
		94	0.7	9	j	- 4	40	11	
	7	95	N	8	1	2	22	. (	
	8	96	A.1	13	1	Ĩ	32		
	9	97	A	15		3	47	. /	
	10	98	0.2	19		१	36		
	<u></u>	7607399	0.2	17	1	2	33	11	
ļ		STD 3		- 33					
t t	3	7607400	0.2	16	1	1	36		
	4	01	0.1	/3	ND	2	28	- 1	
	5	02	0.4	28	1	3	52	- 1	
	6	03	6.1	16	1	2	36	11	
	7	04	0.3	20	1	3	43	, 1	
	8	05	0.2	17	1	4	35	11	
()	9	06	0.0	30	1	5	62	, <b>*</b>	
	20	07		13	1	2	21		
		08	M	9	ND	2	28	11	
ļ	-2-	BLANK		-101	- To h	- 607	- NO		
	3	09	0.4	34	ĺ	6	55		
	4	10	0.4	36	3	Ŷ.	63	11	
	5	//	0.7	63	5	12	84		
	6	12	0.2	20	3	5	52		
	7	/3	0.3	26	3	Ŀj	38	1	
	8	14	0.4	58	2	7	63	1.00	
	9	15	0.4	80	2	4	56		
1	30	17	0.2	43	مر	4	38		
	1	18	6.2	33	2	5	.34		
	2	20	c.3	31	3	5	87	11	
	3	21	0.2	56	2	5	100	· · ·	
	4	24	0.2	36	2	5	54		
	5	26	0.6	87	2	7	113	11	
	6	7607427	0.3	28	2	7	136	11	
	7	28	0.4	26	3	9	45		
	8	29	0.4	13	2	5	73		
	9	30	0.3	23	1	Lj	70	11	
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PARTS PER MILLION

	LAB Nº.	SAMPLE Nº. (NMBR)		Aa	Col	m.	Ph	20			COMMENTS
	4	7607432		0.3	29	2	4	60	1.0		
	2	.33		0.3	34	2	5	88	11		
	3	34		0.2	35	2	5	47			
	4	35		0.3	39	2	7	59	~'Y		
	5	36		0.3	40	3	2	84			
	6	37		6.1	22	ĩ	3	41.	10		
	7	38		D.U	21	1	6	29	15		
	8	.39		0,1	12	ี่เกิ	3	32	11		
	9	42		0.4	48	2	3	47	10	·	
	50	43		0.7	26	3		34	11		
	····· · ·	44		0.3	3.2	 ?		54	11		
	2	7607445		0.8	87	2	7	72	11		
		STD 1				<u>_</u>	-27	820			
	4	7619051		0.1	8	 j	2	21			
	5	53		NI	22	NN	5	24	1.		
	6	55		0.2	13	1	4	42			
	7	56		0.2	27	1	5	37	1		
$\sim$	<u> </u>	59		0.7	113	2	4	70	1 1		
$\bigcirc$	<u>a</u>	100		13	14	1	2	24	- 1		
	60	61		65	23	2	ŝ	35	1 1		
		67		0.3	25	1	4	39	1 -		+
-	2	63		0.2	27	3	4	64	1 -		
		BLANK		- <del>V</del>			-NA				
	4	64		0.7	31	ź	8	63	11		
	5	65	1	0.3	19	}	- 4	65	11		
	6	66	[	6.7	19	1	3	57			
	7	67			22	2	4	120			ļ
	8	68		A. 2	11	ì	. 5	54	1.		
	9	69			16		4	36			
	₹Ω	70	<b> </b>	6.3			4	58	~ ~		
		72	<u> </u>	AU	11	/ . 	4	75			
	2	73		A2	22	nin	रं	28	11		
		74			27	<u>/v_</u> /	3	41	1.1		
	4	75			32		6	43			
		76			17	1	3	3.2			
	6	77	<b> </b>		20	· · · · ·	5	43	1		· · · · · ·
	7	78	<b> </b>	6.4	12	<u>ر</u>	2	28	11		
	- <u>-</u> -	<u>, , , , , , , , , , , , , , , , , , , </u>	····	A 3	15	<u> </u>	1	42	1		
a 15	<u>م</u>	80		611	/9	// }	5	67	1		
$\mathbf{O}$	80	76.19081	<b></b>			<u>ل الم</u>	.3	18	ラア		

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# LABORATORY REPORT

	PARTS PER MILLION											
[	LA 8 N <sup>요.</sup>	SAMPLE Nº. (NMBR)		Aa	Co	Mo	Pb	Zh			COMMENTS	
]	8+	7619082		0.2	6	ND	2	18	11			
	2	83		ND	17	. /	2	25	11			
[	3	87		0.2	37	2	4	36	11			
	4	88		0,2	9	<u> </u>	3	16	11		·	
	5	7619093		0.1		2	Ĺį	23	<u>, '</u> .			
	6	7619102		0.9	54	3	Ć	80	11			
	7	103		c.1		2	2	26				
	8	7619104		0.1	12		2	26	/~			
		7607399		0.1			2	<u> </u>	<b>7</b>			
	90	7607412		0.2	21	2	6	56				
	 	7607420		0.3	30	.2	-4	86				
	2	7607433		0.3	<u> </u>	2	2	87.		<u>_</u>		
	3	7619053		0.7	32		5	27		<u> </u>		
	4	7619065	· · ·	0.4	19			68				
	5	7619076		0.2		$\sum$	3	32				
	6	7619104		0.2			2	_26	<u>-</u>			
	7								which we want to be a set of the			
()	8											
	9									-		
	100											
-	<u> </u>										· · · · · · · · · · · · · · · · · · ·	
	2											
	3											
	4											
	5											
	6											
	7											
:	8											
	9											
	110											
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:	3											
	4											
	5									<u> </u>	· · · · · · · · · · · · · · · · · · ·	
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·	7									·		
	8											
	9											
$\checkmark$	120											

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PARTS PER MILLION

LAB Ng.	SAMPLE Nº. (NMBR)	Ha	Cu	Mo	Pb	Zn			COMMENTS
4	710191.30	 100	11	1	7	120	1 -		
2	/3/	0.4	62	2	8	70	1.1		
3	132	 NU	12	2	4	38	11		
4	133	0.3	46	5	10	134	1.		
5	134	0.1	44	5	4	35			
6	135	 0.3	28	2	4	84	17		
7	136	 6.1	20	2	Ŷ.	36	17		
8	137	0.1	23	1	5	31	1.1		
9	138	0.2	22	2	5	54	11		
50	/39	ND	19		4	42	1		
1	140	ND	13	<b>N</b> P	Ĺ,	39	11	ļ	
5	141	NI)	11	3	7	44	11		
3	142	01	24	1	2	73	11		
4	143	0.1	26	NU	3	47	11		
5	-STD 2.	 -1.0	27	27	340	220			
6	ji-f-4	0.)	17	N'B	5	50	11	L	
7	145	0.8	84	3	11	105	11		
8	146	0.1	35	2	6	53	11		
9	147	0.2	22	1	3	50	1		
100	148	NU	25	1	4	42	$T_{i}$		
1	149	(M)	19	2	<u> </u>	44			
2	150	ND	32	5	<u> 4</u>	47	1 1		<u> </u>
3	153	0.1	11	- 1	5	4)	1 1	<u> </u>	
4	154	0.2	25		4	50	1 1		
	BLANK			ND	Np	ND	<u> </u>	<u> </u>	
6	155	0.1	37	1	4	50	f		
7	156	0.1	35		5	52	1 1		
8	157	0.1	17	ND	4	40	1 1	<u> </u>	
Э	158	0.2	22	ND	5	40	<b>'</b> :		
70	159	0.1	13	NI	3	38	1 1	1	
1	160	NO	12		4	42	1 .	ļ	
2	163	ND	17	2	3	23	11	ļ	
3	164	と))	12		4	20	1 1	ļ	
4	165	N)	26		4	30	1 1	Į	
5	166	NI)	1.2	<u>i</u>	4	24	1 +	<b>_</b>	
6	167	(n)	16	1	3	30	1 1	1	
7	168	0.1	15	<u>()</u>	5	42	· ·		
8	169	(101)	12	ND	A.M	21	1 1	ļ	
9	170	wij	12	ND	2	32	1 1		
80	7619171	NI	7	J	3	20			<u> </u>

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## LABORATORY REPORT

PARTS PER MILLION

	LA Ð Nº.	SAMPLE Nº. (NMBR)		Aa	Co	no	Pb	Z			COMMENTS
	81	7619172		ND	. 91	1	3	24	11		
	2	173		NI	8	2	4	30	1.		
	3	174		NU	11	2	<u> </u>	20	11		,
	4	175		0.1	9	)	5	22	1 1		
	5	176		12))	9	ND	3	24	1 -		
	6	177		0.1	7	ĩ	4	24	- /		
	7	178		0.1	15		5	25	11		
	8	179		<i>6.</i> i	31	i	4	48	- 1		
	9	180		0.1	7	i	3	32			
	90	181		NI	21	i	4	44	~ <		
	 1	182		ND	20		3	38			
	2	/83		MI)	14	1	3	39	11		
	3	184		0.2	22	1	4	50	1 1		
j	4	185		6.2	20	2	4	72	11		
•	5	186		0.1	31	1	3	54	11	-	
	6	STD 3		0.1	33		7	52	~		
	7	187		0.2	44	1	2	43	1.1		
$\cap$	8	188		612	25	)	ス	47	11		
$\mathbf{\nabla}$	9	189		0.1	23	1	3	68	$\sim$		
	100	/90		ND.	19	I.	3	3.5			
	1	191		0.1	18	<u> </u>	3	58			
	2	192		0.2	24	í	3	64	1		
	3	195		ND	33	2	4				
	4	196		0.1	1.5	3	ÿ	46		<b>_</b>	
	<sup>-</sup> 5	197		0.2	21	1	5	46	1 1		
	م	BLANK		NI	~~~p						
	7	198		0.1	15	Ĭ	3	38	1 1		
	8	199		NI	29	3	Lj	33	1 1		
	9	76192.00		0.6	46	4	6	92	1 1		
	110	201		0.4	3.2	4	7	- 84			
	1	203		0.2	16		4	108	1.1		
•	2	204		01	29	<u> (</u> א	2	47	/ /		
	3	205		ND	22	ND	4	48	/ /		
	4	206		NUD	17	NII.	5	36	341	r	
	5	207	L	NA	17	ND	4	- AL	36-	1	
	6	208		WD	23	N	4		40-	-	
:	7	.2.09	<b>.</b>	ND	12	NI	3	to	34	<b>.</b>	
:	8	2.11		ND	10	i	3	<u>84</u>	20 -	-	
()	. 9	212		(N)	20	1	3	28	34-	,	
$\sim$	120	7619213		ND	14		4	び	281	· ·	

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PARTS PER MILLION

LAB Nº	SAMPLE Nº. (NMBR)		A	C.	mo	Pp	2			COMMENTS
8	7619172	1	NI	- 9	1	3	24	11		
2	/73		NI	8	2	4	30	1.		
3	174		NU	11	2	<u> </u>	20	11		
4	175		0.1	9	, T	5	22	1 - 1		
5	176		N))	9	ND	3	24	1 -		
6	177	Í	0.1	7	Ĭ	4	24			
7	178		0.1	15	1	5	25	11		·
8	179		0.1	31		4	48	- 1		
9	180		0.1	7.	il	3	32			
90	181		NI)	21	il	4	44			
	182		NH)	20	1	3	38			
2	/83		NI	14	;	3	39	1 1		
3	184	—— İ	6.2	22	1	4	50	1 1		
4	185		6.2	20	2	4	72	11		
5	186		0.1	31	1	3	54	11		
1-6	STD 3		0.1	- 33		7	52	~		
7	187		0.2	44	1	2	43			
8	188		6,2	25	1	2	47	11		
9	189		6.1	23	1	3	68	11		
100	/90		NII	19	i	3	35			
1	191		0.1	18	Ţ,	-3	58			
2	192		0.2	24	1	3	64			
3	195		ND	33	2	4	38	11		
4	196		0.1	1.5	3	Ü	46			
5	197		0.2	21		5	46	1 1		
	BLANK		11	~~p			<del>60</del>			
7	198		0.1	15	1	3	38	11		
8	199		N))	29	3	Lj	33	1 1		
9	7619200		0.6	46	4	6	92	1 1		
110	20/		0.4	3.2	4	7	84			
	203		0.2	16	1	4	108	, ,		
2	204		01	29	() vi	.2	47	11		
3	205		ND	32	NI	4	48	1 /		
4	206		(UN	17	N.N	5	36	34-	+	
5	207		พฏ	17	ND	4	40	31	/	
6	208		WI)	23	Ni	4	<u>A</u>	40-	~	
7	209		N1)	12	NII	3	.#0	34	~	
8	211		N)	10	Ì	3	BV	20 -	-	1
9	2/2		Ni)	34	1	3	3k	34 -	-	· · · · · · · · · · · · · · · · · · ·
120	7619213		NN)	14	,	4	65	281		

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PARTS PER MILLION

ſ	LAB N2	SAMPLE Nº.		Ac	Cu	mo	Ph	Zn			COMMENTS
ł	12.	7619216		0.7	83	3	9 E	65	. (		
ŀ	2	217		0.1	11		2 9	27			
		218		0.1	12	2	43	3)			
ł	⊿	219		ND	12	1.	4 4	26			
	5	220		A.J	10	1	3 54	42			
	 6	221		Na	10	1	3 %	25			
ł	7	222					2 3	33			
	8	223		~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	11	ND	3 2	43	1		
	9	274		<u> </u>	18	í	33	24	1 1		
	130	225		_ي	9	1	3 \$	26	1. 1		
	<u>_/</u>	226		NI)	15	j	3 3	41			
	~ ~	227		(تىم	16	1	48	41	11		
		228		ND	36	1	44	40	1.1		
	4	229	· · · ·	2	28	1	34	64	1 1		
	5	2.30		N))	34	1	23	42	1.1		
	6	232		NUP	21	i	3 2	40	1.1		
		STD-1		- NP			25-4	740			
$\cap$	8	233		0.1	41	}	4 25	71	17		
$\bigcirc$	9	234		NI	14	1	34	31	1 .		
	140	235		กาม	16	)	33	26	1		
	- <b>//</b> -	236		NP	12	2	4	35			
	2	237		ND	18	ND)	2	33			
	3	238		1.10	18	Ĩ	2	34	1 1		
	4	239		6.2	15	1	4	42	1		
	- 5	240		0.2	22	1	4	71	1 1		
	6	242		NI	17	1	4	42	1 1		
	-7-	BLANK-		NU		- ~ 12	- NI)	ND			
	8	243		(1)	65		Ĺj	68	1		
	9	244		A.1	8	とつ	6	29			
	150	245		0.2	22		6	50	1 1		
	۱.	246		0.2	15	1	5	92	1 -	[	
	2 <sup>,</sup>	247		NI)	26	)	4	42	1.1		
	3	248		ND	27	ろ	2	52	1 1		
	4	24-9		0.3	43	}	4	57	1.1		
	5	250	P .	N))	23	ND	3	32	1.1		
	6.	251		wp.	22	<u> </u>	3	34	11	ļ	
	7	252		N P	36	}	5	38	· · ·	ļ	
	8	7619253		WI)	24	ND	3	41	1 1	L	
6		7619100		-101>		- NO		36	<u>-</u>	L	
<b>K</b> _2	160	76-19119		100	12	NI	4	24	<u>†</u>	1	

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	PARTS PER MILLION												
LAB Nº.	SAMPLE Nº (NMBR)		Aq	Cu	Mo	Pb	Zu	-		COMMENTS			
161	7619136		0.1	18	2	3\$	3.2						
2	7619779		8.1	18	2	4.8	39						
3	7619167		6.1	14	ND	24	27						
4	7619182		ND	18		22	35						
5	7619199		(וא	X	3	62	32						
6	7619217		6.L	12	4	35							
7	7619228		0.1	36	<b>)</b> -	43	40						
8	7619239		0.2	15	1	54	40						
9	7619253		ND	24		35	38	/					
170								•					
1													
2		1											
3													
4													
5													
6				-									
7													
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180								· · ··································					
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## LABORATORY REPORT

PARTS PER MILLION



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1				PA	RTS F	PER P	VILLION			 
	LAB Nº.	SAMPLE Nº. (NMBR)		Cul	Me					COMMENTS
	121	7619702		19	1	1				
	2	03		21	NO	1				
	3	04		19	1	5				
	4	05		10	1	1				
	5	07		11	1	1				
	6	08		19	ND	1				
	7	09		33	ĩ	1				
	8	10		14	1	1				
	9	//		24	ND				· ·	
	130	/2		61	ND	1				
	1	14		19	ND	1				
	2	15		23	NI			1		
	3	17		16	ND	1				
1	4	19.		20	<u> </u>	2				 
	5	21		20	NA	/				
	÷	STD-2-		-26	25					 
	7	23		19		1	·			
	8	25		21	NO	~				,,,,,,, _
	9	27		15	n n	2				
	140	29		24	1	<u></u>				
	1	31		28	1					
	2	33		28	Ì	~				 
	3	35	·	20	1	1				
	4	37		36		<i>J</i>				 
	5	39		39	<u> </u>	7				
	م	BLANK		- <u>A12</u>	ND					
	7	40		23	NO	1				
1	8	42		17	NÍ	~				
	9	44		44	NO	-				
	150	46		43	1	1				· · · · · · · · · · · · · · · · · · ·
		48		15	NÌ			<u> </u>		 
	2	50		22	NI					
	3	52		17	NI	· · · ·				 
	4	54		24	.1	1		<b></b>		
	5	56			MD			L		· · · · · · · · · · · · · · · · · · ·
-	6	58		14	NI					
	7*	60		26	ND					 
	8	62		15	NI					
	9	64		36	1					 
1	160	7619765		19	NO			· · ·		

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PARTS PER MILLION

ſ		SAMPLE Nº.		Cu	ma						COMMENTS
ŀ		7619836		36	2	- N.					
ł	2	52		26	1						
	3	54		61	1						
	4	56		32	1	7					
Ì	5	58		18	ND	V.					
Ì	6	60		17	ND.	ЗЛ стра					
Ì	7	62		35	1	× ,					
	8	78		19	NN	7			·		
	9	82		27	1						
	10	87		24	1	i i					
	i	7619889		36	<u> </u>						
[	2	7619918			ND.	v					
	3	20		12	NA	/					
		STDT		17	1						· · · · · · · · · · · · · · · · · · ·
	5	22				`					
	6	24	<b></b>	27	1.						
	7	26		19		2					
()	8	28		16							
$\sim$	9	30		-44	- R						· ·
	20	32		42	<u> </u>	· · · · · · · · · · · · · · · · · · ·				<b></b> .	
	1	34		- 44	<u>[</u>						
	2	38	<b></b>	8		·					······
	. 3	40		20	5						
		BLANK		<u></u>	<u></u>						
	5	42		10	· · · / _			· · · · · ·			
	6	44	<b> </b>	- 13.2	NO						· · · · · · · · · · · · · · · · · · ·
	7	48			<u>(</u>	ļ				<u> </u>	
	8	50		$\frac{J\chi}{\chi}$	<u></u>						
i	9	52		17							
	30	54	·	~0					. <u></u>		
	<u> </u>	56		K.<	/	<. :				<u> </u>	
	2	38	╂	<u> </u>		·					· · · · · · · · · · · · · · · · · · ·
	3		· · · · · · · · · · · · · · · · · · ·	<u>14</u>	1.1	<u> </u>					
	4	<u>87</u>			2	· · ·	┠		·		
	5	01		<u>38</u> 117	<u>र</u> २						
	<u></u> 7	7/		<u> </u>			<b></b>				· · · · · · · · · · · · · · · · · · ·
		45	<b> </b>	21	····	<u>                                     </u>					<u></u>
		97		<u></u>	<u> </u>						· · · · · · · · · · · · · · · · · · ·
U	40	7/019999		7	<u> </u>						
-	40	17619999	1	7	/			l			<u> </u>

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PARTS PER MILLION

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	LAB Nº	SAMPLE Nº. (NMBR)		Col	Mo				ļ		COMMENTS
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### ILLUSTRATIONS

Location Map	-L-6433
Geochemistry Cu, Mo Results in ppm	-G.C8480
Geochemistry Cu, Mo Results in ppm	-G.C8479
Soil Sample Locations	-G.C8477
Soil Sample Locations	-G.C8478

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