

DIAMOND DRILL HOLE REPORT
FOR GROUP XIII, 14 AND XI, ON JEFF
37-40, 90-92, 94, ANDREA, SVEA AND STU:
LIN 11, 39, 40, KRIS 1-9, 11-16 AND CGL 1, 2;
AND JEFF 63, 64, 101-116, 135-138
AND MOE 1 MINERAL CLAIMS

Liard Mining Division
104 I / 1W
58° 12' N; 128° 21 W

for

Esso Minerals Canada
#314-1281 W. Georgia
Vancouver, B.C.

by

Dane A. Bridge

September 5, 1978

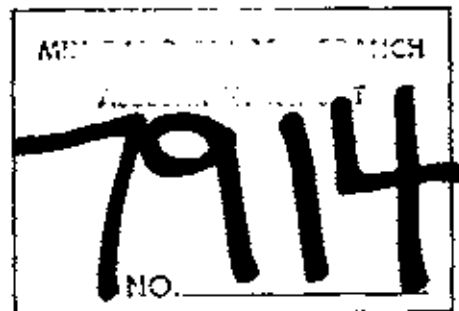


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DDH 72 48 pages	
72 B1 22 pages	
73 51 pages	
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74 5 pages	
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78 14 pages	
MAPS:	
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DIAMOND DRILL HOLE REPORT
FOR GROUP XIII, 14 AND XI, ON JEFF
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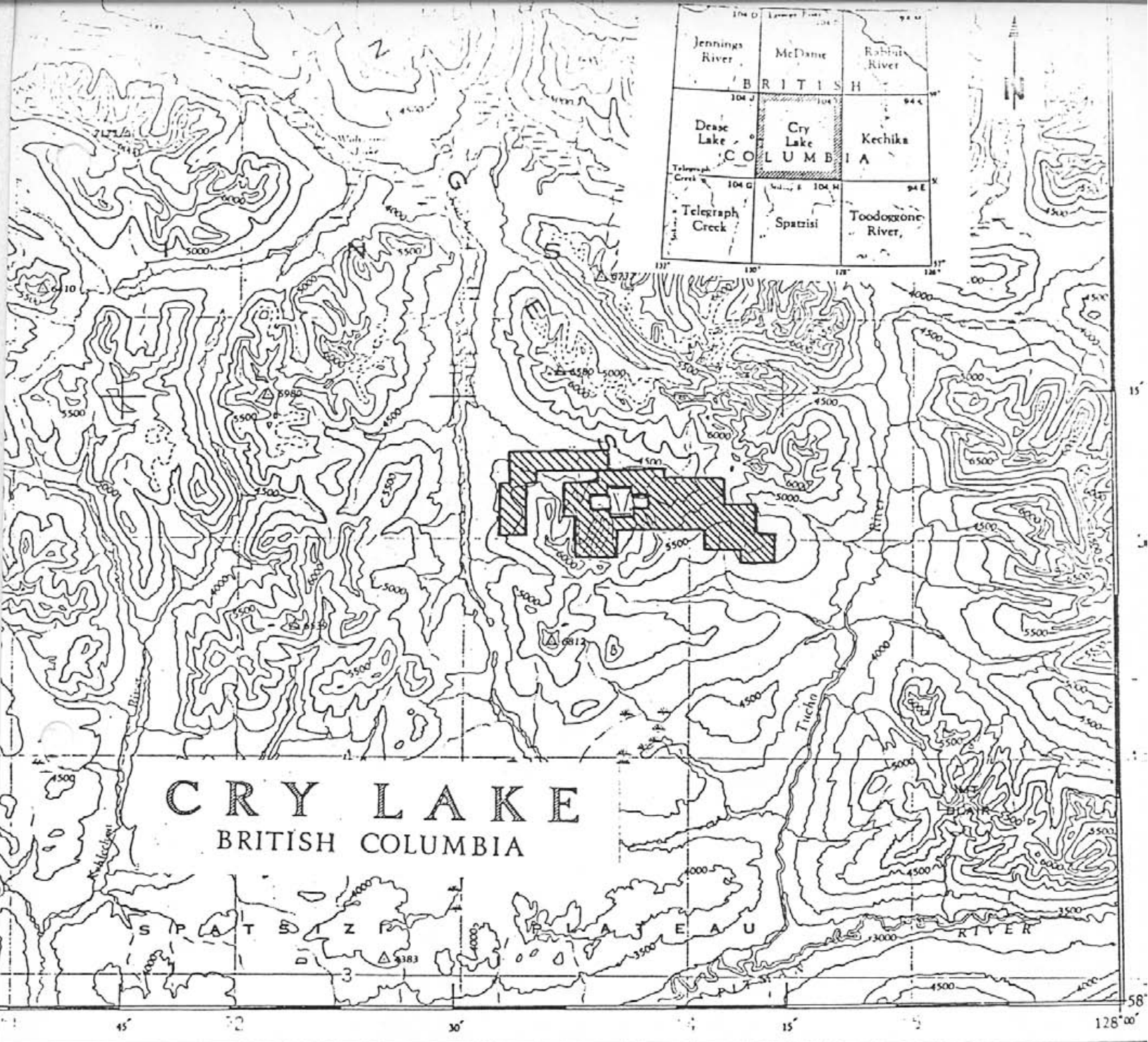
INTRODUCTION

The Kutcho Creek property is located in mountainous terrain in the Cassiar Mountains. The exploration camp is located at an elevation of 1530 m on the south side of a tributary of Kutcho Creek. Exploration is done at or above tree line from elevations of 1500 to 1650 m.

The property is centered about 21 km south-south-east of Rainbow Lake and 9 km east-south-east of the Kutcho Creek airstrip. Access is by plane to the airstrip from Watson Lake, Yukon and from the strip to camp by helicopter. The location of Esso Mineral's claims is shown on Index Map No. 1.

The property is owned and operated by Esso Minerals Canada.

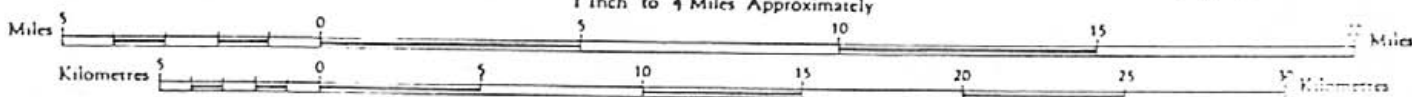
This report documents 2828.3 m of BQ diamond drilling in 8 holes on claims Jeff 92, 94, Kris 12 and Jeff 110.

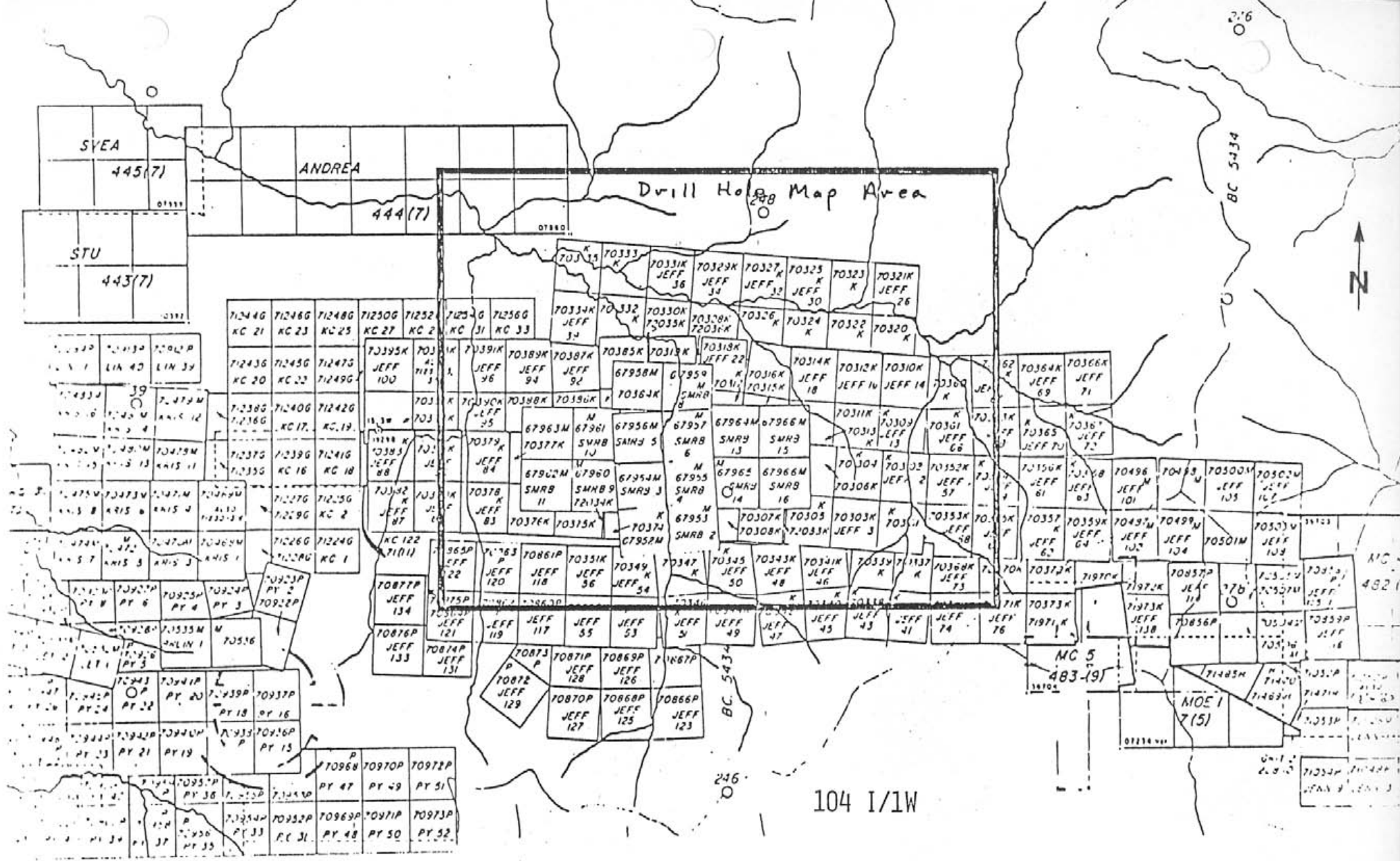


INDEX MAP NO. 1: LOCATION OF ESSO
MINERALS CANADA'S KUTCHO CREEK
MINERAL CLAIMS IN 104 I.

Scale 1 : 250,000
1 Inch to 4 Miles Approximately

- i -





INDEX MAP FOR GROUP XIII LOCATION OF
DIAMOND DRILL HOLE MAP

ANDREA
444 (7)

248

216

BC 5234

128° 15'

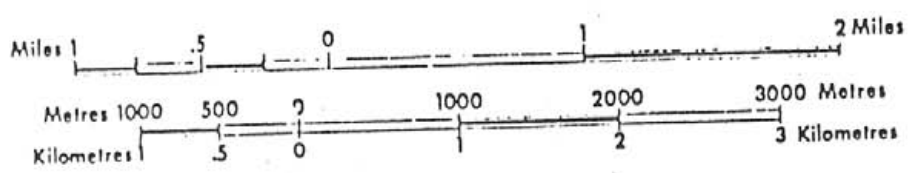
104 I/1W

Drill Hole Map Area

MC 4
482 (9)

MC 5
483 (9)

MOE 1
7 (5)



INDEX MAP FOR GROUP XI LOCATION OF DIAMOND DRILL HOLE MAP

GEOLOGY

Mineralization at Kutcho Creek consists of stratiform, volcanogenic massive pyrite with base metal sulphides. The sulphides occur near the transition from volcanic to mixed volcanic and sedimentary rocks within the Triassic or older Kutcho assemblage.

The following is a description of the lithologic units encountered in drilling on the Kutcho property. They are arranged from youngest to oldest which is the sequence in which they are encountered in drilling. The quoted thicknesses are the maximum apparent true thicknesses encountered in drilling prior to 1978 or an estimate:

Limestone, 125 m

Massive recrystallized limestone.

Conglomerate, 100 m

Strongly foliated polymictic conglomerate composed of clasts derived from the volcanic pile.

Tuff Argillite Unit, 350 m

This unit represents a transition from the underlying silicic volcanic rocks to graded water-lain tuffs, argillite, siltstone and epiclastic rocks. It consists mainly of quartz \pm chlorite \pm sericite schist with abundant 1 to 3 mm

and up to 10 mm quartz phenocrysts. This is interbedded with fine argillaceous laminations to thick sections of graphitic argillite. Higher in the unit the main lithology is fine-grained and is probably a siliceous siltstone containing minor biotite.

Metagabbro, variable thickness

A group of rocks loosely called metagabbro and including hornblendite, chlorite-actinolite-sericite schists and feldspar porphyries, has intruded the section from the base of the conglomerate to slightly below the massive sulphide horizon. It is most abundant within the tuff argillite unit and commonly occupies > 50% of that stratigraphic interval.

Rhyolite Tuff Unit, 135 m

A rhyolitic to dacitic lapilli tuff consisting of closely-packed elongate fragments. Minor quartz phenocrysts occur throughout and locally the unit contains crystal tuffs. Colors vary from cream to medium green and from pink and purple to hematite.

Quartz Feldspar Crystal Tuff, 200 m

A homogenous quartz [±] feldspar + sericite [±] chlorite [±] carbonate schist with abundant quartz phenocrysts, commonly up to 1 cm, and fewer small plagioclase phenocrysts.

The quartz phenocrysts are sub-rounded and partly replaced by dolomite. The plagioclase phenocrysts are heavily altered to sericite and dolomite.

Locally the unit consists of a coarse breccia with fragments up to 1 meter. The fragments and matrix are texturally similar to crystal tuff. Clinozoisite and epidote are commonly abundant in the breccia phase.

The quartz feldspar crystal tuff unit and rhyolite tuff unit occur at a similar stratigraphic level and probably interfinger. Crystal tuff is more common directly overlying massive sulphide lenses. Rhyolite tuff commonly occurs north of the massive sulphide lenses and in part overlies the crystal tuff unit.

Sericite Schist, 300 m

A rhyolitic lapilli tuff metamorphosed to quartz + sericite + chlorite + carbonate schist. The unit consists of lustrous, white to medium green schists with a relict fragmental texture and rare, fine quartz phenocrysts.

A quartz-chlorite schist and a rhyolite breccia horizon have been observed near the middle of the sericite schist unit.

Dolomite lenses are common within the upper 30 m of the sericite schist unit and at the top of the massive sulphide horizon.

Massive Sulphide Horizon, 29 m

A main massive sulphide lens and thin, discontinuous, hanging wall lenses occur near or at the top of the sericite schist unit. Mineralization consists of massive and disseminated pyrite with disseminated sphalerite, chalcopyrite, bornite and chalcocite.

Disseminated pyrite with a very minor base metal content occurs in the sericite schists below the massive sulphide body.

DIAMOND DRILLING

The purpose of the drill holes discussed in this report was to intersect the massive sulphide horizon. A brief description of the geology and results of each hole is given. The detailed drill logs are in the Appendix.

The drill core is stored on the property. The massive sulphide intersections are stored at 1281 West Georgia Street, Vancouver.

DDH 72:

0.0 - 4.9 m	Overburden
4.9 - 83.7	Conglomerate
83.7 - 119.7	Metagabbro
119.7 - 551.7	Tuff Argillite Unit and Metagabbro
551.7 - 591.0	Quartz Feldspar Crystal Tuff
591.0 - 613.0	Rhyolite Lapilli Tuff
613.0 - 651.7	Sericite Schist

Mineralization:

619.4 - 622.2: 1.19% Cu, 0.08% Zn, 0.02% Pb,
0.20 oz/ton Ag, 0.002 oz/ton Au

DDH 72 intersected the massive sulphide horizon down-dip from, or to the north of economically significant sulphide mineralization.

DDH 72 B1:

0.0 - 236.1 m	Tuff Argillite Unit and Metagabbro
236.1 - 253.8	Quartz feldspar Crystal Tuff
253.8 - 296.4	Rhyolite Lapilli Tuff
296.4 - 315.8	Sericite Schist

Mineralization:

305.7 - 310.8: 0.26% Cu, 0.21% Zn, 0.04% Pb,
0.26 oz/ton Ag, 0.005 oz/ton Au

DDH 72 B1 intersected the massive sulphide horizon down-dip from, or to the north of economically

significant sulphide mineralization. It is a branch hole from DDH 73 wedged from a point 307.8 m below the collar of DDH 73.

DDH 73:

0.0 - 1.2 m	Overburden
1.2 - 39.5	Conglomerate
39.5 - 93.7	Metagabbro
93.7 - 456.0	Tuff Argillite Unit and Metagabbro
456.0 - 528.8	Quartz Feldspar Crystal Tuff
528.0 - 548.0	Massive Sulphides and minor interbedded tuff
548.0 - 622.6	Sericite Schist

Mineralization:

529.7 - 550.9: 4.85% Cu, 7.27% Zn, 0.24% Pb,
2.32 oz/ton Ag, 0.012 oz/ton Au

DDH 73 intersected massive sulphides.

DDH 73 B1:

0.0 - 163.1 m	Tuff Argillite Unit and Metagabbro
163.1 - 234.1	Quartz Feldspar Crystal Tuff
234.1 - 235.3	Rhyolite Lapilli Tuff
235.3 - 252.7	Massive Sulphides and Interbedded dolomite and tuff
252.7 - 278.6	Sericite Schist

Mineralization:

235.3 - 252.7: 2.59% Cu, 7.39 % Zn, 0.47% Pb,
1.24 oz/ton Ag, 0.018 oz/ton Au

DDH 73 B1 is a branch hole from DDH 73 wedged from DDH 73 at the 292.0 m point of DDH 73. It intersected massive sulphide approximately 24 m up-dip or to the south of the intersection in DDH 73.

DDH 74:

0.0 - 6.0 m	Overburden
6.0 - 73.8	Conglomerate

DDH 74 was abandoned at 73.8 m due to excessive flattening. DDH 75 was collared at the same location.

DDH 75:

0.0 - 5.8	Overburden
5.8 - 84.3	Conglomerate
84.3 - 519.1	Tuff Argillite Unit and Metagabbro
519.1 - 559.7	Quartz, Feldspar Crystal Tuff
559.7 - 580.2	Rhyolite Lapilli Tuff
580.2 - 583.3	Quartz Feldspar Crystal Tuff and Rhyolite Lapilli Tuff
583.3 - 610.2	Sericite Schist

Mineralization:

584.8 - 597.0: 0.74% Cu, 0.37% Zn, 0.03 % Pb,
0.52 oz/ton Ag, 0.013 oz/ton Au

DDH 75 intersected minor disseminated chalcocpyrite of the massive sulphide horizon down-dip from, or to the north of the intersection in DDH 73.

DDH 76:

0.0 -	3.7 m	Overburden
3.7 -	8.7	Argillite
8.7 -	450.5	Conglomerate
450.5 -	597.4	Tuff Argillite Unit and Metagabbro

DDH 76 intersected a structurally thickened section of conglomerate and was abandoned at 597.4 m. The hole was collared in argillite which is probably the base of the Inklin Formation. The limestone normally overlying the conglomerate was probably pinched-out by folding.

DDH 78:

0.0 -	7.6 m	Overburden
7.6 -	135.8	Metagabbro
135.8 -	148.7	Rhyolite Lapilli Tuff
148.7 -	148.8	Massive Sulphides
148.8 -	178.6	Sericite Schist

Mineralization:

148.7 - 148.8: 0.03% Cu, 0.02% Zn, 0.03% Pb,
0.18 oz/ton Ag, 0.002 oz/ton Au

DDH 78 intersected a thin massive sulphide zone which appears to be stratigraphically equivalent to the massive sulphide horizon.

COST STATEMENT #1 FOR GROUP XIII

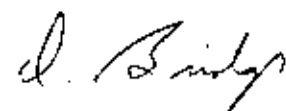
Dates Drilled: June 25 to July 25, 1978

Holes Completed:	DDH 72	651.7 m
	DDH 73	622.6 m
	DDH 73 B1	278.6 m
	DDH 74	73.8 m

Holes Not Completed:	DDH 72 B1	289.0 m
	DDH 75	136.6 m

Direct Drilling Costs:

1730 ft. at \$ 12.20/ft.	\$ 21,106.00
1042 ft. at 12.70/ft.	13,233.40
1990 ft. at 13.20/ft.	26,268.00
1820 ft. at 13.70/ft.	24,939.00
286 ft. at 14.20/ft.	4,061.20
Labour: 537 hr. at \$15.50/hr.	8,323.50
Wedges & Casing:	1,950.00
Assay Costs: 28 at \$35	980.00
Fuel: 2160 gal. @ \$2.25/gal.	4,860.00
Helicopter: 90% of 71.1 hr @ \$250/hr.	15,997.50
Helicopter Fuel: 1440 gal. @ \$2.25/gal.	3,240.00
Helicopter: 3.2 hrs. @ \$700/hr	2,240.00
Helicopter Fuel: 144 gal. @ \$2.25/gal.	324.00
Geologist: 31 days @ \$65	2,015.00
Geologist: 31 days @ \$48	1,488.00
Assistant: 31 days @ \$35	1,085.00
First Aid Person: 31 days @ \$53	1,643.00
Camp Costs: 434 man-days @ \$20	8,680.00
	<u>\$142,428.60</u>



COST STATEMENT FOR GROUP 14

Dates Drilled:	July 27 to August 14, 1978	
Hole Drilled:	DDH 76	597.4 m
Direct Drilling Costs:		\$ 25,352.00
Labour:	92 hrs. @ \$15.50/hr.	1,426.00
Mini-Deve and Casing:		3,324.00
Fuel:	706 gal. @ \$2.25/gal.	1,588.50
Helicopter:	22 hrs. @ \$250/hr.	5,500.00
Helicopter Fuel:	495 gal. @ \$2.25	1,113.75
Geologist:	10.5 days @ \$65	682.50
Assistant:	10.5 days @ \$35	367.50
First Aid Person:	10.5 days @ \$53	556.50
Camp Costs:	126.5 man-days @ \$20	2,530.00
		<u>\$ 42,440.75</u>

COST STATEMENT FOR GROUP XI

Dates Drilled:	August 11, 1978 - August 15, 1978	
Hole Drilled:	DDH 78	178.6 m
Direct Drilling Costs:		\$ 7,192.20
Labour:	122 hr. @ \$15.50/hr	1,891.00
Casing:		300.00
Fuel:	158 gal. @ \$2.25/gal.	355.55

J. Birdy

COST STATEMENT FOR GROUP XI (Cont'd.)

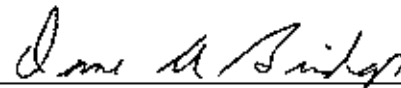
Helicopter:	13 hr. @ \$250	\$ 3,250.00
Helicopter Fuel:	290 gal. @ \$2.25/gal.	652.50
Geologist:	2 days @ \$48	96.00
Assistant:	2 days @ \$35	70.00
First Aid Person:	2 days @ \$53	106.00
Assays:	2 @ \$20	40.00
Camp Costs:	30 man-days @ \$20	600.00
		<hr/>
		\$ 14,553.25
		<hr/> <hr/>

D. Bailey

STATEMENT OF QUALIFICATIONS

I, Dane A. Bridge, of West Vancouver, British Columbia, hereby certify the following qualifications:

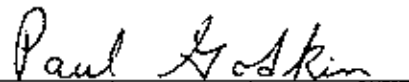
- (a) I obtained a B.Sc. Hons., in 1969, and a M.Sc., in 1972, in geology from the University of Manitoba, Winnipeg, Manitoba
- (b) I have been practising my profession as a geologist in Canada for ten years.



Dane A. Bridge, Geologist
Esso Minerals Canada

I, Paul A. Godkin, of Morris, Manitoba, hereby certify the following qualifications:

- (a) I obtained a B.Sc. Hons., in 1977, in geology from the University of Manitoba, Winnipeg, Manitoba
- (b) I have been practising my profession as a geologist in Canada for one year.



Paul A. Godkin, Geologist
Esso Minerals Canada



LEGEND FOR DETAILED DRILL LOGS

The detailed drill logs are at a scale of 1 inch to 10 feet. All main units have been converted to metres.

The following is a list of abbreviations used in the drill logs:

aph	aphanitic	ls	limestone
arg	argillite	med	medium
b	bedding	mgb	metagabbro
brn	bornite	pheno	phenocryst
bx	breccia	plag	plagioclase
c > s	schist with chlorite > sericite	po	pyrrhotite
c > > s	schist with chlorite >> sericite	py	pyrite
cal	calcite, calcareous	QFCT	Quartz Feldspar Crystal Tuff
carb	carbonate	qz v	quartz vein
cgl	conglomerate	rhy	rhyolite
clino	clinozoisite	s > c	schist with sericite > chlorite
chl	chlorite	s >> c	schist with sericite >> chlorite
cp	chalcopyrite	s ^ c	schist with sericite ^ chlorite
dac	dacite	ser	sericite
dk	dark	sph	sphalerite
dolo	dolomite	trh	tetrahedrite
ep	epidote	v.f.g.	very fine-grained
fd	folded	w	with
feld	feldspar	xline	crystalline
f.g.	fine-grained		
f	foliation		
fr	fracture		
frag	fragment		

IMPERIAL OIL LIMITED
MINERALS SECTION
DRILL LOG

PROJECT <p style="text-align: center;">Kutchu Creek</p>	GROUND ELEV. <p style="text-align: center;">1472 m</p>
HOLE NO. <p style="text-align: center;">72</p>	BEARING <p style="text-align: center;">180°</p>
LOCATION <p style="text-align: center;">36140 E ; 23,475 N claim: JEFF 92</p>	DIP <p style="text-align: center;">-90°</p>
LOGGED BY <p style="text-align: center;">D. Bridge</p>	TOTAL LENGTH <p style="text-align: center;">2138' 651.7 m</p>
DATE <p style="text-align: center;">June 29 - July 13, 1978</p>	HORIZONTAL PROJECT <p style="text-align: center;">301.4 m</p>
CONTRACTOR <p style="text-align: center;">Arctic Diamond Drilling</p>	VERTICAL PROJECT <p style="text-align: center;">541.5 m</p>
CORE SIZE <p style="text-align: center;">8φ</p>	ALTERATION SCALE 
DATE STARTED <p style="text-align: center;">June 25 (mob.), June 28 (drilling)</p>	TOTAL SULPHIDE SCALE 
DATE COMPLETED <p style="text-align: center;">July 12, 1978</p>	LEGEND
DIP TESTS	
COMMENTS	

PAGE 1 OF		PROJECT:			HOLE NO. 72						
DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION		ALTERATION					
				metres	feet	A	B	C	D	E	FRACT INTENSITY
				0.0 - 4.9	0.0 - 16.4	overburden					
				4.9 - 83.7	16.0 - 279.6	conglomerate					
20					16.0 - 29.5	heavily limonite stained and fractured					
					16.0 - 169.2	siliceous cgl., cream to med green colored, composed of closely packed rounded clasts of acid to intermediate volcanic rocks, clast size fine to 3cm, some to 10-15 cm, round to elongate, mainly sub-round.					
40						cgl is well foliated, foliation wraps around clasts and is variable in its orientation					
					160 - 200.0	mainly light colored cgl					
60					60.0 - 96.0	mainly med green cgl w. minor chlorite, trace epidote in matrix					
						most of the larger clasts have a porphyritic texture					
80											
90											

A. Budy

PAGE 2 OF		PROJECT:							HOLE NO. 72	
MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	INTERVAL	WIDTH	ASSAY NUMBER	%	%	%		COMPOSITE ASSAYS	
		20								
		40								
		60								
		80								

D. Bitz

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
				metres						
100				90.0 - 110.5: mainly off-white colored sgl						
120				Foliation variable						
140				141.0 - 144.5: arenaceous section w. avg. clast size ~ 5mm						
160				160.2 - 177.9: medium green arenite to siltstone, locally gritty, uniformly foliated at 35° to core						
180										

J. Bridge

PAGE 4 OF		PROJECT:						HOLE NO. 72	
MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	INTERVAL	WIDTH	ASSAY NUMBER	%	%	%	COMPOSITE ASSAYS	
		100							
		120							
		140							
		160							
161.0' - 162.9' avg 21% py, - miner. py, stonage grains on foliation.									
		180							

D. Bailey

PAGE 5 OF		PROJECT:				HOLE NO. 72					
DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY	
					A	B	C	D	E		
				@ 180' : losing water							
200				197.9-210.0 : cgl. w. minor biotite in matrix							
220				210.0-219.6 : medium green siliceous cgl w. variable foliation, matrix is slightly more chloritic than upper sections							
240											
260											

D. Bird

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
220				83.7-119.7 274.6-392.7 : meta gabbro 274.6-300.0 : Felsic mgb mainly dark green, weakly foliated mgb w. 25% tubular to sub-rounded plag phenos and 20% amphibole. plag phenos vary from gray-green to light green and heavily epidote altered, commonly elongate, 2-4 mm wide and 5-15 mm long. amphibole mainly fine-grained subhedral. minor quartz veins on fractures and foliation.						
300										
320										
340				300.0-392.7: meta gabbro very dark green, uniform, massive, basic mgb, contains 10-15% visible plag as 1-2 mm irregular grains, & 25% weakly chloritized amphibole.						

20 cm 02 v.

A. Bridg

DEPTH (FEET)	% Core Recovery	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
380										
390										
400				119.7-141.9 392.7-465.6 siltstone very hard, compact arenaceous siltstone, dark purplish brown w. minor biotite possible bedding, numerous indistinct miner fields, minor fine to coarse qz veins. 422.0-436.0 transition to light gray arenaceous siltstone and pale green, blocky w. bio.						
420				67 80-90 b 65-60 b 50 b 35-40 430.0-465.6 bedding and foliation parallel 436.0-465.6 arenaceous siltstone or quartzite, alternating greenish brown and white bands w. fine black biotite laminations						
440										

D. Bailey

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
440										
460				<p>652-55 141.9-216.6 145.6-210.5 - metagabbro dark gray green w. commonly 10-35% subhedral, slightly chloritized hornblende grains, locally minor tabular plagioclase phenocrysts. mainly weakly foliated, minor thin qz veins.</p>						
480										
500										
520				<p>519.0-525.0 1-2 cm qz vein parallel to core axis, msh. bleached along contact</p>						
540										

D. Bridge

PAGE 12 OF		PROJECT:							HOLE NO. 72	
MINERALIZATION DESCRIPTION		TOTAL SULPHIDE	INTERVAL	WIDTH	ASSAY NUMBER	%	%	%	COMPOSITE ASSAYS	
1300 - 1620 : trace py, sp		[Vertical scale with 460 marked]	460							

J. Bidy

DEPTH (FEET)	% Core Recy.	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
560										
580										
600										
620										



535.0 - 705.0 : very weakly foliated

609.0 - 659.0 : minor to 1.5 cm gr veins commonly at 10-20° to core axis

J. B. [Signature]

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	INTERVAL	WIDTH	ASSAY NUMBER	%	%	%	COMPOSITE ASSAYS	

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
640			pink calcite 92 v							
660			92 v, 2 hem	6510 - 6590: chl mms on ga.v.						
680			25cm ga.v. ga.v.	6620 - 6780: chl on frs.						
700			2cm ga.v.	6720 - 6820: bleached mgb						
720			3cm ga.v.	7020 - 710.5: bleached mgb w. 20% euhedral chloritized hb phenocrysts						
			216.6 - 221.1	710.5 - 889.4: water-lain buff and minor arenite.						

D. Brady

PAGE 16 OF		PROJECT:							HOLE NO. 72	
MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	INTERVAL	WIDTH	ASSAY NUMBER	%	%	%	COMPOSITE ASSAYS		
215.5 - 220.0: 1% py, fine elongate grains and minor patches, to ep, py										

D. Bridge

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
216.1 - 271.1				710.5 - 889.7: water-lain tuff, minor aeneitic 710.5 - 716.2: gray and green tuff mainly bleached to off-white, minor black biotite						
740				716.2 - 889.4: mainly medium to light green, aphanitic to very fine grained water-lain tuff lesser gray v.f.g. and gray fine- to med-grained sections well bedded, bedding commonly only visible at grain-size change, partly foliated or - foliation // to bedding						
760				716.2 - 7570: mainly green tuff 7570 - 7790: mainly gray and gray green, slightly coarser grained, speckled tuff						
				minor off-sets						
780				7740 - 8205: mainly light-med green v.f.g. to f.g. tuff						
800				hole making water @ 800'						

D. Budy

PAGE 18 OF		PROJECT:							HOLE NO. 72		
MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	INTERVAL	WIDTH	ASSAY NUMBER	%	%	%	COMPOSITE ASSAYS			
729.0 - 732.0											
734.0 - 740.0		740									
750.0 - 752.0											

D. Bridges

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY	
					A	B	C	D	E		
820			31-40 40-50								
				827.0 - 833.0: minor variations and effects - bedding							
				837.5 - 838.0: coarse section with clasts up to 20-3 mm at base, to anorthite w 1-2 mm grains							
860			838-840 840-845 845-850 850-855 855-860								
				872.0 - 889.4: minor dissem. black biotite along foliation							
900			2741-277.8 889.4 - 911.5	metagabbro medium gray-green, well foliated w 20% fine irregular to mod. coarse folular plag phenos, = 20% elongate							

A. Bridg

PAGE 20 OF	PROJECT:	HOLE NO. 7 Z							
MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	INTERVAL	WIDTH	ASSAY NUMBER	%	%	%	COMPOSITE ASSAYS	
6520-6695: siliceous matrix patches and elongate grains									

S. Bridg

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
				fine-grained hb phenos. 909.4 - 905.4: tuff						
				10cm 12v 277.8 - 267.1 911.5 - 911.9: tuff medium greenish brown water-lean tuff, fine to medium-grained, mottled and speckled, poorly bedded						
920				911.5 - 920.0: tuff w. 20% (mm white subhedral field phenos, speckled appearance 922.3 - 925.2: light gray, bleached mgb, felsic						
940				267.1 - 315.2 941.9 - 1034.1: metagabbro 941.9 - 947.0: normal mgb w. abundant plag and hb.						
				947.0 - 950.0: progressively altered mgb, hb is present, plag is coarse and altered to a green color similar to chlorite						
960				950.0 - 960.0: light gray mgb w. no hb and medium green colored plag.						
				960.0 - 1037.5: light gray mgb w. plag and hb destroyed, speckled w. carbonate.						
980										
990										

J. Smith

PAGE 22 OF		PROJECT:							HOLE NO. 72		
MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	INTERVAL	WIDTH	ASSAY NUMBER	%	%	%			COMPOSITE ASSAYS	
919.0 - 941.9		920									
to py highly elongate grains and fine seams on film.											
941.9 - 949.0											
1% py, coarse, cubical grains											

J. Bridg

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
1000										
1020										
1040				1027.5 - 1039.1 : bleached mgb w. green chloritized plg phenos						
1040				315.2 - 317.1 1039.1 - 1040.4 : tuff (as below) w. b zones of mgb, zones of tuff have 5mm chloritized rims						
1040				317.1 - 322.3 1040.4 - 1057.3 : tuff w. 2 mgb zones hard, siliceous tuff or quartzite, med-dk gray, r.f.s w abundant. lms, some 2-3mm feld phenos						
1060				bleached at lower mgb contact, mgb contacts irregular and crosscutting tuff is massive, no bedding no visible foliation						
1060				322.3 - 331.7 1057.3 - 1074.2 : mgb, bleached and altered, light green-gray w abundant plg, no mafics, foliated contains minor patches of						
1080				light green, hard, siliceous tuff, probably stopped blocks 1070.4 - 1072.5 : buff qz. v.						

D. Bailey

PAGE 24 OF		PROJECT:						HOLE NO. 72	
MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	INTERVAL	WIDTH	ASSAY NUMBER	%	%	%	COMPOSITE ASSAYS	
		1000							

D. Birdy

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
				1099.5: 0.3' tuff w. irreg. contacts w. mgb						
1100				332.7-349.7 1099.7 - 1111.2 tuff medium gray to dark gray-green, hard, siliceous tuff, aphanitic to fine grained, locally arenaceous, mainly speckled w. black biotite. 1102.5 - 1103.2 arenaceous zone w. very angular elongate fragments						
1120				1109.0 - 1122.0: bleached from dk. gray to cream along fiss						
1140				1138.7 - 1146.8 ± section w. subrounded to elongate clasts, 3mm to 2 cm. 1147.2 - 1149.7: quartzite? bedding locally transposed, mainly columnar dark gray-green						
1160										

A. B. B.

PAGE 26 OF		PROJECT:							HOLE NO. 72	
MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	INTERVAL	WIDTH	ASSAY NUMBER	%	%	%		COMPOSITE ASSAYS	
1099.2 - 1119.0 = 1% py = and disseminated ^{po} grains										
		1100								
1119.0 - 1127.0 = 1% py subst										

A. Bridges

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
1180										
1200				1195.0 - 1196.5 - mixed gray zone						
1220				12095 - 12090 - minor lamination in dark gray tuff						
1220				12190 - 12090 - dark gray siliceous tuff w. broken and conchoidal bedding. Foliation can not be distinguished						
1240				broken bedding						
1260				1249.0 - 1311.2 - dark greenish gray tuff, very dirty color, mottled, patchy and brecciated, rare possible bedding. contains 20% biotite, zircon and in small patches, which define clasts on broken bedding						

D. Brails

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	INTERVAL	WIDTH	ASSAY NUMBER	%	%	%		COMPOSITE ASSAYS
0.36 g - avg = 1.76 g, 87.7 - trace of		1180							

D. B. [Signature]

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY	
					A	B	C	D	E		
				1295.5 - 1295.8: minor bleached zones around minor qz veins, core broken.							
1280			29 45 58 61								
1300			40 45	1295.7 - 1297.2 and 1299.0 - 1299.4: med, light gray matrix w 25% 1-3 mm kb phenos.							
1320			45 58 63	399.7 - 407.3 1311.2 - 1336.2 metagabbro med gray, well-foliated w aug 15% broken and stretched mafic grains, 20% irregular, variable Feld grains, minor fine qz veins in foliations							
1340			62 60 35 22	407.3 - 412.3 1336.2 - 1352.7: buff med to light gray green, locally bleached, contorted and variable bedding, speckled w 20% bk biotite							

C. B. ...

PAGE 30 OF		PROJECT:						HOLE NO. 72	
MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	INTERVAL	WIDTH	ASSAY NUMBER	%	%	%	COMPOSITE ASSAYS	
		12.98							

D. Bentley

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
360			b	412.8-416.1 1352.7-1365.2 malagabba light gray, bleached and altered, w 20% hb						
			b	416.1-419.1 1365.2-1375.0 tuff dirty green to very light green, finely laminated, w 1-2mm qz phenos, highly elongate frags.						
			b	1375.0-1485.7 black argillite						
1380			b	419.1-452.8 1375.5-1377.2 2 patches w coarse angular frags of porphyritic light green tuff						
			b	1380.3-1380.8 gray crystalline limestone = calcite						
			b	1375.0-1483.5 black graphitic argillite, finely laminated, w numerous fine qz seams						
1400			b							
			b							
1420			b	striking + Foln II						
			b							
			b							
1490			b							

D. [Signature]

PAGE 32 OF		PROJECT:							HOLE NO. 2	
MINERALIZATION DESCRIPTION		TOTAL SULPHIDE	INTERVAL	WIDTH	ASSAY NUMBER	%	%	%	COMPOSITE ASSAYS	
1369.0 - 1375.0 : 2% po, elongate grains on foliation			1360							
1375.0 - 1417.0 : avg 2% po, minor py										
1417.0 - 1420.0 : 1% po, minor coarse patches										

D. Bridge

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
1460				1432.5 - 1435.7 graphitic calcareous argillite, black, speckled w. fine calcite grains, scattered sections of dark gray, med-grained silice ls, 0.1-0.2" thick						
			bedding 5 fold //							
1450				452.8-468.9 (1485.7 - 1538.3) tuff light green, very fine grained tuff w numerous thin beds of med-grained crystal tuff, thin units consist of small shales and 1-3 mm sz phenocrysts. the granular sections are graded upwards, have sharp bases, coarse material at base, transitional tops.						
1520										

D. Bailey

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	INTERVAL	WIDTH	ASSAY NUMBER	%			COMPOSITE ASSAYS
14700 - 1486.3 2% py patches and fine disseminated grains		1460						

D. Britton

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
1540				468.9 - 471.5 1538.3 - 1544.9 buff medium gray green lapilli buff w. a 50% 1-5 mm, locally 10 mm thick, elongate frags and 2% 1-3 mm qz phenos speckled w. fine chl var bio grains not bedded						
1560				471.5 - 537.8 1546.9 - 1764.3 meta gabbro medium greenish gray w. avg. 15% clean, black elongate, subhedral to subhedral, partly chloritized hb grains, avg 20% medium to large tabular indistinct plag phenos plag w. a 50% altered to epidote, especially in cores, very poorly foliated, minor qz veins, 2-10 mm, avg 2 per 5'						
1580				15700 - 1752.2 medium grained mgb w. 35% subhedral to subhedral fresh hb grains, no visible plag. very massive and uniform, average 10% epidote in groundmass.						
1600										
1620										

O. Bridges

PAGE 36 OF		PROJECT:							HOLE NO. 72	
MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	INTERVAL	WIDTH	ASSAY NUMBER	%	%	%			COMPOSITE ASSAYS
1572.4 - 1572.2 : 10% coarse euhedral py in mgb around qz veins										

D. Bridges

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY	
					A	B	C	D	E		
				<p>1636.0 qz v @ 5° cut by qz v @ 30°</p>							
				<p>1574 @ 133.9 magb contained unfoliated.</p>							
1640											
1660											
1680											
1700											

D. Bentley

DEPTH (FEET)	% Core Recovery	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
1720										
1740				1733.4 - 1752.2 : medium gray-green metabasite w. avg. 10-15% euhedral, partly chloritized hb grains, avg 5% scattered tabular plagioclase w. epidote rims weakly foliated.						
1760				1752.2 - 1752.5 : tuff 1752.5 - 1764.3 : medium-light green, fine-grained clay altered ash w. 20% fine chloritized hb, apparent transitional contact w. tuff.						
1780				1764.3 - 1774.9 : mixed tuff 1774.9 - 1789.0 : green tuff w. clay altered matrix, 30% 1-2mm qz phenos 1789.0 - 1791.8 : light gray QFCT w. finer grained sections, minor frags, very minor buff carb. laminations.						
1800				1791.8 - 1794.2 : light gray v. fine chrysolite tuff, massive, foliated						
1820				1794.3 - 1797.5 : calcareous, graphitic, argillitic, black to gray, finely laminated, minor chrysolite tuff, bedding + foliation //						
1840				1797.5 - 1810.1 : tuff						

D. Smith

PAGE 40 OF		PROJECT:							HOLE NO. 72		
MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	INTERVAL	WIDTH	ASSAY NUMBER	%	%	%	COMPOSITE ASSAYS			
		1720									
		1740									
		1760									
1764.3 - 1770.0: 2% pyrite, pyx, elongate grains in tuff and sst											
1770.0 - 1771.8: 3% py, mainly dark, sandy, in sst, minor po.											
1771.8 - 1774.3: 3% po, elongate grains											
1774.3 - 1782.5: avg 1% po, py, scales and grains in argillite		1780									
1782.5 - 1809.0: 3% po, elongate grains											

A. Bridge

PAGE 41 OF		PROJECT:			HOLE NO. 72						
DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY	
					A	B	carb. C	epidote D	pyrite E		
				544.8 - 551.7 1787.5 - 1810.1 : 3.55 pale gray-green, light, minor fine laminations, very hard, siliceous, shaly, speckled w. disseminate?							
				551.7 - 569.9 1810.1 - 1868.1 : 9FCT 1810.1 - 1812.5 : medium green graded cycle at top of 9FCT, abundant (3mm qz + Feld phenos)							
1820				1812.5 - 1861.8 : normal 9FCT, avg 25% qz phenocrysts up to 10mm, minor to 10% greenish plagi phenocrysts, color mainly pale greenish-white, the abundance of plagi is abnormal.							
				1825.0 - 1826.5 : fault gouge and fault breccia							
1840				1812.5 - 1859.0 : continuous trace observations of epidote in upper portion, silification not distinguishable.							
				1851.0 - 1868.1 : 9FCT or above w zones of highly irregular fragments of massive, v. fine, white chrysolite							
1860				569.1 - 591.0 1868.1 - 1939.1 : rhy. lapilli tuff (g.s.)							
				1868.1 - 1872.3 : minor fault gouge zones and broken core							
1880				1870.2 - 1877.5 : medium-light, waxy green rhyolite tuff w. 1% 2-5mm qz phenos, partly replaced by carbonate,							

A. Smith

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	INTERVAL	WIDTH	ASSAY NUMBER	%	%	%		COMPOSITE ASSAYS
1803.0 - 1808.0 1% py + minor py									
		1920							
565.0 - 1868.0 avg 2% py		1860							
1872.3 - avg 1% py mainly scattered 1-2 mm cubes									

J. Bridg

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	carb	hem	epi	
1900				avg 20% fine-grained tabular, white, carbonate altered plagioclase crystals 1890.5 - 1892.5 : carbonated feld grains and carb grains one pink w. disseminated hematite			shaded	shaded		
				1892.5 - 1924.0 : medium to medium-light green, minor. Frag texture, 1-2% qz phenos up to 2mm diameter, elongated, 10% carbonated qz phenos, very well foliated, fissile mainly w. > 50% frags.						
1920				1925.0 - 1939.1 : w. 25% 1-3 mm sub-rhombic carb grains						
1940				591.0 - 592.4 (1939.1 - 1956.8) : rhy. lapilli tuff (w.s.) creamy-white to light gray rhy. lapilli tuff, minor to 5% 2-6 mm carb augens probably after qz phenos, patchy dolo and med. intense buff dolo banding			shaded			
1960				596.4 - 606.0 : rhy. lapilli tuff (g.s.) transition to med. to med dk green tuff, minor frags, 2-15 mm, and commonly 2-5 mm sub-rhombic dolo augens			shaded			
1980				602.0 - 606.6 : rhy lapilli tuff (w.s.) gray to creamy white carb altered rhyolite, fragmental, 1% 1-3 mm qz phenos			shaded			

D. Smith

PAGE 44 OF		PROJECT:							HOLE NO. 72	
MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	INTERVAL	WIDTH	ASSAY NUMBER	%	%	%		COMPOSITE ASSAYS	
		1900								
1945.9 - 1954.2: 1-2% py										

D. Birdy

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSIFY		
					A	B	C carb.	D	E			
1990			20	606.6 - 612.0	1990.1 - 2011.3	very lapilli tuff (w.s.) gray rhyolite lapilli tuff, fragmental and mottled, locally dolomitic, 41% az phases, low carb content, color, and az phases size of hanging wall rhyolites			404.1			
2000			25	613.0 - 651.7	2011.3 - 2128.0	5-10 light gray to very pale greenish-gray rhyolite lapilli tuff, hard and compact, consists of closely packed fragments w. rare 1mm az phases, minor sulphides interstitial to fragments			611.0 611.9			
2020			25									
2040			25									
2060			28									
2080			30									

J. Bailey

PAGE 46 OF		PROJECT:							HOLE NO. 72	
MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	INTERVAL	WIDTH	ASSAY NUMBER	%	%	%	^{oz} /ton		COMPOSITE ASSAYS % _w , ppm
					Cu	Zn	Pb	P ₂	B ₂	
1982.0 - 2022.5 : avg 1-2% py										
		2000								
2022.5 - 2032.3 : avg 2-3% py, to sp										
2032.3 - 2041.2 : 5% py, 2% (619.4 m - 622.2 m) sp, sp in local coarse dissemin. patches			2.9'	6817	7.10	0.08	0.02	0.20	0.002	18/08 2.25
2041.2 - 2077.2 : avg 5% py										

A. Bratop

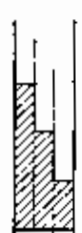

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
2080				6130 - 651.7 2016.3 - 2135.0 S77C						
2100										
2120										
				651.7 end of hole						

A. Brinkley

PAGE 48 OF 48		PROJECT:							HOLE NO. 72	
MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	INTERVAL	WIDTH	ASSAY NUMBER	%	%	%		COMPOSITE ASSAYS	
2073.2 - 2095.7 10-15% dissem. py tr. sp		2090								
2095.7 - 2138.0 avg 7-10% py mainly in scattered dissem patches, tr. sp		2139								

A. B. [Signature]

IMPERIAL OIL LIMITED
MINERALS SECTION
DRILL LOG

PROJECT Kutchu Creek	GROUND ELEV. of wedge 1173 m
HOLE NO. 72 B1	BEARING 180°
LOCATION wedged from DDH 72 at the point 1010' (307.8 m) below the collar claim: Jeff 92	DIP ≈ 59°
	TOTAL LENGTH 1036'
LOGGED BY D. Bridge	HORIZONTAL PROJECT 245.7 m
DATE July 17 - 27, 1978	VERTICAL PROJECT 191.6 m
CONTRACTOR Arctic Diamond Drilling	<p style="text-align: center;">ALTERATION SCALE</p>  <p>absent slight moderate intense</p>
CORE SIZE 8φ	
DATE STARTED July 13, 1978	<p style="text-align: center;">TOTAL SULPHIDE SCALE</p>  <p>traces only < 1% 1% - 3% 3% - 10% > 10%</p>
DATE COMPLETED July 26, 1978	
DIP TESTS	
COMMENTS	LEGEND

PAGE / OF		PROJECT:				HOLE NO. 72-131					
DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION						
					A	B	C	D	E	FRACT INTENSITY	
				metres							
				0.0 - 9.2 0.0 - 30.1 : metagabbro							
				0.0 - 30.0: no recovery 5.0 - 16.0: light gray, bleached mgb, felsic but w. indistinct grains, no hb							
				16.0 - 29.3: felsic w. abundant, large, medium-green colored plag. phenos, 1% chlorite streaks after hb.							
28				29.7 - 30.2: mgb and tuff 29.3 - 29.9: gray biotitic tuff 29.9 - 30.1: mainly felsic mgb w. nodular tabular plag and 5-20% weakly chloritized hb							
				9.2 - 15.2 30.1 - 49.9 : tuff medium to dark gray, fine-grained tuff, avg 15% uniformly disseminated biotite, very hard, massive, siliceous, speckled w. trace to 20%, 1-3 mm euhedral siliceous patches.							
40				15.2 - 25.5 49.9 - 83.6 : metagabbro medium gray-green felsic mgb, minor carbonate, minor zones w. euhedral chloritized hb.							
				25.5 - 29.7 52.1 - 58.0 : tuff 59.0 - 60.4: buff gr 60.0 - 63.6: light greenish gray, bleached mgb, mainly felsic, no mafics							
60											
80				25.5 - 40.6 83.6 - 292.4 : tuff @ 83.0: minor zone of light colored frags in gray tuff							

A. B. B.

PAGE 2 OF	PROJECT:								HOLE NO. 72-131		
MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	INTERVAL	WIDTH	ASSAY NUMBER	%	%	%			COMPOSITE ASSAYS	
22.0 - 24.7 -1% py cubes		10									
24.7 - 54.0 +1% py cubes											

D. Bridges

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
100				83.6 - 110.0: mainly gray siliceous tuff, bleached to cream through sections and along Frs.						
120				110.0 - 147.2: medium to dark gray biotites (15%), siliceous tuff, texturally like quartzite, poorly bedded, foliation not pronounced, bedding locally contorted						
140										
160				147.2 - 178.0: light gray-green to light brown tuff, fine-grained, abundant (low field) phenos, minor biotitic bands and brown biotites sections, locally bleached on Frs						
180										

D. Budge

PAGE 5 OF		PROJECT:					HOLE NO. 7281				
DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY	
					A	B	C	D	E		
				83.6 - 292.9: brecciated tuff							
				178.0 - 292.9: mainly medium greenish gray brecciated tuff. Fine grained, very massive and uniform horizontally, scattered patches of brecciated bands probably relict bedding, bedding is commonly highly contorted and separated.							
200											
220				2290 - 2295: bleached zone. In mixer qtz veining and drusy qz on fr							
240											
260											
280											

A. Bridg

PAGE 6 OF		PROJECT:							HOLE NO. 7231	
MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	INTERVAL	WIDTH	ASSAY NUMBER	%	%	%		COMPOSITE ASSAYS	
180.0 - 214.0 avg. 21% py 21% py is po. as elongate grains, py dissem., as minor coarse grains, minor in rare chlorite. Fractures.										
		200								
220.5 - 225.5 avg. 5% py fine to coarsy black spread into the foliation from frs.										

D. Bridges

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY	
					A	B	C	D	E		
280											
300				90.6 - 96.7 297.4 - 317.2 : metagabbro medium gray, med-grained, well foliated msh, 15% partly chloritized hb grains, plag is present as phenos but difficult to distinguish from groundmass, minor qz - cal veins in foliation							
320				96.7 - 102.3 317.2 - 335.6 : tuff dirty gray-green fine-grained siliceous tuff, contains 15% biotite, mainly in thin light colored bands and lenses, bedding is variable and commonly deformed							
340				102.3 - 107.4 335.6 - 352.5 : metagabbro medium gray, bleached at contacts, and overall partly clay altered, 15-20% euhedral, partly to completely chloritized hb grains, plag phenos are augened							
360				107.4 - 109.9 352.5 - 355.8 : graphitic calcareous augillite 352.5 - 355.3 : light green fine-grained tuff w. minor small qz phenos							

D. Andip

PAGE 8 OF		PROJECT:						HOLE NO. 72131	
MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	INTERVAL	WIDTH	ASSAY NUMBER	%	%	%	COMPOSITE ASSAYS	
		290							
355.2 - 455.9 : 1.2% po in and tuff - argillite									

J. Bridg

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY	
					A	B	C	D	E		
				356.2 - 356.8: angular fragments of green tuff ~ 25%, up to 6mm or phos., frags. are in argillite							
				107.4 - 138.9 242.5 - 455.8: graphitic calcareous argillite							
386				black argillite, well laminated w. abundant calcareous grains and laminations, consistent 2% po content. bedding and foliation appear to be parallel, locally not parallel							
400											
420											
440											

J. Birdy

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	INTERVAL	WIDTH	ASSAY NUMBER	%	%	%			COMPOSITE ASSAYS
355.2 - 455.2 : 2% po										
		380								

A. S. S. S.

DEPTH (FEET)	% Core Recovery	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
460				139.9 - 146.8 : 455.0 - 481.7 : tuff light green, fine-grained matrix - calc. tuff, w. minor thin interbeds of fine gr. phenos. transitional contact w. argillite bedding and foliation // 476.1 - 481.7 : tuff w. 5-15% dissem. biolite						
460										
460				196.8 - 212.4 : 491.7 - 499.0 : metabasite 491.7 - 535.0 : medium green msb w. minor to 30% large tabular plag phenos, avg 5-10% weakly chloritized hb. very weakly foliated						
500										
520										
540				535.0 - 539.0 : sharp contact w. mafic msb, 25-40% hb and 15% 1mm white plag grains						

D. Butler

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
				539.0 - 639.6 dark green mgb w. avg. 15% hb, minor caged white plag, epidote content increases down section to 5-15%						
560										
580										
600										
620				615.5 - 617.0 strongly foliated chloritized zone w. qz veins						
			3cm epid #2v							

D. Bridges

PAGE 13 OF		PROJECT:							HOLE NO. 72131		
MINERALIZATION DESCRIPTION		TOTAL SULPHIDE	INTERVAL	WIDTH	ASSAY NUMBER	%	%	%	COMPOSITE ASSAYS		
			544								

D. Bridge

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
640				634.5 - 697.0: dark to med. green metagabbro w. very minor epidote, avg 10% subhedral hb grains, rare tabular plag phenos. the foliation is rarely distinct						
660			55							
680										
700			70	212.4 - 213.9 697.0 - 701.7: tuff med, light-med green tuff, 1/2 - 35% 1-2mm, 1% up to 10mm qz phenos, 1/2 is aphanitic; both types are intermixed, appears that the aphanitic type consists of frags within the coarse type						
720			80, 75, 80	213.9 - 217.9 701.7 - 714.9: metagabbro 701.7 - 705.0: w. frags of aphanitic tuff 705.0 - 714.9: med. gr, fine-gr, - 30% 1-2mm chloritized hb phenos.						

J. Bailey

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
740				217.9-223.3 714.9-722.6 : tuff 722.6-729.9 : mainly light green, hard, siliceous, aphanitic to very fine grained. tuff, crudely bedded, minor sections very abundant 729.9-732.6 : mainly gFCT, light green to white, minor argillite rip-ups.						
740				223.3-230.6 732.6-756.5 : calcareous, graphitic argillite, argillite w. abundant hairline to thick, white to gray calcareous bands, locally core body broken.						
760				230.6-236.1 756.5-774.7 : tuff light gray-green to green, aphanitic to fine-grained banded tuff.						
760				756.5-768.3 : mainly aphanitic w. unknown opaque mineral 768.3-774.7 : locally abundant 1mm qz phenos, minor graded zones						
780				236.1-253.8 774.7-812.9 : gFCT 774.7-777.5 : med green, fine-grained by gFCT unit 777.5-779.0 : w. opalite, altered fragments.						
800				779.0-808.0 : medium green colored gFCT w. 25% 2-10um blue qz phenocrysts, no visible foldspar.						

A. Smith

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	INTERVAL	WIDTH	ASSAY NUMBER	%	%	%		COMPOSITE ASSAYS
719.2 - 729.9 avg 2% po									
729.9 - 732.6 avg 3% po									
732.6 - 756.5 avg 1% po, minor py									
		740							
756.5 - 762.0 2% po									
762.0 - 770.0 po content decreases top to bottom to 0%									

W. Bridges

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY	
					A	B	C carb	D	# ppm		
820				<p>236.1-253.8 774.2-832.8 : QFCT</p> <p>805.0-820.5: light to med green QFCT, granular in appearance, has minor to 30% 1-3 mm irons grains of altered feldspar, with 12 much more sericitic than above.</p> <p>814.1-815.2: matrix-rich siliceous, med green zone w 5% clinzoisite</p> <p>820.5-832.8: sericitic, to horn</p>							
840				<p>832.8 - 847.0: rhy lapilli, buff (w) white-very pale green</p> <p>253.8-258.2 good fragmental rhy, like 822.5 unit, locally massive, hardy mainly w minor pale green matrix.</p>							
860				<p>258.2-274.9 847.0 - 900.2 rhy lapilli, buff (g.c.) medium green, very well foliated schist, good fragmental texture, w trace to 3% hematite</p>							
880				<p>870.0-880.0: light-med green, 1% carbonate altered grains, hematite absent to trace</p>							
900				<p>880.0-889.0: medium green w avg 5% small to 2 mm thick augen-shaped carb grains w pink hematitic color, minor fine carb grains or clinzoisite? avg 3-4% hematite, occurs in schist and carb augens. Foliation commonly at 80°</p> <p>889.0-891.4: white buff w pink color due to hematite</p> <p>891.4-900.2: medium green, fig., indistinct frags, 10% 2-5 mm sub-hombic carb grains</p>							

A. Budy

PAGE 18 OF		PROJECT:							HOLE NO. 72 (3)		
MINERALIZATION DESCRIPTION		TOTAL SULPHIDE	INTERVAL	WIDTH	ASSAY NUMBER	%	%	%	COMPOSITE ASSAYS		
			830								
532 A: 58470: avg 2%, locally 15% over 0.5' py interstitial to fragments as in 532C unit.			840								

D. Birtop

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY	
					A	B	C carb	D hem	E		
272.9-272.7				900.2 - 911.0 : chy lapilli tuff (ms) mainly pink to white, fragmental, 5-10% 1-3 mm carb rhombs and minor large augens, very minor buff carb bands.							
272.7-279.9				911.0 - 918.4 : chy. lapilli tuff (g.s) med green, frag, mottled w. light green, 20% 2-4 mm sub-rhombic dol grains							
279.9-281.2				918.4 - 922.5 : chy lapilli tuff (ms) white - pink hematite color, minor carb augens							
281.2-284.1				922.5 - 922.0 : chy lapilli tuff (ms) off-white, cool frag							
284.1-288.3				922.0 - 924.0 : as above ber, med carb alt'd, carb banding, 5% frags w 5% mainly gray weak carb alt'n, frags mainly hard, siliceous, similar to size							
288.3-292.6				924.0 - 959.9 : chy. lapilli tuff (g.s) med-light green, uniform, fragmental, minor carb alteration of some frags, no carb grains or bands.							
292.6-294.2				959.9 - 965.2 : chy. lapilli tuff (ms) transition to off-white to gray schist, becoming abundant w carb augens, 5% gray pyritic frags							
294.2-296.4				965.2 - 972.3 : dolomite mainly granular, slightly vuggy, dol-sar-minor qz, w minor schist							
296.4-297.9				972.3 - 977.4 : s.c. w dolomite greenish gray schist, heavily to slightly dolomitized							
297.9-315.8				977.4 - 1026.0 : s.c. light gray, hard, compact, chy. lapilli tuff							

D. B. [Signature]

PAGE 20 OF		PROJECT:							HOLE NO. 7281		
MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	INTERVAL	WIDTH	ASSAY NUMBER	%	%	%			COMPOSITE ASSAYS	
932.0 - 932.0 : \approx 1% py, mainly within gray fringes in schist, minor dissem.		920									
932.0 - 946.0 : avg 2-3% py, dissem.											
946.0 - 959.9 : \approx 1% py, a few gray fringes w. py, 2 sub-spherical patches		950									
959.9 - 965.2 : avg 1% py											
965.2 - 972.7 : \approx 1% sph, fine dissem. in dolomite, one small, coarse, sp. patch.											
972.7 - 977.4 : avg 2% py, 1% sp, dissem in heavily carb alt'd schist		980									
977.4 - 999.3 : avg 1-2% py											

D. B. Smith


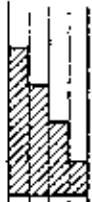
DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
				297.9 - 315.8 997.4 - 1036.0 : S ₂ C cont. well foliated but not fissile, commonly w 1-5% 1-2 mm qz phenocr.						
1000				305.7 - 310.8 1008.9 - 1019.6 : probably the massive sulphide horizon						
1020										
1036				315.8 bottom 1036' (2096')						

J. B. [Signature]

PAGE 22 OF 22		PROJECT:							HOLE NO. 72B1		
MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	INTERVAL	WIDTH	ASSAY NUMBER	%			Ag	Au	COMPOSITE ASSAYS Cu/Pb	
					Cu	Zn	Pb				
999.3 - 999.0 : avg 1% py, + sp			3.7	6531	0.061	0.09	0.02	0.07	0.002	3 / 4	
998.0 - 1002.9 : avg 1% py, 21% sp, mainly in one seam @ 998.1		1000	4.9	6532	0.054	0.12	0.02	0.06	0.001	4 / 4	
1002.9 - 1012.4 : 2-3% py, 3% sp, 11% sph; sp in med. coarse dissemin patches, mainly from py			9.5	6533	0.273	0.14	0.03	0.21	0.003	4 / 3	
1012.9 - 1019.6 : 4-5% py, 0.5% sp, sp = py			7.2	6534	0.253	0.30	0.05	0.32	0.007	2 / 3	
1019.6 - 1037.8 : avg 5% py, dissem.		1020									
1037.8 - 1036.0 : avg 30% py, dissem.											
		1036									

J. B. [Signature]

DRILL LOG

PROJECT Kutchu Creek	GROUND ELEV. 1500.83 m
HOLE NO. 73	BEARING 180°
LOCATION 23,398.38 m N ; 36,008.12 m E claim: JcFF99	DIP - 88°
	TOTAL LENGTH 2045' 629.2 m
LOGGED BY P. Godkin	HORIZONTAL PROJECT 284.9 m
DATE June 29 - July 13, 1978	VERTICAL PROJECT 518.2 m
CONTRACTOR Arctic Diamond Drilling	 <p>ALTERATION SCALE</p> <p>absent slight moderate intense</p>
CORE SIZE 89	
DATE STARTED June 26 (mob.), June 29 (drilling)	 <p>TOTAL SULPHIDE SCALE</p> <p>traces only < 1% 1% - 3% 3% - 10% > 10%</p>
DATE COMPLETED July 13	
DIP TESTS	
COMMENTS	LEGEND

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
				0.0 - 1.2 0.4 overburden						
				1.2 - 39.5 4-129.5 Conglomerate stretched, closely packed, 3 mm - 9cm, siliceous, porphyritic & non-porphyritic acidic to intermediate volc clasts within a siliceous matrix						
20				4-14 heavy limonite staining						
			37							
40										
60				54-56.5 heavy limonite staining						
				63-64 heavy limonite staining						
				76-79.5 heavy limonite staining						
80										
				87-90 heavy limonite staining						

P. Gaskin

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
100										
120				112.5-113 heavy limonite staining 113.5-117 heavy limonite staining						
120			45 2cm qtz vein 1cm qtz vein	121-122 heavy limonite staining						
140			55 c-sharp 39.5-43.2	129.5-130.75 with quartz 2-10 mm tabular spiaz, 11 wt% epidote alteration throughout, minor qtz veining						
160										
180			75 2.5cm qtz vein	173-197 ~ 1% epidote alteration						

PAGE 4 OF 51	PROJECT:						HOLE NO. 12		
MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	INTERVAL	WIDTH	ASSAY NUMBER	%	%	%	COMPOSITE ASSAYS	

P. Godkin

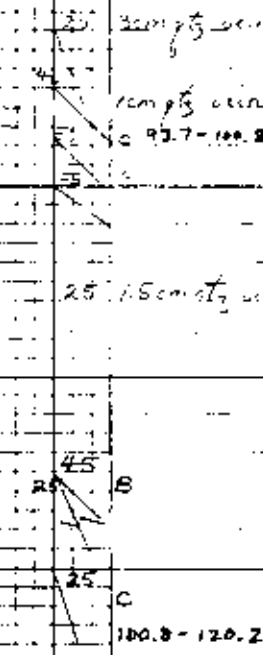
DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
190			63	empty vein						
210				197-221 2-3% of 8 streaks of epidote alteration 41% tabular plag.						
230			65	empty vein						
250				232.5-236 bleached meta gabbro						
270				246.5-248 light green, 75% epidote						
270			88	empty vein						

P. Hodson

PAGE <i>6</i> OF <i>51</i>		PROJECT:							HOLE NO. <i>77</i>	
MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	INTERVAL	WIDTH	ASSAY NUMBER	%	%	%		COMPOSITE ASSAYS	
<i>243 - 247 min. hematite stringers & patches</i>										

P. Hodkva

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
290										
310				<p>307.5 - 330.6. Greenaceous Al-stone, siliceous, variable colour; minor qtz veining</p>						
				<p>307.5 - 310.5 light green colour</p> <p>310.5 - 324.7 purplish- brown colour</p>						
330				<p>324.7 - 330.7 light green colour</p>						
				<p>330.7 - 394.2 metagabbro 1-10mm tabular plag; 2-7mm tabular amph; minor qtz veining</p>						
350										



PAGE 8 OF 57		PROJECT:						HOLE NO. 73	
MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	INTERVAL	WIDTH	ASSAY NUMBER	%	%	%	COMPOSITE ASSAYS	
233-297.5 +/- 1% 1.5mm Py cubes									
mineral Py									
mineral Py + CPy									

P. Hedden

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	INTERVAL	WIDTH	ASSAY NUMBER	%	%	%			COMPOSITE ASSAYS
<i>Thin, massive to</i>										
<i>Trace of</i>										

P. Hod Ar

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY	
					A	B	C	D	E		
			2.5 empty vein								
470				462.4 - 520.2 metagabbro medium grey color to 15% heavily epid. 13% 2-20 mm tabular plng; 15% 1-5 mm tabular 14 anhedral amph; slight - moderate epid 13% adm; minor sty. veining							
490											
			2.5 empty vein								
510			6 empty vein								
530				520 - 522 metagabbro medium grey color; ty moderately epid 12% adm in epidote stringers; 45% 2-10mm tabular slight epid 12% plng; 20% 1-7 mm tabular 18 anhedral amph; minor sty veining							
			2.5 empty vein								

PAGE 12 OF 51 PROJECT:				HOLE NO.				
MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	INTERVAL	WIDTH	ASSAY NUMBER	%	%	%	COMPOSITE ASSAYS

P. Smith

DEPTH (FEET)	% Calc. Recy.	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
550										
570				empty vein						
590										
610				3.5 cm. meta gabbro dark grey colour; $\leq 10\%$ mag. ≤ 5 mm plagioclase; $\leq 10\%$ ≤ 1 mm. tabular colorless plagioclase; $\leq 20\%$ tabular & anhedral ≤ 1 mm anorthite; musc. qtz veining						
630				3.5 cm. meta gabbro minor dark color gabbro breccia						

P. M. ...

PAGE		OF		PROJECT:					HOLE NO. 17E											
DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION					ALTERATION											
									A	B	C	D	E	FRACT INTENSITY						
650																				
670																				
690																				
710																				

40
6cm of vein with minor gabbro bleaching

652.3-670.3 metagabbro medium grey colour; 5% 1-10mm tabular amphi; 5% 3mm diameter ragged plag; 1-2% 2-10mm tabular colorless plag, minor qtz veining

209.3-274.3

75
c sharp

670.3-899.9 epiclastic Tuff banded light green & medium grey; light coloured < 3mm feldsp + qtz compose 5-25%; locally < 5% 1-2mm dark coloured fragments occasional 1-2cm siliceous vol^{ic} fragment; < 1-27cm thick bedding seen as both colour & textural variations; some of qz units; minor qtz veining

45

40mg qtz vein
B
50mg qtz vein

45

12cm qtz vein

40
B

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	INTERVAL	WIDTH	ASSAY NUMBER	%	%	%		COMPOSITE ASSAYS
<p>local concentrations of $\leq 2\%$ diss Py & Py cubes (≤ 4 mm diameter) 1-2% local diss. Py const. along foliation planes & as small lenses.</p>									

P. Bodkin

PAGE		OF 51		PROJECT:					HOLE NO. 7-	
DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
730			55	2.5 empty vein						
750			30 B B	15 empty vein						
			20	1 empty vein						
			20	1 empty vein						
770			E	1 empty vein						
790										
810										

74-7-746
light green color
with 5-10% ...
foliated fragments

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	INTERVAL	WIDTH	ASSAY NUMBER	%	%	%		COMPOSITE ASSAYS
766.5 Pb & Cu in Py within a 4cm long lense									
789.8 2.5 cm Pb lense									
792.4 small Pb lense associated to 150 gtz vein									

P. Hood

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
			76° E	epiclastic Tuff cont'd						
830			55° 2.5cm gtz vein							
850			25° 2.5cm gtz vein							
862.5 - 891				epiclastic tuff non-varying medium grey colour						
890			25° 2.5cm gtz vein							
			275.1 - 309.7							
			30° c sharp	899.9 - 1016 metagabbro						

P. Bookan

IN (FeET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY	
					A	B	C	D	E		
				metagabbro. (cont. 6) blue-grey (medium grey) colour, <20% 1-2 mm tabular, plag., 7% 1-5 mm amphib-grains, minor qtz vein							
920				904-908 slightly bleached zone							
			1 cm qtz vein								
40											
960				954.5 - 1012.3 slight bleach ed zone; minor 1 q. epidote alteration							
			50 4.5 cm qtz vein								
980											

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
				56 corqtz vein						
1010				1012.3 - 1016 qtz vein w irregular contacts						
				309.7 - 332.3 1016 - 1019.1 Calcareous argillite black colour, finely bedded 1-10mm avg w occasional 6cm bed; w/a block unit w coarser 1-2mm fragmental light grey calcareous tuff units, minor qtz veins, some primary structures						
1030				1016 - 1019.6 epiclastic tuff light green & purplish brown w 4-6mm white feldsp & qtz fragments						
1050										
1070				1074 x-bedding						

D (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY	
					A	B	C	D	E		
			B	1031.2 - 1082.8 meta gabbro; light green colour; 15% 1-10 mm, colourless, tab. plag; minor epidote alteration							
			60° sharp B	1090.1 - 1101.4: meta gabbro; light green colour; 15%, 1-10mm colourless, tabular plag.; 1m zone of moderate bleach. minor epidote alteration							
1100			60° sharp B	1101.4 - 1146.2 Calcareous amillite black arg. arg; finely bedded. 2mm. w thin black arg. & light arg. thicker & coarser (thin fragments) carbonaceous. with minor quartz veining							
				1127.5 - 1128 moderately bleached meta gabbro; 9% tabular pyroxene; minor epidote alteration							
1120											
			70° B								
1140											
			70° C	1146.2 - 1177.2 EPICLASTIC TUFF pale green colour; 2-10 mm beds are light green or dark grey when visible; stg units w some coarser white of < 10%, 1-2mm, white f/dsp ± stz fragments; minor gtz veining							
1160			65° B								

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	INTERVAL	WIDTH	ASSAY NUMBER	%	%	%		COMPOSITE ASSAYS
2% P ₀ as small (1-3 mm) patches stretched along foliation minor diss. Py + P ₀ patches stretched along foliation									
1-2% Py along bedding/foliation planes									
minor Py									
minor Py									

DEPTH (FEET)	% Core Recovery	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
1180				<p>1175-1180.5 C gradational 1175-1180.5 meta gabbro medium grey colour; minor carbonaceous etc veins</p>						
1200				<p>1185-1200.5 avg 5%, 2- 15mm, colorless, tabular plag. - locally minor epid^{iso}; 5-15%, 1-8mm tabular amph.</p>						
1220				<p>1213-1225.8 medium grey; 30%, 1-7mm tabular amph; 6%, 2-15mm tabular colorless plag. in minor epid alteration; heavily epid^{iso} grains</p>						
1240										
1260										

P. Hadwin

DEPTH (FEET)	% Core Recovery	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY	
					A	B	C	D	E		
1280											
1300				1291.7-1319.6 medium grey; 1% 1-10 mm amphib; 2% 1-15 mm colorless, tabular to mod. acid alteration							
1320				1318.6-1332.9 medium grey; 6% 1-5 mm tabular amphib; 7% 1-12 mm colorless, tabular, plag.							
1340				1332.9-1358.7 medium grey; 10% 1-8 mm tab. amphib; avg. 6% 1 cm colorless, tabular plag. - locally moderately epsd 13rd							

P. Hodkin

TH (FeET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
1360				1359.7 - 1382 medium grey; 4-9% 1-5 mm, tabular amph; plag non-distinguishable from gdnrs.						
1380				1382 - 1400 medium grey; 3-15% 1-5 mm tabular amph; 10% 1-5 mm colorless, tabular plag - locally moderately epid ¹³⁸² ; gdnrs minor to local moderate epid ¹³⁸²						
1400										
1420										
1440										

to 2.5% vein

samples with

PAGE		OF 51		PROJECT:		HOLE NO. 73					
DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY	
					A	B	C	D	E		
1460				448 - 1458.3 pale medium green, relatively fine gr; avg 7% 15 mm amph no characteristic plaq phenocrysts; 15% magst <4 cm thick w/ qtz thin fragments							
				1445-448.1 15cm qtz vein B 6	1458.3 - 1470 epiclastic tuff light green; siliceous 2% local 3mm feldsp fragments; <2cm thick bedding; minor carb qtz vein						
1485				1470 - 1491.3 Calcareous argillite black calc; finely bedded <1cm thick w some coarse carbonaceous units within a w/ qtz sequence; minor carb-qtz veils							
				1491.3 - 151.5							
				154.5 - 156.0	1496.3 - 1496 epiclastic Tuff pale light green; some bedding shown <1cm thick; 1-2% 20mm white feldsp fragments						
1500				156.0 - 529.7 15cm qtz vein	1496 - 1733 2tz - Eldsp X ^{TL} Tuff variable colour; siliceous 1496 - 1531.4 light - medium green; avg 12% 2-10mm qtz; 12% 1-2mm feldsp fragments; numerous epid + carb stringers; w/ w/ qtz veiling						

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	INTERVAL	WIDTH	ASSAY NUMBER	%	%	%	HOLE NO.	COMPOSITE ASSAYS
<i>1-2% Fe stretched 2-8 mm along foliation = bedding, minor Py along fractures</i>									
<i>± 1% Py throughout</i>									
<i>1% Fe, ± minor Py elongate along foliation planes</i>									
<i>minor Py < 3 mm cubes</i>									

D 1 (FEET)	% Core Recovery	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
1543				1541 - 155.5 medium greenish, 1-2 mm, fine carbonate altered plug; 2% 2-12 mm stg. cpx; very minor hematite + minor epidote alteration; numerous epid + carb stringers; minor stg. veining						
1563				1553 - 1655.2 pale light green; 9% 2-11 mm stg cpx, 2-12 mm, 1-2 mm small calc. 2-12 mm 1541.6 - 1555.5 altered plug, minor hematite alteration in stringers; minor epid alteration, minor veining						
1583										
1600										

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MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	INTERVAL	WIDTH	ASSAY NUMBER	%	%	%		COMPOSITE ASSAYS
1406 1% Py cubes $\leq 3mm$									
1443 7cm zone w 2% fg black sulphide									

DEPTH (FEET)	% Core Recovery	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
1640										
1660				<p>1655.2-1660.5 greenish-gray, fine, 1-7mm, carb altered plagi; 8%, 1-3mm, to eye, moderate epid + hematite alteration, epid + carb stringers</p>						
1680				<p>506.1-529.7 1660.5-1738 light pale green; 8%, 1-8mm, unaltered lty eyes; 6%, 1-7mm, moderate-heavy carbonate altered plagi - start of light colored, massive GFCT, no chlorite present</p>						
1700										

moderate-heavy carb. alteration of plagi begins

hematite with certain stringers

minor epid alteration stringers

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
				2 cm siliceous clast						
1720				2 cm siliceous clast sericite begins						
1740			70°	529.7-529.8 1738-1739.4 shear zone; heavily chloritized w coarse (2-5 mm) annular qtz & carb. altered feldsp and a chlorite & sulphide matrix						
			75°	529.8-529.9 1739.4-1741.2 light grey very siliceous zone (almost pure silica)						
1745			85°	529.3-530.2 1741.2-1744 2ty - Feldsp. x ¹⁴ Tuff. 25% 1-8 mm qtz eyes w minor unaltered plus surrounded by a matrix of 40% chlorite & sericite and 35% sulphide						
			80°	530.2-532.9 1744 1751.3 3ty - Feldsp x ¹⁴ Tuff. 10-15% 1-4 mm qtz eyes visible for only 25' or so w unit						
1750				532.4-534.3 1751.3-1757.5 2ty: Feldsp. x ¹⁴ Tuff. 0-40% w avg 1-8 mm unaltered qtz eyes; one 1.5 mm qtz eye seen from SE - ... 40% when fully ...						

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MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	INTERVAL	WIDTH	ASSAY NUMBER	%			oz/ton		COMPOSITE ASSAYS % Ni ppm
					Cu	Zn	Pb	Ag	Au	
weight percent										
6% very coarse CPy patches 6% fine Py patches		1738.0		3.26802	1.450	0.89	0.07	0.30	0.001	31/11
		1741.2								
4% very coarse CPy patches & Py patches; 1 1/2% finely diss. Py; minor finely diss. CPy		1744.0		2.86803	6.590	6.32	0.68	1.89	0.007	38/10
5% light brown crudely banded sphalerite; 13% CPy as very coarse irregular patches and size; 31% fine Py										
17% fine sulphides 42% CPy in 2 columns as irregular crude bands; 45% light brown & light grey sphalerite commonly as crude bands; 15% fine Py				3.56804	8.750	10.58	0.33	2.69	0.014	43/19
minor 4% fine diss. CPy in irregular coarse patch; with fine Py; 32% light grey diss. & fine crude bands - sphalerite										

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PAGE 1 OF 51		PROJECT:			HOLE NO. 73					
DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
1760	539.3 - 539.6			1757.5 - 1761.7 2tz - Fldsp ^{TL} Tuff; avg 15% 1-10mm unaltered colorless qtz eyes						
	539.6 - 537.2			1761.7 - 1767.1 Rhyolite Lapilli Tuff; medium grey colour; 60% light grey, very siliceous, compacted fragments 1-2cm long; abundant vesicles as matrix						
1765										
	537.2 - 538.5			1767.1 - 1771.5 Lithology unidentified 17% bulk qtz ves; rarely abundant vesicite-chlorite; occasional 1-3cm elongate silica fragment may suggest RLT unit						
1770	538.5 - 539.0			1771.5 - 1773 Lithology unidentified avg 7% 1-8mm colorless, unaltered qtz eyes						
				vesicite band						
1775	539.0 - 540.4			1773 - 1777.5 Lithology unidentified avg 6% 1-4mm, siliceous, unaltered qtz eyes; nearby contacted subvolcanic siliceous bands 4cm thick and discontinuous; siliceous; minor vesicite						

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	INTERVAL	WIDTH	ASSAY NUMBER	%			oz/ton		COMPOSITE ASSAYS	
					Cu	Zn	Pb	Ag	Au	%	ppm
		1757.5									
12 wt % very coarse CPy, 2 wt % very coarse Ba patches, 22 wt % Fg diss Py; 40 wt % light grey & light brown sphalerite			4.2	6805	11.150	9.05	0.20	4.93	0.027	21/16	
7% Fg diss Py in occasional very coarse CPy patch <1 wt %		1761.7									
			5.4	6807	0.679	0.21	0.02	0.20	0.002	18/12	
		1767.1									
4 wt % very coarse irregular patches & diss CPy; 12% Fg diss Py; 8 wt % diss light grey Fg sphalerite			4.4	6808	6.510	10.20	0.06	0.67	0.002	24/12	
		1771.5									
2 1/2 wt % Fg diss CPy in 1-4mm coarse patches; 1 wt % Fg diss Py; 7.5 wt % light grey & light brown cherty banded & diss sphalerite			4.5	6809	3.105	29.25	0.78	0.99	0.020	24/13	
<1 wt % CPy mainly as coarse patches; 1/2 wt % coarse patches of Ba; 13 wt % Fg diss Py; 15 wt % Fg light grey sphalerite		1773.0									
			4.5	6915	6.020	9.25	0.38	6.67	0.050	51/12	
		1777.5									

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
1780				540.4 - 541.7 1777.5 - 1781.9 Lithology unidentified, avg 4% 1-4mm colorless, acicular st grains; predominantly orth-sulfide						
1785				541.7 - 545.2 1781.9 - 1793.4 Lithology unidentified upper section of unit shows 5-15% 1-4mm twinned colorless plag x^{745} in minor st grains; light green non-foliated chlorite?? infilled fracture @ 1784; lower section has avg 3.5% white + colorless 1-9mm patches of feldsp or st grains						
1790										
1795				545.2 - 546.8 1793.4 - 1798.7 Phylolite Lapilli Tuff medium grey colour; ~40% 5mm-3cm elongate, compacted siliceous calcareous clasts; moderate sericite within the matrix; local minor occurrences of colorless, unattached plag; st grains						
				546.8 - 549.0 1798.7 - 1802.7 Phylolite Lapilli Tuff medium grey colour; sericite with in ~30% 4mm-3mm elongate						

PAGE 51 OF 51 PROJECT:		HOLE NO. 73								
MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	INTERVAL	WIDTH	ASSAY NUMBER	%	%	%	COMPOSIT ASSAYS		
					Cu	Zn	Pb	Ag	Au	%/N.
12 wt % S.Py mainly as coarse patches; ~14 wt % Ba as coarse patches; 11 wt % fg diss Py; 80 wt % light grey fg diss sphalerite			4.4	6811	3.188	12.60	0.89	5.74	0.013	37716
5-6 wt % S.Py mainly as coarse patches; 7 wt % fg diss Py; 1/2 wt % coarse Ba patches; 16 wt % fg diss light grey sphalerite		1781.9								
			11.5	6812	4.590	6.46	0.17	1.66	0.003	31/12
1 wt % S.Py mainly as coarse patches; 1/2 wt % Ba mainly as coarse patches; 1 wt % fg diss Py; 1 wt % light grey & light brown crudely banded, locally occurring sph. sulphide commonly seen as thin veins along fracture where flow is 5-7-30		1793.4								
			5.3	6813	1.190	2.23	0.03	1.44	0.014	20/12
3 wt % S.Py in coarse patches; 14 wt % Ba as coarse patches; 1 wt % fg diss Py; minor		1796.7								

DEPTH (FEET)	% Core Recovery	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY	
					A	B	C	D	E		
1800				compacted siliceous vol ^{ic} fragment - end of massive sulphide zone -							
1805				549.0 - 549.5 1802.7 - 1807.5 Rhyolite lapilli Tuff, medium grey colour; 50% 4-25 mm light grey & med grey, compacted elongate siliceous vol ^{ic} clasts; sericite rich matrix							
				549.5 - 550.4 1807.5 - 1810.5 Rhyolite lapilli Tuff; 25% light & medium grey 1mm - 4cm elongate siliceous vol ^{ic} fragments; sericite rich matrix							
1810				550.4 - 622.6 1810.5 - 2048 Rhyolite lapilli Tuff; greenish grey colour; avg 50% light grey elongate 4-40mm compacted siliceous vol ^{ic} fragments within a sericite rich matrix							
1830											
1850				9.5m ² used							

PAGE 46 OF 51		PROJECT:							HOLE NO. 73		
MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	INTERVAL	WIDTH	ASSAY NUMBER	%	%	%	g/t		COMPOSITE ASSAYS	
					Cu	Zn	Pb	Ag	Au	% Ni	ppm
Light grey sph.											
			7.0	6814	2.160	1.35	0.02	1.86	.007		21/09
12-14.5 Py in matrix with trace Py in part of unit only Trace Py, 3 wt % Fe dis. Py, 4 wt % medium grey sph (isolated patch)		182.7									
			4.8	6815	1.815	1.58	0.04	0.85	.006		14/12
12 wt % Fe dis.		180.5									
			3.0	6816	0.189	0.78	0.02	0.19	.002		20/10
1810.5 - 1860.5 12-15 wt % (est. avg. 12) Fe dis. Py in matrix 1-10cm rhabd- ular shaped patches with 50 wt % Py		1810.5									
1845.5 Trace light brown sph in 2/10cm elongate patches											

D ⁴ (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY			
					A	B	C	D	E				
0				BLT cont?									
50													
100													
150													
200													
250													

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MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	INTERVAL	WIDTH	ASSAY NUMBER	%	%	%		COMPOSITE ASSAYS
<p>240.5 - 1923.7 2-3% Fe Py in matrix ± 2cm thick crude bands</p>									
<p>115.7 - 115.7 5-10 wt % (est. avg. 9 wt %) Fe Py mainly as 1/2-5cm coarse bands of ~40 wt % Py</p>									

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
				BLT cont'd						
1970										
1990										
2010										
2030										

P. Goodwin

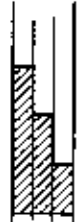
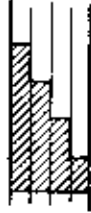
MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	INTERVAL	WIDTH	ASSAY NUMBER	%	%	%		COMPOSITE ASSAYS
1959.7 - 1994.5 6 wt % Fe Py mainly as 1/2 - 3 cm thick oxide bands of 40-50 wt % Py									
1962 Trace CP, as 2cm elongate patch									
1954.5 - 2027.3 2-3 wt % Fe Py mainly as 1/2 - 2cm thick oxide bands of 50 wt % Py									
2027.3 - 2042 7 wt % Fe Py mainly as 1/2 - 2cm thick oxide bands of 40-50 wt % Py coarse irregular patches									

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY	
					A	B	C	D	E		
				<i>RLT. cont.^o</i>							
2050				<i>2048 End of Hole</i>							

P. Gordon

MINERALS SECTION

DRILL LOG

PROJECT Kuteho Creek	GROUND ELEV. of wedge 1220.5 m
HOLE NO. 73 B1	BEARING 180°
LOCATION wedged from DDH 73 at the point 958' (292.0m) below the collar claim: JEFF 94	DIP ≈ 63.2°
LOGGED BY P. Godkin and D. Budge	TOTAL LENGTH 914' 278.6 m
DATE July 15 - July 21, 1978	HORIZONTAL PROJECT 212.5 m
CONTRACTOR Arctic Diamond Drilling	VERTICAL PROJECT 180.0 m
CORE SIZE Bq	ALTERATION SCALE  absent slight moderate intense
DATE STARTED July 12, 1978	TOTAL SULPHIDE SCALE  traces only < 1% 1% - 3% 3% - 10% > 10%
DATE COMPLETED July 20, 1978	
DIP TESTS	
COMMENTS	LEGEND

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
0-17.2				0-56.3 metagabbro light gray (blue gray) color; slight to moderate bleaching coarse bl. has destroyed most of visible texture (5A-8B), avg 30% 2-11um tabular colorless, slightly carb? altered plag; locally 4 to 1.5mm chlorined amph; minor Fe epidote						
39.4-44.9				white qtz vein						
53.1-56.3				white qtz vein - irregular contacts						
56.3-62.0				epiclastic tuff						
17.2-18.3				light gray. locally purplish-brown discontinuous 3mm-1cm bedding shows a medium-dark green clay; 5-30% 1.2mm diameter white feldspar to fragments minor qtz nodding						
19.3-38.4				60-126.7 calcareous white, black color; clay to coarse interbedded tuff to all- bedded 1mm-4mm thickness of 33cm; local breccia unit; calcareous tuff unit accreted colored in 8.1mm fragments, non-calcareous to white						

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DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
100										
125										
130				sharp	121, light bleached meta gabbro, 22cm thick, 4% 13.7mm light green, heavily altered feldsp. minor to epidote alter.					
140				c sharp	126.7-131.7 light green meta gabbro, slight-moderate bleaching; avg 2% light green 2-10mm tabular feldsp, minor to epid alteration					
160				c sharp	131.7-184.9 Calcareous argillite black colour, v. coarse light coloured siliceous units; shell-bedded 1-7mm H-R; minor calcareous, to remaining 150' epispastic tuff 21cm thick, pale light green colour.					
167					150.7-157.9 meta gabbro light green colour; slight bleaching; 3% 3.7mm elongate grey plagi; numerous pale yellow calciferous stringers; minor epidote					

P. Soderlin

PAGE		OF		PROJECT:		HOLE NO. 1021					
DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY	
					A	B	C	D	E		
184.9 - 207.5		c sharp		184.9 - 207.5 EPICLASTIC Tuff 56.4 - 63.2 light green colour, well bedded seen as lower 3cm dk grey blatt - 10 colour bands - 2-3 cm width of unit; 4% to some larger 2-4 mm g* shg beds 3 local 3% 2-4 mm white feldsp (qtz) fragments							
199 1/2 - 201 1/2				199 1/2 - 201 1/2 possible fault zone?							
191.8 - 203				191.8 - 203 heavily broken calc							
63.2 - 143.4				207.5 - 470.5 meta gabbro							
207.5 - 219				207.5 - 219 medium grey; avg 4% 1-11mm tabular colourless plag, 1% fg minor epid							
219 - 238				219 - 238 medium grey; 6% 3-17mm colourless tabular slat + l; alt plag; 11% 1-4mm tabular black amph; minor qtz veining							
238 - 251.2				238 - 251.2 dark grey; 4% 1-2cm tab colourless plag to 2% fg white plag in gms; 10-15% fg black amph in gms; minor qtz veining							
251.2 - 322.6				251.2 - 322.6 medium grey; 15% 1-6mm tab black amph to 1% as occasional 1-6mm tabular 5-15% plag to 1% alt 150° matrix							

PAGE		OF	PROJECT:	HOLE NO. 7381						
DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					
					A	B	C	D	E	FRACT INTENSITY
280										
300										
320				307.6 - 432.4 med. gr. grey; 7% i-brown to black anphib, slightly epid. sized matrix & tab, cellless, clon also occur in the upper portion of unit (which is oxidational change); local occurrences of slightly epid. sized tab. cellless plagi; mineral veins						
340	62			33 samples seen						
360										

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DEPTH (FEET)	% Core Recovery	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
300										
400										
420										
440				43.4-450. Dark gray; silty 4.8% 1-4mm. 12% chert; silty 4.2% 1-4mm. clay, tabular, schistosity. Silty matrix, fine; minor silty veins.						

P. Gardner

PAGE 11 OF		PROJECT:				HOLE NO. 7-81					
DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY	
					A	B	C	D	E		
460				450-472.5 light green and blue green; 8% 1-4mm, mainly abraded medium green amphi; 1% 2-7mm thick light green rounded xenoliths of stg lapidastic tuff							
480		P. C irregular sharp		470.5-488.3 EPIDASTIC Tuff pale light green, stg; locally 8% 2-3mm white rounded feldsp fragments							
		143.4-148.8									
		74	B ^T								
		57									
500		C		488.3-535 Calcareous scillite black colour, stg; well-bedded 3mm-6cm in numerous light grey calcareous tuffaceous beds (1-4mm feldsp & stg fragment minor calcareous-gty veins							
		148.8-163.1									
		76	B								
520											
		81	B								
		82									
		148.1-234.1		535-768.2 stg-fldsp x ^T tuff variable colour minor hematite & stg epidote alteration; minor gty veins; siliceous							
		C gradual									

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PAGE 13 OF		PROJECT:				HOLE NO.					
TH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY	
					A	B	C	D	E		
			c sharp	green aug 5% 1-2 mm. not rounded fldsp							
			c sharp	550.0 - 552.2 light green colourless 2% 1-1.5mm (colorless rounded stz eyes; aug 15% 1-6 mm; white altered? white ss quartz)							
560				548.8 - 553.9 pale light green, aug unit thin white fldsp							
				553.1 - 565.2 light green 1-12 mm 7% colorless stz eyes; 2% 1-2 mm white fldsp, 567-576 pinkish tinge due to Fe hematite alteration							
			c	565.2 - 588.9 medium green colourless (colorless), 16% 2-12 mm colorless stz eyes; 12% aug 1 mm white fldsp							
600			c gradational	588.9 - 597.4 light green (Fe disc hematite cause local reddish tinge) 3% 1-3 mm colorless stz eyes; 3% 1-3 mm white fldsp							
				597.4 - 616.7 medium green (colorless); stz 2-12 mm colorless; stz eyes; 6% 1-4 mm white, slightly ragged fldsp							
620			c gradational	616.7 - 628.6 light green (yellowish-green) colorless 7% 2-11 mm colorless stz eyes; aug 2% 1-4 mm white fldsp; local reddish tinge							

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PAGE		OF		PROJECT:			HOLE NO. 21				
DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY	
					A	B	C	D	E		
				due to fg diss. Hm.							
640				628.6 - 662.6 medium green (chloritized) cl; 2% 2-11mm clless gtz eyes; 10% 1-6mm white fldsp, fg unit (coarser looking material) w 1% fg dark grey gtz in matrix							
660				662.6 - 674.8 light green (grey) cl; 6% 1-14mm clless gtz eyes; avg 2% 1-3 mm white fldsp							
				674.8 - 701.7 medium green (chloritized) cl; relatively coarser unit (matrix); 6% 1-11mm clless gtz eyes; 3% 1-11mm white fldsp; 2% 1-1mm dk grey gtz eyes throughout matrix							
700				701.7 - 725.8 light grey cl; 8% 1-10mm clless gtz eyes; 3% 1-2mm light yellow fldsp							
				701.7 - 711.6: contains minor chlorite 711.6 - 725.8: light colored with sericite, no chlorite							

gradational
2.5 cm gtz used
2 cm gtz used

sharp

216.9 - 221.2
end of Hm
alteration

P. Hodkin

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
227.2 - 229.3				525.8 - 732.3 light gray to white colored; 1/2 to 1/4 mm min. colorless 9/10 eyes; in some light green feldspar altered f						
229.2 - 239.1				732.3 - 768.2 light green to gray colored; 1/2 to 1/4 mm colorless 9/10 eyes; 4/10 1-4 mm dark altered feldsp						
				@ 725.8: stand. of white, very scintillating quartz						
237.2 - 238.3				767.2 - 772.0 50°C minor gouge off-white to light gray, 10% 1-3 mm pl. phenos.						
235.3 - 250.7				772.0 - 822.4 massive sulphide zone 772.0 - 777.0 > 90% total sulphide, coarse sph bands 777.0 - 779.1 50°C fragmental, well foliated 779.1 - 291.6: massive dolomite and contorted light green to gray schist, very irregular foliation directions and contortions 291.6 - 300.9: avg. 60% sulphides in green-colored, waxy schist, 1-3 mm pl. phenos in sph bands, 300.9 - 304.3: > 85% sulphides, minor schist gouge 304.3 - 310.1: > 90% total sulphide, mainly w. irregular patches and wisps of fine-grained						

[Handwritten signature]
P. Rodkin

PAGE 18 OF		PROJECT:					HOLE NO. 73 B 1				
MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	INTERVAL	WIDTH	ASSAY NUMBER	%	%	%	COMPOSITE ASSAYS			
					Cu	Zn	Pb	Ag	Au		
2 1/2 sph, 1% py											
1% iron black sulphide Trace py											
		760									
		765.5									
765.5 - 772.0 : avg 3 1/2% py			3.5	6818	0.140	0.78	0.01	0.07	0.04	4.16	
772.0 - 777.0 : Fine-grained py, w. 15-20% sph,		772.0									
5% sp, sph in coarse bands			5.0	6819	3.680	5.92	0.45	1.58	0.27	37.44	
777.0 - 779.1 : 20% py, 3% sp, 1% sph, in patches		779.1									
			2.1	6820	1.920	1.62	0.02	0.38	0.08	37.5	
779.1 - 788.0 : avg 4.5% py, 2-3 % sp, 1% sph, sulphides mainly in schist zones			8.9	6821	0.678	1.53	0.01	0.22	0.14	4.770	
788.0 - 791.6 : 7% sp, 2% py, 1% sph, patches in dol.		791.6									
			3.2	6822	3.885	2.85	0.01	0.71	0.06	1.0	
791.6 - 800.9 : highly variable section, avg 10% py, mostly to med-grained, 7% sph in bands, 6% coarse sp, 1% brn.		800.9									
			7.3	6823	5.295	10.92	0.27	2.72	0.11	3.31	
800.9 - 804.3 : 8.5% Fine-med- gr py, 3% sph, 1% sp, 1% brn.		804.3									
			3.4	6824	1.780	4.78	0.51	1.21	0.20	1.767	
			13.8	6825	3.955	14.50	1.43	1.52	0.15	3.23	

J. Bentley
P. Goodrich

DEPTH (FEET)	% CORE RECY	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
220				py in a black sphalerite matrix, minor siliceous sections w. coarse sp. 218.1 - 222.9 : 70% total sulphide in schist, fine-med-grained py						
250.7 - 260.2				222.9 - 259.0 : 50% C normal Footwall sericite-quartz schist after rhyolite lapilli to FF, gray, consists of abundant elongate fragments w. interstitial py.						
260.3 - 278.4				259.0 - 278.4 : 50% C very pale greenish white rhyolite lapilli to FF, sand fragmental texture.						


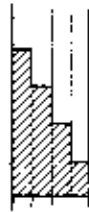
D. B. [Signature]

PAGE 20 OF		PROJECT:					HOLE NO. 73 B7				
MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	INTERVAL	WIDTH	ASSAY NUMBER	%	%	%	oz / ton	oz / ton	COMPOSITE ASSAYS	
					Cu	Zn	Pb	Ag	Au		
604.3 - 818.1: avg. 40% sph, mainly as matrix to 50% py, 8% sp, coarse patches and lesser in py, 1% bn.		818.1 - 820		6825	5.450	3.88	0.03	0.61	0.010		
818.1 - 822.4: 60% py, 10% sp, 2% sph.		822.4									
822.4 - 829.4: avg 35% py, Fine-med. grained		829.4	5.6	6827	0.650	1.98	0.03	1.11	0.003	3 / 20	
3% sp, 1% bn		831.9	2.4	6823	0.257	1.01	0.02	0.30	0.003	3 / 20	
829.4 - 837.4: avg 20% py, minor dissem		837.4	3.3	6829	0.232	0.53	0.02	0.59	0.002	3 / 5	
grains and some of sp.		839.4	2.7	6821	0.470	0.37	0.02	0.21	0.004	3 / 5	
837.4 - 839.4: avg 20% py, mainly fine-grained											
839.4 - 914.0: avg 5-10% py											

J. Birdy

MINERALS SECTION

DRILL LOG

PROJECT Kutchu Creek	GROUND ELEV. 1478 m
HOLE NO. 74	BEARING 180°
LOCATION 36,020 m E ; 24,468.5 m N claim: Jeff 94	DIP -89°
	TOTAL LENGTH 242' 73.8 m
LOGGED BY P Gudkin	HORIZONTAL PROJECT
DATE July 22-23, 1978	VERTICAL PROJECT
CONTRACTOR Arctic Diamond Drilling	ALTERATION SCALE  <ul style="list-style-type: none"> absent slight moderate intense
CORE SIZE 8φ	
DATE STARTED July 21, 1978	TOTAL SULPHIDE SCALE  <ul style="list-style-type: none"> traces only < 1% 1% - 3% 3% - 10% > 10%
DATE COMPLETED July 27, 1978	
DIP TESTS 33' 85° 222' 80.5°	
COMMENTS hole abandoned at 242' because of flattening	LEGEND

PAGE		OF		PROJECT:					HOLE NO.							
		5							T							
DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION					ALTERATION					FRACT INTENSITY		
									A	B	C	D	E			
				metres												
				0.0 - 2.6	0 - 1.5 coarse sandstone											
20				66 - 98.6	21.5 - 159.3 Conglomerate light grey colour, 75% closely packed red & white (silicates) 30 cm diameter, very siliceous light grey white & dark green (occasionally porphyritic) silicates 35.2 - 38.6 slight limonite staining											
40																
60					22.5 - 67.5 slight limonite staining in weathering (solution) cavities											
80																
					81.6 - 99 slight (local moderate) limonite staining											

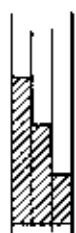
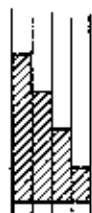
DEPTH (FEET)	% Core Recovery	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
100				122.8-155.2 moderately bleached cgl.						
120				125.4-128.4 moderate limonite staining						
140				143.2-145.5 heavily limonite staining						
160	50 45		C. sharp	159.4-185.6 epiclastic tuff - pale green, w/ qtz in 3cm thick light grey tuffaceous beds; minor qtz veining.						
180										

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	

				56.6-72.2 185.6-242 Conglomerate L.Sec 215:1593 description, page 1)						
200				graded bedding tops up						
220										
240										

P. Rodkin

DRILL LOG

PROJECT Kutcho Creek	GROUND ELEV. 1976.14 m
HOLE NO. 75	BEARING 180°
LOCATION 23,474.13 m N ; 36,004.79 m E claim: Jeff 94	DIP -90°
LOGGED BY P. Godkin	TOTAL LENGTH 2002' 610.2 m
DATE July 29 - August 17, 1978	HORIZONTAL PROJECT 279.3 m
CONTRACTOR Arctic Diamond Drilling	VERTICAL PROJECT 501.5
CORE SIZE B9	ALTERATION SCALE  <ul style="list-style-type: none"> absent slight moderate intense
DATE STARTED July 23, 1978	TOTAL SULPHIDE SCALE  <ul style="list-style-type: none"> traces only < 1% 1% - 3% 3% - 10% > 10%
DATE COMPLETED drilling: Aug 3, 1978 attempting 3 wedges: Aug 5, 1978	
DIP TESTS	
COMMENTS	LEGEND

PAGE 1 OF 46		PROJECT:			HOLE NO. 5						
DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY	
					A	B	C	D	E		
				metres 0.0-5.8 0-18.9 overburden							
20				5.8-50.1 189-164.5 Conglomerate. blue-grey colour; 75-90% of g. content to 9 cm diameter, rded + u-rded, white, light grey + dark green (occasionally porphyritic), siliceous vol ^{ic} clasts; some of g. unit; minor qty. weering							
	45	40	8								
40				38-40.7 slight limonite staining							
				48-71.2 slight limonite staining locally has solution cavities							
60											
80				38-89.8 slight limonite staining							

P. Rodkin

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
100										
				112-115.5 - light granite staining						
125				114.6-150 - moderate bleaching						
140										
160										
				50.1-58.6						
				164.5-192.4 - EPIDIOCLASIC Tuff						
				sharp - pale (olive) green, qtz w. some 2-22 mm thick medium grey tuffaceous beds commonly affect by F. Chalky calcareous; minor qtz veining						
180										

P. Godkin

DEPTH (FEET)	% Calc Rcy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY	
					A	B	C	D	E		
200				192.4 - 225.8 Conglomerate blue grey colour; 70% siliceous matrix to 50% red & w-red, white, light grey & dark green (some porphyritic, very siliceous vol ^c clasts; one sil (blue)							
				green. Po-bearing epistatic. tuff interbed exists							
220											
240				225.8 - 276.5 Conglomerate mottled dark grey & white colour; 70% subbedded - cobbles, white, light & dark grey, medium green; avg. 2 cm diameter; siliceous vol ^c clasts; sil calcareous matrix							
260											

P. Godkin

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
				in gabbro (cont.?)						
380										
400										
420										
440	65	42		133.6-140.0 irregular 438.2-479.1 micaceous, buff variable colour, well bedded, 1-2 cm 6cm thick commonly st. by Fe 438.2-455.5 pale green colour, finely bedded, 15% by biotite concentrated in						

P. Adkin

PAGE //		OF		PROJECT:	HOLE NO. 75						
DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY	
					A	B	C	D	E		
460				<p>specific beds; minor calcareous stg veining</p> <p>455.5 - 467.5 medium & dark grey calc. 2-2% to biotite (matrix)</p>							
480				<p>467.5 - 479.1 light grey & dark grey, fine & coarsely bedded, siliceous; local concentration in beds $\approx 35\%$ to diss. biotite, minor stg veining</p> <p>460.219.3 479.1 - 716.2 metagabbro</p>							
500				<p>medium & dark grey; avg 40-14mm black tab ampb; local white distinguished by 0-26 2-20 mm tab cleave moderately epid. 2nd plg and by slightly epid. 3rd plg; minor stg veining</p>							
520											
540											

P. Hudson

PAGE 13 OF 40		PROJECT:					HOLE NO. 101				
DEPTH (FEET)	% Core Recovery	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY	
					A	B	C	D	E		
520				metagabbro (cont.)							
540											
560											
580											
600											
620											
640											
660											
680											
700											
720											
740											
760											
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1900											
1920											
1940											
1960											
1980											
2000											

P. Godkin

DEPTH (FEET)	% Corp Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY		
					A	B	C	D	E			
540				3000-1600-0-00000 ↓								
600												
660												
720												
780												
840												
900												
960												
1020												
1080												
1140												
1200												
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6840												
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6960												
7020												
7080												
7140												
7200												

P. Goodrum

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY	
					A	B	C	D	E		
740				<p>732.5-759 purple-brown siliceous fragment has staining present by 8% at 4mm in the colored fragments of the bituminous dark grey to grey siliceous subangular subround and fragment</p>							
780				<p>774.2-846.9 light brown light grey siliceous 1-2mm beds, very soft to brittle throughout fractured with individual beds & occasionally along F₁ in massive silty veinings</p>							
856											

DEPTH (FEET)	% Core Recovery	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
820										
840										
860				824.1 - 824.6 - medium grey colour, relatively uniform texture, local bedding planes; - 1/2" - 1" scale - locally visible						
880				824.6 - 830.9 - texture very 1/2" throughout						
900				836.9 - 944.2 - meta gabbro. medium to dark grey color, 8% to 10% minor calcite - tabular, locally slightly epitaxial; 5% to 10% minor nepheline; minor quartz; alteration of adms						

P. Rodkin

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
921				921-922 calcareous gtz veins						
922				922.5-924.4 epidiastic tuff medium grey clay. some lenses thick beds (light grey quartzite)						
940				10 cm of core 944.2-953.8 epidiastic tuff 287.8-290.7 medium grey clay. some lenses 1-1.5 mm bedding = light grey + slightly coarser g (qtz) & minor calcareous gtz veins						
950				290.7-375.1 953.8-1234.8 meta gabbro medium grey clay 5% 1-2mm white carbonate altered ragged play 2-3% wavy, some long thin, ellipsoidal shards in coarse play; 4% 1-4 mm amph; minor calcareous gtz veins ply phenocrysts locally blight + moderately epid 15% w. or w. out minor gtz epid 15% gtz						
951										

P. Hodum

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
1000				massive calc. (?)						
1020										
1040										
1060										
1080										
1100										
1120										
1140										
1160										
1180				6-8% limonite, medium grey slt, irregular texture (see core log)						
1200				1473-1677 - 5% yellowish green - large irregular lenticular patches						

P. Godkin

PAGE		DF		PROJECT:		HOLE NO.					
DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY	
					A	B	C	D	E		
				mg gabbro (sect ¹⁰)							
1100											
1120											
1140				1130.6 - 1135.2 5% light green irregular patches & stringers of epidote							
1160				1146.2 - 1142.2 zone of heavy calcite - gty. veinings (incl. calcite)							
1180				1161 lamellar cutting fracture plane							

P. Bodkin

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
1230				11.32002 (cont.)						
1235										
1240										
1245										
1250										
1255										
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1265										
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1370										
1375										
1380										
1385										
1390										
1395										
1400										

P. Rodkin

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
1280										
1300										
1320				1312.4 - 1326.1 SPICULASTIC Tuff light green clay sh. w ~4% 1-3mm light grey calc. clay - Forams beds, fldsp. 5% - 5% bedding - 1-2mm thick						
1340				1326.4 - 1431.2 Graptolite calcareous siltite - black clay sh. w white to locally - weathering light grey calcareous, 10-15% 1-10mm silt grey fldsp. beds; minor calc. veins						

400.0 - 404.2

404.2 - 436.2

P. Godkin

PAGE 33 OF		PROJECT:							HOLE NO.	
MINERALIZATION DESCRIPTION		TOTAL SULPHIDE	INTERVAL	WIDTH	ASSAY NUMBER	%	%	%	COMPOSITE ASSAYS	
<p><i>mostly siliceous to chlorite along F₁ & F₂</i></p>										
<p><i>1.2% B₂ as elongate to small intermediate elongated</i></p>										

P. Gordon

PAGE 11 OF 16		PROJECT:			HOLE NO. 15					
DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
1420	72		B	beds;						
1480	75		B							
1485.5 - 1490.7				coarse green unit; light greenish grey; 70% 1-22 mm material to subbed fragments						
1500	72		B							
1508.8 - 1509.4	72		B	Graphitic calc. argillite black colour, itg; well-bedded avg. 1cm thick in 70% light green aphanitic & vls. 1-2cm thick thin beds along w/ 30% light grey slightly calcareous fgy. thin beds moderate calcareous vls.						
1520	72		B							

G. Bodkin

PAGE 1 OF 4		PROJECT:				HOLE NO. 75					
DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY	
					A	B	C	D	E		
1540											
1560				1556.4-1561.7 Sty. feldsp & "TF" pale green & light grey, siliceous, ductile (fine gr. units & argillite. (groups present) ~20% 1-11mm light grey gty eyes							
1580				1570.2-1584.4 EPICLASTIC Tuff light grey, siliceous, s.s., w/g, massive appearance; lower part of unit c. 25% pale green calc. cl.							
1600				482.9-519.1 1574.4-1713.2 meta-siltstone light & medium grey silt, avg 4% chloritoid (dark green) & non-chlor. & black cl. 1-6 mm amphi; 8% avg 1cm calcless tab. plag. to 4% 1-2mm white ragged plag. minor calc gty veining							

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	INTERVAL	WIDTH	ASSAY NUMBER	%	%	%		COMPOSITE ASSAYS
<p>< 1% Fe, Po; < 0.1% Fe Py</p>									
<p>Trace Po; local concn of Py cubes (4mm diam)</p>									

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	INTERVAL	WIDTH	ASSAY NUMBER	%	%	%		COMPOSITE ASSAYS
158 Gora Py cubes									
2412 Py									

PAGE		OF		PROJECT:					HOLE NO.		
DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY	
					hem A	B	C	D	E		
				massive siliceous; siliceous matrix							
1720											
1740											
				broken core							
1760				hematite - of causes a reddish tinge to core							
				1763 - 1796.8 light yellowish green clc; 41% Fe epidote alteration							
1780											
				broken core							
				1796.8 - 1824.7 medium green & medium gray clc; 5% red & white 2-3 mm clc							
1800											

P. Godkin

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	INTERVAL	WIDTH	ASSAY NUMBER	%	%	%		COMPOSITE ASSAYS
1722.5 - 1723 F ₂ black sulphide < 1%									
2.3% local Fe ₂ S ₃ cubes									

F. Hodkin

PAGE 1		OF 4		PROJECT:		HOLE NO. 75					
DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY	
					A	B	C	D	E		
				<p>to eyes in locally occurring 18% 1-2 mm dark grey st. sp. in or near hematite alteration. trace amount; avg 3% 4mm moderately carb altered white fldsp; (c.s.)</p>							
1820				<p>556.0-558.3 1924.2-1836.6 light yellowish-green clc, minor carbonate alteration, some 558.3-559.7 as compared to above</p>							
				<p>end of hematite alteration c sharp a gradual 4mm 1831.6-1836.3 Rhyolite lapilli Tuff (g.s.) pale green; vfg in c.s.; 35% visible 5-40mm light green to light grey siliceous vol. fragments; avg 2% 2mm jagged moderately carb altered fldsp;</p>							
1840				<p>c gross coarse C.P. patch rock gouge 1836.2-1842.4 R.L.T. (g.s.) 559.7-561.6 medium grey clc; c.s.; avg 4% randomly scattered moderately carbonate altered, 1-2 mm white fldsp; vfg schistose matrix in 30% visible light grey compacted 5-40mm (avg siliceous vol. fragments)</p>							
1860				<p>561.6-569.9 1842.4-1869.6 R.L.Tuff (g.s.) g.s. + carb c sharp irregular lens shaped white fragments, (6%) 1-2mm white carbonate alteration patches; 1863-9.6 buff colored carb stringers</p>							
1880				<p>569.9-570.6 1869.6-1872.6 R.L.Tuff (g.s.) irregular 100% yellow colored carbonate stringers; irregular 22% siliceous, latic & aphanitic matrix not recognizable</p>							

P. Rodden

PAGE 42 OF 42		PROJECT:							HOLE NO. 75	
MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	INTERVAL	WIDTH	ASSAY NUMBER	%	%	%			COMPOSITE ASSAYS
avg 4.1% Fe Py										
2-3 wt % Fe Py mainly east a stringers along F ₁ planes; sparse patch of CB ₂ @ 1842.1										
Trace amounts of Py										
4.1% Py										



DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
				competent than gr. unit; 3% 2-6 mm white carb. patches						
1900				570.6-574.0 1872.0-1883.3 Bull. 2 nd vein includes local host rock units → utg. c and s. rich moderate carb. alteration (1-2 mm white patches) mainly calc. + w.s.						
				574.0-574.8 1863-1885.7 R.L. Tuff (w.s.) light grey to white -lc; 57c; locally (minor) buff colored carb stringers; minor chlorite rich stringers; no fragments visible; utg.			58.3			
1920				574.8-580.2 1885.9-1903.4 R.L. Tuff (w.s.) medium grey cl.; utg. schistose matrix. in non-distinguishable 70% 5-30mm light grey siliceous slight to heavily carb altered calc. clasts; 2% light yellow carb stringers; 2% coarse small discrete stringers of light green chlorite			58.1			
1940				580.2-583.3 1903.4-1913.8 2 nd Fl. p. 8 th Tuff light grey cl.; 82% light grey (holoclast) 1-3mm subband-bedded utg. eyes within a pyritic & carb. matrix						
				1904.8-1907.1 R.L. Tuff (w.s.) light grey cl.; 52c, utg. schistose matrix. in light grey closely packed siliceous calc. fragments, 1% light yellow carb stringers;						
1960				(581.3-583.1) 1907.1-1913.1 siliceous carb unit; white cl., locally calc 1-2 mm clasts; utg. eyes;						
				HW						
				(583.3-610.2) FW 1913.8-2002 2 nd Fl. p. Tuff light to medium grey, closely packed light grey siliceous calc. fragments, calc. to be distinguished in splanct. matrix; 52c						

P. Lockman

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	INTERVAL	WIDTH	ASSAY NUMBER	%			oz/tun		COMPOSITE ASSAYS ppm Cu/Mt
					Cu	Zn	Pb	Ag	Au	
		1900								
		581.6								
		1918.0								
1885.9 - 1903.4 4-5 wt% to Py			4.5	6835	1.320	0.92	0.02	0.41	0.07	15 / 14
		1924.5								
		1925	3.5	6836	0.328	1.70	0.01	0.18	0.04	11 / 11
			16.0	6837	0.360	0.92	0.02	0.29	0.10	17 / 14
		1938								
			10.0	6838	0.941	0.09	0.07	0.51	0.20	25 / 14
		1948								
			10.0	6839	1.285	0.12	0.05	0.32	0.15	9 / 13
		596.8								
		1958								
			4.0	6840	0.129	0.10	0.02	0.24	0.04	10 / 14
		1962								
1917.2 - 1921.1 < 1 wt% to Py										
(581.6 - 586.6)										
1918 - 1924.5 0.75 wt% to Py mainly as coarse irregular p-fibres; < 1% to Py - diss & as local concn										

MINERALS SECTION

DRILL LOG

PROJECT Kutchu Creek	GROUND ELEV. 5025' (1532m)
HOLE NO. 76	BEARING 180°
LOCATION 76,230'N 107,230'E claim: kvrs 12	DIP -90°
	TOTAL LENGTH 1960' 592.4m
LOGGED BY D. Bridge and P. Godkin	HORIZONTAL PROJECT
DATE July 30 - Aug 19, 1978	VERTICAL PROJECT
CONTRACTOR Arctic Diamond Drilling	ALTERATION SCALE  <ul style="list-style-type: none"> absent slight moderate intense
CORE SIZE 89	
DATE STARTED July 27, 1978	TOTAL SULPHIDE SCALE  <ul style="list-style-type: none"> traces only < 1% 1% - 3% 3% - 10% > 10%
DATE COMPLETED July 14, 1978	
DIP TESTS	
COMMENTS	LEGEND

PAGE 1 OF 44		PROJECT:				HOLE NO. 76						
DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION		ALTERATION						
						A	B	C	D	E	FRACT INTENSITY	
				metres								
				0.0 - 3.7	00 - 2.0	overburden						
				3.7 - 8.7								
			12 bF	12.0 - 23.4	argillite well foliated, black calcareous argillite w. a 35% caliche as grains and broken beds, local minor kinks in bedding, minor interbedded cgl.							
			25 bF	23.4 - 147.8	conglomerate							
			bF	8.7 - 450.5								
				23.4 - 42.0	calcareous cgl. mainly medium green, aphanitic tuff, interbedded w. xline ls. and w. xline ls clasts, tuff contains abundant 1-2 mm carb phenocr, sub-rhombic.							
			25	23.4 - 29.0	xline ls cgl. and minor argillite							
			25	29.0 - 46.2	avg 50% xline ls as fragments in a tuffaceous and conglomeratic matrix, 45% rhyolite frags							
			25									
			25									
			25									
			25									
			25									

J. Smith

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY	
					A	B	C	D	E		
0-20				96.2 - 126.5: silice ls.							
20-100				96.2 - 107.7: silice ls. cal. mainly fragmental ls, minor chylitic frags, minor brilliant green mica, rock is mainly massive ls with minor undulating foliation, color varies from off-white to dark gray.							
100-200				107.7 - 126.5: mainly massive ls.							
200-400				126.5 - 299.3: conglomerate mainly rhyolite, some intermed- iate clasts, angular to well rounded, commonly subrounded, fairly closely packed, frequent textural and clast size variation.							
400-1000				Foliation is difficult to distinguish, commonly at a low angle to core axis.							

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DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
200										
220										
240										
260										

J. Smith

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
250										
290				299.3 - 301.7 : light gray crystalline limestone, sharp contacts w. v.f.g. green calc. matrix or tuff.						
300				302.9 - 309.5 : silice ls.						
320				309.5 - : cgl, as before, compact cgl consisting of mainly siltstone and lesser med. green chloritic intermediate tuff clasts. Frag size from fine to 0.5". Foliation commonly very poorly developed.						
340										
360										

A. Brady

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
384				120-387.0 minor rusty broken zone throughout cgl unit, commonly 1 per 25', vary from a rusty fracture to 1 foot of rusty broken core.						
400										
420										
440										

26

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DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY	
					A	B	C	D	E		
560											
580											
600				592.0 - 594.5 zone 4 Fractures and minor limonite staining on Fns and within cgl.							
620											

A. B. Bridge

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
636										
640										
650										
684										
700										
720										

A. Bailey

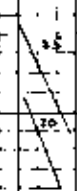
MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	INTERVAL	WIDTH	ASSAY NUMBER	%	%	%		COMPOSITE ASSAYS
<p>644.5 - 655.0 avg 5% py, mainly elongate grains, locally 20% over 0.5', mostly in matrix, locally within fine in clasts and disseminated within the rims of clasts.</p>									

D. Smith

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY		
					A	B	C	D	E			
740												
760												
780												
800												
820												
840												
860												
880												
900												
920												
940												
960												

D. Bandy

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
82.0										
84.0										
86.0										
88.0										
90.0										
92.0										
94.0										
96.0										
98.0										
100.0										



J. S. [Signature]

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	INTERVAL	WIDTH	ASSAY NUMBER	%	%	%		COMPOSITE ASSAYS
327.0 - 346.0 : avg 1% pa									
346.0 - 504.0 : avg 0.5% pa									

D. Birdy

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY	
					A	B	C	D	E		
920											
900				905.0 - 910.0: sgl. m. miner. thin argillaceous bands, most are 5-10 mm thick and impure, argillaceous bands make up 2 1/2% of section.							
860				859.0 - 859.7: shear zone and broken core in argillaceous section.							
820											

A. Brady

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
1000				9960 - 1067.5 conglomerate as above, cal w. predominantly light-colored rhyolitic clasts						
1020										
1040										
1060										
1080										
1100				1067.5 - 1093.5 cal. w. 10-15% rounded to subangular x-lime ls clasts						

J. Patrick

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY	
					A	B	C	D	E		
				1092.5 - 1100.6 : approximately 50% each of xline ls and cgl, ls may be beds or blocks.							
1100.6				1100.6 - 1119.5 : conglomerate with 10% small xline ls clasts							
1120				1119.5 - 1129.4 : xline ls, massive, medium-grained light gray crystalline ls, probably a lens within the cgl unit							
				1129.4 - 1173.6 : approximately 25% xline ls, probably minor lens and clasts in cgl, xline ls varies from small clasts to sections a 1m thick.							
1140											
1160											

J. Budy

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
180				1188.6 - 1185.2: cgl w. 25% silice ls, minor clasts and one possible, thin, impure lens.						
				1185.2 - 1186.7: dirty green arenaceous section w. fairly well defined bedding, foliation commonly affects and distorts bedding						
300				1186.7 - 1242.0: mainly fine-grained cgl, 50% of the section consists of grains from 1 to 5 mm, minor bedding occurs, as distinguished by slight color changes						
220										
1248				1247.0 - 1240.5: blue-grey siliceous matrix with minor clasts 2-5% siliceous alteration patches on face unit						
1240										

J. Bentley
P. Gaskin

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY	
					A	B	C	D	E		
1280											
1300				1299.5-1310.2 pale green calcareous unit composed locally of very coarse 2.2cm clasts; 4.8 calcareous alteration shombs							
1320				1310.2-1315.3 fine grained conglom-erate, 100% of clasts 2.2cm diameter avg ± 1cm; 5.1% calcareous alteration							
1320				1315.3-1327.4 80% 2mm-12cm diameter, sded & well-sded, siliceous vol% clasts; 1-2% white calcareous alteration							
1340				1327.4-1331 fine grained conglomerate 80-90% 1cm diameter clasts							
1340				1331-1342 pale green (greyish green) calcareous, siliceous fine grained unit (100% siliceous) (100% calcareous alteration)							
				1342-1436 2 units to medium grey clay, 80% 2mm-5mm light							

P. Godkin

PAGE 31		OF 74		PROJECT:		HOLE NO. 76					
DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY	
					A	B	C	D	E		
1360				medium grey coarse dark grey & medium green siliceous vol ^{ic} clasts, 4% white calcareous alteration patches							
1380											
1400											
1420				1420.3 - 1405.2 greenish grey colour in some moderately carbonate (calcite) altered clasts							
1420				1405.2 - 1411.6 light grey colour, fine grained conglomerate (~80% < 1cm clasts)							
1420				1411.6 - 1426.2 light grey and light green conglomerate, 2-3% calcareous alteration							
1420				1426.2 - 1433.7 light green clayey looking in ~76% of clasts, 2 cm diameter, locally moderately calcareous altered clasts							
1440				1434.4 - 1437.5 tan grey colour 5-6% white calcareous alteration patches							

P. Hodkin

PAGE		OF 14		PROJECT:					HOLE NO. 76				
DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY			
					Carb	A	B	C	D		E		
				1477-1483 light green silicey 1483-1488 light grey bluish green silicey lenses, lower portion of unit has irregularly subhedral calcites, siliceous stg. matrix, angular & subangular clasts appear within a 60% matrix host, Fr. more pronounced than above									
				1488-1498 1478-1479 epidote light grey siliceous, subhedral 5-10% white, siliceous matrix (siliceous) - contains numerous metagabbro lenses 1479-50% metagabbro									
				1498-171.6 massive grey siliceous medium grey siliceous 2-12 mm platy to local sections at 1420-1400 to larger subhedral (red) siliceous platy siliceous siliceous; simple, moderate amounts of pyrocarbonate veins									

P. Gordon

PAGE 37 OF 144		PROJECT:				HOLE NO. 77					
DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY	
					A	B	C	D	E		
				471.6-473.8 sharp 15424-15521 calcareous tuff medium grey clay, fine 1.5-2mm pit grey bedding 2-4mm 1/3 the fldsp visible 1547.4-1550.6 metagabbro 1551.3-1552.2 fine grained calcareous metagabbro							
				476.1-484.6 337.8-339.8 metagabbro medium grey calcareous 2-14mm calcareous fine grained calcareous glassy white medium calcareous (80%) alteration "poly" patches 3-10mm rather chloritized black smoky calcareous							
				484.6-495.9 1589.8-16271 calcareous tuff medium dark grey clay calcareous w. 62% lg beds, well-bedded 2mm-2cm thick (seen as cl. 9 textural variations), graded bedding fine up, light grey of calcareous bedding present, brown coarse fragments * 3mm diam for							
				495.9-518.8 16271.1-16271.5 metagabbro medium grey calcareous white calcareous medium calcareous glassy to 1-2mm finely calcareous steeply dipping planes of medium locally chloritized amorph							

P. Rodkin

PAGE		OF		PROJECT:		HOLE NO. 76					
DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION		ALTERATION					
						A	B	C	D	E	FRACT INTENSITY
					metagabbro (cont'd)						
1620					1660.6- 1800.5 altered meta-gabbro: light gray etc mottled w/ sub yellowish brown carbonate alteration patches; only locally visible cleavage planes; 4 in. 1-2 mm sample						
1630					1676.4- 1681.1 epidote tuff - isotropic clt above contact - visible to 30 ft; coarse bedding visible; some visible carbonate altered fragments; contacts uncertain						
1700											
1720											

P. Godwin

PAGE 29		OF 41		PROJECT					HOLE NO.	
DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
1740				meta gabbro cont ¹⁰						
1760										
1780										
1800										
1820										
1840										
1860										
1880										
1900										
1920				518.8-520.9 1892.5-1905.7 epiclastic tuff pale green slightly to light grey coarse fragmental beds, locally bedding visible. Some 4-5 cm con. ls. No textural variation; fg coarse beds possess calcareous matrix of carbonate (Ca) altered fragments -occasionally, as light grey slt beds, in quartz lenses 4-5 cm diameter.						

P. Rodkin

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
				grey or light green cl., subbed - base						
				1835.8 - 1839.6 coarse fragmental unit						
1840										
1860										
1880										
				1889.1 - 1905.7 coarse fragmental unit: 25-75 mm. Some with grey yellowish-brown siliceous subbed and ^c fragments (locally phos. quartz in grey clay base 1/2 in. diam. at base of lat. 1" in.						
1900				light grey g ⁺ g ⁺ ; 1889.5 - 1905.7 29 cm g ⁺ vein bright green talc with calcareous matrix; massive buff siliceous carbonate alteration						
				580.9 - 584.6 1925.7 - 1932.9 buff white g ⁺						

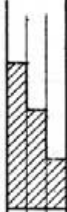
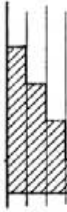
P. Godkin

PAGE 13		OF 44		PROJECT:			HOLE NO. 76			
DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
				seen to xenoliths of andesite						
				584.6 - 585.0						
1920				c sharp 1919.9 - 1919.2 tuff c gradational light grey clay, green to brownish (lower part); 1.3cm thick bedding seen as colour change; 15% tuff cleed 1.4mm carbonate patches						
				585.0 - 597.9						
1940				black colour, af, well bedded stem thick (seen as light grey cl) - bedding is calcareous & commonly discrete due to x-cutting by F ₁ ; 2% 1.3mm grey coloured feldspar (occasional shank: 2 nd form), local units at 300-400mm light & dark grey vol. fragments (graded unit - tops up)						
1960				End of hole						

P. Godkin

MINERALS SECTION

DRILL LOG

PROJECT Kutchu Creek	GROUND ELEV. 5390' 1643m
HOLE NO. 78	BEARING 180°
LOCATION 70,130' N ; 190,420 E claim: Jeff 110	DIP -70°
	TOTAL LENGTH 586' 178.6 m
LOGGED BY P. Godkin	HORIZONTAL PROJECT
DATE August 14-16, 1978	VERTICAL PROJECT
CONTRACTOR Arctic Diamond Drilling	ALTERATION SCALE  absent slight moderate intense
CORE SIZE BQ	TOTAL SULPHIDE SCALE  traces only < 1% 1% - 3% 3% - 10% > 10%
DATE STARTED August 11, 1978	
DATE COMPLETED August 15, 1978	
DIP TESTS 164.5' -69.3° 179° 365' -66.5° 178° 565' -55.3° 177.5°	
COMMENTS	LEGEND

OF 14

PROJECT:

HOLE NO. 78

LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
			A	B	C	D	E	
		metres 0.0 - 7.6						
		7.6 - 135.8						
		32.4 - 44.2 dark grey clay, 10% black tabular mica, 5%						
		44.2 - 38.1 medium grey clay, 10% black mica, 5% light grey tabular mica, moderately 30% light green calc. f. grains						
		38.1 - 21.1 medium grey clay, 10% black mica, 5% light grey tabular mica, moderately 30% light green calc. f. grains						

P. K. L. K.

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
				116-9-149 medium grey slc; 4% 1-6mm slight & moderately chlorinated amph, 3% 1-6 mm silic; tab play; 30% light green alc epid 13% qzms, hematite staining fractures						
				117-10-150 dark grey to black 5% light grey (calcite) plus 2 grains calcite (calcite stained), 3% 1-2 mm black amph; play silic- stained not visible distributed from grains; locally 20% light green epidote						
				118-11-151 medium grey slc, 15% heavily chlorinated 1-7mm amph, locally ^{visible} 5% 2-layer silic tab play; 10% light green silic qzms						

P. Hodkin

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
				136.6 - 138.6 medium to dark grey colour, 1% 1-3mm clasts, thin plaz, 2% 2-3mm black ampb; (lightly) v. fine grained						
				19.6 - 204.7 medium grey, visible unit: 2-15% st-4mm; 5-10% cut moderate clasts (in) ampb; 0-25% visible 2-6mm clasts; thin plaz; 2-15% light green quartz alteration; locally hematite along fractures						
				234.7 - 327.6 medium to dark grey clc, 1% 1-4 mm black ampb, 1% 1-6mm clasts; thin plaz, 2% 2-3mm white, ragged (slightly) carbonate altered plaz; limonite staining along fractures						

P. Godkin

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
230										
233				337.3 - 395.8 medium to dark grey, ls much streaked along F ₁ as elongate masses; 2-6% 1-2 mm euhedral plagioclase phenocrysts; in situ chlorite, hematite (Ca) altered rhyolite flow						
249				315.3 - 411.1 medium to dark grey, 1-2% visible plagioclase phenocrysts; moderately chloritized ampb as elongate patches along F ₁ planes; white clc'd slightly carbonate altered plagioclase						
260				22 quartz veins 411.1 - 445.4 medium to dark grey clc; minor ss; locally plagioclase phenocrysts, 15-20% ampb along F ₁ planes, locally 10% epid 1300 glass or slightly carbonate altered glass						
273				135.8 - 178.6 445.4 - 586 Sericite schist 445.4 - 467.4 Sericite schist (70) pale green clc; c>s; 15% white carbonate alteration patches						

F. Hodgkin

PAGE 11		OF 14		PROJECT:					HOLE NO. 78						
DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION					ALTERATION					FRACT INTENSITY	
									A	B	C	D	E		
720				5-15mm diameter (some chert) locally 5mm-14mm light green carbonate siliceous vol ^{ic} fragments, very closely packed shaly matrix											
740				469.4-476.7 light grey clc, (fine) 5-20; 2% 3-12mm carb alteration patches; locally visible light grey siliceous 3-3cm elongate vol ^{ic} fragments; unit shows 1-2% 2-10mm very light green carbonate (small fragments)											
760				476.7-487.7 pale green clc, 5% light grey 2-7mm at ^{ic} fragments locally showing moderate carbonate alteration; unit (fine) 5-25											
780				487.7-495.3 greenish-grey clay 12% (locally 5-8) carbonate alteration altered light grey, siliceous, compacted, vol ^{ic} fragments, unit; 5-25; 5-10% greenish grey 3-3cm compacted elongate siliceous vol ^{ic} fragments											
800				495.3-532.5 pale green clc, (fine); 5-25; 2-3% 1-5mm carbonate alteration patches (more common upper part of unit); composed of light grey & predominantly light green siliceous compacted 6-10mm vol ^{ic} fragments; 523-525 4% 3-3cm diameter light grey red to orange carb alteration patches, pt. fragments											
820				532.5-548.8 light to medium grey (fine); 5-20; 4% 1-6mm carbonate patches; locally visible light grey 3-3cm siliceous vol ^{ic}											

P. Godwin

PAGE 12 OF 14		PROJECT:					HOLE NO. 7				
MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	INTERVAL	WIDTH	ASSAY NUMBER	%			oz/ton		COMPOSITE ASSAYS ppm Co / Ni	
					Cu	Zn	Pb	Ag	Au		
5-12 wt % fg Py concentrated as conc bands along F ₁ planes (avg 3% py, 1% sph)											
		480									
5-12 wt % fg Py concentrated along F ₁ planes (avg ~5%)		197.7	0.5	6843	.030	.02	.03	.18	.002	19 / 12	
		188.2	6.8	6844	.008	.02	.01	.09	.002	28 / 10	
		495.0									
482.7 12cm 7wt % massive Py within a quartz gangue 1-2% - Py concentrated along F ₁ planes as conc bands		500.2	5.2	6845	.007	.02	.02	.08	.001	26 / 8	

P. Godkin

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
				Fragment						
				548.8 - 562.2 fine green cl; (g.s.); C2S; 1% grains under carbonate alteration patches (of a massive environment vesicle)						
560		67		563.3 - 586 light grey cl; (w.s.); S22C; 2% 3-9mm calc alteration patches; locally light grey compacted siliceous fragments!						
		19								

P. Godkin

PAGE		OF		PROJECT:		HOLE NO. 78				
DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION		ALTERATION				
						A	B	C	D	E
						additional notes:				
				135.8-148.7	445.4-487.7	hanging wall				
				3r (g.s.)	445.4-469.4	med-light				
				135.8-143.1	green rhy lapilli, tuff, rare frags, avg 20% 1-4 mm irreg to sub-rhombic dolo grains, minor coarser patches, avg 1% fine qz phenos.					
				3r (w.s.)	469.4-476.7	light gray to				
				143.1-145.3	very pale green, fragmental, 3% rounded dolo augens, 1% sph, 2-3% py					
				3r (g.s.)	476.7-487.7	medium green				
				145.3-148.7	fine-grained tuff, 5-10% 1-3 mm qz phenos, 3% sub-rhombic dolo augens.					
				148.7-148.8	487.7-488.2	70% med. grained py in qz gangue				
				148.8-178.6	488.2-586.0	footwall				
				148.8-150.9	488.2-495.0	med. green schist, dk color due partly to py, minor frags, minor qz phenos up to 6 mm, avg 10% 1-3 mm dolo rhombs and patches, avg 15% py				
				150.9-152.5	495.0-500.2	as above w. 5% 1mm carb-qz phenos, avg 15% py				
				152.5-155.9	500.2-511.5	light green schist w. minor distinct white frags, avg 5% diatomitic qz phenos \approx 1mm size				
				155.9-162.3	511.5-532.5	light green schist w. local coarse rhy frags, frags contain white phenos				
					523.3-525.3	contorted qz veins				
				162.3-167.3	532.5-548.8	light gray, slightly granular schist, rare 2-3 mm qz phenos, 4% carb grains				
				167.3-171.7	548.8-563.3	pale green v.f.g., slightly granular schist, 1% 1mm carb grains				
				171.7-178.6	563.3-586.0	mainly light gray to white, minor pale green, rare carb augens, uniform.				

D. Bridges

ESSO MINERALS CANADA

#314-1281 WEST GEORGIA STREET, VANCOUVER, B.C. V6E 3J7
(604) 664-4023



EXPLORATION

C. A. AIRD
DIVISION GEOLOGIST

MV-4441

October 18, 1978

Mr. E. J. Bowles
Chief Gold Commissioner
Ministry of Mines and Petroleum
Resources
Parliament Buildings
Victoria, B.C. V8V 1X4

Dear Sirs:

Re: Jeff, Andrea, Svea, Stu, Lin, Kris,
Clg and Moe Mineral Claims Drilling
Report

Enclosed are two copies of the drilling report as requested by October 25 by your letter of October 13, file no. 166 - Liard.

We request that this report be kept confidential for a period of three years since it contains assay results for relatively high-grade mineralization.

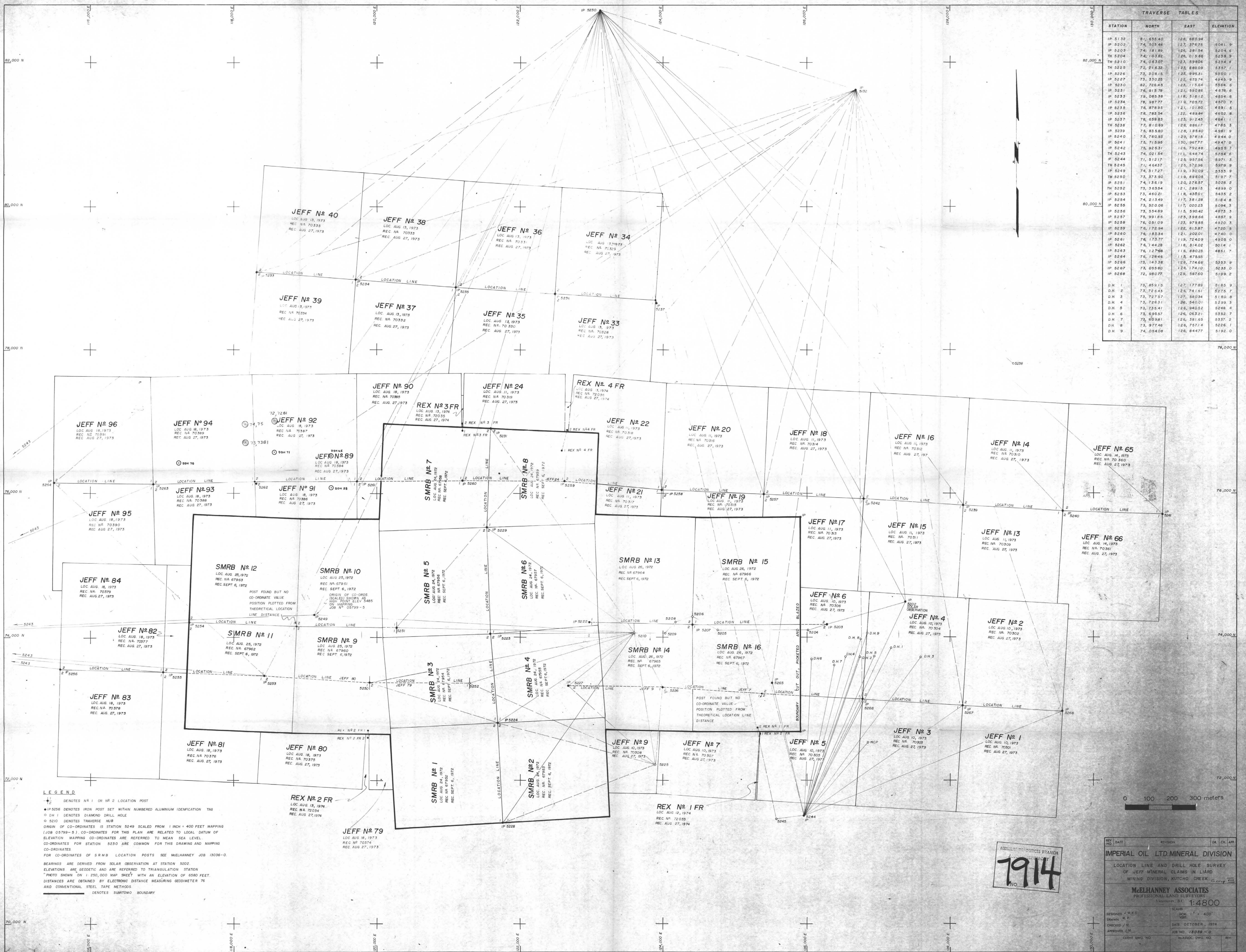
Yours truly,

Dane Bridge
Dane Bridge

A handwritten signature, likely of the sender, Dane Bridge, written in cursive.

DB:JW

Encl. 2



TRAVERSE TABLES			
STATION	NORTH	EAST	ELEVATION
IP 5132	81, 655.40	126, 680.94	
IP 5202	74, 503.44	127, 376.75	5081.9
IP 5203	74, 181.89	126, 281.54	5204.6
TH 5204	74, 103.82	126, 015.66	5238.9
TH 5210	74, 519.07	123, 589.06	5154.8
TH 5225	72, 216.32	123, 889.09	5357.1
IP 5226	73, 308.15	123, 995.31	5300.1
IP 5227	73, 330.25	123, 679.74	4945.9
IP 5230	82, 726.45	123, 175.64	5354.6
IP 5231	74, 917.78	121, 480.64	4476.6
IP 5233	79, 065.39	118, 316.12	4554.6
IP 5234	78, 987.77	119, 705.72	4570.7
IP 5235	78, 879.95	121, 101.80	4591.6
IP 5236	78, 783.94	121, 489.84	4632.8
IP 5237	78, 659.83	123, 324.43	4661.1
TH 5238	77, 810.89	126, 866.17	4785.3
IP 5239	75, 835.80	126, 185.40	4981.9
IP 5240	75, 780.93	129, 578.15	4944.0
IP 5241	75, 715.86	130, 957.77	4947.0
IP 5242	75, 925.31	126, 792.49	4955.7
TH 5243	74, 021.54	111, 648.74	5254.6
IP 5244	71, 512.17	125, 975.56	5271.3
TH 5245	71, 464.37	125, 372.56	5279.9
IP 5249	74, 317.27	119, 130.09	5353.9
TH 5250	73, 373.90	119, 896.05	5197.7
IP 5251	74, 136.19	120, 276.57	5028.2
TH 5252	73, 363.94	121, 289.15	4899.0
IP 5253	73, 480.21	118, 485.01	5455.2
IP 5254	74, 215.49	119, 381.58	5184.8
IP 5255	73, 520.06	117, 020.23	5094.3
IP 5256	73, 554.89	115, 590.42	4873.3
IP 5257	75, 991.86	125, 398.66	4887.9
IP 5258	76, 051.09	123, 579.85	4920.3
IP 5259	76, 172.94	122, 613.87	4720.5
IP 5260	76, 183.34	121, 202.01	4740.0
IP 5261	76, 173.77	119, 724.09	4905.0
IP 5262	76, 144.28	118, 314.02	5014.1
IP 5263	76, 127.68	116, 680.23	4861.7
IP 5264	76, 126.46	115, 475.93	
IP 5266	75, 143.38	126, 746.66	5303.9
IP 5267	75, 059.80	126, 174.10	5233.0
IP 5268	72, 980.77	129, 567.60	5199.2
D.H. 1	73, 851.15	127, 177.89	5185.9
D.H. 2	73, 726.43	126, 741.61	5275.7
D.H. 3	73, 727.57	127, 560.34	5180.8
D.H. 4	73, 728.31	126, 540.01	5259.3
D.H. 5	73, 735.41	126, 394.02	5248.4
D.H. 6	73, 690.57	126, 063.21	5352.7
D.H. 7	73, 609.81	126, 381.65	5337.2
D.H. 8	73, 977.46	126, 757.14	5226.1
D.H. 9	74, 054.08	126, 844.77	5192.0

LEGEND

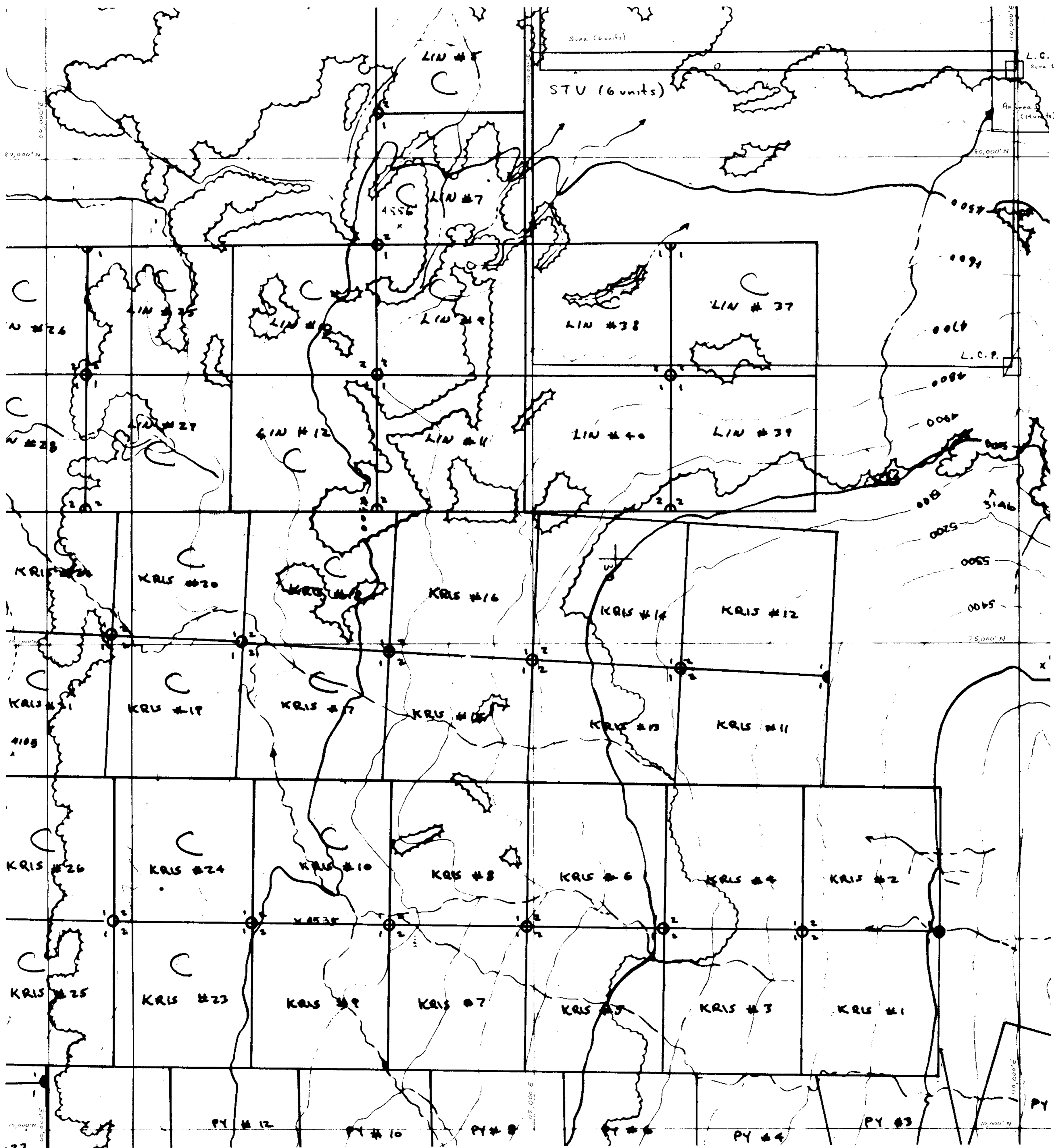
- LOCATION LINE
- DENOTES NO. 1 OR NO. 2 LOCATION POST
- DENOTES IRON POST SET WITHIN NUMBERED ALUMINUM IDENTIFICATION TAG
- D.H. 1 DENOTES DIAMOND DRILL HOLE
- 5210 DENOTES TRAVERSE HUB
- ORIGIN OF CO-ORDINATES IS STATION 5249 SCALED FROM 1 INCH = 400 FEET MAPPING (JOB 05799-5). CO-ORDINATES FOR THIS PLAN ARE RELATED TO LOCAL DATUM OF ELEVATION MAPPING CO-ORDINATES ARE REFERRED TO MEAN SEA LEVEL. CO-ORDINATES FOR STATION 5230 ARE COMMON FOR THIS DRAWING AND MAPPING CO-ORDINATES
- FOR CO-ORDINATES OF SMRB LOCATION POSTS SEE MELHANNY JOB 10306-0.
- BEARINGS ARE DERIVED FROM SOLAR OBSERVATION AT STATION 5202.
- ELEVATIONS ARE GEODETIC AND ARE REFERRED TO TRIANGULATION STATION.
- * PHOTO SHOWN ON 1:250,000 MAP SHEET WITH AN ELEVATION OF 6840 FEET.
- DISTANCES ARE OBTAINED BY ELECTRONIC DISTANCE MEASURING GONIOMETER 76 AND CONVENTIONAL STEEL TAPE METHODS.
- DENOTES SUMMITO BOUNDARY.

0 100 200 300 meters

1914

REV. NO.	DATE	REVISION	DR.	CHK.	APP.
IMPERIAL OIL LTD. MINERAL DIVISION					
LOCATION LINE AND DRILL HOLE SURVEY OF JEFF MINERAL CLAIMS IN LIARD MINING DIVISION, KUTCHO CREEK					
MELHANNY ASSOCIATES PROFESSIONAL LAND SURVEYORS Vancouver, B.C. 1:4800					
DESIGNED BY	M.E.S.	SCALE	1" = 400'		
DRAWN BY	M.S.	DATE	OCTOBER, 1974		
CHECKED BY	J.M.	DATE	OCTOBER, 1974		
APPROVED BY	J.M.	JOB NO.	13059-D		
CLIENT DWG. NO.		CLASSIC DWG. NO.			

MAP NO. 1



GEOLOGICAL FEATURES

- Drift covered area
- Rock outcrop area of known fault
- Geological boundary (defined, approximate interpreted)
- Bedding, non known (horizontal, inclined, vertical, overturned, dip unknown)
- Bedding, dips unknown (inclined, vertical, dip unknown)
- Schistosity, cleavage, foliation (horizontal, inclined, vertical, dip unknown)
- Discontinuity, cleavage, foliation (horizontal, inclined, vertical, dip unknown)
- Lamination, area of known fault (horizontal, inclined, vertical)
- Drift fold (arrow indicates direction)
- Fault (defined, approximate, interpreted)
- Fault (defined, vertical)
- Fault (fold, anticline, syncline, etc. (arrow indicates direction, etc.))
- Fault (fold, approximate, interpreted)
- Shoring and dip
- Joint (horizontal, inclined, vertical, dip unknown)
- Syncline (defined, approximate)
- Anticline (defined, approximate)
- Strike-slip and other (horizontal)
- Intensity fault, moderate, strong

CULTURES

- Trench
- Sub or fault
- Rock dump or talus
- Quarry or mine
- Shed, cave, etc.
- Dumped-drill hole

TOPOGRAPHY

- Contour 2500
- Stream or creek (perennial, intermittent)
- Marsh, etc.
- Lake
- Road
- Asphalt road
- Trail

7914

IMPERIAL OIL LIMITED
 PROJECT NO. MINING DIVISION L.A. 114
 LATITUDE 58° 12' LONGITUDE 128° 21'
 NTS 104 I / 1 W

TRAVERSE TABLE			
STATION	NORTH METERS	EAST METERS	ELEVATION FEET
IP 5132	24,882.47	38,612.35	5410.6
IP 5202	22,706.65	38,824.43	5081.9
IP 5244	21,736.91	38,331.88	5971.5
IP 5249	22,669.07	36,280.81	5353.9
IP 5269	21,896.75	41,201.89	5844.3
IP 1651	20,272.73	42,857.80	5682.0
IP 1652	20,613.03	42,864.80	5578.7
IP 1653	20,812.03	42,569.81	5548.7
IP 1654	20,988.99	42,406.03	5561.2
IP 1655	21,028.44	42,172.25	5472.0
IP 1656	21,201.01	42,144.08	5490.0
IP 1658	21,252.41	41,753.52	5297.9
IP 1659	21,186.16	41,692.29	5261.2
IP 1660	21,357.77	41,694.05	5382.4
IP 1661	21,197.82	42,469.82	5663.3
IP 1662	20,955.15	42,917.38	5596.1
IP 1663	20,600.28	42,970.30	5577.0
IP 1664	21,011.49	41,878.39	5276.0
IP 1666	21,025.05	41,320.99	5273.9
IP 1667	21,373.70	41,261.88	5527.3
IP 1668	21,385.75	40,838.85	5678.1
IP 1669	20,970.30	40,861.22	5433.4
IP 1670	20,624.29	41,297.45	5140.3
IP 1671	20,011.50	41,223.27	5128.3
IP 1672	21,392.50	40,403.81	5831.1
IP 1673	20,913.75	40,408.46	5673.3
IP 1674	20,848.65	39,960.82	5626.7
IP 1675	20,798.90	39,526.90	5553.0
IP 1676	21,398.00	39,594.75	5736.9
IP 1677	21,400.47	39,981.90	5736.9
IP 1678	23,066.57	44,562.98	5682.8
IP 1679	23,942.90	42,234.85	6083.0
IP 1680	22,053.52	42,870.11	5225.9
IP 1681	22,074.17	42,446.63	5422.6
IP 1682	22,097.13	42,048.96	5617.9
IP 1683	22,116.69	41,592.85	5690.9
IP 1684	22,111.83	41,167.34	5650.7
TH 1685	22,809.68	41,958.58	5577.3
TH 1686	22,998.50	42,391.86	5352.3
TH 1687	22,411.81	42,782.15	5195.1
TH 1688	22,217.29	43,176.26	5059.1
TH 1689	22,013.42	43,575.99	4897.5
TH 1690	21,204.30	42,897.87	5455.2
TH 1691	21,236.60	43,370.97	5288.5
TH 1692	21,459.32	42,819.65	5387.9
TH 1693	21,276.92	43,222.50	5280.1
TH 1694	21,013.97	43,586.60	5352.2
TH 1695	20,916.33	43,987.84	5359.7
TH 1696	20,735.50	44,387.24	5203.6
TH 1697	20,546.22	44,782.45	5027.9
TH 1698	20,795.09	43,736.32	5456.5
TH 1699	20,779.52	43,308.27	5576.7
TH 1700	22,817.88	41,512.47	5421.1
TH 2862	22,850.14	41,075.00	5264.4
TH 2863	22,038.94	41,190.56	5268.1
IP 2864	20,342.33	43,312.97	5479.5
TH 2865	19,915.58	43,302.80	5182.5
TH 2866	19,903.78	43,732.87	5088.5
TH 2867	20,323.02	43,730.51	5299.4
IP 2868	20,208.85	43,764.88	5230.8
IP 2869	20,000.75	44,204.85	5040.5
IP 2870	20,401.48	43,366.50	5477.0
IP 2871	19,801.45	44,615.81	4868.9
IP 2872	19,493.37	43,297.85	4935.8
IP 2873	19,487.63	43,730.18	4841.9
TH #1	20,239.99	42,880.94	5658.2
TH #4	19,434.17	43,707.30	4825.4

N 23,000

N 22,000

N 21,000

N 20,000



REV. NO.	DATE	REVISION	DR.	CH.	APP.

SUMITOMO METAL MINING CANADA LTD.

LOCATION LINE SURVEY OF KC, JEFF, JENN AND MOE #1 GROUPS OF MINERAL CLAIMS IN LIARD MINING DIVISION, KUTCHO CREEK.

McELHANNAY ASSOCIATES
PROFESSIONAL LAND SURVEYORS
Vancouver, B.C.

DESIGNED	SCALE
M.S.	HOR. 1:5000 (METRIC)
D.W.R.	VERT. 1:5000 (METRIC)
CHECKED	DATE
D.W.R.	OCTOBER, 1978
APPROVED	JOB NO.
D.W.R.	13036-0
CLIENT DWG. NO.	McASSOC. DWG. NO.

MINERAL RESOURCES BRANCH

7914

LEGEND

- 1 — 2 — DENOTES No. 1 OR No. 2 LOCATION POST
- IP 1653 DENOTES IRON POST SET WITH NUMBERED PLASTIC OR ALUMINUM IDENTIFICATION TAG ATTACHED
- TH 1694 DENOTES TRAVERSE HUB
- Id.P DENOTES IDENTIFICATION POST

ORIGIN OF CO-ORDINATES IS STATION 5249 SCALED FROM 1 FT. = 430 FT. MAPPING (JOB 05799-5)
CO-ORDINATES FOR THIS PLAN ARE RELATED TO LOCAL DATUM OF ELEVATION.
ELEVATIONS ARE GEODETIC AND ARE REFERRED TO TRIANGULATION STATION "PHOTO"
SHOWN ON 1:250,000 MAP SHEET WITH AN ELEVATION OF 6560 FEET.
BEARINGS ARE DERIVED FROM SOLAR OBSERVATION AT STATION 5202. DISTANCES ARE OBTAINED BY ELECTRONIC DISTANCE MEASURING HEWLETT-PACKARD 3800 AND CONVENTIONAL STEEL TAPE METHODS.