

DIAMOND DRILL HOLE REPORT
FOR GROUP VIII
Jeff 79-89, 91-100, 117-134 and Rex 2 Fr.

LIARD MINING DIVISION
NTS 104 I/1W
58⁰ 12' N; 128⁰ 21 W

For
ESSO MINERALS CANADA
314-1281 West Georgia Street
Vancouver, B.C.

by
Dane A. Bridge
August, 1979

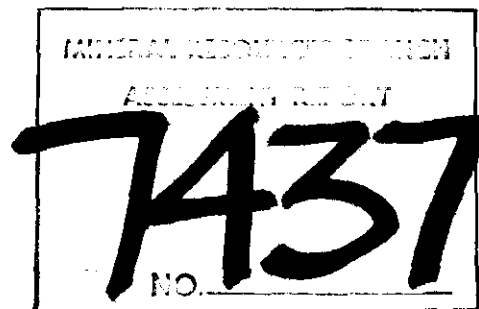


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APPENDIX: DETAILED DRILL LOGS	
DDH 87B1	10 pages
DDH 87B2	12 pages
DDH 87B3	14 pages
DDH 87B4	14 pages
DRILL HOLE LOCATION MAP	In Pocket

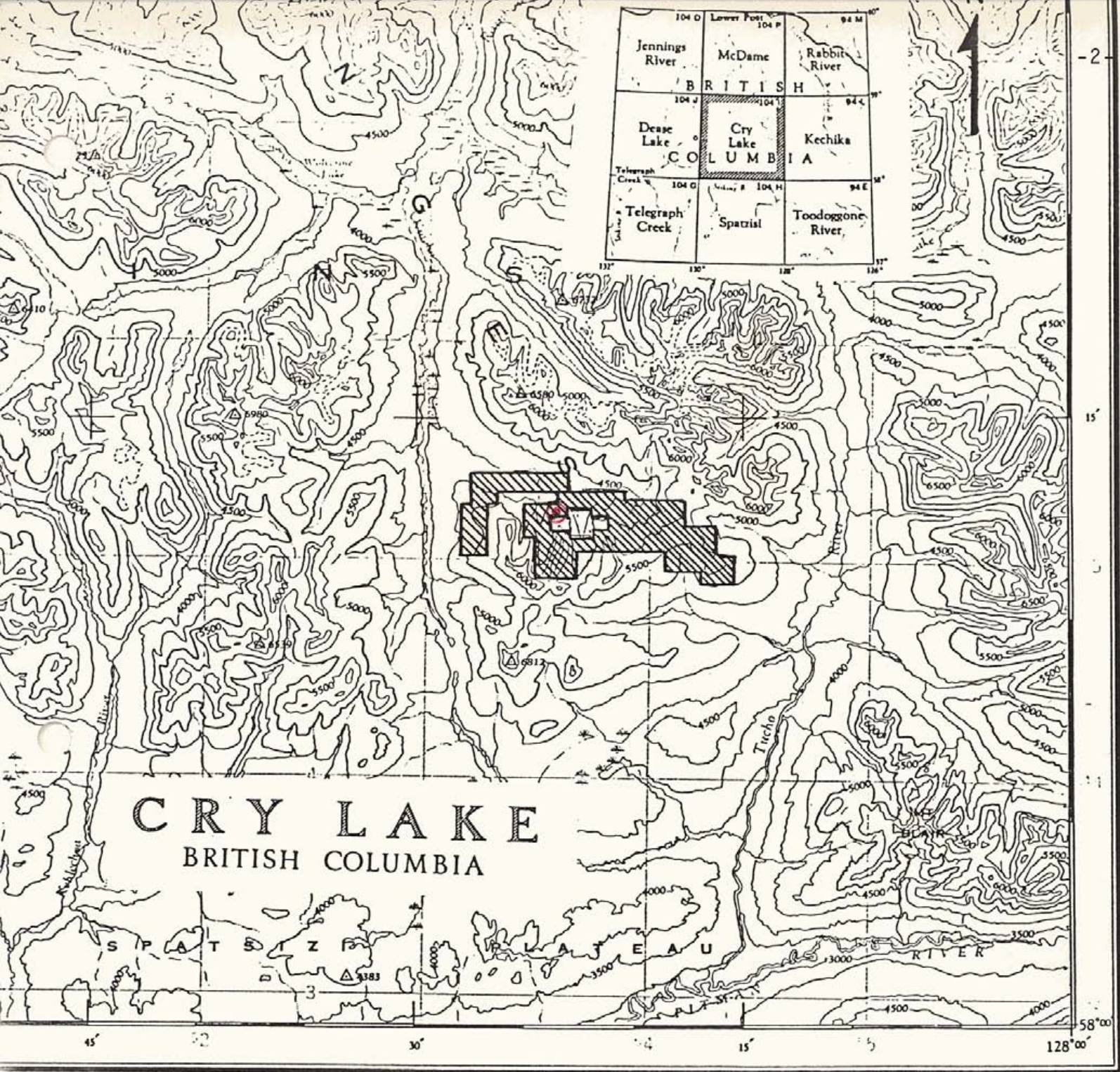
INTRODUCTION

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 by helicopter. The location of Esso Minerals' claims is shown on Index Map No. 1.

The property is owned and operated by Esso Minerals Canada, a division of Esso Resources Canada Limited.

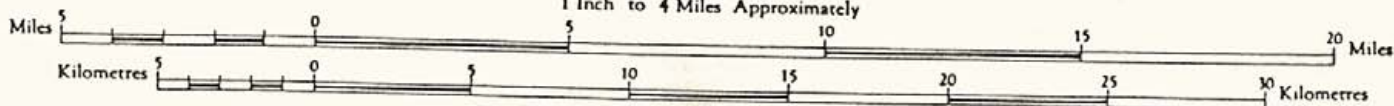
This report describes 669.8 m of BQ diamond drilling in 4 wedged branches from DDH 87 drilled on Jeff 92 mineral claim.

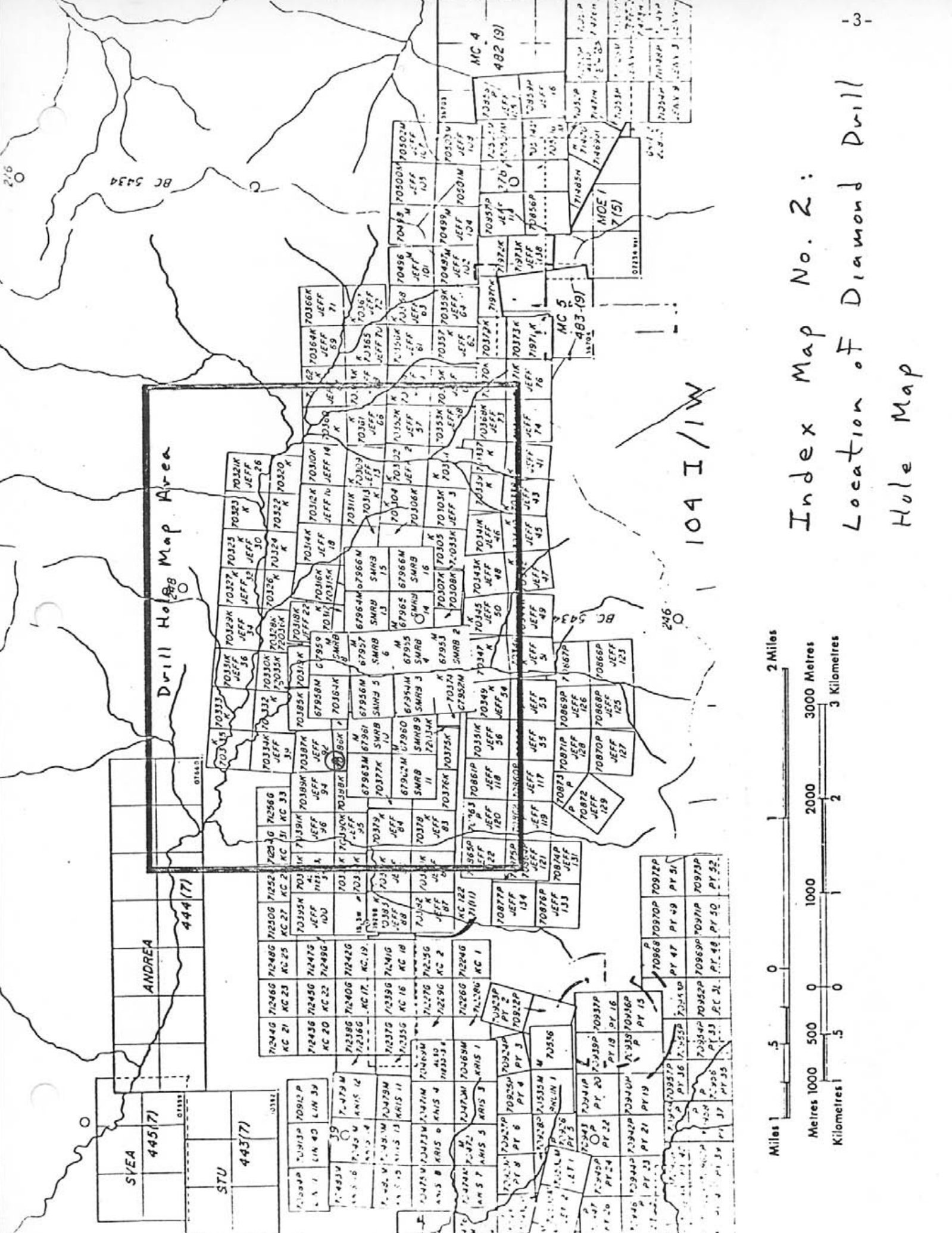


Index Map No. 1: Location of Esso Minerals Canada's Kutcho Creek Mineral Claims in 104 I.

Scale 1 : 250,000

1 Inch to 4 Miles Approximately





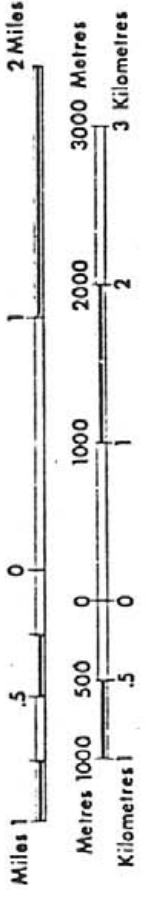
Drill Hole Map Area

ANDREA

SYEA

STU

Index Map No. 2:
Location of F Diamond Drill
Hole Map



104 I/1W

MC 5
483-191

MC 4
482 (9)

NOE 1
7(5)

444(7)

445(7)

443(7)

216

BC 5434

246

3

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 1979 or an estimate:

Limestone, 125 m

Massive recrystallized limestone.

Conglomerate, 150-160 m

Strongly foliated polymictic conglomerate composed of predominately silicic clasts derived from the volcanic pile. The base of the conglomerate unit has been intersected in 6 holes. It is always underlain by rocks of the basic unit.

Tuff Argillite Unit, 350 m in area north of Esso's camp to 440 to 470 m thick 3 km west

This unit represents a conformable transition from the underlying silicic volcanic rocks to very fine-grained, silicic, graded water-lain tuffs, argillite, siltstone and epiclastic rocks. It consists mainly of tuffs and slightly argillaceous tuffs metamorphosed to quartz-chlorite-sericite-biotite schists. Fine laminations, graded bedding and quartz phenocrysts are unaffected by the development of foliation.

A black, calcareous, graphitic argillite commonly occurs a few meters above the base of the unit. A mixed unit of argillite and argillaceous tuff commonly occurs approximately 100 to 150 m above the base of the tuff-argillite unit. The main lithology in the upper portion of the unit is a silicic siltstone with minor megascopically visible biotite. Minor disseminated pyrrhotite + pyrite is ubiquitous in the tuff-argillite unit.

Basic Unit, Variable Thickness

Basaltic to andesitic flows and tuffs? occur from immediately below the ore horizon to the base of the conglomerate unit. They are most abundant within the stratigraphic interval of the tuff-argillite unit. Here they account for 33 to 82% of the section and generally make up >50% of the section directly overlying the ore horizon.

The basic unit rocks were previously called metagabbro. They include massive basalt, basic schists, amphibolitic flows, amphibolitic flows with plagioclase phenocryst, plagioclase porphyries and plagioclase porphyries with minor quartz phenocrysts. Variations from massive, amphibolitic units to plagioclase porphyries are the most common rocks in the basic unit.

The basic rocks are commonly weakly foliated and contain chlorite, epidote-clinozoisite and biotite. Locally they are intensely altered to carbonate-sericite.

Quartz Feldspar Crystal Tuff (QFCT), 200 m

The QFCT and Rhyolite Tuff units overlie the ore horizon. The ore zones occur slightly up-dip (south) of a facies change between the QFCT and Rhyolite Tuff units. The QFCT unit is graded and tuffaceous at the top but could be a flow.

Two main phases occur in the QFCT. The most abundant phase is a very homogeneous quartz-feldspar-sericite-chlorite-carbonate schist with abundant quartz phenocrysts, commonly up to 1 cm, and fewer plagioclase phenocrysts. The rock has a distinctive porphyritic or crystal tuff texture and is variably sericitic or chloritic. Immediately above ore it is intensely sericitized.

A coarse breccia phase occurs in the middle to upper parts of the unit but is not always present. It contains small to 1 m fragments texturally identical to the matrix and minor fine-grained chloritic fragments. The breccia phase is commonly heavily altered to epidote-clinozoisite.

Rhyolite Tuff, 135 m

This unit is facies equivalent with the QFCT unit. It develops along the down-dip (north) edge of the massive sulphide zones and commonly occupies most of the interval between the ore horizon and the Tuff-Argillite unit north of the sulphide zones.

The Rhyolite Tuff unit consists of quartz and sericite + chlorite and carbonate schists. It has a relict fragmental texture and minor, large quartz phenocrysts, commonly altered to carbonate. Colors vary from white to green and it commonly has a pink to purple tone due to hematite.

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 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 sphalerite, chalcopryrite, bornite and chalcocite.

Distal to the sulphide zones the ore horizon consists of minor, disseminated, sphalerite and chalcopryrite with pyrite in schist or carbonate.

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

DIAMOND DRILLING

DDH 87B1 to B4 are wedged branches drilled from DDH87. The 4 holes provide sulphide intersections across a sulphide zone intersected in DDH 87. DDH 87B1 to B3 had significant sulphide intersections. 87B4 intersected the sulphide horizon beyond the zone of significant sulphide mineralization.

A brief description of the geology and assay results is given for each hole. The detailed drill logs are in the Appendix.

The drill core is stored at Esso Minerals camp at Kutcho Creek.

DDH 87B1

350.0 - 364.0	Basic units
364.0 - 367.3	Tuff-argillite unit
367.3 - 416.5	Basic units
416.5 - 419.8	Quartz feldspar crystal tuff
419.8 - 426.1	Basic unit
426.1 - 466.2	Quartz feldspar crystal tuff
466.2 - 472.3	Massive sulphide horizon
472.3 - 485.8	Sericite Schist
465.5 - 476.2	1.55% Cu, 0.96% Zn, 0.06% Pb, 55.06 g/t Ag, 0.68 g/t Au.

DDH 87B2

28.6 - 333.2	Tuff argillite unit
333.2 - 413.3	Basic unit
413.3 - 417.4	Quartz feldspar crystal tuff
417.4 - 425.8	Basic unit
425.8 - 465.7	Quartz feldspar crystal tuff
465.7 - 469.1	Massive sulphide horizon
469.1 - 493.2	Sericite schist
466.1 - 474.9	1.43% Cu, 1.52% Zn, 0.02% Pb, 66.05 g/t Ag, 1.15 g/t Au.

DDH 87B3

310.3 - 331.3	Tuff argillite unit
331.3 - 432.4	Basic units
432.4 - 457.3	Quartz feldspar crystal tuff
457.3 - 465.3	Massive sulphide horizon
465.3 - 484.0	Sericite schist
457.3 - 465.3	3.02% Cu, 1.80% Zn, 0.02% Pb, 60.17 g/t Ag, 0.34 g/t Au.

DDH 87B4

299.0 - 322.4	Tuff argillite unit
322.4 - 370.0	Basic units
370.0 - 378.7	Quartz feldspar crystal tuff
378.7 - 428.8	Basic units
428.8 - 431.8	Quartz vein
431.8 - 442.6	Quartz feldspar crystal tuff
442.6 - 450.4	Rhyolite tuff
450.4 - 451.4	Sulphide Horizon
451.4 - 461.2	Sericite schist
450.4 - 451.4	0.55% Cu, 0.05% Zn, 0.02% Pb, 3.77 g/t Ag, 0.14 g/t Au.

COST STATEMENT

Dates Drilled:	June 26 - July 19, 1979	
Holes Drilled:	DDH 87B1, B2, B3, B4	
Direct Drilling Costs:	129 ft. at \$13.40	\$ 1,728.60
	1755.5 ft. at \$13.90	24,401.45
	313 ft. at \$14.40	4,507.20
Labour:	346 hrs. at \$17.50/hr.	6,055.00
Machine Standby:	124.5 hrs. at \$9.50	1,182.75
Packers, Plugs and Wedges left in holes:		1,200.00
Assays:	18 at \$28.00	504.00
Fuel:	270 gal. at \$2.50/gal.	675.00
Helicopter:	22 hrs. at \$270/hr.	5,940.00
Helicopter Fuel:	495 gal. at \$3.00/gal.	1,485.00
Geologist:	24 days at \$100.00/day	2,400.00
First Aid Person:	12 days at \$85.00/day	1,020.00
Assistant:	12 days at \$35.00/day	420.00
Camp Costs:	168 man-days at \$25.00/day	4,200.00
		<hr/>
TOTAL		<u>\$55,719.00</u>

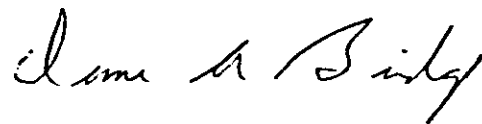
James A. Bailey

STATEMENT OF QUALIFICATIONS

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

I obtained a B.Sc. Honours in 1969 and
a M.Sc. in 1972, both in geology from the University
of Manitoba, Winnipeg, Manitoba.

I have been practising my profession as a
geologist in Canada for 10 years.

A handwritten signature in cursive script that reads "Dane A. Bridge".

Dane A. Bridge, Geologist
Esso Minerals Canada

LEGEND FOR DETAILED DRILL LOGS

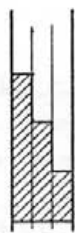
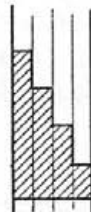
The detailed drill logs are at a scale of 1 inch to 10 feet. All main units have been converted to metres.

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		

MINERALS SECTION

DRILL LOG

PROJECT Kutchok Creek		GROUND ELEV.																			
HOLE NO. 87 B1		BEARING ≈ 125°																			
LOCATION wedged from the 1148.5', 350.0 m, point in DDH 87		DIP ≈ 76.5°																			
LOGGED BY Dane Bridge		TOTAL LENGTH 1148.5' - 1579.0' 445.5' 135.8 m																			
DATE June 30, 1979		HORIZONTAL PROJECT 74.77 m From wedge																			
CONTRACTOR Arctic Diamond Drilling		VERTICAL PROJECT 108.49 m From wedge																			
CORE SIZE B9		ALTERATION SCALE																			
DATE STARTED June 28, 1979		 <ul style="list-style-type: none"> absent slight moderate intense 																			
DATE COMPLETED July 3, 1979		TOTAL SULPHIDE SCALE																			
DIP TESTS		 <ul style="list-style-type: none"> traces only < 1% 1% - 3% 3% - 10% > 10% 																			
COMMENTS		LEGEND																			
<table border="0"> <tr> <td>1169.5'</td> <td>146°</td> <td>-76.5</td> </tr> <tr> <td>1179.5'</td> <td>165°</td> <td>-75.6</td> </tr> <tr> <td>1279.5'</td> <td>166°</td> <td>-69.0</td> </tr> <tr> <td>1379.5'</td> <td>174°</td> <td>-52.0</td> </tr> </table>		1169.5'	146°	-76.5	1179.5'	165°	-75.6	1279.5'	166°	-69.0	1379.5'	174°	-52.0	<table border="0"> <tr> <td>1479.5'</td> <td>175.5°</td> <td>-43.8</td> </tr> <tr> <td>1579.5'</td> <td>178.5°</td> <td>-40.4</td> </tr> </table>		1479.5'	175.5°	-43.8	1579.5'	178.5°	-40.4
1169.5'	146°	-76.5																			
1179.5'	165°	-75.6																			
1279.5'	166°	-69.0																			
1379.5'	174°	-52.0																			
1479.5'	175.5°	-43.8																			
1579.5'	178.5°	-40.4																			

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1 OF 10

PROJECT:

MINERAL SECTION

1972

DRILL LOG

ALTERATION

Core Feet	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION			
				A	B	C	D
350.0			1148.5 - 1174.2 : b. s. s. ...				
350.0			1174.5 - 1179.0 : medium grained 25% 2-7 mm subhedral pl. phenocrysts chl. 5% irregular deformed chl psuedomorphs				
350.0			1179.0 - 1194.2 : transitional change greenish-gray to carb (Hd) base 25-35% 1-3mm subhedral, diffuse no hb or holes avg 1% dissem mainly black gran red				
350.0			1194.2 - 1205.0 : base 400.2 - 1142.0 and 1205.0 mainly band, light gray fine grained v. 5% 1-2mm altd phenocrysts, avg 10% fine dissem elements				
350.0			1205.0 - 1209.5 : light gray bleached rich with, avg 5% subhedral feld, mainly 1-2 mm carbonate halit grains and 1-2 mm gray, along phenocrysts, mostly cores.				

Acidic Granit Drilling

D. B. G. / [Signature]

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	INTERVAL	WIDTH	ASSAY NUMBER	%	%	%		COMPOSITE ASSAYS
		1150							
		1160							
1170.0 - 1194.2 : avg <1% dissem py									
1197.0 - 1202.0 : avg 1% py									
		1220							


D. Birdy

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
1240										
1260	47			389.3-389.5 1260.8 - 1278.0 : transition from bleached Feldspar porphyry basic unit to Feldspar porphyry w. fine disseminated chl in matrix and chloritic veins or minor chl. inclusions in gray, unzoned subhedral to irreg. plag. phenos. avg 40% plag, no visible relict hb						
1280	35			389.5-416.5 1278.0 - 1366.5: medium gray-green basic unit w. 10% moderately to intensely chloritized hb grains, variable plag content from minor 1mm grains to 10-20% 2-5 mm grains. local qz and qz-carb veins up to 17 cm thick.						
1300	44									
	35									
1320										

D. Bridger

PROJECT:		GEOLOGICAL		LITHOLOGY		DESCRIPTION	
NO.	DEPTH (M)	START (M)	END (M)	DESCRIPTION	REMARKS	DIAGRAM	OTHER
1	1366.5	1366.5	1372.2	1-5 mm phos, 20%	on ~ 20%	[Hatched area]	
2	1372.2	1385.0	1385.0	subcon, light gray gr. phos ~ 2% - 2% iron carbonyl chl, 1% lll. carb	mass, 6 mm mar, bonded		
3	1385.0	1392.0	1392.0	light, greenish gray mod. fresh to con	mod. fresh, or age	[Hatched area]	
4	1392.0	1395.0	1395.0	used to dk gray to med. gray grains of iron 1-5 mm substituted to gray to white	mod. fresh mod. fresh mod. fresh		
5	1395.0	1398.0	1398.0				

[Handwritten signature]

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A hem	B chl	C	D	E	
1420				426.1 - 448.8 1398.0 - 1472.5 : chloritic GFCT, dark to light green, abundant to minor chlorite in matrix, local light colored zones w. minor chlorite, avg 30-35% 1-10mm qz phenos, local minor 1-3 mm greenish plag phenos., avg 2-3% carbonate grains 1417.5 - 1482.5 : minor dissem red hematite						
1440										
1460										
1480				451.9 - 455.2 1482.5 - 1493.5 : minor very fine dissem blk. hem.						
1480				448.8 - 455.2 1472.5 - 1493.5 : light, greenish white colored GFCT w. no chl and local zones of minor dissem red hem, 30% 2-10 mm qz phenos, minor small plag phenos, avg 2-3% 3-10 mm slightly irregular carb grains which appear to be replacing matrix						
1500				455.2 - 457.0 1493.5 - 1499.5 : white, translucent, hard, non-foliated GFCT, may be a Flow unit						

D. Bishop

PROJECT:

HOLE NO. 87B1

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	INTERVAL	WIDTH	ASSAY NUMBER	%	%	%	COMPOSITE ASSAYS
		1420						
1492.0 - 1499.5 : avg 3% Fine to mainly coarse dissemin py.								

J. [Signature]

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
1520				457.0-464.1 1499.5-1522.5: light greenish white, sericitic, mod. well foliated QFCT, 30% 1-10 mm qz phenos, avg 10% 2-8 mm subhombic white carbonate grains 1cm gauge carbonate content increases slightly towards sulphide zone 590 4cm gauge						
1540				464.1-465.5 1522.5-1527.3: QFCT, minor schist and qz veins. mottled gray and green gray lapilli tuff w. qz phenos, 25% patchy dolomite, 10% qz veins 465.5-466.2 1527.3-1529.4: qz-carb vein and minor sicc 466.2-472.3 1529.4-1549.5: massive sulphide horizon, lenses of massive, fine-grained pyrite w. 10% coarse, angular 2-7mm qz grains, lenses 5-25 mm thick, separated by dissem py in light gray rhyolite lapilli tuff and granular qz grains						
1560				472.3-485.8 1549.5-1594.0: sicc light gray quartz-sericite ± carbonate schist w. good fragmental texture developed from rhyolite lapilli tuff.						
1580										


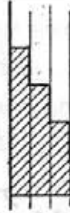
J. Smith

PAGE 9 OF 10 PROJECT:		HOLE NO. 8731									
MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	INTERVAL	WIDTH	ASSAY NUMBER	%			oz/t		COMPOSITE ASSAYS	
					Cu	Zn	Pb	Ag	Au	ppm	Co / Ni %S
1515.7 - 1522.5 : 1-3% dissem 2-5mm py cubes		1520 1522.5									
1522.5 - 1527.3: avg 3% py, 3% ep, dissem to coarse patches in qz veins		1527.3 1529.4	4.8	532	.653	0.09	.02	.19	.009	7 / 9	6.70
1527.3 - 1529.4 : 8% ep, 3% py, <1% sph, coarse in qz.		1529.4	2.1	533	3.295	1.17	.02	.58	.013	6 / 8	9.70
1529.4 - 1533.4: 70% py, 9% ep, <1% sph in bands, trace br, ep mainly dissem patches and interstitial to qz grains		1533.4	4.0	534	1.905	1.68	.09	1.27	.069	14 / 5	41.00
1533.4 - 1541.6: 70% py, semi- massive zones to dissem, 1-2% ep, <1% br, ep and brn in dissem patches		1540 1541.6	8.2	535	.493	.56	.02	1.10	.013	6 / 6	22.30
1541.6 - 1549.5: 35% py, ≤ 1% ep, ≤ 1% br		1549.5	7.9	536	1.585	1.09	.03	1.78	.014	12 / 9	32.50
1549.5 - 1562.5: avg 25% fine dissem py, <1% ep, ≈ 1% evenly dissem br, ≤ 1% dissem sph., chalcocite w one coarse br patch		1560 1562.5	13.0	537	1.810	.92	.11	2.09	.017	13 / 12	42.00
1562.5 - 1575.5: avg 15% dissem py, 1% ep, << 1% br.		1575.5	13.0	538	.529	.05	.02	.21	.002	7 / 5	15.50
1575.5 - 1599.0: avg 10% dissem py, tr. ep.		1580									

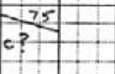
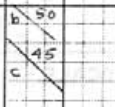
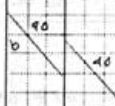
D. B. Budge

MINERALS SECTION

DRILL LOG

PROJECT Kutchko Creek		GROUND ELEV.
HOLE NO. 87B2		BEARING 173°
LOCATION wedged from the 1078', 328.6m point on DDH 87		DIP 75.9°
LOGGED BY Dana Bridge		TOTAL LENGTH 540' 164.6m
DATE July 4-8, 1979		HORIZONTAL PROJECT 79.36m from wedge
CONTRACTOR Arctic Diamond Drilling		VERTICAL PROJECT 140.95m from wedge
CORE SIZE B9		ALTERATION SCALE
DATE STARTED July 4, 1979		 <ul style="list-style-type: none"> absent slight moderate intense
DATE COMPLETED July 8, 1979		TOTAL SULPHIDE SCALE
DIP TESTS		 <ul style="list-style-type: none"> traces only < 1% 1% - 3% 3% - 10% > 10%
1078.0' - 173° - 75.9 1208.5 - 173 - 71.5 1308.5 - 173.5 - 63.0		
COMMENTS		LEGEND
1408.5 - 177 - 56.1 1508.5 - 177.5 - 49.0 1606.5 - 178.5 - 45.4		

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
				metres						
1080				328.6-332.2 1078.0-1093.2 : Tuff- Arg. illite unit 328.6-331.8 1078.0-1088.7 : light gray, very fine-grained tuff w. avg 5% 1-10 mm, scattered and locally concentrated qz phenos, weakly foliated, sharp and irregular contact at 1088.7 331.8-333.2 1088.7-1093.2 : massive, hard light gray wholite w. 10% 1mm carb grains to very fine-grained feld + bx'd rhy., local coarse sections						
1100				333.2-413.3 1093.2-1136.0 : basic units 333.2-335.1 1093.2-1099.5 : moderately to weakly bleached feldspar porphyry 335.1-341.7 1099.5-1121.0 : medium to dk green feldspar porphyry, avg 10% subhedral 2-5 mm, light gray plag phenos in chloritic groundmass, avg 5% 1-2 mm, locally to 15mm chloritic patches, irregular, no relict mafics visible.						
1120				341.7-351.7 1121.0-1159.0 : light gray green bleached unit, moderate intensity of sericite-carbonate alteration, abundant, indistinct, small plag phenos, no relict mafics nor chlorite, avg 2% dissem blk hematite grains unit has feld. porphyry characteristics but w small, poorly developed phenos.						
1140										
1160										



D. Bird

PAGE 2 OF 12

PROJECT:

HOLE NO. 87B2

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	INTERVAL	WIDTH	ASSAY NUMBER	%	%	%	COMPOSITE ASSAYS
1078.0 - 1093.2 : avg 2% py, to py, dissem, elongate grains in the folin to 5 mm patches in Fuid zones.		1080						

J. ...

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
1180				351.7-358.0 1154.0-1179.6: normal amphibolitic texture in medium gray-green basic unit, mafics completely chloritized, local large chl patches and large chloritized plag phenos.						
				358.0-385.2 1179.6-1263.7: Feldspar porphyry of basic units, commonly w. 25% 1-6 mm slightly carbonate altered phenos, unit is moderately bleached and altered to sericite-carbonate, no relict mafics						
			245	1186.3-1187.2: gouge and sheared rock 1182.5-1209.0: 2% dissemin hematite 1209.0-1263.7: 1% hem.						
1200										
1220										
1240										

C. Smith

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
1266				385.2 - 391.8 1263.7 - 1285.5 : feldspar porphyry w. chloritized mafic grains. med gray-green mottled rock w. avg 25% 1-5mm, less commonly to 12mm plag phenos, locally the phenos are green and apparently chloritized; the base of the unit is a sharp contact between coarse plag porphyry and the next unit						
1280	35-40 25			391.8 - 402.5 1285.5 - 1320.4 : amphibolite medium green, fine-grained basic unit w. avg 5% 1-5mm elongate, slightly chloritized hb grains, plag is mainly fine-grained in matrix						
1300										
1320				402.5 - 413.3 1320.4 - 1356.0 : Feldspar porphyry, medium green w 35% 3-10 mm, euhedral to subhedral, epidote altered plag phenos, phenos are gray w 20-80% fine dissemin yellow-green epidote, avg 20% 1-3 mm elongate, slightly chloritized hb grains						
1340										

J. B. [Signature]

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
				at base fold porphyry unit matrix becomes darker, chloritized mafics are present, 1% 1-2mm qz phenos appear to be present, transition to QFCT occurs w. no color change						
1360				413.3 - 417.4 1356.0 - 1368.5 : QFCT medium green to dark greenish black, variable 10% 1-6mm to 30% 1-15 mm qz phenos, sections w 10% qz contain up to 25% 1-7 mm plag phenos, matrix is heavily chloritic, locally w. Flakly chl and possibly biotite						
				417.4 - 425.8 1369.5 - 1396.9 : basic units						
1380				417.4 - 422.7 1369.5 - 1386.7 : bleached Feldspar porphyry, moderately bleached, gray-green unit of avg 20% 2-5mm partly carbonate altered plag phenos, avg 1% dissem blk hem.						
				422.7 - 425.8 1386.7 - 1396.9 : feldspar porphyry sharp change to med green w 40% 2-12mm subhedral plag phenos, gray w. some internal chlorite, 2% small chloritized relict hb, 1% irregular chl. patches						
1400				425.8 - 463.7 1396.9 - 1521.3 : QFCT						
				425.8 - 427.2 1396.9 - 1401.7 : med green, mod. chloritic, 30% 1-10mm qz phenos, 3% 3-8mm dolo grains						
				427.2 - 428.8 1401.7 - 1407.0 : very light green, hard, compact w. 25% qz and 10% 1-4 mm greenish plag phenos						
1420				428.8 - 432.7 1407.0 - 1419.8 : very pale greenish red mottled, minor chl and epidote in matrix, avg 1% fine dissem red hematite						

O. Smith

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
1440				432.7-446.8 1419.8-1466.0: medium green chloritic gFCT, avg 35% 2-12 mm qz phenos, locally 1-2% 1-3 mm plag phenos, 1-5% scattered, partly carbonate altered qz phenos, off-white in color, trace hematite on some frs and foliation planes						
1460				446.8-449.3 1466.0-1474.0: light reddish green gFCT w. no visible chl, 1-2%? fine dissemin red hem.						
1480				449.3-461.2 1474.0-1513.0: off-white to very light greenish gray gFCT, w. avg 30% 2-10 mm qz phenos, 5-10% fine to 10 mm dolomite grains, weakly foliated and sericitic.						
1500				466.0 @ 1594.5: first observance of apple-green sericite						
1520				461.2-462.7 1513.0-1518.0: massive, hard, non-foliated gFCT 1518.0-1521.3: off-white gFCT, 25% dolo grains, minor green sericite, 16 cm qz vein						

D. B. Kelly

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	INTERVAL	WIDTH	ASSAY NUMBER	%	%	%		COMPOSITE ASSAYS
		1440							
		1460							
		1480							
1493.7 - 1500.0 : 5% coarse py dissem in pFCT around qz veins									
1500.0 - 1521.3 : avg 1% py, mainly 1-5 mm cubes		1500							

J. Birdy

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
1540				463.7-465.7 1521.3 - 1528.0: QFCT basal phase granular, w. 20% 1-5mm qz phenos, well fol'd, 5% rhy frags up to 6 cm 1528.0 - 1529.2: s&sc, light gray (m.s. horizon) rhy lapilli tuff 465.7-469.1 1528.0 - 1539.2: massive sulphide horizon, massive to semi-massive zones w. coarse rhombic dol. grains, some qz, normal s&sc interstitial to massive lenses, upper 10' consists of coarse sp in dolomite, massive sph-py-sp.						
1560				469.1-493.2 1539.2 - 1618.0: s&sc light gray sericite-quartz schist developed from rhyolitic lapilli tuff, sand fragmental texture.						
1580										
1600										
1610										

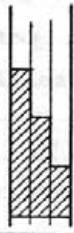
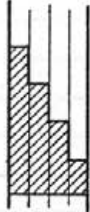
D. Bridg

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	INTERVAL	WIDTH	ASSAY NUMBER	%			g/ton		COMPOSITE ASSAYS	
					Cu	Zn	Pb	Pg	Au	Co/Ni	%S
1521.3 - 1528.0: avg 5% py, <1% cp, 5-10 cm zones of 50% py, sooty blk py, brecciated, w. fine-med grained later disseminated py.		1521.3 - 1528.0	7.9	546	.131	.31	.01	.09	.003	11/20	2.90
1528.0 - 1529.2: 1% py, <1% cp avg 50% py, 4% cp, 1% br, 3% sph, massive to heavy disseminated bands in schist at top 15 cm of 15% cp, 50% sph, 25% py, w. banding.		1528.0 - 1529.2	10.0	547	2.13	1.92	.02	2.11	.062	14/14	31.50
1529.2 - 1548.0: avg 25-30% py, in minor heavy disseminated bands, 1% br, disseminated in schist and associated w. dol. grains, <1% cp, tr sph.		1529.2 - 1548.0	8.8	548	1.44	.91	.01	2.48	.018	15/11	29.70
1548.0 - 1558.0: avg <25% py, 1-2% sph in fine disseminated bands, <1% cp		1548.0 - 1558.0	10.0	549	.726	2.11	.03	1.26	.019	17/14	22.50
1558.0 - 1570.0: avg 15-20% uniformly disseminated py in foliation plane, local disseminated cp, avg <1% cp, trace br and sph.		1558.0 - 1570.0	5.0	550	.408	.81	.01	.32	.002	15/13	21.60

D. Bridg

MINERALS SECTION

DRILL LOG

PROJECT Kutchu Creek		GROUND ELEV.
HOLE NO. 8783		BEARING 170.5°
LOCATION wedge from the 1018.0', 310.3m, point on DDH 87		DIP - 75.3°
LOGGED BY Dane Bridge		TOTAL LENGTH 570' 173.7m
DATE July 10 - 15, 1979		HORIZONTAL PROJECT 97.46m from wedge
CONTRACTOR Arctic Diamond Drilling		VERTICAL PROJECT 137.17m from wedge
CORE SIZE BQ		ALTERATION SCALE 
DATE STARTED July 9, 1979		
DATE COMPLETED July 13, 1979		TOTAL SULPHIDE SCALE 
DIP TESTS		LEGEND
1018.0' - 170.5 - 75.3		
1078.5 170.5 71.2		
1178.5 175.0 62.1		
COMMENTS		
1278.5 176.0 52.4		
1378.5 181.5 48.1		
1478.5 186.5 41.4		
1578.5 189.0 38.0		

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
				1018.0 - 1086.8: Tuff-Angillite unit						
1020				310.3 - 311.2 1018.0 - 1021.0: no recovery 311.2 - 314.0 1021.0 - 1030.2: volcanic epiclastic rock, med gray to green fragmental w. high frags matrix ratio, 2-20 mm frags, 5% blue qz phenos						
1040				314.0 - 328.3 1030.2 - 1077.0: water-lain tuffs light to med green, aphanitic to medium grained tuffs, locally w. beds consisting of qz grains or phenos up to 5 mm, commonly w. 1-5% 1-3 mm qz phenos, local sections gundled w. tops up.						
1060				gouge						
1080				328.3 - 331.3 1077.0 - 1086.8: light green tuff w. 10% 1-8mm qz phenos, 1% fragments; basal 25 cm is aphanitic rhyolite						
1100				331.3 - 432.4 1086.8 - 1418.5: basic units						

D. Brinkley

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	INTERVAL	WIDTH	ASSAY NUMBER	%	%	%		COMPOSITE ASSAYS
1021.0 - 1077.0 : avg 1% po, Fine to elongate dissem grains, locally w. minor py.		1020							
		1010							
1077.0 - 1086.8 : avg 3% py, med grained cubes to irreg grains, 3% po, elongate grains to dissem patches in py.		1100							

D. Birt

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
				331.3-432.4 1086.8-1118.5 : basic units						
				331.3-336.4 1086.8-1103.6 : gray to green feldspar porphyry w. 25% 2-10 mm gray plagioclase phenos, avg 10-20% 1-2 mm beige colored carbonate grains. section is slightly to moderately bleached and altered to carbonate-sericite.						
1120			35-40	very sharp contact at 1103.6 to normal feld. porphyry.						
				336.4-341.7 1103.6-1121.2 : medium green Feld porphyry, avg 30% 1-8 mm gray plag phenos, 15% 1 mm white phenos, abundant fine chl patches and relic mafics.						
1140			40	341.7-365.1 1121.2-1198.0 : light green, moderately carbonate-sericite altered feldspar porphyry, very fine grained, waxy matrix w indistinct to locally obvious plag phenos, avg 20% 1-3 mm beige carbonate grains. avg 1-3% black hematite, fine grains to 1-2 mm grains.						
1160				@ 11365-11370 : 1% 2-6 mm qz phenos occur in feldspar porphyry unit						
1180				362.1-363.5 1188.0-1192.5 : minor, irregular qz veining in altered feld. porphyry unit						

O. Bishop

PAGE 5 OF 14		PROJECT:			HOLE NO. 8763						
DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY	
					A	B	C	D	E		
1200				365.1-369.5 1198.0-1212.4: Feldspar porphyry, mainly med green w. 25% 1-3mm, minor 3-8 mm gray plag phenos, <5% small, relict chloritized hb grains, locally the larger plag phenos are partly chloritized.							
1220		55		369.5-376.5 1212.4-1235.2: medium gray-green, moderately altered Feldspar porphyry, avg 25-30% 2-10 mm gray plag phenos, 5-25% small carbonate grains							
				92 v.							
1240				376.5-387.9 1235.2-1272.6: Feldspar porphyry, very fine-grained gray matrix w. 25% subhedral to elongate plag phenos, mainly partly to heavily green-colored due to chlorite, chlorite alteration affects pheno rims and progresses inwards.							
1260		65									
1280				387.9-395.0 1276.5-1296.0: Feldspar porphyry w. 30% 2-8mm							

J. B. Smith

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	INTERVAL	WIDTH	ASSAY NUMBER	%	%	%		COMPOSITE ASSAYS
		1200							
1228.6 - 1232.5: 5% py, 1-6 mm cubes									
		1280							

D. Smith

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
				subhedral, tabular epidote altered plagioclase phenos, 10% 1-3 mm - slightly to moderately chloritized hb phenos.						
1300				395.0 - 430.8 1296.0 - 1413.5 : medium green colored feldspar porphyry type of basic units, avg 5-15% 1-8 mm subhedral to elongate plagioclase phenos, weakly epidote altered, avg 15% 1-3 mm sub-rounded gray to translucent plagioclase grains, avg 5% to 25% small relict hb grains.						
1320										
1340										
1360										
1370										

O. Smith

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

1300

D. Brinkley

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
1380										
				@ 1385.5 - 1385.9: light gray section w. 20% 1-3 mm rounded plag grains, 20% 1-3 mm chloritized hb grains, sharp lower contact, fairly sharp upper contact						
1400										
				1413.5 - 1418.0: transition to moderately ser-carb alt'd feld porphyry, weakly foliated, light green waxy matrix, 25% fresh to totally carbonate altered feld phenos						
1420				431.6 - 432.4 1416.0 - 1418.5: foliated, dolomitic feld-qz porphyry of basic unit w. 55% 1-5 mm qz phenos, 20% coarse dolomite patches, minor green schist matrix w. no phenos.						
				432.4 - 452.3 1418.5 - 1500.3: QFCT						
1440				432.9 - 438.9 1418.5 - 1440.0: light green-gray w. mottled red-brown tinge due to hematite, avg 35% 2-12 mm qz phenos, 5-8% 2-4 mm beige-colored carbonate grains, no visible chlorite in matrix, minor patches of slight greenish color which may be due to sericite						
				438.9 - 445.2 1440.0 - 1460.6: medium green chloritic, moderately foliated QFCT, 20-25% 2-15 mm qz phenos, 5% 1-3 mm dolomite grains						
1460										

J. Smith

PAGE 11 OF 14		PROJECT:			HOLE NO. 8783						
DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY	
					A	B	C	D	E		
				445.2 - 451.1 1460.6 - 1480.0: very light colored gFCT w. 1-2% dissemin black hematite grains and slight to moderate purple-red tone, avg 20% 2-10 mm qz phenos, avg 5% 2-8 mm euhedral, translucent greenish-gray plag phenos, <1% small dolomite grains, no chlorite							
1480				451.1 - 455.9 1480.0 - 1495.6: white to very pale green, sericitic gFCT, 20% 2-8 mm qz phenos, 10-20% carbonate grains increasing in abundance and size to up to 10 mm towards base of unit.							
				455.9 - 457.3 1495.6 - 1500.3: chalky white, intensely sericitic and dolomitic gFCT and gouge, scattered pasty gouge zones.							
1500				457.3 - 465.3 1500.3 - 1526.6: massive sulphide horizon							
			60	457.3 - 459.4 1500.3 - 1507.1: rhyolite lapilli, tuff (S>>C) w. 5% 1-10mm qz phenos, 50% patchy dolomite, 15% granular qz-dolo, minor apple-green sericite							
			70	459.4 - 461.8 1507.1 - 1515.2: gray S>>C w. 1-5% 1-10mm qz phenos, 15% coarse dolo-qz granular zones w. 10mm qz, 10-15 mm dolo grains and coarse sp							
1520			85-90	461.8 - 463.4 1515.2 - 1520.3: qz vein and coarse granular qz-dolo, cp-br-py in qz-dolo, sph in qz vein							
				463.4 - 465.3 1520.3 - 1526.6: S>>C and thin lenses of heavy dissemin to massive sulphides							
				465.3 - 484.0 1526.6 - 1588.0: S>>C rhyolite lapilli, tuff metamorphosed to quartz-sericite ± carbonate schist, light gray in color due to dissemin py, good fragmental texture, no visible carbonate							
1540											

D. B. Smith

PAGE 12 OF 13		PROJECT:					HOLE NO. 87B3				
MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	INTERVAL	WIDTH	ASSAY NUMBER	%	%	%	oz/ton		COMPOSITE ASSAYS	
					Cu	Zn	Pb	Ag	Au	ppm Co/Ni	%S
		1480									
500.3 - 1509.5 : 10% py, 1-1.5% cp, med grained in 0.1-0.3' heavy dissem bands.		1500.3	4.2	554	2.20	.95	.01	.49	.005	8/15	
1509.5 - 1508.0 : 2-10% cp, 5% brn, 15% py, fine to coarse dissem in granular qz-dolo zones		1508.0	3.5	555	6.70	1.10	.03	2.00	.007	17/16	
1508.0 - 1515.2 : avg 2% cp, 15% py, cp mainly in granular qz-dolo zones, py dissem in schist, <1% sph in schist		1515.2	7.2	556	1.72	.20	.01	.23	.006	10/19	
1515.2 - 1520.2 : 6% cp, 8% py, cp coarse dissem in qz and qz-dolo, avg 8% sph, mainly coarse light brown sph in qz vein over 1.2'.		1520.2	5.0	557	9.15	6.80	.01	.28	.007	11/15	
1520.2 - 1526.6 : avg 40% py, dissem to thin massive lenses, avg 1-2% cp, 1% br., <1% sph		1526.6	6.4	558	2.12	.95	.09	5.32	.021	20/22	
1526.6 - 1530.4 : 15% py, <1% br., <1% cp		1530.4	3.8	559	0.935	.27	.01	.59	.009	9/9	
1530.4 - 1540		1540									
1540 - 1549.5 : 15% py, <1% cp											

D. B. Smith

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
1560				465.3-489.0 15266-1588.0 : S ⁺⁺ C rhyolite lapilli L.5f						
1588				1588' end of L.10						


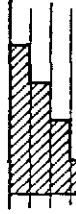
G. Brindley

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	INTERVAL	WIDTH	ASSAY NUMBER	%	%	%		COMPOSITE ASSAYS
<p>1549.5 - 1588.0: avg 15% fine-grained dissemin py, dissemin interstitial to fragments in lapilli tu ff</p>		1560							
		1588							

J. B. Smith

MINERALS SECTION

DRILL LOG

PROJECT Kutchu Creek	GROUND ELEV.
HOLE NO. 87B4	BEARING ~ 166°
LOCATION wedged from the 871.0' (265.5 m) point on DDH 87	DIP 78.3°
	TOTAL LENGTH 642.0' 265.5 m
LOGGED BY Dane Burdge	HORIZONTAL PROJECT 112.90 m
DATE July 15 - 19, 1979	VERTICAL PROJECT 150.79 m
CONTRACTOR Arctic Diamond Drilling	<p>ALTERATION SCALE</p>  <p>absent slight moderate intense</p>
CORE SIZE BQ	
DATE STARTED July 14, 1979	<p>TOTAL SULPHIDE SCALE</p>  <p>traces only < 1% 1% - 3% 3% - 10% > 10%</p>
DATE COMPLETED July 19, 1979	
DIP TESTS	
871.0' ~ 166° ~ 78.3	
910.5' 166° 77.0	
1030.5' 168° 65.6	
COMMENTS	LEGEND
1150.5' 189° 55.8	
1270.5' 183° 45.6	
1390.5' 186° 36.1	
1570.5' 186° 31.4	

DEPTH (m)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
				metres						
				265.5 - 266.9 871.0 - 879.0 : no recovery						
880				266.9 - 299.0 879.0 - 981.0 : feldspar porphyry of basic vards, medium to dark green, fine-grained, foliated matrix w avg 20% indistinct, 1-6mm gray to green plug phenos, avg 5% chloritic grains, most of which appear to be partly chloritized plug phenos, no definite relict hb grains.						
900										
920										
940										
960										

J. Smith

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
980				299.0-322.1 981.0 - 1057.6: Tuff - Argillite unit						
	40			299.0-301.7 981.0 - 989.9: intermediate basic tuffs transitional w. above basic units, minor to 25% 1-2 mm Feld phenos, avg 1% disseminated black hematite, minor indistinct color banding which may be bedding, to foliation.						
	55			301.7-303.8 989.9 - 996.9: medium green, fine-grained, well bedded siliceous tuffs						
	6			303.8-322.1 996.9 - 1057.6: light to medium green, aphanitic to med grained interbedded tuffs and epiclastic rocks, tuffs contain 5% 1-3 mm, slightly elongate quartz grains commonly in thin horizons, avg 20% epiclastic sections composed of angular 1-10 mm, variably 3 cm fragments of siliceous volcanic rocks and qz grains or phenos, locally graded w. tops up						
1000	45									
	60									
	35									

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MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	INTERVAL	WIDTH	ASSAY NUMBER	%	%	%		COMPOSITE ASSAYS
980									
996.9 - 1057.6 : avg 24.1% po, locally 1% po epiclastic sections									
1040									

J. Britz

DEPTH (FEET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
1060				322.1-370.0 1057.6 - 1214.0 : basic units						
				322.9-326.9 1057.6 - 1072.5 : light green, Feldspar porphyry type, 20% 1-5 mm plag phenos, 10-25% 1-2 mm beige colored carbonate grains in very fine grained clay-mineral rich matrix, avg 2% dissem black hematite plag phenos disappear towards 192 vein at 1057.6						
1080				326.9-329.5 1072.6 - 1081.2 : quartz vein, minor coarse calcite in clay, white qz, 15% light green Feldspar porphyry						
				329.5-332.0 1081.2 - 1089.3 : light green Feldspar porphyry as at 1057.6-1072.5, sharp contact at 1089.3						
1100				332.0-350.0 1089.3 - 1148.2 : medium green Feldspar porphyry, avg 30% 1-2mm anhedral to subhedral plag phenos, translucent gray w. chloritic veins, avg 5% indistinct carbonate grains transitional w. a light to medium green unit w slightly to non-chloritic plag phenos, avg 1-2% hem.						
1120										
1140										

A. A. A.

MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	INTERVAL	WIDTH	ASSAY NUMBER	%	%	%		COMPOSITE ASSAYS
1065.0 - 1072.5 : 0.5g 2% to 5% coarse py cubes		1060							
		1120							

D. B. Reid

DEPTH (ET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
1160				350.0-370.0 1148.2-1214.0 : light green-gray, weakly carbonate altered basic units, avg 30% 1-6 mm gray plag phenos, 5-10% 1-2mm indistinct plag grains, very fine-grained matrix, avg 2% disseminated black hematite no discernable foliation						
1200										
1220				370.0-378.7 1214.0-1242.6 : mainly QFCT textural type, minor basic unit						
				370.0-370.6 1214.0-1215.8 : aphanitic, gray, very hard, siliceous tuff w. minor qz phenos 5% 1-2mm rhombic dolomite grains, 5% fine disseminated chl flakes, may be graded top of unit						
				92 v.						
				370.6-372.7 1215.8-1222.8 : siliceous QFCT, avg 20% 1-10mm qz, 10% 1-8mm plag, 20% fine carbonate grains						

D. B. Smith

PAGE 2 OF 11		PROJECT:				HOLE NO. 7E		
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MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	INTERVAL	WIDTH	ASSAY NUMBER	%	%	%	COMPOSITE ASSAYS
		1160						
1218.3 - 1223.3: avg 5% 3-10 m m py cubes in gneiss and basic fold porphyry around qz vein								
		1220						

J. Brady

DEPTH (FEET)	% Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
				1222.8 - 1225.8: light gray-green basic feldspar porphyry w. 1% qtz phenos, 2% hematite						
1240				373.6 - 378.7 1225.8 - 1242.6: light to med crained, mottled gneiss, locally fine-grained, dk green w. 1% phenos, avg. 30% 1-12 mm qz phenos, 5% small, irreg carb patches, avg 5% 1-3 mm greenish gray, translucent plagiophenos.						
1260				378.7 - 380.2 1242.6 - 1247.3: light gray- green, moderately sericite- carbonate altered feld porphyry w. 25% 1-10 mm plagiophenos, no mafics.						
1280				380.2 - 399.3 1247.3 - 1310.2: dark green feldspar porphyry, varying from 10% indistinct plagiophenos to 35% 5-12 mm, subhedral, epidote altered plagiophenos. avg 5% 1-3 mm elongate and slightly diffuse moderately chlorite altered hb phenos. very minor epidote patches						
1300										
1320				399.3 - 414.1 1310.2 - 1358.5: medium green fine-grained basic units w. avg 40% fine plagiograins and avg 45% fine relic						

D. Ardy

DEPTH (ET)	% -ve Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
				chloritized, red bb veins, in aphanitic matrix, slightly foliated, avg. 2% hematite						
1340										
				414.1-422.3 1358.5-1388.9: medium gray-green basic units w avg 5-10% 2-5 mm plag phenos, avg 15% 1-2 mm rhombic carbonate grains, 1% large chloritic patches and fragments						
1360										
				422.3-428.8 1388.9-1407.0: transition to light gray-green, moderately altered plagioclase porphyry, 20% 3-8 mm plag phenos, avg 10% carbonate grains						
1380										
				428.8-431.8 1407.0-1416.8: massive white schist at top of basic units						
1400										

D. Smith

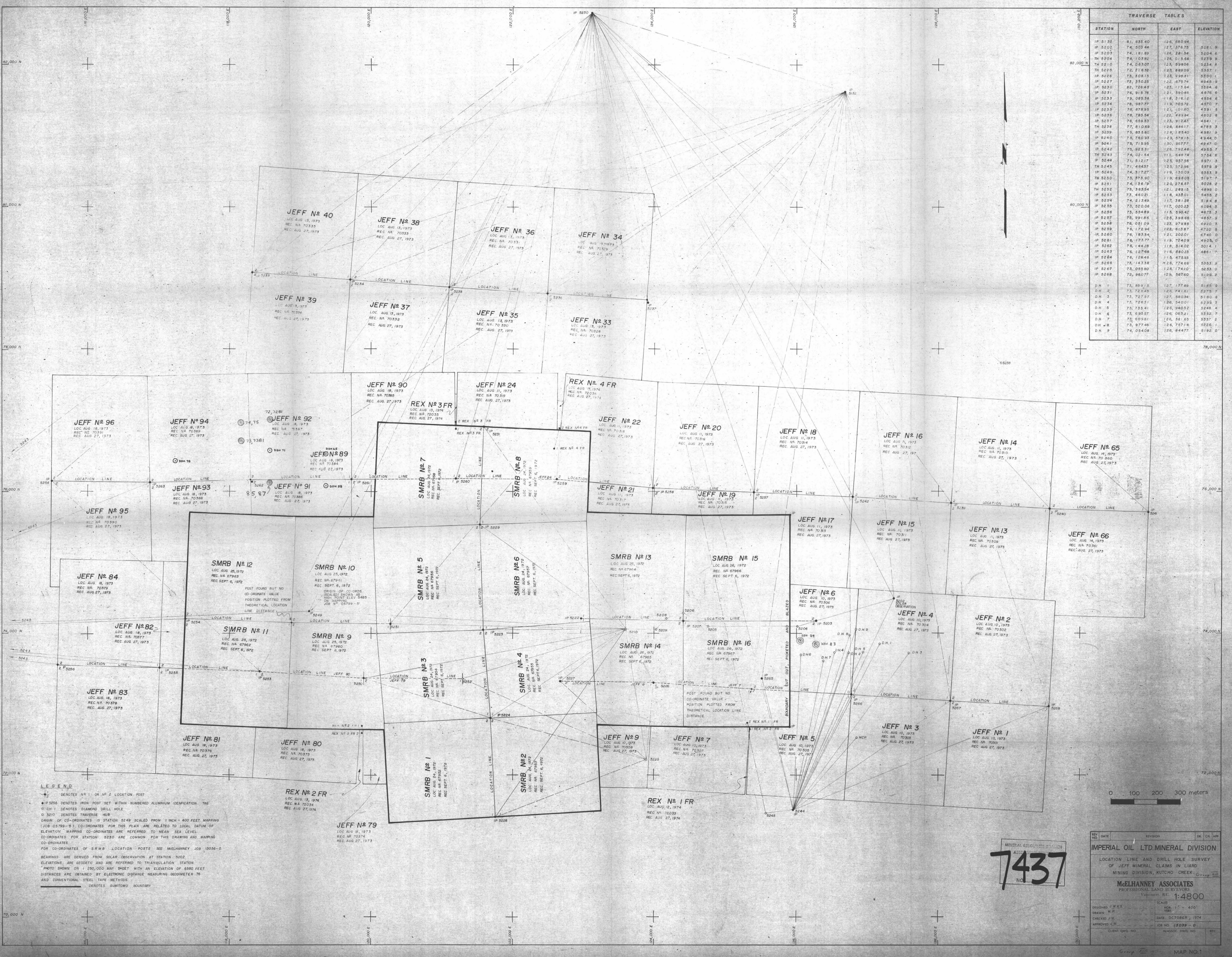
DEPTH -EET)	% Core Recy	LITHOLOGY	STRUCTURE	GEOLOGICAL DESCRIPTION	ALTERATION					FRACT INTENSITY
					A	B	C	D	E	
1420				431.8-442.6 1416.8-1452.0: QFCT 1431.8-435.3 1416.8-1428.3: pale gray-green QFCT, avg 10-15% 2-12 mm qz phenos, avg 25% 1-3 mm plag phenos, the phenos are concentrated into crude bands, avg 5% carbonate grains.						
1440				435.3-438.9 1428.3-1440.0: mottled pale green, pale green w. purple hematite color, to medium green QFCT, qz and plag as above, local very fine-grained phenocryst-free green siliceous sections						
				438.9-441.0 1440.0-1447.0: pale QFCT w. reddish hematite tone, avg 25% 1-10 mm qz phenos, no visible plag, 7% 2-8 mm dolo patches						
				441.0-442.6 1447.0-1452.0: very pale green QFCT w. 25% 1-12 mm qz phenos, avg 20% 1-10 mm dolomite patches						
				442.6-450.1 1452.0-1477.7: hanging-wall rhyolite						
1460			BP	442.6-444.8 2m gouge 1-9 mm qz phenos in gray schist and gray schist w. carbonate altered frags and qz phenos, avg 20% dolo						
				444.8-448.2 1459.5-1471.5: coarse fragmental rhy tuff ~ 75% altered to dolomite w. interstitial waxy light green sericite, mottled and patchy texture						
				448.2-451.4 1470.5-1477.7: beige and pale green laminated to med gray chy. tuff, frags up to 3 cm, 1/2 qz phenos up to 5 cm, avg 15% dolo.						
1480				450.9-451.4 1477.7-1480.9: sulphide horizon gray, rhyolite lapilli, tuff (500c) w. avg 20% py						
				451.4-461.2 1480.9-1513.0: rhyolite lapilli, tuff (500c)						
1500				gray sericite-quartz schist w. fragmental texture and rare 1-3 mm qz phenos, avg 10% dolomite, grains to patches						

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MINERALIZATION DESCRIPTION	TOTAL SULPHIDE	INTERVAL	WIDTH	ASSAY NUMBER	%			g/t		COMPOSITE ASSAYS	
					Cu	Zn	Pb	Ag	Au	g/t	%S
1416.8 - 1419.0 : 2-3% py, mainly coarse disse.		1420									
1424.6 - 1433.5 : 3 minor patches of fine-grained py.											
1452.0 - 1453.7 : 7% very fine grained disse py.		1460									
1470.5 - 1477.7 : avg 2% disse py.											
1477.7 - 1480.9 : avg 20% py, fine, disse			3.2	563	.055	.05	.02	0.11	.004	8/15	1.70
1480.9 - 1501.5 : avg 15% py, fine-med grained, locally in minor ssen bands, trace op											
1501.5 - 1512.0 : avg 10% py, tr. op											

1500

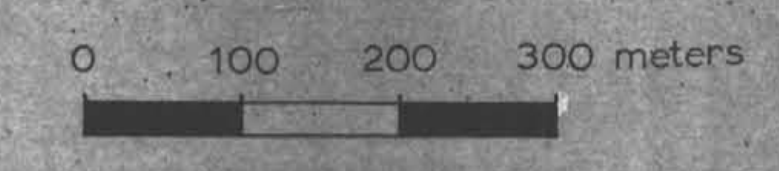
J. K. [Signature]



TRAVERSE TABLES			
STATION	NORTH	EAST	ELEVATION
IP 5132	81, 635.40	126, 580.64	5204.6
IP 5202	74, 003.44	127, 378.75	5081.9
IP 5203	74, 181.89	126, 281.54	5204.6
TH 9204	74, 032.82	126, 015.66	5239.9
TH 5210	74, 233.07	125, 598.06	5234.8
TH 5225	72, 216.32	125, 689.09	5357.1
IP 5226	73, 308.15	125, 996.31	5300.1
IP 5227	73, 350.25	125, 675.74	4945.9
IP 5230	82, 726.45	125, 173.64	5364.6
IP 5231	76, 915.76	121, 590.87	4976.6
IP 5233	79, 085.36	118, 316.10	4954.6
IP 5234	78, 987.77	118, 705.72	4570.7
IP 5235	78, 878.95	121, 010.60	4591.5
IP 5236	78, 785.94	122, 488.94	4802.8
IP 5237	78, 658.83	123, 912.83	4841.1
TH 5238	77, 810.69	124, 886.17	4785.3
IP 5239	75, 855.80	126, 185.40	4981.9
IP 5240	75, 760.93	125, 578.15	4944.0
IP 5241	75, 715.95	130, 997.77	4947.0
IP 5242	75, 823.31	128, 732.48	4955.7
TH 5243	74, 021.54	111, 648.74	5254.6
IP 5244	71, 812.17	125, 957.58	4971.3
TH 5245	71, 484.37	125, 372.96	5079.9
IP 5246	74, 613.49	117, 381.28	5184.9
TH 5250	73, 973.40	119, 686.03	5187.7
IP 5251	74, 136.19	120, 276.57	5028.2
TH 5252	73, 365.54	121, 289.15	4899.0
IP 5253	73, 480.21	118, 430.01	5455.2
IP 5254	74, 613.49	117, 381.28	5184.9
IP 5255	73, 820.06	117, 020.23	5084.5
IP 5256	73, 554.89	115, 590.42	4873.3
IP 5257	75, 991.86	125, 388.68	4857.9
IP 5258	76, 051.09	125, 979.85	4920.3
IP 5259	75, 172.94	122, 923.87	4750.5
IP 5260	76, 183.34	121, 202.01	4740.0
IP 5261	76, 173.77	119, 724.09	4903.0
IP 5262	76, 144.28	118, 314.02	5014.1
IP 5263	76, 187.98	116, 880.23	4861.7
IP 5264	76, 128.45	115, 475.83	4894.1
IP 5266	73, 143.38	126, 724.66	5353.3
IP 5267	73, 055.80	128, 174.10	5283.0
IP 5268	72, 880.77	125, 567.60	5198.2
D.H. 1	73, 8591.5	127, 177.69	5185
D.H. 2	73, 727.45	125, 741.61	5275.7
D.H. 3	73, 727.57	127, 580.34	5180.8
D.H. 4	73, 728.51	126, 540.01	5239.3
D.H. 5	73, 735.41	126, 940.52	5248.4
D.H. 6	73, 835.57	126, 083.21	5252.7
D.H. 7	73, 8591.5	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

- IP 5256 DENOTES IRON POST SET WITHIN NUMBERED ALUMINUM IDENTIFICATION TAG
- IP 5257 DENOTES DIAMOND DRILL HOLE
- D.H. 1 DENOTES TRAVELER HUB
- ORIGIN OF CO-ORDINATES IS STATION 5249 SCALED FROM 1 INCH = 400 FEET MAPPING (JOB 05799-0)
- 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 S.M.R.B. LOCATION POSTS SEE MELHANNY JOB 13036-0
- 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 6580 FEET
- DISTANCES ARE OBTAINED BY ELECTRONIC DISTANCE MEASURING GONIOMETER 76 AND CONVENTIONAL STEEL TAPE METHODS
- DENOTES SURVEY BOUNDARY



MINERAL RESOURCES DIVISION
 ASSOCIATES
7437
 NO.

REV. NO.	DATE	REVISION	DR.	CH.	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	J.W.K.S.	SCALE	1" = 400'		
DRAWN BY	M.R.	VERT.			
CHECKED BY	J.M.	DATE	OCTOBER, 1974		
APPROVED BY		JOB NO.	13039-0		
CLIENT DWG. NO.		NASSOC DWS. NO.			