81-H 725
-9463

PERCUSSION DRILLING REPORT

ON THE

LYNN 16 MINERAL CLAIM - RECORD NO. 38244

PART OF MINING LEASE NO. 11 - HIGHLAND VALLEY

KAMLOOPS MINING DIVISION

NTS 92I/6

50°27'N 121°01'E

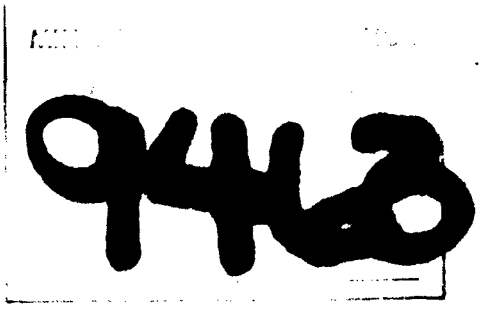
OWNED BY TECK CORPORATION

OPERATED BY HIGHMONT OPERATING CORPORATION

Report Prepared By

G. R. Sanford - Highmont Mine Geologist

August 10, 1981



PERCUSSION DRILLING REPORT
ON THE
LYNN 16 MINERAL CLAIM

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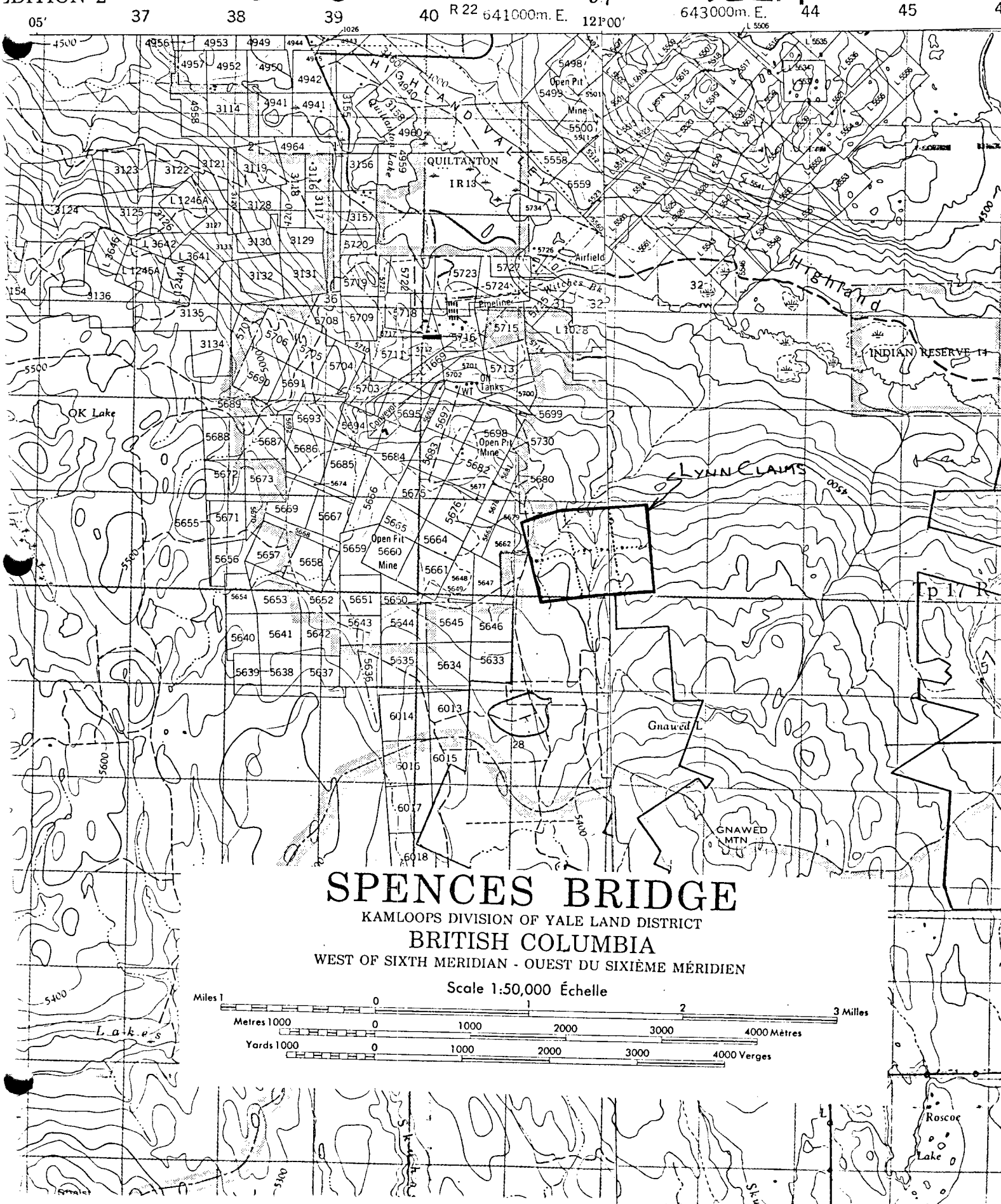
SPENCES BRIDGE MAMIT LAKE

EDITION 2

92I/6

92I/7



SPENCES BRIDGE

KAMLOOPS DIVISION OF YALE LAND DISTRICT

BRITISH COLUMBIA

WEST OF SIXTH MERIDIAN - OUEST DU SIXIÈME MÉRIDIEN

Scale 1:50,000 Échelle

Miles 1 0 1 2 3 Milles

Metres 1000 0 1000 2000 3000 4000 Mètres

Yards 1000 0 1000 2000 3000 4000 Verges

PERCUSSION DRILLING REPORT ON THE LYNN 16 MINERAL CLAIM

Introduction

i) Location and Access

The Lynn 16 Mineral Claim, record number 38244, is located in the Highland Valley on the northwest flank of Gnawed Mountain, at an elevation of 1500 metres. The claim lies approximately 1000 metres north of Highmont Operating Corporation's mill site and 1500 metres east of Lornex Mining Corporation's open pit (see Drawing 1).

Access to the claims was from the Highmont mill site. Since the time the work was completed, Lornex's waste dumps have advanced so as to completely cover the only access road to the claim.

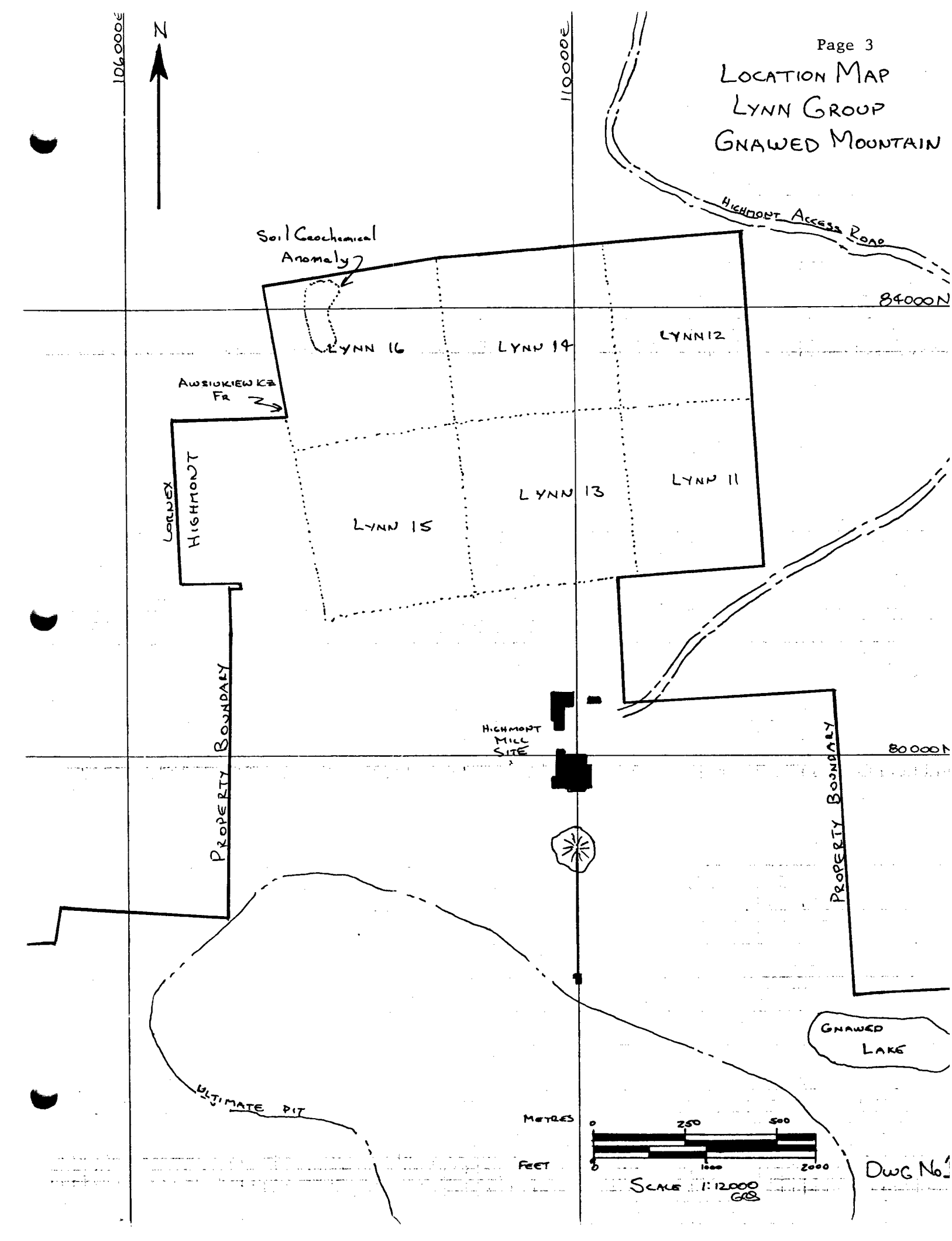
ii) Claim Description

Lynn 16 is one of five mineral claims comprising Mining Lease Number 11, issued May 1, 1980, for a period of 21 years. The list of claims within this lease is as follows:

Claim Name	Record Number	Due Date for Assessment Work
Lynn 12	38240	01 May 1986
Lynn 14	38242	01 May 1986
Lynn 15	38243	01 May 1986
Lynn 16	38244	01 May 1986
Awsiukiewicz 1 Fr	99215	01 May 1986

The Lynn claims were staked in 1961 and were purchased by Teck Corporation from Sheba Resources in 1971, to be used as a site for the concentrator and related facilities and for waste disposal. In 1976 Highmont placed east-west grid lines at 122 m spacing and did soils geochemistry at 50 m centres, and VLF EM at 20 m centres along these lines. Both of these surveys were reported for assessment purposes as "Geophysical Report on the Lynn 11-16 Mineral Claims" - A. J. Reed,

Location Map
Lynn Group
Gnawed Mountain



7 April 1976, and as "Geochemical Report on the Lynn 11-16 Mineral Claims" - A. J. Reed, 1 December 1976.

The VLF indicated several minor northerly trending conductors, with a major conductor parallelling Highmont Creek. The soils geochemistry indicated a small northerly trending coincident copper/molybdenum high on four adjacent samples in the northwest corner of Lynn 16. It was this anomaly that was tested during the current percussion drilling program.

Highmont wished to assess the potential of this anomaly before proceeding with using the area for waste disposal. Percussion drilling on and around these claims to date has indicated no potential for ore to a depth of 100 metres.

iii) Summary of Work Done

Three 1 7/8" (4.8 cm) percussion drill holes totalling 176.8 metres were drilled. All work was done on Lynn 16 Mineral Claim.

Detailed Technical Data and Interpretations

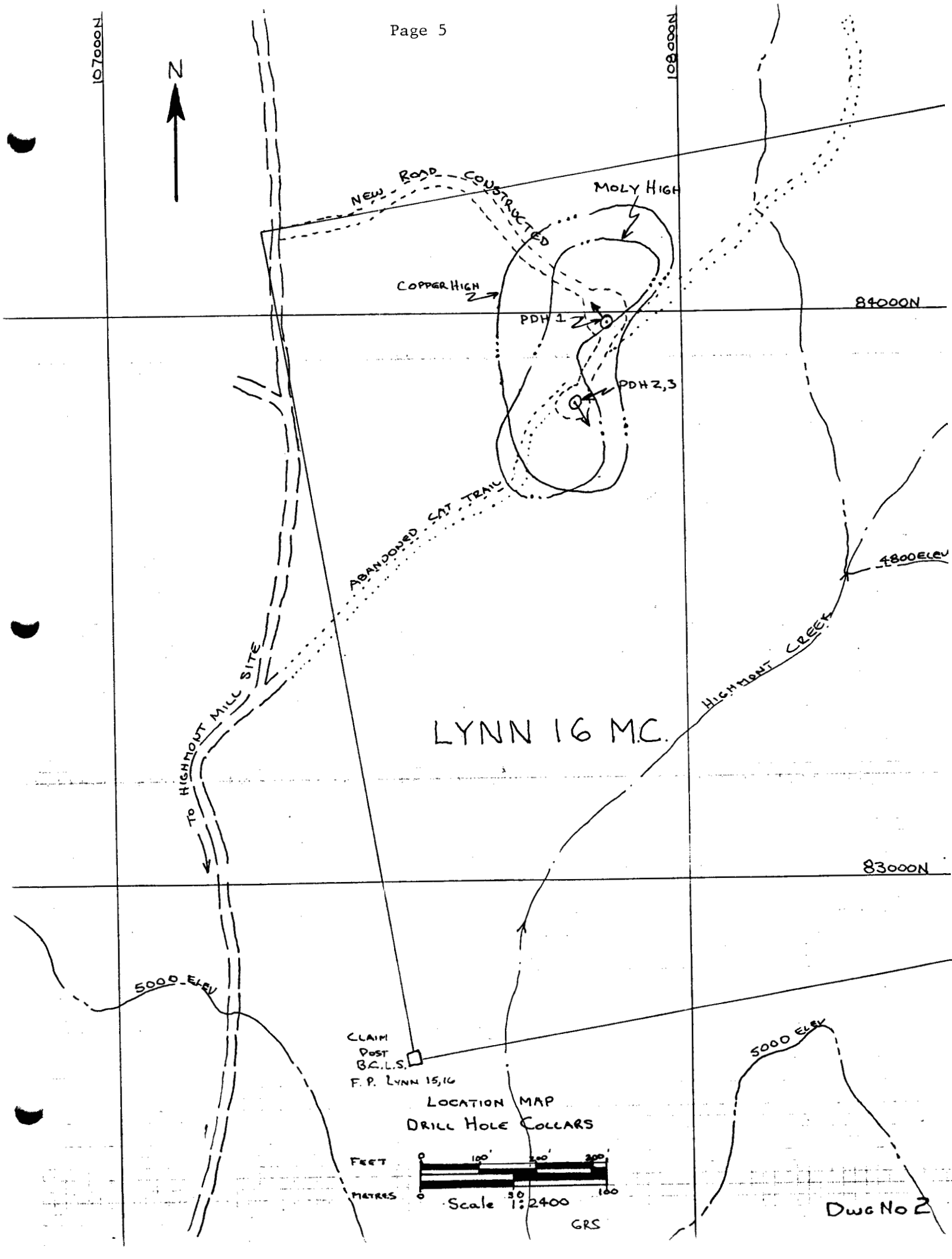
i) Purpose

The purpose of the drilling was to evaluate the soils geochemistry anomaly found in the 1976 program. An outline of the anomaly is shown on Drawing 2.

The anomaly area is underlain by an embayment of Bethlehem Phase granodiorite within the Skeena Phase granodiorite of the Guichon Batholith. The Skeena Phase is an intermediate phase between the Bethlehem Phase and the Bethsada quartz monzonite/granodiorite.

ii) Results

All drilling was under contract to Tonto Drilling Company, using a truck-mounted


107000N
108000N
N
NEW ROAD CONSTRUCTED
MOLY HIGH
COPPER HIGH
PDH 1
PDH 2,3
84000N
ABANDONED SAT TRAIL
TO HIGHMONT MILL SITE
4800 ELEV
HIGHMONT CREEK
LYNN 16 M.C.
83000N
5000 ELEV
CLAIM POST B.C.L.S. F. P. LYNN 15,16
LOCATION MAP
DRILL HOLE COLLARS
FEET
METRES
0 100' 200' 300'
0 50 100
Scale 1:2400
GRS
5000 ELEV
Dwg No 2

drill rig. Samples were taken at 10 foot (3 metre) intervals. The cuttings were automatically split by an electrically-driven rotating cup splitter, yielding a one-eighth total sample. Each sample was then assayed for copper and molybdenum at Highmont's Assay Lab, using standard Atomic Absorption techniques. Assay results are shown in Appendix II.

A small portion of the drill cuttings was washed and then examined, using a binocular microscope. The logging results are attached as Appendix I, and contain a self-explanatory legend.

The co-ordinates of the drill holes are:

Hole #	Length	Northing	Easting	Elev	Azim	Dip	B/R Depth
P81-1	76.2 m	83988.20	107873.75	4873	320°	- 40°	9.1 m
P81-2	24.4 m	83841.00	107819.00	4875	130°	- 40°	-
P81-3	76.2 m	83842.90	107818.22	4875	130°	- 53°	13.7 m
TOTAL	176.8 m						

Hole P81-2 was abandoned at 24.4 metres. This hole bounced in and out of bedrock from 18.3 to 24.4 metres, apparently following the bedrock/overburden surface.

iii) Interpretations

Neither hole showed any significant mineralization. Bornite and chalcopyrite with secondary quartz veinings were visible with the cuttings in Hole P81-3 below 160 feet (48.8 metres) and this was borne out by the assays. The interval below 160 feet (48.8 metres) averaged .003% Mo and .042% Cu or 30 ppm Mo and 420 ppm Cu, sufficient to explain the anomaly.

iv) Conclusions

The coincident copper/molybdenum anomaly is atributed to small chalcopyrite/

bornite/molybdenite/quartz veinings of no economic significance.

G. R. SANFORD,
HIGHMONT MINE GEOLOGIST

ITEMIZED COST STATEMENT
LYNN 16 MINERAL CLAIM

1. ROAD CONSTRUCTION AND SITE PREPARATION

216 m Access Road, two 18 x 18 m Drill Sites

D-6D Cat and Operator Rental - Pooley Brothers, Merritt - 5½ hrs @ $72.50/hr - 19 June 1981	$ 398.75
Mobilization/Demobilization	$ 186.00
	$ 584.75
Supervision - G. Sanford - 5 hrs @ $13.00/hr	$ 65.00
	$ 649.75

2. PERCUSSION DRILLING

Tonto Drilling Company - 176.8 m @ $18.05/m - 7-9 July 1981	$ 3,190.00
Mobilization/Moves - 13 hrs @ $85.00/hr	$ 1,105.00
	$ 4,295.00
Supervision - G. Sanford - 16 hrs @ $13.00/hr	$ 208.00
	$ 4,503.00

3. SURVEY - HOLE COLLARS AND TIE IN

Traverse from Pit area - Highmont Survey Crew - 8-15 July 1981

S. Everitt, D. Liddicoat, R. Gross, A. Wager and K. Bostock — $ 333.00

4. ASSAY COSTS

45 Cu @ $5.50/each	$ 247.50
45 Mo @ $8.50/each	$ 382.50
	$ 630.00

5. PLANNING

L. Tsang - 2 hrs @ $15.00/hr — $ 30.00

6. VEHICLE USE

4 days @ $35.00/day — $ 140.00

7. REPORT PREPARATION & CUTTINGS LOGGING

G. Sanford - 2 days @ $104.00/day	$ 208.00
TOTAL	$ 6,493.75

AUTHOR'S QUALIFICATIONS

I, GERALD R. SANFORD, OF 1901 PARKER DRIVE, MERRITT, BRITISH COLUMBIA, DO HEREBY CERTIFY THAT:

1) I am a Geologist employed by Highmont Operating Corporation;
2) I graduated from the University of British Columbia in 1969 with a Bachelor of Applied Science Degree in Geological Engineering;
3) I have been continuously employed in the mining industry since graduation; and that
4) this report described work performed on Lynn 16 Mineral Claim under my supervision during the period 16 June - 1 August, 1981.

DATED August 10, 1981

G. R. SANFORD

APPENDIX I

DRILL CUTTINGS LOGS

LEGEND & CODING USED FOR LOGGING CUTTING

Legend

S= <5%	✓ mineral present	L lightly altered
A= 5-10%	* mineral significant	M medium alteration
H= >10%	** mineral very significant	I intensely altered

CODING

CODING:

ROCKS: Plutonic: mafic ind.-0; M-1; M/b-2; M-B-3; B/h-4; B-5; gabbro-1; diorite-2; qtz diorite-3; granodiorite-4; qtz mons-5; granite-6; syenite-7; syenodiorite-8.

Other:

argillite-AG	Congl,plut-CP	phyllite-PH	tuff-TU
arkose-AK	dacite-DA	pillow lava-PL	uncl aumatite-UA
alaskite-AL	Granulite-GA	quartzite-QU	uncl gneiss-UG
amphibolite-AM	greenstone-GR	rhyolite-RH	uncl mm rock-UM
andesite-AN	greywacke-GW	sandstone-SS	uncl plut rock-UP
aplite-AP	hornfels-HF	Schist-SC	uncl sediment-US
basalt-BA	limestone-LS	shale-SH	uncl ultrabas-UU
chert-CH	marble-MA	skarn-SK	uncl volcanic-UV
conglomerate-CO	pegmatite-PG	slate-SL	uncl migmatite-UK
			volc breccia-VB

Minerals:

actinolite-AC	chromite-CM	leucite-LU	rutile-RU
andalusite-AN	chrysotile-CR	limonite-LI	sanadine-SA
apatite-AP	cordierite-CO	magnetite-MA	scheelite-SC
arsenopyrite-AS	diopside-DI	malachite-ML	serpentine-SE
augite-AU	epidote-EP	muscovite-MU	sillimanite-SI
azurite-AZ	galena-GL	mica(MU&BI)-MI	sphalerite-SL
barite-BA	garnet-GA	molybdenite-MO	sphene-SP
beryl-BE	glass (vol)-GS	olivine-OL	staurolite-ST
biotite-BI	glaucophane-GC	opal-OP	stibnite-SB
bornite-BO	graphite-GR	orthoclase-KF	talc-TA
calcite-CA	hematite-HE	plagioclase-PC	tourmaline-TO
chalcedony-CD	hornblende-HO	pyrite-PY	tremolite-TR
chalcocite-CC	hypersthene-HY	pyroxene-PX	zeolite-ZE
Chalcopyrite-CP	ilmenite-IL	pyrrhotite-PR	zircon-ZI
chlorite-CL	kyanite-KY	quartz-QU	zoisite-ZO

Migmatites:

stockwork-ST			
banded gneiss-BG			
irreg. b. gneiss-IG			
veined gneiss-VG			
angular aumatite-AA			
rounded aumatite-RA			
elongate aumatite-EA			
Schlieren gneiss-SG			
nebulite-NE			

Dykes:

(rock code above +)	
synplutonic-SP	
feldspar porph-FP	
qtz-feld " -QF	
lamprophyre-LA	
swarm, basalt-SB	
swarm,andesite-SA	
swarm, rhyolite-SR	
swarm, aynpluton-SS	

Folds:

gentle	(180°-120°)	-G
open	(120 -70)	-O
close	(70 -30)	-C
tight	(30 -5)	-T
isoclinal	(5 -0)	-I
drag (limbs unequ)		-D
chevron (" equal)		-V
zig-zag (" unequ)		-Z
box fold		-B
'M' fold		-M
flowage (irregul)		-F

Glaciation, joints:

glac.feat.uncl-G	
joints, prominent-J	
drumlin-D	
erratic-E	
esker -K	
lake deposit-L	
moraine-M	
nunatak-N	
outwash channel-C	
rock glacier-R	
striae-S	
till-T	

Grain size:

Granitoid:

fine	-F
medium	-M
coarse	-C
pegmatitic-P	

Other:

aphanitic	-A
very fine	-V
fine	-F
medium	-M
coarse	-C
very coarse-P	

Foliation:

massive	-O
faint	-F
moderate	-M
good	-G
excellent-E	
shearing -S	
gneissic -N	

Heterogen

homogen	-H
sl.het	-S
mod het	-M
very "	-V

Faults:

major-M	
minor-X	
shear-S	

Veins:

quartz-Q	
pegmatit-P	
aplite-A	
epidote-E	
calcite-C	
qtz stringers-X	
unclass vein-U	

Inclusions:

shape:
- mainly angular-A
- mainly rounded-R
- mainly elongate-E

type:
- bedded-B
- foliated-F
- nebulous-N
- porphyroblastic-P

abundance:
<1%-0; >1<5-1; >5 <10-2; >10 <20-3; >20<30-4; >30<50-5

BOREHOLE CUTTING LOG

Sample # / Hole No	Essential Minerals: Feldspar KF	Feldspar PC	QU	Mafic BI	Mafic HO	Secondary minerals: QU	KF	BI	MU	PY	CY	CL	EP	CB	Intensity of Alt	Rock Type	Mineralization: CP	MO	BN	CC	PY	HE	LI	MA	Assay: Mo	Cu	Remarks/Date
P81-1																											
1001	White	A	S					✓			✓	✓		✓	L								✓	✱			Date Logged on July 9, 1981
1002	White	A									✓	✱	✱	✓	L									✓			
1003	Yellow	A						✓			✓	✱	✱	✓	M							✓	✓				
1004	White	A	S								✓	✱	✱	✓	M												
1005	Yellow	A									✓	✱	✱	✓	M	.						✓	✱				
1006	White	A	S					✓	✓		✓	✱	✓		L									✱			
1007	White	A									✱	✱	✱	✓	L									✓			
1008	White	A	S								✓	✱	✱	✓	L								✓	✓			
																											Xerox Copy
1009	White	A	S						✓			✱	✱	✓	L								✓				
1010	White	A	S						✓			✱	✱	✓	L								✓				
1011	White	A										✱	✱	✓	L		✓						✓				Sl Skeg Grain Cpy
1012	White	A										✱	✱	✓	L								✓				
1013	White	A										✱	✱	✓	L								✓				
1014	White	A										✱	✱	✓	L								✓				
1015	White	A										✱	✱	✓	L								✓				
1016	White	A										✱	✱	✓	L						✓		✓				
1017	White	A										✱	✱	✓	L								✓				
1018	White	A										✱	✱	✓	L								✓				
1019	White	A										✱	✱	✓	L						✓		✓				
1020	White	A										✱	✱	✓	L								✓				
1021	White	A										✱	✱	✓	L								✓				
1022	White	A								✓		✱	✱	✓	L								✓				
																											Grains Magnetite, Specularite in all samples GJ

BOREHOLE CUTTING LOG

Sample No / Hole No	Essential Minerals: Feldspar KF	Feldspar PC	QU	Mafic BI	Mafic HO	Secondary minerals: QU	KF	BI	MU	PY	CY	CL	EP	CB	Intensity of Alt	Rock Type	Mineralization: CP	MO	BN	CC	PY	HE	LI			Assay: Mo	Cu	Remarks/Date
P81-2																												
1023	Y white		A	S		✓						✓	✓	✓	L	P/o	✓						✓					SINGLE GRAIN CPY
1024	Y white		A	S								✓	✓	✓	L	P/o							✓					GRAVEL

BOREHOLE CUTTING LOG

Sample No / Hole No	Essential Minerals: Feldspar KF	Feldspar PC	QU	Mafic BI	Mafic HO	Secondary minerals: QU	KF	BI	MU	PY	CY	CL	EP	CB	Intensity of Alt	Rock Type	Mineralization: CP	MO	BN	CC	PY	HE	LI	ML	Assay: Mo	Cu	Remarks/Date
P81-3																											
1051	YWHITE	H	✓			✓			✓			✓	✓		M	P/O	✓	✓									
1052	YWHITE	A	✓			✓			✓			✓	✓		M	P/O							✓				
1053	WHITE	H				✓			✓			✓	✓		M							✓					
1054	YWHITE	A	✓			✓			✓			✓	✓	✓	M								✓				
1055	WHITE	A	SI									✓	✓		M				?			✓				✓	REDDISH METALLIC SPECULARITE?
1056	WHITE	A	✓									✓	✓	✓	M				✓								
1057	WHITE	A	SI									✓	✓	✓	M								✓				
1058	WHITE	H	HI									✓	✓	✓	L												
1059	WHITE	A	S						✓			✓	✓	✓	M				✓			✓	✓				PINKISH RED METALLIC
1060	WHITE	H	S					✓				✓	✓		M							✓					
1061	WHITE	H	SI			✓			✓			✓	✓	✓	M							✓	✓	✓			
1062	WHITE	H	-					✓				✓	✓		M		?					✓		✓			
1063	WHITE	H	SI			✓		✓	✓			✓	✓	✓	M		✓		✓			✓					
1064	WHITE	H	SI			✓						✓	✓	✓	M		✓		✓			✓					
1065	WHITE	H	-									✓	✓		M		✓		✓			✓					BEST MINERALIZED SECTION
1066	WHITE	H	-			✓						✓	✓		M		✓		✓			✓					"
1067	WHITE	H	-					✓	✓			✓	✓		M		✓	✓				✓					3-4 GRAINS CPY
1068	WHITE	H				✓		✓	✓			✓	✓		M		✓		?			✓					
1069	WHITE	H	-			✓						✓	✓		M		✓	✓				✓					PINKISH RED METALLIC 2 GRAINS CPY
1070	WHITE	H										✓	✓		M		✓		✓			✓					
1071	WHITISH YELLOW	A	-			✓						✓	✓		M	P/O	✓	✓	✓			✓					PINK RED METALLIC
																											GS

APPENDIX II

ASSAY RESULTS

HIGHMONT OPERATING CORPORATION

Mine Assay
Laboratory Report Form

Date: 9/10 July 81

Assayed By: DEW

TAG NO.	FOOTAGE	LAB. NO.		% MO		% CU	% CU E	REMARKS
1001	30-90	1		.001		.003		HOLE
1002	40-50	2		.001		.004		PEI-1
1003	50-60	3		.001		.007		
1004	60-70	4		.001		.009		
1005	70-80	5		TR.		.016		
1006	80-90	6		.001		.040		
1007	90-100	7		TR		.013		
1008	100-110	8		.001		.008		
1009	110-120	9		.001		.007		
1010	120-130	10		.001		.010		
1011	130-140	11		.001		.003		
1012	140-150	12		.001		.002		
1013	150-160	13		.001		.010		
1014	160-170	14		TR		.002		
1015	170-180	15		TR		.016		
1016	180-190	16		.001		.026		
1017	190-200	17		.001		.012		
1018	200-210	18		TR		.011		
1019	210-220	19		.001		.010		
1020	220-230	20		.001		.011		
1021	230-240	21		TR		.011		
1022	240-250	22		TR		.009		
		23						
		24						
		25						
		26						
		27						
		28						
		29						
		30						

HIGHMONT OPERATING CORPORATION

Mine Assay
Laboratory Report Form

Date: 10 July 81

Assayed By: DEW

TAG NO.	FOOTAGE	LAB. NO.		% MO		% CU	% CU E	REMARKS
1023	60-70	1		.001		.009		Hole
1024	70-80	2		TR.		.006		P81-2
		3						ABANDONED
		4						
		5						
		6						
		7						
		8						
		9						
		10						
		11						
		12						
		13						
		14						
		15						
		16						
		17						
		18						
		19						
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		24						
		25						
		26						
		27						
		28						
		29						
		30						

HIGHMONT OPERATING CORPORATION

Mine Assay
Laboratory Report Form

Date: 10 July 81

Assayed By: DEW

TAG NO.	FOOTAGE	LAB. NO.		% MO		% CU	% CU E	REMARKS
1051	45-50	1		.002		.008		HOLE
1052	50-60	2		.002		.004		P81-3
1053	60-70	3		.001		.004		
1054	70-80	4		.001		.003		
1055	80-90	5		.001		.002		
1056	90-100	6		.001		.001		
1057	100-110	7		.002		.006		
1058	110-120	8		.002		.004		
1059	120-130	9		.001		.004		
1060	130-140	10		TR.		.032		
1061	140-150	11		.001		.101		
1062	150-160	12		.001		.033		
1063	160-170	13		.001		.033		
1064	170-180	14		.002		.039		
1065	180-190	15		.002		.095		
1066	190-200	16		.002		.062		
1067	200-210	17		.002		.040		
1068	210-220	18		.003		.042		
1069	220-230	19		.002		.029		
1070	230-240	20		.002		.025		
1071	240-250	21		.018		.013		
		22						
		23						
		24						
		25						
		26						
		27						
		28						
		29						
		30						