

84-1169-13257

10/85

GEOCHEMICAL REPORT
OF
SOIL SAMPLING, TRENCHING AND GEOLOGICAL MAPPING
ON THE
AM, ANN AND IDE
MINERAL CLAIMS
PART OF MINING LEASES NO. 9 AND 14 HIGHLAND VALLEY
KAMLOOPS MINING DIVISION
NIS SHEET 92I/6, 92I/7
LATITUDE 50° 25'N
LONGITUDE 121° 00'E
OWNED BY NATIONAL TRUST COMPANY LIMITED
510 BARRARD, VANCOUVER, B.C., V2C 2J7
OPERATED BY HIGHMONT OPERATING CORPORATION
BOX 3000, LOGAN LAKE, B.C. V0K 1W0

REPORT PREPARED BY
G.R. SANFORD - HIGHMONT MINE GEOLOGIST

03 OCT. 1984

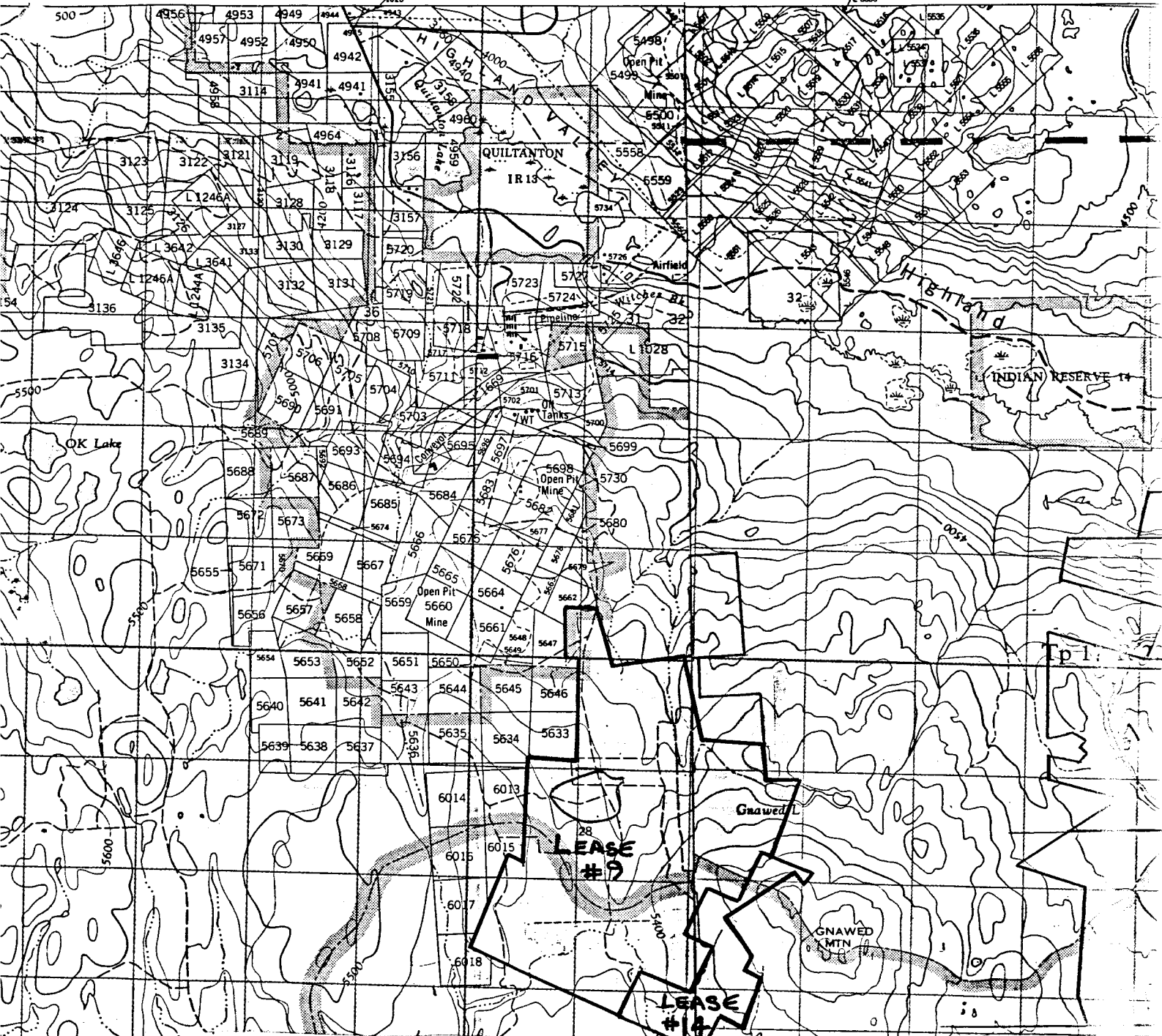
**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

13,257
PART 1 of 2

INDEX MAP SPENCES BRIDGE MAMIT LAKE

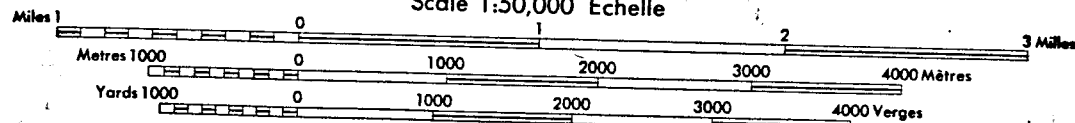
DITION 2

05' 37 38 39 40 R22 641000m. E. 12P00' 643000m. E. 44 45 46



SPENCES BRIDGE KAMLOOPS DIVISION OF YALE LAND DISTRICT BRITISH COLUMBIA WEST OF SIXTH MERIDIAN - OUEST DU SIXIÈME MÉRIDIEN

Scale 1:50,000 Échelle



DWG 1



GEOCHEMICAL REPORT
ON THE
AM, ANN AND IDE MINERAL CLAIMS
PART OF MINING LEASE 9 AND 14

TABLE OF CONTENTS

	PAGE
<u>INDEX MAP</u> (Dwg No. 1)	Front Piece
<u>CLAIM LOCATION MAP</u> (Dwg No. 2)	1
<u>INTRODUCTION</u>	
i) Location and Access	2
ii) Claim Description	2
iii) Summary of Work Done	4
iv) List of Claims	4
 <u>DETAILED TECHNICAL DATA AND INTERPRETATIONS</u>	
i) Purpose	5
ii) Results	
a) Geochemistry	5
b) Trenching, Trench Mapping	6
c) Chip Sampling	7
iii) Interpretations	
a) Geochemistry	7
b) Trenching, Trench Mapping	8
c) Chip Sampling	9
iv) Conclusions	9
 <u>COST STATEMENT LEASE 9</u>	 10
<u>COST STATEMENT LEASE 14</u>	11
<u>CERTIFICATE OF QUALIFICATIONS</u>	12
<u>AUTHOR'S QUALIFICATIONS</u>	13

APPENDIX I

Soil Samples Assays

APPENDIX II

Trench Chip Sample Assays

MAPS IN ATTACHED POUCHES

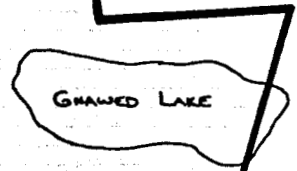
GD-16A "Lease and Claim Boundaries (BCLS)
With 1984 Trench Locations:

GD-17 "Overlay of Copper Soil Geochem. (1984)"

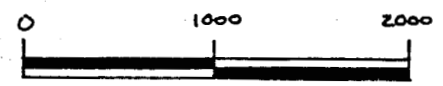
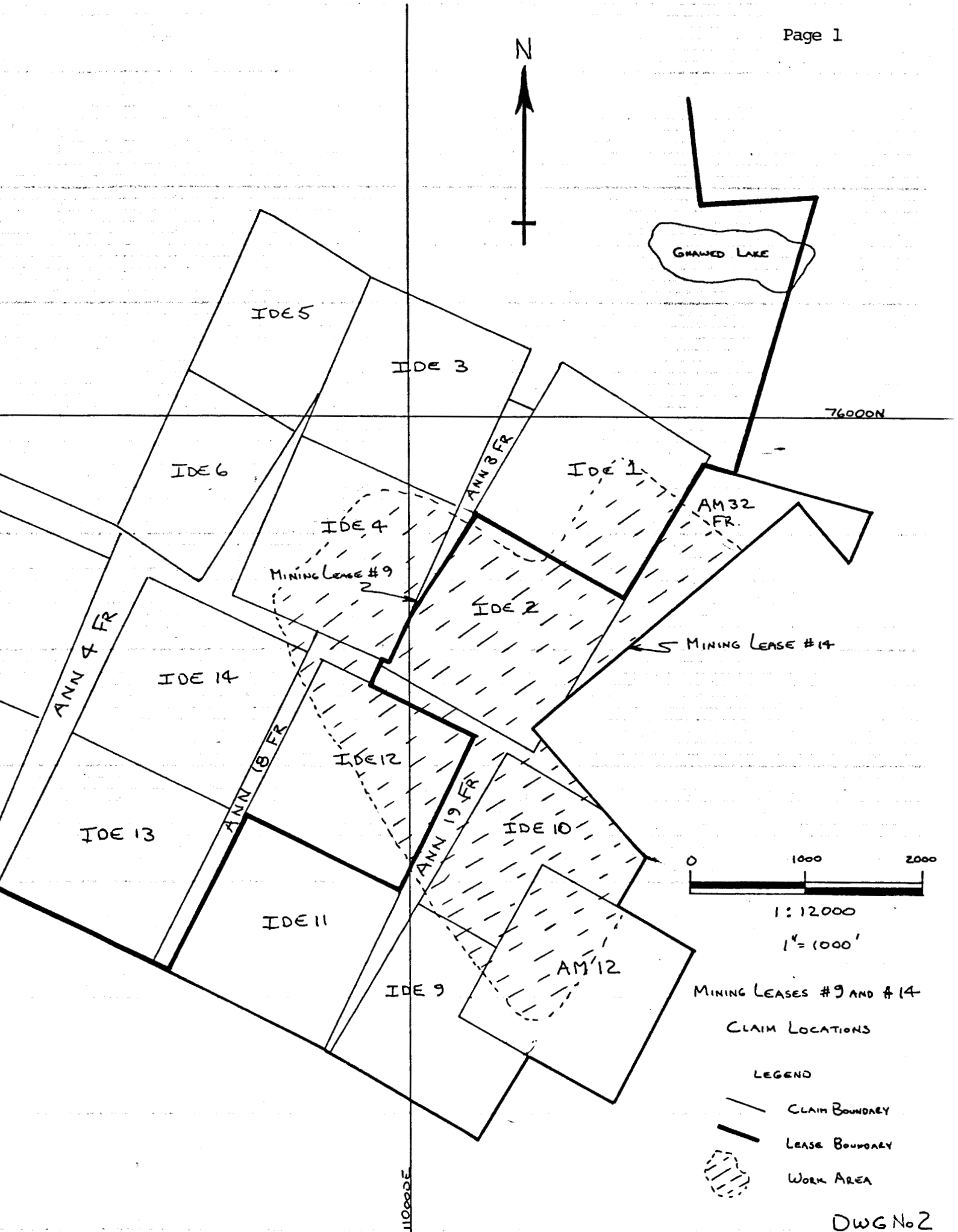
GD-18 "Overlay of Molybdenum Soil Geochem. (1984)"

GD-13 "Trench Mapping Lease 9 and 14 1984"

GD-14 "Trench Mapping Lease 9 and 14 1984"



76000N






1:12000

1" = 1000'

MINING LEASES #9 AND #14

CLAIM LOCATIONS

LEGEND

-  CLAIM BOUNDARY
-  LEASE BOUNDARY
-  WORK AREA

DWG No 2
G18

GEOCHEMICAL REPORT
ON THE
AM, ANN AND IDE MINERAL CLAIMS
PART OF MINING LEASES 9 AND 14

INTRODUCTION

i) Location and Access

Mining Leases 9 and 14 are adjacent leases, located in the Highland Valley, along the southwest flank of Gnawed Mountain, at an elevation of 1600 m. Highmont Operating Corporation's East Pit ore body lies entirely within Lease No. 9, and Lease 14 adjoins No. 9 to the south-east. (See Dwg. No. 2)

Access to the Highmont Operation is via the Highmont Mine Road, an 8 km. all weather gravel road which connects with the paved highway connecting Logan Lake and Ashcroft.

ii) Claim Description

Mining Lease No. 9 consists of 40 mineral claims and fractions and was issued on December 10, 1979 for a period of 21 years. Mining of copper and molybdenum was actively being carried out by Highmont Operating Corporation from this lease at the rate of 68,000 tonnes per day, supplying 23-27000 tonnes per day of mill feed.

Mineral Lease No. 14 consists of 7 mineral claims and fractions and was issued on 10 September, 1980 for a period of 21 years. No active mining occurs on this ground, although portions are currently used for waste dumps.

Considerable development work has been done on Lease No. 9, beginning with the initial claim staking in 1955 and 1956. Torwest Resources and Highmont Mining Corporation did various geophysical surveys and major

percussion and diamond drilling between 1966 and 1969. Underground bulk sampling was done in 1967 and 1968.

In the course of these investigations, two large mineralized areas totalling 122 million tonnes at 0.26% copper and 0.027% molybdenum were outlined. Several additional mineralized areas were also outlined and this current program investigated the continuation of one of these zones.

The claims within Lease NO. 14 were purchased from Minex Resources when Highmont announced its production decision in 1979. Minex and Canadian Superior had drilled several diamond and percussion drill holes on this ground, encountering scattered chalcopyrite and molybdenite mineralization. The current exploration program attempted to follow known mineralized areas on Lease 9 into Lease 14 in an attempt to delineate readily accessible mill feed.

The entire work area is underlain by Skeena Phase quartz diorite of the Guichon Batholith. A westerly to north westerly trending quartz porphyry dyke of Bethsaida Phase, up to 150 m. wide, cuts through the northern half of the AM 32 Fraction, Ide 1, 3 and 5. Previous work has demonstrated that the emplacement of this dyke has had a strong influence on the localization of copper and molybdenum mineralization both to the north and to the south of the dyke itself.

Several technical papers have been published on the Highmont Property. Two of these reports are:

- 1) "The Highmont Copper-Molybdenum Deposits, Highland Valley, British Columbia" by Bergey, Carr and Reed, CIMM Bulletin, December, 1971.

- 2) "Highmont: Linearly Zoned Copper Molybdenum Porphyry Deposits and Their Significance in the Genesis of the Highland Valley Ores", CIMM Special Volume No. 15, pp 163-181, by Reed and Jambor, 1976.

iii) Summary of Work Done

Geochemical Survey

302 soil samples taken and assayed for copper and molybdenum.

46 rock chip samples from trench walls assayed for copper and molybdenum.

Trenching

1617 m. of trenching using D-8 cat.

Geological Survey

Geological mapping of most of the above trenching at a scale of 1" = 200' (1 : 2400)

iv) List of Claims

All work was performed within Mining Leases 9 and 14. The individual claims worked on are tabulated as follows:

	Claim Name	Record Number
Mining Lease No. 9	Ide 1	24994
	Ide 4	24997
	Ide 12	25710
	Ann 3 Fraction	45132
	Ann 18 Fraction	46153
Mining Lease No. 14	Am 32 Fraction	31483
	Ann 19 Fraction	46154
	Ide 2	24995
	Ide 9	25707
	Ide 10	25708
	Am 12	31199

As leases, all claims have been surveyed by a B.C. land surveyor

The locations of these claims are shown on the attached drawing GD-16A-
Lease and Claim Boundaries (BCLS) With 1984 Trench Locations.

DETAILED TECHNICAL DATA AND INTERPRETATIONS

i) Purpose

The geochemical soil survey was initiated in an attempt to follow known geochemical anomalies with associated chalcopyrite and molybdenite mineralization into unknown ground.

Trenching was done both to examine anomalous areas defined by the soils survey, and also to expose bedrock in poorly defined areas.

Structural mapping of the trenches attempted to define structures similar to those within the active Highmont pit; and was essential in order to plan the subsequent diamond drill program.

Chip samples taken along selected trenches provided additional data to confirm soil anomalies.

ii) Results

All work associated with this program was done by Highmont Operating Corporation, utilizing Highmont equipment. Mr. Peter Folk, P. Eng., of Teck Corporation did the mapping and supervised the diamond drilling.

a) Geochemistry

Soil samples were taken on a grid, laid out using compass and hip chain. Samples were taken at 30 m. intervals (100 feet) along lines spaced 60 m. (200 feet) apart. On certain lines, the sample interval was reduced to 15 m. (50 feet). All sample locations were uniquely numbered and marked with a wooden peg driven into the ground at the sample site.

The soil samples were taken from the B-Horizon at a depth of from 15-25 cm, and placed in a kraft envelope.

All samples were prepared and analyzed in Highmont's Mine Assay Lab. The samples were dried and then screened, with the minus 100 mesh fraction kept for assay. This fraction was digested in a concentrated solution of nitric acid and potassium chlorate, followed by a concentrated hydrochloric acid digestion. An aluminum chloride solution was then added to the dissolved sample solution and the copper and molybdenum content measured by standard atomic absorption techniques, with the results reported in PPM or as a percentage.

Sample results were plotted on separate plans for copper and molybdenum (Figures GD-17 and GD-18 in the attached folder). Values were then contoured and studied. Individual assay sheets are attached in Appendix I.

b) Trenching, Trench Mapping

Trenching was done utilizing Highmont's D-8 cat. In most cases, overburden was minimal, except at the north end of the major trench on Ide 4, where up to 3 m. of glacial debris was removed without encountering bedrock. Bedrock was generally decomposed sufficiently that trench depths of 2 meters into rock were not uncommon.

Survey control was brought in from Highmonts existing grid system and stations placed at intervals along the trenches. Distances were taped from these known points.

Rock structures were mapped and plotted at 1:600 scale (1" = 50') on trench mapping sheets GD-13 and GD-14 in the attached file. The location of the trenching, relative to claim boundaries is shown on drawing GD-16A attached.

c) Chip Sampling

i. Chip Samples were taken over 3 m. (10 feet) intervals along the walls of selected trenches. The samples were assayed for copper and molybdenum in Highmonts Assay Lab using standard atomic absorption techniques.

Results are plotted alongside the appropriate trench on the trench mapping sheets GD-13 and GD-14. Individual trench chip sample assay sheets are attached in appendix II.

iii) Interpretations

a) Geochemistry

Over most of the area sampled, overburden is much less than 50 cm thick, consisting of weathered bedrock, glacial debris and organic material. Overburden thickness increased rapidly to the west on Ide 4, to in excess of several meters of glacial sands, gravels and till.

In general, areas of high copper are coincident with areas of high molybdenum. This is not surprising given the known intimate association of copper and molybdenum shears, veins and fractures within the Highmont Pit. The apparent gap between a northern and a southern anomalous area is topography related. This area is infilled with greater thickness of till than are encountered elsewhere except on Ide 4, mentioned above.

The apparent northern anomalous zone is entirely within the Bethsaida quartz porphyry dyke, and is also immediately adjacent to a major fault which strikes N 60⁰ E, crossing Line 0 at the base line and line 28 at 10 SE.

The general north easterly trend of both copper and molybdenum contours also parallels this major fault, implying mineralized infillings of subsidiary joints and shears which have developed sub-parallel to the major fault.

Both copper and molybdenum values decrease to the east and south, probably in response to increasing depths of overburden.

b) Trenching, Trench Mapping

Virtually all rock exposed was variably altered Skeena quartz diorite except for scattered narrow dykes of quartz porphyry. The short northeastern most trench was entirely within the large Bethsaida quartz porphyry dyke.

Mineralization exposed consisted of azurite, malachite, bornite, chalcopyrite and molybdenite, both as fracture coatings or with quartz veins to 10 cm wide.

Trench mapping indicated two strong structural trends. One set of shears, fractures and joints trends N 30-50° E, dipping 65° to the NW and occasionally 65° SE. The other set of shears, fractures and joints trends N 70° W, dipping very steeply to the south, occasionally reversing to a steep northerly dip. Both these structural trends are also noted as major trends within the East Pit.

Mineralization in the N 70° W fracture set consisted of joint coatings and veins of quartz with chalcopyrite, bornite, and occasionally molybdenite. Oxidized mineralization on the joints consisted of limonite, azurite and malachite. Vein margins were typically coated with white muscovite (sericite).

The N 30⁰ E fracture set generally consisted of limonitic shears, occasionally with malachite and molybdenite.

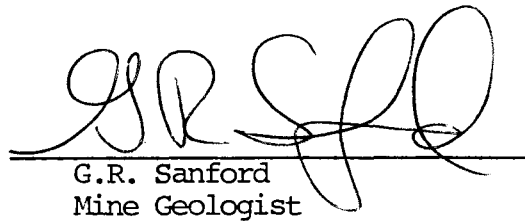
In the trench which was entirely within the quartz porphyry, considerable specular hematite was noted along fractures.

c) Chip Sampling

Chip sampling confirmed the geochemistry soil sampling values. Assay values averaged .10 - .15% cu and .005 - .008% mo. Higher values were noted in areas of more intense fracturing or wider veining.

iv) Conclusions

The soil sampling, trench mapping and chip sampling all aided in understanding the nature and distribution of scattered surface mineralization. The subsequent drilling program used the structural information to position diamond drill holes. These holes could now cut mineralization at right angles and the assay results could be properly interpreted.


G.R. Sanford
Mine Geologist

GRS/nw

COST STATEMENTLEASE NO. 9

Trenching

Highmont Supplied D-8 Cat and Operator	
June 30 - Aug. 19, 1984	
11 days in period, 947 m. of trenching	
94 hours @ 67.00/hr	6300.00

Soil Sampling

3 man days July 15 - Aug 10, 1984	-
59 samples @ \$80.00/man day	240.00

Assaying

59 soil samples analyzed for copper and molybdenum @ \$3.50 per element	410.00
47 chip samples from trenches analyzed as above	330.00

TOTAL	<u>\$7280.00</u>
-------	------------------

NOTE: Charges for surveying, drafting supervision, travel costs, vehicle rental, report preparation, etc. are included in a separate assessment report on the subsequent diamond drilling program.

COST STATEMENTLEASE NO. 14

Trenching

Highmont supplied D-8 Cat and Operator	
June 30 - Aug 19, 1984	
7 days in period, 670 m. of trenching	
66 hours total @ \$67.00/hr	4420.00

Soil Sampling

8 man days July 15 - Aug 10, 1984	
243 samples @ \$80.00/man day	640.00

Assaying

242 soil samples analyzed for	
copper and molybdenum @ \$3.50 per element	1700.00

TOTAL	<u>\$6760.00</u>
-------	------------------

NOTE: Charges for surveying, drafting, supervision, travel costs, vehicle rental, report preparation, etc., are included in a separate assessment report on the subsequent diamond drilling program.

CERTIFICATE OF QUALIFICATIONS

Peter G. Folk, P. ENG.

I hereby certify that:

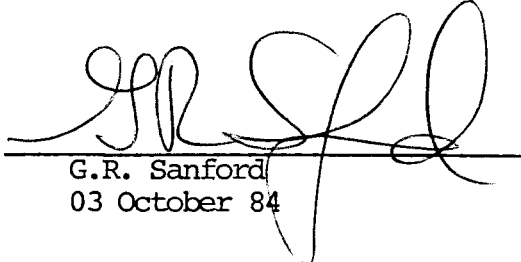
1. I graduated from the University of British Columbia in 1971 with a B.A.S.C. degree in geological engineering.
2. I am a member in good standing of the Association of Professional Engineers of the Province of British Columbia.
3. I have worked since graduation as an exploration geologist and mine geologist in Canada and the United States.
4. The work described herein was done under my direct supervision.

Peter G. Folk

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 as a geologist in the mining industry since graduation; and that
- 4) This report describes work performed on Mineral Leases No. 9 and 14 during the period 30 June - 03 October 1984.


G.R. Sanford
03 October 84

APPENDIX I

SOIL SAMPLE ASSAYS

Soil Samples

HIGH MOUNT OPERATING CORPORATION

Date: Aug 17/84

Mine Assay

Assayed By: _____

B

Laboratory Report Form

DRILL NO.	HOLE NO.	LAB. NO.	PPM Cu	PPM Mo	% Cu E	REMARKS
L10	100 SE	1	100	10		
	200 SE	2	100	20		
L00	300 SE	3	140	30		
	400 SE	4	2890	20		
	500 SE	5	3040	10		
	600 SE	6	1150	10		
	700 SE	7	6030	10		
	800 SE	8	2060	10		
	900 SE	9	1160	10		
	* 1000 SE	10	1320	10		
	1100 SE	11	550	10		
L2	100 SE	12	130	10		
	200 SE	13	90	10		
	300 SE	14	460	30		
	400 SE	15	240	30		
L2 NE	500 SE	16	560	10		
L2	500 SE	17	180	30		
L2 NE	600 SE	18	520	10		
L2	600 SE	19	1550	20		
	* 700 SE	20	2910	10		
L2 NE	700 SE	21	600	20		
L2	800 SE	22	2050	20		
L2 NE	800 SE	23	240	10		
L2 NE	900 SE	24	480	20		
L2 NE	1000 SE	25	580	10		
L2	1000 SE	26	1040	20		
	1100 SE	27	1110	30		
L4 NE	500 SE	28	200	20		
HMT STD	1g	29	980	460		
	2g	30	1920	-		

Soil
Samples
A

HIGH MOUNT OPERATING CORPORATION

Mine Assay

Date: Aug 17/

Laboratory Report Form

Assayed By: _____

DRILL NO.	HOLE NO.	LAB. NO.	PPM Cu	PPM Mo	% CU E	REMARKS
L4 NE	600 SE	1	1350	10		
	* 700 SE	2	640	50		
	800 SE	3	350	10		
	900 SE	4	670	10		
	1000 SE	5	640	10		
L8	1200 SE	6	390	30		
	1300 SE	7	250	40		
	1400 SE	8	200	10		
	1500 SE	9	90	20		
	* 1600 SE	10	580	20		
	1700 SE	11	410	20		
	* 1800 SE	12	450	10		
	1900 SE	13	180	20		
	2000 SE	14	70	10		
	2100 SE	15	80	10		
CHECK	L0 1000 SE	16	1240	20		
	L2 700 SE	17	2730	20		
	L4 NE 700 SE	18	630	50		
	L8 1800 SE	19	480	20		
4MT STD	1g	20	970	460		
	2g	21	1900	—		
		22				
		23				
		24				
		25				
		26				
		27				
		28				
		29				
		30				

HIGHTON OPERATING CORPORATION

Mine Assay

Laboratory Report Form

Date: Aug 8/84

Assayed By: II

Soil samples

DRILL NO.	HOLE NO.	LAB. NO.	PPM Cu	PPM Mo	% CU E	REMARKS
L4	100 SE	1	350	35		
	300 SE	2	200	50		
	400 SE	3	530	50		
	500 SE	4	535	110		
	600 SE	5	290	20		
	700 SE	6	2075	35		
	800 SE	7	1675	25		
	900 SE	8	2660	20		
	1000 SE	9	3055	10		
	1100 SE	* 10	860	25		
	1200 SE	11	980	30		
L6	100 SE	12	850	20		
	200 SE	13	460	10		
	300 SE	14	645	25		
	500 SE	15	380	15		
	600 SE 6"	16	1450	20		
	600 SE 8"	17	280	20		
	700 SE	18	2250	25		
	800 SE	19	1010	30		
	900 SE	* 20	855	30		
?	1000 SE	21	1240	35		
	1100 SE	22	560	30		
check	L4 1100	23	820	25		
"	L6 900	24	885	30		
H.S.	1g	25	1050	460		
H.S.	2g	26	2040	870		
		27				
		28				
		29				
		30				

HIGH MOUNT OPERATING CORPORATION

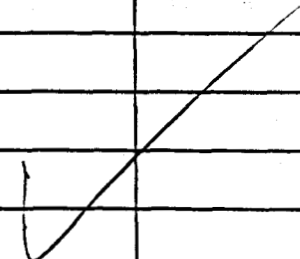
Date: Aug 3/8

B / SOIL SAMPLE

**Mine Assay
Laboratory Report Form**

Assayed By: _____

DRILL NO.	HOLE NO.	LAB. NO.	PPM Cu	PPM Pb	% CU E	REMARKS
<i>L8CE</i>	<i>100</i>	<i>1</i>	<i>150</i>	<i>TR</i>		
	<i>200</i>	<i>2</i>	<i>180</i>	<i>10</i>		
	<i>300</i>	<i>3</i>	<i>260</i>	<i>10</i>		
	<i>500</i>	<i>4</i>	<i>440</i>	<i>10</i>		
	<i>600</i>	<i>5</i>	<i>850</i>	<i>10</i>		
	<i>700</i>	<i>6</i>	<i>2190</i>	<i>10</i>		
	<i>800</i>	<i>7</i>	<i>560</i>	<i>10</i>		
	<i>900</i>	<i>8</i>	<i>1650</i>	<i>10</i>		
	<i>1000</i>	<i>9</i>	<i>560</i>	<i>10</i>		
	<i>* 1100</i>	<i>10</i>	<i>240</i>	<i>20</i>		
		<i>11</i>				
		<i>12</i>				
		<i>13</i>				
		<i>14</i>				
		<i>15</i>				
		<i>16</i>				
		<i>17</i>				
		<i>18</i>				
		<i>19</i>				
		<i>20</i>				
		<i>21</i>				
		<i>22</i>				
		<i>23</i>				
		<i>24</i>				
		<i>25</i>				
		<i>26</i>				
		<i>27</i>				
		<i>28</i>				
		<i>29</i>				
		<i>30</i>				



HIGHTONT OPERATING CORPORATION

Mine Assay

Laboratory Report Form

Date: Aug 3/8

Assayed By: _____

B

DRILL NO.	HOLE NO.	LAB. NO.	PPM Cu	PPM Mo	% CU E	REMARKS
		1				
		2				
		3				
		4				
		5				
		6				
		7				
		8				
		9				
		10				
L-10 SF	100	11	330	10		
	200	12	295	10		
	300	13	215	10		
	400	14	240	10		
	500	15	235	20		
	600	16	6085	25		
	700	17	830	25		
	800	18	4040	20		
	900	19	2410	20		
	1000	20	1150	20		
	* 1100	21	1860	15		
		22				
		23				
		24				
		25				
		26				
		27				
		28				
		29				
		30				

B

HIGHTONT OPERATING CORPORATION

Mine Assay

Laboratory Report Form

Date: Aug 3/80

Assayed By: _____

DRILL NO.	HOLE NO.	LAB. NO.	PPm Cu	PPm Mo	% CU E	REMARKS
		1				
		2				
		3				
		4				
		5				
		6				
		7				
		8				
		9				
		10				
		11				
		12				
		13				
		14				
		15				
		16				
		17				
		18				
		19				
		20				
		21				
L12SE	100	22	1500	20		
	200	23	825	10		
	300	24	225	20		
	400	25	115	15		
	500	26	170	15		
	600	27	200	20		
	800	28	11860	40		
	900	29	7255	25		
	1000	30	7000	25		

A

HIGHTONT OPERATING CORPORATION

Mine Assay

Laboratory Report Form

Date: Aug 3/8

Assayed By: _____

DRILL NO.	HOLE NO.	LAB. NO.	PPM Cu	PPM Mo	% CU E	REMARKS
L12SE	1100	1	1330	10		
	1200	2	2580	10		
L14SE	00'	3	445	05		
	100	4	600	10		
	200	5	2255	10		
	300	6	1690	10		
	400	7	180	10		
	500	8	145	05		
	600	9	200	10		
	700	*10	170	05		
	800	11	80	10		
	900	12	150	10		
	1000	13	195	05		
	1100	14	375	05		
	1200	15	160	10		
	1300	16	200	05		
	1400	17	4010	05		
	1500	18	1070	15		
	1600	19	240	10		
	1700	*20	2550	10		
	1800	21	2680	10		
	1900	22	450	25		
	2000	23	2540	10		
	2100	24	310	15		
	2200	25	790	10		
	2300	26	475	15		
CHECK	L8SE 1100	27	210	15		
"	L10SE 1100	28	1590	15		
"	L14SE 700	29	160	10		
"	L14SE 1700	30	2620	10		

HNT 24/1190
 CIP 30/290

1090
 2075

46
 84

HIGHMONT OPERATING CORPORATION

Mine Assay

Date: July 25/8

Assayed By: Hatted

Soil Samples

Laboratory Report Form

DRILL NO.	HOLE NO.	LAB. NO.	PPM CU	PPM MO	% CU E	REMARKS
L16 SE	00'	9	265	35		
	100'	2	3070	30		
	200'	3	170	60		
	300'	4	3570	15		
	400'	5	1110	30		
	500'	6	835	25		
	600'	7	265	15		
	700'	8	190	15		
	800'	9	130	10		
	900'	10	735	100		
	1000'	11	190	10		
	1100'	12	220	TR		
CHECK L28 SE	1000'	13	190	20		
CHECK L28 SE	2000'	14	240	10		
CHECK L16 SE	900'	15	750	90		
HNT	19m	16	935	470		
STD	29m	17	1820			
		18				
		19				
		20				
		21				
		22				
		23				
		24				
		25				
		26				
		27				
		28				
		29				
		30				

Mine Assay

Laboratory Report Form

Date: July 19/84

Assayed By: [Signature]

red
Soil samples

DRILL NO.	HOLE NO.	LAB. NO.	% Cu	% Pb	% CU E	REMARKS
L20	1850 SE	1	.06	.004		
	1900 "	2	.06	.003		
	1950 "	3	.05	.002		
19	2000 "	4	.31	.001		
	2050 "	5	.79	.004		
	2100 "	6	.04	.002		
	2150 "	7	.06	.002		
	2200 "	8	.04	.001		
	2250 "	9	.02	.002		
	2300 "	10*	.02	.001		
	2350 "	11	.02	.002		
	2400 "	12	.02	.001		
L18	200 SE	13	.47	.001		
	250 SE	14	.36	.001		
	300 "	15	.21	.004		
	350 "	16	.15	.004		
	400 "	17	.13	.006		
	450 "	18	.12	.005		
	500 "	19	.09	.002		
	550 "	20*	.08	.005		
	650 "	21	.06	.001		
	700 "	22	.03	.001		
	750 "	23	.12	.011		
	800 "	24	.26	.014		
	850 "	25	.17	.020		
	900 "	26	.15	.008		
TECH	L20 2300	27	.02	.002		
"	L18 550	28	.08	.004		
HS	19	29	.09	.009		
	29	30	.19	-		

HIGHMONT'S OPERATING CORPORATION

Soil samples.

Mine Assay

Date: July 19/54

Assayed By: TK

Laboratory Report Form

DRILL NO.	HOLE NO.	LAB. NO.	Cu %	Mn %	% CU E	REMARKS
L18	950 SE	1	.06	.011		
	1000 SE	2	.21	.005		
	1050 SE	3	.02	.002		
	1150 SE	4	.16	.004		
	1200 SE	5	.40	.003		
L22	100 SE	6	.55	.012		
	200 SE	7	.22	.004		
	350	8	.10	.005		
	400 SE	9	.05	.004		
	450 *	10	.09	.005		
	500 SE	11	.09	.007		
	550 SE	12	.10	.004		
	550	13	.05	.006		
	600 SE	14	.01	.005		
	600 SEA	15	.03	.006		
	650	16	.03	.003		
	700 SE	17	.03	.003		
	750	18	.13	.024		
	800 SE	19	.03	.006		
	850 *	20	.04	.009		
	900 SE	21	.04	.003		
	950	22	.18	.006		
check	450	23	.08	.004		
check	850	24	.04	.008		
H.S.	1g	25	.10	.048		
H.S.	2g	26	.20	-		
		27				
		28				
		29				
		30				

samples

HIGHMONT OPERATING CORPORATION

Mine Assay

Date: July 19/24

Laboratory Report Form

Assayed By: [Signature]

A

DRILL NO.	HOLE NO.	LAB. NO.	% Cu	% Mo	% Cu E	REMARKS
L20	150 SE	1	.11	.007		
	250 SE	2	.67	.006		
	450 SE	3	.10	.009		
?	505 SE	4	.03	.006		
1550 ✓	550 SE	5	.41	.007		
	550 ^P SE	6	.05	.021		
	650 SE	7	.02	.005		
ALPMT	700 SE	8	.04	.003		
	750 SE	9	.06	.006		
	850 SE	10*	.34	.004		
	950 SE	11	.12	.006		
	1000 SE	12	.25	.007		
	1050 SE	13	.10	.008		
	1100 SE	14	.21	.005		
	1150 SE	15	.12	.006		
	1200 SE	16	.03	.008		
	1250 SE	17	.18	.004		
	1300 SE	18	.07	.004		
	1350 SE	19	.19	.006		
	1400 SE	20*	.13	.005		
	1450 SE	21	.15	.005		
	1500 SE	22	.27	.007		
	1600 SE	23	.09	.005		
	1650 SE	24	.12	.004		
	1750 SE	25	.07	.005		
	1800	26	.16	.008		
RECH	850	27	.34	.004		
RECH	1400	28	.13	.005		
H5	19	29	.09	.018		
	29	30	.19	-		

HIGHMONT OPERATING CORPORATION

Mine Assay

Date: July 24/8
Assayed By: [Signature]

Soil SAMPLE

Laboratory Report Form

Line 21 → 22

DRILL NO.	HOLE NO.	LAB. NO.	LA %	Mo %	% CUE	REMARKS
L21, 1000		1	.10	.040		
L21, 1000 SE		2	.16	.004		
L21, 1050		3	.11	.007		
L21, 1150		4	.12	.003		
L21, 1200 SE		5	.06	.006		
L21, 1250		6	.10	.006		
L21, 1300 SE		7	.09	.004		
L21, 1350		8	.12	.003		
L21, 1400 SE		*9	.04	.003		
L21, 1450		10	.09	.009		
L21, 1500 SE		11	.32	.005		
L21, 1550		12	.07	.006		
L21, 1600 SE		13	.03	.002		
L21, 1650		14	.07	.004		
L21, 1700 SE		15	.08	.003		
L21, 1750		16	.03	.003		
L21, 1800 SE		17	.04	.002		
L21, 1850 SE		18	.04	.001		
L21, 1900 SE		19	.03	.003		
L21, 1950 SE		*20	.05	.002		
L21, 2000 SE		21	.03	.0030		
L21, 2050 SE		22	.05	.002		
L21, 2100 SE		23	.03 = 300 ppm	.002		
L21, 2150 SE		24	.03	.002		
L21, 2200 SE		25	.03	.002		
L21, 2250 SE		26	.02	.001 = 10 ppm		
L21, 2300 SE		27	.03	.002		
L21, 2350 SE		28	.06	.002		
L21, 2400 SE		29	.04	.002		
L22, 50 SE		30	.18	.005		

HIGHMONT OPERATING CORPORATION

Mine Assay

Date: *July 29/82*

Assayed By: *[Signature]*

Soit SAAPILE

Laboratory Report Form

DRILL NO.	HOLE NO.	LAB. NO.	% <u>Ca</u>	% <u>Mg</u>	% CU E	REMARKS
<i>L22,150 SE</i>		<i>25</i>	<i>.15</i>	<i>.007</i>		
<i>L22,850 SE</i>		<i>26</i>	<i>.23</i>	<i>.004</i>		
<i>CHECK</i>	<i>L21 1400 SE</i>	<i>27</i>	<i>.04</i>	<i>.003</i>		
<i>U</i>	<i>L21 1750 SE</i>	<i>28</i>	<i>.05</i>	<i>.002</i>		
<i>HMI</i>	<i>19m</i>	<i>29</i>	<i>.10</i>	<i>.050</i>		
<i>STP 29m</i>		<i>30</i>	<i>.20</i>	<i>—</i>		
		7				
		8				
		9				
		10				
		11				
		12				
		13				
		14				
		15				
		16				
		17				
		18				
		19				
		20				
		21				
		22				
		23				
		24				
		25				
		26				
		27				
		28				
		29				
		30				

HIGHMONT OPERATING CORPORATION

Mine Assay

Laboratory Report Form

Date: Jul 23 / 24

Assayed By: [Signature]

ORTEL NO.	HOPE NO.	LAB. NO.	Fpm Cu	ppm Mo	% CU E	REMARKS
L 24	100 SE	1	3100	50		
"	200	2	1460	35		
"	300	3	2440	25		
"	400	4	2200	35		
"	500	5	1160	35		
"	600	6	925	50		
"	700	7	220	25		
"	800	8	115	20		
"	900	9	150	15		
"	1000	10	1870	30		
"	1100	11	1210	50		
"	1200	12	160	20		
"	1300	13	1240	45		
"	1400	14	810	30		
"	1500	15	250	30		
"	1600	16	1740	40		
"	1700	17	810	45		
"	1800	18	235	35		
"	1900	19	365	20		
L 24	2000	20	375	20		
"	2100	21	885	15		
"	2200	22	385	15		
"	2300	23	470	20		
"	2400	24	690	25		
"	2500	25	305	20		
CHECK LAB #10		26	1850	35		
	#20	27	380	20		
	HS c.50g	28	485	245		
	1.00g	29	940	470		
		30				

HIGHWAY OPERATING CORPORATION

Mine Assay

Laboratory Report Form

Date: Jul 24/84

Assayed By: *[Signature]*

DRILL NO.	HOLE NO.	LAB. NO.	ppm Cu	ppm Mo	% CU E	REMARKS
SOIL SAMPLES						
L 26	100 SE	1	430	20		
"	200 "	2	4450	35		
"	300 "	3	620	20		
"	400 "	4	360	35		
"	500 "	5	385	40		
"	700 "	6	685	45		
"	800 "	7	520	40		
"	900 "	8	460	30		
"	1000 "	9	160	45		
"	1100 "	10	475	35		
"	1200 "	11	145	10		
"	1300 "	12	610	40		
"	1400 "	13	3070	40		
"	1500 "	14	660	50		
"	1600 "	15	160	35		
"	1700 "	16	230	50		
"	1800 "	17	300	20		
"	1900 "	18	240	20		
"	2000 "	19	230	10		
"	2100 "	20	195	10		
"	2200 "	21	375	20		
"	2300 "	22	270	20		
CHECK LAB # 7		23	525	35		
	# 14	24	645	45		
	HS .200g	25	195	90		
	.500g	26	480	230		
		27				
		28				
		29				
		30				

23
24 23.5

230
HIGHMONT OPERATING CORPORATION

Mine Assay

Date: July 25/8

Assayed By: Holmes

Soil Samples

Laboratory Report Form

DRILL NO.	HOLE NO.	LAB. NO.	P.PM Cu	P.PM Mo	% CU E	REMARKS
K288E	100'	1	360	45'		
	200'	2	475'	40'		
	300'	3	1390	55'		
	400'	4	235'	40		
	500'	5	400	50		
	600'	6	280	40		
	700'	7	1070	40		
	800'	8	180	55'		
	900'	9	490	10		
	*1000'	10	190.	30		
	1100'	11	590	30		
	1200'	12	450	20		
	1300'	13	530	50		
	1400'	14	410	65'		
	1500'	15	515'	40		
	1600'	16	530	25'		
	1700'	17	260	70		
	1800'	18	200	30		
	1900'	19	680	40		
	*2000'	20	270	20		
	2100'	21	120	20		
	2200'	22	230	20		
	2300'	23	210	20		
	2400'	24	270	30		
	2500'	25	300	25'		
	2600'	26	160	10		
	2700'	27	130	15'		
	2800'	28	140	20		
	2900'	29	1700	40		
	3000'	30	145'	15'		

HIGHMO:) OPERATING CORPORATION

General Worksheet

Proffer

Parameter Soil samples

Date July 18/84

Analyst _____

		BASELINE			
Sample	% Cu	% Pb	% Cu	% Pb	
			#17 BL 200 SW	.074	.003
#1 BL 800 SW	.003	.000 60			
			#18 BL 400 SW	.240	.002
#2 BL 1200 SW	.041	.003			
			#19 BL 1000 SW	.041	.001
#3 BL 600 SW	.031	.003			
			#20 BL 200 SW	.038	.003
#4 L 20 100 SE	.240	.006			
			#21 BL 100 SW	.122	.003
#5 L 20 200 SE	.184	.004			
			#22 BL 1600 SW	.290	.003
#6 L 20 300 SE	.076	.003			
			#23 BL 1400 SW	.048	.002
#7 L 20 400 SE	.100	.002			
#8 L 20 500 SE	.045	.004			
#9 L 20 600 SE	.028	.003			
#10 BL 200 SW	.136	.006			
#11 L 20 700 SE	.017	.002			
#12 BL 2400 SW	.014	.003			
#13 BL 2200 SW	.029	.004			
#14 FL 30	.048	.001			
#15 L 20 800 SE	.450	.001			
#16 L 20 900 SE	.048	.001			

APPENDIX II

TRENCH CHIP SAMPLE ASSAYS

M

HIGHMONT OPERATING CORPORATION

Mine Assay

Laboratory Report Form

Date: Jul 16 / 24

Assayed By: EA FL

DRILL NO.	HOLE NO.	LAB. NO.	%	%	% CU E	REMARKS
		1				
		2				
		3				
		4				
TRENCH #1		5				
	FOOTAGE	6	% Cu	% Mo		
		7				
TRENCH	0-10	8	0.24	.013		
	10-20	9	0.13	.009		
	20-30	10	0.11	.011		
	30-40	11	0.13	.005		
	40-50	12	0.09	.007		
	50-60	13	0.16	.009		
	60-70	14	0.07	.009		
CHECK LAB #10		15	0.11	.012		
	HS 19	16	0.09	.048		
		17				
		18				
		19				
		20				
		21				
		22				
		23				
		24				
		25				
		26				
		27				
		28				
		29				
		30				

HIGHMONT OPERATING CORPORATION

TRENCH # 2
Samples

Mine Assay

Date: July 20

Assayed By: TI

Laboratory Report Form

BILL NO.	FOOTAGE	LAB. NO.	% Cu	% Mo	% Cu E	REMARKS
	40-50	1	.09	TR		
	50-60	2	.14	.008		
	60-70	3	.10	.002		
	70-80	4	.24	.010		
	80-90	5	.08	.005		
	90-100	6	.14	.005		
	100-110	7	.10	.007		
	110-120	8	.05	.023		
	120-130	9	.15	.007		
	130-140	10	.12	.007		
	140-150	11	.11	.003		150-160 No Sample
	160-170	12	.14	.003		
	170-180	13	.16	.005		
	180-190	14	.12	.003		
	190-200	15	.12	.003		
	200-210	16	.15	.005		
	210-220	17	.38	.006		
	220-230	18	.10	.004		
	230-240	19	.15	.009		
	240-250	20	.12	.005		
check	130-140	21	.12	.006		
check	240-250	22	.12	.004		
H.S.	1g	23	.10	.049		
		24				
		25				
		26				
		27				
		28				
		29				
		30				

Mine Assay

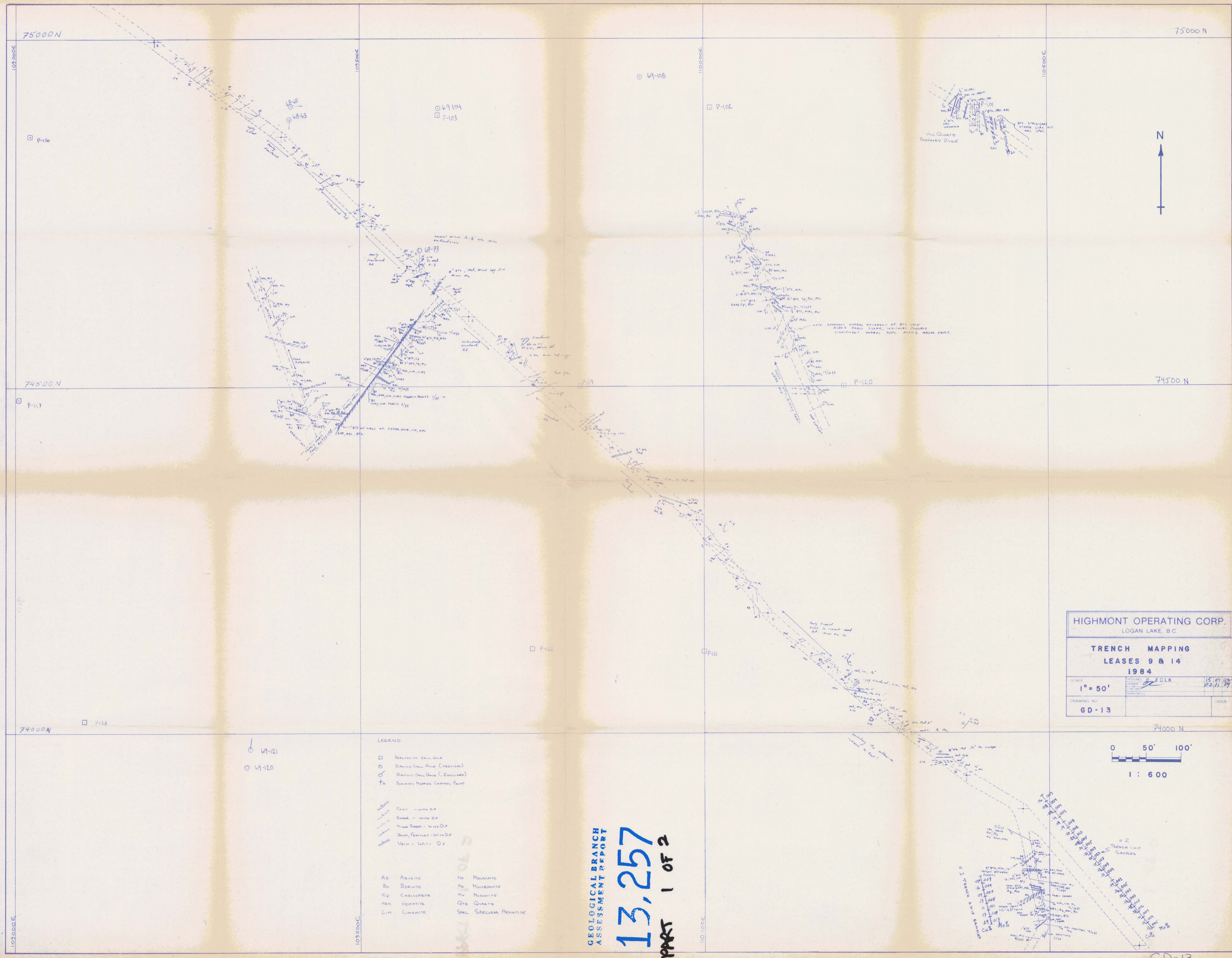
Laboratory Report Form

Date: July 28/84

Assayed By: [Signature]

TRENT SAMPLES
3

DRILL NO.	FOOTAGE	LAB. NO.	% Cu	% Pb	% CU E	REMARKS
I	0-10	1	.15	.006		
"	10-20	2	.12	.009		
"	20-30	3	.16	.009		
	30-40	4	.14	.008		
	40-50	5	.15	.006		
	50-60	6	.16	.007		
	60-70	7	.22	.015		
	70-80	8	.21	.006		
	80-90	9	.52	.037		
	90-100	* 10	.15	.008		
	100-110	11	.24	.011		
	110-120	12	.12	.006		
	120-130	13	.12	.005		
	130-140	14	.08	.010		
	140-150	15	.14	.005		
CHECK	90-100	16	.16	.008		
HWT	1 gm	17	.09	.048		
STD	2 gm	18	.19	—		
QJ	130-140	19	.11	.006		
		20				
		21				
		22				
		23				
		24				
		25				
		26				
		27				
		28				
		29				
		30				



LEGEND

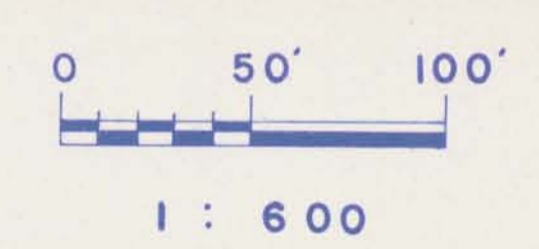
- PERFORATED DRILL HOLE
- DIAMOND DRILL HOLE (VERTICAL)
- DIAMOND DRILL HOLE (INCLINED)
- ✦ SURVEYED MAPPING CONTROL POINT

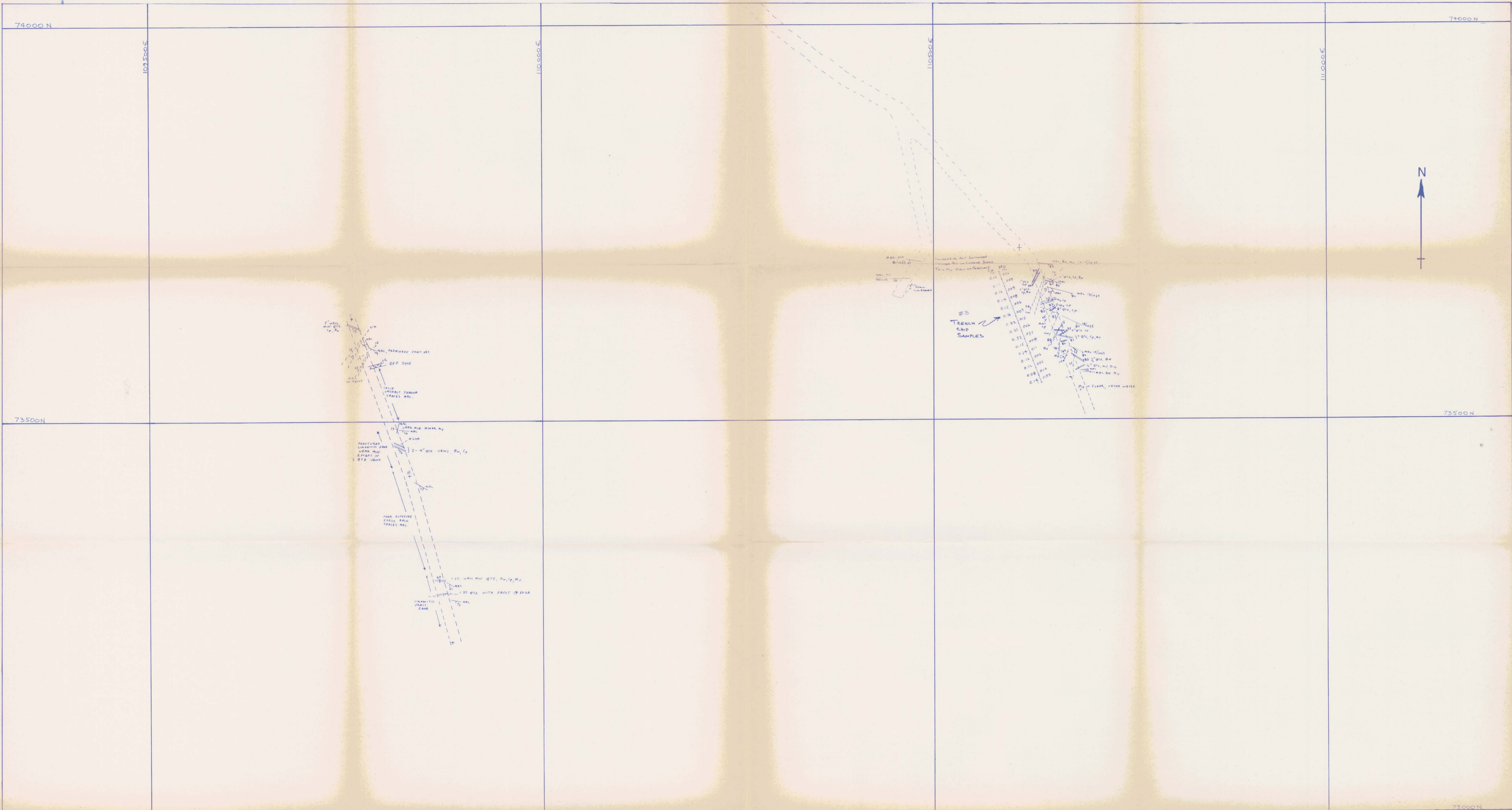
--- Fault - with Dip
 --- Shear - with Dip
 --- MINOR SHEAR - with Dip
 --- JOINT, FRACTURE - with Dip
 --- Vein - with Dip

AR	ARGENTITE	MA	MALACHITE
BO	BORNIITE	MO	MOLYBDENITE
CP	CHALCOPRITE	MU	MUSCOVITE
HE	HEMATITE	QTZ	QUARTZ
LIM	LIMONITE	SPEL	SPECULUM HEMATITE

GEOLOGICAL BRANCH
 ASSESSMENT REPORT
13,257
 PART 1 OF 2

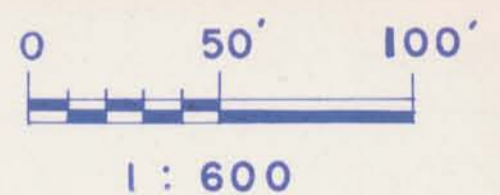
HIGHMONT OPERATING CORP.
 LOGAN LAKE, B.C.
TRENCH MAPPING
LEASES 9 & 14
1984
 SCALE 1" = 50'
 DRAWING NO. GD-13
 DESIGNER E. FOLK
 DATE 11/29/84
 ISSUE DATE 02/11/85





- LEGEND
- Percussion Drill Hole
 - Diamond Drill Hole (Vertical)
 - Diamond Drill Hole (Inclined)
 - ✱ Surveyed Mapping Control Point
 - Fault - with Dip
 - Shear - with Dip
 - Mine Shear - with Dip
 - Joint Feature - with Dip
 - Vein - with Dip

- | | | | |
|-----|--------------------------|------|-------------------|
| Az | AZULITE | Ma | MALACONITE |
| Bs | BERYLITE | Mo | MOLYBDENITE |
| Cp | CHALCOPHYTE | Mu | MUSCOVITE |
| Hem | HEMATITE | Qtz | QUARTZ |
| Lin | LIMONITE | Spcc | SPECULAR HEMATITE |
| QFP | QUARTZ FELDSPAR PORPHYRY | | |



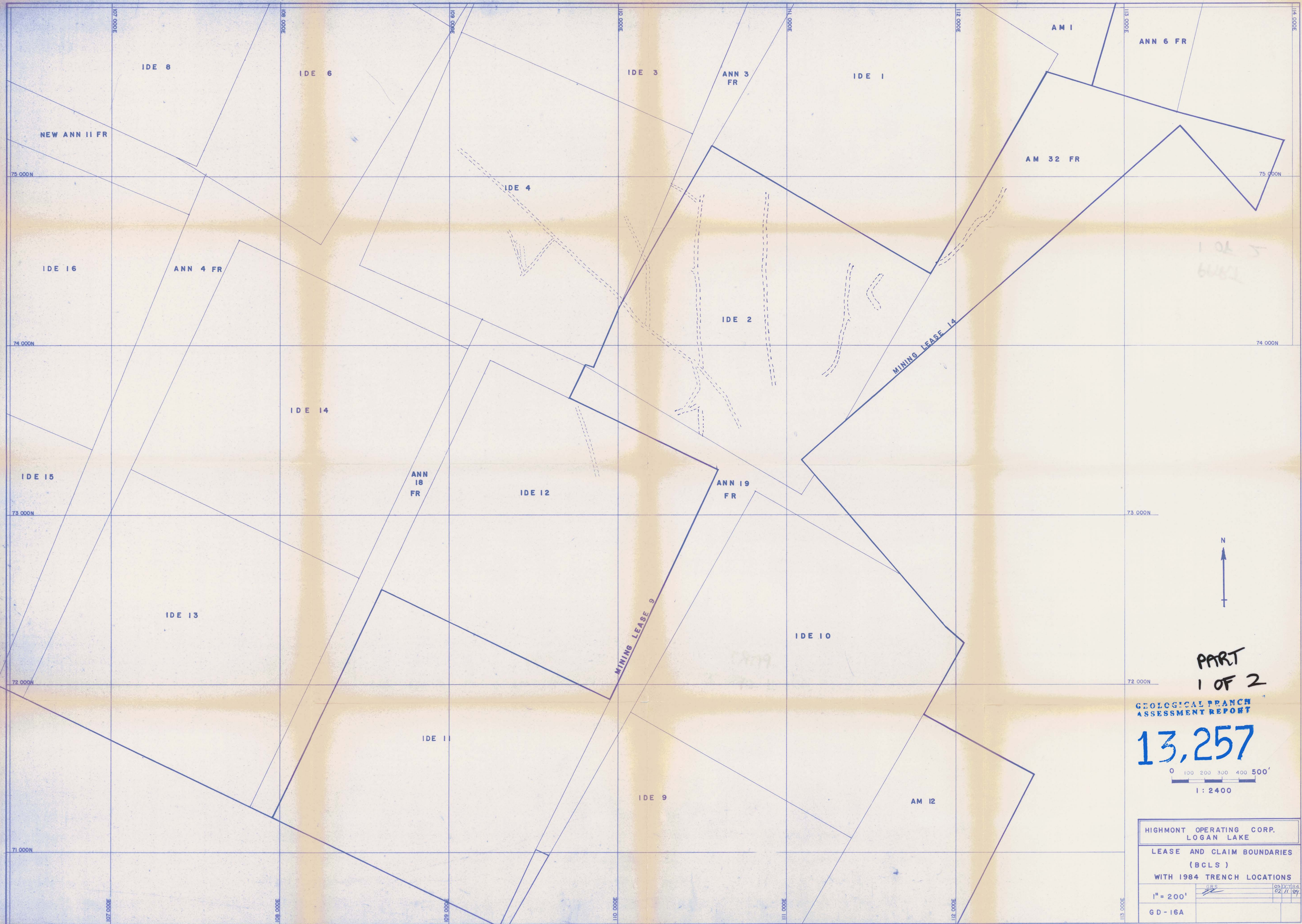
HIGHMONT OPERATING CORP.
LOGAN LAKE, B.C.

TRENCH MAPPING
LEASES 9 & 14
1984

SCALE 1" = 50'	DATE 12/07/84
DRAWING NO. GD-14	ISSUE

GEOLOGICAL BRANCH
ASSESSMENT REPORT
13,257
PART 1 OF 2

1301 TRAIL



1025
6062



PART
1 OF 2

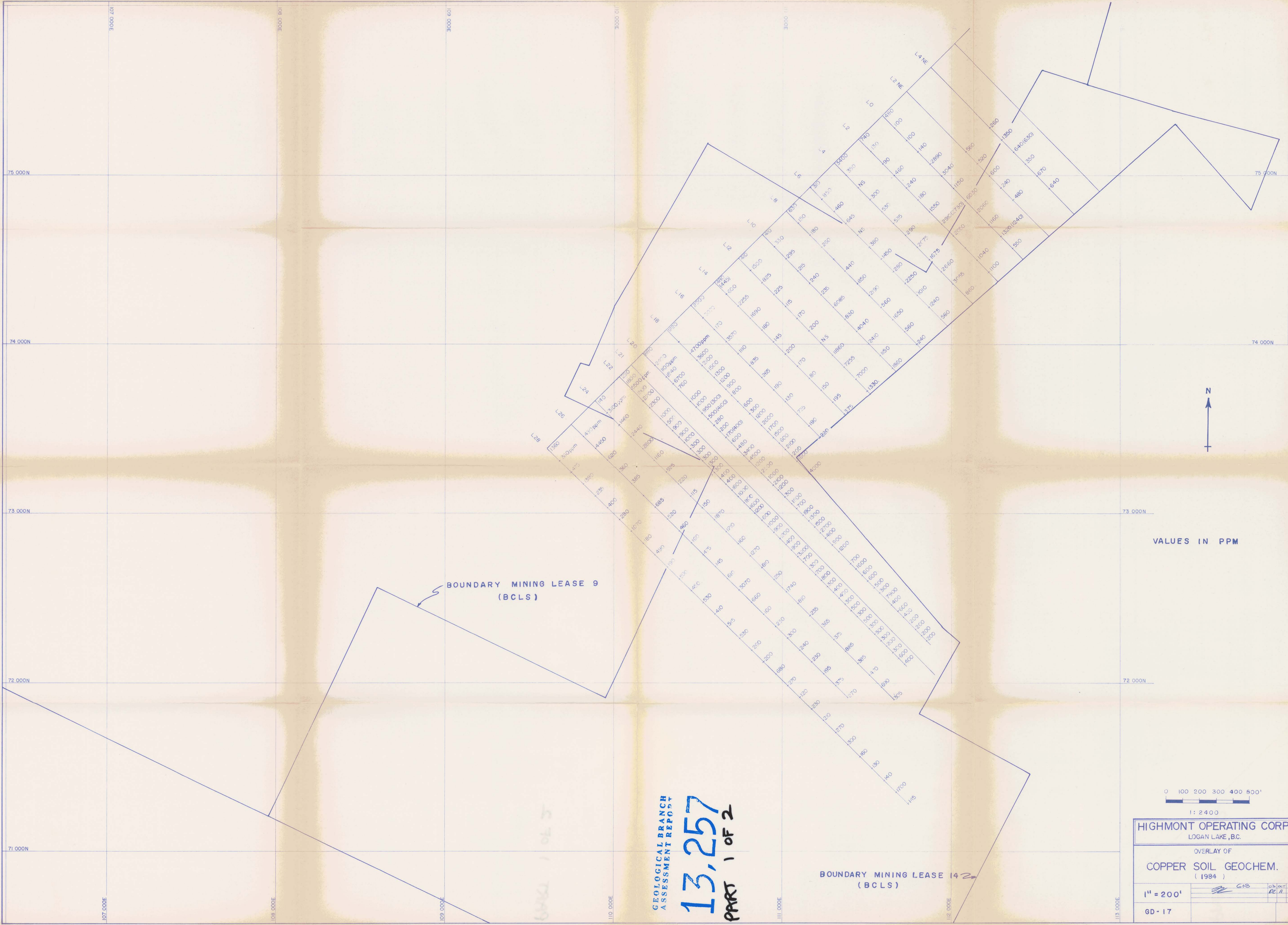
GEOLOGICAL BRANCH
ASSESSMENT REPORT

13,257



1" = 2400

HIGHMONT OPERATING CORP. LOGAN LAKE	
LEASE AND CLAIM BOUNDARIES (BCLS)	
WITH 1984 TRENCH LOCATIONS	
1" = 200'	DATE: 11/84 BY: [Signature]
GD-16A	



BOUNDARY MINING LEASE 9
(BCLs)

BOUNDARY MINING LEASE 142
(BCLs)

VALUES IN PPM

GEOLOGICAL BRANCH
ASSESSMENT REPORT
13,257
PART 1 OF 2



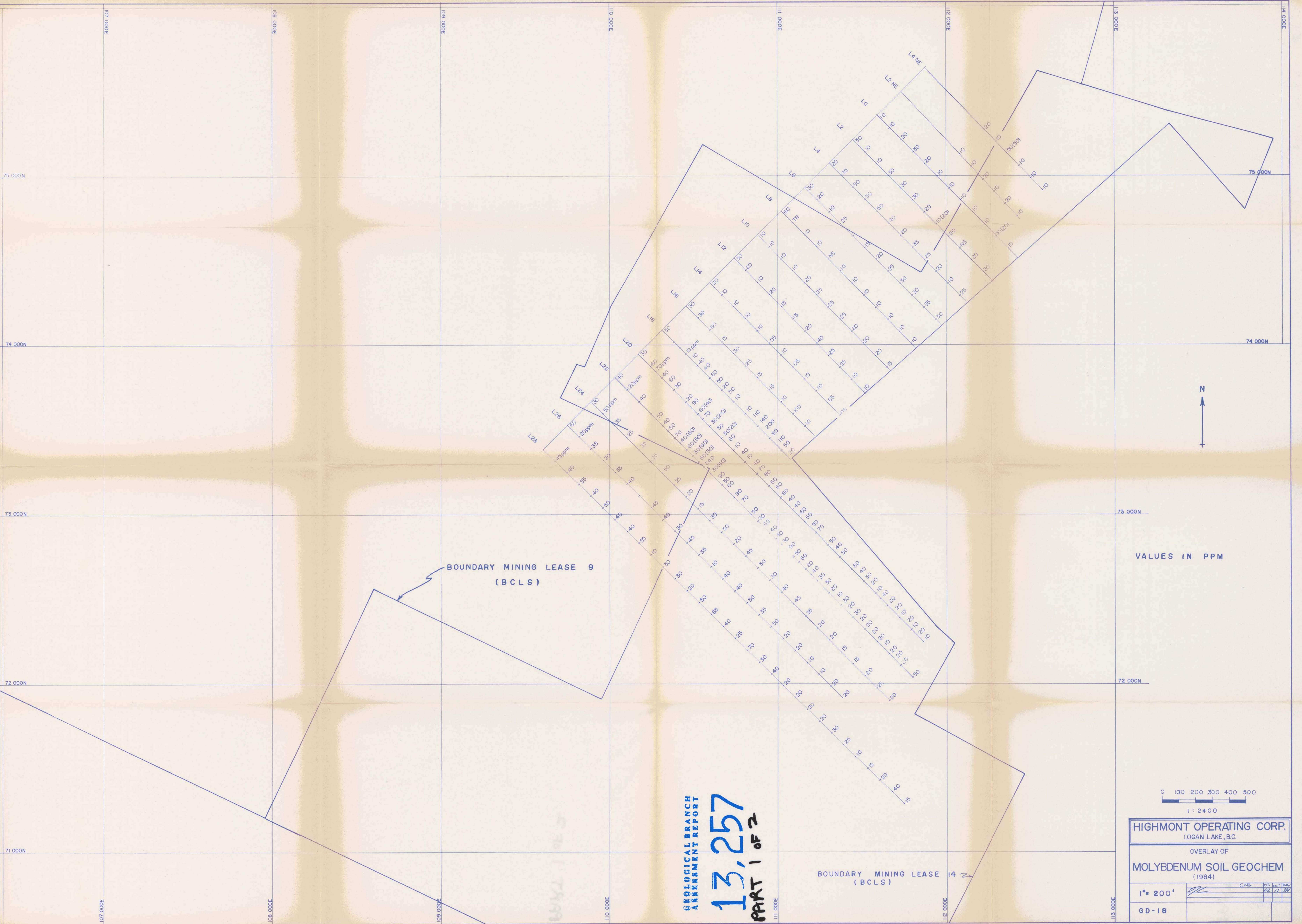
1:2400

HIGHMONT OPERATING CORP.
LOGAN LAKE, B.C.

OVERLAY OF
COPPER SOIL GEOCHEM.
(1984)

1" = 200'

GD-17

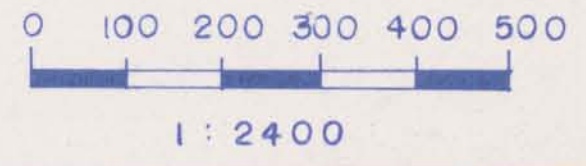


BOUNDARY MINING LEASE 9
(BCLS)

VALUES IN PPM

GEOLOGICAL BRANCH
ASSESSMENT REPORT
13,257
PART 1 OF 2

BOUNDARY MINING LEASE 14 2
(BCLS)



HIGHMONT OPERATING CORP. LOGAN LAKE, B.C.					
OVERLAY OF MOLYBDENUM SOIL GEOCHEM (1984)					
1" = 200'	<table border="1"> <tr> <td>DATE</td> <td>BY</td> </tr> <tr> <td>02/11/87</td> <td></td> </tr> </table>	DATE	BY	02/11/87	
DATE	BY				
02/11/87					
GD-18					