

October 4, 1961.

Canada
British Columbia
Clinton Mining Division
Foison Mountain Prospect
Copper

HISTORY

The history and general geology of Foison Mountain are well described in pages 186 to 191, Minister of Mines for B.C. Annual Report of 1933. At this time, placer gold was discovered at Foison Mountain Creek and a staking rush began in the area. The meagre return of gold values caused this rush to subside.

The 1946 Annual Report (pages 96 to 102) describes copper showings occurring as scattered veins and random veinlets of chalcocite and malachite within a diorite porphyry along Copper Creek. Work at this time consisted of numerous pits and trenches which exposed bedrock and indicated that copper mineralization was sparingly and irregularly distributed.

In 1956, an extensive exploration program consisting of trenching, sampling, and diamond drilling, was initiated by Grandy Consolidated Mining Smelting and Power Company. A total of 16,830 feet of bulldozing was done which exposed 3,800 lineal feet of bedrock of which 1,617 feet was sampled. Ten diamond drill holes totalling 1,968.5 feet were completed and one hole penetrated a maximum depth of 332 feet. This work outlined copper mineralization localized in a structure of biotite porphyry positioned within a sedimentary belt. Copper tenor was considered below ore grade and the property was dropped.

In 1959 and 1960, the New Jersey Zinc Exploration Company did further work. Their efforts consisted of magnetometer survey, geochemical survey, trenching, and diamond drilling. Fifteen drill holes totalling 2,000 feet were completed and bulldozing contributed 22,800 feet of roads and trenches to those already in existence. Regional mapping was undertaken. However, in late 1960, the property was considered uneconomic and dropped.

The property was first presented to Asarco in 1953. At that time, an examination was made by G. A. Siron, who concluded that the prospect was of no interest. In April 1961, the property was again presented to Asarco by Mr. H. H. Eustis and associates. It was decided that detailed geologic mapping plus some geophysical surveying was warranted on the possibility that extensions of the previously known mineralization could be found.

DIAMOND DRILL DATA

DDH NO	DEPTH OF OVERBURDEN	DRILL FEET	MEASURED FT. OF CORE	PERCENT RECOVERY	AVERAGE % COPPER	BEST COMPOSITE % COPPER	ROCK TYPE	ANGLE OF HOLE	OTHER REMARKS
2	6'	2035	211.9	700	0.10		BIOTITIZED HORNBLEND PORPHYRY	VERTICAL	CORE SIZE EX (7/8" DIAMETER)
3	6'	326.0	182.1	55.8	0.30	60' @ 0.43 125' - 212'	BIOTITE PORPHYRY	VERTICAL	
4	9'	192.0	121.7	63.4	0.38	15' @ 0.72 0' - 15'	BIOTITE PORPHYRY	VERTICAL	
5	2'	198.5	102.4	51.6	0.42	30' @ 0.95 40' - 70'	BIOTITE PORPHYRY ARGILLITE	VERTICAL	
6	1'	142.0	102.2	71.9	0.25	20' @ 0.97	BIOTITE PORPHYRY ARGILLITE	-25 EAST	
7	4'	191.0	118.1	61.8	0.29	40' @ 0.48	BIOTITE PORPHYRY ARGILLITE	HORIZONTAL - AL.	
8	1/2'	184.5	127.8	69.3	0.39	55' @ 0.55 3' - 60'	BIOTITE PORPHYRY ARGILLITE	VERTICAL	
9	19'	685	45.0	65.7			BIOTITE PORPHYRY	VERTICAL	
10	1'	183.0	131.0	71.6	0.24	10' @ 0.52 120' - 130'	BIOTITIZED HORNBLEND PORPHYRY	VERTICAL	
11	8'	198.0	68.0	42.4	0.21	31' @ 0.40 143' - 174'	HORNBLEND PORPHYRY	VERTICAL	
12	16'	106.0	46.1	43.5	0.48	16.5' @ 0.79 223' - 45'	BIOTITE PORPHYRY	VERTICAL	
13	5'	134.0	73.9	55.1	0.23	15' @ 0.33 98' - 109'	BIOTITE PORPHYRY	VERTICAL	
14	24'	62.0	37.1	42.5	0.26		GREYWACKS	VERTICAL	
15	22'	88.5	32.6	36.6			BIOTITE PORPHYRY	VERTICAL	
16	34'	30.0	32.9	38.8	0.12		GREYWACKS	VERTICAL	
17	33'	72.0	30.2	41.9	0.21		GREYWACKS	VERTICAL	
18	22'	118.0	38.9	63.1	0.23	43' @ 0.38 22' - 65'	BIOTITE PORPHYRY GREYWACKS	VERTICAL	
19	21'	82.0	36.7	63.1	0.38	10' @ 0.43 25' - 35'	GREYWACKS BIOTITE PORPHYRY	VERTICAL	
20	27'	73.5	36.5	74.9			BIOTITIZED HORNBLEND PORPHYRY	VERTICAL	
21	20'	84.0	48.9	58.2	0.21		BIOTITE PORPHYRY GREYWACKS	VERTICAL	
22	43'	190.5	142.8	74.9	0.22		GREYWACKS	VERTICAL	
23	9'	179.0	132.7	78.0	0.13		GREYWACKS	VERTICAL	
24	18 1/2'	121.6	100.0	82.3	0.10		BIOTITE PORPHYRY	VERTICAL	
25	31'	66.0	33.8	51.2	0.12		ARGILLITE	VERTICAL	
TOTAL		3472.0	2198.1	63.2					

DRILL PROGRAM OF NEW BRSEY ZING 1956

* DDH # 2 DELETED

HISTORY (cont'd)

During the latter part of July 1961, the jeep road from Blue Creek to Poison Mountain (a distance of 14 miles) was cleared. On August 6, 1961, a preliminary report was written by R. S. Gray. During the period August 12th to 18th, this writer mapped the immediate claim area and examined the drill core. Between August 25th and August 31st, an i.p. survey totalling 38,000 line feet of survey was made. In addition, an i.p. depth profile was run. During the period September 2nd to 5th, the geology was reviewed by Dr. M. Carr of the B.C. Department of Mines, and this writer.

LOCATION AND ACCESS

The Poison Mountain prospect is situated in the Clinton Mining Division of B.C. The property lies 60 miles northwest of the town of Lillooet, and is accessible by a gravel and jeep road which parallels the Yalakom River. Churn Creek and Poison Mountain Creek. An alternate jeep road to the prospect extends westerly from Clinton, B.C. for 84 miles.

CLAIMS

Presently, the prospect is embraced by a group of 56 claims. Nineteen of these claims are original and were optioned from the owner, Mr. E. Reynolds, by E. E. Euestis, et al. The remaining 37 claims were staked by Mr. Euestis in the spring of 1961.

GEOLOGY

General Statement

The area is in the eastern foothills of the Coast Range batholithic complex. The prospect lies about five miles north of the Shulaps Range of mountains, which are comprised of a complex assemblage of ultrabasic intrusives. The Yalakom Fault is coincident with the eastern contact of these ultrabasic intrusives and the adjacent sediments. These sediments are identical to those found along Churn Creek and Poison Mountain Creek, and are described by G. B. Leach of the B.C. Department of Mines (Bulletin 32, page 23). They are considered Jura-Cretaceous in age, and are comprised of greywacke, interbedded with conglomerate, argillite and siltstone.

In the claim group these sediments are intruded by two types of diorite porphyry: (a) biotite porphyry exhibiting hexagonal crystals of biotite up to 3 m.m. in diameter, and (b) hornblende porphyry containing acicular hornblende and hydrothermal biotite, pseudomorphic after hornblende.

Sediments

The rigorous tectonic activity which took place in Cretaceous-Jurassic times, is evidenced by the interbedded conglomerates that occur within the Poison Mountain greywackes. Greywacke and argillite outcrops along Churn Creek have an east-west strike and dip 70° to the south. Eastward this dip lessens to 40 degrees. Argillites to the immediate east and north of the principal showing area, have a northerly strike and steep dip (70°) to the east. A cross-section through the Poison Mountain area would indicate an upwarping and/or anticlinal positioning of sediments adjacent to the intrusive area.

South and east of the intrusive area, along Churn Creek, interfingering beds of argillite devoid of pyrite, occur within the greywackes. The constituents of the greywacke exhibit a uniform and recognizable texture. The rock is a grit as detrital quartz grains are present with angular feldspars and other rock particles. To the north and west of the intrusive area, similar greywackes are interbedded with conglomerates. Adjacent to the intrusive area, the greywackes are metamorphosed and show an increase in biotite and decrease in size and volume of other sedimentary constituents. The greywacke-biotite-porphry contact zone is extensively fractured and the greywackes contain numerous fracture fillings of pyrite, particularly near and adjacent to the intrusive.

Biotite Porphyry

The biotite porphyry intrusive appears to be located within a zone of weakness allied to the folding of the greywacke. In the Copper Creek area, the biotite porphyry is elliptical in shape with a major east-west axis of 5,000 feet and a minor north-south axis of 2,300 feet. Two dike-like bodies of porphyry are located within the principal showing area; one at the junction of Fenton and Poison Mountain creeks, the other in the proximity of diamond drill hole No. 23. Unmineralized exposures of biotite porphyry are a dike-like body 700 feet wide in the Churn Creek area, and a capping located atop the southern peak of Poison Mountain.

Megascopically, the biotite porphyry consists of large phenocrysts of zoned plagioclase and hexagonal biotite in a fine-grained ground mass. These phenocrysts represent between 30 and 70% of the rock by volume and are randomly oriented. The rock is grey in colour and locally weathers orange due to the formation of iron oxide from pyrite. In the Copper Creek area, chalcopyrite and pyrite occur with secondary quartz stringers and as disseminations. The quartz and calcite veinlets are randomly oriented. Hydrothermal biotite commonly appears as pseudomorphs after hornblende. The outcrops of biotite porphyry located in the Churn Creek area and upon the peak of Poison Mountain are devoid of chalcopyrite but do contain minor amounts of pyrite.

Horablende Porphyry

In the Copper Creek area, horablende porphyry is intruded into the biotite porphyry and probably lies along a tension break parallel to the major axis of the biotite porphyry. To the east, the horablende porphyry narrows. To the northwest it extends to the Fenton Creek area where it intrudes the surrounding greywackes and conglomerates.

Alteration

The hydrothermal alteration that accompanies the copper mineralization at Poison Mountain appears to be of three types (a) a secondary biotite is pervasive and appears pseudomorphic after horablende in both the biotite and horablende porphyry, but more intense in the latter, (b) the alteration of biotite to chlorite is evidenced particularly along the perimeter of the intrusives, (c) a kaolinization of plagioclase feldspar appears extensive throughout the two intrusives, as plagioclase phenocrysts exhibit a white chalky appearance which destroys the striations of albite twinning.

Brecciation

Brecciation appears limited to the contact area of the biotite porphyry and later horablende porphyry. Explosive breccia was noted in one area (116E, 104N) and evidenced by the inclusion of biotite porphyry fragments within horablende porphyry. Metallization in this area was not intense.

Immediately south of Copper Creek, brecciation of the biotite-horablende porphyry contact is extensive, and metallization comprises 3 to 4% of the rock by volume. Here, however, chalcopryrite appears as a minor constituent. The composite grade from drilling and trenches is 0.32% copper.

The intensity and width of brecciation appears to be a limiting factor regarding mineralization. Although the breccia zones were porous subsequent to the horablende porphyry intrusion, they provided narrow conduits for later hydrothermal introduction of sulphides. In contrast, the fractured zone of the greywackes adjacent to the biotite porphyry is wide and receptive host for hydrothermal sulphides. Noteworthy, is the abundance of pyrite and paucity of chalcopryrite. It is apparent that the mineralizing solutions were iron, sulphur-rich and copper-poor.

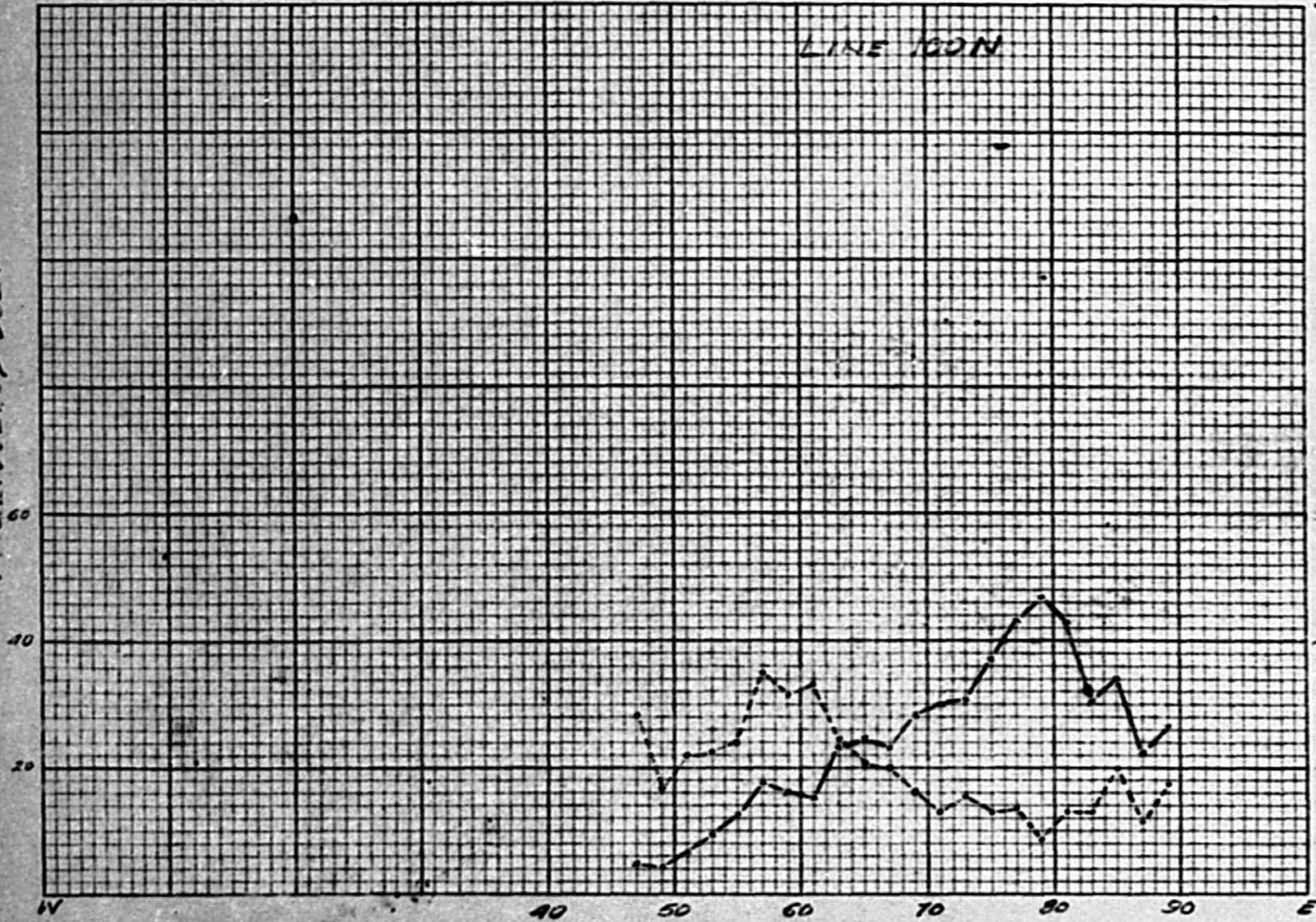
GEOPHYSICS

Evaluation of the New Jersey magnetic survey and the recent Asarco i.p. survey will be given by L. A. Switt in his forthcoming report.

LINE 100M

MILLIVOLTS/VOLT

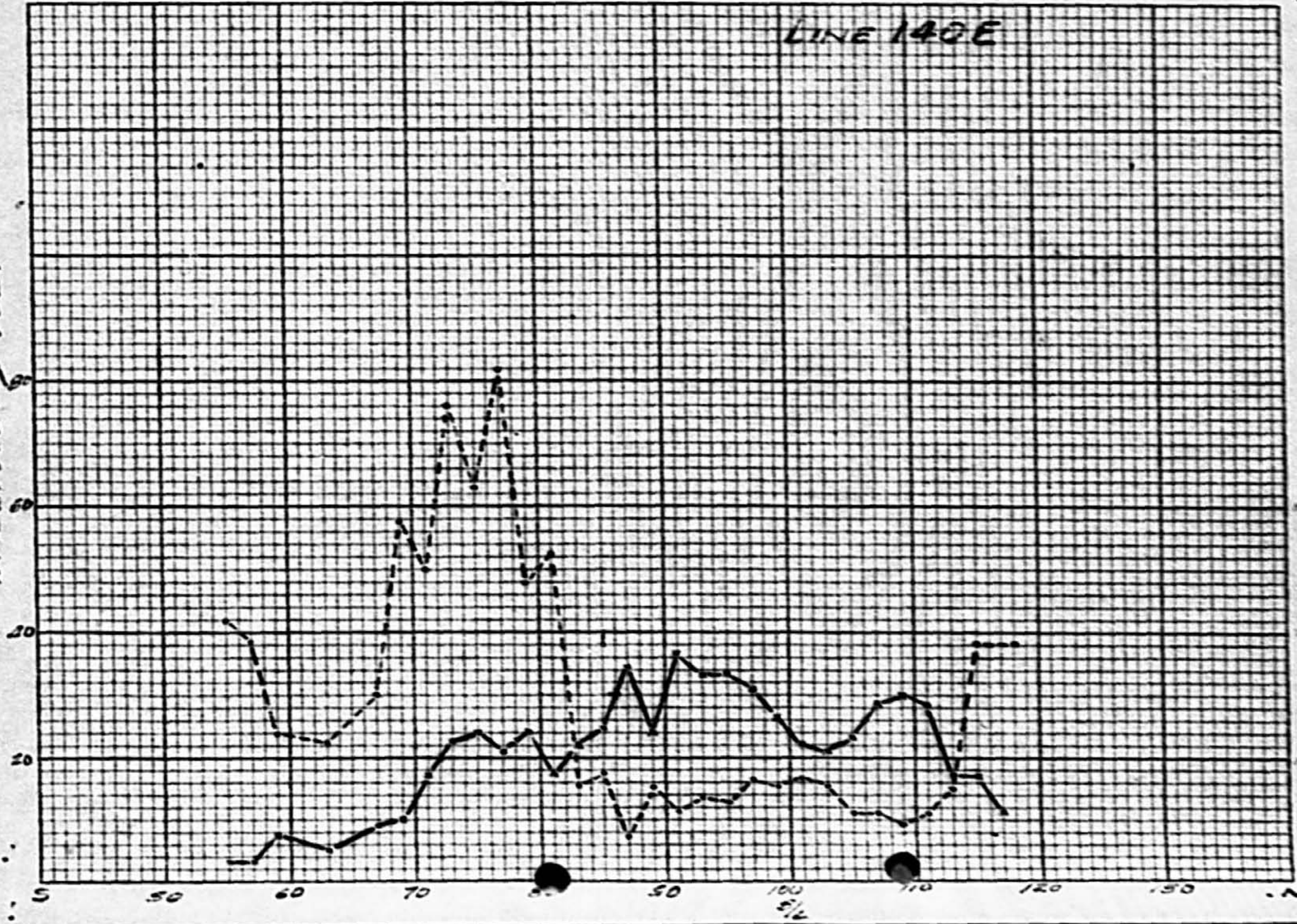
OHM FEET



LINE 140E

MILLIVOLTS

MINI FEET





LINE 100 N
EAST END

MI 12.61 VOLTS/VOLT

OHM FEET

60

40

20

2000

1000

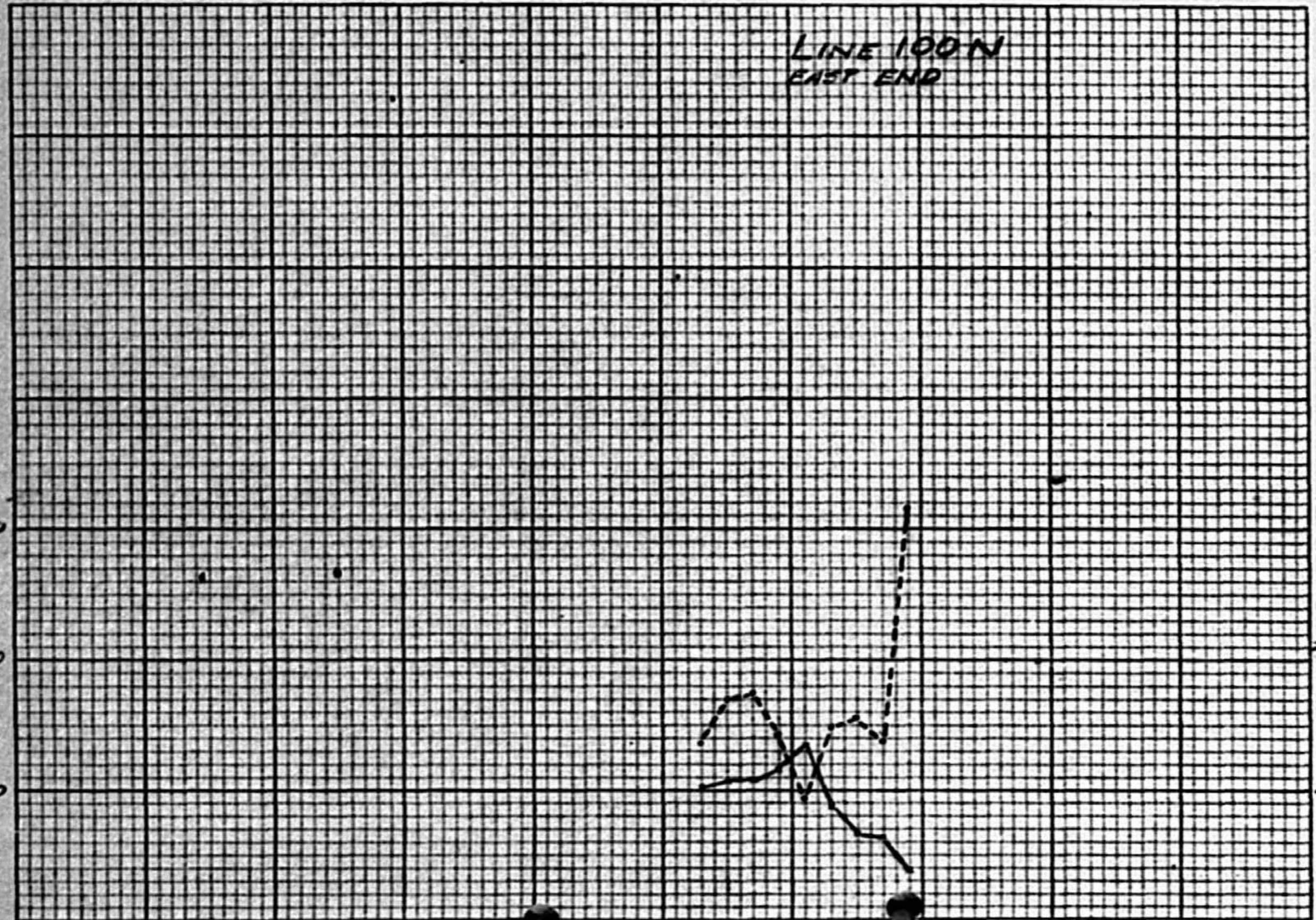
W

140

150

160

E



LINE 120E

MILLIVOLTS/VOLT

CM/FT



GEOLOGICAL DIVISION
Salt Lake City, Utah

October 9, 1961

411

MEMORANDUM TO: R. J. LAY

NEW MEXICO
CITY OF ALBUQUERQUE
GEOLOGICAL DIVISION

A porphyry copper prospect 70 miles northwest of Lillooet was investigated during August. The purpose of this study was to determine the application of geophysics to extending the tested mineralized porphyry into unexplored areas.

CONCLUSIONS and RECOMMENDATIONS

Upon examining the property it was decided that a fairly good test previously made by Grady mines and New Jersey Zinc Co. would give us little hope of finding a new mineralized porphyry area. Preliminary geologic observations also indicated this would be the case. However, commitments were such that a minimum induced polarization survey in conjunction with a more detailed geologic mapping job was decided upon.

The detailed geologic mapping and the geophysical survey confirmed in excellent form our earlier conclusions. Induced polarization contours, confirmed by geologic evidence, indicate the area to be a truncated intrusive uplift with a mineralized halo. The greatest degree of mineralization was found to be disseminated pyrite within an intruded argillite and gneiss. Copper mineralization was found in the peripheral contact of the porphyry and sediments.

The induced polarization survey indicates an area of pyrite mineralization 10,000 feet long and 6,000 feet wide. Geologic evidence did not seem to support hope for a hidden zone of ore grade disseminated copper. Also, the lithologic environment does not appear to be favorable for massive sulfide replacements.

GEOLOGICAL SURVEY

During the latter part of August an induced polarization survey was conducted. Mr. Moss, director of geophysical research, instructed Mr. Fench in the use of AMARCO's lightweight equipment. Mr. Fletcher and myself were responsible for the survey organization and control. A crew of four helpers and one cook were hired locally.

A total of 35,000 feet of survey was made. This was conducted using a Wenner configuration and an electrode spacing of 200 feet. An "A" spacing of 200 feet gave us effective depth and volume penetration. One depth profile was made at B.D.E. No. 1.

INTERPRETATION OF GEOLOGICAL DATA

Previous magnetic data obtained by the New Jersey Zinc Co. confirms the geologic interpretation made by Mr. Fletcher. This interpretation suggests two stages of intrusives to be present. First, the Motite porphyry intruded a structural

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weakness in the sediments. This porphyry was later intruded by a hornblende porphyry. The higher concentration of magnetite within the hornblende porphyry accounts for the magnetic anomaly. Magnetic data also indicate the covered areas would have less than 50 feet of overburden maximum.

The geochemical survey made by the New Jersey Zinc Co. outlined very clearly the zones of higher copper content below the overburden. Wherever shallow overburden and oxidation are found such as is the case here, geochemical results are very useful.

Induced polarization data clearly defined a disseminated mineralized halo 10,000 feet by 6,000 feet around the central intrusive core. Missed drilling, geochemical data, rock outcrop and float would indicate this mineralized halo to be a disseminated pyrite zone within banded argillites and graywackes. The central intrusive core contains a lower percentage of total sulphides but its border zones were more susceptible to copper sulphide mineralization.

Resistivity data differentiates between the various rock units. High resistivities were found associated with grites, medium with the intrusive biotite porphyry, low with interbedded graywackes and argillite and high with hornblende porphyry.

The induced polarization depth profile indicated a uniform percentage of sulphides with depth.

DESCRIPTION OF MAPS

Four maps are included in this report as follows:

- 1 - 1 inch @ 400 ft. - Induced Polarization Contour Map.
- 2 - 1 inch @ 400 ft. - Resistivity Contour Map.
- 3 - 1 inch @ 400 ft. - Magnetic Contour Map.
- 4 - 1 inch @ 400 ft. - Interpreted Geology Map.

The enclosed induced polarization and resistivity contour maps are made on limited data and are somewhat interpreted. However, the polarization and resistivity information available were made adequate for interpretation by the large amount of geologic data available. Magnetic contouring is taken from earlier New Jersey Zinc Company data. A map showing the geochemical information will be included on a later date.

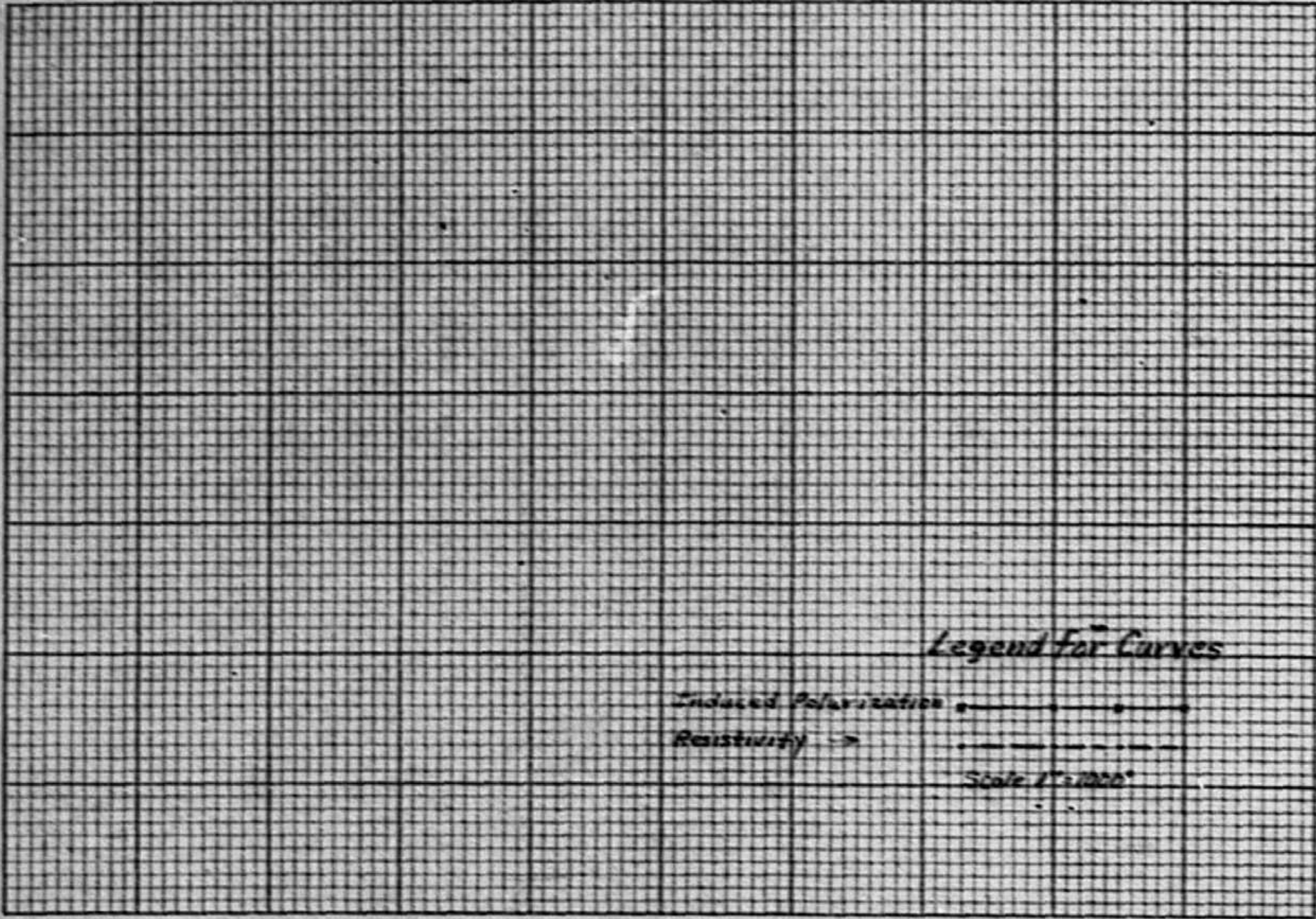
The interpreted geologic map is based on Mr. Fletcher's geologic map and interpreted geophysical data.

SUMMARY

Poison Mountain was an excellent example of a prospect which was completely amenable to geological combined with geophysical evaluation. The conclusions drawn on this property could have been made with considerably less work, combining geophysics, geology, some trenching and little drilling by earlier companies.

L. A. Hewitt
L. A. HEWITT

With
cc: C.P. Pollack - v/encl.
R. Whiting - v/encl.
P.I. Conley - cc encl.
D.M. Fletcher - v/encl.



Legend For Curves

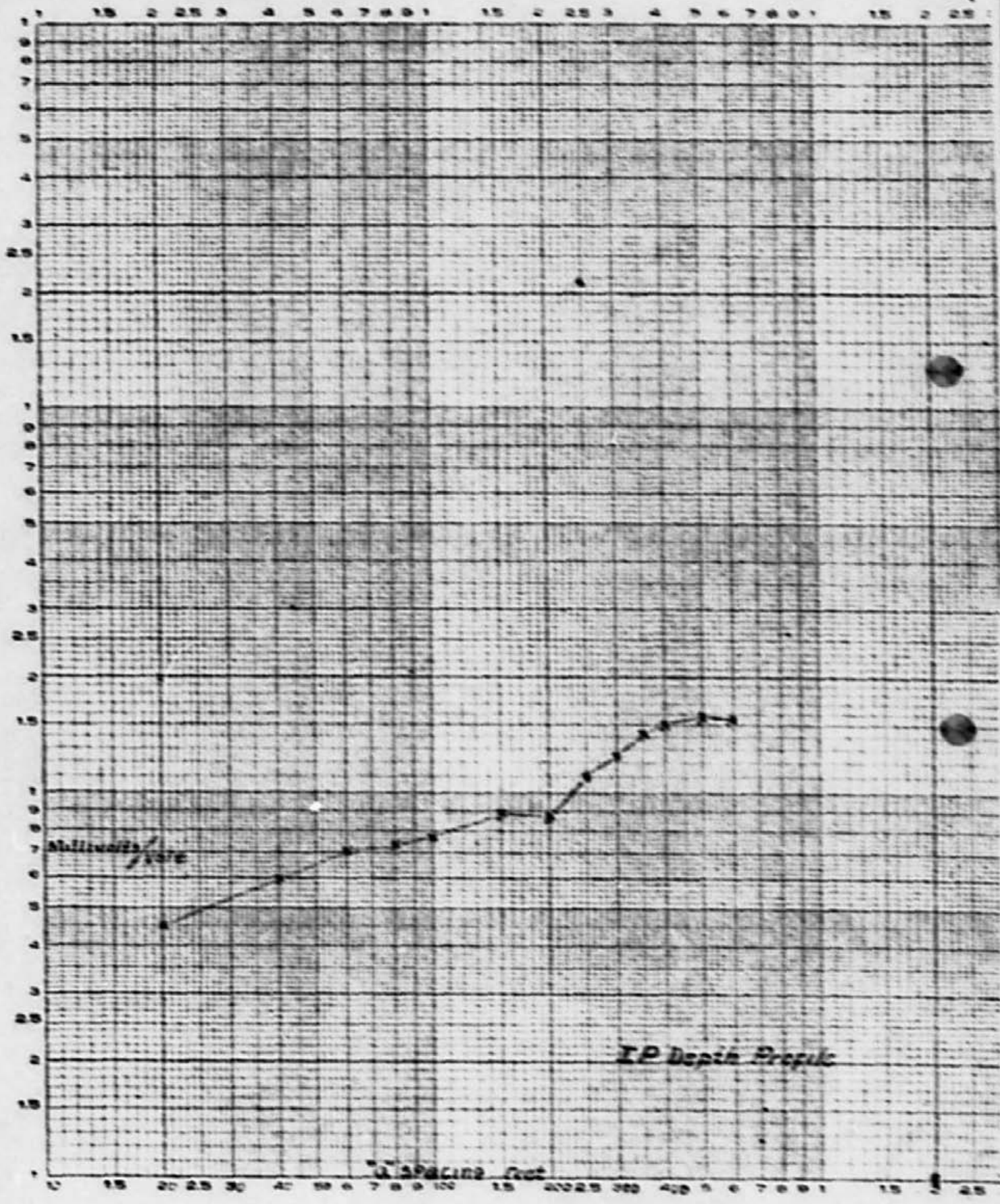
Induced Polarization —•—•—•—•—•—•—•—•—•—

Resistivity - - - - -

Scale 1" = 1000'

EUGENE DUYVON ED.
REV. 10-2-54

P.O. 3400 W-135 DUYVON GRAPH PAPER
LOGARITHMIC
3 CYCLE 6 1/2 CYCLE



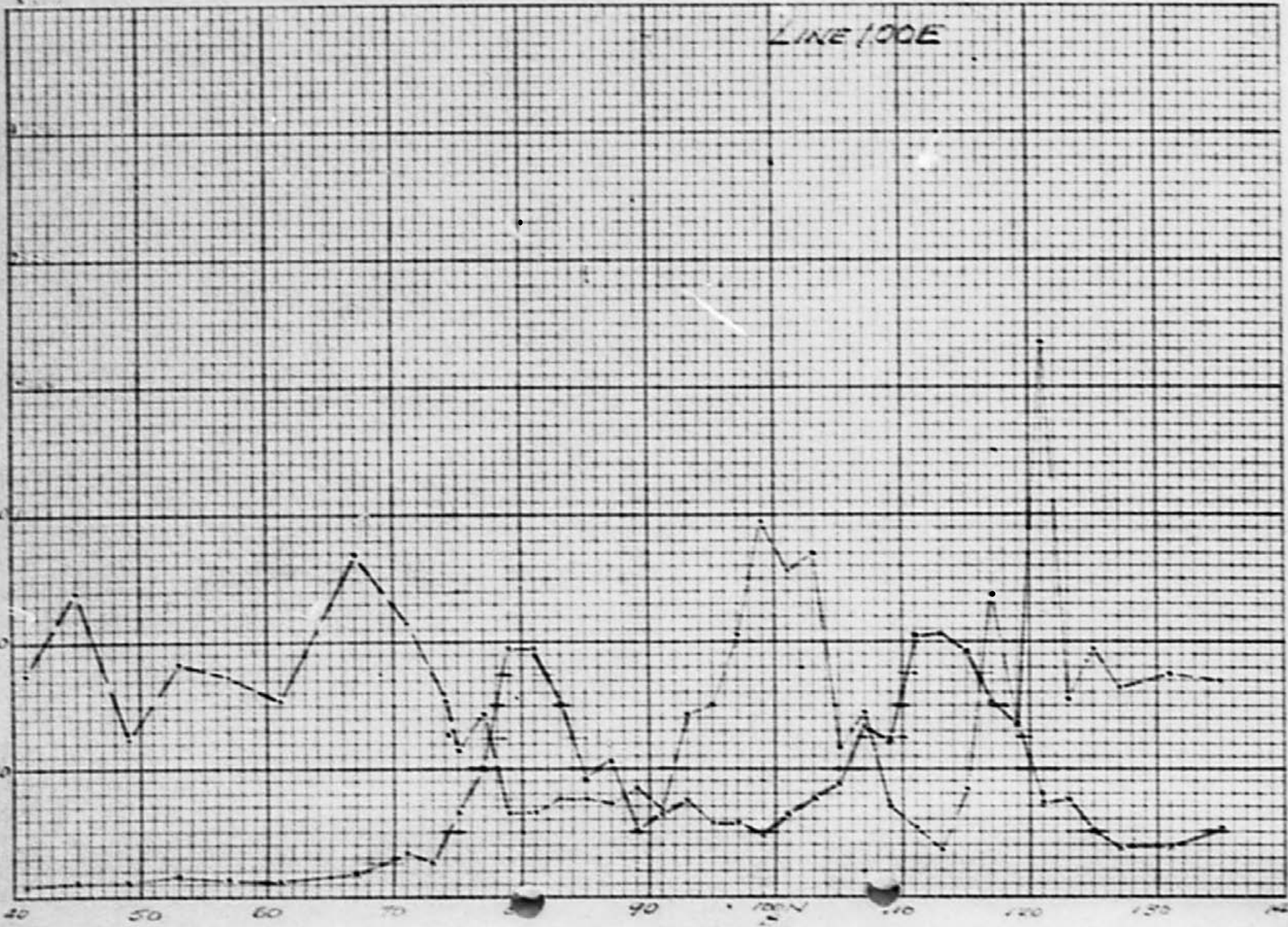


1

LINE 100E

1000.01 VOLTS / 1000.01

1000.01 VOLTS / 1000.01



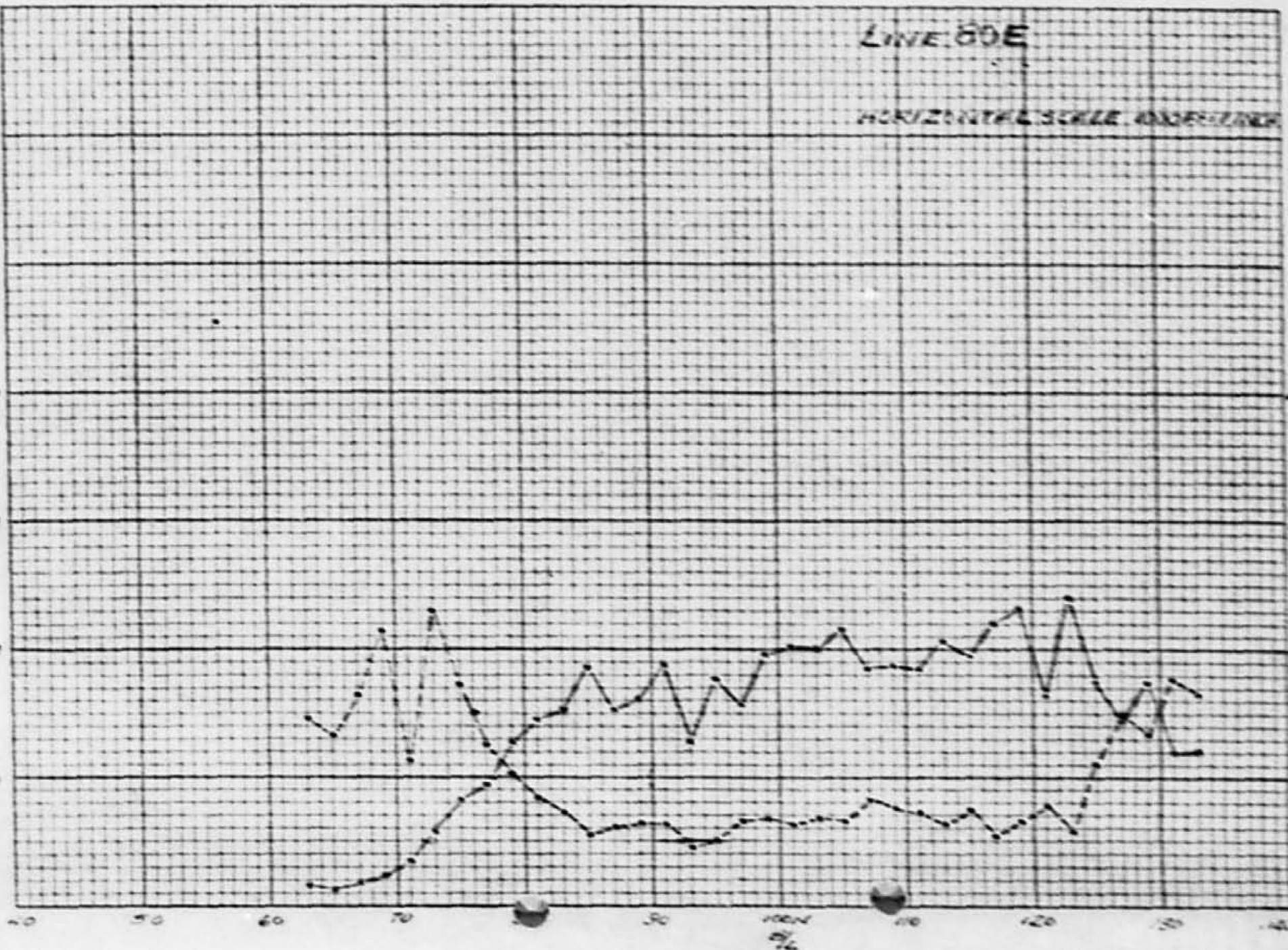


LINE 80E

HORIZONTAL SCALE 100 FT. PER INCH

MILLI VOLTS / VOLT

OHM FEET



SOIL ANALYSIS

The soil analysis survey was completed by New Jersey Zinc in 1959. The rubinic acid copper test was used and results were classified on an ascending scale of 1 to 5. Plotting the results showed areas of copper-rich soils. These copper-rich zones corresponded principally to the outlines of the biotite porphyry intrusive and to the contact facies of the hornblende porphyry and greysacks.

The geochemical results adequately outlined the extent of copper mineralization and were used by New Jersey Zinc as a control of drill hole placement.

DRILLING

In 1956, Grealy completed ten SX drill holes for a total of 1968.5 feet. During 1959 and 1960, New Jersey Zinc drilled 15 AX drill holes. The total average lineal core recovery is 63.2 percent.

Although core recovery is low, the type and nature of occurring sulphides must be firmly considered. Sulphides occurring within the biotite porphyry are principally disseminated, nevertheless, occasional secondary quartz veins with associated pyrite and chalcopryite do occur. There is evidence that differential grinding of the core did not take place and the intercepts sampled appear valid. In the greysacks, sulphides occur as fracture fillings and core loss was high. However, sampled intercepts are considered valid as within the greysacks, chalcopryite mineralization is negligible.

To date, drilling on the Poison Mountain property totals 3,968.5 feet with an average depth of 169 feet. Holes this shallow cannot be considered as a full investigation of underlying mineralization, however, there is evidence that copper tenor does not increase at depth. The average of drill core samples in excess of 150 feet penetration, is 0.26% copper, whereas the average of sampled intercepts within 150 feet of the drill collar assayed 0.25%.

Sludge samples were taken where core recovery was considered low, but are not considered to be representative due to the numerous malachite and azurite-filled joints and fractures common to the porphyry intrusives.

GLACIAL COVER

The stripping and trenching exposes a considerable portion of mineralized porphyry and adjacent greysacks below the cover of glacial gravels and sands. The thickness of this glacial drift varies considerably from one foot on the steeper slopes to 50 feet in the valleys.

ECONOMIC GEOLOGY (cont'd)

Chip samples were taken by Granby in 5-foot sections along the mineralized intercepts exposed in the trenches. However, during this sampling, no attempt was made to separate oxide and carbonate copper values from sulphide values. The attached table taken from the Granby report by W. C. Chessman, indicates that even though the assays of the chip samples show total copper, few ore sections were encountered.

The possibilities of supergene enrichment were considered. The copper carbonates, malachite and azurite together with limonite and goethite, are common in the oxide zone of all pyrite-bearing rocks. Principally, the copper carbonates are common near surface and the presence of pyrite along these oxidized surfaces, indicates that the carbonate minerals were formed in situ. The drilling results failed to show an increase of copper mineralization at depth, and there is no supporting evidence that supergene enrichment occurred.

In the Copper Creek area, a black amorphous copper oxide (melanconite and melanochalcite) along with azurite occurs as coatings on weathered and leached outcrops. These occurrences were considered to be the result of deposition from springs of leached copper from the biotite porphyry.

Three composite samples from the argillite, greywacke, and biotite-hornblende porphyry, were taken. Each sample was assayed for gold and silver, and the assays indicated trace quantities. The qualitative spectrographic analysis of each of these samples, did not indicate the presence of other valuable metals.

EXPLORATION POSSIBILITIES

The exploration programs of Granby and New Jersey Zinc, failed to find economic copper mineralization. However, the results of their efforts outlined a low-grade area extending 6,000 feet east-west and 5,000 feet north-south. Within this area, two porphyry intrusives control the copper mineralization. Geologic traverses made outside the perimeter of the showing area outlined two barren biotite porphyry areas. One of these is a capping of biotite porphyry located atop Poison Mountain. The other is in Churn Creek and may be a dike extending south from the showing area. Inasmuch as both of these biotite porphyry areas are unmineralized and lack alteration, they are not of economic interest. The inferred east boundary of the principal showing area is within 1,500 feet of argillite and greywacke outcropping. In addition, the most easterly diamond drill holes, Nos. 14 and 15, are extremely low-grade. It is clear that the copper mineralization is limited on four sides.

The possibility of a zone of supergene enrichment appears extremely remote.

ECONOMIC POSSIBILITIES (cont'd)

Regarding the possibility of a replacement deposit within or adjacent to the showing area, there is no evidence of limestones, dolomites or any other receptive geologic horizons common to such deposits.

CONCLUSIONS

The exploration efforts of Granby and New Jersey Zinc have outlined a large area of copper mineralization which is extremely low grade. The weighted average from diamond drill holes and trench samples is 0.278% copper.

The geologic mapping did find extensions of biotite porphyry adjacent to the principal showing area, however, these occurrences were devoid of copper mineralization.

The presence of a pervasive hydrothermal biotite alteration is common throughout the biotite and hornblende porphyry.

The pyritization of greywackes surrounding the intrusive areas is extensive, however, chalcopyrite mineralization occurs only within the immediate contact area of the intrusive and greywackes.

The lack of explosive breccia and the narrow zone of brecciation between the biotite and hornblende intrusives, limits the receptiveness of the host area for hydrothermal copper sulphides.

The probability of upgrading the copper mineralization at depth is remote.

The property is of no economic interest to Asarco.

David M. Fletcher

David M. Fletcher

DWF/rf

Attachments:

- 1) Geologic Map, scale 400' = 1"
- 2) Geologic Map, scale 1000' = 1"
- 3) Diamond Drill Data Sheet
- 4) Summary of Surface Samples
- 5) Assay Results

SUMMARY OF SURFACE SAMPLES

Sample Numbers and Location	Type	Distance each sample	Total Distance Sampled	Highest Composite % Cu	Rock Type and Mineralization	Remarks
8126E to 8138E upper road Copper Creek East end to West	Chip	5 ft. every 50 ft.	535 ft. Intermittent samples	5 ft. 0.67 8127E	Granoblende Biorite Porph Sparse chalco	Surface indication of copper mineralization poor
8139E to 8143E Lower Road	Chip	5 ft. Con	130 ft. Con	10 ft. 0.61 Biorite Porphyry	Granoblende Biotite Biorite Porphyry	Malachite and azurite staining diss. chalco.
8176E to 8194E East cut south side Copper Creek	Chip	5 ft. Con	95 ft.	25 ft. 0.59 8187E-8191E Porphyry	Biotite Biorite Biorite Porphyry	Malachite and diss. chalco.
8201E to 8224E West cut south side Copper Creek	Chip	5 ft. Con	120 ft. Con	None	Biotite Biorite Porphyry	Pyrite and iron staining diss. chalco and molybdenite, $\frac{1}{2}$
9201E to 9250E Switch back road North side Copper Cr.	Chip	5 ft.	250 ft.	35 ft. 1.55	Biotite Biorite	Azurite, malachite and diss. chalco.
9026E to 9077E Upper Cut Poison Mtn. Creek	Chip	5 ft. Con.	260 ft. Con	20 ft. 0.55	Biotite Biorite Porphyry	Diss. chalcoppyrite at surface

Total distance sampled = 1,617 feet.

CLAST ELDRIDGE

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25 EAST 4TH AVE. VANCOUVER 10, B.C.

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CABLE ADDRESS "ELDRICO"



REPORT NO **A8878**

ORDER NO

DATE **September 25, 1961**

ORDERED TO **American Smelting & Refining Co. Ltd.,**
405 - 1112 WestPender St.,
Vancouver, B.C.

FILE **7361**

WE HEREBY CERTIFY that the following are the results of assays made by us upon submitted GSE samples.

<u>Sample Identification</u>	<u>Gold (Au)</u> <u>GR/TON</u>	<u>Silver (Ag)</u> <u>GR/TON</u>
501 <i>argillite</i>	TRACE	TRACE
502 <i>greywacke</i>	TRACE	TRACE
503 <i>porphyry</i> <i>(architec. hornblende)</i>	TRACE	TRACE

Review A.H.

CLAST ELDRIDGE ENGINEERS & CHEMISTS.

H. S. Douglas

Principal Analyst

COAST ELDRIDGE

ENGINEERS & CHEMISTS LTD.

125 EAST 4TH AVE., VANCOUVER 10, B.C.

TELEPHONE: TRINITY 8-4111
CABLE ADDRESS: "ELDRICO"



REPORT OF: Qualitative spectrographic analysis on
three samples of ORE submitted Sept. 20/61

AT

ORDER NO.

SUBJECT:

DATE September 22, 1961

REPORTED TO: American Smelting & Refining Co. Ltd.,
405 - 1112 West Pender St.,
Vancouver, B.C.

FILE 7361

Sample Identification	<i>ore</i> #301	<i>granite</i> #302	<i>porphyry blast</i> #303
MAJOR CONSTITUENTS.....	Iron Silicon	Iron Silicon	Iron Silicon
INTERMEDIATE CONSTITUENTS..	Aluminum Calcium Magnesium Titanium	Aluminum Calcium Magnesium	Aluminum Calcium Magnesium
Boron	0.1 - 1.0%	--	--
Copper	--	0.1 - 1.0%	0.1 - 1.0%
Titanium	--	0.1 - 1.0%	0.1 - 1.0%
Barium	0.01 - 0.1%	0.01 - 0.1%	0.1 - 0.01%
Calcium	0.01 - 0.1%	0.01 - 0.1%	0.1 - 0.01%
Copper	0.01 - 0.1%	--	--
Chromium	0.01 - 0.1%	--	--
Manganese	0.01 - 0.1%	0.01 - 0.1%	--
Vanadium	0.01 - 0.1%	0.01 - 0.1%	0.1 - 0.01%
Antimony	0.001 - 0.01%	0.001 - 0.01%	0.01 - 0.001%
Lead	0.001 - 0.01%	0.001 - 0.01%	0.01 - 0.001%
Molybdenum	0.001 - 0.01%	0.001 - 0.01%	0.01 - 0.001%
Nickel	0.001 - 0.01%	0.001 - 0.01%	0.01 - 0.001%
Boron	--	0.001 - 0.01%	--
Chromium	--	0.001 - 0.01%	0.01 - 0.001%
Silver	0.0001%	0.0001%	0.0001%
Beryllium	Trace	Trace	Trace
Caesium	Trace	Trace	Trace
Strontium	Trace	Trace	Trace
Zinc	Trace	Trace	Trace
Tin	--	Trace	--
Boron	--	--	Trace

COAST ELDRIDGE ENGINEERS & CHEMISTS LTD.

J. Smith
J. Smith
Chief Chemist

SUB-MINING RECORDS
RECEIVED
MAY 14 1962
M.R. # _____
VANCOUVER, B.C.

DOMINION OF CANADA:
PROVINCE OF BRITISH COLUMBIA.
To Wit:

In the Matter of Declaration of Performance of Annual Assessment Work on Poison Mountain No. 3 Group and Poison Mountain No. 4 Group, Clinton Mining Division, British Columbia.

I, KEITH WHITING, Agent for American Smelting and Refining Company of 1112 West Pender Street, Vancouver

in the Province of British Columbia, do solemnly declare that the American Smelting and Refining Company during the months of July, August and September, in the year 1961 expended \$4,794.61 on the Poison Mountain No.3 and No.4 Groups for work that is described in Geophysical Report dated October 5th, 1961 by L. A. Hewitt, Senior Geophysicist, American Smelting and Refining Company and a Geologic Report dated October 4th, 1961 by D. M. Fletcher, Geologist, American Smelting and Refining Company; copies of these reports being attached to Affidavit on Application for Certification of Work covering the above mentioned claim groups. The attached addendum presents the details of the expenditures.

And I make this solemn declaration conscientiously believing it to be true, and knowing that it is of the same force and effect as if made under oath and by virtue of the "Canada Evidence Act."

Declared before me at the City
of Vancouver, in the
Province of British Columbia, this 11
day of May 1962, A.D.

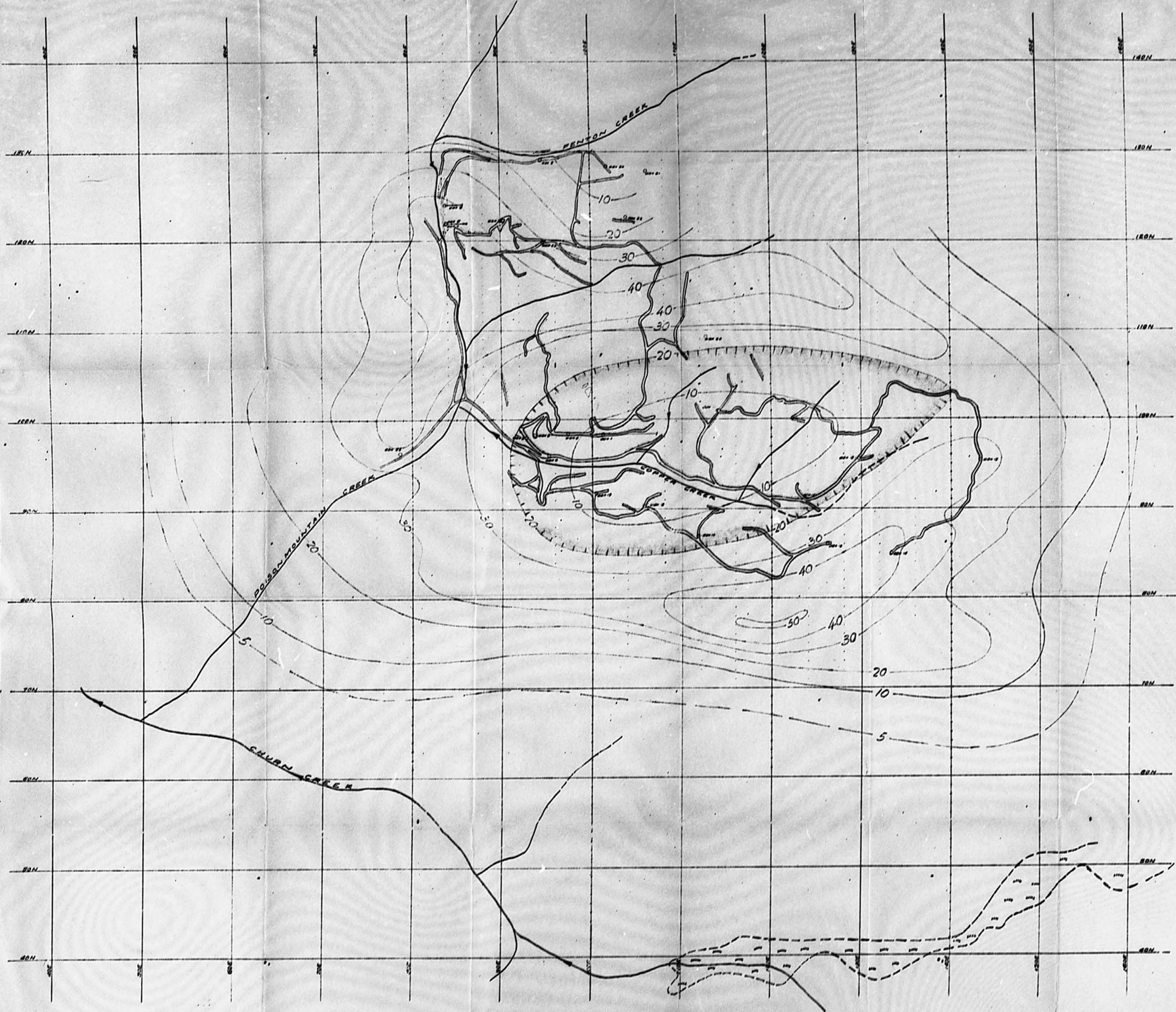
Keith Whiting

Jill Surran
Commissioner for taking Affidavits within British Columbia or
Notary Public in and for the Province of British Columbia.

DETAILS ARE AS FOLLOWS:-

<u>JULY</u>	<u>ITEM</u>	<u>DAYS</u>	<u>SALARY</u>	<u>EXPENSES</u>	
Geology	(D.M.Fletcher	7	\$ 137.97	\$ 198.05	
	(R.S.Gray	7	130.90	137.97	
	Air Photos			94.50	
	Road Repair			297.00	
<u>AUGUST</u> Geology	(D.M.Fletcher	28	554.40	769.09	
	(R.S.Gray	7	130.90	53.13	
	(M.Beale	14	196.68		
	Labour	(M.Cameron	7	91.68	
		(D.Crane	7	91.68	
		(W.Fletcher	7	106.52	
		(H.Thivarge	7	109.52	
		U.I.C.			13.84
<u>SEPTEMBER</u>	D.M.Fletcher	16	327.20	135.48	
	Map Prints			8.20	
	TOTAL	107	\$ 1,877.45 (a)	\$ 1,707.16	

L.A.Hewitt - Interpretation Reports, 156 Hours	\$ 668.00
Field Supervision, 58 Hours	248.00
J.M.Panek - Field Technician, 48 Hours	118.00
Mrs.M.Crane- Draughting	176.00
	<u>\$ 1,210.00 (b)</u>
Salaries - (a + b)	\$ 3,087.45
Expenses -	1,707.16
TOTAL -	<u><u>\$ 4,794.61</u></u>



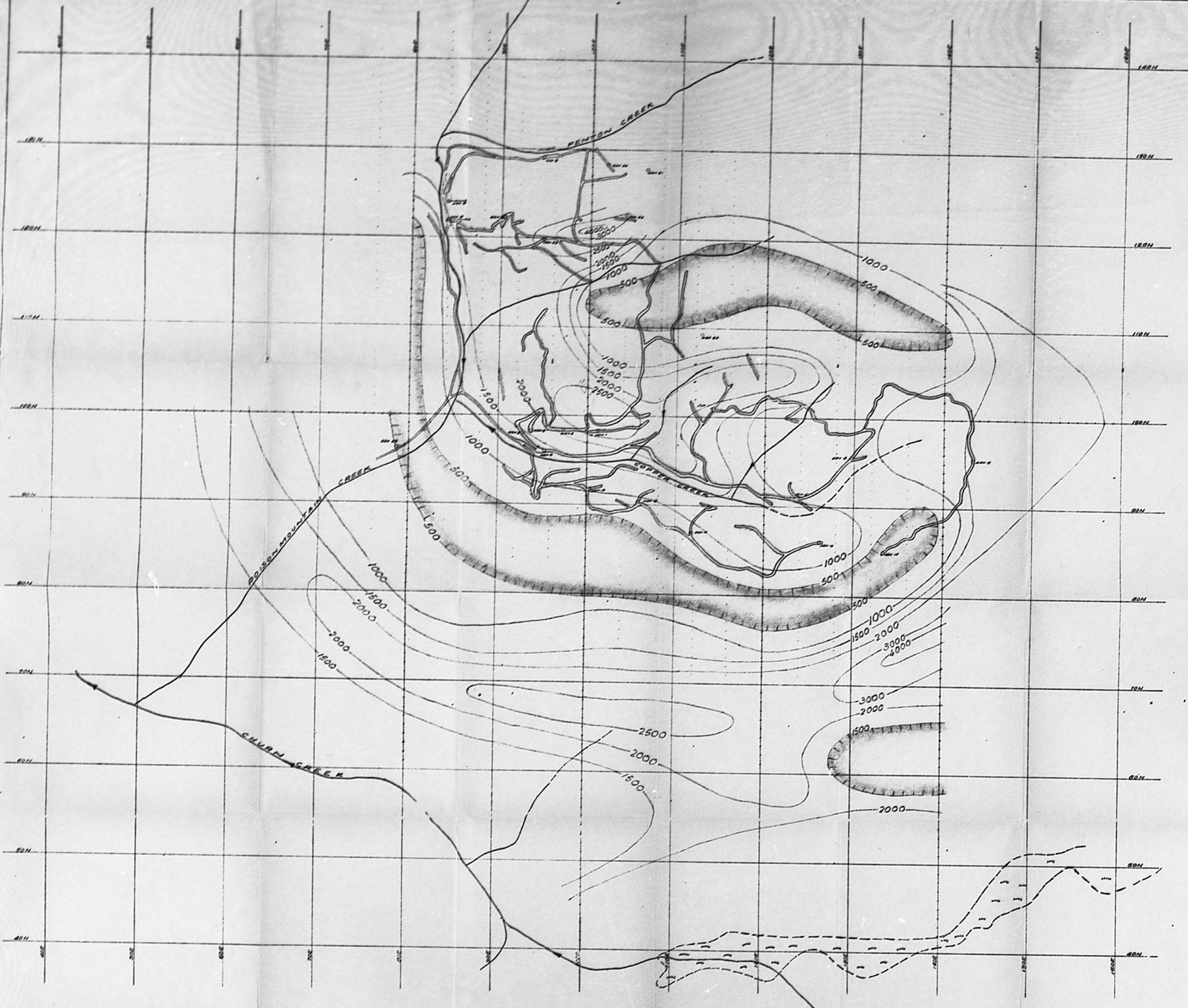
411

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 411 MP 1

Keith Williams
A. Eng. B.C.

POISON MOUNTAIN PROPERTY
INDICATED POLARIZATION
DIVISION G.M.T.O.U.B.

contour interval = 10 millivolts per volt
one 5 millivolts per volt contour
equipment: AIARCO Portable IP Unit



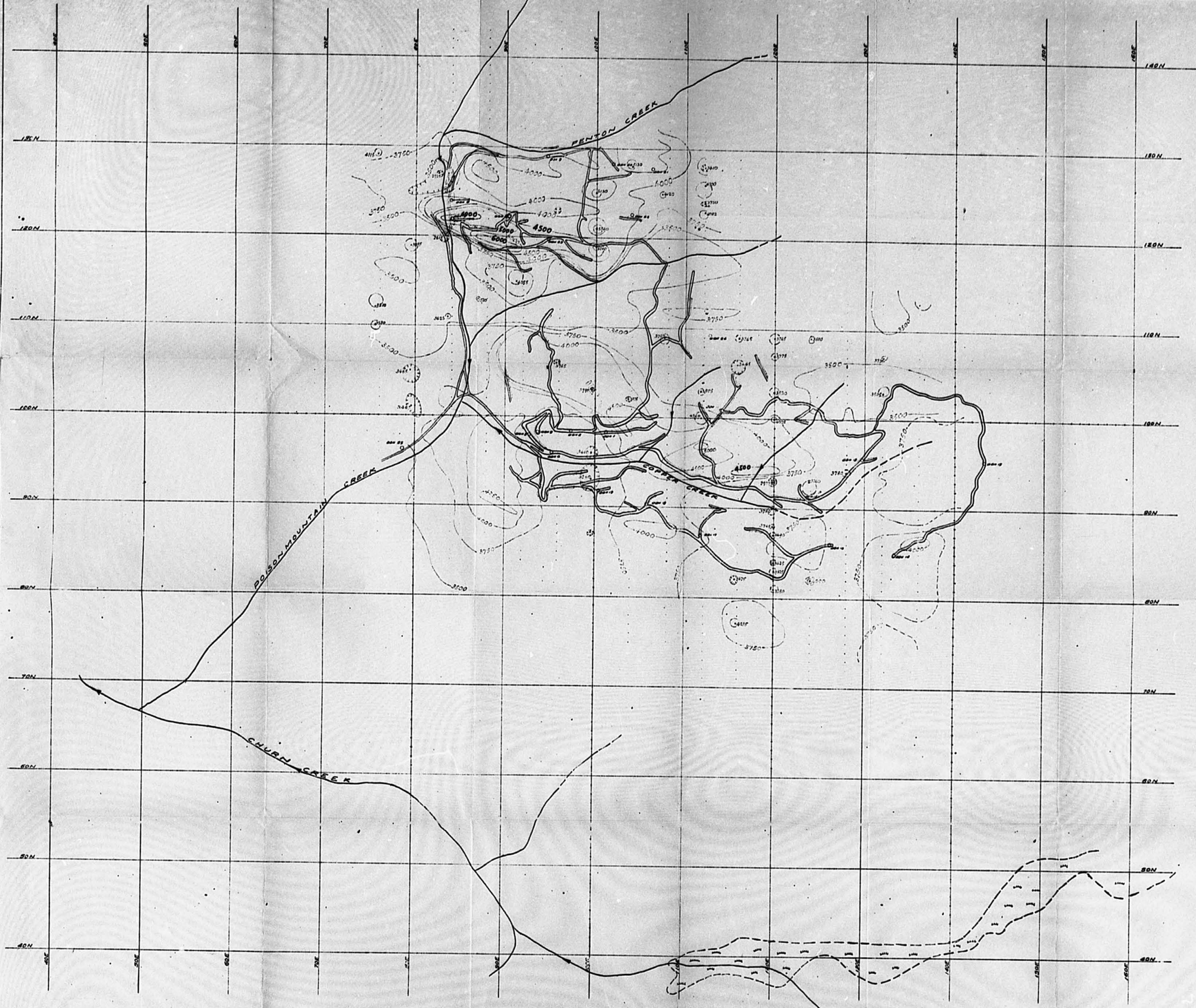
411

Department of
 Mines and Petroleum Resources
 ASSESSMENT REPORT
 NO. 411 MAP 2

*Kenn Whiting
 R. Eng. B.C.*

CONTOUR INTERVAL -
 500 & 1000 ohm Feet

POISON Mtn. PROPERTY
 CLINTON DESTIVITY
 DIVISION CONTOURS



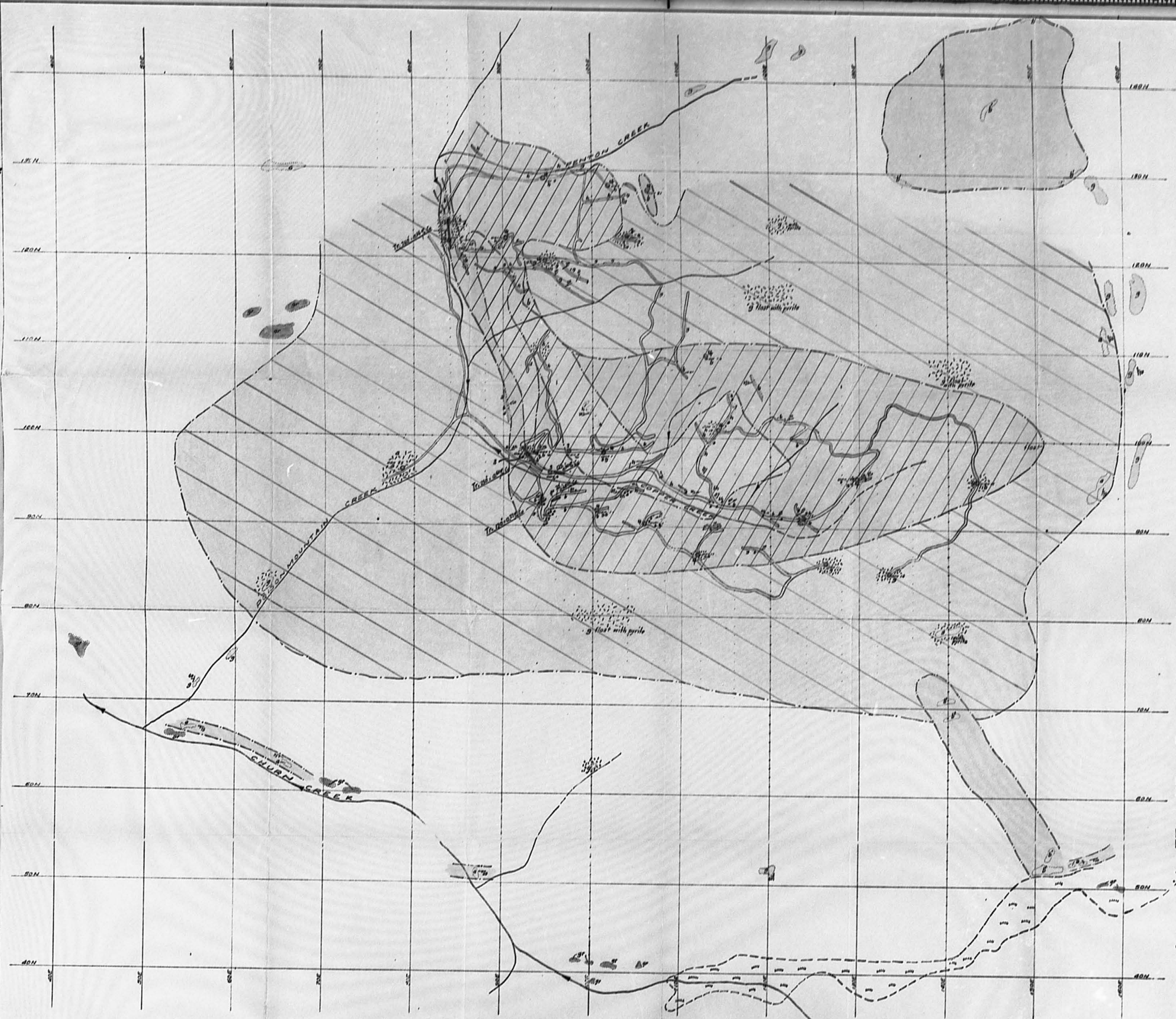
411

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 411 N. D. 3

*Kitch, Whiting
P.K., D.C.*

POISON MTN. PROPERTY
MAGNETIC
CONTOUR
MAP

contour interval = 500 & 1000 gammas as noted.
New Jersey Zinc Co. data - dated Sept. 1959.



- contact, known
 - - - contact, inferred
 - jointing
 - shearing
 - foliation
 - outcrop
 - roads
 - swamp
 - bedding
-
- hornblende porphyry
 - biotite porphyry
 - intrusive
 - intrusives
 - conglomerate
 - grit
 - greywacke
 - argillite
 - ▨ 4%-10% sulphides, mostly pyrite
 - ▨ 2%-4% sulphides, some copper
-
- brecciation
 - hydrothermal pyrite
-
- diamond drill holes - core assays only
 - 4 ○ less than 0.25% Cu
 - 3 ○ 0.25% - 0.50% Cu
 - 2 ○ 0.50% - 0.75% Cu
 - 1 ○ more than 0.75% Cu

Department of
Mines and Petroleum Resources
ALLEGHANY REPORT
NO. 411 MAP 4

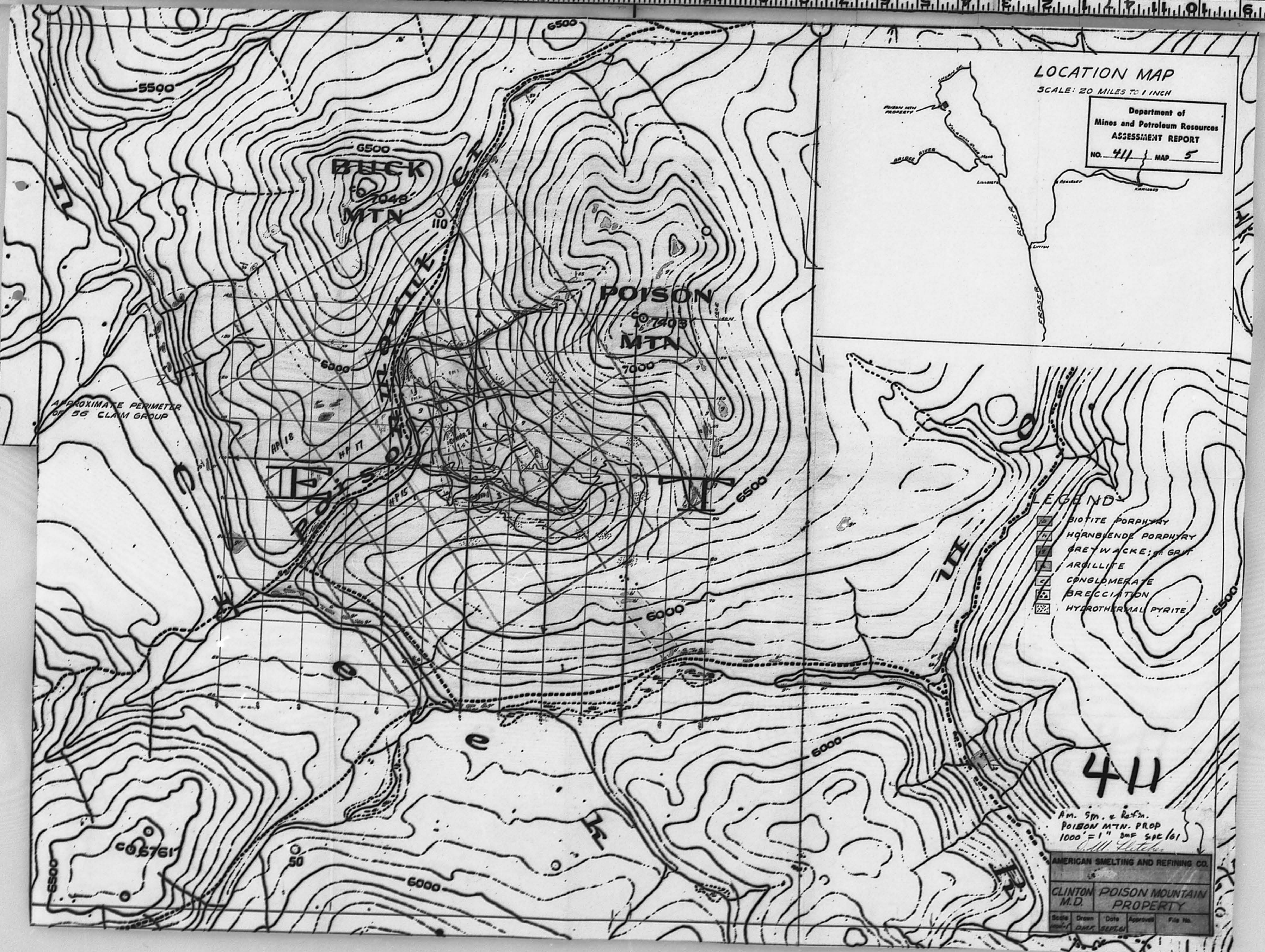
411

*Klein Williams
Geol. Eng. A.C.*

AMERICAN SMELTING AND REFINING CO.
POISON MTN. PROPERTY

CLINTON MINING DIVISION INTERPRETED GEOLOGY

Scale	Drawn	Date	Approved	File No.
1:50,000		10-5-61		



LOCATION MAP

SCALE: 20 MILES TO 1 INCH

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 411 MAP 5

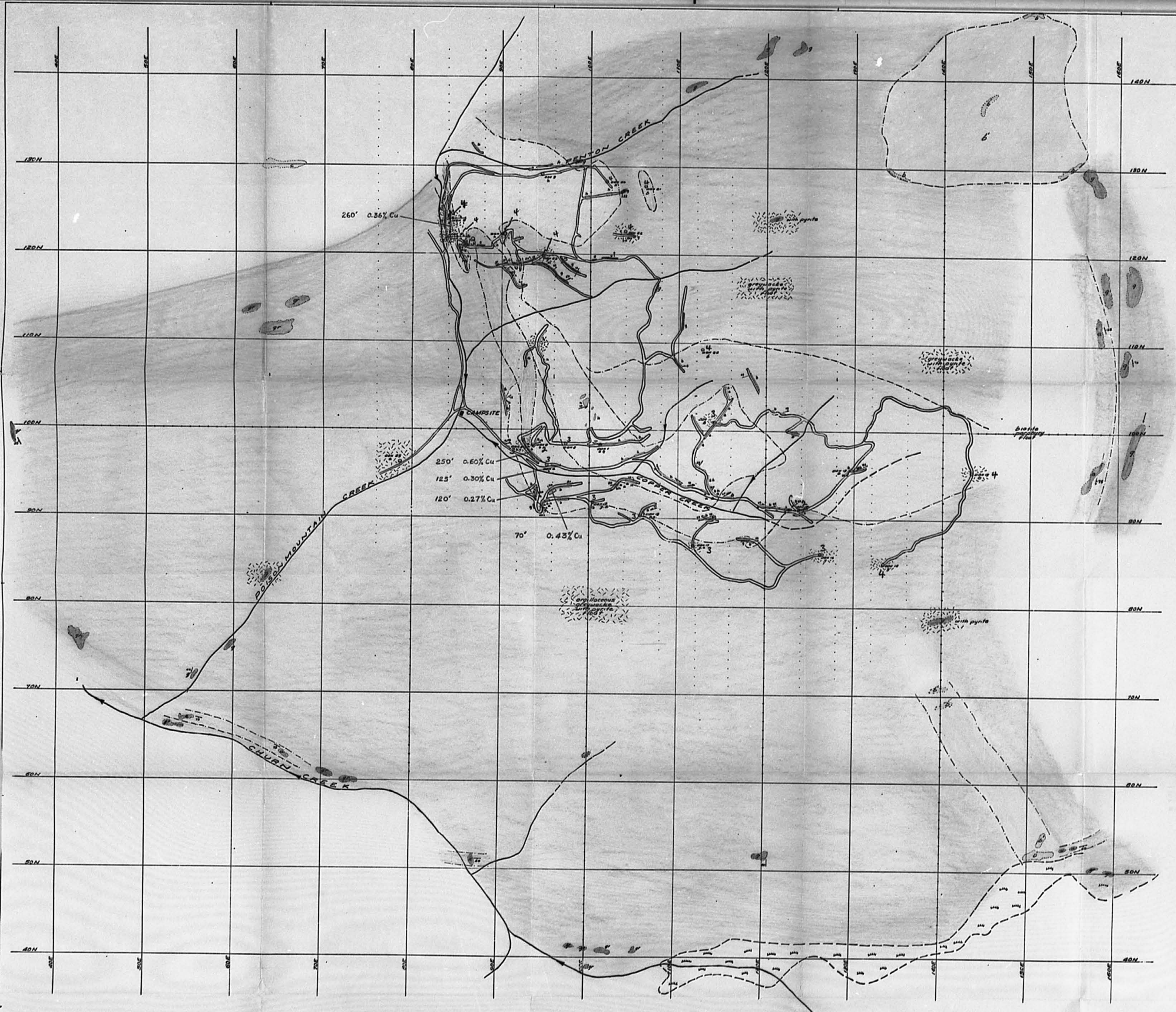
LEGEND

- BIOTITE PORPHYRY
- HORNBLLENDE PORPHYRY
- GREY WACKE; GRIT
- ARGILLITE
- CONGLOMERATE
- BRECCIATION
- HYDROTHERMAL PYRITE

411

Am. Sm. & Refin.
POISON MOUNTAIN PROP.
1000' = 1" S.M.F. 5/21/61
Call Litch

AMERICAN SMELTING AND REFINING CO.				
CLINTON M.D.	POISON MOUNTAIN PROPERTY			
Scale 1000'	Drawn DMF	Date SEPT 61	Approved	File No.



SYMBOLS

- CONTACT, KNOWN
- - - CONTACT, INFERRED
- JOINTING
- SHEARING
- FOLIATION
- OUTCROP
- ROADS
- DRILL HOLES
- SWAMP
- BEDDING

LEGEND

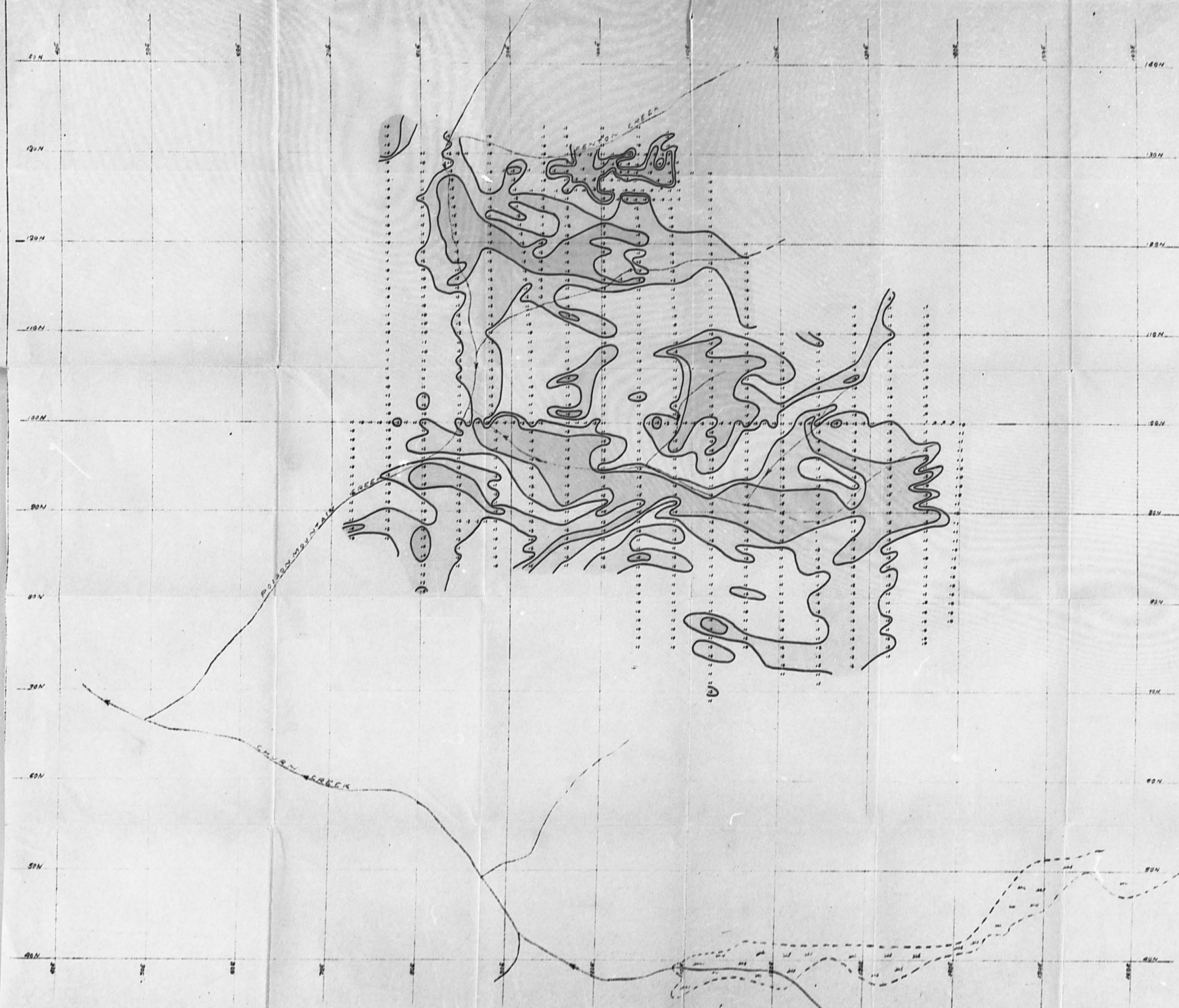
- BIOTITE PORPHYRY
- HORNBLende PORPHYRY
- GREYWACKE; GRIT
- ARGILLITE
- CONGLOMERATE
- BRECCIATION
- HYDROTHERMAL PYRITE

- PERCENTAGE COPPER***
- 4 ○ LESS THAN 0.29%
 - 3 ○ 0.30% TO 0.39%
 - 2 ○ 0.40% TO 0.69%
 - 1 ○ MORE THAN 0.70%
- *INCLUDES CORE ASSAYS ONLY

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 411 MAP 6

411

American Smelting and Refining Co.
POISON MTN. PROPERTY
GEOLOGY MAP



- High - 0.45 times background Co.
- Medium - 2 to 3 times background Co.
- Low - 0 to 1 times background Co.

411

*Klein, Whitney
Eng. Co.*

AMERICAN SWAMP AND REFINING CO.
POISON MTN. PROPERTY
 CLINTON MINING DIVISION
 SOIL ANALYSES
 NEW JERSEY SOIL EXPLORATION CO.
 Scale Drawn Date Approved File No
 Filed