

Wm. V. SMITHERINGALE

MINING & GEOLOGY

P.O. Box 1238  
Comox, British Columbia

7 February 1973

Silver City Mines Ltd.  
580 Howe Street  
Vancouver 1, British Columbia

Gentlemen:

The adit work, in 1970, on the 2900 level was laid out to check the mineralization indicated in the surface drill holes 1;2;4;6;7;5;104-5; 105-2 and 12. Except for the exposed mineralization under the original outcrop showing, the results have been unsatisfactory and confusing.

As pointed out in my report of July and letter of August 1972, the muck sampling of the adit plus sludge samples of the underground drilling are not consistent with the I.P. survey plots of Seigel & Associates. This is the I.P. chargeability axis (milli seconds) over the outcrop and exposed mineralization underground (which has an average of 2.63% Cu.) is lower than the other I.P. chargeability axii (milli seconds) plottings, adjacent to which the underground results are substantially lower in copper values.

Referring to MAP 1, it will be noted that the chargeability axii, as plotted by Seigel & Associates, between sections 100 and 104 are west of the adit workings. Drill holes 6;7; 5 and 11 crossed the trend of these axii and did not expose mineralization of note. However, since these axii indicate a much higher chargeability rate than over the outcrop (section 100) it is considered advisable to check this section of ground with drill holes, underground, roughly perpendicular to drill holes 6;7;5 and 11; that is generally crosscutting the trend of the I.P. anomalies. A minimum of 5 holes (1500 ft. more or less) as indicated on MAP 1 is recommended. Also two holes northerly from the 2900 adit as indicated are desirable (500 ft. approx.)

In previous reports your attention has been called to the favourable I.P. anomaly axii (12 milli seconds chargeability) that indicate a possible favourable zone of mineralization extending some 1700 feet northeasterly from the present face of the 2900 north level. It is recommended an effort should be made to explore this area by adit opening.

Drilling at the south end of the 2900 level exposed a favourable zone of irregular heavy native copper, along with some chalcocite, occurring over an irregular horizontal area of 100 ft. or more and extending downward to approximately the 2800 level. It is recommended this section should be explored on approximately the 2800 level. This will require an adit some 450 feet in length to reach a point under the original mineral outcrop, plus an additional 350 ft., more or less, to evaluate the easterly extension indicated by drilling.

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PERSONNEL

4 men contract \$16.00/ft	\$ 320.00/day	
Powder 2 cases/5 ft; 8 cases/day		
@ \$40.00/100 lb.	160.00	
Mechanic @ \$1500.00/mo.	50.00	
Superintendent @ \$1500.00/mo.	50.00	
Cook @ \$750.00/mo.	25.00	
Bull cook @ \$600.00/mo.	20.00	
Food 10 men @ \$8.50/day	85.00	
	<u>\$ 710.00/day</u>	\$ 35.50/ft

MATERIALS CONSUMED

Diesel compressor 9 gals/hr for 14 hrs		
126 gals @ 75¢	\$ 94.50/day	
Diesel lighting plant @ 1½ gals/hr		
for 24 hrs. 36 gals/day @ 75¢	27.00	
Heating oil 4 stoves @ 4 gals/day		
16 gals @ 75¢	12.00	
Diesel for D4 Cat estimated average		
1 gal/day	.75	
Gasoline for bombardier 5 gals/day @ \$1.00	5.00	
	<u>\$ 139.25/day</u>	6.95

Lubricants

diesel engine 6½ gals/100 hrs @ \$6.25/gal	\$ 40.63	
40.63 x 16 ÷ 100 x 20		33¢/ft
compressor 7½ gals/500 hrs. @ \$6.25	46.87	
46.87 x 16 ÷ 500 x 20		8¢
lighting plant 1 gal/100 hrs @ \$6.25	6.25	
6.25 x 24 ÷ 100 x 20		8¢
D4 cat & bombardier		<u>1¢</u>
		0.50/ft

EQUIPMENT RENTAL

900 ft diesel-compressor @ \$4000.00/mo	\$ 133.00/day	
20 H.P. lighting plant	600.00/	20.00
2 Scootcrete muck transport	1800.00	60.00
Mucking machine	400.00	13.30
D4 Cat	2400.00	80.00
3 rock drills @ \$5.00		15.00
2 water pumps @ \$5.00		10.00
air ventilating fan @ \$10.00		10.00
	<u>\$ 341.30</u>	17.06

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MISCELLANEOUS ACCESSORIES

Air line 4" aluminium plus connections)	
Water line 1" plus connections )	\$ 3.00
Vent pipe )	
Drill steel and bits	1.50

OVERHEAD

Sampling	1.00
Administration & Engineering \$2400.00/mo \$80.00/day ÷ 20	4.00
Camp servicing 5 plane trips/mo @ \$450.00	
\$2700.00/mo; \$90/day ÷ 20	4.50
Contingencies @ 20%	<u>14.80</u>

Total cost per foot \$ 88.82

Using the above figure for two stages of development:

STAGE 1

2800 level 2400 ft adit @ \$88.82	\$ 213,168.00	
Diamond drilling on 2900 level 2000 ft. @ \$10.00	20,000.00	
Timber 8x8x16 37 pieces 3145 BF		
3x8x14 360 pieces 10030 FB		
13225 BF @ \$250.00	3,306.00	
Establishing camp, replacing stolen equipment, tools, etc.	10,000.00	
Adit and diamond drill preparation	6,000.00	
Propane	414.00	
Freighting timber and miscellaneous materials Whitehorse - White River - Property	<u>5,000.00</u>	
		\$ 257,888.00

STAGE 2

2900 level adit 1800 ft @ \$88.82	\$ 159,876.00	
Diamond drilling on 2800 level 3000 ft @ \$10.00	30,000.00	
Timber	3,306.00	
Adit and drill preparation	3,000.00	
Propane	300.00	
Freighting as in Stage 1	<u>5,000.00</u>	
		\$ 201,482.00

Total program \$ 459,370.00

Respectfully submitted

*Wm. V. Smitheringale*  
Wm. V. Smitheringale

This 2800 level adit will also afford the opportunity of drifting south across the I.P. anomaly axis indicated along AXIS A2, Seigel & Associates plate 3; and also north across the anomaly axis indicated on AXIS A1, at least to the section of drill hole 12, and preferably to section 109.

To summarize the work recommended;

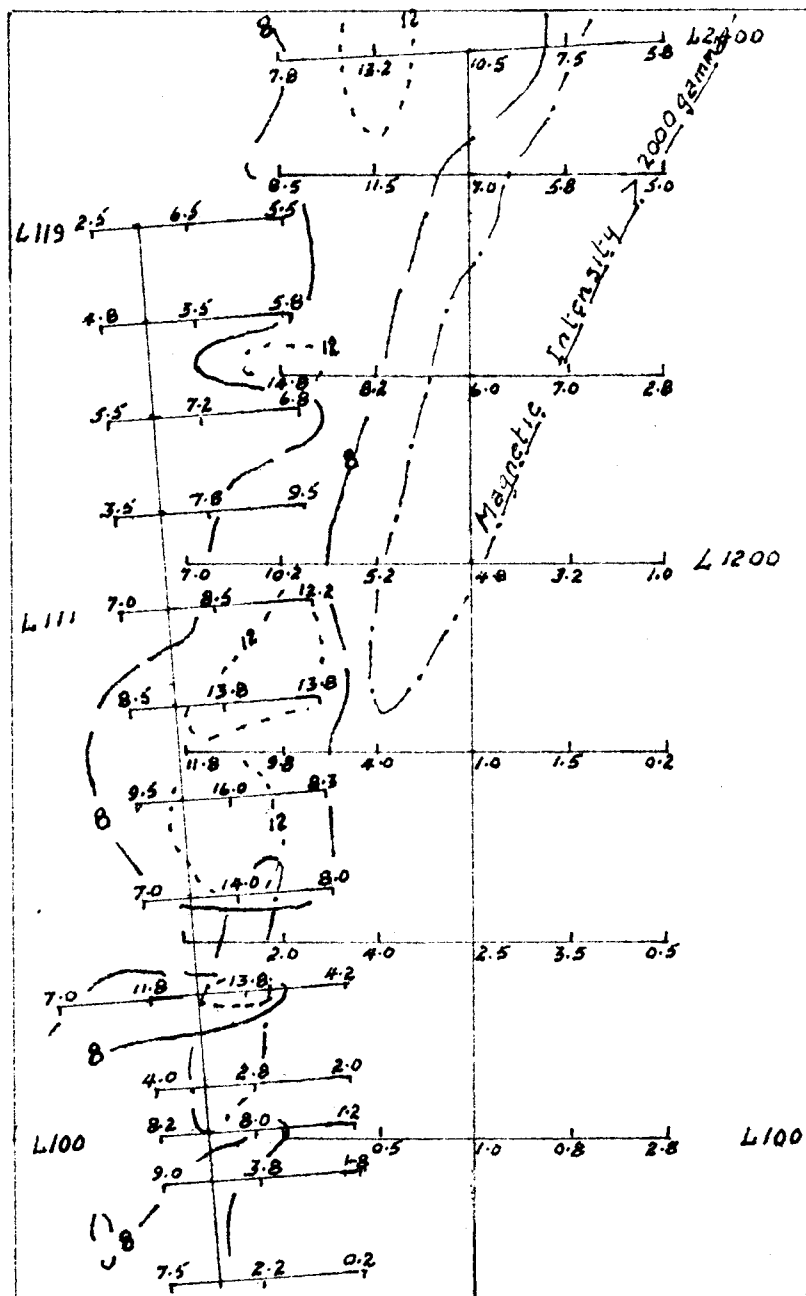
- a. 2800 level adit crosscut about 800 ft. to explore area under original outcrop.
- b. A drift north from this crosscut, approximately 1000 ft. to explore the anomalies along AXIS A1 to section 107 (drill hole 12) at least and possibly to section 109.
- c. A drift south along zone of AXIS A2, roughly 600 ft. to check possible values in this area.
- d. A drive from the present north face of level 2900 for 1700 ft; plus a crosscut of roughly 100 ft. on section 109 for ventilation and shortening the mucking distance.
- e. Approximately 2000 ft. of drilling on the 2900 level.
- f. Supplementary drilling on the 2800 level should be allowed for. The extent of this, at present, is uncertain but probably 3000 ft. should be anticipated.

Total work:- Adit 4200 ft.; Underground drilling 5000 ft.

The approximate location and alignment of the underground work is shown on MAP 1. Final location of the 2800 level portal will be governed by local terrain and access conditions. The alignment is subject to change dependent on local development conditions.

Sections of the various drill holes mentioned are attached for reference. For detail of Seigel & Associates I.P. anomaly plots see their plates 2,3 and 5, and note the corrected location of Base Line & Grid A to Base Line & Grid B on the accompanying MAP 2.

An estimate of the cost of the above program based on costs of materials delivered to the property and a four men crew; - 2 men per shift 2 shifts per day, each shift advancing 10 ft. per day, i.e. a total of 20 feet advance per day. This estimate based on results of the 2900 level work.



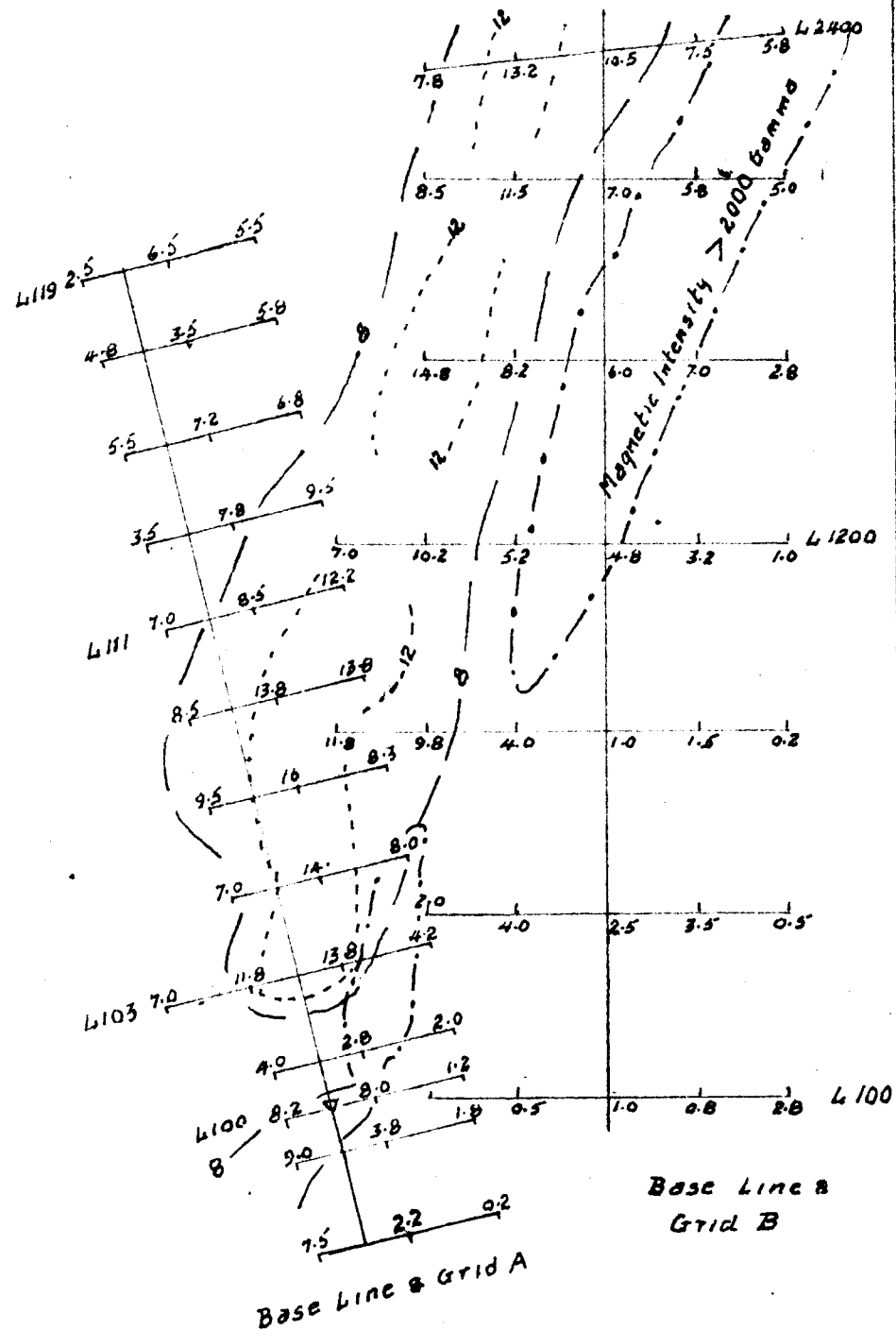
Base Line & Grid A

Base Line &  
Grid B

Induced Polarization Survey showing  
8812 millisecond chargeability contours  
as plotted by SEIGEL & ASSOCIATES  
July - August 1968.

**NOTE**

Base Line & Grid "A" in wrong  
position relative to Base  
Line & Grid "B".



Base Line &  
Grid B

Base Line & Grid A

Replot of SEIGEL & ASSOCIATES  
chargeability values on Base Lines  
"A" & "B" with Base Line "A" in correct  
location relative to Base Line "B".

**NOTE**

- 1- Change in 8812 chargeability contours.
2. Magnetic high (>2000 gammas) is East of chargeability high on North end. B/L "B" & only partially overlappn. South end B/L "A"



Porphyry: matrix. fine grained; colour varies grey to brown; feldspars vary up to  $\frac{1}{2}$ " or more; in some sections broken



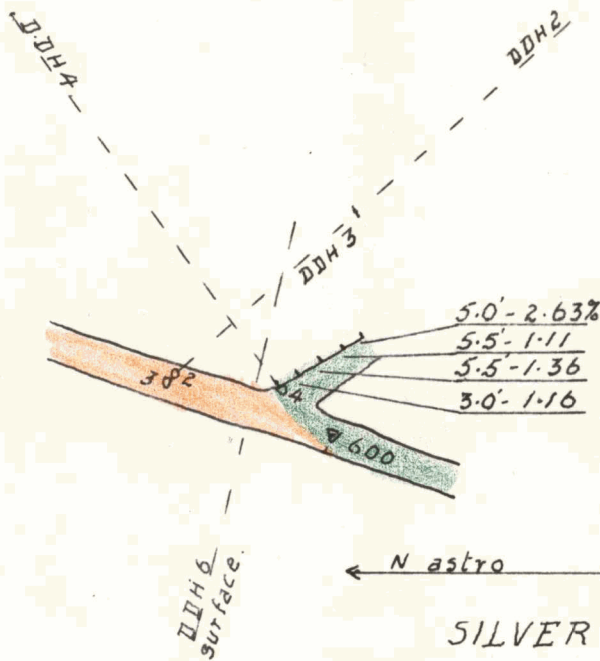
Dark brown to reddish, medium grained volcanic. Amygdaloidal in part; amydules serpentine, chlorite; calcite?



Green volcanic; generally sheared with chlorite slickensides; in places f.g. Cu; amygdaloidal in part; more than one member

Scale of Sections 1"=40'





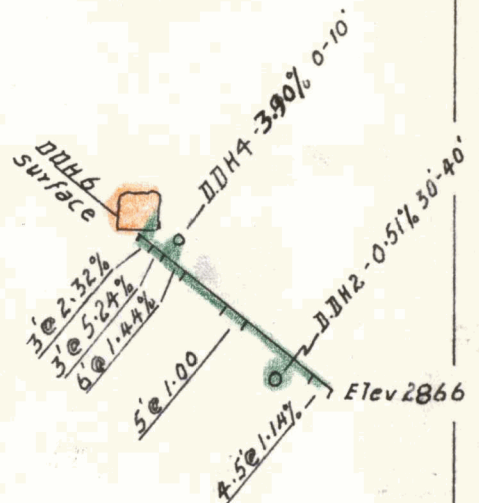
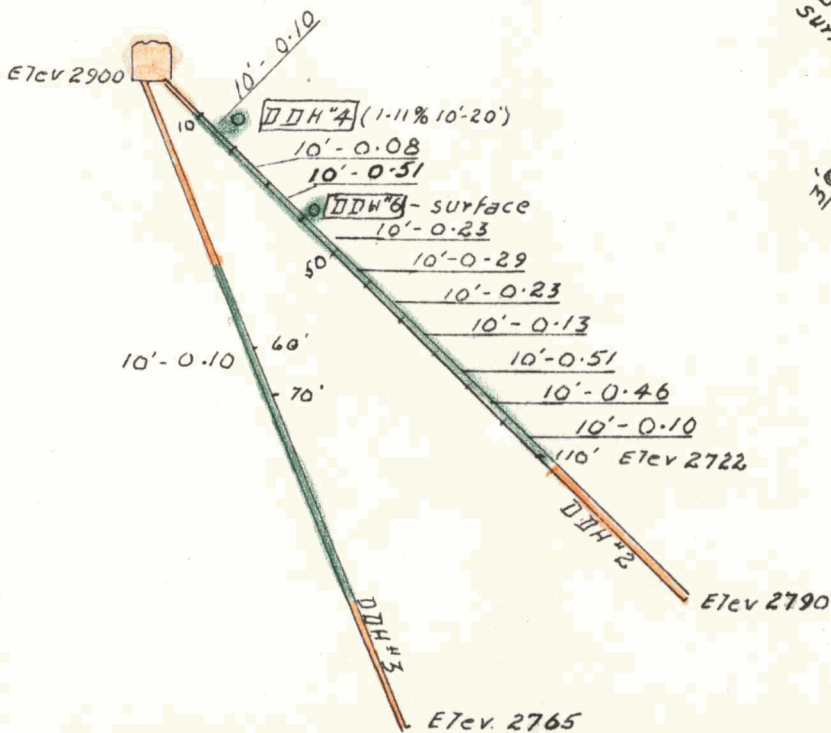
Plan S. Drift showing  
locations of D.D.H 2:3:4  
surface D.D.H. 6

scale 1" = 40'

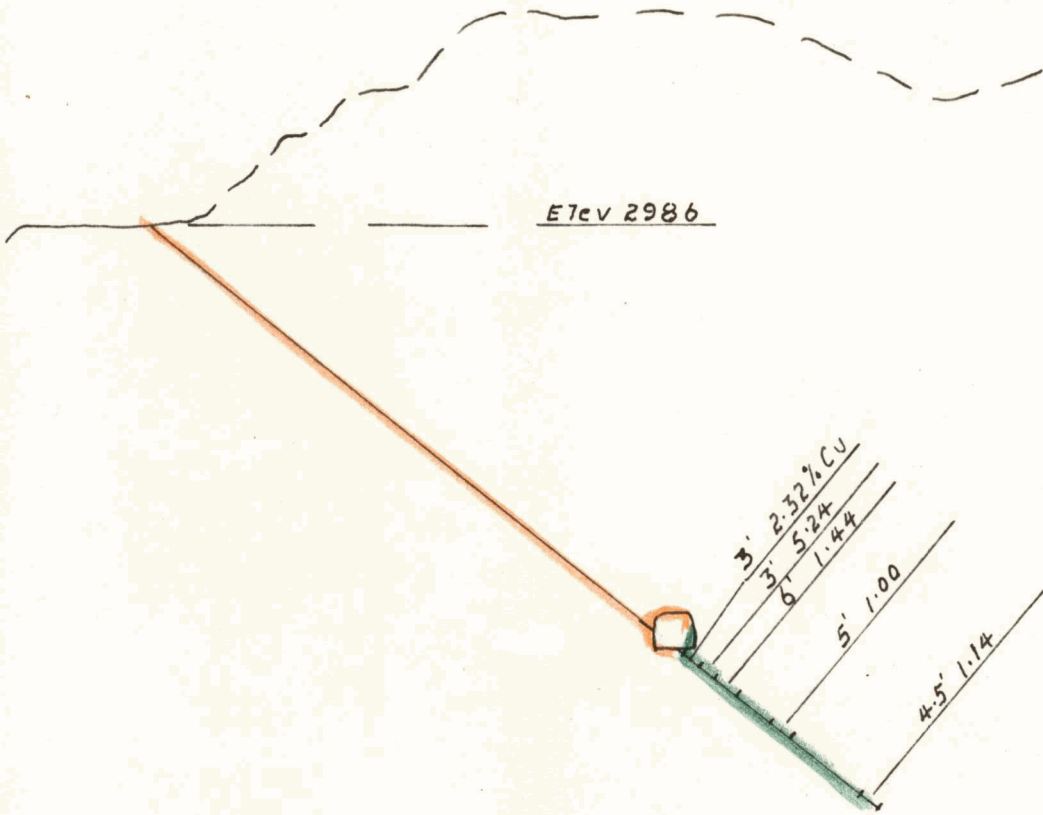
SILVER CITY MINES  
1972

D.D.H 2 138°; -45°; 153'

D.D.H 3 138°; -68°; 144'



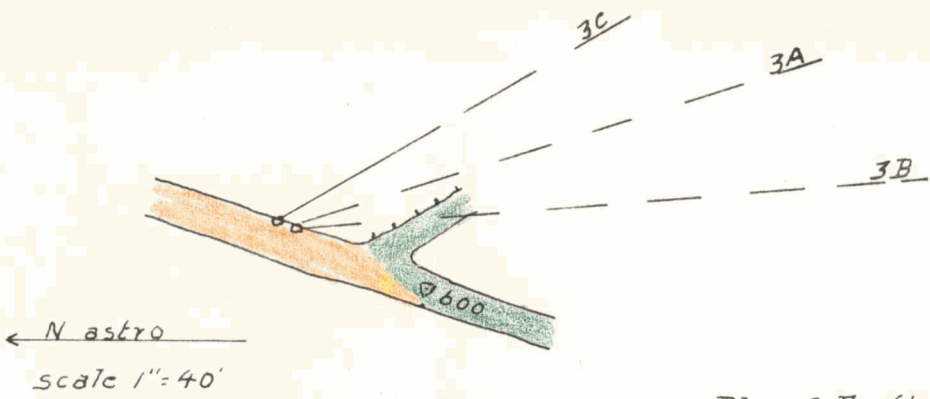
SECTION 2



SECTION D.D.H #6

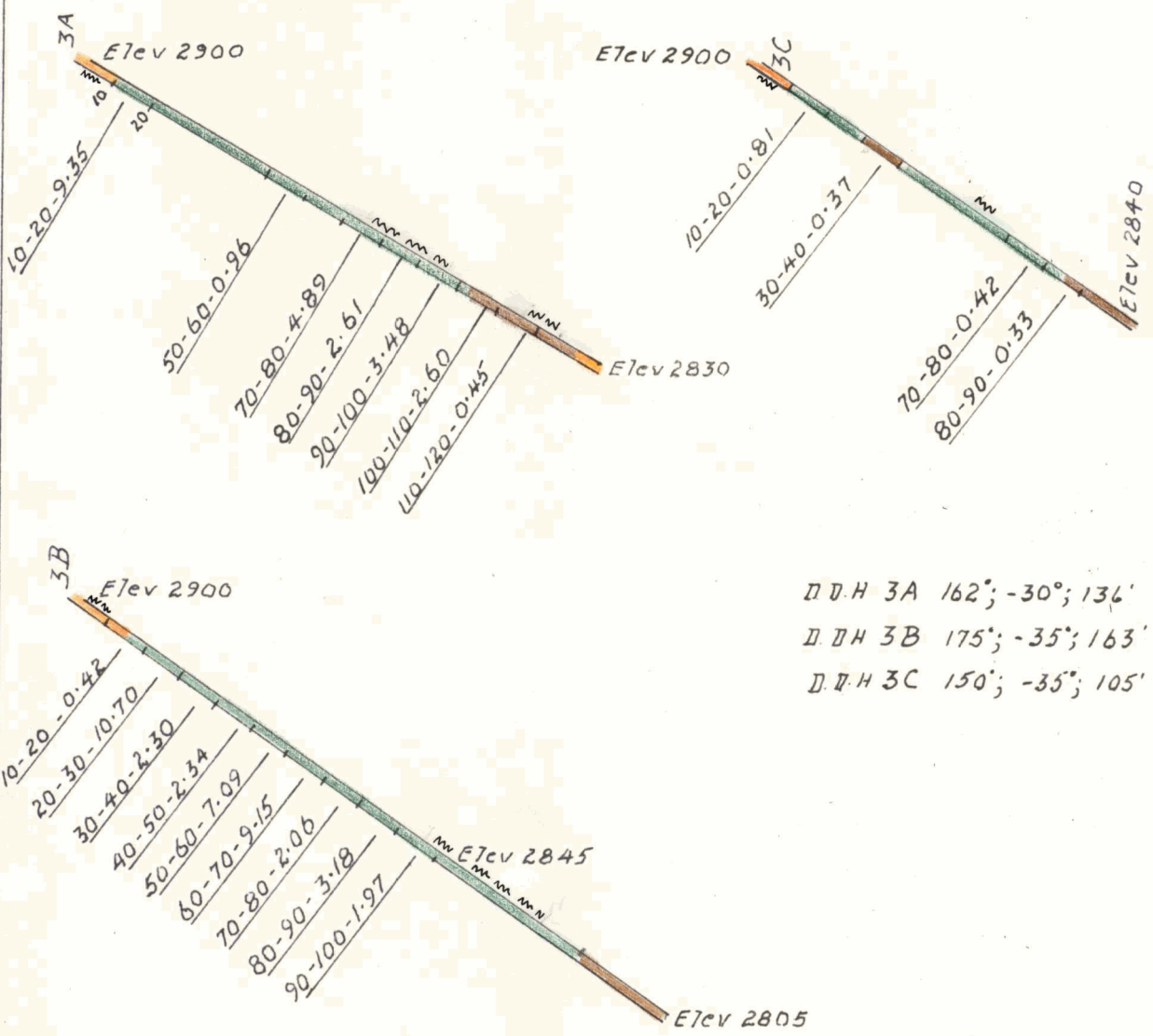
Scale 1"=40' 30<sup>th</sup> June '70

Section #2

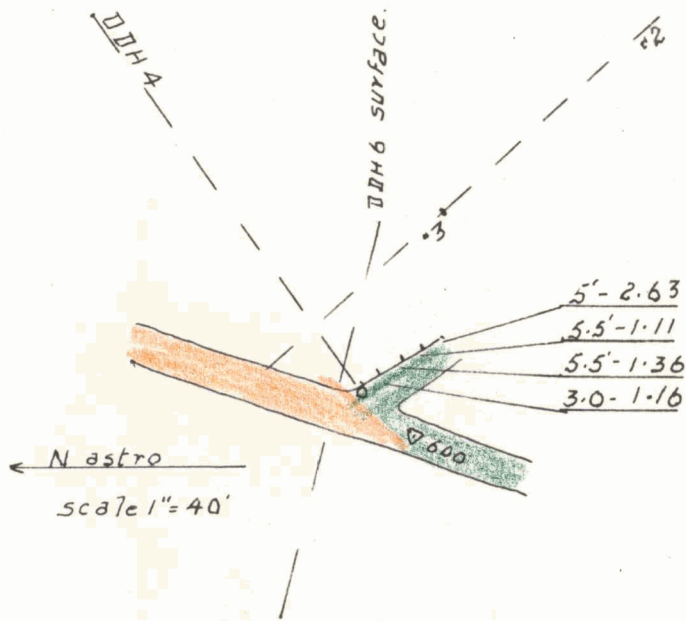


SILVER CITY MINES  
1972

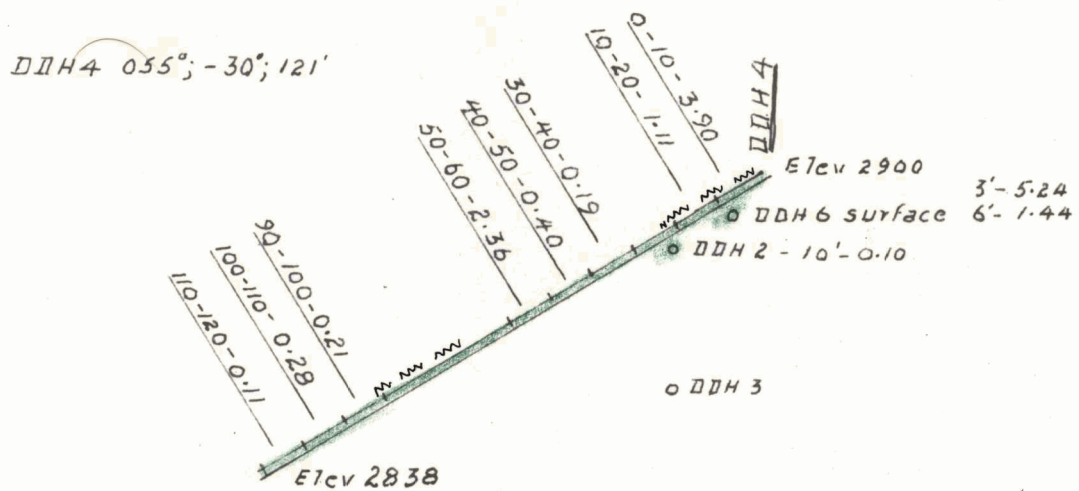
Plan of Drift showing locations of DDH 3A:3B:3C.



- DDH 3A 162'; -30°; 136'
- DDH 3B 175'; -35°; 163'
- DDH 3C 150'; -35°; 105'

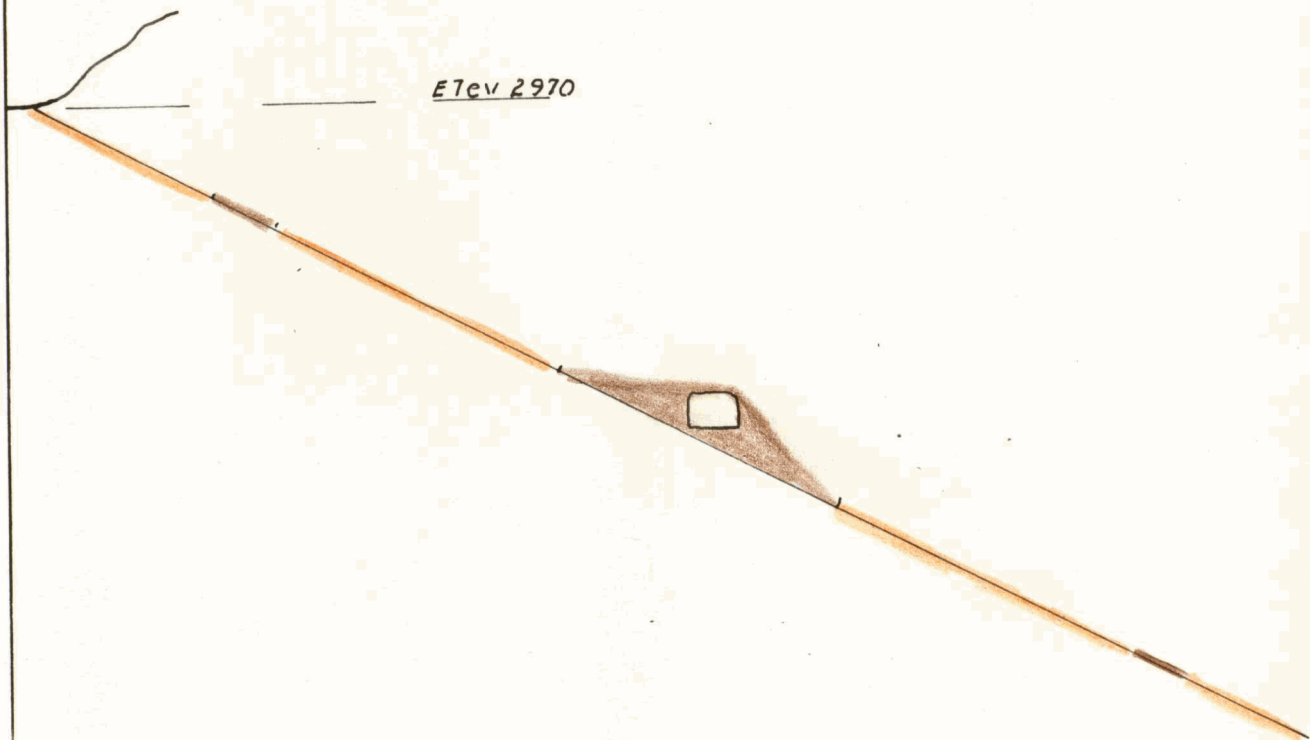


Plan S. Drift showing  
locations DDH 4; 2:3  
b surface.



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1972

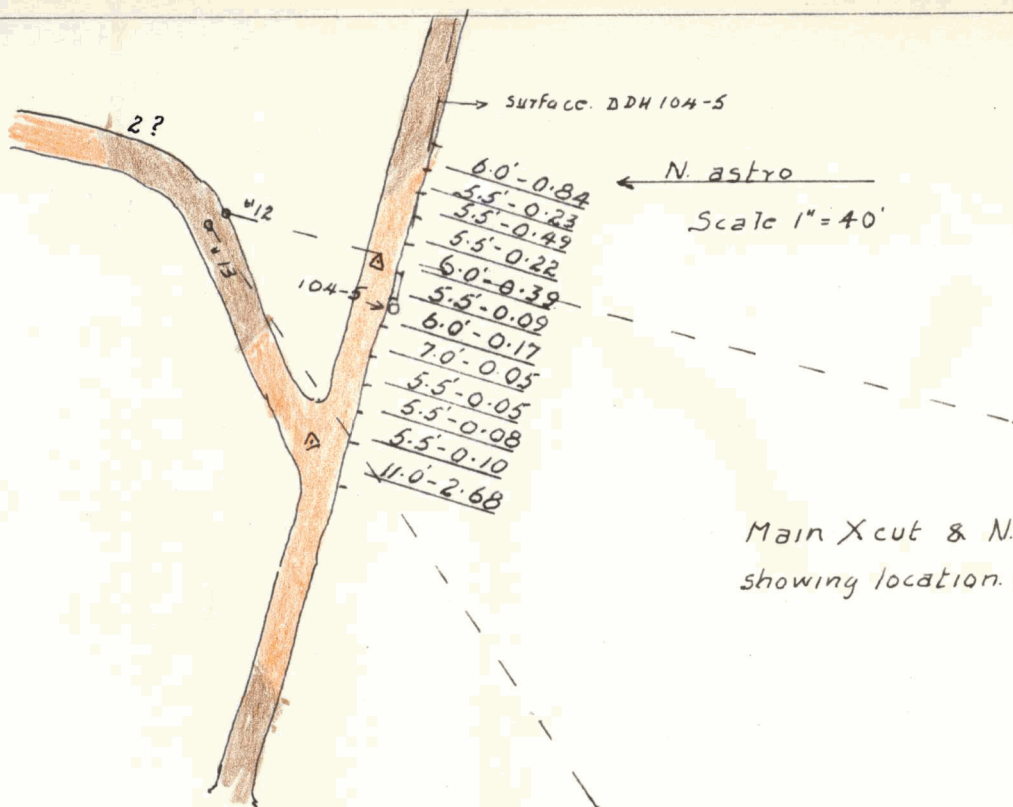
SECTION 4



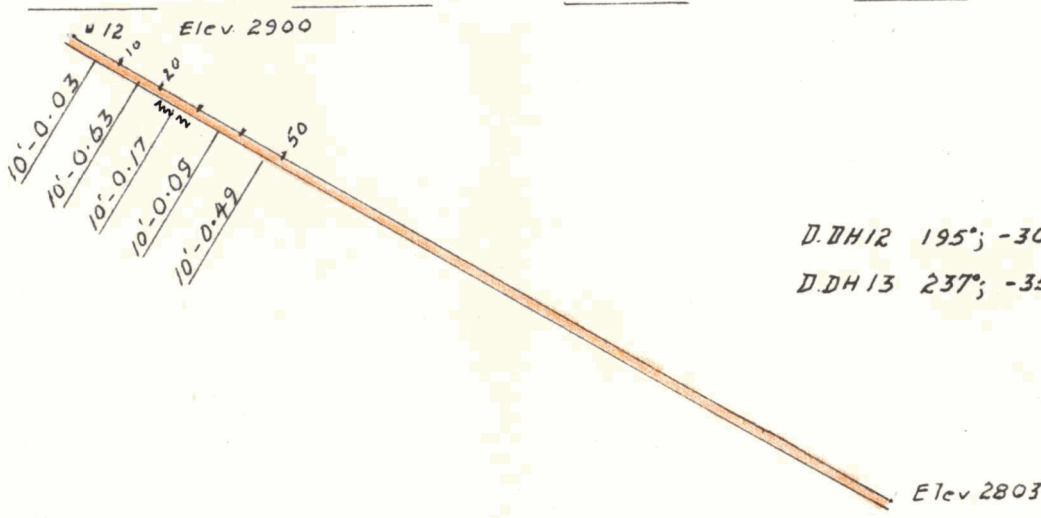
SECTION D.D.H. #11

Scale 1" = 40' 30" June '70

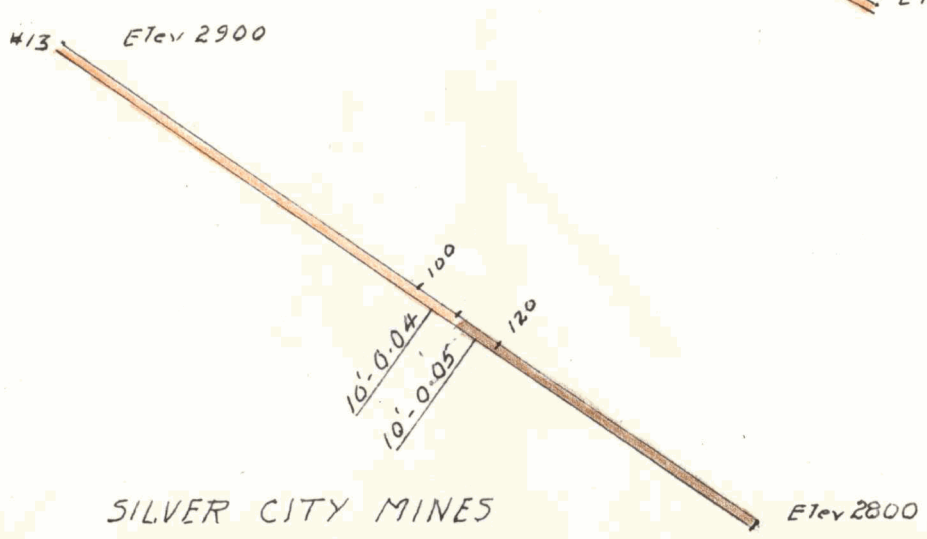
section "5



Main Xcut & N. Drift  
showing location D.D.H 12 & 13



D.D.H 12 195°; -30°; 197'  
D.D.H 13 237°; -35°; 176'



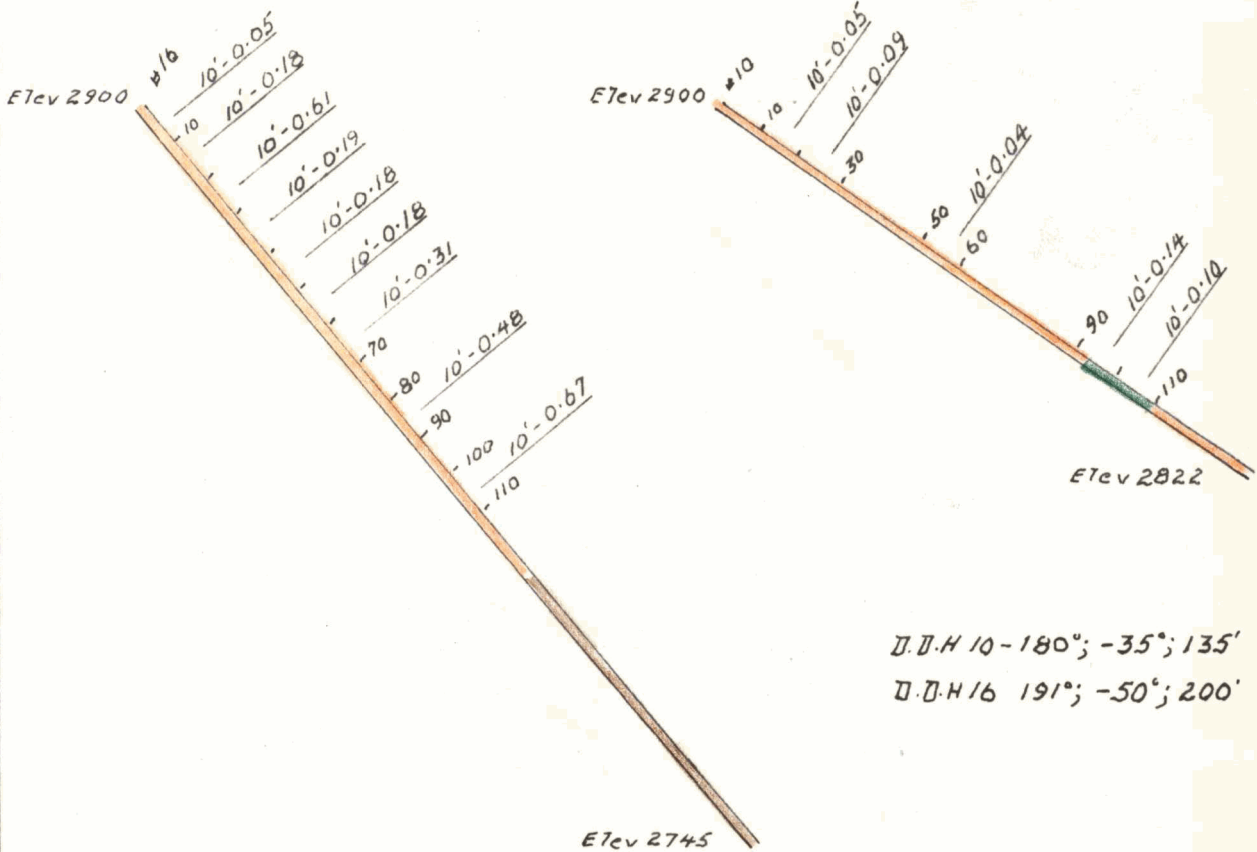
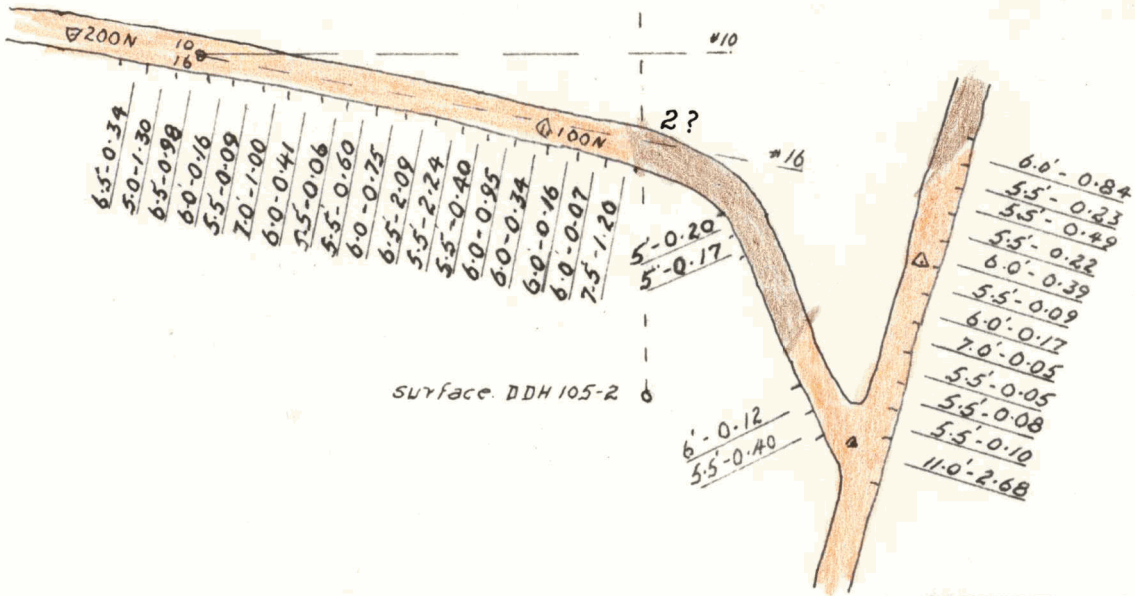
SILVER CITY MINES  
1972.

SECTION 8

N. Drift showing location

DDH #10 & #16

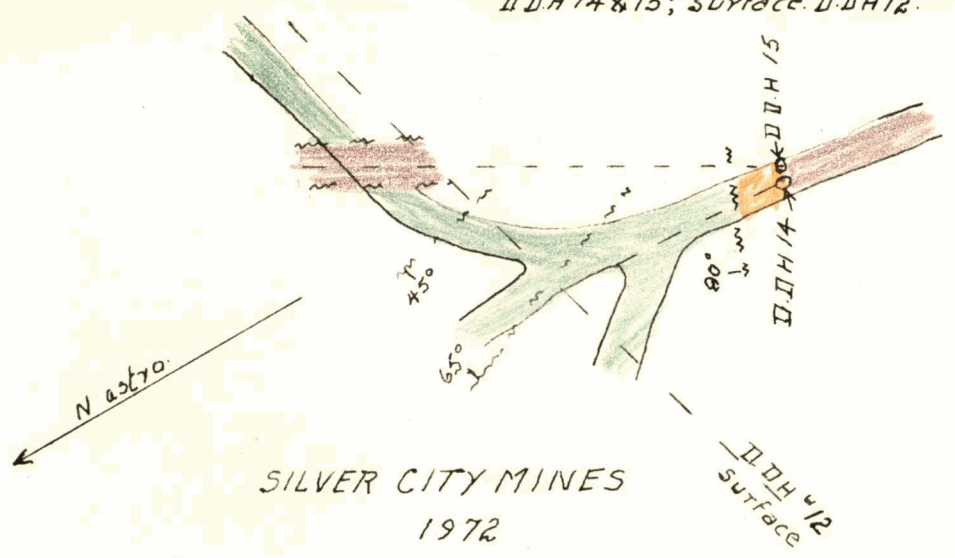
← N astro  
Scale 1" = 40'



SILVER CITY MINES  
1972

SECTION 9

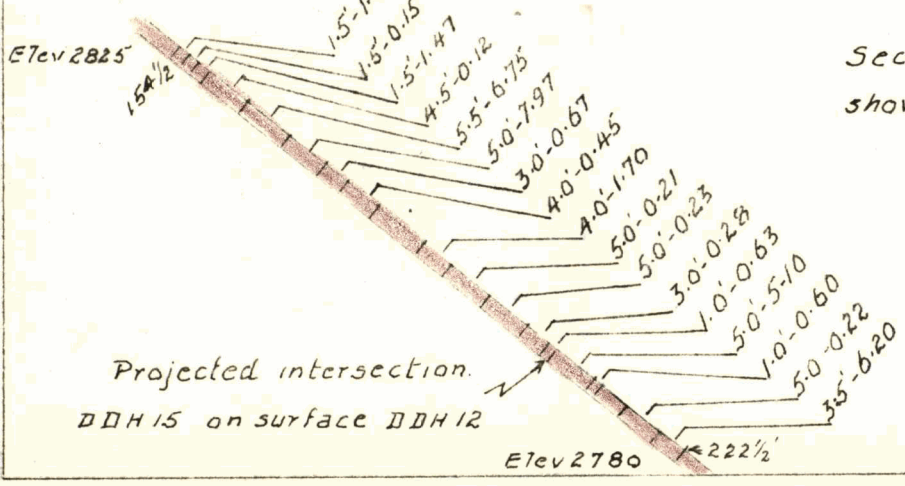
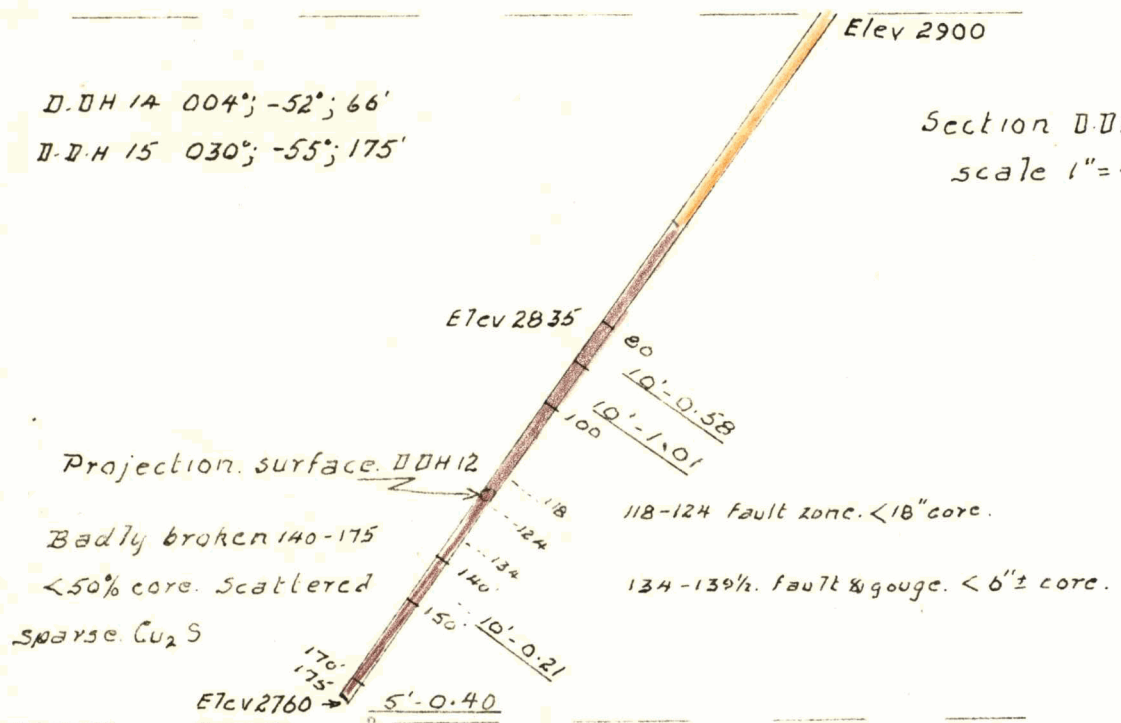
Plan N Drift showing locations  
 DDH 14 & 15; surface DDH 12.



scale 1" = 40'

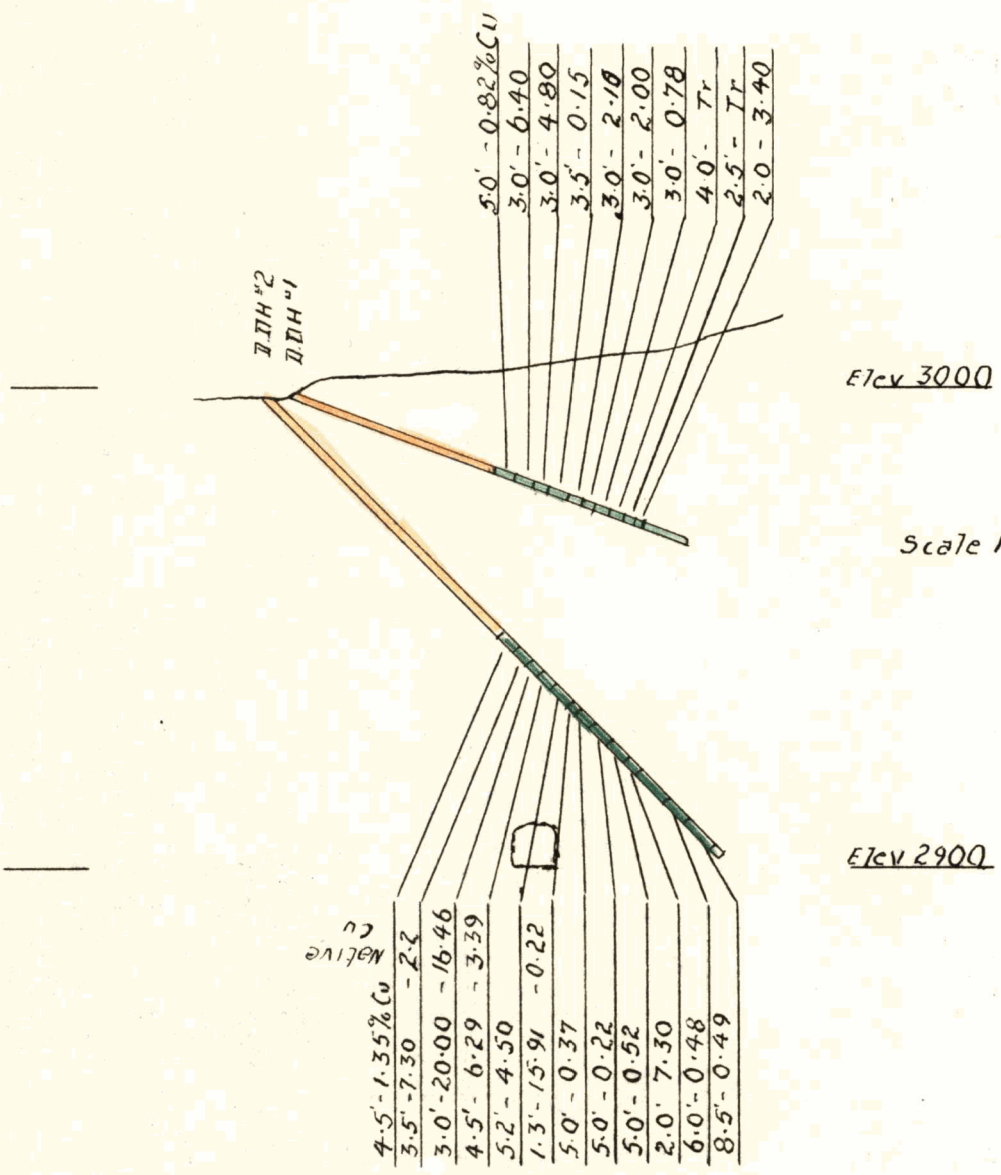
DDH 14 004°; -52°; 66'  
 DDH 15 030°; -55°; 175'

Section DDH 15  
 scale 1" = 40'



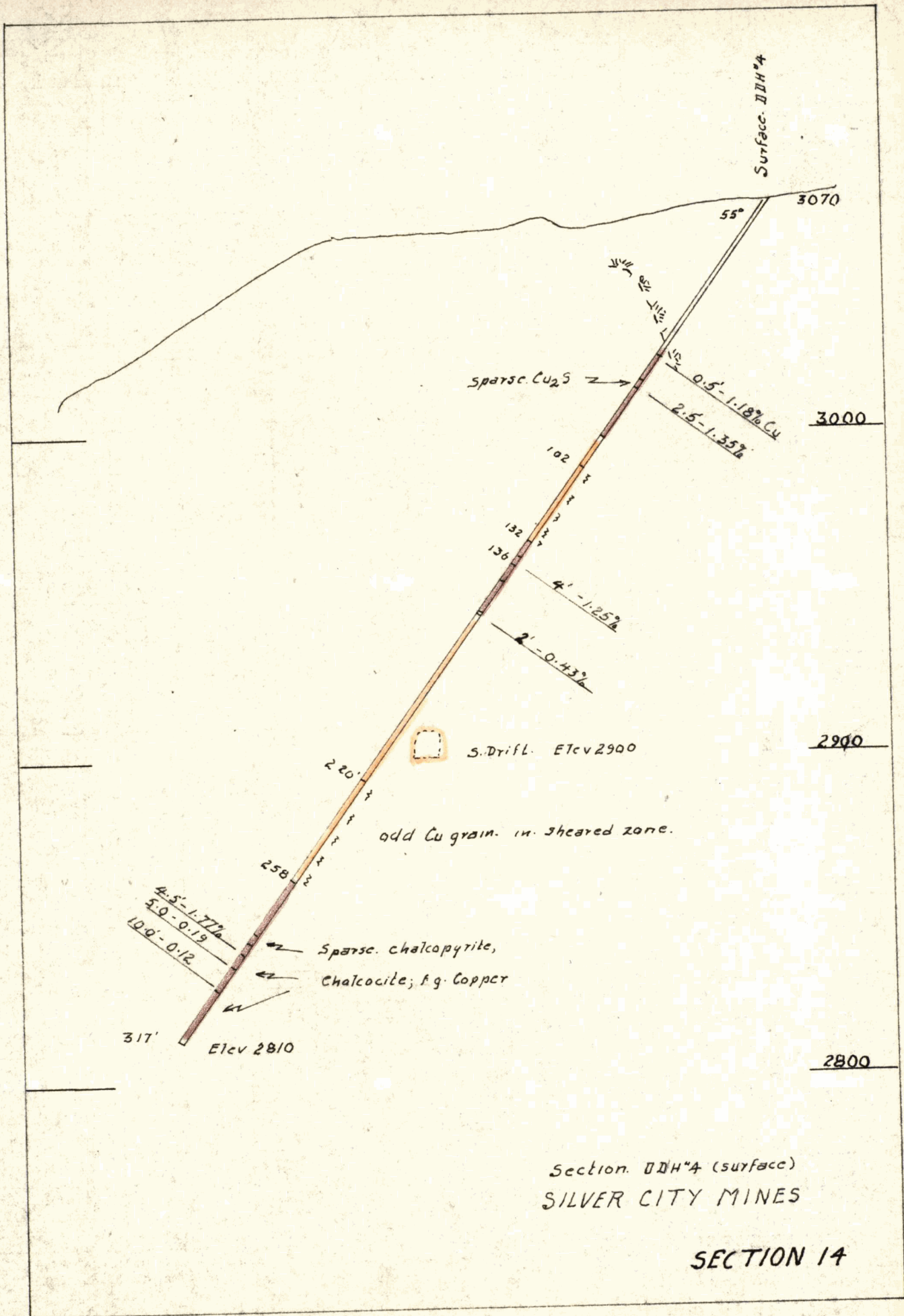
Section surface DDH 12.  
 showing ore section.  
 scale 1" = 20'

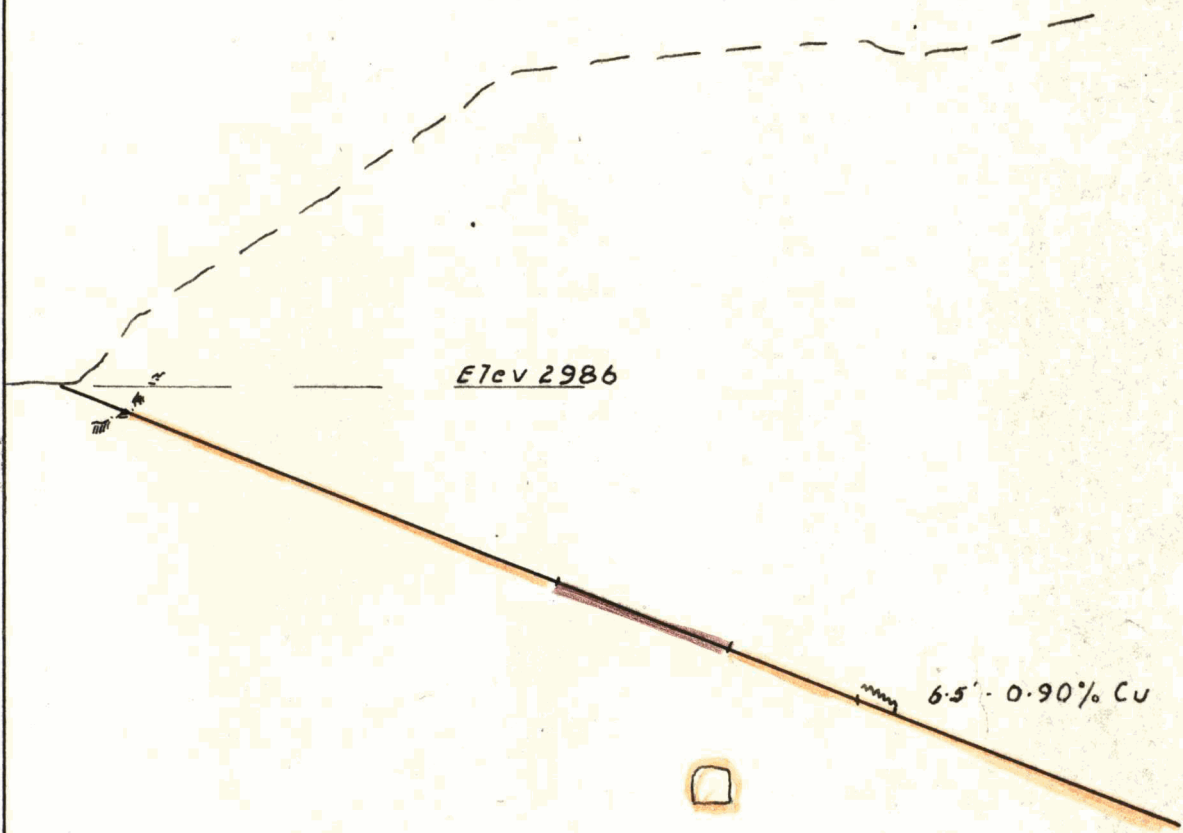
SECTION II



SILVER CITY MINES  
1972

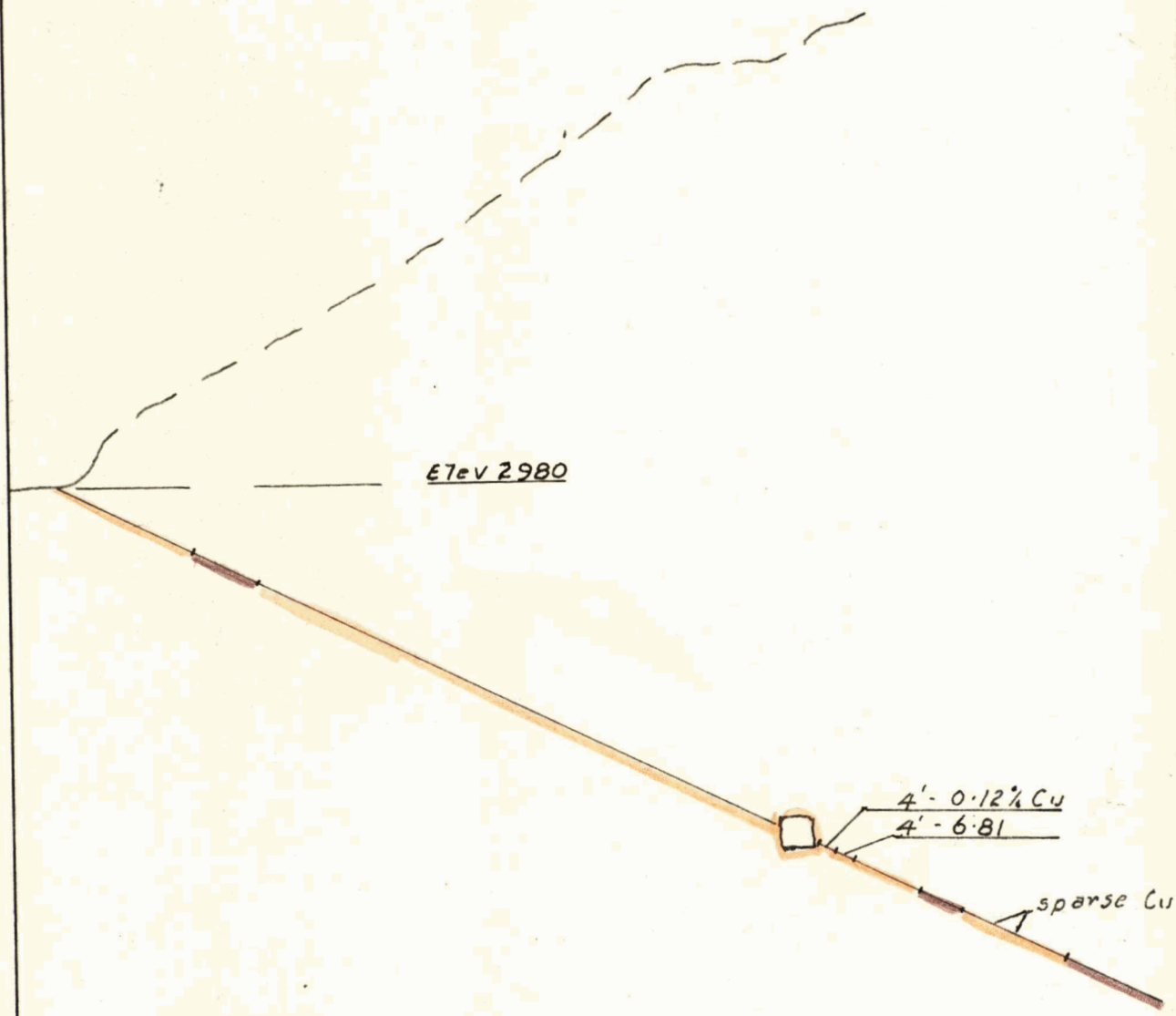
SECTION 12



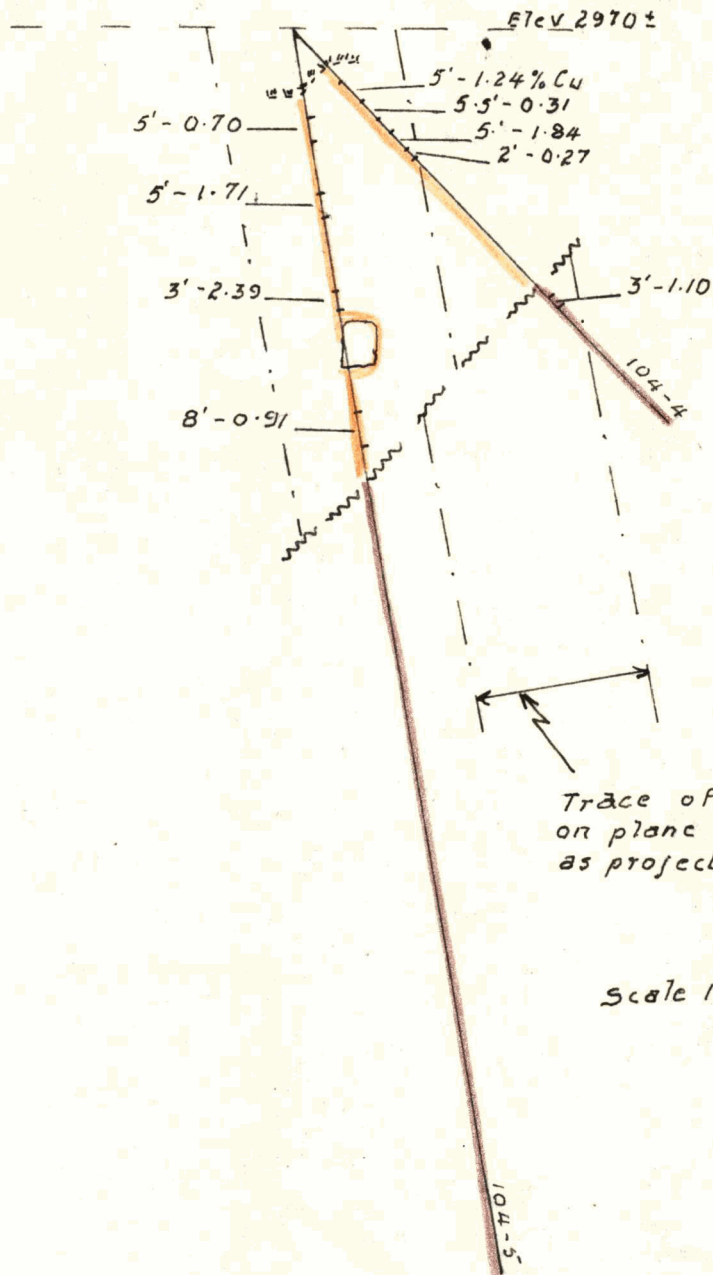


SECTION D.D.H #7  
Scale 1" = 40' 30" June '70

Section #16

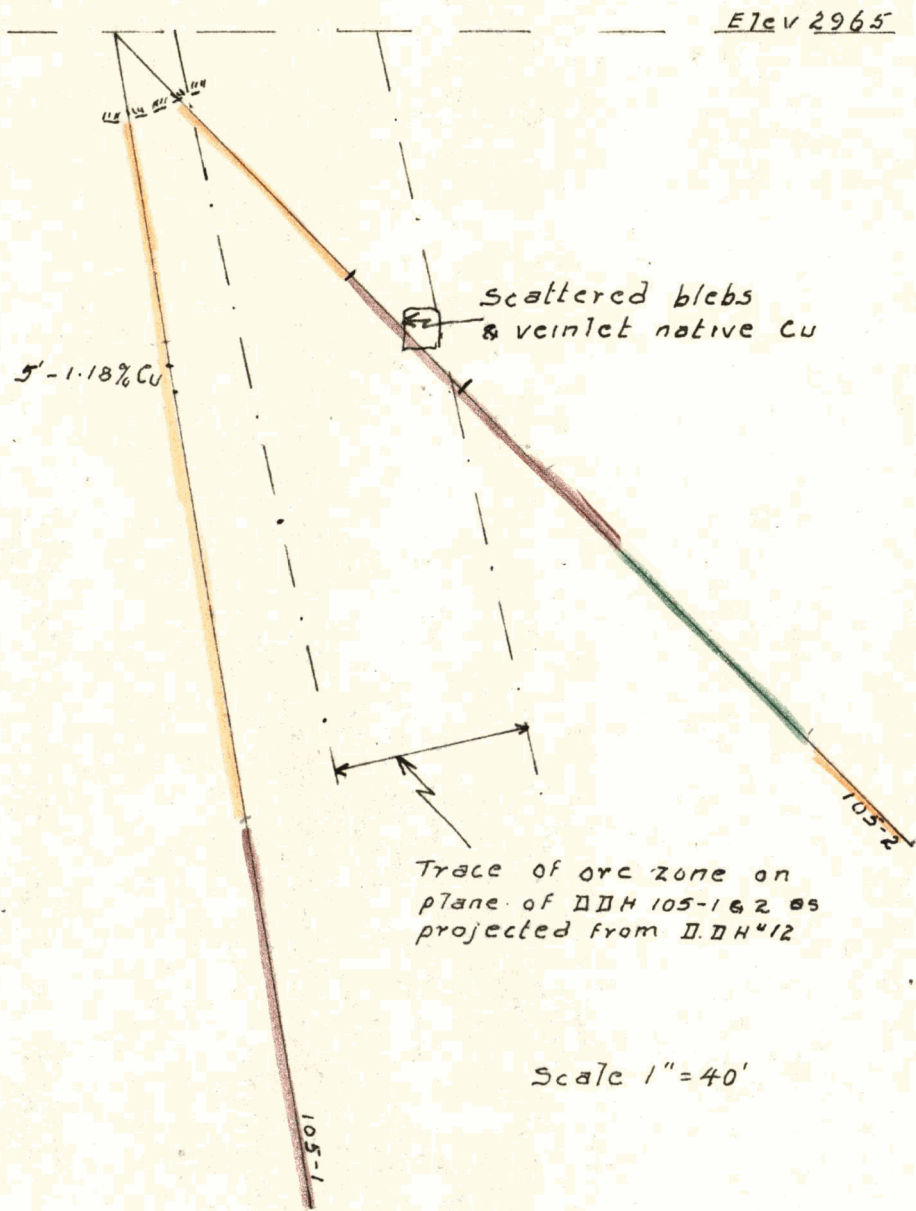


SECTION DDH#5  
 Scale 1" = 40' 30" June '70



SECTION "20

ППН 104-4&5

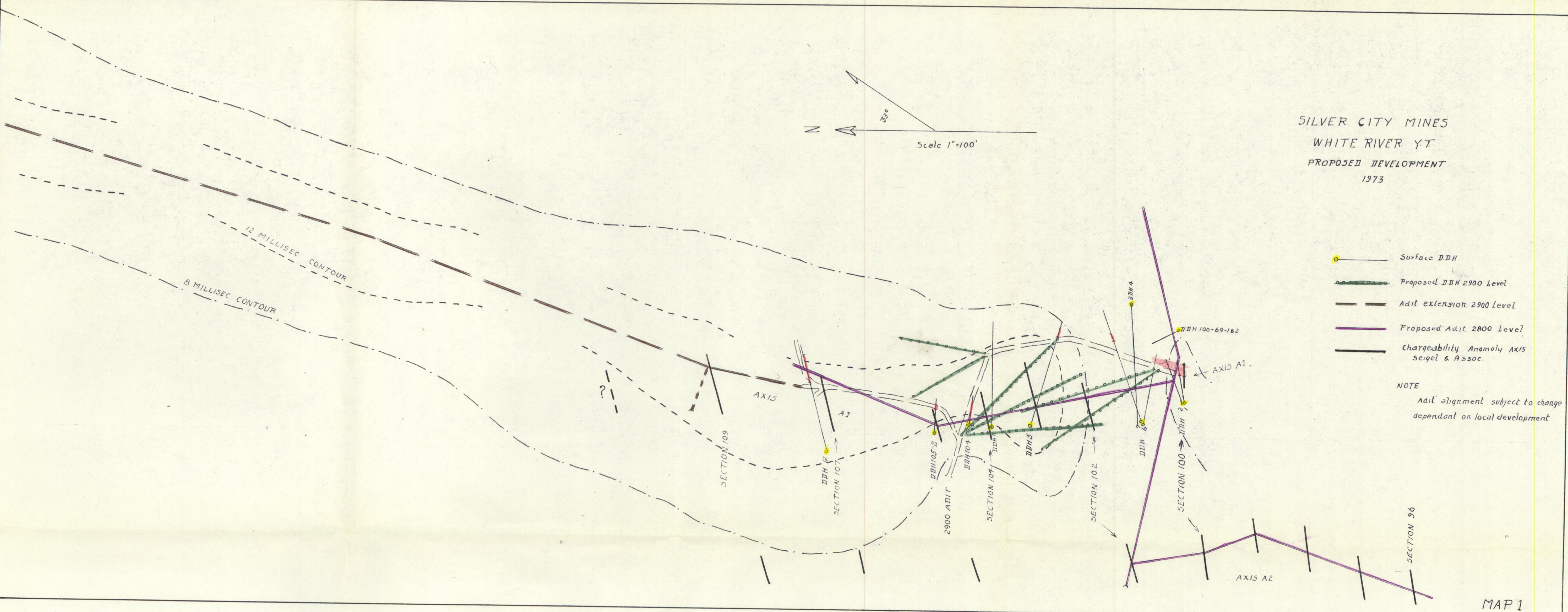
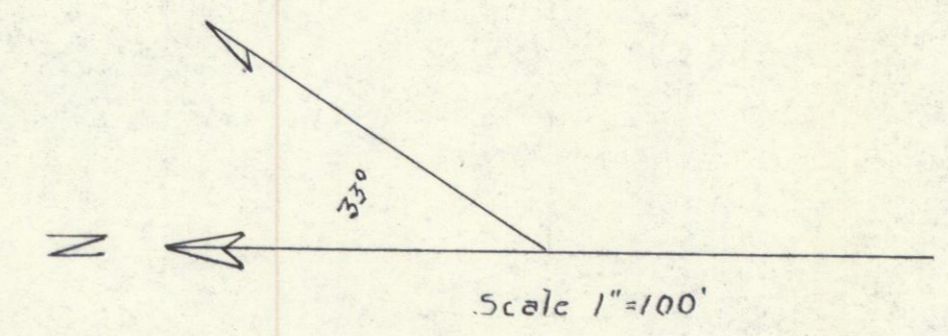


Trace of ore zone on  
plane of  $\Pi\Pi H$  105-1 & 2 as  
projected from  $\Pi\Pi H$  12

Scale 1" = 40'

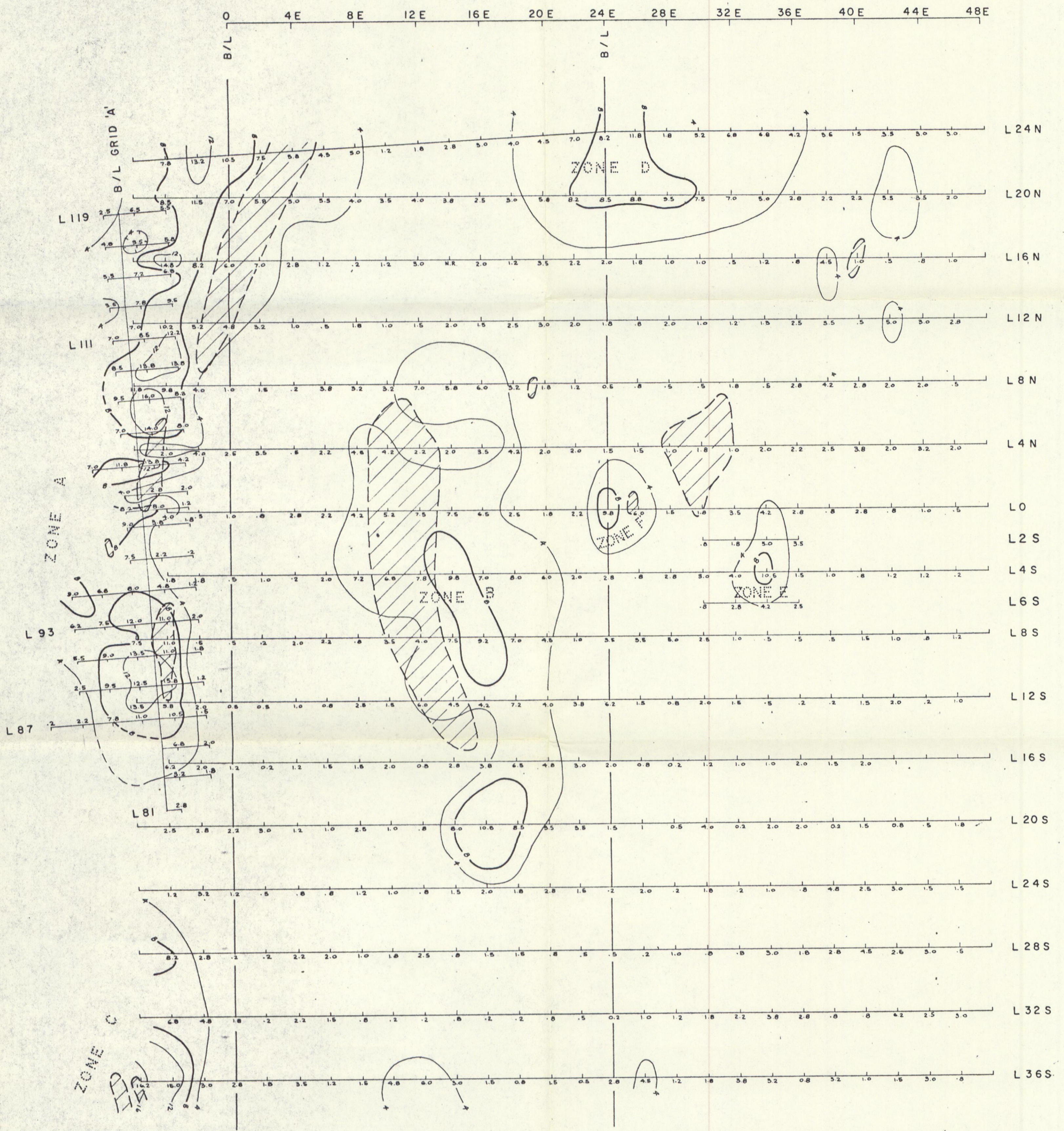
SECTION '21  
 $\Pi\Pi H$  105-1 & 2

SILVER CITY MINES  
 WHITE RIVER YT  
 PROPOSED DEVELOPMENT  
 1973



- Surface DDH
- Proposed DDH 2900 Level
- Adit extension 2900 Level
- Proposed Adit 2800 Level
- Chargeability Anomaly Axis Seigel & Assoc.

NOTE  
 Adit alignment subject to change  
 dependant on local development



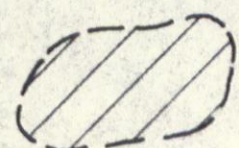
**CHARGEABILITY CONTOUR PLAN**

**LEGEND:**

- LINE TRACE WITH CHARGEABILITY VALUE IN MILLISECONDS
- CHARGEABILITY CONTOURS 4 MILLISECOND INTERVAL

**NOTES:**

THREE ELECTRODE ARRAY  
 ELECTRODE SPACING  $a = 200'$   
 SEIGEL MK.VI INDUCED POLARIZATION DATA



AREA OF MAGNETIC INTENSITIES  
 IN EXCESS OF 2000 GAMMAS

TO ACCOMPANY A GEOPHYSICAL REPORT  
 BY J.G. BAIRD DATED AUGUST 22, 1968

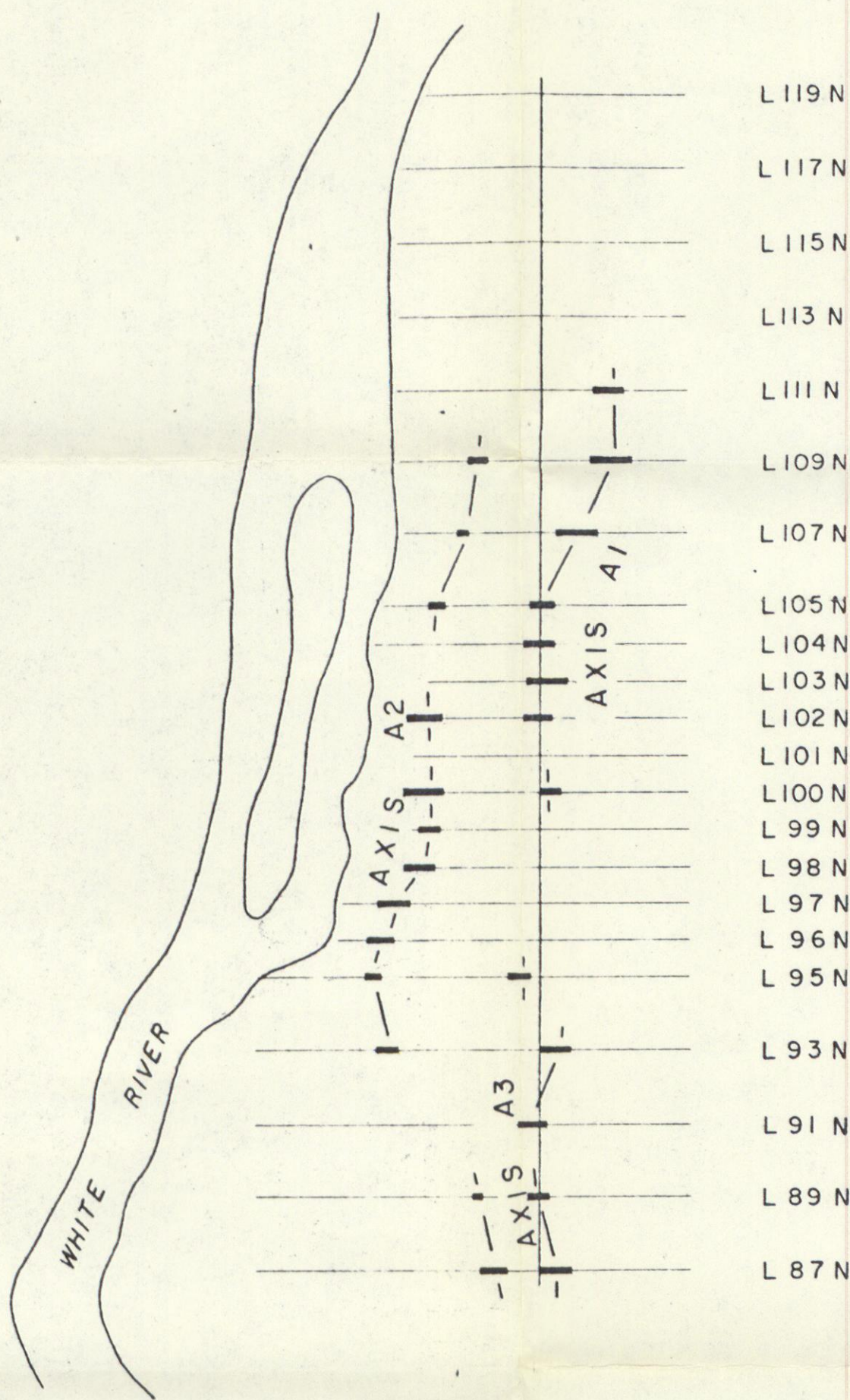
PLATE 2

**UNITED PEMETEX LIMITED**  
 WHITE RIVER AREA, YUKON TERRITORY  
**INDUCED POLARIZATION SURVEY**

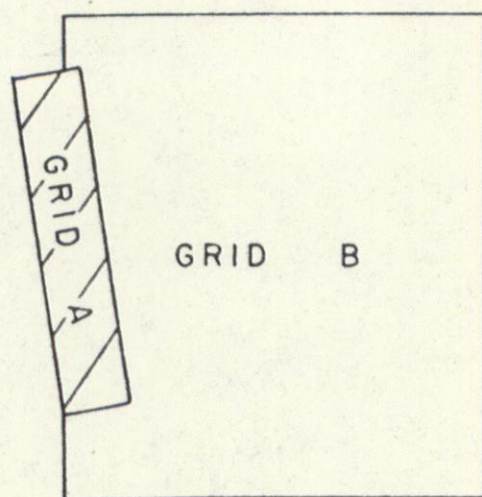
SCALE: 1" = 400'

SURVEY BY SEIGEL ASSOCIATES LIMITED  
 JULY - AUGUST, 1968

92 E 96 E 100 E 104 E



L 119 N  
 L 117 N  
 L 115 N  
 L 113 N  
 L 111 N  
 L 109 N  
 L 107 N  
 L 105 N  
 L 104 N  
 L 103 N  
 L 102 N  
 L 101 N  
 L 100 N  
 L 99 N  
 L 98 N  
 L 97 N  
 L 96 N  
 L 95 N  
 L 93 N  
 L 91 N  
 L 89 N  
 L 87 N



**LEGEND:**

— INTERPRETED CHARGEABILITY  
 ANOMALY AXIS

PLATE 3  
 UNITED PEMETEX LIMITED  
 WHITE RIVER AREA, YUKON TERRITORY  
 DETAIL INTERPRETATION, ZONE A

SCALE: 1" = 400'

SURVEY BY SEIGEL ASSOCIATES LIMITED  
 AUGUST, 1968

92 E 96 E 100 E 104 E

92 E 96 E 100 E 104 E

L 119

L 117

L 115

L 113

L 111

L 109

L 107

L 105

L 104

L 103

L 102

L 101

L 100

L 100 RESISTIVITY

L 99

L 98

L 97

L 96

L 95

L 93

L 91

L 89

L 89 RESISTIVITY

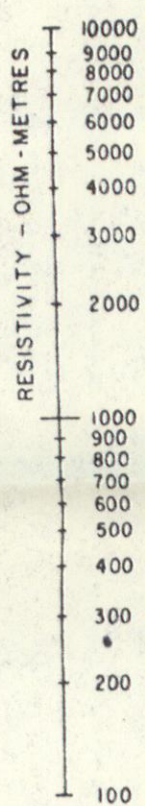
L 87

L 85

L 83

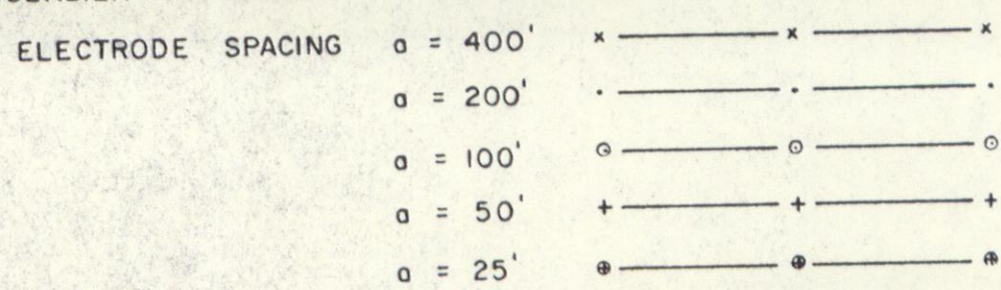
L 81

RESISTIVITY - OHM-METRES

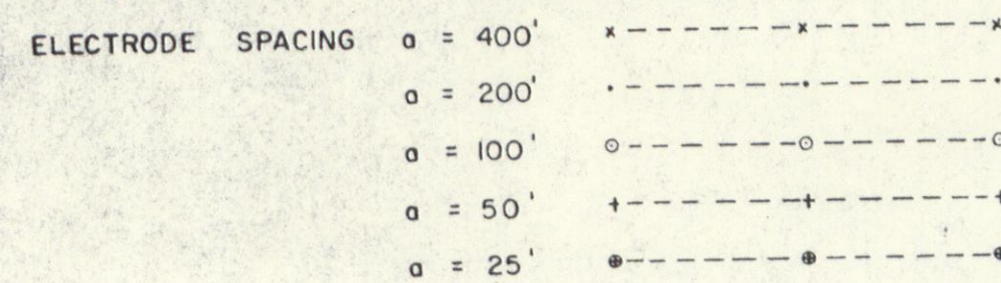


LEGEND:

CHARGEABILITY: SCALE 1" = 10 MILLISECONDS



RESISTIVITY: SCALE 2" = 1 LOGARITHMIC CYCLE, WITH LINE TRACE TAKEN AS 1000 OHM-METRES



NOTES:

- THREE ELECTRODE ARRAY
- ELECTRODE SPACING AS INDICATED
- MOVING CURRENT ELECTRODE TO EAST OF ARRAY
- INTERLINE SPACING NOT TO SCALE
- INTERPRETED CHARGEABILITY ANOMALY AXIS

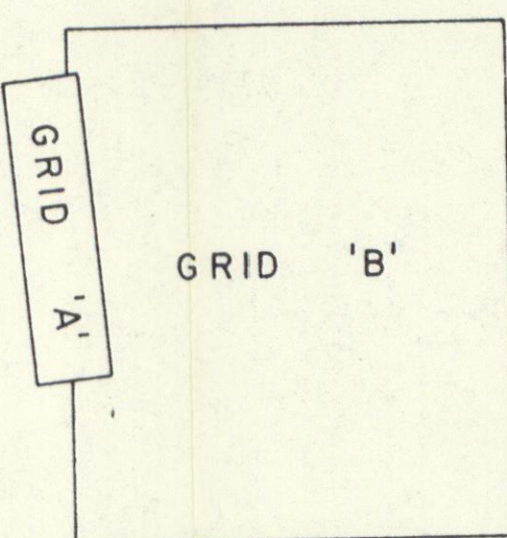


PLATE 5

UNITED PEMETEX LIMITED  
WHITE RIVER AREA, YUKON TERRITORY  
INDUCED POLARIZATION SURVEY

GRID A  
CHARGEABILITY AND RESISTIVITY PROFILES  
SCALE: 1" = 400'

SURVEY BY SEIGEL ASSOCIATES LIMITED  
JULY - AUGUST 1968

TO ACCOMPANY A GEOPHYSICAL REPORT  
BY J.G. BAIRD DATED AUGUST 22, 1968