

**ARCHER, CATHRO  
AND ASSOCIATES LTD.  
CONSULTING GEOLOGICAL ENGINEERS**

CANADA BUILDING, WHITEHORSE, Y.T. 667-4113

BENTALL CENTRE, VANCOUVER, B.C. 688-3022 OR 522-1562

POST OFFICE BOX 1708  
WHITEHORSE, Y.T.

SUMMARY REPORT  
ON  
SURFACE DRILLING

WHITE RIVER, Y.T. PROPERTY  
OF  
SILVER CITY MINES LTD.

R.J. Cathro

September 23, 1969

## INTRODUCTION

Silver City Mines Ltd. began exploration on its White River copper property in early 1966 under the writer's supervision. Following preliminary surveys in 1966 and 1967, bulldozer trenching exposed a rich zone in bedrock on the east bank of the White River in November of that year. The property was subsequently optioned to Central Del-Rio Oils Ltd., of Calgary, and a new company was formed, United Pemetex Ltd., to conduct the first drilling. A total of 2424 feet was drilled in 11 holes, but the mineralization, although rich, was erratic and could not be traced under the extensive overburden cover. Later, an induced polarization and magnetic survey was completed but in late October, 1968, Central decided to drop its option before testing the geophysical anomalies by drilling, although the induced polarization in particular, appeared to show good promise for locating and tracing new mineralized zones.

During the period from August, 1966 to October, 1968, the writer served as consulting engineer to Silver City on the White River property and held the title of project manager for the United Pemetex joint venture. On November 1, 1969, Dr. W.V. Smitheringale, who had earlier represented

Central Del-Rio Oils Ltd., was appointed as Silver City's consultant and was responsible for planning the 1969 drill program. The writer was not involved between November 1, 1968 and May 31, 1969 and his recent work has consisted merely of logging core and general guidance during periodic visits (May 31-June 2, June 15-16, July 22, August 10 and September 21-22). Since the writer is the only geologist who has examined all the core drilled on the property, this report will perhaps be of some assistance in future work, not only on Silver City's property but elsewhere in Triassic volcanics of the Mush Lake group.

This report deals primarily with drilling since November 1, 1968 and for earlier information, the reader is referred to reports by R.J. Cathro dated June 22, 1967, July 1, 1968 and November 4, 1968; by Smitheringale dated July 23, 1968, a magnetic survey by Eagle Geophysics Ltd., dated July, 1968, and an induced polarization report by Seigel Associates Ltd. dated August 22, 1968.

A comprehensive report on induced polarization surveys on the property by J.G. Baird, P.Eng., of Seigel Assoc. Ltd., dated July 28, 1969, which is of vital concern in the 1969 work, is included with this drilling summary.

EXPLORATION PROGRAM

November 1, 1968 - September 23, 1969

Upon termination of the United Pemetex agreement, public financing was secured by Silver City to test the geophysical results by drilling. Only one hole was completed in severe weather conditions before the year end, Hole 12, but it returned what is still the best drill intersection ever obtained from the property, 2.14% copper for a core length of 68 feet. This naturally served to confirm the validity of the geophysical data and, under the direction of Dr. Smitheringale, a contract was signed for a 10,000 foot drill program. This drilling commenced early in May, 1969 and 11,499 feet was drilled in 44 holes. The total cumulative footage drilled on this property during 1968 and 1969 is 13,833 feet in 56 holes.

Unfortunately, it became quite apparent halfway through the current program that the induced polarization response was caused by factors other than copper mineralization and that the fact that rich mineralization in Hole 12 coincided with an induced polarization anomaly was probably a fortuitous coincidence. Examples will be presented in this report to show how misleading induced polarization proved to be in this geological setting.

In addition to diamond drilling, further linecutting and induced polarization surveys were conducted and the trailer camp was expanded and moved to a new site on the north shore of Rifle Lake.

#### DIAMOND DRILLING

The following table lists all drill holes collared since November 1, 1968, and this list in conjunction with the writer's earlier report dated July 1, 1968 is a complete report on all diamond drilling to date. Drill logs and sections are attached at the back of this report for all holes, except 87-1, 100-69-6, 100-69-7, 4N-1, and 8S-1, which were abandoned in overburden and did not recover any bedrock core. The plan location of all holes in the "A" zone (on the "A" grid centered on the initial discovery bulldozer trench on the east bank of White River) are shown on Figure 1. Holes drilled elsewhere are shown in red on Figure 3 of the Seigel IP report dated July 28, 1969.

<u>Hole No.</u>	<u>Location</u>		<u>Azimuth</u> (true)	<u>Dip</u>	<u>Depth</u>
	<u>Lat(N)</u>	<u>Dep(E)</u>			
<u>Note:</u> All hole coordinates are measured from the intersection of the "A" Baseline and line 100, which point is designated 10,000N, 10,000E. It is marked by an iron pin and is on the southwest side of the discovery trench. The true azimuth of Baseline "A" is 350°. The azimuths shown for each hole are measured from true north.					
12	10,730	10,000	80	40	254
109-1	10,900	10,440	260	45	165
109-3	10,900	10,440	260	65	373
109-4	10,900	10,100	80	45	348
109-5	10,900	10,100	121	43	469
109-6	10,900	10,100	121	75	266
87-1	8,700	10,200	260	42	187
87-2	8,700	9,980	80	40	218
87-3	8,700	9,980	260	65	350
111-1	11,100	10,475	260	45	497
111-2	11,100	10,520	270	50	91
93-1	9,300	9,970	260	45	220
89-1	8,900	10,125	260	60	325
115-1	11,500	10,155	260	45	286
113-1	11,300	10,280	260	45	300
44-1	5,530	10,750	90	65	259
44-2	5,490	10,870	270	45	423
102-1	10,200	9,615	80	45	406
102-2	10,200	9,615	135	45	383
102-3	10,170	10,150	125	70	451
105-1	10,500	9,990	80	80	248
105-2	10,500	9,990	80	45	237
105-3	10,520	10,010	190	65	278
106-1	10,650	10,025	0	55	265
104-1	10,400	9,985	30	45	117
104-2	10,400	9,985	30	85	98
104-3	10,400	9,985	20	65	96
104-4	10,450	10,000	100	45	113
104-5	10,450	10,000	100	80	262
100-69-1	10,010	10,115	330	45	163
100-69-2	10,010	10,115	330	80	159
100-69-5	10,025	10,280	340	65	158
100-69-6	10,120	10,230	45	45	117
100-69-7	10,025	10,280	340	90	134
103-69-1	10,255	10,130	35	45	474
103-2	10,300	10,900	345	45	293
103-E3	10,380	10,340	220	80	258
2285-1	12,160	11,420	267	80	280
98-1	9,800	9,820	260	57	291
4S-1	9,290	11,890	55	45	297
4N-1	10,400	10,430	220	60	180
116-1	11,330	11,030	310	70	314
24S-1	7,270	12,290	270	80	120
32S-1	6,640	11,060	77	57	344
8S-1	8,540	13,380	10	77	186

Total November 1, 1968 to September 23, 1969 11,753

1 to 11 drilled January to April, 1968 2,424

Grand Total to September 23, 1969 14,177

GEOLOGY

All holes were drilled in volcanic rocks of the Mush Lake group, except the last hole, 32 S-1, which explored the limestone-volcanic contact. Using the terminology developed earlier, the volcanics have been classified as porphyritic andesite, amygdaloid, or greenstone. Porphyritic andesite generally contains large (up to 1/2 inch long) white to pale green feldspar phenocrysts in a fine to medium grained, medium green groundmass. This rock probably represents the slow-crystallizing of sills or thick flows. Greenstone is rarer and is a close relative which is characteristically a matted, very fine grained, dark greenish black matrix. It is generally slightly sheared with chlorite developed on slip planes. Finely disseminated flecks of native copper are common in this rock. Amygdaloid shows more range in colour and texture and probably represents flow tops. Vescicles vary from small, round and crowded, to widely scattered, irregular and large, and are usually filled by either black chlorite or white calcite. The most common rock colour is medium brown but brick red, brownish black and greenish brown are also found.

At one time it was felt that copper mineralization was restricted to amygdaloid (flow top) but this is no longer

the case. Copper mineralization seems to be primarily structurally controlled, occupying veinlets from 1/64 inch to several inches in width or occurring in dispersed grains or heavy disseminations. It seems to be just as common in andesite as amygdaloid and probably crosscuts the flows. In spite of the great number of holes which have been drilled, the trend of the mineralization remains in doubt, and it is quite possible that it is both variable and complex. An attempt to drill holes in a north-south orientation to check the possibility of an east-west mineralized trend was not very helpful, partly because of a deep bedrock depression which lies immediately east of the discovery trench. Several holes caved here in overburden or just after reaching bedrock. Although the attitude of the mineralized zones is still uncertain, the 1969 drilling has shown conclusively that the copper mineralization is erratic in occurrence and has very little economic interest. Chalcocite and native copper were seen in small amounts in several holes. The best intersections were:

<u>Hole No.</u>	<u>Footage</u>			<u>Assay</u>	<u>Host Rock</u>
	<u>From</u>	<u>To</u>	<u>Core Length</u>	<u>% Copper</u>	
12	154.5	222.5	68.0	2.14%	Amygdaloid
109-4	103.0	108.0	5.0	4.61%	Greenstone
100-69-1	42.0	47.0	5.0	1.00%	Andesite
105-1	69.0	74.0	5.0	1.18%	Andesite
106-1	166.0	171.0	5.0	2.50%	Amygdaloid
104-1	40.0	45.0	5.0	1.29%	Andesite
104-2	18.0	23.0	5.0	1.71%	Andesite
	73.0	78.0	5.0	4.30%	Andesite
104-3	67.0	72.0	5.0	1.45%	Andesite
104-4	14.5	19.5	5.0	1.24%	Andesite
	28.0	33.0	5.0	1.84%	Andesite
	76.0	79.0	3.0	1.10%	Amygdaloid
104-5	34.0	39.0	5.0	1.71%	Andesite
	55.0	58.0	3.0	2.39%	Andesite
	80.0	88.0	8.0	0.91%	Andesite
103-2	229.0	233.0	4.0	2.30%	Amygdaloid

The cause of the I.P. anomalies remains a mystery. Figure 2 shows the I.P. and magnetic profiles on holes 12, 115-1, 44-1, and 44-2. Although the geophysical response is comparable, hole 12 encountered a significant copper zone while the other holes did not cut any mineralization at all. It is the writer's belief that the I.P. response is caused by finely disseminated magnetite and chlorite, the latter in amygdules, and by fine chloritic coatings on fractures. All the volcanic rocks are magnetic to a greater or lesser degree, although the reddest varieties seem to be the weakest, perhaps because the magnetite has been converted to hematite. A close comparison of magnetite, chlorite and I.P. chargeability might provide useful data. Only one I.P. anomaly was definitely explained by sulfides and that was on lines 8700, 8900, and 9300N where substantial amounts of barren pyrite were cut in drillholes. This is the suspected cause of the strong anomalies near White River in the extreme southwest corner of the 1969 I.P. survey, where pyrite was found on surface.

Of significance was the discovery of a small amount of heavily disseminated chalcocite mineralization, as well as a little chalcopyrite and malachite stain, on the dump of an old adit on the south bank of La Feu Creek immediately north of holes 44-1 and 44-2. These holes tested the I.P.

anomaly which extended to the adit but no sulfides were found.

Hole 4S-1 was drilled in I.P. Zone "B" near an old adit and shaft. No Mineralization had been found on the dump of the workings and no copper response was found in soil sampling. The hole was unmineralized.

Hole 24S-1 was drilled to intersect a fault postulated from surface geological mapping. It encountered a few narrow veinlets of native copper in brown amygdaloid before caving in the fault. This area gave no I.P. response.

Holes 2285-1 and 116-1 were drilled on the strongest magnetic response and were unmineralized. The best I.P. response on line 2285 occurred 500 feet west of the magnetic high.

All other holes were drilled to test geophysical anomalies, trace mineralized float or extend known showings on the "A" grid.

#### CONCLUSIONS AND RECOMMENDATIONS

Fifty-six short surface drill holes, drilled to test every conceivable structural hypothesis and geophysical/geological parameter, have failed to disclose any indication

of commercial copper mineralization. Significant assays can be obtained over narrow intersections but no continuity along strike has been found. There is insufficient metal content in the area to consider a bulk mining technique.

Only one theory remains untested due to overburden depths which made surface drilling impossible. This is the possibility that the mineralization trends easterly from the main discovery zone, up the creek gully and beneath the bedrock depression. The attitude of the mineralization in the discovery trench is not conclusively to the north, and drilling to the north failed to find any extension. Two holes were drilled just to the east of the bulldozer trench, 100-69-1 and 100-69-2, and both encountered mineralization. Further east, more than 100 feet of frozen overburden was encountered. There is no way to test this theory other than by underground development, and the chances of success are considered too low to justify the high expense. Holes 9, 10 and 102-2 have already been drilled west (downhill) of the discovery trench and all three were barren. Thus, a fault would be necessary just west of the trench to make this theory fit all the facts.

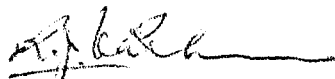
Induced polarization has proven to be a very misleading tool in this geological environment and research into the

causes by government or university should be encouraged. Normally, such strong reliance on geophysics would not have been necessary, but the exceptionally tough permafrost overburden cover on this property compounded the problem.

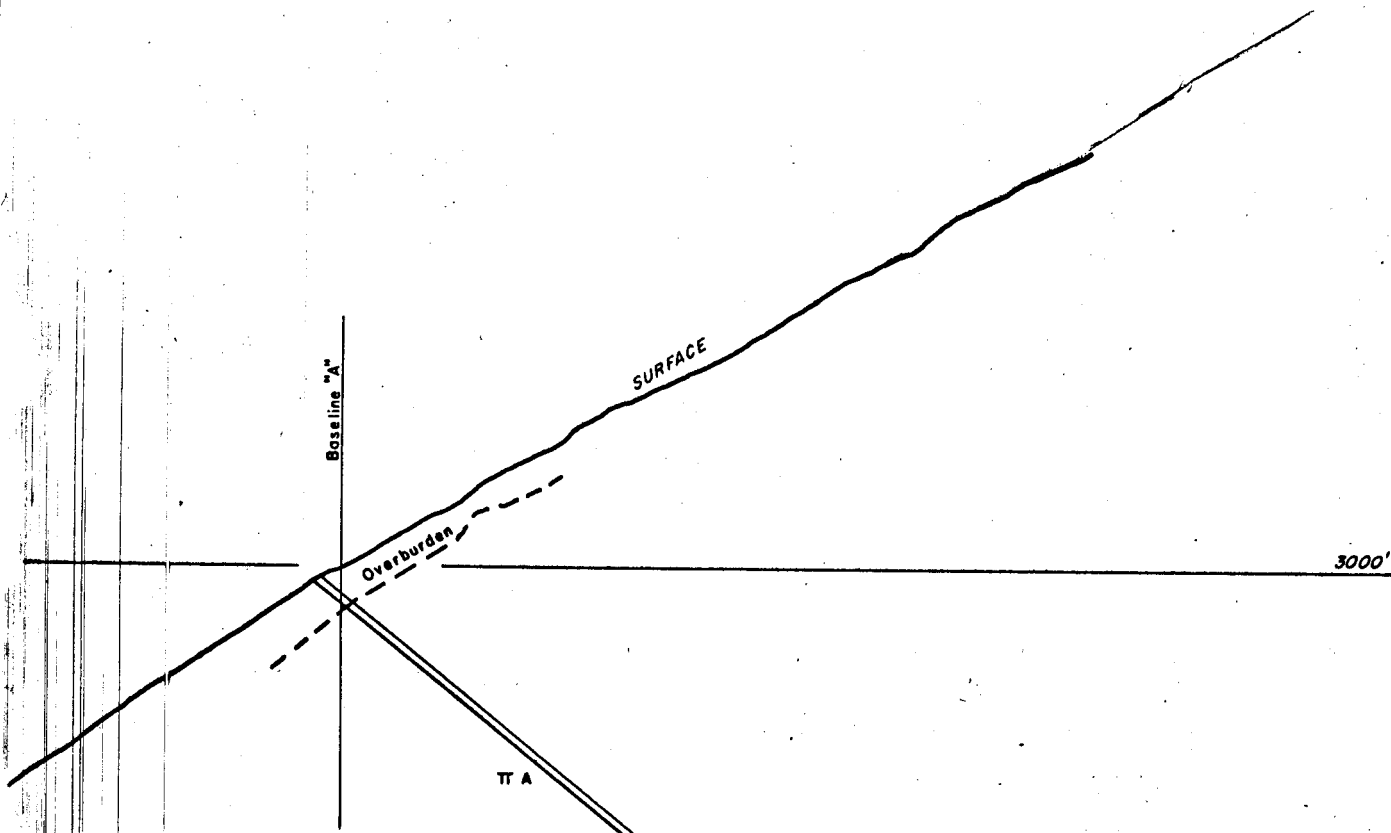
Finally, all attempts by the writer to correlate individual volcanic flows have been unsuccessful. This suite of volcanic rocks is very difficult to work with when outcrop evidence is so scanty. The Geological Survey of Canada should be encouraged to send a specialist in volcanic petrology to study the core and bedrock exposure. The Silver City drilling provides the best source of information available on the Mush Lake group, which is known to be copper-rich throughout the Kluane district, and knowledge gained at White River may save considerable expense elsewhere. The writer feels that the disseminated flecks of native copper seen in greenstone in several holes are probably the source of all the copper in the district. Bateman's published description of the Kennecott Mine in Alaska (Econ. Geol., Jan-Feb, 1920, p. 19) mentioned a similar feature in the Nikolai Greenstone and this comparison should be studied further.

No further exploration is warranted on this property until such time as new information on the origin and ore controls becomes available.

Respectfully submitted,  
ARCHER, CATHRO & ASSOCIATES LTD.

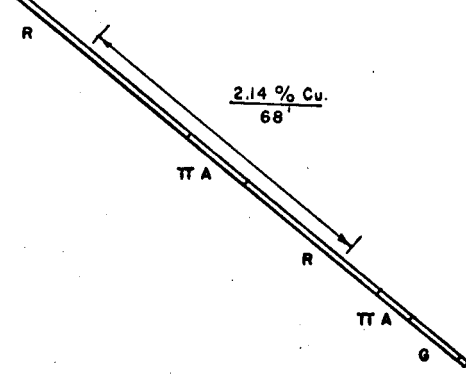


R.J. Cathro, P. Eng.



**CORE ASSAYS**

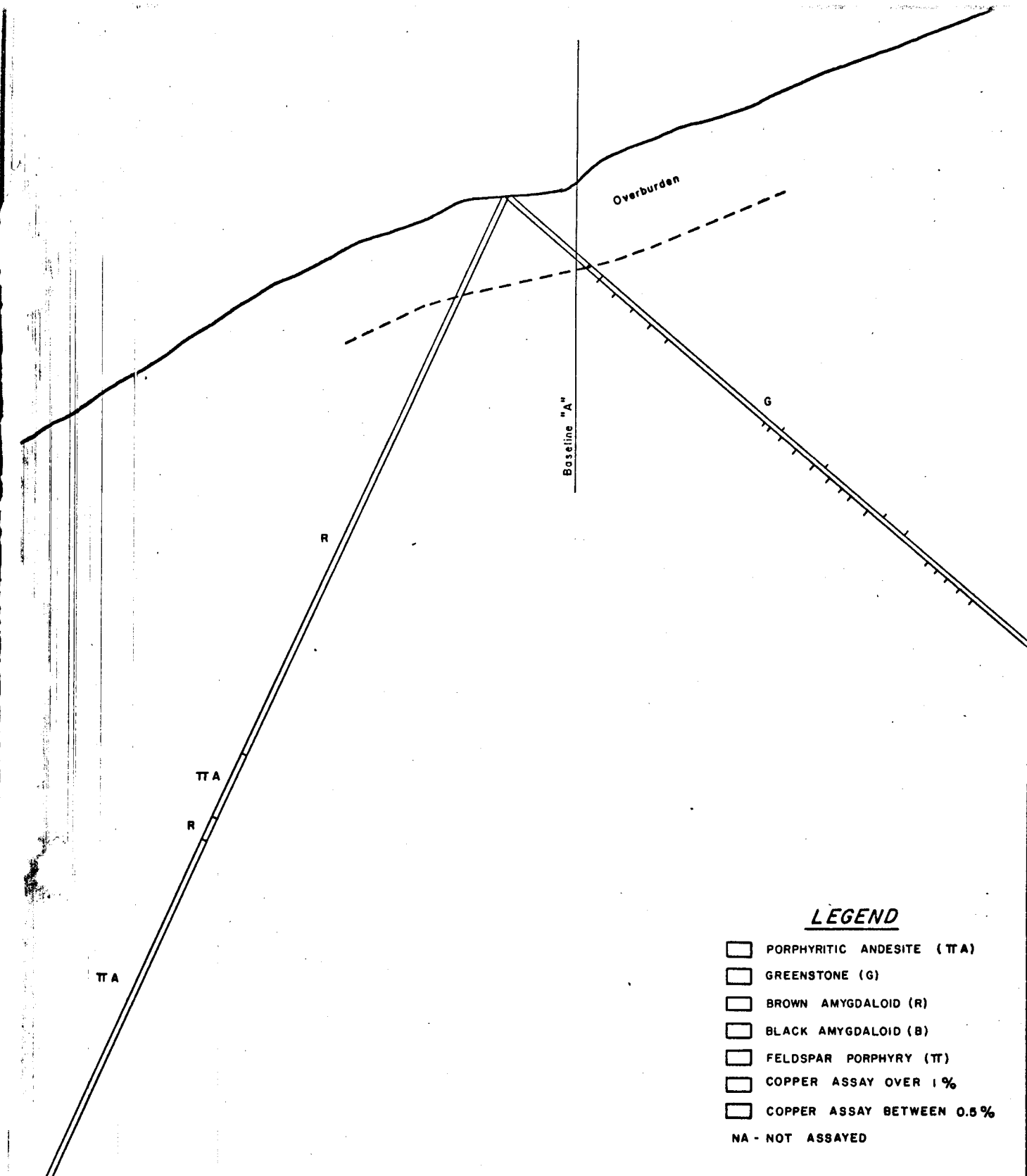
HOLE No.	SAMPLE	FROM	TO	REC.	ASSAY % Cu.
12	1284	154.5	156.0	1.5	1.62
	1285	156.0	157.5	1.5	0.15
	1286	157.5	159.0	1.5	1.47
	1287	159.0	163.5	4.5	0.12
	1288	163.5	169.0	5.5	6.75
	1289	169.0	174.0	5.0	7.97
	1290	174.0	177.0	3.0	0.67
	1351	177.0	181.0	1.0	0.45
	1352	187.0	191.0	4.0	1.70
	1353	191.0	196.0	5.0	0.21
	1354	196.0	201.0	5.0	0.23
	1355	201.0	204.0	3.0	0.28
	1356	214.0	219.0	5.0	0.22
	1357	229.0	232.0	2.0	0.39
	1291	205.0	210.0	5.0	5.10
	1292	204.0	205.0	1.0	0.63
	1293	210.0	211.0	1.0	0.60
	1294	219.0	222.5	3.5	6.20



**LEGEND**

- PORPHYRITIC ANDESITE (TT A)
- GREENSTONE (G)
- BROWN AMYGDALOID (R)
- BLACK AMYGDALOID (B)
- FELDSPAR PORPHYRY (TT)
- COPPER ASSAY OVER 1%
- COPPER ASSAY BETWEEN 0.5 %
- NA - NOT ASSAYED

<p><b>SECTION OF D.D.H. 12</b>  <b>SILVER CITY MINES LTD.</b>          WHITE RIVER AREA, Y.T.</p>		
<p><b>ARCHER &amp; CATHRO</b>          Consulting Geological Engineers</p>		
DATE	June 1969	DWG. No.
DRAWN	M.H.	
SCALE	1" = 40'	



**LEGEND**

- PORPHYRITIC ANDESITE (TTA)
- GREENSTONE (G)
- BROWN AMYGDALOID (R)
- BLACK AMYGDALOID (B)
- FELDSPAR PORPHYRY (TT)
- COPPER ASSAY OVER 1%
- COPPER ASSAY BETWEEN 0.5%
- NA - NOT ASSAYED

**CORE ASSAYS**

HOLE No.	SAMPLE	FROM	TO	REC.	% Cu.	% Ag
87-2	1295	35	42	7	0.05	T
	1296	49	57	8	0.05	T
	1297	57	65	8	0.01	T
	1298	101	102	1	0.03	T
	1299	107	113	6	0.02	T
	1300	113	120	7	0.02	T
	1301	125	130.5	5.5	0.01	T
	1302	133	140.5	7.5	0.01	T
	1303	163	166	3	0.01	T
	1304	170	175	5	0.03	T
	1305	175	180	5	0.04	T

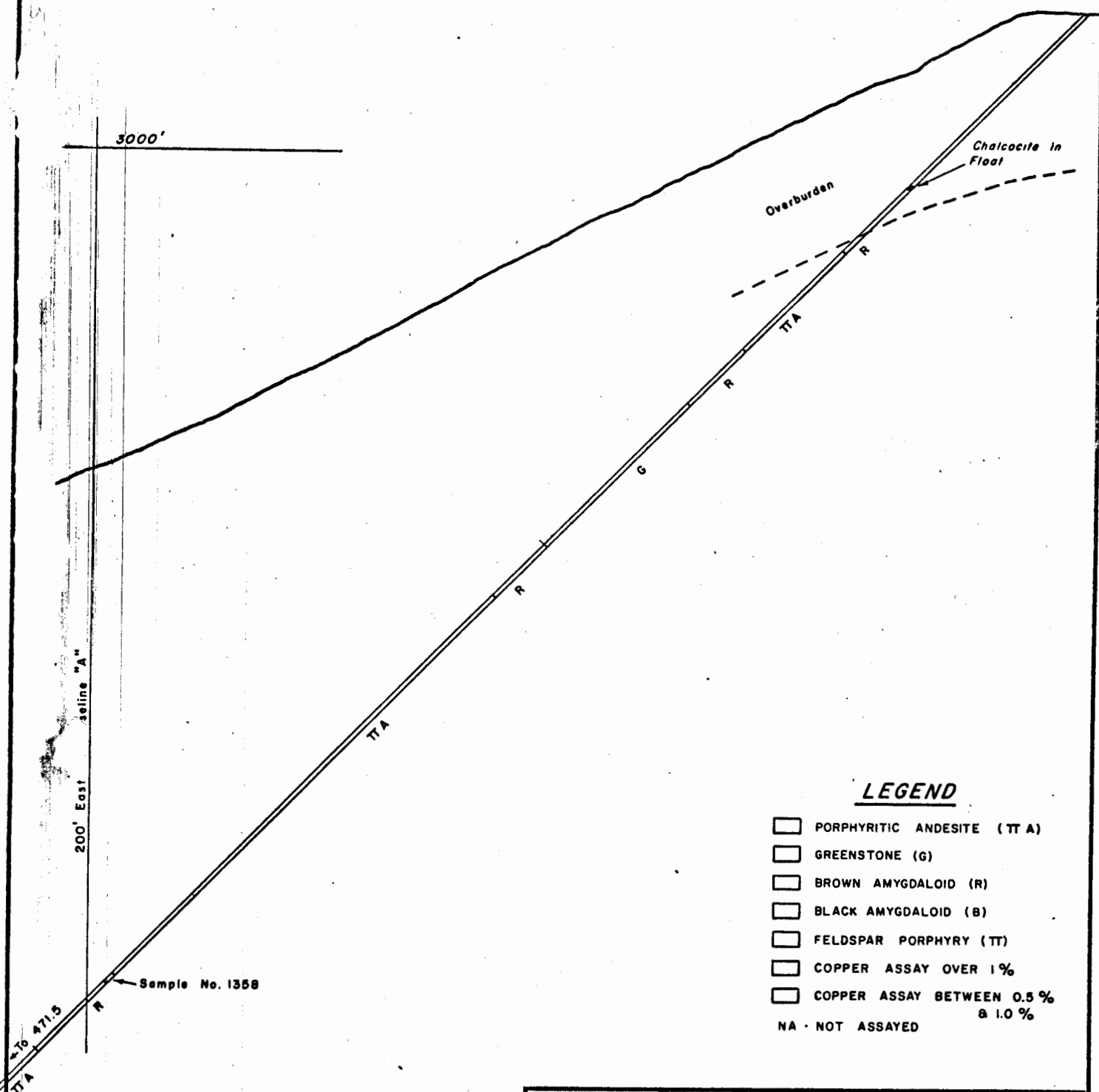
**SECTION OF D.D.H. 87-2&3**  
**SILVER CITY MINES LTD.**

WHITE RIVER AREA, Y.T.

**ARCHER & CATHRO**  
 Consulting Geological Engineers

DATE	June 1969	DWG. No.
DRAWN	M.H.	
SCALE	1" = 40'	

87-3



**LEGEND**

- PORPHYRITIC ANDESITE (TT A)
- GREENSTONE (G)
- BROWN AMYGDALOID (R)
- BLACK AMYGDALOID (B)
- FELDSPAR PORPHYRY (TT)
- COPPER ASSAY OVER 1%
- COPPER ASSAY BETWEEN 0.5 % & 1.0 %
- NA - NOT ASSAYED

**CORE ASSAYS**

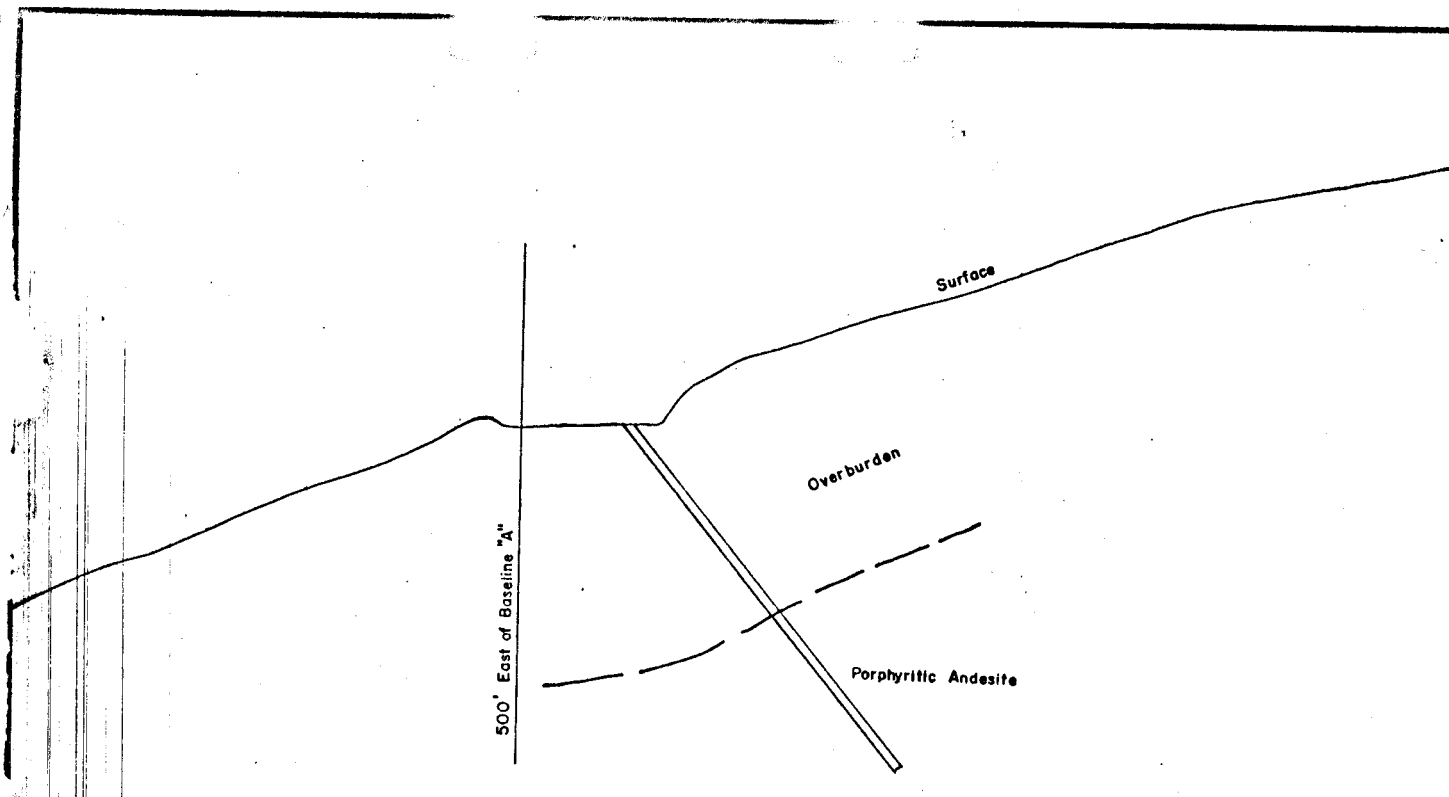
HOLE No.	SAMPLE	FROM	TO	REC.	ASSAY	% Cu.
III	1358	380	383	3.0		0.3

**SECTION OF D.D.H. III-1**  
**SILVER CITY MINES LTD.**  
 WHITE RIVER AREA, Y.T.

**ARCHER & CATHRO**  
 Consulting Geological Engineers

DATE	June 1969
DRAWN	M.H.
SCALE	1" = 40'

DWG. No.



**SECTION OF D.D.H. III-2**

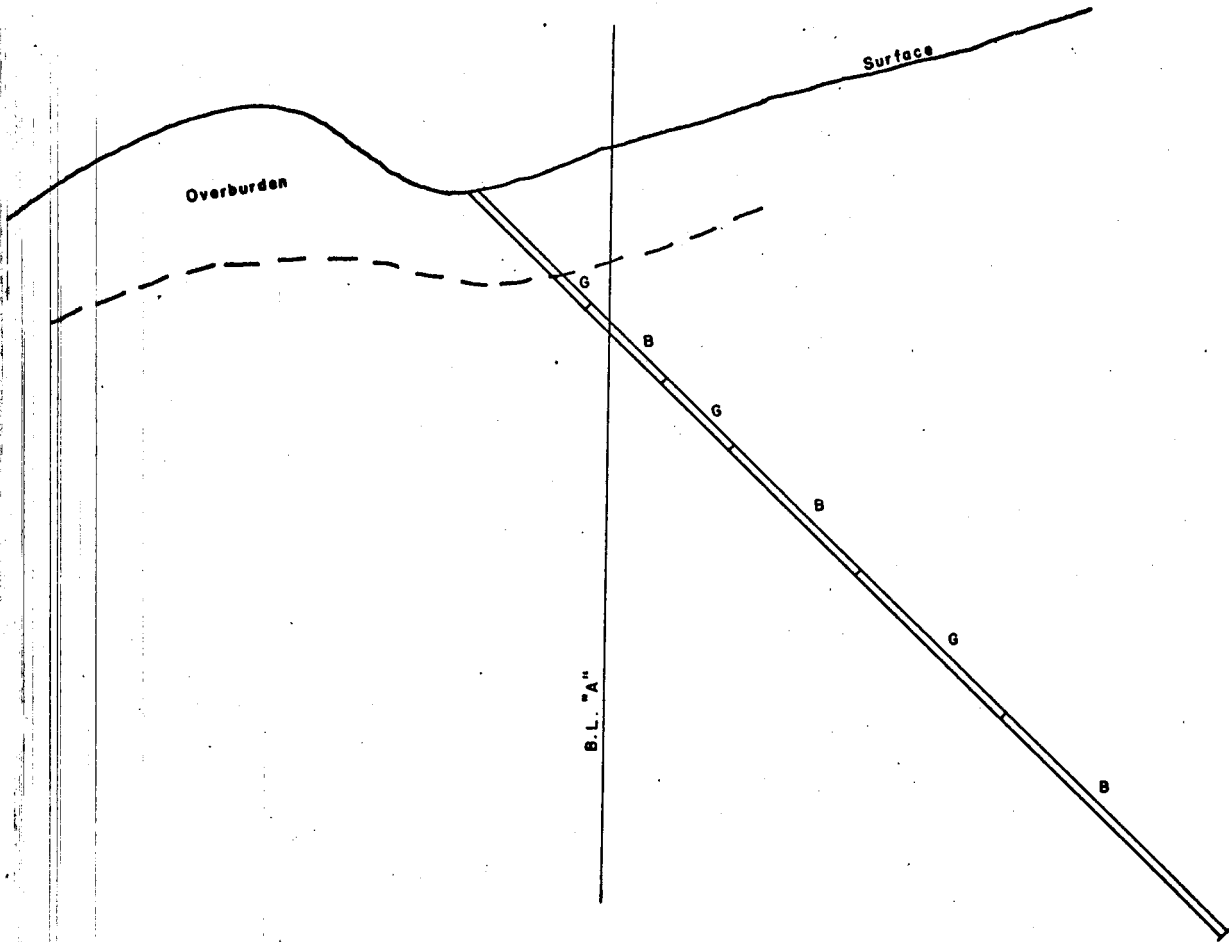
**SILVER CITY MINES LTD.**

WHITE RIVER AREA, Y.T.

**ARCHER & CATHRO**

*Consulting Geological Engineers*

DATE	Aug. 1969	DWG. No.
DRAWN	M.H.	
SCALE	1" = 40'	

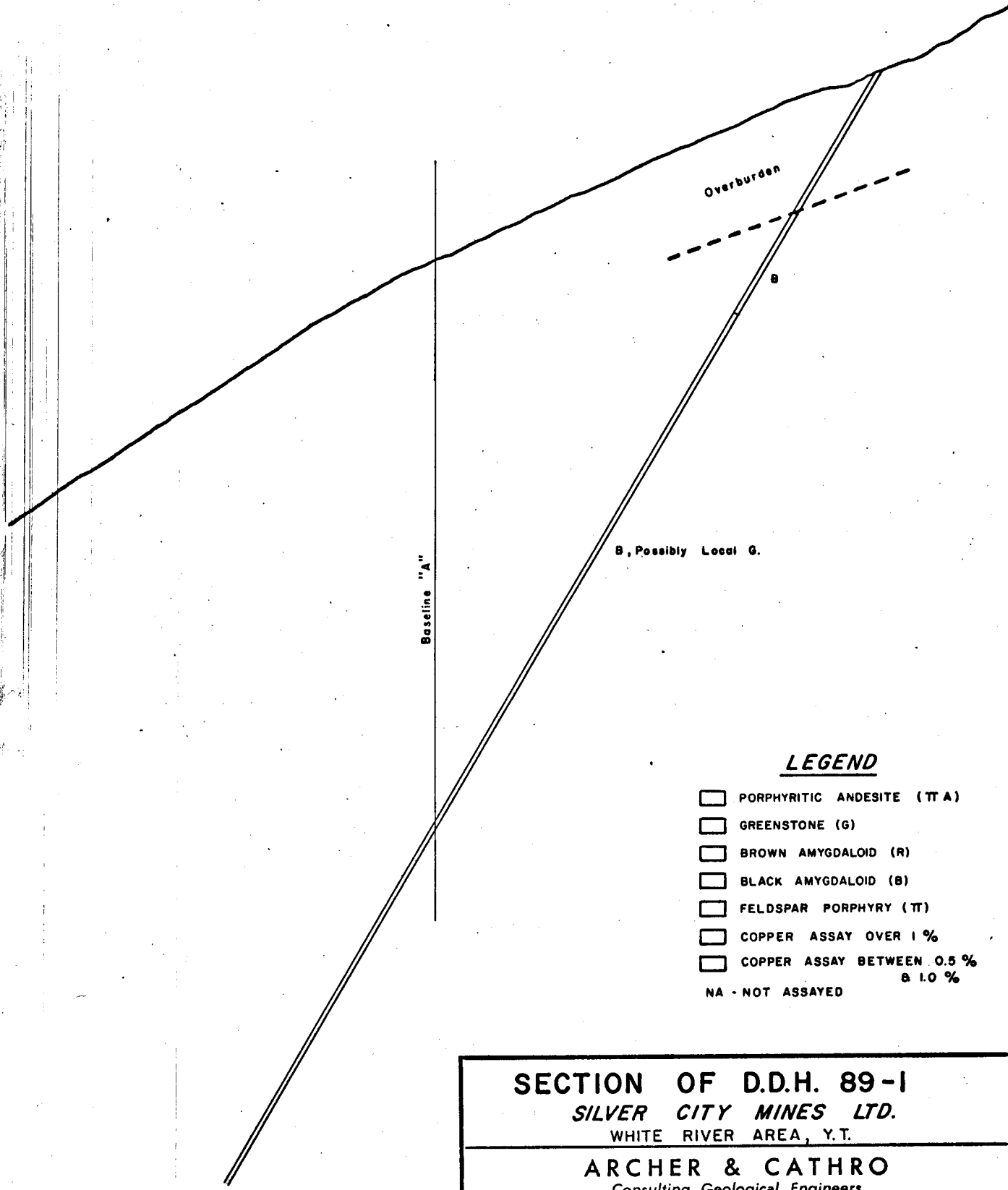


**SECTION OF D.D.H. 93-1**  
**SILVER CITY MINES LTD.**  
 WHITE RIVER AREA, Y.T.

**ARCHER & CATHRO**  
 Consulting Geological Engineers

DATE	July 1969
DRAWN	M.H.
SCALE	1" = 40'

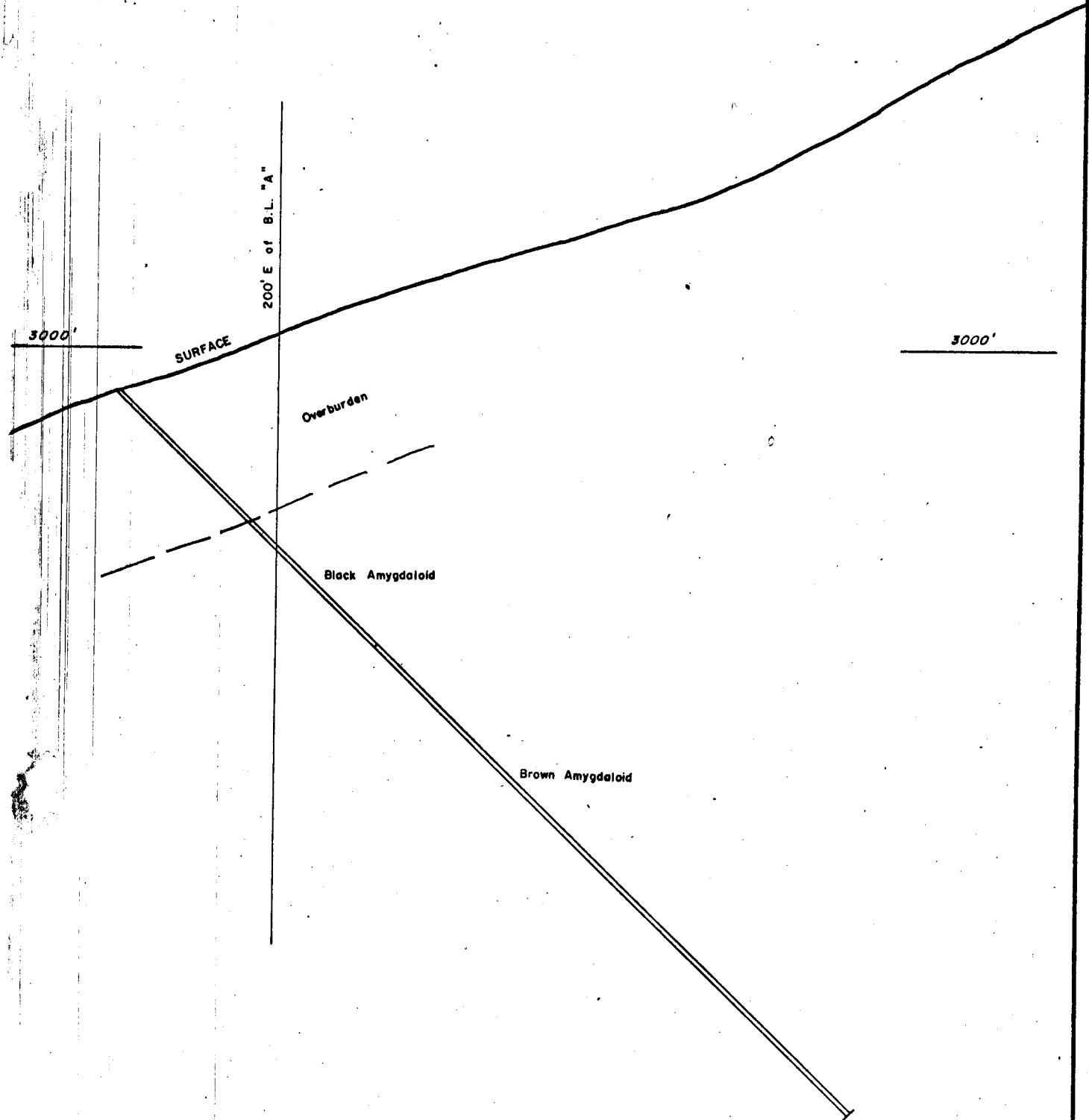
DWG. No.



**LEGEND**

- PORPHYRITIC ANDESITE (TTA)
- GREENSTONE (G)
- BROWN AMYGDALOID (R)
- BLACK AMYGDALOID (B)
- FELDSPAR PORPHYRY (TT)
- COPPER ASSAY OVER 1%
- COPPER ASSAY BETWEEN 0.5% & 1.0%
- NA - NOT ASSAYED

<p><b>SECTION OF D.D.H. 89-1</b>  <b>SILVER CITY MINES LTD.</b>          WHITE RIVER AREA, Y.T.</p>		
<p><b>ARCHER &amp; CATHRO</b>          Consulting Geological Engineers</p>		
DATE	June 1969	DWG. No.
DRAWN	M.H.	
SCALE	1" = 40'	

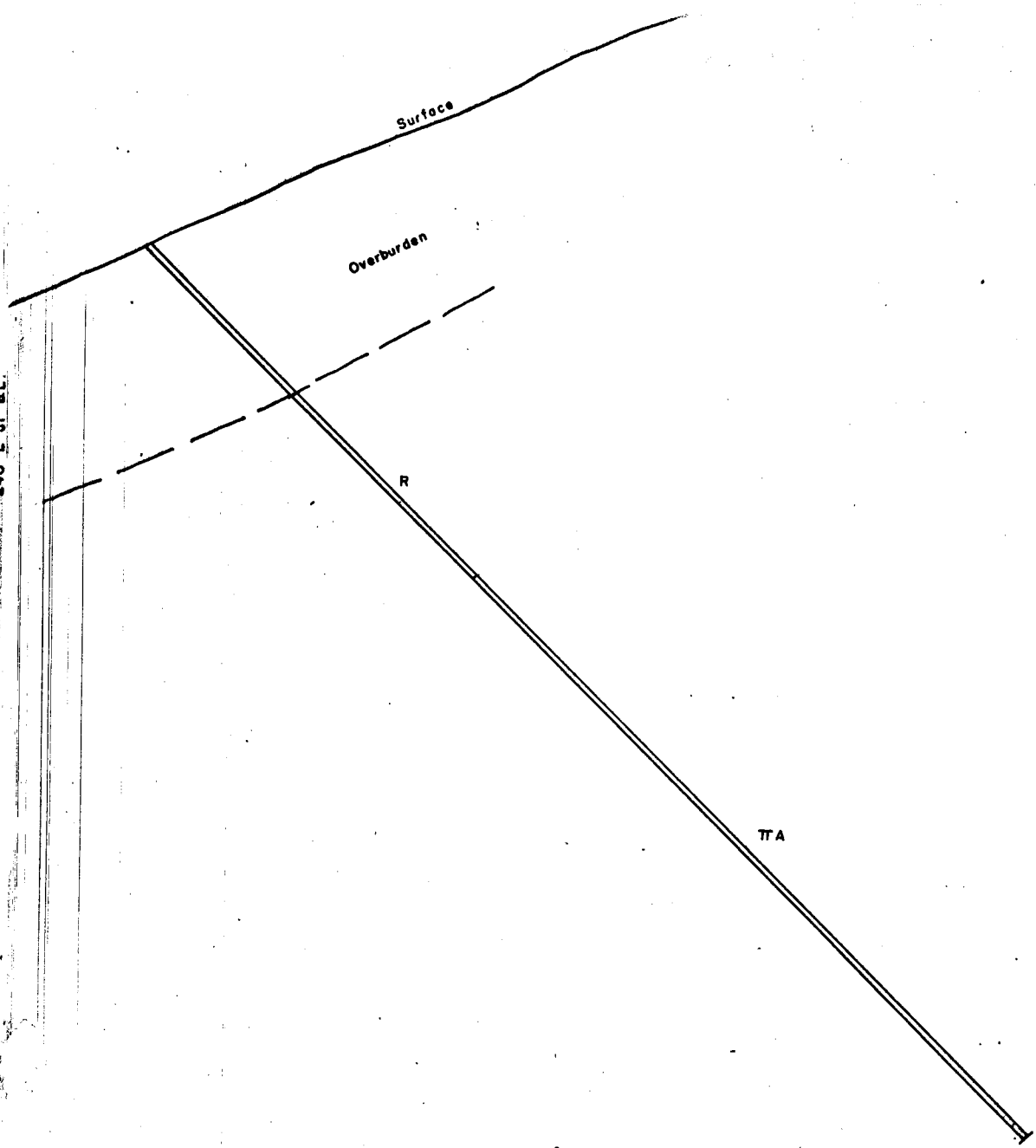


**SECTION OF D.D.H. 115-1**  
**SILVER CITY MINES LTD.**  
 WHITE RIVER AREA, Y.T.

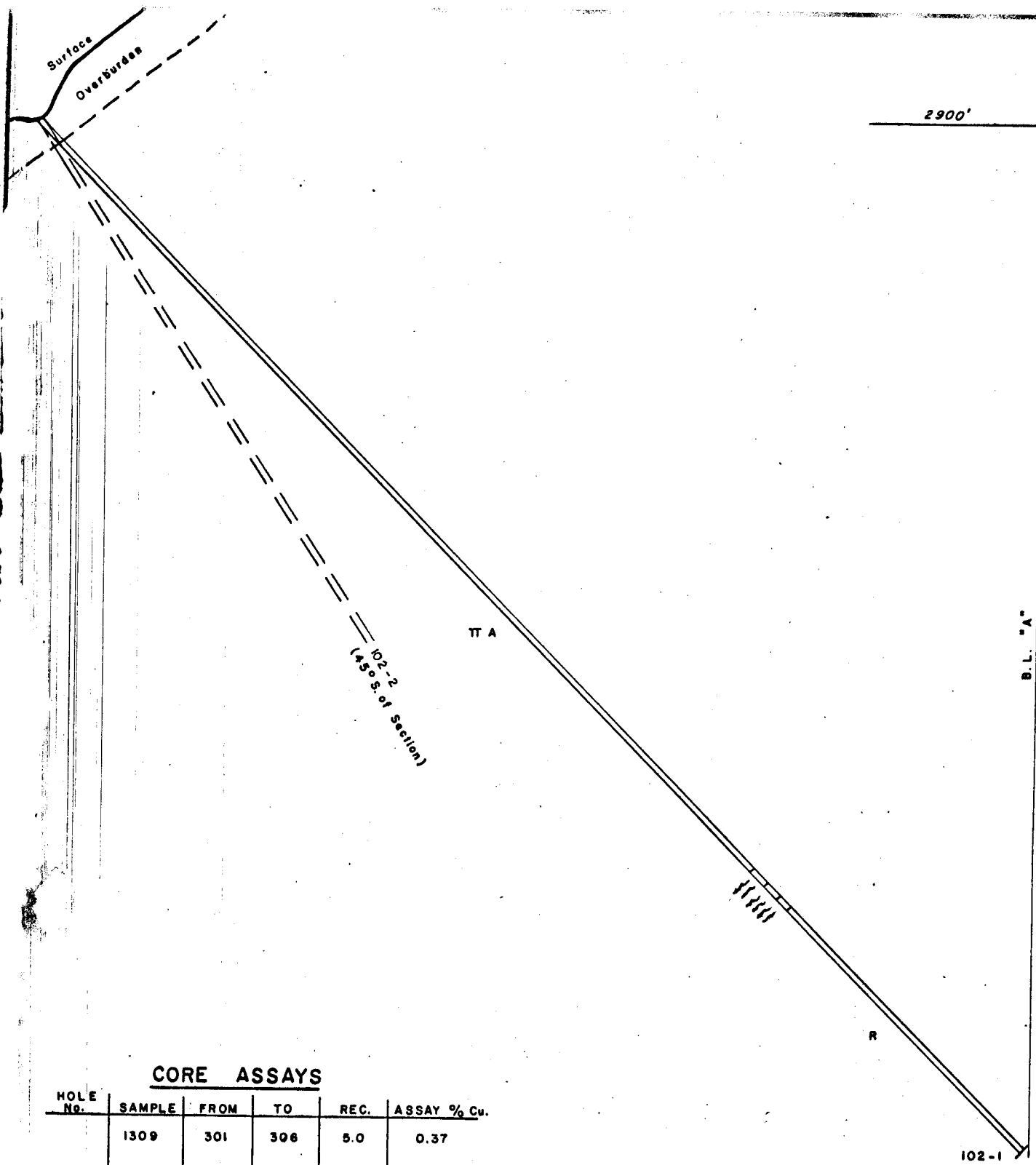
**ARCHER & CATHRO**  
 Consulting Geological Engineers

DATE	June 1969	DWG. No.
DRAWN	M.H.	
SCALE	1" = 40'	

240 L. of BL.



<b>SECTION OF D.D.H 113-1</b> <b>SILVER CITY MINES LTD.</b> WHITE RIVER AREA, Y.T.		
<b>ARCHER &amp; CATHRO</b> Consulting Geological Engineers		
DATE	Oct. 1969	DWG. No.
DRAWN	G.W.	
SCALE	1" = 40'	



**CORE ASSAYS**

HOLE No.	SAMPLE	FROM	TO	REC.	ASSAY % Cu.
	1309	301	308	5.0	0.37

**SECTION OF D.D.H 102-1**  
**SILVER CITY MINES LTD.**  
 WHITE RIVER AREA, Y.T.

**ARCHER & CATHRO**  
 Consulting Geological Engineers

DATE	July 1969
DRAWN	M.H.
SCALE	1" = 40'

DWG. No.

Overburden

2900'

R

(Turns for N. 54° E. 102-1  
of section)

TTA

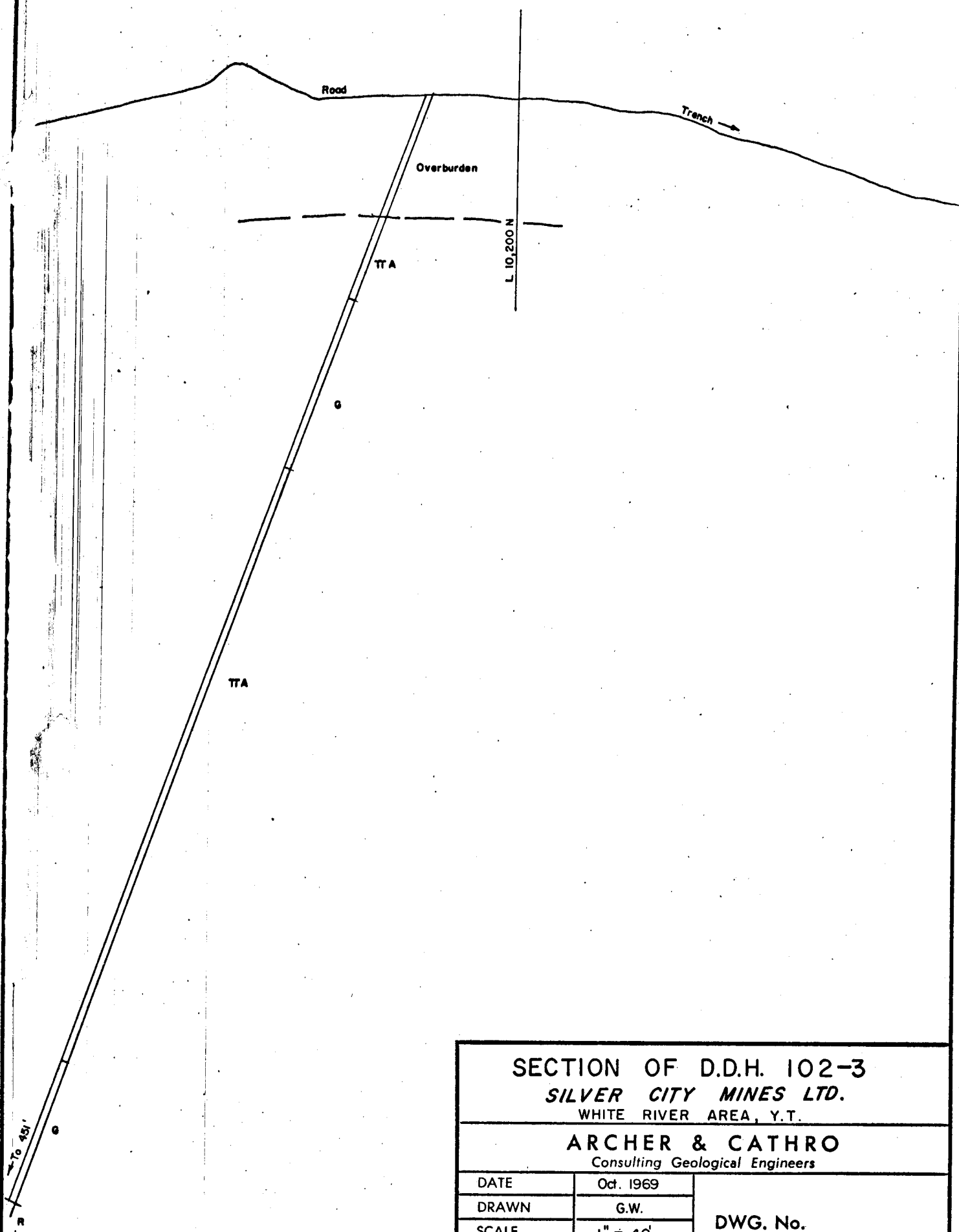
102-2

**SECTION OF D.D.H. 102-2**  
**SILVER CITY MINES LTD.**  
WHITE RIVER AREA, Y.T.

**ARCHER & CATHRO**  
Consulting Geological Engineers

DATE	July 1969
DRAWN	M.H.
SCALE	1" = 40'

DWG. No.

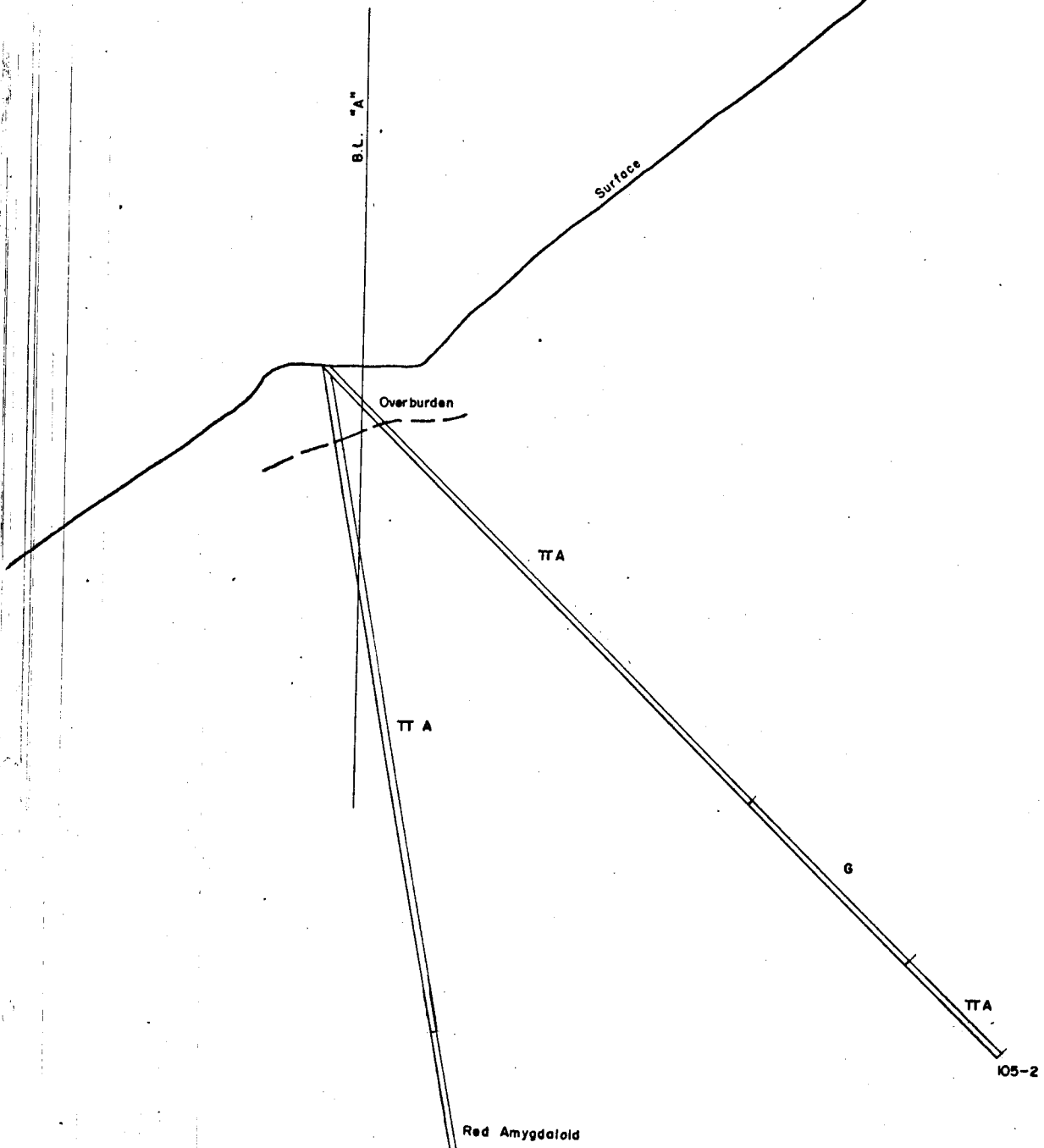


**SECTION OF D.D.H. 102-3**  
**SILVER CITY MINES LTD.**  
 WHITE RIVER AREA, Y.T.

**ARCHER & CATHRO**  
 Consulting Geological Engineers

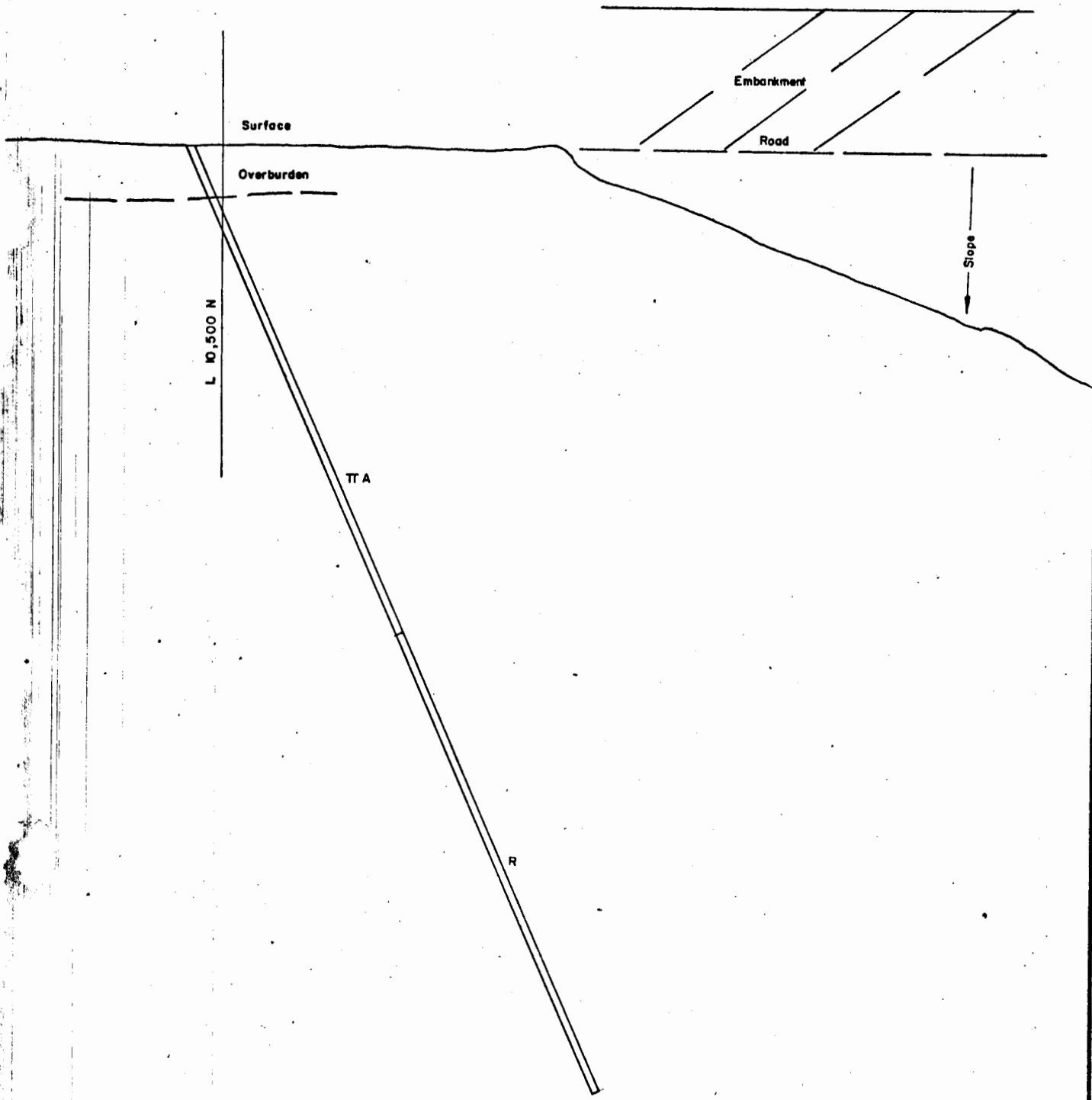
DATE	Oct. 1969
DRAWN	G.W.
SCALE	1" = 40'

DWG. No.



HOLE No.	SAMPLE No.	From	To	Rec.	% Cu.
105-1	1373	39	44	5	0.15
	1374	69	74	5	1.18
	1375	74	79	5	0.02
	1376	79	83	4	0.05
105-2	1383	68	74	6	0.04
	1384	74	80	6	0.02
	1385	80	86	6	0.21
	1386	86	92	6	0.04
	1387	92	98	6	0.12
	1388	98	104	6	0.03

<b>SECTION OF D.D.H. 105-1&amp;2</b> <b>SILVER CITY MINES LTD.</b> WHITE RIVER AREA, Y.T.		
<b>ARCHER &amp; CATHRO</b> Consulting Geological Engineers		
DATE	Oct. 1969	DWG. No.
DRAWN	G. W.	
SCALE	1" = 40'	



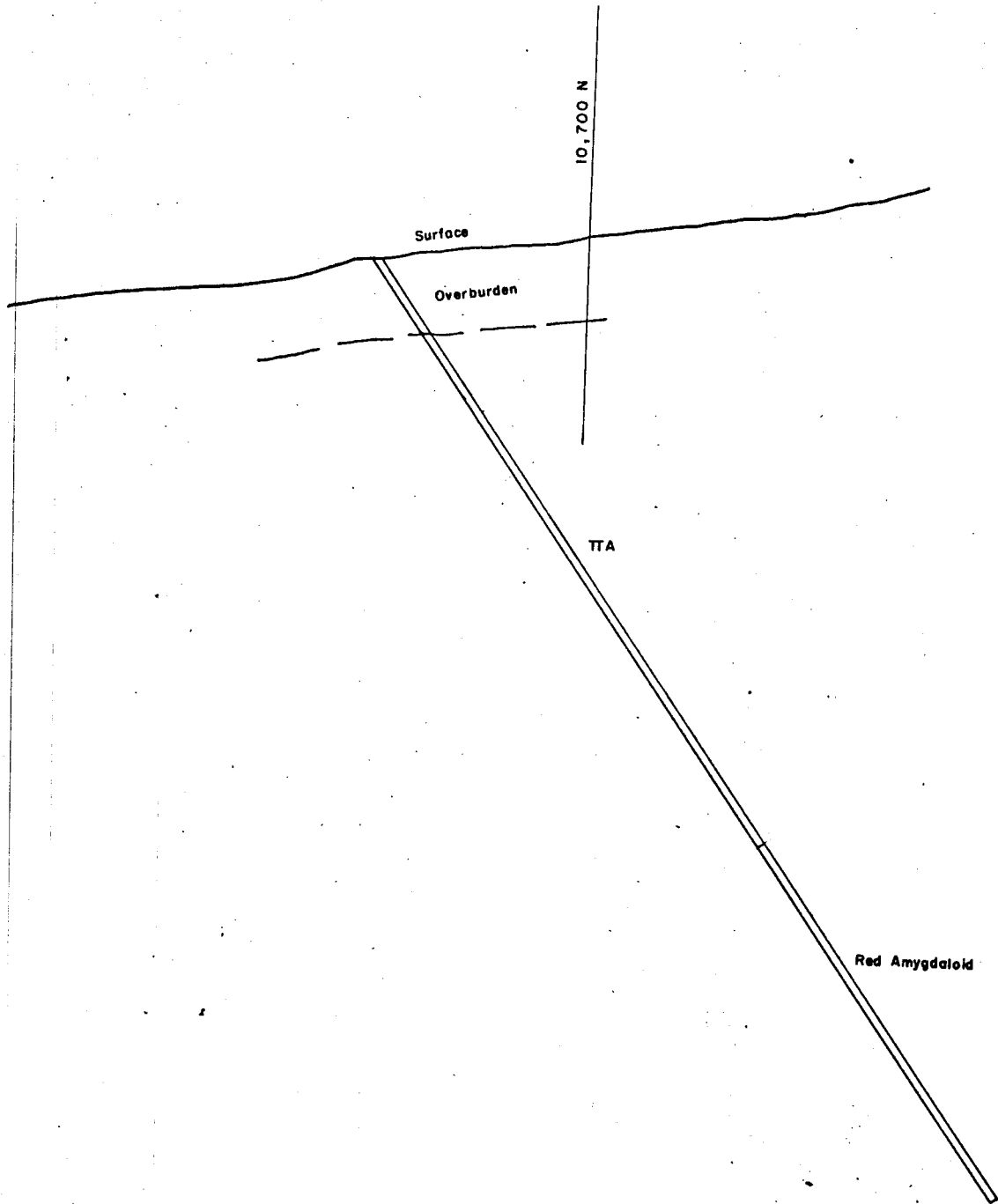
SECTION OF D.D.H. 105-3

SILVER CITY MINES LTD.  
WHITE RIVER AREA, Y.T.

ARCHER & CATHRO  
Consulting Geological Engineers

DATE	Oct. 1969
DRAWN	G.W.
SCALE	1" = 40'

DWG. No.



HOLE No.	SAMPLE No.	FROM	TO	REC.	% Cu.
	1391	166	171	5	2-50

SECTION OF D.D.H. 106-1

SILVER CITY MINES LTD.

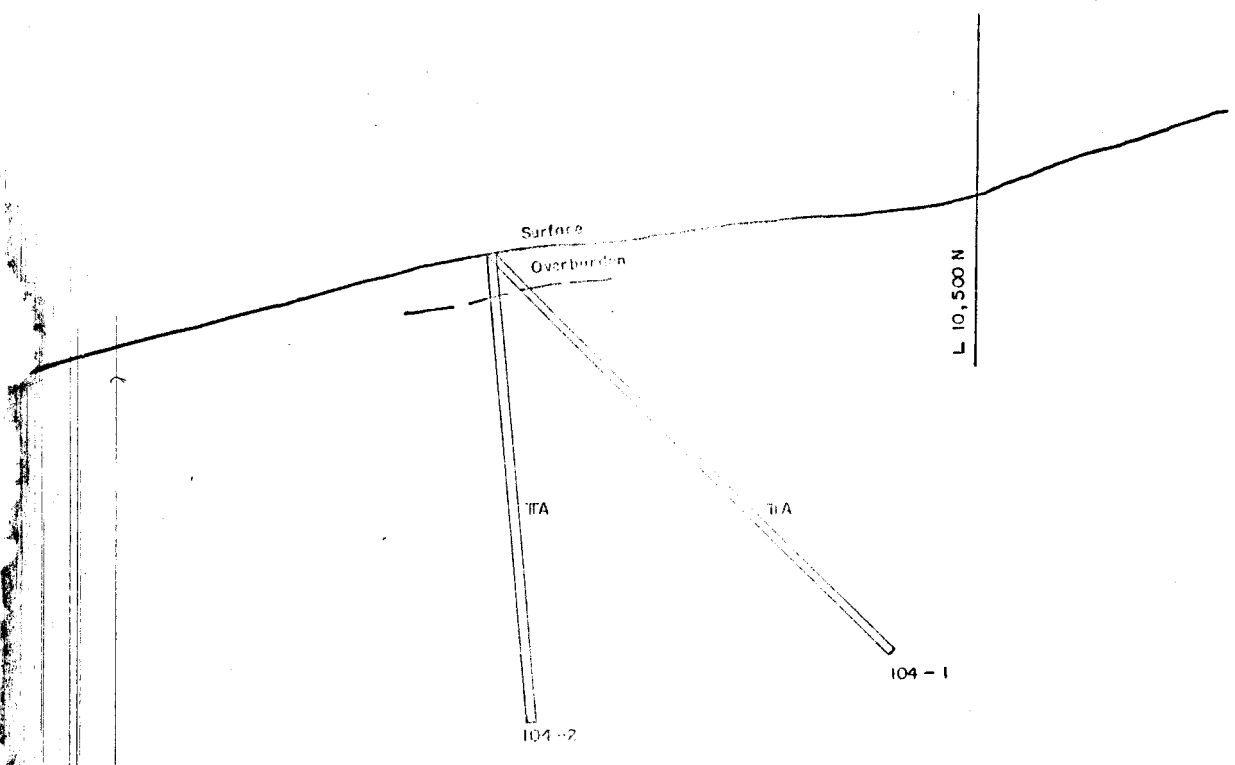
WHITE RIVER AREA, Y.T.

ARCHER & CATHRO

Consulting Geological Engineers

DWG.	Aug 1969
DESIGNED BY	M.H.
SCALE	1" = 40'

DWG. No.



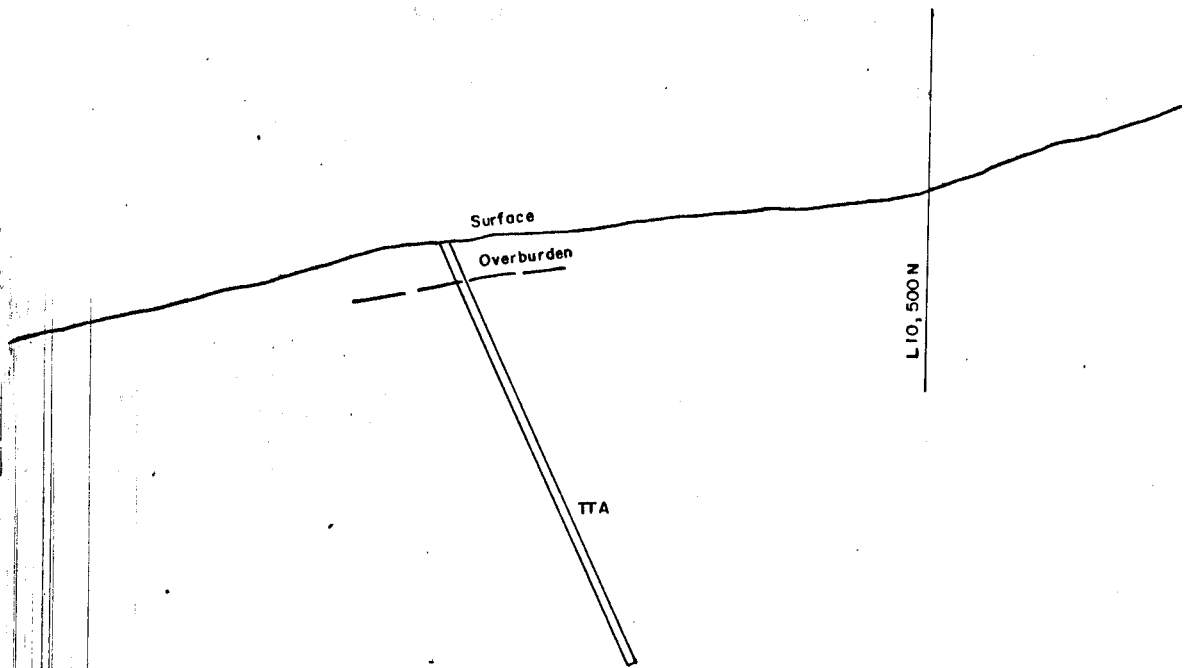
HOLE No.	Sample No	From	To	Rec.	% Cu.
104-1	1325	10	15	5	0.05
	1326	15	20	5	0.01
	1327	20	25	5	0.05
	1328	25	30	5	0.02
	1329	30	35	5	0.19
	1330	35	40	5	0.05
	1331	40	45	5	0.29
	1332	45	50	5	0.45
	1333	50	55	5	0.02
	1334	55	60	5	0.02
	1335	60	65	5	0.02
	1336	65	70	5	0.02
	1337	70	75	5	0.17
	1338	75	80	5	0.40
	1339	80	85	5	0.21
	1340	85	90	5	0.47
	104-2	1310	18	23	5
1316		23	28	5	0.01
1317		28	33	5	0.02
1318		33	38	5	0.42
1315		38	44	5	0.01
1311		43	48	5	0.03
1313		48	53	5	0.02
1314		53	58	5	0.12
1319		58	63	5	0.10
1320		63	68	5	0.02
1322		68	73	5	0.03
1321	73	78	5	4.30	
1312	78	83	5	0.01	
1324	83	88	5	0.03	
1325	88	93	5	0.05	

SECTION OF D.D.H. 104-1&2  
SILVER CITY MINES LTD.  
WHITE RIVER AREA, Y.T.

ARCHER & CATHRO  
Consulting Geological Engineers

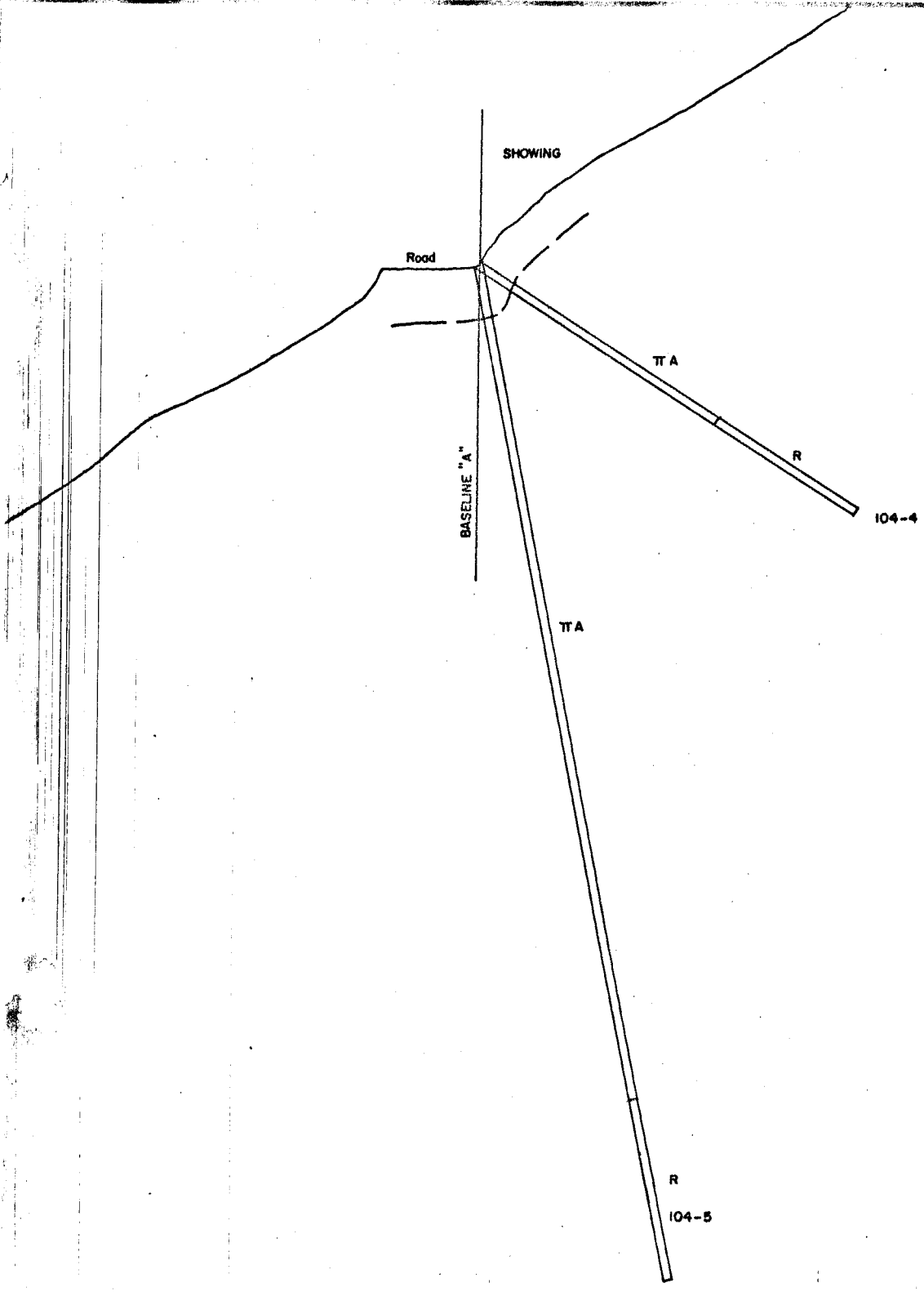
DATE	Aug. 1959
BY	M.H.
SCALE	1" = 40'

DWG. No.



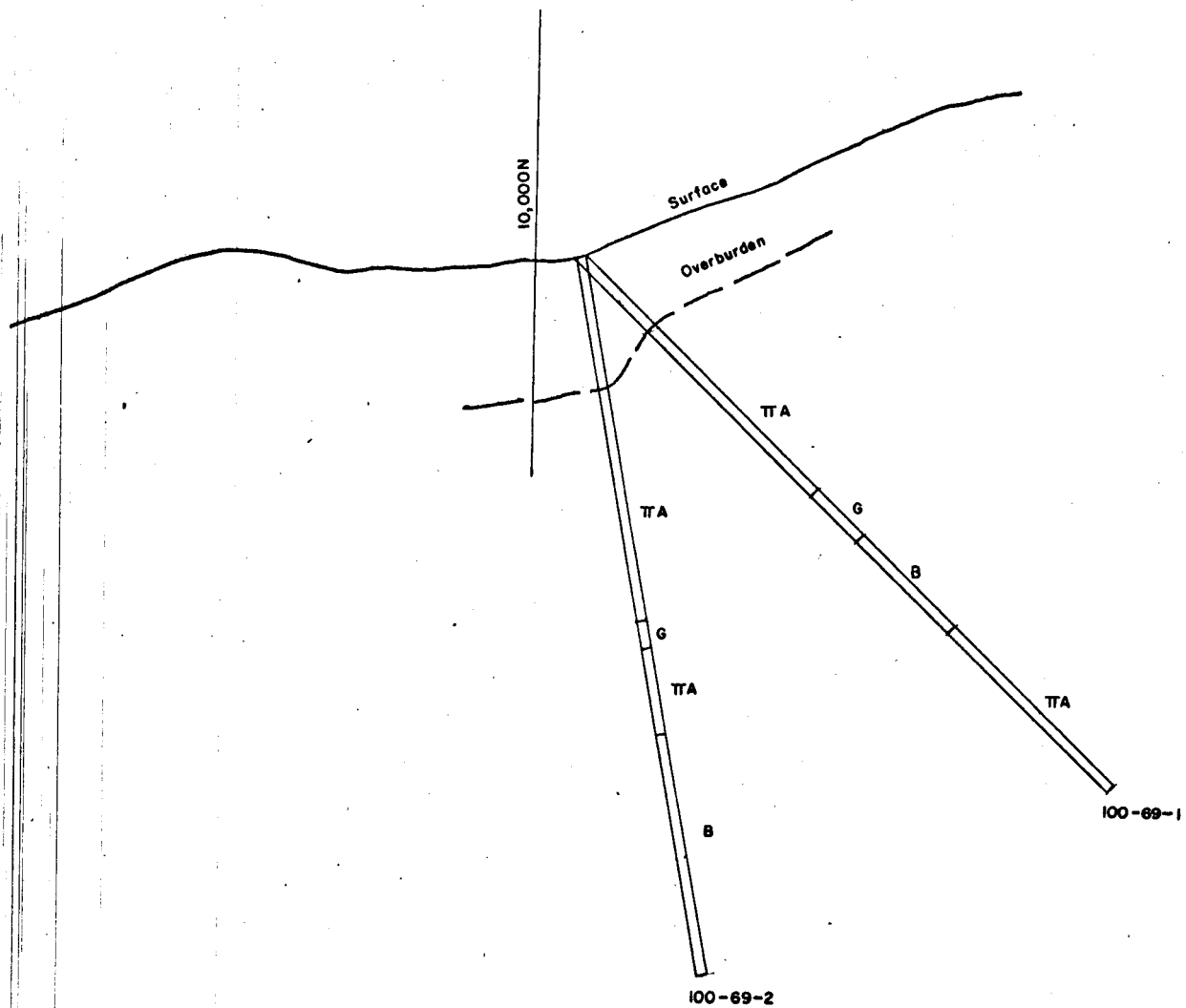
HOLE No.	Sample No.	From	To	Rec.	% Cu.
	1341	17	22	5	0.32
	1342	22	27	5	0.44
	1343	27	32	5	0.14
	1344	32	37	5	0.02
	1345	37	42	5	0.23
	1346	42	47	5	0.03
	1347	47	52	5	0.02
	1348	52	57	5	0.04
	1349	57	62	5	0.02
	1350	62	67	5	0.04
	1360	67	72	5	1.45
	1359	72	77	5	0.10
	1372	77	82	5	0.67

<b>SECTION OF D.D.H. 104-3</b> <i>SILVER CITY MINES LTD.</i> WHITE RIVER AREA, Y.T.	
<b>ARCHER &amp; CATHRO</b> <i>Consulting Geological Engineers</i>	
DATE	Aug. 1969
DRAWN	M.H.
SCALE	1" = 40'
DWG. No.	



LE No.	Sample No	From	To	Rec	% Cu.
104-4	1307	10	11	1	0.14
	1306	14.5	19.5	5	1.24
	1308	19.5	25.0	5.5	0.31
	1309	28	33	5	1.84
	1310	33	35	2	0.27
	1311	76	79	3	1.10
HOLE No	Sample No	From	To	Rec	% Cu.
104-5	1301	18	23	5	0.70
	1302	34	39	5	1.71
	1303	65	58	3	2.39
	1304			7	0.02
	1305			8	0.91

<b>SECTION OF D.D.H. 104-4&amp;5</b> <b>SILVER CITY MINES LTD</b> WHITE RIVER AREA, Y.T.		
<b>ARCHER &amp; CATHRO</b> Consulting Geological Engineers		
DATE	Oct. 1969	DWG. No.
DRAWN	G.W.	
SCALE	1" = 40'	

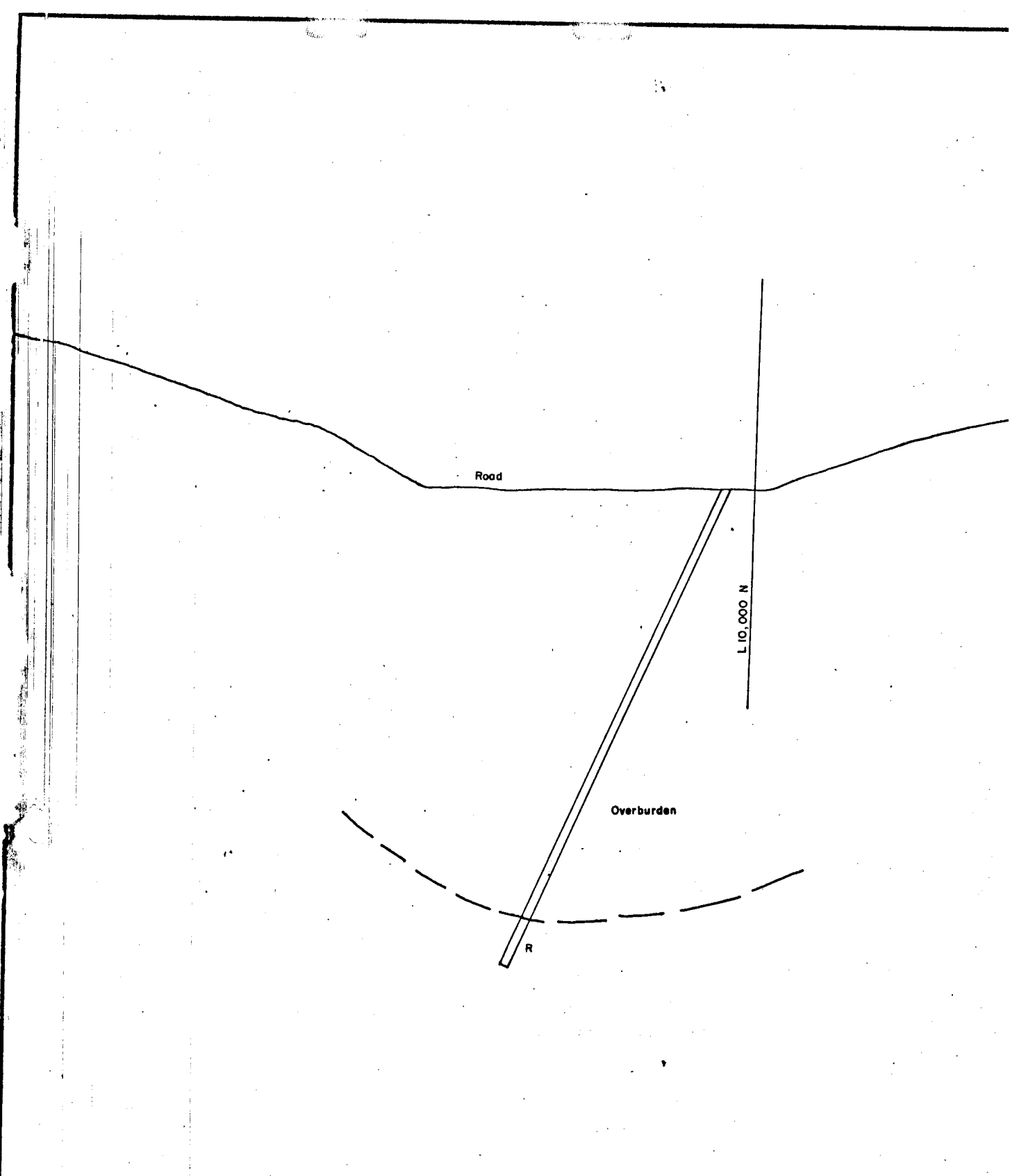


HOLE No.	Sample No.	From	To	Rec	%Cu.	
0-69-1	1361	22	27	5	0.75	
	1362	27	32	5	0.30	
	1363	32	37	5	0.13	
	1364	37	42	5	0.10	
	1365	42	47	5	1.00	
	1366	47	52	5	0.08	
	1367	52	57	5	0.05	
	1368	57	62	5	0.28	
	1369	62	67	5	0.43	
	1370	67	72	5	0.10	
	1371	72	77	5	0.49	
	100-69-2	1377	30	35	5	0.04
		1378	35	40	5	0.19
1379		40	45	5	0.13	
1380		45	50	5	0.27	
1381		50	55	5	0.30	
1382		55	60	5	0.01	

**SECTION OF D.D.H. 100-69-1&2**  
**SILVER CITY MINES LTD.**  
 WHITE RIVER AREA, Y.T.

**ARCHER & CATHRO**  
 Consulting Geological Engineers

DATE	Aug. 1969	DWG. No.
DRAWN	M.H.	
SCALE	1" = 40'	

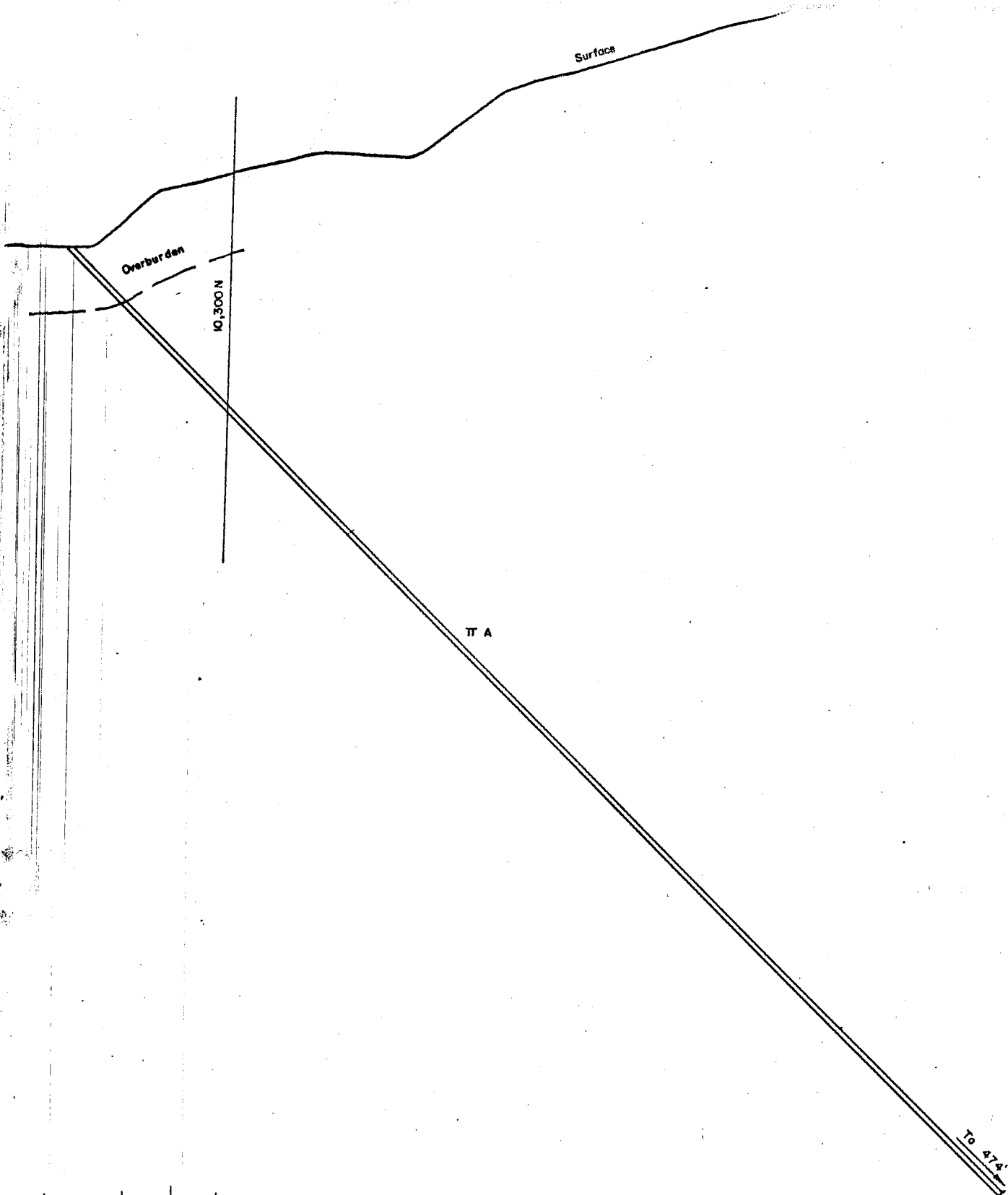


**SECTION OF D.D.H. 100-69-5**  
**SILVER CITY MINES LTD.**  
 WHITE RIVER AREA, Y.T.

**ARCHER & CATHRO**  
*Consulting Geological Engineers*

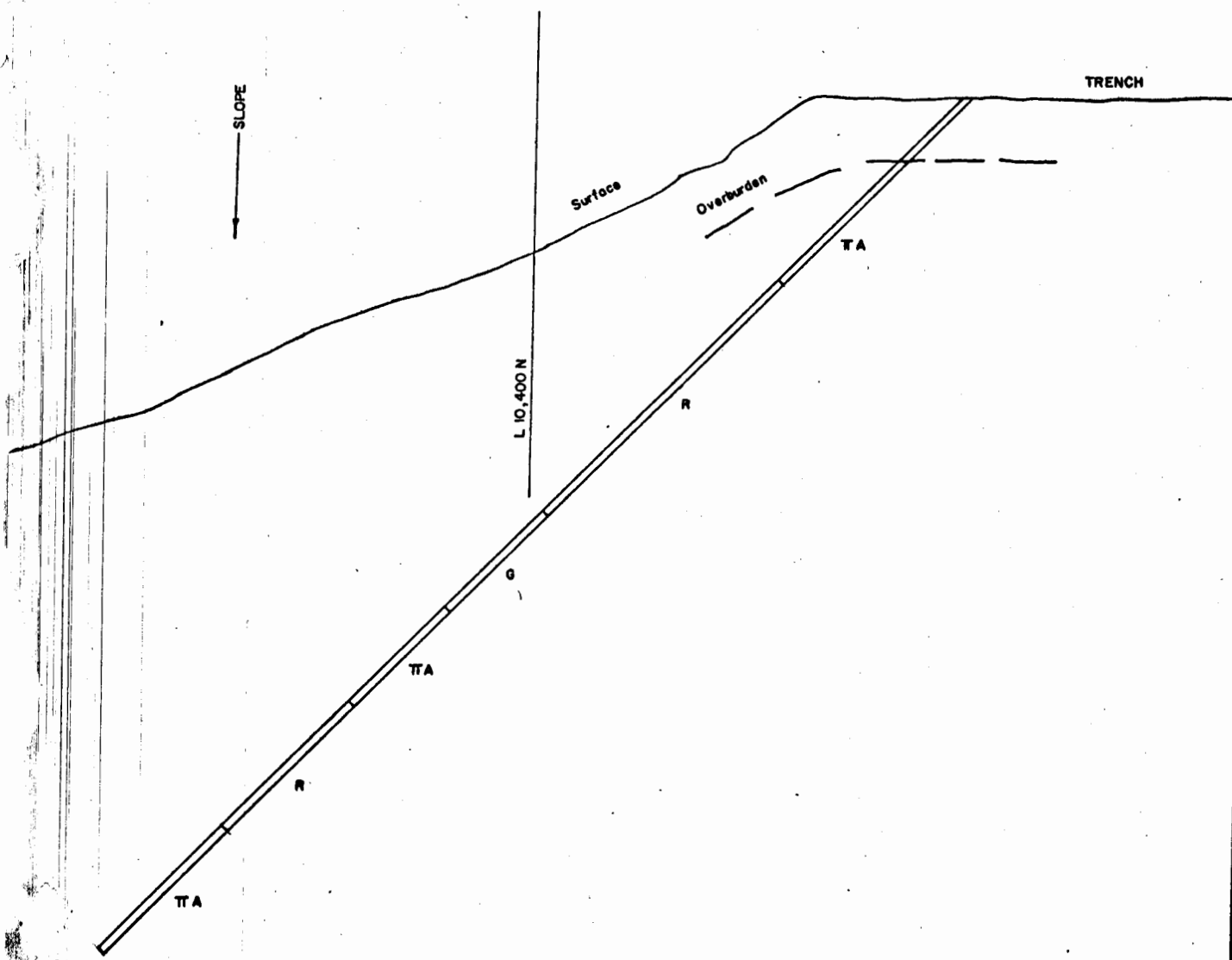
DATE	Aug. 1969
DRAWN	M.H.
SCALE	1" = 40'

DWG. No.



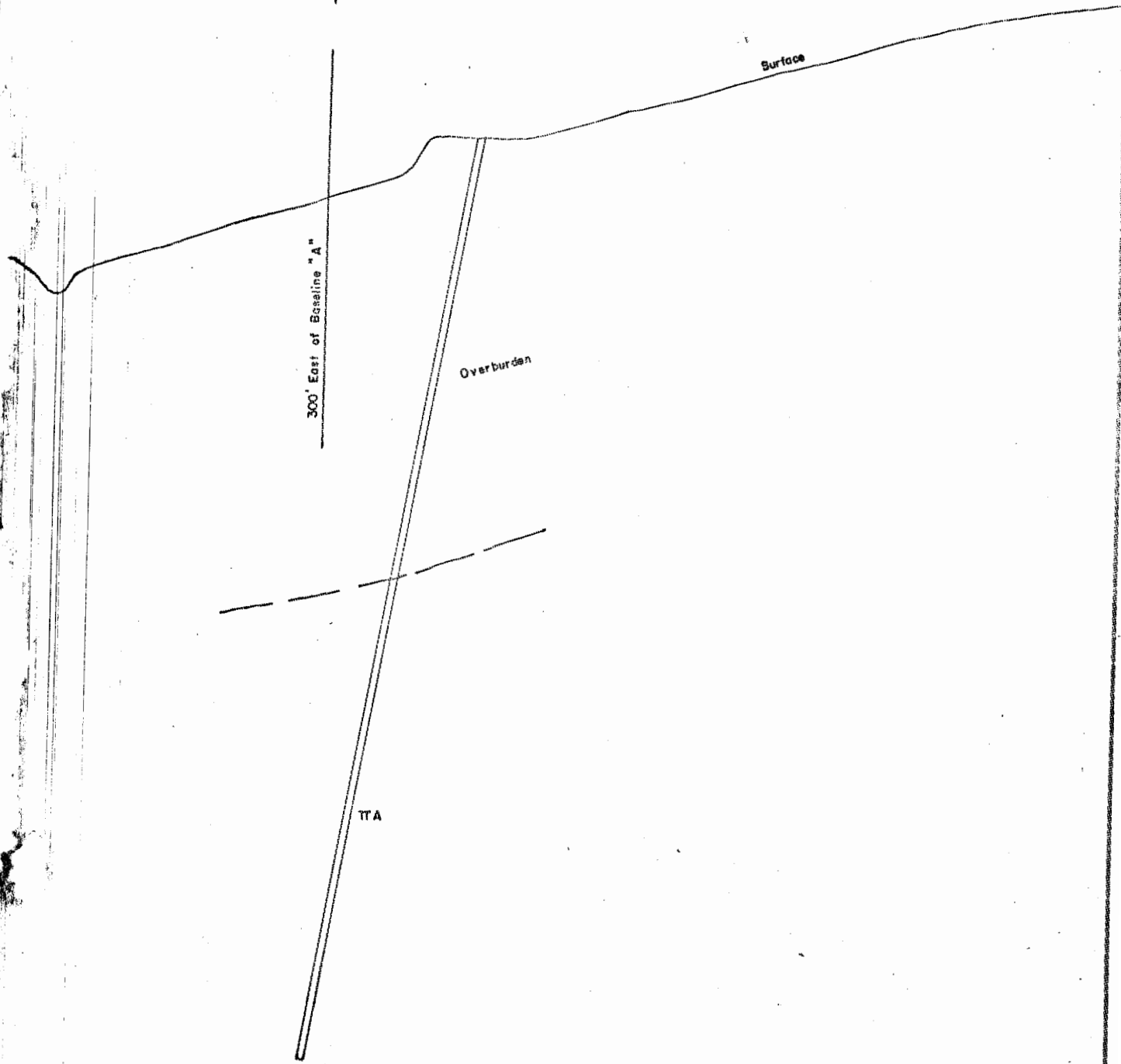
HOLE No.	Sample No.	From	To	Res.	%Cu.
	1389	188	193	5	0.08
	1390	250	255	5	0.13

<b>SECTION OF D.D.H. 103-69-1</b> <b>SILVER CITY MINES LTD.</b> WHITE RIVER AREA, Y.T.		
<b>ARCHER &amp; CATHRO</b> <i>Consulting Geological Engineers</i>		
DATE	Oct. 1969	DWG. No.
DRAWN	G.W.	
SCALE	1" = 40'	

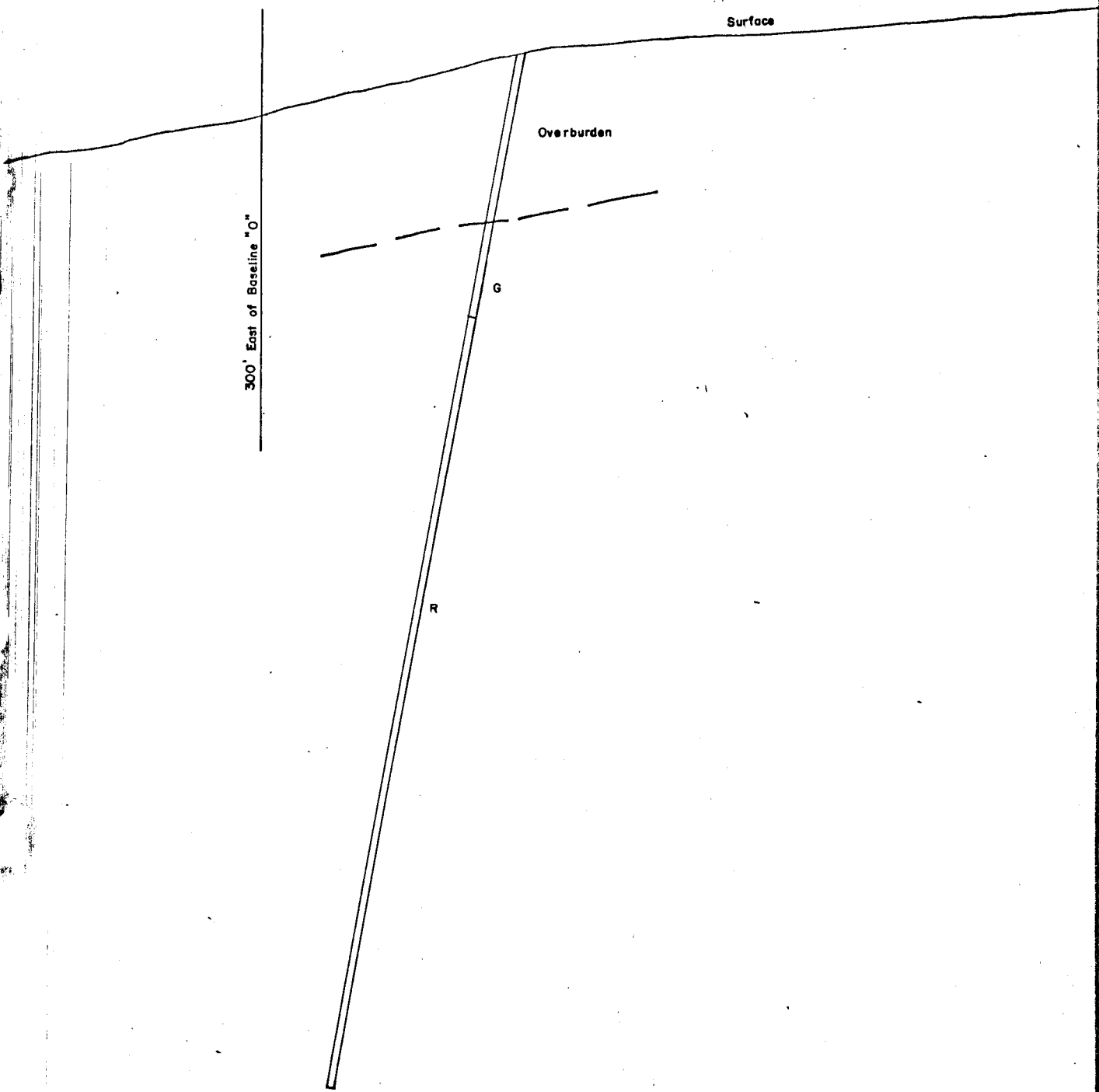


HOLE No	Sample No.	From	To	Rec.	% Cu.
	1312	229	233	4	2.30

<b>SECTION OF D.D.H. 103-2</b> <b>SILVER CITY MINES LTD.</b> WHITE RIVER AREA, YT.		
<b>ARCHER &amp; CATHRO</b> <i>Consulting Geological Engineers</i>		
DATE	Oct. 1969	DWG. No.
DRAWN	G.W.	
SCALE	1" = 40'	



<b>SECTION OF D.D.H. 103E-3</b> <b>SILVER CITY MINES LTD.</b> WHITE RIVER AREA, Y.T.	
<b>ARCHER &amp; CATHRO</b> Consulting Geological Engineers	
DATE	Aug 1969
DRAWN	M.H.
SCALE	1" = 40'
DWG. No.	



**SECTION OF D.D.H. 2285-1**

*SILVER CITY MINES LTD.*

WHITE RIVER AREA, Y.T.

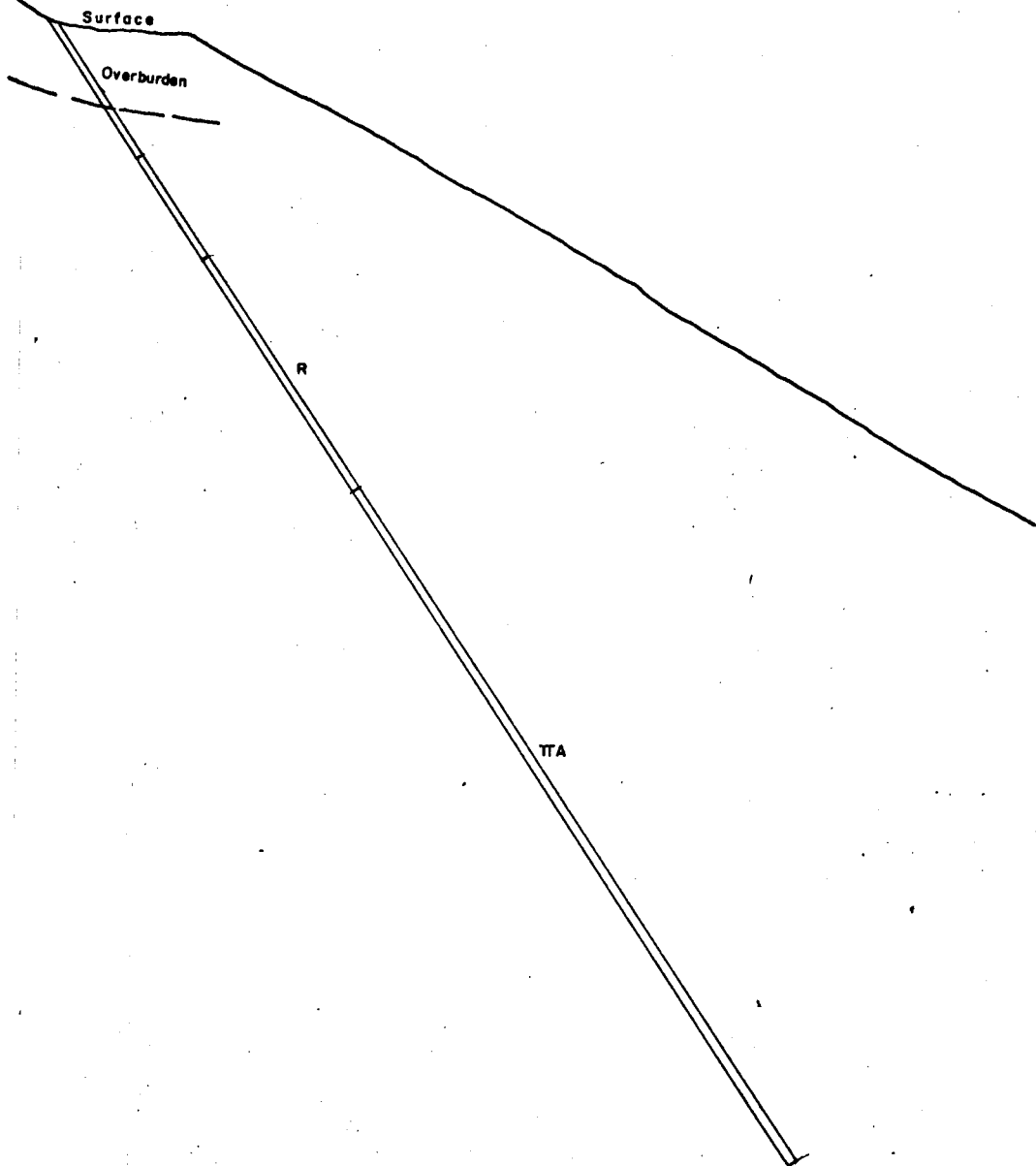
**ARCHER & CATRO**

*Consulting Geological Engineers*

DATE	Aug. 1969
DRAWN	M.H.
SCALE	1" = 40'

DWG. No.

west of Baseline "A"

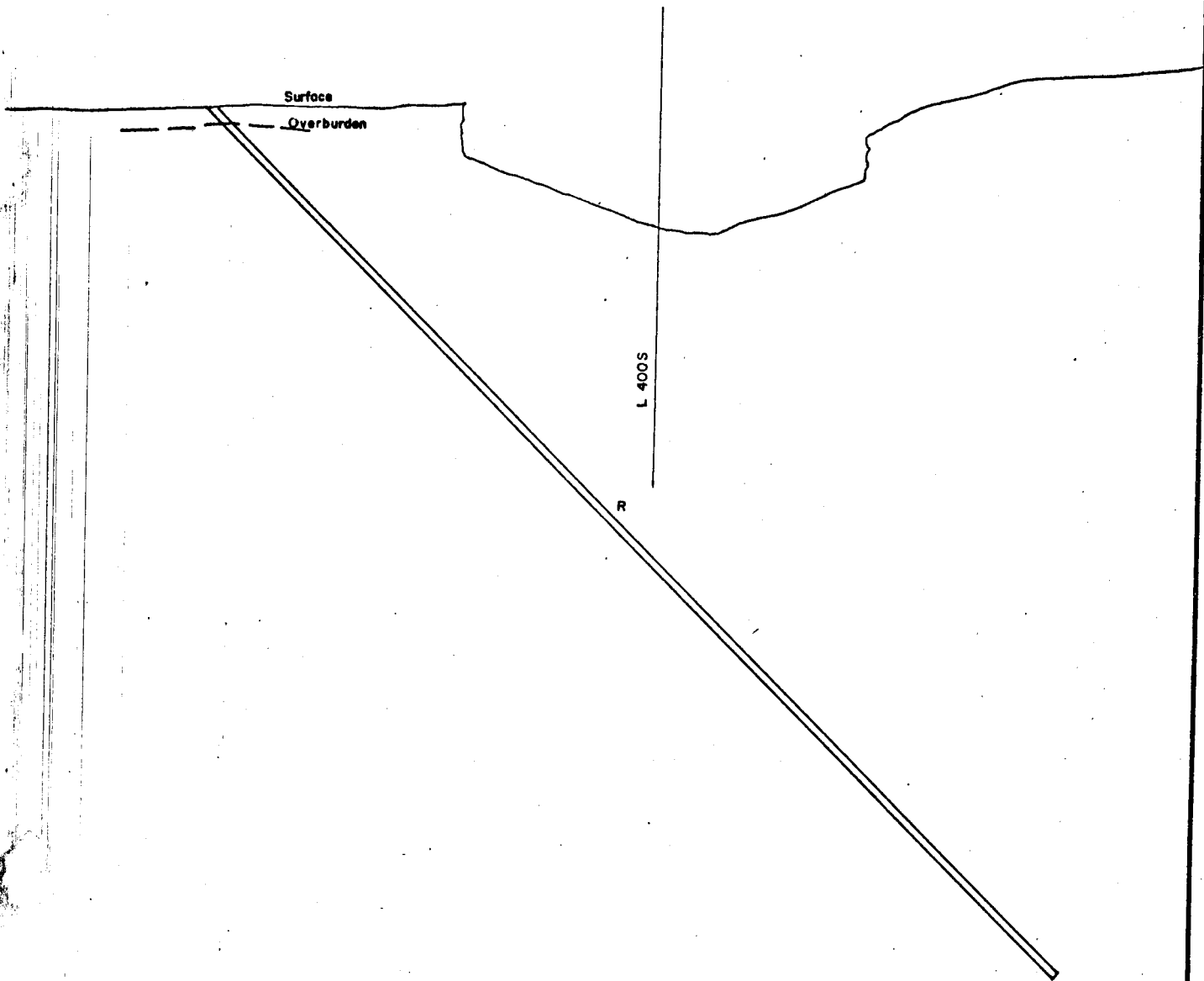


**SECTION OF D.D.H. 98-1**  
**SILVER CITY MINES LTD.**  
WHITE RIVER AREA, Y.T.

**ARCHER & CATHRO**  
Consulting Geological Engineers

DATE	Oct. 1969
DRAWN	G.W.
SCALE	1" = 40'

DWG. No.

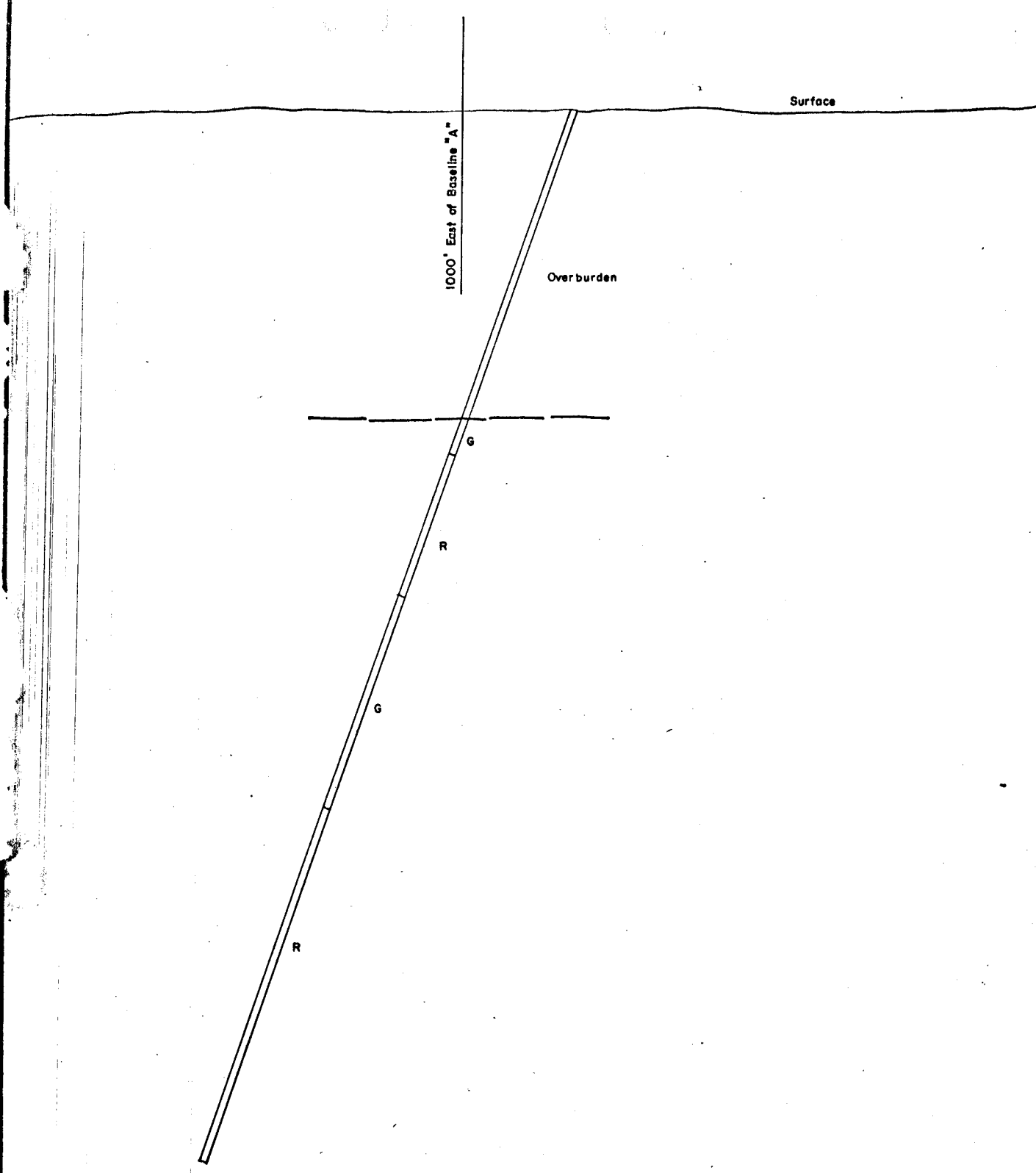


**SECTION OF D.D.H. 4S-1**  
**SILVER CITY MINES LTD.**  
 WHITE RIVER AREA, Y.T.

**ARCHER & CATHRO**  
 Consulting Geological Engineers

DATE	Oct. 1969
DRAWN	G.W.
SCALE	1"=40'

DWG. No.



**SECTION OF D.D.H. 116-1**

**SILVER CITY MINES LTD.**

WHITE RIVER AREA, Y.T.

**ARCHER & CATHRO**

Consulting Geological Engineers

DATE Aug. 1969

DRAWN M.H.

SCALE 1" = 40'

DWG. No.

1900' East of Baseline "0"

Surface

Overburden

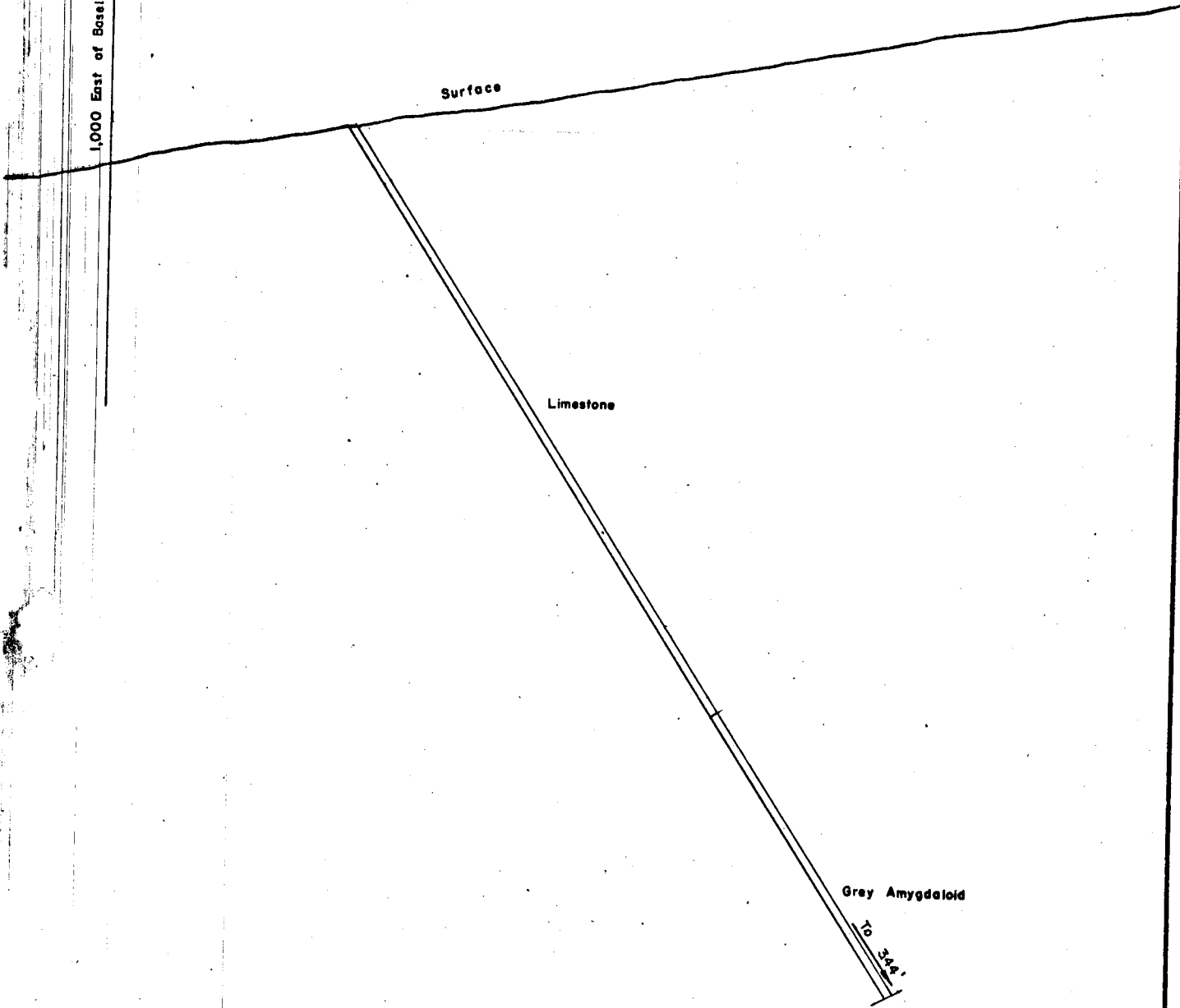
R

SECTION OF D.D.H. 24S-1  
SILVER CITY MINES LTD.  
WHITE RIVER AREA, Y.T.

ARCHER & CATHRO  
Consulting Geological Engineers

DATE	Aug. 1969	DWG. No.
DRAWN	M.H.	
SCALE	1" = 40'	

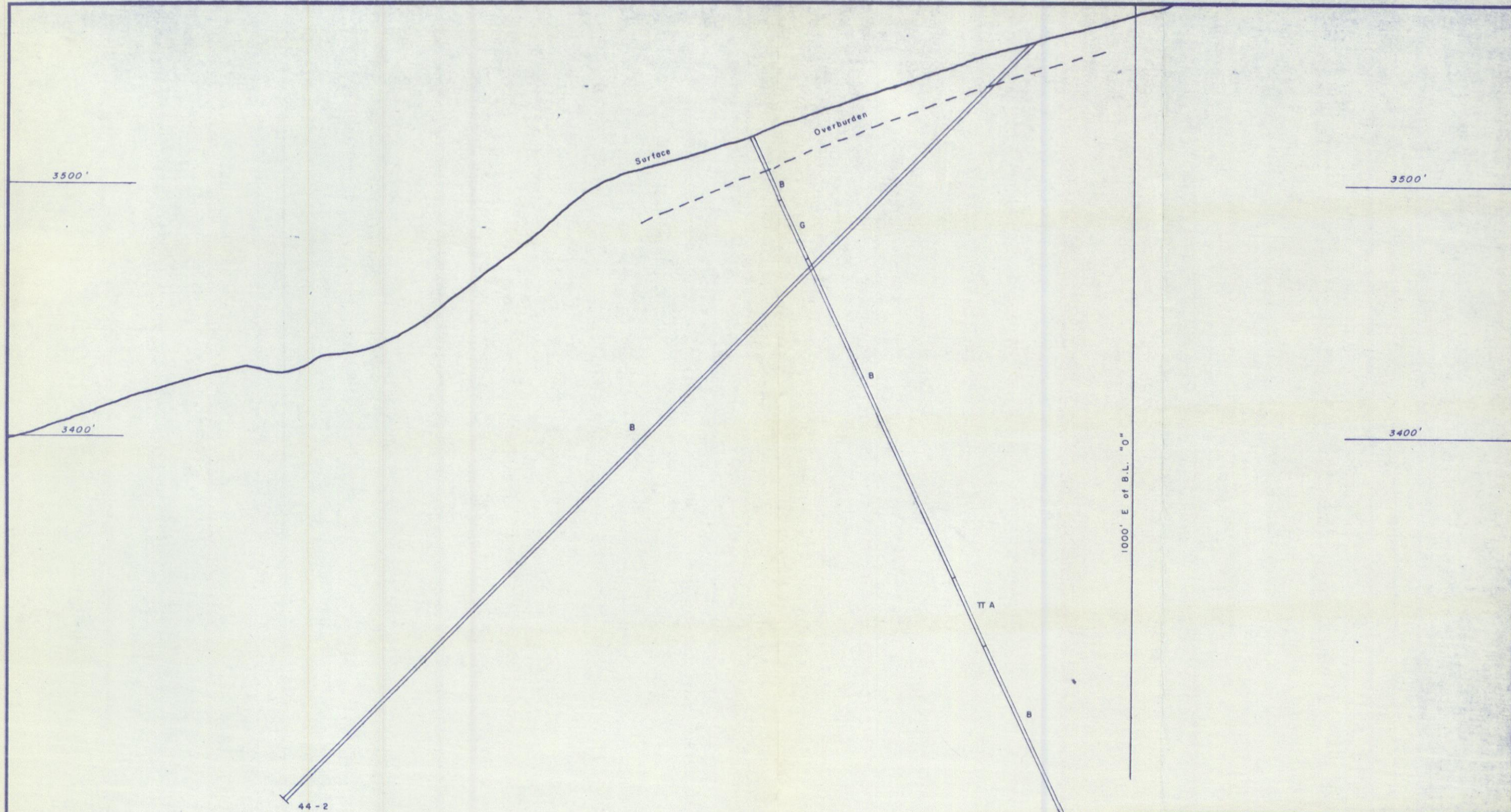
1,000 East of Baseline "A"



SECTION OF D.D.H. 32S-1  
SILVER CITY MINES LTD.  
WHITE RIVER AREA, Y.T.

ARCHER & CATHRO  
Consulting Geological Engineers

DATE	Oct. 1969	DWG. No.
DRAWN	G.W.	
SCALE	1" = 40'	

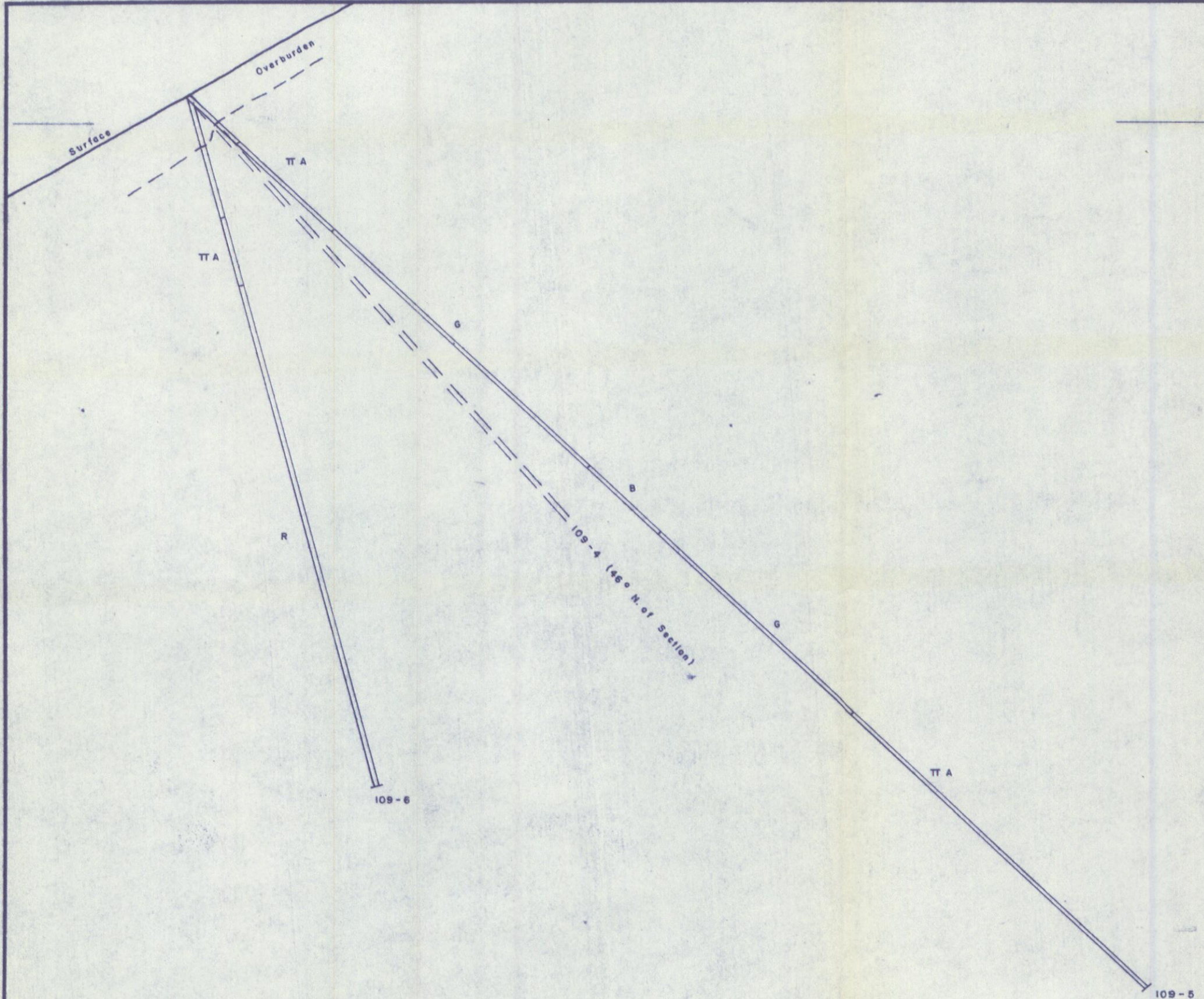


**SECTION OF D.D.H. 44-1&2**  
**SILVER CITY MINES LTD.**  
 WHITE RIVER AREA, Y.T.

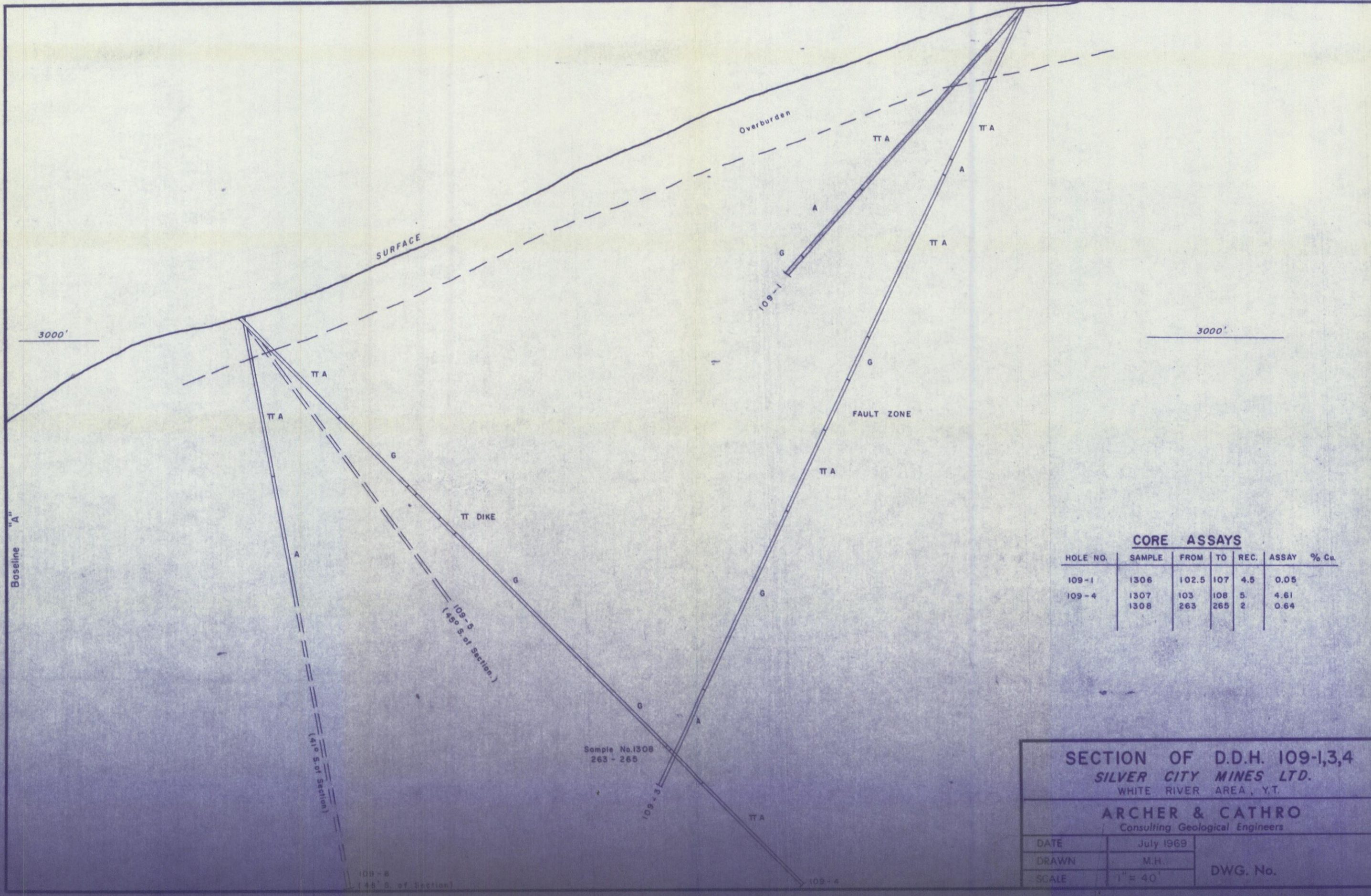
**ARCHER & CATHRO**  
 Consulting Geological Engineers

DATE	July 1969
DRAWN	M.H.
SCALE	1" = 40'

DWG. No.



SECTION OF D.D.H. 109-5&6		
SILVER CITY MINES LTD.		
WHITE RIVER AREA, Y.T.		
ARCHER & CATHRO		
Consulting Geological Engineers		
DATE	July 1969	DWG. No.
DRAWN	M.H.	
SCALE	1" = 40'	



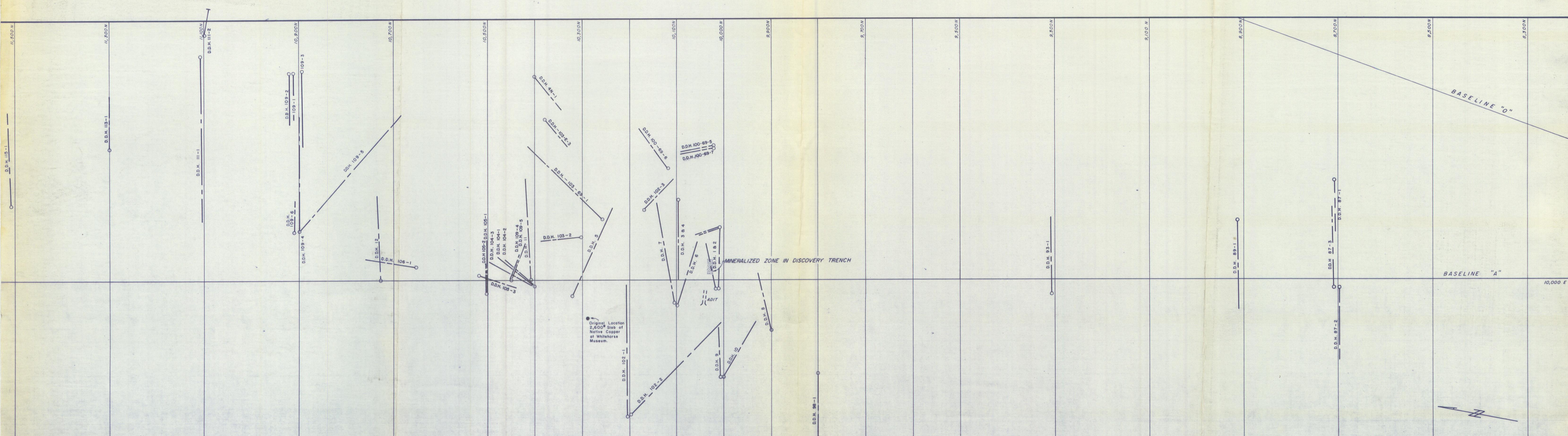
**CORE ASSAYS**

HOLE NO.	SAMPLE	FROM	TO	REC.	ASSAY	% Cu.
109-1	1306	102.5	107	4.5	0.05	
109-4	1307	103	108	5	4.61	
	1308	263	265	2	0.64	

**SECTION OF D.D.H. 109-1,3,4**  
**SILVER CITY MINES LTD.**  
 WHITE RIVER AREA, Y.T.

**ARCHER & CATHRO**  
 Consulting Geological Engineers

DATE	July 1969	DWG. No.
DRAWN	M.H.	
SCALE	1" = 40'	



Mineralization exposed on surface

To accompany a report, by R.J. Cathro,  
P. Eng., dated September 23, 1969.

<b>SURFACE DRILL HOLE PLAN</b>	
SILVER CITY MINES LTD.	
WHITE RIVER AREA Y.T.	
<b>ARCHER, CATHRO &amp; ASSOC. LTD.</b>	
<i>Consulting Geological Engineers</i>	
DATE	July 1969
DRAWN	M.H.
SCALE	1" = 100'
DWG. 1	

UNITED METEX LTD.

Dip 80° Bearing 270° Latitude 7270N Departure 12290E Logged by RJ Cathro Date July 1969 Depth 120 Core Size NQ

Footage	Rec (%)	Description	Samples						
			#	From	To	Rec (ft)	Cu (%)	Ag(o/t)	Au (o/t)
0- 43		Casing in overburden							
43-120		Brown Amygdaloid - med. brown, massive, black chlorite and white calcite filling amygdules; becoming rubbly and more hematitic towards end, a few 1/16" veinlets of native copper from (90-92). (Not sampled.)							



## UNITED PEMETEX LTD.

Dip -40° Bearing 80° Latitude 10,730N Departure 10000 E Logged by RJ Cathro Date June 1/69 Depth 254 Core Size BQ

Footage	Rec (%)	Description	Samples						
			#	From	To	Rec (ft)	Cu (%)	Ag(o/t)	Au (o/t)
0- 8		Overburden							
8-129		Porphyritic Andesite - fine grained, medium to dk. green; mod. porphyritic; core badly broken; weakly chloritic on slips (112-119) - fine grained, black spotted, dk. green, resembles greenstone (123-129) - contact zone; becoming faintly brownish and weakly amygdaloidal							
129-181		Brown Amygdaloid - brick red to reddish brown, coarsely amygdaloidal with fine red hematite spotting in groundmass; amygdules filled with white and pale green carbonates and black chlorite; occasionally porphyritic (155-156) - 1% chalcocite on shear planes (158-160) - " (163-165) - " (165-172) - 5% chalcocite with minor bornite - heavy dissem. and veinlets (172-177) - 1% chalcocite on shear planes (177-181) - 1/2% chalcocite - only one foot recovered gradual change to porphyritic andesite with light brownish green colour	1284	154.5	156	1.5	1.62%		
			1285	156	157.5	1.5	0.15%		
			1286	157.5	159	1.5	1.47%		
			1287	159	163.5	4.5	0.12%		
			1288	163.5	169	5.5	6.75%		
			1289	169	174	5.0	7.97%		
			1290	174	177	3.0	0.67%		
			1351	177	181	1.0	0.45%		
181-196		Porphyritic Andesite - light brownish green, massive (187-191) - light brownish green with trace of chalcocite on tension fractures (191-196) - light brownish green unmineralized	1352	187	191	4.0	1.70%		
			1353	191	196	5.0	0.21%		
196-232		Brown Amygdaloid (as before) (196-201) - trace of chalcocite - mostly fine fracture filling but occasional coarse blabs.	1354	196	201	5.0	0.23%		

Dip \_\_\_\_\_ Bearing \_\_\_\_\_ Latitude \_\_\_\_\_ Departure \_\_\_\_\_ Logged by \_\_\_\_\_ Date \_\_\_\_\_ Depth \_\_\_\_\_ Core Size \_\_\_\_\_

Footage	Rec (%)	Description	Samples							
			#	From	To	Rec (ft)	Cu (%)	Ag(o/t)	Au (o/t)	
		<u>HOLE 12 - Page 2</u>								
		(201-204) - as above	1355	201	204	3.0	0.28%			
			1292	204	205	1.0	0.63%			
			1291	205	210	5.0	5.10%			
			1293	210	211	1.0	0.60%			
			1356	214	219	5.0	0.22%			
			1294	219	222.5	3.5	6.20%			
			1357	229	232	2.0	0.39%			

Dip 45° Bearing 260° Latitude 10900N Departure 10340E Logged by RJ Cathro Date June 1, 1969 Depth 165 Core Size NQ  
0-49  
BQ  
49-19

Footage	Rec (%)	Description	Samples						
			#	From	To	Rec (ft)	Cu (%)	Ag(o/t)	Au (o/t)
0 - 44		Casing in overburden	1306	102.5	107	4.5	.05		
44 - 120		<u>Porphyritic Andesite</u> - medium grained, light green, grey; dioritic texture, weakly porphyritic; epidotic quartz on fractures, occasional disseminated flecks of native copper; becoming brownish after (118) ( 66- 69) - strongly epidotic and sheared ( 69- 78) - only 1 foot recovered (109-112) - rubbly, chloritic, finer grained, gouge at 110 probably fault zone							
120 - 141		<u>Brown Amygdaloid</u> - slightly porphyritic, brick red; soft and rubbly until (126) - 90% core recovery. (132-141) - weakly amygdaloidal and porphyritic, very rubbly							
141 - 165		<u>Greenstone</u> - dark green, medium chloritic, sheared, rubbly 90% core recovery.							



Dip \_\_\_\_\_ Bearing \_\_\_\_\_ Latitude \_\_\_\_\_ Departure \_\_\_\_\_ Logged by \_\_\_\_\_ Date \_\_\_\_\_ Depth \_\_\_\_\_ Core Size \_\_\_\_\_

Footage	Rec (%)	Description	Samples						
			#	From	To	Rec (ft)	Cu (%)	Ag(o/t)	Au (o/t)
177 - 201		<p><u>Fault Zone</u> - sandy, brecciated greenstone.</p> <p>(177-179) - no core</p> <p>(179-181) - rounded fragments of purple porphyritic andesite - probably came from higher in hole</p> <p>(181-185) - 1 foot recovery</p> <p>(185-190) - no core</p> <p>(190-201) - 7 feet recovery</p>							
201 - 240		<p><u>Porphyritic Andesite</u> - medium brown and very gradually changing to faintly brownish-grey; slightly amygdaloidal; occasional patches of chlorite along tension fractures; generally quite massive.</p> <p>(201-207) - sheared and slightly rubbly</p>							
240 - 243		<p><u>Contact Zone</u> - medium grained; gabbroic texture; medium green.</p>							
243 - 326		<p><u>Greenstone</u> - fine grained, no texture; moderately sheared and faintly chloritic, medium to dark green.</p> <p>(291-299) - weakly porphyritic and lighter in colour.</p> <p>(300-301) - gouge zone</p> <p>(308-329) - cut by small, chlorite filled tension fracture at all angles</p> <p>(332-326) - contact zone - becoming soft and sandy</p>							
326 - 373		<p><u>Brown Amygdaloid</u> - slightly sandy, red brown; white and dark green amygdules; cut by narrow white calcite stringers.</p> <p>(346) (351) - 2" gouge zones</p> <p>(355) - 2" epidotic clay gouge</p> <p>(355-358) - 1/2 foot recovered</p> <p>(360-367) - brick red - granitic texture fine grained</p> <p>(367-369) - sandy gouge 1 foot recovered</p>							

Dip 45° Bearing 80° Latitude 10,900N Departure 10,100E Logged by RJ Cathro Date July 1969 Depth 348 Core Size NQ

Footage	Rec (%)	Description	Samples						
			#	From	To	Rec (ft)	Cu (%)	Ag(o/t)	Au (o/t)
0 - 18		Overburden							
18 - 60		<u>Porphyritic Andesite</u> - lt. med. grn., massive							
60 - 123		<u>Greenstone</u> 60-68 - sheared, epidotic contact 85-115 - dissem. flecks of native copper with a single large bleb assoc. with a 1/4" quartz vein at 106	1307	103	108		4.61%		
123 - 132		Porphyry Dike - chilled margins, black biotite and white feldspar phenos, weakly altered							
132 - 285		<u>Greenstone</u> - generally as before, much less native copper than before 160-190 - gradual development of weak porphyritic texture - looks like PA 200-225 - mod. chloritic, sheared 245-285 - as (160-190) 263-265 - scattered coarse blebs native copper, trace chalcocite	1308	263	265		0.64%		
285 - 348		<u>Porphyritic Andesite</u> - gradual change from greenstone							

Dip 43° Bearing 121° Latitude 10,900N Departure 10,100E Logged by RJ Cathro Date July 1969 Depth 469 Core Size NQ

Footage	Rec (%)	Description	Samples						
			#	From	To	Rec (ft)	Cu (%)	Ag(o/t)	Au (o/t)
0- 14		Overburden							
14- 70		<u>Porphyritic Andesite</u> - lt. med. gry. grn.							
70-195		Greenstone - mod. rubbly and chloritic or shear, dk. grn. to black							
195-230		Black Amygdaloid							
230-325		Greenstone							
325-469		<u>Porphyritic Andesite</u> - many sections only weakly porphyritic and resemble greenstone							



UNITED METEX LTD.

Dip 40° Bearing 080° Latitude 8700N Departure 9980E Logged by RJ Cathro Date June 1, 1969 Depth 218 Core Size NQ

Footage	Rec (%)	Description	Samples						
			#	From	To	Rec (ft)	Cu (%)	Ag(o/t)	Au (o/t)
0 - 30		Casing in overburden	1295	35	42	7	0.05	TR	
			6	49	57	8	.05	TR	
30 - 218		Greenstone - medium dark green; very fine grained; slightly chloritic on slips, slightly amygdaloidal with white calcite filling vesicules, disseminated pyrite throughout.	7	57	65	8	.01	TR	
			8	101	102	1	.03	TR	
			9	107	113	6	.02	TR	
		( 8- 40) - 3% disseminated coarse blebs pyrite	1300	113	120	7	.02	TR	
		( 50- 65) - 3% " " " "	1	125	130.5	5.5	.01	TR	
		(105-140) - 1% " " " "	2	133	140.5	7.5	.01	TR	
		( 76- 78) - sand - no recovery	3	163	166	3	.01	TR	
		(90) (96) - 6" sand - no recovery	4	170	175	5	.03	TR	
		(150-152) - brownish; strongly amygdaloidal	5	175	180	5	.04	TR	
		(157) - 6" sand - no recovery							
		(170-180) - 3% finely disseminated pyrite							
		(200-207) - becoming brownish grey green and aphanitic - could represent contact phase							
		(207-218) - rubbly - only 3 feet recovery							

UNIFIED LOGGING

Dip 65° Bearing 260° Latitude 8700N Departure 9980E Logged by RJ Cathro Date May 31, 1969 Depth 350 Core Size NQ

Footage	Rec (%)	Description	Samples						
			#	From	To	Rec (ft)	Cu (%)	Ag(o/t)	Au (o/t)
0 - 31		Overburden							
31 - 181		<p><u>Brown Amygdaloid</u> - fine grained white calcite and black chlorite amygdules; weakly amygdaloidal; colour varies from brick red to light brownish grey; scattered calcite and epidote stringers.</p> <p>(65) - 6" gouge and rubble</p> <p>(90-98) - becoming softer and more epidotic; gougy after 96 - probably a fault zone</p> <p>(98-113) - slightly coarser grained, faintly porphyritic</p> <p>(113-130) - dense, dark brown, more resemblance to discovery trench than higher in hole</p> <p>(130-145) - as (98-113)</p> <p>(145-181) - as (113-130) - becoming blacker from 155 to 171</p>							
181-202		<u>Porphyritic Andesite</u> - medium green grey; weakly porphyritic - white feldspar laths up to 1/4" long; weakly amygdaloidal; lightly sheared with epidote on fractures.							
202-208		<u>Brown Amygdaloid</u> - generally as (113-130); faint porphyritic texture.							
208-350		<p><u>Porphyritic Andesite</u> - massive; fairly hard; weakly porphyritic with small white feldspar crystals; occasional 1/2 diameter irregular patches of feldspar and fine, calcite-filled tension fractures, light brownish green grey; wispy red-brown contact with white quartz at (235).</p> <p>(232-245) - brownish</p> <p>(287-292) - green, epidotic, contorted zone, sandy after (290)</p> <p>(292-297) - brownish</p> <p>(305-309) - chloritic, sheared</p>							

UNITED METEX LTD.

Dip \_\_\_\_\_ Bearing \_\_\_\_\_ Latitude \_\_\_\_\_ Departure \_\_\_\_\_ Logged by \_\_\_\_\_ Date \_\_\_\_\_ Depth \_\_\_\_\_ Core Size \_\_\_\_\_

Footage	Rec (%)	Description	Samples						
			#	From	To	Rec (ft)	Cu (%)	Ag(o/t)	Au (o/t)
		(309-311) - 2% pyrite in fractured zone; numerous white stringers at all angles							
		(318-320) - 2% pyrite; in quartz healed breccia zone							
		(315-336) - moderately fractured with small quartz stringers							
		(336-347) - strongly fractured with small quartz stringers							
		(347-348) - white quartz vein							
		(348-350) - gneissic texture							

Dip -45° Bearing 260° Latitude 11,100N Departure 10,475E Drilled by NJ Co. Date June 11, 1969 Depth 497 Core Size NQ to 118  
BQ to end

Footage	Rec (%)	Description	Samples						
			#	From	To	Rec (ft)	Cu (%)	Ag(o/t)	Au (o/t)
0 - 90		Casing in overburden, chalcocite veinlet cutting one piece of andesite float at 65'.							
90 - 94		<u>Brown Amygdaloid</u>							
94 - 133.5		<u>Porphyritic Andesite</u> - med. green, lt. green-grey, med. porphyritic.							
133.5-155		<u>Brown Amygdaloid</u> - weakly amygdaloidal, sharp contact at start, colour gradually changing to pale brown and lt. greenish brown.							
155 - 211		<u>Greenstone</u> - dk. green black, very fine grained, weakly chloritic. (208-211) - no core at contact							
211 - 232		<u>Brown Amygdaloid</u> - large black chlorite amygdules and white feldspar phenocrysts, gradual decrease in amygdule content to end and colour gradually lightens							
232 - 380		<u>Porphyritic Andesite</u> - med. green, lt. green-grey, med. porphyritic. (317-370) - gradual decrease in porphyritic texture, groundmass becoming more fine grained, and colour somewhat darker.							
380 - 411		<u>Brown Amygdaloid</u> - dk. brick red becoming med. red brown. (380-383) - 1/2% finely disseminated chalcocite	1358	380	383		0.30		
411 - 497		<u>Andesite</u> - med. green, red brown, spotted by hematite and minor green chlorite and epidote, massive, equigranular. (452-454) - no core recovered (461.5 - 463.5) (469-472.5) - dike; dk. grey, dense, very fine grained, slightly amygdaloidal (475-497) - 7ft. core recovered							



Dip 45° Bearing 260° Latitude 9300N Departure 9970E Logged by RJ Cathro Date June 1969 Depth 220 Core Size NQ

Footage	Rec (%)	Description	Samples						
			#	From	To	Rec (ft)	Cu (%)	Ag(o/t)	Au (o/t)
0 - 25		Casing in overburden							
25 - 34		<u>Greenstone</u> dk.grn. black; v.f.g.; massive with minor chlorite on slips							
34 - 56		<u>Black Amygdaloid</u> - dense groundmass with white amygdules (36-39) (43-45) - pyrite filling or coating amygdules and replacing groundmass (47-52) - broken rubbly, same gouge (52-56) - strongly amygdaloidal and fractured - healed by white quartz							
56 - 75		<u>Greenstone</u> - generally as before but more chlorite and broken							
75 - 111.5		<u>Black Amygdaloid</u> - as before - short sections very rich in pyrite, sometimes very f.g. and sometimes coarse							
111.5 - 154		<u>Greenstone</u> dk.grn.black; v.f.g.; massive with minor chlorite							
154 - 200		<u>Black Amygdaloid</u> - dense groundmass with white amygdules, becoming less amygdaloidal after 190 (184-186) - mud seam							
200 - 220		<u>Alteration Zone</u> - strongly sheared and laced with fine tension fractures; colour changing gradually from dk. grn.gry. to lt. brown to lt. grn. becoming strongly sericitic and pyritic towards end							

Dip 60° Bearing 260° Latitude 8900N Departure 10,125E Logged by RJ Cathro Date June 1969 Depth 325 Core Size NQ

Footage	Rec (%)	Description	Samples						
			#	From	To	Rec (ft)	Cu (%)	Ag (o/t)	Au (o/t)
0 - 47		Casing in overburden							
47 - 325		Black Amygdaloid - amygdules generally fairly large and patchy looking; scattered sections of 5% dissem. pyrite							
		80 - 120 - only very weakly amygdaloidal; somewhat resembles greenstone							
		96 - 101 - dense v.f.g. black; probably a dike							
		170 - 195 - as (80-120)							
		205 - 235 - " " "							
		250 - " " "							





Dip 65° Bearing 90° Latitude 5530N Departure 10750E Logged by RJ Cathro Date July 1969 Depth 259 Core Size NQ

Footage	Rec (%)	Description	Samples						
			#	From	To	Rec (ft)	Cu (%)	Ag(o/t)	Au (o/t)
0 - 15		Overburden							
15 - 28		Black Amygdaloid							
28 - 48		Greenstone							
48 - 193		Brown Amygdaloid - occasional slight colour changes from brown to black; short sheared zones 120-145 - med. gry. grn. 185-193 - gradually becomes porphyritic							
193 - 223		Porphyritic Andesite - med. grn. becoming brownish black after 200; gradual appearance of black amygdules at end							
223 - 259		Black Amygdaloid - brick red at start becoming med. gry. grn.; this zone grades between weak PA and weakly amygdaloidal							

Dip 45° Bearing 270° Latitude 5490N Departure 10870E Logged by RJ Cathro Date July 1969 Depth 423 Core Size NQ

Footage	Rec (%)	Description	Samples						
			#	From	To	Rec (ft)	Cu (%)	Ag(o/t)	Au (o/t)
0 - 24		Overburden							
24 - 423		<u>Black Amygdaloid</u> med.gry., weakly amygdaloidal and locally no texture 141-156 - soft, sheared, bleached and epidotic - pale green - rubbly to gougy; probably fault zone 273.5-276.5 - black, hard rhyolite dike; conchoidal fracture 278-279 - med. gry. porphyritic dike 328-362 - no texture, med. gry. grn. 362 - 423 - red brown, moderately amygdaloidal							

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Dip 45° Bearing 135° Latitude 10,200N Departure 9615E Logged by RJ Cathro Date July 1969 Depth 383 Core Size NQ

Footage	Rec (%)	Description	Samples						
			#	From	To	Rec (ft)	Cu (%)	Ag(o/t)	Au (o/t)
0 - 7		Overburden							
7 - 33		Brown Amygdaloid							
33 - 383		<u>Porphyritic Andesite</u> - mostly med. grn.; only weakly porphyritic 33-50 - weakly amygdaloidal 50-78 - med. red brown, occasional amygdule 78 - very weakly porphyritic 240-295 - weakly amygdaloidal							

UNITE EMETEX LTD.

Dip 70° Bearing 125° Latitude 10170N Departure 10150E Logged by RJ Cathro Date July 1969 Depth 451 Core Size BQ to end

Footage	Rec (%)	Description	Samples						
			#	From	To	Rec (ft)	Cu (%)	Ag(o/t)	Au (o/t)
0- 42		Casing in overburden							
42- 70		<u>Porphyritic Andesite</u> - weakly porphyritic; gradual contact with gradual decrease in phenos.							
70-128		<u>Greenstone</u> - med. green grey, chloritic, weakly sheared, occasional black amygdule							
128-330		<u>Porphyritic Andesite</u> - lt. to med. brown; mod. to strongly porphyritic, occasional lt. green or black amygdules, massive, becoming greenish after (200); short sections resemble greenstone when phenos absent; gradual contact.							
330-377		<u>Greenstone</u> - dk. green grey; chloritic and sl. sheared; f.g. becoming med. grained to end; sharp contact at (377)							
377-451		<u>Brown Amygdaloid</u> - colour varies from dk. to med. red-brown; strongly amygdaloidal at start and gradually weakening and becoming grey at end.							

Dip 80° Bearing 80° Latitude 10500N Departure 9990E Logged by RJ Cathro Date July 1969 Depth 248 Core Size NQ

Footage	Rec (%)	Description	Samples						
			#	From	To	Rec (ft)	Cu (%)	Ag(o/t)	Au (o/t)
0 - 19		Overburden	1373	39	44	5.0	0.15%		
19 - 165		Porphyritic Andesite	1374	69	74	5.0	1.18%		
		42 - 1" red zone with 1/2 inch native copper @ 70°	1375	74	79	5.0	0.02%		
		to core	1376	79	83	4.0	0.05%		
		50-60 - greenstone grading into PA							
		71 - 1/2" band native copper at 45°							
		81 - 1/8" band native copper at 70°							
165 - 248		Red Amygdaloid							
		185-200 - f.g; no amygdules							
		225-235 - as above							

Dip 45° Bearing 80° Latitude 10500N Departure 9990E Logged by RJ Cathro Date July 1969 Depth 237 Core Size NQ to 115  
BQ to end

Footage	Rec (%)	Description	Samples						
			#	From	To	Rec (ft)	Cu (%)	Ag (o/t)	Au (o/t)
0 - 20		Overburden	1383	68	74	6.0	0.04%		
			1384	74	80	6.0	0.02%		
20 - 150		<u>Porphyritic Andesite</u>	1385	80	86	6.0	0.21%		
		70 - 1/4" native copper	1386	86	92	6.0	0.04%		
		85 - few large spots of native copper	1387	92	98	6.0	0.12%		
		95 - few small veinlets native copper	1388	98	104	6.0	0.03%		
		96 - 104 - scattered veinlets native copper with one 1/4" bleb @ 97'							
50 - 205		Greenstone							
05 - 237		<u>Porphyritic Andesite</u>							



Dip 55° Bearing 0° Latitude 10650N Departure 10025E Logged by RJ Cathro Date July 1969 Depth 265

Footage	Rec (%)	Description	Samples						
			#	From	To	Rec (ft)	Cu (%)	Ag(o/t)	Au (o/t)
0 - 20		Overburden	1391	166	171		2.50%		
20 - 165		Porphyritic Andesite 31-32 - 1/8" native copper in fine stringers							
165 - 265		Red Amygdaloid 167-170 - 1% finely dissem. chalcocite							

Dip -45° Bearing 30° Latitude 10400N Departure 9985E Logged by RJ Cathro Date July 1969 Depth 117 Core Size NQ

Footage	Rec (%)	Description	10-90 (80) Samples						
			#	From	To	Rec (ft)	Cu (%)	Ag (o/t)	Au (o/t)
0 - 10		Overburden	1325	10	15		0.65%		
			1326	15	20		0.04%		
10 - 117		Porphyritic Andesite	1327	20	25		0.03%		
		becoming amygdaloidal and increasingly brownish after 90	1328	25	30		0.02%		
		11' - 1/4" seam of native copper @ 20° to core	1329	30	35		0.10%		
		17 - 1/8" " " " " " 45° " "	1330	35	40		0.03%		
		17 - 1/8" " " " " " 45° " "	1331	40	45		1.29%		
		29 - 1/8" " " " " " 45° " "	1332	45	50		0.43%		
		40-42 - discontinuous stringers native copper with 1% chalcocite in white quartz	1333	50	55		0.02%		
		45-47 - as above with 2% chalcocite	1334	55	60		0.02%		
		74.5-75 - narrow veinlet native copper @ 30' to core	1335	60	65		0.02%		
		78 - two 1/4 veinlets normal to each other - one native copper at 30° to core and one chalcocite @ 60° to core	1336	65	70		0.02%		
			1337	70	75		0.17%		
			1338	75	80		0.40%		
			1339	80	85		0.21%		
		80 - 1/4 inch veinlet @ 45° to core - half native copper and half chalcocite	1340	85	90		0.47%		
		85 - 1/4 inch veinlet native copper @ 30° to core							
		92 - dissem. zone native copper up to 2" wide trending across core @ 10° - 3% native copper							

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Dip 85° Bearing 30° Latitude 10400N Departure 9985E Logged by RJCathro Date July 1969 Depth 98 Core Size NQ

Footage	Rec (%)	Description	Samples 18-93 (75)						
			#	From	To	Rec (ft)	Cu (%)	Ag(o/t)	Au (o/t)
0 - 8		Overburden	1310	18	23		1.71%		
8 - 98		<u>Porphyritic Andesite</u>	1316	23	28		0.09%		
		coarse blebs native copper 20-23	1317	28	33		0.02%		
		few flecks at 29	1318	33	38		0.42%		
		coarse blebs 35-36	1315	38	43		0.04%		
		1/4" seam native copper <i>cutting</i> core @ 25° @ 53'	1311	43	48		0.03%		
		1/4" seam native copper <i>cutting</i> core @ 10° @ 63'	1313	48	53		0.02%		
		73.5-78 - thin veinlets of 1/2" seams of chalcocite	1314	53	58		0.12%		
		cutting core at 10° - 10% chalcocite	1319	58	63		0.10%		
		88-90 - finely dissem. native copper cutting core	1320	63	68		0.02%		
			1322	68	73		0.03%		
			1312	78	83		0.08%		
			1324	83	88		0.03%		
			1323	88	93		0.05%		
			1321	73	78		4.30%		

UNITEL EMETEX LTD.

Dip 65° Bearing 20° Latitude 10400N Departure 9985E Logged by RJ Cathro Date July 1969 Depth 96 Core Size NQ

Footage	Rec (%)	Description	Samples 17-82 (65)						
			#	From	To	Rec (ft)	Cu (%)	Ag(o/t)	Au (o/t)
0 - 12		Overburden	1341	17	22		0.32%		
12 - 96		<u>Porphyritic Andesite</u>	1342	22	27		0.44%		
		19.5-20 - several 1/4" stringers native copper @ 10° to core	1343	27	32		0.14%		
		26-29 - disseminated native copper more or less parallel to core with one 1/4 band at end @ 45°	1344	32	37		0.02%		
			1345	37	42		0.23%		
		45 - 1/2 band native copper @ 30°	1346	42	47		0.03%		
		55 - trace chalcocite in narrow quartz veins	1347	47	52		0.02%		
		66-69 - several thin and one 1/2 veinlet of native copper at 45° to core	1348	52	57		0.04%		
		71 - 1/4 inch native copper @ 45° to core	1349	57	62		0.02%		
		71-81 - widely disseminated, thin veinlets native copper at 40-60° to core	1350	62	67		0.04%		
			1360	67	72		1.45%		
			1359	72	77		0.10%		
			1372	77	82		0.67%		

UNITED METEX LTD.

Dip 45° Bearing 100° Latitude 10450N Departure 10000E Logged by RJ Cathro Date July 1969 Depth 113 Core Size NQ

Footage	Rec (%)	Description	Samples						
			#	From	To	Rec (ft)	Cu (%)	Ag(o/t)	Au (o/t)
0- 10		Casing in overburden.							
10- 72		<u>Porphyritic Andesite</u> - strongly proph.; med. green-grey; massive;	1307	10'	11'	1.0'	0.14%		
			1306	14.5'	19.5	5.0'	1.24%		
			1308	19.5'	25.0	5.5'	0.31%		
			1309	28'	33'	5.0'	1.84%		
			1310	33'	35'	2.0'	0.27%		
72-113		<u>Brown Amygdaloid</u> - sharp contact; black chlorite amygdules, sl. porphyritic (76-79) - 3% native copper, trace chalcocite (102-113) - becoming med. green and porphyritic	1311	76'	79'	3.0'	1.10%		

UNITE! EMETEX LTD.

Dip 80° Bearing 100° Latitude 10450N Departure 10000E Logged by RJ Cathro Date July 1969 Depth 262 Core Size NQ to 215  
 BQ to end

Footage	Rec (%)	Description	Samples							
			#	From	To	Rec (ft)	Cu (%)	Ag(o/t)	Au (o/t)	
0- 13		Casing in overburden								
13-215		<p>Porphyritic Andesite - lt. red brown, sheared, massive and blocky, sl. chloritic, and hematitic, mod. porph. with white to pale green feld phenos; occasional thin veinlets of native copper up to 1/16" wide at 18'4"</p> <p>(34-39) - 1% dissem. chalcocite in patches and veinlets</p> <p>(55-58) - trace chalcocite</p> <p>(61-68) -</p> <p>(80-88) - 1% patches and stringers of chalcocite</p> <p>(90-100) - dense, fine grained brick red, faintly porphyritic</p> <p>(125-145) - slightly more reddish</p> <p>(after 160) - becoming med. green with small spherical hematitic spots.</p> <p>(175 -) - single 1/16" veinlet of native copper</p>	1301	18'	23'	5.0'	0.70%			
			1302	34'	39'	5.0'	1.71%			
			1303	55'	58'	3.0'	2.39%			
			1304			7.0'	0.02%			
			1305			8.0'	0.91%			
215-262		<p>Brown Amygdoloid - sharp contact, changing to lt. brown to brick red, spotted rock; texture varies from coarsely amygdaloidal to finely spotted granitic textured; hematitic alteration locally intense; chlorite filling all amygdules; occasional patches white calcite;</p> <p>(255 - 261) - sandy, badly broken</p>								

Dip 45° Bearing 330° Latitude 10010N Departure 10115E Logged by RJ Cathro Date July 1969 Depth 163 Core Size NQ

Footage	Rec (%)	Description	Samples						
			#	From	To	Rec (ft)	Cu (%)	Ag(o/t)	Au (o/t)
0 - 22		Overburden							
22 - 73		Porphyritic Andesite with section to 40 fairly amygdaloidal and dark grey to black	1361	22	27		0.75%		
		22-40 - dissem. chalcocite throughout - 1% chalcocite in tiny veinlets	1362	27	32		0.30%		
		48-49 - 5% chalcocite with trace native copper @ 45°	1363	32	37		0.13%		
		51-52 - 1% " " " " " "	1364	37	42		0.10%		
		57 - 1/2% " " " " " "	1365	42	47		1.00%		
		63-64 - 1% chalcocite in 1/2 inch veinlet @ 60° to core	1366	47	52		0.08%		
		66-67 - 2% native copper @ 80° to core, trace chalcocite	1367	52	57		0.05%		
73 - 87		Greenstone, trace dissem. native copper	1368	57	62		0.28%		
87 - 115		Black Amygdaloid with grey, chilled, porphyritic margin at start, amygdules disappear after 115	1369	62	67		0.43%		
115-163		Porphyritic Andesite - brownish throughout	1370	67	72		0.10%		
		149-150 - reddish, dense, f.g. zone with 1% dissem. native copper and trace chalcocite @ 45° to core	1371	148	151		0.49%		

Dip 80° Bearing 330° Latitude 10010N Departure 10115E Logged by RJ Cathro Date July 1969 Depth 159 Core Size NQ

Footage	Rec (%)	Description	30-60 (30) Samples						
			#	From	To	Rec (ft)	Cu (%)	Ag(o/t)	Au (o/t)
0 - 29		Overburden	1377	30	35		0.04%		
			1378	35	40		0.19%		
29 - 80		Porphyritic Andesite	1379	40	45		0.13%		
		38-60 - moderately to strongly amygdaloidal and dark grey	1380	45	50		0.27%		
		38-40 - 1% chalcocite	1381	50	55		0.30%		
		45-52 - 3% chalcocite in irregular veinlets	1382	55	60		0.01%		
80 - 86		Greenstone - dissem. flecks native copper							
86 - 105		Porphyritic andesite							
105 - 159		Black amygdaloid grading into porphyritic after 150 andesite							





Dip 45° Bearing 35° Latitude 10255N Departure 10130E Logged by RJ Cathro Date July 1969 Depth 474 Core Size NQ to 253 BQ to end

Footage	Rec (%)	Description	Samples						
			#	From	To	Rec (ft)	Cu (%)	Ag (o/t)	Au (o/t)
0 - 22		Overburden	1389	188	193		0.08%		
22-115		Brown Amygdaloid - porphyritic throughout 47-49 - 1/2" native copper @ 70° 52 - trace native copper	1390	230	235		0.13%		
115-474		Porphyritic Andesite 165-253 - with scattered, mod. amygdaloidal sections 190-191 - 1/2% dissem. chalcocite 232 - as above 350 - becoming dark brown and more strongly amygdaloidal							

UNIT PEMETEX LTD.

Dip 45° Bearing 345° Latitude 10300N Departure 10900E Logged by RJ Cathro Date July 1969 Depth 293 Core Size NQ to 206  
BQ to end

Footage	Rec (%)	Description	Samples						
			#	From	To	Rec (ft)	Cu (%)	Ag(o/t)	Au (o/t)
0- 22		Casing in overburden							
22- 63		<u>Porphyritic Andesite</u> - med. green, strongly porphyritic, massive							
63-142		<u>Brown Amygdaloid</u> - sharp contact, med. brown with black chloritic amygdules, gradual change after (70) to med. green with gradual decrease in amygdules and increase in phenos.							
142-175		<u>Greenstone</u> - dk. grey to green-black, very fine grained, clotted, chloritic and weakly sheared							
175-207		<u>Porphyritic Andesite</u> - fairly sharp contact - generally as before							
207-250		<u>Brown Amygdaloid</u> - med. to chocolate brown, weakly porphyritic, becoming dk. grey to end, gradual contact at end (229-233) - 2% dissem. chalcocite and fine veinlets	1312	229	233	4.0'	2.30%		
250-293		<u>Porphyritic Andesite</u> - as before							





UNITED METEX LTD.

Dip 57° Bearing 260° Latitude 9800N Departure 9820E Logged by RJ Cathro Date July 1969 Depth 291 Core Size NQ

Footage	Rec (%)	Description	Samples						
			#	From	To	Rec (ft)	Cu (%)	Ag (o/t)	Au (o/t)
0- 22		Casing in overburden							
22- 35		? sl. brownish; - fine grained, med. green to							
35- 61		? - scoriaceous; pyroclastic, texture with recrystallization, black to dk. brown with green to pink spotting							
61-120		<u>Brown Amygdaloid</u> - sharp contact at (61) to brick red, becoming gradually brownish, black chloritic amygdules; this section contains many gradational zones of med. green porphyritic andesite; weakly sheared throughout							
120-291		<u>Porphyritic Andesite</u> - med. green with brownish cast, coarsely porphyritic with white to pale green feld phenos; occasional black, chloritic amygdules; (225, 262) - sharp contact to brown amygdaloid with gradual change back to porphyritic andesite							



Dip 70° Bearing 310° Latitude 11330N Departure 11030E Logged by RJ Cathro Date July 1969 Depth 314 Core Size NQ

Footage	Rec (%)	Description	Samples						
			#	From	To	Rec (ft)	Cu (%)	Ag(o/t)	Au (o/t)
0- 92		Casing in overburden							
92-103		Greenstone - very fine grained, dk. green-grey; chloritic, dissem. flecks native copper throughout; sharp contact.							
103-145		Brown Amygdaloid - brick red at contact becoming brownish grey; resembles greenstone in weakly amygdaloidal areas							
145-209		Greenstone - med. to dk. green grey; occasional coarse amygdule filled with white calcite; dissem. flecks native copper in places - gradual contact							
209-314		Brown Amygdaloid - gradual colour change to brick red in centre from brownish grey on edges; weakly and coarsely amygdaloidal; after (240) becoming dk. grey to black with only occasional coarse amygdule in "cherty" aphanitic groundmass and some large clots of calcite.							

UNITE EMETEX LTD.

Dip 80° Bearing 270° Latitude 7270N Departure 12290E Logged by RJ Cathro Date July 1969 Depth 120 Core Size NQ

Footage	Rec (%)	Description	Samples						
			#	From	To	Rec (ft)	Cu (%)	Ag(o/t)	Au (o/t)
0- 43		Casing in overburden							
43-120		Brown Amygdaloid - med. brown, massive, black chlorite and white calcite filling amygdules; becoming rubbly and more hematitic towards end, a few 1/16" veinlets of native copper from (90-92). (Not sampled.)							



UNITED PEMETEX LTD.

Dip 40° Bearing 80° Latitude 10,730N Departure 10000 E Logged by RJ Cathro Date June 1/69 Depth 254 Core Size BQ

Footage	Rec (%)	Description	Samples						
			#	From	To	Rec (ft)	Cu (%)	Ag (o/t)	Au (o/t)
0- 8		Overburden							
8-129		<p>Porphyritic Andesite - fine grained, medium to dk. green; mod. porphyritic; core badly broken; weakly chloritic on slips</p> <p>(112-119) - fine grained, black spotted, dk. green, resembles greenstone</p> <p>(123-129) - contact zone; becoming faintly brownish and weakly amygdaloidal</p>							
129-181		<p>Brown Amygdaloid - brick red to reddish brown, coarsely amygdaloidal with fine red hematite spotting in groundmass; amygdules filled with white and pale green carbonates and black chlorite; occasionally porphyritic</p> <p>(155-156) - 1% chalcocite on shear planes</p> <p>(158-160) - "</p> <p>(163-165) - "</p> <p>(165-172) - 5% chalcocite with minor bornite - heavy dissem. and veinlets</p> <p>(172-177) - 1% chalcocite on shear planes</p> <p>(177-181) - 1/2% chalcocite - only one foot recovered gradual change to porphyritic andesite with light brownish green colour</p>	1284	154.5	156	1.5	1.62%		
			1285	156	157.5	1.5	0.15%		
			1286	157.5	159	1.5	1.47%		
			1287	159	163.5	4.5	0.12%		
			1288	163.5	169	5.5	6.75%		
			1289	169	174	5.0	7.97%		
			1290	174	177	3.0	0.67%		
			1351	177	181	1.0	0.45%		
181-196		<p>Porphyritic Andesite - light brownish green, massive</p> <p>(187-191) - light brownish green with trace of chalcocite on tension fractures</p> <p>(191-196) - light brownish green unmineralized</p>	1352	187	191	4.0	1.70%		
			1353	191	196	5.0	0.21%		
196-232		<p>Brown Amygdaloid (as before)</p> <p>(196-201) - trace of chalcocite - mostly fine fracture filling but occasional coarse blabs.</p>	1354	196	201	5.0	0.23%		

Dip \_\_\_\_\_ Bearing \_\_\_\_\_ Latitude \_\_\_\_\_ Departure \_\_\_\_\_ Logged by \_\_\_\_\_ Date \_\_\_\_\_ Depth \_\_\_\_\_ Core Size \_\_\_\_\_

Footage	Rec (%)	Description	Samples							
			#	From	To	Rec (ft)	Cu (%)	Ag(o/t)	Au (o/t)	
		HOLE 12 - Page 2								
		(201-204) - as above	1355	201	204	3.0	0.28%			
			1292	204	205	1.0	0.63%			
			1291	205	210	5.0	5.10%			
			1293	210	211	1.0	0.60%			
			1356	214	219	5.0	0.22%			
			1294	219	222.5	3.5	6.20%			
			1357	229	232	2.0	0.39%			

Dip 45° Bearing 260° Latitude 10900N Departure 10340E Logged by RJ Cathro Date June 1, 1969 Depth 165 Core Size NQ

0-49  
BQ  
49-15

Footage	Rec (%)	Description	Samples						
			#	From	To	Rec (ft)	Cu (%)	Ag(o/t)	Au (o/t)
0 - 44		Casing in overburden	1306	102.5	107	4.5	.05		
44 - 120		<u>Porphyritic Andesite</u> - medium grained, light green, grey; dioritic texture, weakly porphyritic; epidotic quartz on fractures, occasional disseminated flecks of native copper; becoming brownish after (118) ( 66- 69) - strongly epidotic and sheared ( 69- 78) - only 1 foot recovered (109-112) - rubbly, chloritic, finer grained, gouge at 110 probably fault zone							
120 - 141		<u>Brown Amygdaloid</u> - slightly porphyritic, brick red; soft and rubbly until (126) - 90% core recovery. (132-141) - weakly amygdaloidal and porphyritic, very rubbly							
141 - 165		<u>Greenstone</u> - dark green, medium chloritic, sheared, rubbly 90% core recovery.							

UNITED P. TEX LTD.

Dip 65° Bearing 260° Latitude 109 00N Departure 10440E Logged by RJ Cathro Date May 31, 1969 Depth 373 Core Size  
 NQ - 0-177  
 BQ - 177-373

Footage	Rec (%)	Description	Samples						
			#	From	To	Rec (ft)	Cu (%)	Ag(o/t)	Au (o/t)
0 - 33		Overburden							
33 - 70.5		<p>Porphyritic Andesite - purple to medium green, fairly massive, weak chloritic alteration of mafics, fine grained matrix with up to 30% of rock formed by pheno crystals.</p> <p>(33-43) - purple, strongly amygdaloidal, generally as (32-32) in hole 109-2.</p> <p>(43-70.5) - medium green with white feldspar laths up to 1/2" long, finely spotted with red hematite, narrow fractures healed by calcite and/or quartz at 6" intervals, occasional wisps of epidote and hematite along shear zones; becoming reddish after (67) - fairly sharp contact</p>							
70.5 - 78		Brown Amygdaloid - brick red, coarse amygdules filled by calcite, chlorite, non-porphyritic (70.5-73) - crumbly, strongly fractured, probably a flow top but could be a fault zone; black patches.							
78 - 155.5		<p>Porphyritic Andesite - (78-139) - generally as (43.5-70.5); occasional dark green patches up to (90), very massive; irregular 1/2" calcite filled fracture at (129), 2" black, porphyritic dike @ 75° to core axis at (133.5); very finely disseminated native copper from (127) to (139).</p> <p>(139-155.5) - fairly sudden change in colour from medium grey-green to brick red from (142) to (146) and then purplish brown; mod. amygdaloidal; sharp, epidotic contact @ 20° to core axis at (155.5)</p>							
155.5 - 177		<p>Greenstone - dark greenish black, fine grained, fine black spotting, weak chloritic alteration generally</p> <p>occasional finely disseminated native copper flecks.</p>							

Dip \_\_\_\_\_ Bearing \_\_\_\_\_ Latitude \_\_\_\_\_ Departure \_\_\_\_\_ Logged by \_\_\_\_\_ Date \_\_\_\_\_ Depth \_\_\_\_\_ Core Size \_\_\_\_\_

Footage	Rec (%)	Description	Samples						
			#	From	To	Rec (ft)	Cu (%)	Ag (o/t)	Au (o/t)
177 - 201		<p><u>Fault Zone</u> - sandy, brecciated greenstone.                      (177-179) - no core                      (179-181) - rounded fragments of purple porphyritic andesite - probably came from higher in hole                      (181-185) - 1 foot recovery                      (185-190) - no core                      (190-201) - 7 feet recovery</p>							
201 - 240		<p><u>Porphyritic Andesite</u> - medium brown and very gradually changing to faintly brownish-grey; slightly amygdaloidal; occasional patches of chlorite along tension fractures; generally quite massive.                      (201-207) - sheared and slightly rubbly</p>							
240 - 243		<p><u>Contact Zone</u> - medium grained; gabbroic texture; medium green.</p>							
243 - 326		<p><u>Greenstone</u> - fine grained, no texture; moderately sheared and faintly chloritic, medium to dark green.                      (291-299) - weakly porphyritic and lighter in colour.                      (300-301) - gouge zone                      (308-329) - cut by small, chlorite filled tension fracture at all angles                      (332-326) - contact zone - becoming soft and sandy</p>							
326 - 375		<p><u>Brown Amygdaloid</u> - slightly sandy, red brown; white and dark green amygdules; cut by narrow white calcite stringers.                      (346) (351) - 2" gouge zones                      (355) - 2" epidotic clay gouge                      (355-358) - 1/2 foot recovered                      (360-367) - brick red - granitic texture fine grained                      (367-369) - sandy gouge zone - 1 foot recovered</p>							

Dip 45° Bearing 80° Latitude 10,900N Departure 10,100E Logged by RJ Cathro Date July 1969 Depth 348 Core Size NQ

Footage	Rec (%)	Description	Samples							
			#	From	To	Rec (ft)	Cu (%)	Ag(o/t)	Au (o/t)	
0 - 18		Overburden								
18 - 60		<u>Porphyritic Andesite</u> - lt. med. grn., massive								
60 - 123		<u>Greenstone</u> 60-68 - sheared, epidotic contact 85-115 - dissem. flecks of native copper with a single large bleb assoc. with a 1/4" quartz vein at 106								
123 - 132		Porphyry Dike - chilled margins, black biotite and white feldspar phenos, weakly altered								
132 - 285		<u>Greenstone</u> - generally as before, much less native copper than before 160-190 - gradual development of weak porphyritic texture - looks like PA 200-225 - mod. chloritic, sheared 245-285 - as (160-190) 263-265 - scattered coarse blebs native copper, trace chalcocite	1307	103	108		4.61%			
285 - 348		<u>Porphyritic Andesite</u> - gradual change from greenstone	1308	263	265		0.64%			

Dip 43° Bearing 121° Latitude 10,900N Departure 10,100E Logged by RJ Cathro Date July 1969 Depth 469 Core Size NQ

Footage	Rec (%)	Description	Samples						
			#	From	To	Rec (ft)	Cu (%)	Ag(o/t)	Au (o/t)
0- 14		Overburden							
14- 70		<u>Porphyritic Andesite</u> - lt. med. gry. grn.							
70-195		Greenstone - mod. rubbly and chloritic or shear, dk. grn. to black							
195-230		Black Amygdaloid							
230-325		Greenstone							
325-469		<u>Porphyritic Andesite</u> - many sections only weakly porphyritic and resemble greenstone							

Dip 75° Bearing 121° Latitude 10,900N Departure 10,100E Logged by RJ Cathro Date July 1969 Depth 266 Core Size NQ

Footage	Rec (%)	Description	Samples						
			#	From	To	Rec (ft)	Cu (%)	Ag(o/t)	Au (o/t)
0 - 19		Overburden							
19 - 70		<u>Porphyritic Andesite</u>							
70 - 266		(45) - single veinlet of native copper - 1/8" wide <u>Brown Amygdaloid</u> - brick red to med. brown to lt. grn. brn. 160-180 - red spotted and non-amgydaloidal							

UNITED 1 ETEX LTD.

Dip 40° Bearing 080° Latitude 8700N Departure 9980E Logged by RJ Cathro Date June 1, 1969 Depth 218 Core Size NQ

Footage	Rec (%)	Description	Samples						
			#	From	To	Rec (ft)	Cu (%)	Ag(o/t)	Au (o/t)
0 - 30		Casing in overburden	1295	35	42	7	0.05	TR	
			6	49	57	8	.05	TR	
30 - 218		Greenstone - medium dark green; very fine grained; slightly chloritic on slips, slightly amygdaloidal with white calcite filling vesicules, disseminated pyrite throughout.	7	57	65	8	.01	TR	
			8	101	102	1	.03	TR	
			9	107	113	6	.02	TR	
		( 8- 40) - 3% disseminated coarse blebs pyrite	1300	113	120	7	.02	TR	
		( 50- 65) - 3% " " " "	1	125	130.5	5.5	.01	TR	
		(105-140) - 1% " " " "	2	133	140.5	7.5	.01	TR	
		( 76- 78) - sand - no recovery	3	163	166	3	.01	TR	
		(90) (96) - 6" sand - no recovery	4	170	175	5	.03	TR	
		(150-152) - brownish; strongly amygdaloidal	5	175	180	5	.04	TR	
		(157) - 6" sand - no recovery							
		(170-180) - 3% finely disseminated pyrite							
		(200-207) - becoming brownish grey green and aphanitic - could represent contact phase							
		(207-218) - rubbly - only 3 feet recovery							

UNLIED REEVEA

Dip 65° Bearing 260° Latitude 8700N Departure 9980E Logged by RJ Cathro Date May 31, 1969 Depth 350 Core Size NQ

Footage	Rec (%)	Description	Samples						
			#	From	To	Rec (ft)	Cu (%)	Ag(o/t)	Au (o/t)
0 - 31		Overburden							
31 - 181		<p><u>Brown Amygdaloid</u> - fine grained white calcite and black chlorite amygdules; weakly amygdaloidal; colour varies from brick red to light brownish grey; scattered calcite and epidote stringers.</p> <p>(65) - 6" gouge and rubble</p> <p>(90-98) - becoming softer and more epidotic; gougy after 96 - probably a fault zone</p> <p>(98-113) - slightly coarser grained, faintly porphyritic</p> <p>(113-130) - dense, dark brown, more resemblance to discovery trench than higher in hole</p> <p>(130-145) - as (98-113)</p> <p>(145-181) - as (113-130) - becoming blacker from 155 to 171</p>							
181-202		<p><u>Porphyritic Andesite</u> - medium green grey; weakly porphyritic - white feldspar laths up to 1/4" long; weakly amygdaloidal; lightly sheared with epidote on fractures.</p>							
202-208		<p><u>Brown Amygdaloid</u> - generally as (113-130); faint porphyritic texture.</p>							
208-350		<p><u>Porphyritic Andesite</u> - massive; fairly hard; weakly porphyritic with small white feldspar crystals; occasional 1/2 diameter irregular patches of feldspar and fine, calcite-filled tension fractures, light brownish green grey; wispy red-brown contact with white quartz at (235).</p> <p>(232-245) - brownish</p> <p>(287-292) - green, epidotic, contorted zone, sandy after (290)</p> <p>(292-297) - brownish</p> <p>(305-309) - chloritic, sheared</p>							







Dip 45° Bearing 260° Latitude 9300N Departure 9970E Logged by RJ Cathro Date June 1969 Depth 220 Core Size NQ

Footage	Rec (%)	Description	Samples						
			#	From	To	Rec (ft)	Cu (%)	Ag(o/t)	Au (o/t)
0 - 25		Casing in overburden							
25 - 34		Greenstone drk.grn. black; v.f.g.; massive with minor chlorite on slips							
34 - 56		Black Amygdaloid - dense groundmass with white amygdules (36-39) (43-45) - pyrite filling or coating amygdules and replacing groundmass (47-52) - broken rubbly, same gouge (52-56) - strongly amygdaloidal and fractured - healed by white quartz							
56 - 75		Greenstone - generally as before but more chlorite and broken							
75 - 111.5		Black Amygdaloid - as before - short sections very rich in pyrite, sometimes very f.g. and sometimes coarse							
11.5 - 154		Greenstone dk.grn.black; v.f.g.; massive with minor chlorite							
54 - 200		Black Amygdaloid - dense groundmass with white amygdules, becoming less amygdaloidal after 190 (184-186) - mud seam							
200 - 220		Alteration Zone - strongly sheared and laced with fine tension fractures; colour changing gradually from dk. grn.gry. to lt. brown to lt. grn. becoming strongly sericitic and pyritic towards end							







Dip 65° Bearing 90° Latitude 5530N Departure 10750E Logged by RJ Cathro Date July 1969 Depth 259 Core Size NQ

Footage	Rec (%)	Description	Samples						
			#	From	To	Rec (ft)	Cu (%)	Ag (o/t)	Au (o/t)
0 - 15		Overburden							
15 - 28		Black Amygdaloid							
28 - 48		Greenstone							
48 - 193		<u>Brown Amygdaloid</u> - occasional slight colour changes from brown to black; short sheared zones 120-145 - med. gry. grn. 185-193 - gradually becomes porphyritic							
193 - 223		<u>Porphyritic Andesite</u> - med. grn. becoming brownish black after 200; gradual appearance of black amygdules at end							
223 - 259		<u>Black Amygdaloid</u> - brick red at start becoming med. gry. grn.; this zone grades between weak PA and weakly amygdaloidal							

Dip 45° Bearing 270° Latitude 5490N Departure 10870E Logged by RJ Cathro Date July 1969 Depth 423 Core Size NQ

Footage	Rec (%)	Description	Samples						
			#	From	To	Rec (ft)	Cu (%)	Ag(o/t)	Au (o/t)
0 - 24		Overburden							
24 - 423		<u>Black Amygdaloid</u> med.gry., weakly amygdaloidal and locally no texture 141-156 - soft, sheared, bleached and epidotic - pale green - rubbly to gougy; probably fault zone 273.5-276.5 - black, hard rhyolite dike; conchoidal fracture 278-279 - med. gry. porphyritic dike 328-362 - no texture, med. gry. grn. 362 - 423 - red brown, moderately amygdaloidal							

Dip 45° Bearing 80° Latitude 10,200N Departure 9615E Logged by RJ Cathro Date July 1969 Depth 406 Core Size NQ

Footage	Rec (%)	Description	Samples						
			#	From	To	Rec (ft)	Cu (%)	Ag (o/t)	Au (o/t)
0- 9		Overburden							
9-310		<p><u>Porphyritic Andesite</u> - lt. med. grn., weakly porphyritic, massive, occasional large dots of feldspar in rosette shape</p> <p>16-18 - red and black amygdaloid, no sulfides</p> <p>172-173 - brownish</p> <p>181-198 - transition to weak black amygdaloid texture, groundmass lt. grn. brown</p> <p>212 - sharp, hard contact @ 60° to axis</p> <p>217-250 - becoming med. brownish and weakly amygdaloidal</p> <p>270 - 1/2" pyrite stringers</p> <p>295-310 - zone of strong contortion; brecciation and alteration - weakly pyritic and epidotic</p> <p>299-301 - lt. choc. brown, cemented gouge containing pyritic green fragments</p> <p>301-306 - amygdaloidal with thin wispy bands and small spots of bornite</p>	1309	301	306	5.0	0.37%		
310-406		<p><u>Brown Amygdaloid</u></p> <p>326-342 - brown spotting in f.g. groundmass</p> <p>342-362 - lt. brown</p> <p>362-373 - brown spotting in f.g. groundmass</p>							

Dip 45° Bearing 135° Latitude 10,200N Departure 9615E Logged by RJ Cathro Date July 1969 Depth 383 Core Size NQ

Footage	Rec (%)	Description	Samples						
			#	From	To	Rec (ft)	Cu (%)	Ag(o/t)	Au (o/t)
0 - 7		Overburden							
7 - 33		Brown Amygdaloid							
33 - 383		<u>Porphyritic Andesite</u> - mostly med. grn.; only weakly porphyritic 33-50 - weakly amygdaloidal 50-78 - med. red brown, occasional amygdule 78 - very weakly porphyritic 240-295 - weakly amygdaloidal							



Dip 80° Bearing 80° Latitude 10500N Departure 9990E Logged by RJ Cathro Date July 1969 Depth 248 Core Size NQ

Footage	Rec (%)	Description	Samples						
			#	From	To	Rec (ft)	Cu (%)	Ag(o/t)	Au (o/t)
0 - 19		Overburden	1373	39	44	5.0	0.15%		
19 - 165		<u>Porphyritic Andesite</u> 42 - 1" red zone with 1/2 inch native copper @ 70° to core 50-60 - greenstone grading into PA 71 - 1/2" band native copper at 45° 81 - 1/8" band native copper at 70°	1374	69	74	5.0	1.18%		
			1375	74	79	5.0	0.02%		
			1376	79	83	4.0	0.05%		
165 - 248		<u>Red Amygdaloid</u> 185-200 - f.g; no amygdules 225-235 - as above							

Dip 45° Bearing 80° Latitude 10500N Departure 9990E Logged by RJ Cathro Date July 1969 Depth 237 Core Size NQ to 116  
BQ to end

Footage	Rec (%)	Description	Samples						
			#	From	To	Rec (ft)	Cu (%)	Ag(o/t)	Au (o/t)
0 - 20		Overburden	1383	68	74	6.0	0.04%		
			1384	74	80	6.0	0.02%		
20 - 150		<u>Porphyritic Andesite</u>	1385	80	86	6.0	0.21%		
		70 - 1/4" native copper	1386	86	92	6.0	0.04%		
		85 - few large spots of native copper	1387	92	98	6.0	0.12%		
		95 - few small veinlets native copper	1388	98	104	6.0	0.03%		
		96 - 104 - scattered veinlets native copper with one 1/4" bleb @ 97'							
50 - 205		Greenstone							
5 - 237		<u>Porphyritic Andesite</u>							



Dip 55° Bearing 0° Latitude 10650N Departure 10025E Logged by RJ Cathro Date July 1969 Depth 265 Core Size NQ to 151  
 BQ to em

Footage	Rec (%)	Description	Samples						
			#	From	To	Rec (ft)	Cu (%)	Ag(o/t)	Au (o/t)
0 - 20		Overburden	1391	166	171		2.50%		
20 - 165		Porphyritic Andesite 31-32 - 1/8" native copper in fine stringers							
165 - 265		Red Amygdaloid 167-170 - 1% finely dissem. chalcocite							

Dip -45° Bearing 30° Latitude 10400N Departure 9985E Logged by RJ Cathro Date July 1969 Depth 117 Core Size NQ

Footage	Rec (%)	Description	10-90 (80) Samples						
			#	From	To	Rec (ft)	Cu (%)	Ag (o/t)	Au (o/t)
0 - 10		Overburden	1325	10	15		0.65%		
			1326	15	20		0.04%		
10 - 117		Porphyritic Andesite	1327	20	25		0.03%		
		becoming amygdaloidal and increasingly brownish after 90	1328	25	30		0.02%		
		11' - 1/4" seam of native copper @ 20° to core	1329	30	35		0.10%		
		17 - 1/8" " " " " " 45° " "	1330	35	40		0.03%		
		29 - 1/8" " " " " " 45° " "	1331	40	45		1.29%		
			1332	45	50		0.43%		
		40-42 - discontinuous stringers native copper with 1% chalcocite in white quartz	1333	50	55		0.02%		
			1334	55	60		0.02%		
		45-47 - as above with 2% chalcocite	1335	60	65		0.02%		
		74.5-75 - narrow veinlet native copper @ 30' to core	1336	65	70		0.02%		
		78 - two 1/4 veinlets normal to each other - one native copper at 30° to core and one chalcocite @ 60° to core	1337	70	75		0.17%		
			1338	75	80		0.40%		
			1339	80	85		0.21%		
		80 - 1/4 inch veinlet @ 45° to core - half native copper and half chalcocite	1340	85	90		0.47%		
		85 - 1/4 inch veinlet native copper @ 30° to core							
		92 - dissem. zone native copper up to 2" wide trending across core @ 10° - 3% native copper							

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Dip 85° Bearing 30° Latitude 10400N Departure 9985E Logged by RJCathro Date July 1969 Depth 98 Core Size NQ

Footage	Rec (%)	Description	Samples 18-93 (75)						
			#	From	To	Rec (ft)	Cu (%)	Ag(o/t)	Au (o/t)
0 - 8		Overburden	1310	18	23		1.71%		
8 - 98		<u>Porphyritic Andesite</u>	1316	23	28		0.09%		
		coarse blebs native copper 20-23	1317	28	33		0.02%		
		few flecks at 29	1318	33	38		0.42%		
		coarse blebs 35-36	1315	38	43		0.04%		
		1/4" seam native copper cutting core @ 25° @ 53'	1311	43	48		0.03%		
		1/4" seam native copper cutting core @ 10° @ 63'	1313	48	53		0.02%		
		73.5-78 - thin veinlets of 1/2" seams of chalcocite	1314	53	58		0.12%		
		cutting core at 10° - 10% chalcocite	1319	58	63		0.10%		
		88-90 - finely dissem. native copper cutting core	1320	63	68		0.02%		
			1322	68	73		0.03%		
			1312	78	83		0.08%		
			1324	83	88		0.03%		
			1323	88	93		0.05%		
			1321	73	78		4.30%		

UNITE. EMETEX LTD.

Dip 65° Bearing 20° Latitude 10400N Departure 9985E Logged by RJ Cathro Date July 1969 Depth 96 Core Size NQ

Footage	Rec (%)	Description	Samples 17-82 (65)							
			#	From	To	Rec (ft)	Cu (%)	Ag(o/t)	Au (o/t)	
0 - 12		Overburden	1341	17	22		0.32%			
12 - 96		<u>Porphyritic Andesite</u>	1342	22	27		0.44%			
		19.5-20 - several 1/4" stringers native copper @ 10° to core	1343	27	32		0.14%			
		26-29 - disseminated native copper more or less parallel to core with one 1/4 band at end @ 45°	1344	32	37		0.02%			
			1345	37	42		0.23%			
			1346	42	47		0.03%			
			1347	47	52		0.02%			
			1348	52	57		0.04%			
			45 - 1/2 band native copper @ 30°	1349	57	62		0.02%		
			55 - trace chalcocite in narrow quartz veins	1350	62	67		0.04%		
			66-69 - several thin and one 1/2 veinlet of native copper at 45° to core	1360	67	72		1.45%		
			71 - 1/4 inch native copper @ 45° to core	1359	72	77		0.10%		
		71-81 - widely disseminated, thin veinlets native copper at 40-60° to core	1372	77	82		0.67%			

UNITEL EMETEX LTD.

Dip 45° Bearing 100° Latitude 10450N Departure 10000E Logged by RJ Cathro Date July 1969 Depth 113 Core Size NQ

Footage	Rec (%)	Description	Samples							
			#	From	To	Rec (ft)	Cu (%)	Ag (o/t)	Au (o/t)	
0- 10		Casing in overburden.								
10- 72		<u>Porphyritic Andesite</u> - strongly proph.; med. green-grey; massive;	1307	10'	11'	1.0'	0.14%			
			1306	14.5'	19.5	5.0'	1.24%			
			1308	19.5'	25.0	5.5'	0.31%			
			1309	28'	33'	5.0'	1.84%			
			1310	33'	35'	2.0'	0.27%			
72-113		<u>Brown Amygdaloid</u> - sharp contact; black chlorite amygdules, sl. porphyritic (76-79) - 3% native copper, trace chalcocite (102-113)- becoming med. green and porphyritic	1311	76'	79'	3.0'	1.10%			

UNITE EMETEX LTD.

Dip 80° Bearing 100° Latitude 10450N Departure 10000E Logged by RJ Cathro Date July 1969 Depth 262 Core Size NQ to 215  
 BQ to end

Footage	Rec (%)	Description	Samples							
			#	From	To	Rec (ft)	Cu (%)	Ag (o/t)	Au (o/t)	
0- 13		Casing in overburden								
13-215		<p>Porphyritic Andesite - lt. red brown, sheared, massive and blocky, sl. chloritic, and hematitic, mod. porph. with white to pale green feld phenos; occasional thin veinlets of native copper up to 1/16" wide at 18'4"</p> <p>(34-39) - 1% dissem. chalcocite in patches and veinlets</p> <p>(55-58) - trace chalcocite</p> <p>(61-68) -</p> <p>(80-88) - 1% patches and stringers of chalcocite</p> <p>(90-100) - dense, fine grained brick red, faintly porphyritic</p> <p>(125-145) - slightly more reddish</p> <p>(after 160) - becoming med. green with small spherical hematitic spots.</p> <p>(175 -) - single 1/16" veinlet of native copper</p>	1301	18'	23'	5.0'	0.70%			
			1302	34'	39'	5.0'	1.71%			
			1303	55'	58'	3.0'	2.39%			
			1304			7.0'	0.02%			
			1305			8.0'	0.91%			
215-262		<p>Brown Amygdoloid - sharp contact, changing to lt. brown to brick red, spotted rock; texture varies from coarsely amygdaloidal to finely spotted granitic textured; hematitic alteration locally intense; chlorite filling all amygdules; occasional patches white calcite;</p> <p>(255 - 261) - sandy, badly broken</p>								

Dip 45° Bearing 330° Latitude 10010N Departure 10115E Logged by RJ Cathro Date July 1969 Depth 163 Core Size NQ

Footage	Rec (%)	Description	Samples						
			#	From	To	Rec (ft)	Cu (%)	Ag(o/t)	Au (o/t)
0 - 22		Overburden							
22 - 73		Porphyritic Andesite with section to 40 fairly amygdaloidal and dark grey to black	1361	22	27		0.75%		
		22-40 - dissem. chalcocite throughout - 1% chalcocite in tiny veinlets	1362	27	32		0.30%		
			1363	32	37		0.13%		
			1364	37	42		0.10%		
		48-49 - 5% chalcocite with trace native copper @ 45°	1365	42	47		1.00%		
		51-52 - 1% " " " " " "	1366	47	52		0.08%		
		57 1/2% " " " " " "	1367	52	57		0.05%		
		63-64 - 1% chalcocite in 1/2 inch veinlet @ 60° to core	1368	57	62		0.28%		
			1369	62	67		0.43%		
		66-67 - 2% native copper @ 80° to core, trace chalcocite	1370	67	72		0.10%		
73 - 87		Greenstone, trace dissem. native copper							
87 - 115		Black Amygdaloid with grey, chilled, porphyritic margin at start, amygdules disappear after 115							
115-163		Porphyritic Andesite - brownish throughout	1371	148	151		0.49%		
		149-150 - reddish, dense, f.g. zone with 1% dissem. native copper and trace chalcocite @ 45° to core							

Dip 80° Bearing 330° Latitude 10010N Departure 10115E Logged by RJ Cathro Date July 1969 Depth 159 Core Size NQ

Footage	Rec (%)	Description	30-60 (30) Samples						
			#	From	To	Rec (ft)	Cu (%)	Ag(o/t)	Au (o/t)
0 - 29		Overburden	1377	30	35		0.04%		
			1378	35	40		0.19%		
29 - 80		<u>Porphyritic Andesite</u>	1379	40	45		0.13%		
		38-60 - moderately to strongly amygdaloidal and dark grey	1380	45	50		0.27%		
		38-40 - 1% chalcocite	1381	50	55		0.30%		
		45-52 - 3% chalcocite in irregular veinlets	1382	55	60		0.01%		
80 - 86		Greenstone - dissem. flecks native copper							
86 - 105		Porphyritic andesite							
105 - 159		Black amygdaloid grading into porphyritic after 150 andesite							





Dip 45° Bearing 35° Latitude 10255N Departure 10130E Logged by RJ Cathro Date July 1969 Depth 474 Core Size NQ to 253 BQ to end

Footage	Rec (%)	Description	Samples						
			#	From	To	Rec (ft)	Cu (%)	Ag(o/t)	Au (o/t)
0 - 22		Overburden	1389	188	193		0.08%		
			1390	230	235		0.13%		
22-115		Brown Amygdaloid - porphyritic throughout 47-49 - 1/2" native copper @ 70° 52 - trace native copper							
115-474		Porphyritic Andesite 165-253 - with scattered, mod. amygdaloidal sections 190-191 - 1/2% dissem. chalcocite 232 - as above 350 - becoming dark brown and more strongly amygdaloidal							

UNITE METEX LTD.

Dip 45° Bearing 345° Latitude 10300N Departure 10900E Logged by RJ Cathro Date July 1969 Depth 293 Core Size NQ to 206  
BQ to end

Footage	Rec (%)	Description	Samples						
			#	From	To	Rec (ft)	Cu (%)	Ag(o/t)	Au (o/t)
0- 22		Casing in overburden							
22- 63		<u>Porphyritic Andesite</u> - med. green, strongly porphyritic, massive							
63-142		<u>Brown Amygdaloid</u> - sharp contact, med. brown with black chloritic amygdules, gradual change after (70) to med. green with gradual decrease in amygdules and increase in phenos.							
142-175		<u>Greenstone</u> - dk. grey to green-black, very fine grained, clotted, chloritic and weakly sheared							
175-207		<u>Porphyritic Andesite</u> - fairly sharp contact - generally as before							
207-250		<u>Brown Amygdaloid</u> - med. to chocolate brown, weakly porphyritic, becoming dk. grey to end, gradual contact at end (229-233) - 2% dissem. chalcocite and fine veinlets	1312	229	233	4.0'	2.30%		
250-293		<u>Porphyritic Andesite</u> - as before							

UNITED METEX LTD.

Dip 80° Bearing 220° Latitude 10380N Departure 10340E Logged by RJ Cathro Date July 1969 Depth 258 Core Size NQ

Footage	Rec (%)	Description	Samples						
			#	From	To	Rec (ft)	Cu (%)	Ag(o/t)	Au (o/t)
0 - 120		Casing in overburden							
120 - 258		Porphyritic Andesite - Light medium green; hard, massive, weakly porphyritic with unusual mafic dappling or foliation; gradually becoming a light brownish, crowded porphyry after (185); becoming slightly amygdaloidal (white calcite) after (240).							

Dip 80° Bearing 267° Latitude 12160N Departure 11420E Logged by RJ Cathro Date July 1969 Depth 280 Core Size NQ

Footage	Rec (%)	Description	Samples						
			#	From	To	Rec (ft)	Cu (%)	Ag(o/t)	Au (o/t)
0 - 45		Casing in overburden.							
45 - 70		<u>Greenstone</u> - dark grey with dense clotted appearance, becoming aphanitic after (65); mod. magnetic							
70 - 280		<u>Amygdaloid</u> - med. grey, occasionally brownish, dense, fine gr. to aphanitic, weakly and coarsely amygdaloidal, occasional phenocryst and textured variation; mod. magnetic.							

UNITED METEX LTD.

Dip 57° Bearing 260° Latitude 9800N Departure 9820E Logged by RJ Cathro Date July 1969 Depth 291 Core Size NQ

Footage	Rec (%)	Description	Samples						
			#	From	To	Rec (ft)	Cu (%)	Ag(o/t)	Au (o/t)
0- 22		Casing in overburden							
22- 35		? sl. brownish; - fine grained, med. green to							
35- 61		? - scoriaceous; pyroclastic, texture with recrystallization, black to dk. brown with green to pink spotting							
61-120		<u>Brown Amygdaloid</u> - sharp contact at (61) to brick red, becoming gradually brownish, black chloritic amygdules; this section contains many gradational zones of med. green porphyritic andesite; weakly sheared throughout							
120-291		<u>Porphyritic Andesite</u> - med. green with brownish cast, coarsely porphyritic with white to pale green feld phenos; occasional black, chloritic amygdules; (225, 262) - sharp contact to brown amygdaloid with gradual change back to porphyritic andesite							



Ship 00 Sounding 310° Latitude 11330N Departure 11030E by RJ Cathro Date Jul 1969 Depth 14 Core No. 20

Footage	Rec (%)	Description	Samples						
			#	From	To	Rec (ft)	Cu (%)	Ag (g/t)	Au (g/t)
0-92		Casing in overburden							
92-103		<p>Greenstone - very fine grained, dk. green-grey; chloritic, dissem. flecks native copper throughout; sharp contact.</p> <p>Brown Amygdaloid - brick red at contact becoming brownish grey; resembles greenstone in weakly amygdaloidal areas</p> <p>Greenstone - med. to dk. green grey; occasional coarse amygdule filled with white calcite; dissem. flecks native copper in places - gradual contact</p> <p>Brown Amygdaloid - gradual colour change from brownish grey in centre to black on edges; coarse and coarsely amygdaloidal; after (240) becoming dk. grey to black with only occasional coarse amygdule in "cherty" aphanitic groundmass and some large clots of calcite.</p>							



