

REPORT

ON

BULLION MOUNTAIN MINING CO. LTD. (N.P.L.)

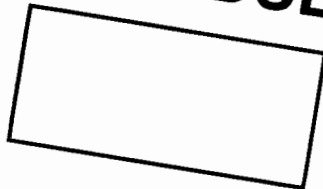
CLARK CLAIMS, YUKON TERRITORY

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**DATE DUE**



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BULLION MOUNTAIN MINING CO. LTD. (N.P.L.)

CLARK CLAIMS, YUKON TERRITORY

SUMMARY

The Clark Claims cover a silver-lead-zinc replacement deposit in lower cambrian limestone in the Keno-Mayo district of the Yukon.

Geological, geochemical and preliminary gravity surveys show extensive areas of base metal soil values in favorable rocks and exceptional high gravity anomalies. Preliminary diamond drilling over an area of 200 by 300 feet about the discovery open pit has shown good tonnages and values of silver lead and zinc with their extensions open.

A road was built in 1971 to connect the claims to the Whitehorse-Mayo-Elsa road system.

I recommend further gravity surveys and extensive drilling of the soil and gravity anomalies to search for other large replacements. Systematic drilling, to outline open pit tonnages and grades, is recommended to completely define the discovery deposit.

CLAIMS

Clark Numbers 1 to 86 inclusive.

### LOCATION

Latitude: 64° 08' North

Longitude: 134° 57' West

Elevation: 2,100 to 4,600 Feet

The claims are located south of Clark Lakes, east of McQuesten Lake in the Davidson Range 18 miles north of Keno Hill in the Mayo District of the Yukon.

The claims are reached by a tractor road from McQuesten Lake. McQuesten Lake is connected by public roads to Elsa, Mayo and Whitehorse.

### TOPOGRAPHY

The Davidson Range is a rounded series of gently sloping overburden and sparsely tree covered hills. There are several sharp steep sided peaks with deeply incised summit creeks at higher elevations south of the Bullion claims.

The climate is relatively dry. Much of the ground is permanently frozen.

### GENERAL GEOLOGY

The Mayo District has been mapped in detail by the Geological Survey of Canada.

The rocks are extensively deformed and faulted

and the stratigraphic relationships between the formations is uncertain.

The oldest formations are lower cambrian or Late Proterozoic quartzite, schists and limestones. Above these rocks, and probably overthrust over them, are the Late Paleozoic or Mesozoic Lower Schist, Quartzite and Upper Schist units of Keno Hill. These rocks are intruded by Mesozoic granodiorite, diorite, gabbro and by younger quartz porphyry dikes.

The Yukon Group rocks are folded into an open anticline which trends northeasterly through the area. This structure is complicated by overturned folding on the Davidson Range, by inter formation gliding and plastic deformation of the schists and by one or more overthrusts northward of the younger rocks over the Cambrian and Precambrian formations.

The older formations were also involved in the open folding and plastic deformation.

The Mayo district is the largest silver producing area in the Yukon. The ore bodies occur in northeast striking open fissure fillings of galena, sphalerite, pyrite and gray copper in a manganiferous siderite gangue. Silver-lead ratios vary from 6 silver to 1 lead to 4 silver to 1 lead and silver values vary between 20 and 70 oz./ton.

## CLAIM GEOLOGY

The Clark Claims are underlain by quartzite, quartz mica schist, graphitic schist and limestone.

An escarpment striking north  $60^{\circ}$  west crosses the claims with steep cliffs cut by numerous north  $45^{\circ}$  east breaks in quartzite and quartz mica schist. South of the fault these extend to the south limit of the claims at elevation 4,000 feet as a series of massive and blocky quartzite outcrops. Similar outcrops extend west as a ridge which disappears into muskeg at Scougale Creek. The Clark Lake valley north of the escarpment is a flat muskeg filled valley.

The mountain at the south east end of the claims extends westward as a rocky quartzite spur covered with blocky talus and outcrops. Between this spur and the ridge along the escarpment is a westward sloping shallow overburden filled valley with occasional small brecciated limestone and graphitic schist outcrops.

The examination of individual outcrops show tight drag folding and brecciation in the schists and limestones and blocky faulting in the overlying quartzites. No attitudes can be seen in the quartzites but all attitudes are steep in the softer rocks.

In conclusion the claims are underlain by a cap of massive quartzite and quartz mica schist relatively flat lying and underlain by brecciated limestone and graphitic schist in beds at least 250 feet in thickness. They are thickened and thinned by plastic flowage. The quartzites show a few prominent northwest striking steep dipping faults and a great many close spaced northeast striking, southeast dipping, faults.

These latter are similar to the vein faults of the Mayo-Keno Hill district and open spaces in them are filled with manganiferous siderite, galena and sphalerite with a high silver-lead ratio.

#### CLARK DEPOSIT

The Clark deposit is a gossan zone in a limestone window in quartzite near the top of the Clark escarpment. The surface is exposed by bulldozer stripping for a length of 200 feet over a width of 30 to 50 feet.

It has three northeast striking steeply dipping vein faults 2 to 20 feet in width with carbonates and galena fillings in quartzite. Between these veins there are poorly exposed irregular oxidized manganese, iron and galena replacements in crushed limestone which extend to depths of at least 100 feet.

These replacements extend irregularly in all directions in the limestone beneath the flat lying quartzite capping and the full extent of the deposit is unknown. Grades in the deposit are variable with a mixture of high silver low lead values in the veins and typical low silver-lead ratios of the replacement zones. An average of reliable samples showed 9.26 oz. silver per ton, 6.55% lead and 5.61% zinc.

## GEOCHEMISTRY

### (1) Silt Fractions

The Geological Survey of Canada has made geochemical surveys over the Mayo District and these show positive results over the Davidson Range and the McQuesten-Scougale areas.

Anomalous zinc values occur along Cache Creek and over Forbes, Rambler and Zahn Hills below a number of lead-zinc deposits in this area.

A broad anomalous zinc pattern follows the north slope of the Davidson Range and shows high values in Scougale Creek and lower anomalous values in Rankin Creek and in the north draining creeks east of the Clark Claims.

Anomalous lead values were found in similar areas

but they occurred as isolated high values rather than in patterns or areas of high lead values.

The Bullion Mountain discovery was found by a follow up survey on a single sample on a north draining creek which crossed the deposit. The sample assayed 220 parts per million lead and 620 parts per million zinc.

## (2) Soil Samples

Bullion Mountain Mining has done extensive soil sampling on their claims.

A base line on a bearing of north  $70^{\circ}$  west was cut through the discovery open pit for 3 miles westerly and 1,200 feet easterly from it. Cross lines were run at right angles at 400 foot intervals.

Samples were taken along these lines at 200 foot intervals and assayed for lead and zinc by atomic absorption and hot acid digestion of the samples.

Five large anomalous areas were outlined and these were resampled with lines and samples at 100 spacing and some were again sampled at 50 foot intervals.

The geochemical work showed an extension both north and slightly south of east of the original pit for several thousand feet. It showed an anomalous area 700 feet long

and 200 feet wide 1 mile west of the open pit. Some galena was found in outcrops in the area. Three other anomalous areas were found on the claims. The work was successful in the areas underlain by limestone and graphitic schist and in areas of broken quartzite. In many areas in quartzite the soil sampling gave low values.

### GEOPHYSICS

Airborne magnetic surveys have been made over the claim area by the Department of Mines and Technical Surveys. The magnetic relief over the claims is low with highs of 3,400 gammas and lows of 3,300 gammas. The limestone area which includes the lead-zinc replacement is in one such low area and a small marked anomaly trending northwesterly apparently outlines a prominent fault on the most northern claims.

In 1971 an experimental gravity survey was made over the Bullion Mountain Mine's deposit and areas near it by Teledyne Exploration. Readings were taken over the A base line at 100 foot intervals for a length of 50,00 feet and 16,200 feet of cross lines were taken. There were 6,500 feet in 4 lines at 400' spaces near the open pit and 9,700 feet in 4 lines 400 feet apart across a series of

geochemical anomalies 4,400 to 5,200 feet to the west.

The east Survey, at the open pit, gave a strong gravity anomaly along an east-west line through the pit and open at both ends.

In addition a spectacular high closed gravity anomaly extends 1,000 feet down dip to the south over a horizontal width of 600 feet.

The surface at the open pit is extensively oxidized and dips 20 degrees south under a quartzite capping. The anomaly probably represents an unoxidized thicker galena replacement.

The west traverses cover an area underlain by brecciated graphitic limestone which shows extensive oxidation. A number of minor gravity highs were found in an area of general high readings. These correspond generally with geochemical anomalies and may represent leached replacements in a flat tabular replacement.

#### DIAMOND DRILLING

Bullion Mountain Mining drilled 23 Winkie holes totalling 1,299 feet. The core recovery in these holes was poor but they traced the mineralization which could not be readily seen on the surface open pit. The drill would not penetrate the quartzite.

Nine wire line large diameter (N.Q.) holes totalling 1,732 feet were drilled to determine ore grades. These penetrated the quartzite and gave good core recovery in the soft brecciated limestone sulphide zones. They all intersected the irregular replacements with very variable grades. Holes 5 and 8 showed mostly pyrrhotite and pyrite. The deposit was explored over an area 200' by 300' and is up to 100 feet in thickness.

The drilling has not reached the limits of the deposit and has shown that the mineralization occurs in bands parallel to the quartzite contact with an east strike and a 15 degree south dip. The bands join and separate irregularly.

#### TRENCHING

In 1971 a bulldozer road was built from McQuesten Lake road to the claims, a distance of 18 miles. Roads were also built for drill access near the Clark deposit and some trenching was done southwest of the deposit on areas of geochemical high soils. Trenching was done on anomalous areas 4,400 and 5,200 feet west of the camp and deposit.

The trenching and road building was difficult

because of the permafrost and little bedrock was exposed.

#### CAMP

A tent camp with six tents was built a few hundred feet from the deposit. It is comfortable and suitable for small crews of 10 to 12 men.

Helicopters can land at the camp and it is on the road.

#### CONCLUSION

The Clark Lake deposit is a replacement in brecciated graphitic limestone off a series of Keno type vein fillings. The silver-lead-zinc mineralization parallels and underlies a quartzite formation in a limestone series at least 250 feet thick and 2 miles in length. The extent of the deposit is not known and while the silver and base metal values are high, the average grade is not fully known.

Geochemical work and prospecting has shown lead-zinc replacements indications a mile west of the original deposit.

The occurrence is a potential importance reserve of silver lead and zinc in the Mayo District.

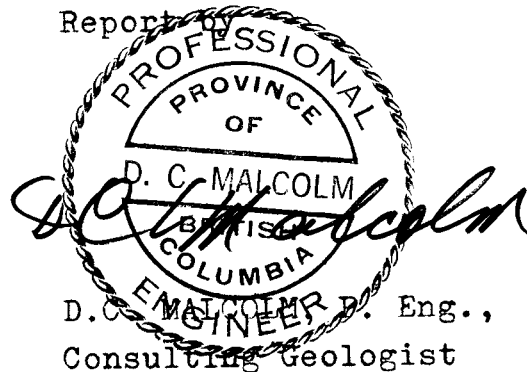
RECOMMENDATIONS

A complete gravity survey should be made over the claims. A program of large sized vertical diamond drill holes is necessary to explore fully the original deposit and a similar programs should be made over the anomalous areas.

ESTIMATED COSTS

Gravity Surveys		
6,000 stations @ \$15/stn.	\$	90,000.00
Diamond Drilling		
10,000 feet @ \$15/ft.		150,000.00
Assaying		15,000.00
Camp		10,000.00
Transportation		10,000.00
Bulldozing		12,000.00
Geology & Supervision		14,000.00
Consulting		4,000.00
Contingencies		<u>27,000.00</u>
TOTAL	\$	332,000.00

Report by



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REFERENCES

- Nash Creek Map Area  
L. H. Green and J. A. Roddick 1961  
Geological Survey of Canada Map 15-1962  
Paper 62-7
- Silver in Yukon Aaro E Aho  
Canadian Mining and Metallurgical  
Bulletin March 1963
- Current Operation at United Keno Mines  
Canadian Mining and Metallurgical  
Bulletin October 1961
- Base Metal Province of Yukon A. E. Aho  
Canadian Mining and Metallurgical  
Bulletin April 1969
- Department of Mines and Technical Surveys  
Geophysical Paper 7213 Nash Creek  
Airborne Magnetic Survey, June-February, 1964
- The Geological Survey of Canada  
Bulletins 32 and 36

APPENDIX

Drill Hole H 1. -90° Elevation 3,444' Length 98'

<u>Footage</u>	<u>Recovery</u>	<u>Description</u>	<u>Ag</u>	<u>Pb</u>	<u>Zn</u>
0- 5.5	55%	Sulphides oxidized	5.4	5.0	11.28
5.5-13.5	60%	Sulphides oxidized	1.38	1.95	7.20
13.5-21.0	45%	Sulphides Graphite-silica	1.12	1.95	4.68
21-23.5	95%	Impure limestone	.38	0.70	4.8
23.5-41	40%	Limestone	Tr.	0.26	1.30
41-54	40%	Sulphides	0.9	1.35	7.08
54-61	55%	Sulphides	1.20	1.45	5.28
61-71	75%	Sulphides limestone	0.36	0.76	3.96
71-79	75%	" "	Tr.	0.06	3.48
79-90	75%	Limestone sulphides	0.44	0.75	5.16
90-98	30%	Limestone Schist	0.14	0.28	2.52

Drill Hole H 2. -45° South Elevation 3,444 ' Length 28'

0-8	35%	Sulphides limestone	4.26	4.50	2.52
8-22	30%	" "	.78	1.25	6.72
22-28	50%	Quartzite	Tr.	.61	.18

Drill Hole H 3. -90° Length 38'

0- 5.5	40%	Sulphides-oxidized	1.36	2.15	4.56
5.5-19	45%	Limestone	Tr.	.07	.06
19-20	90%	Oxidized sulphides	.10	.14	.80
20-22	50%	Limestone	No Sample		
22-27	90%	Graphitic Schist	Tr.	.07	.28
27-38	70%	Limestone	Tr.	.07	.18

Drill Hole H 4. -60° S70° E

Length 87'

<u>Footage</u>	<u>Recovery</u>	<u>Description</u>	<u>Ag</u>	<u>Pb</u>	<u>Zn</u>
0-1	55%	Sulphides	.8	1.5	3.54
1-14	50%	Limestone pyrite Graphitic schist	Tr. .06	.07 .10	.24 .3
14-21.5	80%	Limestone siderite	.06	.30	1.52
21.5-29	90%	Breccia	No Sample		
29-35.5	60%	Limestone breccia	Tr.	.02	.12
35.5-44.4	85%	Graphitic schist	Tr.	Tr.	.08
44.5-53	90%	Dark limestone	.60	.66	.92
53-58	90%	" "	Tr.	.09	.22
58-63	90%	" "	.02	.01	.10
63-67	90%	Quartz carbonate	.02	.01	.10
67-75	90%	Quartz breccia	Tr.	.08	.02
75-80	90%	Quartz	.04	.01	.10
80-87	90%	Quartz	Tr.	.01	.06

Drill Hole H 5. -70° N70° W

Length 31'

0-6.5	45%	Sulphides	.72	1.15	1.72
6.5-14.5	75%	Limestone breccia	.04	.09	.44
14.5-22	95%	Limestone breccia	.42	.49	.60
22-31	80%	Limestone	.06	.07	.68

Drill Hole H 6. -90°

Length 45'

0-16.5	42%	Sulphides limestone breccia	3.7	3.05	2.42
16.5-23	85%	Sulphides	13.06	9.45	7.08
23-27	85%	Sulphides	7.34	5.85	5.04
27-33	85%	Graphitic schist limy	.04	.03	3.48
33-40	75%	" " breccia	Tr.	.12	.72
40-42	95%	" " limy	.96	.90	1.68
42-45	85%	Limestone graphitic breccia	.02	.05	.10

Drill Hole H 7. -30° S80° W

Length 31'

<u>Footage</u>	<u>Recovery</u>	<u>Description</u>	<u>Ag</u>	<u>Pb</u>	<u>Zn</u>
0-10	0%	Sulphides		No Sample	
10-21	70%	Limy graphitic schist	3.5	2.7	2.0
21-31	90%	Gray limestone	.24	.45	.14

Drill Hole H 8. -79° N5° W Elevation 3,449'

Length 35'

0-8	25%	Sulphides	6.48	6.15	6.24
8-17	50%	Graphitic schist	.24	.55	.48
17-29	40%	" "	4.98	4.5	2.64
29-37	95%	Dark grey limestone	Tr.	.01	.20

Drill Hole H 9. -80° S5° E

0-7	0%	Sulphides		No Sample	
7-13	25%	Graphitic schist	2.84	2.85	.58
13-17	80%	Sulphides	2.24	2.5	4.8
17-25.5	90%	"	7.36	7.5	7.44
25.5-31	27%	"	3.12	2.9	5.28
31-38.5	95%	"	2.62	2.4	3.6
38.5-61	11%	"	1.4	1.5	7.68
61-70	58%	"	0.2	0.3	2.88
70-79	58%	Sulphides	.28	4.7	4.44
79-87	75%	Dark limestone	Tr.	.05	.20
87-92	95%	" "	Tr.	1.35	Tr.
92-101	72%	" "	Tr.	.03	.04

Drill Hole H 10. -60° S5° E

0-16	19%	Sulphides limy	3.62	3.9	5.28
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Drill Hole H 11. -65° N10° W Elevation 3,432'

0-11	Nil	Quartzite			
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Drill Hole H 12. -36° N5° W

<u>Footage</u>	<u>Recovery</u>	<u>Description</u>	<u>Ag</u>	<u>Pb</u>	<u>Zn</u>
0-8	19%	Sulphides limy	5.58	5.85	10.56
8-14	37%	Graphitic schist	Tr.	1.55	0.50
14-20	75%	" "	.04	.07	.10
20-25	85%	Dark grey limestone	Tr.	.01	.02

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Drill Hole H 13. -47° Elevation 3,450' Bearing N2° E

0-7.5	70%	Graphitic limestone breccia	1.4	2.04	8.87
7.5-10	70%	" "	"	No Sample	
10-16	60%	" "	.50	.88	6.09
16-24	60%	" "	"	No Sample	
24-27	40%	" "	0.7	1.4	4.99
27-29	40%	" "	"	No Sample	
29-31.5	45%	" "	0.6	1.0	6.39
31.5-57.5	45%	" "	"	No Sample	

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Drill Hole H 14. -81° Elevation 3,459' Bearing North

0-26	20%	Sericitic limestone		No Sample	
26-30	95%	Graphitic limestone		No Sample	
30-35.3	72%	" "	5.9	6.66	13.36
35.3-66.0	75%	Limestone-calcite		No Sample	
66.0-84.0	75%	Graphitic sericitic limestone		No Sample	

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Drill Hole H 15. -82° Elevation 3,448' Bearing N5° E

0-85	82%	Limestone		No Sample	
85-115	82%	Quartz sericite schist		No Sample	

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Drill Hole H 16. -50° Elevation 3,448' Bearing N5° E

<u>Footage</u>	<u>Recovery</u>	<u>Description</u>	<u>Ag</u>	<u>Pb</u>	<u>Zn</u>
0-20	77%	Graphitic limestone		No Sample	
20-28	77%	Graphitic limestone breccia	0.2	0.3	5.27
28-55	77%	" "	"	No Sample	

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Drill Hole H 17. -45° Elevation 3,448' Bearing North

0-9	72%	Graphitic limestone breccia	0.1	.02	.10
9-11.5	45%	" "	1.2	1.68	11.97
11.5-24	70%	" "		No Sample	
24-34	80%	" "	.06	1.16	2.32
34-49	70%	" "	6.70	5.51	4.91
49-54	70%	" "	1.8	2.75	10.29
54-59	70%	" "	1.0	1.32	11.36
59-64	70%	" "	2.4	2.1	7.86
64-69	70%	" "	1.9	1.9	5.73
69-74	60%	" "	.5	1.02	2.08
74-79	60%	" "	4.0	4.21	13.34
79-86	60%	" "	"	"	"

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Drill Hole H 18. -60° Elevation 3,443' Bearing N45° W

0-68	90%	Limestone calcite		No Sample	
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Drill Hole H 19. -65° Elevation 3,441' Bearing North

0-7	45%	Limestone calcite	1.18	1.05	1.04
7-15	63%	Graphitic limestone sulphides	1.78	1.30	3.96
15-21	60%	Graphitic limestone sulphides	1.26	1.05	5.16
21-27	71%	Graphitic limestone sulphides	.24	.12	2.10

Drill Hole H 19. -65° Elevation 3,441' Bearing North - Cont'd

<u>Footage</u>	<u>Recovery</u>	<u>Description</u>	<u>Ag</u>	<u>Pb</u>	<u>Zn</u>
27-34	95%	Graphitic limestone sulphides	.08	.20	5.16
34-42	90%	" " "	.08	.14	3.54
42-49	95%	" " "	.04	.01	1.34
49-55	95%	" " "	.48	.17	.64
55-64	90%	" " "	.04	.13	.44
64-70	95%	" " "	.20	.18	.80
70-79	52%	" " "	.12	.12	.44
79-82	85%	" " "	.20	.05	.46
82-87	90%	" " "	.02	.10	.22
87-93	90%	" " "	.16	.12	.40

Drill Hole H 20. -70° Elevation 3,429' Bearing North

0-8		Limestone calcite		No Sample	
8-23		Graphitic limestone breccia sulphides	2.82	2.5	2.0
23-46		Graphitic limestone		No Sample	

Drill Hole H 21. - 60° Elevation 3,440' Bearing North

0-23	90%	Limestone calcite	Tr.	.01	.04
23-33	50%	Graphitic limestone sulphides	11.7	11.31	9.29
33-41	50%	Graphitic limestone sulphides	0.6	0.48	2.56

Drill Hole H 22. Vertical Elevation

0-13		Brown sericitic quartzite
13-45		Brecciated limestone

Drill Hole H. 23. Vertical

0-14		Quartzite
14-20		Siliceous chlorite schist
20-34		Pyritized siliceous schist

Drill Hole W 1. -90° Elevation 3,443'

<u>Footage</u>	<u>Recovery</u>	<u>Description</u>	<u>Ag</u>	<u>Pb</u>	<u>Zn</u>
0-58	90%	Brecciated limestone	4.0	6.0	7.08
58-91.5	90%	Graphitic limestone	3.66	5.7	5.52
91.5-108	90%	Graphitic limestone	0.12	0.23	3.12
108-129	90%	Graphitic brecciated limestone	0.10	0.02	0.26
129-168	95%	Graphitic siliceous limestone	.02	.02	.12

Drill Hole W 2. -65° Elevation 3,442' Bearing N78° W

0-12	80%	Sericitic graphitic schist		No Sample	
12-26.5	90%	Graphitic brecciated limestone	0.94	0.69	1.14
26.5-70	85%	Graphitic brecciated limestone	1.52	1.10	3.36
70-92	85%	Graphitic brecciated limestone	0.14	0.12	2.34
92-159	90%	Siliceous graphitic limestone	0.26	0.21	0.22

Drill Hole W 3. - 90° Elevation 3,447'

0-35.5	80%	Graphitic limestone Breccia		No Sample	
35.5-48.0	90%	" " "	2.0	1.95	13.4
48.0-56.5	90%	" " "	0.08	Tr.	0.06
56.5-59.0	75%	" " "	1.76	1.55	7.56
59.0-95.0	90%	" " "	Tr.	0.05	0.36
62.5-63.5	90%	" " "	4.88	4.90	9.96
95-103.0	95%	" " "		No Sample	
103.0-113.0	90%	" " "	0.14	0.12	3.96
113.0-136	90%	" " "		No Sample	

Drill Hole W 4. - 90° Elevation 3,479'

<u>Footage</u>	<u>Recovery</u>	<u>Description</u>	<u>Ag</u>	<u>Pb</u>	<u>Zn</u>
0-12	60%	Siliceous graphitic quartzite		No Sample	
12-80	95%	Graphitic limestone breccia		No Sample	
80-82	50%	Fault gouge		No Sample	
82-88.5	90%	Graphitic limestone breccia	64.5	34.4	9.60
88.5-98.5	95%	" " "	8.94	6.15	6.48
98.5-191	95%	" " "		No Sample	
191-208	90%	Siliceous sericitic schist		No Sample	
208-218	95%	Siliceous limestone		No Sample	

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Drill Hole W 5. - 90° Elevation 3,487'

0-9	Nil	Overburden		No Sample	
9-40	35%	Graphitic limestone breccia high pyrrhotite, pyrite	.12	.01	.02
40-187	95%	Graphitic limestone breccia decreasing pyrrhotite	.04	Tr.	Tr.
187-193	95%	Graphitic limestone		No Sample	
193-250	95%	Siliceous chlorite schist		No Sample	

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Drill Hole W 6. - 50° Elevation 3,488' Bearing North

0-26	20%	Overburden		No Sample	
26-145	95%	Limestone calcite minor pyrite		No Sample	
145-169.5	95%	Graphitic limestone		No Sample	
169.5-215	85%	Graphitic limestone breccia	0.14	0.32	1.52
215-222	90%	Graphitic limestone schist		No Sample	
222-236	90%	Quartz sericite schist		No Sample	

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Drill Hole W 7. -90° Elevation 3,506'

<u>Footage</u>	<u>Recovery</u>	<u>Description</u>	<u>Ag</u>	<u>Pb</u>	<u>Zn</u>
0-32	95%	Quartz chlorite schist		No Sample	
32-36	95%	" " "	Tr.	Tr.	Tr.
36-58	95%	" " "		No Sample	
58-63	95%	Graphitic limestone breccia	.08	Tr.	.03
63-144	95%	" " " pyrrhotite	.02	.02	.06
144-144.5	95%	Graphitic limestone breccia pyrrhotite	.26	.35	5.56
144.5-163	95%	Graphitic limestone breccia pyrrhotite	.02	.02	.06
163-190	95%	Graphitic limestone breccia		No Sample	

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Drill Hole W 8. -65° Elevation 3,462' Bearing North

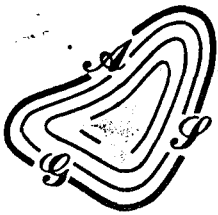
0-22	95%	Graphitic limestone breccia		No Sample	
22-23.5	95%	" " "	.24	.38	1.36
23.5-33	95%	" " "	.04	.10	.24
33-34.5	95%	" " "	1.0	1.65	9.40
34.5-38.5	95%	" " "	.04	.10	.24
38.5-39.5	95%	" " "	1.0	.08	.54
39.5-53	95%	" " "	.04	.10	.24
53-58	95%	" " "	8.88	7.95	4.80
58-66.5	95%	" " "		No Sample	
66.5-75	95%	" " "	.20	.10	.10
75-133	95%	Dark limestone, calcites		No Sample	
133-138	95%	Quartz chlorite schist		No Sample	
138-197	95%	Chloritic limestone breccia		No Sample	

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Drill Hole W 9. -44° Elevation 3,447' Bearing S78° E

<u>Footage</u>	<u>Recovery</u>	<u>Description</u>	<u>Ag</u>	<u>Pb</u>	<u>Zn</u>
0-15.5	60%	Graphitic limestone breccia	Tr.	.05	.08
15.5-22.5	90%	" "	.70	1.16	1.10
22.5-30	90%	" "	Tr.	.16	.56
30-42	90%	" "	1.0	1.14	.52
42-56.5	90%	" "	11.5	9.14	6.69
56.5-72	90%	" "	.10	.14	2.96
72-83	95%	" "	.10	.08	2.32
83-117	95%	" "	Tr.	.02	.18
117-123	95%	" "	.20	1.12	4.16
130-135	90%	Graphitic limestone breccia	Tr.	.16	.54
135-158	95%	" "	.30	.32	2.64
158-178	90%	" "	.50	.26	3.20
178-209	95%	" "	.06	.03	0.21

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*Airborne Gravity & Seismic Services Ltd.*

Calgary

Alberta

#311, 330 - 9TH AVE. S.W.  
CALGARY 2, ALBERTA  
PHONE 403 - 264-3434

November 12th, 1961

Mr. N. I. Christie  
Teledyne Exploration Ltd.,  
227 - 17th Ave. S.W.,  
Calgary Alta.

Re: Mr.

Very early on George Harty and R. B. Bickel  
a preliminary Bouguer map of a portion of the Bullion  
Mt. area and Bouguer profiles. Final report should  
be completed and mailed on 15 November.

The eastern portion of the area has not yet  
been completed. However, the profiles indicate rather  
regular, gentle regional to the south. A low-relief  
(about 4.5 mgals) positive peak at about 18 on line  
22B, however.

In the eastern portion, too little area  
was covered to establish a regional and extract resi-  
dual values. However, there is very strong Bouguer  
relief with high gradients within this part of the  
area. The positive feature has been tied together  
from 48 on line 6W, through 25 on line 2W to about  
57 on line 12. There is a significant saddle on  
line 2W (and a change in strike there) so the cause-  
tive may not be continuous. This strong posi-  
tive is open to the east (of line 6W). It most  
certainly is related between lines 11 and 12 where  
there is a 10 mgal gradient in about 500 feet. An  
apparently unrelated anomaly positive of possible  
significance was found near the intersection of line  
12 and the baseline. There is too little data avail-  
able to extend this further.

An attempt was made to compute residual  
possible depth of the causative mass of the principal  
anomaly where it crosses line 6W. Computations  
were made on the use of the difference slab pure  
mass and a density contrast of 0.1. Values obtained  
are 75' and 100'.

The amplitudes and gradients of the Bouguer positives are strong enough to require relatively shallow causative masses with steep sides and high density contrasts. The possibility that these causative masses represent mineralization is good. Gravity coverage should be extended as follows:

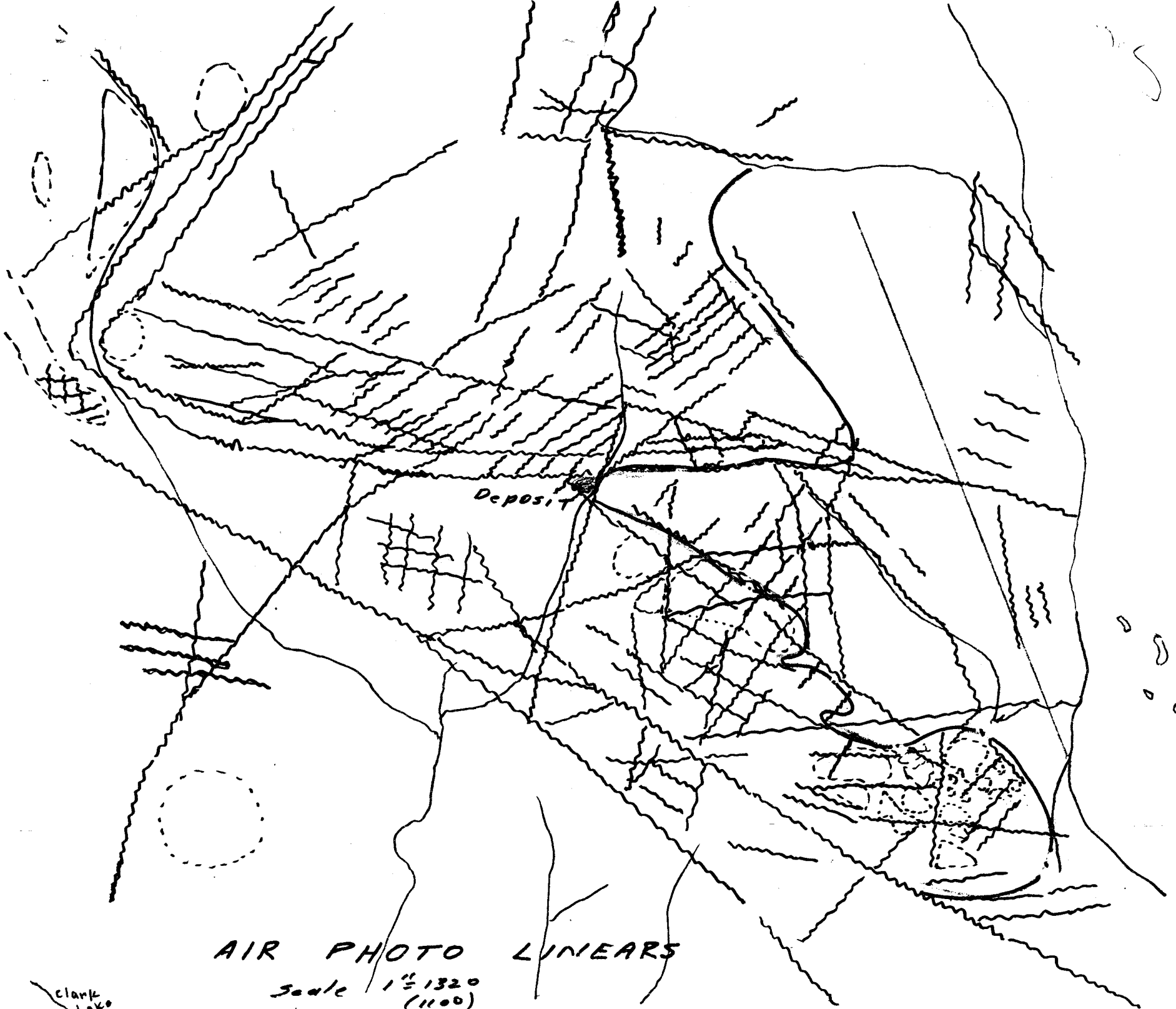
1. Extend line 6 W, 7, 8 and 9 to 100.
2. Extend line 7E to 100.
3. Add a diagonal line from 100 on line 8E to the intersection of line 7E and the baseline.
4. Add lines 10W and 10E.

Yours very truly,

*H. B. Killeen*

H. B. Killeen, F. Geoph.

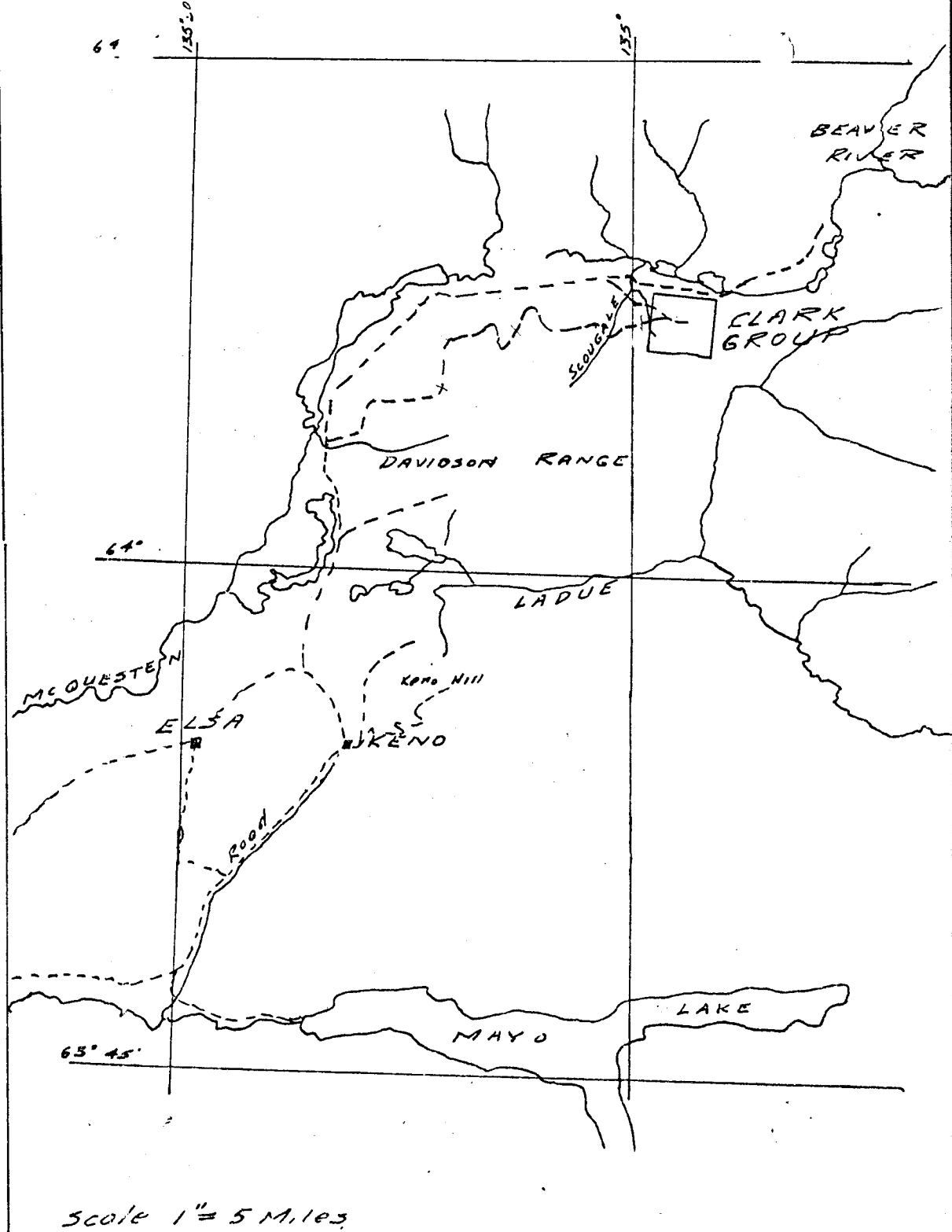
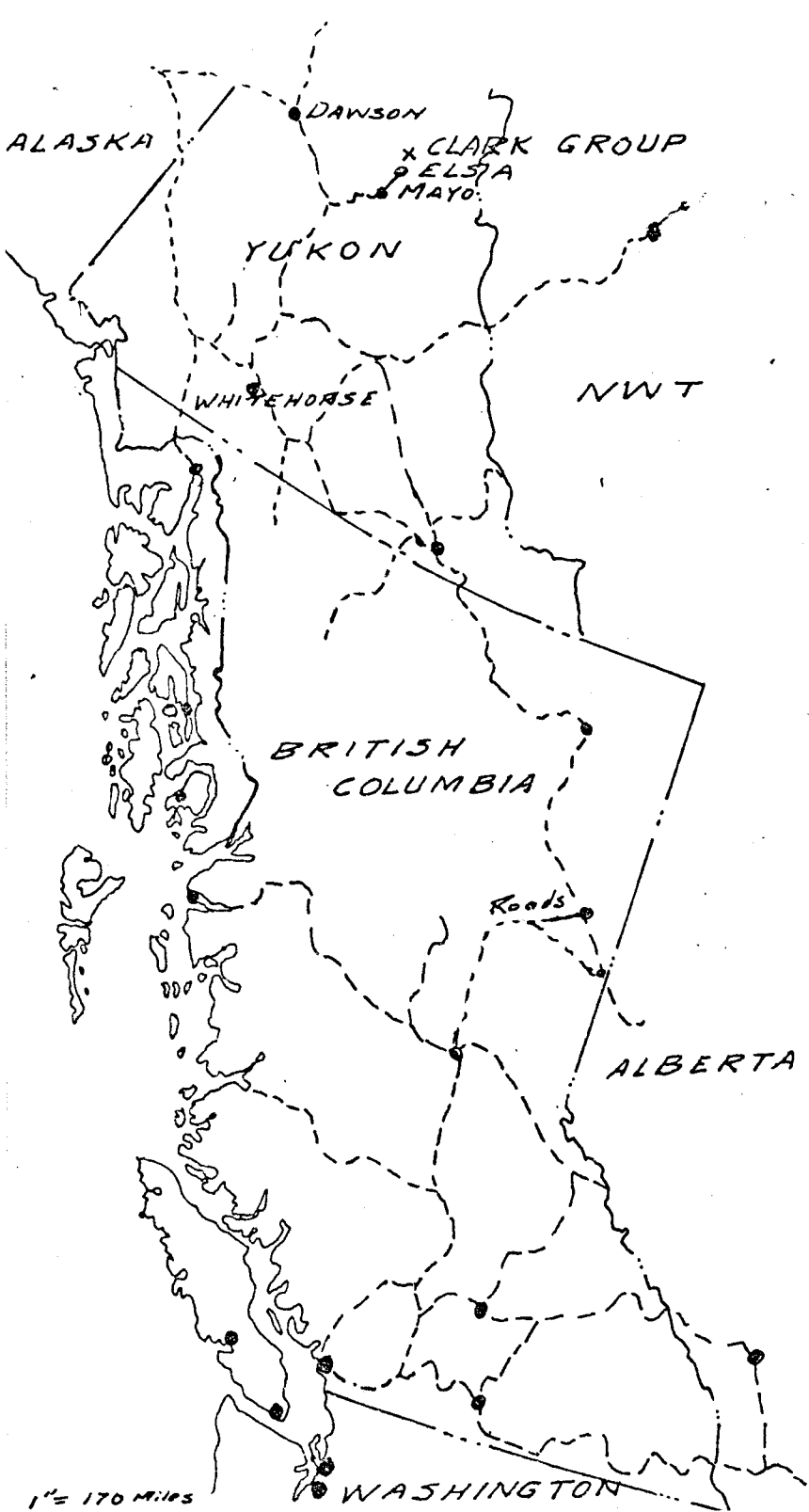
CC: G. E. Gray  
W. Smith



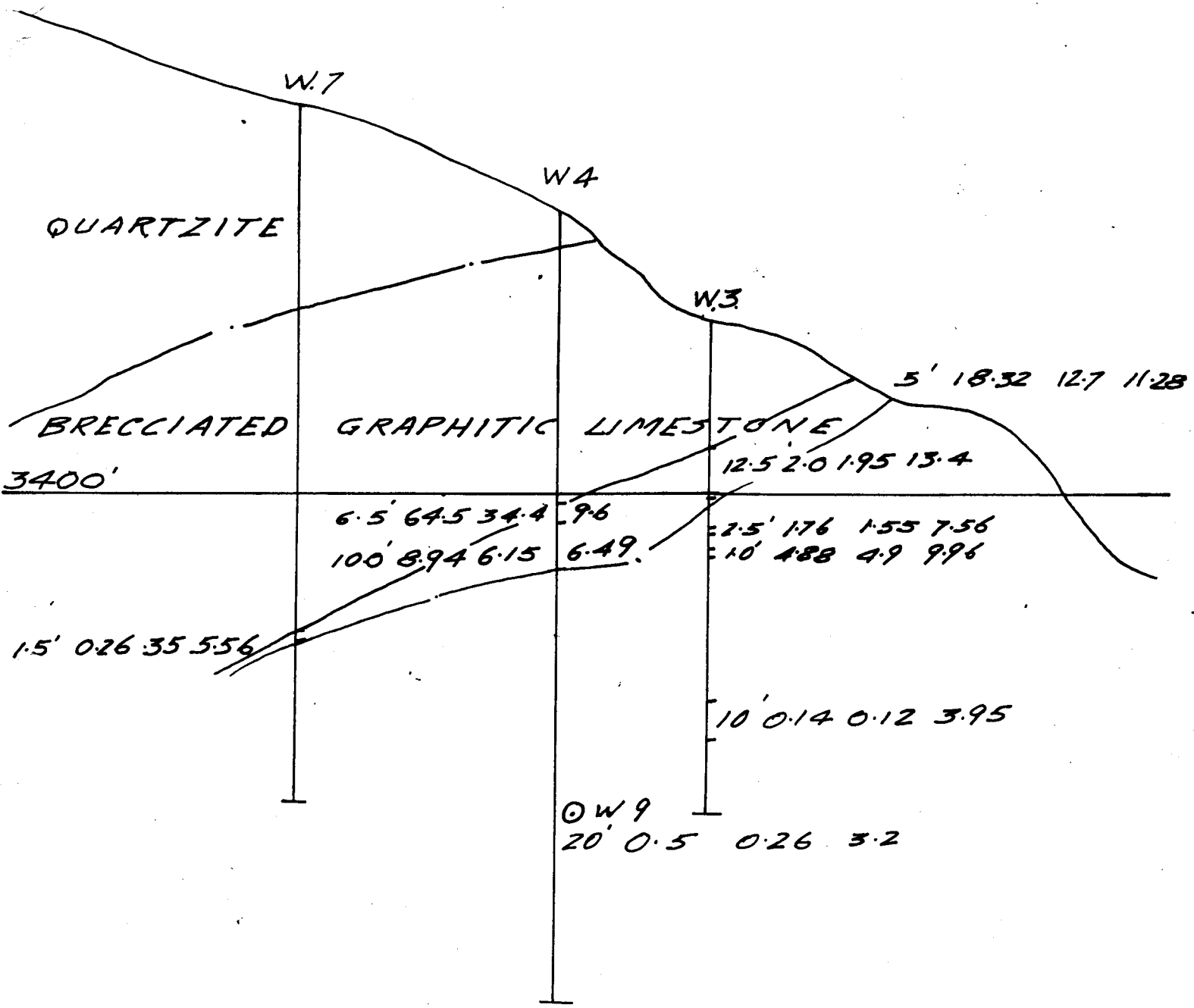
AIR PHOTO LINEARS

Scale 1" = 1320 (1100)

Clark Lake







Assays  
Width Ag. Pb. Zn.

BULLION MOUNTAIN MINE  
E-W SECTION

Scale 1" = 40' Date 15, 10, 71

BASE LINE

00

100E

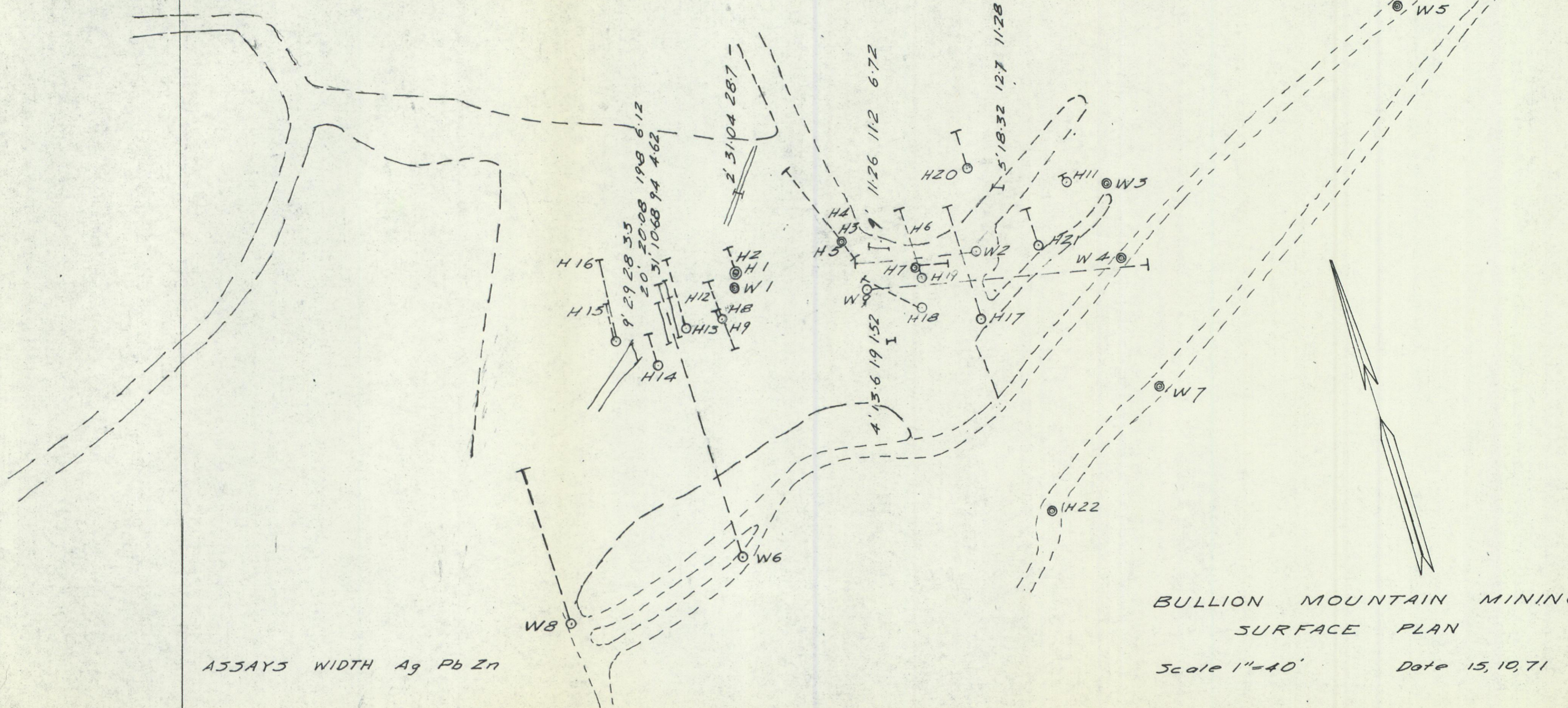
200E

300E

400E

500E

600E

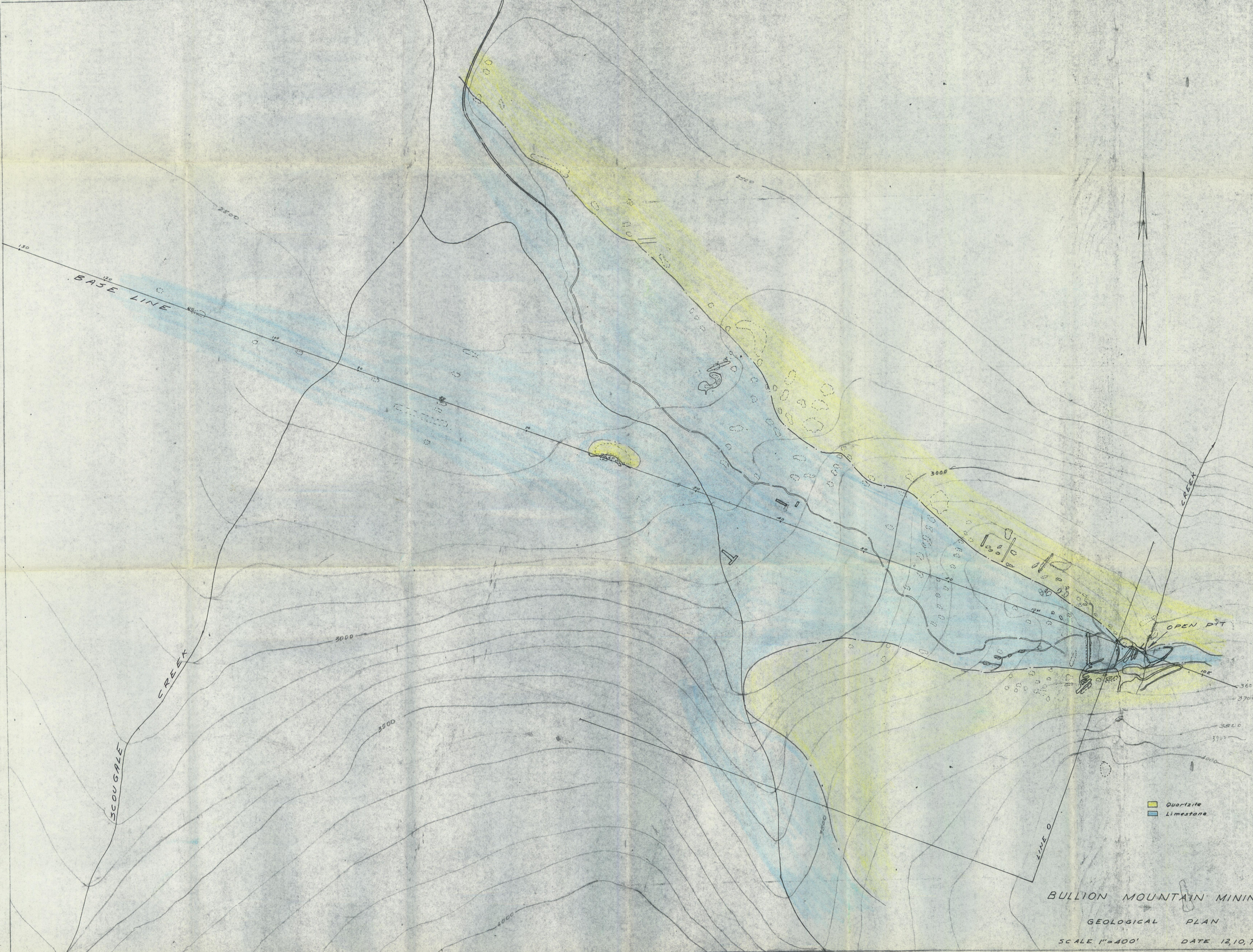


ASSAYS WIDTH Ag Pb Zn

BULLION MOUNTAIN MINING  
SURFACE PLAN

Scale 1"=40'

Date 15, 10, 71



BASE LINE

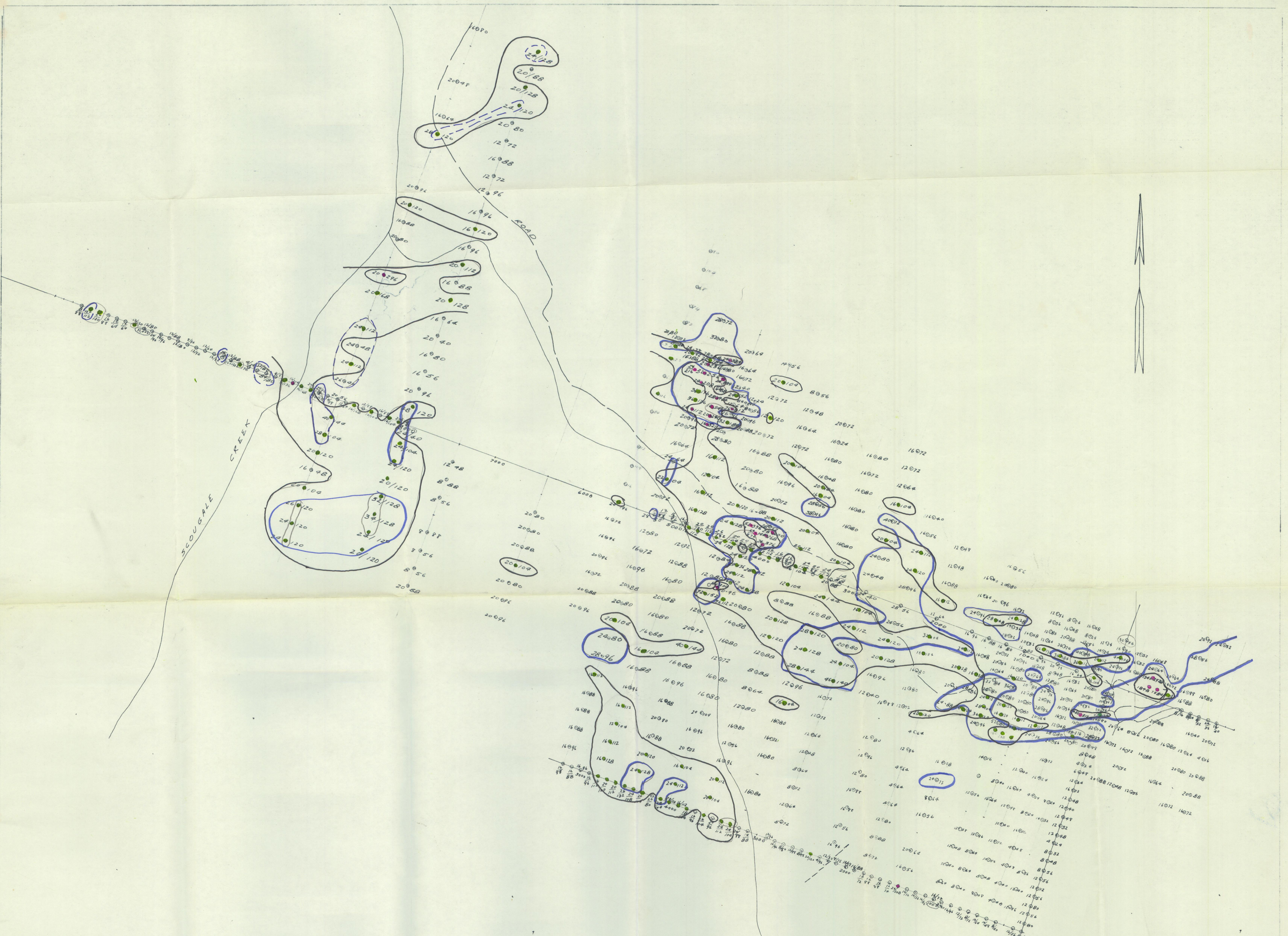
SCOU GALE CREEK

CREEK

OPEN PIT

Quartzite  
Limestone

BULLION MOUNTAIN MINING  
GEOLOGICAL PLAN  
SCALE 1"=400'  
DATE 12/10/71



ASSAYS  
LEAD ZINC

BULLION MOUNTAIN MINING

GEOCHEMICAL PLAN  
ZINC

SCALE 1"=400' DATE 12,10,71

