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REPORT
ON
:LILY MINE, IKEDA AREA:

1964

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SKEENA
MINING DIVISION

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REPORT ON
LILY MINE, IKEDA AREA

1964

Vancouver, B. C.
March 30, 1965.

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2. IR 2/64 - Geological map of area	In Pocket

REPORT ON
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INTRODUCTION

The following report summarizes work done near the Lily Mine in 1964. The writer has not seen the core or visited the property since the commencement of the drilling described. This report is based mainly on unpublished field notes made to accompany maps produced by Hans Morris and is thus limited in scope.

PROPERTY

Twenty Crown grants, three mineral leases and ten located claims comprise the group of which the Lily Crown grant is the subject of this report.

LOCATION

Ikeda Bay, Moresby Island, Queen Charlotte Islands, B.C.

ACCESS

Property is reached by recently completed Adonis-Sweet Pea access road from Jedway open pit iron mine. Main showings are about 600 feet by trail east of the road.

ORE

Copper-iron (chalcopyrite-magnetite).

HISTORY

The Lily Mine and Ikeda area have been the subject of many reports, a number of which are listed under "References." The work briefly described in this report originated as a result of a weak magnetic anomaly detected during helicopter air-mag surveys of the Ikeda area two seasons ago. Ground dip needle checks made in 1963

suggested an along strike extension of the main vein of the old Lily copper mine. The proximity to Jedway development and ready market for any worthwhile amount of magnetite found on or near the claim prompted work in 1964.

During previous years the writer supervised various short drilling and sampling programs in the area and initiated work on the Lily anomaly early in 1964. Hans Morris took charge of the property and his work constitutes the bulk of this report. Don Highe was employed as surveyor and Meade Hepler acted as prospector for a short time. Drillers were Bone and Fisher. Walter Schwartz operated the MF1 mag.

The crew worked out of the Jedway Camp and had access to much of Jedway's information on the area. The survey grid was tied in to Jedway's.

Work started about March 25 and lasted until the first week in June.

DEVELOPMENT

During the period, an MF1 mag survey was made of the proposed Lily Extension zone (see Map IK 1/64) and the surrounding area including a portion of our Sweet Pea claim where Jedway had expressed interest in a small magnetite showing adjoining their Adonis Property.

A number of drill holes were layed out taking into account the known low 30° - 50° easterly dip at the north to northeasterly striking Lily vein. Seven westerly directed AX holes (logs enclosed) ranging up to 400 feet in length and totalling 1774 feet were completed along a 270-foot section of zone. (See Map IK 1/64).

Unfortunately an unexpectedly great thickness (up to 110 ft.) of overburden was encountered and three of the holes (L-1A, L-1B and L-1C) had to be abandoned.

RESULTS

Results are best shown by reference to the drill logs and enclosed sections.

Completed holes L-3, 4, 6 and 7 intersected the favourable limestone-andesite contact zone approximately as predicted. Holes 2 and 5 may have "overshot" the well-hidden horizon.

The magnetic anomaly is explainable by a few feet of magnetite intersected near the bedrock surface.

The following excerpts from Mr. Morris' unpublished notes regarding the deposit are presented as follows:

"It seems that the copper mineralization is intermittent or in the form of shoots on a shear and not necessarily associated with magnetite; and that the Lily vein structure comes to an abrupt end at an easterly fault near the south edge of the Lily Claim."

ASSAYS & RESERVES

The best assay of several core samples tested showed only 1.37% copper across 2.7 feet. The best magnetite intersection of the few similarly sampled showed 58.53% magnetic iron across 7.0 feet (Hole L-4).

CONCLUSIONS

1964 drilling on the Lily claim eliminates for all practical purposes the importance of any extension to the Lily vein within the area drilled. Magnetite legitimately detected by geophysics proved to be too low in copper to be of interest and of insufficient quantity to

interest the iron people.

RECOMMENDATIONS

It would appear now that any easily detectable copper ore body near surface on the Lily Claim is non-existent and that future exploration by anyone interested in minor amounts of ore should be done by following the known deposits down dip and along strike via the underground workings.

Vancouver, B. C.
March 30, 1965.

J. J. McDougall
Geologist

References:

1. B.C.M.M. Annual Reports 1907-1925
2. Summary Data - R. R. Wilson, 1944 - on file
3. Combined Reports of W. G. Norris (1917) E. M. Larson (1910)
R. R. Hedley (1917) A. G. Larsen (1912) H. M. St. Cyr (1913)
- on file
4. Memorandum letter #1408 - C. M. Campbell (1956) - on file
5. Ikeda Bay Properties - J. J. McDougall - 1956 - on file
6. Interim Report 1963 by J. J. McDougall - on file
7. Geology of the Queen Charlotte Islands, Brown and Jeffries,
B.C. Department of Mines 1960 - preliminary map
8. Notes on 1964 work by H. R. Morris - on file

PROPERTY IKEDA (Lily Claim)

HOLE NUMBER L-1A, 1B, 1C

SHEET NUMBER 1

SECTION FROM _____ TO _____

DIAMOND DRILL RECORD

LOCATION: LAT 8146 N (400 N on local)
 DEP 13,163 E (335 E grid lines)
 ELEVATION OF COLLAR 730 ft. a.s.l.
 DATUM Jedway Iron Ore Co. co-ordinates
 DIRECTION AT START: BEARING) see below
 DIP)

STARTED April 1, 1964

COMPLETED April 14, 1964 (abandoned in overburden)

ULTIMATE DEPTH _____

~~PROPOSED DEPTH~~ Drillers: G. Bone, W. Fisher.
Sited: J.J. McDougall, H.R. Morris

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE
	Three holes started at this location, none of which reached bedrock: total footage 220 ft.			
	L-1A: Bearing 296°, dip 48°, depth 90 ft.			
	L-1B: Bearing -, dip 90°, depth 60 ft.			
	L-1C: Bearing 287°, dip 55°, depth 70 ft,			
	all attempted with AX casing, in boulder clay and gravel. No BX casing available.			
	Holes sited 125 ft. back from S part of dip-needle anomaly.			
	(NB DDH L-5 later drilled at this site)			

DDHs, L-1A, L-1B, L-1C

PROPERTY IKEDA (111y Claim)

HOLE NUMBER L-2

SHEET NUMBER 1

SECTION FROM _____ TO _____

DIAMOND DRILL RECORD

LOCATION: LAT. 8102N (350N on [MCA] grid)
 DEP. 13.134E (320E grid lines)
 ELEVATION OF COLLAR 745' a.s.l.
 DATUM Jedway Iron Ore Co. co-ordinates
 DIRECTION AT START: BEARING 287°
 DIP 55°

STARTED 15 April 1964

COMPLETED 21 April 1964

ULTIMATE DEPTH 250 ft.

PROPOSED DEPTH Drillers, G. Bone, W. Fisher,
Sited & Logged H.R. Morris

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE			
0 - 114	Boulder clay and gravel (Casing: 40ft BX, 115ft AX)						
114-167	Andesitic greenstone, sl varied texture and colour, gen grey-green, few faintly brown-grey sections, sl epidote in fractures or possibly pillow edges, show breccia sections. 137 - 143) ----- Med. green with dk green phenocrysts, rounded 144.5 - 147.5) 144.0 possible flow contact: mixed breccia with pyrite and epidote above, meg, and vfg dk green below, maybe alteration on old joint 158.0) -----fg magnetite about 50% 159.0 - 160.0)						
167 - 168.5	Pyritic zone, marked foliation or banding at 45 - 50° to CA; grey and fg in part. (i.e. 160.3-5, 163.0-5, 164.5 - 5.2) possibly limestone sed; remainder somewhat brecciated greenstone in very thin irregular bands; pyrite or 10% magnetite or 2% ^{OR LESS} silts; 1/4" by 1/2" dot of cpy in magnetite at 167.5; thin calcite str.						
	continued:						
						IKEDA	L-2

PROPERTY IGEDA (Lily Glain)

HOLE NUMBER L-3

SHEET NUMBER 1

SECTION FROM _____ TO _____

DIAMOND DRILL RECORD

LOCATION: LAT 8207 N (490 N on local grid)

STARTED 22 April 1964

DEP 13270 E (420 E lines)

COMPLETED 30 April 1964

ELEVATION OF COLLAR 720 ft. a.s.l.

ULTIMATE DEPTH 313 ft.

DATUM Jedway Iron Ore Co. coordinator

PROPOSED DEPTH Drillers: G. Bone, W. Fisher

DIRECTION AT START: BEARING 257°

DIP 15°

Site and Logged: H. R. Morris
 OF SAMPLE Magnetic
Fe % Cu % An cont Sample No.

DEPTH FEET	FORMATION	FROM	TO	OF SAMPLE	Magnetic	Fe %	Cu %	An cont	Sample No.
0 - 90	Boulder clay and gravel								
90 - 94	Limestone, med, grey-white w dk grey or blk argillite frags (about 5%), no bedding visible								
94 - 147	Limestone, med, sl darker grey; few blk arg frags; bdg locally (120) 85 - 90° to CA; bdg 80° to CA at 130 - 145, lower contact (147) at 77° to CA, with 1/2 - 1/2 inch calcite/quartz vein having fine banding, and finely layered magnetite/chlorite/pyrite below.								
147 - 255.5	Andesite	147.2-150.0	150.0	2.8	19.48	0.04	tr		33277
	147 - 149 blotchy magnetite/chlorite, 20/80	150.0-157.5	157.5	7.5	16.14	0.04	tr		33278
	149 - 150 stp, but with stronger mag layers about 80° to CA, and banded calcite/qtz/py in veins or layers; pyrite actually more in andesitic material, not really associated w qtz/calc veining.	157.5-165.0	165.0	7.5	26.47	0.06	tr		33279
	150 - 163 Ands w varied chl/(epid) and mag/py layer-like concentrations, locally 60% mag over 3 - 4 ins., av. 10 - 20% mag or mag/py (75/25); layering 75-80°								
	163 - 186 Strong epidote in bx Ands, w sl mag. Ands pale green to epidote green, with dark amphibolite spots.								

IGEDA L-3

PROPERTY IKEDA (Italy Claim)

HOLE NUMBER L-3

SHEET NUMBER 2

SECTION FROM _____ TO _____

DIAMOND DRILL RECORD

LOCATION: LAT _____

STARTED _____

DEP _____

COMPLETED _____

ELEVATION OF COLLAR _____

DATUM _____

ULTIMATE DEPTH _____

DIRECTION AT START: BEARING _____
DIP _____

PROPOSED DEPTH _____

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE	Magnetic Fe %	Cu %	An. cont.	Sample No.
	186 - 247.5 pale to med grey-green Ande (less chl), inag epid, mag and py cov; in part has small mag spots or flecks, apparently uniformly scattered grain clusters; also large amygdale-like green spots or blotches 1/8" to 1/4"; mag av 5 - 10%							
	247.5 - 255.5 chlorite/epid/mag, sl layering tends to be at 40° to CA, parallel to sl sh form; spotting fades out pretty abruptly at 247.5	247.5-255.5	255.5-258.2	8.0	17.43	0.04	tr	33280
				2.7	NA	1.37	tr	33281
				3.0	37.01	0.06	tr	33282
255.5-258.2	250.5 2 inch patch of garnet/mag/calcite. qtz - chalcoprite vein (w. minor later calcite stringers); opy av 2 - 5%, tends to increase toward lower contact, in 0.05 to 0.5" flecks or patches, no mag, no py in vein proper (255.3 - 255.5 calc/chl/qtz shear vein at 42° to CA); Bottom contact lost, but app sheared sl along vein contact.							
258.2-313	Andesite; 258.2 - 261 chl/mag, sl layering on ch at 42 to CA; mag 60%, py 5% (20% loc) 261 - 292 varied pale green to grey-green to grey Ande, (pale variety spotted); prob locally siliceous; variously patchy epid, sl mag (5% or less, varied)							

IKEDA L-3

PROPERTY IKEDA (Lily Clain)

HOLE NUMBER L-3

SHEET NUMBER 3

SECTION FROM _____ TO _____

DIAMOND DRILL RECORD

LOCATION: LAT _____

STARTED _____

DEP _____

COMPLETED _____

ELEVATION OF COLLAR _____

ULTIMATE DEPTH _____

DATUM _____

DIRECTION AT START: BEARING _____
DIP _____

PROPOSED DEPTH _____

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE	Magnetic Fe %	Ca %	Al as lt	Sample No.
	281 - 286 garnet-hematite-qtz-mag section, fg bx or banded; sl incr in mag 283 - 289							
	292 - 306 vfg Ands, sl layering 80 - 90° to CA, varied texture, med green-grey, locally silky frags (7 pp) in fine grey-green matrix							
	306 - 313 coarser text med Ands, st 186, small mag spots and larger green amygdules (also section of this 302 - 3; v little mag otherwise - less than 2% mag in spotted sections 2 - 5%)							
	313 End of hole							
	Hole sited 180 ft. back from central high of Magnetometer anomaly.							

Ikeda L-3

PROPERTY IKEDA (Lily Claim)

HOLE NUMBER 1-4

SHEET NUMBER 1

SECTION FROM _____ TO _____

DIAMOND DRILL RECORD

LOCATION: LAT 8,232 N (1,90 N on local geophysical)
 DEP 13,192 E (335 E grid lines)

STARTED 2 May 1964

ELEVATION OF COLLAR 710 ft.

COMPLETED 7 May 1964

DATUM on Jersey Iron Ore Co. coordinates

ULTIMATE DEPTH 214 ft.

DIRECTION AT START: BEARING 287°
 DIP 50°

DRILLERS: G. Bone, W. Fisher
 SITED & LOGGED: H. E. Morris

DEPTH FEET	FORMATION	FROM TO		WIDTH OF SAMPLE	Magnetic Fe %	Cu %		
0 - 67	Overburden and heavily weathered limestone (casing to 85 ft.)							
67 - 73	Limestone							
73 - 85	Mixed lat frags and ^{OVER} burden							
85.0 - 85.4	Limestone, gray-white; poss. bedding 65-70° to CA							
85.4 - 90.0	Magnetite, with less than 5% pyrite and chlorite, increasing to 10% in last foot - tiny lens (1" x 1/2") of chalcopyrite & pyrite at 88.0, at 20° to CA	85.4-92.4		7.0	58.53	NA		33263
90.0 - 92.5	Mgn/py/chl in ratio 50/15/35							
92.5 - 214	Andesite, fine-grained chloritic, generally brecciated and altered. Fracturing tends to be at 60 - 70° to CA. Alteration: mottled, w/ shearing, buff gray green and chloritic, minor py and qtz - calc veins							
	95.3 - 1/2" mgn/py/cpy vein at 35° to CA, ratio 30/45/25							
	97.5 pyrite patches							
	95 - 105 epidote patches, dark mottled alteration							
	107 - 135 small dk green spots, and hornblende phenocrysts							
	117 small magnetite spots							
	117 - 120 epidote 50%							
	126 - 132 primary magnetite/pyrite, small amount of							

Ikeda 1-4

PROPERTY IKEDA (Lily Claim)

HOLE NUMBER L-6

SHEET NUMBER 1

SECTION FROM _____ TO _____

DIAMOND DRILL RECORD

LOCATION: LAT 8,334N (615N on local isogr)
 DEP 13,283E (396 E geophysical grid)
 ELEVATION OF COLLAR 688ft
 DATUM Jedway I. O. Co.
 DIRECTION AT START: BEARING 287°
 DIP 50

STARTED 15 May 1961
 COMPLETED 20 May 1961
 ULTIMATE DEPTH 137 ft.
~~PROPOSED~~ DRILLERS: G. Bone, Warren Fisher,
 Sited: H. R. Morris

DEPTH FEET	FORMATION	FROM TO	WIDTH OF SAMPLE			
0 - 50	Casing					
50 - 90	Limestone					
90 - 137	Andesite, generally altered and chlorited, as in DDM L-4 91 - 94 slight magnetite, trace cpy, very low grade (not logged in detail)					
	End of hole 137ft. No assays.					

PROPERTY IKEDA (Lily Claim)

HOLE NUMBER L-7

SHEET NUMBER 1

SECTION FROM _____ TO _____

DIAMOND DRILL RECORD

LOCATION: LAT 8,116N (150N on local geophysical)
DEP 13,430E (600E grid lines)

STARTED 21 May 1961

ELEVATION OF COLLAR 753 ft

COMPLETED 29 May 1961

DATUM Jedway I. O. Co.

ULTIMATE DEPTH 400 ft.

DIRECTION AT START: BEARING 287°
DIP 50°

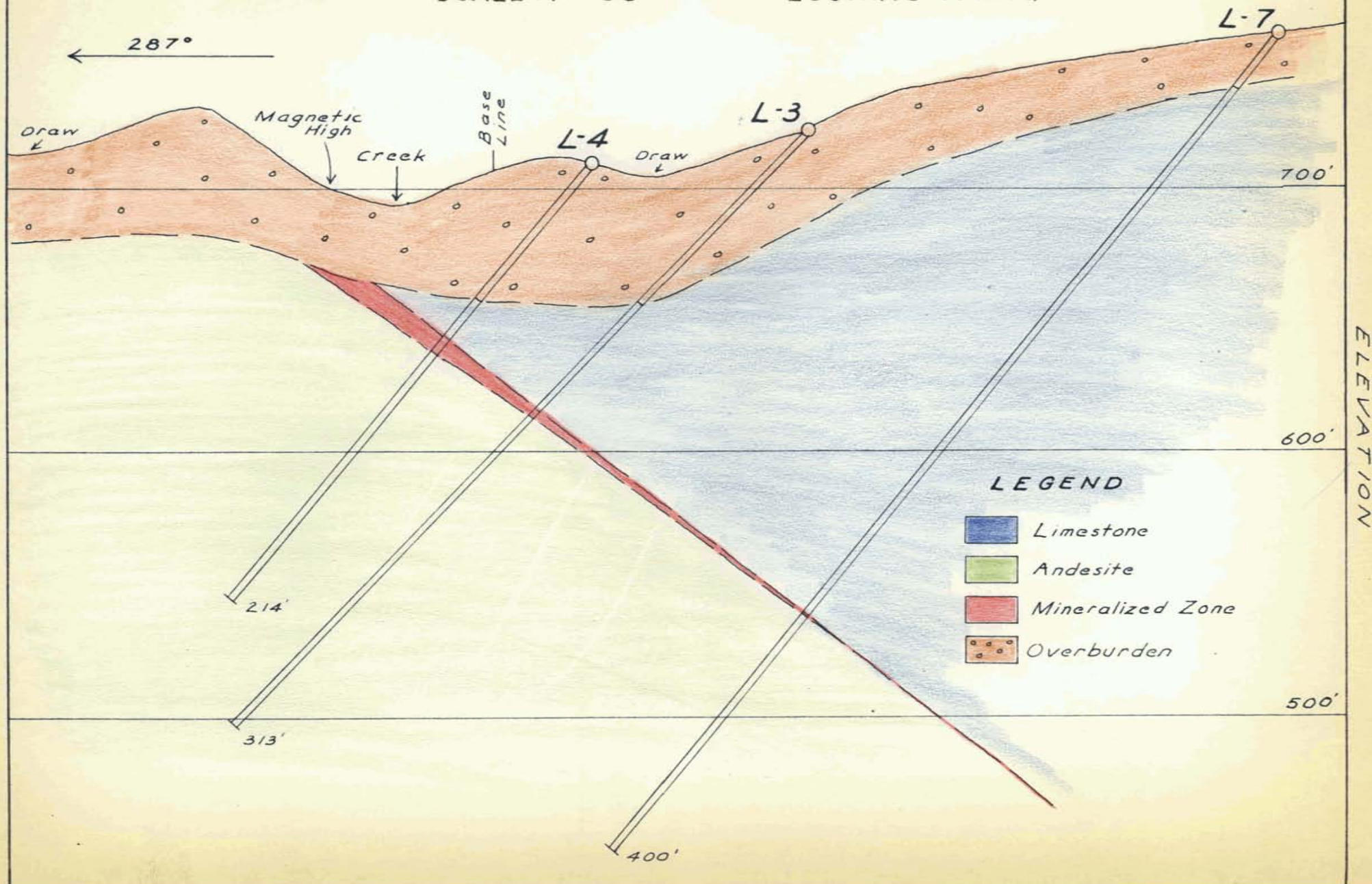
PROPOSED DEPTH XXXXXXXXXXXX Driller: George Bone, W. Fisher

DEPTH FEET	FORMATION	FROM TO		WIDTH OF SAMPLE					
0 - 25	Casing								
25 - 325	Limestone								
325 - 400	Andesite, ^{slight magnetite mineralization, patchy,} _{generally altered} low grade. (not logged in detail)								
	End of hole 400ft. - no assays.								

IKEDA DRILLING - 1964 SECTION A-A_i

SCALE: 1" = 50'

LOOKING NORTH



IKEDA

SCALE: 1" = 50'

← 287°

D.D.H. L-2

(-55° - elev. 745' asl.)

250'

LOOKING NORTH



Andesite



Mineralized Zone.



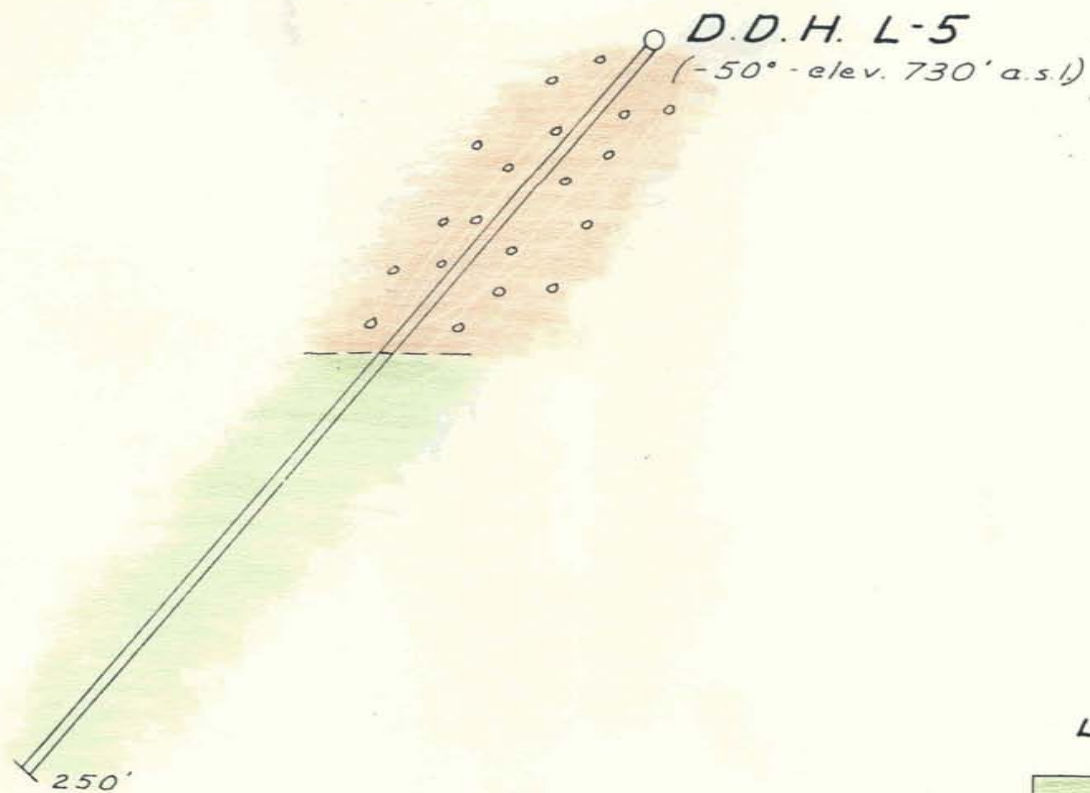
Overburden.



IKEDA


SCALE: 1" = 50'

← 287°



LOOKING NORTH

LEGEND

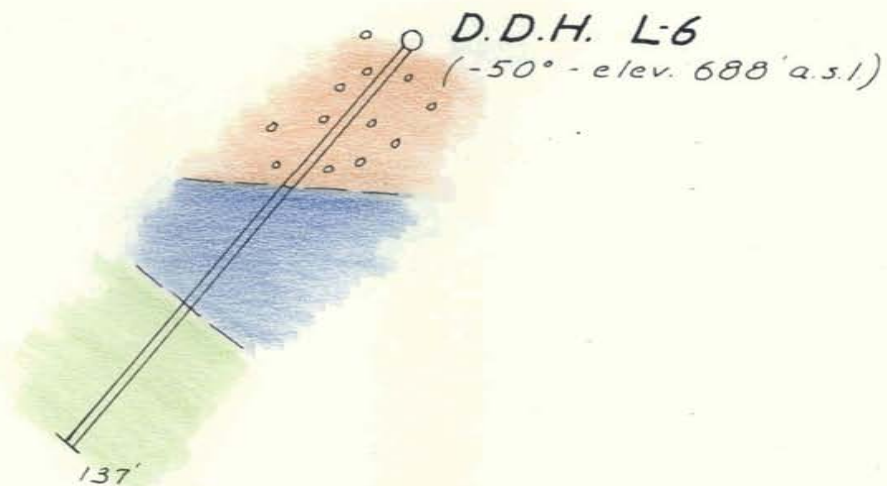
 Andesite

 Overburden




IKEDA

SCALE 1" = 50'

← 287°



LEGEND

-  Limestone
-  Andesite
-  Overburden

LOOKING NORTH