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PROPERTY FILE

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28

REPORTS ON

FORD IRON DEPOSIT

ZEBALLOS, B. C.

By 59 - Feb 1960

by: Hill, Starck & Associates

R E P O R T S

on

FORD IRON DEPOSIT
ZEBALLOS, B. C.

by: Hill, Starck & Associates

R E P O R T S

on

FORD IRON DEPOSIT
ZEBALLOS, B. C.

by

Hill, Starck & Associates

- (1) Progress Report of February 4th, 1960,
Results of 1959 diamond drill inter-
sections showing the average percentage
of Iron and Sulphur.
- (2) Progress Report of December 4th, 1959,
Results of diamond drilling to date.
- (3) Progress Report of October 19th, 1959,
Results of diamond drilling to date.
- (4) Supplementary Report of August 13th, 1959,
Recommended diamond drilling.
- (5) Revised Report - August 27th, 1959,
Revision of report dated July 13th, 1959.
- (6) Complete set of maps.

PROGRESS REPORT

on

FORD IRON DEPOSIT

ZEBALLOS, B. C.

**Results of 1959 diamond drill intersections
showing average percentages of iron & sulphur**

February 4th, 1960.

February 4th, 1960.

International Iron Mines Ltd.,
850 West Hastings Street,
Vancouver, B. C.

Dear Sirs:

Re: Ford Iron Deposit,
Zeballos, B. C.

Following is a list of the 1959 diamond drill ore intersections showing the average percentage of iron and sulphur for each ore intersection. The average for each drill hole is based on samples taken about every five feet.

<u>Hole No.</u>	<u>Length of Ore</u>	<u>% Fe</u>	<u>% S</u>
201	34'	45.2	0.36
202	27.2'	43.1	0.49
204	21'	48.5	0.15
205	198'	41.3	0.26
209A	143'	44.7	0.12
210	125'	53.9	0.16
211	91'	56.7	0.08
212B	63'	34.5	0.04
	45'	40.2	0.05

The weighted average is 0.17% S for the above intersections.

Note 202 encountered a narrow band of pyrrhotite on the footwall side of the ore zone, assaying high in sulphur, which will not be mined and thus was not included in the above average.

Included in the maps forming part of the report are two revised sections showing the assay results of drill holes 205 and 211 which were previously estimated.

} Au?

- 2 -

The ore intersection in diamond drill hole 205, 198 ft., was estimated at 44.3% iron, whereas the samples averaged 41.3% iron. The intersection in hole 211, 91 ft., was estimated at 44.4% iron, and the actual assay was 56.7%.

In view of the near accuracy of the estimates, we have not changed the ore reserve calculations.

Yours very truly,

HILL, STARCK & ASSOCIATES



Henry L. Hill

HLH/mjr

PROGRESS REPORT

on

FORD IRON DEPOSIT

ZEBALLOS, D. C.

**Results of Diamond Drilling
to December 4th**

by: Hill, Starck & Associates

December 4th, 1959.

PROGRESS REPORT

on

FORD IRON DEPOSIT

ZEBALLOS, B. C.

**Results of Diamond Drilling
to October 18th**

by: Hill, Starck & Associates

October 19th, 1959.

December 4th, 1959.

International Iron Mines Ltd.,
850 West Hastings Street,
Vancouver, B. C.

Dear Sirs:

Re: Ford Iron Deposit, Zeballos, B. C.

This report supplements our reports of August 13th, August 27th and October 19th, and presents up to date information on the current diamond drilling program. A recalculation of ore reserves has been made to include -

1. Additional ore shown by diamond drilling completed to date.
2. Additional low grade ore at the south end of the "A" zone.

GENERAL

Thirteen diamond drill holes have been completed and a fourteenth is nearing completion. Total footage to date, of the current program, is 3,607 feet.

Ore reserves are now estimated at -

	<u>Short Tons</u>	<u>Grade</u>
Proven ore	2,150,000	48.3%
Indicated ore:		
S.E. of "A" zone	100,000	
"B" zone, Sec. 76½ - 81	<u>250,000</u>	<u>45.0%</u>
Total	2,500,000	47.9%
Possible ore:		
"B" ore zone at depth and possible other deposits to the east along the limestone contact	<u>500,000</u>	
	<u>3,000,000</u>	

- 2 -

DIAMOND DRILL HOLES COMPLETED

Holes of the current program completed to December 2nd, 1959, are as follows:

<u>Hole No.</u>	<u>Length</u>
201	351 ft.
202	261 ft.
203	254 ft.
204	244 ft.
205	462 ft.
206	150 ft.
208	333 ft.
209	91 ft.
209A	281 ft.
210	279 ft.
211	273 ft.
212	90 ft.
212A	150 ft.
212B	<u>388 ft.</u> not completed
	<u>3,607 ft.</u>

PROVEN ORE RESERVE ESTIMATE - December 4th, 1959

<u>"A" Zone:</u>	<u>Section No.</u>	<u>Short Tons</u>	<u>Grade</u>
	40	24,375	39.1
	42	60,000	39.1
	43	69,375	39.1
	45	110,000	42.5
	47	135,625	55.1
	52	350,000	46.4
	54	239,375	50.2
	56	282,991	55.6
	60	199,155	47.4
	61	89,050	49.6
	63	60,469	53.3
	64	<u>47,344</u>	<u>54.0</u>
		1,667,700	49.0
<u>"B" Zone:</u>			
	68	124,790	48.7
	70	62,375	44.7
	74	<u>296,700</u>	<u>44.7</u>
		483,900	45.7
<u>Total</u>		<u>2,151,600</u>	<u>48.3%</u>

- 3 -

PROPOSED MINING METHOD

The attached 1" = 40' longitudinal projection outlines the proposed mining method for the 'A' zone. Tonnages to be mined in each phase of the operation are indicated. Initial mining would be in the quarry at the south end of the ore body.

Calculation of the tonnage to be mined from the surface, between sections 45 and 52, await results from drill hole number 207, which will be drilled on section 49.5.

SUMMARY

The present diamond drilling program has increased the proven ore reserves from 1,200,000 tons to 2,150,000 tons, which will be further increased when drill hole number 212 is completed on the 'B' zone.

Final calculations of both proven and indicated ore will be made upon completion of the present exploration program.

Yours very truly,

HILL, STARCK & ASSOCIATES


Henry L. Hill

HLH/mjr

October 19th, 1959.

International Iron Mines Ltd.,
850 West Hastings Street,
Vancouver, B. C.

Dear Sirs:

Re: Ford Zaballos Iron Deposit,
Zaballos, B. C.

This progress report supplements our reports of July 13th and August 13th, and presents up to date information on the results of the present surface drilling program.

GENERAL

Ten diamond drill holes, having an aggregate length of 2,609 feet, have been completed by Rupert Drilling Exploration.

Approval has been received from Mr. Upton to complete an additional 1,100 feet of drilling, most of which will be on the north, or "B" ore zone.

Diamond drilling to date has confirmed and increased the proven ore reserve estimate on the "A" zone, and, in addition, has added nearly 200,000 tons to the proven reserves from the "B" zone.

Ore reserves are now estimated at -

	<u>Tons</u>	<u>Grade</u>
Proven ore	1,500,000	53.4
Indicated	<u>700,000</u>	<u>53.4</u>
Total	2,200,000	53.4
Possible	<u>1,000,000</u>	—
Total	<u>3,200,000</u>	

DIAMOND DRILL HOLES COMPLETED

Attached to this report are two new sections on the "B" zone, and up to date sections on the "A" zone showing the following drill holes:

1959 Drilling - to October 18th

<u>Hole No.</u>	<u>Length</u>
201	351 ft.
202	261 "
203	254 "
204	244 "
205	462 "
206	150 "
208	333 "
209	91 "
209A	281 "
210	182 " - not completed
Total	2,609 ft.

PROVEN ORE RESERVE ESTIMATE

"A" Zone

<u>Section</u>	<u>August Estimate</u>			<u>October 17th Estimate</u>		
	<u>Tons</u>	<u>Grade</u>	<u>T x Grade</u>	<u>Tons</u>	<u>Grade</u>	<u>T x Grade</u>
43	62,500	47.3	2,956,250	62,500	47.3	2,956,250
45	68,750	55.8	3,836,250	68,750	55.8	3,836,250
47	135,625	55.1	7,472,938	135,625	55.1	7,472,938
	4,375	57.3	250,688	4,375	57.3	250,688
52	155,859	61.0	9,507,399	155,859	61.0	9,507,399
	55,781	64.9	3,620,187	55,781	64.9	3,620,187
54	186,250	61.3	11,417,125	239,375	50.2	12,016,625
56	282,991	55.6	15,734,300	282,991	55.6	15,734,300
60	116,875	55.8	6,521,625	116,875	55.8	6,521,625
61	70,078	49.6	3,475,869	70,078	49.6	3,475,869
63	41,719	56.8	2,369,639	60,469	53.3	3,222,998
64	27,891	57.4	1,600,943	47,344	54.0	2,556,576
	1,208,694	56.9	68,763,213	1,300,000	54.7	71,171,705

"B" Zone

	-	-	-	131,875	44.7	-
				62,375	44.7	
				194,200	44.7	8,682,975
Totals	1,208,694	56.9	68,763,213	1,494,200	53.4	79,854,680

Proven Ore Reserve Estimate (Continued)

Note: Proven ore reserves, for simplicity, are taken at 1,500,000 tons rather than at 1,494,200 tons, as shown in the table on page 2.


SUMMARY

There is a good possibility that the proposed diamond drilling on the "B" zone will increase the proven ore reserves from 1,500,000 to 2,000,000 tons.

Indicated ore reserves can be recalculated upon the completion of the present drilling program.

Yours very truly,

HILL, STARCK & ASSOCIATES



Henry L. Hill

HLH/mjr

SUPPLEMENTARY REPORT

on

FORD IRON DEPOSIT

ZEBALLOS, B. C.

Diamond Drilling Recommendations

by: Hill, Starck & Associates

August 13th, 1959.

August 13th, 1959.

International Iron Mines Ltd.,
850 West Hastings Street,
Vancouver, B. C.

Dear Sirs:

Re: Ford Iron Deposit,
Zeballos, B. C.

The following report supplements our report of July 13th and, in particular, outlines the proposed drilling program. It also covers the writer's visit to the mine on August 7th, 1959.

GENERAL

A 2,000 foot diamond drilling program was recommended in our report of July 13th for the following purposes:

- (a) To confirm the ore reserve estimate of 1,200,000 short tons of iron ore on the 'A' or south ore zone and, in particular, to check the ore zone outline on Section 54, and the downward extension possibilities at Section 49½.
- (b) To check for the inclusion of dyke rocks on the proven ore reserves.
- (c) To determine, if possible, the bottom of the ore zone. This information would be necessary to determine the elevation of the proposed low level extraction tunnel.

- 2 -

DIAMOND DRILLING

The following drill holes have been laid out, and are shown on the maps accompanying this report:

Hole No.	Co-ordinates of Collar		Bearing	Elev. of Collar	Dip	Length
201	N-7165	E-4283	N 80° W	2391	-26°	200'
202	N-7165	E-4283	S 85° W	2391	-29°	200'
203	N-7165	E-4283	N 80° W	2391	-55°	330'
204	N-7129	E-4315	S 75° W	2370	-37°	280'
205	N-8032	E-4413	S 70° W	2295	+ 5°	410'
207	N-6890	E-4385	S 73° W	2430	-10°	400'
208	N-7220	E-4300	N 6° E	2430	Flat	250'

Holes 201, 202, 203 and 204 test the downward extension of the ore body at the north end of 'A' zone, and the possibility of the limestone contact steepening or reversing to the east. Should the dip steepen or reverse, the potential of the 'E' ore body, south of Section 54, would be greatly increased.

Hole 205 will check the width of ore on Section 54, and indicate the dip of the footwall of the ore body at this point.

Hole 207 will check the continuity of the W and E ore bodies between sections 47 and 52.

Hole 208 will test the downward extension of the 'B' zone.

A total of 303,000 additional tons could be indicated by holes 201, 202, 203 and 204, as shown on Sections 60, 61, 63 and 64.

SUMMARY

The drilling outlined above might expand the proven ore reserves by about 300,000 tons and, in addition, supply other valuable data on the grade, depth and continuity, etc.

The helicopter landing site is now being cleared on the north end of the ore zone.

The drilling program should take about six weeks to complete.

Yours very truly,

HILL, STARCK & ASSOCIATES


Henry L. Hill

HLH/mjr

R E P O R T
on
FORD IRON DEPOSIT
ZEBALLOS, B. C.

Revision of Report dated July 13th

by: Hill, Starck & Associates

August 27th, 1959.

HILL, STARCK & ASSOCIATES

CONSULTING ENGINEERS
MINING • METALLURGY • GEOLOGY
844 WEST HASTINGS STREET
VANCOUVER 1, B.C.



March 2nd, 1960.

Frobisher Ltd.,
402 West Pender Street,
Vancouver, B. C.

Attention: Mr. Alec Smith

Dear Sir:

We enclose herewith a copy of our Progress Report on Ford Iron Deposit, dated February 23rd, 1960, with attached Cross Section No. 79 showing results of diamond drill hole 212 B.

We regret that you did not receive the copy mailed to you previously.

Yours very truly,

HILL, STARCK & ASSOCIATES

H. L. Hill.

HLH/mjr
Encl.

PROGRESS REPORT

ON

FOND IRON DEPOSIT

ZEPALLOS, B. C.

Results of diamond drill hole 212 B.

February 23rd, 1960.

February 23rd, 1960.

International Iron Mines Ltd.,
850 West Hastings Street,
Vancouver, B. C.

Dear Sirs:

Re: Ford Iron Deposit,
Zebralia, B. C.

Attached hereto is a cross section, No. 79, showing results of diamond drill hole 212 B.

This vertical diamond drill hole encountered the downward extension of the "B", or north ore zone about 400 feet below the surface.

The proven ore reserve estimate of 2,150,000 tons, as outlined in our supplementary report dated December 4th, does not include any tonnage from drill hole 212 B.

Yours very truly,

HILL, STARCK & ASSOCIATES


Henry L. Hill

NLA/mjr

Hole No 212B
 Location Lat N 7610
 Dep E 4304
 Elev. Collar 2830

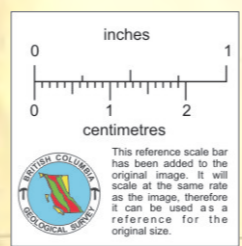
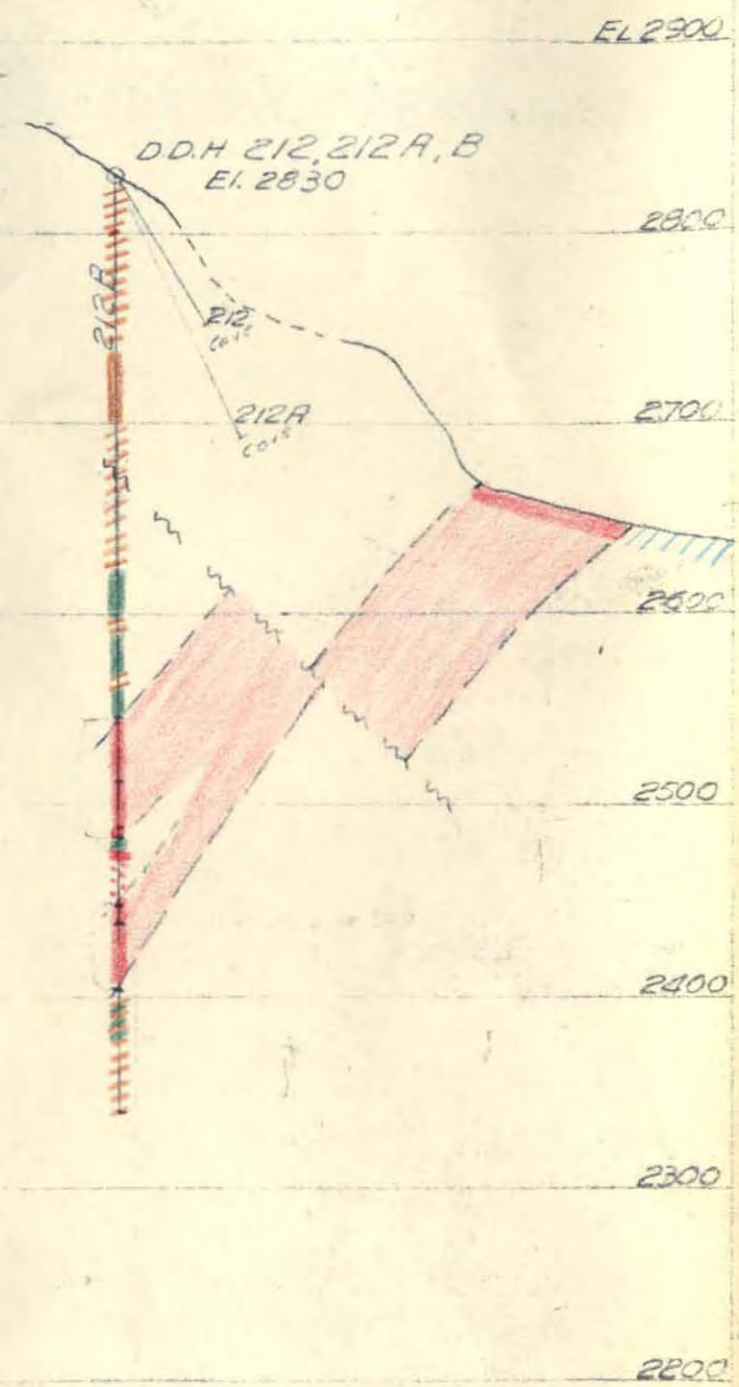
Direction of Start -
 Dip - 90°

Depth Ft.	Formation	Width	% Fe	Width x %
154 - 283	Greenstone & Skarn			
283 - 284	Magnetite			
284 - 290	Skarn, 20% Magnetite	7.0	33.73	236.11
290 - 293	" No Magnetite	5.0	-	-
293 - 297	" 30% Magnetite	4.0	32.07	128.28
297 - 315	" 50% "	9.0	42.22	379.98
		9.0	38.58	347.22
		7.0	14.14	98.98
		7.0	24.90	174.30
		10.0	57.68	576.20
		7.0	62.17	435.19
315 - 339	" Little Magnetite			
339 - 346	Magnetite - 10% Skarn			
346 - 352	Skarn			
352 - 358	Diorite - contact L 45°			
358 - 381	Skarn - 5% Mag. 3" Mag. at 370	35.0	-	-
	50% Magnetite in skarn & greenstone	9.0	42.88	385.92
		9.0	33.38	300.42
		9.0	35.40	318.60
		9.0	37.52	337.68
		9.0	51.37	462.33
412 - 426	75% Magnetite " " "			
426 - 430	Skarn & Greenstone with 5% Mag.			
430 - 443	Greenstone & Skarn - no Magnetite			
443 - 448	" Little Skarn			
448 - 479	Diorite			
479 - 480	Greenstone - Little Skarn			
480 - 482	Dark grey - granodiorite?			

63' of 34.5%

45' of 40.2%

Elev. Collar
2830



HILL, STARCK & ASSOCIATES
 CONSULTING ENGINEERS
 VANCOUVER, BRITISH COLUMBIA

FORD IRON DEPOSIT
CROSS-SECT 79

DATE Feb. 2, 60 SCALE 1"=100'
 SURVEYED BY _____ CHECKED BY _____
 DRAWN BY R.P.M. FILE NO. _____
 DATED BY _____ ENG. NO. _____

August 27th, 1959.

International Iron Mines Ltd.,
850 West Hastings Street,
Vancouver, B. C.

Dear Sirs:

Re: Ford Iron Deposit,
Zeballos, B. C.

This report is based on an examination of the property, on June 8th and 9th, 1959, by the writer accompanied by Messrs. Hunstone, Wood and Worthington.

A study has been made of all Government reports and, more particularly, of the logs of Frobisher's diamond drill holes.

SUMMARY

The Ford Iron Deposit is located about six miles from Zeballos, a village on the West Coast of Vancouver Island about 105 miles north of Port Alberni.

The deposit was discovered about 1941. During 1951 Frobisher Limited, through a subsidiary, drilled 23 holes aggregating 7,090 feet.

Reasonably assured ore reserves are estimated at 1,200,000 short tons grading 56.9% Fe. 2,000 feet of additional diamond drilling would be required to verify the above reserve estimate.

Indicated, or Inferred, ore reserves are estimated at 1,000,000 short tons.

The ore zone averages 52 feet in width, has a strike length of 1,400 feet, and dips into the hill at an angle of 50 degrees.

The ore body will have to be mined by underground mining methods. It is recommended that a truck haulage tunnel be driven at 2,130 feet elevation, and that the ore be broken by shrinkage stoping, and slushed from draw points to a central pocket for truck loading.

The operating profit from mining the proven ore reserves will, in our opinion, be sufficient to repay the initial investment and provide the necessary reward for such an investment.

LOCATION

The property is located at an elevation of 2,600 feet on the northwest side of the Zeballos River near the head waters of Blacksand Creek, a tributary of Lime Creek, which flows into the Zeballos River at a point five miles from tidewater. A good gravel truck road from Zeballos passes within one mile of the property.

The holdings consist of eight Crown-granted mineral claims and fractions. In addition, rights have been received to mine iron from the Extension No. 1, 2, 3 and 4, and from the Barnacle Fr. Crown-granted claims.

HISTORY

In 1941 two X-ray holes were drilled to test the downward extension of the longest magnetite outcrop.

In 1951 a program of detailed geological mapping and diamond drilling was undertaken by the St. Eugene Mining Corporation Limited of Vancouver, a subsidiary of Frobisher Ltd. A total of 23 holes were drilled, having an aggregate length of 7,090 feet.

GEOLOGY

In Memoir 272 Geological Survey of Canada, J. W. Hoadley describes the regional geology in the vicinity of the Ford Magnetite deposit as follows:

"..... a narrow tongue or lobe of sedimentary and volcanic rocks protrudes southwestward into, and nearly across, the Zeballos batholith, about one mile northwest of Zeballos River. The rocks exposed at the base, or eastern part, of the lobe consist almost entirely of pure crystalline limestone of the Quatsino formation. The western part of the lobe is composed of highly altered volcanic and sedimentary rocks of the lower part of the Bonanza Group, which conformably overlies the Quatsino formation.

GEOLOGY (Continued)

"The regional structure of these sedimentary and volcanic rocks is complicated by much local folding and faulting, and is, consequently, difficult to determine. However, from the evidence at hand, it would appear that the rocks that compose the lobe have been folded into a southwesterly plunging anticline, or anticlinal flexure As a result of this cross-flexure the rocks involved have been preserved as a lobate roof pendant within the surrounding diorite of the Zeballos batholith.

"The magnetite deposits on the Ford property occur at or near the crest of this anticlinal structure, stratigraphically just above the contact between the Quatsino limestone and the overlying sedimentary and volcanic rocks of the Bonanza group. They appear to be of the pyrometamorphic replacement type in which ascending solutions have selectively replaced certain favorable beds at the base of the Bonanza group..... The most favorable development of massive magnetite appears to have occurred in the strata immediately overlying the contact. The limestone itself does not appear to have been replaced to any appreciable extent."

MINERALIZATION

The majority of the magnetite is massive and very fine grained, and is free of visible sulphides or lime silicate minerals.

The following analyses are of samples taken by J. S. Stevenson of the British Columbia Department of Mines at four widely spaced intervals along the length of the main magnetite bluff above Blacksand Creek:

<u>Sample No.</u>	<u>1</u> <u>Percent</u>	<u>2</u> <u>Percent</u>	<u>3</u> <u>Percent</u>	<u>4</u> <u>Percent</u>
Iron (Fe)	67.5	67.9	67.7	68.7
Titanium dioxide (TiO ₂)	Tr.	Tr.	Tr.	Tr.
Sulphur (S)	0.06	0.3	0.2	0.06
Phosphorus (P)	0.01	0.01	Tr.	Tr.
Silica (SiO ₂)	3.0	2.1	2.3	1.85
Manganese (Mn)	0.2	0.15	0.2	0.3

ORE RESERVES

As shown on the accompanying geological plan, the dimensions of the ore outcrop on the "A" ore zone, in which the proven ore is located, are -

Length - 650 ft.
 Average width - 52 ft.
 Strike - varying from N 30° E to N 15° W
 Dip - varying from 45° to 50° as indicated
 by drill hole intersections.

(a) Proven Ore

Reasonably assured ore reserves, as tabulated below, are based on a study of the records of diamond drilling done by Frobisher Limited. A total of 23 holes, with an aggregate length of 7,090 feet, were drilled in 1951. Core recovery was good. Two X-ray holes, No. 1 and No. 2, were drilled in 1941. Logs of those were not available.

<u>Section No.</u>	<u>Short Tons</u>	<u>Grade % Fe</u>
43	62,000	47.3
45	69,000	55.8
W 47	136,000	55.1
E 47	4,000	57.3
W 52	156,000	61.0
E 52	56,000	64.9
54	186,000	61.9
56	283,000	55.6
60	117,000	55.8
61	70,000	49.6
63	42,000	56.8
64	28,000	57.4
Total	1,209,000	56.9

After allowing for 10% dilution during extraction, the above reserves will be 1,330,000 short tons at 51.2%.

(b) Indicated Ore(1) "B" Ore Zone

No diamond drilling has been done on the "B" ore zone. Based on an outcrop length of 700 feet and an average width of 50 feet, and assuming the "B" zone extends down to the same depth as the "A" zone, reserves would amount to 875,000 short tons.

Indicated Ore (Continued)(ii) 'A' Ore Zone

Limited development of an outcrop, 150 feet south-east of the main ore body, indicates some 100,000 tons.

(c) Possible Ore

Holes drilled to intersect the 'A' ore zone at depth failed to find limestone on the projection of the dip indicated by the surface outcrop and shallow drill holes. This could indicate a steepening, or reversal, of the limestone, green-diorite contact with the possibility of further ore bodies at depth.

A further possibility is the occurrence of other ore bodies along the north-east extension beyond the 'B' ore zone, and the east extension beyond the 'A' ore zone, of the favorable contact.

(d) Summary

	<u>Tons</u>	<u>Tons</u>	<u>Grade</u>
<u>Reasonably Assured Ore:</u>			
'A' Zone		1,209,000	56%
<u>Indicated Ore:</u>			
Northeast of 'A' Zone	100,000		
'B' Ore Zone	<u>875,000</u>	975,000	56%
<u>Possible Ore:</u>			
'A' & 'B' Zones at depth		<u>1,000,000</u>	
Total tonnage		<u>3,184,000</u>	

DESCRIPTION OF MINING METHODS

The ore zone, averaging 52 feet in width with a dip of 50° into the hill, has a strong skarn (silicified limestone) hanging wall and a massive limestone footwall. A shrinkage type system of mining is recommended. The wide sections could be longholed to the full width from the shrinkage stope as it progresses upward on the footwall of the ore zone.

The broken ore would be withdrawn through draw points in a scum drift, thence slushed to a central truck loading pocket.

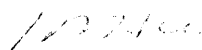
It is recommended that the ore be transported by diesel truck to the surface, and then the three miles down the hill to the beneficiating plant.

Drawings accompanying this report show the recommended development work preparatory to actual extraction.

The truck haulage tunnel has been located to explore at depth for new ore zones adjacent to the limestone contact.

Yours very truly,

HILL, STARCK & ASSOCIATES



Henry L. Hill

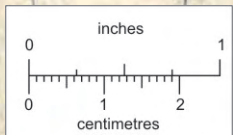
NLH/mjr



HILL, STARCK & ASSOCIATES
 CONSULTING ENGINEERS
 VANCOUVER, BRITISH COLUMBIA

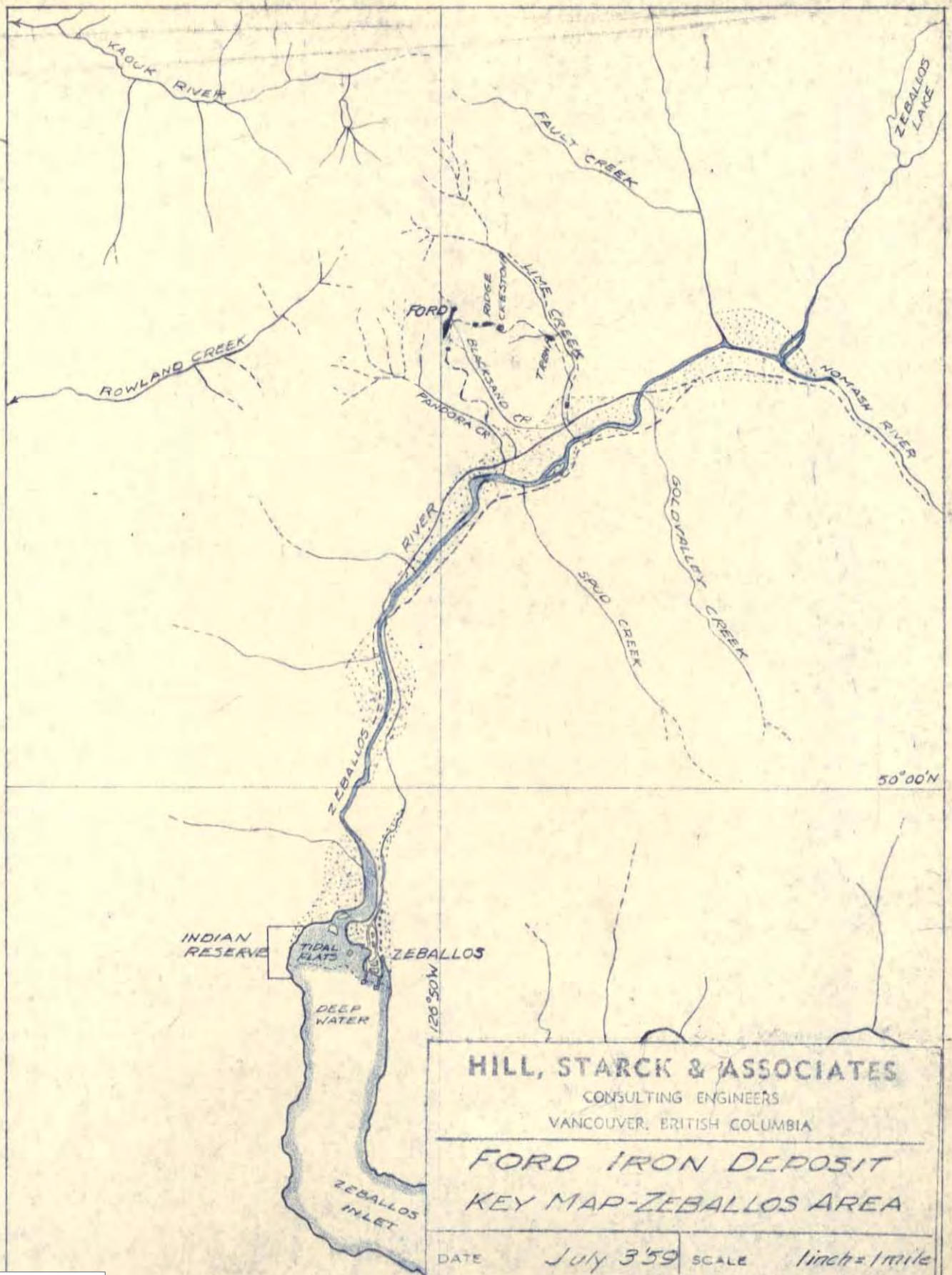
*PLAN SHOWING MAGNETITE DEPOSITS
 IN B.C. COASTAL AREA*

DATE <i>July 3 1959</i>	SCALE
SURVEYED BY	CHECKED BY
DRAWN BY <i>R.P.M.</i>	FILE NO.
TRACED BY	DRG. NO.



This reference scale bar has been added to the original image. It will scale at the same rate as the image, therefore it can be used as a reference for the original size.



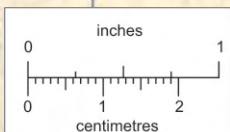


HILL, STARCK & ASSOCIATES

CONSULTING ENGINEERS
VANCOUVER, BRITISH COLUMBIA

**FORD IRON DEPOSIT
KEY MAP-ZEBALLOS AREA**

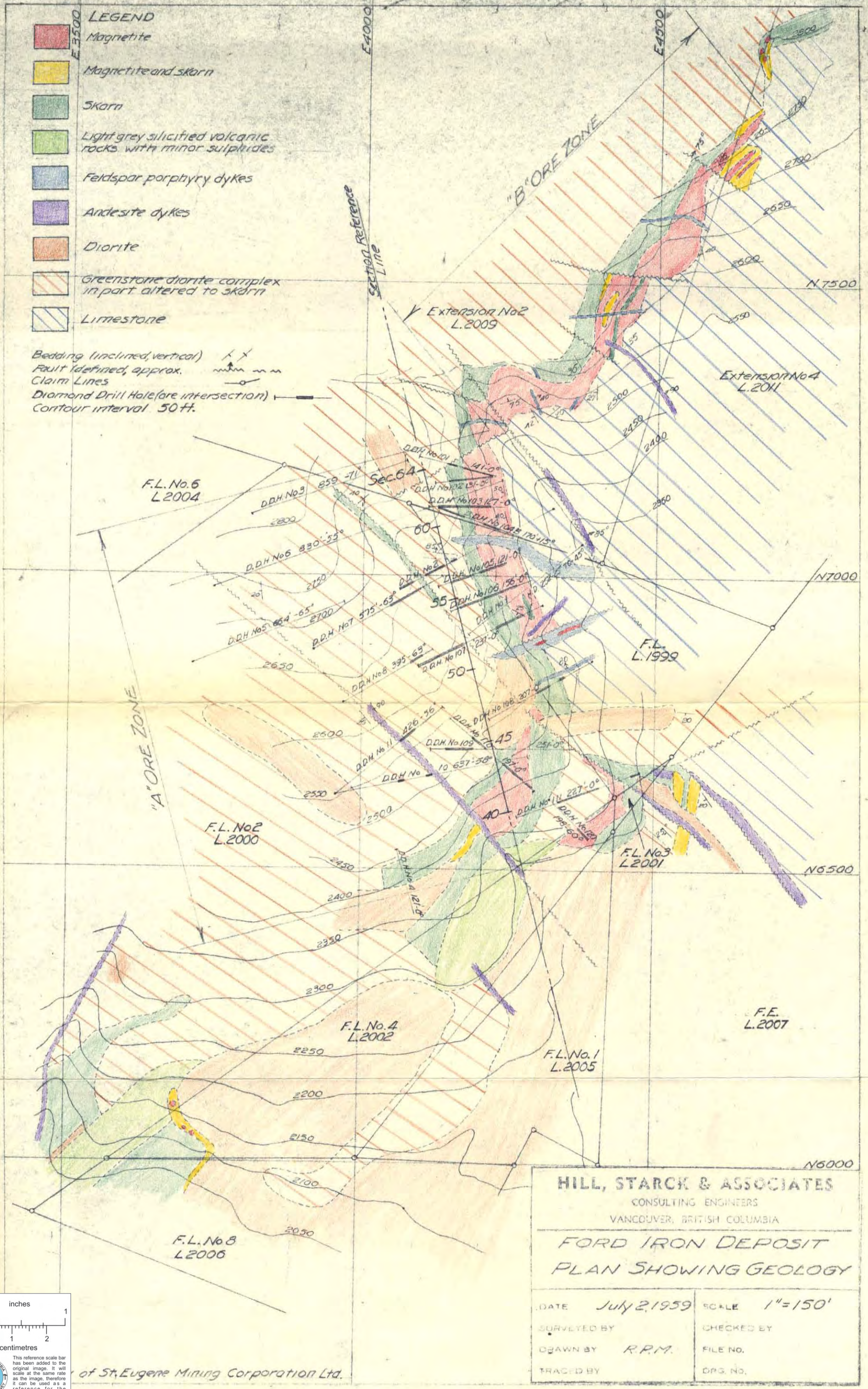
DATE	July 3 '59	SCALE	1 inch = 1 mile
SURVEYED BY		CHECKED BY	
DRAWN BY	R.P.M.	FILE NO.	
TRACED BY		DRG. NO.	



This reference scale bar has been added to the original image. It will scale at the same rate as the image, therefore it can be used as a reference for the original size.

- LEGEND**
- Magnetite
 - Magnetite and skarn
 - Skarn
 - Light grey silicified volcanic rocks with minor sulphides
 - Feldspar porphyry dykes
 - Andesite dykes
 - Diorite
 - Greenstone diorite complex in part altered to skarn
 - Limestone

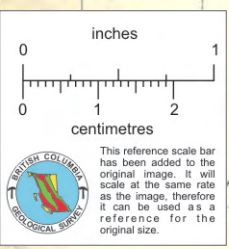
Bedding (inclined, vertical) / \
 Fault (defined, approx.) ~ ~ ~
 Claim Lines - - -
 Diamond Drill Hole (are intersection) •
 Contour interval 50 ft.



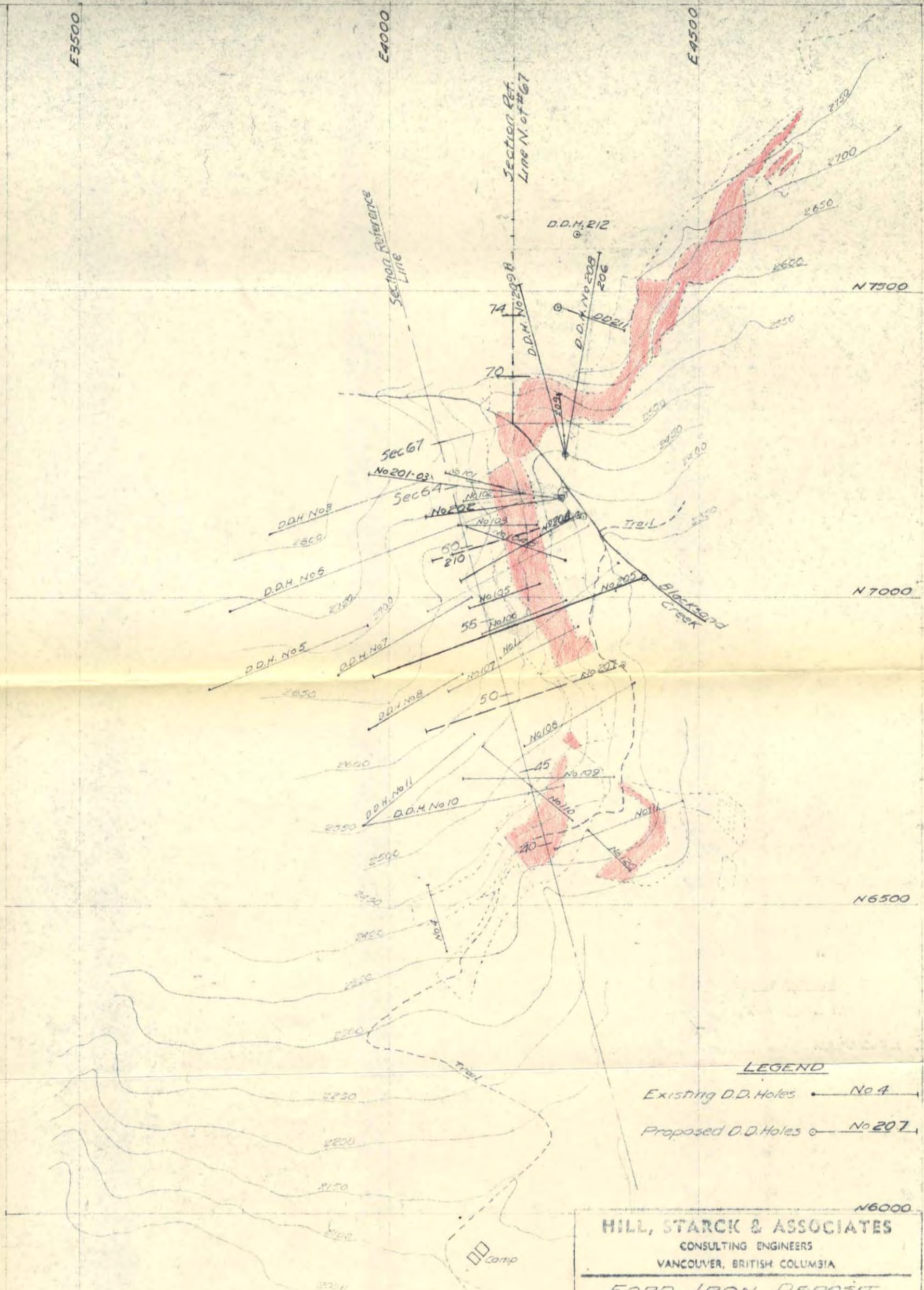
HILL, STARCK & ASSOCIATES
 CONSULTING ENGINEERS
 VANCOUVER, BRITISH COLUMBIA

**FORD IRON DEPOSIT
 PLAN SHOWING GEOLOGY**

DATE July 2, 1959	SCALE 1" = 150'
SURVEYED BY	CHECKED BY
DRAWN BY R.P.M.	FILE NO.
TRACED BY	D.P.S. NO.



of St. Eugene Mining Corporation Ltd.



LEGEND

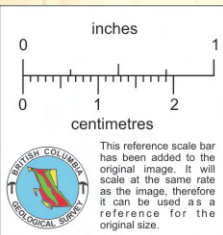
- Existing D.D. Holes — No. 4
- Proposed D.D. Holes ○ No. 207

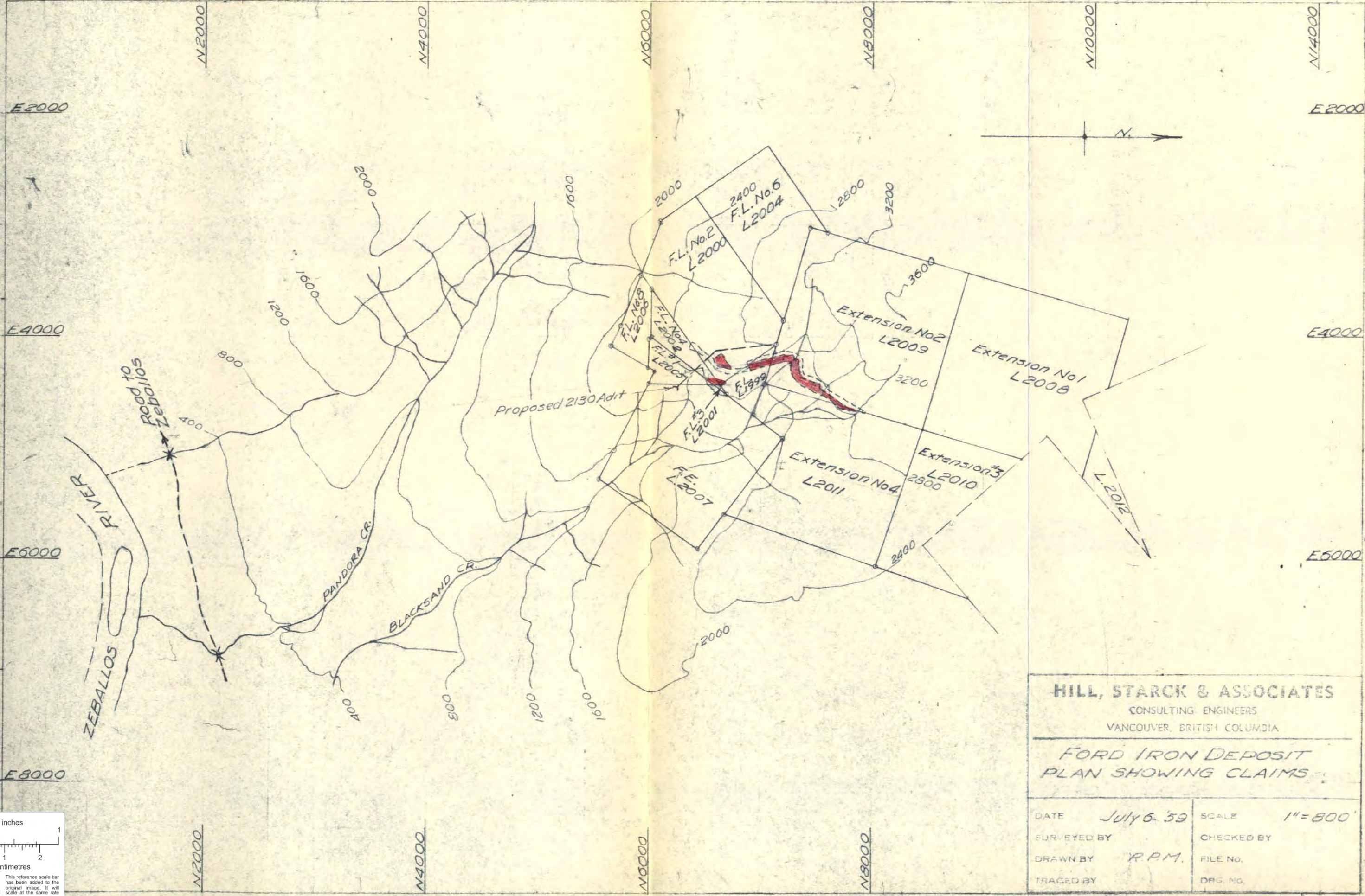
HILL, STARCK & ASSOCIATES
 CONSULTING ENGINEERS
 VANCOUVER, BRITISH COLUMBIA

**FORD IRON DEPOSIT
 PLAN SHOWING
 PROPOSED DIAMOND DRILLING**

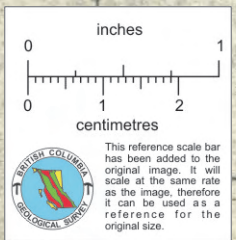
DATE	Dec 4 '59	SCALE	1" = 150'
SURVEYED BY		CHECKED BY	
DRAWN BY	E.P.M.	FILE NO.	
TRACED BY		ORG. NO.	

*Replaces Plan
 Proposed Diamond
 Drilling Dated
 Oct 17 59*





HILL, STARCK & ASSOCIATES	
CONSULTING ENGINEERS VANCOUVER, BRITISH COLUMBIA	
FORD IRON DEPOSIT PLAN SHOWING CLAIMS	
DATE <i>July 6 '59</i>	SCALE <i>1" = 800'</i>
SURVEYED BY	CHECKED BY
DRAWN BY <i>R.P.M.</i>	FILE NO.
TRACED BY	DRG. NO.

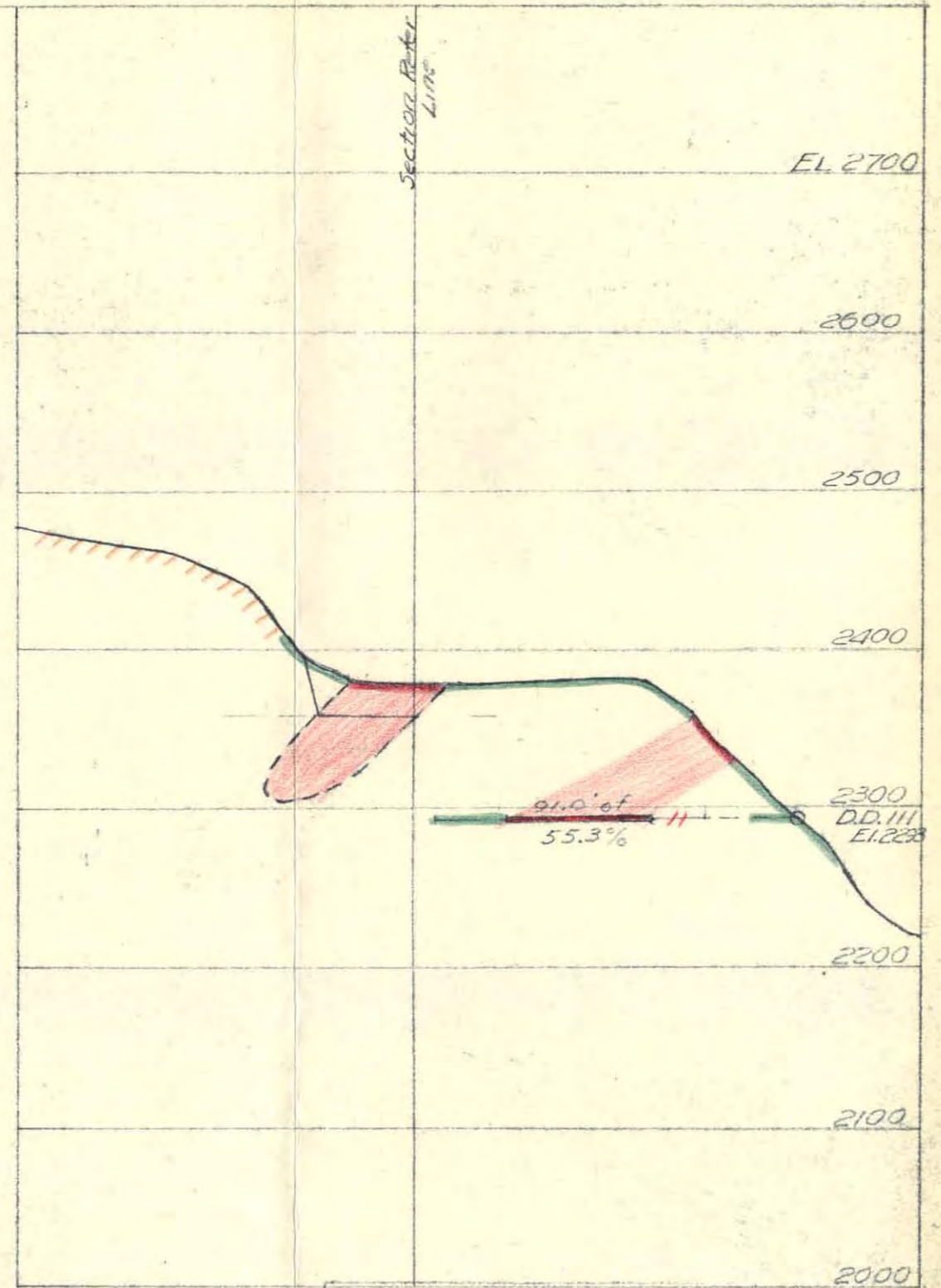


Trim

Area 3900 Sq. ft.

Grade 39.1% Average of holes 109, 110, 10

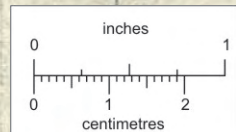
$$\text{TONS (2000 lb)} \quad \frac{50 \times 3900}{8} = 24,375$$



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CONSULTING ENGINEERS
VANCOUVER, BRITISH COLUMBIA

FORD IRON DEPOSIT
CROSS-SECT. 40

DATE	Dec 3 '59	SCALE	1"=100'
SURVEYED BY		CHECKED BY	
DRAWN BY	R.P.M.	FILE NO.	
TRACE BY		ENG. NO.	



This reference scale bar has been added to the original image. It will scale at the same rate as the image, therefore it can be used as a reference for the original size.

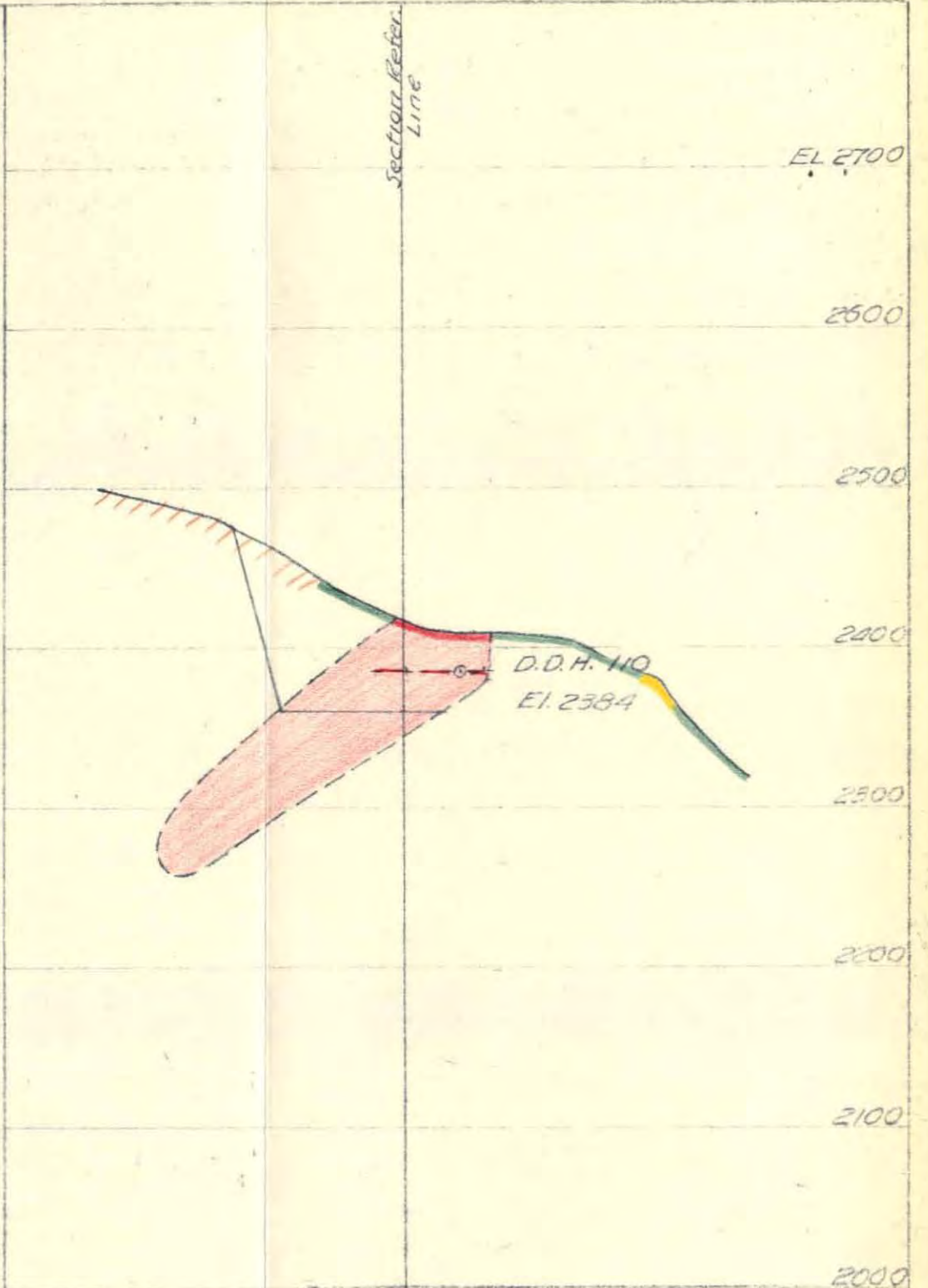
Hole No 110
 Location Lat. 6632
 Dep. 4302
 Elev. Collar 2384

Direction of Start N. 50° W.
 Dip 0°

Depth Ft.	Formation	Width	% Fe	Width x %
0.0 - 7.5	Green skarn			
7.5 - 11.0	Greenstone, some green skarn			
11.0 - 14.5	Greenstone with green skarn and a little mag.	3.7	6.2	
14.5 - 21.0	Magnetite - 10% green skarn	6.5	57.8	375.7
21.0 - 25.5	Greenstone - some green skarn	5.3		
25.5 - 32.0	Magnetite - a little greenstone & skarn	22.3	65.9	1462.75
32.0 - 34.0	Green & brown skarn, greenstone & a little mag.	2.0	7.8	15.60
34.0 - 37.5	Greenstone & epidote skarn, calcite stringers	3.5		
37.5 - 63.0	100% Magnetite	5.5	60.7	333.85
63.0 - 68.0	Green & brown skarn 1% Magnetite	5.0	9.7	48.50
68.0 - 70.0	" " " "	2.0	0.0	
70.0 - 71.5	100% Magnetite	1.5	49.6	74.40
71.5 - 93.0	Greenstone, green & brown skarn	23.5		
93.0 - 97.0	Green & brown skarn, 5% magnetite	2.0	17.5	35.00
97.0 - 100.0	Greenstone & green skarn & calcite stringers	3.0		
100.0 - 106.0	90% mag. - 10% skarn	6.0	51.2	307.20
106.0 - 107.0	Andesite	1.0		
107.0 - 110.0	100% Magnetite	3.0	68.6	205.80
110.0 - 113.0	Andesite	3.0		
113.0 - 118.5	100% Magnetite	5.5	66.1	363.75
118.5 - 123.5	Magnetite & 30% brown skarn	5.0	30.1	150.50
123.5 - 127.0	Greenstone, andesite	3.5		
127.0 - 129.0	Porphyry Dyke	2.0		
129.0 - 143.0	Magnetite with some spots of brown skarn	14.0	57.3	802.20
143.0 - 151.0	Green and brown skarn			

57.0' of 40.9%
 23.5 of 0.0 128.5 of 32.7%
 48.0 of 38.3%

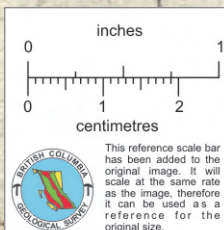
Area 12,800 sq. ft.
 Grade 39.1% Average of holes 109, 110, 111
 Tons $\frac{37.5 \times 12,800}{8} = 60,000$
 (2000 lb.)



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 VANCOUVER, BRITISH COLUMBIA

FORD IRON DEPOSIT
 CROSS-SECT. 42

DATE Dec 3 '59	SCALE 1"=100'
SURVEYED BY	CHECKED BY
DRAWN BY R.P.M.	FILE NO.
TRACTED BY	DWG. NO.



Drill Hole Log courtesy of St. Eugene Mining Corp. Ltd.

Hole No 10
 Location Lat. 6627
 Dep. 3958
 Elev. Collar 2556'

Direction at Start N 78°E
 Dip -58°

Depth Ft.	Formation	Width	% Fe	Width x %
221.5 - 229.4	Magnetite @ 90° 100% with 1' skarn	8.0	59.2	
229.4 - 242.5	Greenstone with garnet & epidote skarn	13.1	-	
242.5 - 284	90% Porphyry dyke 10% greenstone, skarn	41.5	-	
284 - 329.7	Magnetite with 2 waste skarn sections at 291.502 and 316	35.7	60.5	2159.9
329.7 - 335	Greenstone + 15% Magnetite	10.0	-	
335 - 354.5	Greenstone + 0.1% skarn	5.3	26.7	
354.5 - 371	" + 30% Magnetite	16.5	42.8	
371 - 387	Greenstone & Feldspar (Dyke?)	16.0	-	
387 - 412	" & skarn + 10% Magnetite	25.0	24.5	
412 - 442.7	Greenstone & skarn	30.7	-	
442.7 - 445.5	Andesite dyke @ 45° and 30°	2.8	-	
445.5 - 448.5	Magnetite	1.1	52.3	

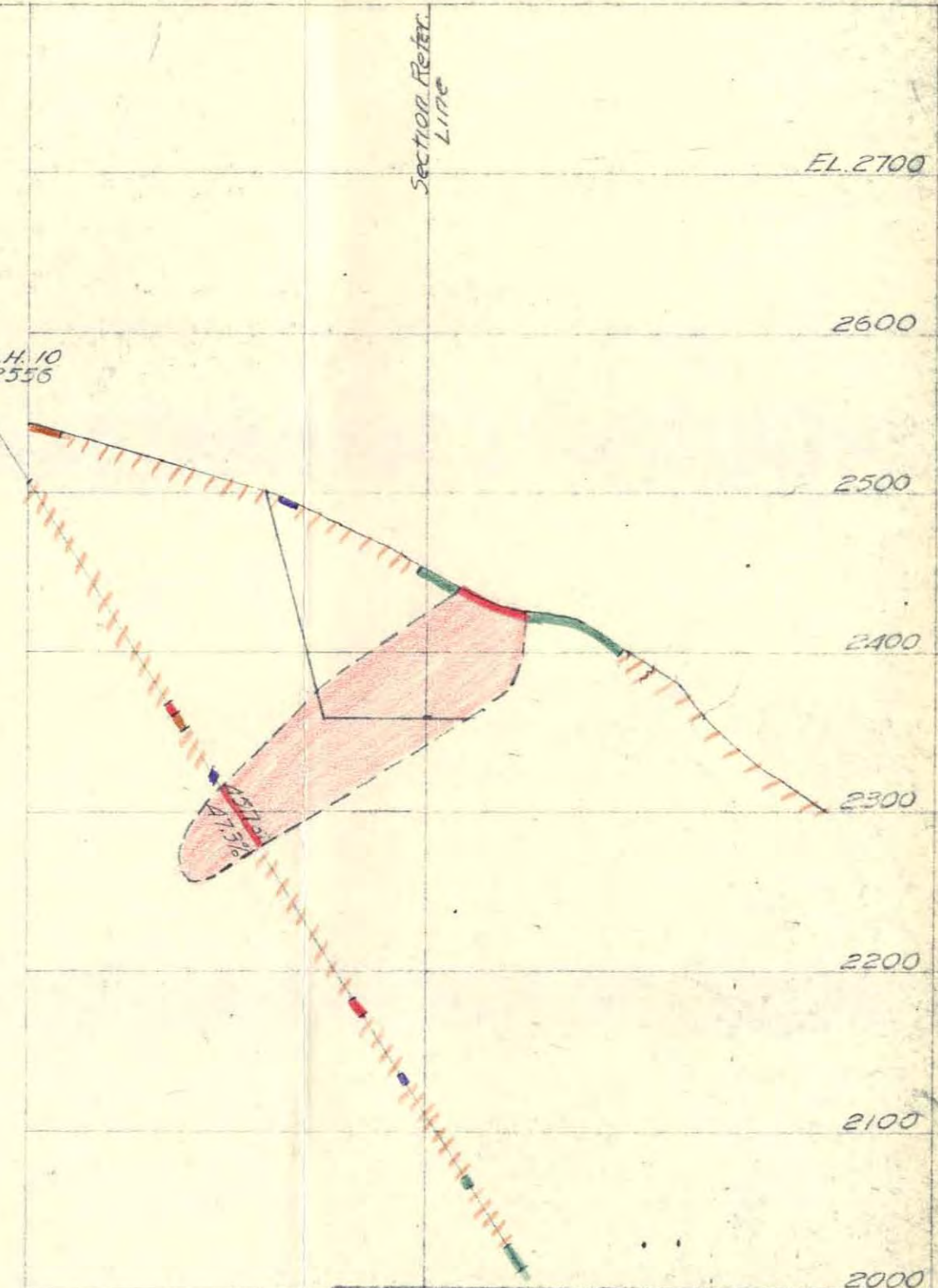
} 45.7 of 47.3%

Area 14800 sq. ft.

Grade 39.1% Average of holes 109, 110, 10

Tons (2000 lb.) $\frac{37.5 \times 14800}{8} = 69,375$

D.D.H. 10
 El. 2556

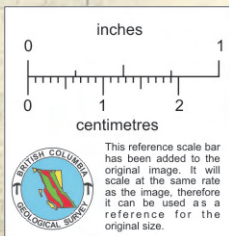


HILL, STARCK & ASSOCIATES
 CONSULTING ENGINEERS
 VANCOUVER, BRITISH COLUMBIA
 FORD IRON DEPOSIT
 CROSS-SECTION 43

DATE Dec. 3 '59 SCALE 1"=100'
 SURVEYED BY CHECKED BY
 DRAWN BY R.P.M. FILE NO.
 TRACED BY DRG. NO.

Note:
 Replaces Sect 43
 Dated June 30, '59

Drill Hole Log, courtesy of St. Eugene Mining Corp. Ltd.



Hole No. 109
 Location Lat. 6706
 Dep. 4372
 Elev. Collar 2376

Direction at Start West
 Dip 0°

Depth Ft.	Formation	Width	% Fe	Width x %
87 - 88.5	100% Magnetite	1.5	66.2	99.3
88.5 - 97.5	Andesite with 15% Magnetite	9.0	30.0	270.0
97.5 - 111	Andesite	13.5	-	-
111 - 123.5	100% Magnetite	12.5	62.6	782.5
123.5 - 124.5	Andesite and 40% Magnetite	1.0	37.0	37.0
124.5 - 126.0	Andesite	1.5	-	-
126 - 127	Andesite and 20% Magnetite	1.0	15.5	15.5
127 - 132	100% Magnetite	5.0	69.0	345.0
132 - 135	Andesite	3.0	-	-
135 - 137.5	100% Magnetite	2.5	62.7	156.75
137.5 - 144	Andesite	6.5	-	-
144 - 147	Magnetite with some andesite	3.0	49.3	147.9
147 - 148	Andesite	1.0	-	-
148 - 151.5	90% Magnetite (andesite)	3.5	53.2	186.2
151.5 - 155	Andesite	3.5	-	-
155 - 156.5	100% Magnetite	1.5	59.2	88.8
156.5 - 159	Andesite	2.5	-	-
159 - 166	Andesite with 5% Magnetite	7.0	51.8	362.6
166 - 168	100% Magnetite	2.0	56.7	113.4
168 - 170	Brown stain - some pyrite	2.0	-	-
170 - 174.5	Green stain	4.5	-	-
174.5 - 224	100% Magnetite, 2 spots of stain	25.5	67.4	1718.7
		24.0	59.8	1435.2

21.0'
of
56.1%

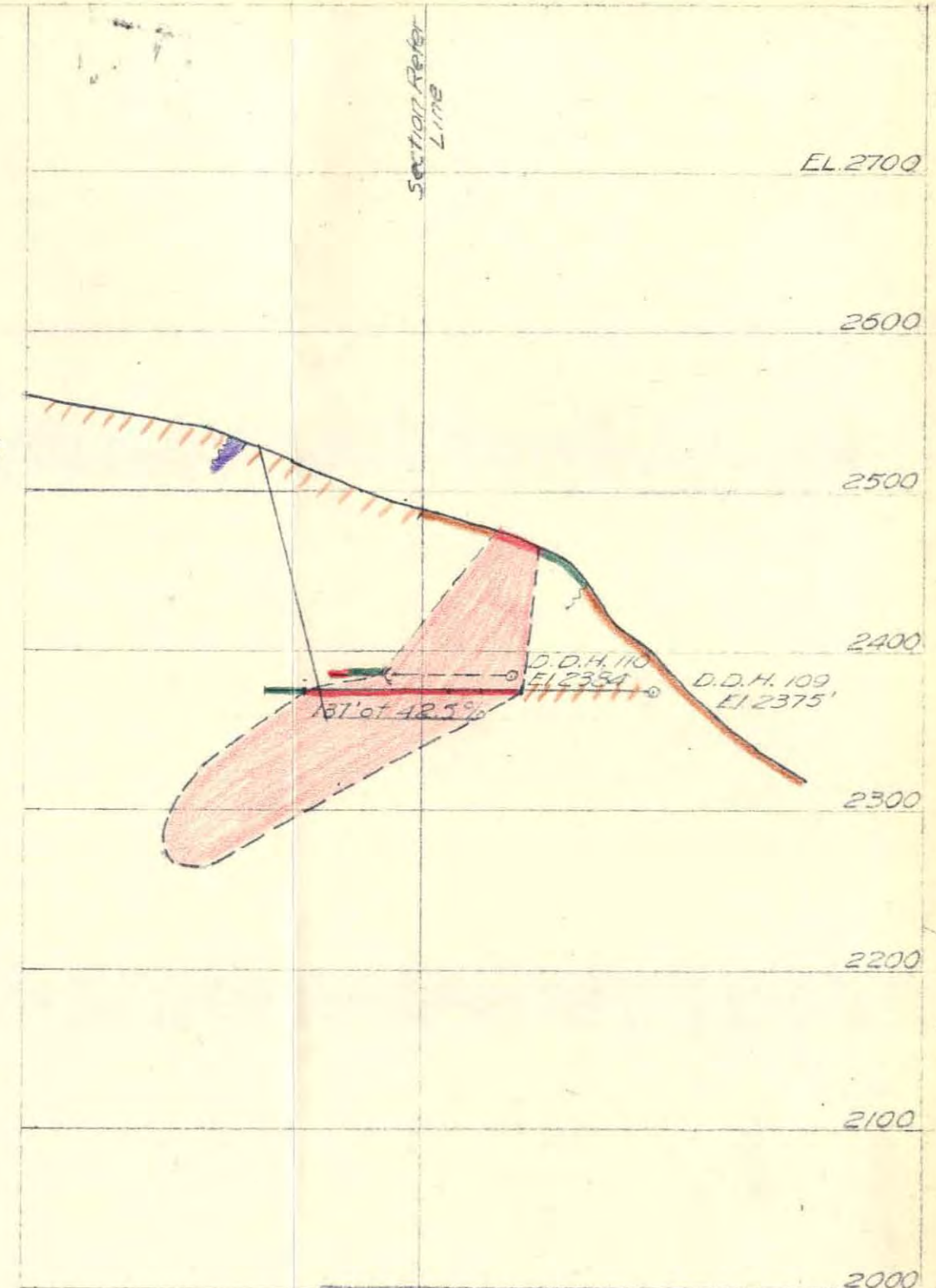
137.0'
of
42.5%

65.0'
of
55.8%

W Ore-body Area 17600 sq. ft.

Grade 42.5%

Tons $\frac{50 \times 17600}{8} = 110,000$



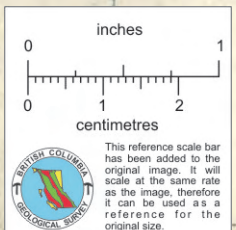
HILL, STARCK & ASSOCIATES
 CONSULTING ENGINEERS
 VANCOUVER, BRITISH COLUMBIA

FORD IRON DEPOSIT
CROSS-SECTION 45

DATE	Dec. 3, '59	SCALE	1"=100'
SURVEYED BY		CHECKED BY	
DRAWN BY	R.P.M.	FILE NO.	
TRACED BY		DRG. NO.	

Note:
 Replaces Sect 45
 Dated June 30 '59

Drill Hole Log courtesy of St. Eugene Mining Corp. Ltd.



Hole No. 11
 Location Lat. 6627
 Dep. 3958
 Elev. Collar 2556'

Direction at Start N 51° E
 Dip -56°

Depth Ft.	Formation	Width	% Fe	Width x %
245 - 259	Greenstone with epidote skarn	52.0	64.7	3364.4
259 - 320	Magnetite zone - ore badly fractured core recovery low (60% ±) Zone is high grade magnetite cut by narrow greenstone bands at 257-259, 290-295, 317-319 not included in sample			
		9.0	-	-

61.0' of 55.1%

Hole No 108
 Location Lat. 6860
 Dep. 4399
 Elev. Collar 2355

Direction at Start S 60° W.
 Dip 0°

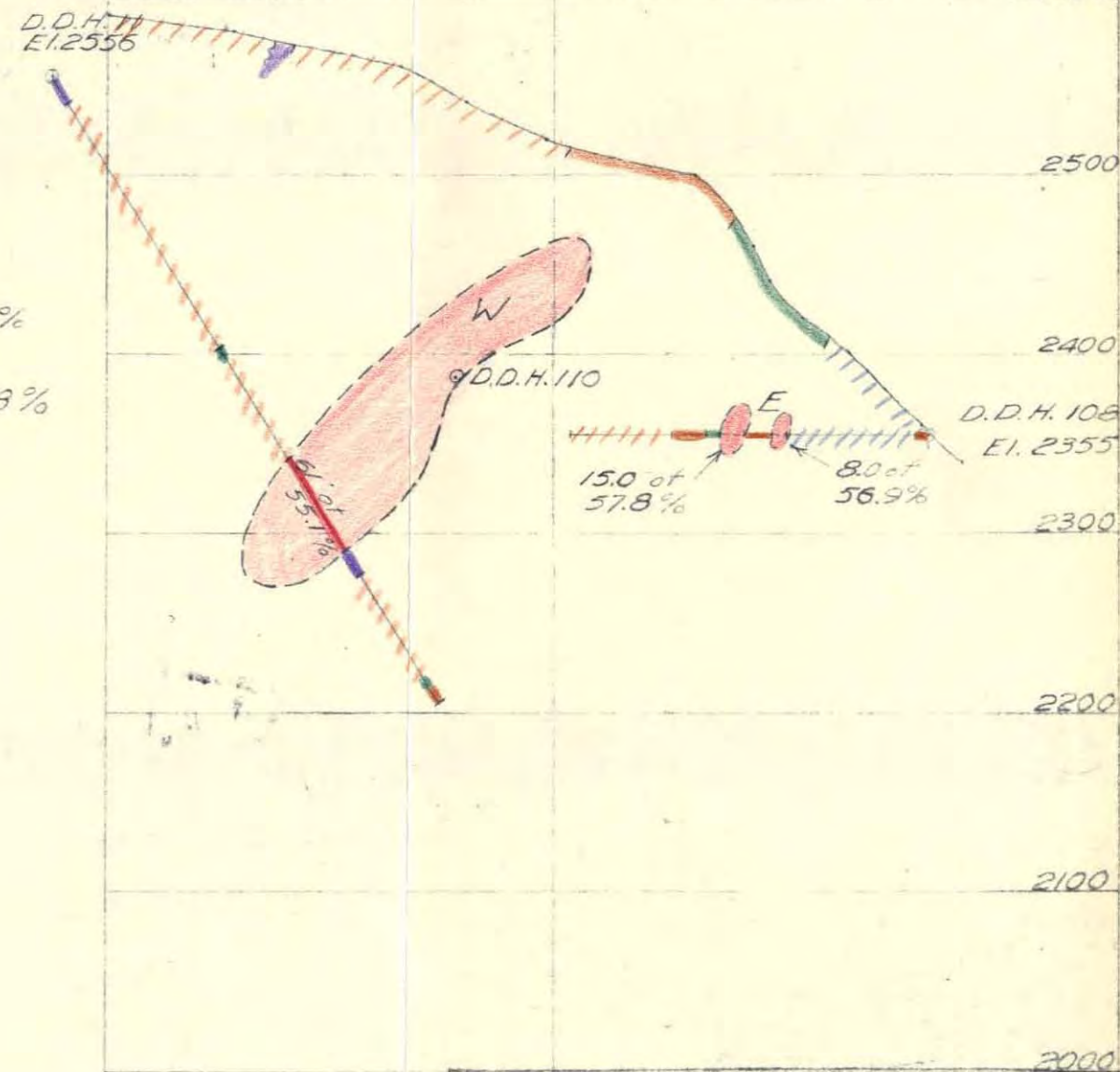
Depth Ft	Formation	Width	% Fe	Width x %
74 - 77	Very dark limestone	6.5	62.6	408.9
77 - 78	Greenstone			
78 - 81	White crystal. limestone - some pyrite	1.5	32.0	48.0
81 - 87.5	Magnetite with 5% pyrite	15.0	-	-
87.5 - 89	50-50 Magnetite and pyrite	6.5	66.1	429.7
89 - 104	Andesite mineralized with pyrite	23	18.8	47.0
104 - 110.5	100% Magnetite	6.0	65.1	390.6
110.5 - 113	Greenstone with 10% magnetite			
113 - 119	100% Magnetite			

8.0' of 56.9%

15.0' of 57.8%

W Ore-body Area 12,400 sq. ft.
 Grade 55.1%
 Tons (2000lb) $\frac{87.5 \times 12400}{8} = 135625$

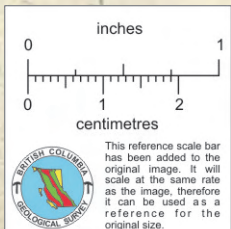
E Ore-body Area 400 sq. ft.
 Grade 57.3%
 Tons (2000lb) $\frac{87.5 \times 400}{8} = 4375$



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 CONSULTING ENGINEERS
 VANCOUVER, BRITISH COLUMBIA

FORD IRON DEPOSIT
CROSS-SECTION 47

DATE June 30 '59	SCALE 1"=100'
SURVEYED BY	CHECKED BY
DRAWN BY R.P.M.	FILE NO.
TRACED BY	DRG. NO.



Hole No 107
 Location Lat. 6955 Dep. 4309 Elev. Collar 2396'
 Direction at Start S. 63° W. Dip 0°

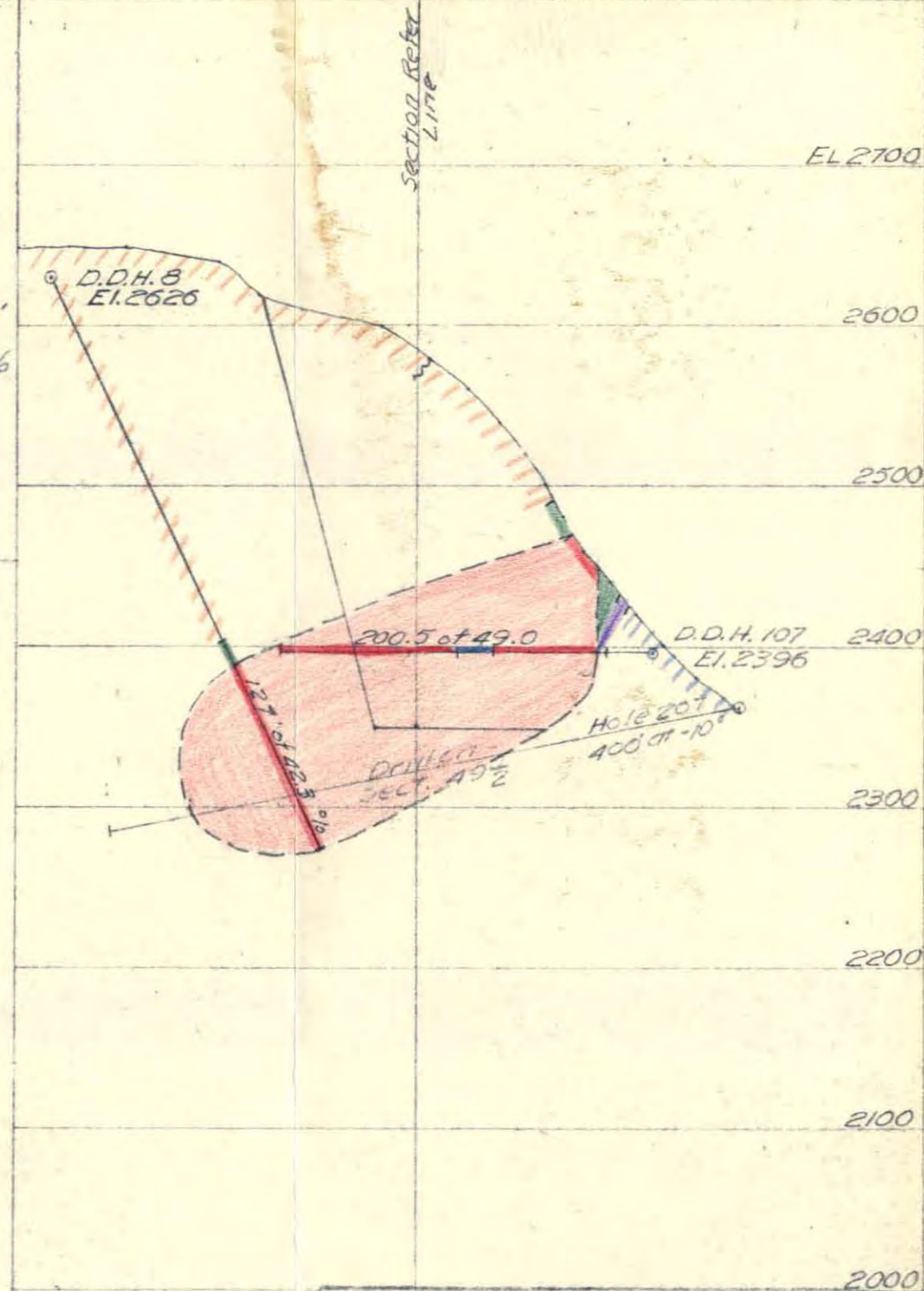
Depth Ft.	Formation	Width"	% Fe	Width x %
36.5 - 52	100% Magnetite	15.5	66.2	1026.10
52 - 60	100% "	28.0	66.6	1864.80
60 - 81	Greenstone with 10% Magnetite	1.0	8.7	8.70
81 - 91	100% Magnetite	10.0	63.7	637.00
91 - 99	Greenstone - no mineralization	8.0	-	0.00
99 - 102.5	Greenstone and 30% Magnetite	3.5	30.4	106.40
102.5 - 126	Light grey porphyry dyke, no mineral	23.5	-	0.00
126 - 134	Magnetite	8.0	63.3	506.40
134 - 142.5	Greenstone, no mineralization, some epidote	8.5	-	0.00
142.5 - 146.5	100% Magnetite	4.0	66.2	264.80
146.5 - 148.5	Greenstone, some epidote and a little pyrite	2.0	-	0.00
148.5 - 154	Calcite, crystalline	5.5	-	0.00
154 - 172	100% Magnetite	13.0	64.9	1168.20
172 - 188	100% "	16.0	65.0	1040.00
188 - 208	100% "	20.0	64.7	1294.00
208 - 228	100% "	20.0	66.3	1326.00
228 - 237	100% "	9.0	64.5	580.50

54.5' of 64.9%
 63.0 of 13.9%
 200.5' of 49.0%
 83.0 of 65.2%

Hole No 8
 Location Lat. 6783 Dep. 3968 Elev. Collar 2626
 Direction at Start N60° E. Dip -63°

Depth Ft.	Formation	Width"	% Fe	Width x %
268 - 275	20% Magnetite, greenstone & brown skarn	7.0	25.1	175.70
275 - 279	50% " 50% greenstone	4.0	34.0	136.00
279 - 281	100% "	2.0	60.9	121.80
281 - 283.5	Greenstone, epidote, some calcite	2.5	-	-
283.5 - 294.0	10% Magnetite, greenstone, epidote, brown skarn	10.5	38.3	402.15
294 - 300	Greenstone	6.0	-	-
300 - 317.5	100% Magnetite	17.5	64.3	1125.25
317.5 - 320	10% " greenstone, some epidote	2.5	22.3	55.75
320 - 343	100% "	23.0	63.4	1458.00
343 - 346.5	Brown skarn & greenstone	1.5	-	-
346.5 - 348	100% Magnetite little epidote	1.5	58.9	88.35
348 - 351	Green skarn, greenstone	3.0	-	-
351 - 357	100% Magnetite	6.0	66.9	401.40
357 - 358	Greenstone	1.0	-	-
358 - 366	40% Magnetite, greenstone	3.0	50.8	152.40
366 - 371	Greenstone, epidote, spots of calcite	5.0	-	-
371 - 395	15% Magnetite, epidote, greenstone, Magnetite occurs as 6" to 12" bombs, also spotted in the greenstone	24.0	36.3	876.00

127.0 of 42.3%



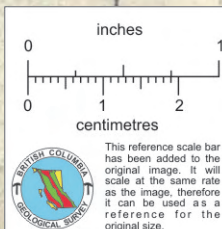
Area 32000 sq. ft.
 Grade 200.5 of 49.0% } 46.4%
 127.0 of 42.3% }
 Tons (2000lb) $\frac{87.5 \times 32000}{8} = 350,000$

HILL, STARCK & ASSOCIATES
 CONSULTING ENGINEERS
 VANCOUVER, BRITISH COLUMBIA

FORD IRON DEPOSIT
CROSS-SECTION 52

DATE Dec. 3 '59 SCALE 1"=100'
 SURVEYED BY _____ CHECKED BY _____
 DRAWN BY R.P.M. FILE NO. _____
 TRACED BY _____ DRG. NO. _____

Note
 Replaces Sec 52
 Dated Aug 12 '59



posed 1959 Drilling
 Hole 207 - To check continuity between Sections 47 & 52 - Drill on Section 49 1/2
 Drill Hole Logs courtesy of St. Eugene Mining Corp. Ltd.

Hole No 106
 Location Lat. 6999
 Dep. 4295
 Elev. Collar 2430'

Direction at Start S. 68° W.
 Dip 0°

Depth Ft.	Formation	Width	% Fe	Width x %
30.5 - 32	Limestone	1.5	-	-
32 - 67	100% Magnetite	35.0	63.1	2208.5
67 - 68.5	Dark grey limy dyke, some epidote & pyrite	1.5	-	-
68.5 - 74.5	100% Magnetite	6.0	62.7	376.2
74.5 - 76	Andesite dyke - 10% Magnetite	1.5	25.6	38.4
76 - 90	100% Magnetite	14.0	64.4	901.6
90 - 94	Greenstone dyke with a little skarn & Magnetite	4.0	6.3	25.2
94 - 119	100 Magnetite	25.0	68.7	1717.5
119 - 121	Magnetite and epidote 25%	2.0	46.8	93.6
121 - 138	98% Magnetite 2% andesite	17.0	66.9	1137.3
138 - 156	Light grey andesite	18.0	-	-

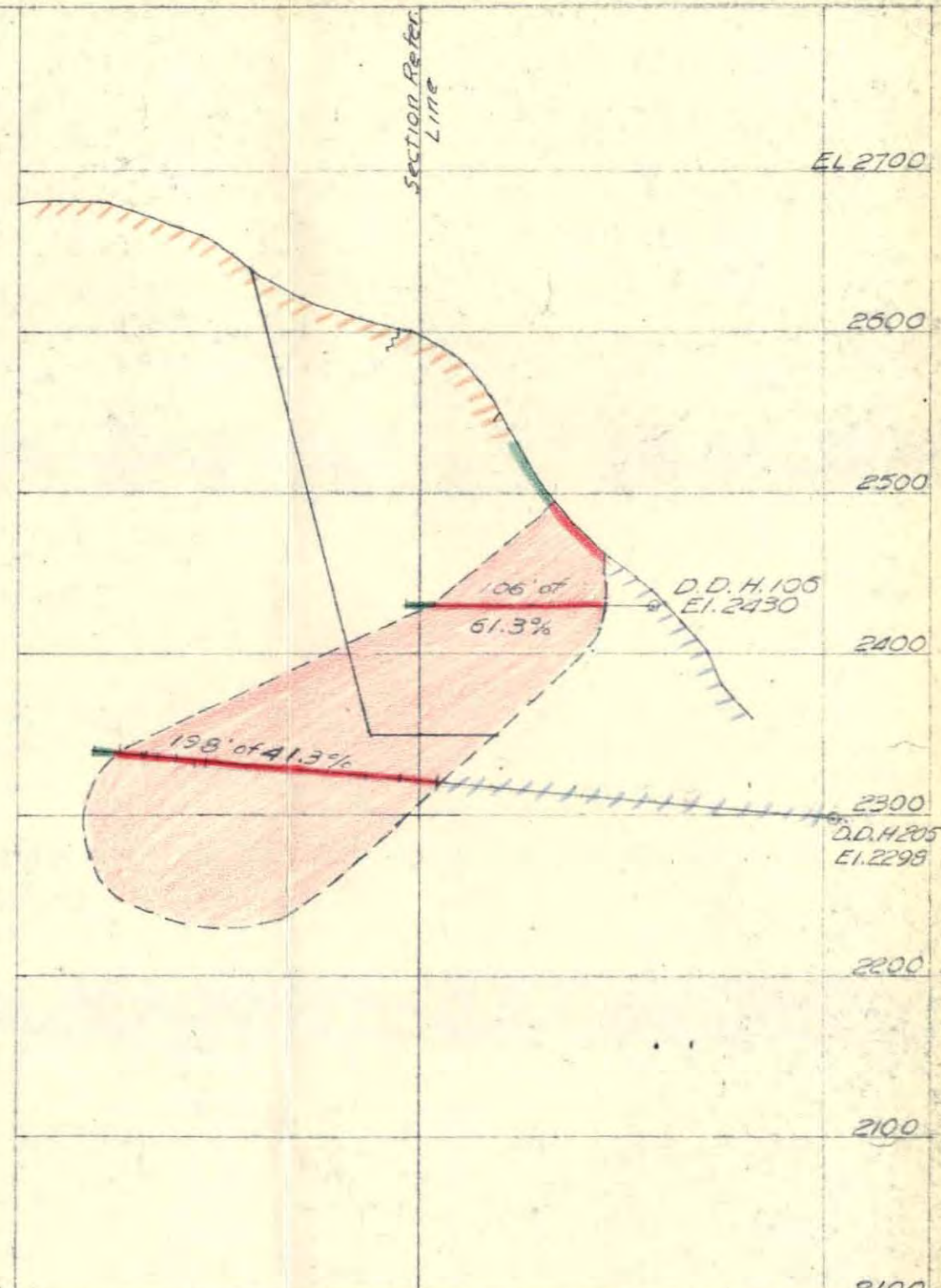
106' of 61.3%

Hole No 205
 Location Lat. 7038
 Dep. 4402
 Elev. Collar 2298

Direction at Start S 68 1/2° W
 Dip +5°

Depth Ft.	Formation	Width	% Fe	Width x %
-249.1	Limestone	-	-	-
249.1 - 249.5	Magnetite - little skarn	1.0	62.0	62.0
249.5 - 253.0	Andesite & skarn	6.0	12.7	76.4
253.0 - 257.0	Magnetite - badly broken	11.0	63.6	699.4
257.0 - 270.0	Magnetite - 20% skarn 65.0%	4.5	42.7	192.2
270.0 - 291.5	Andesite - Green & Brown skarn	21.5	0.0	-
291.5 - 296.6	Magnetite - 20% skarn	7.0	43.0	301.0
296.6 - 300.0	Magnetite - 1-2% skarn	-	-	-
300.0 - 305.6	Magnetite - 1-2% skarn	10.0	63.8	638.0
305.6 - 313.0	Magnetite - 10% skarn	10.0	59.0	590.0
313.0 - 329.0	Magnetite - 5% skarn	10.0	58.3	583.0
329.0 - 333.0	Magnetite - 10% skarn	10.0	63.7	637.0
333.0 - 342.0	Magnetite - 20% skarn	-	-	-
342.0 - 348.0	Magnetite - 30% skarn	10.0	40.8	408.0
348.0 - 364	Magnetite - solid	10.0	66.1	661.0
364 - 366	Skarn	10.0	53.5	535.0
366 - 384	Magnetite - 1-2% skarn	10.0	63.4	634.0
384 - 385	Skarn	6.0	63.3	379.8
385 - 392	Magnetite - Little skarn	7.0	63.8	446.6
392 - 398	Skarn - 5% Magnetite	6.0	11.6	69.6
398 - 409	Magnetite - 50% skarn	11.0	39.5	434.4
409 - 414	Green skarn - 5% Magnetite	-	-	-
414 - 416	Andesite	7.0	-	-
416 - 417	Pyrite & Pyrite	3.0	42.2	126.6
417 - 419	Magnetite - 20% skarn	-	-	-
419 - 421	Feldspar Porphyry Dyke - 1' Magnetite	2.0	-	-
421 - 428	Magnetite - 20% skarn	7.0	45.5	318.5
428 - 431	Skarn - Trace Magnetite	8.5	-	-
431 - 446	Magnetite	9.5	41.0	389.5

198.0 of 41.3%*



Area 38,300
 Grade 106 of 61.3% } 50.2%
 197.9 of 44.3%*
 Tons $\frac{50 \times 38,300}{8} = 239,375$
 (2000lb)

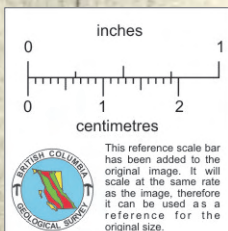
* Note: In calculation of ore reserves an estimated grade of 44.3% was used for Hole 205 as actual assays were not available Dec. 4 '59

HILL, STARCK & ASSOCIATES
 CONSULTING ENGINEERS
 VANCOUVER, BRITISH COLUMBIA
 FORD IRON DEPOSIT
 CROSS-SECTION 54

DATE Feb. 3, '60 SCALE 1"=100'
 SURVEYED BY CHECKED BY
 DRAWN BY R.P.M. FILE NO.
 TRACED BY DRG. NO.

Note
 Replaces Sec 54
 Dated Oct 17 '59

Drill Hole Log courtesy of St. Eugene Mining Corp. Ltd.



This reference scale bar has been added to the original image. It will scale at the same rate as the image, therefore it can be used as a reference for the original size.

Hole No 7

Location Lot 6872

Dep 3916

Elev. Collar 2678'

Direction at Start N 60° E

Dip -63°

Depth Ft.	Formation	Width'	% Fe	Width x %
349 - 357.5	Brown skarn & greenstone	8.5	-	-
357.5 - 360	95% Magnetite	2.5	56.1	140.25
360 - 365.5	Greenstone & brown skarn	5.5	-	-
365.5 - 405.5	100% Magnetite	40.0	64.8	2592.0
405.5 - 410	Greenstone - skarn - specks of magnetite	4.5	-	-
410 - 416	100% Magnetite	6.0	64.5	387.0
416 - 427	Greenstone and brown skarn	11.0	-	-
427 - 450	100% Magnetite	23.0	67.1	1543.3
450 - 451	Greenstone, 10% Magnetite	1.0	28.2	28.2
451 - 468	75% Magnetite & greenstone	17.0	46.3	787.1
468 - 480.5	20% Magnetite	12.5	21.7	271.25
480.5 - 483.5	Greenstone and brown skarn	3.0	-	-
483.5 - 488	15-20% Magnetite	4.5	20.3	91.35

Hole 105

Location Lot 7024

Dep 4248

Elev. Collar 2470

Direction at Start S 71° W

Dip 0°

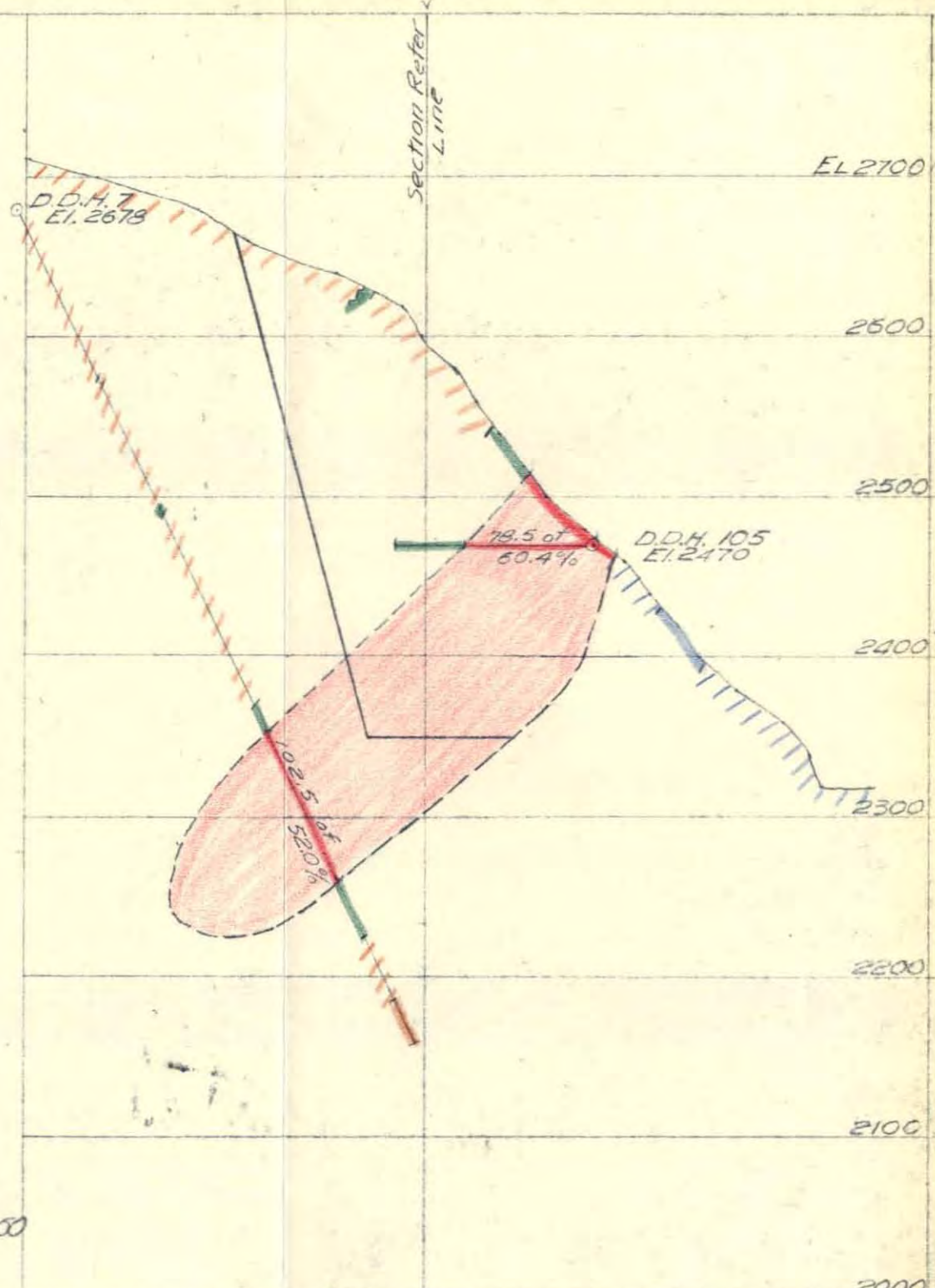
Depth Ft.	Formation	Width'	% Fe	Width x %
0 - 49.5	100% Magnetite	49.5	68.6	3395.70
49.5 - 57	Greenstone, andesite dyke	7.5	5.9	44.25
57 - 68	100% Magnetite	11.0	63.8	701.80
68 - 70	Brown skarn - 10% Magnetite	2.0	11.3	22.60
70 - 78.5	100% Magnetite	8.5	67.9	577.15
78.5 - 84.5	Skarn & Andesite, 15% Magnetite, some epidote.	-	-	-

Area 33500 sq.ft.

Grade $\left. \begin{array}{l} 102.5 \text{ of } 52.0\% \\ 78.5 \text{ of } 60.4\% \end{array} \right\} 55.6\%$

Tons $\frac{67.5 \times 33500}{8} = 282,991$
(2000lb)

* Note 7.5' ft. of length deducted for 15' wide dyke between Sec. 56-60

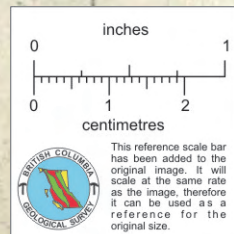


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VANCOUVER, BRITISH COLUMBIA

FORD IRON DEPOSIT
CROSS-SECTION 56

DATE June 30 '59 SCALE 1"=100'
SURVEYED BY CHECKED BY
DRAWN BY R.P.M. FILE NO.
TRACED BY DRG. NO.

Drill Hole Logs courtesy of St. Eugene Mining Corp. Ltd.



Hole No. 104 B
 Location Lot 7066
 Dep 4278
 Elev. Collar 2425'

Direction at Start N 71°W
 Dip +15°

Depth Ft.	Formation	Width	% Fe	Width x %
0 - 41.5	Limestone			
41.5 - 45	Pyrite			
45 - 53.5	100% Magnetite	8.5	62.6	532.10
53.5 - 77.0	90% Magnetite - 10% Andesite	23.5	51.4	1207.90
77 - 109	Porphyry Dyke	32.0	-	-
109 - 130	100% Magnetite	21.0	68.8	1444.8
130 - 146	100% Magnetite - a little pyrite	16.0	67.2	1075.2
146 - 157	Magnetite, skarr, greenstone and andesite	11.0	21.0	231.0
157 - 170	Skarr, brown & green	13.0	-	-

32.0 of 54.3%
 112.0 of 40.1%
 48.0 of 57.3%

Hole No 210
 Location Lot 7132
 Dep. 4307
 Elev. Collar 2377

Direction at Start S 75°W.
 Dip 0°

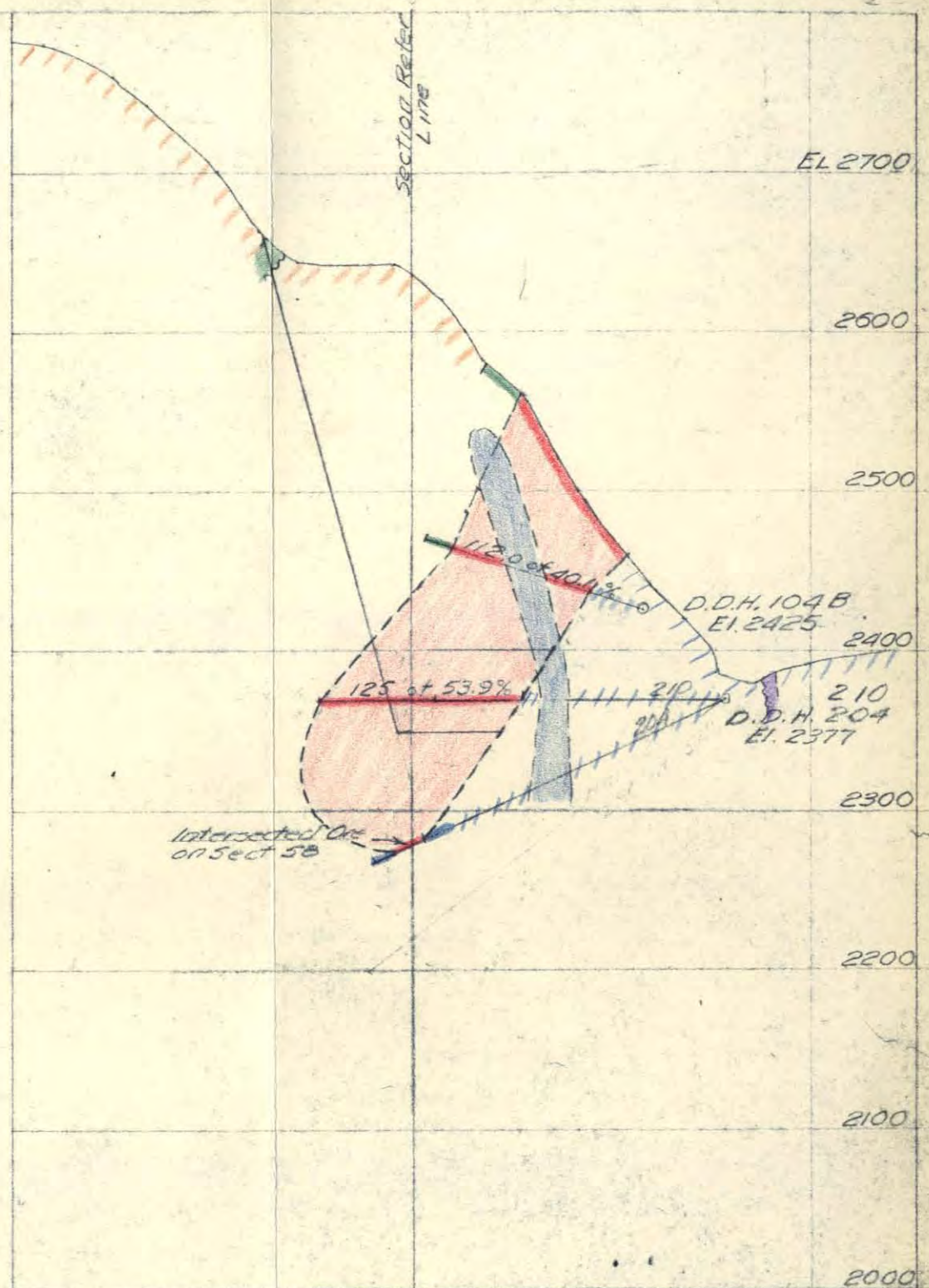
Depth Ft.	Formation	Width	% Fe	Width x %
116 - 129	Limestone	13.6	61.7	839.12
129 - 142.6	Magnetite with 20% Andesite & Epidote	6.4	-	-
142.6 - 149.0	Andesite	4.0	44.4	177.6
149.0 - 228.0	Magnetite with 2% Epidote	4.0	63.8	255.2
		11.0	65.5	720.5
		13.0	60.9	791.7
		13.0	63.3	822.9
		15.0	59.8	897.0
		7.0	63.7	459.9
		3.0	68.9	344.5
		7.0	67.8	474.6
228.0 - 231.0	Magnetite with 90% Epidote & Greenstone	3.0	34.9	104.7
231.0 - 238.0	Andesite, skarr	7.0	-	-
238.0 - 250.0	Magnetite with 1% skarr	3.0	68.1	340.5
250.0 - 254.0	Magnetite with 95% Epidote, Greenstone	6.0	63.9	395.4
254.0 - 272.0	Andesite, skarr	3.0	28.7	113.5

125.0 of 53.9%

Area 25500 Sq. Ft.

Grade 112.0 of 40.1% } 47.4%
 125.0 of 53.9%

Tons (2000lb) $\frac{62.5 \times 25,500}{8} = 199,155$

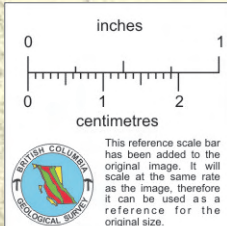


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 VANCOUVER, BRITISH COLUMBIA

FORD IRON DEPOSIT
 CROSS-SECTION 60

DATE	Dec 3, '59	SCALE	1"=100'
SURVEYED BY		CHECKED BY	
DRAWN BY	R.P.M.	FILE NO.	
TRACED BY		DRG. NO.	

Note
 Replaces Sec 60
 Dated Aug 12 59



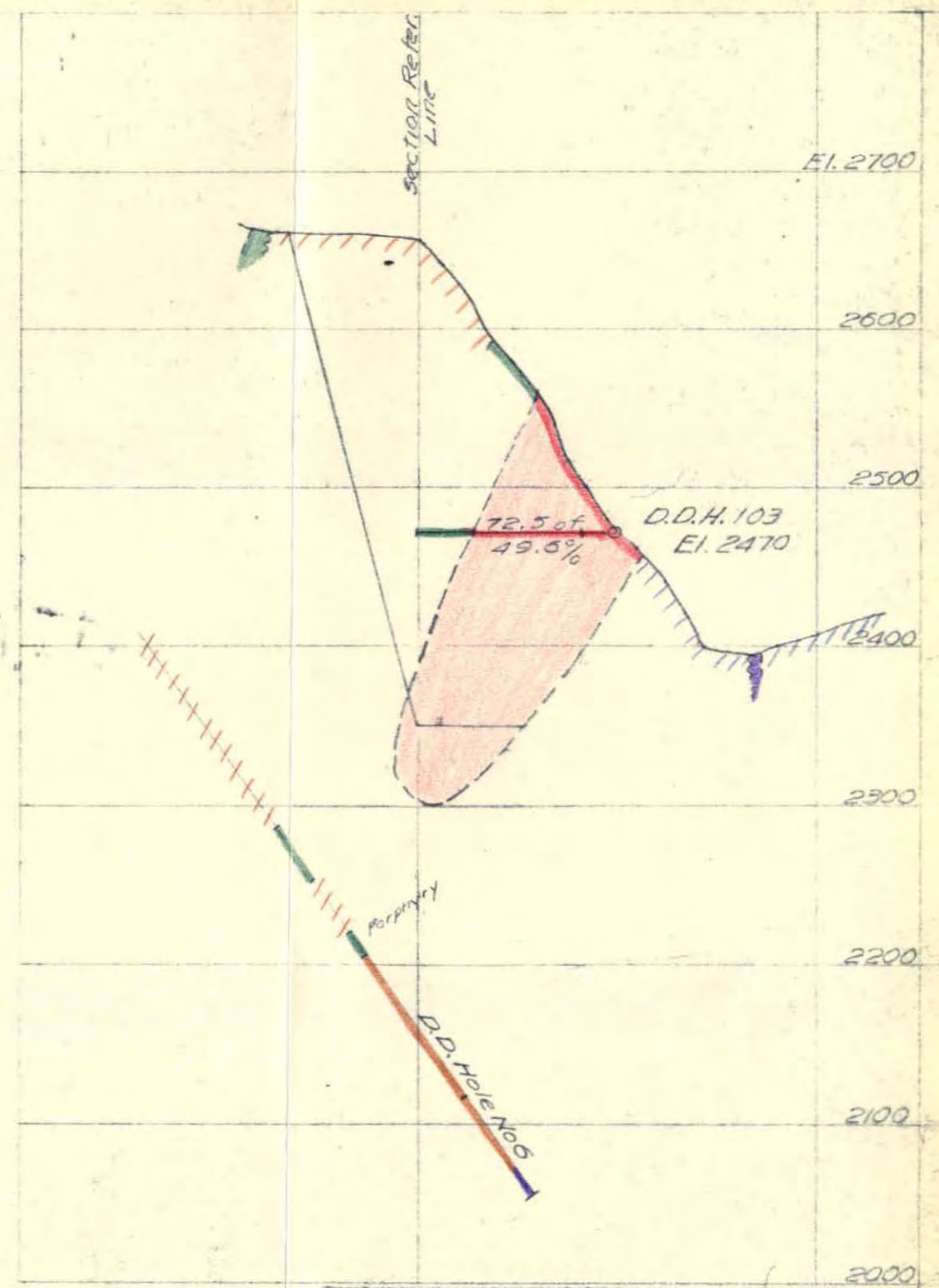
Hole No. 103
 Location Lat 7120
 Dep. 4242
 Elev. Collar 2470

Direction at Start West
 Dip 0°

Depth Ft	Formation	Width	% Fe	Width x %
0 - 3	100% Magnetite			
3 - 20.5	Andesite Dyke 5% Magnetite some pyrite			
20.5 - 26	Magnetite and andesite dyke (5%)	5.5	55.0	302.50
26.0 - 29	100% Magnetite	3.0	62.5	187.50
29 - 32	Andesite and Magnetite	3.0	15.5	46.50
32 - 40	100% Magnetite	8.0	64.1	512.80
40 - 42.5	Skarn, andesite and magnetite	2.5	36.2	90.50
42.5 - 47	35% Magnetite, green and brown skarn	4.5	55.8	251.10
47 - 57	Green and brown skarn	10.0	8.5	85.00
57 - 59	100% Magnetite	2.0	59.4	118.80
59 - 60	Green brown skarn, 10% magnetite	1.0	21.9	21.90
60 - 90.5	95% Magnetite some skarn	30.5	61.1	1863.55
90.5 - 93	60% Magnetite, 40% greenstone	2.5	42.6	106.50
93 - 96	Greenstone	3.0	-	-

72.5' of 49.6%

Area 19000 sq.ft.
 Grade 49.6%
 Tons (2000 lb) $\frac{37.5 \times 19000}{8} = 89,050$



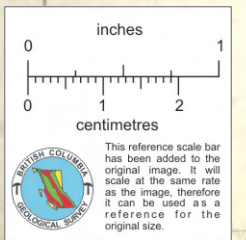
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 VANCOUVER, BRITISH COLUMBIA

FORD IRON DEPOSIT
CROSS-SECTION 61

DATE	Dec 3, '59	SCALE	1" = 100'
SURVEYED BY		CHECKED BY	
DRAWN BY	R.P.M.	FILE NO.	
TRACED BY		DRG. NO.	

Note
 Replaces Sec. 52
 Dated Aug 12 59

Drill Hole Log courtesy of St. Eugene Mining Corp. Ltd.



Hole No. 102
 Location Lot 7169
 Dep. 4238
 Elev. Collar 2476

Direction of Start S 85°W
 Dip 0°

Depth Ft.	Formation	Width	% Fe	Width x %
0 - 30	100% Magnetite	30.0	63.5	1905.00
30 - 46	Magnetite with andesite	16.0	49.1	785.60
46 - 49	Andesite and skarn with 5% Magnetite	3.0	19.7	59.10
49 - 63.5	100% Magnetite	14.5	66.8	968.60
63.5 - 67	Andesite - skarn - 2% Magnetite	3.5	18.0	63.00
67 - 69	Magnetite with 2% skarn	2.0	55.4	110.80
69 - 71	50% Magnetite 50% skarn	2.0	41.8	83.60
71 - 78	100% Magnetite	7.0	64.5	451.50
78 - 82.5	Skarn and andesite			

78.0 of 56.8

Hole No 202
 Location Lot 7159
 Dep. 4280

Direction of Start S 82°W
 Dip - 29°

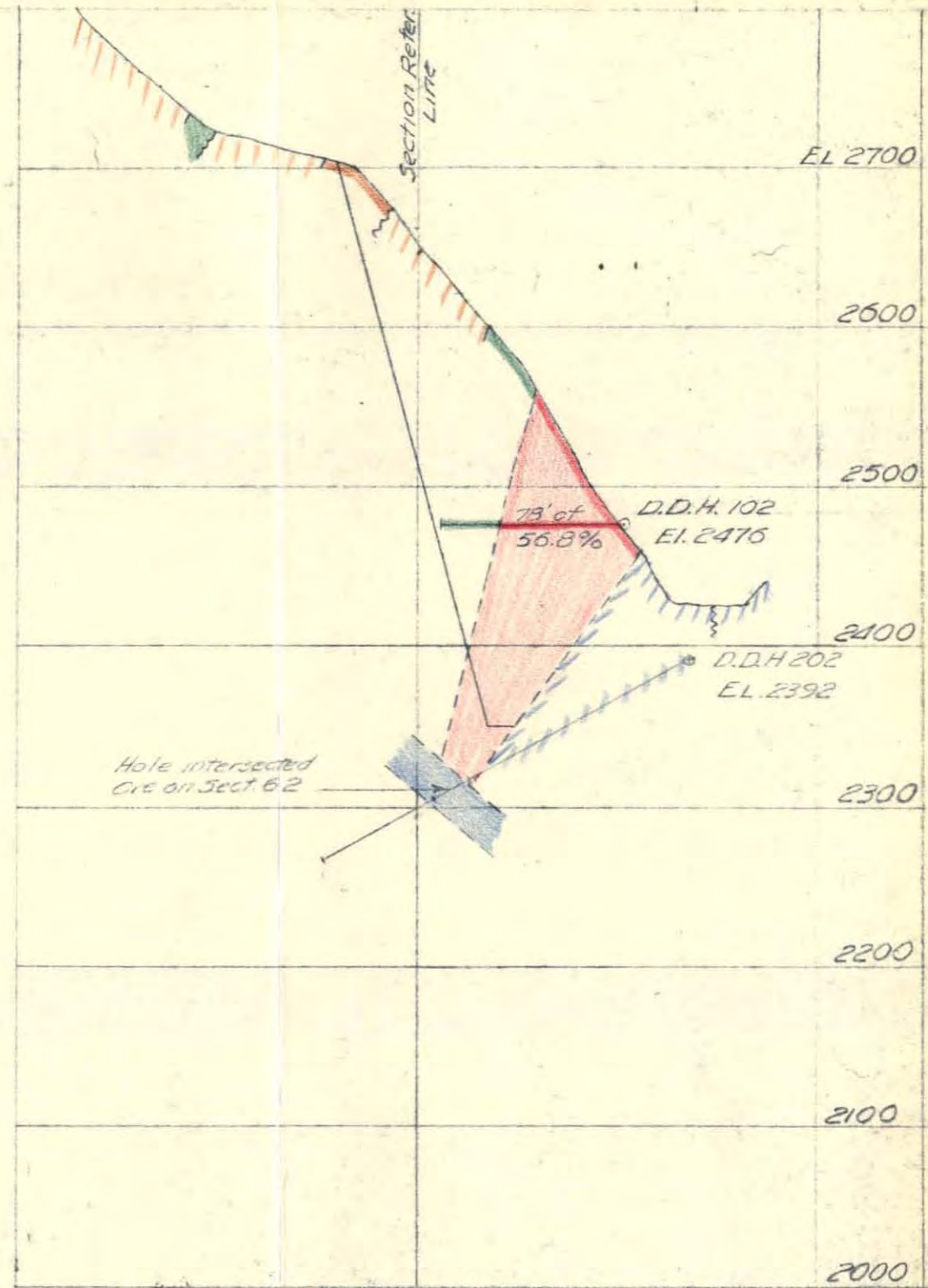
Depth Ft.	Formation	Width	% Fe	Width x %
139.5 - 158	Feldspar Perphyry Dyke			
158 - 166	Magnetite with epidote, pyrrhotite, greenstone	8.0	32.9	263.2
166 - 171	Magnetite - little skarn	5.0	60.6	303.0
171 - 173	Skarn with Magnetite	2.0	18.1	36.2
173 - 178.7	Magnetite - little skarn	5.7	63.3	360.8
178.7 - 185.2	Magnetite, skarn, greenstone	6.5	31.9	207.4
185.2 - 261.0	Andesite, skarn, stringers of diorite			

27.2 of 43.1

Area 12,900 sq. ft.

Grade $\left. \begin{matrix} 78.0 \text{ of } 56.8 \\ 27.2 \text{ of } 43.1 \end{matrix} \right\} 53.3\%$

Tons $\frac{37.5 \times 12900}{8} = 60469$
 (2000lb)



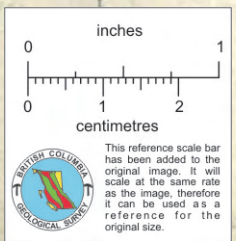
HILL, STARCK & ASSOCIATES
 CONSULTING ENGINEERS
 VANCOUVER, BRITISH COLUMBIA

FORD IRON DEPOSIT
 CROSS-SECT. 63

DATE	OCT 17, 59	SCALE	1" = 100'
SURVEYED BY		CHECKED BY	
DRAWN BY	R. P. M.	FILE NO.	
TRACED BY		DRG. NO.	

Note
 Replaces Sec 63
 Dated Aug. 12, 59

N102 Drill Hole Log courtesy of St. Eugene Mining Corp. Ltd.



Hole No 101
 Location Lat. 7169
 Dep. 4238
 Elev. Collar 2476

Direction at Start N 76°W
 Dip 0°

Depth Ft.	Formation	Width	% Fe	Width x %
0 - 32	100% Magnetite	32.0	63.1	201920
32 - 68.5	Magnetite with 0.5% green epidote	36.5	58.9	2149.85
68.5 - 73	Skarn - 5% magnetite	4.5	12.0	54.00
73 - 89.5	Magnetite - little andesite & skarn	16.5	55.6	917.40
89.5 - 98	Andesite and skarn			

89.5 of 57.4%

Hole No 201
 Location Lat. 7159
 Dep. 4280
 Elev. Collar 2392

Direction at Start N 83°W
 Dip -26°

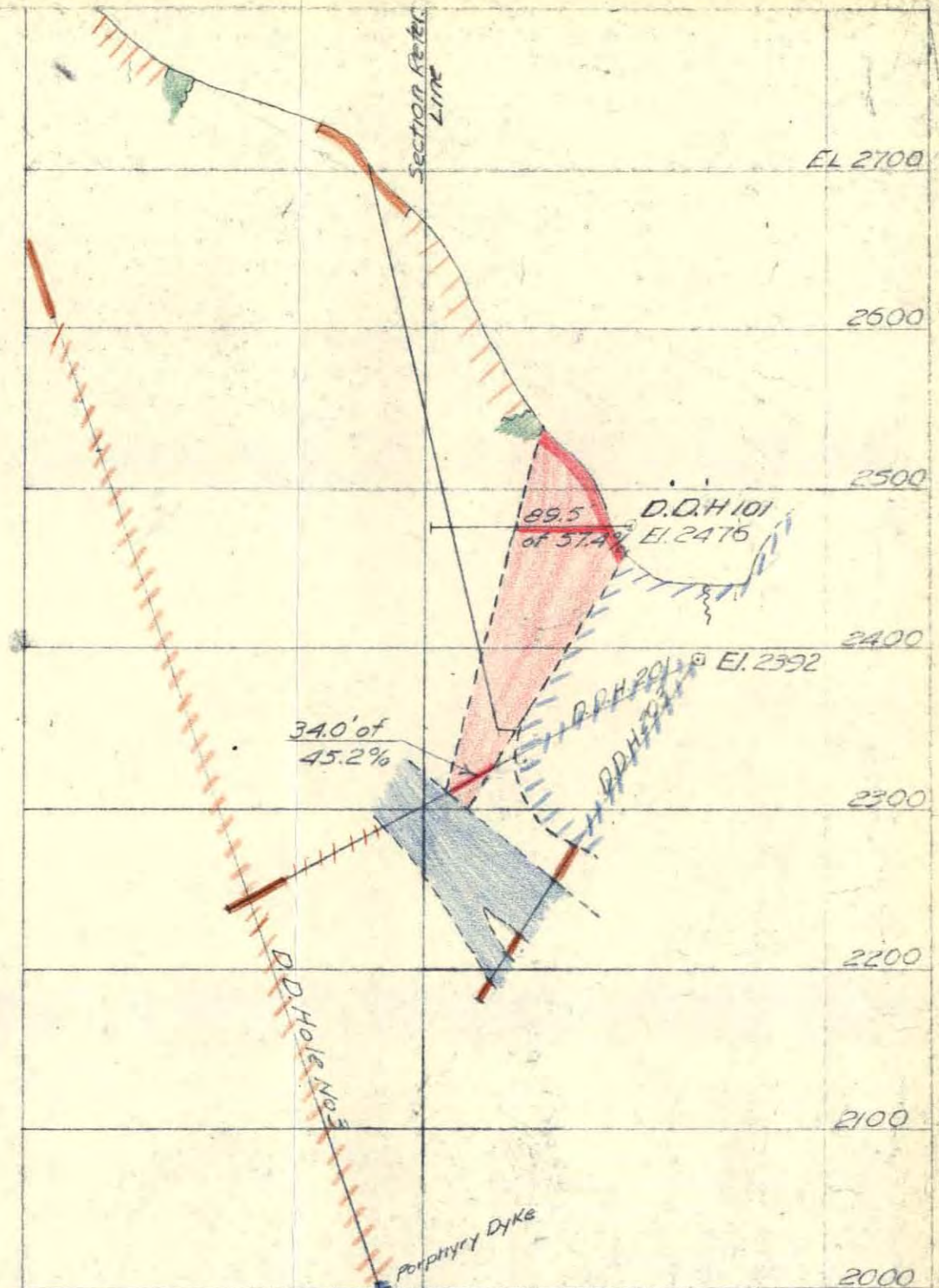
Depth Ft.	Formation	Width	% Fe	Width x %
139.0 - 148.5	Limestone & Skarn			
148.5 - 154.0	Andesite & Diorite			
154.0 - 159.0	Magnetite - little skarn & SiO ₂	5.0	51.9	259.5
159.0 - 169.0	Magnetite - little skarn & SiO ₂	10.0	63.7	637.0
169.0 - 177.0	Magnetite & skarn	8.0	36.2	289.6
177.0 - 185.0	Magnetite & skarn	11.0	32.1	353.1
185.0 - 234.0	Feldspar Porphyry Dyke			

34.0 of 45.2%

Area. 10,100 sq. ft.

Grade $\left. \begin{array}{l} 89.5 \text{ of } 57.4\% \\ 34.0 \text{ of } 45.2\% \end{array} \right\} 54.0\%$

Tons (2000lb) $\frac{37.5 \times 10,100}{8} = 47,344$

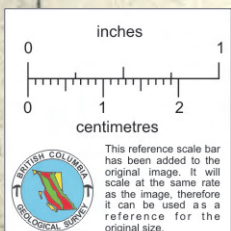


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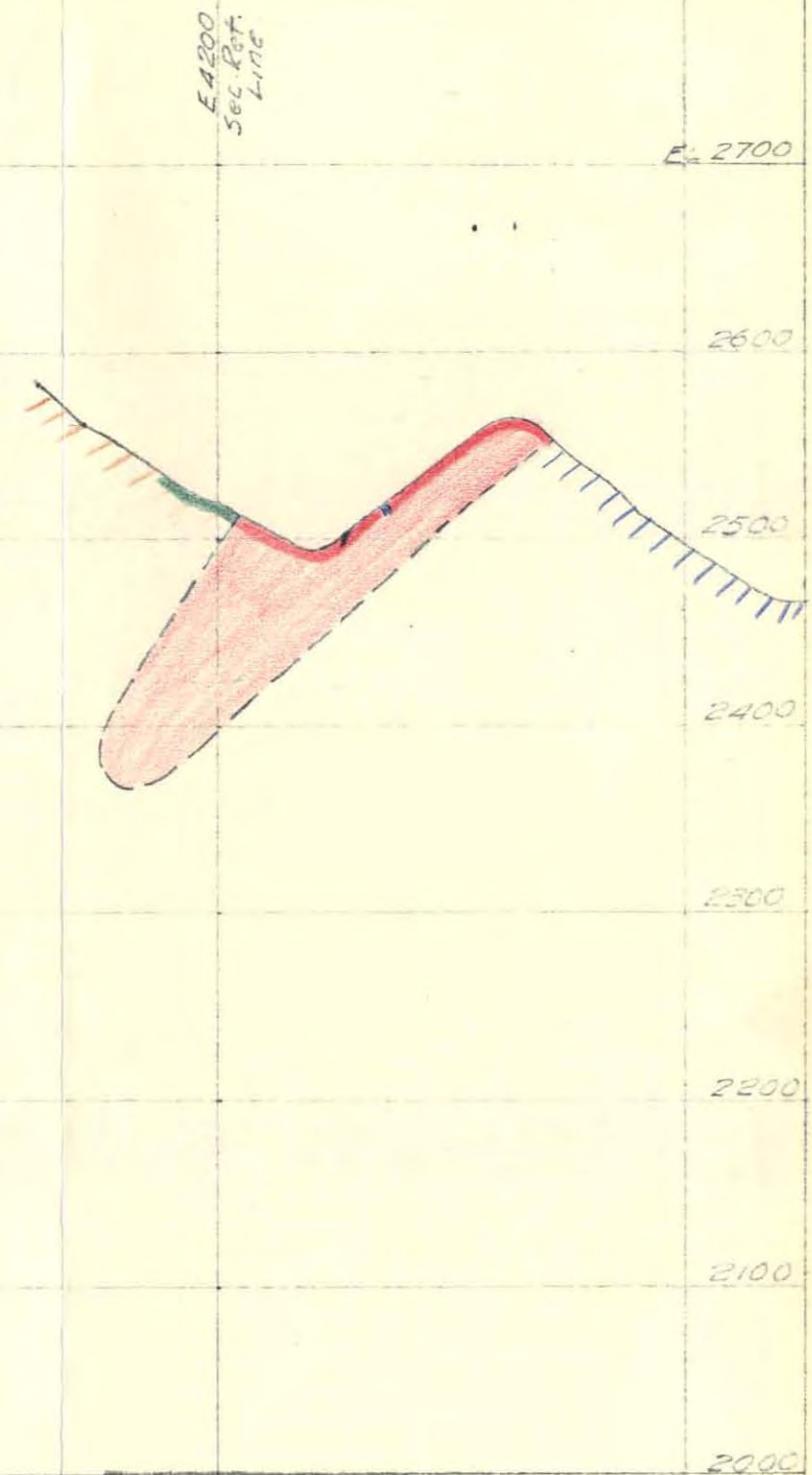
FORD IRON DEPOSIT
 CROSS-SECT. 64

DATE	Oct 17 '59	SCALE	1" = 100'
SURVEYED BY		CHECKED BY	
DRAWN BY	R.P.M.	FILE NO.	
TRACED BY		DWG. NO.	

Note
 Replaces Sec. 64
 Dated Aug 12 '59



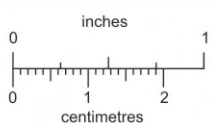
Area 12,800 sq. ft.
Section 65-68 Grade 54.0% (grade for sect. 64)
 Tons $\frac{12,800 + 10,100}{2} \times \frac{75}{8} = 53,600$
Section 68-70 Grade 44.7% (grade for sect 70)
 Tons $\frac{12,800 + 9,980}{2} \times \frac{50}{8} = 71,190$
Total Grade $\frac{53,600(54) + 71,190(44.7)}{124,790} = 48.7\%$
 TONS 124,790



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FORD IRON DEPOSIT
CROSS-SECT. 68

DATE	Dec 3 '59	SCALE	1"=100'
SURVEYED BY		CHECKED BY	
DRAWN BY	R.P.M.	FILE NO.	
TRACED BY		DRG. NO.	

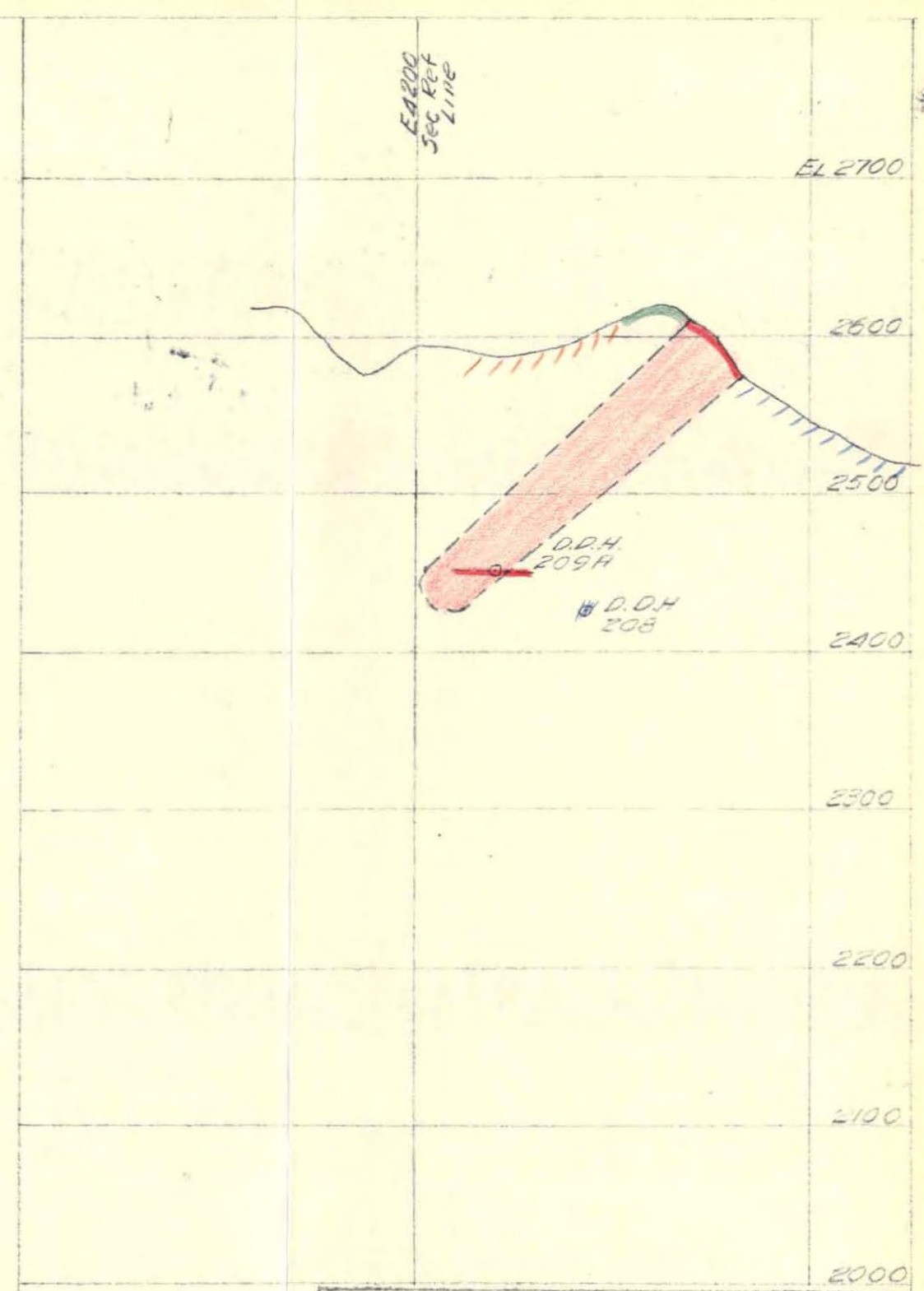


This reference scale bar has been added to the original image. It will scale at the same rate as the image, therefore it can be used as a reference for the original size.

Area 9980 sq ft

Grade 44.7% See Hole 209 A - Sect 7A

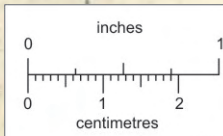
Tons
(2000lb.) $\frac{50 \times 9980}{8} = 62,375$
Sec. 70-72



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VANCOUVER, BRITISH COLUMBIA

FORD IRON DEPOSIT
CROSS-SECT 70

DATE	Oct 17 '59	SCALE	1"=100'
SURVEYED BY		CHECKED BY	
DRAWN BY	R.P.M.	FILE NO.	
TRACED BY		DRG NO	70



This reference scale bar has been added to the original image. It will scale at the same rate as the image, therefore it can be used as a reference for the original size.

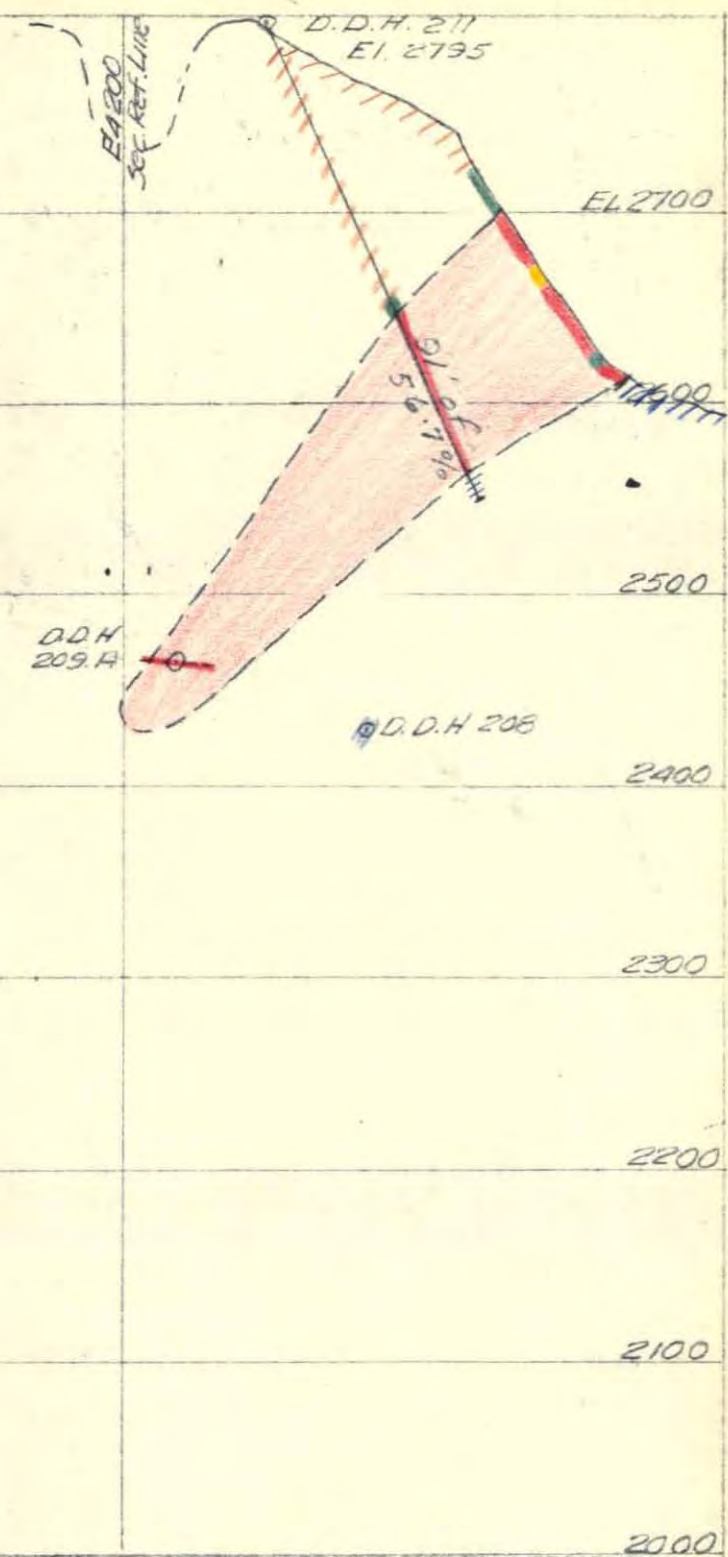
Hole No 209 A

Location Lat. 7230
 Dep 4286
 Elev. Collar 2425

Direction at Start N 15° W
 Dip +7°

Depth Ft.	Formation	Width	% Fe	Width x %
100 - 118	Limestone			
118 - 121	Magnetite	3.0	62.6	187.8
121 - 124	Andesite	3.0	0.0	0.0
124 - 131	Magnetite	7.0	56.4	394.8
131 - 141	Andesite and skarn	0.0	0.0	0.0
141 - 143	Skarn & Magnetite	2.0	18.9	37.8
143 - 149	Magnetite	6.0	55.7	334.2
149 - 155	Magnetite	6.0	62.2	373.2
155 - 156	Andesite with Magnetite	1.0	19.0	19.0
156 - 166	Magnetite	10.0	68.9	689.0
166 - 176	Magnetite	10.0	69.9	699.0
176 - 185	Magnetite	9.0	68.6	617.4
185 - 190	Magnetite - some Greenstone	5.0	48.1	240.5
190 - 192.5	Magnetite - epidote - pyrite	2.5	0.0	0.0
192.5 - 202	Magnetite - epidote - pyrite - andesite	9.5	61.1	580.4
202 - 209	Greenstone - skarn - pyrite	7.0	0.0	0.0
209 - 210.5	Magnetite - epidote - pyrite	1.5	20.6	30.9
210.5 - 219	Magnetite	8.5	66.0	561.0
219 - 226	Magnetite - greenstone	7.0	63.7	445.9
226 - 235	Magnetite - some skarn & epidote	9.0	62.6	563.4
235 - 242	Skarn	7.0	0.0	0.0
242 - 247	Magnetite	5.0	45.0	225.0
247 - 253	Porphyry Dyke	6.0	0.0	0.0
253 - 261	Magnetite, epidote, pyrite	8.0	50.1	400.8
261 - 281	Skarn			

143' of 44.7%



Hole No 211

Location Lat. 7470
 Dep. 4272
 Elev. Collar 2795

Direction at Start S 70° E
 Dip -65°

Depth Ft.	Formation	Width	% Fe	Width x %
0 - 165	Skarn, Diorite Andesite.			
165 - 179	Magnetite 15% Skarn	10	59.8	597.9
179 - 181	Skarn	10	50.8	507.5
181 - 184.6	Magnetite			
184.6 - 187	10% Magnetite, skarn, pyrrhotite, Pyrite.			
187 - 191	Magnetite 2% Epidote	10	42.8	428.2
191 - 195.6	Andesite Skarn			
195 - 195.6	Magnetite			
195.6 - 197	Skarn			
197 - 202	Magnetite 5% Skarn	10	51.31	513.1
202 - 204	Skarn Trace Magnetite.			
204 - 211	Magnetite 5% Skarn, epidote.			
211 - 212	Epidote Calcite			
212 - 218	Magnetite, little pyrite,	10	62.8	627.7
218 - 219	Skarn, trace magnetite.	10	60.2	602.0
219 - 228	Magnetite, Epidote.	10	49.1	490.9
228 - 231.6	Skarn, 10% Magnetite.			
231.6 - 256	Magnetite, 5% Skarn.	10	65.3	653.0
		11	67.1	737.7

91' of 56.7%*

Area 21,100 sq. ft.
 Grade 44.7%*

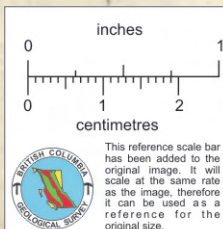
112.5 Tons $\frac{112.5 \times 21,100}{8} = 296,700$
 (2000 lb)

*Note: In calculation of ore reserves a grade of 44.7% was used for Sect. 74 as assays for Hole 211 were not available Dec. 4 '59.

HILL, STARCK & ASSOCIATES
 CONSULTING ENGINEERS
 VANCOUVER, BRITISH COLUMBIA
FORD IRON DEPOSIT
CROSS-SECT 74

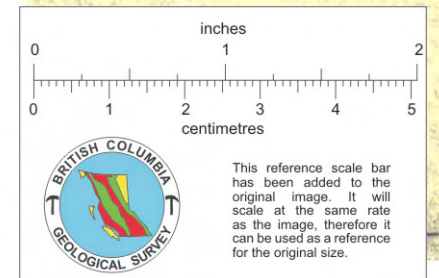
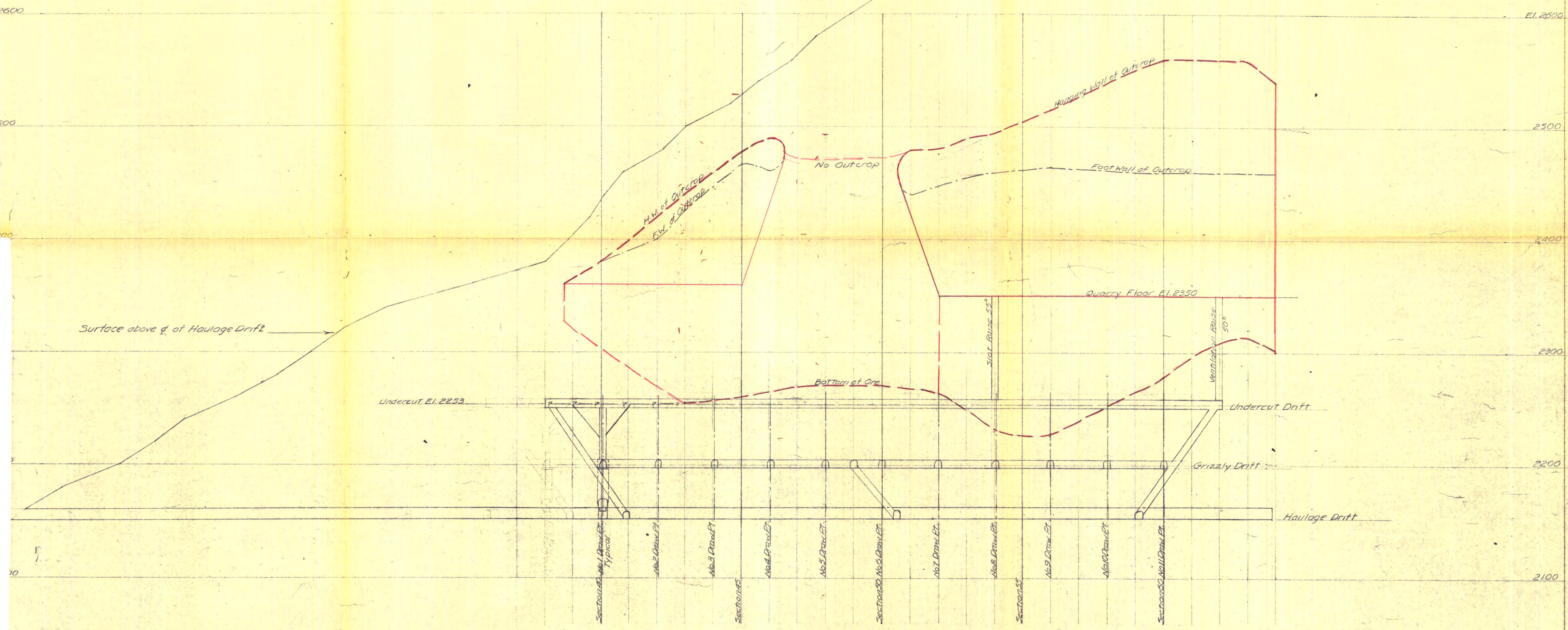
DATE Dec 3 '59 SCALE 1"=100'
 SURVEYED BY CHECKED BY
 DRAWN BY R.P.M. FILE NO.
 TRACED BY DRG. NO.

Note
 Replaces Sect 74
 Dated Oct 17 '59



This reference scale bar has been added to the original image. It will scale at the same rate as the image, therefore it can be used as a reference for the original size.

North →



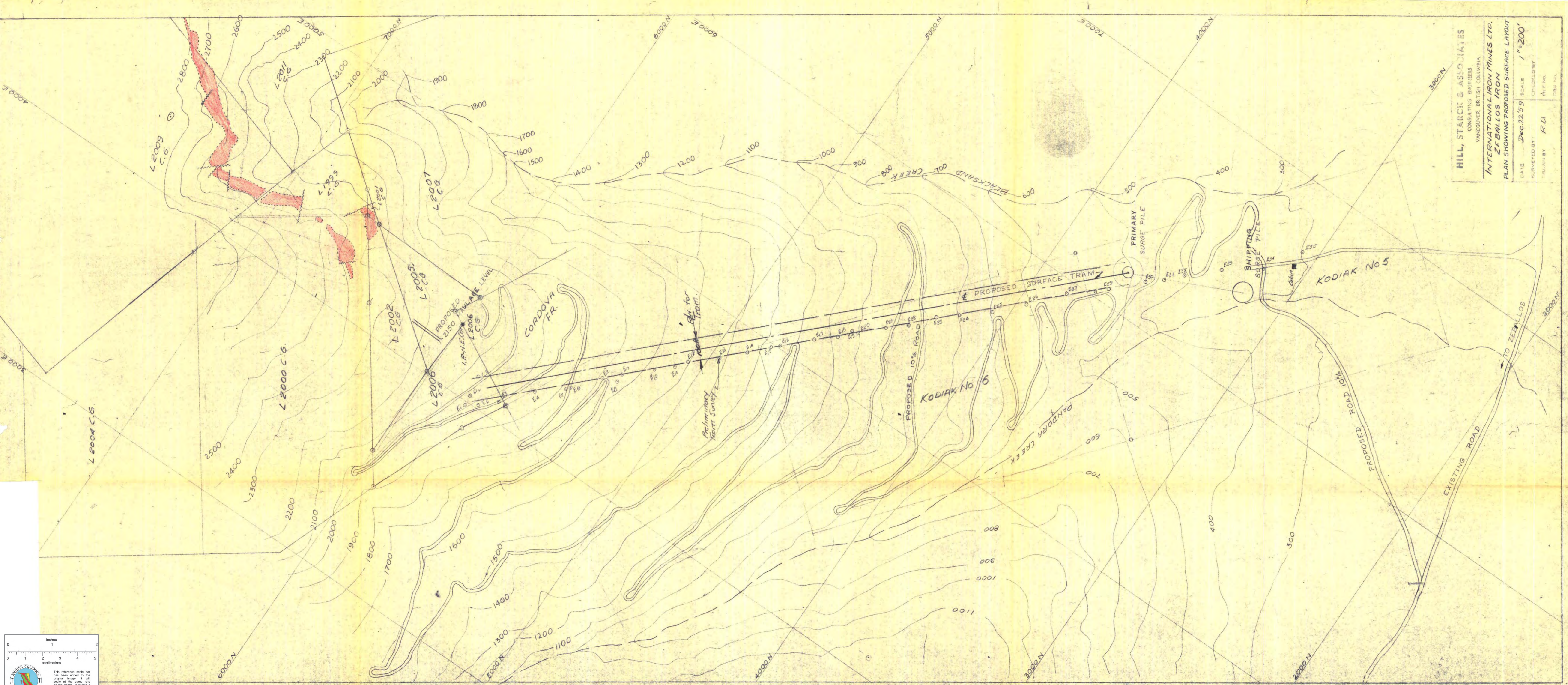
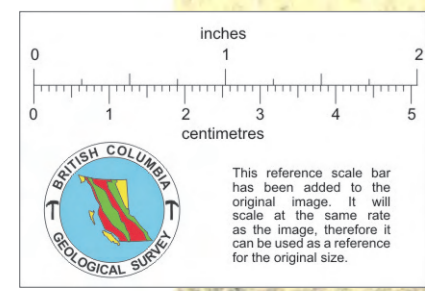
Note - Plane of Projection
15 N. 15 W.

HILL, STARCH & ASSOCIATES
CONSULTING ENGINEERS -
VANCOUVER, BRITISH COLUMBIA

INTERNATIONAL IRON MINES LTD.
FORGE SEBALLOS IRON
LONGITUDINAL PROJECTION N. 15° W.
SHOWING PRELIMINARY LAYOUT FOR
UNDERGROUND MINING

DATE Nov. 26 '59 SCALE 1" = 40'

SURVEYED BY _____ CHECKED BY _____
DRAWN BY R.M. FILE NO. _____
CHECKED BY _____ DRG. NO. U2



HILL, STARCH & ASSOCIATES
CONSULTING ENGINEERS
VANCOUVER BRITISH COLUMBIA

INTERNATIONAL IRON MINES LTD.
ZEBALLOS IRON
PLAN SHOWING PROPOSED SURFACE LAYOUT

DATE: Dec. 22, '59
SCALE: 1" = 200'
SURVEYED BY: R.D.
CHECKED BY: H.F.N.
DRAWN BY: R.D.
JOB NO. 2782