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63-3861

MEMORANDUM

on

RECENT DIAMOND DRILLING - MacLEOD-COCKSHUTT GOLD MINES LIMITED

GERALDTON, ONTARIO

by

F.R. BURTON

Port Arthur, Ont.
April 27th. 1936.



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MAP

Plan to illustrate recent diamond drilling.

MEMORANDUM

on

RECENT DIAMOND DRILLING, MacLEOD-COCKSHUTT GOLD MINES LTD.,

GERALDTON, ONTARIO.

CONCLUSIONS

(1) Five diamond-drill holes spaced 100 feet apart have intersected an ore zone at vertical depths of from 85 feet to 150 feet. The five intersections averaged \$12.50 (gold at \$35/oz.) across an apparent true width of 14 feet.

(2) Assuming an ore shoot continuous for 600 feet and to have a true width as above, there is an indicated tonnage in the possible ore shoot of 700 tons per vertical foot (see text).

(3) Any extension of the ore shoot to the east would be on the property of Hard Rock Gold Mines but there is ample room for extension to the west. The ore shoot is well protected on the dip.

(4) There are several drill hole intersections outside the main vein zone which indicate possibilities of developing into small ore shoots.

(5) In the writer's opinion, the limited amount of work completed to date indicates an excellent possibility of developing a large mine, and the company's shares at present prices of 70 cents per share are recommended as a very attractive speculation.

FOREWORD

The writer visited the property on several occasions from April 21st. to 25th. and, through the courtesy of Messrs. W. Samuels and E. Creelman, was permitted to examine both the drill core and assay results.

LOCATION AND ACCESSIBILITY

The ore intersections obtained in the present drilling program lie immediately west of the boundary with Hard Rock Gold Mines, Ltd. and north of the government highway from Geraldton to the Hard Rock mine. As shown on the accompanying plan, the collar of D.D.H. #50 is approximately 940 feet south of the northwest corner of claim T.B.9991. In the event of an underground program being warranted, the property is easily accessible and the mining plant and necessary equipment could be delivered to the shaft site by truck from Geraldton station, a distance of about four miles.

GEOLOGY

The so-called "porphyry hill" area on the Hard Rock property lies immediately east of the location of the present drilling. The writer has never had an opportunity to examine the surface exposures when the ground was not covered with snow, but judging by the drill core and from discussion with competent geologists, it appears rather likely that the "porphyry" may be an arkosic sediment, highly altered by solutions presumably derived from an underlying igneous intrusive. This highly altered rock is interbedded (?) with sediments consisting

of greywacke, arkose, and iron formation. The approximate contact as indicated by drilling, between this intermixture and the normal sediments is shown on the accompanying plan. The rock for the most part is covered with deep overburden but a magnetic survey to trace the iron band indicates that there has been considerable drag folding in the area.

The vein material consists of iron formation (magnetite) greywacke, arkose, the highly altered sediment or porphyry described above, narrow quartz stringers, and sericite schist, all mineralized with pyrite and arsenopyrite. In the core examined by the writer, there was not more than 10% of quartz, and gold values appear to be related to the sulphide mineralization, which in places is nearly massive. Unmineralized band within the vein zone carry only low values. Visible gold is said to have been noted in D.D.H. #50.

The walls of the vein zone are fairly well defined but in general, the values diminish toward the walls and in mining it may be found expedient to select the centre part of the zone and thus raise the average grade.

There is a surface trench across the vein zone but at the time of the writer's examination it was full of snow and debris and could not be examined. It is said to show some mineralization at one point but it is unlikely that it would compare with the results obtained in diamond-drilling. Surface trenching and diamond-drilling on the Hard Rock property indicate a probable steep southerly dip. The strike is approximately due east-west.

GOLD VALUES AND INDICATED TONNAGE

Five shallow diamond-drill holes had been completed at the time of the writer's examination. As shown on the accompanying plan, they are spaced about 100 feet apart and intersected the main ore zone at vertical depths ranging from 85 to 150 feet. The reader is referred to the attached diamond-drill logs and calculation sheets for details. Summarizing, results to date on the main ore zone are as follows:-

<u>D.D.H. No.</u>	<u>True Width Assuming Dip 85° S.</u>	<u>Grade (\$35/oz.)</u>	<u>Width x Grade</u>
50	10.4'	\$ 11.05	114.90
51	18.0	8.20	147.60
52	6.5	18.90	122.85
53	7.0	23.30	163.10
54	<u>28.0</u>	11.60	<u>324.80</u>
	69.9		873.25

Average width - 14 ft.
 Average grade - \$12.50
 Length between drill holes - 395 ft.

The writer realizes that there has not been sufficient drilling to estimate ore reserves and the following is submitted only as a rough estimate of possibilities indicated by present drilling. Hard Rock Gold Mines Ltd. has carried out considerable diamond drilling on their side of the property boundary, and this work indicates that the vein probably continues for 150 feet east of D.D.H. #50, or a total overall length to D.D.H. #54 of 545 feet. With the vein continuing strong in #54 hole, it is not unreasonable to expect that it

will extend west for another 200 feet, or say a length of 600 feet on the MacLeod-Cockshutt property, Indicated tonnage per vertical foot is then -

$$\frac{600' \times 14'}{12} - \underline{700 \text{ tons}}$$

Assuming an economical rate of mining to be 180 feet of vertical depth per year, yearly tonnage would be 126,000 tons. This would require a mill with a daily capacity of about 350 tons.

The writer would stress that the above calculations are submitted merely with the object of indicating ore possibilities and under no circumstances are to be regarded as an engineering estimate. It is quite possible that the wider widths may be partially due to folding. It is worthy of note that the ore is a heavy sulphide vein material and the factor of 12 cubic feet per ton employed above is undoubtedly high.

POSSIBILITIES OUTSIDE MAIN ORE ZONE

As shown on the accompanying plans, there are several drill hole intersections outside the main vein zone which indicate possibilities of developing ore. The drill holes are too widely spaced to define any particular shoot but it is quite possible that important ore tonnage might be developed in one or more of these indicated shoots.

The writer is not familiar with the results obtained on the original discovery, about 3000 feet to the northwest, but presumably if the present discovery develops into a mine, the original discovery would warrant further exploration.

PRESENT DEVELOPMENT

Two diamond drills are employed on the property. One drill is continuing the shallow drilling to the west and the other is engaged in putting down a deeper hole to intersect the vein zone at a vertical depth of about 400 feet.

F. R. Burton

Port Arthur, Ont.
April 27, 1936.

DIAMOND DRILL HOLE LOGS OF ORE SECTIONS

D.D.H. #50

<u>Depth in Feet</u>	<u>Formation</u>	<u>Width of Sample</u>	<u>Value</u>	<u>Sludge Value</u>	<u>Sludge Footage</u>
222.5-225.0	Porphyry & sedimentary intermixture	2.5	\$ 9.80	\$ 8.05	220-225
225.0-225.9	Heavily mineralized, Pyrite, considerable quartz	0.9	Tr.		
225.9-227.2	-do-	1.3	13.30	14.00	225-230
227.2-229.1	Some mineral in iron formation	1.9	0.70		
229.1-230.0	Heavily mineralized, some quartz	0.9	8.40	14.35	230-235
230.0-231.9	Some mineral, considerable quartz	1.9	0.70		
231.9-233.0	Heavily mineralized, some quartz	1.1	58.10	6.30	235-240
267.0-269.0	Heavily mineralized pyrite & some quartz	2.0	8.40	7.35	265-270
275.0-277.5	Porphyry, considerable quartz	2.5	5.95	3.50	275-280
<u>D.D.H. #51</u>					
161.0-163.5	Greywacke, massive sulphides, some quartz	2.5	10.85	4.90	155-160
				0.70	160-165
185.0-187.5	Porphyry, some massive sulphides, arsenopyrite	2.5	60.90	72.10	180-185
				16.45	185-190
215.0-217.5	Porphyry & sedimentary intermixture, heavily min.	2.5	5.60		
217.5-220.0	-do-	2.5	12.60	21.00	215-220
220.0-222.5	-do-	2.5	4.20		
222.5-225.0	-do-	2.5	6.30	7.35	220-225
225.0-227.5	-do-	2.5	0.70		
227.5-230.0	Porphyry, quite heavily mineralized	2.5	7.00	37.10	225-230
230.0-232.5	Porphyry, quite heavily mineralized & quartz	2.5	9.45		
232.5-235.0	-do-	2.5	3.85	14.00	230-235
235.0-237.5	-do-	2.5	24.15	7.35	235-240

275 0-276 75

Formation continuation

7 25

9 75

D.D.H. #52

<u>Depth in Feet</u>	<u>Formation</u>	<u>Width of Sample</u>	<u>Value</u>	<u>Sludge Value</u>	<u>Sludge Footage</u>
109.0-111.65	Some quartz & pyrite	2.55	\$ 5.60	\$ 4.90	105-110
135.0-137.5	Iron formation. Very well mineralized	2.5	8.05	1.05	110-115
137.5-140.0	-do-	2.5	21.70	9.80	135-140
140.0-142.5	Porphyry & arkose intermixture	2.5	26.95	7.35	140-145
142.5-145.0	-do-	2.5	2.10	2.80	145-150
210.0-211.15	Porphyry-arkose. Very well mineralized	1.15	7.00	8.05	150-155
211.15-212.2	Massive sulphides, some quartz	1.05	24.15	11.20	210-215

D.D.H. #53

125.0-127.5	Iron formation, some pyrite	2.5	0.70		
127.5-130.0	-do-	2.5	1.05		
130.0-132.0	Iron formation 131-133, porphyry	2.0	4.90		
132.0-134.0	Iron formation 130-134. Well mineralized	2.0	17.50		
134.0-136.0	Very well mineralized; best section in some	2.0	59.85		
136.0-138.0	Iron formation, some pyrite	2.0	10.85		

D.D.H. #54

<u>Depth in Feet</u>	<u>Formation</u>	<u>Width of Sample</u>	<u>Value</u>	<u>Sludge Value</u>	<u>Sludge Footage</u>
121.5-123.5	Fairly well mineralized; pyrite & arsenopyrite	2.0	4.70		
123.5-125.0	Well mineralized; pyrite & arsenopyrite	1.5	16.00		
125.0-127.5	Fairly well mineralized; pyrite & arsenopyrite	2.5	3.85		
127.5-130.0	--do--	2.5	1.40		
130.0-132.5	Well mineralized; pyrite & arsenopyrite	2.5	19.60		
132.5-135.0	--do--	2.5	23.45		
135.0-137.0	--do--	2.0	35.70		
137.0-139.0	--do--	2.0	1.75		
139.0-141.0	--do--	2.0	1.05		
141.0-143.0	--do--	2.0	1.75		
(In the above samples pyrite predominates)					
143.0-145.0	Massive pyrite	2.0	23.00		
145.0-146.3	--do--	1.3	17.50		
146.3-147.5	--do--	1.2	47.60		
147.5-150.0	Well mineralized; pyrite, some narrow bands of iron	2.5	1.40		
150.0-152.5	--do--	2.5	2.10		
152.5-155.0	--do--	2.5	2.80		
155.0-157.5	--do--	2.5	16.45		
157.5-160.0	Fair only. vein material & iron ends at 160	2.5	1.40		
160.0-194.0	Greywacke				

-10-
CALCULATION SHEET

<u>Drill Hole</u>	<u>Width in Ft.</u>	<u>Grade (\$35/oz.)</u>	<u>Width x Grade</u>	
50	2.5	9.80	24.50	
	0.9	Tr.	-	
	1.3	13.30	17.30	
	1.9	0.70	1.35	
	0.9	8.40	7.55	Average Grade
	1.9	0.70	1.35	
	1.1	58.10	63.80	
	<u>10.5</u>		<u>115.85</u>	
51	2.5	5.60	14.00	
	2.5	12.60	31.50	
	2.5	4.20	10.50	
	2.5	6.30	15.75	
	2.5	0.70	1.75	Average Grade
	2.5	7.00	17.50	
	2.5	9.45	23.60	
	2.5	3.85	9.65	
	2.5	24.15	60.30	
	<u>22.5</u>		<u>184.55</u>	
52	2.5	8.05	20.10	
	2.5	21.70	54.20	Average Grade -
	2.5	26.95	67.40	
	<u>7.5</u>		<u>141.70</u>	
53	2.0	4.90	9.80	
	2.0	17.50	35.00	Average Grade -
	2.0	59.85	119.70	
	2.0	10.85	21.70	
	<u>8.0</u>		<u>186.20</u>	
54	2.0	4.70	9.40	
	1.5	16.00	24.00	
	2.5	3.85	9.65	
	2.5	1.40	3.50	
	2.5	19.60	49.00	
	2.5	23.45	58.70	Average Grade -
	2.0	35.70	71.40	
	2.0	1.75	3.50	
	2.0	1.05	2.10	
	2.0	1.75	3.50	
	2.0	23.00	46.00	
	1.3	17.50	22.75	
	1.2	47.60	57.10	
	2.5	1.40	3.50	
	2.5	2.10	5.25	
	2.5	2.80	7.00	
<u>2.5</u>	<u>16.45</u>	<u>41.20</u>		
<u>36.0</u>		<u>417.55</u>		



42E10N0142 63.3661 ASHORE

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MEMORANDUM

ON

MacLEOD-COCKSHUTT GOLD MINES LTD.

Little Long Lac Area,
Ontario.

by

J.A.H. Paterson

JUNE 18th, 1936

You will note that I have not included any "probable ore" below the 200' level.

In view of the surface diamond drill information indicated on longitudinal section accompanying this report, it is reasonable to conclude that considerable further ore should be found below this horizon.

In general I think that the chances for finding considerable further tonnage of ore are good in spite of the discouragement met with so far on the 50 level, but I do not think the average grade of such ore will be any better than what is indicated so far, viz. a grade of \$8.82 on \$35.00 gold price.

PROBABLE EARNINGS PER SHARE

The probable earnings based on 500 tons per day. Mine grade \$8.50 cost per ton \$5.00.

$$500 \times \$3.50 \times 360$$

Per Share Earnings

$$\frac{500 \times \$3.50 \times 360}{2,800,000} = 28.5¢$$

Indicated tonnage of ore - 225,000 tons
 $\frac{1700 \times 175 \times 8.3}{11}$

One year's production at rate of 500 tons per day would require _____ 180,000 tons

"ROY DUNBAR"

MEMORANDUM

on

MacLEOD-COCKSHUTT GOLD MINES LTD.

Little Long Lac Area,
Ontario.

June 18th, 1956

CONCLUSIONS:

(1) Earnings are estimated herein at 25¢ per share, with the contemplated 500-ton mill.

(2) After the shaft has been completed and drifting in ore gets started the shares, in my opinion, will sell to at least 20 times earnings or higher, say \$4.60 - \$5.00. At the current price of \$4.00, they are selling about 17 times probable earnings, which is at a point that usually is an extreme high for most gold stocks.

(3) The estimates herein from diamond drilling show,-

<u>Holes</u>	<u>Grade</u>	<u>Core Length</u>	<u>Length</u>
Shallow holes	\$13.10	12½ ft.	1170 ft.
Five deep holes	8.60	17½ ft.	700 ft. (full)

Combining the shallow and deep holes gives,-

Average grade before dilution of \$11.05

 " " after 10% " " \$10.00

Tonnage per vertical foot = 1075

(4) Market news:- during the next few months there will be little if any news regarding the main orebody. Also, as shown on attached plan, the shaft is located a considerable distance from the best part of the orebody in shallow drilling.

GENERAL:

I visited the property on June 15th, 1956, and, thanks to the courtesy of Mr. Allan Barton, was permitted to study the plans and inspect the diamond drill core.

ATTACHED PLAN:

The attached geological and assay plan shows the whole picture to date, much more clearly than a written description.

SHAFT:

A four-compartment shaft has been started and is now down about 40 feet. This makes provision for a cage, two skip-ways, and a man-way. An airline has been run from the Little Long Lac compressor plant to provide air until electrical power is available, - probably about October.

Levels will be opened at 150', 300' and 450'.

MILL:

Mr. Errington recently made a statement, which was widely quoted in the Press, that a 500-ton mill will be constructed. The size agrees with the estimated capacity calculated herein on a Tons-Per-Vertical-Foot basis, but mill construction before the orebody is tested underground would appear premature.

GEOLOGY:

As shown on the attached plan, the ore occurs close to the contact between the sediments and an intrusive syenite porphyry. The central part of the orebody which is widest and also highest grade, - that is the section between holes 52 and 57, - is almost entirely within the sediments, part of which is iron formation. Apparently the iron formation was most competent to replacement.

There are two types of gold mineralizations:

- (a) by sulphide replacement, usually very highgrade;
- (b) by irregular quartz stringers;

Examination of the core would suggest that the picture underground will be a series of narrow and erratically distributed highgrade lenses of sulphides, and also a very irregular quartz stringer system. In other words, the outline of the orebody itself will probably be irregular and require assay walls which, of course, would mean a certain amount of dilution. The parts of the core that contain massive sulphides invariably assayed very high. Some sections of the core that do not show the replaced type of massive sulphides but only narrow quartz stringers, assayed low to medium grade.

There is considerable evidence that the porphyry intrusive exists in the form of a pipe plunging to the west about 20 - 30°. The surface drag folds in the sediments plunge west about 20 - 30°. On the surface, trenching in the vicinity of the new shaft shows only sediments, whereas all the drill holes showed considerable porphyry. The shallow holes would average in depth around 150 feet which would mean that sediments on surface are underlain at less than this depth by the porphyry.

OLD WORKINGS:

The old shaft is being pumped out and the present management intends to further test the small lens of ore which was known as the North zone. It is thought that there might be the possibility that this lens will also plunge in a pipe-like form at say 30° to the west, and if this is the case it would provide a small tonnage of ore. This theory is, of course, entirely different from that assumed by the former management.

MAIN ORESHOOT SHALLOW HOLES:

Hole	Assay Average (\$35 Gold)	Length of Inter-section	A x L	Cut A x L	
50	\$11.15	10.4	115.96) NOTE: Length of core intersect are not true widths.
51	60.90	2.5	152.25	33.20	
52	18.90	7.5	141.75		
53	23.27	8.0	186.16		
54	12.35	34.0	419.90		
55	14.80	33.0	488.40		
57	6.21	<u>33.5</u>	<u>208.05</u>) Total A x L = 1712.45 - erratic = 152.25 1560.20 + 33.20 1593.40
		128.9	1712.45	1593.40	

Uncut Avg. = $\frac{1712.45}{128.9} = \13.28 . Take erratic = $\$13.28 \times 2 = \26.56 .

Cut Avg. = $\frac{1593.40}{128.9} = \12.36

Avg. Width = $\frac{128.9}{7} = 18.4$ feet

Length from boundary to half way between 57 and 58 = 650 ft.

Area = $650' \times 18.4' = 11,960$ sq. ft.

MAIN ORESHOOT, SHALLOW HOLES, NORTHWEST BRANCH:

Hole	Assay Average (\$35 Gold)	Length of Inter-section	A x L	Cut A x L
58	\$50.03	6.0	300.18	
60	28.65	<u>3.0</u>	<u>85.95</u>	
		9.0	386.13	

Uncut Average = $\frac{386.13}{9} = \$42.90$ — Avg. Width $4\frac{1}{2}'$

Length from 50' West of #57 to #60 = 170'

Area = $170' \times 4\frac{1}{2}' = 765$ sq. ft.

MAIN ORESHOOT, SHALLOW HOLES, SOUTHWEST BRANCH:

58	\$ 9.45	2.5	23.62	Results not available
60	10.50	7.0	73.50	
68				
65	0.00	7.0		
66				
		<u>16.5</u>	<u>97.12</u>	

Avg. Grade = $\frac{97.12}{16.5} = \$5.89$ — Width $\frac{16.5}{3} = 5\frac{1}{2}$ ft.

Length from 50' west of #57 to #65 = 350 ft.

Area — $350 \times 5\frac{1}{2}' = 1,925$ sq. ft.

SUMMARY OF SHALLOW HOLES:

<u>Location</u>	<u>Length</u>	<u>Width</u>	<u>Area</u>	<u>Avg. Grade \$35. Gold</u>	<u>Area x Avg. Grade</u>
Main Oreshoot	650'	18.4'	11,960 sqft.	\$12.56	147,825.60
Northwest Br.	170	4.5	765 "	42.90	32,818.50
Southwest "	<u>350</u>	5.5	<u>1,925 "</u>	5.89	<u>11,358.25</u>
	1170		14,650 "		191,982.35
Average Grade	—	<u>191,982.35</u>		= \$13.10	
		14,650			

Average Width — $\frac{14,650}{1170}$ = 12.5 ft.

Length — 1170 ft.

MAIN ORESHOOT, DEEP HOLES:

<u>Hole</u>	<u>Assay Average (\$35 Gold)</u>	<u>Length of Inter- section</u>	<u>A x L</u>
58	\$ 9.80	49.0	480.20
59	5.00	7.0	35.00
61	7.50	10.0	75.00
69			75.00
64			
62	5.00	15.0	75.00
63	13.70	<u>6.5</u>	<u>89.05</u>
		87.5	752.25

Results not available

Avg. Width — $\frac{87.5}{5}$ = 17.5 ft. (Core intersection, not true width)

Avg. Grade — $\frac{752.25}{87.5}$ = \$8.60

Length tested, taking 50 feet on either side of holes #56 to #63 = 700 ft.

Area = 700' x 17.5 = 12,250 sq.ft.

PROBABLE GRADE AND MILL TONNAGE FROM COMBINED SHALLOW & DEEP HOLES:

<u>Location</u>	<u>Area</u>	<u>Area x Grade</u>
Shallow Holes	14,650 sqft.	191,982.35
Deep Holes	<u>12,250 "</u>	<u>105,350.00</u>
	26,900 "	297,332.35

Average Grade all drilling — $\frac{297,552.55}{26,900} = \11.05

Allow 10% dilution and grade = \$9.95, say \$10.

Average Area of shallow and deep horizons = $\frac{26,900}{2} = 13,450$ sq. ft.

Hence tons per vertical foot would = $\frac{13,450 \times 1}{12.5} = 1075$

Hence probable size of mill, taking 180' extraction per year = $\frac{1075 \times 180}{365} = 500$ tons per year

PROBABLE COSTS WITH 500-TON PLANT:

By comparison,—

Ankerite in 1935 milling 457 tons had costs	\$5.55
Bralorne " " " 400 " " "	7.91
Coniaurum " " " 414 " " "	7.99
Siscoe " " " 408 " " "	7.83

For purpose of this analysis, take costs with 500-ton mill, of \$6.00

ESTIMATED EARNINGS PER SHARE:

Take average grade, as herein —	\$11.05
Allow 10% dilution, and grade — say	10.00
Allow recovery 95% —	9.50
Assume costs as above	<u>6.00</u>
Then profit per ton —	\$ 3.50

Present issued capital is about 2,500,000 shares

Assume total issued capital after mill financing, will be 2,800,000 share

Then net earnings per share, with 100% running time =

$$\frac{\$3.50 \times 500 \times 365}{2,800,000} = 25\%$$

Respectfully submitted,

J. M. Stalerson



42E10N79142 63.3861 ASHMORE

030

MEMORANDUM

on

MACLEOD-COCKSHUTT GOLD MINES LTD.

Geraldton, Ont.,

by

F.R. Burton

TORONTO, Ont.,
Nov. 26th, 1936.



42E10N00142 63.3661 ASHMORE

030

MEMORANDUM

on

MACLEOD-COCKSHUTT GOLD MINES LTD.

Geraldton, Ont.,

by

F.R. Burton

TORONTO, Ont.,
Nov. 26th, 1936.



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MAPS AND ILLUSTRATIONS

- (1) Vertical Projection of Drill Hole Intersections.
- (2) Sketch Plan Illustrating Development 200' Level.

on

MACLEOD-COCKSHUTT GOLD MINES LTD.CONCLUSIONS:

(1) The vein intersections obtained in recent deep diamond drilling are difficult to interpret but they suggest lenticular deposits rather than a single orebody. In the writer's opinion, there is not sufficient information available to estimate the grade and width of an orebody, but selecting any particular group of intersections as representing a continuous zone, the average grade and width would be greatly below the averages obtained in previous deep drilling, namely \$8.60 across 17.5 feet.

(2) At the time of the writer's examination, the shaft was at a depth of 375 feet and levels had been established at the 200 and 375-foot horizons. On the 200-foot level, a crosscut had been driven across the porphyry body and drift started east on the north and south contacts. No assays were available but the north drift looked to be low-grade and the south drift appeared to be just entering the western end of the ore zone.

(3) On the basis of previous drilling, Mr. Paterson estimated probable annual earnings with a 500-ton mill at 23¢ per share, and assumed that the share would sell at 20 times indicated earnings, or higher, say \$4.60 to \$5.00 per share. Since the average of recent deep drilling is below the average obtained in previous work, the above estimate of annual earnings also would be reduced. Thus the stock appears to be overvalued at present quotations of approximately \$4.75 per share.

FOREWORD:

The writer visited the property on several occasions from October 5th to 16th, 1936, and through the courtesy of Mr. Alan Barton, Mine-manager, was permitted to examine the underground development and all available mine plans.

PREVIOUS REPORTS:

The property has been previously reported upon by Mr. J.A.H. Paterson and by the writer. In a Memorandum of June 18th, 1936, Mr. Paterson detailed developments to that date and submitted an estimate of the value of the company shares. There have not been any changes in ore development since that date to alter this estimate materially, and the present Memorandum is submitted only to cover recent minor developments.

RECENT DIAMOND DRILLING:

Since Mr. Paterson's report of June 18th, 1936, the results of two shallow holes have been made available (#66 and 68) and six new deep holes have been drilled (#64, 67, 69, 70, 71, and 72).

Details of the vein intersections in these holes are given in an Appendix to this Memorandum. A summary of the results is best obtained by reference to the attached Plan 1, which is a tracing of an official map prepared for the Northern Miner by the mine staff. It will be noted that the intersections in the two shallow holes are low-grade, and the orebody appears to be delimited in this direction.

In the recent deep drilling, hole #69 is assumed to have passed under the orebody, due to the westerly rake. The intersections in the remaining holes are very difficult to interpret, and there is a suggestion that they may represent short lenses, rather than a single continuous orebody. In the writer's opinion there is not sufficient information available as yet to estimate the grade and

width of an orebody. However, selecting any particular group of intersections as representing a continuous ore zone, it will be noted that the average will be greatly below the average of previous deep drilling as estimated by Mr. Paterson, namely, \$8.60, across 17.5 feet.

The intersections obtained in shallow drilling averaged \$13.10 across 12.5 feet as compared with the above average of the deep holes. Values obtained in diamond drilling a deposit of this type at fairly wide intervals are not reliable, and it is quite possible that underground development will improve the average grade indicated by drilling. On the whole, however, the greatly reduced average in the deeper drilling is not particularly encouraging.

UNDERGROUND DEVELOPMENT:

At the time of the writer's examination, the shaft had been sunk to a depth of 350 feet with stations cut at the 200- and 350-foot levels and work had been started on the 200-foot level. The shaft had not been surveyed. The attached plan 2 is a rough sketch of the location of the drifts at the 200-foot level. A crosscut had been driven to the south side of the porphyry body and drifting was started on both the north and south contacts. The north drift was about 83 feet east of the crosscut, and in the last 15 feet of drifting, there was a well mineralized band about a foot wide on the north side of the drift. An assay plant was not completed, no assay results were available, but the vein material did not look as if it would make ore.

The south drift had been advanced only a few feet but the drift had been slashed out and there was heavy mineralization and considerable vein material in the face across a width of 10.5 feet. The vein material would undoubtedly be high-grade ore.

The management had not decided definitely upon a program of development but present plans are to drift along both the north and south ore zones and to drill the intervening ground at close intervals, probably about 15 feet.

SHARE VALUATION:

Mr. Paterson estimated probable yearly earnings at 23¢ per share and on this basis suggested that the stock might sell from \$4.60 to \$5.00 per share. As previously stated, it is difficult to interpret the results from the recent drilling, and, in the writer's opinion, impossible to estimate probable average width and grade with any reasonable accuracy. However, the results certainly indicate that the averages would be lower than obtained in previous, deep drilling, and hence reduce the above estimate of probable earnings per share. Although high-grade ore in drifting to the east on the 200-foot level might easily result in a rise in market prices, it is the writer's opinion that the stock is overvalued at present quotations of approximately \$4.75 per share.

F. R. Burton

Toronto, Ont.,

Nov. 26th, 1936.

APPENDIX

VEIN INTERSECTIONS — RECENT SHALLOW DRILL HOLES:

<u>D.D.H.#</u>	<u>Depth</u>	<u>Core Length</u>	<u>Values (Gold \$35/oz)</u>	<u>Length x Value</u>	<u>Averages</u>
#66	180' - 181'	1.0'	\$1.40	\$1.40	Length - 3.7' Grade - \$3.48
	181' - 183.7'	2.7'	\$3.85	\$10.38	
		3.7'		\$12.78	
	198.5' - 200.0'	1.5'	\$3.15	\$4.73	Length - 3.5' Grade - \$4.17
200.0' - 202.0'	2.0'	\$4.90	9.80		
	3.5'		\$14.53		
#68	185' - 186'	1.0'	\$5.25	\$5.25	Length - 3.5' Grade - \$2.90
	186' - 187'	1.0'	0.70	0.70	
	187' - 188.5'	1.5'	2.80	4.20	
		3.5'		\$10.15	
	221.8 - 223.3	1.5'	\$11.90	—	Length - 1.5' Grade - \$11

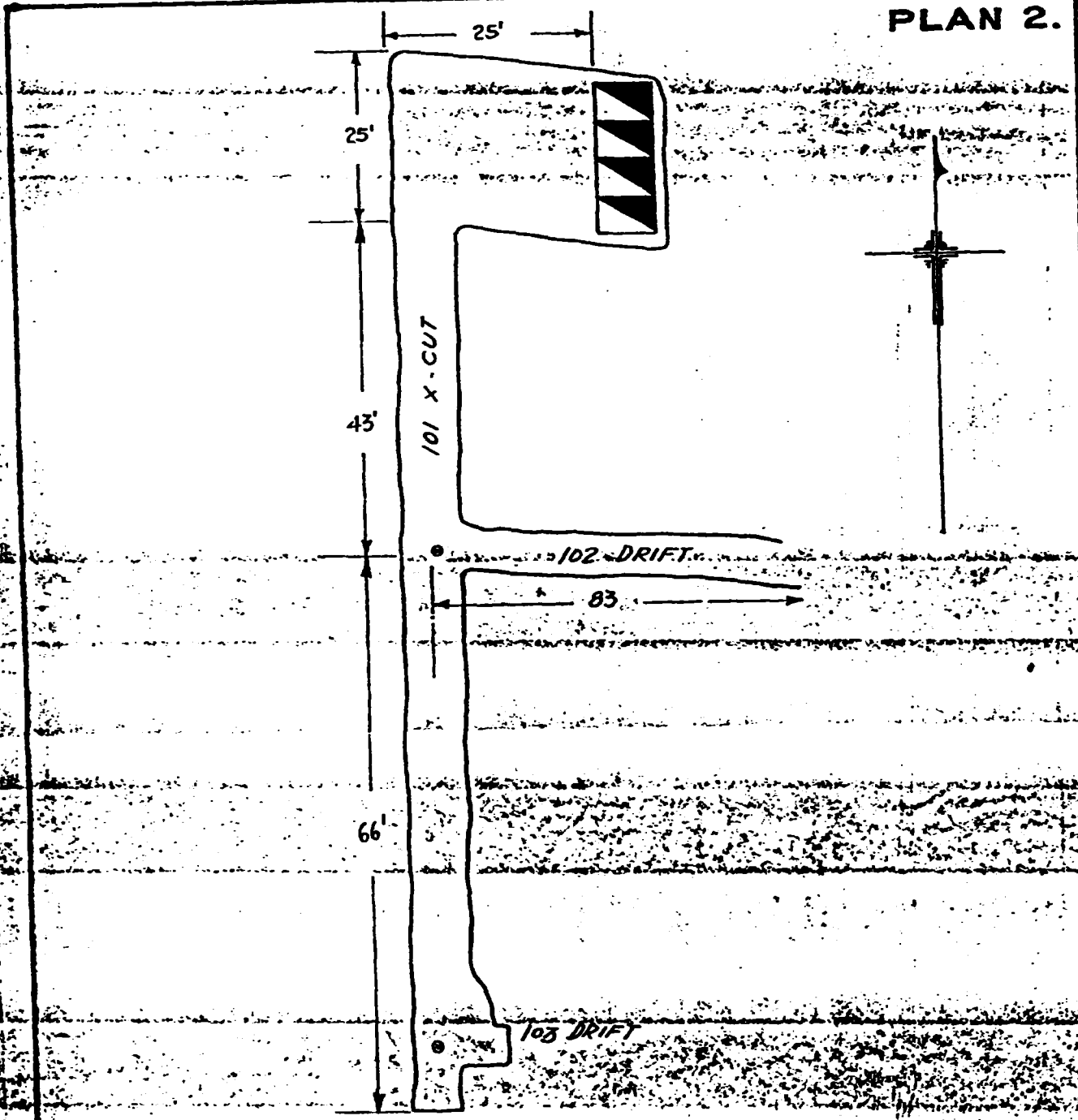
-2-

VEIN INTERSECTIONS — RECENT DEEP DRILL HOLES:

<u>D.D.H.#</u>	<u>Depth</u>	<u>Core Length</u>	<u>Values (Gold \$35/oz)</u>	<u>Length x Value</u>	<u>Averages</u>
69	219.5' - 222'	2.5'	\$3.50	—	(Length - 2.5 Grade - \$5.5
	237' - 239'	2.0'	\$3.85	\$ 7.70	Length - 4. Grade - \$2.
	239 - 241	2.0	2.10	4.20	
		<u>4.0'</u>		<u>\$11.90</u>	
	385' - 387.5'	2.5'	\$5.25	\$13.13	Length - 9. Grade - \$2
	387.5- 389	1.5	2.80	4.20	
	389 - 391.5	2.5	1.75	4.36	
	391.5- 394	2.5	1.40	4.00	
		<u>9.0'</u>		<u>\$25.71</u>	
	64	354.5' - 356'	1.5'	\$3.15	\$ 4.73	Length - 5. Grade - $1.
356 - 357.5		1.5	1.40	2.10	
357.5 - 359		1.5	0.70	1.05	
359 - 360		1.0	2.80	2.80	
		<u>5.5'</u>		<u>\$10.68</u>	
361.5' - 363'		1.5'	\$4.90	\$ 7.35	Length - 6. Grade - \$6.
363 - 365		2.0	0.70	1.40	
365 - 367		2.0	1.05	2.10	
367 - 368		1.0	28.70	28.70	
		<u>6.5'</u>		<u>\$39.55</u>	
378.3' - 380'		1.7'	\$5.25	\$ 8.92	Length - 6. Grade - \$3.
380 - 382.5		2.5	1.40	3.50	
382.5 - 385		2.5	3.15	7.87	
		<u>6.7'</u>		<u>\$20.29</u>	
412' - 414'		2.0'	\$ 2.45	\$ 4.90	Length - 4. Grade - \$9.
414 - 415		1.0	24.50	24.50	
415 - 416		1.0	6.65	6.65	
		<u>4.0'</u>		<u>\$36.05</u>	
505.5' - 506.5'	1'	\$5.95	—	Length - 1 Grade - \$5.	
512.3' - 513.1'	0.8'	\$9.80	—	Length - 0. Grade - \$9.	
540' - 542.5'	2.5'	\$7.35	—	Length - 2. Grade - \$7.	
555.7' - 556.7'	1.0'	\$11.20	—	Length - 1. Grade - \$11	

D.D.H.#	Depth	Cor: Length	Values (Gold \$35/oz)	Length x Values	Av
67	516.9' - 518.5'	1.6'	\$ 3.15	\$ 5.03	) Leng
	518.5 - 519.2	0.7	10.50	7.35		) Grad
	519.2 - 520.3	1.1	9.10	10.00	) Grad
	520.5 - 521.1	0.8	8.75	6.98		) Grad
		<u>4.2'</u>		<u>\$29.66</u>	
622 - 622.8'	622.8 - 623.5	0.8'	\$ 2.45	\$ 1.96	) Leng
	623.5 - 624.5	0.7	7.00	4.90		) Grad
		1.0	5.60	5.60	) Grad
		<u>2.5'</u>		<u>\$12.46</u>	
633.4' - 644.4'	1.0'	\$ 5.60	\$ 5.60	) Leng	
				) Grad	
645.8' 646.4'	646.4' 647.6'	0.6'	\$ 2.45	\$1.47	) Leng
		1.4'	2.10	2.94		) Grad
		<u>2.0'</u>		<u>\$4.41</u>	
70	528 - 530.7'	2.7'	\$1.05	—	) Leng
	530.7 - 531.7	1.7	11.90	—		) Grad
	531.7 - 533	1.5	1.40	—	
601.5' - 602.5'	1.0'	\$21.00	—	) Leng	
				) Grad	
71	550' - 551.3'	1.3'	\$ 0.70	—	) Leng
	551.3 - 552.6	1.3	32.90	—		) Grad
	552.6 - 554.2	1.6	1.40	—	
	564' - 565'	1.0'	\$3.15	—	) Leng
					) Grad
723' - 724'	724 - 725	1.0'	\$3.85	\$ 3.85	) Leng
	725 - 725.6	1.0	2.45	2.45		) Grad
		1.6	4.55	7.28	) Grad
		<u>3.6'</u>		<u>\$13.58</u>	
753 - 754	754 - 755.8	1.0'	\$6.65	\$ 6.65	) Leng
		1.8	3.15	5.67		) Grad
		<u>2.8'</u>		<u>\$12.32</u>	
72	591.5' - 593.5'	2.0'	\$6.30	\$12.60	) Leng
	593.5 - 595.5	2.0	0.70	1.40		) Grad
	595.5 - 596.5	1.0	3.85	3.85	) Grad
		<u>5.0'</u>		<u>\$17.85</u>	

PLAN 2.



MC LEOD-COCKSHUTT GOLD MINES LTD.
GERALDTON ONT.

SKETCH PLAN ILLUSTRATING DEVELOPMENT
200' LEVEL

NOT TO SCALE

OCT. 16/36.
F.R. Burtin

<u>D.D.H.#</u>	<u>Depth</u>	<u>Core Length</u>	<u>Values (Gold \$35/oz)</u>	<u>Length x Values</u>	<u>Averages</u>
72	601.9' - 602.9'	1.0'	\$1.05	—	) Length - 1.0 Grade - \$8.4
	602.9 - 603.9	1.0'	8.40	—	
	676.3' - 678.2'	1.9'	\$8.05	—	) Length - 1.9 Grade - \$8.0
	747.5' - 749'	1.5'	7.00	\$10.50	) Length - 4.8 Grade - \$8.2
	749 - 750	1.0	12.60	12.60	
	750 - 751.3	1.3	7.35	9.55	
	751.3 - 752.5	1.0	7.00	7.00	
		<u>4.8'</u>		<u>\$39.65</u>	
	767.5' - 769'	1.5'	\$6.65	\$ 9.97	) Length - 1.5 Grade - \$6.0
	769 - 770	1.0	1.05	—	
	770 - 771.5	1.5	1.05	—	
	786' - 787.3'	1.3'	\$3.50		) Length - 1.3 Grade - \$3.5
	803.1' - 804.2'	1.1'	\$3.50		) Length - 1.1 Grade - \$3.5
	1082.2 - 1083.5'	1.1	\$3.85		) Length - 1.1 Grade - \$3.5

F. R. Burton

Toronto, Ont.,

Nov. 26th, 1936.

Handwritten initials and markings inside a rectangular border.



42E10N0142 63.3861 ASHMORE

CONTAINS
TRACING

040

72E10 NW

REPORT ON
MACLEOD-COCKSHUTT MINE

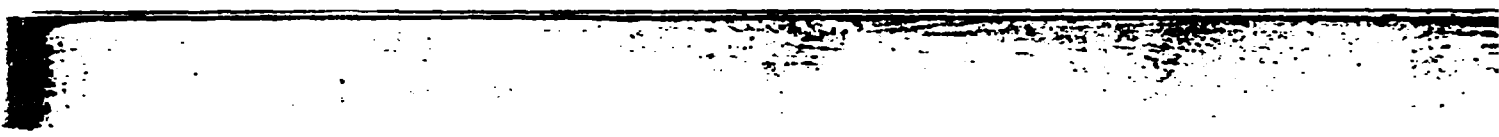
by
Roy Dunbar

RECEIVED

FEB 26 1937

MINING DEPARTMENT
SHEPPARD AVENUE

February 3, 1937



COPY

REPORT ON

MACLEOD-COCKSHUTT MINE

February 3rd, 1937

REPORT TO MR. KNOX:

I visited this property on January 26th and 27th, went over the assay plans and made two trips underground.

The east face of 200' level and the west face of 350' level were in ore. All six faces were being driven, most of them double shift.

The men in charge hoped to have the work far enough advanced to allow decision to be made re mill in March, 1937.

I submit the following ore estimates to give some idea as to grade and tonnage of ore expected:

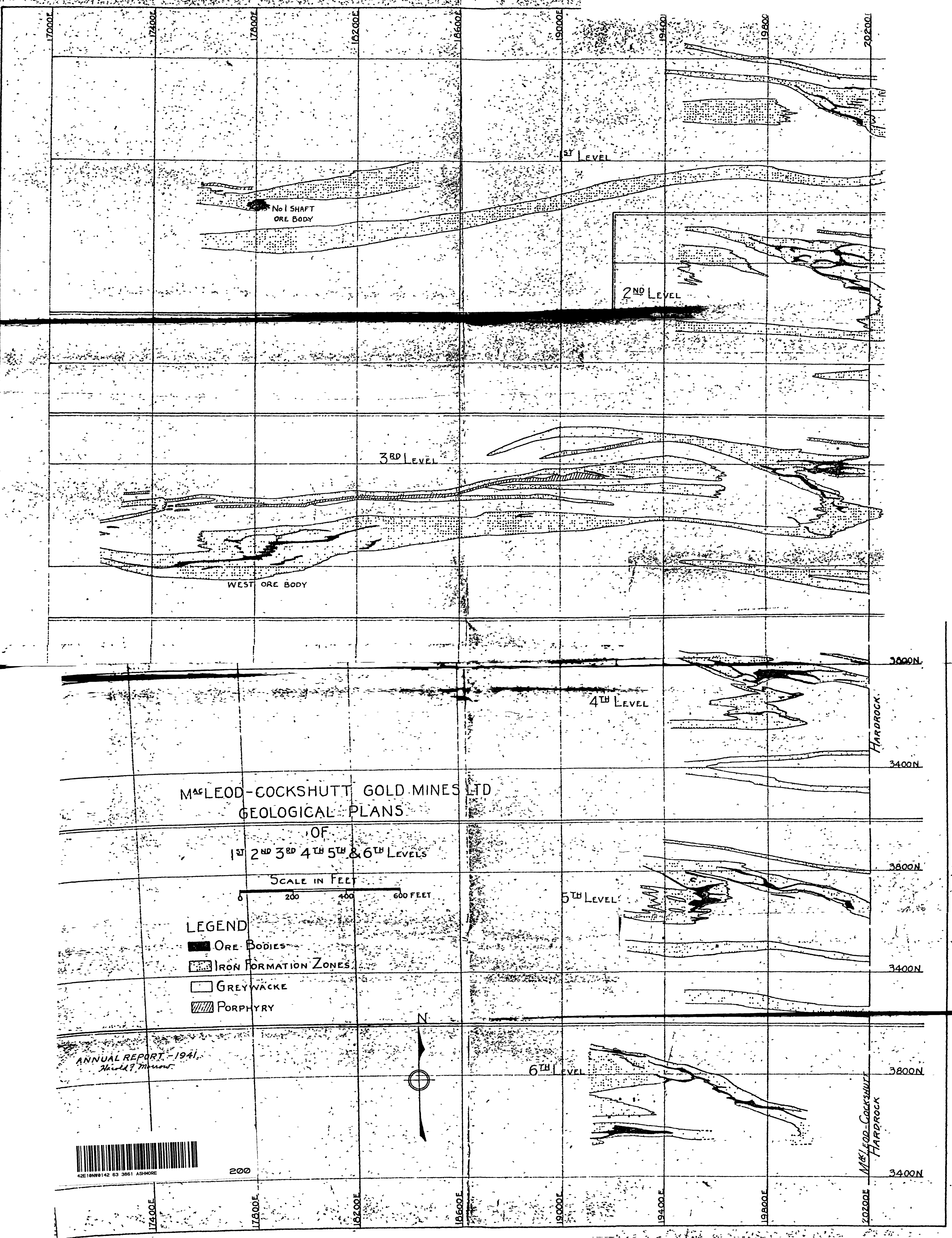
No. 2 Shaft Area

200' Level	Developed ore (by drifting and closely spaced diamond drill ho	
	483' x 11.9 x \$ 8.05)
	110' x 5.9 x 11.03)
	Probable ore 400 x 6 x \$9.00)
		) L 993'
		) W 8' 9"
		) A \$8.55
350' Level	Developed ore	
	300' x 5' 6 x \$8.75	
500' Level	Developed ore	
	83' x 5' 3 x \$4.59	

No. 1 Shaft Area

150' Level	Developed and probable ore	
	80' x 25' x \$10.50	) L 290
	50' x 3' x \$10.00	) W 10.2
	160' x 5' x \$10.00	) A \$10.34

Total for mine	L 1666'
	W 8.3
	A \$8.82



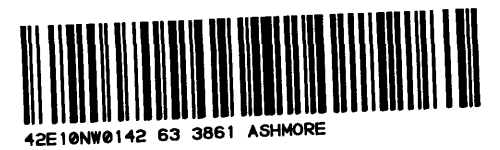
MACLEOD-COCKSHUTT GOLD MINES LTD
GEOLOGICAL PLANS

OF
1ST 2ND 3RD 4TH 5TH & 6TH LEVELS

SCALE IN FEET
0 200 400 600 FEET

- LEGEND
- ORE BODIES
 - IRON FORMATION ZONES
 - GREYWACKE
 - PORPHYRY

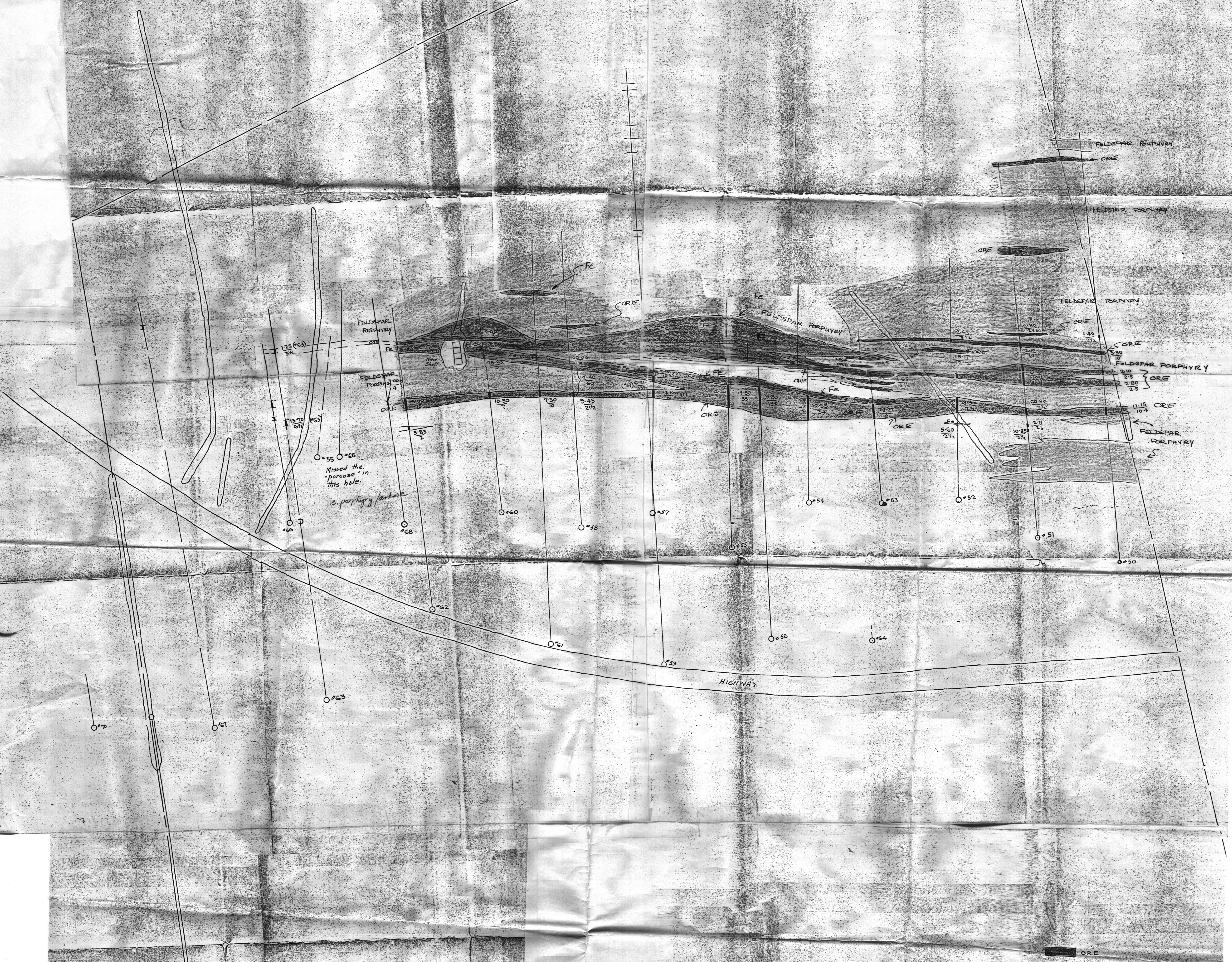
ANNUAL REPORT - 1941
Shield? Manor



200

Macleod-Cockshutt
HARDROCK

E

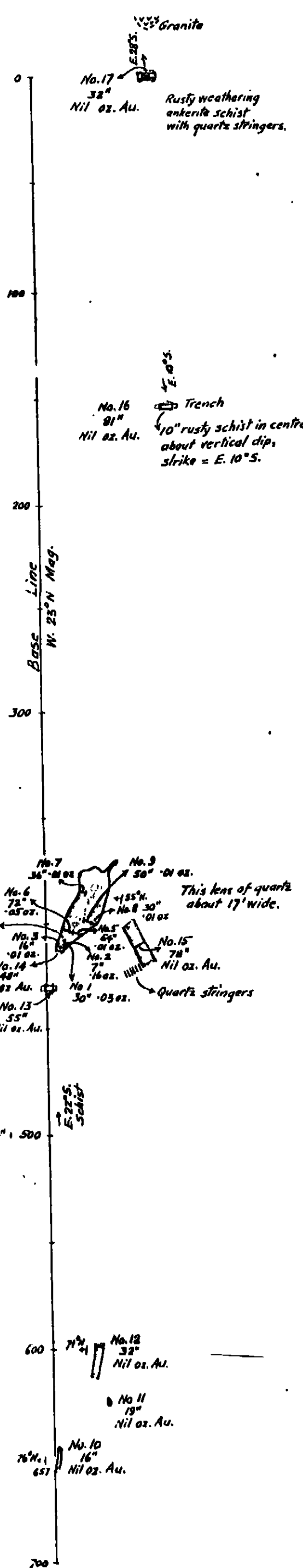


- ORE
- FELDSPAR PORPHYRY
- IRON FORMATION
- OTHER SEDIMENTS
- DIABASE

MACLEOD COCKSHUTT GOLD MINES LTD.
 DIAMOND DRILL HOLES PROJECTED UP
 75° DIP TO SURFACE

SCALE: 1" = 50'





ASSAY PLAN OF
 QUARTZ VEIN
 MACFARLANE BROTHERS
 "WEST" GROUP
 CLAIM No. 14,853
 Scale: 50 feet = 1 inch
 Oct. 1934



42E10NW0142 83.3881 ASHMORE

MCLEOD COCKSHUTT

HARD ROCK GOLD MINES LTD

No 2 SHAFT

No 2 SHAFT

No 1 SHAFT

ore indicators in 2D Holes

Ore indications in Green refer to North zone
" " " " Red " " " South

Different colors indicate different ore masses

Developed + produced ore 150 Level

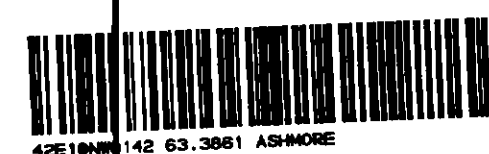
L = 780'
W = 5.5'
A = 18.2%

L = 1300'
W = 8.5'
A = 12.2%

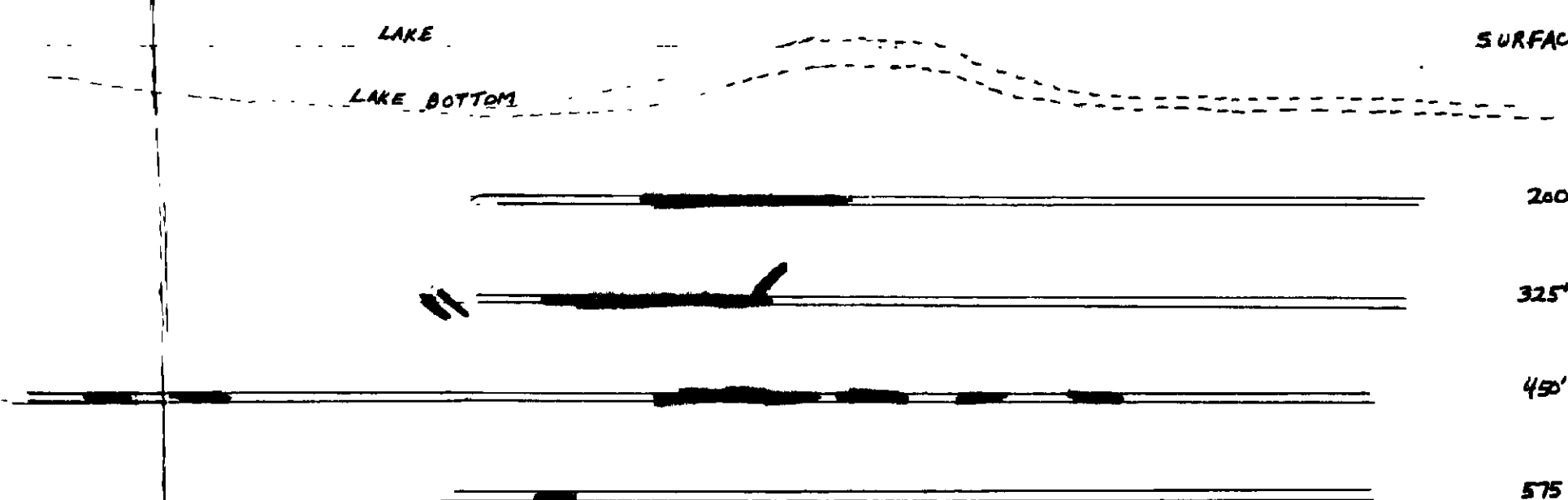
Not including 200' level

← WEST EAST →

EAST WEST SECTION
THROUGH THE PROPERTIES OF
McLeod Cockshutt and Hard Rock Gold Mines Ltd
Scale 200' = 1"



230

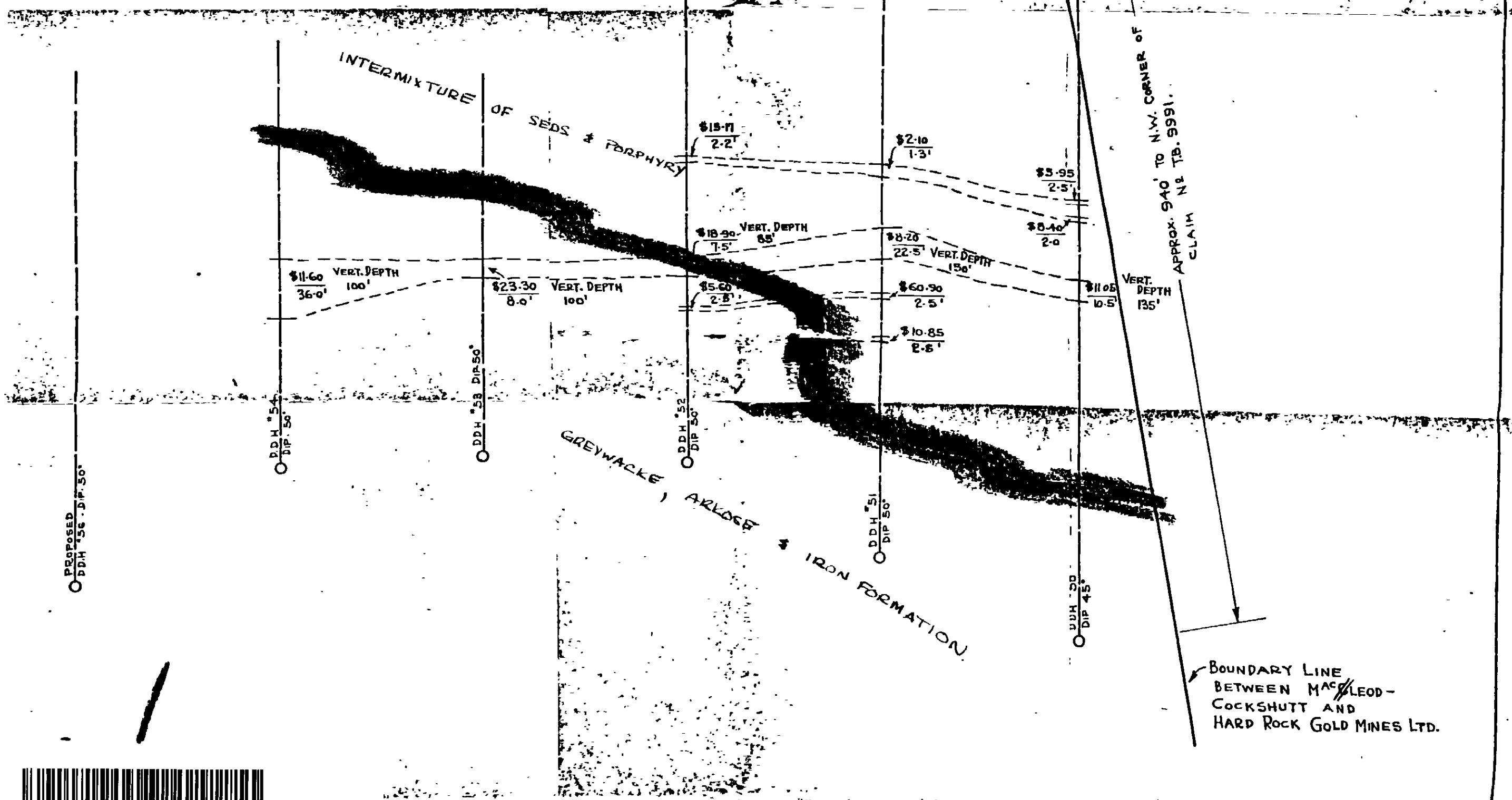


LEGEND

■ - GREYWACKE, ARKOSE & IRON FORMATION

■ - INTERMIXTURE OF SEDIMENTS & PORPHYRY (?)

NOTE :-
GOLD VALUED AT \$35.00/OZ.
WIDTHS ARE CORE LENGTHS



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240

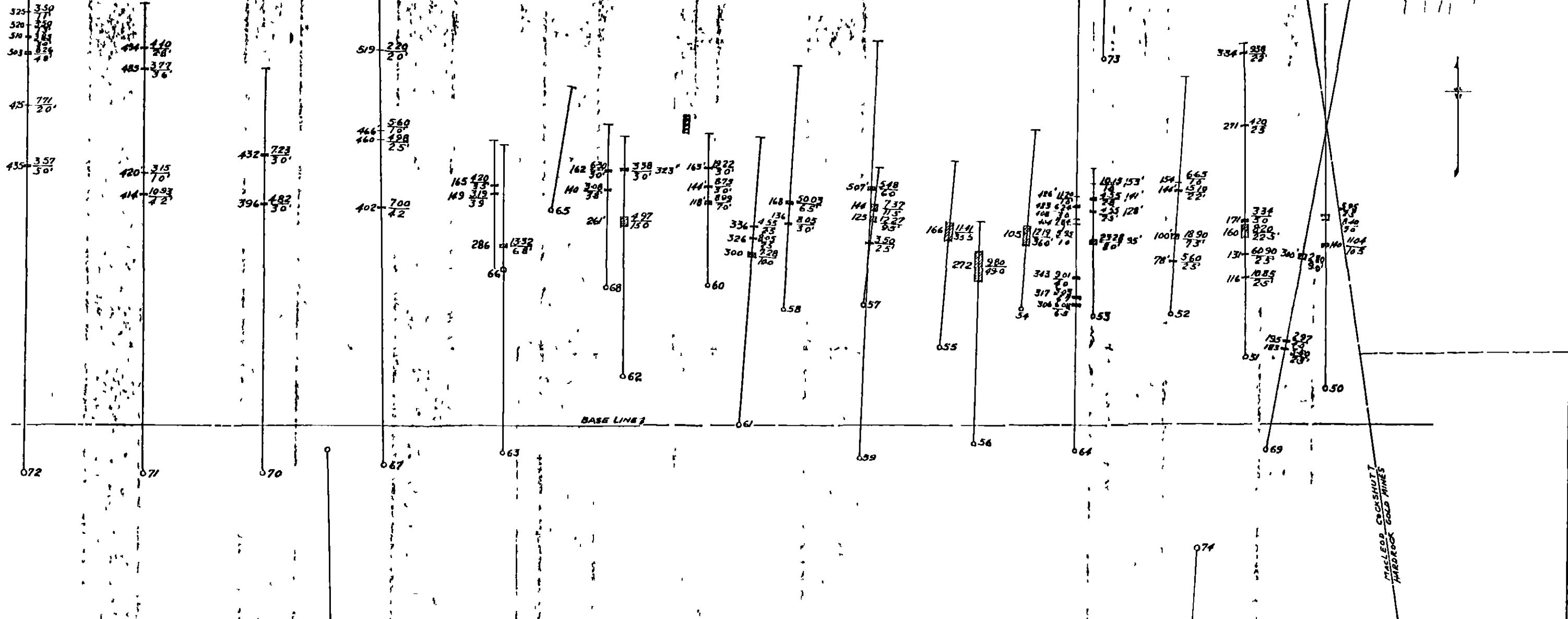
MACLEOD-COCKSHUTT GOLD MINES LTD.
GERALDTON ONT.

PLAN TO ILLUSTRATE RECENT DIAM. DRILLING

SCALE 1" = 50'

APRIL 23, 1936.

F. R. Buxton



BASE LINE

MACLEOD-COCKSHUTT
HARDROCK GOLD MINES

MACLEOD-COCKSHUTT GOLD MINES LTD
 VERTICAL PROJECTION OF DRILL HOLE INTERSECTIONS
 CLAIM - TB 10038
 Scale - 0 50 100 feet
 Vertical Depth of Intersection - feet **115** Value - Gold - \$35.00
 Core Length - feet

NOTE - PREPARED FOR NORTHERN MINER
 BY W. SAMUELS SEPT 24/36
 W.R.R.



42E10NW0142 63 3861 ASHMORE