

SUPPLEMENTARY REPORT ON DRILLING AT LEFROY

In continuance of the recent drilling campaign at Lefroy four bore holes were sunk on Land O' Cakes line of reef and five holes were cited to penetrate the sub-basaltic alluvial lead, to the north of Lefroy Township during the period July 1937 and August, 1938.

LAND O' CAKES REEF

No. 20 Bore was commenced 360 feet from Land O' Cakes main shaft on a bearing of $223\frac{3}{4}^{\circ}$. The drill was directed towards the reef on a bearing of 342° and depressed at an angle of 85° . After passing through slates and sandstones the hole was completed at a depth of 600 feet. The table below indicates the depths at which quartz veins and lode formations were penetrated, also assay results of cores & cuttings obtained from such.

Material	Depth in feet	Assay Result		REMARKS
		Gold	Silver	
Quartz Vein	79 - 83	Nil	Nil	Core
Sandstone & slate with quartz veins	219 - 233	"	"	"
" " "	266 - 271	"	"	"
Quartz	280 - 280 $\frac{1}{2}$	"	"	"
Sandstone & slate	282	Trace	Trace	"
" " "	323 - 332	Nil	Nil	"
Pyrite	331 - 332	13dwt 1gr. 2dwt. 14 grs.		Concentrate from sand- stone & slate
Quartz veins in slate & schist	361	Nil	Nil	Core
Slate & quartz formation	379 - 379 $\frac{1}{2}$	"	"	"
Slate & quartz	428 - 428 $\frac{1}{2}$	"	"	core and cuttings
Lode formation & quartz	464 - 465	"	"	"
Lode formation	507 - 510	Trace	Trace	Cuttings
" "	507 - 510	Nil	Nil	Core
Slate and sand- stone	561	"	"	"

No. 21 Bore

was sunk from surface to a depth of 473 feet with drill at similar angle and direction as No. 20 Bore. The hole is situated 477 feet from Land O' Cakes main shaft on a bearing of 237°.

Quartz veins in grey slate and clay were passed through between the depths of 456 and 462 feet. Assay results of the material recovered from the section showed -

Core	Gold and Silver	Nil
Cuttings	" " "	Trace

No. 22 Bore

is situated 96 feet from Waverly Whim Shaft bearing 262½°. The drill was directed on a bearing of 15° and depressed at an angle of 80°. The hole was completed on attaining a depth of 129 feet in slate and sandstone. Between 66 feet and 80 feet 8 inches in slate and sandstone and quartz rubble cuttings were recovered and from the latter depth to 103 feet a core of lode matter was obtained.

Assays of the material retrieved from these sections gave the following results:-

DEPTH IN FEET	GOLD	SILVER	REMARKS
68 - 80	Nil	Nil	Cuttings
80 - 87	Trace	Trace	Core
80 - 87	Nil	Nil	Cuttings
87 - 103	Trace	Trace	Core & cuttings

No. 23 Bore

Was sited to test the western extension of Land O' Cakes line of reef adjacent to George Town road. Further details regarding actual position of hole and disposition of drill are not recorded. The drill reached a total depth of 203 feet. From surface to 181 feet Permo-Carboniferous conglomerates and sandstones were penetrated. Below that depth Cambro-Ordovician slates and sandstones were obtained.

A black and grey pug formation, carrying some quartz in the bottom ten feet, occurred, between 181½ feet and 196 feet. Assays gave nil returns for gold and silver.

SUB - BASALTIC LEAD

These holes proved that basalt flows varying in number from two to five, and in thickness from one to 129 feet, and occur interspersed with beds of sands, clays and gravels, and that this series overlies slate and sandstone bedrock.

A line of holes extending easterly from north-east corner of mineral section 10655/M, at 8 chains (No. 15 Bore), 15 chains (No. 16 Bore) and 22 chains (No. 18 Bore), respectively indicate a general deepening of the sediments, below the bottom basalt flow, from Bores No. 15 and No. 18 in towards No. 16. This suggests the presence of a channel probably corresponding with the main gutter of the buried lead.

Owing to lack of water for drilling purposes it was found impracticable to extend this line of bores further to the east.

Bores No. 19 and No. 17 are situated 12 and 20 chains respectively south of Bore No. 16, and in these holes bedrock is appreciably higher than in the holes along the east-west line.

No. 14 Bore was placed on west side of Sludge Creek at approximately 16 chains south-west of No. 17 Bore.

Details of the bore holes are given in the following table -

Bore No.	Total depth in feet	Depth Bedrock in feet.	Thickness of sed. below bottom bas. in feet.	Gold per cubic yard	Bedrock
14	278	268	46	Nil	Slate
15	274	263	45	2 dwt. 11grs. between 260' & 262½'	"
16	340	305	69	Trace at 297'	
17	255	240	29	Nil	Slate & sandstone
18	300	281	41	"	sandstone
19	253	237	19	"	"

It will be seen from the above that the gold obtained was negligible and presented little encouragement for further drilling.

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