



32D05SW0007 21 CLIFFORD

010

DIAMOND DRILLING

TOWNSHIP: CLIFFORD

REPORT NO: 21

WORK PERFORMED FOR: LAC Minerals Ltd.

RECORDED HOLDER: Same as Above [xx]
: Other []

<u>Claim No.</u>	<u>Hole No.</u>	<u>Footage</u>	<u>Date</u>	<u>Note</u>
803325	C14C	346'	Oct/87	(1)
803336	C14F	391'	Oct/87	(1)
	C14H	351'	Oct/87	(1)

Notes: (1) #W8808.386 , filed in Jan/89

LAC MINERALS LTD.
 GEOLOGICAL AND ASSAY DATA

DRILL HOLE: C140 PROJECT: GRID C-14

FROM FEET	TO	REMARKS	SAMPLE		AU ASSAY (CORE)				SLUDGE		MAGNETICS				
			NUMBER	FROM TO	FEET/ METERS	1st pulp ppb	2nd pulp ppb	oz/ ppb	ton	FROM	TO	AU ppb	FROM	TO	MST. %
0.0	55.0	OVERBURDEN Dominantly clay													
55.0	66.8	DACITE - Medium green rock containing 5 to 15% 1 to 3mm subhedral white feldspar phenocrysts and 2 to 5% 1 to 2mm dark (black) mafic phenocrysts in a fine grained matrix - White quartz carbonate stringers up to .5cm in diameter throughout at all angles to C.A. - Minor carbonate in matrix - No sulphides present - Lower contact sharp at 10° to C.A.													
66.8	167.0	SHEARED DACITE - RHYODACITE BRECCIA - Colour varies from pale green to dark grey - 5-30% white carbonate amygdules and feldspar throughout. Many feldspar pseudomorphs are replaced by carbonate. - Moderate foliation (shearing) at 10 to 30 DEG. to C.A. throughout. - Epidote and sericite altered causing light green colour, particularly intense in areas of intense shearing. - Occasional fragments 0.5 to 6 cm visible but not distinct. - Quartz carbonate stringers throughout at dominantly 20 DEG., 45° and // to C.A. - No sulphides present - Lower contact at 22° to C.A.													

JN

AC MINERALS LTD.
GEOLOGICAL AND ASSAY DATA

DRILL HOLE: D140 PROJECT: GRID C-14

FROM FEET	TO	REMARKS	SAMPLE NUMBER	FROM	TO	FEET/ METERS	AU ASSAY (CORE)				SLUDGE		MAGNETICS		
							1st pulp ppb	2nd pulp ppb	oz/ ton	ppb	ppb	ppb	FROM	TO	NET.
187.0	189.0	<p>MAFIC DYKE</p> <p>- Aphanitic dark grey magnetic contains 2% \pm iron pyrite.</p> <p>- Lower contact @ 20' to C.A.</p>													
189.0	219.9	<p>SHEARED DACITE - RHYODACITE BRECCIA</p> <p>- Same as 66.8 to 187</p> <p>- Quartz carbonate stringers throughout</p> <p>- Colour varies from light green to grey</p> <p>- Foliation at dominantly 15° to C.A.</p> <p>- Yellow sericite throughout</p> <p>- No sulphide mineralization</p> <p>- Lower contact at 40° to C.A.</p>													
219.9	222.0	<p>MAFIC DYKE</p> <p>- Fine grained, dark grey, magnetic</p> <p>- similar to 187 to 189 but slightly coarser grained.</p> <p>- Lower contact at 40° to C.A.</p>													
222.0	228.4	<p>SHEARED DACITE - RHYODACITE BRECCIA</p> <p>- Same as 66.8 to 187</p>													
228.4	236.4	<p>MAFIC DYKE</p> <p>- Dark grey fine grained magnetic</p> <p>- Slightly brownish hue</p> <p>- Similar to 219.9 to 222</p>													

JK

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 GEOLOGICAL AND ASSAY DATA

DRILL HOLE: C14C PROJECT: GRID C-14

FROM MET	TO	REMARKS	SAMPLE		AU ASSAY (CORE)				SLUDGE		MAGNETICS	
			NUMBER	FROM TO	FEET/ METERS	1st pulp ppb	2nd pulp ppb	oz/ ppb	ton	FROM TO	AU ppb	FROM TO
		- Lower contact ground										
236.4	267.4	SHEARED DACITE - RHYODACITE BRECCIA - Same as 222 to 228.4 - Lower contact at 45° to C.A.										
267.4	273.2	DACITE DIKE - Light green rock containing 10% 1 to 3mm feldspar phenocrysts in a fine grained matrix. - Feldspars are aligned at 30 DEG. to 40 DEG. to C.A. - Lower contact at 22° to C.A.										
273.2	302.0	SHEARED DACITE - RHYODACITE BRECCIA - Same as 236.4 to 267.4 - Occasionally intensely silicified - Epidote and sericite are abundant - Lower contact at 40° to C.A.										
302.0	339.2	DACITE DIKE - Similar to 267.4 to 273.2 - Colour varies from light grey green at contacts to light purple in centre - Contains 10% 1 to 4 mm feldspar phenocrysts throughout in a fine grained matrix. - 0.1 to 1 cm carbonate stringers throughout. - @ 303 Feldspars aligned at 30° to C.A. - @ 311 Feldspars aligned to 40° to C.A.										

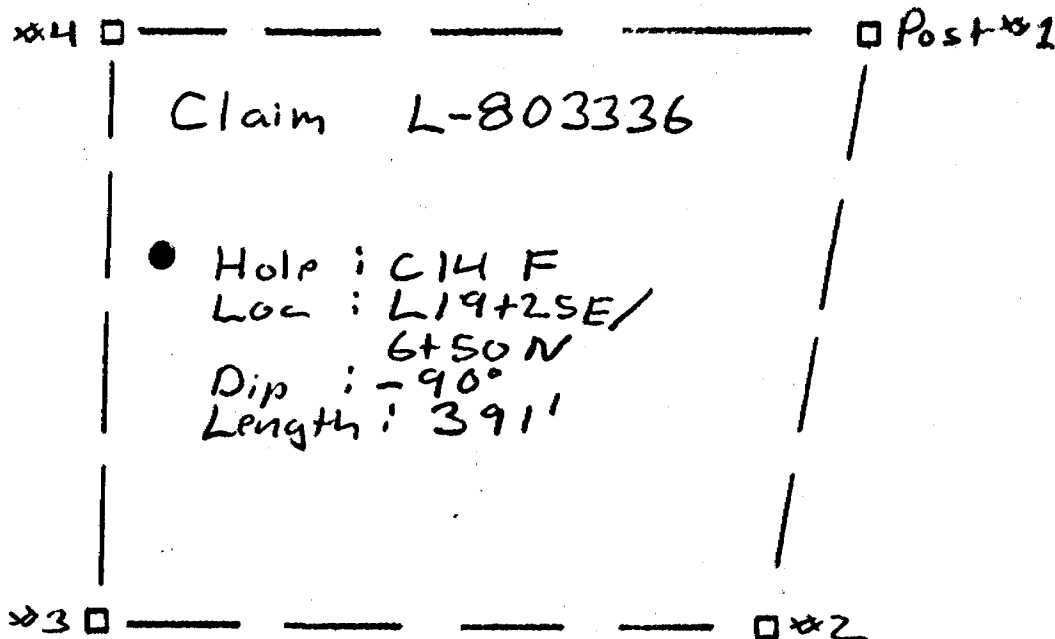
JW

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GEOLOGICAL AND ASSAY DATA

DRILL HOLE: C14C PROJECT: GRID C-14

FROM	TO	REMARKS	SAMPLE NUMBER	FROM	TO	FEET/ METERS	AU ASSAY (CORE)				SLUDGE		MAGNETICS		
							1st pulp ppb	2nd pulp ppb	oz/ ppb ton	FROM	TO	AU ppb	FROM	TO	MGT. %
339.2	346.0	SHEARED DACITE - RHYODACITE BRECCIA - Same as 273.2 to 302 - No sulphide mineralization													
	346.0	END OF HOLE - Casing left in hole													

G. Koval



Drill Hole Location Plan
 Grid C14
 Clifford Twp. Ont.
 Scale 1:5000

ONTARIO GEOLOGICAL SURVEY
 ASSESSMENT FILES
 OFFICE
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J Kovala
 Sept 1/88

ONTARIO GEOLOGICAL SURVEY
 ASSESSMENT FILES
 OFFICE
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LAC MINERALS LTD. 91 DUNCAN AVENUE KIRKLAND LAKE, ONTARIO P2N 1Y2	PROJECT: GRID C-14	GENERAL INFORMATION Type of Hole: DDH	HOLE NUMBER: C14F PAGE NUMBER: 1 LOGGED BY: J. Kovala DATE: October 20, 1987
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LOCATION: B.K. Grid C-14	AZIMUTH: 0	DIP: -90°
COLLAR: LATITUDE: L19+25E	ELEVATION: COLLAR:	
DEPARTURE: 6+50N	BOTTOM:	
LENGTH: 391'	RECOVERY: 98%	CORE SIZE: NQ
PURPOSE: Test Magnetic Anomaly		
DATE STARTED: OCTOBER 16th, 1987	DATE ENDED: OCTOBER 19th, 1987	

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SURVEY DATA	B.K. GRID C-14	HOLE NO. C14F
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LOCATION	AZIMUTH	DIP	METHOD	REMARKS
0	0	-90°		
200		-88°		

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LAC MINERALS LTD.
GEOLOGICAL AND ASSAY DATA

DRILL HOLE: C14F PROJECT: GRID C-14

FROM FEET	TO	REMARKS	SAMPLE NUMBER	FROM	TO	AU ASSAY (CORE)				SLUDGE		MAGNETICS	
						FEET/ METERS	1st pulp ppb	2nd pulp ppb	oz/ ppb ton	FROM	TO	AU ppb	FROM
0.0	107.0	OVERBURDEN											
107.0	114.0	DACITE - RHYODACITE - Light green to white fine grained, siliceous, non-magnetic - 10 to 15% 1 to 2 mm dark amygdules and 1 to 2mm mafic phenocrysts. Amygdules contain minor amounts of carbonate. Section lacks sulphide mineralization, and quartz carbonate veins or stringers. 107 - 109 Broken Core 111 to 112.5 Broken and ground core - Lower contact at 30' to C.A.											
114.0	214.5	PORPHYRYTIC DACITE - Dominantly grey, becomes slightly greener below 184'. - Contains 10 to 30% 1 to 4 mm feldspar phenocrysts and quartz carbonate amygdules in a fine grained grey matrix. - Matrix contains abundant carbonate - Below 184' the rock becomes slightly greener, contains less feldspars and exhibits possible primary flow textures. - No sulphide mineralization is present. 1-2mm quartz carbonate (dominantly carbonate) stringers and veins (< 1cm) in diameter occur throughout. They occur commonly at 40 DEG. to C.A. Some contain chlorite. 187.5 - 188.5 Flow textures at 25 DEG. to C.A. 192 - 193 Lacks amygdules and phenocrysts											

JN

LAC MINERALS LTD.
GEOLOGICAL AND ASSAY DATA

DRILL HOLE: C14F PROJECT: GRID C-14

FROM FEET	TO	REMARKS	SAMPLE NUMBER	FROM	TO	FEET/ METERS	AU ASSAY (CORE)				SLUDGE			MAGNETICS		
							1st pulp ppb	2nd pulp ppb	oz/ ton	ppb	ppb	AU ppb	FROM	TO	MGT. %	

- Lower contact not distinct.

201.5 - 207.5 Flow breccia

- Brecciated appearance of 0.5 to 1 cm light green grey fragments in a slightly darker fine grained matrix.
- Foliation throughout at 30 to 43° to C.A.

213.7 - 214.3 Sheared at 20° to C.A.

214.5 235.5 RHYODACITE

- Same as 107 - 114.
- Section lacks veins
- Minor carbonate occurs along fractures.

214.5 to 216 Broken Core

219.5 to 221 Broken Core

230 to 231 Broken Core

233 to 234 Broken Core

- Lower contact sharp at 30° to C.A.

235.5 284.7 PORPHYRITIC DACITE

- Similar to 114 to 214.5
- Grey fy to mg non-magnetic
- 1 to 5 mm feldspar and quartz phenocrysts throughout.

- Quartz and carbonate (dominantly carbonate) in stringers and

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GEOLOGICAL AND ASSAY DATA

DRILL HOLE: C14F PROJECT: GRID C-14

FROM FEET	TO	REMARKS	SAMPLE NUMBER	FROM	TO	FEET/ METERS	AU ASSAY (CORE)				SLUDGE		MAGNETICS	
							1st pulp ppb	2nd pulp ppb	oz/ ppb ton	FROM	TO	AU ppb	FROM	TO

fractures < 1cm in diameter. No sulphide mineralization or veining > 1 cm present.

- @ 262.5 Quartz carbonate vein 2cm wide
- Contains quartz carbonate and pink feldspar
- Occurs at 60° to C.A.

- @ 267 Quartz carbonate vein, 2cm wide at 47 DEG. to C.A.

- Lower contact sharp at 40° to C.A.

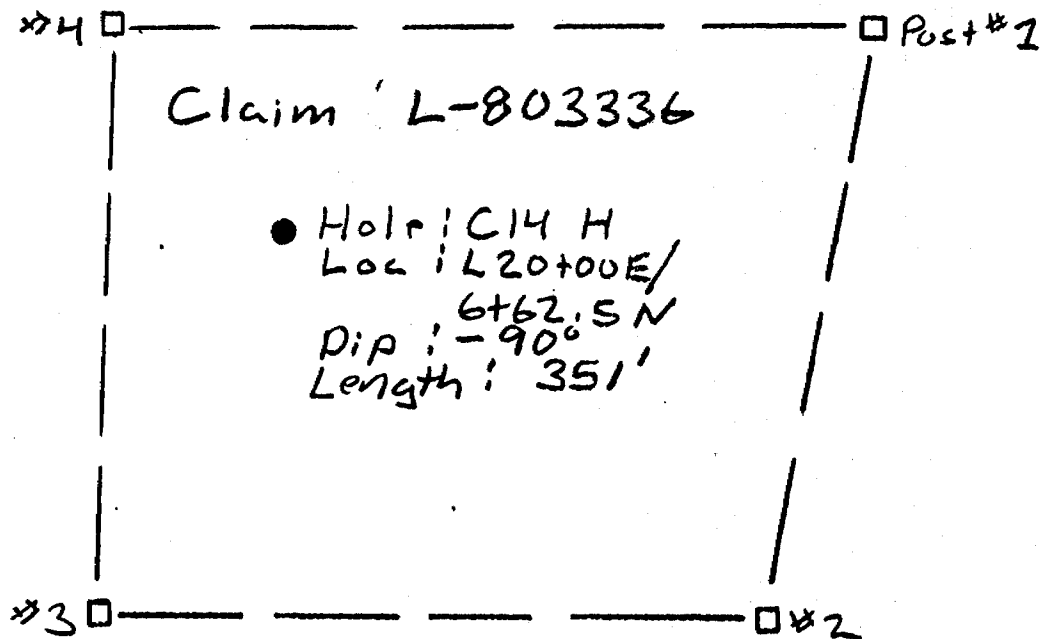
284.7 391.0 RHYODACITE

- Similar to 114 to 214.5
- small 1 to 2 mm mafic phenocrysts and dark green amygdules in a fine grain grey green matrix.

No sulphide mineralization or veins present

391.0 END OF HOLE

J. W. Over



Drill Hole Location Plan
 Grid C14
 Clifford Twp. Ont.
 Scale 1:5000

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LAC MINERALS LTD.
91 DUNCAN AVENUE
KIRKLAND LAKE, ONTARIO
P2N 1Y2

GENERAL INFORMATION

HOLE NUMBER: C14H
PAGE NUMBER: 1
LOGGED BY: John Kovala
DATE: NOVEMBER 11th, 1987

PROJECT: PROJECT - GRID C-14
Type of Hole: DDH

LOCATION: B.K. PROJECT - GRID C14
COLLAR: LATITUDE: L 20+00
DEPARTURE: 6+62.5N
LENGTH: 351
PURPOSE: Delineate Magnetic Anomaly
DATE STARTED: OCTOBER 29th, 1987

AZIMUTH: 0
ELEVATION: COLLAR:
BOTTOM:
RECOVERY: 98%
DATE ENDED: OCTOBER 30th, 1987
CORE SIZE: NQ

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ASSESSMENT FILES
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SEP 6 1988
RECEIVED

SURVEY DATA B.K. Grid C-14 Hole No. C14H

LOCATION	AZIMUTH	DIP	METHOD	REMARKS
0	0	-90°		
200		-90°		
351		-90°		

LAC MINERALS LTD.
 GEOLOGICAL AND ASSAY DATA

DRILL HOLE: C14H PROJECT: Grid C-14

FROM FEET	TO	REMARKS	SAMPLE NUMBER	FROM	TO	FEET/ METERS	AU ASSAY (CORE)				SLUDGE		MAGNETICS				
							1st pulp ppb	2nd pulp ppb	oz/ ppb ton	FROM	TO	AU ppb	FROM	TO	MGT. %		
0.0	107.0	OVERBURDEN															
107.0	206.0	<p>RHYODACITE</p> <ul style="list-style-type: none"> - Consistent section of light green grey fine grained rock containing < 5%, 1 to 3mm carbonate amygdules and 2 to 3%, 1 to 3 mm black mafic phenocrysts. - Minor thin quartz carbonate stringers are present at 1/2". - No sulphide mineralization present <p>107 - 108 Ground Core</p> <p>141 to 147 Microfractures parallel to core axis have lighter coloured alteration haloes</p>															
206.0	335.7	<p>RHYODACITE</p> <ul style="list-style-type: none"> - Colour alterantes from dark grey black to light buff green. The rock contains 5 to 15% large 1 to 5mm amygdules containing carbonate and epidote and numerous black amygdules in a fine grained siliceous matrix. Percentage and size of amygdules varies through the section. - Alteration consists of epidote and minor carbonate. - Pyrite occurs disseminated and as thin 1 to 5mm veins with carbonate. - Pyrite veins were observed over the interval of 275 to 299 feet. - Trace chalcopyrite <p>275 - 299 Pyrite disseminated and as veins</p> <ul style="list-style-type: none"> - pyrite and carbonate veins 1 to 5 mm wide occur at dominantly 30 DEG. to C.A. - Pyrite is abundant along microfractures. 															

JW

LAC MINERALS LTD.
GEOLOGICAL AND ASSAY DATA

DRILL HOLE: C14H PROJECT: Grid C-14

FROM FEET	TO	REMARKS	SAMPLE NUMBER	FROM	TO	FEET/ METERS	AU ASSAY (CORE)				SLUDGE		MAGNETICS		
							1st pulp ppb	2nd pulp ppb	oz/ ppb ton	FROM	TO	AU ppb	FROM	TO	MGT. %

- Veins and fractures are surrounded by epidote alteration haloes.

- Lower contact at 20° to C.A.

335.7 346.2

INTERMEDIATE DIKE

- Fine grained green, non-magnetic containing < 3%, 1 to 3mm carbonate amygdules.

@ 346.1 1 cm quartz carbonate vein at 45 DEG. to C.A.
Containing minor chalcopryrite.

- Lower contact at 55° to CA

346.2 351.0

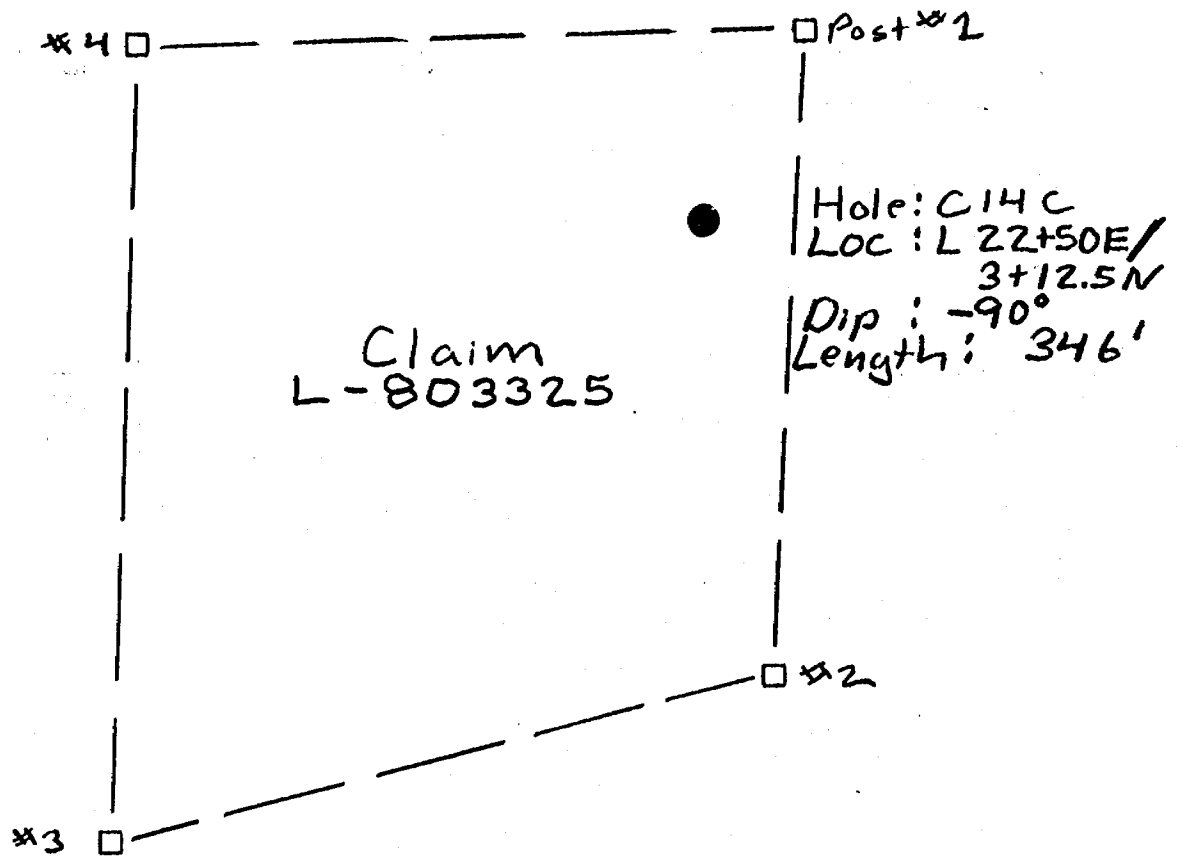
RHYODACITE

- Same as 206 to 335.7

351.0

END OF HOLE

J. Howard



Drill Hole Location Plan
Grid C14
Clifford Twp. Ont.
Scale 1:5000

J. Kovalec
Sept 1/88



Ministry of
Natural
Resources

Report
of Work

DOCUMENT No.

W8808-386



320E5SW007 21 CLIFFORD

900

Name and Postal Address of Recorded Holder

LAC Minerals Ltd.

T664

91 Duncan Avenue, Kirkland Lake, Ontario

P2N 1Y2

Summary of Work Performance and Distribution of Credits

Total Work Days Cr. claimed 1000 1072	Mining Claim			Work Days Cr.	Mining Claim			Work Days Cr.	Mining Claim			Work Days Cr.
	Prefix	Number			Prefix	Number			Prefix	Number		
for Performance of the following work. (Check one only)		see										
	<input type="checkbox"/> Manual Work	attached										
	<input type="checkbox"/> Shaft Sinking Drifting or other Lateral Work.	list										
	<input type="checkbox"/> Compressed Air, other Power driven or mechanical equip.											
	<input type="checkbox"/> Power Stripping											
	<input checked="" type="checkbox"/> Diamond or other Core drilling											
<input type="checkbox"/> Land Survey												

All the work was performed on Mining Claim(s): 803325, 803336

Required Information eg: type of equipment, Names, Addresses, etc. (See Table Below)

Duplicate drill logs and location sketches submitted with report of work.

Drilling Company: Philippon Diamond Drilling Inc.
829 Chemin Granada
C.P. 788
Rouyn, Quebec
J9X 5C7

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Hole	Location	Depth
C14C	L22 + 50E/3 + 12.5N	346' 803325
C14F	L19 + 25E/6 + 50 N	391' 803336
C14H	L20 + 00E/6 + 62.5N	351' 803336
		1,088 days credit

1,088 days credit - 1,072 days applied = 16 days banked for future use

Date of Report Sept. 1, 1988	Recorded Holder or Agent (Signature) <i>John Kovala</i>
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Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying

John Kovala 91 Duncan Avenue, Kirkland Lake, Ontario P2N 1Y2

Date Certified Sept. 1, 1988	Certified by (Signature) <i>John Kovala</i>
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Table of Information/Attachments Required by the Mining Recorder

Type of Work	Specific Information per type	Other information (Common to 2 or more types)	Attachments
Manual Work	Nil	Names and addresses of men who performed manual work/operated equipment, together with dates and hours of employment.	Work Sketch: these are required to show the location and extent of work in relation to the nearest claim post.
Shaft Sinking, Drifting or other Lateral Work			
Compressed air, other power driven or mechanical equip.	Type of equipment	Names and addresses of owner or operator together with dates when drilling/stripping done.	
Power Stripping	Type of equipment and amount expended. Note: Proof of actual cost must be submitted within 30 days of recording.		
Diamond or other core drilling	Signed core log showing; footage, diameter of core, number and angles of holes.	Nil	Work Sketch (as above) in duplicate
Land Survey	Name and address of Ontario land surveyor.		Nil

Distribution of Credits

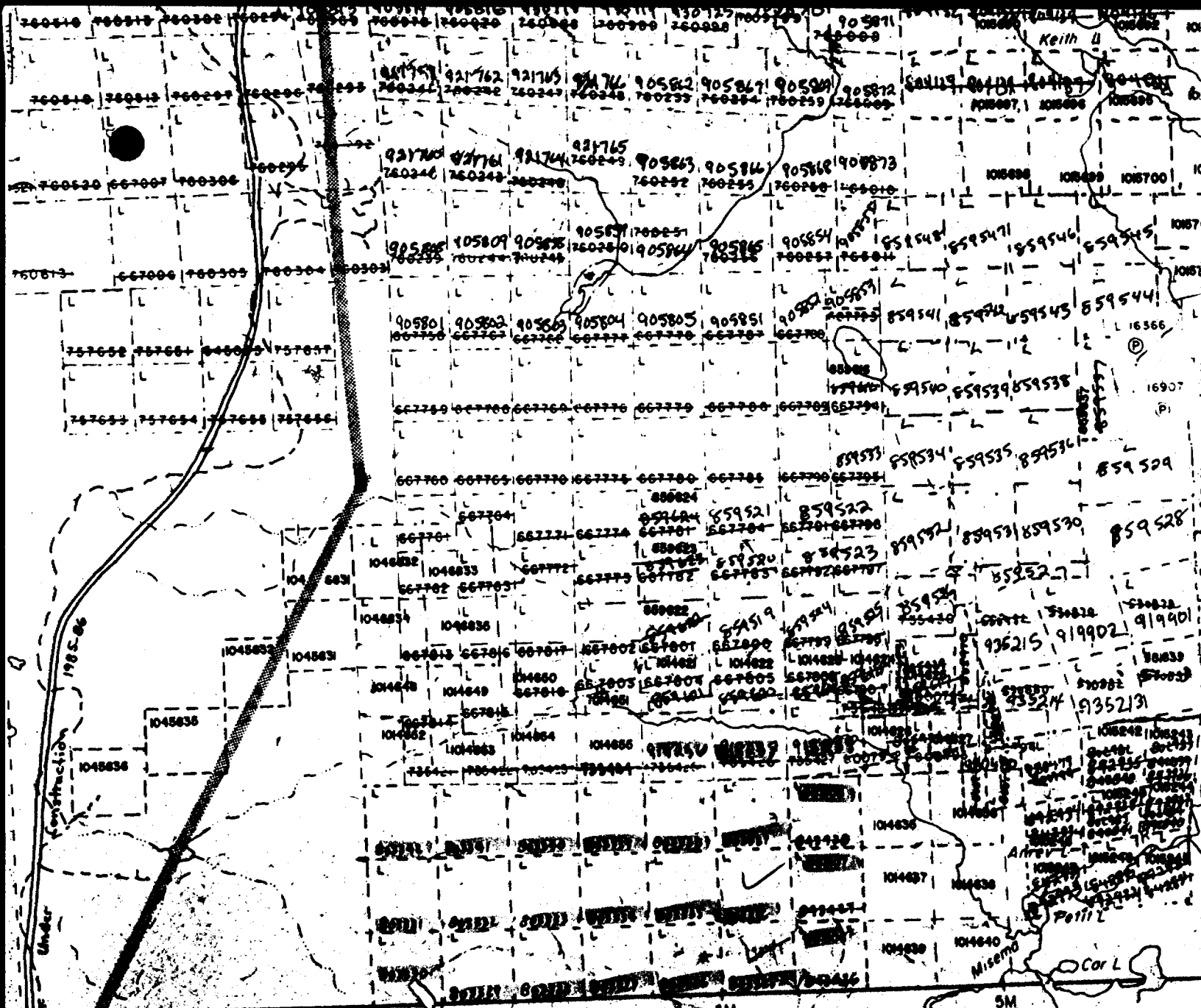
Clifford Twp.

Grid C14

Claim Number

Days Credit to Apply

L-803325	40
803326	40
803327	40
803328	40
803329	40
803330	40
803331	40
803332	32
803333	40
803334	40
803335	40
803336	40
803337	40
803338	40
803339	40
803340	40
803341	40
803342	40
918236	60
918237	60
918238	60
983106	60
983107	60
983108	60
	<u>1,072</u> ✓ days Total Applied



ARNOLD TWP. M-321

Clifford Trapp

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