

## DIAMOND DRILLING



32D04NW0134 20 GAUTHIER

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TOWNSHIP: Gauthier

REPORT No.: 20

WORK PERFORMED BY: Casan Mining Ltd.

CLAIM NO.	HOLE NO.	FOOTAGE	DATE	Note
ь 440945	1	395.0	Oct/81	<b>(1) (2)</b> (v) ()
L 440937	2 <b>C</b>	115.0	Oct/81	(1) (2)
		51 6 1		

NOTES: (1) #549-81

(2) O.M.E.P. Submittal - #OM 65-PE 61-C-81

ARNOLD TP. M.321



#### REPORT

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ON

# DIAMOND DRILLING PROGRAM & PROPERTY EVALUATION

OF

## CASAN MINING LTD.

## DOBIE MINERAL CLAIMS

# GAUTHIER TOWNSHIP , TIMISKAMING DISTRICT

## LARDER LAKE MINING DIVISION

FOR THE YEAR 1981

Date: October 25, 1981

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Prepared by:

CANDALE MINING MANAGEMENT SERVICE LTD.

G.L. ROBERTS, P.ENG.M.E.I.C. PRESIDENT

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TX	Certificate of Analysis: General Analysis



#### GENERAL

This report describes the results of a diamond drilling program conducted during 1981 and the analysis of the extensive surveys conducted during the previous 5 years that have led to the targeting of a proposed drilling program.

This work was carried out under the supervision of Candale Mining Management Services Ltd.m covering the 22 claim property of Casan Mining Limited located in Gauthier Township East Kirkland Lake gold area, Ontario. The contract for the Diamond drilling was given to Dynamic Construction Ltd. of Toronto. The work detailed horein was carried out in July, August, September and October of 1981.

#### SURVEYED CLAIM AREA

The 18 claims covered by this report are continuous and are identified as follows;

L-482773	L-440934	L-489661
L-482774	L-440935	L-489660
L-482775	L-440936	L-489659
L-482776	L-440937	L-489658
L-482777	L-440938	
L-482778	L-440939	
	L-440940	
	L-440941	
	L-440942	
	L-440943	
	L - 440944	
	L-440945	

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#### LOCATION AND ACCESS

The property is located at the north central part of Gauthier Township, one mile north of Dobie, tying onto the north of Upper Canada Mine. It extends northwesterly with its northwest part adjoining to the northeast of Crestland Mines Limited, formerly Northland Mines Limited.

Access was made by truck from Kirkland Lake via Highway 66 to Northlands Park, and by a bush road from Northlands Park eastward through the No. 1 shaft area of Northland Mines to the bush road which runs across the central part of the property.

#### PREVIOUS WORK

In the winter of 1976-77, the company conducted a program of geophysical surveys on this 18 claim group. The surveys were carried out by Cana Exploration Consultants Limited, and the results were described by Dr. S.S.Szetu in a report dated January 20, 1977. Readers are referred to this report for the geophysical data and also to the history of the property.

It should be noted here that the airborne E.M. anomaly referred to in said report was conducted by Upper Canada Mines Limited, apparently prior to May, 1966, and the ground followup E.M. surveys were conducted in March and May, 1966 by Moreau Woodward & Company Limited of Toronto. While the first survey failed, the second survey succeeded in detecting a conductor zone at an inferred depth of over 210' on the ground held under option by Upper Canada. The conductor zone opens to the west to a patented claim then held by Northland.

Data in the office of the Resident Geologist at Kirkland Lake also showed one hole drilled in 1966 on the then known as Taylor Option, logged by J.G.Bragg, Chief Geologist, Upper Canada Mines Limited. This hole was located at the central part of then Claim 79866 across the eastern section of the airborne E.M. anomaly, which showed stronger conduction to the west. The hole cut a narrow band of graphite sediments with occasional bands and nodules of pyrite at a considerable depth.

Another hole was drilled to a shallow depth of 148.6' at a location further east by the then owner of the property, Mr. T. C. Taylor, for assessment work purposes. According to Mr. Taylor, the drill site found near L28N, 1450' E. was the setup for this shallow hole.

As Casan Mining Limited now has claims covering the full lengths of the airborne conductor, including the unchecked and apparently more outstanding western section, detailed information about these drill holes and other relavent data will be added to the company's compilation map for further evaluation. During the month of June 1978 the company, Casan Mining Limited, conducted two programs, a geological survey and a radiation survey on this 18 claim group. The surveys were carried out by Cana Exploration Consultants Limited under the direction of Dr. S.S.Szetu and the results are described by the author, Dr. S.S. Szetu in his reports dated July 20, 1978 and August 21, 1978.

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The geological report produced for Casan Mining Limited by Cana Exploration Consultants Ltd. and written by Dr. S.S. Szetu, dated July 20, 1978, requested that detailed surface sampling of the claims held by this company should be carried out before any drilling exploration be undertaken.

Casan Mining Limited contracted with Dynamic Construction Ltd. of Toronto to undertake the excavation of trenches and surface blasting, trenching and drilling that would allow detailed sampling of the rock areas available for exploration. This work was carried out in 1978 and submitted in our report dated December 10, 1978. An extensive geo-chemical survey of the property was carried out and submitted in our report dated October 20, 1980. The first Diamond Drilling Program was carried out in 1980, as reported.

#### TOPOGRAPHY

Most of the area covered by the claims involved is covered with glacial sand overburden to depths of up to 150'. Few areas have rock exposed on or near the surface which would allow sampling to a definitive extent. Many swamps and a few creeks are present. Sand eskers rising to 100' are common. A section map of the topography is shown on the map of Appendix III.

#### GEOLOGY

The north part of the property is mostly underlain by Keewatin acid volcanics and the central part is underlain by Timiskaming sediments with two narrow zones of interbanded acid volcanics. The southwest part of the property is underlain by Algoman Syenite and

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porpery syenite, intruding the sediments.

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The volcanics and sediments are steeply dipping and apparently schistosed to various degrees. The contacts between the various rock formations are all covered by overburden. Hole No. DDH 80-1 was reopened and boring was commenced at a depth of 205 and continued to 395 feet, a total of 190 feet of new drilling core.

The drilling rig was moved to DDH 81-2 and three holes were punched through the overburden. The first and second holes reached 90 and 80 feet respectively, but had to be abandoned due to the rock boulders encountered. The casing was recovered with great difficulty. The third hole was forced through and reached a depth of 115 feet before the hole had to be abandoned. The casing and "down the hole" tools, valued at \$8,000.00, were lost.

The total depth of drilling was:

DDH 80-1 81-1

190 feet

DDH	81-2	(a)		90	
	81-2	(b)	•	80	
	81-2	(c)		115	
				285	feet

Total

475 Feet

## APPENDIX I

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## General Map of Area



## APPENDIX II

## Map of Claim Area

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APPENDIX III OGS Map P2265. (Mag & EM)

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## APPENDIX IV

Map Showing Location of Diamond Drill Hole No. 1 - 81 2 - 81 a,b & c



### APPENDIX V

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Plan Showing Diamond Drill Hole Section LEGEND Sheared Tuff

Quartz.

Extremely Shattored Zone

Altered and mineralized zone

🐻 Overburden

ELEV. 1 100

CLAIM L440945 L20N 23+00N 100 200 CO-ORDINATES offset 130'East. DRAWN BY 0 1100' A.M.S.L. ELEVATION SCALE REVISED CROSS SECTION - HOLE BEARING 260° 1" = 100' DATE Oct /80 .



APPENDIX VI Map Showing Topographic Contours of Claim Area



APPENDIX VII Core Log of Drill Hole No. 1, 2c Core Log

D.D. Hole No. 1

Claim # L440945

Elevation 1100 Ft. A.M.S.L.

Logged by: G. C. Roberts

Dip: 45°

100 - 100 -

Location: L20N

### 23 & OON Offset 130' East

Depth Ft.	Length Ft.	Material	Remarks
0-1	1	Organic Top Soil	
1-2	1	Light Brown Sand	
2-80	78	Light Gray Sand	Extremely Quick
80-85	5	Various Sized Pebbles & Boulders	Very Rounded Extremely compacted
85-97	12	Light Gray Fine Sand	
97-100	3	Shattered- Broken Loose Rock	
100-101	l	Extremely Shattered	Fuff - Yellowish Stains Some Iron Oxidation
101-103	2	White-Gray Yellowish- Tuff	Zones of Dark Green
103-106	3	White Tuff	Layers of Yellow stains, Calcium Pyrite
106-110	4	u n n	Devoid of Mineralization some Quartz
110-111	1	Whitish-Yellow Tuff	zones of darker rock.
111-114	3	almost Porphyry like Tuff	Quartz pockets -sulphides - pyrite - silver like mineral.

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۲	Depth Ft.	Length Ft.	Material	Remarks
	114-120	6	Tuff interbanded with darker rock	- quartz . - dark spotted areas
	120-122	2	Tuff	- Zones of oxidation mineralization reddish areas
	122-124	2	Tuff-mixed with Dark Green Rock	- quartz
	124-125	1	plain Tuff white spots	- calcium
	125-129	4	plain Tuff	<ul> <li>quartz, yellowish</li> <li>rock</li> <li>-calcium</li> </ul>
	129-130	l	n n	- zones of oxidation quartz, mineralizatior
	130-134	4	0 0	dark green Zones
	134-136	2	heavily banded darker rock in tuff	-quartz -yellowish areas
	136-140	4	Tuff with dark green rock	-quartz, zone of gray rock -quartz veins, mineralization light gray sulphides
	140-142	2	Tuff with dark green	- Porphyry
	142-144	2	Tuff-dark gray white	
	144-148	4	Tuff with grayis spots	<pre>-yellow bands, quartz veins</pre>
	148-150	2	" " " interbanded with green,gray,	- zones of oxidation yellow
	150-155	5	Tuff-interbanded green, grey rock	quartz veins, yellow stains

Depth Ft.	Length Ft.	Material	Remarks
155-157	2	Tuff with darker green, grayish bands	-cracks-oxidation
157-160	3	Tuff- Grayish white	-yellowish bands, oxidized shattered zone
160-161	1	17 II 11	-large Quartz pockets
161-165	4	n n n î	<ul> <li>interband with grey porphyry like rock</li> <li>of zone spotted areas.</li> </ul>
165-170	5	Tuff	Zones of darker rock
170-175	5	Tuff	-quartz, calcium gray,green rock
175-180	5	Tuff	Yellow stains
180-185	5	Tuff	
185-190	5	Tuff with gray, green- zones	Quartz , large zones of oxidation (iron)
190 <b>-</b> 195	5	Tuff	
195-197	2	Tuff-Quartz	-Pyrite,iron slight calcium possibility
19 <b>7-20</b> 5	7	Last Core	-ground up
		Hole Capped	

D. D. Hole No. 1 Logged by: G.C. Roberts Dip: 45<sup>0</sup> Location: L20N 23 & 00N Offset 130' East

Hole continued from 1980 drilling, which completed hole to depth of 205'

Depth Ft.	Length Ft.	Material	Remarks
205-207	2	Tuff-light gray	Half core oxidized, some some orange & black area
207-210	3	Tuff-gray-whitish	Some slightly darker spots
210-212	2	11 H H	
212-213	1	· II II II	Dark patches of grayish quartz veins 1/8" thick yellow & black spots
213-215	2	Gray-yellowish Tuff	Quartz, small sulphides no carbonates
215-216	1	11 11 H	
216-217	1	Tuff-very oxidized areas	Dark red, sulphides (?)
217-218	1	Tuff-with orange-lik bands	e Small veins of dark sulphides (?)
218-220	2	Tuff-quartz	Very fragmented
220-222	2	Lost core	
222-225	3	Yellowish-gray Tuff	
225-225.2	0.2	Tuff	Red oxidation zone, sulphide (?)
225.2-232	6.8	Tuff-grayish white	Slight orange oxidation zones
232-234	2	Tuff	-quartz veins -mineralization -slight oxidation

, Core Log

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Epth Ft.	Length Ft.	Material	Remarks
234-235.5	1.5	Oxidation Zone (Tuff?)	Porphyry-like colou: quartz-dark black zo (?)
235.5-241	6.5	Whitish gray Tuff	<pre>1/16"-1/8" Bands of quartz &amp; carbonates</pre>
241-243	2	Very fragmented Tuff	
243-245	2	Quartz	Slight mineralization yellowish zones, dat spots
245-246	1	Yellowish Tuff	Dark spots 낯"-눛" quartz veins
246-247	1	Quartz- very frac- tured	Carbonates in areas black material
247-247.5	0.5	Graphite-like soft black rock	Some quartz
247.5-248	0.5	White Quartz	<sup>.</sup> Interbands of yello Tuff
248-249	l	Dark yellow Tuff	Strings of graphite quartz
249-249.5	0.5	Graphite	
249.5-252	2.5	Dark yellowish Tuff	Graphite quartz vei
252-256	4	Yellowish-tan Tuff	
256-260	4	Yellowish-tan Tuff	Almost porphyry-lik spotted sections
260-260.3	0.3	Harder Tuff	Orange tint on core graphite
260.3-263	2.7	Yellowish-gray Tuff	Strings of graphite
263-275	12	11 31 11	
275-280	5	Yellowish Tuff	Some very dark zone
280-285	5	Grayish-yellow Tuff	Many quartz veins 🛓

Septh Ft.	Length Ft.	Material	Remarks
286-286.5	0.5	Quartz	Very pure
286-291	5	Yellowish-gray Tuff	Black spots
291-295.3	4.3	11 11 11	
295.3-301	5.7	n n n	Some carbonates
301-305	4	41 IS 31	Some quartz
305-310	5	n n n	Veins of darker rock
310-311	1	Very fractured rock	Division in rock types
311-316	5	Solid white quartz	Very little tuff mineralization (?)
316-323	7	As in 291-295.3	-many quartz pockets dark bluish-green veins around quartz -areas of oxidation
323-325	2	Tuff & quartz	Bluish rock (mineraliza tion)
325-330	5	Yellowish-tan Tuff	Some quartz
330-332	2	Very fractured	Much oxidation Various rock types: quartz, tuff
332-334	2	Tuff	Much oxidation
334-336	2	Tuff-yellowish-gray	Dark zones of greenish rock
336-338	2	Lost core	
338-339	l	Tuff yellowish-gray	Large red spots, oxidation, quartz
339-343	4	Lost core	
343-345	2	Tuff extremely shattered	Bluish rock
345-346	1	Tuff extremely shattered	Half of core oxidized

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Spth Ft.	Length Ft.	Material	Remarks
346-355	9	Grayish-yellow Tuff	-carbonated exterior -few quartz stringers -no mineralization
355-358	3	Lost core	
358-365	7	Grayish Tuff	-carbonated
365-370	5	Lost core	
370-375	5	Whitish-gray Tuff	Carbonated Thin, darker bands
375-377	2	Quartz	Yellow pockets
377-381.5	4.5	Whitish-yellow Tuff	
381.5-382	0.5	Dark, porphyry-like zone	
382-385	3	Whitish-yellow Tuff	Carbonated
385-389	4	Lost core	
389-389.5	0.5	Whitish-yellow Tuff	-carbonated -no mineralization noticeable
389.5-394	4.5	Lost core	
394-395	1	Whitish-yellow Tuff	

Excessive, repetitive core loss, core jamming and latching problems. It was decided with JKS 300 maximum depth had been reached at 395'.

Hole capped July 13, 1981.

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Core Log

D. Hole No. 2 C Logged by: G.C. Roberts Dip: 45<sup>0</sup> Location: L12N 24 & 00N Offset 90<sup>0</sup>

Claim # 440937 Elevation 110 Ft. A.M.S.L.

Depth Ft.	Length Ft.	Material	Remarks
0-10	10	Light brown sand	extremely hard-packed
10-15	5	Various sized pebble & boulders	es
15-70	55	Light gray sand very fine	Extremely wet, hard drilling. note layers of pebbles & boulders throughout
70-98	28	Gray sand	Extremely quick
98-103	5	Sand & shattered rocks & boulders	
103-107	4	Shattered Tuff grayish-yellow	Some oxidation zones (possibly)
107-113	6	Whitish-yellow Tuff	Possibly some carbonate
113-115	2	Core crushed & jamme Catching problems	ed
		Hole abandoned	

Excessive latching inability of inner tube and frequent core jams, due to fractured bedrock, the cause of abandoning D.D. Hole No. 32. Attempt to remove casing causes sanding-in of casing advancer and then jamming of overshot retriever. Hole abandoned with approximately 100' of casing left unremovable, as sanding around casing. Due to the inability of removing casing advancer and overshot and ability to move casing up or down, no further drilling is possible in this location.

Estimated losses of D.D.H.#2: \$8,000.00

Hole abandoned.

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APPENDIX VIII

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## CERTIFICATE OF ANALYSIS: GOLD ANALYSIS

·	CHEMICAL RESEARCH AND ANALYSIS     CONTRACT LABORATORIES     TECHNICAL SERVICE LABORATORIES     DUBON OF BURGING MEDINER OF THE     1301 FEWSTER DRIVE, MISSISSAUGA, ONT. LAW 1A2     DUBON OF BURGING (410) 025 1544     111X UD UD0215			
	CERTIFICA	TE OF ANALYSIS		
SAMPLE(S) FROM	Candale Mining Manage Unit #86, 1350 Winding Trail,	Attn. G. L. Roberts	REPORT No. T - 8916	
SAMPLE(S) OF	Mississauga, Cntarlo. ROCK		Inv. #18443	
	202		<u>(Cu) 70</u>	
	202 0	<0.01		
	211 <0	.005 <0.01		
	213 <0	.005 <0.01		
	229 <0	.005 <0.01		
	239 <0	.005 <0.01	l	
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	257 <0	. 005 <0. 01	L	
	<pre>408 &lt;0 207</pre>	.005 <0.01		
	487 <0 296 -0	.005 <0.01		
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	310 <0			
	319 <0	.005 <0.01		
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	339 <0	.005 <0.01		
	346 <0	.005 <0.01		
	357 <0	.005 0,01		
		AUGE -0 01		

camples. Pulps and Rejects discarded after two months

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DATE January 7th, 1982. SIGNED SIGNED



## CERTIFICATE OF ANALYSIS: GENERAL ANALYSIS

PIENT CHEMICAL RESEARCH AND ANALYSIS CONTRACT LABORATORIES **TECHNICAL SERVICE LABORATORIES** DIVISION OF BURGENER TECHNICAL ENTERPRISES LIMITED 1301 FEWSTER DRIVE, MISSISSAUGA, ONT. L4W 1A2 TELEPHONE: (416) 625-1544 TELEX 06 - 960215 CERTIFICATE OF ANALYSIS SAMPLE(S) FROM Candale Mining Management, REPORT No. Unit #86, T - 8916 1350 Winding Trail, Attn. G. L. Roberts Mississauga, Cntario. Inv. #18443 SAMPLE(S) OF ROCK Fire Assay Gold (Au) oz/ton Copper (Cu)

0,010

<0.005

<0.005

<0,005

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imples. Pulps and Rejects discarded after two months

DATE \_\_\_\_

January 7th, 1982.

SIGNED



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### Addendum on: Report on Diamond Drilling Program & Property Evaluation of Casan Mining Limited. Dobie Mineral Claims for 1981

### APPENDIX VIII & IX

#### CERTIFICATE OF ANALYSIS



Note: Samples were of approximately 1" length of the split BX core at the depth noted.

