



42A03SE0324 18 POWELL

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Diamond Drilling

Township of Powell

Report NO: 18

Work performed by: Nautilus Expl. Ltd.

Claim NO	Hole NO	Footage	Date	Note
L 329557	N-1	252'	Dec/72	(1) (2)
L 329549	N-2	298'	Dec/72	(1) (2)
L 329554	N-3	300'	Jan/73	(1) (2)
	N-4	207'	Feb/73	(1) (2)

Notes:

(1) 36/73

(2) Mineral Expl. Assistance Program, Contract CG-38

JAMES D. McCANNELL
CONSULTING GEOLOGIST

TELEPHONE 363-8995
350 BAY STREET
TORONTO, ONTARIO, CANADA
February 27, 1973

The Directors
Nautilus Explorations Limited
Suite 203
350 Bay Street
Toronto, Ontario

Gentlemen:

The following is a review of the exploration work carried out on your Company's group of fifteen mining claims located in Powell Township, Matachewan area, Ontario. The exploration program commenced with an electromagnetic survey which got underway in the middle part of August, 1972. The property was mapped at the same time, and a geological plan drawn on the scale of one inch to two hundred feet.

North-south picket lines were cut and chained at 400-foot intervals to provide control for both the geophysical and geological work. Some magnetometer readings were taken to further check areas of interest as indicated by the electromagnetic and geological surveys. In all cases, the geophysical stations were established at 100-foot intervals along the north-south picket lines.

No conducting zones were indicated that could be considered anomalous. There was some indication of a weak conductor, striking in a slightly north of east direction through the central parts of claims 329545 and 329554 and conforming with a fairly high magnetic anomaly.

The geological mapping, revealed the presence of several old trenches in overburden and located in the extreme north part of the claims group. These trenches appeared to be quite old and were assumed to have been excavated in the early 1930's when the area was actively prospected for gold. The trenching was apparently an attempt to investigate a zone of east-west shearing extending through this part of the property. A strong carbonate zone carrying small amounts of pyrite and chalcopyrite is exposed in two small outcrops in the north-west corner of claim 329549. No exposures of bedrock were located in the area of the weak electromagnetic conductor and high magnetic readings in claims 329545 and 329554.

A limited diamond drilling program was recommended to investigate the results of the geophysical and geological work carried out on the property. The main areas of possible

economic interest resulting from this work were, the zone of trenching in the north part of the claims group, the carbonate zone in claim 329549 and the area of high magnetic readings extending through claims 329545 and 329554.

Diamond drilling got underway on December 2, 1972, and a total of four holes were drilled for a combined lineal footage of 1,057 feet. Hole 1 was drilled to cut below the trenched shear zone in the north part of the claims group. The hole was drilled to a depth of 252 feet at an angle of -45 degrees. The rock formations were found to be all of sedimentary origin and in places to be well sheared. Some short sections of quartz veining were encountered but only minor amounts of pyrite mineralization. Three of the better quartz veins were sampled for gold but the assay results showed only traces of this metal present.

The second hole was drilled to check the strong carbonate zone in the south part of the claims group. The rocks intersected in this hole, were observed to be syenite and highly altered sediments with much shearing and carbonate, chlorite and epidote alteration. Considerable specularite was noted throughout most of the rock encountered in this hole and occurred both as veinlets and fine disseminations. The shearing and intense alteration appeared to provide favourable host conditions for gold deposition and a zone of high carbonate alteration from 50.0 to 82.0 feet was sampled but the results showed only a low gold content. The writer is of the opinion that more sampling should be done in this hole and that more work is warranted in this part of the claims group. Hole two, was drilled to a depth of 298 feet at a dip of -50 degrees.

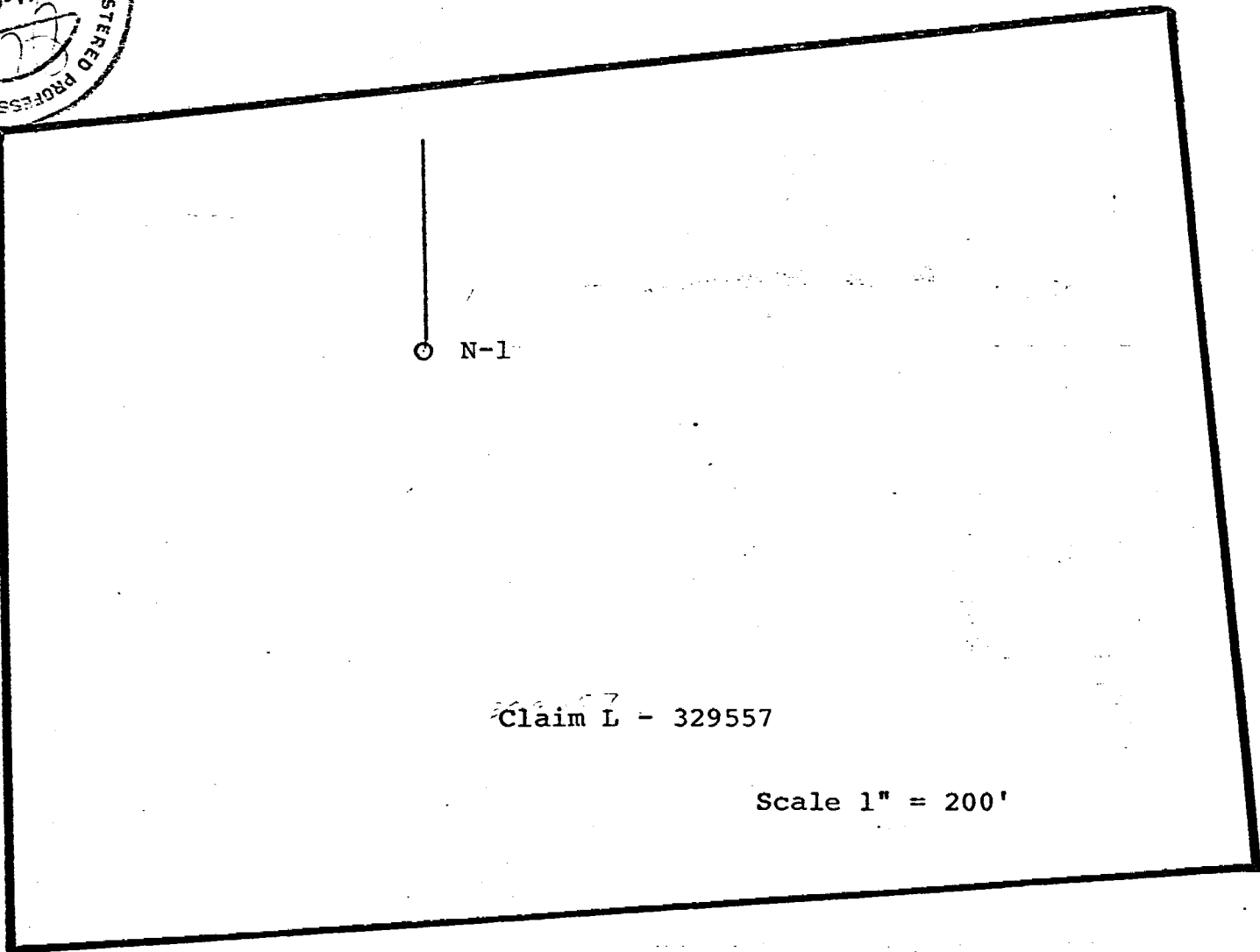
Holes three and four were drilled to depths of 300 and 207 feet respectively. Both were drilled at dips of -45 degrees and in the same plane to provide a cross-section of the magnetic zone in the west central part of claim 329554. The underlying formations were observed to be well altered sediments, with much chlorite and epidote and typical of what is generally referred to as greenstone in precambrian geology. Small amounts of magnetite were observed in these rocks along with minor amounts of pyrite.

On completion of hole four, the thousand foot contract had been exceeded by 57 feet and as the drilling was being done with Winkie equipment it was decided to terminate the exploration program to assess the results. The writer is of the opinion that further work should be done on the carbonate zone in the south part of the claims group and also along the shear zone near the north boundary. An additional three claims were staked along the north boundary to be certain that your Company had sufficient coverage of this zone. The writer would prefer to examine the ground when the surface is free of snow before planing an additional work program.

Respectfully submitted,

James D. McCannell
James D. McCannell
Consulting Geologist

Toronto, Ontario
February 27, 1973



N-1

Claim L - 329557

Scale 1" = 200'



NAUTILUS EXPLORATIONS LTD.

Powell Township
Ontario

DIAMOND DRILL RECORD

PROPERTY NAUTILUS EXPLORATIONS LIMITED

LOCATION Powell Township, Ontario

Started: Dec. 2, 1972

HOLE No. N-1

Bearing: 360°

Latitude 890 feet west and 410 feet south of No. 1 post

Completed: Dec. 14, 1972

Dip: -45°

Departure claim 329557

Length: 252 feet

Elevation

Dip tests:

Logged by: J. McCannell

Footage	Description	Sample	Footage	Width	Assays
0.0- 25.0	CASING				
25.0- 77.8	SEDIMENT - highly altered and schistose at 50-55° to core. Rock grey green coloured, fine grained and very soft with numerous scattered quartz amygules and some well formed feldspar phenocrysts. Minor disseminated pyrite with occasional fleck of chalcopyrite.				
77.8- 92.7	53.8-55.0 highly fractured and crenulated with 30% qtz. SEDIMENT - grey coloured and schistose with numerous squeezed fragments or small pebbles. Appears to be highly altered conglomerate				
92.7-103.4	89.2-89.7 very rusty carbonate band with sharp contacts SEDIMENT - similar to 25.0-77.8				
103.4-112.4	101.9-103.2 30% quartz and feldspar in shearing SEDIMENT - arkosic greywacke no schistosity, medium grained very light grey coloured				0.005 oz. Au.
112.4-113.7	108.9-109.4 rusty carbonate band SIDERITE - rusty band of iron carbonate				
113.7-161.3	SEDIMENT - similar to 25.0-77.8 with short core lengths showing squeezed fragments or pebbles				
161.3-172.9	127.2-128.4 a 4 inch quartz vein almost parallel to core 138.5-139.3 quartz vein 143.0-146.9 fractured and bleached with numerous qtz stringers and considerable siderite 146.0-146.9 SEDIMENT - arkosic greywacke, light grey, medium grained very massive no schistosity				
172.9-195.7	SEDIMENT - greyish green coloured fine grained, schistose				
195.7-211.5	180.0-184.7 fractured with some qtz and fine pyrite SEDIMENT - greywacke, well bedded, medium grained dark greyish green with slight schistosity.				0.005 oz. Au.

DIAMOND DRILL RECORD

PROPERTY NAUTILUS EXPLORATIONS LIMITED
 LOCATION Powell Township, Ontario Started:
 Latitude Completed:
 Departure Dip tests:
 Elevation

HOLE No. N-1
 Bearing:
 Dip:
 Length: 252 feet
 Logged by:

Footage	Description	Sample	Footage	Width	Assays
211.5-252.0	SEDIMENT - argillaceous greywacke, dark greyish black coloured, fine grained, highly schistose in places and showing good bedding parallel to schistosity at 45° to core. Much banding showing dark and lighter coloured beds. Scattered narrow zones of fracturing and crenulations with fair amount of quartz, 218.4-218.9 well crenulated with 40% quartz 226.3-227.3 well crenulated with 40% quartz 252.0 End of Hole				0.005 oz. Au.

○ N-2



Claim L-329549

549

Scale 1" = 200'



NAUTILUS EXPLORATIONS LTD.
Powell Township
Ontario

DIAMOND DRILL RECORD

PROPERTY NAUTILUS EXPLORATIONS LIMITED
Powell Township, Ontario

HOLE No. N-2

LOCATION

Started: Dec. 24, 1972

Bearing: 350°

Latitude 180 feet East and 430 feet
Departure south # 4 post claim 329549

Completed: Jan. 4, 1973

Dip: -50°

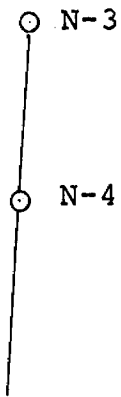
Elevation

Dip tests:

Length: 298 feet

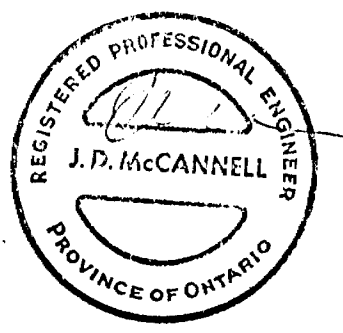
Logged by: J. McCannell

Footage	Description	Sample	Footage	Width	Assays
0.0- 15.0	CASING				gold
15.0-169.8	SYENITE - medium grained greyish pink coloured with numerous thin irregular threads and veinlets of specular hematite. Some wide zones showing much rusty iron carbonate, Scattered narrow shears and minor disseminated pyrite with occassional small flecks of chalcopyrite throughout. Much epidote alteration especially with carbonate zones. Rock could be a derived from highly altered phase of an arkose or arkosic greywacke.		50.0-57.7		0.005
	15.0-30.0 much iron carbonate		57.7-63.9		0.005
	50.0-93.9 much iron carbonate with fair schistosity		63.9-70.0		0.005
	92.4-93.8 lost core		70.0-76.7		0.005
	147.9-150.0 altered greywacke		76.7-82.0		0.005
169.8-266.9	SEDIMENT - medium to fine grained highly altered well bedded argillaceous greywacke, showing much syenite alteration and considerable epidote favouring narrow seams. Considerable amount of finely disseminated specular hematite throughout with only minor pyrite. Much kaolinite alteration in thin beds with epidote tends to exaggerate the bedding.				
	170.0-172.7 sheared and carbonated with 30% quartz				0.005
	245.8-254.9 gritty massive sediment				
	258.4-260.0 lost core				
266.9-298.0	SEDIMENT - fine grained well bedded greenish coloured greywacke with core angle varying from 45 to 70°, and numerous crenulations. No syenite alteration and sharp contact at 266.9 where syenite alteration terminates. Some kaolinite alteration but little or no epidote.				
	285.9-288.1 lost core				
	293.1-294.4 lost core				
	298.0 End of Hole				



Claim L - 329554

Scale 1" = 200'



NAUTILUS EXPLORATIONS LTD.
Powell Township
Ontario

DIAMOND DRILL RECORD

PROPERTY NAUTILUS EXPLORATIONS LIMITED

Powell Township, Ontario

LOCATION

Latitude 380 feet east and 660 feet
south # 4 post claim 329554

Elevation

Started: January 18, 1973

Completed: Jan. 27, 1973

Dip tests:

HOLE No. N-3

Bearing: 180°

Dip: -45°

Length: 300 feet

Logged by: J. McCannell

Footage	Description	Sample	Footage	Width	Assays
0.0- 37.0	CASING				
37.0- 75.7	GREENSTONE - medium to fine grained green coloured highly chloritic, much epidote and well altered rock probably derived from an impure greywacke. Very massive with only weak suggestions of bedding.				
75.7-201.5	SEDIMENT - sedimentary greenstone in places showing very pronounced bedding with much crenulation. Rock fine grained green coloured with numerous thin light coloured beds. Considerable chlorite and some epidote throughout				
	81.5-85.1 coarse metamorphosed bed of gritty sediment purplish coloured and coarse grained				
	192.0-201.5 about 20% narrow irregular quartz veinlets and threads, no sulphides.				
201.5-300.0	GREENSTONE - medium to fine grained bright green coloured, massive, very chloritic, much epidote with some indications of bedding suggesting the rock to be derived from a basic sediment. Scattered irregular quartz threads and stringers throughout.				
	252.5-263.0 rock coarse grained and dioritic grading into normal fine grained material at both contacts.				
	269.4-287.0 good bedding about 70° to core				
	288.5-290.0 lost core				
	<u>300.0 End of Hole</u>				

DIAMOND DRILL RECORD

PROPERTY NAUTILUS EXPLORATIONS LIMITED
Powell Township, Ontario

HOLE No. N-4

LOCATION

Started: Feb. 1, 1973

Bearing: 180°

Latitude 380 feet East and 845 feet South
of Post # 4, Claim 329554

Completed: Feb. 6, 1973

Dip: -45°

Departure

Length: 207.0 feet

Elevation

Dip tests:

Logged by: J. McCannell

Footage	Description	Sample	Footage	Width	Assays
0.0- 12.0	CASING				
12.0- 47.0	GREENSTONE - dark green coloured fine grained with numerous scattered irregular quartz threads and narrow stringers but no sulphides. Some evidence of bedding at 65 to 70° to core. Rock probably derived from an impure argillite.				
47.0-158.4	GREENSTONE - medium to fine grained bright green coloured, much chlorite and epidote, occasional quartz stringer up to 2 inches in width, some weak indications of bedding. Rock typical of what is often classified as andesite in precambrian geology.				
158.4-207.0	87.2-91.1 about 15% quartz. SEDIMENT - fine grained greenish grey coloured, well bedded about 70° to core. Metamorphosed impure argillite with thinly interbedded bands of mafic rock and kaolinite very light coloured and probably derived from thin beds of arkose. Numerous fine threads of quartz. Some development of chlorite and epidote.				
<u>207.0 feet End of Hole</u>					