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SECTION

REPORT ON
GEOLOGICAL SURVEY
SHAW TOWNSHIP, PORCUPINE M.D.,
DISTRICT OF COCHRANE, ONTARIO
FOR
PAC EXPLORATIONS LIMITED

BY
BARRINGER RESEARCH LIMITED
304 CARLINGVIEW DRIVE
METROPOLITAN TORONTO
REXDALE, ONTARIO
DECEMBER 1973



42A06NE0319 2.1390 SHAW

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LIST OF DRAWINGS

<u>Dwg. No.</u>	<u>Title</u>	<u>Scale</u>
8-404-1	Locality Plan (follows page 4)	1" = 1320'
8-404-2A & 2B	Geology	1" = 200'

1. SUMMARY

Geological and geophysical surveys on the original Pac Explorations Limited ten claim group in Shaw Township, south of Timmins, revealed that an ultramafic body exists partly on the claim group. It exhibits spinifex texture and gives a highly anomalous IP response. It was recommended that claims be staked to the west to secure the remainder of the ultramafic. New staking was extended far enough west to cover an adjacent large airborne magnetic anomaly of unknown cause. Twenty claims were staked and subsequently covered by geological and geophysical surveys.

Results of these surveys indicate that the original ultramafic body extends onto the new claims (west group), and is partly drift covered. A non-outcropping body with the same geophysical characteristics is located a little further to the northwest. It also displays high (90 - 95 milliseconds) chargeability and is interpreted as an extension of the known ultramafic. Further west on the west group another ultramafic body was found lower in the volcanic pile than the first. The western body had no IP response and is assumed to be barren. However, it is believed to be part of the cause of the airborne anomaly.

Regionally, nickel deposits of a disseminated nature are known to occur in ultramafic flows and sills interlayered with volcanics in three elipsoidal dome structures in Shaw, Bartlett and Halliday Townships, south of Timmins. The Pac property lies on the northeast part of the Shaw dome, about eight to ten miles along the ellipse from the INCO, McWatters and Hart nickel deposits. The deposits are in ultramafic flows or sills lying in a horizon of felsic volcanics and iron formation. A second discontinuous belt of ultramafics overlies them. The deposits are within or close to spinifex textured ultramafics and occur close to felsic rocks and/or iron formation.

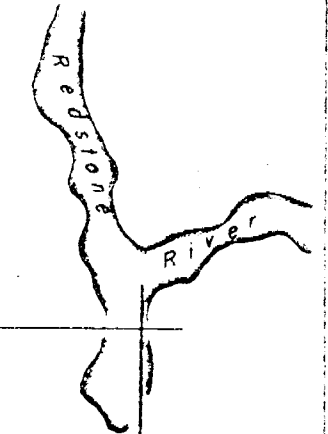
Surveys performed on the Pac properties have provided a picture of one segment of the ellipse. We now know of four horizons of ultramafic flows or sills. The uppermost (known only from former assessment drilling) and lowermost, are believed barren, and of the central two the lower is of much greater interest.

Twp. not subdivided from L4W

LOT 4

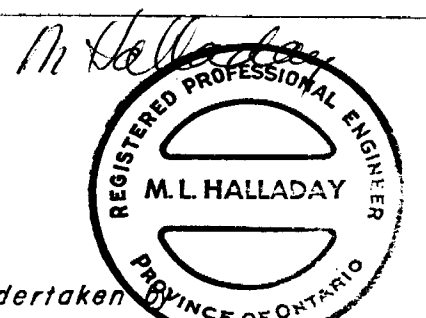
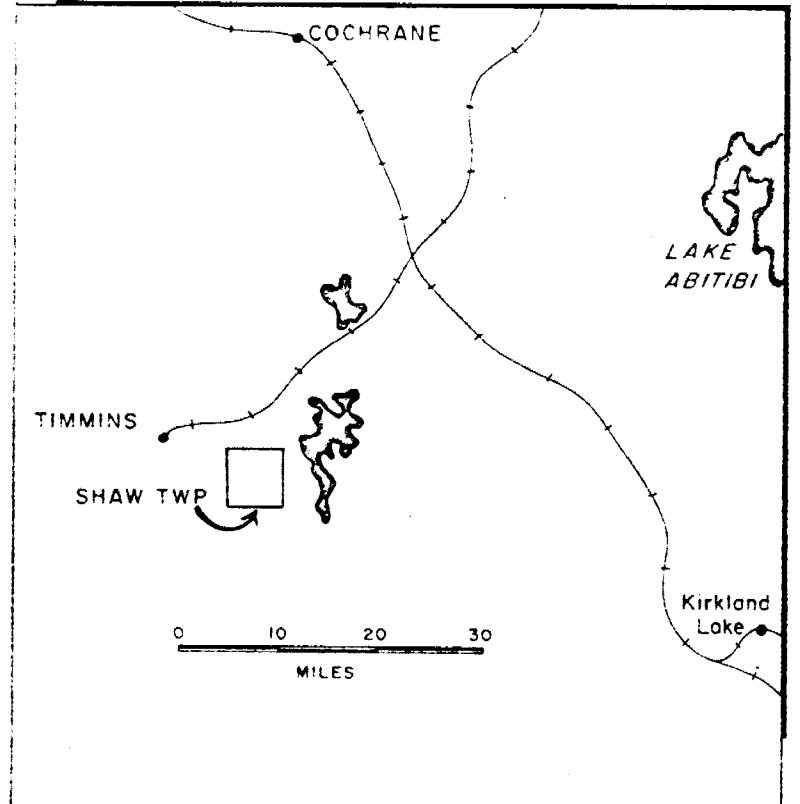
LOT 3

LOT 2



P. 363438	P. 363437	P. 363436	P. 363435	P. 363444	P. 355181	P. 355178
P. 363434	P. 363431	P. 363430	P. 363428	P. 363443	P. 355180	P. 355179
P. 363433	P. 363432	P. 363429	P. 363427	P. 355174	P. 355175	

CON. 5



Work undertaken by

BARRINGER RESEARCH LTD., Toronto, Canada.

PAC EXPLORATIONS LIMITED		
SHAW TWP., PORCUPINE M.D., ONTARIO		
LOCALITY PLAN		
NOV. 1973	Scale 1" = 1320'	DWG. 8-404-1

It is an ultramafic having a strong IP response (90 - 95 milliseconds), which has an outcropping spinifex textured segment, and a non-outcropping interpreted extension of similar geophysical character and similar anomalous chargeabilities. In addition to favourable geophysical expression, these two bodies have characteristics and geological setting very similar to that mentioned above in connection with economic deposits. A drill hole is recommended to test the original ultramafic and another hole is recommended to test the anomaly over the interpreted extension.

Within the flows of the volcanic sequence on the Pac property, several anomalies were defined. They are of low priority except for Anomaly 3 which exists within the most acid flow of the property, a dacite containing flow breccias and agglomerates. It is coincident with a strong IP expression, and is recommended for testing with a drill hole.

Three drill holes are recommended to test these favourable areas, a total of 1300 feet. This would be expected to incur costs as follows: -

Diamond drilling at \$12.00/foot	\$15,600.00
Analyses, etc.	500.00
Contingency - 10%	<u>1,610.00</u>
	\$17,710.00
Engineering supervision - 10%	<u>1,771.00</u>
	\$19,481.00

This drilling allows for one hole into each target. No allowance has been made for follow-up to favourable intersections.

2. INTRODUCTION

In December 1972 Barringer Research Limited submitted to Pac Explorations Limited, their report covering geological and geophysical surveys conducted over the original ten claim group in Shaw Township. These surveys had established that part of an ultramafic sill or flow exists on the claim group and that a strong IP response was located over it. It was recommended that further claims be staked to the west to cover the interpreted extension of the sill, and that the additional ground be examined geophysical and geologically in preparation for drilling if drilling should continue to be warranted.

These recommendations have now been carried out and the present report embodies the result of the second geological survey. Recommendations of this survey were made with consideration given to the findings of the second geophysical survey.

3. PROPERTY

Pac Explorations Limited holds a thirty claim group in Shaw Township, about 11 miles east-southeast of Timmins (see Dwg. No. 8-404-1). It consists of their original group of ten unpatented claims (East Group) and an additional twenty unpatented claims (West Group) tied on to the western boundary of the original group.

The claim group lies in Concession 5, parts of Lots 2 - 6 inclusive.

Claims are numbered as follows:

East Group: P333251 to P333258 inclusive
P333720 and P333721

West Group: P355178 to P355181 inclusive
P355174 and P355175
P363427 to 363438 inclusive
P363443 and P363444

4. LOCATION; ACCESS, FACILITIES

The property is in Shaw Township, east-southeast of the Town of Timmins - Porcupine, about 11 miles from Timmins and 6 miles from South Porcupine. It is in the Porcupine Mining District.

An excellent gravel, all-weather road joining the INCO-Noranda Langmuir Mine and the Town of South Porcupine passes about 1 1/2 miles south of the property. A bush road passable for four-wheel drive vehicles leaves this gravel road near its bridge over the Redstone River and travels east-northeast for about a mile, and a footpath leads another 1 1/2 miles to the East Group terminating at Line 28W about 9S. Also a Bombardier trail has been cut from the bush road north to claim P355175 of the West Group.

The northeast corner of the East Group can be reached by boat from the Redstone River, which also constitutes a supply of water. A hydro line supplying the INCO-Noranda Mine in Langmuir Township follows the gravel road from South Porcupine, passing 1 1/2 miles south of the Pac property. The nearby mining centres of Timmins and South Porcupine afford a source of supplies, services and manpower.

5. TOPOGRAPHY

A major topographic feature is a northwest-southeast fault zone which cuts across the full width of the West Group. It is 400 to 600 feet wide and contains a swamp. A beaver pond with extensive flooding occupies the southwest corner of the West Group. In other areas there is little outcrop, but on the whole there is considerable exposure - possibly 30 - 40% mostly in rolling hills with the exception of rock masses close to the fault zone which are bounded by sharper drops.

6. PREVIOUS WORK

6.1 ORIGINAL GROUP

The original Pac group was covered by a magnetometer survey, an induced polarization survey (including a resistivity survey) and a geological survey. These were done in 1972 by Barringer Research Limited. Results of this work are presented in Barringer Research Limited's report by M. L. Halladay, P. Eng., and F. L. Jagodits, P. Eng., dated December 1972. As well as listing government publications available for the area, the report mentions the existence of assessment work data on file at the Ontario Department of Mines (Toronto) consisting of electromagnetic and magnetic surveys done at different times over various portions of the present Pac group. Two diamond drill holes by Blackhawk Gold Mines Limited in the northeast portion of the original group explored part of an acid intrusive and also cut serpentinite.

6.2 WEST GROUP

The West Group is covered by the same published maps which are pertinent to the original group (Ref. 2, 3, 5, 6). In 1973 Barringer Research Limited conducted a magnetometer survey, an induced polarization survey (including a resistivity survey) and a geological survey over the West Group of claims. The results of these geophysical surveys are reported in Barringer Research Limited's report dated July 1973 by R. Caven, P. Eng. The present report embodies results of the geological survey.

Assessment work on file for various portions of the West Group include geological and geophysical surveys by James Dillon, John Gaze, Canadian Nickel and Amshaw Porcupine Mines Limited. Logs were also available for five short diamond drill holes on the Dillon property which cut the gabbro-diorite intrusive. For the most part this information could be tied in to the Pac grid in a general way only, although a couple of the old drill holes were seen in the field.

7. REGIONAL GEOLOGY

The Pac property in Shaw Township is underlain by the Deloro group of flows, pyroclastics and iron formation. The Deloro group is characterized by periodic explosive volcanism and flows (predominantly mafic) with some ash-flow material in evidence. There were one or more central vents connected to a shallow magma chamber or chambers. Iron formation is conspicuous in the Deloro group. It consists largely of cherty and dolomitic rocks with minor sulphides and oxides. Intercalated within this volcanic pile are ultramafic rocks (altered and replaced to talc serpentine) which may be extrusive (D. R. Pyke, 1972) or sill-like intrusives.

A large elliptically shaped geological feature is prominent in the area. This structure is now being referred to as the Shaw dome. It stretches from Tisdale Township in the north to Langmuir Township in the southeast. Top directions are away from the centre of the ellipse. The feature is believed to represent one or more volcanic centres. Some of the ultramafic bodies of this pile are nickeliferous, and some of the latter have been brought to production.

The Pac property is located on the northeastern portion of the ellipse, some 10 miles along strike northwest from the Langmuir Township properties of INCO and Noranda which have come to production.

8. GEOLOGY OF THE WEST GROUP

The geology of the West Group is shown on map sheets 8-404-2A and 8-404-2B accompanying this report.

Rock types seen on the West and East Groups probably represent at least two cycles of volcanism, the rocks of the East Group representing the upper sequence or sequences, and the rocks of the West Group representing the lower sequence or sequences. In this area the flows are very flat-lying and relationships can be ambiguous. The sequence is believed to be as shown in the Table of Formations.

The sequences are predominantly basic, becoming slightly more acid upwards and culminating with iron formation. At least one of the ultramafic bodies is located directly above the iron formation, seemingly at the base of a cycle.

The sequence of exploration performed by Pac has given us an observed and interpreted cross sectional radius of that part of the ellipse underlying the Pac property. It indicates that there are known ultramafic bodies on three horizons and an interpreted fourth body on an intermediate horizon. The upper two were not observed in the field. The uppermost (easternmost) was seen in former drilling reported in assessment data, and the other is interpreted from geophysics. It may even be part of the favourable horizon although it is thought to be stratigraphically higher and probably not mineralized. Of the bottom two, the lowermost gives no significant geophysical response. Responses over the spinifex-bearing remaining ultramafic are excellent. It lies adjacent to the major occurrence of iron formation.

A few salient features of rock types seen on the West Group are given below, from westernmost (oldest) to easternmost.

Intermediate Flows

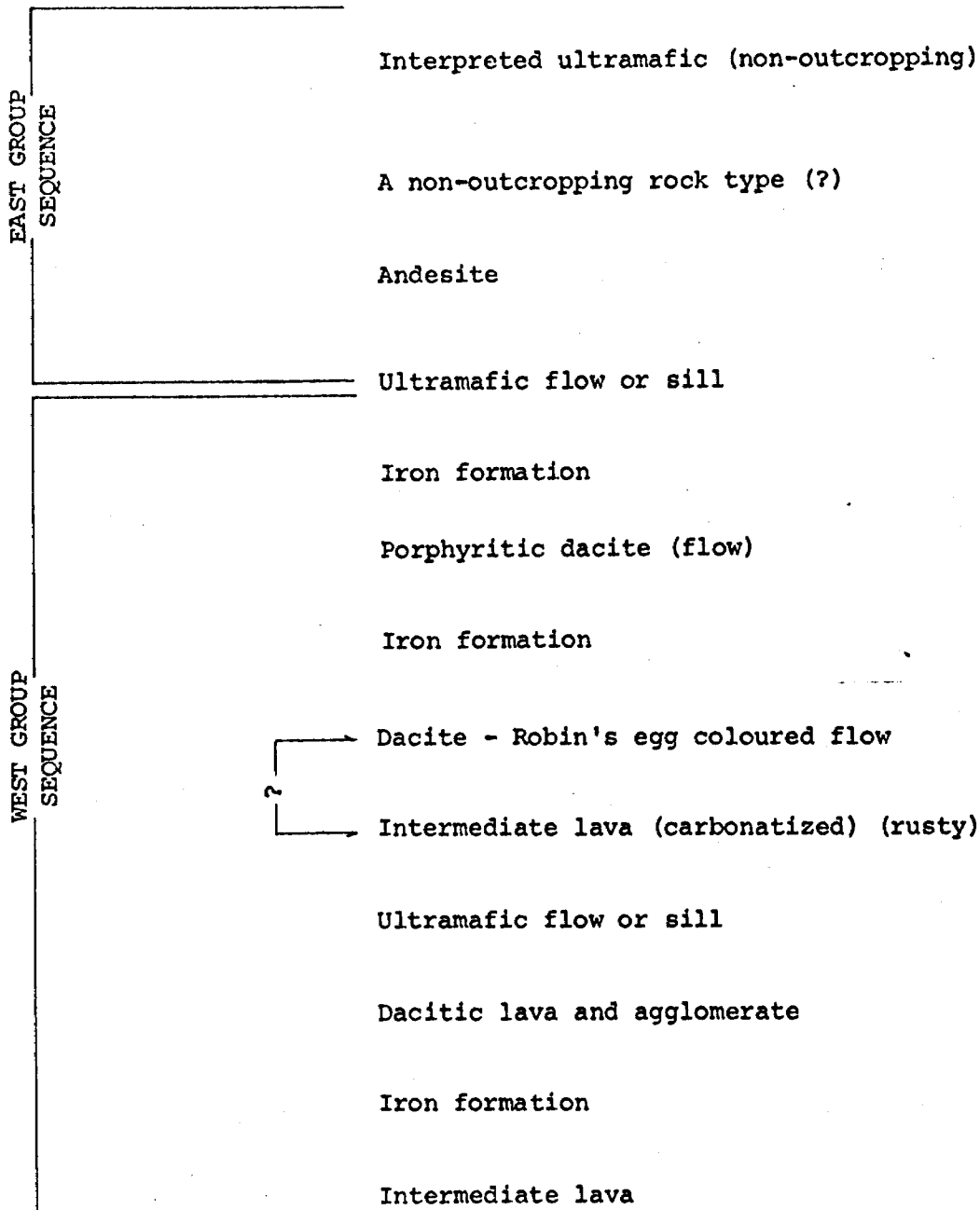
These are generally massive, pillowed in places, with occasional quartz-filled amygdules. Much carbonate in places.

TABLE OF FORMATIONS

ARCHEAN

Intrusives: Quartz porphyry (from previous diamond drilling)
Gabbro-diorite to quartz (opalescent) diorite

Volcanics: Ultramafic (from previous diamond drilling)
(non-outcropping formations)



Iron Formation

On Pac this is a siliceous pyritic iron formation gradational in places to dolomitic and ankeritic (?) carbonate facies. There is a predominance of chert. The formation is sometimes discontinuous or patchy. Frequent assays on both groups yielded negative results.

Dacitic Lava and Agglomerate

These flows are generally light gray to greenish sometimes slightly purplish variegated, possibly pillowed in places and often accompanied by agglomerate.

Ultramafic (most western)

This body is massive and fairly extensive, jointed, probably layered, and is serpentized. In the region of I438 at the base line this rock type is a peridotite. Further southeast a thin section showed it to be of pyroenitic composition. An area of gabbro lies adjacent to the ultramafic on the north-east. It has associated areas of mafic pegmatite. It is not known whether the gabbro is the upper, less mafic phase of the body, or whether it is in fact part of a (quartz) gabbro-diorite intrusive which occupies all the central area of the West Group.

Intermediate Lava (carbonatized)

The intermediate lavas are vesicular, pillowed and carbonatized. Occasionally considerable carbonate or quartz carbonate occurs and minor agglomerate is also present.

Dacite - Robin's Egg Colour

The flow probably is separate to the dacite earlier in the sequence. Its relationship to adjacent rock types is not known, but its colour is distinctive. Agglomerate is fairly frequent.

Intermediate Flows (rusty)

These are vesicular and similar to the carbonatized flow mentioned above and contain some rust splotches, particularly as interpillow sulphides.

Ultramafic

This ultramafic straddles the boundary of the West and East Groups of claims of the Pac property. It outcrops on the East Group displaying spinifex texture, and is associated with a strong IP response. Thin sections shows the rock to be peridotite of some 40% linear. A sample of rock from this body ran 620 ppm nickel, 140 ppm copper and 84 ppm cobalt. It is recommended that the anomaly be drilled to determine if valuable sulphides may be the cause of the anomaly. Surveys done on the West Group indicate that the ultramafic extends westward, although it does not outcrop except for two exposures of talc carbonate schist along strike and within 500 feet of the original outcrop. An IP response exists along the apparent projection of the ultrabasic. For some 1500 feet northwest of the original very strong anomaly (90 milliseconds) the geophysical expression is present but apparently much weaker, varying from 50 to 25 milliseconds. Northwest of the original anomaly (about 1500 feet) a zone of interpreted faulting occurs where the projected ultramafic either changes direction or is joined by another body 400 - 600 feet thick lying almost east-west and extending a further 1800 feet west. The body is discrete geophysically from its enclosing rocks. It is intimately associated with iron formation, but has a very different magnetic pattern to that of the iron formation. The body has a coincident magnetic low: - an attribute common to many of the known ultramafic sills of the area, and is characterized by an IP expression on 5 lines ranging from 38 milliseconds to 95 milliseconds. No outcrop was seen on this body except one slightly questionable, very small occurrence, believed to be bedrock, consisting of an undefined, very highly altered, light green, very strongly sheared and carbonatized rock. One of two pseudo-sections prepared across this body indicate the IP expression is somewhat stronger at 400 feet depth than at 200 feet, suggesting that trenching would not be expected to give sufficient indication of grade should sulphide be encountered.

Both the original anomaly of the East Grid and the western end of the interpreted extension discussed above show intense IP responses and well merit a drill hole to investigate each of them.

Further up in the sequence, i.e. eastward on the East Group, a rock type which does not outcrop has a geophysical expression which is common to ultramafic bodies of the area. It is interpreted as an ultramafic, and although there is a distinguishable chargeability response of three times background, it is a much less favourable target than the ultramafic mentioned above. No work is recommended on this interpreted ultramafic at present. Another ultramafic is known from diamond drilling done previously by another company to lie in the extreme northeast corner of the East Group of claims. It has no favourable geophysical expression and is believed to be barren.

Gabbro-Diorite (quartz)

A very extensive dioritic intrusive occupies a large part of the West Group. It stretches east-west just south of the base line and virtually spans the east-west dimension of the West Group. It is usually about a thousand feet wide. It ranges from quartz free gabbro through diorite to a quartz gabbro with opalescent quartz grains. The quartz may be an introduction from iron formation. The latter seems to have a spatial relationship to the occurrence of the opalescent quartz. Pegmatitic amphiboles 4 - 6 inches long occur in one place near the northern margin of the body. Euhedral magnetite is common within the body, especially near fault zones. The intrusive apparently cuts across all the flows but is itself dissected by a number of faults.

Thus, studies on the original and West Group of Pac claims have provided a cross-sectional, radial view of one segment of the Shaw dome. The picture is one of ultramafic bodies - flows or sills, intercalated within a series of intermediate to basic flows. General knowledge of these bodies now indicates that the ultramafics may be the basal member of a series of basic to intermediate flows becoming more acid towards the top of the cycle, and topped with iron formation. Subsequent cycles are common.

Thus in cross-sectional view we believe we have outlined four horizons of ultramafic, one of which has a geological character and situation similar to those of economic deposits, and a very favourable geophysical expression. Drilling is indicated to determine whether the strong IP responses may be caused by mineralization of an economically interesting character.

9. DISCUSSION OF GEOPHYSICAL RESULTS

Results of the geophysical survey of the West Group are presented in a report by R. Caven, P. Eng., of Barringer Research Limited, dated July 1973.

The geophysical survey preceded the geological survey, and although ten anomalies were defined, most of them were eliminated as drill targets when the geological work indicated them to be associated with various occurrences of iron formation, with flows seeming to carry pyrite-pyrrhotite only, or chargeability believed due to rock type change.

Anomalies 1 and 3 described by R. Caven are proposed for drilling, along with the high anomaly defined by the earlier survey over the East Group. Locations of these holes are as follows:

Hole 1 (East Grid)	L40W, 8+50S,	drill grid S at 45° for 500'
Hole 2 (West Grid)	L394W, 12N,	drill grid S at 45° for 450'
Hole 3 (West Grid)	L406W, 14+50S,	drill grid S at 45° for <u>350'</u>
	Total	1300'

Hole 1 will test the spinifex textured ultramafic coincident with a high (90 milliseconds) chargeability reading of the first survey. Hole 2 will test a high chargeability anomaly (95 milliseconds) located on the western extension of the above ultramafic and geophysically interpreted as ultramafic rock. Hole 3 will test a chargeability anomaly associated with an agglomerate section within a more acidic flow.

Two other anomalies are possible targets, but are given low priority and it is not recommended that they be drilled during the current programme. Should further drilling be undertaken because of encouragement received from the drilling recommended herein, then the following drill targets should be reviewed:

- A. A hole to test an anomaly in rusty intermediate flows. Only pyrite-pyrrhotite were seen in these flows and the anomaly is not far removed from iron formation. If drilled, the hole should be spotted at 386W, 5N, drilled grid S at 45° for 350'.

B. A hole to test an anomaly in intermediate flows near dacite. It should be located at 398W, 18+50S, drilled grid S at 45° for 350'.

10. ECONOMIC GEOLOGY

South of Timmins, nickel deposits of a disseminated nature occur in three domal structures referred to as the Shaw, Bartlett and Halliday domes. The McWatters, INCO and Hart deposits are located in the Langmuir-Eldorado Townships Area of the Shaw dome. They consist of disseminated mineralization in ultramafic flows or sills intercalated within the flows of the dome. The ultramafics form discontinuous rings of rock elliptically shaped around the dome. The Pac property lies on the northeast segment of the dome, some 10 miles northwest of the INCO deposit which is now in production. It is on the same trend of discontinuous ultramafics.

The nickel deposits are in ultramafic flows or sills lying in a horizon of felsic volcanics characterized by fine grained tuff and bands of sulphide-bearing iron formation. A second horizon is known to overlie the deposits. The economically interesting deposits all occur in close proximity to sulphide iron formation and/or acid flows, and have occurrences of spinifex textures nearby.

Knowledge gained from surveys on the East and West Groups has revealed an interpreted four horizons of ultramafic rocks - two outcropping, one known from previous drilling and one interpreted from geophysics. The uppermost and lowermost have no geophysical expression of significance and are presumed barren. Of the central two, the lower is much more favourable. Although outcrop is limited, most of it displays olivine spinifex textures. Geophysics indicates that the body extends westward under overburden. Both the area around the outcrop and the area under overburden have high IP anomalies (chargeability peaks of 90 - 95 milliseconds). This body lies intimately associated with iron formation: a further favourable attribute.

The search for nickel mineralization associated with the ultramafic rocks is the most promising of exploration possibilities in evidence for the Pac property. However, there are also possible targets for base metal exploration on the property as well, and one of these is recommended for drilling in the current programme. It involves geophysical Anomaly 3 in dacite, flow breccia and agglomerate.

Except for the siliceous iron formation, this rock is the most acid volcanic mapped on the property. It displays a strong IP response (up to 60 milliseconds chargeability). A drill hole is recommended to investigate the cause of the anomaly.

No encouragement has been obtained from any samples of iron formation submitted for assay for precious metals.

11. CONCLUSIONS

The Pac property is known to lie on one of three large elliptical shaped domes south of Timmins. Economic amounts of disseminated nickel mineralization are known to be associated with some of the ultramafic rocks interlayered with the volcanic flows of the dome. The Pac property lies on the northeast side of the Shaw dome. The INCO, Hart and McWatters deposits lie in ultramafic rocks of the same dome, some eight to ten miles southeast of Pac.

The deposit of economic interest mentioned above exist in certain of the known ultramafic bodies. Other bodies are barren, others have minor mineralization. The economically interesting bodies lie in a horizon of felsic volcanics and/or tuffs and siliceous iron formation. They are in close proximity to olivine spinifex textures. An overlying ultramafic (subsequent cycle) is known to exist stratigraphically above the deposits. As a result of surveys conducted over the East and West Groups on Pac it is now known that these characteristics are attributable to one (only) of the four ultramafic horizons believed present on Pac. This horizon displays two excellent IP anomalies, one of which is extensive (1800 feet x 400 - 600 feet). This excellent geological setting and geophysical response indicates prime drill targets: one - the outcropping spinifex textured ultramafic body showing high chargeability, and the other interpreted non-outcropping extension of the former which also exhibits very high chargeability.

In addition to nickel possibilities, chargeability anomalies exist within the volcanics, one of which (Anomaly 3) is in the most acid rock (excepting iron formation) on the property. It is recommended for drilling in the current programme. The target is about 1600 feet long with chargeabilities up to 60 milliseconds in dacite, flow breccia and agglomerate.

12. RECOMMENDATIONS

It is recommended that three diamond drill holes be put down to determine the cause of chargeability anomalies at the following locations:

	<u>Location</u>	<u>Azimuth</u>	<u>Dip</u>	<u>Length</u>	<u>Grid</u>
Hole 1	L40W 8+50S	Grid S	45°	500'	East Grid
Hole 2	L394W 12N	Grid S	45°	450'	West Grid
Hole 3	L406W 14+50S	Grid S	45°	350'	West Grid
			Total	1300'	

It is expected that costs for this drilling would be:

Diamond drilling at \$12.00/foot	\$ 15,600.00
Analyses etc.	500.00
Contingency - 10%	1,610.00
	<hr/>
	\$ 17,710.00
Engineering supervision - 10%	1,771.00
	<hr/>
Total	\$ 19,481.00

Respectfully submitted

BARRINGER RESEARCH LIMITED

M. L. Halladay

M. L. Halladay, P. Eng.,
Senior Geologist
Exploration Division

Toronto, Ontario
December 1973



13. REFERENCES

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4. Middleton, R. S. (1972): "Report on the Pac Exploration Limited Property, Shaw Township, Porcupine Mining Division", Barringer Research Report.
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10. Eckstrand, O. R.: Extract from G.S.C. Project 630037.

CERTIFICATE

I, Margaret Louise Halladay, of Mississauga, in the County of Peel, in the Province of Ontario, hereby certify as follows:

1. That I am a geologist and reside at 2159 Parker Drive, Mississauga, Ontario.
2. That I hold a Bachelor of Science degree from Sir George Williams University (Montreal), and have completed additional geological studies at the undergraduate and graduate level at McGill University and the University of Toronto.
3. That I am a member of the Association of Professional Engineers of Ontario and a Fellow of the Geological Association of Canada; and that I have been practising my profession since 1963.
4. That I have no personal interest, direct or indirect in the property described in this report, nor in the properties or securities of Pac Exploration Limited, nor do I expect to receive any interest therein.
5. That my report dated November 1973 on the Shaw Township property of Pac Explorations Limited is based on personal examination, geophysical surveys done by Barringer Research Limited, published Government geological reports and maps, and on data from Government assessment work files.
6. That the geological survey of the property was made by me September 29 to October 5, 1972 inclusive, and July 25 to August 10, 1973 inclusive, in my capacity of senior geologist for Barringer Research Limited.

M. L. Halladay

M. L. Halladay, F.G.A.S. P. Eng.





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PROJECTS SECTION

TO BE ATTACHED AS AN APPENDIX TO TECHNICAL REPORT
FACTS SHOWN HERE NEED NOT BE REPEATED IN REPORT
TECHNICAL REPORT MUST CONTAIN INTERPRETATION, CONCLUSIONS ETC.

Type of Survey Geology

Township or Area Shaw Township

Claim holder(s) Pac Explorations Limited

Author of Report M. L. Halladay

Address 304 Carlingview Dr., Rexdale, Ontario

Covering Dates of Survey July 26 to August 10, 1973, inclusive
(linecutting to office)

Total Miles of Line cut _____

MINING CLAIMS TRAVERSED
List numerically

P 355174 ✓
(prefix) (number)

P 355175 ✓

P355178 ✓

P 355179 ✓

P 355180 ✓

P 355181 ✓

P 363427 ✓

P 363428 ✓

P 363429 ✓

P 363430 ✓

P 363431 ✓

P 363432 ✓

P 363433 ✓

P 363434 ✓

P 363435 ✓

P 363436 ✓

P 363437 ✓

P 363438 ✓

P 363443 ✓

P 363444 ✓

TOTAL CLAIMS 20

SPECIAL PROVISIONS
CREDITS REQUESTED

DAYS
per claim

ENTER 40 days (includes
line cutting) for first
survey.

ENTER 20 days for each
additional survey using
same grid.

Geophysical
--Electromagnetic _____
--Magnetometer _____
--Radiometric _____
--Other _____
Geological 20
Geochemical _____

AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)

Magnetometer _____ Electromagnetic _____ Radiometric _____
(enter days per claim)

DATE: January 11/74 SIGNATURE: M.L. Halladay
Author of Report or Agent

PROJECTS SECTION

Res. Geol. _____ Qualifications 2.1142

Previous Surveys 2.518 geophysical & geological
survey (received credits) L.D.

Checked by _____ date _____

GEOLOGICAL BRANCH _____

Approved by _____ date _____

GEOLOGICAL BRANCH _____

Approved by _____ date _____

OFFICE USE ONLY

If space insufficient, attach list

Show instrument technical data in each space for type of survey submitted or indicate "not applicable"

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS

Number of Stations _____ Number of Readings _____

Station interval _____

Line spacing _____

Profile scale or Contour intervals _____
(specify for each type of survey)

MAGNETIC

Instrument _____

Accuracy - Scale constant _____

Diurnal correction method _____

Base station location _____

ELECTROMAGNETIC

Instrument _____

Coil configuration _____

Coil separation _____

Accuracy _____

Method: Fixed transmitter Shoot back In line Parallel line

Frequency _____
(specify V.L.F. station)

Parameters measured _____

GRAVITY

Instrument _____

Scale constant _____

Corrections made _____

Base station value and location _____

Elevation accuracy _____

INDUCED POLARIZATION -- RESISTIVITY

Instrument _____

Time domain _____ Frequency domain _____

Frequency _____ Range _____

Power _____

Electrode array _____

Electrode spacing _____

Type of electrode _____

Whitney Twp. (M. 319)

THE TOWNSHIP OF

SHAW

DISTRICT OF DOUGHAM

PORCUPINE MINING DIVISION

SCALE: 1 INCH = 40 CHAINS

LEGEND

- PATENTED LAND
- CROWN LAND SALE
- LEASES
- LOCATED LAND
- LICENSE OF OCCUPATION
- MINING RIGHTS ONLY
- SURFACE RIGHTS ONLY
- ROADS
- IMPROVED ROADS
- KING'S HIGHWAYS
- RAILWAYS
- POWER LINES
- MARSH OR SWAMPS
- MINES
- CANCELLED

NOTES

400 Surface Rights Reservation ground
 311 Located and River
 Unpatented Mining Claims in the Subdivided Portion of this Township are subject to Section 116 of The Mining Act, R.S.O. 1960, Chapter No. 835

MINING LANDS
 DATE OF ISSUE
 JAN 15 1974
 MINISTRY OF NATURAL RESOURCES

File - 2.1390

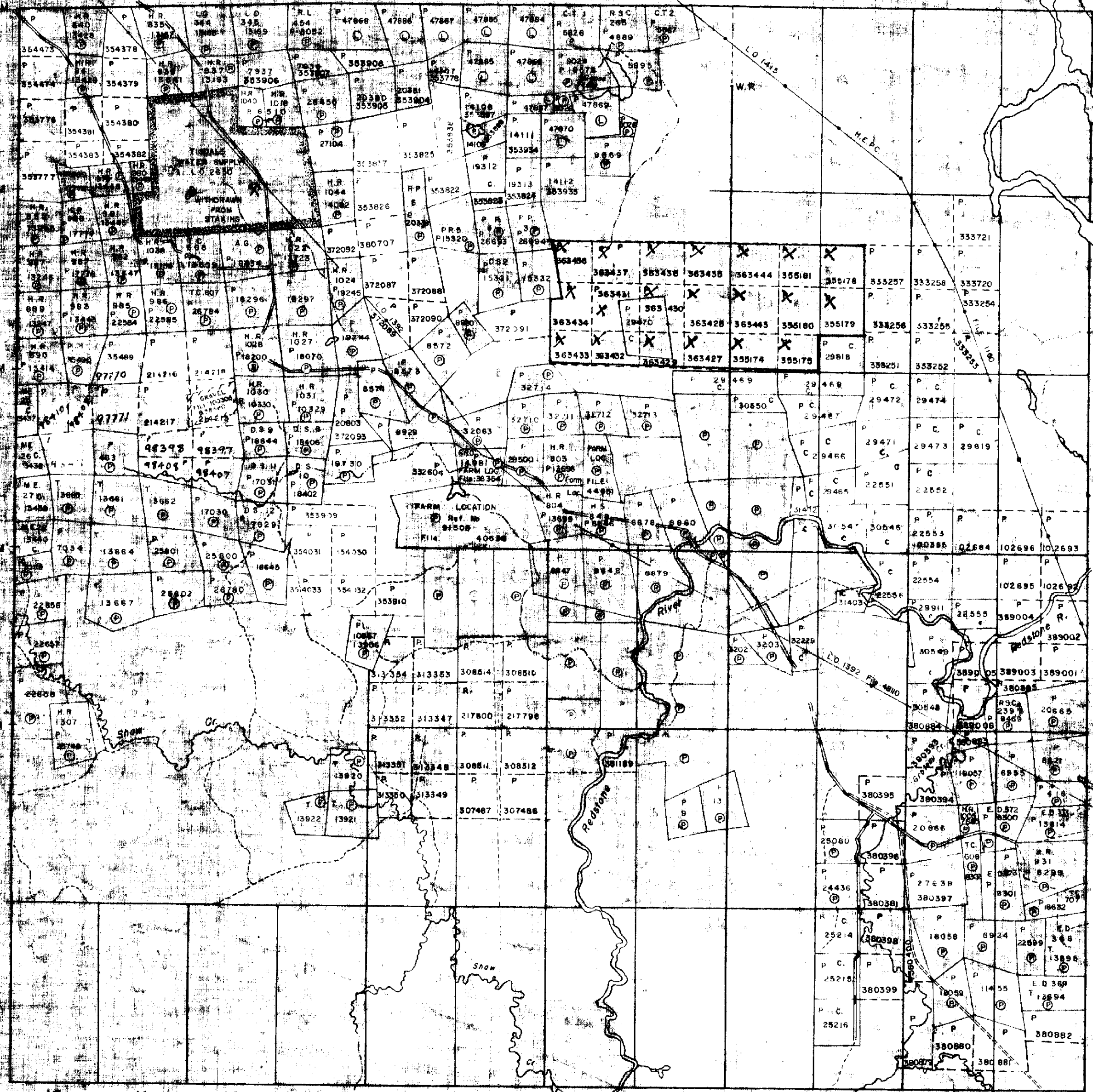
PLAN NO. M.311

ONTARIO
 MINISTRY OF NATURAL RESOURCES
 SURVEYS AND MAPPING BRANCH

Deloro Twp. (M. 272)

Carmar Twp. (M. 266)

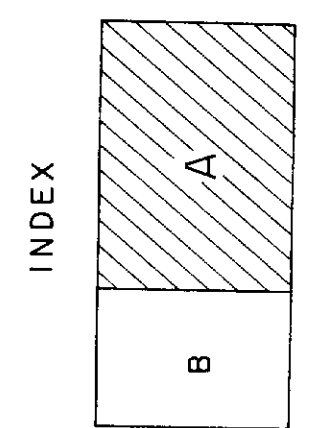
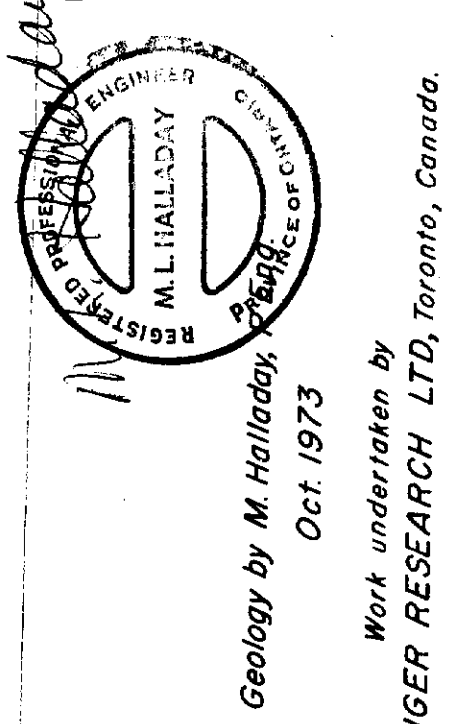
VI
 V
 IV
 III
 II
 I



Eldorado Twp. (M. 276)



42A06NE0319 2.1390 SHAW



Rock outcrop, area of outcrop
 Geological boundaries, defined, approximate,
 defined, approximate, additional
 Bedding, horizontal, inclined
 Pillow logs
 Faults, defined, approximate, assumed
 Interpreted from Geophysics
 Trench
 Contour, isolated, unisolated
 Swamp

LEGEND

FLOW SEQUENCE (CONT.)

5 Iron Formation (siliceous) (5)
 4 Porphyritic dacite (flow) (4)
 3 Intermediate lava (carbonitized) (3)
 2 Diabase flows and agglomerates (2)
 1 Intermediate lava (1)

INTRUSIVE

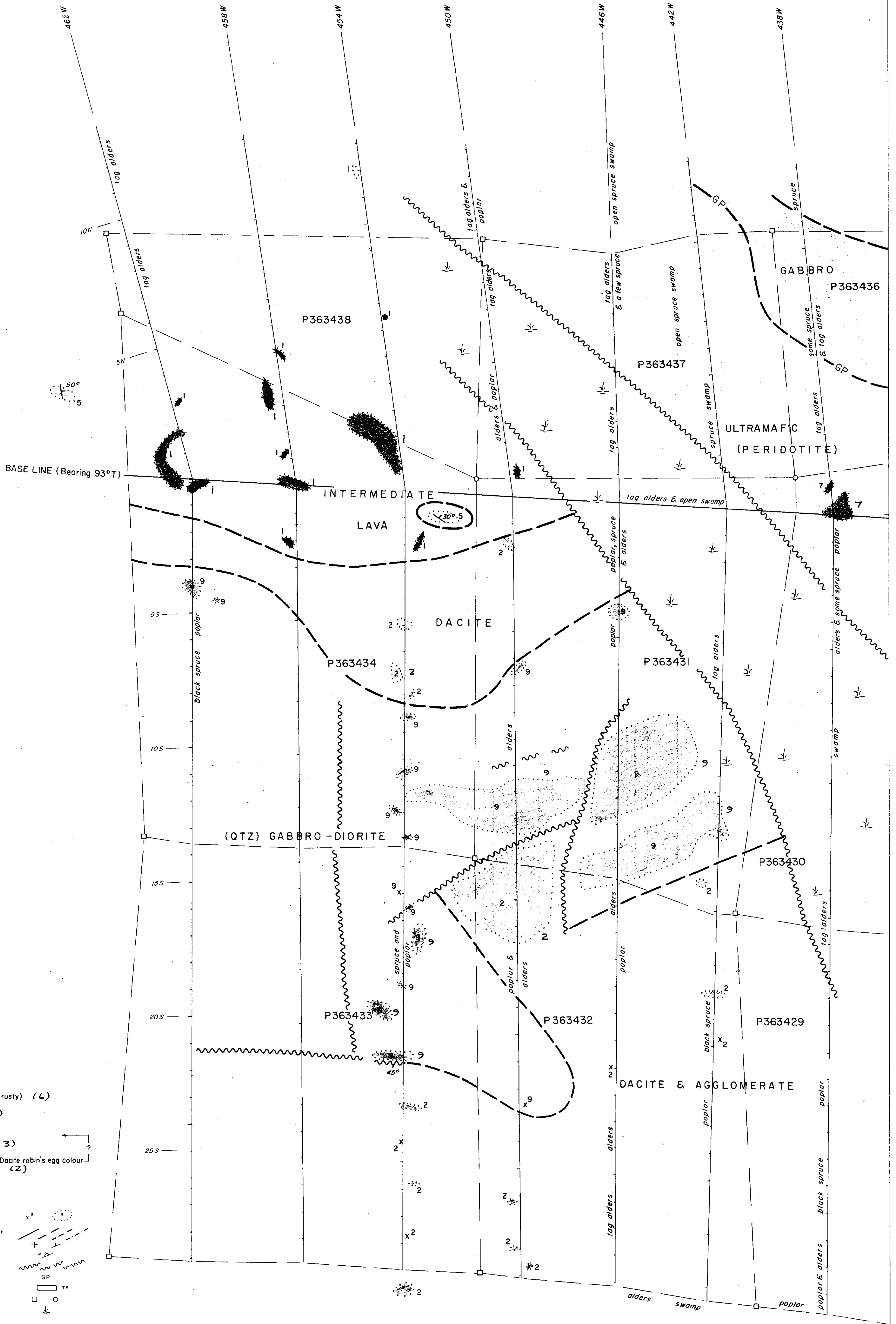
PROTEROZOIC

10 Diabase (10)
 9 Gabbro - Diorite (Qtz) (9)
 8 Gabbro (no Qtz) (8)
 7 Ultramafic flows and silt (7)

ARCHAIC

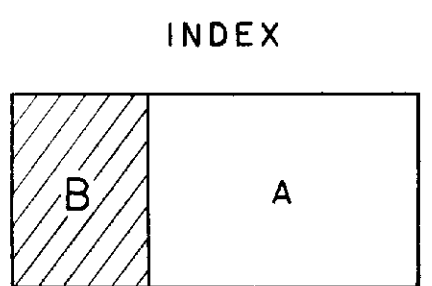
6 Flow sequence (6)
 5 Intermediate lava (slightly rusty to rusty) (5)



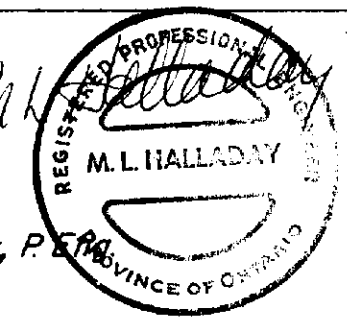


LEGEND

- INTRUSIVE**
- Diabase (10)
 - Gabbro - Diorite (Qtz.) (9)
 - Gabbro (no Qtz.) (8)
 - Ultramafic flows and sills (7)
- FLOW SEQUENCE**
- Intermediate lava (slightly rusty to rusty) (6)
- ARCHAEAN**
- Iron Formation (siliceous) (5)
 - Porphyritic dacite (flow) (4)
 - Intermediate lava (carbonitized) (3)
 - Dacite lava and Agglomerate 2a, Dacite robin's egg colour (2)
 - Intermediate lava (1)
- Rock outcrop, area of outcrop
 Geological boundaries, defined, approximate, assumed, and gradational
 Bedding, horizontal, inclined
 Pillow tops
 Faults, defined, approximate, assumed
 Interpreted from Geophysics
 Trench
 Claim post, located, unlocated
 Swamp



Geology by M. Halladay, P. Eng.
 Oct. 1973
 Work undertaken by
BARRINGER RESEARCH LTD., Toronto, Canada.



PAC EXPLORATIONS LIMITED		
SHAW TOWNSHIP, PORCUPINE MD., ONTARIO		
GEOLOGY		
NOV. 1973	SCALE 1" = 200'	DWG. 8-404-2B

