J-27
31142M

64-67 only, still held
others forf.

2624

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 2624 MAP

RECONNAISSANCE GEOCHEMICAL AND GEOLOGICAL SURVEY OF J - CLAIMS

7 miles North of Pemberton

50° 120° S.W.

Lillooet Mining Division

for

J.A.H. CHAMBERLAIN

by

D. Manyozo and D.P. Arscott, P. Eng.

July 12-18, 1970

TABLE OF CONTENTS

INTRODUCTION

During the period July 12-18, 1970, a reconnaissance soil sampling and geological mapping programme was carried out on the J.27-34 and J.60-67 mineral claims.

LOCATION AND ACCESS

The J-Claims are located on map sheet 92J/7W, some 7 air miles north of Pemberton, B.C. with approximate co-ordinates of 50° 26' N., 122° 50' W.

Access from Pemberton is by helicopter or by 7 miles of gravel road to Owl Creek, then 5½ miles of steep dirt road to the Pine Lake Mining Co. drilling camp near Little Owl Lake and then 3½ miles by trail to Owl Lake.

GEOGRAPHY

The area examined is in the Coast Range region with balsam and pine to about 5,000 feet and scrub pine to about 5,500 feet. Owl Lake, in the centre of the property itself, is at an elevation of 3,900 feet. Slopes on the property vary from 5° to 45°. Cliffs are not uncommon.

GEOLOGY

A. GENERAL:

Most of the property is underlain by volcanics of dacite to andesite composition. The rest of the claims are underlain by rocks that are more acidic, mostly quartz diorite.

Outcrops show a N.W. trend and the main contact between the volcanics and the diorites, which extends all the way across the property in a N.N.W. direction, can be traced from air photographs.

B. DESCRIPTION OF ROCK TYPES:

Rock types range from dark, very fine grained basaltic-like mafic-types, through medium grained, almost granitic-textured quartz diorites. Porphyritic andesite, dacite and silicified andesite are restricted to sheared areas and to the andesite-diorite contact. Generally, the rocks are lighter-coloured and more acidic the nearer they are to the contact.

The following specimens can be taken as representative of the rock types as marked on figure I.

(1) Basaltic andesite (specimen #1).

Dull grey on weathered, dark green of fresh surface. Very fine grained and fairly homogeneous. Slight alteration with epidote both in fractures and within the rock. More than 90% mafics.

(2) Dacite orLeucocratic andesite (specimen #32).

Mottled grey on weathered, light green on fresh surface. Micrographic texture, spongy quartz grains enclosing plagioclase grains in a matrix of hornblende, some pyroxene and epidote, the latter also occuring in fractures.

(3) Quartz-diorite (specimen #31).

Weathered and dark grey on fresh surface. Mosaic texture with plagioclase in mutual interference with quartz. Ferromagnesium minerals are essentially hornblende. Some epidote.

(4) Porphyritic Andesite (specimen #38).

Phenocrysts of quartz and feldspar. Groundmass of hornblende, pyroxene and epidote. Slightly rusty (2-3% pyrite).

(5) Silicified andesite (specimen #19).

Quartzite? Occurence limited to shear zones. White and clean on fresh surface; weathered surface invariably rusty. Sericitisation along fractures. "Sugary" texture and contains about 70% quartz, 20% pyrite and 10% intermediate mafics.

C. STRUCTURES:

Gullys on the property possibly lie along faults and these run approximately N.W. Three faults were inferred, the main one running in the valley with the lake, another, about 1,500' N.E. and the other about 2,500' N.E. of the main valley. Shear zones striking N.E. intersect these faults. Pyrite mineralization seems to be concentrated at these intersections. Jointing is oriented with the faults and shear zones. A basaltic dyke about 2 feet wide, striking N. 80° E.

and dipping 50° N.E. was observed in andesite near 28 N. 10 E.

D. ALTERATION:

Alteration is widespread in the volcanics, mostly in the form of epidotization. Chlorite is generally restricted to the diorite-andesite contact. Silicification is widespread, but greatest in the shear zones.

E. MINERALIZATION:

Pyrite mineralization is quite common in the volcanics and sparce in the quartz-diorites. It is usually disseminated in amounts of 5 to 10%, but in areas of heavy alteration may be seen on fracture planes, and as small stringers comprising, in some cases, up to 30% of the rock. Some pyrite occurs in phenocrysts in the porphyritic andesite on the diorite-andesite contract.

GEOCHEMISTRY

(a) Sampling and Assaying Method.

A total of 110 soil samples were collected at 200' intervals along lines spaced 1,500 feet apart (see figure 2) from the "B" horizon, wherever possible. Samples were obtained by digging a hole with a shovel at each station and collecting approx. ½ cupful of soil in a standard high wet-strength brown paper sampling bag. Samples were shipped to Bondar-Clegg and Company in North Vancouver where they were dried in proper drying ovens. A portion of the - 80 most fraction of each sample was assayed by the Hot Aqua Regia/Atomic Absorption method for parts per million copper.

(b) Discussion of Results (See Fig. 2).

A histogram plot of the p.p.m. copper values indicated a background of approximately 30 p.p.m. and threshold values between 65 and 75 p.p.m. copper. Anomalous values (greater than 75 p.p.m. Cu.), generally occur in sheared or heavily fractured areas, however, no definite correlation can be established between geology and soil copper content, mainly because of the scarcity of sample lines crossing the areas of intense shearing and fracturing.

APPENDIX I

Description of Rock Samples

(See Fig. 1 for location of samples)

SAMPLE NO.	DESCRIPTION
1.	Basalt? Very fine grained, flinty. Highly mafic. Epidote in fractures; also dissiminated.
2.	Basaltic Andesite Basaltic texture, pyroxenes in groundmass, also in phenocrysts. Quartz, feldspar, pyrite approx. 5%.
3.	Altered Andesite Glassy groundmass. Heavily sheared. Pyrite approx. 10%.
4.	Andesite Quartz, feldspar, epidote, groundmass of pyroxenes (or amphiboles). Even texture.
5.	Silicified Andesite Even, almost sugary texture. Contains pyrite (approx. 15-20%), very rusty. Pyroxenes, feldspar. Fractured.
6.	? Disseminated pyrite approx. 20% rusty. Medium grained; irregular hornblende distribution. Product of contact metamorphism?
7.	Silicified Andesite Disseminated pyrite approx. 10-15%. Very fine grained and rusty. Light green on fresh surface.
8.	? Porphyritic texture, feldspar in phenocrysts. Groundmass of hornblende and pyroxene. Chloritic alteration.

SAMPLE NO.	DESCRIPTION
9.	Dacite (or quartz-diorite) Metamorphosed diabase? Patches of Fe-Mg minerals. Hornblende, quartz, pyroxene, feldspar. Chlorite in fractures.
10.	Alterned Quartz-diorite Even, medium-grained texture. Epidote intersticial with quartz grains. Light greenish colour.
11.	Porphyritic Andesite Phenocrysts of quartz. Groundmass of epidote, feldspar and mafics.
12.	Basaltic Andesite with 30% pyrite. Patches of quartzite. Rusty and fractured with epidote both in fractures and in groundmass. Heavily sheared and altered.
13.	Altered Andesite Very fine-grained, almost basaltic texture. Epidote in fractures and in groundmass.
14.	? Basaltic texture, flinty. Numerous, haphazard, irregular joints. Epidote, Re-Mg mafics (pyroxene).
15.	Altered Andesite On contact with a dyke. Fine grained, heavily fractured. Rusty, pyrite 20-25%.
16.	Basaltic Dyke. (Strike N.80° E., Dip 50° N.E. approx. 2' wide). Vesicular, fine grained, approx. 25% limonite? in vesticles, rusty.
17.	Porphyritic Andesite Pinkish phenocrysts of pyroxene. Groundmass of quartz,

SAMPLE NO.	DESCRIPTION
	feldspar and amphiboles. Epidote and chlorite in fractures.
18.	?
	Flinty (due to alteration?). Small phenocrysts of pyroxene and feldspar. Groundmass of quartz and feldspar.
19.	Silicified and Altered Andesite
	From the rustiest zone on the property. Very rusty and randomly jointed. Disseminated pyrite, quartz, feldspar.
20.	Mixture of Silicified, sheared, rusty Quartzite and Altered Andesite.
	They are both alterned, both have approx. 25% pyrite.
21.	Silicified and Altered Andesite
	Quartz, feldspar, pyroxene (pyrite).
22.	Altered Andesite
	Heavily and randomly fractured. Epidote in fractures.
23.	Basaltic Andesite
	Slightly porphyritic, phenocrysts of feldspar and quartz. Slightly epidotised. Siliceous, pyrite 10-15%.
25.	?
	From rust zone. Silicified, altered, fractured. Pyrite in pyroxenes.
26.	?
	Very heavily altered, silicified. Pyrite within the pyroxenes. Rust and heavy fracturing. Pyrite approx. 25%.
27.	?
	Flinty texture, dark, altered and jointed. Pyrite approx.25%.

SAMPLE NO.	DESCRIPTION
28.	Epidotised Andesite From creek bed. Pyroxene in patches, also in groundmass. Epidote in fractures.
30.	Epidotized Andesite Heavily fractured.
31,32	Diorite Even, granitic texture, hornblende, quartz, feldspar, epidote.
33.	Quartzite? Epidotised, fine-grained, heavily fractured.
34.	Porphyritic Andesite Shows slicken-siding, heavily altered. Pyroxene, feldspar, (quartz 8%).
35.	Altered Andesite Silicified, altered, fractured, slicken-sided. Patches of pyroxene.
36.	Porphyritic Andesite Phenocrysts of amphiboles, pyroxene, and stained quartz. Groundmass of epidote, quartz and feldspar.
37,38	Epidotised Porphyritic Andesite
39.	Diorite Even, granitic texture.
40.	Siliceous Andesite
41.	Porphyritic Andesite

APPENDIX II

ASSOCIATED GEOLOGICAL SERVICES LTD. / Room 17-558 Howe Street, Vancouver 1, B.C. / Telephone (604) 688-4745

Consulting / Property Examinations / Geological Surveys / Geochemical Surveys / Mine Development / Project Management

August 10th, 1970

J. Chamberlain,
875 Esquimalt Avenue,
N. Vancouver, B.C.

Invoice No. 386-A

Re: J-Claims Geochemical & Geological Survey
Period: September 12-18, 1970.

FEES:

D. Manyozo - 7 days (no charge - Colombo Plan Student).	
A. Storrs - 7 days	197.92

EXPENSES:

Bondar & Clegg-Assays	134.00
Expenses, P.W. Dunsford (Meals, gas)	22.85
Expenses, T.D. Wilkinson (Food, Meals)	57.75
Hughes-Owens (Reproductions)	2.12
Gas	15.55
Truck Rental (4 x 4) 2 days @ 11.00	22.00
200 miles @ 10¢	20.00
TOTAL DUE	$472.19

(Signed) T.D. Wilkinson

T.D. Wilkinson

BONDAR-CLEGG & COMPANY LTD.
geologists • geochemists • analysts
1500 PEMBERTON AVENUE, NORTH VANCOUVER, B.C.
PHONE 988-5315

GEOCHEMICAL LAB REPORT

No: 20 - 364

Extraction Hot aqua regia — **From** Associated Geological Services

Method Atomic Absorption — **Date** July 30, 1970 19

Fraction Used -80 mesh — **Analyst** K.B.

SAMPLE NO.	Cu ppm			SAMPLE NO.	Cu ppm		REMARKS
BL 00	23			ON 6 E	35		
BL 2 N	17			ON 8 E	120		
BL 4 N	50			ON 10 E	63		
BL 6 N	24			ON 12 E	23		
BL 8 N	20			ON 14 E	23		
BL 10 N	12			ON 16 E	38		
BL 12 N	20			ON 18 E	89		
BL 14 N	23			ON 20 E	35		
BL 16 N	20			ON 22 E	17		
BL 18 N	32			ON 24 E	46		
BL 20 N	73			ON 26 E	35		
BL 22 N	17			ON 28 E	20		
BL 24 N	18			ON 30 E	34		
BL 26 N	40			ON 32 E	20		
BL 28 N	14			ON 34 E	32		
BL 30 N	22			MN 2 E	22		
BL 32 N	30			MN 4 E	32		
BL 34 N	30			MN 6 E	45		
BL 36 N	13			MN 8 E	30		
BL 38 N	32			MN 10 E	17		
BL 40 N	32			MN 12 E	27		
BL 42 N	23			MN 14 E	17		
ON 2 W	31			MN 16 E	15		
ON 4 W	44			MN 18 E	15		
ON 6 W	20			MN 20 E	20		
ON 8 W	15			MN 22 E	32		
ON 10 W	16			MN 24 E	45		
ON 12 W	9			MN 26 E	35		
ON 14 W	17			MN 28 E	23		
ON 2 E	74			MN 30 E	35		
ON 4 E	21			MN 32 E	23		

To: BONDAR - CLEGG & COMPANY LTD.
1500 PEMBERTON AVENUE NORTH VANCOUVER, B.C.

Note:
All samples from MN - 2E to MN - 36E
should read 14N - 2E to 14N - 36E

Report No. 20 - 364

BONDAR-CLEGG & COMPANY LTD.

GEOCHEMICAL LAB REPORT

SAMPLE NO.	Cu ppm			SAMPLE NO.	Cu ppm		REMARKS
MN 34 E	50			42 N 20 E	20		
MN 36 E	58			42 N 22 E	40		
14 W 7 N	67			42 N 24 E	142		
14 W 14 N	42			42 N 26 E	13		
14 W 21 N	35			42 N 28 E	22		
14 W 28 N	17			42 N 30 E	28		
14 W 35 N	113			42 N 32 E	30		
28 N 2 E	50			42 N 34 E	40		
28 N 4 E	34			42 N 36 E	40		
28 N 6 E	22			42 N 38 E	25		
28 N 8 E	63			42 N 40 E	25		
28 N 10 E	20			42 N 42 E	73		
28 N 12 E	12						
28 N 14 E	49						
28 N 16 E	25						
28 N 18 E	34						
28 N 20 E	14						
28 N 22 E	20						
28 N 24 E	26						
28 N 26 E	26						
28 N 28 E	25						
28 N 30 E	39						
28 N 32 E	32						
28 N 34 E	27						
28 N 36 E	58						
28 N 38 E	74						
42 N 14 W	44						
42 N 2 E	35						
42 N 4 E	31						
42 N 6 E	48						
42 N 8 E	25						
42 N 10 E	82						
42 N 12 E	27						
42 N 14 E	30						
42 N 16 E	12						
42 N 18 E	14						

DOMINION OF CANADA:
PROVINCE OF BRITISH COLUMBIA.
TO WIT:

In the Matter of DECLARATION OF WAGES PAID, A. STORRS SEPTEMBER 12-18, 1970

I, DAVID PHILLIP ARSCOTT

of #17 - 558 HOWE STREET

in the Province of British Columbia, do solemnly declare that

MR. A. STORRS, OF 7306 STANLEY STREET, BURNABY 1, B.C. WAS EMPLOYED AS A GEOCHEMICAL SAMPLER BY ASSOCIATED GEOLOGICAL SERVICES LTD. FOR 7 DAYS AND WAS PAID $197.92.

And I make this solemn declaration conscientiously believing it to be true, and knowing that it is of the same force and effect as if made under oath and by virtue of the "Canada Evidence Act."

Declared before me at the City of Vancouver, in the Province of British Columbia, this 14th day of October 1970, A.D.

David Arscott

G. K. Phillips

A Commissioner for taking Affidavits for British Columbia or
A Notary Public ~~in and~~ for the Province of British Columbia.

★o

STATEMENT OF QUALIFICATIONS

I, D. Manyozo, with residential address in Vancouver, British Columbia, do hereby certify that:

1. I am a student geologist, presently registered in third year geology at the University of British Columbia.
2. I have spent the field seasons of 1968, 1969 and 1970 working under the supervision of geologists and engineers employed by Associated Geological Services Ltd., carrying out geochemical sampling and geological mapping programmes in British Columbia and the Yukon Territory.
3. I personally collected the geological information presented herein, and supervised the collection of the geochemical samples.

Respectfully Submitted,

D. Manyozo

D. MANYOZO.

October , 1970.

CERTIFICATE

I, David Philip Arscott with business adress in Vancouver, British Columbia, do hereby certify that:

1. I am a Professional Engineer, registered in the Province of British Columbia.
2. I am a graduate of McGill University with an M.Sc. in Mineral Exploration, with 4 years field exploration experience.
3. I have visited the property herein described, and have aided Mr. Manyozo in the layout of the project and compilation of the report.
4. To the best of my knowledge the expenditures claimed for the performance of the work is correct.

(signed) David Arscott

D.P. Arscott, P.Eng.

Vancouver, British Columbia.

October , 1970.

LEGEND

.25 ··· Copper : PPM

⊡ ··· CLAIM POST

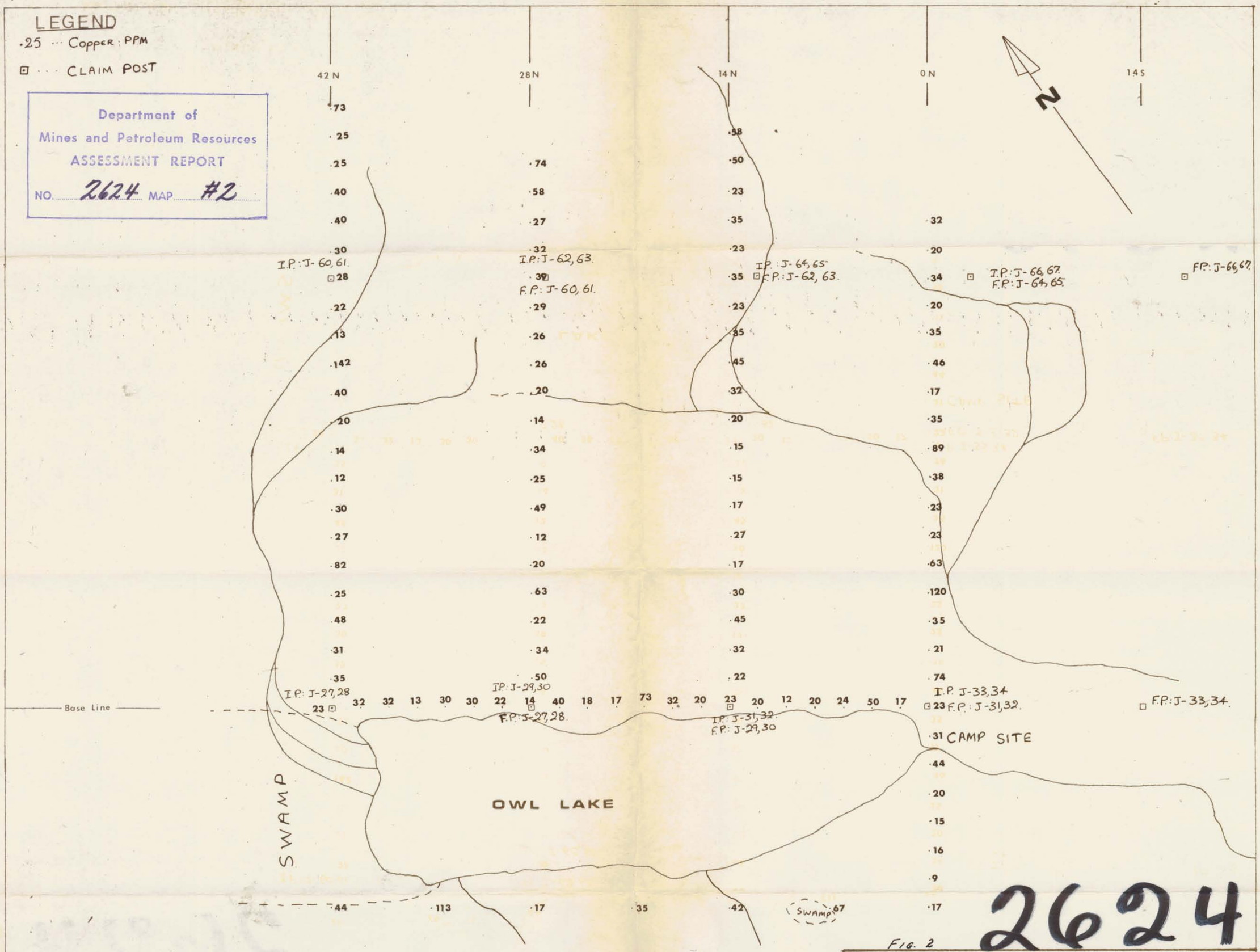

FIG. 2

2624

To accompany report: Geological & Geochemical Survey
of J-CLAIMS by: D.D. MANYOZO & D. P. ARSCOTT, P. ENG.

Dated: July, 1970

David Arscott

ASSOCIATED GEOLOGICAL SERVICES LTD

J-CLAIMS

GEOCHEMISTRY MAP

SCALE: 1 in = 500 ft. DATE: JULY 1970	GEOLOGY: D. M.	DRAWN BY: D.M.

LEGEND

ABBREVIATIONS

And. --- Andesite
Bas. --- Basaltic
hv. --- heavily
Sh. --- Sheared
Alt --- Altered
Fr --- Fractured.
Sil. --- Silicified.
Rty --- Rusty.
Dac --- Dacite
Porph. --- Porphyritic
w/ --- With.
Py --- Pyrite.
Join. --- Jointing.
Irr. --- Irregular
V. --- Very.

STRUCTURE (from air photo)

Faulting / Shearing

Outcrop

CLAIM Post

Contact (zone)

Rock SAMPLE.

Dyke

SWAMP BOUNDARY

42 N
28N
14 N
0 N
14 S
14 E
Base Line
14 W

Scattered patches Of Dac. in quartz-Diorite

Dac.

Sil. And. Rty

Alt. And.

I.P: J-60, 61

I.P: J-62, 63
F.P: J-60, 61

I.P: J-64,65
F.P: J-62,63

Qtz-Diorite

Porph. And.

I.P: J-66, 67.
F.P: J-64, 65.

F.P: J-66,67

hv. Fr. Porph. And.

hv. Fr. + Alt. And.

Rty. Dac.

Rty. Sil. And.

Porph. And.

Bas. dyke
Rty. w/ Limonite

FRESH And.

Irr. Join. Bas. And.

Flinty Alt. + Join And.

Sil. Rty. Alt. And.

Sil. Rty. Fg. And.

Sil. Alt. And.

Sil. Alt. Fr. Sh. V. Rty And.

Sil. And.

And.

hv. sh. Alt. And.

Porph. And.

Fr. Rty. Bas. And w/py

Bas. And.

Sil. Sh. And. w/py

Alt. hv. Fr. And

Sh. And

And.

I.P: J-27,28

I.P: J-29,30
F.P: J-27,28

F.P: J-29,30

I.P: J-31,32

I.P: J-33,34
F.P: J-31,32

F.P: J-33,34

Bas. And.

CAMP SITE

OWL LAKE

SWAMP

SWAMP

To accompany report: Geological & Geochemical Survey
of J-CLAIMS by: D.D. MANYOZO & D.P. ARSCOTT, P. ENG.

Dated: July, 1970

David Arscott

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 2624 MAP #1

FIG. 1

2624

ASSOCIATED GEOLOGICAL SERVICES LTD

J-CLAIMS

GEOLOGY MAP

SCALE: 1 in = 500 ft.
DATE: JULY 1970

GEOLOGY: D. M.

DRAWN BY: D.M.