

4811

93L/11E

93L/11E
ASSESSMENT REPORT

ON

CRATER LAKE AREA
Crater, Marmot

4811

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT

NO. 4811 MAP

GEOLOGICAL ASSESSMENT REPORT

ON

MARMOT GROUP CLAIMS— CRATER LAKE AREA

FOR: MAHARAJA MINERALS LTD. (N.P.L.)

1107 - 207 W. Hastings St., Vancouver, B. C.

OWNER: MAHARAJA MINERALS LTD., (N.P.L.)

LOCATION: LATITUDE: $54^{\circ} 31' N$

LONGITUDE: $127^{\circ} 08' W.$

WORK PERIOD: July 1, 1973 to October 31, 1973

BY: J. M. McAndrew P. Eng.
R. Biss
L. Miskovic
R. Cullen

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INTRODUCTION:

The geological assessment report herein concerns the Marmot Group of mineral claims. This group is a part of a larger grouping of claims generally termed the "Loring Creek Area" claims.

The Marmot group is composed of 34 claims. The grouping was made for assessment purposes only.

The names of the claims and their record numbers are as follows:

MARMOT 5 - 14	56643 - 56652
CRATER 9 - 12	128173 - 128176
HANKIN 17 - 24	128177 - 128184
WEBSTER 1 - 4	128206 - 128209
CRATER 13 - 18	128210 - 128215
HANKIN 25 - 26	128552 - 128553

This report concerns itself with about 6 claims (Crater 9, 10, 11, 12 and Marmot 8, 10) in and around an area close to Crater Lake and the East side of Webster Creek.

I. LOCATION AND ACCESS:

The Crater Lake Area claims are located in the Omineca Mining Division at latitude $54^{\circ} 31' N$ and longitude $127^{\circ} 08' W$.

Access to the group some 20 miles south of Telkwa, B. C. is by helicopter and/or a combination of vehicle, along the Hunter Basin road and then by foot and horse trail from the Loring Creek - Hunter Basin road cut-off. See location map attached.

II. PURPOSE OF THE SURVEY:

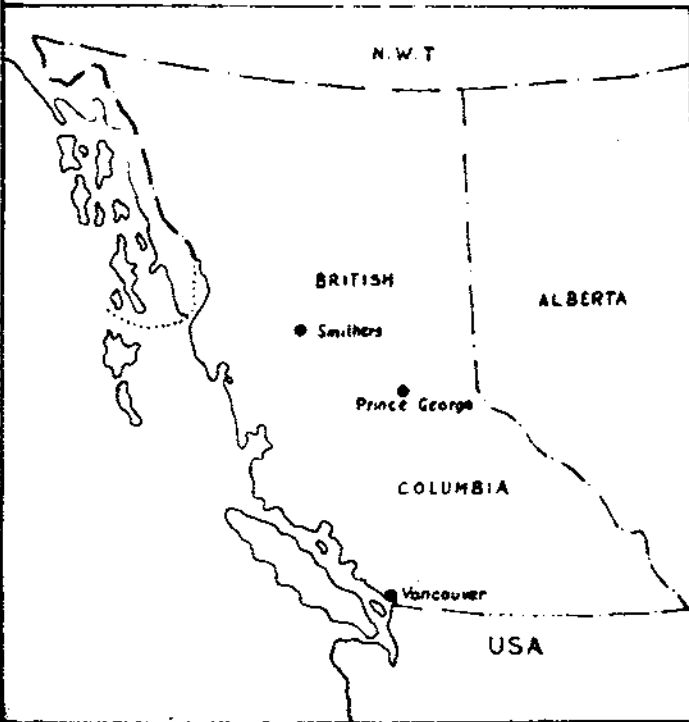
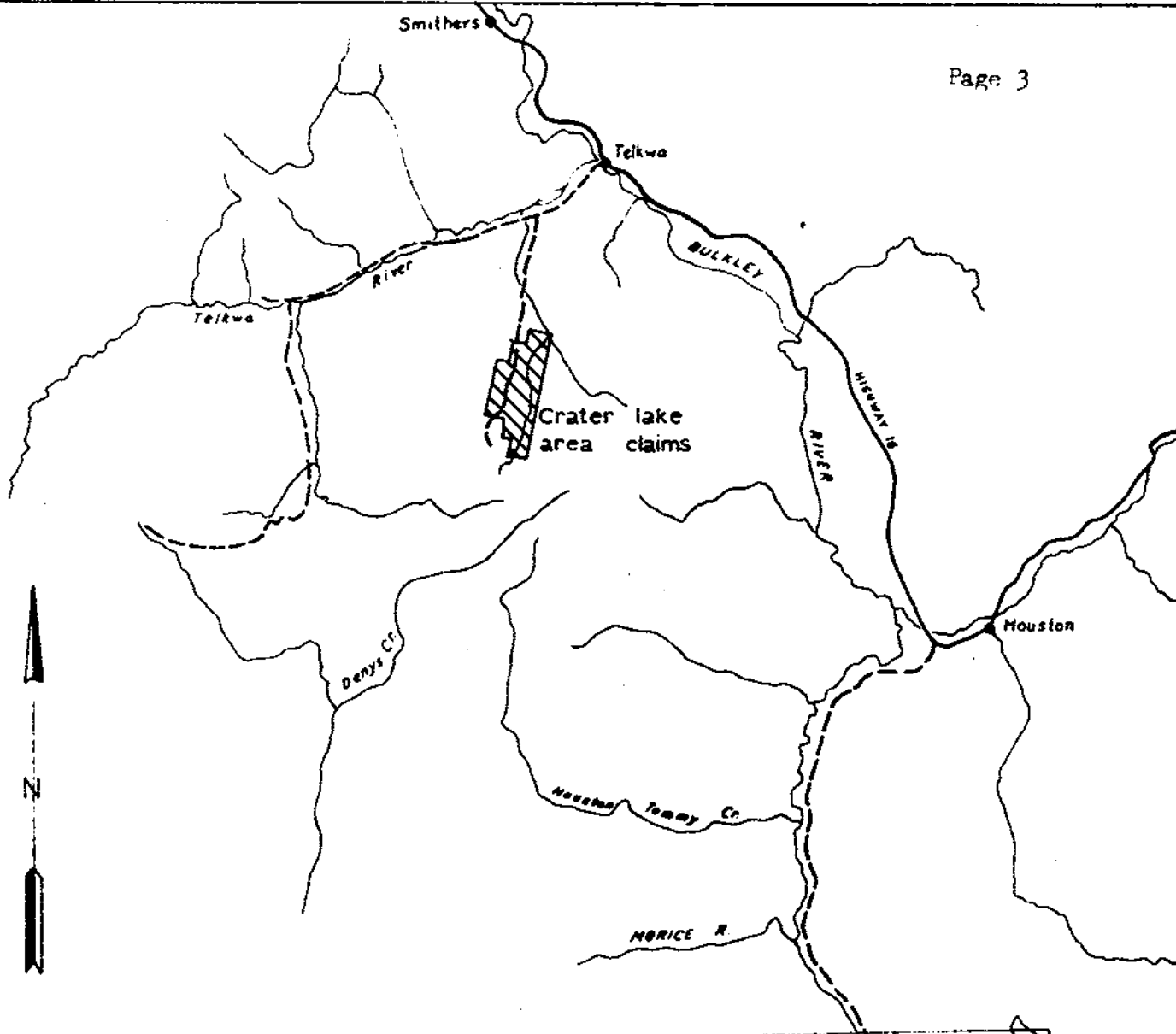
Geological investigations in the Crater Lake Area were aimed at mapping and determining the significance of mineralized horizons containing copper and silver values discovered by R. Allan Rutherford in the summer of 1972.

Systematic chip sampling across selected mineralized zones to determine values of copper, silver and gold was completed. See profile maps attached.

III. GEOLOGY:

The claim area is underlain by sedimentary and volcanic rocks of the Hazelton Group. The age of the group is estimated to be from Middle Jurassic to Lower Cretaceous.

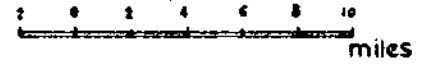
In the Crater Lake Area the Hazelton rocks are broken by faults and intruded by numerous granodiorite and quartz monzonite dykes and sills. The centre axis of a N-S trending anticline runs through the middle of Crater Lake with the limbs finding expression on the steep walls of Loring



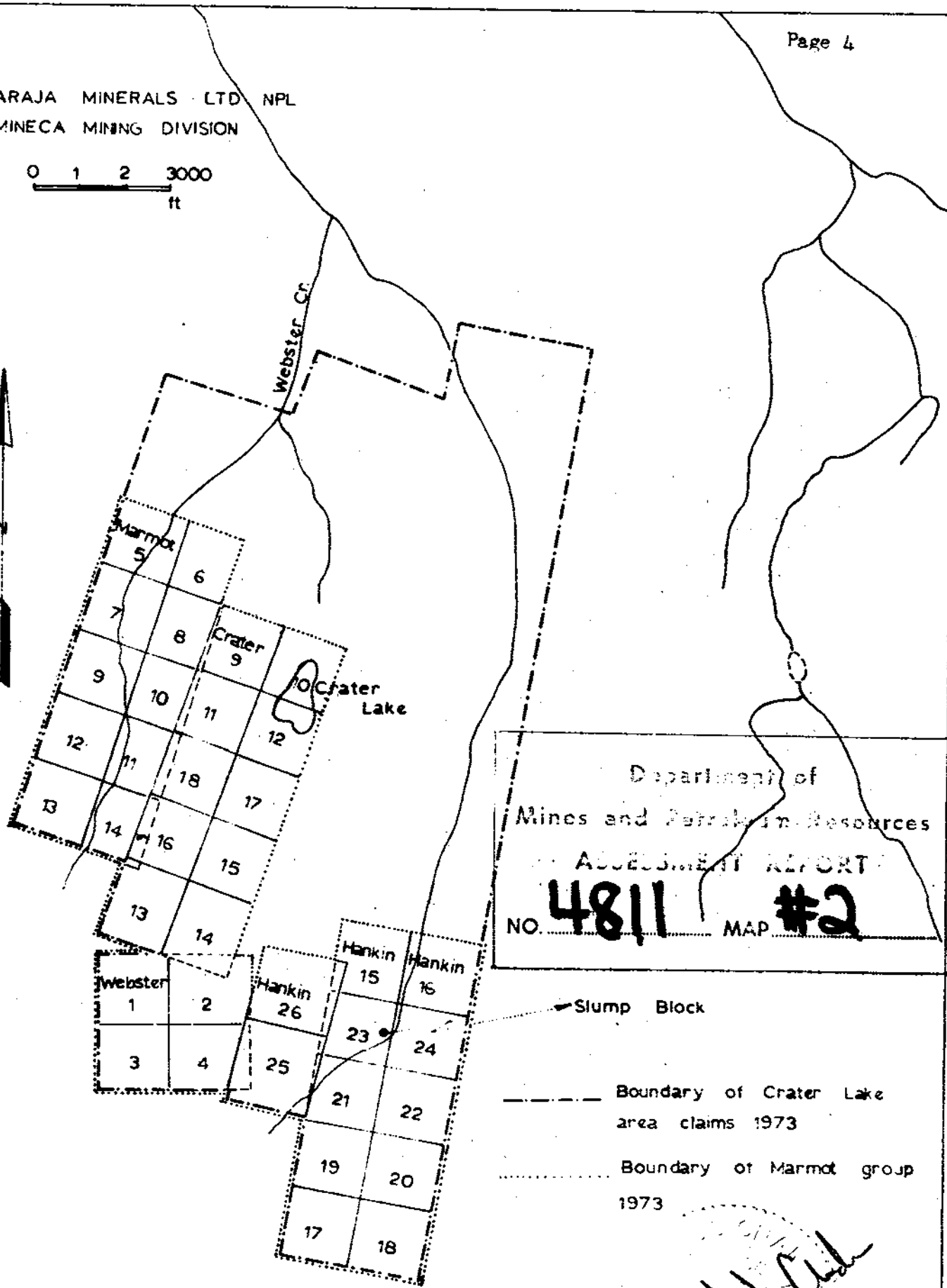
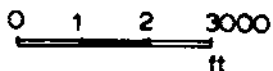
Department of
 Mines and Technical Surveys
 Geological Report
 NO. **4811** MAP **#1**

MAHARAJA MINERALS LTD (NPL)
 OMINECA MINING DIVISION

MINERAL CLAIM LOCATION MAP



MAHARAJA MINERALS LTD NPL
OMINECA MINING DIVISION



Department of
Mines and Petroleum Resources
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NO. **4811** MAP **#2**

Slump Block

Boundary of Crater Lake
area claims 1973

Boundary of Marmot group
1973



GENERAL GEOLOGY & LOCATION MAP

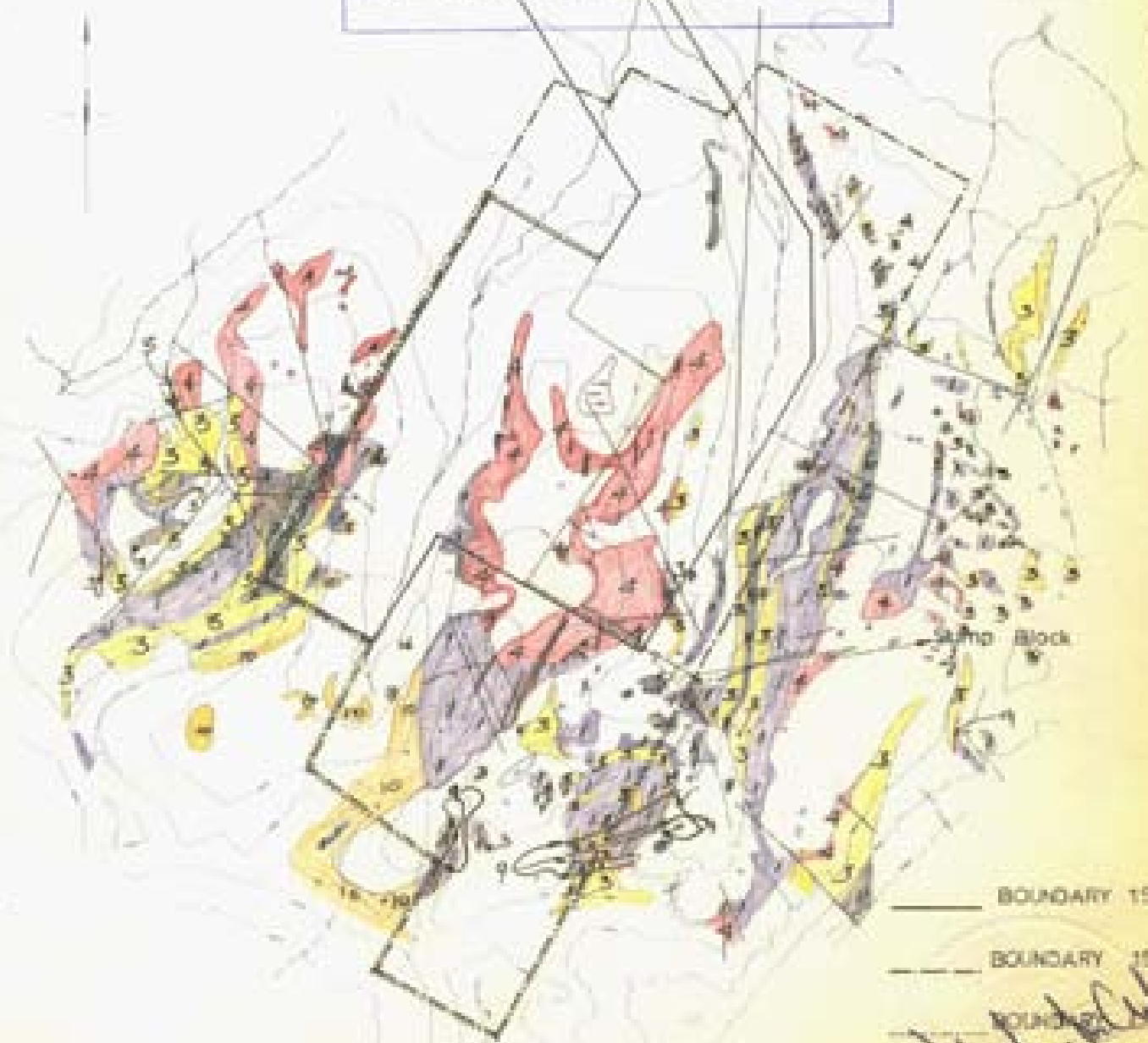
SUMP BLOCK

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT

NO. **4811** MAP **#3**

LEGEND

ROCK UNITS	
1	Quaternary
2	Recent alluvium
3	Recent alluvium (clayey)
4	Recent alluvium (sandy)
5	Recent alluvium (silty)
6	Recent alluvium (stony)
7	Recent alluvium (gravelly)
8	Recent alluvium (bouldery)
9	Recent alluvium (cobble)
10	Recent alluvium (pebbles)
11	Recent alluvium (stones)
12	Recent alluvium (boulders)
13	Recent alluvium (clay)
14	Recent alluvium (silt)
15	Recent alluvium (sand)
16	Recent alluvium (silts)
17	Recent alluvium (sands)
18	Recent alluvium (stony)
19	Recent alluvium (gravelly)
20	Recent alluvium (bouldery)
21	Recent alluvium (cobble)
22	Recent alluvium (pebbles)
23	Recent alluvium (stones)
24	Recent alluvium (boulders)
25	Recent alluvium (clay)
26	Recent alluvium (silt)
27	Recent alluvium (sand)
28	Recent alluvium (silts)
29	Recent alluvium (sands)
30	Recent alluvium (stony)
31	Recent alluvium (gravelly)
32	Recent alluvium (bouldery)
33	Recent alluvium (cobble)
34	Recent alluvium (pebbles)
35	Recent alluvium (stones)
36	Recent alluvium (boulders)
37	Recent alluvium (clay)
38	Recent alluvium (silt)
39	Recent alluvium (sand)
40	Recent alluvium (silts)
41	Recent alluvium (sands)
42	Recent alluvium (stony)
43	Recent alluvium (gravelly)
44	Recent alluvium (bouldery)
45	Recent alluvium (cobble)
46	Recent alluvium (pebbles)
47	Recent alluvium (stones)
48	Recent alluvium (boulders)
49	Recent alluvium (clay)
50	Recent alluvium (silt)
51	Recent alluvium (sand)
52	Recent alluvium (silts)
53	Recent alluvium (sands)
54	Recent alluvium (stony)
55	Recent alluvium (gravelly)
56	Recent alluvium (bouldery)
57	Recent alluvium (cobble)
58	Recent alluvium (pebbles)
59	Recent alluvium (stones)
60	Recent alluvium (boulders)
61	Recent alluvium (clay)
62	Recent alluvium (silt)
63	Recent alluvium (sand)
64	Recent alluvium (silts)
65	Recent alluvium (sands)
66	Recent alluvium (stony)
67	Recent alluvium (gravelly)
68	Recent alluvium (bouldery)
69	Recent alluvium (cobble)
70	Recent alluvium (pebbles)
71	Recent alluvium (stones)
72	Recent alluvium (boulders)
73	Recent alluvium (clay)
74	Recent alluvium (silt)
75	Recent alluvium (sand)
76	Recent alluvium (silts)
77	Recent alluvium (sands)
78	Recent alluvium (stony)
79	Recent alluvium (gravelly)
80	Recent alluvium (bouldery)
81	Recent alluvium (cobble)
82	Recent alluvium (pebbles)
83	Recent alluvium (stones)
84	Recent alluvium (boulders)
85	Recent alluvium (clay)
86	Recent alluvium (silt)
87	Recent alluvium (sand)
88	Recent alluvium (silts)
89	Recent alluvium (sands)
90	Recent alluvium (stony)
91	Recent alluvium (gravelly)
92	Recent alluvium (bouldery)
93	Recent alluvium (cobble)
94	Recent alluvium (pebbles)
95	Recent alluvium (stones)
96	Recent alluvium (boulders)
97	Recent alluvium (clay)
98	Recent alluvium (silt)
99	Recent alluvium (sand)
100	Recent alluvium (silts)



BOUNDARY 1972
BOUNDARY 1973
BOUNDARY 1974
MAPPING GROUP 1973

[Handwritten signature]

Creek to the East and Webster Creek to the West.

IV. DETAILS OF THE SURVEY:

The main mineralization around the Crater Lake is on the East side of Webster Creek just west of Crater Lake. Here a steeply dipping (to 90°) structural zone is exposed from the surface for approximately 100' downwards vertically as a "chimney". The zone contains abundant epidote and is cut by calcite and quartz stringers. The host rock is either a dark green or maroon volcanic.

The mineralized "chimney" carries malachite, hornite, chalcopryrite, azurite, chalcocite, tetrahedrite, hematite and some disseminated specularite. See profile map attached.

Similar rock types and mineralization are found inside the depression (a remnant of alpine glaciation) at Crater Lake along the west wall. The zone is approximately 50' thick. A chip sample across 20 feet was taken. See profile map attached.

All mineralized outcrops and zones were mapped and chip sampled each 10' with the aid of mountain climbing equipment i.e. the west-side of the ridge along Webster Creek was sampled from the bottom to the top. Zero point is at the foot of the chimney. Samples were taken every 10 feet for a total of 80 feet. The location of the sampled zone is on the geology map with appropriate sample numbers.

All mapping and sampling was carried out under very dangerous and difficult conditions dictating the use of alpine mountaineering equipment and climbing expertise.

The linear trend and pattern of the exposed mineralized zones indicates some form of major structural control exists. Only more detailed work will provide the necessary answers.

V. RESULTS:

Inside the Crater Lake depression a 10' section of horizon assayed 1.55% Cu. and 2.97 oz. Ag per ton. In the chimney assays over 80 feet ranged from 0.76% Cu. and 0.87 oz. Ag. per ton to 15.6% Cu. and 12.4 oz Ag. per ton. The average assay for the entire 80' section is 4.26% Cu. and 3.17 oz. Ag. per ton. Samples taken from other horizons (see geological map for location) up to 2000 feet away from the "chimney" and Crater Lake depression gave value ranging from 0.76% Cu. and 0.32 oz. Ag. per ton to 6.75% Cu and 0.63 oz. Ag. per ton.

VI. CONCLUSIONS:

Much more geological exploration work of all forms is required for this area within the Marmot Group to determine its economic potential.

A handwritten signature in cursive script is written over a circular stamp. The stamp has a dashed border and contains some illegible text or a logo in the center.

EVIDENCE OF EXPENDITURE INCURRED

<u>NAME:</u>	<u>CATEGORY</u>	<u>RATE</u>	<u>DAYS PERIOD</u>	<u>WAGE:</u>
World Wide General Contracting Ltd. L. Miskovic & Assist.	Geological	As Invoiced	Sept 4./73 to Oct 15/73	\$1,388. 25% of total Invoice am't (\$5,550) allocated Crater Lake Area
R. Cullen R. Biss	Engineer Geologist	\$2,000/mo 2000/mo	15 days	\$1,000
Okanogan Helicopters	Mobilization	\$ 262/hr	6 hrs(+) for season	\$1,572.
J. McAndrew Man Maintenance	Consulting	\$ 150/day \$25/day/man (World Wide not included)	2 days 70 man days	\$ 300. \$1,520.
Overhead Vehicles, office (Inc. Assaying)		50% of Labor and Maintenance (World Wide included @ 20 Man days maintenance		\$2,354.
TOTAL				<u>\$8,134.</u>

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 28th day of December, 1973, A. D.

James C. [Signature]

James Paul [Signature]

John M. [Signature]
Dec 28, 1973

CERTIFICATION OF RUDOLF BISS

#207 - 1120 Denman Street, Vancouver, B. C. Phone: 683-0664

- 1) I am a graduate of Technical University, Department of Mines of Kosice - Czechoslovakia
- 2) I am a graduate of Ecole Nationale Supérieure de Géologie et de Prospection Minière - Nancy (France)
- 3) I am not a registered Engineer in the Province of British Columbia or of any province.
- 4) I have been engaged in mining for two years in Czechoslovakia and for three years in France.
- 5) I have no direct, or indirect interest in the properties of Maharaja Minerals Ltd.

Dated at Vancouver, British Columbia, this 25th day of December, 1973 .

SIGNED:

Rudolf Biss
Rudolf Biss

CERTIFICATION OF LJUDVIT MISKOVIC

208 W. Braemar Road, North Vancouver, B. C. Phone: 985-0340

- 1) I, ~~Ljudevit~~ Miskovic, do hereby certify that I attended the University of Prague; Faculty of Geology, 1955-57.
- 2) I am a Geologist-Assistant of Customer Mining Services Ltd., with offices at 1107 - 207 West Hastings St., Vancouver, B. C.
- 3) I am not a registered Engineer in the Province of British Columbia or of any province.
- 4) I have been engaged in mining with the following companies in the past 15 years.

Dionyz Stur Institute of Geology - Bratislava, Czechoslovakia
Municipal Government of Czechoslovakia - Usti Nad Labem
Gibraltar Mines - Copper, Molybden
Rio Tinto Exploration - Copper, Molybden
Meese Lake Copper Mines Ltd. - Copper Molybden
Cream Silver Mines Ltd. - Copper, Silver
Gunn Mines Ltd. - Copper, Molybdenum

- 5) I have no direct or indirect interest in this property.

DATED at Vancouver, British Columbia, this 25th day
of December, 1973.

SIGNED: Ljudevit Miskovic
Ljudevit Miskovic

CERTIFICATION OF RALPH CULLEN

1526 West 63rd. Vancouver, B. C. Phone: 261 - 5973

- 1) I, Ralph Cullen, do hereby certify that I attended the Barnsley Mining College, Barnsley, England, 1939 - 45.
- 2) I am not a registered Engineer in the Province of British Columbia or of any province.
- 3) I have been engaged in mining with the following companies in the past 30 years.

Granduc Operating Co. Ltd., Tide Lake, B. C.
Western Miner Ltd., Campbell River, B. C.
Campbell Red Lake Mines Ltd., Balmertown, Ontario
Anglo Rouyn Mines Ltd., La Ronge, Saskatchewan.
Wasamac Mines Ltd., Arntfield, P. Q.
Matagami Lake Mines Ltd., Matagami, P. Q.
Rio Algom Mines Ltd., Nordic Mine, Elliot Lake, Ontario
Falconbridge Nickel Mines Ltd., Falconbridge, Ontario
Northern Rhodesian Copper Belt.
Roan Antelope Copper Mines Ltd., Luanshya, Zambia
Rhokana Corporation Ltd., Kitwe, Zambia
South & West Yorkshire Coal Field, England.

- 4) I have no direct or indirect interest in this property.

DATED at Vancouver, British Columbia, this *28th* day
of *Aug.*, 1973.

SIGNED: _____

R. Cullen
Ralph Cullen.

CERTIFICATION OF JOHN M. McANDREW

#212, 14940 - 105 Avenue, Surrey, B. C. Phone: 588-8072

- 1 - Registered as a Professional Engineer by the Association of Professional Engineers of B. C.
- 2 - A fellow of the Geological Association of Canada.
- 3 - B. Sc. in Geology from the University of Alberta, Edmonton, Alberta:
post graduate courses in surveying, McGill University, Montreal, Quebec.
- 4 - Prior to consulting the author spent seventeen years in exploration, property evaluation, mine geology, and production with the following companies.

Anaconda American Brass Limited - Copper, Molybdenum

Silver Titan Mines - Silver, Lead, Zinc.

Columbia Iron Mining Co. - Coal

Newmont Exploration Ltd. - Nickel, Copper

Iron Ore Company of Canada Ltd. - Direct Shipping Iron Ore.

N. W. Byrne Company - Gold

Quebec Cartier Mining Comp. Ltd. - Concentrating Iron Ore.

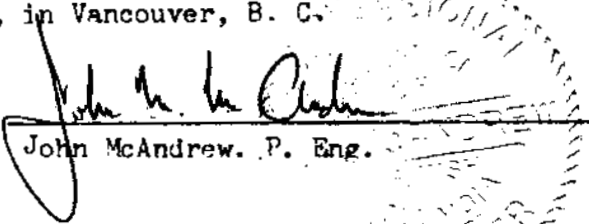
Eldorado Mining and Refining Co. - Uranium

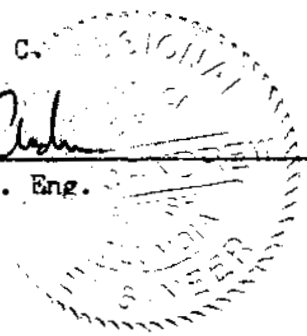
International Nickel Co. - Nickel, Copper

- 5 - I have no direct or indirect interest in the properties covered by this report.
- 6 - I inspected a portion of the work while the program was being carried out.
I have read this report and personally endorse the facts and concepts contained in the text.

Dated this 28 day of December, 1973, in Vancouver, B. C.

SIGNED:


John McAndrew. P. Eng.



Telephones:
Bus: 576-8148
Res: 576-8170

D.L. COOKE AND ASSOCIATES LTD.
MINERAL EXPLORATION CONSULTANTS

16331 Bell Road,
Surrey, B.C.
Canada

PETROGRAPHIC REPORT

NUMBER: C - 1 LOCALITY: CRATER LAKE DOMINION BASIN DATE: February 21, 1974

NAME AND CLASSIFICATION: ALTERED ANDESITE

MEGASCOPIIC DESCRIPTION: The massive green aphanitic appearance is sprinkled with yellowish-green spots and sulphide grains.

MICROSCOPIC DESCRIPTION:

Minerals	%	Remarks
1. Sericite	25	Abundant fine flakes of sericite pervades the section.
2. Chlorite	25	Chlorite is as pervasive as sericite.
3. Carbonate	20	Small patches of carbonate, with irregular outlines, occur throughout the sericite-chlorite rock.
4. Kaolin	15	A very fine, granular, low birefringent mineral (kaolin?), is scattered through the chlorite and sericite, and in places seem to preserve the tabular outlines of former feldspar microphenocrysts.
5. Epidote	8	Clusters of epidote, with or without carbonate, appear to be secondary after some other mineral.
6. Leucocylene	3	Granular leucocylene appears as a secondary mineral.
7. Chalcopyrite & Pyrite	2	Irregular sulphide grains occur throughout.
8. Hematite	2	Hematite is common as rims on the sulphide or as minute disseminated grains.
9. Malachite	Tr.	Malachite is associated with chalcopyrite grains.

TEXTURE: The section consists of a fine matted mixture of sericite, chlorite, carbonate and kaolin. Denser patches of carbonate, epidote or kaolin seem to be indicative of former phenocrysts such as feldspars.

CONCLUSION:

The remnant textures are similar to those in section C-2, hence the rock is classed as an andesite. Extensive alteration (particularly sericitization and kaolinized) is believed to be hydrothermal in origin and directly connected to the deposition of sulphide mineralization.

Telephones:
Bus: 576-8148
Res: 576-8170

D.L. COOKE AND ASSOCIATES LTD.
MINERAL EXPLORATION CONSULTANTS

16331 Bell Road,
Surrey, B.C.
Canada

PETROGRAPHIC REPORT

NUMBER: C -2 LOCALITY: CRATER LAKE DOMINION BASIN DATE: February 21, 1974

NAME AND CLASSIFICATION: ANDESITE

MEGASCOPIIC DESCRIPTION: The hand specimen is massive, dark green, and fine grained. It is characterized by abundant yellow green specks.

MICROSCOPIC DESCRIPTION:

Minerals	%	Remarks
1. Plagioclase	35	An ₂₅₋₃₅ . Plagioclase tablets, 1-3 mm., are euhedral in form, and occur in a groundmass of small plagioclase laths.
2. Chlorite	25	Chlorite occupies interstitial positions to the plagioclase of the groundmass. Minor amounts are secondary after plagioclase phenocrysts.
3. Carbonate	15	Irregular patches of carbonate are unevenly distributed.
4. Epidote	10	Equigranular epidote occurs in patches that may be pseudomorphs after hornblende or pyroxene.
5. Sericite	5	Sericite is secondary after plagioclase. It is found with minor chlorite, epidote and leucoxene.
6. Magnetite	5	Abundant magnetite is present as anhedral disseminated grains.
7. Leucoxene	3	Tiny leucoxene grains are scattered throughout the interstitial chloritic matrix.
8. Quartz	2	Minor amounts of secondary quartz are associated with epidote pseudomorphs.

TEXTURE: A microporphyritic texture is evident. Equant tablets of plagioclase and epidote-quartz pseudomorphs are set in a groundmass of plagioclase microlites. The microlites are arranged in a sub-fluidal pattern. The interstices between the microlites contain chlorite,

CONCLUSION: magnetite, and leucoxene.

The section represents an andesite flow, which was later modified by propylitic alteration (chlorite, epidote, carbonate). The chlorite and leucoxene of the matrix probably represents altered glassy material.



MAHARAJA MINERALS LIMITED N.P.L.

1102-207 West Hastings Street Vancouver 3, B.C. TEL (604) 684-0611

P.O. BOX 533 POSTAL STATION A VANCOUVER 1 B.C.

March 11, 1974

Mr. J. E. Bowles
Chief Gold Commissioner,
Department of Mines & Petroleum Resources,
Parliament Buildings,
Victoria, B.C.

Dear Sir:

Re: File No. 166 - Omenica

Please excuse us for not replying to your letters of January 30, 1974 (copies of the same are attached hereto) at an earlier date. Your March 4, 1974 letters to us prompted us to effect an immediate reply upon Mr. J. A. Rutherford's return from Southern U.S.A. We would have preferred to wait a little longer for some additional data to come to our office but considered it best not to wait.

We are waiting for some reports to come from Dr. Soregaroli at U.B.C. He is doing some polished section work for us and re-examining some thin sections. We were not satisfied with Dr. D. L. Cooke's conclusions with regards to samples C-1 and C-2. The samples are not magnetic as he suggests and he has seemingly mistaken chalcocite for magnetite. The writer, although a geologist for many years quite able to see chalcocite and copper stain in the hand specimens of C-1 and 2, does not hold a P. Eng. so his opinion however correct is not adequate for assessment work recording purposes under your current regulations.

The Company's consultant, Mr. J. McAndrew, has been and is out of Town so a further "outside" opinion was solicited. Dr. Soregaroli's work should be done by the end of this week. A copy of his findings will be mailed to you as soon as available.

We would ask herein that our answers to your various queries be adjudicated on the basis that we felt that it was too late at this point in time to get all our rock identification work re-done by other "outside" consultants. Only samples C-1 and C-2 have been sent out to be done by Dr. Soregaroli. Many of Maharaja's maps have been completed in final form on the basis of work done in the past for us by Dr. Cooke. The finished work stands as prepared whether right or wrong.

...../2

We expect that you will appreciate our concern with regards to samples C 1 and 2 in view of your January 30, 1974 query regarding the "chimney." The writer had assays done on these samples in 1972. C - 1 went 10.95% Cu. and C - 2 went 2.96% Cu. and 3.4 oz Ag. The C - 1 sample came from the "chimney."

In the interests of saving time and confusion we are taking the liberty of answering all your January 30, 1974 letters to us herein. We trust that our actions are in order.

Geological Report #4811

- 1) The mineralized showings have all been located above the red andesite to date. Maharaja sent crews in to map the areas of interest on six separate occasions during the work season. All but one attempt which was the last one and was done by an alpine climber were unsuccessful because the men were not willing to take the risks involved to scale down the cliff faces. The helicopter bill alone in these attempts to get at the sampling sections came to over \$3,000 or about 40% of the \$8,134 you question us on. We concede that the areas in question might be considered "only small parts" but would suggest that even to properly map and chip sample the small crater area and do it correctly a 1974 budget of \$10,000 more will be needed.
- 2) The general geology and location map attached hereto was done by others as shown. We saw no reason to duplicate efforts. We would point out however that Falconbridge had 6 men mapping the general area over a period of 3 months and flew to work each day from Smithers via helicopter we understand. It probably cost them in the order of \$40,000 to prepare the Old Tom-Webster-Crater Lake map. We claim approximately 10% of their figure for each of the Slump Block and Crater Lake areas. We do not believe our costs are unrealistic in view of what we have uncovered or for any other reason in that particular area.
- 3) The writer spent some time discussing the geology of the area with Dr. Tipper of the G.S.C. You will be interested to learn that Dr. Tipper has a geological map soon to be published on the region. On the map he will likely have structural lineaments of import. On his work sheet Dr. Tipper has placed the intersection of three major structural lineaments at Crater Lake. His work was independent of ours. He came to our offices recent with an associate to look at our "chimney" rocks. It is J. A. Rutherford's opinion that the "chimney" is the

surface expression of a major structure carrying copper and other minerals. The mineralized showing has been traced on either side of the "chimney" chip sample section for approximately 1,000 feet to the south. It has not been found to the north because of overburden but does extend westwards towards Webster Creek for a distance of about 200 feet at an angle from the "chimney" proper which suggests northerly extension. Copper showings have been located further south (see map attached). We do not know at this time whether the "horizons" are interconnected. It is the writers opinion that these other showings are separate structures but will likely show a configuration not unlike that of the "slump block." Mr. R. Allan Rutherford, the writer's brother, who originally discovered the Crater Lake chalcocite showings inside the Crater Lake cirque and at the "chimney" has found similar mineralization at separate points to the south of Crater Lake along the vertical walls separating the Crater Lake "plateau area" from Loring and Webster Creek. The structure of an anticline can be seen inside the Crater Lake cirque and the "chimney" could be the westerly limb of that anticline.

- 4) Two geological maps and Dr. Cooke's report are attached hereto in compliance with your requests. They are in duplicate.

Geological Report #4813

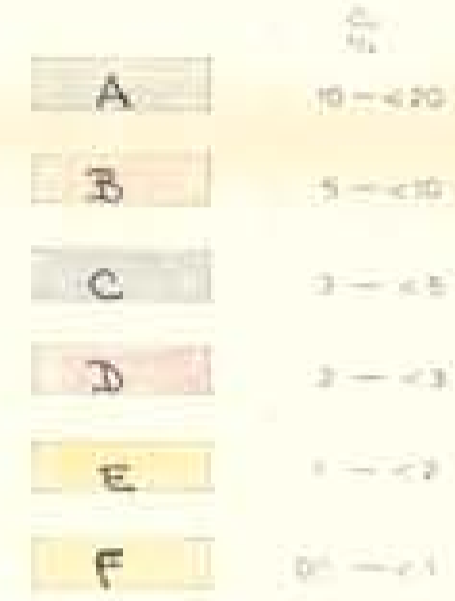
- 2) The strikes and dips were taken on fractures which just happen to parallel a N.E. trending dyke suggesting time event parallels.
- 3) See maps attached (Dominion Basin Geological Map & S. Showing Map)
- 4) " " "
- 5) " " "
- 1) Please refer to Dr. D. L. Cooke's sample D rock description. He calls it a copper-bearing skarn. We accept his observation that contrary to all other published data on this area the showing is definitely not little blebs, veinlets nor as is suggested in the 1969 Minister of Mines report "fissure veining and cavity filling."

Unfortunately Mr. Ralph Cullen, currently the Chief Engineer for Jordan River Mines (see recent letter to be attached to his Scallon certification data appended hereto on the Scallon revised report) seems to have used a bedding symbol on his original map to designate fractures. Our new map enclosed has been "corrected."

Geological Report #4831

- 1) We have enclosed four maps of the "slump block" area among which

CHIMNEY - DETAILS



Sample No.	Thickness feet	Cu %	Ag oz/t	Au oz/t
2051	10	15.50	207	.004
2052	14	10.0	208	.002
51	10	21.20	33	.001
54	10	7.00	87	.001
55	10	38.25	4.00	.001
56	10	15.000	12.00	.002
57	10	12.20	375	.001
58	10	37.75	304	.001
59	10	21.90	7.4	<.001
60	10	7.45	10	<.001
61	5	10.24	117	<.001
62	5	30.0	30	<.001
63	5	47.50	63	.001
64	5	24.75	151	.001

Sample No.	Thickness feet	Cu %	Ag oz/t	Au oz/t
1	5	20.80	670	.001
2	3	18	11	0.00
6	2	30.5	15	.002
7	3	0.27	06	.001

G See analysis

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 OMBICA MINING DIVISION

CRATER LAKE AREA

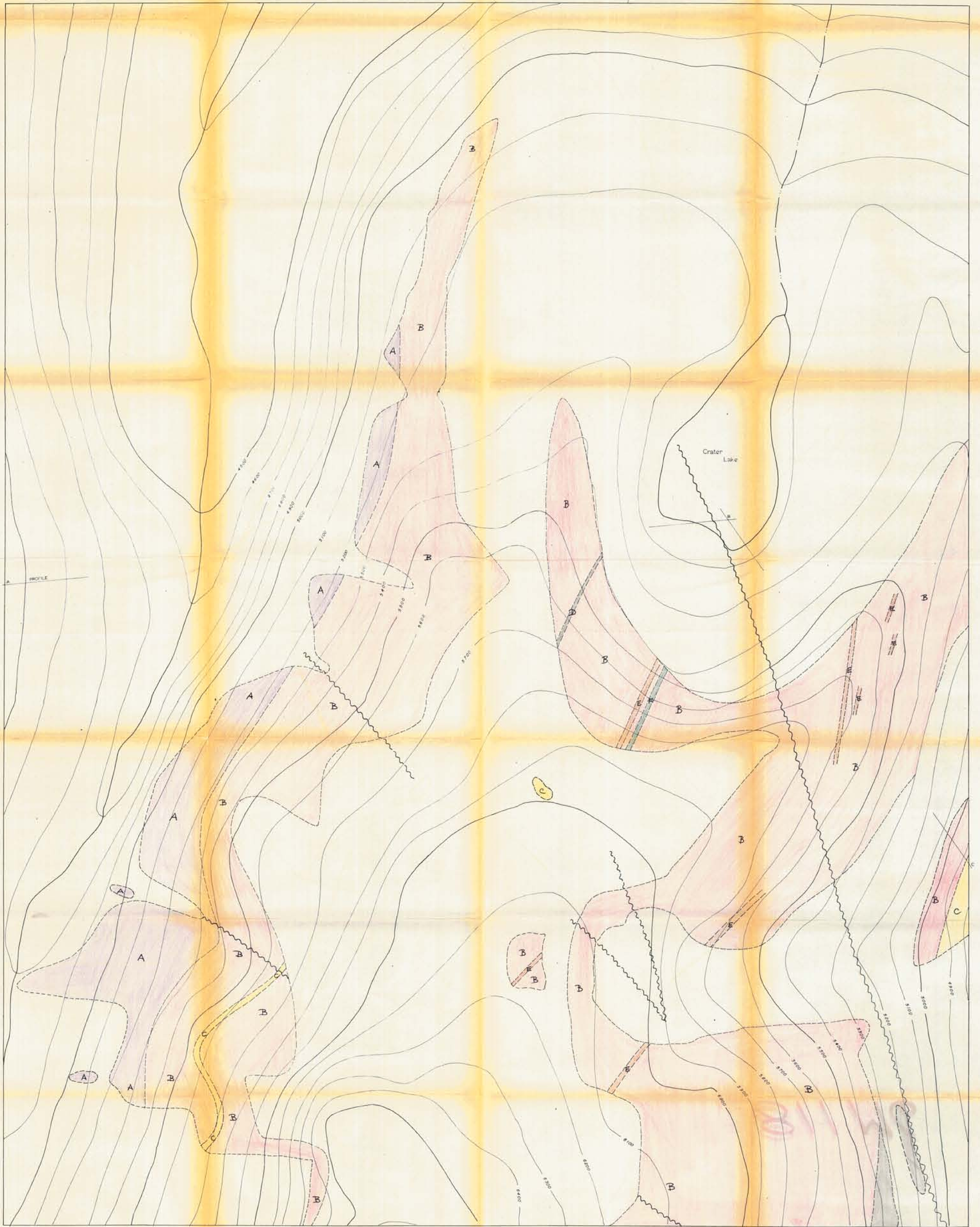
Department of
 Mines and Geotechnical Services

Scale: 1:200

ASSESSMENT REPORT
 NO. 4811 M4 #4

To accompany a geological report dated Dec 18, 1973 by J. McAndrew, P. Eng.

4811 M4



Sample #	Thickness feet	Cu %	Ag oz/t	Au oz/t
2051	10	1550	297	004
2052	10	010	08	002
53	10	1120	35	001
54	10	760	87	001
55	10	3825	402	001
56	10	15600	1240	002
57	10	5220	375	001
58	10	3775	306	001
59	10	2190	74	<001
60	10	1820	15	<001
61	5	1024	117	<001
62	5	760	38	<001
63	5	6750	63	001
64	2	2475	191	001

Sample #	Thickness feet	Cu %	Ag oz/t	Au oz/t
1	5	2090	670	005
2	5	1690	90	006
2A	5	2220	83	011
3	5	4650	111	002
4	5	3950	130	002
4A	5	6450	135	007
5	3	162	11	002
6	2	203	15	002
7	2	027	06	001

- A Rhyolite
- B Red andesite and green agglomerates
- C Green andesite
- D Basalt (flow and dykes)
- E Quartz porphyry felsite (dykes and veins)
- F Diorite

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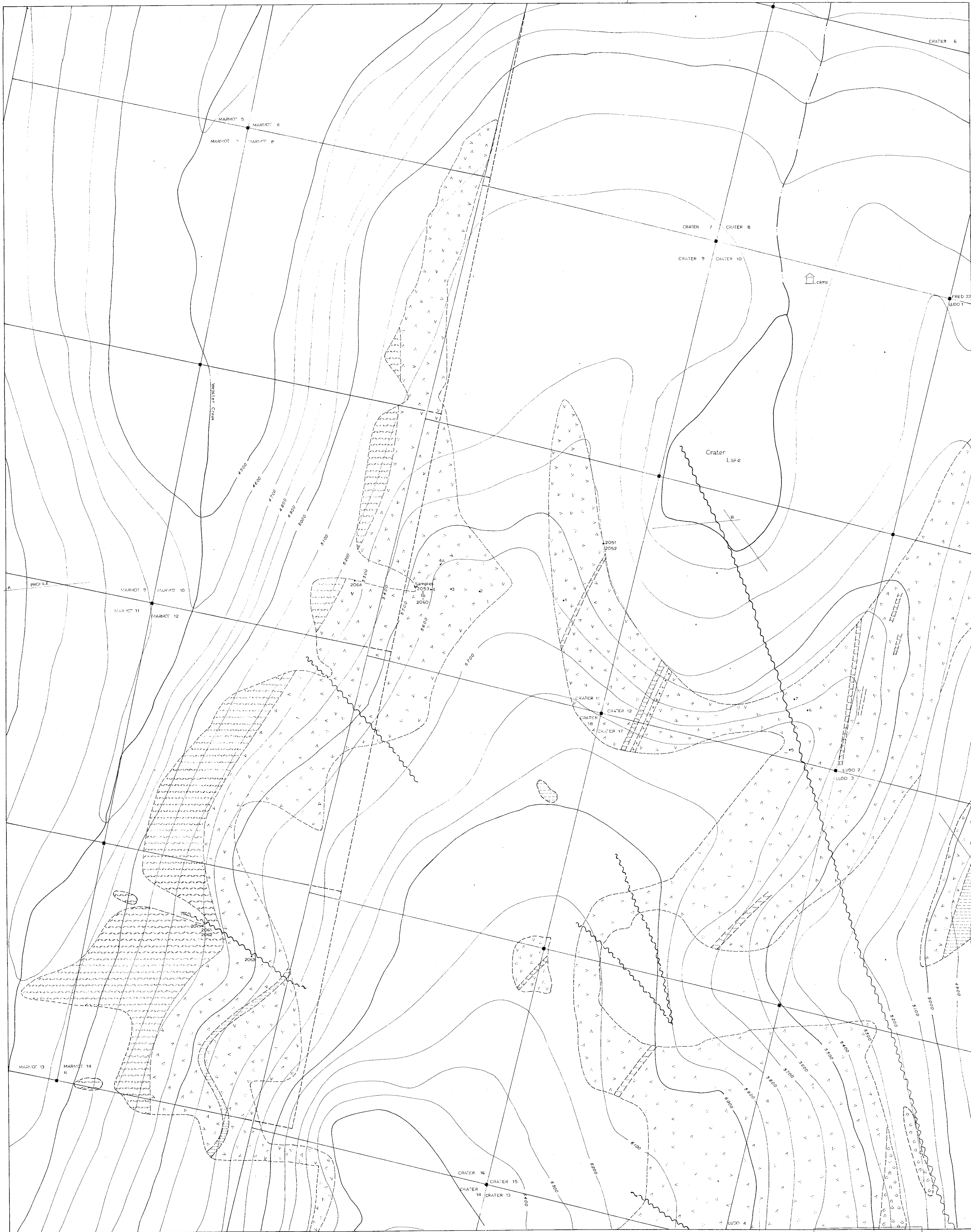
CRATER LAKE AREA
 NORTH-WEST MAP

OMINECA MINING DIVISION

Resource
 ASSESSMENT REPORT
 NO **4811** MAP #5

Scale: 0 250 500 FEET Date: Dec. 26, 1975
John McCall

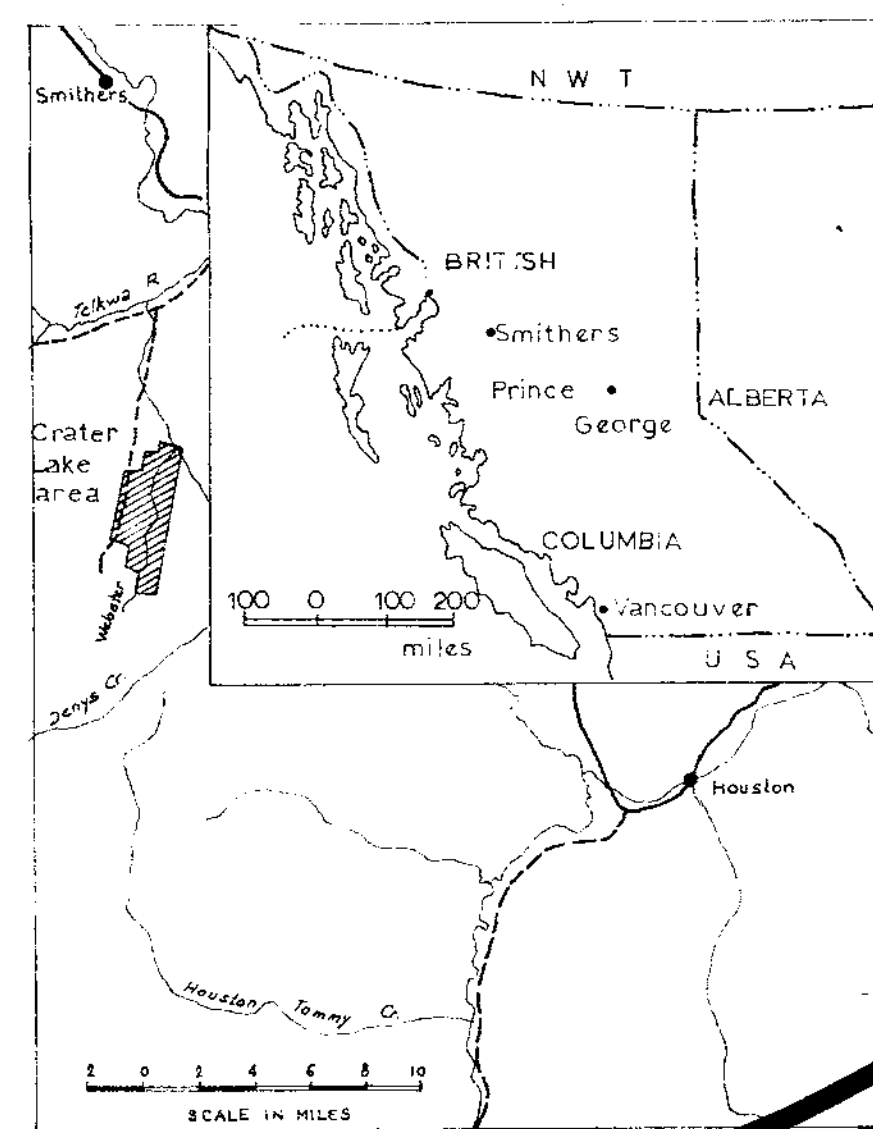
4811 M5



Sample #	Thickness feet	Cu %	Ag oz/t	Au oz/t
205	10	1550	297	004
2052	10	.010	.09	002
53	10	1120	.35	001
54	10	.760	.87	001
55	10	3825	4.02	001
56	10	15600	19.40	002
57	10	5.220	3.75	001
58	10	3.775	3.06	001
59	10	219.0	.74	<001
60	10	1620	.15	<001
61	5	102.4	.117	<001
62	5	.760	.32	<001
63	5	6.750	.63	001
64	2	0.475	.151	001

Sample #	Thickness feet	Cu %	Ag oz/t	Au oz/t
1	5	2050	6.70	005
2	5	1650	.90	006
2A	5	2220	.89	011
3	5	4650	1.11	002
4	5	3950	1.30	002
4A	5	8650	1.35	007
5	3	.162	.11	002
6	2	.203	.15	002
7	3	.027	.06	001

- Rhyodacite
- Red andesite and green agglomerates
- Green andesite
- Basalt (flow and dikes)
- Quartz porphyry felsite (dikes and sills)
- Diorite
- Fault
- Claim post



Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
4811 #6
NO. 4811 MAP #6

MAHARAJA MINERALS LTD. (N.P.L.)
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VANCOUVER, B.C.

CRATER LAKE AREA
NORTH-WEST MAP
GEOLOGICAL MAP
OMINECA MINING DIVISION

Scale: 0 200 400 FEET Date: JANUARY 1974

To accompany a geological report dated _____ by J.Mc Andrew P. Eng

4811 M6

James R. Rutherford
 MAHARAJA MINERALS LIMITED N.P.L.
 400-507 W. HASTINGS STREET, VICTORIA, B.C.
 MAHARAJA CLAIM GROUP
 OMINEX MINING DIVISION



GENERAL GEOLOGY & LOCATION MAP

1000 0 1000 2000
 SCALE IN FEET

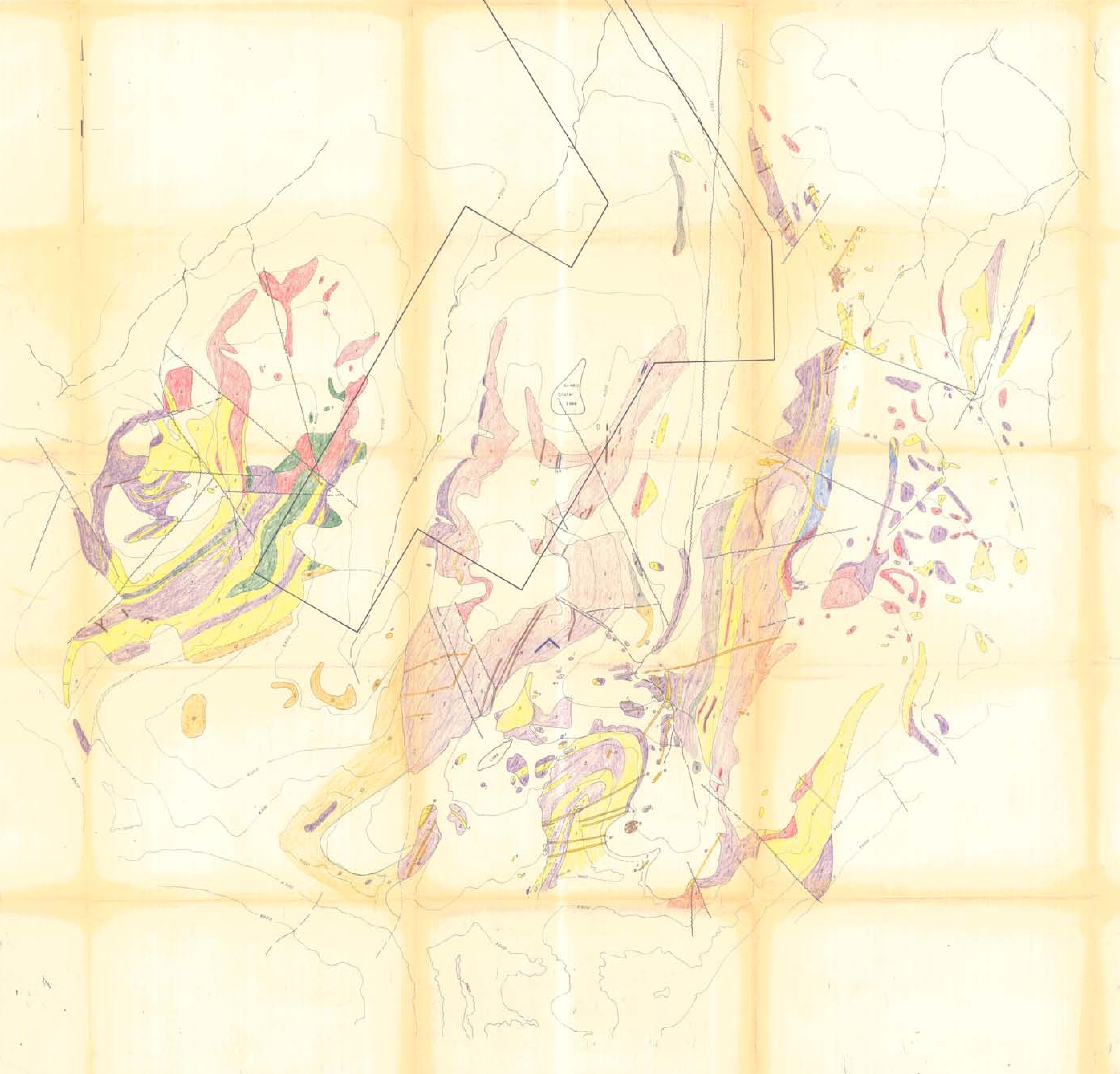
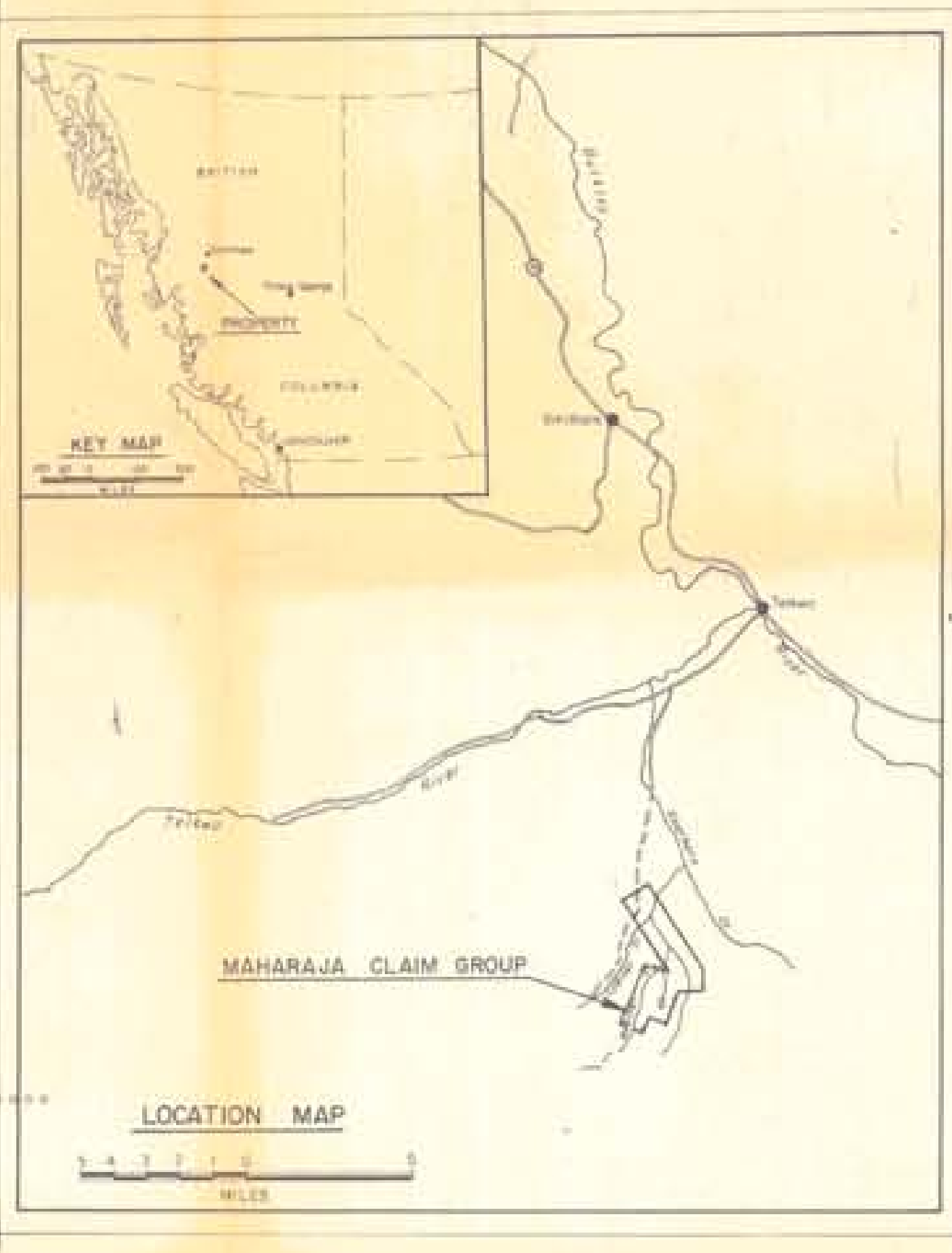
OCTOBER, 1972
 (NORTH HALF)

Department of
 Mines and Petroleum Resources
 ASSESSMENT REPORT
 NO. 4811 M7

LEGEND

- INTRUSIVE ROCK (in order)**
- BASALT (dykes)
 - DIORITE (dykes) (quartz, hornblende, plagioclase and biotite) (light quartz, hornblende, plagioclase and biotite)
 - QUARTZ MONZONITE FELSITE (dykes and sills)
 - QUARTZ (sills and irregular protruding intrusions which may be more quartz)
 - GREEN AEGIRITE
- HAZELTON GROUP (Upper rock last in stratigraphic order)**
- LIMESTONE (massive)
 - BASALT (flow, block to dip green basalt rock (conglomerate))
 - RED TUFFS (with some green fragments) (impure) and RED AEGIRITE (some purple aegirite tuff) (with elastic fragments)
 - GREEN AEGIRITE (massive fine grained flow rocks some vesicular with hornblende phenocrysts)
 - LIGHT VOLCANIC ROCK (intermediate composition between rhyolite and green aegirite)
 - RHYOLITE ACID VOLCANIC ROCK (mainly tuffaceous in color possibly more finely grained to granitic) (greenish light gray or purple less commonly black or red in color) (conglomerate with quartz, feldspar, white or pink feldspar, phenocrysts, rock is usually less commonly thinly bedded or fragmental)
- BOUNDARIES**
- RESERVE
 - CLEARANCE
 - WEDGING PLANE JOINT
 - JOINT
 - FAULT (dashes projected to assumed)
 - BOUNDARY OF MAHARAJA CLAIM GROUP

NOTE: ALL POSITIONS AND LOCATIONS ARE APPROXIMATE.
 Geology after Church, Fortbridge Nickel Mines Ltd. and private source



4811 M7