

85-866 -
14578

REPORT ON THE

GEOLOGICAL

AND

PROSPECTING WORK

08/86

CONDUCTED ON THE

SPRING, DEB, THOR, ALBERT, BARB

MINERAL CLAIMS

KING MOUNTAIN AREA

LIARD MINING DIVISION

FILMED

N.T.S. 104 I/7W

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

58 DEGREES 19' N LATITUDE AND 128 DEGREES 52' W. LONGITUDE

14,578

OWNER OF CLAIMS:

MOHAWK OIL CO. LTD.

OPERATOR OF CLAIMS:

MOHAWK OIL CO. LTD.

AUTHOR:

M.W. WALDNER

DATE:

NOVEMBER 15, 1985

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APPENDIX I

ITEMIZED COST STATEMENT

LIST OF FIGURES AND DRAWINGS

FIG. 1	LOCATION OF CLAIM
FIG. 2	PROPERTY MAP
FIG. 3	GENERAL GEOLOGY MAP
FIG. 4	REGIONAL GEOLOGY

INTRODUCTION

This report presents the results of a geological and prospecting survey done on the Spring, Deb, Thor, Albert and Barb mineral claims. The field work was done between August 18 and August 21, 1985.

LOCATION AND ACCESS

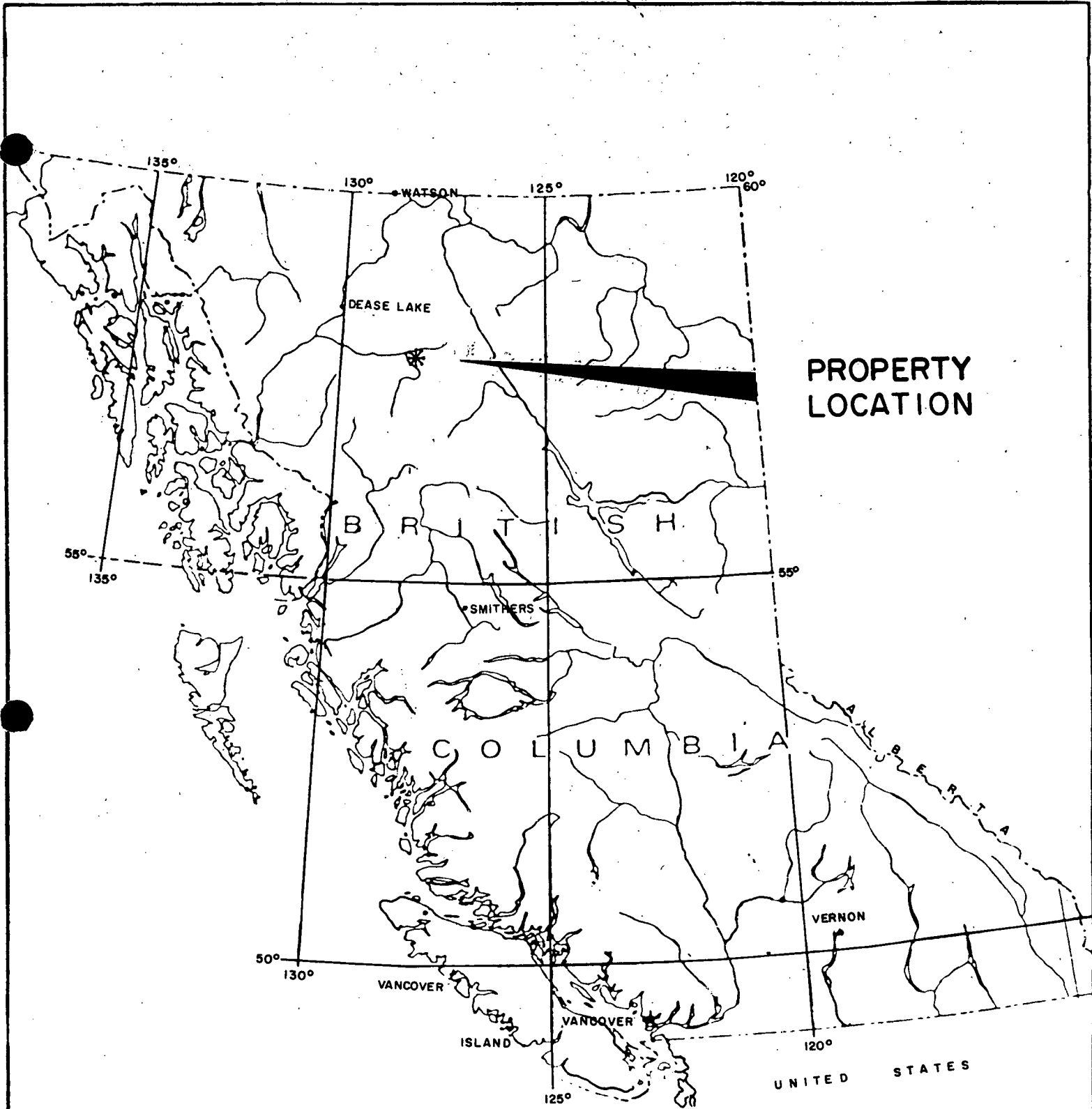
The property is located on map sheet NTS 104I/7W at approximately 58 degrees 19' N latitude and 128 degrees 52' W longitude. The claims are seventy kilometers east south-easterly of Dease Lake, B.C. Topographically the claims are located to the west of the main body of Letain Lake and to the northeast of King Mountain.

Access to the claims was by helicopter from Dease Lake and the Jadex camp at the Kutcho Creek Airstrip. The airstrip is twenty kilometers to the southeast of the claims.

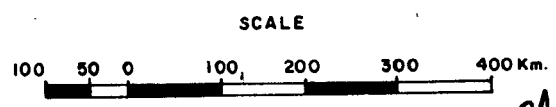
PHYSIOGRAPHY

The topography of the property consists of lithologically controlled, southeasterly-trending ridges alternating with flat-bottomed valleys of a similar trend. On the western side the ground slopes down steeply to two lakes. To the southeast the ground rises steeply to form King Mountain. To the southwest the ground rises to form Little King Mountain. A southeasterly trending valley cuts through the central area of the Property.

There is an overall decrease in elevation from a maximum of 2,200 meters in the south to a minimum of about 1,400 meters in the north. The general slope is north-easterly.



**PROPERTY
LOCATION**



m.w. Walker
11/26/85

MOHAWK OIL CO. LTD.	
KUTCHO CREEK AREA PROPERTIES	
LOCATION MAP	
DRAWN BY: S. MALTBY	SCALE: 1:50 000
DATE: DECEMBER 84	FIGURE: 1

Vegetation on the claims varies with elevation. The upper levels are barren; the valleys contain swamps interspersed with buck brush. There is some alpine scrub timber growing on the lower slopes.

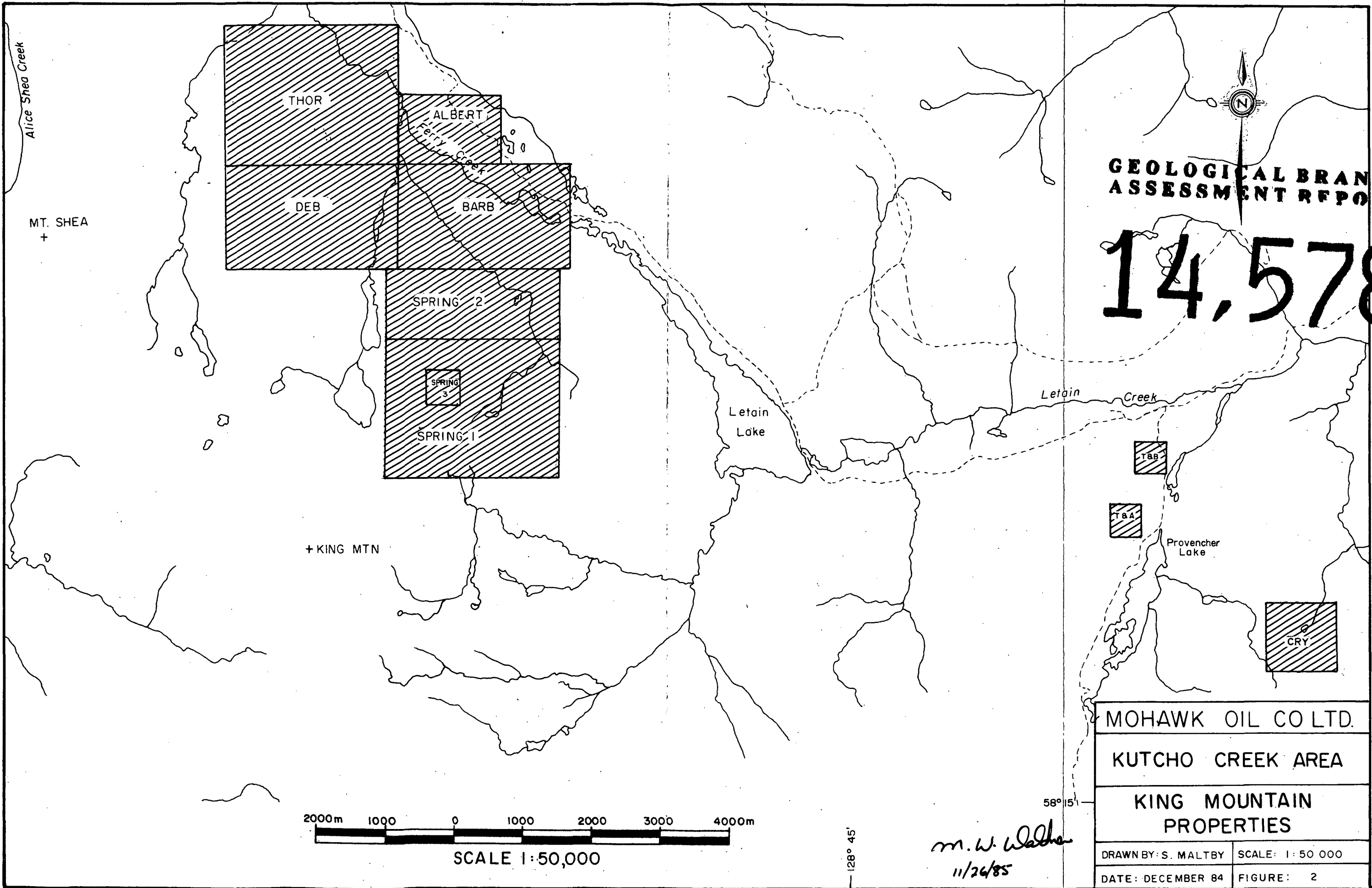
HISTORY

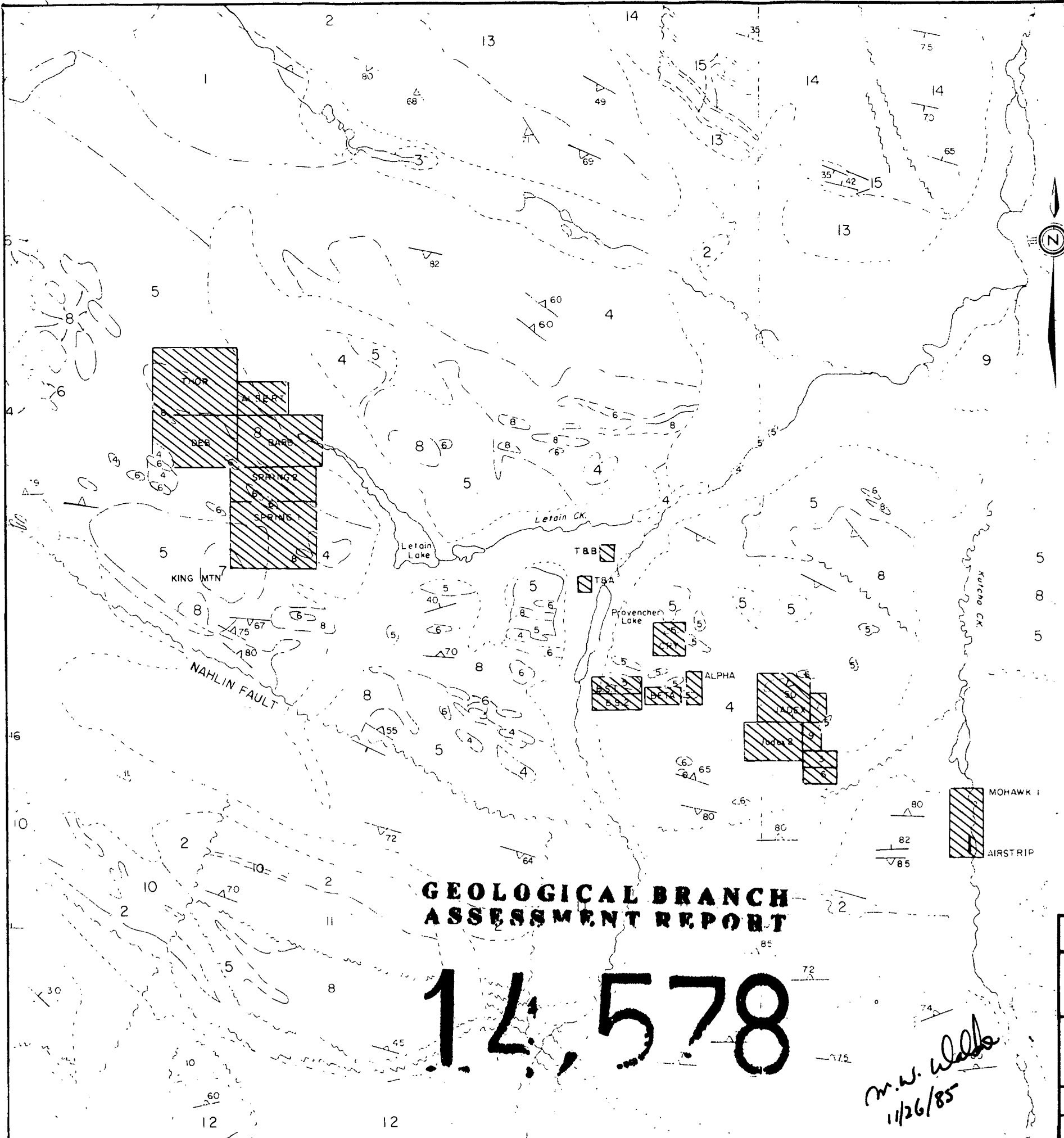
Claims in the area were originally owned by Cry Lake Jade Mines Ltd., a subsidiary of Mohawk Oil Co. Ltd. The work done by Cry Lake Jade was confined to exploration for, and testing of, nephrite jade. Mohawk Oil Co. Ltd. expanded the property and is the owner and operator. As well as performing additional nephrite jade related work, a geochemical stream silt survey and a geological and Induced Polarization survey has since been done on a portion of the property.

CLAIMS AND OWNERSHIP

The Claims are currently held by the owners, Mohawk Oil Co. Ltd. and include:

CLAIM NAME	NO. OF UNITS	RECORD NO.	RECORD DATE
Spring 1	20	640	Aug. 21, 1978
Spring 2	10	641	Aug. 21, 1978
Spring 3	1	925	Aug. 20, 1979
Deb	15	3167	Aug. 28, 1984
Thor	20	3166	Aug. 28, 1984
Albert	6	3165	Aug. 28, 1984





- 1 LOWER JURASSIC
Granodiorite
- 2 UPPER TRIASSIC
KUTCHO FORMATION: DACITIC, BRECCIA,
TUFF; DACITIC TO RHYOLITIC FLOWS,
CHLORITE SCHIST, ARGILLITE, CONGLOMERATE,
QUARTZ-FELDSPAR SERICITE
- 3 UPPER TRIASSIC
STUHINI FORMATION: AUGITE AND COARSE-BLADED
PLAGIOCLASE PORPHYRY BRECCIA AND FLOWS;
LOCAL BASAL CONGLOMERATE, SILTSTONE, GREYWACKE
- MISSISSIPPIAN TO PERMIAN
CACHE CREEK GROUP
- TELSIN FORMATION:
- 4 BASIC VOLCANICS
- 5 PERIDOTITE, DUNITE, PYROXENITE,
COMMONLY SERPENTINIZED
- 6 LIMESTONE
- 7 COARSE GRAINED TO PEGMATITIC
GABBRO
- 8 CHERT, SLATE, ARGILLITE, MINOR AND
BASIC VOLCANICS
- 10 UPPER TRIASSIC
SINWA FORMATION: LIMESTONE,
COMMONLY ARGILLACEOUS AND FETID
- 11 UPPER SINEMURIAN
INKLIN FORMATION: GRAYWACKE, PHYLLITIC
SLATE, CONGLOMERATE
- 12 LOWER JURASSIC
TOARCIAN ANDESITE, DACITE, AND
RHYOLITE FLOWS TUFF AND BRECCIA
- 13 PALEOZOIC
BASAL MODULAR ARGILLACEOUS
LIMESTONE
- LOWER CAMBRIAN
ATAN FORMATION
- 14 UNDIVIDED MICACEOUS QUARTZITE,
MICA SCHIST, MINOR CRYSTALLINE
LIMESTONE
- 15 UPPER MEMBER, LIMESTONE

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

14,578

*M.W. Wells
11/26/85*

MOHAWK OIL CO. LTD.	
KUTCHO CREEK AREA	
REGIONAL GEOLOGY	
DRAWN BY: S. MALTBY	SCALE: 1:125 000
DATE: DECEMBER 84	FIGURE: 4

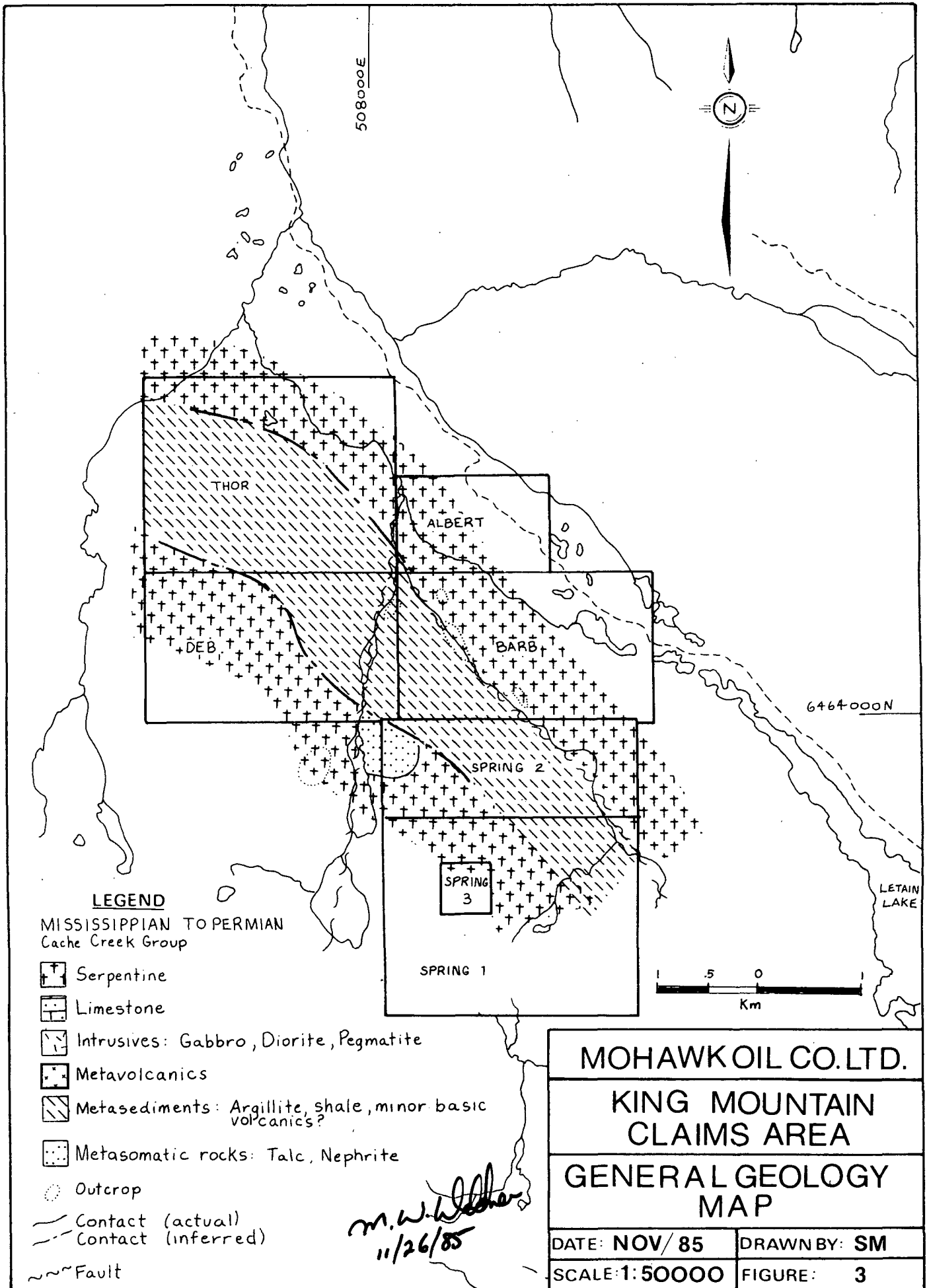
SUMMARY OF PRESENT WORK

The entire property covers approximately 21.5 square kilometers. The claims were mapped and surveyed on a scale of 1:50000. Geological mapping included reconnaissance traverses in areas of rock outcrop along ridges and creeks. This mapping was tied to previous mapping on the Spring claims done at 1:5000 scale. Geological interpretation employed outcrop mapping, government mapping and aerial photographs.

GENERAL GEOLOGY

Reconnaissance mapping and prospecting was conducted primarily on the Barb mineral claim using a scale of 1:50000 (See Figure 3). The mapping was extended from the Spring claims which had been mapped in 1984 (Nagati - 1984) using a 1:5000 scale base map prepared by McLhanney Surveys. Government topography maps are not available at 1:5000 or 1:50,000 scales. The regional geological map of the area (G.S.C. Open File #610) was also consulted.

The claims are underlain by Mississippian to Permian rocks of the Cache Creek Group. These rocks generally occur in northwesterly trending bands of limestone, basic volcanics, chert, slate, argillite, gabbro and ultramafics. During reconnaissance and prospecting argillite, serpentinite, plus minor limestone and metasomatic rocks (talc and nephrite) were observed. Detailed descriptions of the rocks are included in Nagati's 1984 report. The foliation observed in outcrop was consistent with the regional fabric and the northwesterly foliation trend observed on the Spring claims.



The central portion of the Deb, Thor, Albert and Barb claims is primarily argillite and minor slate. The argillite is generally medium to dark green or black and commonly has up to 5% very fine-grained disseminated pyrite. The argillite is flanked to the northeast and southwest by northwesterly trending bands of serpentinite. The contact on the northeast is apparently fault controlled. A moderate to steep sided creek valley is the topographic expression of this probable fault contact.

The two bands of serpentinite that cut through the property underlay a significant portion of the area. As mentioned, the northeastern contact between the argillite and serpentinite is interpreted to be a northwest trending fault which cuts through the Barb and Spring claims. This fault is apparently truncated by a northerly trending fault which in turn is truncated by a probable fault along the northwest trending Letain Creek valley.

Argillic alteration and perhaps Listwanitization was observed in outcrop in the northwest trending creek valley which cuts through the Barb claim. This is the interpreted fault contact between the argillite and serpentinite. This alteration zone is approximately 10 feet wide and 50 feet long and consists of clay alteration, talc, limonite staining, carbonates, hematite, quartz, and mariposite/uvarovite. Samples collected in the vicinity contained up to 10% mariposite and 30% quartz. These rocks may be altered and faulted serpentinite and/or argillite or metasomatic rocks (talc + nephrite). Nephrite was not observed, but may occur in this structure.

ECONOMIC GEOLOGY

Exploration on the property has been confined to the Spring claims to-date. Gold mineralization is reported in the immediate vicinity of the property and copper (chalcopyrite, malachite), chromite, asbestos and nephrite jade have been identified on the property. The primary economic potential is considered to be gold and/or nephrite jade. This reconnaissance mapping and prospecting survey led to the discovery of an alteration zone on the Barb claim which may be indicative of epithermal gold mineralization and/or nephrite jade occurrence. Argillic alteration and Listwanitization is indicative of possible gold mineralization. Listwanites are commonly referred to in the Ural gold fields and other auriferous districts of the U.S.S.R. (Boyle - 1979).

As mentioned by Nagati (1984) there is also potential on the property for copper, gold, silver mineralization related to limestone-serpentinite contacts and economic deposits of chromite. More than 50 percent of the gold and silver geochemical anomalies on the Spring claims are related to limestone-serpentinite contacts.

CONCLUSIONS AND RECOMMENDATIONS

Several potentially economic deposit types were identified by Nagati (1984). In addition epithermal precious metals mineralization may occur on the property. Economic potential for the property includes:

1. Possible existence of epithermal gold-silver deposit.
2. Base and/or precious metals mineralization along contacts between limestone or meta sediments and serpentinite.

3. Metasomatic deposits of chromite and/or nephrite.

It is recommended that:

1. Reconnaissance geochemical surveys be conducted. Such surveys should focus on precious metals (Au, Ag, Pt), copper and chrome.
2. Detailed geological mapping at a scale of 1:5000 be completed for entire property.
3. Conduct E.M. and/or resistivity survey in areas of potentially favourable host structures for base and precious metals mineralization.

AUTHOR'S QUALIFICATIONS

MATTHEW WILLIAM WALDNER

I graduated from the University of British Columbia in 1969 with a Bachelor of Science degree in Geology. Since graduating, I have continuously practiced my profession in various levels of responsibility in industry. The following is a synopsis of my employment experience:

1969	7 months as junior geologist and party chief in southern B.C. and Yukon Territory-Atlas Explorations Ltd. (N.P.L.)
1970 - 1973	3 1/2 years as open pit geologist at Endako Mines Ltd. - Placer Development Ltd.
1973 - 1979	6 1/3 years as pit geologist, Mine geologist and Chief Mine geologist at Lornex in the Highland Valley of B.C. - Lornex Mining Corporation Ltd.
1979	4 months as Projects and Reclamation Engineer - Lornex Mining Corporation Ltd.
1979 - 1981	13 months as Chief Mine Engineer, in charge of the Mine Engineer Department - Lornex Mining Corporation Ltd.
1981 - 1985	Chief Geologist - Mohawk Oil Co. Ltd. - Mining Division, Vernon, B.C.
1985 -	Manager and Chief Geologist - Minerals Division, Mohawk Oil Co. Ltd., Burnaby, B.C.

DATED: 11/26/85

SIGNED: M.W. Waldner

M.W. Waldner
Manager & Chief Geologist
Minerals Division
MOHAWK OIL CO. LTD.

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Geochemical Survey Report
Cry, Spring, and Jadex Mineral Claims
King Mountain - Provencher Lake Area
Liard Mining Division
September 1982 Assessment Report

APPENDIX I

ITEMIZED COST STATEMENT

<u>PERSONNEL</u>	<u>DUTIES/POSITION</u>	<u>DAYS WORKED</u>	<u>PAY SCALE</u>	<u>TOTAL COST</u>
M. Waldner	Ch. Geol. - Manager Minerals Division	8 days	\$275/day	\$2,200.00
J. Smith	Manager - Jade Div. Mohawk Oil Co. Ltd.	4.5 days	\$175/day	787.50

<u>ITEM</u>	<u>TASK COMPLETED</u>	
Airfare	M. Waldner & J. Smith Vancouver - Watson Lake	1,032.00
Helicopter Rental	Frontier Helicopters Dease Lake - King Mountain	679.00
Meals (Waldner & Smith)	August 18th August 19th August 20th August 21st	30.00 82.00 82.50 80.73
Truck Rental	Watson Lake - Dease Lake	338.64
Truck Gasoline		84.25
Accommodation (Smith & Waldner)	August 18th - 20th	226.67
Typing and Reproduction		150.00
Parking		<u>21.00</u>
	TOTAL	<u><u>\$5,794.29</u></u>

Field work portion conducted from August 18th to 21st, 1985 (including traveling time).