Report on #6658

HORIZONTAL LOOP ELECTROMAGNETIC SURVEY

for

AQUITANE COMPANY OF CANADA

in the

HOUSTON, BRITISH COLUMBIA AREA

N.T.S. 93 L

Claims: HAGAS 76, 77, 78
HEM

Location: Approximately 23 miles (airline) southwest of Houston, B.C.
Longitude- 127° 01'
Latitude - 54° 01'

Omineca Mining District

PART 2 OF 3

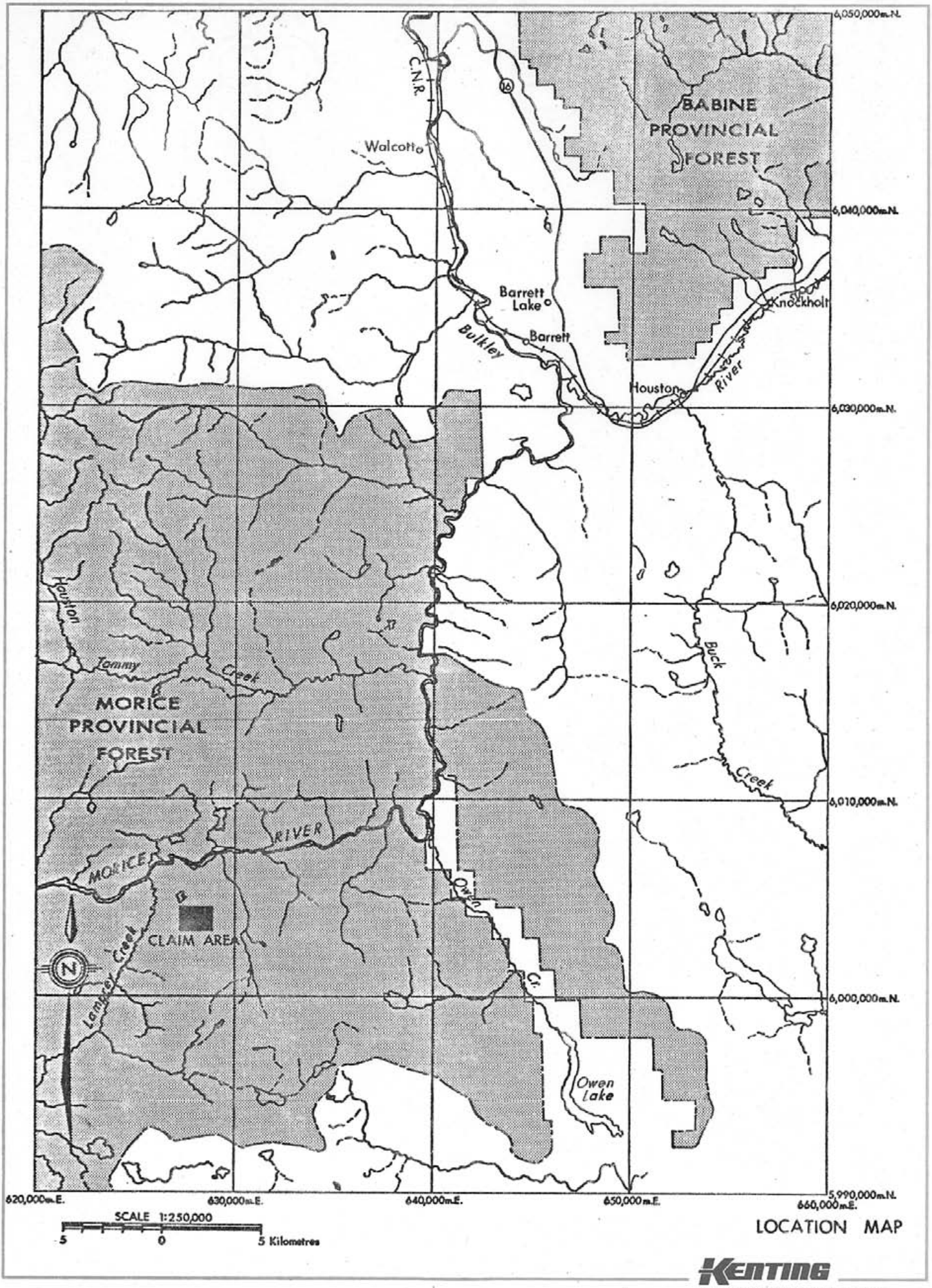
KENTING
EXPLORATION SERVICES LIMITED

TABLE OF CONTENTS

INTRODUCTION

This report describes the electro-magnetic survey carried out for Aquitane Company of Canada Limited near Houston, in Northern British Columbia (Fig. 1). The field work took place October 12, 1977 to October 17, 1977 and was under the direction of Ron Sheldrake, Consulting Geophysicist, Vancouver, B.C.

The purpose of the survey was to outline conductors and locate potential drill hole sites on claims Hagas 78, 77, 76, and H.E.M. The ground electromagnetic survey was a result of airborne electromagnetic survey results.



LOCATION MAP

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EQUIPMENT

An Apex Max-Min II was used with various coil spacings (50, 100, 200, and 250 meters). Frequencies available include: 222 hz, 444 hz, 888 hz, 1777 hz, and 3555 hz.

The system can handle moderate elevation differences between coils but an inclinometer is used to estimate mean slopes in steeper terrain. The slope is then set on each coil by means of the built in tilt meters.

An intercom using the interconnecting cable is used for communication.

DATA PRESENTATION

The instrument reads directly in percent inphase and out of phase. Multiple scales are used to increase accuracy.

Three lines were surveyed: Line 1000 SW with a 200 meter coil spacing and 5 frequencies, Line 1000 NE with 100 and 200 meter coil spacings and 5 frequencies. Line 00 was the first surveyed and thus several coil spacing were attempted in order to determine the optimum coil spacing (50, 100, 200, 250 meters).

The data is plotted in profile form with a horizontal scale of 1:10,000, vertical scale of 1 cm. = 10%. (Fig. 2).

GEOLOGY

The survey area is located about 35 kilometers southwest of Houston, British Columbia in mapped Mesozoic undifferentiated volcanics. This district, including Smithers, has many mineral prospects with copper and molybdenum the most common.

RICE, H.M.A.(1949) Smithers - Fort St. James Map Sheet
GSC Map # 971A

INTERPRETATION

The survey area is drift covered and to the north west end is swampy. This material appears conductive to the E.M. equipment in varying degrees depending upon thickness and material content. Effectively it is a shallow horizontal conductor which appears as a negative offset with "valleys and humps". The higher frequencies are more strongly affected. The two highest frequencies used, 3555 hertz and 1777 hertz, were so strongly influenced as to be almost useless except for general appearance.

Several anomalies were found which appear to be due to bedrock conductors. These include: 200 SE and 825 SE on line 1000 SW, 275 NW and 600 SE on line 00, and 300 NW on line 1000 NE. Other anomalies are possible but the conductive overburden has distorted the profiles sufficiently to mask other bedrock conductors. (Fig. 2).

There does not seem to be geological continuity to the conductors. The conductor at 300 NW on line 1000 NE may correlate with 275 NW on line 00, while 825 SE on line 1000 SW may correlate with 600 SE on line 00.

The best conductor is at 600 SE on line 00 where the inphase profile is significantly larger than the quadrature component with shifted base levels to allow for background.

Due to the large conductive overburden contribution, it is difficult to establish background levels for determination of conductivity and depths.

All the conductors are moderately deep, possible 100 meters, and overlain by significant thickness of conductive overburden. The top 25 meters are less conductive material.

A drill hole was positioned at approximately 750 SE on line 00 drilling to the northwest. This should have intersected a conductor at about 150 meters or more to conform to the interpretation. Depending of the results for the above drilling test, the other conductions mentioned should also be tested.

Respectfully Submitted,

K.N. Hendry, B.Sc.
Geologist

CERTIFICATE

I, Kenneth N. Hendry certify that:

1. I am a geologist residing at 128 Oakcliffe Place S.W., Calgary, Alberta
2. I received a Bachelor of Science degree in Geology from the Carlton University in Ottawa in 1967. I have been practicing my profession of mining geophysical exploration since 1967.
3. I am a member of the Alberta Professional Engineers Association (APEGGA) as a Professional Geologist.
4. I am the author of this report.
5. I am Supervising Geophysicist for Kenting Exploration Services Limited having been employed by the company since 1967.

K.N. Hendry, B. Sc.
Geologist

STATEMENT OF EXPENDITURES

Field Personnel

R. Sheldrake Geophysicist

October 12 to October 17, 6 days @ $200. per day $1200

N. Rebolski Assistant

October 12 to October 17, 6 days @ $ 75. per day $ 450

Expenses $1250

Equipment Rental 6 days @ 40.00 $ 240

Drafting

S. Smeeton

November 2, to November 5, 4 days @ $ 90. per day $ 360

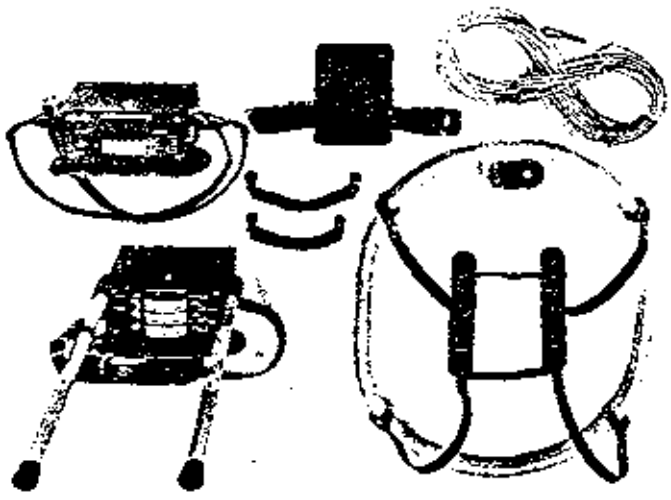
Material $ 30

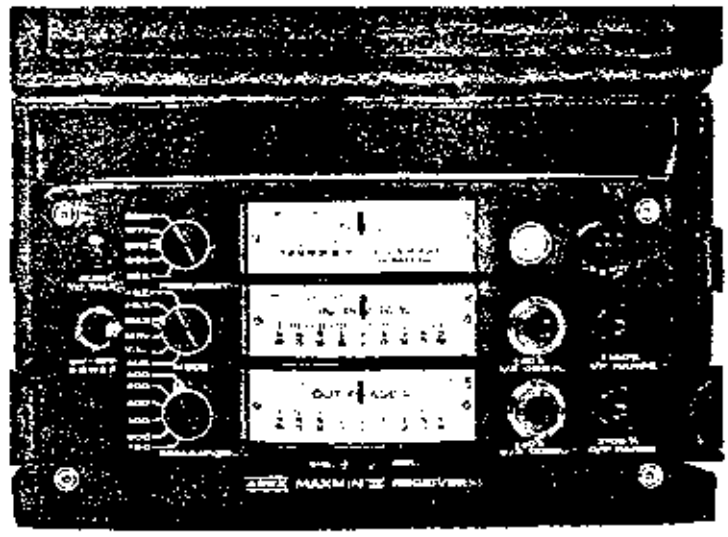
Interpretation

K. Hendry

November 27, to November 30, 3 days @ $200. per day $600

$ 4130.00





SPECIFICATIONS :

Frequencies: 222, 444, 888, 1777 and 3555 Hz.

Modes of Operation:
- MAX: Transmitter coil plane and receiver coil plane horizontal (Max-coupled; Horizontal-loop mode). Used with reference cable.
- MIN: Transmitter coil plane horizontal and receiver coil plane vertical (Min-coupled mode). Used with reference cable.
- V.L. : Transmitter coil plane vertical and receiver coil plane horizontal (Vertical-loop mode). Used without reference cable, in parallel lines.

Coil Separations: 25, 50, 100, 150, 200 & 250m (MM II) or 100, 200, 300, 400, 600 and 800 ft. (MM II F).
Coil separations in V.L. mode not restricted to fixed values.

Parameters Read:
- In-Phase and Quadrature components of the secondary field in MAX and MIN modes.
- Tilt-angle of the total field in V.L. mode.

Readouts:
- Automatic, direct readout on 90mm (3.5") edgewise meters in MAX and MIN modes. No nulling or compensation necessary.
- Tilt angle and null in 90mm edgewise meters in V.L. mode.

Scale Ranges:
- In-Phase: ±20%, ±100% by push-button switch.
- Quadrature: ±20%, ±100% by push-button switch.
- Tilt: ±75% slope.
- Null (V.L.): Sensitivity adjustable by separation switch.

Readability: In-Phase and Quadrature: 0.5%.
Tilt: 1%

Repeatability: ±0.5% to ±1% normally, depending on conditions, frequencies and coil separation used.

Transmitter Output:
- 222Hz : 175 Atm^2
- 444Hz : 160 Atm^2
- 888Hz : 100 Atm^2
- 1777Hz : 60 Atm^2
- 3555Hz : 30 Atm^2

Receiver Batteries: 9V trans. radio type batteries (4). Life: approx. 35hrs. continuous duty (alkaline, 0.5 Ah), less in cold weather.

Transmitter Batteries: 12V 75Ah Gel-Cell rechargeable batteries (2 x 6V in series).

Reference Cable: Light weight 2-conductor teflon cable for minimum friction. Unshielded. All reference cables optional at extra cost. Please specify.

Voice Link: Built-in intercom system for voice communication between receiver and transmitter operators in MAX and MIN modes, via reference cable.

Indicator Lights: Built-in signal and reference warning lights to indicate erroneous readings.

Temperature Range: -40°C to +60°C (-40°F to +140°F).

Receiver Weight: 6kg (13 lbs.)

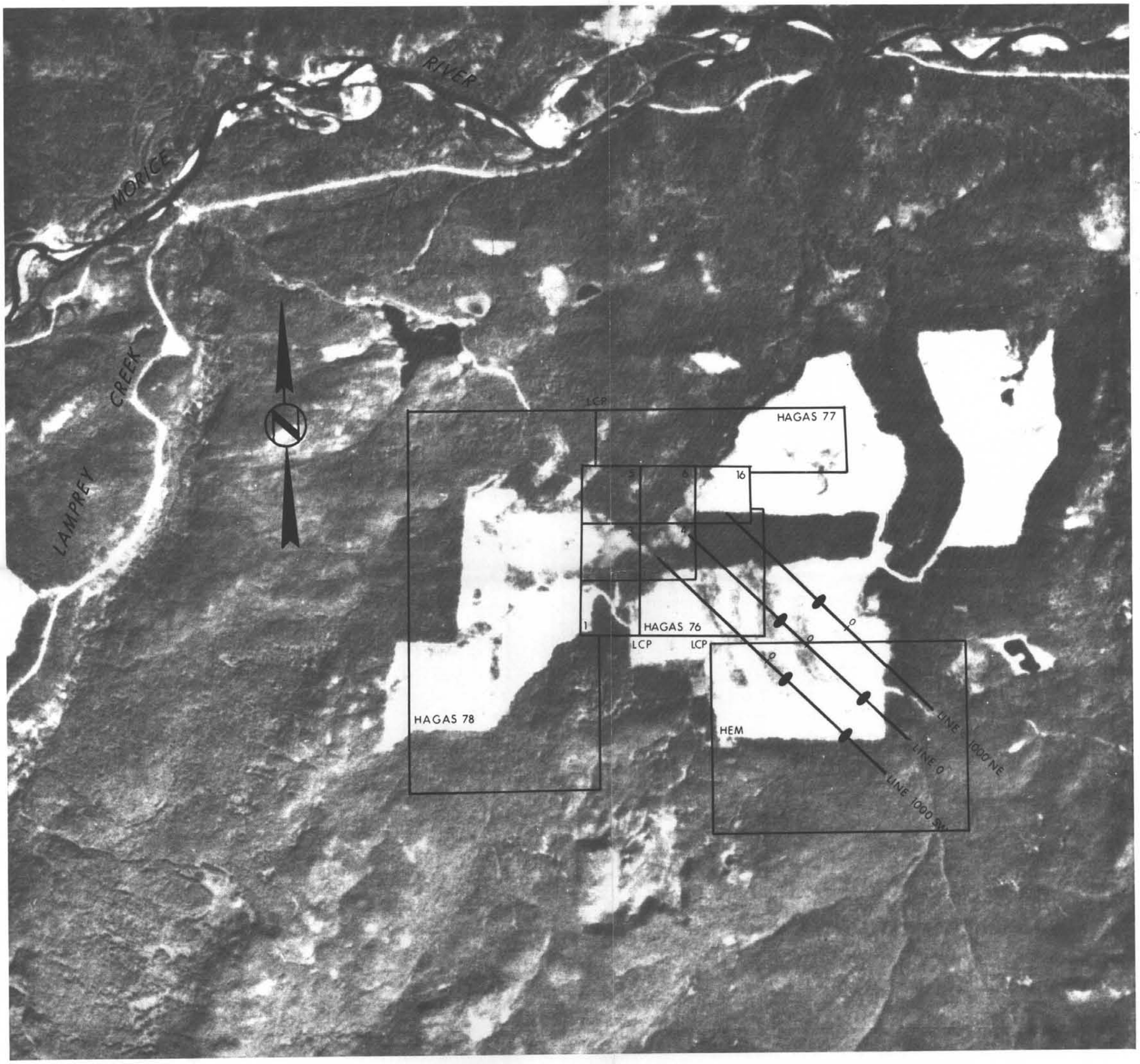
Transmitter Weight: 13kg (29 lbs.)

Shipping Weight: Typically 60kg (135 lbs.), depending on quantities of reference cable and batteries included. Shipped in two field/shipping cases.

Specifications subject to change without notification.

APEX PARAMETRICS LIMITED
200 STEELCASE RD. E., MARKHAM, ONT., CANADA, L3R 1G2

Phone: (416) 495-1612 Cables: APEXPARA TORONTO Telex: 06-966773 NORDVIK TOR



LEGEND

● E.M. CONDUCTOR

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
NO. 6658
PART 2 OF 3

AQUITAINE CORPORATION OF CANADA

CLAIM LOCATION MAP
HOUSTON, B.C.

TO ACCOMPANY REPORT BY: K. HENDRY

KENTING CALGARY ALBERTA EXPLORATION SERVICES LIMITED	SCALE 1:25,000	DATE NOV. 1977
	JOB NO. 2097	FIGURE NO. 1
	C.I.	DRAWN BY: H.M.

L. 1000 SW | L. 0 | L. 0 DETAIL | L. 1000 NE

f = 222 cps

f = 444 cps

f = 888 cps

f = 1777 cps

f = 3555 cps

NW — SE

LEGEND

IN PHASE		OUT OF PHASE	
x—x—x	x = 50	x—o—x	x = 50
x—·—x	x = 100	x—o—x	x = 100
x— —x	x = 200	x—o—x	x = 200
x—o—x	x = 250	x—o—x	x = 250

POSSIBLE BEDROCK CONDUCTOR

QUESTIONABLE BEDROCK CONDUCTOR

Scale 1:10,000

METERS

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
NO. 6658
PART 2 OF 3

AQUITAINE CORPORATION OF CANADA LTD.

MAXMIN II ELECTROMAGNETIC SURVEY

HOUSTON, B.C.

TO ACCOMPANY REPORT BY: K. HENDRY

KENTING EXPLORATION SERVICES LIMITED — CALGARY, ALBERTA

SCALE 1:10000 | DATE NOVEMBER 1977
JOB NO 2097 | FIGURE NO. 2
C.I. | DRAWN BY: S.S.