1702 B

PART 2

GEOPHYSICAL REPORT

E.M. Survey

on

The Ascot Claims:
Ascot M.C.'s 97-102 & 115-122

Dome Mt. Omineca Mining Division
15 miles E of Smithers, 54° 126°S.E.

by

D. Watson
J. Russell Loudon, P.Eng.

owned by

Texas Gulf Sulphur Company

August 15th - September 6th, 1968

TABLE OF CONTENTS

# LIST OF ILLUSTRATIONS

# ELECTROMAGNETIC SURVEY ON DOME ASCOT PROPERTY, B.C.

## INTRODUCTION

On August 15th - 26th an electromagnetic survey was performed on the Dome Ascot property which is owned by the Texas Gulf Sulphur Company. This survey was of the reconnaissance nature in that the line spacing was at 800 foot intervals and conductors were not traced out to their extremities.

### Equipment

The equipment that was used was the McPhar I.R.E.M. (Intermediate range electromagnetic) unit which has a power output of approximately 36 volts and utilizes frequencies of 2,000 and 400 cycles per second.

### Method

The method used was the fixed transmitter (marked with a on the accompanying map) and moving receiver system. In this case only one line on either side of the transmitter could be read from one transmitter set-up because of the 800 foot spaced lines. The lines that are read from a particular transmitter station are marked with the same number as on the transmitter position. The high frequency angles are on the left side of the line and the low frequency angles are on the right side of the line.

This vertical loop survey measures dip or tilt angles of the major axis of the ellipse of polarization of the total magnetic field. When the receiver passes over a conductor the angles will reach a maximum on one side, pass through zero over

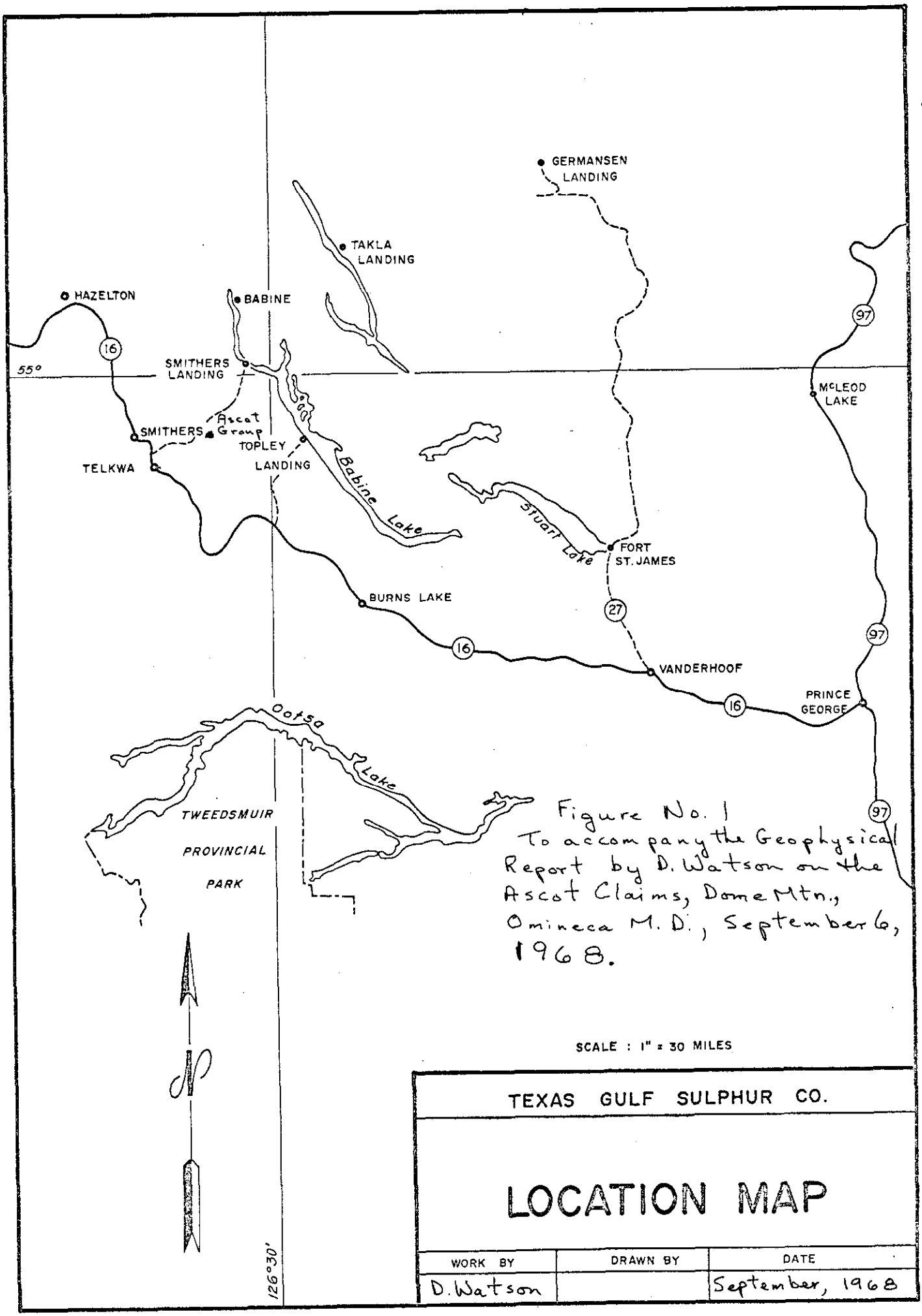


Figure No. 1
To accompany the Geophysical Report by D. Watson on the Ascot Claims, Dome Mtn., Omineca M.D., September 6, 1968.

SCALE : 1" = 30 MILES

TEXAS GULF SULPHUR CO.

# LOCATION MAP

| WORK BY | DRAWN BY | DATE |
|---|---|---|
| D. Watson | | September, 1968 |

the edge of the conductor and reach a maximum on the other side. This passing from one side to the other is called a "cross-over" and is noted on the accompanying map as passing from north dipping angles on the north side of the conductor to south dipping angles on the south side of the conductor.

Errors could be introduced into the survey from mis-orientation of the transmitter coil with respect to the receiver due to elevation differences between the transmitter and receiver. Therefore, small angles up to six or seven degrees would have no significance in this survey.

INTERPRETATION OF THE SURVEY

Very strong definite cross-overs were found on lines 312E, 320E, and 328E. Due to the fact that the lines are spaced 800 feet apart it is difficult to give a substantiated strike to the conductor. There is indication, however, that one conductor strikes northwest-southeast, with the cross-overs at 304E/307N, 312E/299N and 320E/295N. The strongest cross-over is at 328E/303N and it would be difficult to say in which direction the conductor strikes, but from the strength and symmetry of the profile, one would have to speculate that it is within $30^{o}$ of an east-west trend. There appears to be more conductive zones than the cross-overs would indicate and further work should be done, especially lines between the already present 800 foot cut lines. A horizontal loop survey would be more diagnostic than the vertical loop survey in that widths and dips can be made from the profiles. This

vertical loop survey does, however, reveal the axis of the conductor and one could in this case spot diamond drills from the already present work. There is nothing of any significance east of line 336E to the end of the grid and it would not be beneficial running the four hundred lines in this region.

The conductors appear to be within $\pm$ 20° of a vertical dip but to correctly ascertain this dip one should study the geology of the area.

RECOMMENDATIONS

Diamond drilling should be done on these conductors with the cross-over at 328E/303N being the first to be investigated. Prior to this, however, a certain amount of either vertical loop or horizontal loop electromagnetics should be done to correctly assess the possibilities of finding an orebody.

These conductors are strong which would indicate that they are close to surface and caused by either graphite, massive sulphides or a combination of both.

David Watson

per

J. Russell Loudon, P.Eng.

September 6, 1968
DW:js

# QUALIFICATIONS OF D. WATSON, GEOPHYSICIST
# TEXAS GULF SULPHUR CO.
# TORONTO OFFICE

## ACADEMIC QUALIFICATIONS

Bachelor of Science, Michigan Technological University, 1967, in Geophysical Engineering

## EXPERIENCE

Prior to Graduation:

1. Five summers 1955-1959 - geophysical operator with Selco Exploration Co., Ltd.

2. One Summer - 1960 - geophysical operator with M. J. Boylen Engineering Office.

3. Two years - 1961 - 1963 - geophysical party leader with Canadian Nickel Co., Copper Cliff.

4. Two summers - 1965 - 1966 - a) geophysical party leader with Texas Gulf Sulphur Co. and b) airborne navigator and operator in T.G.S. airborne E.M. and Mag. system.

## AFTER GRADUATION

1. One year as geophysicist with Texas Gulf Sulphur in charge of various kinds of ground geophysics.

David Watson

Form No. Z 1 - 220 WILLSON STATIONERS

**Canada**

Province of British Columbia

**To Wit:**

**In the Matter of**

The attached report "Geophysical Report, EM Survey, Ascot Claims, Omineca Mining Division" by David Watson

**I,** J. Russell Loudon, P.Eng. , of 701 - 1281 W. Georgia St.

Vancouver 5, in the Province of British Columbia.

**Do Solemnly Declare that** I have supervised the work carried out and described in the attached report and that

a) The work was carried out during the period August 15 - September 6, 1968 by

| | | | |
|---|---|---|---|
| b) | D. Watson, T.G.S. Geophysicist | Aug. 15-26<br>12 days @ $50.00/day | $ 600.00 |
| | F. Glass, assistant | Aug. 15-30<br>16 days @ $28.75/day | $ 460.00 |

and that their

| | | | |
|---|---|---|---|
| c) | Living Expenses were at the rate of $8.00/day/man for 28 man days | | 224.00 |
| | | TOTAL | $1,284.00 |

The equipment used was a McPhar IREM (Intermediate Range Electromagnetic) unit with motor generator owned by Texas Gulf Sulphur Company

**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 Vancouver

in the Province of British Columbia.

this 12th day of September A.D. 1968

A Notary Public in and for the Province of British Columbia
A Commissioner for taking affidavits for British Columbia
Gold Commissioner