Geophysical Report - Gravity Survey on
Barite claims

CHRIS No. 1, 2, 3, and 4 (2 Post claims)

Fort Steele Mining Division - South Eastern B.C.

Skookumchuck 82G/13 West

Lat. 49° 50' 07" N. Long. 115° 50' 27" W.
Elev. - 4400'

Ownership - Owned by Gerald Mason
413 - 4th Avenue,
Kimberley, B. C. V1A 2R7
Telephone: 427 - 3197

Field Work Party - Mike McComb, Senior

Line Cutting & Geology - G. Mason and H. Fors

Authors of Report - R. B. Galeski
Gerald Mason



Work done May 20, 1980.
Amended - May 15, 1981.

Geophysical Report - Gravity Survey on Barite Claims

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CONTENTS



Maps (In Pocket):

Index Map Plate 1

Gravity Survey " 2

8795

INTRODUCTION

This barite mineral occurrence is located in the Purcell Mountains at an elevation of 4400 feet. It occurs to the west of Lost Dog Creek about 800 to 1000 feet above the Creek. The deposit occurs above the logging road and above steeply inclined cliffs. The deposit may be reached on a logging road 9 miles west of TaTa Creek Post Office.

The deposit was located by Helge Fros in 1961 to 1963. It was located on a skid trail leading into a log loading landing on the logging road. Originally Helge Fors found malachite stained barite float under 6" in diameter on the road.

The Chris No. 1, 2, 3, and 4 claims were staked in 1978. Several small trenches 4 feet deep and about 20 feet long located two areas of barite with blocks about 4' in diameter and about 20' apart. This barite was in place in bedrock. The bedrock near the barite appeared to be altered and crushed in the shear zone with an attitude St. N. 50° E.

The claims were staked and located by Gerald Mason, 413 - 4th Avenue, Kimberley, B. C., V1A 2R7. Helge Fors and D. C. Jackson have an interest in the property.

Geological examination by the writer and owner indicated the barite was located at the base of the Kitchener Formation (argillaceous limestone) and about 100 feet stratigraphically above the top of the Creston Formation (greenish argillites). The attitude of the bedding north of the shear

or fault zone is Strike [illegible] Dip East 85°. The bedding planes form steep cliffs 100 to 200 feet high on lower side of the logging road. The barite occurs in a crushed shear zone in a fault zone whose attitude is St N 50°E Dip 60° N.W.

A fault plane is shown on Fernie West Half. Map 11 - 1960 - G. B. Leech. Sheet 82 $\frac{G}{NW}$ and 82 $\frac{G}{SW}$. This unnamed fault has right hand displacement of 7500 feet. Tentatively, I correlate this fault with the Ryot Fault which intersects the northwest corner of the Sullivan Orebody and apparently offsets the Kimberley Fault Plane. The distance from the "Chris Barite Fault" and the Ryot Fault is 9½ miles.

If the Ryot Fault is traced a further 4½ miles southwestward there is a strong overthrust fault in the "Low Pass Valley" immediately west of the North Star Hill. The bedding planes on west side of the "Low Pass" are contorted, overturned large drag folds with amplitude of several thousand feet. Therefore, I believe the "Chris Barite Fault", the Ryot Fault, and the "Low Pass Thrust" are one and the same fault plane.

The barite occurrence on the Chris M.C. cannot be evaluated until further trenching, geology and geophysical work is done. It could be of value not only for barite, but also for base metal fissure deposits.

The geophysical gravity survey was designed to test two structural possibilities: first, that the barite was a stratiform deposit near the base of the Kitchener Formation

trending north south and dipping vertically, or second, that the barite was a fissure vein in a strong shear or fault plane trending N 50° E.

Airborne Geophysical Surveys Ltd.
CALGARY ALBERTA

4215C - 11TH STREET N.E.
CALGARY, ALBERTA T2E 6K4
PHONE: (403) 276-9032

# GEOPHYSICAL REPORT

## GRAVITY SURVEY

## CHRIS CLAIMS

## B.C.

Field survey was conducted in the spring of 1980 under the direction of Mr. McCombe. Three east-west lines spaced at 50' were run 225' long with a central 25o' north-south tie line and a tie line on the east (900' long) extending equidistant north and south of the east-west lines.
Station spacing on the long line is 50' and on the rest 25'.
In all, 56 stations were metered. The northernmost east-west line and the central tie line entered approximately 15' from the initial claim post 217256.

The gravity survey was conducted with a LaCoste and Romberg G-Meter (#232) and automatic level. Base stations were occupied at approximate 2-hour intervals for adequate drift control. Elevation corrections were made with an e.c.f. of 0.060(surface density of 2.67), Drift and latitude were handled conventionally.

Except for a very small regional northerly gradient of 0.3 mgal across the area there is no change in the gravitational field that is outside the accuaracy limits of the survey. Therefore, it was not possible to construct a meaningful Bouguer contour map. No anomalies were found, and no recommendation is made for further work within the area of this survey.

Robert B. Galeski

R.B.Galeski. P. Geoph.

My qualifications:

1941 - B.Sc. Geology, Calif. Inst. of Tech.
1941-43 United Geophysical Company.
1943-46 War Service
1946-47 Party Chief. United Geophysical Co.
1947-61 Div. Geophysicist - Honolulu Oil.
1961-66 Area Manager - United Geophysical Co.
1966- Present. Geophysical consulting and Pres. Airborne Geophysical Surveys Ltd. Registered professional geophysicist, Alberta.

## CONCLUSION

The geophysical gravity survey showed no anomalies in the portion of the Chris claims tested. No further geophysical work was recommended by Robert Galeski. The gravity survey tested the only known occurrence of barite on the Chris claims. I agree with the conclusion by R. Galeski.

However, geologically the barite on the Chris claims occurs in the "Chris Barite Fault". The correlation of the "Chris Barite Fault", the "Ryot Fault" and the "Low Pass Thrust Fault" appears to be a valid interpretation. This fault, attitude St. N 50° E Dip N.W. 60°, has been recognized over a strike length of fourteen miles and has a right hand displacement of 7500 feet. This system of faulting and overthrusting also correlates with the Jonel overthrust folds within the Sullivan ore body. Tentatively, this indicates the age of the fault and folds to be related to Mesozoic intrusive, or 300 to 100 million years old. The strength of this fault and fold tructure would justify further detailed geological examination, both on the Chris No. 1, 2, 3 and 4 claims and on adjoining unstaked ground.

There is no reason why other zones (fissure vein type) of barite mineralization and other zones of sulphide minerals could not be found in extensions of the "Chris Barite Fault". An alternate possibility is that the barite could be a stratiform horizon about 5000 stratigraphic feet above the base of the Kitchener Formation. This would mean that

extension of a barite horizon would be displaced 7500 feet to the right on the "Chris Barite Fault Plane". Extensions may occur on east slope of Lost Dog Creek valley.

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11th June, 1980

Dynamic Drilling Fluids Ltd.
818, 703 - 6th Ave., S.W.
Calgary, Alberta.
T2P 0T9

Attention: Graig Willis.

INVOICE #1709

PARTY #11.

| GRAVITY CREW: May 16th - 20th, 1980. | | | CHRIS | BBX |
|---|---|---|---|---|
| 5 days @ $600.00/day | | $3,000.00 | 900.00 | 2100.00 |
| Vehicle Rental: 5 days @ $55.00/day | | $275.00 | 82.50 | 192.5 |
| Motel. | Receipts | $280.40 | 84.00 | 196.4 |
| Meals | Receipts | $197.65 | 59.00 | 138.65 |
| Vehicle Gas. | Receipts | $99.46 | 30.00 | 69.46 |
| | TOTAL... | $3,852.51 | 1155.50 | 2697. |

Work on B X & Chris Claims.

CHRIS $

BBX $

ASSESSMENT BREAKDOWN

Geophysical Crew

| | |
|---|---|
| M. McComb, Senior | $250/day |
| M. McComb, Junior | 150/day |
| Surveyor | 150/day |
| Gravity Meter Rental | 50/day |
| | $600/day |

| | |
|---|---|
| Survey May 20 and ½ day calculation and plotting (600 x 1½) | $900.00 |
| Vehicle Rental 4 wheel drive | 82.50 |
| Motel - Geophysical crew | 84.00 |
| Meals " " | 59.00 |
| Vehicle Gas " " | 30.00 |
| | $1,155.50 |

Value of assistance on line cutting for geophysical survey and geology report, May 20, 1980.

| | |
|---|---|
| G. Mason | $150 |
| H. Fors | 150 |
| Vehicle | 30 |
| Vehicle gasoline | 25 |
| | $355 |

Value of work done, but not charged out

Airborne Geophysical Surveys Ltd.
CALGARY ALBERTA

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CALGARY, ALBERTA T2E 6K4
PHONE: (403) 276-9032



STATEMENT OF QUALIFICATIONS

I Michael McCombe. #5, 27 Silverspring Dve. N.W. Calgary, state that

1. Mt. Allison University.
2. Have been active in Mining Exploration for 33 years.
3. Have operated Wordon, Sharp & LaCoste & Romberg gravity meters since 1964.
4. Compute Gravity Data up to and including Bouguer and residuals.
5. Presently Party Manager (Gravity Division) for Airborne Geophysical Surveys Ltd. Calgary, Alberta.

M. McCombe.

Airborne Geophysical Surveys Ltd.
CALGARY ALBERTA

4215C - 11TH STREET N.E.
CALGARY, ALBERTA T2E 6K4
PHONE: (403) 276-9032

# STATEMENT OF QUALIFICATIONS

I, Robert B. Galeski, state that;

1. I am a registered professional geophysicist in the province of Alberta.

2. I reside near Calgary, Alberta.

3. I received a B.Sc. degree in geology from the California Institute of Technology.

4. I have had thirtyseven years professional experience in geology and geophysics.

5. For the past fifteen years I have been a geophysical consultant and president of Airborne Geophysical Surveys, Ltd.

Robert B. Galeski.
P. Geoph.
April, 1981.

Robert B. Galeski

GERALD MASON -- GEOLOGICAL EXPERIENCE

| | |
|---|---|
| 1935 - 1941 | Field assistant on Geological Survey of Canada |
| 1940 | B.A. in Geology, U.B.C. |
| 1941 - 1944 | Cominco - Mine Geologist, Pinchi Lake Mercury Mine |
| 1945 - 1946 | Cominco - Exploration Northern B.C. |
| 1947 - 1964 | Cominco - Sullivan Mine Geology |
| 1964 | Cominco - Deep drilling Pinchi Lake Mercury |
| 1965 - 1976 | Cominco - Sullivan research exploration |
| Nov. 1976 | Retired Cominco |
| 1977 | Consulting geology - Texas Gulf |
| 1978 | Consulting geology - Nelson Price - gold, Sawmill Creek<br>- A. Miller - Hat - barite<br>- Imperial Oil - Frost's claim<br>- BBX - barite claims reports to Baroid and Mountain Minerals |
| 1979 | Consulting geology - International Marble & Stone Ltd.- magnesite<br>- Doug Roller- Wardner - limestone |
| 1980 | Consulting geology - Bonn Energy-Frost's claim |

Gerald Mason

GERALD MASON

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT

8793

Skookumchuk River

Echo Lake

CHRIS

AZIMUTH 101° to North end of Lost Dog Lake.

LAT 49° 50'

LAT 49° 50'

Lost Dog Creek

Road

7 miles

Lost Dog Cr.

4000

3500

6 miles

4 miles

Road

To To Lake

To To Creek

P.O.

1 mile

2 miles

5 miles

Road to Horsefly

3500

LONG 115° 50'

HIGHWAY

| Drawn by: G. MASON. | | Traced by: | |
|---|---|---|---|
| Revised by | Date | Revised by | Date |
| | | | |

CHRIS Nº 1, 2, 3 + 4
2 POST MINING CLAIMS

REF. SKOOKUMCHUCK.
82 G/13 WEST HALF

1 0 1 MILE 2

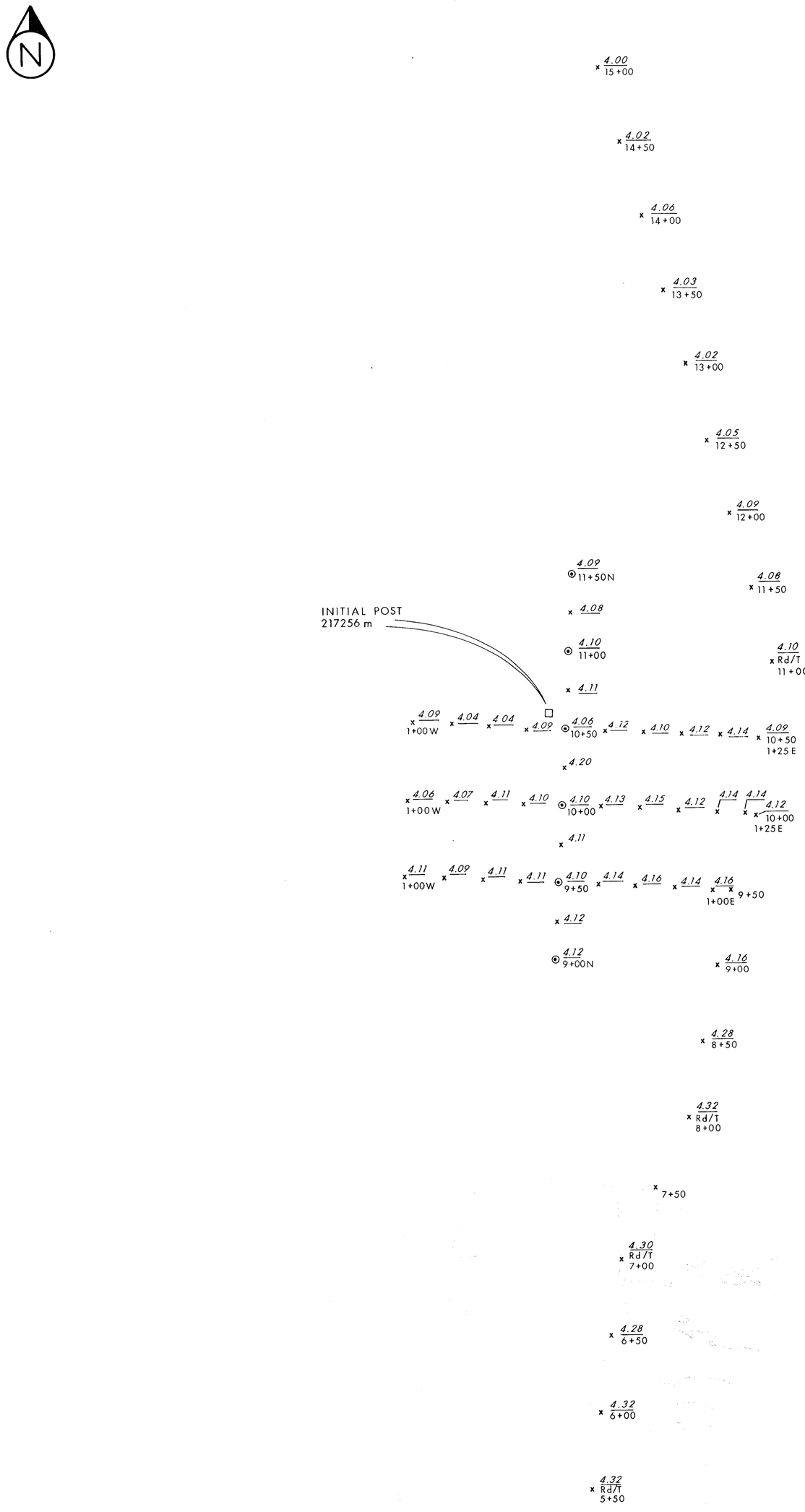
1000 500 0 1000 2000 3000 METRES

Scale: 1" = 50,000'

Date: Aug 27, 1978

Plate: 1

210-0610






AIRBORNE GEOPHYSICAL SURVEYS

CHRIS PROSPECT

-50' -40' -30' -20' -10' 0' 50' 100'

PLATE 2.

| | |
|---|---|
| BY: | DATE: JULY 1980 |
| CONT. INT. | SCALE: 1" = 50' |