NEW FILE

#### REPORT ON THE FRM CLAIM

HORSEFLY, B.C.

671906

March 16, 1976

B. Taylor, P.Eng.

#### GEOLOGICAL REPORT ON THE FRM CLAIM

HORSEFLY AREA, B. C.

FOR

MARGE ENTERPRISES LTD.

BERT TAYLOR, P.ENG.

MARCH 15, 1976

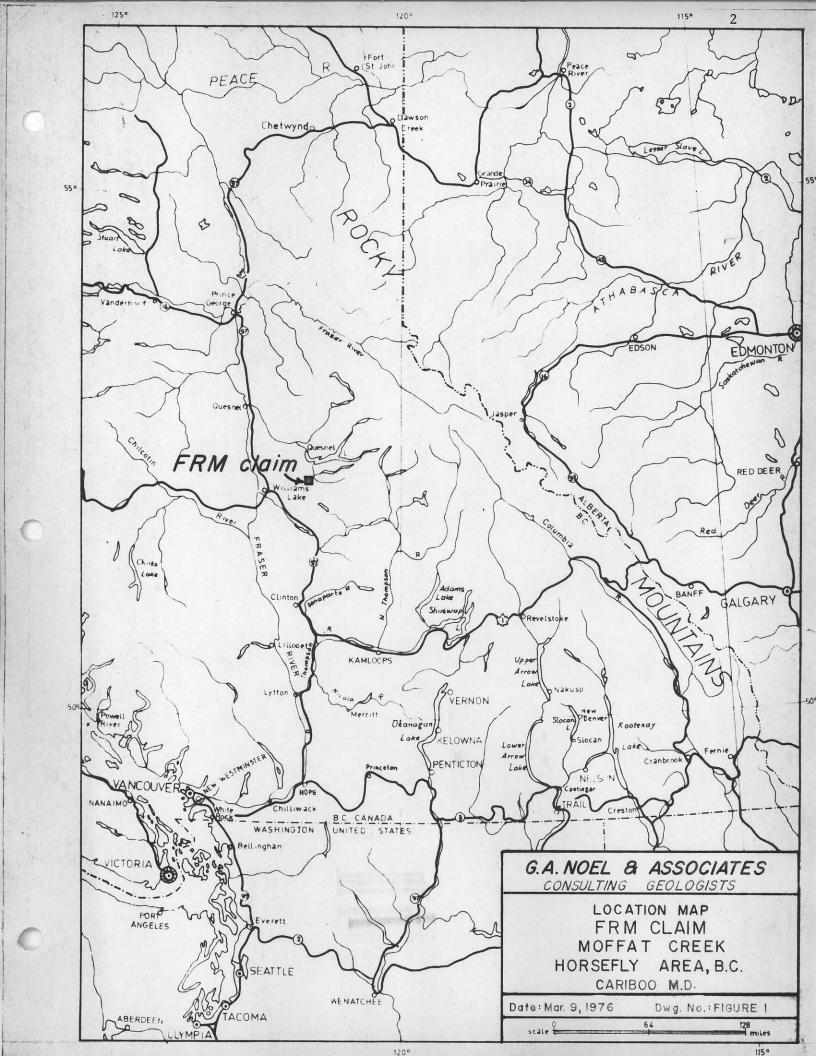
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#### SUMMARY

The FRM claim is located in the Horsefly area of the Cariboo mining district. The area is underlain by Mesozoic rocks which have been deeply weathered and eroded. The topography, rocks and residual sediments have been preserved to a large extent by Tertiary vulcanism. Some of these buried residual gravels may contain gold placers as the mines at Horsefly would indicate.

A program is recommended to search for one such ancient channel believed to cross the property. It would be tested for placer gold in the gravels and native copper in the volcanic rocks.



#### INTRODUCTION

At the request of R. A. Hrkac, the following report on the FRM claim, located near Horsefly, B. C., was prepared. Data was obtained from unpublished company reports; private communication with G. A. Noel, who was in charge of the diamond drilling for El Paso Mining and Milling Company; and the included list of Geological Survey of Canada and British Columbia Department of Mines reports. The writer has not visited the property.

#### LOCATION

Latitude 52°17'N Longitude 121°28'W

The FRM claim is located on Moffat Creek approximately four miles upstream from its junction with the Horsefly River to the north, at the community of Horsefly. The ground more-or-less centers on a 20-foot falls in the stream. Its elevation ranges from 2890 - 3020 feet above sea level.

#### **ACCESS**

The property is crossed by a well maintained gravel road, four miles out of Horsefly. The latter in turn is 35 miles east of Williams Lake, B. C.

#### PROPERTY

The property consists of one claim FRM, comprising four units. The following information was obtained March 8, 1976, from the Vancouver Recording office.

FRM

81

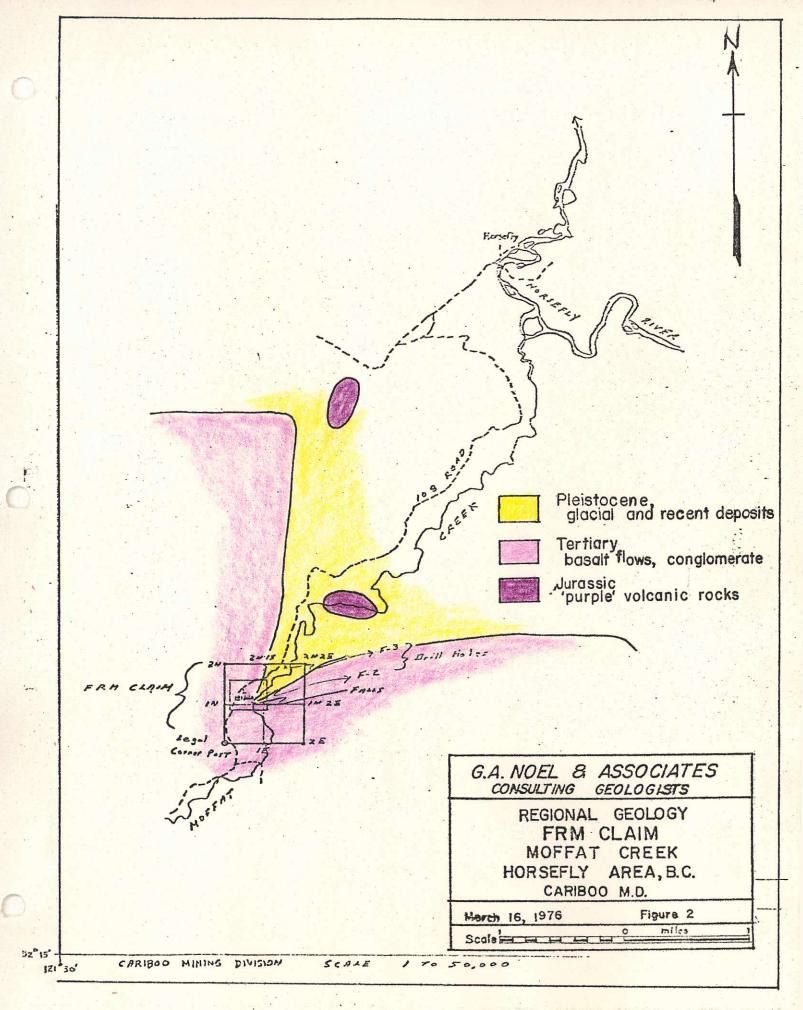
Claim Name

Record No.
Recording Date

Recording Date October 10, 1975
Owner Raymond Andrew Hrkac
949 Jarvis Street

Coquitlam, B. C.

The legal corner post is situated in the Cariboo Mining Division, four miles southwesterly from Horsefly, ---- approximately 675 metres southwest of the falls on Moffat Creek and 30 metres west of the 108 road. All the required information has been impressed on metal tags No. 10520 and securely fastened to posts as required.



#### TOPOGRAPHY

The FRM is in the rolling topography of the Interior Plateau between the Columbia Highlands to the east and the Fraser Basin to the west.

#### HISTORY

Placer gold was found at and near the present day community of Horsefly in the early 1860's. The main occurrences were Wards Horsefly mine, Hobson's Horsefly mine and the Miocene mine. The former two were considered to be reconcentrations of older placers found in Miocene gravels. Considerable thought and energy were expended in trying to determine the position of these older gold bearing Tertiary channels. Documentation of the evidence and reasoning is provided in B. C. Minister of Mines Reports for 1904, 1931, and 1938.

The Mogul mineral claim was staked in August 1902 on ground that is now the FRM claim. 'Native copper embedded in lava was reported. It was considered possible that free gold might occur as well. However no further mention of these claims has been noted in the literature.

In May 1972, the ground now covered by the FRM claim was staked for El Paso Mining and Milling Company by F. Onucki as the Falls 1-12 mineral claims on the basis of these reports of native copper. The Falls property was drilled by El Paso Mining and Milling Company in May and June of 1974.

#### REGIONAL GEOLOGY

The GSC preliminary map 3-1961 of the Quesnel Lake area, a portion of which is included as Figure 2, shows that lower Jurassic "purple" volcanic rocks are the oldest rocks in the vicinity. These volcanics include pyroxene-bearing andesitic agglomerate, breccia and flows. Minor sediments may also be included within this formation.

This unit is overlain by a Tertiary formation consisting of basaltic flows, minor tuffs, conglomerate and sandstone. The conglomerate especially has been the target of much investigation. It is believed to host placer gold deposits where it formed the bed of an ancient river, blocked on more than one occasion by lava flows. The gravels consist wholly of resistant well-worn quartz pebbles of uniformly small size, and exemplify a typical residual gravel.

In a discourse on Tertiary drainage channels, Douglas Lay, then resident mining engineer, states in the 1931 Report of the Minister of Mines, that "what is assumed to be a Tertiary Moffat Creek channel, which flowed into the Beaver Valley (to the north-west) by way of Gravel Creek, is cut through by Moffat Creek, just below the falls and is well exposed on both sides of the Creek".

The whole area has been extensively glaciated, with the usual glacial and Recent alluvial deposits of till, gravel, sand, silt and clay.

#### LOCAL GEOLOGY

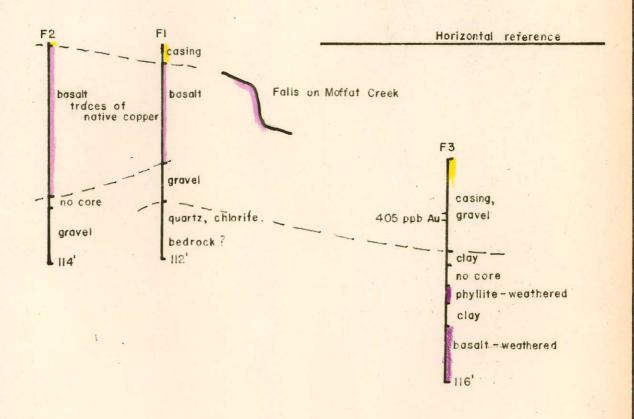
Vesicular basalt outcrops on the property, and constitute the ledge which forms the falls.

Three short, vertical X-ray diamond drill holes were drilled by El Paso Mining and Milling in May and June 1974. The three holes are shown in a diagramatic cross-section as Figure 3, with considerable vertical exaggeration. It should be noted that core recovery was poor, primarily because of the small size of the drilling equipment.

Hole No. 1 reached a depth of 112 feet. Basalt was intersected from 10-62 feet. A quartz pebble gravel was recovered from 62-82 and from 82-112 feet, it was quartz with a little included schist. Trace amounts of copper and gold were detected in assays.

Hole No. 2 was collared about the same elevation and 580 feet away at an azimuth of  $305^{\circ}$  from hole No. 1. It bottomed at 114 feet and was in basalt from 3 - 79 feet and in a quartz gravel from 79 - 114 feet similar to Hole No. 1. Only extremely low values in copper and gold were recovered in the assays, although sludge analysis revealed copper values up to 600 ppm.

Hole No. 3 was collared 1470 feet distant at an azimuth of  $57^{\circ}$  from hole No. 1, and is an estimated 60 feet lower in elevation. 45 feet of casing were required in the hole which was stopped at 116 feet. It was gravel, with basalt boulders predominating to 14 feet, and thereafter quartz boulders were dominant. Clay, phyllite and schist were present from 45-87 feet. A weathered basalt was recovered from 87-106 feet. Sludge assays of up to 360 ppm copper were obtained to a depth of 66 feet and from 27-31 feet gave 405 ppb in gold.



# G. A. NOEL & ASSOCIATES CONSULTING GEOLOGISTS

## VERTICAL SECTION

THROUGH

## DIAMOND DRILL HOLES FI, F2, F3

Relative elevations estimated

VERTICAL Scale I" ≈ 50' HORIZONTAL Scale I" ≈ 500'

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FIGURE 3

#### CONCLUSIONS

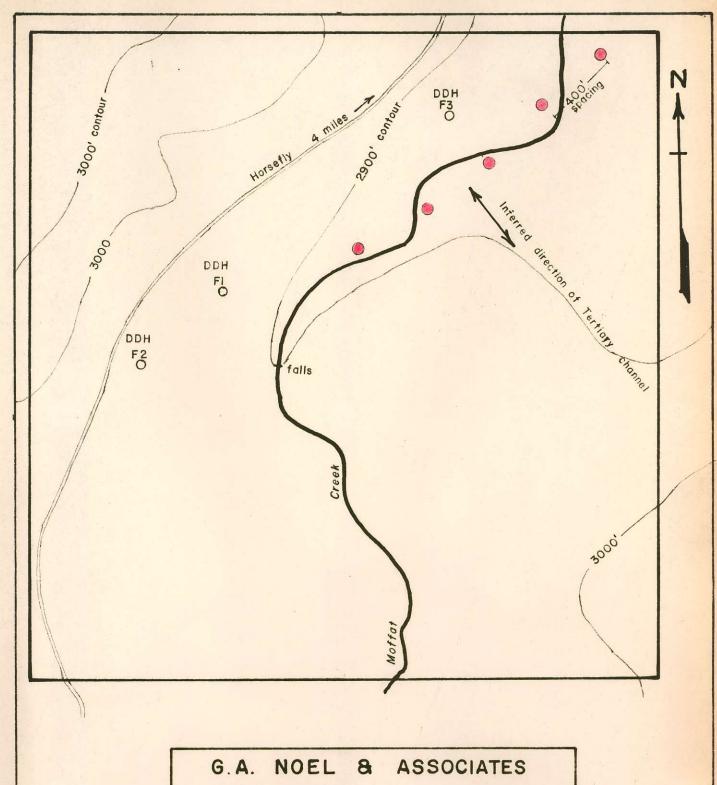
In drilling the copper-bearing volcanic flows of the Falls claims, the flows were penetrated in two holes into quartz rich gravels. The third hole, collared at a lower elevation, started in gravels and finished in clay, phyllite, schist and a weathered basalt. This can be interpreted as an ancient weathered bedrock surface.

This may represent an ancient Tertiary channel that has been postulated to cross Moffat Creek in this vicinity. One sludge sample showed minor gold values.

#### RECOMMENDATIONS

The following exploration program is recommended for the FRM claims.

- 1. Detailed geological mapping, on a scale of about 1" = 200'.
- 2. Drilling. A series of short holes at 400 foot intervals should determine the elevation of bedrock and the ancient channels, as well as sample the material above it. A Becker drill would give the largest and probably best sample for gold. On the other hand an NQ diamond drill hole would be the most useful for determination of rock types and for sampling the native copper in the volcanics.



CONSULTING

GEOLOGISTS

SKETCH MAP OF

### FRM CLAIM

SHOWING LOCATION OF

PROPOSED DRILL HOLES

1"≈500'

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FIGURE 4

#### COST ESTIMATE FOR PROPOSED PROGRAM

Personnel 1 geologist @ \$125/day for 15 days 1 assistant @ \$50	\$ 1,875 750
Contract  NQ diamond drilling, mobilization, demobilization 5 holes 200' depth 1,000' @ 20.00	20,000
Accommodation 4 men @ 20.00 for 15 days	1,200
Transportation - airline fares Rental - pickup	400 300
Assays 100 samples @ 5.00	500
Report Preparation ,	750
Contingencies, say	3,225
Total	\$29,000

It is estimated that this program would take about one month to complete.

#### REFERENCES

Map: G.S.C. Preliminary series 3- 1961 Map: G.S.C. Aeromag. Series 7221G

B. C. Department of Mines Annual Reports
1904 H 260

1931 A96-101 1938 C15-36

El Paso Mining & Milling: company files and personal communication.

Vancouver, B.C. March 15, 1976

B. Taylor, P.Eng.

B. Taylor

#### CERTIFICATE

I, Bert Taylor, of the District of North Vancouver, British Columbia, do hereby certify that:

- 1. I am a Consulting Geological Engineer.
- 2. I am a graduate of the University of Saskatchewan in Geological Engineering, 1941.
- 3. I am a registered Professional Engineer of the Province of British Columbia and of the Corporation of Professional Engineers of the Province of Quebec.
- 4. I have practised my profession continuously since 1941, except during a term in the armed forces from 1942 1945.
- 5. I have reviewed the reports and data listed under References in this report.
- 6. I have not, nor do I expect to receive any interest direct or indirect, in the FRM claim.

Dated at Vancouver, B. C. this 15th day March, 1976.

Bert Taylor, P.Eng.