

GEOCHEMICAL REPORT
THE EMPRESS CLAIM GROUP
(Report No.2)

Location : On Shinish Creek, 6 miles S.E.
of Osprey Lake, 120 - 49 N.E.

Report by : Roderick Macrae, P.Eng.

Claim Owner : Anaconda American Brass Limited

Work Done for : Anaconda American Brass Limited

Dates of Work : May 29, 1969 to July 31, 1969.



2036

GEOCHEMICAL REPORT

THE EMPRESS CLAIM GROUP

(Report No.2)

Department of	
Mines and Petroleum Resources	
ASSESSMENT REPORT	
NO. 2036	MAP.....

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APPENDIX "A"

STATEMENT OF COSTS OF LINE CUTTING AND SOIL SAMPLING

Line Cutting Costs

<u>Name</u>		<u>Category</u>	<u>Rate/ Day</u>	<u>Dates Worked</u>	<u>Wages</u>	<u>Time Expended Days</u>
Galloway, G.		Linecutter	\$15.00	May 29-July 31	\$ 79.40	10
Gavel, L.		"	16.92	" "	256.00	15
Oliver, M.		"	14.25	" "	260.00	19
Twomey, C.		"	19.38	" "	115.50	6
Carlson, N.		"	15.14	" "	169.00	11
Gabanek, J.		"	16.00	" "	39.20	2.5
Culver, D.		"	17.00	" "	77.40	4.5
French, P.		"	17.81	" "	35.62	2
Smith, P.		"	21.80	" "	22.90	1
Westgeest, G.		"	18.00	" "	36.00	2
Hastings, F.		"	19.80	" "	19.80	1
					<u>\$1,110.82</u>	<u>74</u>

Soil Sampling Costs

Galloway, G.		Sampler	\$15.00	June 26-July 31	\$ 115.44	7
Gavel, L.		"	16.92	" "	58.79	3.5
Oliver, M.		"	14.25	" "	49.38	3.5
Twomey, C.		"	19.38	" "	184.13	9.5
Carlson, L.		"	15.14	" "	112.89	7.5
Gabanek, J.		"	16.00	" "	48.00	3
Culver, D.		"	17.00	" "	8.50	1
French, P.		"	17.81	" "	17.81	1
Dubberley, D.		"	18.86	" "	18.86	1
					<u>\$ 613.80</u>	<u>37</u>

APPENDIX "B"

STATEMENT OF COSTS OF THE SOIL SAMPLE SURVEY

Line Cutting

Labour	\$ 1,110.82	
Maintenance in field, 77 men @ \$8.00	616.00	
Transportation in field, 35 days @ \$20.00	<u>700.00</u>	\$ 2,426.82

Soil Sampling

Labour	\$ 613.80	
Maintenance in field, 37 men @ \$8.00	266.00	
Transportation in field, 12 days @ \$20.00	<u>240.00</u>	1,119.80

Analyses of 950 samples @ \$2.50/sample 2,375.00

Supervision, line cutting and sampling 750.00

Mapping, engineering, drafting, typing 265.00

Total \$ 6,936.62

APPENDIX "C"

INDEX TO LINE CUTTING AND SOIL SAMPLING

FOR THE PERIOD 15 MAY - 31 JULY, 1969

For

GEOCHEMICAL REPORT - EMPRESS CLAIM GROUP

REPORT NO.2

<u>Line</u>	<u>Cut & Sampled</u>	<u>Length</u>	<u>No. of Samples</u>
88 N	198 E - EBL	10,200 ft.	102
92 N	198 E - EBL	10,200	102
172 N	100 E - CBL	10,500	103
180 N	198 E - 282 E	8,400	83
188 N	198 E - 282 E	8,400	83
196 N	CBL+10 - 282 E	7,800	74
204 N	198 E - 282 E	8,400	85
220 N	198 E - 310 E	11,000	113
244 N	100 E - 198 E	10,400	100
248 N	100 E - 198 E	10,400	100
		-----	-----
		95,700 ft.	945
		=====	=====

ANACONDA AMERICAN BRASS LIMITED

GEOCHEMICAL SURVEY OF THE
EMPRESS CLAIM GROUP

Introduction

The Empress Claim Group was staked in June, August, and October of 1968 as a contiguous block of claims and fractional claims. In September and October, 1968, approximately 2500 soil samples were taken on a grid-type soil sample survey. Sampling was concentrated in the north-west block of the claim group and in the north-east block, since in both of these areas discoveries of molybdenite mineralization in place had been made.

A study of the results of the 1968 work indicated that additional sampling should be done, which work is the basis of this report. The 1968 work was summarized in a report and map dated June 20th, 1969, and submitted for assessment requirement. The title of that report is, "Geochemical Report - The Empress Claim Group."

Description

The Empress Claim Group is made up of the following claims: Empress 1 to 54, 642 to 655, 2617 to 2676, 4562 to 4569, 5656 to 5666, 8315, and Empress 55 Fr., 56 Fr., 57 Fr., and 58 Fr.

They occupy an area on the north side of Shinish Creek from the head of Empress Creek east to the divide separating Shinish Creek from the creek draining north-east into Trout Creek and an adjoining area occupying the valley of Shinish Creek and the ground south of Shinish Creek near

its head. The location is approximately 6 miles south-east of Osprey Lake. Seven of the 152 claims are recorded in the Osoyoos Mining Division, the balance of the group's 145 claims are recorded in the Similkameen Mining Division.

Ground cover is interior jack-pine with small patches of spruce around drainage systems. There is one large size swamp area in the vicinity of Empress Creek and several small (less than 500 feet in diameter) swampy areas on the south side of the head of Shinish Creek.

Bedrock cover is generally complete over the claims; there are small rock bluffs exposed on the north side of Shinish Creek and at rare intervals outcrops up to 20 feet by 20 feet occur. Bedrock is estimated to be shallow except adjacent to and on the north side of Shinish Creek. Here there are indications of concentrations of glacial till in the form of small moraines.

Geology

Granodiorite and monzonite are the two predominant rock types. Molybdenite is the only sulphide other than pyrite observed on the claims. Pyrite occurrence is variable but does not exceed 2% where observed. Work done in 1969 indicates that weathering and/or chemical alteration is extensive in the granodiorite. It is known to occur for 20 feet in depth and may be considerably deeper.

Reason for the Survey

The program of grid soil sampling in 1968 resulted in two anomalous molybdenum areas on the claims; more extensive and more detailed sampling was recommended following study of the 1968 results.

Details of the Survey

An east-west base line was established along the projection of the centre line of staking of Empress 1 to 10; a north-south base line was established along a line connecting the final posts of Empress 31/32, 23/24, 49/50, and the initial posts of 642/643, 2617/2618, and 2631/2632. At intervals of 800 feet north and south of the east-west base line, surveyed lines chained and picketed at 100 foot intervals were cut out, using Brunton compass and survey chain methods. Some 18.15 miles of lines were surveyed in this manner. Stations at picketed points were identified with the standard north-south, east-west grid numbering system. The survey is tied to an existing B. C. Forest Service base line at the west end of the group of claims.

Early in September an orientation survey was conducted in an area where bedrock cover occurs up to 3.5 feet. Within the surveyed area the bedrock is overlain by 4 to 16 inches of C-soil horizon, in turn overlain by a widespread sandy clay till of 4 to 20 inches thickness. Locally the weathered bedrock is overlain by a residual B₂-soil horizon or a B₁-soil horizon developed from glacial till. The geochemical tests indicated the B₁-soil horizon could be successfully used in delineating molybdenum concentrations in areas where overburden thickness is not greater than 6 feet. The B₁-soil horizon was sampled when available, and a long handled shovel was used to dig the hole to the sample horizon.

Methods of Determining Metal Content

Laboratory analyses of the samples were made by Mr. Ben Singh, graduate chemist, in Anaconda's geochemical laboratory. Samples taken in the field were packed in marked manila soil sample envelopes at

the sample site. Preliminary drying in air was done before shipping to the laboratory. Drying of the samples was completed in electric ovens at the laboratory, followed by screening to 80 mesh. Molybdenum was determined by the classic calorimetric thiocyanate method; all other metals were determined by standard atomic adsorption techniques.

Results of the Survey


950 samples were recovered from selected areas around and within the sample-line locations reported in the June 20th report referred to above. Five determinations were made; molybdenum, copper, lead, zinc and silver.

The values quoted in parts per million were plotted on an overlay of the claim map on a scale of 400 feet = 1 inch.

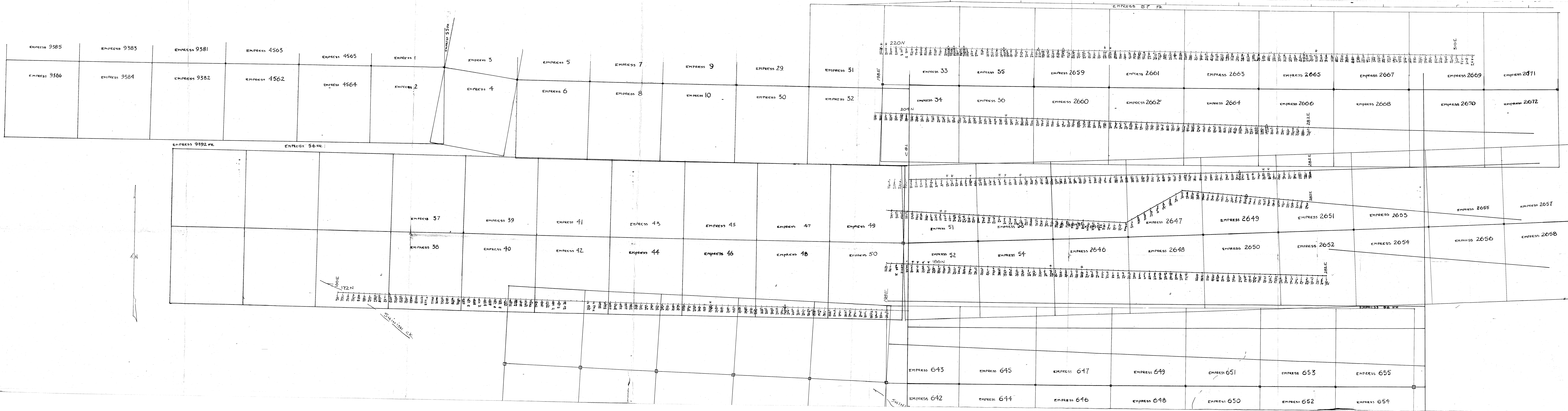
The survey extended the western molybdenum anomaly north-eastward. The survey continued to report copper was in the soil, although recognizable copper minerals have not been seen.

The survey gave additional target areas for stripping and more detailed examination. More study of the results of both grid-geochemical surveys is warranted and some deep soil sampling at selected locations has been recommended following a study of the results of trenching and stripping exposed bedrock.

Respectfully submitted,


Roderick Macrae, P. Eng.

September 26, 1969.



EMPRESS 9385 EMPRESS 9383 EMPRESS 9381 EMPRESS 4563 EMPRESS 4565 EMPRESS 1 EMPRESS 3 EMPRESS 5 EMPRESS 7 EMPRESS 9 EMPRESS 29 EMPRESS 31 EMPRESS 33 EMPRESS 35 EMPRESS 2659 EMPRESS 2661 EMPRESS 2663 EMPRESS 2665 EMPRESS 2667 EMPRESS 2669 EMPRESS 2671

EMPRESS 9386 EMPRESS 9384 EMPRESS 9382 EMPRESS 4562 EMPRESS 4564 EMPRESS 2 EMPRESS 4 EMPRESS 6 EMPRESS 8 EMPRESS 10 EMPRESS 30 EMPRESS 32 EMPRESS 34 EMPRESS 36 EMPRESS 2660 EMPRESS 2662 EMPRESS 2664 EMPRESS 2666 EMPRESS 2668 EMPRESS 2670 EMPRESS 2672

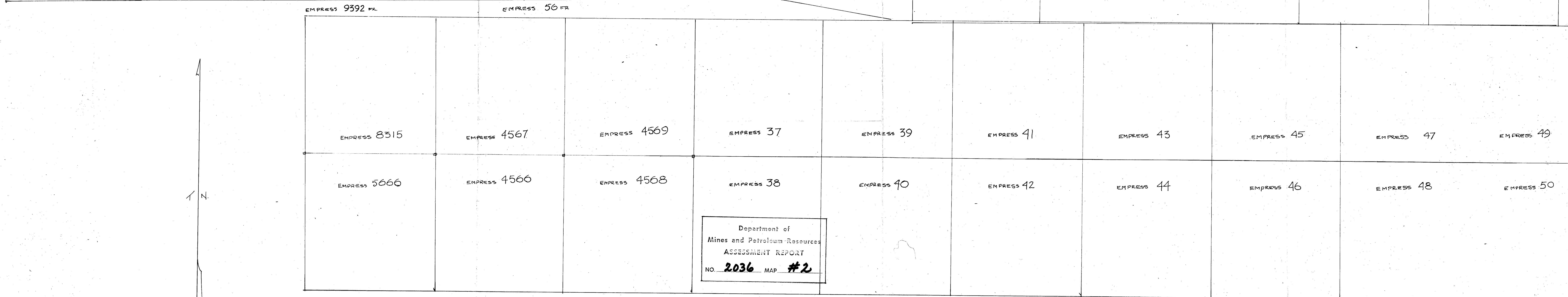
EMPRESS 9392 FR. EMPRESS 56 FR.

EMPRESS 37 EMPRESS 39 EMPRESS 41 EMPRESS 43 EMPRESS 45 EMPRESS 47 EMPRESS 49 EMPRESS 51 EMPRESS 53 EMPRESS 55 EMPRESS 2647 EMPRESS 2649 EMPRESS 2651 EMPRESS 2653 EMPRESS 2655 EMPRESS 2657

EMPRESS 38 EMPRESS 40 EMPRESS 42 EMPRESS 44 EMPRESS 46 EMPRESS 48 EMPRESS 50 EMPRESS 52 EMPRESS 54 EMPRESS 2646 EMPRESS 2648 EMPRESS 2650 EMPRESS 2652 EMPRESS 2654 EMPRESS 2656 EMPRESS 2658

EMPRESS 643 EMPRESS 645 EMPRESS 647 EMPRESS 649 EMPRESS 651 EMPRESS 653 EMPRESS 655

EMPRESS 642 EMPRESS 644 EMPRESS 646 EMPRESS 648 EMPRESS 650 EMPRESS 652 EMPRESS 654



Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 2036 MAP #2

GEOCHEMICAL MAP NO. 2. NORTH-WEST SHEET

2036

TO ACCOMPANY GEOCHEMICAL REPORT - GEOCHEMICAL REPORT - THE EMPRESS CHAIN GROUP - REPORT NO. 2, BY RODERICK MACRAE P. ENG. DATED SEPT 26, 1969

Roderick Macrae