TO GARY BELIX
FROM BEAT PEEUE
10 Pages

TAHTSA PROJECT REPORT
1975
by
G.I. Hall
November, 1975

HUDBAY MINING COMPANY North Vancouver, British Columbia SYLVIA CLAIMS

Introduction:

Exploration work on the SYLVIA claims began in July with the establishment of a flagged grid for control, followed by a magnetometer survey, geological mapping and rock chip sampling. In September, six vertical percussion drill holes were completed in the I.P. anomaly.

Location and Access:

The SYLVIA claims (NTS 93 E/14) straddle the BERG road six miles west of Twinkle Lake and about 70 road miles southwest of Houston, B.C. (Figs. 2,3). About 7000 feet of bulldozer drill roads provide access to the area of interest within the claim block.

Previous Work:

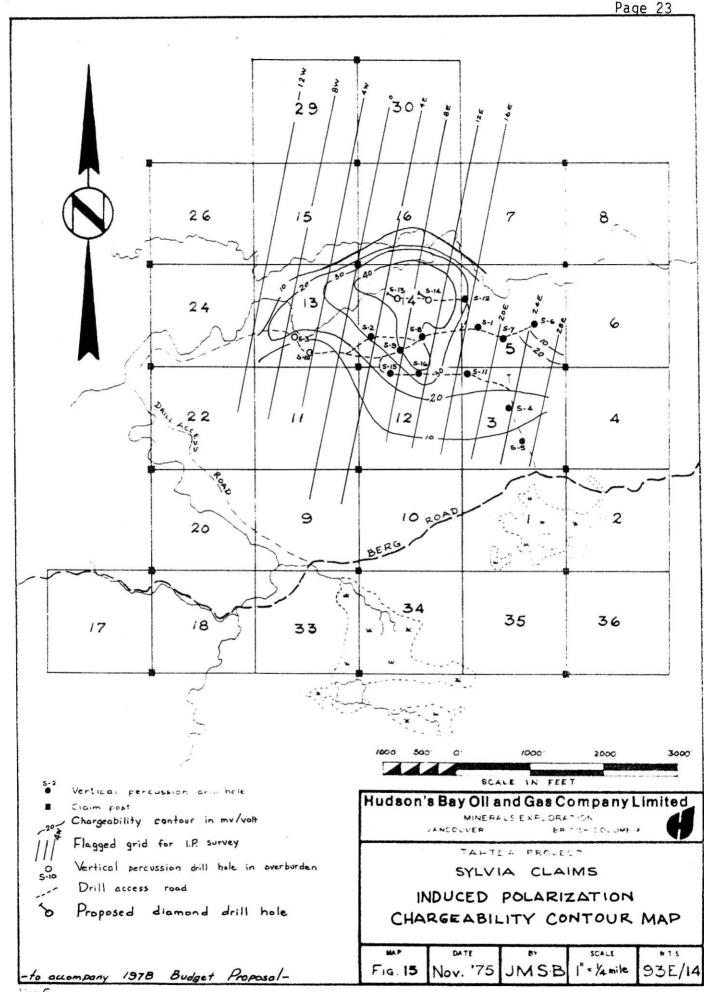
A circular I.P. anomaly (Fig. 15) located in 1973 was partially tested by percussion drilling in 1974. Several holes intersected a granodiorite/quartz monzonite intrusive. Hole S-8, drilled near the centre of the anomaly, contained 0.33% copper from 30 to 230 feet in quartz monzonite. The other holes contained less than 500 ppm copper. One outcrop of granodiorite was located in the stream bed east of the I.P. anomaly. Within the I.P. anomaly, tuffaceous volcanic rocks are exposed, some of which contain up to 8% pyrite.

A soil sampling program in 1973 showed an anomalous copper zone straddling the creek in the northern part of the I.P. anomaly.

Claims:

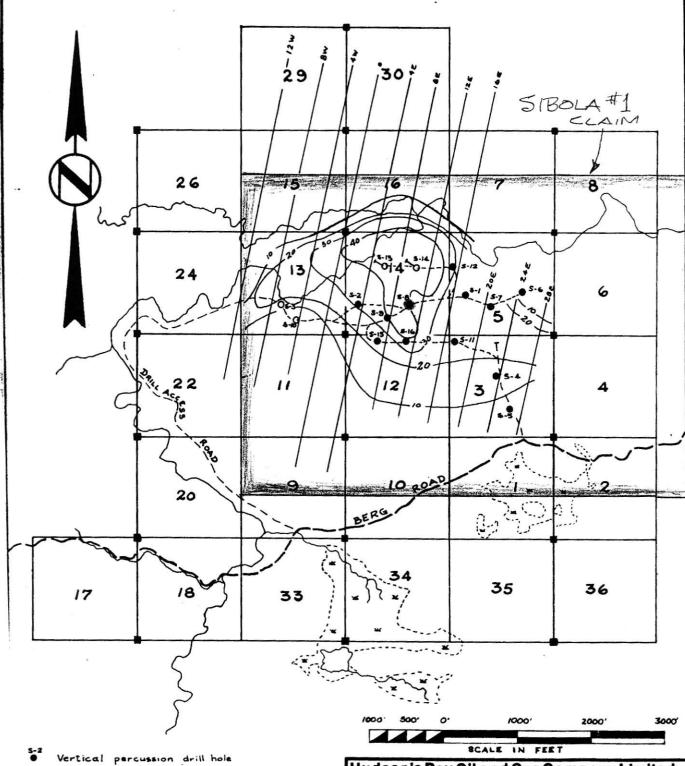
Assessment work was recorded before October 24, 1975 on the 28 SYLVIA claims owned by Hudson's Bay Oil and Gas Company Limited as listed below.

Name	Record No.	Record Date	Expiry Date
SYLVIA 1-16	126828-843	July 30	1978
17-18	129380-381	October 24	1977
20	129383	October 24	1977
22	129385	October 24	1977
24	129387	October 24	1977
26	129389	October 24	1977
29	129392	October 24	1977
30	129393	October 24	1977
33-36	129396-399	October 24	1977



VANCA.





Claim post

Chargeability contour in my/volt

Flagged grid for I.P. survey

Vertical percussion drill hole in overburden

Drill access road

Proposed diamond drill hole

Hudson's Bay Oil and Gas Company Limited

MINERALS EXPLORATION VANCOUVER BRITISH COLUMBIA

TAHTSA PROJECT

SYLVIA CLAIMS

INDUCED POLARIZATION CHARGEABILITY CONTOUR MAP

Fig. 15 Ngy, '75 1" = 1/4 mile 93E/14 JMS-B

accompany 1978 Budget Proposal-

Chain and Compass Survey:

A north-south base line 2370 metres long was established by the chain and compass method through the centre of the claim block. At 150 metre intervals along the base line, grid lines were established by the chain and compass method east and west to the edges of the claim block. Stations along the grid lines were flagged at 30 metre intervals. Approximately 30 kilometres of flagged lines cover the SYLVIA claims.

Geology and Rock Chip Sampling:

Geological mapping was completed over the entire claim block using the established grid for control. (Fig. 17). Sixteen rock chip samples were collected from representative outcrops of each rock type and analyzed for copper, molybdenum, lead, zinc and silver by the atomic absorption method.

<u>Magnetometer Survey</u>:

A proton precession magnetometer made by the Exploranium Corp. of Canada, model G-816, was used for the survey. Readings were taken at 15 metre intervals along the flagged grid lines, with the exception of lines 60+50N and 61+70N. (Fig. 18). On these lines, dense undergrowth, steep rocky slopes and cliffs made movement with the magnetometer hazardous and no readings were taken.

The readings were corrected for diurnal variations and daily drift by tying them in to base stations established along the grid base line.

A value of 56,000 gammas was arbitrarily subtracted from all the readings so that a smaller positive number could be plotted. In most cases, only the alternate readings, at 30 metre intervals, are plotted in an attempt to preserve clarity on the contour map.

Drill Access Road Construction:

A contractor from Smithers, B.C., Claude Perreault, was hired with a D-6 bulldozer to construct about 1/2 mile of drill access road into the centre of the I.P. anomaly early in September.

Percussion Drilling and Sampling:

L and L Drilling and Exploration Ltd. of Cache Creek, B.C., percussion drilled six vertical holes totalling 1140 feet (S-11 to S-16, Fig. 17). Three holes each were drilled 150 metres apart along two east-west line centred 150 metres north and south of S-8. The holes that reached

bedrock (all except S-13 and S-14) were drilled to 250 feet.

Samples of bedrock for analyses were collected for each 10 foot interval. A flocculating agent was added to each sample before the water was decanted to help settle the fines. A more detailed description of sampling techniques is discussed in the 1974 Tahtsa Project Report. Samples were analyzed by Vangeochem Lab Ltd. in North Vancouver, B.C. for Cu, Mo, Pb, Zn and Ag by routine atomic absorption techniques.

Sixteen vertical percussion drill holes totalling 2880 feet have now been completed on the SYLVIA claims.

Results:

A. Geology and Rock Chip Sampling Results

Unit 1. This unit is composed of fine-grained porphyritic tuff. Phenocrysts of plagioclase occupy up to 10% of the rock. Chlorite and epidote are common throughout, while quartz-epidote vein-swarms (ep.) are well-developed in places. Pyrite is rare in these rocks. Fracturing is not well-developed. The rocks are usually non-magnetic, but one outcrop near the eastern end of line 42+50N is moderately magnetic (mag.).

Unit 2. The rocks in Unit 2 are non-porphyritic tuffs, usually moderately magnetic, containing up to 8% pyrite in places. The base of this unit, exposed in an outcrop along the BERG road near the eastern claim boundary exhibits well-developed bedding. The bedded tuff strikes northeasterly and dips 35 degrees northward. The rock here is moderately magnetic (mag.) although no magnetite is visible in hand specimen. To the north and northeast of this exposure, other outcrops are similarly moderately magnetic.

The amount of pyrite in this unit gradually increases toward the centre of the claim block (i.e. toward the centre of the I.P. anomaly) to an estimated maximum of 8% just south of hole S-9. Pyrite occurs both as disseminations and as fracture-fillings.

<u>Unit 3.</u> One intrusive outcrop was found in the creek bed and bank just north of line 52+70N at 44+00W. The rock is a medium-grained granodiorite containing about 5% hornblende and biotite and 5% magnetite. Pyrite is absent. The rock shows no evidence of alteration. Bedrock in holes S-1, S-6, S-7 and S-12 appears to be of the same composition as this outcrop.

A fault with right lateral displacement is assumed to occur along the northwest trending part of the contact between units 1 and 2.

Results of rock chip sampling for Cu, Mo, Pb, Zn and Ag in the tuffaceous volcanic rocks failed to show any significant metal contents or build-up. (Fig. 17). The highest copper content was 85 ppm in one sample. A sample of the granodiorite contained 9 ppm copper and low values in Mo, Pb, Zn and Ag.

B. Magnetometer Survey Results

Results of the magnetometer survey are presented as a contour map, Fig. 18. There appears to be a direct corelation between magnetic susceptibility and non-porphyritic tuffaceous volcanics (unit 2). Magnetic intensity increases from southwest to northeast within the claim block i.e. from porphyritic to non-porphyritic tuff.

Rocks in unit 1 are non-magnetic, except for one occurrence near the east end of line 42+50N where the porphyritic tuff contains quartzepidote vein-swarms and is moderately magnetic.

Rocks of unit 2 are generally moderately magnetic. Outcrops in the eastern part of the claim block are associated with a northerly trending magnetic anomaly (3000 gammas).

The anomaly centred on line 48+50N just east of the base line is not associated with any outcrop. Two drill holes (S-4, S-11) on the edges of this anomaly however, penetrated moderately magnetic tuffaceous volcanics.

The anomalous areas in the northeastern and northwestern corners of the claim block are not associated with any outcrop.

The granodiorite found in the creek bed, and under overburden in the drill holes S-1, S-2, S-6, S-7, S-8 and S-12 is not associated with any strong magnetic anomaly, although the rock contains an estimated 5% magnetite.

C. <u>Percussion Drilling Results</u>

The percussion drill logs, with accompanying analytical results, are contained in a back pocket of this report.

The average Cu, Mo, Pb, Zn and Ag contents for each hole were calculated from assay results and are presented in Fig. 19 to 24.

Hole S-11 has the highest copper content of the holes drilled this year (average 337 ppm Cu, 15 ppm Mo). It is located 150 metres south and 150 metres east of hole S-8, percussion drilled in 1974, that contained 0.33% Cu from 30 to 230 feet.

Hole S-11 contains a zone of quartz-sericite alteration from 100 to 130 feet that contains 60 ppm Mo. Trace amounts of chalcopyrite were noted along fractures from 180 to 190 feet and from 220 to 230 feet in dark grey to black tuff. Pyrite varies from trace amounts to 1/2 percent in this hole.

Hole S-12, near the eastern edge of the I.P. anomaly, penetrated 170 feet of granodiorite (80 to 250 feet) containing up to 5% magnetite and traces of pyrite. The average copper content is 38 ppm.

Holes S-13 and S-14, drilled near the centre of the I.P. anomaly failed to reach bedrock after penetrating 70 feet of overburden.

Holes S-15 and S-16, drilled near the southern edge of the I.P. anomaly, penetrated tuffaceous volcanics containing minor amounts of quartz. S-15 contained 3% pyrite and an average of 55 ppm copper. S-16 contained trace amounts of pyrite and an average of 90 ppm copper.

