



BRITISH COLUMBIA

672382

SECOND STATIS

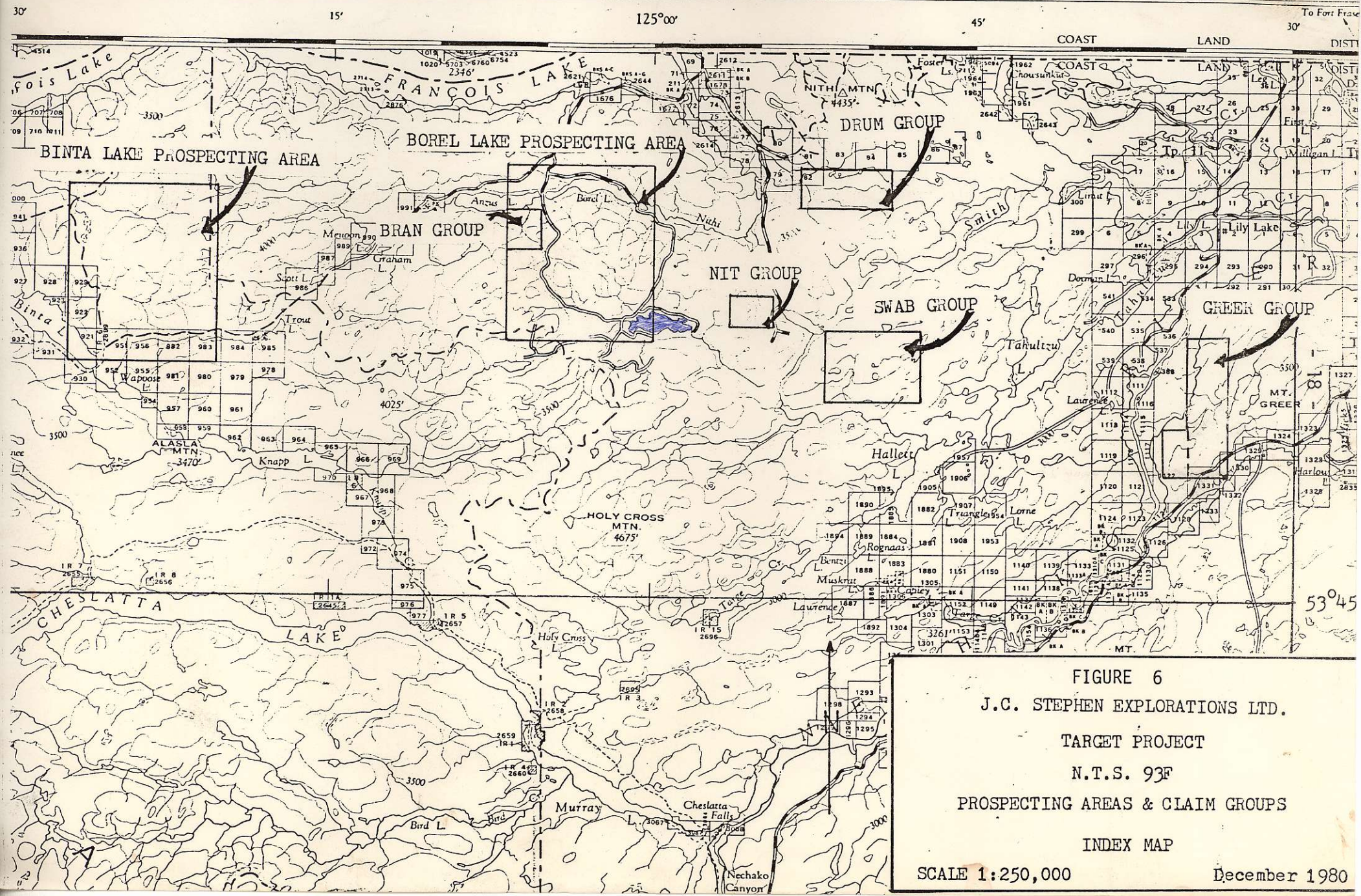


FIGURE 6
 J.C. STEPHEN EXPLORATIONS LTD.
 TARGET PROJECT
 N.T.S. 93F
 PROSPECTING AREAS & CLAIM GROUPS
 INDEX MAP
 SCALE 1:250,000
 December 1980

PRELIMINARY REPORT ON BOREL LAKE RECONNAISSANCE

INTRODUCTION

The Borel Lake area is 10 km south of the east end of Francois Lake. It comprises part of N.T.S. map sheet 93F/14E. Initially described as AREA 1 in Target First Quarter Report for 1980, it was picked as a target for prospecting due to regional anomalous arsenic and gold in silt samples. Of particular interest were north trending silver-lead-zinc fracture systems reported at the Cabin Lake Property of Nithex Exploration, located in the south-east corner of the sheet.

It was felt that where these fracture systems encountered overlying volcanics there would be potential for low grade silver-gold mineralization in silicified breccia zones.

From June 16 to June 26, B. Fraser and D. Guglielmin engaged in regional prospecting of this area. Subsequently a soil traverse of an anomalous region was made on July 16th.

GEOLOGY MAP III

Regional geology of this area is covered by MEMOIR 324 - NECHAKO RIVER MAP AREA by H.W. Tipper.

In general the main rock type consists of basic volcanics which Tipper has broken down into Upper Triassic - Lower Jurassic Takla Group north of Cabin Lake and Upper Cretaceous - Paleocene Ootsa Lake Group elsewhere. The major intrusive plug at Cabin Lake has been mapped as Lower Jurassic Topley granodiorite.

No attempt was made to classify the volcanics during this work and simple rock descriptions are placed on the accompanying preliminary map sheet. Our work confirmed Tipper's with the following exceptions

- 1) the granodiorite unit is more extensive than previously mapped.
- 2) the andesite unit containing the mineralized fracture zone southwest of Borel Lake appears to be in probably older volcanics than exposed elsewhere.

A visit to the Cabin Lake Silver-Lead-Zinc property altered our view regarding favourable fracture systems. Instead of north trending the mineralized zones in the granodiorite trend north-west. It is very likely that the zone found this summer is related to the zone at Cabin Lake. This makes the intervening ground attractive for more prospecting.

MINERALIZATION

The important fracture zone mentioned previously lies 2.2 km south-west of Borel Lake. It forms a 1000 metre canyon in moderately pyritized, calcite veined andesite. Angular cobble float of a calcite vein at least 15 cm. wide was found in the creek. (# 73456). It contained minor sphalerite and trace galena and chalcopryrite. Initial rock geochem returned +20 ppm silver and 120 ppb gold. One hundred meters downstream the andesite unit is overlain by pyritic grey tuff. A sample of this tuff at the contact (# 73457) returned +20 ppm silver and 20 ppb gold. These results compare favourably with grab samples from the Cabin Lake Property where strong sphalerite-moderate galena - trace chalcopryrite mineralization in fractures in granodiorite (#80847) returned +20 ppm silver and 3100 ppb gold. Pyritic acid scoria (#80844) returned +20 ppm silver and 120 ppb gold. Assaying of the above samples gave the following results:-

<u>Area</u>	<u>Sample No.</u>	<u>Ag. Oz/Ton</u>	<u>Au Oz/Ton</u>
new zone	73456	252.60	
new zone	73457	0.32	
Cabin Lake	80844	1.28	
Cabin Lake	80847	5.90	.25

Although the source for the silver-rich float was not determined it is believed to be nearby for the following reasons:-

- 1) the creek is following a major fracture zone.
- 2) the cobble float was angular calcite which could not have been transported far from source.

- 3) smaller calcite fractures containing trace galena and sphalerite were noted upstream in the vicinity of samples 73451 - 55.

CONCLUSIONS

Assays of 252 oz. silver can not be overlooked even in float, especially when there is reason to believe the source is nearby. a 16 unit claim block, the BRAN claim, was staked in September to cover this area.



FRANCOIS LAKE



TARGET # 117
GOLD GEOCHEM CHECK
BOREL - ANZUS LAKE

1:50,000

Dec. 1980

-  As ≤ 5 ppm
-  Au ≤ 20 ppb

June 93/715

BOREL LAKE AREA - BRAN GROUP Figure 6

Fracture controlled Pb Zn Cu mineralization occurs north of Cabin Lake within intrusive rocks which are capped by Tertiary age volcanics and sediments. Some high silver and moderate gold values are associated with this mineralization. Silt samples were analysed for arsenic and gold in the area and results are shown on Figure 8. A value of 80 ppb Au and one of 20 ppm As occur in samples from the creek draining the mineralized area at Cabin Lake.

To the north scattered values of 5 to 155 ppm arsenic occur around Borel and Anzus Lakes. Prospecting was concentrated upstream from the 155 ppm value in the vicinity of an aeromagnetic anomaly which appears to outline a medium grained biotite granodiorite. A portion of the aeromagnetic maps is shown as Figure 9 and the 6000 gamma contour is shown on Map VI. The mineralized area north of Cabin Lake appears to be related to a magnetic low within the intrusive.

Prospecting results are shown on Map VI with this report. Check silt sampling above the original 155 ppm value failed to return any significant arsenic values. No gold or silver values were obtained in these silt samples but mineralized float was found in the stream bed. Initial rock geochem values ran to greater than 20 ppm silver in several rock samples and one value of 120 ppb Au was reported. Rock geochemical values are listed in Table III.



TARGET PROJECT
AEROMAGNETIC MAP
BOREL - ANZUS LAKE AREA
93/F
Scale 1:63,360
December 1980
FIGURE 9

TABLE III

ROCK GEOCHEMICAL VALUES BRAN GROUP AREA

Sample No.	Location	Rock Type	ppb Geochem			Assay oz/Ton	
			Au	As	Ag	Au	Ag
80762	1200 m upstream from road S of Borel Camp	Altered tuff,py	<10	4	1.6		
763	SW of Borel L.	Basic Vol Brex,py	<10	5	0.1		
764	"	Rhyolite tuff	<10	5	0.1		
765	"	Chloritic vein	<10	14	0.1		
766	"	Rhyolite brex,py	<10	5	0.1		
767	W of Cabin L.	Cherty tuff	<10	1	0.1		
768	"	Silic tuff	<10	1	0.1		
769	"	Andesite magnetite	<10	1	0.1		
770	"	Chloritive brex "	<10	1	0.2		
771	"	Andesite brex "	<10	1	0.1		
772	N of Cabin L. Claims	Andesite	<10	1	0.1		
773	NW " " "	Andesite	<10	1	0.1		
80831	Anzus L.	Acid lapille tuff	<10	7	0.1		
832	"	" " "	<10	3	0.1		
841	Cr. SE of Borel Camp	Silic Andesite tuff	<10	1	0.2		
842	1.11 cm south of W end Borel L.	Rusty rhyolite,py	<10	1	0.2		
843	1.3 km South of W end Borel L.	" " "	<10	2	0.1		
844	Cabin L.	Pb Ag Acid scoria, py	120	> 20	20		1.28
845	"	mg granodionite cpy	<10	1	0.6		
846	"	" " py	<10	50	4.8		

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Sample No.	Location	Rock Type	ppb Geochem			Assay oz/Ton		
			Au	As	Ag	Au	Ag	Zn%
80847	Cabin L. PbAg	Mg Granodionite sph gal cpy	3100	1	> 20	0.250	5.90	
848	NW of Borel Lake	Silic rhyolite brex	10	1	6.0			
849	" " "	Rhyolite	<10	4	0.8			
73451B	Bran Creek	Andesite/granodio	<10	12	0.1			
452	" "	Granodio py chl	<10	10	0.1			
453	" "	Dyke silic py chl	<10	2	0.1			
454	" "	Feld par py gal	<10	24	0.1			
455	" "	" " py	<10	10	0.4			
456	Bran Creek	Calcite sph gal cpy	120	70	>20	252.6	4.19	
457	" "	Rhyolite py	20	1	>20	0.32		
458	N. of Bran Cr.	Andesite	<10	5	16			
459	W. of Cabin L.	Vol Brex	<10	1	0.1			
460	W. of Cabin L.	Rhyolite tuff	<10	2	0.1			

Sample 73456B assayed 252.6 Oz/ton and led to staking the 16 unit BRAN group late in the season. Snow prevented any further prospecting at the time of staking.

Examination of 1980 silt sample results show no significant gold or silver values. There is an apparent increase in arsenic values in the two drainages south of the east end of Borel Lake. Values range from 10 to 53 ppm As and there is a single 1.6 ppm value for Ag. Prospecting failed to show alteration or mineralization of interest at the time of sampling. The area might receive further attention if encouraging results are obtained on BRAN group.

A value of 6.0 ppm Ag was obtained from a sample of volcanics north of the bridge at the west end of Borel Lake.

There is a northwest trending fault zone along the creek on BRAN group and mineralization may be related to this structure. It is indicated, on the GSC geology map, to extend to the north west of Anzus Lake. Several high arsenic values in 1977 silt samples are shown in that area (Figure 8).

Soil sampling on BRAN group is on generally high ground possibly above barren volcanics and may be of little use in exploring for mineralization, which may be related to the fault zone in the creek canyon.

It is recommended that detailed prospecting and sampling be done on BRAN group with some prospecting to the southeast toward the Cabin Lake claims. Additional prospecting should be done along the indicated northwest trend of the fault zone and arsenic anomaly beyond Anzus Lake.

TARGET

(B) BRAN TO CABIN PROSPECTING

CREW Sidey Prior Silins

DATES May 10 - June 1

PROGRAM

Map geology on air photos between BRAN and CABIN with air photo-topographic linear as base line axis.

Rock chip sample any exposures of bleached, silicified, highly fractured or altered rock.

Rock geochem for Au Ag As Zn, Soil sample at 25 or 50 metre intervals along cross section lines across several of the best developed portions of the main linear zone. Run for Zn As Ag.

PREVIOUS INFORMATION

Regional Geology Memoir

Regional Geology and Geochemistry from TARGET reports

BASE MAP

Air Photo Enlargements