GEOLOGY AND GEOCHEMISTRY OF THE

JAMBOREE PROPERTY

JAMBOREE #1 - #8 MINERAL CLAIMS
CARIBOO MINING DIVISION
NTS 92A/7W

LATITUDE 52°19'N

LONGITUDE 120°52'W

DATES OF WORK: July 13 - November 25, 1982

by

Gordon G. Richards, P.Eng.

W. A. Howell, B.Sc.

operator

E & B Explorations Inc. #1440- 800 W. Pender Street

Vancouver, B.C.

submitted

February 22, 1983

GEOLOGICAL BRANCH ASSESSMENT REPORT

10,980

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Gordon G. R	ichards, P.Eng.

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INTRODUCTION

The Jamboree #1-6, Longhair #1-8, and Yukon Jack #1-8 mineral claims were located following the release of geochemical data by the Provincial Government on May 26, 1981.

The data indicated a large area to be anomalous for arsenic. While no gold results were included in the released data, the claims were staked in the hope that the arsenic anomalies might be coincident with a gold system.

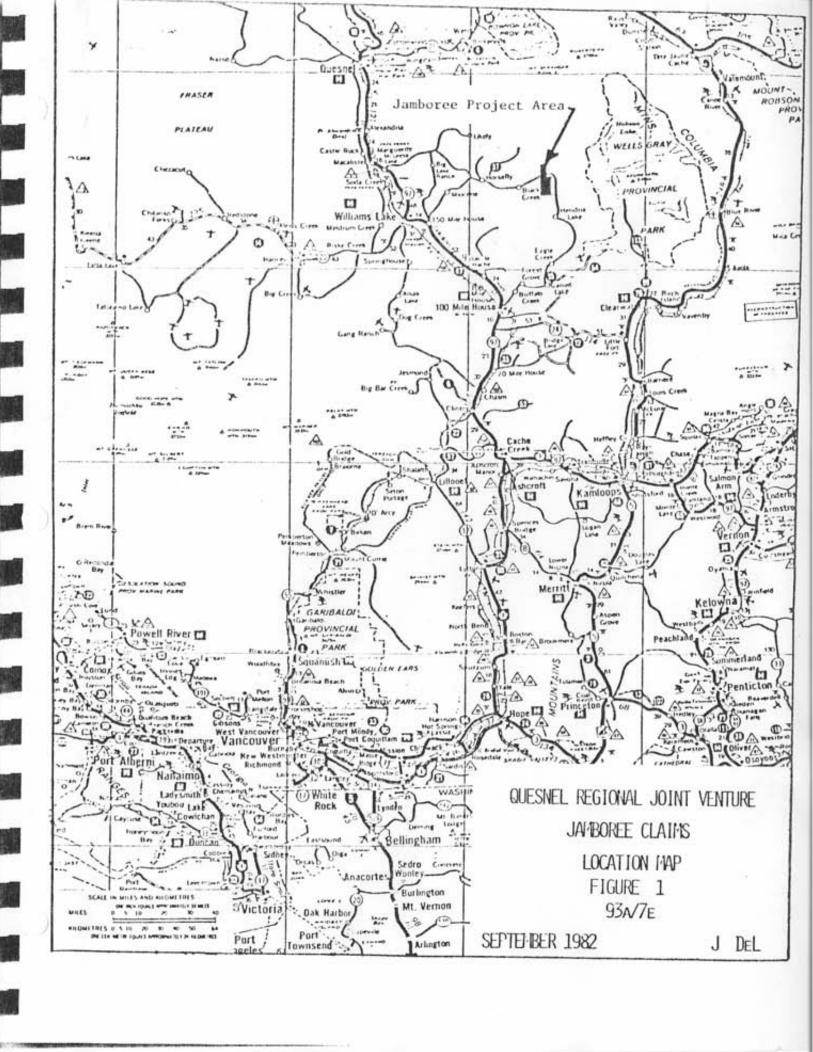
Following the staking, reconnaissance soil and silt samples were collected and analyzed for Au and As. Results indicated the existence of a coincident gold-arsenic anomaly trending northwest. Gold results were particularly encouraging as soils ranged up to 1090 ppb Au within concise anomalous patterns. Subsequent soil and silt sampling was undertaken during August to limit the size and extent of the anomaly. This work indicated the northwest trending anomaly was much larger than previously suspected and re-emphasized the strong gold geochemical response within the anomaly. One soil near Doreen Creek ran 3670 ppb Au.

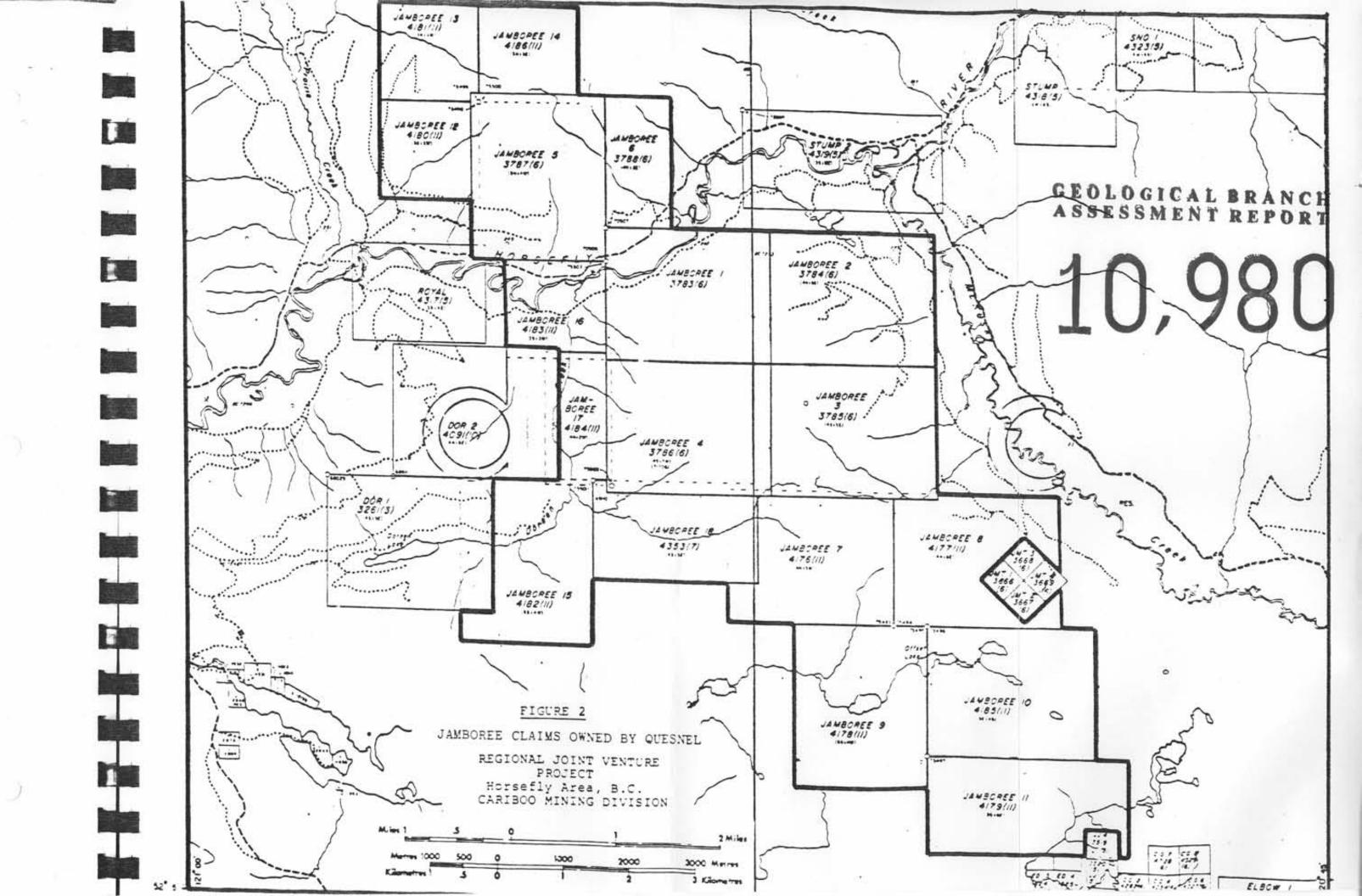
The Jamboree #7-#17 were staked in late October of 1981 to cover the geochemical extensions. An additional 20 unit claim, the Jamboree #18, was staked in June 1982. The Longhair #1-8 and Yukon Jack #1-#8 were allowed to lapse under Section 17 of the Mineral Act.

The present work was undertaken to provide detailed geological and geochemical surveys in areas of gold-arsenic anomalies described in a report dated March 25, 1982. A total of 920 samples were collected and analyzed for gold and arsenic. Thirty four of these samples were stream sediment samples, 756 were soil samples and 130 were rock chip samples.

LOCATION AND ACCESS

The claims lies south of Horsefly Lake near the confluence of McKusky Creek and Horsefly River 85 km east of Williams Lake. The property is accessible by good logging roads to several points throughout the claim area.





Logging is active and will probably improve the already excellenct access.

TOPOGRAPHY AND VEGETATION

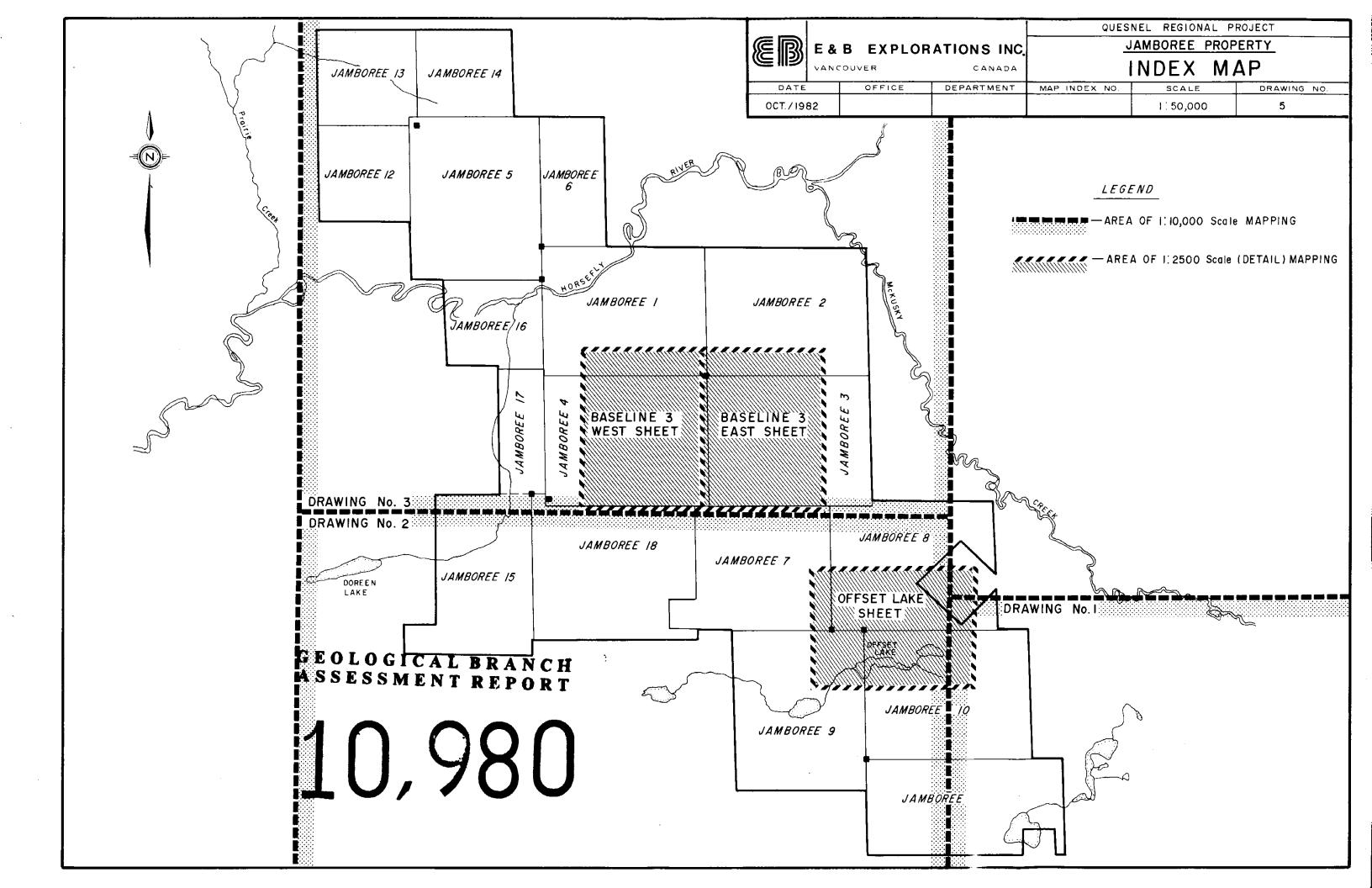
Elevations on the property range from 3000' (915m) along Horsefly River and McKusky Creek to 5855' (1785m) at the northwest end of the property. Smaller hills rise to 5600' (1710m) in the centre of the claims and 4270' (1300m) at the southeast end of the property. Much of the lowere slopes have been logged. South of Horsefly River, logging is recent with easily traversable slash. Elsewhere, mature spruce-cedar forests have sparse underbrush although several hillsides have old burns that are difficult to traverse.

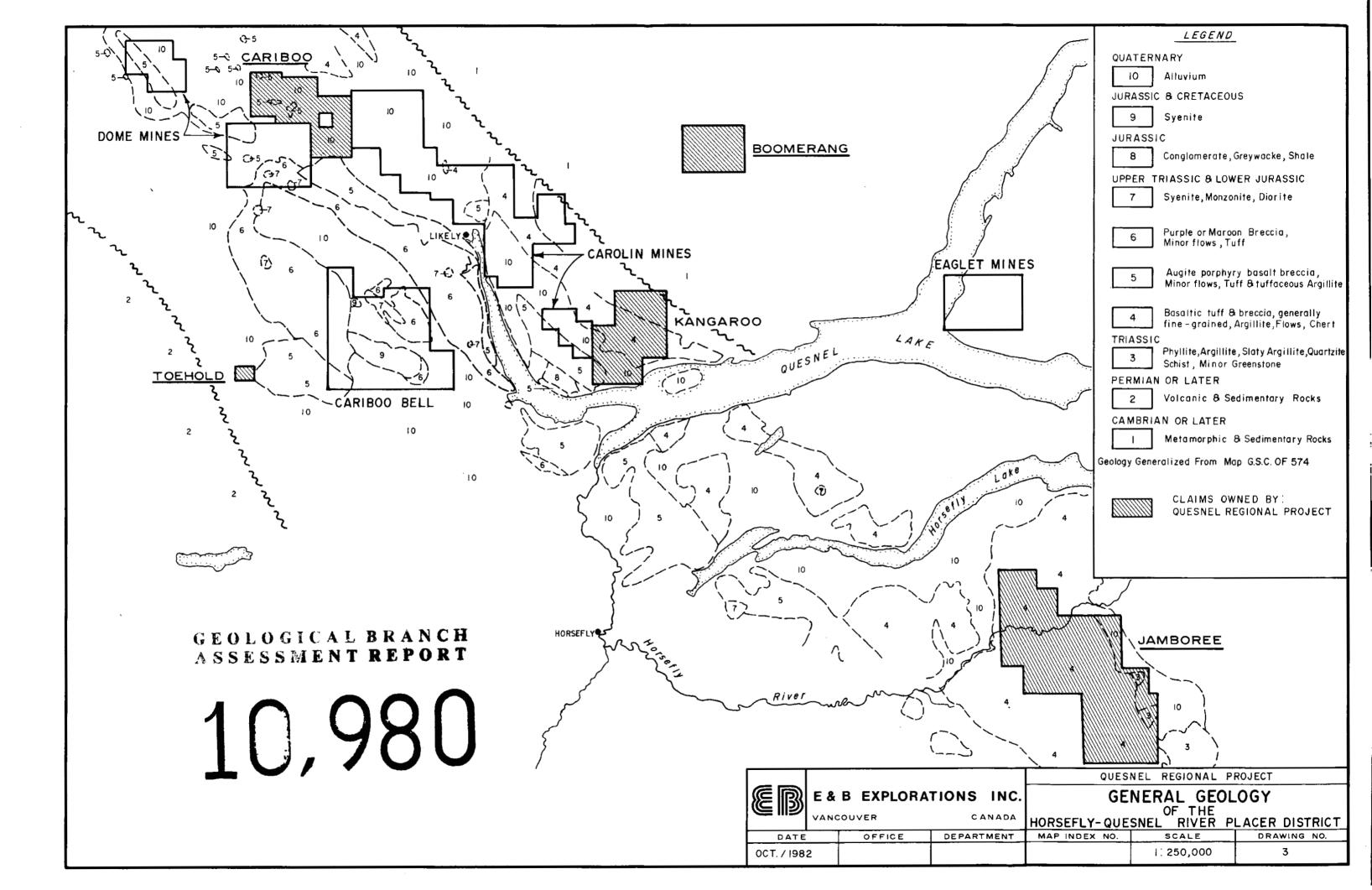
MINERAL CLAIMS

CARIBOO MINING DIVISION

CLAIM NAM	Œ	UNITS	RECORD #	RECORD DATE	OWNER
JAMBOREE	#1 #2 #3	20 20 20	3783 (6) 3784 (6) 3785 (6)	June 24, 1981	G. G. Richards
İ	#4 #5	20 20	3786 (6) 3787 (6)		
	#6 #7 #8	8 20 20	3788 (6) 4176 (11) 4177 (11)	November 26, 1981	•
	#9 #10 #11	20 20 18	4178 (11) 4185 (11) 4179 (11)	10 10 10	u. u
	#12 #13 #14	9 9 9	4180 (11) 4181 (11) 4186 (11)	N N	u. W
;	#15 #16	20 9	4182 (11) 4183 (11)	** **	
:	#17 #18	8 20	4184 (11) 4353 (7)	July 12, 1982	.

TOTAL 290 units





GENERAL GEOLOGY

The rocks of Horsefly - Quesnel River district of British Columbia are a series of Triassic volcanic and sedimentary rocks which have been considered to be a part of "Quesnel Belt" of rocks (Figure 3). This "Quesnel Belt" has also been referred to the "Quesnel Trough". This band of rocks is fault-bounded against the metamprphic paleozic and older rocks to the east and west (Campbell and Tupper 1970).

The description of the rocks in the Quesnel Trough has been taken from map 3-1961 and map 1-1963. The oldest unit, the top of the Upper Triassic succession is a conglomerate in which the pebbles and cobbles are all composed of volcanic rocks. These volcanic fragments are green in the lower beds and purple in the upper beds. The overlying unit is a mixture of volcanic and sedimentary rocks which includes beds of argillite. Overlying this sequence is a distinctive purple andesitic agglomerate, breccia and flow which contains analcite near the contact. This unit also contains minor beds of limestone and conglomerate. Above the purple volcanic are located a series of volcanic and sedimentary rocks of the same composition as the "purple volcanic" sequence The top unit of the volcanic sedimentary sequence of the Quesnel Belt is a series of green andesitic tuffs, agglomerates and flows containing beds of argillite, chert and conglomerate.

The units exposed on the Jamboree claim group are believed to be a part of the uppermost series of volcanic and sedimentary rocks.

DETAILED GEOLOGY

A limited amount of detailed geologic mapping has been completed on the Jamboree claims 1 to 4 and 7 to 9 inclusive. Two rocks types have been identified and mapped. These rocks are classified as a phyllite and an andesite breccia (see Figure 9 to 14 inclusive.) The phyllite is divided into eastern and western units by a 200 to 350 meter wide andesite breccia. Tops are not known. The eastern phyllite is a grey to grey green phyllite with some black argillaceous sections. The western phyllite is similar but also contains chert,

limy horizons, easily identifiable tuffs and all of the strong alteration zones. The andesite breccia is characterized by hornblende needles and occasionally pyroxene phenocrysts in a green to grey matrix. Clasts of the above rock type are subangular, generally less than twenty cm in diameter and set in a matrix of similar colour and composition with identifiable hornblende crystals and fragments. The andesite breccia appears to have an offset near the junction of the east and west map sheets of the No. 3 baseline.

MINERALIZATION AND ALTERATION

The best exposed altered zone occurs northeast of Offset Lake. Here the western phyllite contains abundant ankerite with 1-5% pyrite and local silification, quartz veins and rare chalcopyrite over an area of 300 m x 1000 m and projecting another 800 m southeast under overburden to an area of similar altered outcrop.

Similar alteration was recognized in angular rock chips from soil pits collected on the plateau near and west of Baseline 3 roughly coincident with the coincident gold arsenic anomalous geochem pattern. Of particular note was outcrop in the major northwest flowing creek in the north of Figures 11 and 12. Here intense silicification with ankerite, 1 - 5% pyrite and minor arsenopyrite occurs in western phyllite adjacent to andesite breccia.

Another alteration zone like the Offset Lake zone occurs north of Horsefly River but has not been mapped or sampled in detail because of heavy till cover in the area.

The most striking mineralization and poorest exposed, occurs in upper Doreen Creek about 1500 m east of Doreen Lake. Here a small outcrop of sediment and felspar porphyritic andesite has been intensely silicified over widths of one or two meters and contains about five percent pyrite with arsenopyrite and chalcopyrite. The best gold assays on the property came from this outcrop (lm of .121 oz/T Au). The outcrop occurs in nearly flat bottom land covered by gravel and is thus an excellent exploration lead.

GEOCHEMISTRY - INTRODUCTION

Widespread geochem lines have been completed on all of the property in order to define areas requiring detailed mapping and sampling. Detailed sampling on lines spaced 100 metres apart with sample interval of 50 m was completed on the Offset Lake zone and in the north part of Baseline 3 west sheet. Less detailed sampling on lines spaced 200 to 400 metres apart with

sample interval of 50 to 100 m was completed on the remainder of the Baseline 3 anomaly.

Soil samples were collected from pits 15 - 25 cm deep dug with the aid of a hand pick. About 300 grams of "B" horizon soil or the best approximation available was collected from each pit using a stainless steel spoon or scoop and transferred to an appropriately identified gussetted kraft paper sample bag.

Silt samples were collected where avaiable, on streams or drainages traversed or crossed by traverse lines. Three to five hundred grams of active silt were collected, using a stainless steel spoon or scoop, and transferred to an appropriately marked gussetted kraft sample bag. Where sediments were of a coarse nature, a correspondingly larger sample was collected in order to ensure an adequate supply of fine material for analysis.

Rock chip samples were usually 300 to 500 grams in size and typically consisted of several (three to five or more) rock chips from an outcrop.

Where systematic outcrop sampling has been done the weight and number of chips is ofter larger over specific intervals.

All samples were done by Chemex Labs, 212 Brooksbank Avenue, North Vancouver, B.C.

Silts and soils were dried and seived and the -80 mesh fraction, or a portion of it, retained for analysis.

Rock chips samples were crushed and pulverized with a portion of the -100 mesh product retained for analysis.

Arsenic determinations were made using perchloric-nitric acid digestion followed by a standard atomic absorption hydride finish.

Gold determinations were made using a fire assay preconcentration followed by neutron activation analysis.

Arsenic and gold values obtained from the soil and silt samples and a few rock chips are shown on Figures 4 and 6 to 14 inclusive. There is a good correlation with highly anomalous geochemical values and the inferred structural mineralized zone associated with rusty soils.

GEOCHEMISTRY - RESULTS

The results of the geochemical surveys are compiled on Figure 4. The gold values were contoured on 10 and 50 ppb gold and the arsenic values on 30 ppm arsenic on Figures 4, 6, 7 and 8. The basic data is presented on Figures 6 to 14 and the index map for these sheets is Figure 5. On Figures 9 and 11, the arsenic has been contoured on 30, 100 and 200 ppm and on Figure 13 the arsenic has been contoured on 30 and 100 ppm. On Figures 10, 12 and 14 the gold has been contoured on 10, 20 and 50 ppb. On Figure 4, a northwest trending zone of plus 30 ppm arsenic is located in the centre of the claim group. This zone has length of approximately 12,000 meters and a width which varies from 500 to 2,500 meters. The gold anomalies, where the detailed surveys have been completed, are irregular and vary from one sample anomalies to an area 1,500 by 3,500 meters. It is noted that the areas located between the plus 10 ppb gold anomalies should also be considered as areas of potential. These gold anomalies can only be investigated by the systematic drilling of fences of holes.

On Figure 6, two traverses were completed on the southern portion of the sheet. A two sample arsenic anomaly of plus 30 ppm arsenic was noted Four soil samples contained in excess of 10 ppb gold. In the northwestern corner of Figure 6, just east of the area covered by the Offset Lake map sheets, one soil sample contained 35 ppb gold and one soil sample contained 70 ppm As. One sample in this area but included in the Offset Lake sheet contained 179 ppb Au.

On Figure 7 the southeastern portion of the major arsenic anomaly is covered by the Offset Lake map sheet figures 13 and 14. Three large anomalous areas of arsenic and gold, one gold bearing outcrop (The Doreen showing), three one-sample anomalies containing plus 30 ppm As and a one sample anomaly containing 57 ppb Au remain to be investigated.

On Figure 8 the south-central portion has been investigated by the surveys indicated on the No. 3 Baseline Sheets, figures 9 to 12 inclusive. The large gold anomaly located on the western side of figure 7 continues onto the southwestern portion of figure 8. This anomaly has an approximate length of 1900 metres and a width of 1200 metres. Fourteen small gold anomalies and ten isolated arsenic anomalies, remain to be investigated in detail.

On Figures 9 to 14, the Baseline 3 and Offset Lake sheets, the grid lines have 100 to 400 meter spacings. The gold and arsenic anomalies in general are located in the same areas. Additional fill-in lines of geochemical surveys and geologic mapping will be required to complete the data required for a drilling programme.

Check samples of soil and rock were taken from the areas containing anomalous arsenic and gold values. The results of these samples are plotted on Figures 13 and 14. The assay results agreed within the limits expected for soil samples. The assay certificates are included in Appendix A.

Two outcrops located near Dorsen Creek, on figure 7, were sampled.

One outcrop was located in the wall of a gravel quarry. The samples gave the following results;

```
11205 - Cu 0.097, Ag 0.12, Au 0.005 - 0.3 M channel
11207 - Cu 0.084, Ag 0.17, Au 0.020 - 0.3 M channel
```

An outcrop or a large boulder located approximately 50 meters to the south and in the bottom of a road was sampled. The four samples contained the following

11208 - A g	0.12,	Au 0.120	-	1.0 M	channel			
11209	0.10,	0.023	-	gouge	next to	11208	-	grab
11210	0.0 7 ,	0.002	_	1.0 M	channel			
11211	0.10	0.052	-	0,8 M	channel			

The showing located in the road was poorly exposed and the dimensions and strike of the gold bearing zone could not be determined. This zone was not a formal quartz vein but appeared to be an area of a silicification.

Additional work is warranted on this outcrop.

CONCLUSIONS AND RECOMMENDATIONS

Strongly anomalous arsenic-gold geochem patterns are developed in soils over quartz-ankerite-sulphide altered meta sediments. A 0.12 oz/ton Au silicified outcrop occurs in upper Doreen Creek.

The geochemical survey should be completed in areas of anomalous geochemistry outlined from work to date. Sample interval should be 50 m on lines spaced 100 m apart. Magnetometer surveys should be used to map the andesite breccia-phyllite contacts. Percussion drilling should be considered following completion of the above described work for the Doreen showing and other anomalous gold zones.

Respectfully submitted,

Gordon G. Richards, P.Eng.

W. A. Howell, B.Sc.

Statement of Costs

August 17/82 Invoice #82-240-109	\$16,172.11
November 8, 1982 Invoice #82-240-129	
\$6,044.04 less \$44.00 (M.R. #180878E	6,000.04
Map reproduction, drafting, report, typing, photocopying	3,500.00
	\$25,672.15

JMT Services Corp.

1827 HUDSON STREET - VANCOUVER, B.C. V6P 4N1 - TELEPHONE 266-1811



JAMES S. CHRISTIE. PhD 228-8054
K. WAYNE EIVINGSTONE, MSc 266-4208
GORDON G. RICHARDS, M.A.Sc., P.Esc 274-2839
GERALD LAUZON, Mgr. 277-4778
W.A. HOWELL, Geol. 2278-7082

INVOICE \$82-240-109

August 17, 1982.

Mr. P.N. McAndless
Senior Geologist
E & B Explorations Ltd.
1440-800 West Pender Street
VANCOUVER, B.C. V6C 2V6

Dear Sir:

re: QUESNEL PROJECT - JAMBOREE PROPERTY

1982 Assessment work

TIME

W.A. Howell July 13-26, 30 G.G. Richards July 12-26, 30

15 days @ \$225 \$ 3,375.00 16 " @ 225 3,600.00

Camp Rental Truck Rental SBX 11 Rental 2 weeks @ \$50/week 14 days x(\$25/day + \$10/day ins.) + 1342 km x 18% km

100.00 731.56

25.00

DISBURSEMENTS

P.W.A. Airfare 1 man one way Vcr-Quesnel	\$	95.05
P.W.A. Freight #47191395 P		73.95
Greyhound Freight billed via Chemex CE 123528		29.10
529		26.75
530		26.75
531		17.00
Highland Helicopters - #25296		814.48
#25308		718.20
G. Richards - expenses		762.51
Rudson Supplies - #34341		431.25
Geochem. Chemex - #18212332		925.80
2333		924.00
2334	1.	,089.55
2335		504.00

2422

2423

103.95 23.50

 $\frac{16.48}{7,582.32 + 104}$

8,340.55

\$ 16,172.11

E & B share 90% = \$14,554.90 -Geo-Ex share 10% = \$ 1,617.21

Gordon G. Richards, Geologist GGR:mh encls.

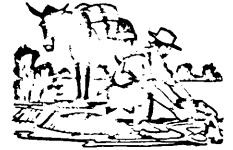
B.C. Tel.

Yours truly,

(mil 2000

JMT Services Corp.

8827 HUDSON STREET - VANCOUVER, B.C. V6P 4N1 - TELEPHONE 266-1811



JAMES S. CHRISTIE, PhD K. WAYNE LIVINGSTONE, MSc. GORDON G. RICHARDS, M.A.Sc., P.Ess. GERALD LAUZON, Mgz. W.A. HOWELL, Gool

228-8054 266-4208 274-2839 277-4778 277-7082

DIVOICE #82-240-129

November 8, 1982.

Mr. P.M. McAndless Senior Geologist E & B Explorations Inc. #1440-800 West Pender St. VANCOUVER, B.C.

Dear Pat:

Re: JAMBOREE PROJECT

TIME

J.S. Christie Aug. 1 4, Sept. 1 8, 1 13, 1 15, 1 29, 1 2 2-3/4 days @ \$225 618.75 W.A. Howell Oct. 1 1 day @ \$225 112.50 G.G. Richards Aug. 1 6, 1 10, 1 11, 1 20 1 26, Oct. 1 18, Nov. 1 2 3-1/4 days @ \$225 731.25

DISBURSEMENTS

B.C. Tel.	57.78
Chemex 18212785	1,386.00
18212786	1,128.00
18212787	1,308.00
18212788	30.00
18212504	166.40
G. Richards - expenses	23.36
M. Home - typing	7.50
B.C. Mining Rec. 180878E	40.00
P.W.A. 1795748sP	18.00

4,165.04 + 10%

<u>4,581.54</u>

6,C44.04

E & B share 90% Geo-Ex share 10%

Please remit \$5,439.64.

Yours truly,

Gordon G. Richards Geologist

GGR:mh

STATEMENT OF QUALIFICATIONS

- I. Gordon G. Richards, of Vancouver, British Columbia, do hereby certify that,
- 1. I am a Professional Engineer of the Province of British Columbia, residing at 6195 Lynas Lane, Richmond, B.C., V7C 3K8.
- I am a graduate of the University of British Columbia, B.A.Sc., 1968, M.A.Sc.m 1974.
- 3. I have practised my profession as a mining exploration geologist, continuously since 1968.
- 4. This report is based on my personal knowledge of the district, and mapping of the geology at the property.

Gordon G. Richards, P.Eng.

Jarden & Reluds

STATEMENT OF QUALIFICATIONS

- I, WILLIAM A. HOWELL, do hereby certify that:
- I am a professional geologist working in British Columbia and residing at 10611 Ainsworth Crescent, Richmond, B.C. V7A 3V5
- 2. I am a graduate of the University of British Columbia, Bachelor of Science (Geology) 1971.
- 3. I have been employed in the mineral exploration industry since 1967 and have practiced my profession as a geologist since 1971.
- 4. I am a member of the Geological Association of Canada.
- 5. This report is based on my personal knowledge of the district and the mapping and sampling done on the property.

W.A. Bowell, B.Sc.

