

GEOLOGICAL AND GEOCHEMICAL

REPORT

CLINTON

- on the -

APR 2 1980

DOME #10 CLAIM

MINING RECORDER

Clinton Mining Division

British Columbia

- for -

BLACK DOME EXPLORATION LTD.

#904-675 West Hastings Street,

Vancouver, B. C. V6B 1N2.

Covering: Dome #10 Claim (20 units).

Work Performed: June 28 - July 2, 1979.

Location: (1). 51°19'00"N; 122°30'45"W.  
(2). NTS Maps 92 0/8W & 92 0/7E.  
(b). Black Dome Mountain Area,  
71 km. WNW of Clinton, B. C.

PREPARED BY:

KERR, DAWSON AND ASSOCIATES LTD.  
#1 - 219 Victoria Street,  
KAMLOOPS, B. C.

W. Gruenwald, B. Sc.,  
March 14, 1980.

MINERAL RESOURCES BRANCH ASSESSMENT REPORT 7910 NO. _____
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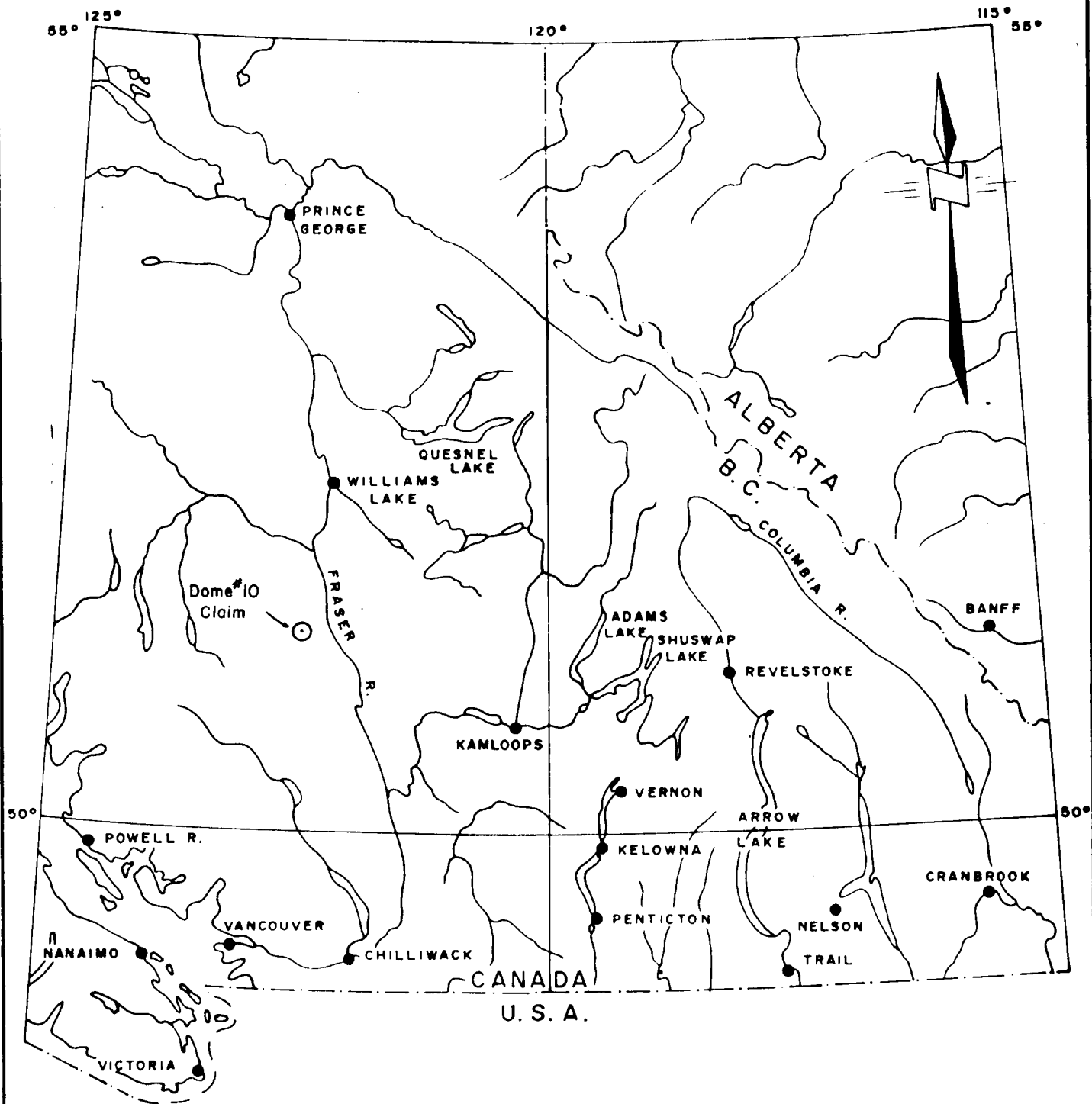
MAPS

		<u>Scale</u>
FIGURE #161 A-1:	- Location Map	1:50,000
FIGURE #161 A-2:	- Index Map	1:50,000
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INTRODUCTION

The Dome #10 claim was acquired in early April/1979 to cover recent volcanic rocks similar to those found on the Black Dome property to the east. The main Black Dome property (Dome #1-#3, #6-#9) has been the subject of intensive exploration for gold and silver in quartz veins since the summer of 1977.

Results of the Dome #10 surveys are appended in the map accompanying this report.



BLACK DOME EXPLORATION LTD.	
LOCATION MAP	
DOME #10 CLAIM	
CLINTON MINING DIVISION, B.C.	
Date: Mar. 1980	Scale: 1" = 64 Miles
Dwn by: W. G.	Dwg no. 161-A-1

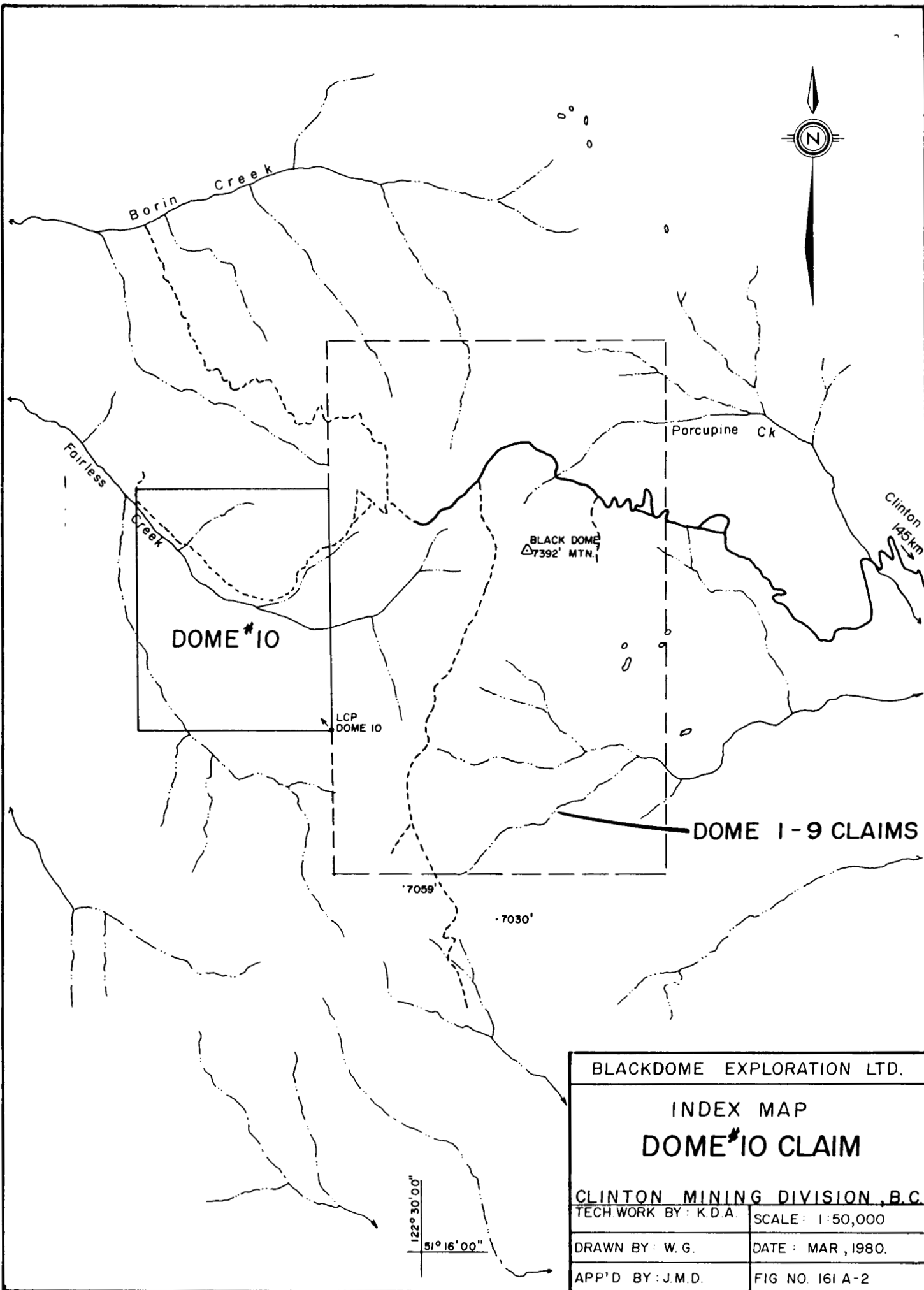
SUMMARY AND CONCLUSIONS

- (1). The Dome #10 claim consisting of 20 metric units is situated on the west flank of Black Dome Mountain in south central British Columbia, approximately 70 km. west-northwest of Clinton, B. C. The claim is located in the Clinton Mining Division on NTS Sheet 92 0/7E and 92 0/8W.
  
- (2). The Dome #10 claim is underlain by a thick sequence of Tertiary volcanic rocks consisting of basaltic, andesitic, dacitic and rhyolitic rocks. It is these same rock types that host the gold bearing quartz veins found several kilometers east of here and that have been the subject of intensive exploration since 1977.
  
- (3). The geochemical survey conducted on the Dome #10 claim failed to delineate any areas of anomalous precious metal values.

LOCATION AND ACCESS

The property is located in south central British Columbia approximately 70 kilometers west-northwest of the village of Clinton, B. C. The geographic co-ordinates of the Legal Corner Post of Dome #10 are:  $51^{\circ}19'00''$  North latitude;  $122^{\circ}30'45''$  West longitude.

Access to the property is via about 160 km. of gravel road which leads west from Highway #97 about 18 km. north of Clinton, B. C. The majority of the property is easily accessible along old bulldozer roads or on foot through generally open bush or subalpine vegetation.



BLACKDOME EXPLORATION LTD.	
INDEX MAP <b>DOME #10 CLAIM</b>	
CLINTON MINING DIVISION, B.C.	
TECH. WORK BY: K.D.A.	SCALE: 1:50,000
DRAWN BY: W.G.	DATE: MAR, 1980.
APP'D BY: J.M.D.	FIG NO. 161 A-2



PROPERTY

The Dome #10 claim consists of one metric claim comprised of 20 units. This claim is bounded to the east by Dome #2 and #3. The registered owner of the Dome #10 claim is Black Dome Exploration Ltd., the details of which are as follows:

<u>Claim Name</u>	<u>Record No.</u>	<u>Tag No.</u>	<u>Expiry Date</u>
Dome #10	320	45470	April 11, 1980

PHYSIOGRAPHY AND VEGETATION

The Dome #10 claim covers the upper reaches of the Fairless Creek drainage on the west flank of Black Dome Mountain. The topography is moderately steeply sloping to the west with locally very steep areas near Fairless Creek and some of its tributaries. Total relief is approximately 350 meters ranging from 1,580 meters in the valley bottom near post 5<sup>N</sup> 4<sup>W</sup> to 1,930 meters at the Legal Corner Post.

Vegetation consists almost exclusively of sparse to moderately thick stands of jack pine and spruce. Valley bottoms are locally filled with a dense growth of alders and related deciduous bushes.

## HISTORY

The earliest record of work in the area was the discovery of gold bearing veins on Black Dome Mountain by Mr. Frenier in the 1940's. During the 1950's and 1960's, detailed mapping, sampling along with limited drilling and tunnelling were carried out by Empire Valley Mines and Silver Standard Mines. The bulk of this work was confined to several veins found on the upper slopes of Black Dome Mountain. Small scale placer mining was done on Fairless Creek during the above period.

During 1977 and 1978, Barrier Reef Resources Ltd. carried out a programme of trenching and sampling on the southerly extensions of the known mineralized zone. This southerly extension is known as the Ridge Zone.

An extensive programme of mapping, soil and rock chip sampling was carried out in 1979 primarily around the Ridge Zone area. The most recent work consisted of detailed diamond drilling carried out by Black Dome Explorations Ltd. from July to October of 1979.

GEOLOGY

The rocks of the Black Dome Mountain area consist of a thick sequence of volcanics ranging in age from Eocene to Pliocene (Tipper 1978). Gold and silver mineralization at Black Dome is associated with a series of epithermal quartz veins that cut andesitic rocks in the north and central portions of the property and flow banded rhyolites and breccias in the southern portion of the Ridge Zone.

Andesitic and dacitic lavas form the more basal rocks of this thick Tertiary volcanic pile. The youngest rocks in the area are the olivine basalt flows, agglomerates and dykes found to form the peak of Black Dome Mountain and scattered areas on the flanks of Black Dome Mountain.

The geology of the Dome #10 claim consists primarily of black, gray to brown basalts. These basalts are massive to well fractured and are locally vesicular and/or amygdaloidal.

In several areas outcrops of greenish andesitic and/or dacitic volcanic rocks are found and may

represent intermediate volcanic rocks that are intercalated within the basaltic sequence.

Possibly also intercalated in the basaltic-andesitic pile are felsic volcanic rocks that have been observed in only three scattered localities on the Dome #10 claim. The most westerly felsic volcanic rocks observed were small sub-outcrops of platy yellowish rhyolitic ash in a stream bed near L-8<sup>W</sup>; 15 + 50<sup>S</sup>. The two remaining localities of felsic volcanic rocks were at L-0+00<sup>N</sup>; 2+50<sup>S</sup> and L-0+00<sup>N</sup>; 8+65<sup>S</sup>. The former locality consists of a small outcrop area of pale brown-yellow, porous rhyolitic (?) ash that has apparent flow banding striking north-south and dipping easterly at 18°. The latter locality consists of two outcrops found along the road and creek bed. At this location, the rocks consist of pale green, porous, lithic ash and/or tuff that shows moderate to extensive alteration to clay minerals.

Overburden though generally thin (except in valley bottoms) is extensive on the Dome #10 claim. No mineralization of any economic significance was observed on the Dome #10 claim.

Soil, stream sediment and rock chip samples were collected to ascertain whether areas of anomalous gold and silver values exist on the Dome #10 claim.

A total of six north south chain and compass grid lines spaced at 400 meter intervals and totalling 15 km. in length were established over the claim for ground control. Geological mapping and geochemical sampling were conducted over the grid. A total of 21 soil samples along with eight rock chip samples were collected.

Soil samples were taken from the "B" horizon when possible at a depth ranging from 10 to 25 cm. while silts were taken from the finer grained portion of the stream sediments. All samples were placed in sample bags marked with the appropriate grid co-ordinates and then shipped to the Bondar-Clegg Laboratory in Vancouver for analysis.

Soil and silt samples were seived to minus 80 mesh while rock chips were ground to this size.

The extraction method used for gold in rocks was fire assay and hot aqua regia while only hot aqua

regia extraction was used for silver in rocks. Soil and silt samples were subjected to hot aqua regia extraction. The analysis for gold and silver in rocks, soils and silts was by atomic absorption. Results for gold in all sample types was stated in parts per billion (ppb) while silver was stated in parts per million (ppm).

The results were then plotted on a base map at a scale of 1:5000 or 1 cm. = 50 meters. (See figure 161-A-3).

The soil and silt samples returned values of from 5 ppb to 10 ppb gold which can be considered background. The majority of the rock samples returned background values for gold and silver ( $< 5$  ppb and  $0.2$  ppm respectively). Only one sample (#20001 @  $19+80^W$ ;  $6+50^S$ ) returned a value of 120 ppb gold which for the immediate area can be considered moderately anomalous. This rock chip sample corresponds to a pale gray purplish andesitic (?) fragmental volcanic on the east side of a tributary of Fairless Creek (see figure 161-A-3). This same tributary is the site of several small bulldozer trenches that were dug to explore the placer potential of the creek. There is no record as to whether any gold was found in the creek.

RECOMMENDATIONS

Based on data gathered from the geological and geochemical surveys, it is felt that the Dome #10 claim does not warrant any further exploration. As a low priority, the area of the one moderately anomalous rock sample (19+80<sup>W</sup>; 6+50<sup>S</sup>) could be investigated by more detailed rock and soil geochemistry.

Respectfully Submitted:

KERR, DAWSON AND ASSOCIATES LTD.,



*Werner Gruenwald*

W. Gruenwald, B. Sc.,  
GEOLOGIST

March 14, 1980,  
KAMLOOPS, B. C.



APPENDIX A

GEOCHEMICAL ASSAYS

# Geochemical Lab Report

Extraction Ag; Hot Aqua Regia  
Au; Fire Assay & Hot Aqua Regia  
 Method Atomic Absorption  
 Fraction Used \_\_\_\_\_

Report No. 29 - 775  
 From Barrier Reef Resources  
 Date July 13, 1979

SAMPLE NO.	Au ppb	Ag ppm			SAMPLE NO.	Au ppb			
<del>ROCKS</del>									
0+15E - 8+65S	L 5	0.2	↑	20008	L - 0 8+00W	L 5	✓		
7+85 - 15+50S	L 5	0.2		20004	8+50W	L 5	✓		
L 8W - 3+80S	L 5	0.2		20005	9+00W	25	✓		
10+75W- 25+50S	L 5	0.2	#10	20006	9+50W	L 5	✓		
L12W - 3+70S	L 5	0.2		20007	10+00W	L 5	✓		
L16W - 20+65S	20	0.2	DOME	20003	10+50W	L 5	✓		
19+80W- 6+50S	120	0.2		20001	11+00W	L 5	✓		
<sup>19+80W</sup> 23+50S	10	0.2	↓	20002	11+50W	L 5	✓		
<del>SOILS</del>									
L - 0 3+00E	180	-			12+00W	L 5	✓		
2+50E	10	✓ -			12+20W	L15*	✓		
2+00E	20	✓ -			12+50W	L 5	✓		
1+50E	15	-			13+00W	L 5	✓		
1+00E	5	-			13+50W	L 5	✓		
0+50E	10	✓ -			14+00W	L 5	✓		
0+00E	L 5	✓ -			14+50W	L 5	✓		
0+50W	L 5	-			15+00W	L 5	✓		
1+00W	L 5	✓ -			2+50S	L 5			
1+50W	L 5	✓ -			2+24S	L 5			
2+00W	L 5	-			L-1+00S 10+00E	130	✓		
2+50W	L 5	-			9+50E	490	✓		
3+00W	L 5	-			6+00E	15	✓		
3+50W	L 5	-			5+50E	110	✓		
4+00W	L 5	-			5+00E	20	✓		
4+50W	L 5	✓ -			4+50E	500	✓		
5+00W	15	-			4+00E	300	✓		
5+50W	L 5	✓ -			3+50E	1720	✓		

GEOCHEMICAL LAB REPORT

<u>Sample Number</u>	<u>Type</u>	<u>Au ppb</u>
L-0 <sup>W</sup> 2+50 <sup>S</sup>	Soil )	
L-0 <sup>W</sup> 24 <sup>S</sup>	Soil )	
L-4 <sup>W</sup> 17+50 <sup>S</sup>	Soil	< 5
L-4 <sup>W</sup> 3+30 <sup>S</sup>	Soil	< 5
7+85 <sup>W</sup> 15+50 <sup>S</sup>	Silt	< 5
L-8 <sup>W</sup> 0+00	Soil	< 5
L-8 <sup>W</sup> 3+60 <sup>S</sup>	Silt	< 5
L-8 <sup>W</sup> 11+50 <sup>S</sup>	Soil	< 5
L-8 <sup>W</sup> 20 <sup>S</sup>	Soil	< 5
8+10 <sup>W</sup> 24+50 <sup>S</sup>	Soil	< 5
10+75 <sup>W</sup> 25+50 <sup>S</sup>	Soil	< 5
L-12 <sup>W</sup> 8+50 <sup>S</sup>	Soil	< 5
L-12 <sup>W</sup> 21-70 <sup>S</sup>	Soil	< 10
L-16 <sup>W</sup> 3+50 <sup>S</sup>	Soil	< 5
L-16 <sup>W</sup> 20+65 <sup>S</sup>	Soil	< 5
L-16 <sup>W</sup> 22+50 <sup>S</sup>	Soil	< 5
L-18 <sup>W</sup> 0+00 <sup>S</sup>	Silt	< 5
19+80 <sup>W</sup> 8 <sup>S</sup>	Soil	< 5
19+80 <sup>W</sup> 23+50 <sup>S</sup>	Soil	< 5
L-20 <sup>W</sup> 19 <sup>S</sup>	Soil	< 5
L-20 <sup>W</sup> 28 <sup>S</sup>	<u>Soil</u>	< 5

APPENDIX B

PERSONNEL

PERSONNEL

Field:

J. M. Dawson, P. Eng.	- June 29, 1979	- 1 day
W. Gruenwald, B. Sc.	- June 30, July 1, 2	- 3 days
M. Dawson, Assistant	- June 27, 28, 29	- 3 days
S. Williams, Assistant	- June 27, 28, 29	- 3 days

Office:

W. Gruenwald, B. Sc.	- March 6, 12, 13	- 2 3/4 days
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APPENDIX C

STATEMENT OF EXPENDITURES

COST STATEMENT

Labour:

J. M. Dawson, P. Eng. 1 day @ \$175.00/day . . . . .	\$175.00	
W. Gruenwald, B. Sc., 5 3/4 days @ \$125.00/day. . . . .	718.75	
M. Dawson, Assistant, 3 days @ \$100.00/day - . . . . .	300.00	
S. Williams, Assistant, 3 days @ \$75.00/day . . . . .	<u>225.00</u>	\$1,418.75

Expenses and Disbursements:

(a). Truck Rental:

6 days @ \$25.00/day	\$150.00	
60 mi. @ 25¢/mile	<u>15.00</u>	\$165.00

(b). Geochemical Costs: . . . . . 182.00

(c). Equipment Rental: . . . . . 40.00

(d). Map enlargement, photo copying, map printing, report binding, sample shipping, secretarial, misc. supplies: . . . . . 170.00      557.00

TOTAL HEREIN . . . . . \$1,975.75

APPENDIX D

REFERENCES



REFERENCES

- Skiber, A. F. (1973) - Report on B. J. #1 - #6 claims, Black Dome Mountain, Assessment Report for Province of B. C.
- Dawson, J. M. (April 6, 1978) - Geological and Geochemical Report on the Dome claims, Clinton Mining Division, B. C.
- Dawson, J. M. (Dec. 14, 1979) - Geological and Geochemical Report on the Dome claims, Clinton Mining Division, B. C.
- Dawson, J. M. (Nov. 27, 1979) - Report on the Diamond Drilling on the Dome Claims, Clinton Mining Division, B. C.
- Church (1980) - Exploration for Gold in the Black Dome Mountain Area. Ministry of Energy, Mines and Petroleum Resources. Paper 1980-81.

APPENDIX E

WRITER'S CERTIFICATE

WRITER'S CERTIFICATE

I, WERNER GRUENWALD, OF KAMLOOPS, BRITISH COLUMBIA, DO HEREBY  
CERTIFY THAT:

- (1). I am a geologist residing at 45 West Battle Street, Kamloops,  
B. C. and employed by Kerr, Dawson and Associates Ltd. of  
Suite #1 - 219 Victoria Street, Kamloops, B. C.
- (2). I am a graduate of the University of British Columbia,  
B. Sc. (1972), and a fellow of the Geological Association  
of Canada. I have practised my profession for 8 years.
- (3). I am the author of this report which describes the results  
of an exploration programme carried out under my supervision  
on the Dome #10 claim, Clinton Mining Division, British  
Columbia.



*Werner Gruenwald*  
\_\_\_\_\_  
W. Gruenwald, B. Sc.,  
GEOLOGIST

March 14, 1980,  
KAMLOOPS, B. C.

APPENDIX F

MAPS

