# GEOLOGICAL AND GEOCHEMICAL

REPORT

- ON THE -

DOME CLAIMS

CLINTON MINING DIVISION

BRITISH COLUMBIA

FOR

BARRIER REEF RESOURCES LTD. (N. P. L.), #904 - 675 West Hastings Street, Vancouver, B.C. V6B 1N2.

COVERING:

Dome #1 (6 units), Dome #2 (12 units), Dome #3 (12 units), Dome #6 (20 units), Dome #7 (9 units).

WORK PERFORMED:

August 19th., 1977 to March 31st., 1978.

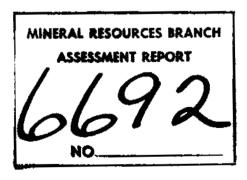
LOCATION:

- (1), 51° 20′ N, 122° 29′ W.
- (2). NTS Maps 920/8W & 920/7E.
- (3). AT BLACK DOME MOUNTAIN, 71 Km. WNW OF CLINTON, B.C.

#### PREPARED BY:

KERR, DAWSON & ASSOCIATES LTD., #1-219 Victoria Street, Kamloops, B. C.

> J. M. Dawson, P. Eng., April 6th., 1978.





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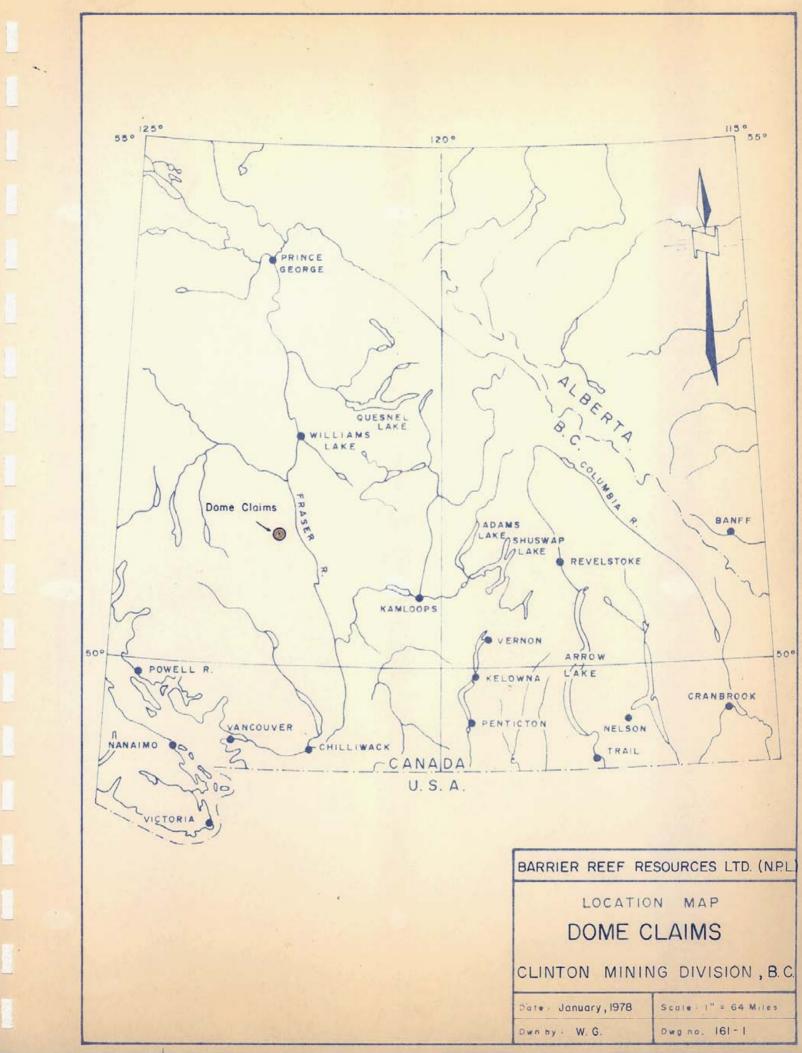
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### INTRODUCTION

The recognition of Waterloo-type silvergold deposits as a distinct type and the recent production decision on one of these (Delamar) has spurred
interest in areas of Tertiary acidic volcanism as
potential host rocks for bulk tonnage, low grade,
precious metal deposits.

The subject area was considered to have such potential and a programme of geological and geochemical exploration was carried out on the Dome claims in late August, 1977.

The data collected were interpreted and results are appended on a series of maps included with this report.

### SUMMARY AND CONCLUSIONS

- (1). The Dome Property consisting of 59 units in five metric claims is located at Black Dome Mountain about 70 Km. WNW of Clinton, B. C. and is road accessible.
- (2). It is underlain by Tertiary volcanic rocks ranging from rhyolite to basalt. Tension fractures caused by doming of this succession have been filled by gold-silver bearing quartz yeins.
- (3). Considerable exploration was done by junior companies and individuals in the 40's and 50's in exploration and evaluation of the quartz veins. Current interest has been revived because of the similarity of the Black Dome District to other Tertiary volcanic environments where bulk tonnage gold-silver deposits have been found.
- (4). The present programme indicates that the potential for development of economic vein type precious metal deposits is limited although higher grade ore shoots may be found on strike to the south of No. 1 vein.

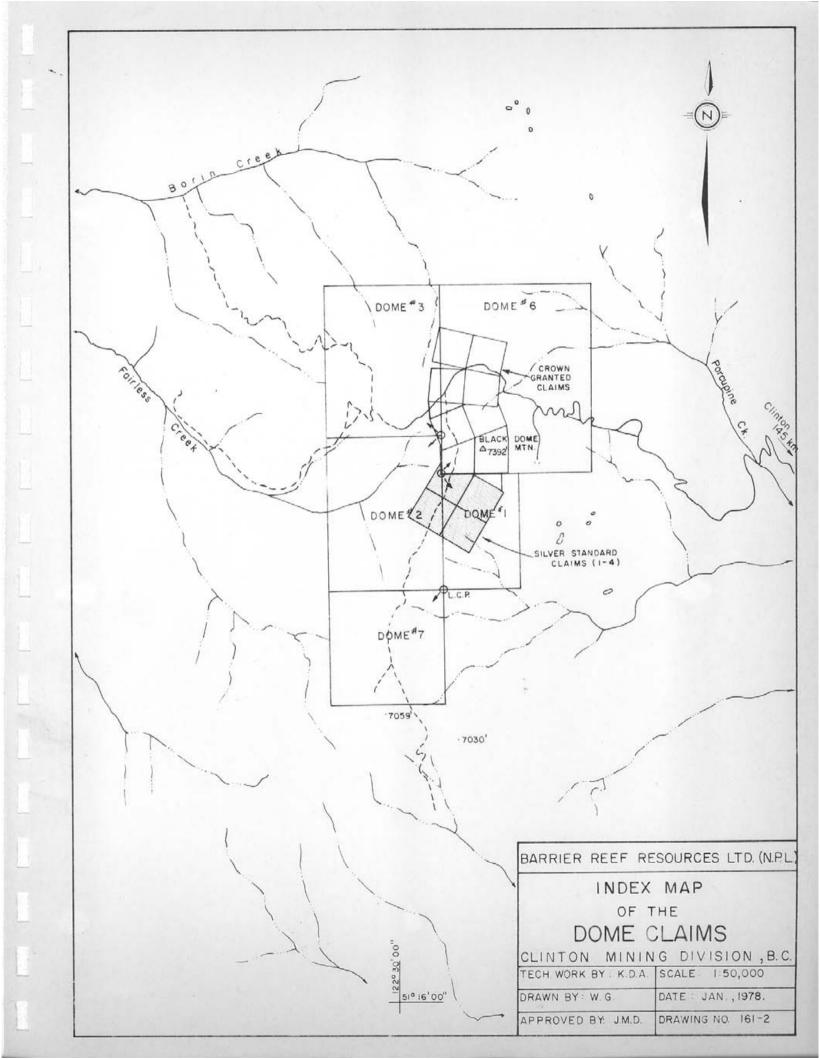
- (5). No zone or horizon with potential for hosting bulk tonnage deposits was detected during the course of the current programme; however, many similarities with districts containing such deposits were noted.
- (6). It is recommended that additional work be done on this property and in the area further south to fully evaluate the potential of the district for hosting such deposits.

# PROPERTY

The property consists of five contiguous metric claims aggregating 59 units as follows:

Claim Name	Record No.	Tag No.	Expiry	Date
Dome #1	117	42615	August	16/78
Dome #2	118	42761	August	16/78
Dome #3	119	42762	August	16/78
Dome #6	120	36053	September	13/78
Dome #7	121	36054	September	13/78

The registered owner is Barrier Reef Resources Ltd. (N.P.L.), F.M.C. No. 158944.



## LOCATION AND ACCESS

The property is located in south-central British Columbia about 70 kilometers west-northwest of the village of Clinton. The approximate center of the claim block is at 51°20' north latitude and 122°29' west longitude.

The area is accessible via about 102 kilometers of gravel road which leads west from Route 97 about 18 kilometers north of Clinton. The last 30 kilometers beyond Empire Valley Ranch is rough in spots and a 4 wheel drive vehicle is necessary.

Most of the subject property is easily accessible along old cat roads or on foot through the alpine meadows.

## PHYSIOGRAPHY AND VEGETATION

The subject claim cover portions of the crest and upper slopes of a prominent north-north-easterly trending ridge which is dominated by the peak of Black Dome Mountain. The topography is gently rolling along the ridgetops to moderately steep in some of the gulleys at the upper parts of Fairless and Porcupine Creeks. However, there are no slopes which cannot be negotiated on foot. Elevations vary from about 7,400 feet A.S.L. at the summit of Black Dome Mountain to about 6,000 feet A.S.L. at the east and west borders of the claim block.

Vegetation varies from bare alpine meadows above 6,500 feet to fairly thick stands of pine and fir on some of the northerly slopes and in creek bottoms.

The area is part of the interior dry belt so that precipitation is never excessive. The property is snow free from June through September.

#### HISTORY

In the late 1940's gold was discovered in a number of quartz veins on Black Dome Mountain by Mr.

Lawrence Frenier, a local prospector. Mr. Frenier prospected the ground for several years and in 1952 optioned his 8 claims to Empire Valley Gold Mines Ltd.

In 1953, Silver Standard Mines Ltd. optioned a number of claims adjoining the Empire Valley ground to the east and south.

From 1954 to 1956, Empire Valley Gold Mines built a road to the property from the Empire Valley Ranch, built a permanent camp on the property, stripped and sampled a number of the veins and drove two short adits on the Red Bird and Number 14 veins.

In 1959, Silver Standard Mines Ltd. stripped and sampled two veins - the Number I and the Number 2 which lie just south of the Empire Valley crown granted claims. Six diamond drill holes were bored on the Number I vein to intersect the vein about 70 feet below surface. Core recovery was less than 50% so the drilling results were inconclusive.

In 1958 Silver Standard optioned the Empire Valley Go! ...ines ground and did extensive stripping and resampling of most of the veins.

No further work was done in the area until 1972 when J. Skiber staked the B. J. claims on the west side of the crown granted block. Some prospecting and minor trenching was done on these claims in 1973.

## PRESENT PROGRAMME

Interest in bulk tonnage gold-silver deposits in areas of Tertiary volcanism prompted Barrier Reef Resources Ltd. (N.P.L.) to investigate the Black Dome area during the 1977 field season.

A two man crew spent 12 days on the property carrying out detailed geological mapping, and prospecting. Most of the known quartz veins were sampled and limited geochemical, rock chip sampling and stream sediment sampling was also performed.

#### GEOLOGY

The Black Dome district is underlain by a sequence of Tertiary volcanic rocks which range in composition from basalt to rhyolite. Total thickness of the section is unknown but certainly exceeds 500 meters. The rocks are domed into a shallow, gently plunging, north-northeasterly trending anticline.

Zones of tension fractures caused by this doming have been filled with quartz carrying silver and gold values.

The lowest part of the exposed section is represented by the rhyolitic flows and tuffs. Typically these consist of pale red brown to whitish rocks varying from fine grained, soft and friable ash beds to coarser, silicified, flow-banded to botryoidal rhyolitic flows or welded tuffs. Some of the latter are brecciated and recemented by quartz. Vugs, pisolites and larger thunder eggs are common in some places.

Much of the rhyolitic material is stained various shades of light yellow to brown, presumably from weathering of contained pyrite.

Overlying the rhyolite is a sequence of andesite or "trachyte" flows. This unit is a remarkably consistant group of fine grained, fresh greenish gray lavas. The rocks are usually porphyritic with euhedral plagioclase laths up to 30 mm long. This unit is at least 200 meters thick near the center of the property.

The uppermost part of Black Dome Mountain is capped by fine grained, dark brown basalt. It makes up the uppermost 50 meters of the section immediately overlying the greenish gray trachyte. The contact between this unit and the underlying trachyte is marked by a prominent red brown clay layer. This probably represents an oxidized regolith or erosion surface.

The clearly defined section (rhyolite - trachyte - basalt) seen near the center of the property becomes more complex to the west and north where there seems to be some interfingering of varying rock types. This may represent thinning near the edges of some units or the erosion of others.

A number of epithermal quartz veins fill tension fractures which trend north-northeasterly, coinciding with trend of the ridge of which Black Dome Mountain is a part.

These veins cut the rhyolite and trachyte units but predate the uppermost basalt unit.

The veins vary from well defined fissure fillings up to 4 meters wide down to poorly defined "vein zones" of varying width consisting of altered wall rock carrying a number of narrow stringers and veinlets of quartz. Most of the wider quartz veins exhibit features typical of epithermal veins - i.e. comb structure, vugs, banding and cockade textures. Fragments of wall rock are commonly included, particularly in the Red Bird Vein.

A number of the veins split into smaller subsidiary veins or into branching stockworks of many small veins. In the latter case, the vein zone can still be followed because of the distinctive brownish altered envelope of trachyte which surrounds it. These envelopes of altered wall rock may be as much as 10 to 15 meters wide.

## MINERALIZATION

Gold and silver values can be obtained from assays on almost all of the quartz veins. The gold is reportedly associated with pyrite although very little pyrite and no free gold was observed by the writer.

Grab samples were taken from most of the veins and submitted for assay. On the more important veins, grabs were taken at 30 meter intervals if possible over the exposed length. The results of this sampling are plotted on figure #161-4.

As will be noted the most important vein from an economic standpoint is the Number I vein. The values from sampling of the southern end of this vein roughly coincide with a very detailed programme carried out by Silver Standard Mines Ltd. in 1958. The company reported that "... The southern and lowest 700 feet of this vein consists of a banded quartz vein averaging 8 feet wide; 420 feet of this 700 feet has an average width of 7.6 feet and assayed 0.282 oz. Au per ton and 1.95 oz. Ag per ton".

Approximately 900 meters south of the southern - most exposure of No. 1 vein, and on strike with it several pieces of quartz rubble crop presumably from a nearly vein are found over a strike length of about 100 meters. One grab sample from the north end of this zone assayed 0.51 oz. Au and 27.85 oz. Ag per ton. Another grab sample near the south end of this rubble train assayed 0.63 oz. Au and 4.45 oz. Ag per ton. No metallic mienrals were noted in this quartz.

Within Dome #7 claim near the south end of the property most of the exposed bedrock is rhyolite. A number of quartz veins outcrop within this rhyolite and have been explored by at least twenty hand trenches. The rhyolite and some of the quartz veins are commonly limonite stained and some very fine grained pyrite was noted. Many of the exposed quartz veins are on strike with those outcropping in trachyte further north; however, they appear to be uniformly barren.

#### GEOCHEMISTRY

Rock chip samples and stream sediments were collected within and surrounding the property in an attempt to delineate areas of higher than background precious metal content. It was thought that a larger, favorable porous horizon or breccia zone other than the known veins might be detected.

A total of 97 rock chip samples and 55 silt samples were collected and stored in kraft envelopes for shipment. These samples were analysed for gold, silver, and arsenic in the Vancouver laboratories of Bondar-Clegg and Company. Analysis was by the following methods: Arsenic - perchloric - nitric acid extraction followed by colorimetric analysis; Silver and Gold - hot aqua regia extraction followed by atomic absorption spectrophotometry.

Mean and standard deviation for each element was calculated (rock chips and silts were treated as different groups) and the data were classified into the following categories:

Negative 0 - Mean

Possibly Anomalous Mean - (Mean + 1 Std. Dev.)

Probably Anomalous (Mean + 1 Std. Dev.) - (Mean + 2 Std. Dev.)

Definitely Anomalous > (Mean + 2 Std. Dev.)

The values were plotted on a 1:5000 scale base map of the property and the various anomalous values outlined.

In the case of silt samples there were no surprises and anomalous values were detected in creeks draining known mineralized areas only.

Values obtained from rock chip samples are difficult to interpret as some of them come from known mineralized zones - i.e. altered wall rock near voins or small stockworks within voin zones while others are from fresh rock far from any known mineralized source.

Obviously these represent different populations; however, the number of samples was not large enough to consider them separately.

A number of conclusions can be reached from this study: (1). Rock chip sampling would be more

significant if it were done on a larger regional scale in the district.(2). Silver content is constant in all rock types and only increases within the alteration envelope surrounding a vein. (3). Gold, Silver, and Arsenic content seems abnormally low within vein zones in the rhyolitic rocks near the south end of the property. This may indicate a vertical metal zoning within the veins - i.e. higher gold and silver values may be confined to those portions of the veins in the upper part of the rhyolite horizon and within the trachyte. It is interesting to note that two of the highest combined gold and silver assays obtained were from quartz veins found just below the rhyolite - trachyte contact. (4). No specific horizon or zone carrying higher than average gold - silver - arsenic content was detected; however, the rhyolite - trachyte contact should be investigated in more detail.

# ECONOMIC CONSIDERATIONS

There are two possibilities for the development of economic mineral deposits in the Black Dome district: (1). fissure veins of sufficient size and grade to be mined at a profit. (2). lower grade, bulk tonnage Ag-Au deposits of the so called Waterloo Type.

From sampling done to date, it would appear that even the Number I vein would not be economic at today's costs unless ore shoots of +0.5 oz. Au could be developed. The two higher grade samples found in what appears to be the southern extension of the Number I vein might indicate the presence of such a higher grade ore shoot.

been discovered in associations with a number of
Tertiary volcanic piles and/or hypabyssal intrusive
phenomena. These deposits, sometimes referred to as
Waterloo type deposits have commonly been found adjacent
to old mining districts previously worked for their
precious metal vein deposits. Rhyolitic volcanics are
a conspicuous part of such volcanic piles and late
stage volcanic phenomena such as epithermal veins and

hot spring deposits are usually present. The main ore controls are usually (a). some kind of porous host rock such as breccias, coarse pyroclastics, volcaniclastics or the fluviatile and lake bed sediments so often intercalated in a volcanic pile and (b). some kind of damming or ponding mechanism such as a fault, unconformity or impervious cap rock which prevents the ore bearing solutions from being dissipated in scattered vein deposits.

No evidence of such a bulk tonnage situation has yet been found in the Black Dome District; however, it is located at the north end of a large Tertiary volcanic field in which intermediate to acid volcanics form a prominent part. There are a number of gold occurrences and associated antimony and mercury deposits in this district. Gold placers found in a number of creeks indicate that other gold sources are as yet undiscovered.

Therefore, the environment for hosting bulk tonnage gold-silver deposits does exist in the Black Dome District and in the Camelsfoot Range further to the south.

Additional exploration should be carried out to further test this environment.

APPENDIX A

ROCK GEOCHEMICAL DATA

# ROCK GEOCHEMISTRY DATA

Sample No.	Description	Au (PPB)	Analysis Ag(PPM)	As (PPM)
BD-1	fresh basalt near summit of Black Dome Mountain	30	0.2	2
BD-2	slightly altered, grayish trachyte	170	0.2	11
BD-3	fresh, green gray trachyte	10	0.2	4
BD-4	fresh, green gray trachyte	10	0.2	4
BD-5	fresh, green gray trachyte	10	0.2	4
BD-6	greenish black, fresh basalt	10	0.2	7
BD-7	bleached to rusty and altered trachyte - possible vein zone?	100	0.2	53
BD-8	greenish tuff or siltstone with scattered stringers of quartz	10	0.2	3
BD-9	fine grained to dense tuff?	5	0.2	7
BD-10	altered and bleached trachyte with thin quartz seams - vein zone?	30	0.4	270
BD-11	altered, pale green trachyte	10	0.2	8
BD-12	altered, vuggy trachyte - rusty fracture zones - possible vein zone?	50	1.1	12
BD-13	fresh, green gray porpyyritic trachyte.	20	0.2	6
BD-14	vein zone - altered and bleached trachyte with tiny quartz veins	5	0.2	30
BD-15	vein zone - altered trachyte with many tiny quartz veinlets	800	0.2	110
BD-16	unaltered, green gray trachyte	15	0.2	2

(continued)

Sample No.	Description	Ana Au(PPB)	lysis Ag(PPM)	As (PPM)
BD-17	fine grained, fresh basalt	5	0.2	15
BD-18	fine grained, gresh basalt	5	0.2	6
BD-19	friable, decomposed basalt	5	0.2	11
BD-20	brecciated basalt	5	0.2	6
BD-21	white, porous, clay-like rhyolitic? ash beds	5	0.2	3
BD-22	massive, fresh basalt	5	0.2	6
BD-23	white weathering, clay-like rhyolitic ash bed	5	0.2	3
BD-24	buff coloured, porphyritic trachyte	ζ 5	0.2	2
BD-25	dense, dark brown basalt	10	0.2	9
BD- 26	basaltic agglomerate	5	0.2	6
BD-27	pale, buff weathering, brecciated trachyte.	5	0.2	6
BD-28	fine grained, fresh basalt	< 5	0.2	4
BD-29	fine grained, fresh, colomnar basalt	5	0.2	2
BD-30	rusty weathering, altered trachyte, some hematite staining	25	0.2	110
BD-31	rusty weathering, altered trachyte, some hematite staining	10	0.2	13
BD- 32	unaltered, porphyritic trachyte	< 5	0.2	2
BD-33	autoclastic trachyte breccia cemented by hematitic material	<b>(</b> 5	0.2	25

Sample No.	Description	Au(PPB)	Analysis Ag(PPM)	As(PPM)
BD-34	dark brown, sheeted basalt	< 5	0.2	2
BD-35	vesicular, basaltic glass	< <sup>5</sup>	0.2	3
BD- 36	vesicular, to scoriaceous basal	lt < 5	0.2	1
BD-37	glassy to porphyritic dacite or rhyolite	10	0.2	18
BD-38	rusty weathering dacite or rhyolite	5	0.2	5
BD- 39	fractured fine grained basalt	5	0.2	6
BD- 40	fresh, green gray, porphyritic trachyte	5	0.2	3
BD-41	pale greenish white, friable rhyolitic agglomerate	5	0.2	4
BD-42	pale yellowish brown, clay-like rhyolite tuff	e ( 5	0.2	2
BD- 43	dark brown, fine grained rhyolite	5	0.2	2
BD-44	friable, yellowish brown altered rhyolite	5	0.2	6
BD-45	yellowish brown, rusty rhyolitic agglomerate	<b>(</b> 5	0.2	4
BD-46	greenish gray, kaolinized rhyolite tuff	5	0.2	4
BD-47	glassy to porphyritic, flow banded rhyolite	< 5	0.2	3
BD-48	purplish gray rhyolite agglomerate	<b>&lt;</b> 5	0.2	3
BD-49	porphyritic, flow banded rhyolite	< <sup>5</sup>	0.2	4
BD-50	altered rhyolitic ash beds or tuffs	۷ 5	0.2	2
BD-51	altered rhyolitic ash beds or tuffs	< 5	0.2	5

Rock Geochemistr	y Data	( cc	ontinued)	<u></u>
		Ana)	lysis	
Sample No.	Description	Au(PPB)	Ag(PPM)	As (PPM)
BD-52	kaolinized rhyolic agglomerate	<u>/</u> 5	0.2	3
BD-53	altered rhyolit agglomerate, frequent botrioidal growths	< 5	0.2	4
BD-54	altered, spherulitic rhyolite	< 5	0.2	5
BD-55	dark brown, fresh basalt	ζ 5	0.2	6
BD-56	red to buff dacitic tuff	⟨ 5	0.2	7
BD-57	fine grained, fresh basalt	ζ 5	0.2	2
BD-58	bleached trachyte - alteration envelope surrounding Giant Vein	10	0.2	7
BD-59	stringers of quartz and purplish altered rock within the Giant Vein zone - nests	5	0.2	4
BD-60	porphyritic, greenish gray trachyte with minor hairline quartz veins.	30	0.2	38
BD-61	friable, banded, rhyolitic tuff or ash bed, immediately below the trachyte unit	5	0.2	25
BD-62	bleached dacite with tiny quartz veinlets - may not be in place	70	0.3	9
BD-62A	bleached, yellow-brown, rusty banded rhyolite tuff	20	0.2	6
BD-62B	altered, flow banded rhyolite	15	0.2	11
BD-63	flow banded rhyolite; orange brown limonite on fractures	<b>〈</b> 5	0.2	6
BD-64	rusty, flow banded rhyolite with quartz layers and lenses	10	0.2	8
BD-65	rusty, flow banded rhyolite cut by quartz veins.	20	0.2	18
BD-66	rusty, flow banded rhyolite cut by quartz veins	10	0.2	26

Analysis
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	All	aly 515	
Description	Au (PPB)	Ag (PPM)	As (PPM)
rusty rhyolite with several drusy quartz veins	30	0.2	80
rusty rhyolite with several drusy quartz veins	40	0.2	110
		0.2	8
rusty, yellowish brown weathering rhyolite with quartz veins	20	0.2	32
rusty, yellowish brown weathering rhyolite with quartz veins	<b>〈</b> 5	0,2	10
rusty, yellowish brown weathering rhyolite with quartz veins	⟨ 5	0.2	16
limonite stained rhyolitic tuff, botrioidal growths and thunder eggs.	10	0.2	12
rusty weathering rhyolite cut by quartz veins	10	0.2	20
rusty rhyolite with quartz stringers	5	0.2	250
greenish gray, porphyritic trachyte	5	0.2	5
greenish gray, porphyritic trachyte	25	0.2	3
rhyolitic breccia	40	0.2	2
fresh rhyolitic tuff	5	0.2	4
red, porphyritic rhyolite	5	0.2	6
	rusty rhyolite with several drusy quartz veins  rusty rhyolite with several drusy quartz veins  Rusty weathering rhyolitic tuff with scattered quartz stringers  rusty, yellowish brown weathering rhyolite with quartz veins  rusty, yellowish brown weathering rhyolite with quartz veins  rusty, yellowish brown weathering rhyolite with quartz veins  limonite stained rhyolitic tuff, botrioidal growths and thunder eggs.  rusty weathering rhyolite cut by quartz veins  rusty rhyolite with quartz stringers  greenish gray, porphyritic trachyte  greenish gray, porphyritic trachyte  rhyolitic breccia  fresh rhyolitic tuff	rusty rhyolite with several drusy quartz veins  rusty rhyolite with several drusy quartz veins  rusty rhyolite with several drusy quartz veins  Rusty weathering rhyolitic tuff with scattered quartz stringers  rusty, yellowish brown weathering rhyolite with quartz veins  rusty, yellowish brown weathering rhyolite with quartz veins  rusty, yellowish brown weathering rhyolite with quartz veins  fusty, yellowish brown weathering rhyolite with quartz veins  limonite stained rhyolitic tuff, botrioidal growths and thunder eggs.  limonite stained rhyolite cut by quartz veins  rusty weathering rhyolite cut by quartz veins  greenish gray, porphyritic trachyte  greenish gray, porphyritic trachyte  specials gray, porphyritic trachyte  fresh rhyolitic tuff  solutions  solu	rusty rhyolite with several drusy quartz veins 30 0.2  rusty rhyolite with several drusy quartz veins 40 0.2  Rusty weathering rhyolitic tuff with scattered quartz stringers 5 0.2  rusty, yellowish brown weathering rhyolite with quartz veins 20 0.2  rusty, yellowish brown weathering rhyolite with quartz veins 5 0.2  rusty, yellowish brown weathering rhyolite with quartz veins 5 0.2  rusty, yellowish brown weathering rhyolite with quartz veins 5 0.2  limonite stained rhyolitic tuff, botrioidal growths and thunder eggs. 10 0.2  rusty weathering rhyolite cut by quartz veins 10 0.2  rusty rhyolite with quartz stringers 5 0.2  greenish gray, porphyritic trachyte 5 0.2  greenish gray, porphyritic trachyte 25 0.2  rhyolitic breccia 40 0.2  fresh rhyolitic tuff 5 0.2

Sample No.	Description	Au(PPB)	Analysis Ag(PPM)	As(PPM)
BD-81	greenish, porphyritic trachyte	5	0.2	2
BD-82	yellowish-buff friable rhyolitic and beds	5	0.2	7
BD-83	yellowish brown to rust siliceous, rhyolitic tu		0.2	6
BD-84	greenish gray porphyrit trachyte	ic 5	0.2	13
BD-85	altered wall rock adjac to Red Bird Vein	ent 30	2.0	90
BD-86	greenish gray, fresh trachyte	10	0.2	15
BD-87	altered, brownish trach with minor quartz veinl 30 meters west of No. 2	ets,		
	vein	500	0.6	9
BD-88	altered wall rock of No 1 vein adjacent to samp #15437		2.0	115
BD-89	rusty, bleached wall rock east of No. 1 vein @ sample site #15449	165	0.6	100
BD-90	altered brownish trachyte from vein zone (Skiber's vein)	10	0.2	23
BD-91	altered trachyte with several tiny quartz veins in Skiber's vein			
		3000	3,8	110
BD-92	altered trachyte with small quartz veins	900	4.2	60
BD-93	altered, brownish trachyte with minor narrow quartz veins - 5	0		
	meters east of Giant Vein	250	3,8	190

# (continued)

			Analy:	sis
Sample No.	Description	Au (PPB)	Ag (PPM)	As (PPM)
BD-94	grab from altered trachyte in small vein zone east of Giant	70 Vein	1.4	70
BD-95	altered trachyte with small quartz stringers	20	0.2	27
BD-96	brownish altered trachyt adjacent to No. 14 vein at tunnel portal	e 5	0.2	42
BD-97	altered trachyte with quartz stringers - small vein zone (No. 15 vein?)		2.2	70

APPENDIX B

ASSAY RESULTS

1500 PEMBERTON AVE., NORTH VANCOUVER, B.C. PHONE: 985-0681 TELEX: 04-54554

# Certificate of Analysis

то Ка	IST-Devson & As	seciates Ltd.	A27 - 741		
1	- 219 Victoria	Street	September 9, 1977		
Ke	mloops, R.C.	V2C 2A1			
I hereby certif	y that the followi	ng are the results of assays mad	de by us upon the herein described	ore	samples.

MARKED	os/ton	OZ/LOS	MARKED	oz/ton	02/to	MARKED	os/toe	oz/te
	#es	As		Au	Ag			Ag
15401	0.020	0.10	15420	0.015	0.35	15439	0.32	0.77
15402	0.015	0.09	15421	0.015	1.27	1 <del>544</del> 0	0.54	1.22
15403	0.045	0.06	15422	0.010	0.19	15441	0.015	0.10
15404	0.039	8.06	15423	0_020	0.30	15442	0.26	1.14
15405	<0.002	0,03	15424	0.035	0.36	15443	0.10	2, 56
15406	0.060	9.21	15425	0,015	0.43	15444	0.050	0.35
15407	0.015	0.07	15426	0.10	0.41	<b>15446</b> .>	0.11	2.18
15408	0,013	0.08	15427	0.14	0.56	15446	0.030	0.24
15409	0.045	0.08	15428	0.20	1.36	15447	0.004	0.13
15410	2.80	2.56	15429	0,065	9.24	15448	0.053	0.43
15411	0.970	0.29	15430	0.070	9.70	15449	0.060	0.19
15412	0.048	0.66	1 <b>54</b> 31	0.075	7.50	15450	0.140	2.47
15413	0.24	0.31	15432	0.89	19.50	15451	0.84	2.74
15414	0.085	0, 13	15433	0.015	0.34	15452	0.012	0.10
15415	0.045	0.16	15434	0.050	0.47	15453	0.020	0.06
15416	0_002	0.06	15435	8.020	0.08	15454	0.12	0.20
15417	0.002	0.03	15436	0.070	0.21	15455	0.002	0.03
15418	0.63	4.45	15437	0.13	0.44	15456	0.010	0.05
15419	0.51	27.85	15438	0.27	0.90	15457	0.002	0.06

NOTE:

Rejects retained two weeks Pulps retained three months unless otherwise arranged. BONDAR-CLEGG & COMPANY LTD. Registered Asseyer, Province of British Columbia



1500 PEMBERTON AVE., NORTH VANCOUVER, B.C. PHONE: 985-0681 TELEX: 04-54554

# Certificate of Analysis

то	emene & Associa	tes Ltd.	_	A27 - 741				
				Page 2				
I hereby certify	that the following are t	he results of assays	made by us upon	the herein described	<b>et</b> *	<b>⊈</b> şa	mples.	
MARKED	es/top		KED	PERCENT	PERCENT	MARKED	PERCEI	NTPERCE
	Am.	As						

MARKED	es/ton or/to	MARKED	PERCENT	PERCENT	MARKED	PERCENT	PERCENT
	Ag						ļ
15458 15459 15460 15461 15462	0.002 0.02 0.002 0.06 0.002 0.02 0.085 0.33 0.083 0.06						
15463 15464 15465	0.004 0.05 0.16 0.32 0.060 0.25	:					

NOTE:

Rejects retained two weeks Pulps retained three months unless otherwise arranged. BONDAR-CLEGG & COMPANY LTD.

Registered Assayer, Province of British Columbia



APPENDIX C

PERSONNEL

### PERSONNEL

J. M. Dawon, P. Eng. Geologist

August 22-31, 1977 November 15,16, 1977 February 22, 23, 1978 March 21, 1978

15 days

Geologist W. Gruenwald, B. Sc. January 10, 11, 12, 1978

3 days

L. P. Duquette Prospector August 22-31, 1977

10 days

APPENDIX D

STATEMENT OF EXPENDITURES

# DOME CLAIMS - PROGRAMME COSTS

(1).	Labour:				
	(a).	Field 1 geologist 10 days @ \$150.00/day \$1,500.00			
		1 prospector 10 days @ \$75.00/day			
	(b).	Office			
		1 geologist 5 days @ \$150.00/day \$ 750.00			
		1 geologist (Draftsman) 3 days @ \$100.00/day	\$3,300.00		
(2).	Expenses and Disbursements:				
	(a).	Truck Rental			
		10 days @ \$20.00/day \$200.00 730 miles @ 20¢/mile <u>146.00</u> \$ 346.00			
	(b).	Camp equipment rental 100.00			
	(c).	Groceries and supplies 246.40			
	(d).	Assays			
	(e).	Geochemical analyses 1,441.55			
	(f).	Secretarial, xerox, blueprints, telephone, maps, freight, etc 177.60	2,864.05		
		TOTAL HEREIN	\$6,164.05		

## APPENDIX E

AFFIDAVIT IN SUPPORT OF STATEMENT OF EXPENDITURES

C A N A D A	)	IN THE MATTER OF the Statement
	)	of Expenditures for Geological and
PROVINCE OF BRITISH (	COLUMBIA )	Geochemical Exploration of the Dome
	)	Claims, Clinton Mining Division.
TO WIT:	)	•

I, JAMES M. DAWSON, Geologist of 380 Powers Road in the City of Kamloops, in the Province of British Columbia,

#### DO SOLEMNLY DECLARE:

- (1). That the geological and geochemical investigation of the Dome Claims was done under my supervision.
- (2). That the Statement of Expenditures set out in Appendix D of my report entitled "Geological and Geochemical Report on the Dome Claims" dated August 19th., 1977 to March 31st., 1978, truly represents the amounts expended on geological and geochemical investigation of the said claims.

AND I make this solemn declaration conscientiously believing it to be true and knowing that it is of the same force and effect as if made under oath, and by virtue of the Canada Evidence Act.

DECLARED before me at the

City of Kamloops in the

Province of British Columbia )

this 6th. day of April, A.D.,)

1978.

K. BAYS )

Commissioner for taking Affidavits |

within British Columbia

A Commissioner for taking |

Affidavits for British |

Columbia.

APPENDIX F

REFERENCES

### REFERENCES

A. F. Skiber, (1973):Report on B. J. #1-#6 claims, Black Dome Mountain, Assessment Report for Province of B. C. Trettin, н. Р. (1961):Geology of the Fraser River Valley between Lillooet and Big Bar Creek; B. C. Dept. of Mines, Bull. #44 B. N. (1977):Large Low Grade Silver Deposits Watson, in North America; World Mining, Vol. 30, No. 3, March, 1977.

Various Annual Reports of the B. C. Minister of Mines.

Anonamous (1958): Private Report to Silver Standard Mines Ltd. on Exploration carried

out on Black Dome Mountain property.

Knox, J. A. and

Wertz T. (1976): Geology and Mienralization at

Delamar Silver Mine, Idaho; Paper Given at Northwest Mining

Association Meeting, December, 1976.

APPENDIX G

WRITER'S CERTIFICATE

# JAMES M. DAWSON, P. ENG. GEOLOGIST

SUITE 1 - 219 VICTORIA STREET KAMLOOPS, B.C.

PHONE (604) 374-6427

### CERTIFICATE

- I, JAMES M. DAWSON OF KAMLOOPS, BRITISH COLUMBIA, DO HEREBY CERTIFY THAT:
- (1). I am a Geologist employed by Kerr, Dawson and Associates Ltd. of Suite #1, 219 Victoria Street, Kamloops, B. C.
- (2). I am a graduate of the Memorial University of Newfoundland, B. Sc. (1960), M. Sc. (1963), a fellow of the Geological Association of Canada and a Member of the Association of Professional Engineers of B. C. I have practised my profession for 14 years.
- (3). I am the author of this report which is based on a field programme carried out by myself and others as well as various published and private reports.

U. M. DAWSON
BRITISH
COLUMBIA

KERR, DAWSON & ASSOCIATES LTD.,

April 6th., 1978, KAMLOOPS, B. C.

James M. Dawson, M.Sc., P. Eng., GEOLOGIST

