

PROSPECTING
GEOCHEMICAL REPORT ON THE
BON 1 to 4 MINERAL CLAIMS

Cariboo Mining Division

NTS 93A/14

Latitude: 52 degrees 57 minutes north
Longitude: 121 degrees 22 minutes west

Claim Owner: George Haywood-Farmer Administrator of
the Estate of Wilfred E. Thompson Deceased.

Claim Record Numbers: 47807, 47808, 47809 and 47810.

Report by: R.M. Durfeld B.Sc.

DURFELD GEOLOGICAL MANAGEMENT LTD.
2029 South Lakeside Drive
Williams Lake, B.C.
V2G 2R1

October 1982

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

10,762

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ILLUSTRATIONS

Figure 1	Location Map 1:50,000	
Figure 2	Geology and Sample Location Plan	Attached
Figure 3	Geochemical Plan (Copper, lead, zinc)	Attached
Figure 4	Geochemical Plan (Silver, gold, arsenic, tungsten)	Attached

APPENDICES

APPENDIX I	Geochemical Analyses and Procedures
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APPENDIX III	Statement of Qualifications

1.) INTRODUCTION

This report describes a geochemical survey conducted on the BON 1 to 4 mineral claims at the request of George Haywood-Farmer Administrator of the Estate of Wilfred E. Thompson to satisfy the assessment requirements of these claims.

The BON 1 to 4 claims are located 22 kilometers south-southeast of the historic community of Barkerville. (Figure 1)

Access to the property is by all-weather gravel road from Barkerville via Antler Creek to Cunningham Pass and hence up Cunningham Creek to the property. Access on the property is best achieved by a cat trail that originates at the Cunningham Creek all-weather road and bisects the property.

The physiography of the BON 1 to 4 claims is characterized by a northeast facing slope that overlooks and becomes steeper toward Cunningham Creek.

The vegetation is predominantly a mixed stand of fir and spruce forest with extensive undergrowth of alder, huckleberry, blueberry bushes and moss.

2.) HISTORY

The section of Cunningham Creek below the BON claims has been the scene of gold mining from placer operations since 1885. Gold mining from quartz veins began in 1922 at the head of Peter's Gulch (later the Cariboo Hudson Mine) just south of the BON claims. Minor quantities of scheelite have also been produced from this area.

Extensive base metal exploration has been conducted in the area predominantly by way of soil sampling, trenching and minor diamond drilling. These surveys were conducted in the area of the BON claims between 1971 to 1977 by Coast Interior Ventures and Rio Tinto Canadian Exploration Limited.

3.) PROPERTY

CLAIM NAME	RECORD NUMBER	RECORD DATE
BON 1	47807	September 30
BON 2	47808	September 30
BON 3	47809	September 30
BON 4	47810	September 30

CLAIM OWNER - George Haywood-Farmer Administrator for the Estate of Wilfred E. Thompson, Deceased.

4.) GEOCHEMICAL SURVEY

During the period September 15 to September 25, 1982 twenty-nine soil samples were collected from the BON 1 to 4 mineral claims.

These **samples** were collected on a grid basis commencing at the initial post of BON 1&2 and running parallel lines 350 metres in length due west. Two lines were spaced 200 metres apart. Samples were collected at 25 metre intervals with sampling from a well developed rusty B-horizon soil. Samples were placed in kraft sample bags and shipped to Acme Analytical Laboratories in Vancouver for analyses by the ICP method for 29 elements and by atomic absorption for gold. The geochemical procedures used by Acme are documented as Appendix 1 to this report. The results of this survey are documented in Appendix 1 and on figures 2,3,4, of this report. Only copper, lead, zinc, silver, gold, arsenic and tungsten were considered to be of interest and as such are plotted on the accompanying maps.

5.) GEOLOGY

The area of the BON claims is largely underlain by thin overburden that generally masks the outcrop. Road cuts and minor trenching assisted in mapping.

The Bon mineral claims are underlain by north northwest trending phyllitic rocks that were regionally mapped by R.B. Campbell in 1959 and 1960 as corresponding to the Lower Cambrian Snowshoe Formation.

5.) GEOLOGY (continued)

The phyllitic rocks of the Snowshoe Formation on the BON claims are largely chloritic and sericitic phyllites with silicious and calcareous sections. On the western end of line 0+00 north a grey to white crystalline limestone outcrops.

Locally within the phyllitic sections quartz-carbonate veins are developed sub-parallel to the foliation.

Visible sulphide mineralization is developed as galena, sphalerite and pyrite occurring with the quartz-carbonate veins. Pyrite is also developed generally parallel to the foliation within the phyllites.

6.) RESULTS

It was felt that statistically analyzing the geochemical results for the elements of interest would assist in evaluating the mineral potential of the BON claim group. The statistics were done on a programmable calculator and anomalous values were arrived at by calculating the mean plus two standard deviations. The results of these calculations are listed below. The anomalous values are underlined on the GEOCHEMICAL PLANS (Figures 3 and 4).

ELEMENT	CUT ABOVE	MEAN	STANDARD DEVIATION	ANOMALOUS
copper	140 ppm	37 ppm	18 ppm	73 ppm
lead	190 ppm	66 ppm	42 ppm	151 ppm
zinc	240 ppm	95 ppm	33 ppm	160 ppm
silver	1.5 ppm	.55 ppm	.37 ppm	1.30 ppm
gold	50 ppb	9 ppb	9 ppb	27 ppb
arsenic	70 ppm	27 ppm	15 ppm	57 ppm
tungsten	5 ppm	2 ppm	.6 ppm	3 ppm

It is noted that several samples are anomalous in copper concentrations but are randomly distributed and are not correlative to any other element.

Two zones on line 0+00 north at 0+00 west to 0+50 west and 2+50 west to 3+00 west have correlative lead and zinc anomalies. These anomalous values have added significance since no lead-zinc anomalies are associated with the mineralized quartz veins.

6.) RESULTS (continued)

Anomalous silver, gold, arsenic and tungsten values are sporadically developed with the only significant cluster of values occurring in the area of 0+00 north and from 0+25 west to 1+00 west. A strong lead-zinc anomaly also occurs in this area.

7.) CONCLUSIONS

There are significant anomalous lead and zinc values developed on the BON mineral claims. Sporadic silver, gold, arsenic and tungsten anomalies are also developed.

Better resolution of the geochemical anomalies would be achieved by additional soil sampling on closer spaced lines.

The very high background lead and zinc values could support speculation that metamorphosed eugeosynclinal sediments of the Paleozoic Age Snowshoe Formation may host a lead-zinc massive sulphide occurrence.

Several quartz-carbonate veins with massive galena and sphalerite are developed as a secondary feature sub-parallel to foliation on the BON mineral claims.

These quartz-carbonate massive sulphide veins should be sampled and explored for their precious metal content.

8.) RECOMMENDATIONS

It is recommended that additional soil sampling be conducted to evaluate the whole area encompassed by the BON mineral claims and to better define the anomalous areas outlined in this report. In conjunction with this soil sampling rock sampling and more detailed mapping should be conducted.

If the above programme meets with continued success a further programme would consist of trenching, geophysics and diamond drilling.

3+50 W

0+00 W

2+00 N



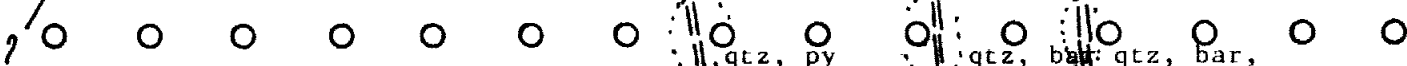
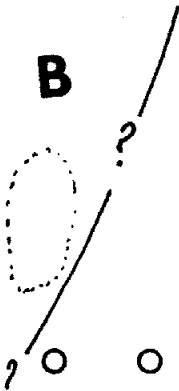
xl carb, py



BON 2

B

A



qtz, py
bar, gn

qtz, bar
gn

qtz, bar,
sph, py, gn

0+00 N

LEGEND

- Claim post
- Claim outline
- Soil sample site

A Largely chlorite and sericite phyllites with siliceous and calcareous sections.

B Foliated grey to white micritic and crystalline limestone.

Contact definite, implied

Vein

Outcrop

- xl Crystalline
- carb Carbonate
- gn Galena
- py Pyrite
- qtz Quartz
- sph Sphalerite
- bar Barite

BON 1

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**DURFELD GEOLOGICAL
MANAGEMENT LTD**

Scale: 1:2000
Date: OCT 1982

BON CLAIMS

Drawn By: rmd

SAMPLE LOCATION AND GEOLOGICAL PLAN

Drawing Number
Figure 2

3+50 W

0+00 W

2+00 N

7	18	23	51	22	41	132	60	39	33	54	28	19	85	26
13	34	36	83	44	72	80	88	73	117	266	102	194	8	163
19	66	52	83	129	90	103	128	88	79	124	107	124	69	95



BON 2

22	27	24	27	184	41	45	63	66	146	ns	21	40	41	22
7	77	193	139	211	93	85	25	22	26	92	39	330	410	77
90	42	242	580	396	131	146	72	77	131	135	128	310	77	

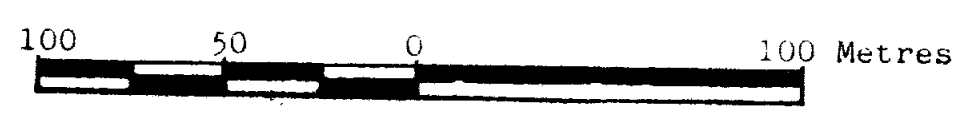
LEGEND

- Claim post
- Claim outline
- Soil sample site
- 22 ppm copper
- 410 ppm lead
- 77 ppm zinc
- 77 anomalous value

BON 1

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

10,762



DURFELD GEOLOGICAL MANAGEMENT LTD		
Scale: 1:2000	BON CLAIMS	Drawn By: rmd
Date: Oct 1982		
GEOCHEMICAL PLAN		
Copper, Lead, Zinc		Drawing Number Figure 3

APPENDIX I

GEOCHEMICAL ANALYSES AND PROCEDURES

ICP GEOCHEMICAL ANALYSIS

A .500 GRAM SAMPLE IS DIGESTED WITH 3 ML OF 3:1:5 HCL TO HNO3 TO H2O AT 90 DEG.C. FOR 1 HOUR. THE SAMPLE IS DILUTED TO 10 MLS WITH WATER.
 THIS LEACH IS PARTIAL FOR: Ca, P, Mg, Al, Ti, La, Na, K, W, Ba, Sr, Cr AND B. Au DETECTION 3 ppm.
 AA ANALYSIS BY AA FROM 10 GRAM SAMPLE. SAMPLE TYPE - SOIL

DATE RECEIVED OCT 12 1982 DATE REPORTS MAILED Oct 19 1982 ASSAYER D. Toyer DEAN TOYE, CERTIFIED B.C. ASSAYER

DURFELD GEOLOGICAL MANAGEMENT FILE # 82-1332

PAGE # 1

SAMPLE #	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au ppm
ON ON	1	22	410	77	1.2	23	12	482	4.99	11	2	ND	5	5	1	2	2	23	.04	.12	15	24	.37	52	.01	2	1.73	.01	.02	2	5
ON 0+25W	3	41	330	310	1.4	21	17	5065	16.27	36	2	ND	4	17	1	4	2	27	.26	.15	15	20	.26	114	.01	2	1.96	.01	.02	720	5
ON 0+50W	1	40	39	128	.2	11	14	599	8.50	70	2	ND	2	4	1	2	2	43	.07	.23	3	4	.07	25	.01	2	.53	.01	.02	4	5
ON 0+75W	1	21	92	135	1.3	20	9	488	4.49	41	2	ND	4	2	1	2	2	13	.02	.07	13	7	.07	33	.01	2	.83	.01	.02	2	140
STD A-1/AU	1	30	39	178	.4	35	12	1013	2.71	12	2	ND	2	39	1	2	2	57	.66	.13	6	74	.75	293	.08	7	1.72	.02	.19	2	430
ON 1+25W	1	146	26	131	.1	21	34	747	8.90	54	2	ND	4	3	1	2	2	38	.01	.06	7	5	.14	101	.01	2	1.32	.01	.01	2	5
ON 1+50W	1	66	22	77	.1	27	31	649	8.72	67	2	ND	2	4	1	2	2	18	.01	.11	6	6	.11	38	.01	2	.65	.01	.01	2	5
ON 1+75W	1	63	25	72	.4	19	14	504	8.44	16	2	ND	3	3	1	2	2	38	.02	.15	7	10	.21	47	.01	2	1.02	.01	.01	2	5
ON 2W	1	45	85	146	.1	26	19	704	5.78	15	2	ND	5	5	1	2	2	24	.06	.12	14	16	.28	65	.01	2	1.53	.01	.02	2	25
ON 3+25W	1	41	93	131	.1	22	14	737	7.62	22	2	ND	3	4	1	2	2	26	.02	.31	13	16	.23	46	.01	2	.99	.01	.02	4	10
ON 2+50W	1	184	211	396	1.2	18	10	2951	20.59	90	3	ND	4	4	1	5	2	23	.05	.21	2	7	.20	82	.01	2	.55	.01	.01	2	45
ON 2+75W	1	27	139	580	1.5	29	9	3028	8.35	22	2	ND	2	11	2	2	2	20	.20	.21	6	10	.07	124	.01	2	.64	.01	.02	2	5
ON 3W	1	24	193	242	.7	29	16	6489	10.41	34	5	ND	5	85	3	2	2	16	1.89	.21	16	11	.25	223	.01	2	1.16	.01	.02	2	5
ON 3+25W	1	27	77	42	.3	29	16	748	6.02	22	2	ND	8	20	1	2	2	12	.27	.06	48	9	.08	54	.01	2	.96	.01	.02	2	10
ON 3+50W	1	22	7	90	.4	28	13	179	3.99	37	2	ND	2	4	1	2	2	21	.01	.05	16	7	.04	19	.01	2	.43	.01	.02	2	5
2W 0W	1	26	163	95	.5	17	9	356	5.47	23	2	ND	3	4	1	2	2	18	.03	.08	10	10	.14	36	.01	2	.87	.01	.02	2	5
2W 0+25W	1	85	8	69	.9	10	18	484	9.36	9	2	ND	2	4	1	2	2	49	.07	.15	2	6	.14	43	.01	2	1.08	.01	.01	2	5
2W 0+50W	1	19	194	124	1.9	15	17	1669	7.42	32	2	ND	2	19	1	2	2	28	.37	.20	6	19	.15	82	.01	2	1.41	.01	.01	2	5
2W 0+75W	1	28	102	107	.6	16	10	685	7.31	24	2	ND	2	4	1	2	2	41	.02	.12	10	15	.15	42	.01	2	.97	.01	.02	2	5
2W 1W	1	54	266	124	.5	31	16	383	6.77	30	2	ND	5	7	1	3	2	19	.10	.09	10	19	.38	58	.01	2	1.46	.01	.02	2	10
2W 1+25W	1	33	117	79	.7	19	10	259	6.42	17	3	ND	4	3	1	2	2	22	.02	.07	13	17	.22	27	.01	2	1.15	.01	.01	2	15
2W 1+50W	1	39	73	88	.7	23	14	743	5.30	17	2	ND	3	5	1	2	2	22	.06	.12	14	14	.27	39	.01	2	1.07	.01	.02	2	25
2W 1+75W	1	60	88	128	.6	15	23	2194	8.74	17	2	ND	2	5	1	2	2	30	.09	.26	4	15	.21	66	.01	2	1.01	.01	.02	2	5
2W 2W	1	132	80	103	.4	19	41	2001	13.00	45	2	ND	3	12	1	2	2	22	.23	.16	4	7	.20	102	.01	2	1.19	.01	.02	2	5
2W 2+25W	1	41	72	90	.4	15	12	910	9.91	29	3	ND	2	5	1	2	2	51	.05	.11	6	9	.09	68	.01	2	.68	.01	.01	2	5
2W 2+50W	1	22	44	129	.1	17	9	1847	19.25	51	2	ND	3	3	1	2	2	46	.03	.17	2	7	.19	65	.01	2	.68	.01	.01	3	5
2W 2+75W	1	51	83	83	.6	15	12	447	6.40	15	2	ND	2	3	1	2	2	54	.02	.08	8	10	.28	40	.01	2	1.15	.01	.01	2	10
2W 3W	1	23	36	52	.5	13	7	310	6.05	14	3	ND	2	2	1	2	2	35	.01	.11	8	16	.19	17	.01	2	.97	.01	.01	2	5
2W 3+25W	1	18	34	66	.5	11	7	928	7.29	12	2	ND	3	3	1	2	2	32	.02	.11	8	13	.09	30	.01	2	.84	.01	.01	2	5
2W 3+50W	1	7	13	19	.4	6	3	107	1.91	3	2	ND	2	3	1	2	2	23	.01	.04	22	7	.08	14	.01	2	.52	.01	.01	2	5

APPENDIX II

COST STATEMENT

Durfeld Geological Management Ltd.

2029 SOUTH LAKESIDE DRIVE
WILLIAMS LAKE, B.C. V2G 2R1

Telephone (604) 392-4691

BON 1 to 4 MINERAL CLAIM COST STATEMENT:

R. Durfeld - geologist 3 days at \$150/day	\$450.00
Truck Rental - 3 days at \$35/day	105.00
Truck Fuel	120.00
Board - 3 man days at \$20/day	60.00
Geochemical Analyses	282.75
Report Preparation and Drafting	400.00
	<hr/>
TOTAL	\$1417.75
	<hr/>

Eight hundred dollars of this work will be applied to the
BON 1 to 4 mineral claims as fulfillment of assessment filed
on October 6, 1982.



R.M. Durfeld B.Sc.
Geologist

APPENDIX III

STATEMENT OF QUALIFICATIONS

Durfeld Geological Management Ltd.

2029 SOUTH LAKESIDE DRIVE
WILLIAMS LAKE, B.C. V2G 2R1

Telephone (604) 392-4691

STATEMENT OF QUALIFICATIONS

I Rudolf M. Durfeld of 2029 South Lakeside Drive, Williams Lake, British Columbia, hereby certify that:

- 1) I am a graduate of the University of British Columbia, Bachelor of Science (Geology Major) in 1972 and have practiced my profession as geologist since that time.
- 2) I am a Fellow of the Geological Association of Canada.
- 3) I am the author of this report which is based on work conducted during the period September 15 to September 25, 1982.



R.M. Durfeld B.Sc.
Geologist