MineQuest Report #189
Ref. No. RM4604

GEOLOGY AND GEOCHEMISTRY
ON THE
SCRUTOR GOLD GROUP

Port Alberni Mining Division

N.T.S. 92L/3E

Latitude 50°05'N
Longitude 127°01'W

by

Linda J. Lee

of

MineQuest Exploration Associates Ltd.

Claim Name	Record Number	Units	Date Recorded
Scrutor Gold 1	2456	20	Dec. 14, 1984
Scrutor Gold 2	2457	15	Dec. 14, 1984
Scrutor Gold 3	3407	10	Dec. 14, 1987
Scrutor Gold 4	3408	15	Dec. 14, 1987

Vancouver, B.C. January, 1988

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1.0 INTRODUCTION

1.1 Location, Access and Terrain

The Scrutor Gold claims lie in northern Vancouver Island, five kilometres east of the north end of Tahsish Inlet (see Figure 1). Access is by a network of logging roads which leave the Island Highway south of Nimpkish Lake. Logging roads provide access to portions of the Scrutor Gold 2, 3 and 4 claims. Access to the Discovery showing on the Scrutor Gold 1 claim requires an hour's walk from the end of the logging road.

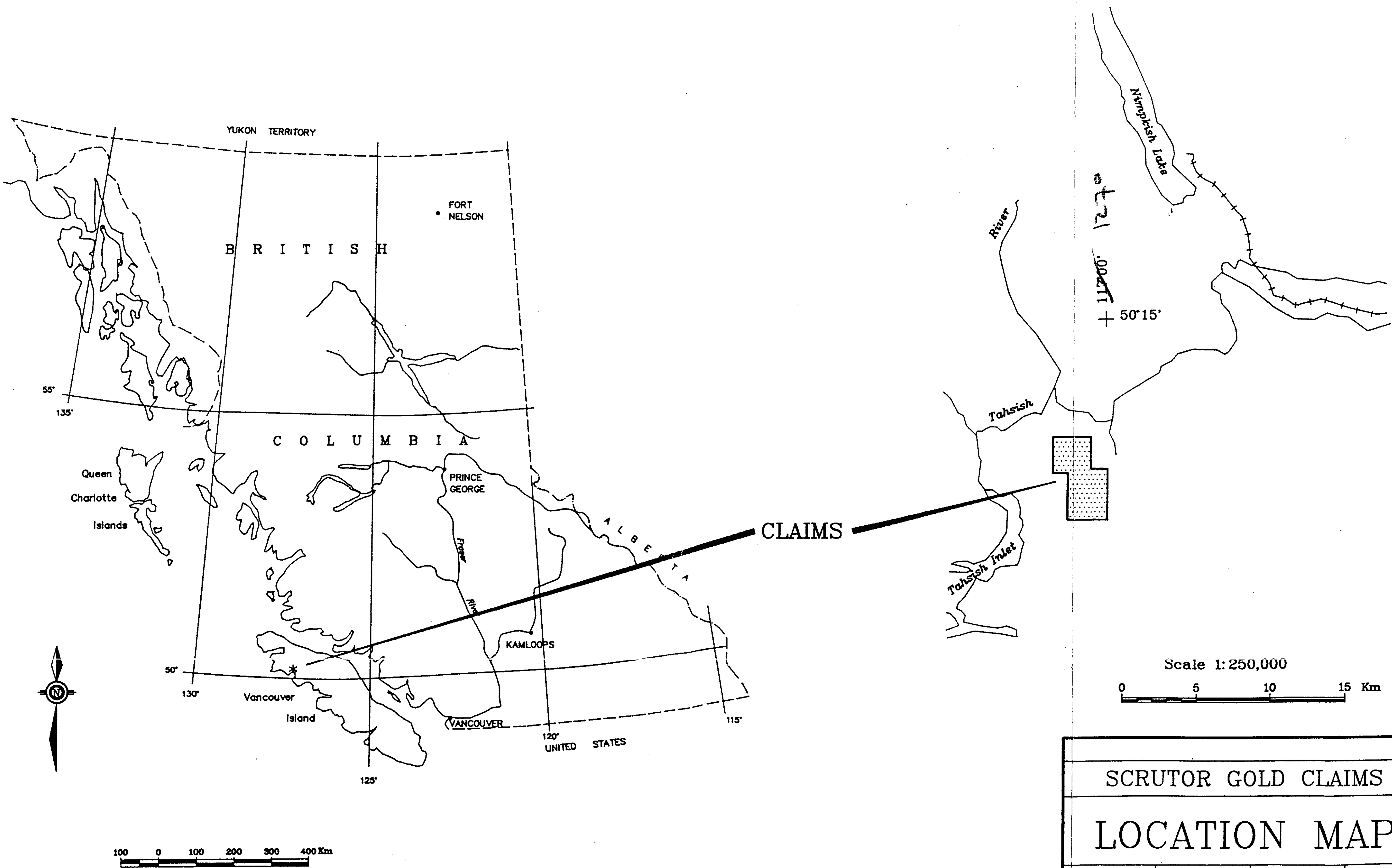
In the event of a mining operation, access could be either from the north via the existing logging roads or by roads which have yet to be developed along the Artlish River.

The topography is generally steep with elevations ranging from 500 feet in Helen Creek to 3500 feet on mountain tops. Portions of Scrutor Gold 2, 3 and 4 have been recently logged. Elsewhere the claims are covered by mature forests.

1.2 Property Definition and History

The Discovery Zone mineral showing, now covered by Scrutor Gold 1 mineral claim, is referred to in the MINFILE as 92L100 (Scrutor Gold). Only one period of work is mentioned - 1946. This information is compatible with observations in 1985 of tunnelling on sulphide veins and signs of a camp which did not appear to have been disturbed for several decades.

Work on the claims in 1985 and 1986 consisted of geological mapping and rock and silt sampling. This work is described in Longe (1986) and Gourlay (1987).



SCRUTOR GOLD CLAIMS

LOCATION MAP

PLAN No.	DRAWN BY: GEO-COMP	DATE JAN.'88	FIGURE: 1
Originator. RL		N.T.S. 92L 3	

MINEQUEST EXPLORATION ASSOCIATES LTD.

Geo-Comp Drawing File: SCG\LOC

1.3 Claim Status

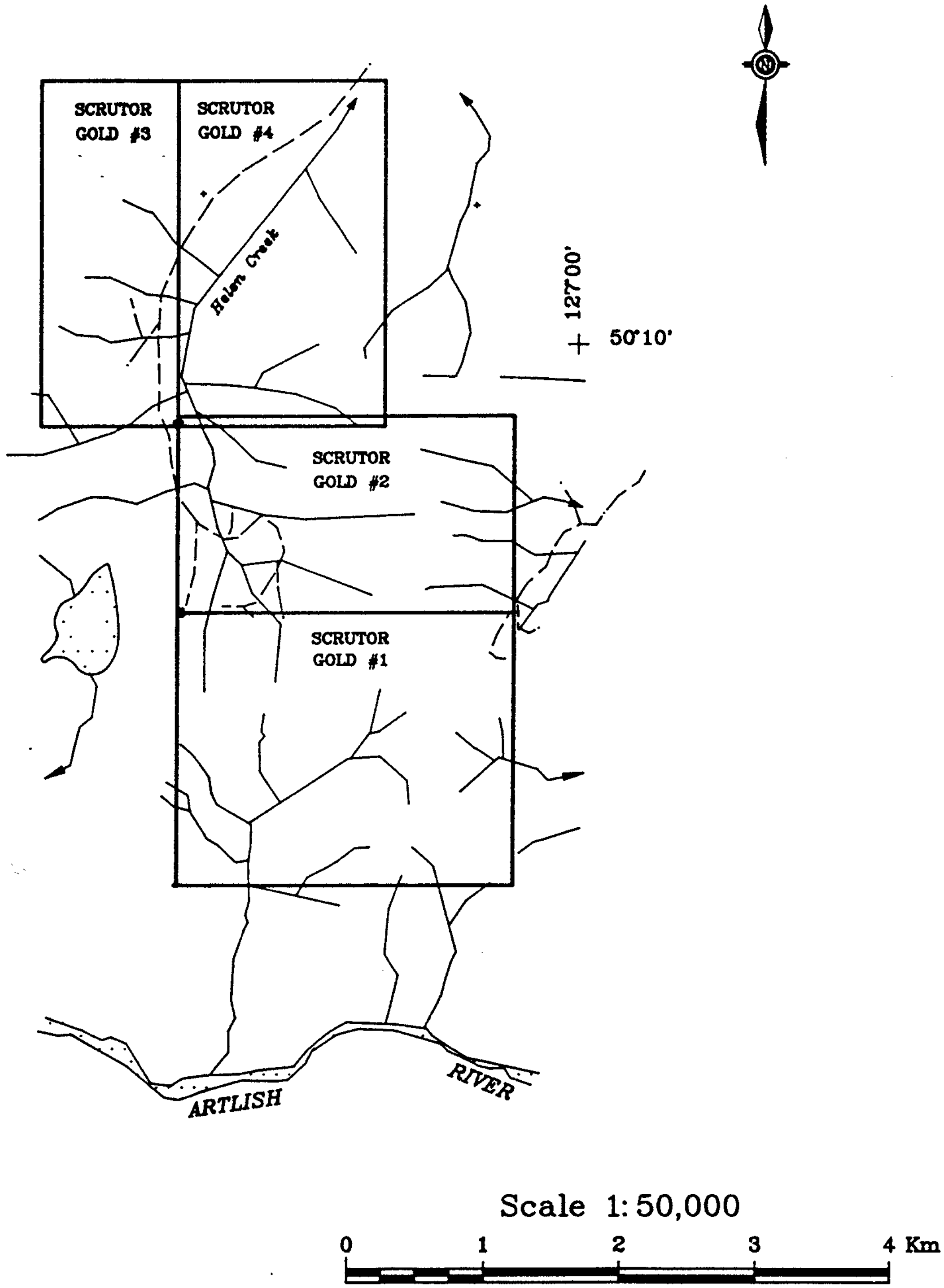
The property consists of four mineral claims (see Figure 2), as listed below:

Claim Name	Record Number	Units	Date Recorded	Owner
Scrutor Gold 1	2456	20	Dec. 14, 1984	R. Bilquest
Scrutor Gold 2	2457	15	Dec. 14, 1984	R. Bilquest
Scrutor Gold 3	3407	10	Dec. 14, 1987	* MineQuest
Scrutor Gold 4	3408	15	Dec. 14, 1987	* MineQuest

* MineQuest Exploration Associates Ltd.

1.4 Summary of Work Done, 1987

Work covered in this report consists of geological mapping and collection of 21 rock samples. Eight silt samples from Helen Creek and from tributaries into Helen Creek were collected as well as 40 soil samples from road and contour traverses. Field work on the Scrutor Gold claims was conducted from December 7 to December 10, 1987. All work was done on the Cadmium Zone, located on the Scrutor Gold 3 and 4 claims. Work was done by L. Lee and assisted by J. Porter and P. Friele under the general direction of R.V. Longe.



SCRUTOR GOLD CLAIMS		
CLAIM LOCATIONS		
DATE: JAN.'88	N.T.S.: 92L 3	FIGURE: 2

Geo-comp Drawing File: SCG\CLO

MINEQUEST EXPLORATION ASSOCIATES LTD.

2.0 GEOLOGY

2.1 Regional Geology

Regional mapping by Muller (1977) shows the area northeast of Tashish Inlet to be underlain by rocks of the Lower Jurassic Bonanza Group. These rocks typically consist of volcanic rocks of basaltic to rhyolitic composition with related sediments.

A Jurassic intrusive is shown to the southeast of the claims.

No trends within the Bonanza Group are evident from Muller's map although underlying sediments of the Quatsino-Parson Bay Formation trend northwest-southeast. The Bonanza rocks in the vicinity of the claims form a partially fault-bounded panel (like much of Vancouver Island). No regional linear features are shown coming close to the claims.

2.2 Claim Group Geology

Accessible portions of the Scrutor Gold claims were mapped in detail and the geology is shown in Figure 3. Mapping of the Discovery Zone was done previously (Longe, 1986). It can be seen that the claims are underlain by volcanics and related sediments of the Lower Jurassic Bonanza Group.

The oldest unit exposed is a cherty sediment unit which outcrops in the northern portions of the Scrutor Gold 3 claim. Overlying this are green bedded to massive crystal lapilli tuffs of intermediate composition. The tuffs are succeeded by a thick package of intermediate volcanics with minor interbedded tuffs. The volcanics are primarily green massive andesites with lesser trachytic porphyritic and amygdoloidal andesites which may be somewhat altered. Amygdules are commonly filled with one or more of the following: chlorite, calcite, epidote, quartz, pyrite and amorphous hydrocarbon. A relatively thin unit of massive, porphyritic and brecciated felsic volcanics appears to be interbedded with the andesites. In hand specimen the volcanics appear to be rhyolitic to rhyodacitic in composition. Thin section analysis (see Appendix II) revealed that these rocks were in fact intensely albitized, accounting for the very pale colour, and were probably originally dacitic in composition. Mapping to the south of Gourlay (1987) suggests that similar rocks occur as a series of lenses within the andesite package. Finally, argillaceous sediments overly the volcanics.

2.3 Alteration and Mineralization

The property contains two promising zones which in the present state of knowledge cannot be related to each other except to observe that both occur in the same package of felsic-rich volcanic rocks.

The first, and currently the most important, is the Discovery Zone where geochemically attractive gold values are found in a variety of rock types including massive sulphide veins, felsic breccia and andesite. Many questions remain to be resolved by further prospecting and geological mapping.

Volcanics in the Discovery Zone strike approximately north-south and consist of steeply-dipping, tightly-folded andesites, altered felsic volcanics and a thin bedded siliceous unit. A felsic breccia, feldspar porphyry and limestone are also recognized. Promising gold values are found in the felsic breccia which may be either a clastic volcanic or a rock which has been brecciated and then silicified. This rock contains pyrite disseminated in the interstices between the clasts. Grades range up to 8.7 grams of gold over a one metre length.

A series of massive sulphide veins trending approximately 140 degrees and dipping steeply were explored in the 1940's. Samples from these sulphides contain one or two percent of copper and up to 4-1/2 grams of gold.

Detailed mapping and sampling of the Discovery Zone was done in 1985 and is summarized by Longe (1986). No further work on the Discovery Zone was done in 1987.

The second important area is the Cadmium Zone. Interest in this zone arises from samples of intensely altered dacite float containing sphalerite veins which were found in Helen Creek in 1985. Several of the samples exhibit a yellow bloom of greenockite (CdS), a weathering product of cadmium-rich sphalerite. One sample (ART105) contained 13% Zn. This float has not been traced to source but is thought likely to be derived from an area on the west bank of Helen Creek where numerous outcrops of rock similar in appearance to the cadmium bearing float were observed.

Andesites in the Cadmium Zone area strongly altered to either a prehnite/calcite assemblage or to a propylitic assemblage consisting mainly of chlorite and epidote. Amygdules in the andesite are filled with a mixture of carbonate, quartz, epidote, chlorite, pyrite and amorphous hydrocarbon.

No mineraliztion or alteration is noted in the Camp Zone, however numerous outcrops of rhyolite occur within the zone.

3.0 SOIL SAMPLING

3.1 Sampling Procedure

Forty soil samples were collected from road and contour traverses on the Scrutor Gold property. In areas of favorable geology the samples were collected at 20 metre intervals. Elsewhere samples were taken at 50 metre spacings. Samples were collected from the B-horizon material and placed in numbered kraft paper envelopes. Soil sample locations are shown on Figure 4.

3.2 Analytical Techniques

Soil samples were shipped to Acme Analytical Laboratories Ltd., in Vancouver, for preparation and analysis. Samples were dried at 60^{0}C and sieved to minus-80 mesh. A 30 element ICP analysis of all samples was conducted after digesting samples for one hour at 95°C in 3:1:2 $HCl:HNO_3:H_2O$. Gold analyses were conducted by hot aqua regia digestion and MIBK extraction, followed by analysis by graphite furnace atomic absorption.

3.3 Results and Interpretation

The analytical results for the soil samples are included in Appendix I. No anomalous values for Zn or Cd, or in fact any other elements resulted from the soil sampling. Sampling was conducted through an area of outcropping of felsic volcanics. The lack of any anomalous signature suggests that this particular area does not represent the host of the sphalerite/greenockite float from Helen Creek.

4.0 SILT SAMPLING

4.1 Sampling Procedure

Eight silt samples from Helen Creek and from tributaries to Helen Creek were collected and placed in numbered kraft paper envelopes. Sample locations are shown on Figure 4.

4.2 Analytical Techniques

Silt samples were sent to Acme Analytical Laboratories Ltd. in Vancouver. Preparation and analysis was the same as described for soil samples.

4.3 Results and Interpretation

The analytical results for the silt samples are included in Appendix I. No anomalous values resulted from these silt samples. The fact that the samples were collected at a time when the water level was extremely high could, however, explain the lack of any anomalous results.

5.0 ROCK SAMPLING

5.1 Sampling Procedure

Twenty-one rock samples of outcrop and float material from the Scrutor Gold claims were collected for analysis. Sample locations are shown in Figure 3.

5.2 Analytical Techniques

Rock samples were sent to Acme Analytical Laboratories Ltd., in Vancouver, for preparation and analysis. Samples were crushed to -3/16" and then pulverized to minus-100 mesh. Gold and 30 element ICP analyses were conducted in the same manner as for soil samples.

The original samples of mineralized float found in Helen Creek (Art-71, 105) were sent to Craig Leitch, P. Eng. at the University of British Columbia for polished thin section analysis.

Two samples of amygdaloidal andesite and a sample of felsic volcanics were sent for petrographic study. An additional sample of a single amygdule was sent for polished section analysis. Finally several crystals of the black substance occurring in the amygdules were sent for XRD identification.

5.3 Results and Interpretation

The analytical results for the rock samples are included in Appendix I. Petrographic descriptions for the thin sections and polished section are included in Appendix II. XRD data is also included in Appendix II.

Apart from weakly anomalous zinc values in narrow carbonate shears, no anomalous values were detected in the standard rock samples. Petrographic studies were very useful in identifying the host rock assemblages of mineralized float (Art-71, 105) previously found in Helen Creek. These studies showed that mineralization is hosted in an intensely altered dacite, similar to that found on the west side of Helen Creek (ZR-247). Andesites within the Cadmium Zone were found to be altered to either a propylitic or prehnite-calcite assemblage. The andesites are commonly amygdaloidal with amygdules filled with one or more of the following: chlorite, calcite, epidote, quartz, pyrite and amorphous hydrocarbon.

6.0 CONCLUSIONS

1.0 The Scrutor Gold claims are underlain by volcanics and related sediments of the Lower Jurassic Bonanza Group. The property contains two promising zones, the Discovery and the Cadmium Zones, which occur in the same package of felsic-rich volcanic rocks.

2.0 Geochemically attractive gold values occur in a variety of rock types including massive sulphide veins, felsic breccia and andesite in the Discovery Zone.

3.0 Several samples of altered felsic volcanics containing sphalerite (to 13% Zn) and exhibiting a yellow bloom of greenockite were previously found in Helen Creek. Follow-up geological mapping has outlined a zone of volcanics on the west side of Helen Creek which are very similar to the mineralized float.

4.0 Large areas of the property which may be underlain by favorable stratigraphy remain to be explored.

7.0 RECOMMENDATIONS

1.0 Silt sampling of Helen Creek and its tributaries should be done at a time when water levels are low in order to further define areas of interest.

2.0 Detailed geological mapping and rock sampling should be done on both the east and west sides of Helen Creek in the area of the Cadmium Zone in an attempt to trace the float found in Helen Creek to its source.

3.0 Detailed geological mapping and rock sampling should be done on the Discovery Zone.

REFERENCES

Gourlay, A., 1987. Scrutor Gold #2 Claim Geochemistry and Preliminary Geology, Submitted for Assessment

Longe, R., 1986. Scrutor Gold Claims, Submitted for Assessment

Muller, J.E., 1977. Geology of Vancouver Island, G.S.C. Open File 463.

APPENDIX I

Analytical Data

— Copy to AVC → file SC
" " AWG.

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6 PHONE (604) 253-3158 FAX (604) 253-1716

GEOCHEMICAL ANALYSIS CERTIFICATE

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR MN FE CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: P1-ROCK P2-3 SOIL P4-SILT AU* ANALYSIS BY AA FROM 10 GRAM SAMPLE.

DATE RECEIVED: DEC 15 1987 DATE REPORT MAILED: Dec 21/87 ASSAYER.. D. Toye DEAN TOYE, CERTIFIED B.C. ASSAYER

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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* PPB
ZR-230	1	18	6	21	.2	3	10	390	3.95	3	5	ND	1	9	1	2	2	91	.95	.094	9	4	.83	4	.18	2	1.39	.09	.02	1	1
ZR-231	1	2	4	4	.3	1	3	1590	1.32	5	5	ND	1	341	1	2	3	10	19.79	.018	11	2	.32	11	.01	3	.35	.01	.08	1	1
ZR-232	1	7	14	75	.1	5	17	1673	8.68	2	5	ND	2	22	1	2	2	197	1.78	.103	7	6	2.31	6	.56	4	3.67	.06	.01	1	1
ZR-233	1	33	12	855	.1	3	22	1121	6.34	2	5	ND	1	16	3	2	2	154	1.47	.122	10	1	1.53	11	.53	3	2.51	.07	.02	1	1
ZR-234	1	18	7	62	.2	6	11	1079	5.41	2	5	ND	1	82	1	3	2	84	4.45	.074	6	11	1.59	9	.42	4	2.68	.05	.03	1	2
ZR-235	1	76	8	89	.1	52	19	1004	4.38	2	6	ND	1	38	1	2	2	115	2.12	.041	3	43	1.93	16	.37	6	2.74	.10	.07	1	1
ZR-236	1	4	7	46	.1	7	55	733	7.69	2	9	ND	1	24	1	2	2	119	1.13	.074	3	4	2.01	4	.53	6	2.89	.07	.02	1	1
ZR-237	9	1	7	43	.1	7	21	663	5.76	2	6	ND	1	29	1	2	2	120	1.60	.086	3	3	1.74	2	.61	4	2.72	.07	.01	1	1
ZR-238	1	2	11	117	.1	3	16	1265	8.38	2	5	ND	2	16	1	3	2	70	1.05	.106	10	4	2.74	6	.48	4	2.30	.10	.01	1	1
ZR-239	2	19	3	6	.3	2	2	99	.78	2	5	ND	1	37	1	2	3	19	17.13	.014	2	1	.06	1	.13	4	1.90	.01	.01	1	1
ZR-240	2	88	5	144	.1	9	16	234	1.68	2	5	ND	1	13	1	2	2	79	8.20	.048	2	3	.34	2	.39	9	4.47	.02	.01	1	2
ZR-241	2	45	82	544	.1	3	6	122	.97	3	5	ND	4	3	1	2	2	6	.17	.010	3	2	.19	2	.02	2	.47	.08	.03	1	1
ZR-242	1	2	2	4	.2	2	5	79	.46	2	5	ND	3	8	1	2	2	10	2.26	.029	2	1	.05	1	.03	2	.27	.08	.01	1	1
ZR-243	1	1	2	5	.1	1	4	74	.83	2	5	ND	4	1	1	2	2	23	.13	.026	11	4	.31	1	.04	2	.41	.08	.01	1	1
ZR-244	4	38	5	31	.1	1	8	226	2.71	2	5	ND	1	2	1	2	2	33	.26	.068	2	2	.79	1	.04	2	1.06	.08	.01	1	1
ZR-245	2	116	6	32	.1	5	19	309	3.76	56	5	ND	2	2	1	2	2	59	.39	.087	5	7	1.22	4	.20	2	1.62	.08	.01	1	2
ZR-246	1	29	3	8	.1	1	4	254	2.26	2	5	ND	1	3	1	2	2	30	.42	.062	5	2	.76	1	.08	2	.96	.08	.01	1	1
ZR-247	1	2	2	3	.1	1	5	90	.76	3	5	ND	1	2	1	2	2	42	.41	.076	5	3	.71	1	.01	2	.53	.09	.01	1	1
ZR-248	1	1	2	3	.1	1	1	94	1.26	2	5	ND	1	2	1	2	2	12	.32	.071	4	1	.45	1	.10	2	.56	.10	.01	1	3
ZR-249	14	51	11	99	.1	6	11	482	5.72	91	5	ND	2	62	1	2	2	95	.85	.070	6	12	1.96	40	.14	7	2.98	.15	.08	1	1
ZR-250	1	2	5	27	.1	3	5	544	3.29	2	5	ND	2	16	1	2	2	63	.31	.015	5	2	.89	18	.17	3	1.52	.08	.07	1	1
STD C/AU-R	18	58	39	131	7.4	67	28	1068	4.14	42	21	7	39	47	18	18	21	57	.50	.084	39	58	.92	177	.07	31	1.96	.07	.14	11	480

MINEQUEST EXPLORATION PROJECT-SCG FILE # 87-6198

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* PPB
ZR-258	2	46	18	102	.5	8	9	337	8.07	8	5	ND	2	8	1	2	2	157	.13	.052	6	30	.42	7	.39	2	10.05	.03	.01	1	2
ZR-259	1	41	16	99	.4	8	14	616	9.37	7	5	ND	2	14	1	2	2	183	.22	.051	5	28	.43	14	.50	2	7.00	.03	.02	1	2
ZR-260	1	59	15	59	.5	13	9	267	6.78	2	5	ND	2	19	1	2	2	156	.21	.055	6	40	.41	16	.39	3	9.29	.03	.02	1	2
ZR-261	1	54	17	59	.6	9	8	276	7.25	4	5	ND	3	9	1	2	2	174	.14	.055	5	38	.35	10	.45	3	9.79	.03	.01	1	1
ZR-262	1	37	11	99	.4	15	11	384	8.00	2	5	ND	2	11	1	2	2	155	.22	.050	5	33	.74	11	.49	2	8.15	.03	.02	1	5
ZR-263	1	72	13	314	.6	29	34	1404	6.25	32	5	ND	3	36	1	4	2	143	.82	.064	11	34	1.62	20	.32	4	6.17	.04	.03	1	1
ZR-264	1	46	9	132	.8	15	21	1844	6.20	5	5	ND	3	23	1	2	2	110	.66	.069	9	31	.69	27	.25	2	8.03	.03	.02	1	3
ZR-265	2	17	13	50	.3	6	7	176	8.17	5	5	ND	3	8	1	2	2	216	.10	.040	4	33	.30	8	.46	2	5.07	.03	.01	4	1
ZR-266	1	31	11	45	.3	7	5	175	5.86	6	5	ND	1	12	1	2	2	96	.19	.067	8	34	.35	6	.27	3	8.45	.02	.01	2	1
ZR-267	4	74	10	68	.3	25	15	1008	4.67	6	5	ND	1	43	1	2	2	117	1.19	.050	6	37	1.25	17	.31	4	4.80	.04	.02	1	2
ZR-268	17	120	9	71	.7	21	27	655	5.69	24	7	ND	2	29	1	2	2	132	1.00	.054	8	31	1.07	19	.35	5	4.19	.05	.03	1	1
ZR-269	12	19	12	42	.4	7	10	423	6.42	11	5	ND	2	9	1	2	2	146	.27	.059	8	29	.60	7	.29	2	5.40	.03	.02	1	1
ZR-270	1	28	14	39	.4	8	9	260	6.96	10	5	ND	2	8	1	2	2	142	.17	.057	7	34	.54	6	.32	3	7.16	.03	.02	3	1
ZR-271	1	92	12	86	.6	25	22	1378	5.52	12	7	ND	3	27	1	2	2	139	1.19	.114	12	29	1.29	17	.32	6	4.49	.04	.03	1	1
ZR-272	1	15	13	28	.3	3	6	695	7.90	4	5	ND	2	4	1	2	2	134	.08	.166	5	19	.13	4	.35	2	4.41	.02	.02	1	2
ZR-273	1	11	17	31	.3	4	7	341	8.17	6	5	ND	2	4	1	3	2	120	.08	.073	6	15	.46	4	.29	3	5.82	.02	.01	1	1
ZR-274	2	40	14	78	.7	9	29	2088	7.81	9	5	ND	2	20	1	2	2	114	.88	.112	11	16	1.39	11	.18	8	3.03	.04	.03	1	1
ZR-276	1	19	11	27	.4	7	5	325	6.78	3	5	ND	2	7	1	2	2	138	.18	.059	4	31	.28	6	.37	3	4.48	.02	.02	1	4
ZR-277	1	50	11	56	.4	16	15	714	5.90	11	5	ND	2	12	1	2	2	124	.39	.113	7	38	.72	12	.36	3	6.95	.03	.01	1	3
ZR-278	1	15	6	14	.1	4	3	244	5.51	4	5	ND	1	4	1	2	2	83	.09	.037	3	31	.14	5	.22	2	4.07	.02	.01	1	2
ZR-279	1	44	14	49	.7	14	14	992	8.47	8	5	ND	3	9	1	2	2	174	.23	.051	9	54	.47	11	.42	2	5.59	.03	.02	1	1
ZR-280	1	35	11	30	.3	9	6	298	7.11	5	5	ND	1	8	1	2	2	128	.20	.033	4	37	.37	7	.34	2	3.76	.03	.02	2	1
ZR-281	1	48	17	57	.5	12	9	467	6.97	9	5	ND	2	10	1	2	2	151	.29	.053	6	48	.45	11	.41	4	6.15	.03	.02	1	3
ZR-282	2	68	13	68	.7	15	14	344	7.25	11	5	ND	3	11	1	2	2	171	.29	.045	7	54	.47	12	.44	2	5.91	.03	.02	1	1
ZR-283	12	34	7	24	.2	4	11	307	4.21	8	5	ND	1	6	1	2	3	80	.25	.035	4	8	.20	4	.15	3	2.13	.02	.02	1	2
ZR-284	1	17	14	24	.3	4	6	119	9.52	5	5	ND	3	6	1	2	2	185	.12	.155	3	34	.19	6	.39	2	3.91	.02	.02	1	8
ZR-285	6	81	15	105	.8	10	20	194	4.92	17	5	ND	2	10	1	2	2	100	.23	.044	8	28	.39	8	.25	3	5.09	.03	.02	1	1
ZR-286	2	49	13	47	.3	8	8	165	5.04	9	5	ND	1	8	1	2	2	98	.20	.041	6	28	.37	6	.26	4	5.87	.02	.01	1	1
ZR-287	4	155	13	77	.6	11	9	282	6.14	8	5	ND	3	9	1	2	2	112	.26	.037	5	41	.46	7	.34	2	5.89	.03	.01	2	1
ZR-288	2	43	12	34	.6	6	7	214	8.84	13	5	ND	3	7	1	2	2	161	.15	.033	7	37	.31	6	.41	2	5.22	.03	.01	1	5
ZR-289	2	44	9	31	.4	7	6	191	7.60	8	5	ND	2	9	1	2	2	118	.21	.042	5	33	.36	8	.31	3	4.23	.03	.02	1	1
ZR-290	3	51	11	39	.5	8	14	263	8.12	9	5	ND	2	8	1	2	2	197	.15	.041	7	37	.34	9	.45	3	4.51	.03	.01	1	3
ZR-291	3	48	8	38	.4	7	7	190	6.36	8	5	ND	2	6	1	2	2	129	.13	.039	6	30	.27	6	.32	2	4.27	.02	.01	2	1
ZR-292	1	29	12	45	.4	11	7	236	5.37	3	5	ND	2	9	1	2	2	129	.23	.042	5	33	.49	7	.37	3	5.86	.03	.02	1	1
ZR-293	1	15	14	24	.2	4	3	101	6.08	8	5	ND	3	6	1	2	2	84	.08	.027	4	27	.14	4	.28	3	5.15	.02	.01	1	1
ZR-294	1	13	6	19	.1	4	4	123	5.07	6	5	ND	2	6	1	2	2	107	.11	.024	7	18	.14	4	.30	2	1.94	.02	.01	1	2
STD C/AU-S	18	60	37	131	7.3	64	27	1047	4.06	38	23	7	38	49	18	17	21	55	.49	.088	38	59	.91	173	.07	30	1.94	.07	.13	12	48

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* PPB
ZR-295	3	57	13	28	.1	5	6	143	8.39	5	5	ND	3	6	1	2	2	171	.11	.066	6	21	.15	5	.28	3	3.90	.02	.01	1	1
ZR-296	5	75	15	27	.1	9	7	155	10.33	2	5	ND	3	8	1	2	2	180	.06	.046	7	45	.22	5	.28	3	3.66	.02	.02	1	1
ZR-297	5	29	10	27	.1	5	7	163	9.38	2	5	ND	2	7	1	2	2	159	.12	.031	6	29	.21	6	.39	5	2.47	.02	.02	1	1
ZR-298	28	200	18	45	.1	10	12	210	9.60	6	7	ND	3	8	1	2	2	207	.19	.058	6	43	.31	6	.46	7	5.73	.03	.01	1	2

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* PPB
ZR-251	1	22	10	78	.5	10	16	957	6.38	2	5	ND	2	20	1	2	2	107	1.04	.099	8	13	1.76	13	.40	9	2.60	.09	.05	1	2
ZR-252	1	54	9	81	.4	23	15	920	5.27	5	5	ND	1	90	1	2	2	133	2.52	.053	5	27	1.40	14	.50	16	3.64	.06	.02	1	1
ZR-253	2	46	6	91	.5	18	26	958	7.22	8	5	ND	2	34	1	3	2	143	1.20	.066	7	23	1.51	13	.41	3	2.83	.04	.04	1	1
ZR-254	2	38	6	95	.5	13	18	1098	6.69	3	5	ND	2	28	1	2	2	115	1.07	.085	7	19	1.87	14	.37	7	3.11	.05	.04	1	1
ZR-255	1	42	9	84	.4	14	18	970	6.51	3	5	ND	1	24	1	2	2	114	1.05	.089	7	18	1.81	12	.38	3	2.84	.06	.03	1	1
ZR-256	2	42	11	162	.5	13	17	1204	5.60	8	5	ND	1	39	2	2	2	107	1.22	.067	8	19	1.32	18	.33	3	3.21	.04	.03	1	1
ZR-257	2	50	6	124	.5	15	20	1143	6.36	5	5	ND	1	36	1	2	2	115	1.16	.072	7	20	1.52	16	.34	4	3.21	.04	.02	1	1
ZR-275	3	46	13	94	.7	13	26	1384	7.60	11	5	ND	2	27	1	2	2	114	1.14	.095	10	19	1.70	10	.30	3	3.13	.04	.03	1	2

APPENDIX II

Petrographic Descriptions and XRD data

ART-71

ZB-247: INTENSELY ALBITE-QUARTZ ALTERED ?DACITE

White, intensely altered (albitized?) probably originally volcanic rock with occasional patches of green chlorite that may be after former mafics. One end of the slide is almost massive sphalerite of a pale brown colour. The rock is quite rhyolitic in appearance, but this may be illusory due to the strong alteration: the original texture has been destroyed. The minerals identified are:

Alkali feldspar (Albite)	70%
Quartz	13%
Chlorite	5%
Sericite	1%
Sulfides:	
Sphalerite	10%
Pyrite	1%
Oxides:	
Limonite	<1%
Rutile	<1%

This is a thoroughly altered rock, probably originally an acid or intermediate porphyritic volcanic. The "albitization" is intense, although the alteration mineral should properly be called alkali feldspar, since it is likely to contain some appreciable amount of orthoclase molecule. In thin section, all that can be said about the alkali feldspar is that there is almost no anorthite component. Extinction angles of about 16 degrees for Y to 010 and a (positive) 2V of 75 degrees indicate a composition of An0. There is some minor "patchwork" albite, which is indicative of weak albitization, but the majority is "irregular albite" (see copy of Leitch, CIMM Bull., 74, (831), p.83, enclosed, for details). There were originally plagioclase phenocrysts that have been completely replaced by the vaguely twinned to untwinned "irregular albite", often as small subgrains that indicate intense alkali feldspar alteration. The groundmass feldspars may not be quite so intensely altered, unless they were originally plagioclase microlites (if the protolith was similar to the andesites described earlier from the property in my report dated Jan. 11, 1988). In the latter case they would have been strongly altered, to change their shapes to more equant. It seems more likely, though, to judge by the small amount of remnant mafic sites (now patches of chlorite, sericite, quartz, and opaque Fe-Ti oxides such as rutile as minute grains, about 15 microns or less), that this rock was initially more felsic than ZR-236, perhaps a dacite.

A few thin quartz veinlets cross the slide, some with minor sericite and traces of opaques (pyrite and limonite). Thin veinlets of carbonate and sericite, plus some chlorite, appear to be later.

The main mass of sphalerite is red-brown to yellow or even colourless, forming grains up to several millimeters in size. It is apparently controlled along fractures with associated quartz and chlorite (the latter identical to that replacing mafic sites), so the chlorite/sericite alteration of the rock is presumably contemporaneous with mineralization, although alkali feldspar alteration may be earlier, since the sphalerite seems to replace it). Pyrite occurs as separate subhedral to cubic grains of around 0.25 mm diameter, scattered through the rock often as replacements of mafic sites, and as very fine grains less than 0.05 mm across in the quartz veinlets. The pyrite is occasionally oxidized to limonite at its margins, and there is minor transported limonite along some fractures.

ART-105: ALBITIZED ?DACITE WITH CALCITE-SPHALERITE BRECCIA

Pale green, intensely altered ?intermediate volcanic, cut by a white calcite and brown sphalerite breccia network. Pyrite occurs as disseminated, separate from the sphalerite in the wall rock. The mineralogy is:

Host rock	
Alkali feldspar (Albite)	55%
Quartz	10%
Carbonate	5%
Chlorite	3%
Pyrite	2%
Rutile, sphene	2%
Breccia veins	
Calcite	10%
Sphalerite	13%

The rock initially had phenocrysts of plagioclase about 1 mm long and slightly smaller mafic phenocrysts in a groundmass of plagioclase microlites less than 0.1 mm long plus interstitial quartz and lesser mafic (now chlorite).

The alkali feldspar is an "irregular albite" very similar to that of ART-71: there is probably no anorthite molecule, and possibly significant (but unmeasurable without a microprobe) orthoclase molecule. The index of refraction is less than that of quartz, and extinction angles for Y^010 and Z^001 are about 15 degrees and 11 degrees respectively, indicating An5. There is only vague, ill-defined twinning occasionally present. The groundmass feldspar is probably similar, although the grains are too small to determine their composition (average less than 0.1 mm).

There is less quartz in the groundmass of this volcanic; what there is, forms small interstitial grains less than 0.05 mm across in general. The groundmass is mainly composed of feldspar, but there are slso minor amounts of carbonate, chlorite, sphene(?), and opaques such as rutlie and pyrite. These form very small grains up to about 0.05 mm across, and probably represent altered mafic remnants in the groundmass.

There were less abundant and smaller mafic phenocrysts in this rock than in ART-71, now marked by scattered irregular blotches composed of fine-grained carbonate, sphene(?) and opaques.

The breccia matrix is made up of carbonate (calcite, that reacts readily to cold dilute hydrochloric acid), sphalerite, and pyrite. There are also occasionally small amounts of quartz and chlorite. The sphalerite forms subhedral grais averaging less than 0.5 mm across, and has a bright red-brown to yellow colour and internal reflections, almost identical to the sphalerite in ART-71. The calcite forms coarse, rhombic grains up to several millimeters across. Pyrite in both the breccia matrix and the wall rock is anhedral to subhedral, forming aggregates up to 2 mm long composed of grains about 0.5 mm or less across.

Although I no longer have the thin section for ZR-236 to compare this one with, there is a chance that this specimen might have been developed by alteration of a similar intermediate volcanic, or perhaps one somewhat more felsic. The lesser amount of quartz and green colour suggest this specimen was originally less acid than ART-71, possibly a dacite or andesite. Both this and ART-71 show a distinct lack of the prehnite alteration that characterized the ZR-series.

ZR-247: ALBITIZED DACITIC TUFF

White, intensely albitized felsic volcanic with abundant small white albite phenocrysts and larger pale yellow-green patches of chlorite and opaques after mafic phenocrysts. There are also many vugs which may also represent altered mafic sites. In thin section, the minerals are:

Alkali feldspar (phenocrysts)	25%
(groundmass)	50%
Chlorite	10%
Carbonate (dolomite or ankerite)	5%
Quartz	5%
Sericite	1%
Sphene (?or sphalerite)	1%
Fe-Ti oxides (opaques)	2%
Pyrite	1%

Plagioclase phenocrysts and shards ranging from about 0.3 to 1 mm have been converted to an alkali feldspar probably somewhere close to albite (extinction angles are Y^010=16 degrees, Z^001=14 degrees, indicating An0). There may be a significant component of orthoclase molecule in the alteration feldspar; some of it is the vaguely twinned "irregular albite" in small sub-grains indicative of strong alteration. All the feldspar is flecked by very fine (5-10 micron size) sericite, which generally accompanies albitization.

This specimen has a distinctly tuffaceous appearance, due to the presence of obvious broken shards of plagioclase in a wide range of sizes and large fragments of mixed acid volcanic lithology. These fragments range up to a centimeter across and are themselves strongly albitized. The groundmass is similar to that of ART-105 in being almost entirely alkali feldspar, with only minor quartz, but there was no mafic component in the groundmass of this specimen. Feldspar grains average about 0.05 mm long.

Former mafics are now replaced by semi-opaque masses of chlorite, carbonate, and very fine-grained Fe-Ti oxides with minor amounts of sulfide, all apparently pyrite. The carbonate does not react to cold dilute hydrochloric acid and may be dolomite or ankerite. Some were quite large (up to 2 mm), and the shapes of some suggest they may have been hornblende.

The original composition of the rock was probably a felsic to intermediate crystal-lithic tuff, perhaps dacitic or even andesitic since there was considerable mafic present. It is presently hard to say how much, if any, K-feldspar there may have been originally, but there probably was none, since if there was it would have altered differently from the plagioclase. Thus it is unlikely this rock was a rhyolite before alteration. On the other hand, it is also unlikely it was derived from a rock similar to ZR-236 or 240.

There has probably been significant addition of soda (Na2O) to this rock, but sulfidization has been minor (this is common with albitic alteration in my experience).

Craig H.B. Leitch, M.Phil, P.Eng.

January 31, 1988.

ZR-236: PROPYLITIZED AMYGDALOIDAL ANDESITE

Green, mildly altered, amygdaloidal intermediate volcanic with abundant yellow-green epidote chlorite quartz amygdules and occasional plagioclase phenocrysts set in a fine grained chloritic matrix. Pyritic amygdules up to 2 cm across are present. The minerals identifiable in thin section are:

Plagioclase: Oligoclase, An10-15	
Phenocrysts	15%
Microphenocrysts (groundmass)	35%
Chlorite	25%
Epidote	13%
Quartz	3%
Opaques (Fe-Ti oxides)	3%
Biotite	2%
Sphene	1%
Garnet (?)	1%
Prehnite	1%
Pyrite	1%

The rock originally consisted of small plagioclase phenocrysts up to about 1 to 2 mm long, and squat mafic phenocrysts (possibly augite) of similar size, in a matrix of the same plus opaque oxides and sphene. The matrix is a typical intergrown mesh of the plagioclase microlites, with interstitial mafics now represented by chlorite and hematite-dusted epidote, plus the accesory opaques. Amygdules are filled by intensely pleochroic yellow-green epidote, chlorite, and quartz, with occasional pyrite and a euhedral, almost isotropic, high relief with zoning around its margins suggestive of garnet.

Plagioclase composition is difficult to dtermine accurately because of the small size of the grains and the alteration, but appears to now be in the sodic oligoclase range. A centered figure shows the extinction angles Y^010=10 degrees, Z^001=8 degrees, or An12; another poorer figure suggests X^001= 10 degrees, or An17. An optic axis figure shows that the 2V is close to 90 degrees. The An15 composition suggested by this data has probably been shifted towards albite by the propylitic alteration visible in the specimen. Alteration of the plagioclase grains is almost entirely to flecks of chlorite and grains of epidote.

Original mafic phenocrysts are now completely replaced by a combination of chlorite, epidote, and minor quartz. Since these are the minerals making up the amygdules, it is likely that the mafics were altered at the same time as the amygdules were formed. The shape of the mafic relics is suggestive of original clinopyroxene phenocrysts rather than hornblende. Some of the replacing epidote has a strong dusting by red ?hematite which makes them look red in hand specimen.

Chlorite replacing mafics is deep green and moderately pleochroic. It forms scaly masses of fine flakes of 0.01 to 0.05 mm length in amygdules, but is often finer where replacing mafic minerals and groundmass.

Irregular veinlets of an unusual yellow biotite anastamose across the slide, occasionally replacing parts of mafics or plagioclases. There are also well-defined thin (0.1 mm) veinlets of prehnite as well, which cut even pyrite in amygdules and are probably due to regional lower greenschist metamorphism. The biotite, though, could be indicative of hydrothermal alteration.

The rock could have been a basaltic andesite originally, now altered to a typical lower greenschist or proylitic assemblage of chlorite, epidote, and prehnite. The presence of the yellow biotite and the garnet are anomalous.

ZR-240a: PREHNITE-CALCITE ALTERED AMYGDALOIDAL ANDESITE

Grey-green strongly altered ?intermediate volcanic with veinlets to breccia network of black carbon. Thin veinlets of pyrite crosscut the carbonaceous network. Amygdules similar to those in ZR-236 are filled with carbonate and quartz. In thin section, the rock can be seen to be the same as ZR-236, since the texture is preserved and is identical, but the mineralogy is quite different:

Prehnite	55%
Epidote (or Hedenbergite?)	25%
Carbonate (calcite)	7%
Fe-Ti oxides	7%
Quartz	3%
Pyrite	1%
Carbon	2%

This is a very interesting thin section. Although the hand specimen looks to be a fine-grained phyllic alteration, in thin section the entire rock has been replaced by prehnite without any disturbance of original texture. What is even more unusual is that the prehnite is in large domains that are optically continuous, so that scores or hundreds of tiny plagioclase microlites of the original rock have been replaced by one large (up to several millimeter diameter) grain of prehnite which can be seen with the nichols crossed. In plane light, hwoever, the prehnite cannot be seen; only the original texture of the rock, with phenocrysts and microlites of plagioclase, plus interstitial epidote and opaque oxides, can be seen.

Veinlets, and patches (?often shaped like amygdules, which they may replace) of clear prehnite, which have not formed by simple replacement of the original rock in place, are common throughout the rock. At the centers of some of these there are euhedral calcite grains (the carbonate reacts strongly to cold dilute hydrochloric acid), and some quartz. These grains are up to several millimeters across also.

The black breccia network of veins is principally composed of the same coarse prehnite and carbonate with minor quartz. By comparison to the similar black substance in ZR-240c, which was subjected to X-ray analysis, the black material in these breccias is probably also amorphous carbon.

The prehnite shows moderate birefringence (up to second order green), moderately high relief (lower than epidote), parallel extinction, and positive biaxial figure of variable 2V. It is length-fast, and occasionally shows the sheaf-like aggregates that are described as "bow-tie" structure.

The mineral tentatively identified as epidote is very fine-grained, averaging 0.02 mm in length. It forms stubby prismatic crystals with parallel to strongly oblique extinction (up to 40 degrees), has strong positive relief even against the prehnite, and low to moderate birefringence (lower than prehnite). It is slightly yellow-brown or greenish coloured, but not visibly pleochroic. It obviously takes the place of the mafic mineral in the original rock or the chlorite and epidote in ZR-236, but it cannot be identified positively without X-ray analysis. Another possibility would be hedenbergite (Ca-Mg clinopyroxene).

Opaque oxides are probably the remnants of altered sphene and/or ilmenite in the original rock.

The carbon and pyrite are closely associated with thin veins of calcite and prehnite that cut the rock. It is apparent that the prehnite alteration is associated with the mineralization.

ZR-240b: PREHNITE-CALCITE-CARBON-PYRITE VEIN

White prehnite-calcite vein in strongly prehnite altered Bonanza volcanic, similar to that described in ZR-236 and 240a. There is no change in rock type in the samples submitted; the apparent change to a rhyolitic appearance is due solely to the prehnitic alteration. The significance of the hydrocarbon in the vein and alteration assemblage is not obvious. Mineralogy of this specimen is similar to that of the preceding, ZR-240a:

Prehnite	50%
Carbonate (Calcite)	30%
Hedenbergite (?Datolite or Pectolite)	10%
Hydrocarbon	5%
Pyrite	2%
Fe-Ti oxides	2%
Quartz	<1%
Chalcopyrite	<1%

The whiter, milky areas of the vein turn out to be the prehnite, which is cloudy in thin section compared to the clear calcite forming the clearer areas of the vein. The calcite has many large 3-phase, i.e. CO_2-bearing, fluid inclusions in it. It is also apparent in thin section that the main prehnite phase of alteration is out of equilibrium with respect to the later calcite-pyrite-hydrocarbon veining that crosscuts it. This veining is accompanied by recrystallization of the prehnite, first to a clear prehnite (i.e. without the fine dust-like inclusions that cloud the original prehnite but still with the same optical orientation) and then to a fine-grained mat of flakes that look like sericite but can be seen to actually be prehnite.

There is a close association between the sulfide and the hydrocarbon, although much of the hydrocarbon is barren of inclusions of sulfide. Most of the sulfide is pyrite, either as fine grains about 0.1 mm in diameter but in aggregates to a millimeter or so, or as coarse euhedral grains up to 1 mm across. The chalcopyrite forms anhedral grains up to 0.5 mm long, and is associated with a very little quartz (the only quartz seen in the section). There is a trace of galena (1 grain).

The hydrocarbon is present in very fine grains often sub-micron in size, or in aggregates to almost a millimeter across. It is clearly associated with the later stage of alteration and recrystallization of the massive prehnite in the vein, only occurring in the calcite or otherwise clear prehnite or the fine flaky prehnite.

The adjacent altered wallrock shows enough texture to identify it as modified from a volcanic similar to that seen in ZR-236 and 240a: in particular, the abundant fine opaque remnants (of Fe-Ti oxides and sphene, probably) and their pattern are distinctive. The rest of the altered rock is now composed of medium-grained prehnite, calcite, grains of the fine mineral that proved difficult to identify in ZR-240a, and fine needles of another unidentifiable mineral (or possibly the same mineral, 1 micron thick by 10 to 20 long). This mineral, tentatively identified as epidote in ZR-240a is coarser-grained in 240b, strongly concentrated in the highly altered wallrock, and coarser in the vein (but still only up to 0.1 mm long). By association with the prehnite, it might be another hydrous calcium silicate such as pectolite or datolite (which is boron-bearing), but the high relief, moderate birefringence, and oblique extinction (about 45 degrees) are more suggestive of a calcium clinopyroxene like hedenbergite. Only X-ray diffraction could confirm this, if it becomes necessary to know.

ZR-240c: AMORPHOUS HYDROCARBON

The black unidentified material from the veins in this sample series was subjected to X-ray diffraction analysis (the actual material came from a separate sample). It is black and brittle, but quite hard (difficult to crush in an agate mortar), with a distinctive conchoidal fracture.

The X-ray pattern shows the broad, diffuse peak from 22 to 28 degrees two theta expected of amorphous hydrocarbon, with the peak intensity at 25.5 degrees. Two other sharp peaks at 13.8 and 32.25 degrees remain unidentified. The strong rise in background towards 5 degrees two theta is probably caused by straight reflection of X-rays at this glancing angle of incidence.

SUMMARY

In summary, this is quite an interesting suite of samples from a mineralogical point of view, although it is harder to say if they have economic importance. The veining and alteration, which appear in hand specimen to be normal quartz-calcite-minor sulfide, turn out to be prehnite-calcite-pyrite-hydrocarbon. The significance of the black amorphous hydrocarbon is not obvious, although carbon is known as a potential trap for gold in solution. If there is datolite present, the indication of boron would also be significant for gold exploration, but I think it more likely that the mineral present in ZR-240a and b so far unidentified with certainty is hedenbergite.

Although there may be rhyolites present nearby, there are none in this suite of samples. In actuality, the apparent acid appearance of some of the samples is caused by alteration; not the bleaching due to quartz-sericite alteration so commonly seen, but prehnite-calcite alteration, with more normal propylitic alteration (ZR-236) farther away from the vein (thin prehnite veining occurs even in this specimen).

Craig H.B. Leitch, P.Eng.

January 11, 1988.

APPENDIX III

Statements of Qualification

STATEMENT OF QUALIFICATIONS

I, Linda J. Lee, hereby certify that:

1. I am presently employed by MineQuest Exploration Associates Ltd. as a Geologist.

2. I am a graduate of the University of British Columbia (B.A.Sc., Geological Engineering, 1985) and am presently enrolled in an M.Sc. program at the University of Calgary.

3. I have completed 6 seasons of mineral exploration in British Columbia.

Signed: L. Lee
Linda J. Lee

Dated at Vancouver, B.C. this
29 day of Feb, 1988

FO226
January 88

STATEMENT OF QUALIFICATIONS

I, R.V. Longe, hereby certify that:

1. I am a consulting geologist with a business office at 311 Water Street, Vancouver, B.C. V6B 1B8

2. I am President of MineQuest Exploration Associates Ltd., a company performing geological consulting and contract exploration services for the mineral exploration industry.

3. I am a graduate of Cambridge University, (B.A. Hons., 1961 Natural Sciences Tripos, Parts 1 & 2, Geology) and of McGill University (M.Sc., 1965).

4. I am a Fellow of the Geological Association of Canada, a member of the Canadian Institute of Mining and Metallurgy, and of the Association of Professional Engineers of British Columbia.

5. I have practised my profession as geologist for over 20 years.

6. The information used in this report is based on several visits to the property, and direction of the work described in this and previous programs.

Signed: ____________________

R.V. Longe, P. Eng

Dated at Vancouver, B.C. this 31st day of January, 1988.

Ref: F0122

APPENDIX IV

Cost Statement

APPENDIX IV

COST STATEMENT

SCRUTOR GOLD CLAIMS

Fees and Wages

A.W. Gourlay	1 day @ $385	$385.00		
L. Lee	5 days @ 235	1,175.00		
Z. Rebic	4 days @ 335	1,340.00		
J. Porter	4 days @ 135	540.00		
P. Friele	4 days @ 135	540.00		
C. Russell	0.4 days @ 220	88.00		
		$4,068.00	$4,068.00	

Disbursements

Rental vehicles	$ 582.76	
Fuels and lubricants	104.65	
Taxis, parking	141.75	
MQ field equipment charges	128.00	
Groceries	33.77	
Food, accommodation	182.64	
General supplies	92.21	
Geochemical analyses	806.25	
Thin section analyses	220.00	
Telephone	30.62	
Courier, postage	71.62	
Reprographics, in house	15.00	
Reprographics	24.76	
Xerox, in house	35.00	
Maps	8.48	
Report Word Processing	150.00	
Drafting	315.00	
Project Management	294.25	
	$3,236.76	3,236.76
		$7,304.76

LEGEND
Claim boundary
Legal Corner Post
Logging road
Trail
Creek
Geological contact
Outcrop
Bedding/Bonding; strike, dip
Fracture; strike, dip
Rock sample location
Early Jurassic Bonanza Group
4 Argillaceous Sediments
3 Massive, porphyritic and brecciated rhyolite and rhyodacite
2b Massive to amygdaloidal andesite and trachytic porphyritic andesite Minor interbedded tuffs (Unit 2a)
2a Intermediate crystal and crystal lapilli tuffs
1 Cherty sediments
Helen Creek
Cadmium Zone
SCRUTOR GOLD #3
SCRUTOR GOLD #4
SCRUTOR GOLD #2
SCRUTOR GOLD #1
Camp Zone
Camp Zone
Discovery Zone
Young Creek
GEOLOGICAL BRANCH ASSESSMENT REPORT
17,134
Scale 1:10,000
0 200 400 600 800
metres
SCRUTOR GOLD CLAIMS
GEOLOGY AND ROCK SAMPLE LOCATIONS
Originator Drawn Date
Original AWG Geo-Comp Feb.'87
Revision LJL Geo-Comp Jan'88
Revision
PLAN No. 993.1
N.T.S. 92L 3
FIGURE 3
MINEQUEST EXPLORATION ASSOCIATES LTD.
Geo-Comp Drawing File: SCG\GEO 01-26-1988

SCRUTOR GOLD CLAIMS

SOIL AND SILT SAMPLE LOCATIONS

	Originator	Drawn	Date	PLAN No.	FIGURE
Original	AWG	Geo-Comp	Feb.'87	994.1	4
Revision	LJL	Geo-Comp	Jan'88	N.T.S. 92L 3	
Revision					

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Geo-Comp Drawing File: SCG\SAMP 01-26-1988