ASSESSMENT REPORT

ON THE

SHORTS AND CHEMMI MINERAL CLAIMS

GREENWOOD MINING DIVISION

NTS 82E/8W AND 82E/9W

~~49° 28'~~ North latitude 49° 28' 30"
~~118° 22'~~ West longitude 118° 23' 50"

DAVID COFFIN

DEC. 26 1989

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1.1 INTRODUCTION

The following report deals with conduct and results of exploration programs conducted on the Shorts/Chewmi mineral claims (the Burrell property) during the periods Aug. 20 to 27 and Nov. 28 to Dec. 11 1989. The programs included 1:5,000 geological mapping and prospecting, rock and silt sampling, grid emplacement, magnetometer, VLF-EM and soil surveys. Recommendations for further work are included.

1.2 CLAIM STATUS

The property consists of two perimeter staked mineral claims, which have been grouped as the Burrell Group, located in the Greenwood Mining Division, on mineral title maps 82E/8W and 82E/9W.

Name	Record No.	Units	Expiry Date	Owner
Shorts	5025	20	28/09/1989	S. Davies[1]
Chewmi	5026	20	28/09/1989	" "

1.3 LOCATION AND ACCESS

The property is located on Burrell Creek, 17 kilometers north of its confluence with the Granby River and 50 kilometers north of the town of Grand Forks, B.C. The property is reached from Grand Forks by following an all-weather road along the west side of Granby River for 46 km, crossing Burrell Creek just above its confluence with the Granby River, and following a fair-weather road that leads along the creek for a further 16 km. Fair weather roads traverse the southern half of the property. A fair weather road leads to the western side of the property.

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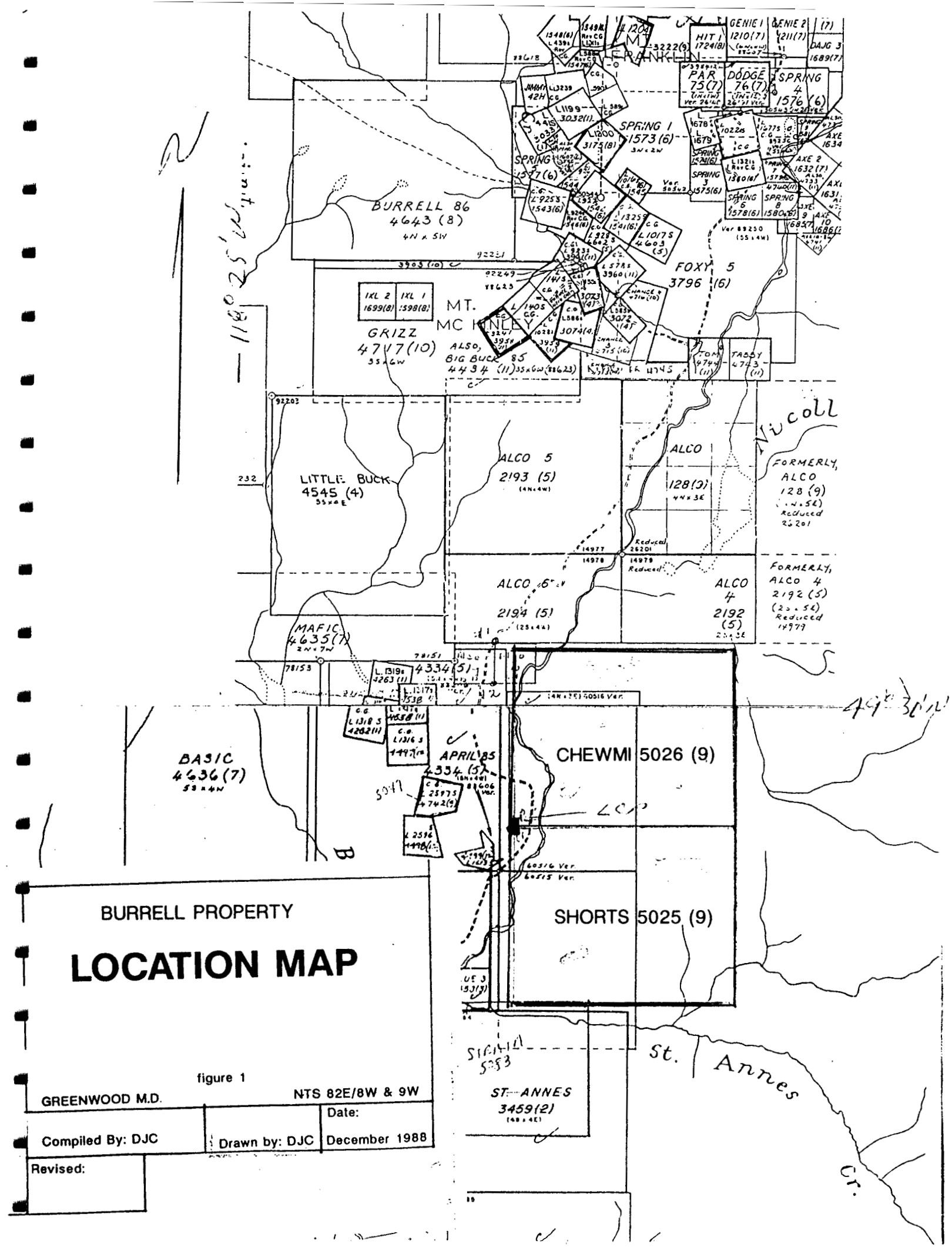
[1] A one third interest accrues to Eric Coffin and David Coffin, for a collective total of two thirds



BURRELL PROPERTY

LOCATION MAP

figure 1

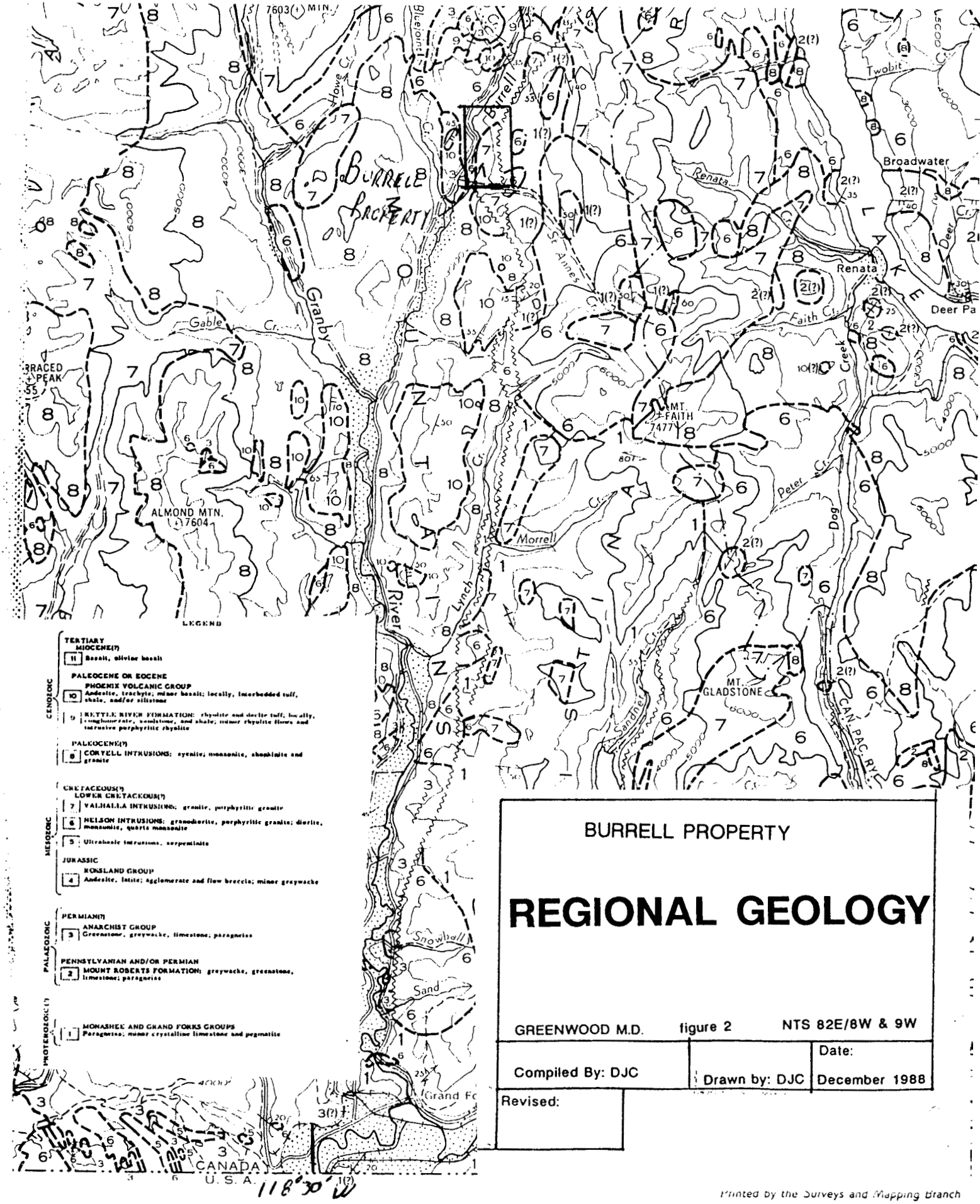
GREENWOOD M.D.		NTS 82E/8W & 9W
Compiled By: DJC	Drawn by: DJC	Date: December 1988
Revised:		

2.1 REGIONAL GEOLOGY AND MINERAL DEPOSITS

The oldest rocks in the region are Proterozoic to Permian volcano-sedimentary formations, the youngest of which, the Anarchist group (Little, 1957), hosts a number of replacement type copper and precious metal deposits. Overlying the above formations is the Rossland Group of Jurassic aged intermediate flows and fragmentals. All of these have been intruded by a series of Cretaceous and younger felsic rocks of the Interior Batholith. Overlying all of the above are generally felsic flows and minor sedimentary rocks of Paleocene or Eocene age, which are in turn overlain by late Tertiary basalt flows. Cutting all units except the late basalt are northerly trending coarse grained and porphyritic felsic dykes.

Ore deposits in the area have largely derived from the alteration of impure limestone of the Anarchist group to chalcopyrite-magnetite skarn during intrusion of the Batholith. The most notable of these are located in the Phoenix/Deadwood camp, 20 kilometers west of Grand Forks: "22 million tons of copper ore containing gold and silver were mined..." from the camp in the early part of the century (Little, 1957). Vein deposits, which are found filling fissures and shears in both country rock and batholith near their contact, have been mined chiefly for gold and silver.

Five kilometers north of the Burrell property is the Franklin mining camp. Mineralization similar to that described above was found here in 1896. Numerous bodies of skarn and fissure vein deposition containing pyrite, chalcopyrite, galena, sphalerite and gold/silver mineralization where found. The most significant of these, the Union, mined 189,000 tons of ore at a grade of 0.4 oz/ton gold, 10 oz/ton silver and varying amounts of zinc, lead and copper from an easterly trending (080/V) fissure vein cutting Anarchist units proximal to the Cretaceous intrusive suite.



LEGEND

CENOZOIC

TERTIARY
MIOCENE(?)
11 Basalt, olivine basalt

PALEOCENE OR EOCENE
PHOENIX VOLCANIC GROUP
10 Andesite, trachyte; minor basalt; locally, interbedded tuff, shale, and/or siltstone

9 KETTLE RIVER FORMATION: rhyolite and dacite tuff; locally, conglomerate, sandstone, and shale; minor rhyolite flows and intrusive porphyritic rhyolite

PALEOCENE(?)
8 CORYELL INTRUSIONS: syenite; monzonite, shonkinite and granite

MESOZOIC

CRETACEOUS(?)
LOWER CRETACEOUS(?)
7 VALHALLA INTRUSIONS: granite, porphyritic granite
6 NELSON INTRUSIONS: granodiorite, porphyritic granite; diorite, monzonite, quartz monzonite
5 Ultrabasic intrusions, serpentinite

JURASSIC
ROSSLAND GROUP
4 Andesite, latite; agglomerate and flow breccia; minor greywacke

PALAEOZOIC

PERMIAN(?)
ANARCHIST GROUP
3 Greenstone, greywacke, limestone; paragneiss

PENNSYLVANIAN AND/OR PERMIAN
2 MOUNT ROBERTS FORMATION: greywacke, greenstone, limestone; paragneiss

PROTEROZOIC(?)
1 MONASHEE AND GRAND FORKS GROUPS
Paragneiss; minor crystalline limestone and pegmatite

BURRELL PROPERTY

REGIONAL GEOLOGY

GREENWOOD M.D.	figure 2	NTS 82E/8W & 9W
Compiled By: DJC	Drawn by: DJC	Date: December 1988
Revised:		

Printed by the Surveys and Mapping Branch

MAP 6-1957

The Franklin camp has attracted renewed interest and exploration in recent years. Sumac Ventures Inc. is conducting a program of reclamation by heap leaching the contained gold and silver from the Union mine tailings pond. At the same time, mineralization which had formerly been of too low a grade to be economically processed is being tested for gold and silver by a number of mining companies.

Recent work at Franklin camp has also included the investigation of the early Tertiary "Averill" mafic intrusives for platinum group(PGE) deposition. Platinum is found in the augite or biotite rich core of small, northwesterly trending, zoned, mafic-rich monzonite plugs. The PGE are associated with chalcopyrite and iron sulfides.

2.2 PROPERTY HISTORY

The area was prospected in the early part of the century while the Franklin camp was active; no mineralization was reported on the east side of Burrell Creek, but a number of occurrences were staked in Anarchist greenstone west of the creek.

During 1973 and 1974, the east side of Burrell Creek was opened by logging roads. Prospecting at this time by Walter Buller discovered three areas of mineralization on which he staked small claim blocks.

In May and June of 1988 Coffin conducted a program in order to locate Buller's showings, and to assess the geochemistry of the property and its potential for further work. Two of Buller's showings, WSW and Burr, were located and sampled. Soil geochemistry was tested with a small suite of samples at the Burr showing.

The Burr showing is an area of east-west trending fractures with minor limonite and chalcopyrite in altered granodiorite which had been opened by bulldozer trenching. Four chip samples taken at this showing in '88 were anomalous in copper and zinc.

The WSW showings, located approximately 1.5 km south-southwest of the Burr showing, consist of easterly to southeasterly trending stringers mineralized with pyrite, chalcopyrite, sphalerite and galena. Three samples taken from these showings ran between 410 ppb and 1600 ppb gold, 7.5 to 29.7 ppm silver, and up to 0.84% lead and 0.75% zinc. Three short holes which had been drilled by Buller into these showings with a packsack drill indicated continuity to shallow depths; Buller did not assay his core samples.

The third Buller showing, the LJ, is reportedly located seven or eight hundred meters northwest of the Burr showing, and is described as a series of northwesterly trending stringers in Nelson granodiorite which contain sulphide mineralization and visible gold. Two samples assayed by Buller ran 1.52 oz/ton gold & 0.66 oz/ton silver, and .428 oz/ton gold & 0.29 oz/ton silver.

3.1 PROPERTY GEOLOGY

The southern and eastern part of the property is composed of syenitic Coryell intrusive and areas of Tertiary(?) intermediate flows, large areas of which have undergone siliceous and argillic alteration. Coryell syenite intrudes Permian intermediate vocanics and Cretaceous granodiorite in the southwest part of the property, and the northwest part is composed of Cretaceous Nelson and Valhalla granodiorite.

A northerly trending system of Cretaceous to Tertiary faults, known regionally as the Granby River - Burrell Creek fault, runs the length of the property along its eastern side. Siliceous and disseminated pyrite alteration is found for considerable widths away from these features. Westerly trending, cross-cutting, structures are spatially related to the Buller showings. Anomaly A, a northwesterly trending VLF-EM/soil geochemistry high adjacent to the WSW showing appears to cut both Permian volcanics and the Coryell stock.

3.2 LITHOLOGIES

The Cretaceous Nelson and Valhalla granodiorite are fine to medium grained, equigranular, and contains up to 15% hornblende or biotite as dark minerals. The bodies are differentiated by Little with reference to the smokey colour of free quartz and an allotriomorphic texture within the Valhalla; the Valhalla seen on the property usually contains 1% magnetite and this feature was used to distinguish the two during field mapping.

Coryell intrusive is salmon to pink coloured and contains 5 to 10% chlorite after ?hornblende and usually contains magnetite. It varies in grain size from fine grained containing indistinct

phenocrysts of orthoclase up to 1 cm. long in the western portion of the property, to areas containing poorly formed but well segregated megacrysts up to 15 cm long found east of the Burrell fault.

The Permian volcanic sequence found along Burrell creek are dark to medium gray-green andesite flows and fragmentals with minor limy horizons and fine grained dark tuffs. It is distinguishable from Tertiary intermediates in that small areas of epidote and chloritic alteration are usually present in the unit.

Tertiary volcanic sequences found in the south central portion of the property are composed of andesitic to more felsic flows. Along altered margins darker rock can be seen to contain feldspar lathes 2 to 5 mm. in length displaying a tracytic texture. Glassy outcrops within the sequence appear to represent areas of siliceous alteration but may in part be rhyolitic flows.

3.3 STRUCTURE

The north-south trending Burrell fault has been active through Coryell period and appears to be the conduit for fluids altering the Tertiary volcanics. Westerly trending structures appear to be stress features relating to the Burrell fault.

3.4 ROCK GEOCHEMISTRY

A total of 29 rock samples were collected and analyzed as per soil and silt samples. Anomalous concentrations of copper and elevated zinc and lead were found in samples of silicified and chlorite altered shearing within granodiorite in the northern portion of the property. Because of high biotite concentrations in areas the presence of high background chromium, several samples were selected and are being analyzed for platinum. Sample locations are

plotted on figure 3.

3.5 SILT SAMPLING

Five silt samples (BI 08-12) were collected from the St. Annes Creek drainage. The most notable anomalies, particularly with regard to regional sampling, are for arsenic. Arsenic highs are found within 500 metres of known silica healed faults. Detailed silt sampling may be useful in delineating target areas, but is restricted to mainstream sampling due to lack of silt beds in tributary creeks which are generally gullies which flow intermittently.

4.1 GRID EMPLACEMENT

A 1400 metre picket and chain baseline was run due east from a point near Burrell Creek and 1000 meters north of St. Ann's Creek. Five grid lines, 0 +00 through 4 + 00 E, were run South to St. Anne's Creek and then used to conduct magnetometer, VLF-EM and soil geochemistry surveys. Line 11 + 00 E was run North for 500 metres. All of the cross lines were compass and flag using 20 metre stations.

4.2 MAGNETOMETER / VLF-EM SURVEYS

The magnetometer survey was conducted using a Scintrex MP-2 proton procession magnetometer with the sensor fixed to the operators shoulder pack. The survey produced several sharp anomalies in the 5-600 gamma range in the area north of the WSW showing. A strong break in susceptibility along a northwesterly trending line running through the centre of the grid appears to represent a change in lithology from the volcanics to Coryell intrusive.

The VLF-EM was conducted using a Saber Electronics receiver tuned to the transmitter in Seattle Wash. A strong linear feature, anomaly A, trends roughly 125^{o} through the centre of the grid; soil samples from several grid lines over this feature produced zinc, lead and copper anomalies. It may represent mineralization similar to that of the WSW showing. Several subtle trends of subparallel orientation can also be recognised to the north and south of anomaly A.

4.3 SOIL GEOCHEMISTRY

A total of 59 soil samples were collected for selected geophysical target on the lower grid and analyzed by ICP for 31 elements, and by AA for gold. Sample sites are shown on figure 6.

Strong contrasts are seen in zinc, lead, copper, cadmium and

beryllium associated with anomaly A described above. Several multielement trends require further follow up.

BURREL PROPERTY

SOIL GEOCHEMISTRY

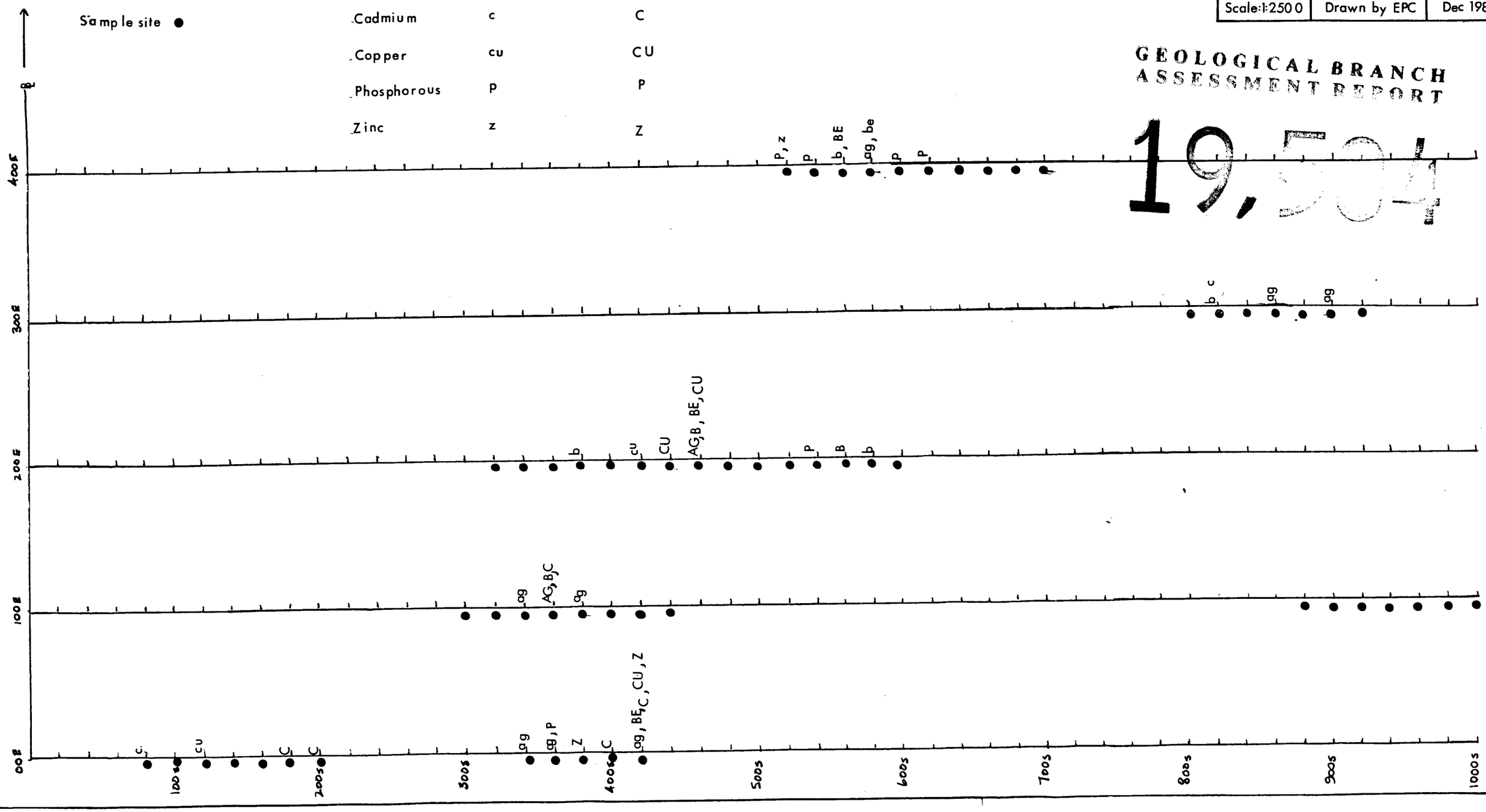
Greenwood M.D. FIG. 6 NTS 82E 8&9w

Scale:1:2500	Drawn by EPC	Dec 1989

	ANOMALOUS	HIGHLY ANOMALOUS
Silver	ag	AG
Barium	b	B
Beryllium	be	BE
Cadmium	c	C
Copper	cu	CU
Phosphorous	p	P
Zinc	z	Z

N

Sample site ●



BURREL PROPERTY

VLF DIP ANGLE PROFILES

Greenwood M.D. | Figure No. 5 | NTS 82E 8&9W

Scale 1:2500 | Drawn by: EPC | Dec. 1989

Station: Seattle
1 cm vertical = 10° of dip

CONDUCTORS: Strong
Moderate

N.E. SEATTLE

BASE LINE

100S 200S 300S 400S 500S 600S 700S 800S 900S 1000S

400E 300E 200E 100E 0E

+ −

BURREL PROPERTY

MAGNETOMETER SURVEY

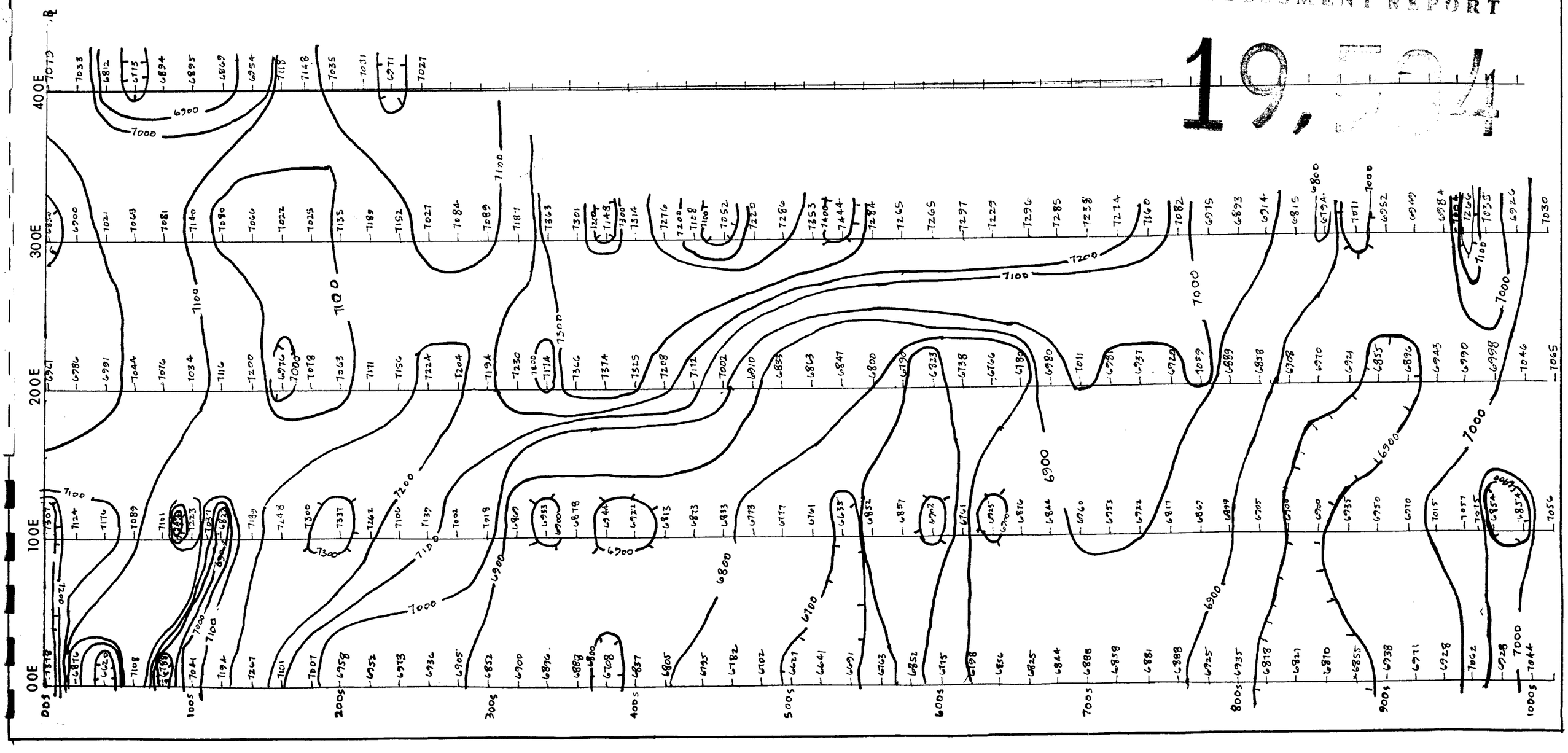
Greenwood M.D. Figure 4 NTS 82E 8&9w

Scale 1:2500	Drawn by EPC	Dec 1989

Station spacing 20 m

Grid value = Actual value − 50,000 gammas

Contour Interval 100 gammas



5.1 CONCLUSIONS AND RECOMMENDATIONS

The area of Permian volcanics and the area of Tertiary volcanics directly to the east of it should undergo further grid establishment in order to complete detailed geological mapping, soil,sampling and magnetometer VLF-EM surveys. The grid work would be followed up back hoe trenching which would include examination of anomaly A.

Alteration along the length of the Burrell fault should undergo detailed geological mapping and lithogeochem surveys in order to determine structural and trace element trends, if any, within the alteration zones. Further grid work in this area would be dependent upon the results of this survey.

The area of silicification and chalcopyrite mineralization within the granodiorite should undergo detailed mapping with regard to alignment of alteration products and should be considered a target area both for gold, as reported in previous work, and for platinum as it displays several characteristics common to the Averill platinum structures found north of the property.

5.2 BIBLIOGRAPHY

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Map Only, 1:250,000
G.S.C. map 6-1957

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B.C.M.E.M.P.M. Paper 1989-1, pgs. 27 to 32

Okulitch, A.V. Woodsworth, G.J. Kootenay River, British Columbia
Map Only 1:1,000,000
G.S.C. Open File 481

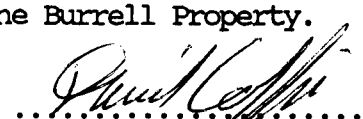
5.2 Qualifications

I attended the Haileybury School of Mines, Ontario, in the department of Mining Technology, from 1975 to 1977. Subsequent to that I have completed university courses in geography and economics, and numerous short courses and seminars dealing with geochemistry and Cordilleran geology and mineral deposits.

Since 1974 I have worked at a variety of jobs in the Canadian mineral exploration field, including regional and detailed prospecting, detailed geological mapping, core logging, property management and program development.

Since 1986 I have been a self employed exploration consultant and partner in the firm of Vanguard Consulting Ltd. Much of the work involved contract and sub-contract supervision of early stage exploration programs for small mining companies, largely for vein type gold deposits in coastal and "interior" B.C.

I hold a direct interest in the Burrell Property.



David Coffin 26/12/89

APPENDIX A - GEOCHEMICAL RESULTS

COMP: VANGUARD CONSULTING LTD.
PROJ: BURR
ATTN: D.COFFIN

MIN-EN LABS — ICP REPORT

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2
(604)980-5814 OR (604)988-4524

FILE NO: 9V-1013-RJ1
DATE: SEP-07-89
* TYPE ROCK GEOCHEM * (ACT:F31)

SAMPLE NUMBER	AG PPM	AL PPM	AS PPM	B PPM	BA PPM	BE PPM	BI PPM	CA PPM	CD PPM	CO PPM	CU PPM	FE PPM	K PPM	LI PPM	MG PPM	MN PPM	MO PPM	NA PPM	NI PPM	P PPM	PB PPM	SB PPM	SR PPM	TH PPM	U PPM	V PPM	ZN PPM	GA PPM	SN PPM	W PPM	CR PPM	AU PPB
BRC101	1.4	7680	26	1	34	1.1	6	4050	.1	10	9	20520	1080	12	6100	456	3	400	6	820	23	2	10	6	1	27.3	45	2	1	1	70	5
BRC102	.6	8710	8	1	42	1.1	2	1760	.1	6	6	28460	1540	8	4390	669	3	440	1	820	18	1	6	3	1	20.9	86	1	1	1	19	5
BRC103	.5	6540	14	1	40	1.1	2	330	.1	3	6	17780	2030	4	1470	606	1	410	1	290	52	1	7	4	1	12.7	59	1	1	1	18	5
BRC104	.2	2960	13	1	20	.3	1	350	.1	11	26	11710	390	3	2150	173	2	130	2	120	3	1	2	1	1	10.0	22	1	1	1	161	5
BRC105	.8	7090	18	1	43	.7	2	1170	.1	10	32	18050	560	8	6530	427	3	120	5	290	15	2	4	1	1	39.9	42	1	1	1	150	5
BRC106	.5	8170	11	1	124	1.3	2	1400	.1	6	9	22310	2110	5	2450	652	2	370	1	780	21	1	10	2	1	15.1	53	1	1	1	48	5
BRC107	.7	7040	21	1	56	.9	2	2230	.1	9	9	23050	1670	7	4190	543	4	360	6	1000	21	1	11	4	1	26.1	38	1	1	1	52	5
BRC108	.5	2580	11	1	34	.3	1	350	.4	2	6	4200	1700	1	210	152	1	270	2	120	7	1	5	1	1	4.3	8	1	1	1	104	5
BRC109	.5	3910	12	1	860	.6	1	1370	.4	5	28	15370	2880	1	310	247	3	260	1	790	41	1	25	2	1	8.1	38	1	1	1	81	10
BRC110	.3	3110	8	1	46	.4	1	370	.1	2	7	9150	1860	1	140	192	7	290	2	260	18	1	8	1	1	4.5	24	1	1	1	87	5
BRC111	.4	6920	14	1	39	.5	2	1080	.9	5	5	16940	1470	3	3600	548	11	210	3	590	33	1	6	1	1	16.6	61	1	1	1	59	5
BRC112	.7	9430	16	1	105	.6	2	2130	.1	5	4	15770	2330	5	4150	432	12	180	4	630	33	1	12	1	1	14.5	67	1	1	1	57	5
BRC113	.7	7120	9	1	223	.7	1	830	.3	4	7	13480	1930	5	2640	275	2	360	3	440	19	1	8	3	2	10.2	40	1	1	1	51	5
BRC114	.8	11800	17	1	95	.8	1	3920	1.0	9	100	35300	930	11	7540	563	3	120	18	590	15	1	9	1	1	44.8	39	1	1	1	87	5
BRC115	.9	4890	14	1	16	.3	2	3400	.5	5	180	10070	320	4	4620	185	3	100	6	130	6	1	2	1	1	24.2	25	1	1	1	163	5
BRC116	1.1	7820	18	1	35	.4	4	1590	1.2	10	130	16280	460	8	7480	282	3	160	11	210	11	1	2	1	1	46.3	50	1	1	1	157	5
BRC117	16.2	28460	1	1	29	1.0	14	23110	3.9	30	5191	50190	290	21	26900	1089	7	220	30	690	51	13	8	1	1	118.1	139	2	2	2	88	85
BRC118	2.5	12000	11	1	21	.6	7	14400	1.0	16	457	22350	330	12	10930	450	3	400	15	430	19	3	12	1	1	60.7	42	1	1	1	122	15
OC1	.4	820	16	1	18	.2	1	19290	.7	4	12	6000	190	1	370	1453	3	80	10	260	15	1	32	1	1	2.8	8	1	1	1	162	5
OC2	.6	860	14	1	26	.2	1	17690	1.1	6	14	8120	260	1	430	1213	4	80	11	400	16	1	26	1	1	3.1	12	1	1	1	133	5
OC3	1.1	39910	1	1	53	1.0	6	1130	.8	19	12	55130	650	14	40020	462	10	70	22	490	52	6	3	1	1	97.3	73	1	1	1	61	5
OC4	1.6	3260	56	1	55	.9	4	102220	.1	38	107	63560	710	1	9120	1389	4	430	11	260	31	10	1	2	1	17.5	59	2	1	1	1	5

COMP: VANGUARD CONSULTING INC.
PROJ: BURR
ATTN: D.COFFIN

MIN-EN LABS — ICP REPORT

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2
(604)980-5814 OR (604)988-4524

FILE NO: 9V-1643-RJ1
DATE: DEC-18-89
* TYPE ROCK GEOCHEM * (ACT:F31)

SAMPLE NUMBER	AG PPM	AL PPM	AS PPM	B PPM	BA PPM	BE PPM	BI PPM	CA PPM	CD PPM	CO PPM	CU PPM	FE PPM	K PPM	LI PPM	MG PPM	MN PPM	MO PPM	NA PPM	NI PPM	P PPM	PB PPM	SB PPM	SR PPM	TH PPM	U PPM	V PPM	ZN PPM	GA PPM	SN PPM	W PPM	CR PPM	AU PPB
BRC 119	1.0	10310	1	1	583	.6	7	8250	1.3	10	111	18060	730	15	8830	838	5	260	10	470	33	2	31	1	1	49.6	262	1	1	2	115	5
BRC 120	.2	7970	1	1	103	1.1	4	7370	.9	4	8	17670	2100	5	4310	796	1	430	5	700	32	1	15	1	1	17.8	83	1	1	1	63	15
BRC 121	.9	2010	60	1	19	.2	3	6240	.1	2	9	5600	450	3	1790	158	9	30	5	60	64	1	2	1	1	11.3	18	1	1	2	245	5
BRC 122	1.6	12130	1	1	52	.6	8	8410	.1	5	17	15460	1950	7	5960	277	21	280	7	920	61	1	47	2	1	27.3	52	2	1	1	79	10
BRD 101	1.8	17200	1	1	68	1.5	11	13800	1.1	18	41	35660	1240	30	16550	776	11	630	20	1310	40	4	42	2	1	82.9	104	1	1	2	158	5
BRD 102	.6	10430	10	1	54	.5	4	6490	1.4	7	11	17050	1600	11	7350	495	3	550	8	410	28	1	17	2	1	33.4	75	1	1	2	136	5
BRD 103	1.2	11340	7	1	39	.6	5	7970	3.7	7	475	16480	1810	12	8500	486	6	390	9	400	32	2	13	2	1	33.7	491	1	1	2	140	5
BRD 104	2.1	1640	65	1	18	.1	5	1940	1.1	2	83	4720	680	1	570	252	3	40	3	80	160	1	2	1	1	6.2	221	1	1	2	276	5
BRD 105	3.4	8600	60	1	13	.6	3	15780	.7	6	1286	14790	330	9	5460	608	4	110	4	150	23	3	27	1	1	36.8	48	1	1	2	228	10
BRE 001	1.4	11470	29	1	61	.6	7	3390	.1	10	92	32850	2160	13	9120	348	54	440	6	520	27	2	15	1	1	63.3	53	1	1	1	86	5
BRE 002	5.3	13620	1	1	81	1.0	1	7360	2.4	10	3597	27630	1800	15	9130	718	67	370	9	580	44	7	18	1	1	51.0	168	1	1	2	112	35
DRC 001	1.4	30420	1	1	22	.6	9	11430	1.5	18	117	47140	600	31	11510	976	7	9360	9	880	35	1	18	1	1	85.9	103	1	1	1	49	5
DRC 002	.8	7420	23	1	146	1.6	1	6740	.1	10	19	31040	1420	5	3000	601	7	780	19	1350	25	1	28	3	1	35.5	59	1	1	1	79	5
DRE 001	1.8	21210	1	1	27	.8	7	3610	.4	23	209	92480	1640	29	10220	655	13	260	1	800	39	1	12	1	1	77.6	510	1	1	1	36	5
DRE 002	3.1	22570	1	1	37	.6	13	11760	.1	14	85	45920	880	25	11880	519	7	810	10	1300	70	1	15	1	1	129.9	83	2	2	1	30	5

COMP: VANGUARD CONSULTING INC.
PROJ: BURR
ATTN: D.COFFIN

MIN-EN LABS — ICP REPORT

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2
(604)980-5814 OR (604)988-4524

FILE NO: 9V-1643-SJ1+2
DATE: DEC-18-89
* TYPE SOIL GEOCHEM * (ACT:F31)

SAMPLE NUMBER	AG PPM	AL PPM	AS PPM	B PPM	BA PPM	BE PPM	BI PPM	CA PPM	CD PPM	CO PPM	CU PPM	FE PPM	K PPM	LI PPM	MG PPM	MN PPM	MO PPM	NA PPM	NI PPM	P PPM	PB PPM	SB PPM	SR PPM	TH PPM	U PPM	V PPM	ZN PPM	GA PPM	SN PPM	W PPM	CR PPM	AU PPB
BS0E 80S	.4	15430	1	1	111	.7	4	2580	1.5	7	21	18690	510	9	3160	737	1	150	11	1470	17	1	10	1	1	38.0	63	1	1	1	14	5
BS0E 100S	.5	13800	1	1	95	.7	4	2320	.5	7	11	20540	740	11	3110	334	1	150	8	1400	16	1	10	1	6	39.6	65	1	1	1	18	5
BS0E 120S	1.0	19730	1	1	175	1.0	4	5120	.9	6	25	15720	500	18	2420	527	1	320	10	740	14	1	20	1	15	27.2	47	1	1	1	16	5
BS0E 140S	.8	17170	1	1	73	.6	4	3380	.2	7	12	20040	500	11	2820	378	1	150	8	1300	11	1	11	1	13	40.5	70	1	1	1	15	5
BS0E 160S	.9	19130	1	1	101	.6	6	2510	.1	7	15	20720	580	11	3070	464	1	220	9	1200	22	1	11	1	11	44.2	67	1	1	1	15	5
BS0E 180S	.1	10370	1	1	152	.4	5	3310	2.1	6	14	11960	450	6	1760	2249	1	390	9	1300	15	1	13	1	1	24.5	68	1	1	1	6	5
BS0E 200S	.6	13620	1	1	162	.5	4	2620	2.1	7	17	16690	590	10	2340	2290	1	260	11	1490	30	1	12	1	1	34.5	93	1	1	1	11	25
BS0E 340S	1.3	14890	1	1	95	.5	6	4580	.1	10	11	44740	620	7	2640	316	1	200	2	2130	18	1	15	1	17	108.7	75	1	1	2	24	5
BS0E 360S	1.5	29340	1	1	159	.7	6	1650	.1	9	14	25890	530	12	2110	782	1	270	7	3760	15	1	12	1	12	53.4	117	1	1	1	13	5
BS0E 380S	1.1	24060	1	1	164	1.0	6	3020	.1	10	23	25520	740	20	4400	567	2	260	22	1180	48	1	13	1	8	53.8	271	1	1	2	21	5
BS0E 400S	.2	10190	1	1	240	.4	4	4760	3.0	6	16	12120	700	7	2020	2124	1	1100	11	750	90	1	17	1	1	26.0	139	1	1	1	5	5
BS0E 420S	1.3	25680	1	1	119	2.9	5	4290	5.9	19	39	31000	1190	15	4620	2937	4	1010	11	1780	656	2	19	1	1	48.5	461	1	3	1	13	5
BS1E 300S	1.0	20320	1	1	185	.7	4	3480	.7	6	14	16420	610	11	2310	653	1	350	10	2030	16	1	18	1	11	33.0	103	1	1	1	12	5
BS1E 320S	.7	11800	1	1	81	.5	4	3320	.3	6	8	16220	600	8	2620	340	1	260	8	530	18	1	15	1	13	37.3	84	1	1	1	15	5
BS1E 340S	1.2	19170	1	1	166	.6	6	3290	.1	7	12	18170	690	16	2760	305	1	230	9	1480	11	1	17	1	14	35.3	100	1	1	1	17	5
BS1E 360S	1.7	26040	1	1	373	.7	5	5730	1.3	6	17	12090	500	23	3130	93	1	360	8	820	13	1	24	1	14	24.2	123	1	1	1	14	5
BS1E 380S	1.3	27310	1	1	252	1.1	6	4910	.1	7	14	19150	610	36	3190	433	1	340	10	310	15	1	20	1	14	34.8	75	1	1	1	17	5
BS1E 400S	.8	18030	1	1	142	.7	6	2340	.7	6	11	18290	550	10	2550	483	1	220	9	1190	30	1	11	1	9	38.8	82	1	1	1	14	5
BS1E 420S	.9	31940	1	1	197	1.0	7	2760	.1	8	15	18000	580	15	2040	626	1	370	10	1300	9	1	13	1	9	32.2	104	1	1	1	10	5
BS1E 440S	.9	20900	1	1	229	.9	4	2600	.1	7	15	17140	740	12	2430	693	1	380	11	710	24	1	11	1	13	34.8	98	1	1	1	11	5
BS1E 880S	.9	25680	1	1	137	.7	7	1860	.1	8	12	23150	580	12	2570	617	1	270	8	1500	9	1	11	1	11	48.1	71	1	1	1	12	10
BS1E 900S	.5	11490	1	1	124	.3	6	1880	.1	6	8	18420	500	10	2010	381	1	300	7	1040	14	1	11	1	7	41.8	60	1	1	1	9	5
BS1E 920S	.7	13700	1	1	94	.4	7	2470	.1	8	9	32650	610	10	2880	325	1	260	2	1250	14	1	14	1	10	77.3	57	1	1	2	20	5
BS1E 940S	1.0	10460	2	1	108	.5	6	5100	.1	8	8	27970	1020	10	3880	516	1	220	5	1760	18	1	22	1	17	64.2	52	1	1	2	18	10
BS1E 960S	.8	22220	1	1	149	.7	7	2290	.1	7	11	21400	590	10	2540	589	1	310	8	1370	19	1	14	1	9	45.6	61	1	1	1	11	5
BS1E 980S	.6	14680	1	1	224	.5	6	2100	.1	7	9	18340	460	10	2070	1024	2	310	7	1440	15	1	16	1	10	39.0	73	1	1	1	9	5
BS1E 1000S	.9	11960	1	1	138	.3	5	3690	.1	9	8	31000	750	12	3860	498	1	170	4	1700	16	1	16	1	15	70.5	77	1	1	2	19	5
BS2E 320S	.5	17670	1	1	121	.8	4	1680	.2	6	9	17690	550	10	2160	628	1	210	9	1620	18	1	10	1	7	35.4	127	1	1	1	11	5
BS2E 340S	.7	20990	1	1	197	.8	6	2100	.1	7	13	20120	550	9	2550	844	2	160	8	890	16	1	9	1	6	38.9	113	1	1	1	14	10
BS2E 360S	.4	17180	1	1	201	.7	4	2640	.4	5	8	16370	510	7	2060	811	1	140	7	1610	16	1	11	1	9	29.2	99	1	1	1	10	5
BS2E 380S	.1	15990	1	1	295	1.1	4	2040	.1	6	9	19760	650	9	2390	919	2	160	7	1700	25	1	9	1	1	31.1	112	1	1	1	9	5
BS2E 400S	.5	15990	1	1	226	.6	4	2330	.1	5	11	14480	490	7	1740	599	1	230	5	1720	16	1	11	1	1	27.0	81	1	1	1	8	5
BS2E 420S	.9	10940	1	1	152	1.2	4	8290	.1	4	27	10930	610	11	1830	339	2	280	10	740	14	1	34	1	1	23.2	44	1	1	1	9	5
BS2E 440S	.8	9260	18	1	153	.9	2	6460	1.0	3	30	8080	590	7	1450	255	1	510	7	580	9	1	25	1	1	17.2	46	1	1	1	7	5
BS2E 460S	2.1	25500	1	1	395	2.8	5	9230	.1	6	99	20850	1430	29	3770	369	4	360	21	560	19	1	39	1	1	27.3	76	1	1	1	22	5
BS2E 480S	1.1	18220	1	1	193	1.0	5	4730	.1	6	21	13760	470	22	1980	166	1	360	11	310	13	1	19	1	1	24.6	55	1	1	1	13	10
BS2E 500S	.7	19560	1	1	159	.6	4	2630	.1	7	10	17840	950	11	2490	616	1	260	10	1300	21	1	13	1	1	36.1	102	1	1	1	14	5
BS2E 520S	.9	14870	1	1	179	.6	5	1910	.1	5	8	13710	490	8	1570	879	2	290	7	2130	19	1	12	1	1	28.4	134	1	1	1	10	5
BS2E 540S	.6	23830	1	1	218	.8	6	2040	.1	7	12	18420	690	11	2490	869	1	220	10	2500	23	1	12	1	1	34.9	114	1	1	1	13	5
BS2E 560S	.2	19410	1	1	413	1.1	5	2420	.1	9	14	24450	1370	14	3620	2579	3	240	7	650	37	1	10	1	1	35.1	118	1	1	1	7	5
BS2E 580S	.8	11620	1	1	270	.5	5	3120	.7	6	11	14060	710	9	2080	1611	2	320	8	780	31	1	13	1	1	28.7	127	1	1	1	10	5
BS2E 600S	.5	19800	1	1	245	.8	4	3200	.1	7	12	19410	770	10	2940	1432	1	250	10	1150	22	1	14	1	1	36.4	92	1	1	1	13	10
BS3E 800S	.8	17220	1	1	188	.7	6	3010	.1	7	13	19980	640	10	2910	672	2	210	13	960	21	1	11	1	1	39.3	88	1	1	1	15	5
BS3E 820S	.3	9230	1	1	279	.6	5	3870	1.2	6	13	14870	770	7	2010	2036	2	260	11	930	23	3	16	1	1	28.9	100	1	2	1	12	5
BS3E 840S	.6	9860	9	1	108	.5	4	2460	.1	6	9	17260	530	8	2360	622	1	170	9	520	23	1	10	1	1	37.0	60	1	1	1	15	5
BS3E 860S	1.3	15280	1	1	202	.7	4	3660	.1	7	13	20040	490	10	2520	749	1	220	10	1110	18	2	16	1	1	41.3	78	1	1	1	13	5
BS3E 880S	.9	12720	1	1	112	.4	4	1680	.1	6	11	19670	420	8	2000	246	1	260	10	2070	14	1	12	1	1	42.7	60	1	1	1	12	5
BS3E 900S	1.2	37200	1	1	178	.8	7	2260	.1	9	15	24420	580	13	2600	717	1	240	7	1860	17	1	13	1	1	48.1	107	2	1	1	14	10
BS3E 920S	.9	21110	1	1	160	.5	7	1730	.1	6	12	16890	490	9	1870	549	1	280	10	1290	16	1	11	1	1	35.3	60	1	1	1	11	5
BS4E 520S	1.0	24660	1	1	214	.9	6	1790	.1	7	12	19670	700	14	2170	853	1	240	10	4620	19	1	16	1	1	34.1	159	1	1	1	16	5
BS4E 540S	.9	16850	1	1	175	.7	4	1720	.1	6	10	15440	590	12	1590	389	1	260	9	2860	15	1	14	1	1	28.5	111	1	1	1	12	5
BS4E 560S	1.1	32810	1	1	264	1.7	6	3810	.1	9	18	25040	1090	28	3830	607	3	320	16	690	18	1	21	2	1	45.7	123	2	1	2	23	5
BS4E 580S	1.3	34780	1	1	225	1.5	7	3760	.1	9	18	23000	900	27	3140	290	1	410	17	1430	15	1	22	1	1	39.0	95	2	1	1	19	10
BS4E 600S	.7	22510	1	1	247	.7	4	2010	.1	6	12	16820	750	15	2010	628	1	300	11	2470	18	1	15	1	1	28.4	130	1	1	1	13	5
BS4E 620S	.5	19040	1	1	137	.8	4	2850	.1	6	10	17820	860	15	2260	471	1	290	11	850	19	1	15	1	1	34.8	100	1	1	1	15	5
BS4E 640S	.3	23250	1	1	234	.7	4	2420	.1	6	10	17390	770	12	2100	545	1	330	11	3190	11	1	16	1	1	30.7	86	1	1	1	12	5
BS4E 660S	.1	7030	1	1	143	.4	1	2190	.3	4	8	11640	520	5	1390	840	1	230	7	760	10	1	12	1	1	26.3	51	1	1	1	10	5
BS4E 680S	.3	15120	1	1	137	.7	4	2590	.1	6	8	15810	540	10	2010	568	1	210	8	1490	14	1	14	1	1	29.8	72	1	1	1	11	5
BS4E 700S	.2	14590	1	1	123	.5	4	1730	.1	6	7	19810	480	8	2350	248	1	340	8	1370	11	1	10	1	1	38.1	59	1	1	1	17	5
BI 01	.5	7950	1	1	68	.5	7	3920	.1	6	5	22210	620	10	3410	152	2	90	7	1380	13	1	14	1	1	50.4	43	1	1	1	18	5

COMP: VANGUARD CONSULTING INC.
PROJ: BURR
ATTN: D.COFFIN

MIN-EN LABS — ICP REPORT

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2
(604)980-5814 OR (604)988-4524

FILE NO: 9V-1643-SJ3
DATE: DEC-18-89
* TYPE SOIL GEOCHEM * (ACT:F31)

SAMPLE NUMBER	AG PPM	AL PPM	AS PPM	B PPM	BA PPM	BE PPM	BI PPM	CA PPM	CD PPM	CO PPM	CU PPM	FE PPM	K PPM	LI PPM	MG PPM	MN PPM	MO PPM	NA PPM	NI PPM	P PPM	PB PPM	SB PPM	SR PPM	TH PPM	U PPM	V PPM	ZN PPM	GA PPM	SN PPM	W PPM	CR PPM	AU PPB
BI 02	.3	2180	8	1	22	.1	2	4530	.1	7	3	47140	390	3	1070	267	1	70	1	1900	13	1	9	3	1	96.4	32	1	2	1	7	5
BI 03	.8	7170	1	1	67	.3	4	3370	.1	6	6	20410	800	6	3550	156	2	120	6	1300	11	1	12	2	1	44.4	33	1	1	1	18	5
BI 04	1.0	8750	2	1	111	.7	3	4510	.1	6	7	23750	660	7	3000	369	1	150	4	1190	12	1	25	1	1	41.0	44	1	1	1	16	5
BI 05	.7	9240	21	1	75	.7	3	3940	.1	7	16	20950	680	8	4190	242	3	140	7	1120	19	1	20	2	1	51.5	49	1	1	1	27	10
BI 06	.6	5620	21	1	75	.4	4	4680	.1	8	6	39760	410	5	2060	436	1	100	2	1480	9	1	22	2	1	81.6	37	1	1	1	18	5
BI 07	.6	6750	20	1	84	.5	4	2780	.1	4	5	16040	580	6	2020	219	2	90	2	570	14	1	17	1	1	35.3	32	1	1	1	12	10
BI 08	1.3	5980	29	1	52	.5	5	6430	.1	10	7	49400	840	6	3120	213	1	130	1	2510	18	1	21	3	1	151.7	52	1	1	2	23	10
BI 09	.7	3590	8	1	35	.3	3	2450	.1	4	3	20940	420	5	1670	194	1	70	1	820	6	1	10	2	1	51.0	29	1	1	1	12	5
BI 10	.6	7250	35	1	55	.5	3	5870	.1	6	6	22520	1010	7	3630	337	1	130	4	2110	12	1	24	2	1	52.1	45	1	2	1	14	5
BI 11	.8	3060	36	1	32	.2	4	4140	.1	10	5	57970	460	4	1850	253	1	70	1	1440	3	1	13	2	1	147.8	42	1	1	1	17	5
BI 12	.7	7120	1	1	71	.1	5	7810	.1	13	7	82310	670	7	3080	414	1	140	1	3000	18	1	25	4	1	210.9	65	1	2	3	28	5
BI 13	.7	4690	31	1	32	.7	3	2790	.1	5	6	21290	450	10	2510	281	2	90	2	640	18	1	13	2	1	41.2	38	1	1	1	11	5
BI 14	.8	3320	16	1	18	.4	3	1910	.1	4	6	18790	290	8	1940	163	1	70	2	350	16	1	10	1	1	55.2	23	1	1	1	12	5

APPENDIX B - COST BREAKDOWNS

BURRELL PROJECT 1989

COST BREAKDOWN - AUGUST 20 -27 PERIOD

Consulting:	
David Coffin 8 days @ $325.00	$ 2,600.00
Eric Coffin 8 days @ $225.00	1,800.00
Subtotal	$ 4,400.00
Expenses:	
Vehicle (9 days @ $50 + 1,164 km @ $0.15)	$ 624.60
Gas	96.20
Motels	86.40
Groceries and Meals	246.31
Propane, supplies	219.04
Rock Analyses, 22 @ $15.50	341.00
Airphotos, mylars, base maps	191.99
Add: 15%	270.83
Subtotal, Expenses	$ 2,076.37
TOTAL COSTS (AUGUST 20-27)	**$ 6,476.37**

BURRELL PROJECT 1989

COST BREAKDOWN - NOVEMBER 30 - DECEMBER 11 PERIOD

Consulting:	
David Coffin 13 days @ $325.00	$ 4,225.00
Eric Coffin 9 days @ $225.00	2,025.00
Stuart Davies 6 days @ $225.00	1,350.00
Subtotal	$ 7,600.00
Expenses:	
Vehicle 13 days @ 30.00	$ 390.00
Fuel, Bus Fares	254.32
Motels	175.26
Groceries and Meals	279.61
Propane, supplies	33.17
Rock Analyses, 15 @ $14.75	221.25
Soils, 59 @ $12.75	752.25
Silts, 14 @ $12.75	178.50
VLF, Magnetometer, Chainsaw rental	325.00
Long Distance Charges	17.94
Subtotal, Expenses	$ 2,627.30
TOTAL COSTS (NOV. 30 - DEC. 11)	**$10,227.30**

49°30'N

GD

BRE 01
BRE 02

BRD 105
BRD 102
BRD 104
BRD 103
BRD 101

GD

BURRELL CREEK

BRC 119+120
GDN

GD
si, ch

CHEMI - 5026(9)

GD

GD

GD

LCP

AN
BRC 114
TO 118

SHORTS
5025(9)

GD

STOON

GD

AN_U

GD
4E

5E

6E

7E

8E

9E

10E

11E

12E

13E

14E

BRC 104+05
BRC 106

BRC 121

SI

BRC 122

SI/AR

AN_L

AN

1+00S

2+00S
BRC-101

3+00S

Sy

4+00S

5+00S

6+00S

7+00S

8+00S

9+00S

10+00S

BRC 111
BRC 113

Sy
BRC-107

Sy

Sy

BRC 103

BRC 102

Sy

Sy

SI

SI

Sy

Sy/CR

Sy/CR

BRC 109
BRC 110

BRC 108

BI 12
250m

BI-11

BI 08

ST. ANNES CREEK

BI 09

BI 10

N

LITHOLOGIES

AR - ARGILIC ALTERATION
SI - SILICEOUS ALTERATION
AN_U - INTERMEDIATE FLOWS OF TERTIARY AGE
SY_{CR} - COARSE GRAINED SYENITE
SY - SYENITE
GD - GRANODIORITE
AN_L - INTERMEDIATE VOLCANICS OF PROBABLE PERMIAN AGE

LEGEND

- OUTCROP AREA
- ASSUMED CONTACT
- FAULT
- SWAMP
- BRC-108 - ROCK SAMPLE
- BI-09 - SILT SAMPLE
- ADIT

SCALE 1:5,000

0 50 100 200 300 METERS

BURRELL PROPERTY

1:5,000 GEOLOGY & SAMPLING

DEC. 26 1989 FIGURE 3