GEOLOGICAL AND GEOCHEMICAL REPORT

on the

CLIFF, CLIFF 1 to 4 and GREAT EASTERN CLAIMS

Hedley-Olalla Area
Osoyoos Mining Division

82E-4W,5W
(49°16' N. Lat.,119°51' W. Long.)

for

GOLDCLIFF RESOURCE CORPORATION
1505-409 Granville Street
Vancouver, B.C.
V6C 1T2
(Operator)

GRANT F. CROOKER
(OWNER)

by

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Consulting Geologist

January, 1990

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ILLUSTRATIONS

SUMMARY AND RECOMMENDATIONS

The Cliff Property is located five kilometers north of Keremeos at Olalla B.C.. Goldcliff Resource Corporation holds five mineral claims and one reverted Crown Grant covering a total of 97 units.

The area has been the scene of exploration for base and precious metals since the late 1800's. Approximately 20 kilometers northwest of the property at Hedley, Mascot gold Mines Limited resumed production in the spring of 1987 at the Nickel Plate Mine. Ore reserves are in the order of 8,300,000 tons grading 0.14 ounces per ton gold with a milling rate of 2700 tons per day. Mining is by open pit methods.

A number of VLF EM conductors, gold and multi-element soil geochemical anomalies and favourable geological structures were outlined on the property by the 1986, 1987 and 1988 work programs. The program outlined by this report is an extension of previous work.

The work to date on the property has indicated a number of significant target areas including the Valley, Frank, Lee and Cliff Zones. The 1989 program concentrated on the Valley and Lee Zones and yielded very favourable results.

On the Lee Zone, two additional lines of soil geochemical sampling indicated the gold geochemical anomaly is widening and open to the north and west. The anomaly to date is approximately 400 meters wide by 400 meters long and occurrs coincidentally with copper and arsenic. Gold values of up to 600 ppb were obtained from the anomaly.

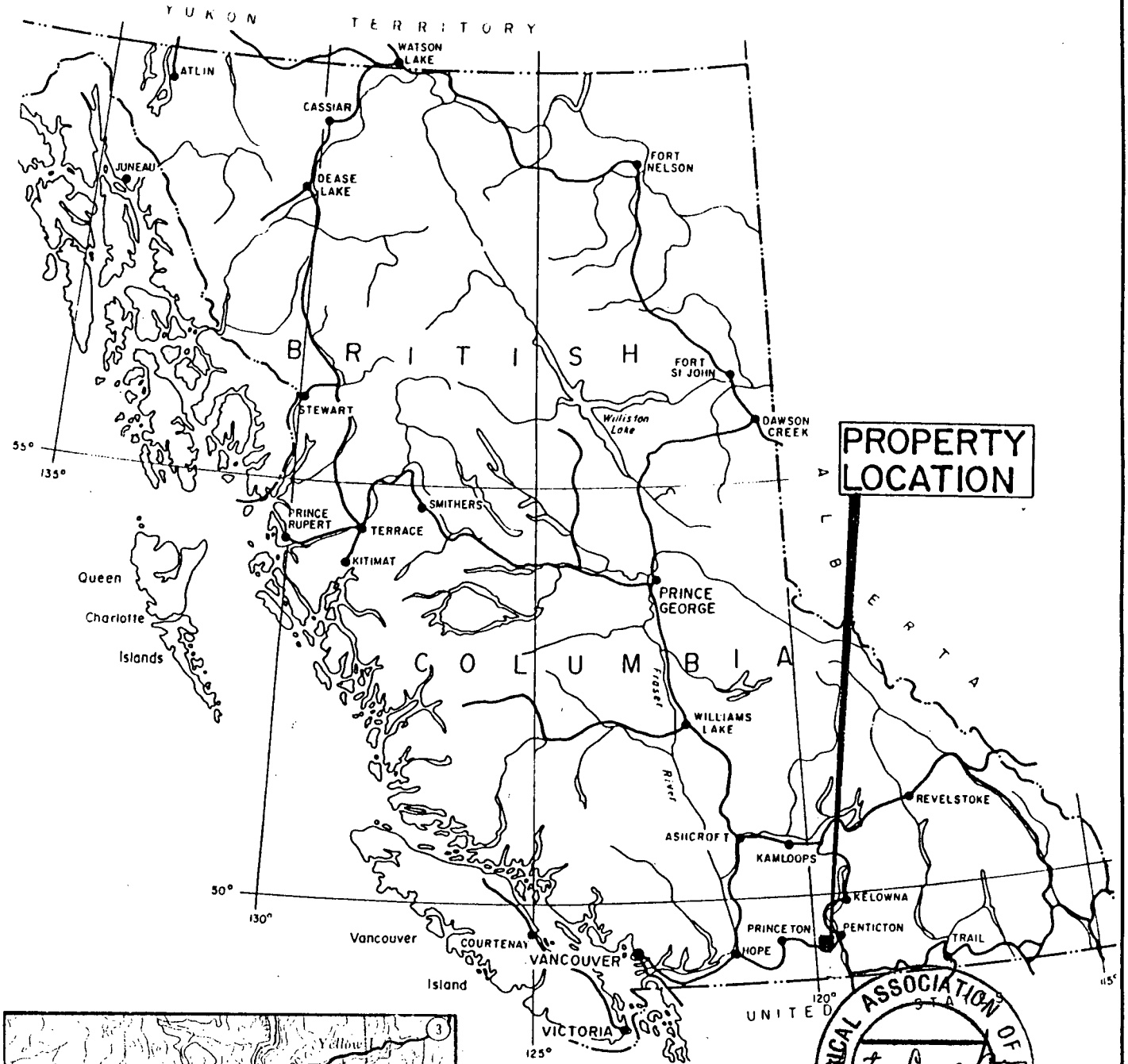
On the Valley Zone, assaying of a number of sections of Freedom Resources drill core yielded a one foot section in DDH 83-2 with 2560 ppb gold.

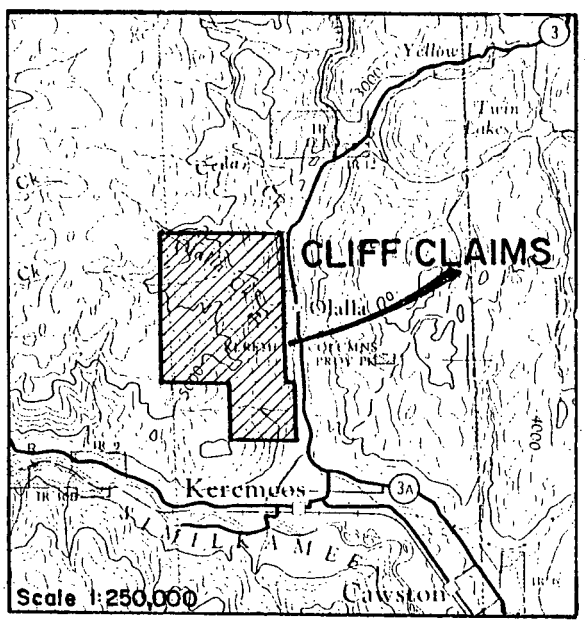
The heavy metal concentrate sampling along Olalla Creek gave two samples (89GH-1 and 89GH-10) which were weakly anomalous.

Recommendations are as follows:

1) Additional soil geochemical sampling, prospecting and geological mapping should be carried out over the Lee Zone to further define the broad gold geochemical anomaly and determine the source of the gold-copper mineralization.

2) The other target areas outlined by previous programs should also have continued exploration by geochemical sampling, prospecting, trenching and drilling if required.





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CLIFF PROJECT

LOCATION MAP

N.T.S. 82E-4,5W OSOYOOS M.D., B.C.

0 200 400 KM.

SCALE : AS SHOWN	DATE : JAN. 1990
DRAWN BY : G.F.C.	FIGURE Nº. 1

CHONG

Respectively submitted,

Grant Crooker, B.Sc., F.G.A.C.
Geologist

1.0 INTRODUCTION

1.1 GENERAL

Field work was carried out on the Cliff Claims during the spring of 1989 by Grant Crooker, Geologist, and Lee Mollison, Field Assistant.

The program consisted of taking heavy metal concentrate samples along Olalla Creek, establishing tielines along 10,500N, 6,700E and 13,000N, establihing two grid lines on the Lee Zone and soil sampling and mapping them, surveying the existing drill holes on the Valley Zone and having a topographic map of the property prepared.

The topographic map was prepared by the Orthoshop of Calgary, Alberta to cover the entire Cliff Property at a scale of 1:10,000 with a 10 meter contour interval. A blow-up of that map was prepared at a scale of 1:5,000 to cover the Cliff Claim.

1.2 LOCATION AND ACCESS

The property (Figure 1) is located 5 kilometers north of Keremeos, near Olalla in southern British Columbia. The property lies between 49°13'15" and 49°17'15" north latitude and 119°49'30" and 119°53'15" west longitude (NTS 82E-4W, 5W).

Access to the property is via Highway 3A which passes immediately east of the property. A two wheel drive road along Olalla Creek gives access to the Cliff 2 and Cliff 3 Claims, while an old four wheel drive mining road gives access to the Cliff and Great Eastern Claims. Another four wheel drive road leads to the Manganese Zone at the western boundary of the Cliff 3 Claim. A man made trail leads to the western section of the Cliff Claim and the Cliff 4 Claim.

1.3 PHYSIOGRAPHY

The property is located in the Okanagan Highlands of southern British Columbia. Elevation varies from 550 to 1830 meters above sea level. Topography is steep with few level spots and precipitous cliffs occur at many locations on the property.

Olalla and Shuttle Creeks flow through the property and have water all year long. Several springs also occur on the property.

Vegetation varies from open range land to a forest cover of pine and fir trees. Several sections have heavy deadfall and rattle snakes abound on the property.

1.4 PROPERTY AND CLAIM STATUS

The Cliff, Cliff 1 to 4 and Great Eastern Claims (Figure 2) are owned by Grant Crooker of Keremeos, B.C., and are under option to and operated by Goldcliff Resources Corporation, 1505-409 Granville Street, Vancouver B.C., V6C 1T2. The property consists of six claims covering 97 units, although there is some overstaking of previous claims in the immediate vicinity of Olalla.

The claims are located in the Osoyoos Mining Division.

Claim	Units	Mining Division	Record No.	Record Date	Expiry Date
Cliff	20	Osoyoos	2399(4)	01/04/86	01/04/97
Cliff 1	16	Osoyoos	2529(10)	30/10/86	30/10/97
Cliff 2	20	Osoyoos	2586(3)	30/03/87	30/03/92*
Cliff 3	20	Osoyoos	2587(3)	30/03/87	30/03/92*
Cliff 4	20	Osoyoos	2581(3)	30/03/87	30/03/94*
Great Eastern	1	Osoyoos	411(6)	01/06/78	01/06/97

* Upon acceptance of this report.

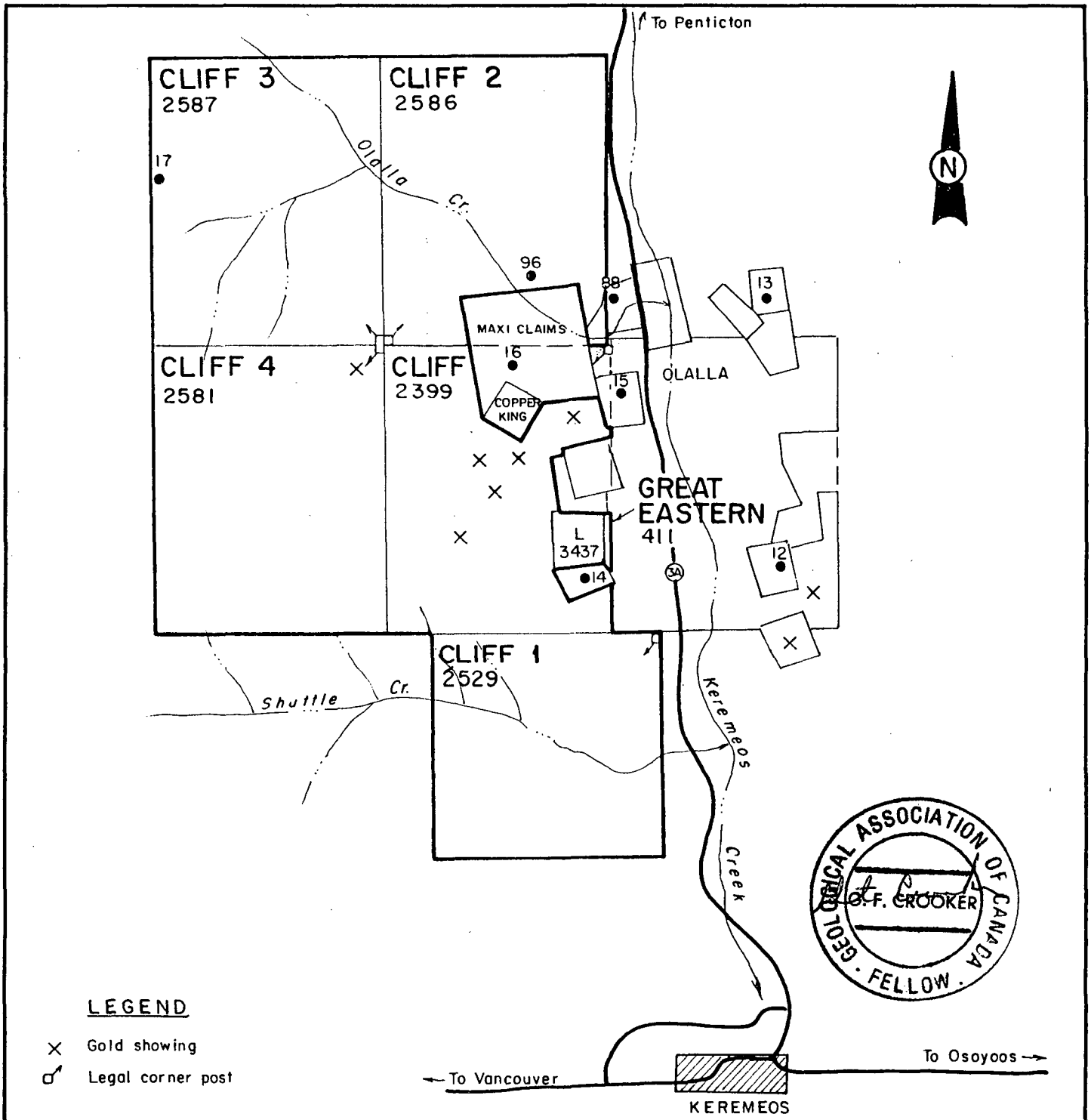
1.5 AREA AND PROPERTY HISTORY

The property is located in the Olalla-Hedley Gold Camp in southern British Columbia. Mining activity has been carried out in this area since the 1880's. The property is located 20 kilometers southeast of Hedley, where Mascot Gold Mines Limited resumed production at the Nickel Plate Mine in the spring of 1987. Current ore reserves at Mascot Gold Mines are in the order of 8,300,000 tons of ore grading 0.14 ounces per ton gold and containing 1,000,000 ounces of recoverable gold. Additional ore reserves are being added on a continuing basis as exploration continues. Mining is by open pit methods.

A number of mining properties have been explored in the Olalla area since the 1880's. These include the Bullion, Dolphin, Golconda, Something Good and Shepard-Sunrise. Exploration has been oriented towards copper, molybdenum, silver and gold.

On the Something Good Property (Lot 1451, Minfile 82E-SW-014, figure 2) immediately east of the Cliff Claim, a carbonate shear and breccia zone occurs in argillacious and cherty sediments near the contact of a large pyroxenite body. Calcite, quartz, and pyrite occur within the zone.

Three adits were driven on the zone in 1936-1937. The No. 1 adit (2541 feet ASL) was driven for 350 feet, and followed the footwall of the shear zone. The first 110 feet of the adit



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LEGEND

× Gold showing

♂ Legal corner post

Min. File Nº.	Property name	Product
82E-5W-12	Dolphin	Cu, Ag
-13	Bullion	Au, Cu
-14	Something Good	Au
-15	Sunrise	Au
-16	Golconda	Cu, Mo, Au
-17	Dief	Mn, Ro
-88	Homestead	Cu
-96	Olalla	Ag, Au

GOLDCLIFF RESOURCE CORPORATION

CLIFF PROJECT

CLAIM MAP

N.T.S. 82E-4,5W OSOYOOS M.D., B.C.

0 1 2 3 KM.

SCALE : 1:50,000	DATE : JAN. 1990
DRAWN BY : G.F.C.	FIGURE Nº. 2

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followed a well defined breccia zone. Samples taken by the resident geologist for the B.C. Dept. of mines in 1937 (M.S. Hedley) ranged from 0.05 ounces per ton gold over 54 inches to 2.20 ounces per ton gold over 11 inches. Beyond this point the graphitic shear contained negligible gold values. The No. 3 adit (2342 feet ASL) was driven for 385 feet in the pyroxenite. Negligible gold values were encountered in the adit. Limited diamond drilling was also carried out, and some values were reported.

On the Golconda Property (Maxi 1-4, Minfile 82E-SW-016) located along the northern portion of the Cliff Claim, a shear zone up to five feet wide and made up of one or more slickensided and gouge filled fault planes cuts pyroxenite. A number of quartz lenses between 30 and 60 feet long and 12 to 50 inches wide occur within the shear zone. These zones appear to occur at changes in attitude in the structure. The quartz is crudely banded and contains pyrite, chalcopyrite, molybdenum, and minor galena. Values in gold and silver also occur within the structure.

Several adits follow the shear zone, which strikes south 56° east. Limited production has come from the property, and a small mill has operated several times.

The Shepard-Sunrise Property (Lot 18s, Minfile 82E-SW-015) located along the eastern boundary of the Cliff Claim appears to have the most economically significant mineralization in the Olalla Camp. Several mineralized quartz veins on the property have been explored by trenching, diamond drilling and several adits.

The diamond drilling was carried out in two phases, the first between 1946 and 1948 by Hedley-Monarch Mines Ltd., and the second during 1961 and 1962 by Friday Mines Ltd.. The work has indicated ore reserves of 2177.28 tonnes of 0.99 ounces per ton gold and 2.50 ounces per ton silver. It has been reported that 300 tons of ore averaging 0.53 ounces per ton gold and 0.45 ounces per ton silver were shipped during the 1946-1948 period.

The mineralization appears to be related to the east-west striking Valley Fault. During drilling on the quartz veins, a gold bearing pyritic-silicious breccia zone was discovered. This breccia zone also appears to be related to the Valley Fault, and reported drill hole intersections are as follows:

D.H. No.	Intersection	Width	oz Au	oz Ag	Location
H-5	315.6'-354.7'	39.1'	0.056	0.14	Shepard-Sunrise
H-8	383.0'-391.1'	8.1'	0.330	1.08	Shepard-Sunrise
H-8	365.2'-400.7'	35.5'	0.110	0.35	Shepard-Sunrise
H-10	354.9'-360.1'	5.2'	0.063	0.25	Shepard-Sunrise
H-10	403.8'-411.7'	7.9'	0.139	0.53	Shepard-Sunrise

These drill intersections are along the western edge of L 18s and appear to be within 100 meters of the Cliff Claim. The exact drill hole locations have been lost, and the western boundary of L 18s is not known exactly.

On the area covered by the Cliff Claim, hand trenching, cat trenching, Airborne VLF and magnetometer surveying, ground VLF surveying, geochemical soil sampling and diamond drilling have been carried out in the past. Freedom Resources Ltd. carried out the last signigicant exploration on the claim area during the 1981 through 1983 period. The Airborne VLF survey (1981) indicated two strong conductors, one associated with the Valley Fault, and a second in the area of hand trenching at approximately 9100N+9400E. The Airborne magnetometer survey delineated the pyroxenite stock. Follow-up soil sampling and ground VLF surveying were carried out over a small portion of the area. A significant gold geochemical anomaly with co-incidental VLF conductors was delineated at approximately 9000N to 9700N, and 9300E to 9800E. No follow-up work was carried out in this area.

Along the Valley Fault at approximately 9900N and 10050E, cat trenching and diamond drilling has been carried out. The trenching exposed a north-south striking quartz vein, as well as a section of silicified and carbonatized syenite. This zone is described as being the westward extension of the pyritic-silicious breccia zone on L 18s. During 1961 two diamond drill holes were drilled by Friday Mines Ltd. to test the zone. Drill hole C-1 returned the best intersection, 0.03 oz/ton Au, 0.087 oz/ton Ag, 0.026 % Cu, with a trace of molybdenum from 100.8-115.05 feet. A number of other intersections of "weakly mineralized" syenite were reported, with only trace values in Au and Ag.

Freedom Resources Ltd. drilled five holes along the Valley Fault structure. Drill hole 81-1 was drilled north accross the fault and into the syenite. Drill holes 83-2 and 83-3 were drilled in a northerly direction in an attempt to intersect the quartz vein north of the silicified and carbonatized zone. Two other holes, 83-1 and 83-1a were drilled along the structure further east. It is believed none of the drill holes encountered significant gold mineralization, although all of the records are lost.

D.H. No.	Grid Co-ord.	Azmuth	Angle	Depth
C-1	9936N+10056E	180°	-50°	442 feet
C-2	9875N+10038E	000°	-50°	740 feet
81-1	9805N+10208E	000°	-45°	500 feet
83-1a	10132N+10520E	175°	-45°	497 feet
83-2	9922N+10076E	000°	-45°	351 feet
83-3	9892N+10074E	000°	-45°	505 feet
83-1	9996N+10550E	180°	-45°	500 feet

During 1986, 1987 and 1988 a number of exploration programs have been carried out on the property by Goldcliff Resource Corporation. This work includes establishing a grid on the Cliff Claim and carrying out geological, geochemical and geophysical surveys. Most of the work to date has been on the Cliff Claim with only minor work on the rest of the property.

Favourable results were obtained from these surveys. A number of VLF EM conductors, gold and multi-element soil geochemical anomalies and favourable geological structures were outlined on the property. Several poorly exposed quartz stockwork and breccia zones gave values up to 1850 ppb gold in place, and up to 3400 ppb in float.

Four significant zones have been delineated by the exploration programs including the Frank, Valley, Lee and Cliff (north, central and south) zones (figure 3).

2.0 EXPLORATION PROCEDURE

During the 1986 exploration program a point at the northeast corner of Lot 3065 (Copper King) was chosen as 10,000N and 10,000E on the property. The main baseline was then picketed north and south from this point and tielines and grid lines established over most of the Cliff and Great Eastern Claims. A secondary baseline was established in 1989 along 10,500N to establish control on the western portions of the property.

GRID PARAMETERS

-main baseline direction N-S along 10000E
-secondary baselines E-W, along 10500N
-tieline N-S along 6,700E, E-W along 13,000N
-survey lines perpendicular to baselines
-survey line separation 100 meters
-survey station spacing 25 meters, slope corrected
-survey total - 6.625 kilometers

GEOCHEMICAL SURVEY PARAMETERS

-survey line spacing 100 meters
-survey sample spacing 25 meters
-survey totals - 1.6 kilometers
- 64 soil samples
- 15 rock samples
- 19 heavy metal concentrates
- 12 core samples
-all soil samples analyzed for Au and 5 element ICP
-all rock and heavy metal concentrate samples analyzed for Au and 31 element ICP
-sample depth 5 to 15 centimeters
-sample taken from brown B horizon where possible, some samples from C horizon

All samples were sent to ACME Analytical Laboratories Ltd., 852 E. Hastings Stree, Vancouver, B.C. for geochemical analysis. Laboratory techniques for geochemical analysis consists of preparing samples by drying at 60° C, and seiving to minus 80 mesh or grinding to minus 100 mesh. Some soil and heavy metal concentrates were pulverized. A 30 element ICP analysis and Au (acid leach/AA finish) were then carried out on the heavy metal concentrate, rock and core samples. The soils were analyzed by 5 element ICP (Mo, Cu, Pb, Ag, As) and for gold.

Gold and arsenic, and silver and copper soil geochemistry were plotted on figures 7 and 8 respectively. The heavy metal concentrates were plotted on figure 6.

3.0 GEOLOGY AND MINERALIZATION

3.1 REGIONAL GEOLOGY

The Cliff Property is located within the Intermontane Belt of British Columbia. Most of the property is underlain by marine sedimentary and volcanic rocks. An ultramafic to alkalic stock has intruded the eastern margin of the Cliff Claim, the Great Eastern Claim and the southern portion of the Cliff 2 Claim.

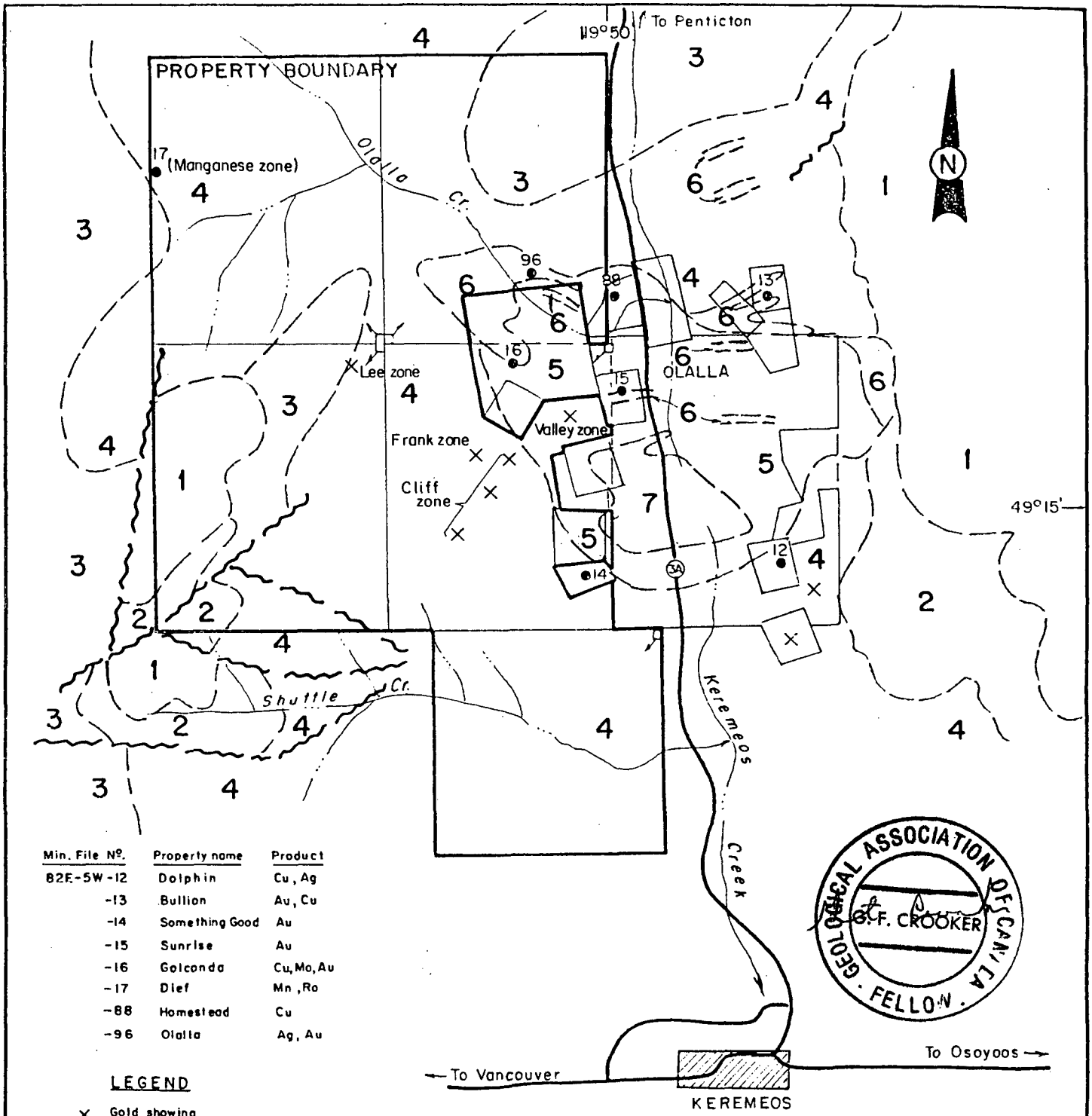
Early work in the area by Bostock and others described the marine sedimentary and volcanic sequence as belonging to the Old Tom, Shoemaker, Bradshaw, and Independence Formations. However as these formations do not form distinct, mappable units, Milford (1984) referred to the sequence as the Apex Mountain Group.

The Apex Mountain Group consists of five major lithofacies: massive and bedded chert, greenstone, chert breccia, argillite and limestone. Together they form a broadly folded, east dipping sequence that has an overall increase in age towards structurally higher rocks in the area. The maximum and minimum ages based on faunal ages in limestones and chert are Early Carboniferous and Middle to Late Triassic respectively.

The depositional environment of the Apex Mountain Group is interpreted to be generally deep, open-ocean basin. Shallow water deposition occurred locally. The group is interpreted to represent at least part of an ancient subduction complex that formed by eastward directed underthrusting and accretion of successively younger slices of oceanic sedimentary and volcanic rocks.

Other assemblages possibly temporally correlative with the Apex Mountain Group include the Kobau, Chapperon, Harper Ranch, and Cache Creek Groups.

The ultramafic to alkalic stock occupies approximately six square miles and is of late Mesozoic age. The stock grades from a peripheral zone of pyroxenite, high in mafics and magnetite, to a magnetite deficient granitic core. Faulting with associated veining, brecciation and mineralization occurred as contemporaneous or post consolidation features.



Min. File No.	Property name	Product
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-88	Homestead	Cu
-96	Olalla	Ag, Au

LEGEND

× Gold showing

Legal corner post

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ROCK		TIME / UNIT	FORMATIONS
VOLCANIC & SEDIMENTARY		TERTIARY	
	1	Basalts	MARRON
	2	Conglomerates, sandstones	KETTLE RIVER
METAMORPHIC		PERMIAN	
	3	Greenstone	OLD TOM
	4	Chert	SHOE MAKER
PLUTONIC		MESOZOIC	OLALLA STOCK
	5	Pyroxenite	
	6	Diorite	
	7	Syenite	

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CLIFF PROJECT

PROPERTY GEOLOGY

N.T.S. 82E-4,5W OSOYOOS M.D., B.C.

0 1 2 3 KM.

SCALE : 1:50,000	DATE : JAN. 1990
DRAWN BY : G.F.C.	FIGURE No. 3

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3.2 CLAIM GEOLOGY

A number of areas of the property have been geologically mapped in previous years with the units described below found on the property. This years program concentrated on the Lee Zone, figure 4.

Most of the property is underlain by marine sedimentary and volcanic rocks of the Apex Mountain Group. Units 1 through 3 are members of this unit.

Unit 1 consists of mainly chert, with minor tuff and quartzite. The chert is predominantly massive, although some sections show distinct bedding. The chert varies in color from black and green to blue. Bedding appears to be northeasterly with moderate dips to the northwest and small scale folding was noted in a few locations. Near the contact of the Olalla Stock and the Apex Mountain Group, the unit becomes more characteristic of a quartzite rather than a chert. Numerous tiny white quartz veinlets were observed in many locations.

Thin section interpretation of several rocks from this unit indicates a fine quartz matrix with a network of quartz veinlets cutting the fine quartz. There is a suggestion the unit may be a silicified tuff.

Unit 1a usually occurs within unit 1, and consists of poorly sorted, angular to subangular black or blue chert clasts within a microcrystalline matrix. The unit is usually no more than a few tens of meters thick, and occurs within the massive chert unit, often pinching out along strike.

Unit 1b consists of moderate to intense shearing with subrounded chert clasts. The unit often occurs near the emplacement of feldspar porphyry dykes and sills, and maybe related to the emplacement of the dykes and sills.

Unit 2 is a greenstone unit which occurs within the chert, possibly due to the local extrusion of lava in shallow water. The rocks are generally greenish, massive and finely crystalline. They are likely of basaltic or andesitic composition.

Thin section interpretation of one rock from this unit indicated it to be of gabbroic composition.

Unit 3 is a finely crystalline, light blue-grey limestone. The unit varies from a few centimeters to perhaps 10 meters in thickness, and occurs rarely on the property.

Units 4 through 8 all appear to be derivatives of the Olalla Stock.

Unit 4 is a fine to medium grained equigranular rock, consisting mainly of dark green augite pyroxene. Generally 5 to 10 % magnetite occurs within the pyroxenite.

Unit 5 is a syenite which has two modes of occurence. Unit 5a is a coarse grained massive syenite, greyish-orange in color which occurs as narrow "veins" or as small bodies. Orthoclase is the main constituent, with 5% biotite and 2 to 5% magnetite. Unit 5b is a fine grained, light grey to buff to pink syenite occuring within the central portion of the stock. The main constituent is orthoclase, with augite being the main ferromagnesium mineral. The syenite is believed to be of metasomatic origin.

Unit 6 consists of feldspar porphyry dykes and sills. The dykes vary from less than 1 meter, up to 100 meters or more in width in the northwest corner of the claim. They are generally fine to medium grained with plagioclase phenocrysts in a plagioclase or K-spar groundmass. Hornblende, epidote and chlorite occur in varying concentrations within the unit. Bulk composition varies from latite to diorite.

Unit 7 is a massive hornblende dyke which occurs in only a few locations on the property.

Unit 8 is a dark grey, fine grained monzonite with a color index of approximately 60 %. It contains from 25 to 40 % augite which gives the rock its characteristic dark color. Orthoclase and plagioclase feldspars, with local olivine and hornblende form the remaining major constituents of the rock.

The Lee Zone is underlain by cherts (unit 1) and greenstones (unit 2) of the Apex Mountain Group which have been intruded by a number of dykes, sills and small intrusive bodies of a feldspar porphyry (unit 6). The dykes and sills generally have a north northeasterly trend and vary from a few centimeters to 50 meters or more in width. The northern portion of the zone appears to be underlain by a small intrusive body of the feldspar porphyry.

3.3 MINERALIZATION

Mineralization on the property consists of gold bearing quartz veins, shear zones and breccia zones.

Both the Lee and Manganese Zones were prospected and sampled during the 1989 program. The Friday Mines and Freedom Resources drill holes were surveyed and 12 sections of the Freedom Resources drill core sent for assay from the Valley Zone.

The Manganese Zone occurrs along the western boundary of the Cliff 3 Claim (Figure 3) and the exact boundary position is not known. The zone consists of red cherts cut by numerous veinlets

9750 N

10,000 N

10,250 N

B.L.10,500N

L 8300E

L 8400E

L 8500E

L 8600 E

CLIFF 4

CLIFF 3

CLIFF

CLIFF 2

89G-15

89G-14

89G-13

89G-11

89G-12

89G-10

89G-9

89G-6

89G-7,8

Pre 1989 grid

1989 grid

Legal corner post

Float sample & No.

Bedrock " " "

Fault

Geological boundary - defined, approx., assumed

Bedding - inclined, vertical, horizontal

Jointing & dip

Shearing & dip

qv Quartz vein or veinlet

cv Calcite " " "

d Dyke

Bx Breccia

C Carbonatite alteration

Quartz stockwork

mal Malachite

az Azurite

cpy Chalcopyrite

py Pyrite

ga Galena

po Pyrrhotite

mag Magnetite

gf Graphite

lm Limonite

S Sulpher

ep Epidote

H Hornfels alteration

JURASSIC

8 Monzonite

7 Mafic dyke

6 Feldspar porphyry (dykes & sills)

5 Syenite ; a - coarse grained , b - fine grained

4 Pyroxenite

SHOEMAKER FORMATION (Apex Mountain Group)

TRIASSIC?

3 Limestone

2 Greenstone (gabbro ?)

1b Chert breccia - sheared matrix

1a " " - chert "

1 Chert, minor tuff, quartzite (silicified tuff)

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CLIFF PROJECT
LEE ZONE
GEOLOGY

N.T.S. 82E-4,5W OSOYOOS M.D., B.C.

0 50 100 150 METRES

SCALE 1:2500	DATE : JAN. 1990
DRAWN BY : G.F.C.	FIGURE Nº. 4

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of pink rhodonite which have been oxidized on the surface to black manganese oxides. A number of trenches have been cut across the zone and one caved portal was noted. The trenches occur over a length in excess of 100 meters and up to 3 meters in width.

Samples 89G-1 through 89G-3 were taken from this zone and they consisted mainly of black wad with chert and minor rhodonite. Minor malachite stain and up to 5% hematite was noted in sample 89G-3. None of the samples were anomalous in gold, but they were weakly anomalous in copper.

Samples 89G-6 through 89G-15 were taken from the Lee Zone. Several samples showed hornfels alteration of the chert with 1 to 2% pyrite near the feldspar porphyry dykes. A number of other samples of float showed weakly silicified or brecciated chert with up to 5% pyrite and traces of chalcopyrite. Weak clay alteration was noted in sample 89G-15.

Several of the samples showed weakly anomalous gold values in the 30 to 60 ppb range with weakly anomalous copper (294 ppm) and molybdenum (18 ppm). Sample 89G-15 also gave a highly anomalous arsenic value of 453 ppm.

Twelve sections of the Freedom Resources drill core were sent for analysis and a summary of the sampling is given below.

Drill Hole	Sample No.	Interval (ft)	Width (ft)	Au ppb	Description
83-2	3851	69-77	4	117	qtz stockwork, 10% py
83-2	3852	73-76	3	405	qtz vein, 5% py, tr mo
83-2	3853	237-238	1	2560	qtz stockwork, 2% py
83-1	3854	242-248	6	61	¼" qtz veinlets, minor py
83-1	3855	248-258	10	830	25%-¼" qtz veinlets, 2% py
83-1	3856	258-268	10	280	10%-¼" qtz veinlets, 2% py
83-1	3857	336-341	5	14	weak qtz carb veining,
83-1	3858	375-378	3	22	breccia, 10% qtz fragments
81-1	3859	309-317	8	141	altered syenite breccia
81-1	3860	359-365	6	4	cg pink syenite, minor qtz
81-1	3861	385-393	8	9	cg pink syenite, minor qtz
81-1	3862	444-457	13	71	cg pink syenite, monor qtz

The best result (sample 3853) of 2560 ppb Au came from a one foot section of quartz stockwork from DDH 83-2. The section contained 1 to 2% pyrite and occurred at the contact of the syenite and pyroxenite. Several other sections gave anomalous although not economic gold values.

4.0 GEOCHEMISTRY

4.1 SOIL SAMPLING

Sixty-four soil samples were collected from lines 8300E and 8400E on the Lee Zone. The background and anomalous values calculated for previous geochemical soil surveys were also used for this survey.

ELEMENT	BACKGROUND	ANOMALOUS
Ag ppm	0.85	≥ 1.5
As ppm	9.10	≥ 18.0
Cu ppm	98.10	≥ 196.0
Au ppb	11.13	≥ 20.0

Gold

Gold values range from 1 to 613 ppb and a broad geochemical anomaly was outlined.

The anomaly (Au-1) extends from 10,500N to 10,150N on line 8400E and from 10,500N to 10,100N on line 8300E and extends as far as 10,500N on line 8700E. The anomaly trends northeasterly and as outlined to date is 400 meters long and 400 meters wide. It is open to the north and west and is widening in both directions.

Two smaller arsenic anomalies and a one smaller copper anomaly occur coincidentally with the gold anomaly.

Arsenic

Arsenic values range from 2 to 34 ppm and two small arsenic anomalies were outlined.

Anomaly As-2 is a small southeasterly trending anomaly occurring coincidentally with the gold anomaly and with the highest gold values. The anomaly is 100 meters wide and 100 meters long and open to the west.

Anomaly As-2 is another small southeasterly trending anomaly partially overlapping the gold anomaly. The anomaly varies from 50 meters to 100 meters wide and is also open to the west.

Silver

Silver values ranged from 0.1 to 0.5 ppm and no geochemical anomalies were outlined.

9750 N

10,000 N

10,250 N

B.L.10,500N

L 8300E

L 8400E

L 8500E

L 8600 E

As - 1

As - 2

Au - 1

CLIFF 4

CLIFF 3

CLIFF

CLIFF 2

Pre 1989 grid

1989 grid

Legal corner post

20 / 18 — Au in ppb / As in ppm

Au anomalous ⟩ 20 ppb

As " ⟩ 18 ppm

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N

GOLDCLIFF RESOURCE CORPORATION

CLIFF PROJECT
LEE ZONE
SOIL GEOCHEMISTRY - Au, As

N.T.S. 82E-4,5W OSOYOOS M.D., B.C.

0 50 100 150 METRES

SCALE 1:2500	DATE: JAN. 1990
DRAWN BY: G.F.C.	FIGURE Nº. 7

CHONG

9750 N | 10,000 N | 10,250 N | B.L.10,500N

L8300E

.2 .1 .1 .2 .2 .1 .1 .1 .1 .1 .1 .3 .3 .1 .2 .3 .1 .1 .1 .3 .1 .3 .2 .2 .2 .1 .1 .2 .2 .3 .1
66 76 87 64 59 44 33 47 41 59 66 51 33 60 69 88 109 194 161 202 215 147 133 136 231 311 269 138 98 66 89

L8400E

.5 .2 .1 .2 .2 .1 .2 .2 .3 .4 .3 .3 .4 .2 .2 .2 .3 .4 .2 .3 .5 .5 .2 .3 .2 .5 .2 .1 .1 .2 .1 .1 .1
68 44 48 36 56 30 48 45 42 50 55 48 75 61 82 134 59 203 58 117 180 149 88 89 235 413 295 154 164 79 97 168 122

Cu-

L8500E

1.0 1.1 1.0 .7 .7 .8 1.0 .8 .7
65 130 121 190 394 881 845 917 700

L8600E

.7 1.0 .7 .9 .7 1.0 .7 .8 .7 .8 .7 .7 .8 .6 .9 .8 .6 .8 .7 .8 .8 .8 1.0 .5 1.0 .9 .9 .7 .9 .8 .9 .8
59 61 62 73 65 83 53 82 62 71 60 60 38 44 38 51 39 80 106 67 44 51 62 22 31 84 62 70 63 276 181 200

CLIFF 4

CLIFF 3

1.0 1.2 .8 .7 .9 .7 .7 .6 .7 .7 .6 .8 .7 .9 .6 .9 .7 .8 .4 .8 1.2 .9 .9 .9 1.1 1.0 .9 1.0 1.3 .5 1.1 1.2 1.0 1.1 2.9 2.3 2.1 1.6
49 61 46 42 41 77 67 63 52 56 55 47 46 86 74 66 55 60 58 84 137 117 49 62 84 71 83 135 148 36 99 112 77 228 222 265 89 115

CLIFF

CLIFF 2

Pre 1989 grid
1989 grid
Legal corner post
.2 Ag in ppm
212 Cu in ppm
Ag anomalous > 1.5 ppm
Cu " > 196 ppm

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N

GOLDCLIFF RESOURCE CORPORATION

CLIFF PROJECT
LEE ZONE
SOIL GEOCHEMISTRY - Ag , Cu

N.T.S. 82E-4,5W OSOYOOS M.D.,B.C.

0 50 100 150 METRES

SCALE 1:2500	DATE : JAN. 1990
DRAWN BY : G.F.C.	FIGURE Nº. 8

CHONG

Copper

Copper values range from 33 to 414 ppm and one geochemical anomaly (Cu-1) was outlined.

The anomaly as outlined to date is approximately 100 meters wide and 400 meters long and extends from 10,350N to 10,300N on line 8300E and from 10,500N to 10,550N on line 8700E. It is a linear, southwesterly - northeasterly trending anomaly open in both directions and occurring within the central portion of the gold anomaly.

4.2 HEAVY METAL CONCENTRATES

Nineteen heavy metal concentrate samples were taken from Olalla Creek and the West branch of Olalla Creek. The samples were collected by taking three pans of sand and gravel at each sampling location and panning the material until only the heavy metal concentrate remained. The samples were then sent for geochemical analysis.

Only two of the samples were weakly anomalous for gold. The first sample (89GH-1) taken on Olalla Creek gave 290 ppb gold while the first sample taken on the west branch gave 54 ppb gold.

T.L. 6700E

T.L. 13,000N

89GH-9 (2,.3,57,1)

89GH-8 (8,.1,59,1)

89GH-7 (3,.1,70,1)

89GH-6 (1,.1,66,1)

89GH-5 (10,.1,77,1)

89GH-10 (54,.1,59,1)

89GH-4 (22,.1,71,1)

89GH-11 (1,.1,54,1)

89GH-12 (1,.2,56,1)

89GH-3 (6,.3,68,9)

89GH-13 (1,.1,66,1)

89GH-2 (9,.1,61,1)

89GH-19 (5,.2,56,1)

89GH-14 (1,.1,53,1)

89GH-18 (4,.1,62,1)

89GH-15 (13,.1,66,1)

89GH-1 (290,.1,63,1)

89GH-16 (2,.2,59,1)

89GH-17 (3,.2,58,1)

5000

4000

3000

4000

3000

4000

Ollalla Creek

5000

T.L. 10,500 N

CLIFF 3

CLIFF 2

CLIFF 4

CLIFF

N

CHONG

LEGEND

- Legal corner post
- 4000 — Contour at 500 feet interval
- Cree k
- Road
- Cat trail
- 89GH-1 (10,.1,20,1) — Heavy metal concentrate No. (Au ppb, Ag ppm, Cu ppm, Mo ppm)

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FELLOW

GOLDCLIFF RESOURCE CORPORATION

CLIFF PROJECT

HEAVY METAL CONCENTRATES

N.T.S. 82E-4,5W OSOYOOS M.D., B.C.

0 250 500 750 METRES

SCALE 1:12,500	DATE : JAN. 1990
DRAWN BY : G.F.C.	FIGURE No. 6

5.0 CONCLUSIONS AND RECOMMENDATIONS

The surveys covered by this report on the Valley and Lee Zones gave very favourable results.

On the Lee Zone, two additional lines of soil geochemical sampling indicated the gold geochemical anomaly is widening and open to the north and west. The anomaly to date is approximately 400 meters wide by 400 meters long and occurrs coincidentally with copper and arsenic. Gold values of up to 600 ppb were obtained from the anomaly.

On the Valley Zone, assaying of a number of sections of Freedom Resources drill core yielded a one foot section in DDH 83-2 with 2560 ppb gold.

The heavy metal concentrate sampling along Olalla Creek gave two samples (89GH-1 and 89GH-10) which were weakly anomalous.

Recommendations are as follows:

1) Additional soil geochemical sampling, prospecting and geological mapping should be carried out over the Lee Zone to further define the broad gold geochemical anomaly and determine the source of the gold-copper mineralization.

2) The other target areas outlined by previous programs should also have continued exploration by geochemical sampling, prospecting, trenching and drilling if required.

Respectively submitted,

G. K. CROOKER

Grant Crooker, B.Sc., F.G.A.C.
Geologist

GEOLOGICAL ASSOCIATION OF CANADA · FELLOW ·

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7.0 CERTIFICATE OF QUALIFICATIONS

I, Grant F. Crooker, of Upper Bench Road, Keremeos, in the Province of British Columbia, hereby certify as follows:

1. That I graduated from the University of British Columbia in 1972 with a Bachelor of Science Degree in Geology.

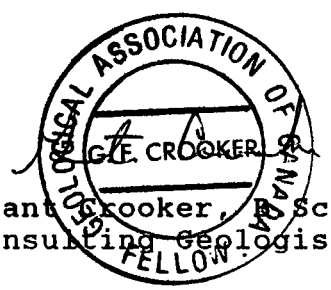
2. That I have prospected and actively pursued geology prior to my graduation and have practised my profession since 1972.

3. That I am a member of the Canadian Institute of Mining and Metallurgy.

4. That I am a Fellow of the Geological Association of Canada.

5. That I am the owner of the Cliff, Cliff 1 to 4 and Great Eastern Claims.

Dated this 28th day of Jan, 1990, at Keremeos, in the Province of British Columbia.



Grant Crooker, B.Sc., F.G.A.C.
Consulting Geologist

Appendix I

CERTIFICATES OF ANALYSIS

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

DATE RECEIVED: NOV 14 1989
DATE REPORT MAILED: Nov 20/89

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 SR 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-P2 SOIL P3 SILT P4 ROCK, AU* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE. P- pulverized.

SIGNED BY..... D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

GOLDCLIFF RESOURCES CORP. FILE # 89-4727 Page 1

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Ag PPM	As PPM	Au* PPB
83E 104+50N	1	89	12	.1	11	53
83E 104+25N	1	66	11	.3	10	7
83E 104+00N	1	98	11	.2	8	14
83E 103+75N	1	138	7	.2	2	23
83E 103+50N	2	269	4	.1	2	22
83E 103+25N	4	311	12	.1	9	153
83E 103+00N	3	231	10	.2	18	85
83E 102+75N	1	136	8	.2	20	30
83E 102+50N	1	133	17	.2	19	30
83E 102+25N	1	147	11	.3	23	34
83E 102+00N	1	215	8	.1	10	46
83E 101+75N	1	202	11	.3	14	22
83E 101+50N	1	161	12	.1	19	21
83E 101+25N	3	194	10	.1	34	61
83E 101+00N	1	109	18	.1	24	64
83E 100+75N	1	88	12	.3	28	4
83E 100+50N	1	69	12	.2	17	18
83E 100+25N	1	60	14	.1	17	11
83E 100+00N	1	33	8	.3	10	3
83E 99+75N	1	51	9	.3	9	14
83E 99+50N	1	66	4	.1	24	6
83E 99+25N	1	59	10	.1	6	6
83E 99+00N	1	41	9	.1	6	1
83E 98+75N	1	47	6	.1	2	4
83E 98+50N	1	33	9	.1	5	2
83E 98+25N	1	44	11	.1	7	3
83E 98+00N	1	59	11	.2	6	82
83E 97+75N	1	64	12	.2	7	1
83E 97+50N	1	87	17	.1	11	3
83E 97+25N	1	76	14	.1	4	5
83E 97+00N	1	66	15	.2	14	2
84E 105+00N	1	122	9	.1	4	78
84E 104+75N	1	168	9	.1	2	58
84E 104+50N	1	97	8	.1	5	62
84E 104+25N	1	79	12	.2	5	154
84E 104+00N	1	164	5	.1	8	187
STD C/AU-S	18	57	39	7.0	42	47

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Ag PPM	As PPM	Au* PPB
84E 103+75N P	1	154	8	.1	8	18
84E 103+50N P	2	295	11	.2	9	49
84E 103+25N P	3	413	17	.5	8	42
84E 103+00N P	3	235	6	.2	9	26
84E 102+75N P	2	89	12	.3	17	3
84E 102+50N P	1	88	3	.2	10	24
84E 102+25N P	3	149	14	.5	22	310
84E 102+00N P	3	180	14	.5	28	613
84E 101+75N P	2	117	12	.3	19	26
84E 101+50N P	2	58	2	.2	9	26
84E 101+25N	2	203	19	.4	18	8
84E 101+00N P	2	59	7	.3	10	8
84E 100+75N P	2	134	5	.2	39	150
84E 100+50N P	4	82	15	.2	73	5
84E 100+25N	2	61	8	.2	16	55
84E 100+00N P	1	75	10	.4	21	6
84E 99+75N	1	48	11	.3	12	11
84E 99+50N P	2	55	16	.3	16	8
84E 99+25N	1	50	12	.4	15	18
84E 99+00N P	1	42	16	.3	14	12
84E 98+75N	1	45	15	.2	16	2
84E 98+50N P	2	48	11	.2	18	2
84E 98+25N	1	30	21	.1	8	5
84E 98+00N P	1	56	26	.2	12	8
84E 97+75N	1	36	17	.2	8	5
84E 97+50N	1	48	14	.1	13	8
84E 97+25N	1	44	12	.2	7	17
84E 97+00N	2	68	25	.5	17	6
STD C/AU-S	18	61	39	6.8	43	52

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
89-GH-001 P	1	63	11	88	.1	45	20	1288	6.34	23	5	ND	2	31	1	2	5	102	.91	.077	11	50	1.27	900	.17	11	2.08	.02	.16	1	290
89-GH-002 P	1	61	4	84	.1	48	18	899	5.37	18	5	ND	2	23	1	2	3	83	.83	.060	11	48	1.29	510	.17	8	2.05	.02	.15	1	9
89-GH-003 P	1	68	9	93	.3	52	21	1116	6.39	19	5	ND	2	27	1	2	2	106	.97	.065	11	55	1.40	717	.19	14	2.20	.02	.16	1	6
89-GH-004 P	1	71	8	97	.1	49	22	1173	7.99	24	5	ND	5	33	2	2	2	140	1.03	.070	11	65	1.36	936	.21	10	2.31	.03	.19	1	22
89-GH-005 P	1	77	11	101	.1	46	22	2109	8.87	29	5	ND	2	28	2	2	2	147	.96	.067	10	49	1.27	443	.20	9	2.17	.02	.15	1	10
89-GH-006 P	1	66	10	96	.1	46	21	1246	7.57	25	5	ND	3	23	1	2	2	129	.88	.063	12	47	1.28	289	.19	5	2.10	.02	.14	1	1
89-GH-007 P	1	70	3	93	.1	46	21	1410	7.18	23	5	ND	2	24	1	2	5	122	.90	.064	12	47	1.31	237	.20	9	2.18	.02	.16	1	3
89-GH-008 P	1	59	13	85	.1	46	19	1137	6.67	22	5	ND	2	20	1	2	2	101	.79	.055	10	44	1.27	261	.17	5	2.00	.02	.13	1	8
89-GH-009 P	1	57	4	79	.3	43	17	999	4.85	16	5	ND	2	17	1	2	3	76	.74	.059	10	40	1.25	167	.14	4	1.86	.01	.12	1	2
89-GH-010 P	1	59	10	93	.1	57	21	965	7.24	14	5	ND	1	31	1	2	2	123	.91	.082	10	89	1.39	1227	.17	7	1.91	.02	.11	1	54
89-GH-011 P	1	54	2	86	.1	50	17	797	5.11	9	5	ND	1	32	1	2	2	84	.89	.081	10	61	1.37	1028	.17	8	1.94	.02	.13	1	1
89-GH-012 P	1	56	5	87	.2	52	17	773	5.03	13	5	ND	1	30	1	2	2	83	.80	.071	10	63	1.35	1106	.16	8	1.91	.02	.14	1	1
89-GH-013 P	1	66	7	88	.1	51	18	796	5.91	15	5	ND	1	32	1	2	3	108	.90	.080	10	67	1.37	1169	.18	4	2.00	.03	.13	2	1
89-GH-014 P	1	53	4	85	.1	50	17	798	5.02	13	5	ND	1	27	1	2	2	85	.81	.067	9	58	1.34	800	.17	5	1.91	.02	.12	1	1
89-GH-015 P	1	66	16	98	.1	49	21	893	7.71	15	5	ND	2	32	1	2	2	149	.95	.071	9	70	1.34	1096	.21	10	2.06	.03	.13	1	13
89-GH-016 P	1	59	8	88	.2	51	19	841	5.67	14	5	ND	1	25	1	2	5	99	.87	.066	8	57	1.42	539	.19	9	2.08	.03	.13	1	2
89-GH-017 P	1	58	8	95	.2	56	15	705	4.50	16	5	ND	1	36	1	2	2	64	.78	.094	13	59	1.16	1215	.11	13	1.59	.01	.13	1	3
89-GH-018 P	1	62	5	86	.1	46	19	894	5.78	15	5	ND	1	22	1	2	2	103	.88	.055	7	53	1.44	237	.20	8	2.18	.03	.13	1	4
89-GH-019 P	1	56	6	89	.2	45	19	870	5.36	15	5	ND	1	21	1	2	2	95	.85	.052	7	54	1.45	207	.20	6	2.20	.03	.12	1	5
STD C/AU-S	19	62	42	132	6.8	69	30	1050	4.22	42	20	7	37	47	18	16	18	57	.50	.100	37	57	.93	173	.06	36	2.03	.06	.14	12	49

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
89-GR-001	4	213	2	46	.5	104	119	38558	3.06	15	5	ND	1	36	1	2	2	45	.10	.010	8	22	.51	764	.05	34	.30	.01	.18	8	3
89-GR-002	20	506	17	704	.3	298	98	99999	7.00	185	7	ND	8	233	10	17	5	22	.20	.054	17	9	.01	201	.01	3	.51	.02	.52	1	17
89-GR-003	11	3513	2	34	.2	71	119	99999	.67	32	7	ND	11	138	1	16	5	92	6.63	.010	2	1	.02	1136	.01	357	.07	.01	.01	4	8
89-GR-004	1	111	2	36	.1	32	23	3827	4.89	103	6	ND	1	387	1	2	2	33	8.08	.048	3	28	2.30	988	.01	11	.53	.02	.24	1	4
89-GR-005	1	27	4	48	.1	48	10	932	20.67	23	5	ND	2	40	2	2	2	84	3.57	.049	7	7	.50	48	.01	6	.85	.01	.02	5	5
89-GR-006	1	88	2	21	.2	25	10	1067	2.99	6	5	ND	1	41	1	2	2	103	2.29	.121	6	47	1.18	205	.11	5	1.06	.05	.13	1	5
89-GR-007	9	212	2	18	.3	42	9	522	1.91	2	5	ND	1	12	1	2	2	67	.67	.031	4	43	.84	93	.13	17	.61	.02	.04	1	52
89-GR-008	4	49	2	5	.3	18	5	205	.71	2	7	ND	1	8	1	2	2	12	.23	.038	6	13	.17	24	.03	9	.16	.01	.03	1	5
89-GR-009	4	139	2	18	.3	47	9	252	1.77	2	5	ND	3	6	1	2	2	67	.21	.022	4	53	1.14	109	.18	4	.91	.02	.59	1	11
89-GR-010	18	24	6	7	.1	11	3	90	3.41	3	5	ND	1	13	1	2	2	26	.03	.037	2	25	.13	143	.03	4	.20	.01	.13	1	24
89-GR-011	5	66	2	20	.2	23	3	223	2.84	7	5	ND	2	14	1	2	2	62	.08	.041	5	63	.71	132	.12	2	.69	.01	.17	3	30
89-GR-012	6	139	7	13	1.1	35	4	115	2.53	7	5	ND	1	4	1	2	2	53	.01	.009	7	24	.43	63	.03	2	.46	.01	.05	1	11
89-GR-013	4	78	2	34	.1	62	7	311	2.94	3	5	ND	1	28	1	2	3	102	.75	.051	7	83	1.44	136	.20	5	1.80	.07	.73	1	11
89-GR-014	11	294	2	35	.3	67	36	271	3.82	4	5	ND	1	10	1	2	2	31	.69	.037	2	48	.38	118	.07	2	.52	.03	.15	1	6
89-GR-015	8	57	5	18	.3	25	2	147	4.35	453	5	ND	1	3	1	12	2	15	.04	.017	7	17	.05	45	.01	3	.21	.01	.07	1	56
STD C/AU-R	18	59	37	132	6.5	67	29	1020	3.81	41	17	7	36	45	18	15	19	57	.47	.095	35	55	.86	174	.06	34	1.82	.06	.14	12	490

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 SR 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: Core AU* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

DATE RECEIVED: DEC 14 1989 **DATE REPORT MAILED:** Dec 18/89 **SIGNED BY** .....D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

Goldcliff Resources Corp. File # 89-5065

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
P 3851	184	111	70	30	.8	28	13	541	3.67	3	5	ND	1	179	1	2	8	89	7.54	.003	2	37	.46	41	.02	2	.28	.01	.01	2	117
P 3852	185	272	82	38	1.6	57	27	594	7.57	7	5	ND	1	155	1	3	4	189	7.73	.010	2	70	.87	20	.03	5	.54	.01	.06	1	405
P 3853	329	58	106	16	11.0	17	16	352	3.40	9	5	2	1	198	1	4	15	48	3.95	.106	4	5	1.00	30	.01	11	.41	.02	.07	3	2560
P 3854	9	7	14	28	.1	72	29	681	5.21	9	5	ND	1	171	1	2	2	59	11.56	.002	2	226	5.49	17	.01	3	.36	.01	.08	2	61
P 3855	4	9	5	42	.2	79	33	767	6.61	11	5	ND	1	225	2	4	2	85	12.53	.005	2	111	5.10	5	.01	5	.21	.01	.05	82	830
P 3856	1	5	11	29	.1	119	36	672	4.31	14	5	ND	1	151	1	2	2	28	11.03	.007	2	213	6.79	154	.01	2	.29	.01	.06	1	280
P 3857	2	23	15	38	.2	74	39	818	9.59	20	5	ND	1	179	3	2	2	158	10.67	.003	2	256	4.70	84	.01	3	.94	.01	.12	2	14
P 3858	1	1	3	25	.1	78	24	599	2.88	7	5	ND	1	142	1	2	2	20	14.02	.004	2	195	4.91	6	.01	6	.18	.01	.06	1	22
P 3859	14	10	16	38	.5	27	20	516	4.86	10	5	ND	1	98	1	3	2	62	5.35	.071	2	16	2.66	169	.01	8	.47	.01	.09	2	141
P 3860	1	2	11	18	.1	9	10	256	3.20	5	5	ND	2	103	1	2	2	90	2.61	.052	2	4	1.34	519	.01	7	.15	.02	.06	1	4
P 3861	2	2	10	17	.1	10	12	232	3.83	6	5	ND	1	97	1	2	2	118	1.89	.050	2	11	1.07	903	.01	2	.13	.02	.05	1	9
P 3862	4	6	6	12	.5	8	8	160	2.71	2	5	ND	1	1065	1	2	2	98	1.38	.061	2	4	.74	415	.01	3	.16	.03	.07	1	71
STD C/AU-R	19	59	40	132	7.5	69	31	1005	4.17	42	17	8	36	44	19	16	23	58	.52	.098	35	55	.97	173	.06	35	1.95	.06	.13	13	495

Appendix II

ROCK SAMPLE DESCRIPTIONS

ROCK SAMPLE DESCRIPTIONS

Sample No.	Grid Coord.	Type	Description
89G-1	12025N 6680E	grab	-fractured red jasper, black wad on fractures
89G-2	12025N 6680E	grab	-chert with limonite and wad on fractures
89G-3	12165N 6680E	grab	-wad, minor rhodonite, malachite, 5% hematite
89G-4	11700N 7400E	grab	-weakly sheared cherts, 4mm quartz or chalcedony stringers, rusty
89G-5	10500N 7800E	float	-jasper, hematite and pyrite
89G-6	10425N 8500E	grab	-feldspar porphyry, 1mm silicified fractures
89G-7	10425N 8500E	float	-silicified feldspar porphyry and chert, hornfels, 1% pyrite, trace chalcopyrite
89G-8	10425N 8500E	grab	-float, hornfels altered chert with intrusive dykes, 1% pyrite
89G-9	10425N 8475E	grab	-grey hornfels altered chert, 1% pyrite, limonite
89G-10	10350N 8415E	float	-chert or vein quartz, vugs, hematite
89G-11	10315N 8400E	float	-silicified and brecciated chert, yellow and red iron oxides
89G-12	10305N 8400E	float	-quartz or chert?, 5% pyrite disseminated and along fractures
89G-13	10205N 8400E	float	-chert breccia, 2-4% pyrite
89G-14	10190N 8415E	float	-grey chert,10% pyrite
89G-15	10200N 8300E	float	-silicified breccia with minor clay alteration

Appendix III

COST STATEMENT

COST STATEMENT

SALARIES		
- **Grant Crooker, Geologist** April 24, 25, 28, May 1, 14, 15, 17-19, 21, 29, 30, June 1, 1989, Jan. 8, 12, 26, 1990. 16 days @ $ 350.00/day	$	5,600.00
- **Lee Mollison, Field Assistant** April 24, 25, May 1, 15, 17, 19, 29, 30, June 1, 1989 9 days @ $ 175.00/day		1,575.00
MEALS AND ACCOMMODATION		
- Grant Crooker - 10 days @ $ 60.00/day		600.00
- Lee Mollison - 9 days @ $ 60.00/day		540.00
TRANSPORTATION		
- Vehicle Rental (Ford 3/4 ton 4x4) April 24, 25, May 1, 15, 17, 19, 21, 29, 30, June 1, 1989 10 days @ $ 60.00/day		600.00
- Gasoline		98.64
FREIGHT		10.95
SUPPLIES		
- Hipchain thread, flagging, geochem bags etc.		50.00
GEOCHEMICAL ANALYSIS		
- 64 soil samples, 5 element ICP, Au @ $ 9.85/sample		630.40
- 19 heavy metal conc., 30 element ICP, Au, @ $ 11.60/sample		220.40
- 15 rocks, 30 element ICP, Au, @ $ 13.75/sample		206.25
- 12 core, 30 element ICP, Au, @ $ 13.75/sample		165.00
DRAUGHTING		378.00

PREPARATION OF TOPOGRAPHIC MAP		4,690.05
PREPARATION OF REPORT		
- Secretarial, reproduction, telephone, office overhead etc.		500.00
	TOTAL	$ 15,864.69

MAXI CLAIMS

Grid point 10,000N
10,000E

COPPER KING

CLIFF CLAIM

273 ← 32 q
255 ← 55 q
282 ← 47 q
260 ← 49 q
251 ← 41 q
269 ← 45 q
292 ← 52 q

G3 △
G4 △
G5 △

G1 △

G2 △

DDH C-1

83-2

83-3

DDH C-2

VALLEY FAULT

△G7

△G6

G8 △

G9 △

△

DDH 81-1

GEOLOGICAL BRANCH
ASSESSMENT REPORT

19,611

LEGEND

- ROAD OR TRENCH
- △G5 SURVEY POINT
- DRILL HOLE (C-1,2 by Friday Mines
  81-1, 83-2,3 by Freedom Resources)
- 251 ← 41 q STRIKE, DIP OF QUARTZ VEIN
- QUARTZ VEIN
- FAULT

N

GEOLOGICAL ASSOCIATION OF CANADA
G. E. CROOKER
FELLOW

GOLDCLIFF RESOURCE CORPORATION

CLIFF PROJECT
VALLEY ZONE
DRILL HOLE LOCATIONS

N.T.S. 82E-4,5W OSOYOOS M.D., B.C.

0 10 20 30 METRES

SCALE: 1:500	DATE: JAN. 1990
DRAWN BY: G.F.C.	FIGURE Nº. 5

CHONG

119° 51' 30"

119° 50' 00"

49° 15' 30"

49° 14' 30"

N 5460500

N 5460000

N 5459500

N 5459000

N 5458500

N 5458000

E 291500

E 292000

E 292500

E 293000

E 293500

E 294000

E 294500

LEGEND

- Main Roads
- Roads
- Trails
- Buildings
- River
- Stream
- Lake
- Trees
- Contours
  - Index
  - Intermediate

GEOTEC CONSULTANTS LTD.

Cliff Project

Olalla, British Columbia

Topographic Map
Scale 1:5000

100 0 100 200 300 400 500

Contour Interval 10m

Date of Photography: July 23, 1975
Control taken from N.T.S. Maps: 82E/4, 5
Compiled March 1989 by: THE ORTHOSHOP
WO# 2554

19611

119° 53' 00"

119° 50' 00"

49° 17' 00"

49° 14' 00"

N5463000

N5462000

N5461000

N5460000

N5459000

N5458000

N5457000

N5456000

E290000

E291000

E292000

E293000

E294000

LEGEND

- Main Roads
- Roads
- Trails
- Buildings
- River
- Stream
- Lake
- Trees
- Contours
  - Index
  - Intermediate

GEOTEC CONSULTANTS LTD.

Cliff Project

Olalla, British Columbia

Topographic Map
Scale 1:10000

200 0 200 400 600 800 1000

Contour interval 10m

Date of Photography: July 23, 1975
Control taken from N.T.S. Maps: 82E/4, 5
Compiled March 1989 by: THE ORTHOSHOP
WO# 2554

19611