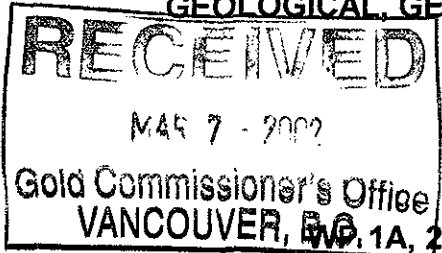


GEOLOGICAL, GEOCHEMICAL AND GEOPHYSICAL REPORT



on the

John 1A, 1-12, Van 1-3, V 1-4, Paul 1-5, D 1-10, GH 1-20

MINERAL CLAIMS

HEDLEY GOLD BASIN

Similkameen and Osoyoos Mining Divisions

92H-8E

(49° 19' North Latitude, 120° 10' West Longitude)

for

GRANT F. CROOKER

Box 404

Keremeos, B.C.

VOX 1N0

(Owner and Operator)

and

WARD L. MOLLISON

Box 502

Keremeos, B.C.

VOX 1N0

(Owner)

by

**GRANT F. CROOKER, P.Geo.,
GFC CONSULTANTS INC.**

**GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORT**

January 2002

26,801

TABLE OF CONTENTS

	PAGE
1.0 SUMMARY	1
2.0 INTRODUCTION	3
2.1 GENERAL	3
2.2 LOCATION AND ACCESS	3
2.3 PHYSIOGRAPHY	3
2.4 PROPERTY AND CLAIM STATUS	3
2.5 AREA AND PROPERTY HISTORY	5
3.0 EXPLORATION PROCEDURE	8
3.1 GRID PARAMETERS	8
3.2 GEOCHEMICAL PARAMETERS	8
3.3 SAMPLE ANALYSIS	8
3.4 GEOPHYSICAL SURVEY PARAMETERS	9
4.0 GEOLOGY AND MINERALIZATION	10
4.1 REGIONAL GEOLOGY	10
4.2 REGIONAL GOLD MINERALIZATION	13
4.3 CLAIM GEOLOGY	16
4.4 CLAIM GOLD MINERALIZATION	16
5.0 GEOCHEMISTRY	17
5.1 SOIL GEOCHEMISTRY	17
6.0 GEOPHYSICS	18
6.1 MAGNETIC SURVEY	18
6.2 VLF-EM SURVEY	18
7.0 CONCLUSIONS	19
8.0 RECOMMENDATIONS	19
9.0 REFERENCES	20
10.0 CERTIFICATE OF QUALIFICATIONS	24

TABLES

TABLE		PAGE
TABLE 1.0	CLAIM DATA	4
TABLE 2.0	MINERAL OCCURRENCES HEDLEY BASIN	6
TABLE 3.0	HEDLEY GOLD BASIN GEOLOGICAL HISTORY RAY	11
TABLE 4.0	HEDLEY GOLD BASIN - GOLD OCCURRENCES	14
TABLE 5.)	SKARN-RELATED GOLD MINERALIZATION - PEARSON CORRELATION COEFFICIENTS	15

LIST OF FIGURES

FIGURE		FOLLOWS
FIGURE 1.0	LOCATION MAP	3
FIGURE 2.0	CLAIM MAP	4
FIGURE 3.0	REGIONAL GEOLOGY	10
FIGURE 4.0	GEOLOGY, SOIL GEOCHEMISTRY (Au, Pb) COMPILATION	Pocket
FIGURE 5.0	GROUND TOTAL FIELD MAGNETIC CONTOURS	Pocket
FIGURE 6.0	GROUND VLF-EM PROFILES (NAA CUTLER MA)	Pocket

APPENDICES

APPENDIX I	CERTIFICATES OF ANALYSIS
APPENDIX II	MAGNETIC AND VLF-EM DATA
APPENDIX III	GEOPHYSICAL EQUIPMENT SPECIFICATIONS
APPENDIX IV	ROCK SAMPLE DESCRIPTIONS
APPENDIX V	COST STATEMENT

1.0 SUMMARY

The Hedley project is located 230 kilometres east of Vancouver, and 3 to 12 kilometres southwest of Hedley in the Hedley Gold Basin of southern British Columbia. The property consists of twenty-one four-post and sixty-nine two-post mineral claims covering 369 units (9225 hectares) in the Similkameen and Osoyoos Mining Divisions. Grant F. Crooker of Keremeos BC is the operator of the project and owns all of the claims with the exception of the D 1 to 10 claims that are owned by Ward Lee Mollison of Keremeos BC. Access to the project area is provided by the Sterling Creek forest access road that turns west off Highway 3 eight kilometres west of Hedley. The Knoppe branch of the Sterling Creek road accesses the WP showing. These are all weather, two wheel drive roads.

The Hedley Gold Basin has been an active area for gold exploration and gold production since the 1860s when placer mining was first carried out on Twenty Mile Creek. The interest in placer gold mining led to the discovery of lode gold on Nickel Plate Mountain in the 1890s. Lode gold production at Nickel Plate Mountain commenced in 1904 and continued until 1996. During this period, 78,506,148 grams (2,524,313 ounces) of gold were produced from sedimentary hosted strata-bound auriferous skarn deposits. The Nickel Plate mine and Hedley-Mascot mine (Mascot Fraction) produced more than 90 per cent of the gold from a single gold skarn deposit (Nickel Plate zone). A small amount of gold production came from the French, Good Hope and Canty gold skarn deposits, and from the Banbury quartz-carbonate veins (Maple Leaf and Pine Knot).

The Hedley Gold Basin is comprised of Paleozoic to Jurassic volcanic and sedimentary rocks that have been intruded by a series of stocks, plutons and batholiths. It trends in a north east to south west direction for 35 kilometres and in a north west to south east direction for 15 kilometres. The Hedley Gold Basin is geographically subdivided by the Similkameen River Valley (north west-south east trending valley) into a northern portion, Hedley Gold Basin North, (Nickel Plate mining district) and a southern portion, Hedley Basin South (Sterling Creek mining district). The Hedley Gold Basin North contains the Nickel Plate mine and all the other former gold skarn producers (Mascot Fraction, Canty, Good Hope, French). The Hedley Gold Basin South contains identical geology to Hedley Gold Basin North with minor gold production from quartz veins at the Banbury mine (Maple Leaf and Pine Knot veins).

In the 1970s, exploration renewed in the Hedley Gold Basin with most of the activity concentrated on properties on Nickel Plate Mountain. However, exploration was also carried out in many other areas within the Hedley Gold Basin. The most important property in the basin is the Nickel Plate mine that hosts strata-bound and disseminated gold skarn mineralization. By 1986, new ore reserves were discovered at Nickel Plate in the order of 9,900,000 tons grading 0.088 ounces per ton gold. The Nickel Plate mine commenced production as an open pit operation in 1987 and closed in 1996.

The WP claims were the first claims staked that make up the Hedley project. These claims, that generally cover an area west of Pettigrew Creek were staked by Crooker in 1986. During the period 1987 through 1997 Crooker and several mining companies conducted exploration programs on these claims. These work programs consisted of establishing grid lines and carrying out geological mapping, soil, silt and rock geochemical sampling and magnetic, electromagnetic and induced polarization geophysical surveying. Four main target areas were developed by these work programs and subsequently tested by a combination of trenching and/or core drilling. Highlights of the core drilling were anomalous gold and high silver and copper values in drill holes WP001 and WP002 from the Camp zone, and strong sulphide mineralization and hornfels alteration in drill hole WP004 from the Polecutter zone. A multi-element (Mo-As-Ag) soil geochemical anomaly and a high chargeability induced polarization anomaly were also outlined on the East Pettigrew zone.

During the period 1998 through 2000 most of the area east of Pettigrew Creek to the Similkameen River came open for staking, including a number of old showings (Gold Hill, Mission, Blitz, Lamb 1, Lost Horse, Lost Horse 86 and Speculator). These areas were staked (W, John, Van, V, GH, Don and Paul claim groups) by Crooker and Mollison.


The 1999 and 2000 work programs continued the exploration on the Hedley project. This work consisted of stream sediment sampling, establishing grid lines, magnetic and VLF-EM geophysical surveying, geological mapping, prospecting and rock sampling over a number of areas. These work program gave positive results and additional work was warranted.

The 2001 work program consisted of completing a small amount of reclamation related to the 1997 work program, and carrying out detailed soil geochemical, magnetic and VLF-EM surveying over the WP showing. These surveys were conducted to determine if there were geochemical or geophysical expressions of the WP showing.

The following conclusions can be drawn from the 2001 work program:

- 1.1 One sample of quartz vein collected from the WP showing, and two samples of quartz vein float up slope and west of the WP showing gave weakly anomalous gold (35-70 ppb) and silver (0.8-5.4 ppm) values.
- 1.2 The scattered quartz vein float up slope from the WP showing may be indicating parallel structures to the WP showing that are covered.
- 1.3 The soil geochemical survey gave one anomalous gold value north of and along strike with the WP showing, and two anomalous lead values south of and along strike with the WP showing. These anomalous soil geochemical values may be expressions of northern and southern extensions of the WP showing.
- 1.4 The total field magnetic values delineated one linear magnetic high extending across all four grid lines and approximately 30 metres west of the WP showing. The magnetic high trends in a north-south direction parallel to the strike of the quartz vein exposed at the WP showing, and averages 25 metres in width. The magnetic high is probably caused by a dyke or sill of the Hedley intrusions and is spatially related to the WP showing.
- 1.5 The VLF-EM survey did not delineate any conductors or conductor systems associated with the WP showing.

Recommendations are to continue exploration on the Hedley project. This should include establishing grid lines, magnetic and electromagnetic geophysical surveying, soil geochemical sampling, geological mapping and prospecting.

Respectfully submitted,

Grant F. Crooker, P. Geo.,
Consulting Geologist

2.0 INTRODUCTION

2.1 GENERAL

The following report entitled "Geological, Geochemical and Geophysical Report on the WP 1A, 2, 3, 5A-9A, W 1-4, 5A, 6, 7, 8A, 9-19, John 1A, 1-12, Van 1-3, V 1-4, Paul 1-5 and D 1-10 Mineral Claims in Hedley Gold Basin, Similkameen and Osoyoos Mining Divisions (92H-8E), January 2002" was prepared for Grant F. Crooker and W. Lee Mollison, Keremeos, BC, Canada. The report was prepared to summarize the results of geological, geochemical and geophysical surveys conducted on the WP showing during October and November, 2001. The program was carried out to determine if there were magnetic or electromagnetic geophysical or soil geochemical expressions associated with the WP showing.

Field work was carried out on the Hedley project by Grant F. Crooker, P. Geo. and W. Lee Mollison, geological assistant. The work program consisted of completing reclamation on the property in order to release a bond posted by Northpoint Resources with the Ministry of Mines in 1997. This reclamation consisted of visiting the property with the Mines Inspector, filling in one pit and storing the drill core in a manner acceptable to the Mines Inspector. Other work consisted of establishing grid lines, magnetic and electromagnetic geophysical surveying, rock and soil geochemical sampling and prospecting at the WP showing (WP 4A claim).

2.2 LOCATION AND ACCESS

The property (Figure 1.0) is located 3 to 12 kilometres southwest of Hedley in southern British Columbia. It lies between 49° 16' and 49° 22' north latitude and 120° 04' and 120° 14' west longitude (NTS 92H-8E).

The main access to the project area is provided by the Sterling Creek forest access road that turns west off Highway 3 eight kilometres west of Hedley. The Sterling Creek road accesses the northern, western and southwestern portions of the project area, the Polecutter branch road the central and southern portions, and the Johns Creek branch road the eastern portions. The Knoppe branch of the Sterling Creek road accesses the area of the 2001 work program. These are all weather, two wheel drive roads.

Old logging roads and cat trails provide access to most areas of the property.

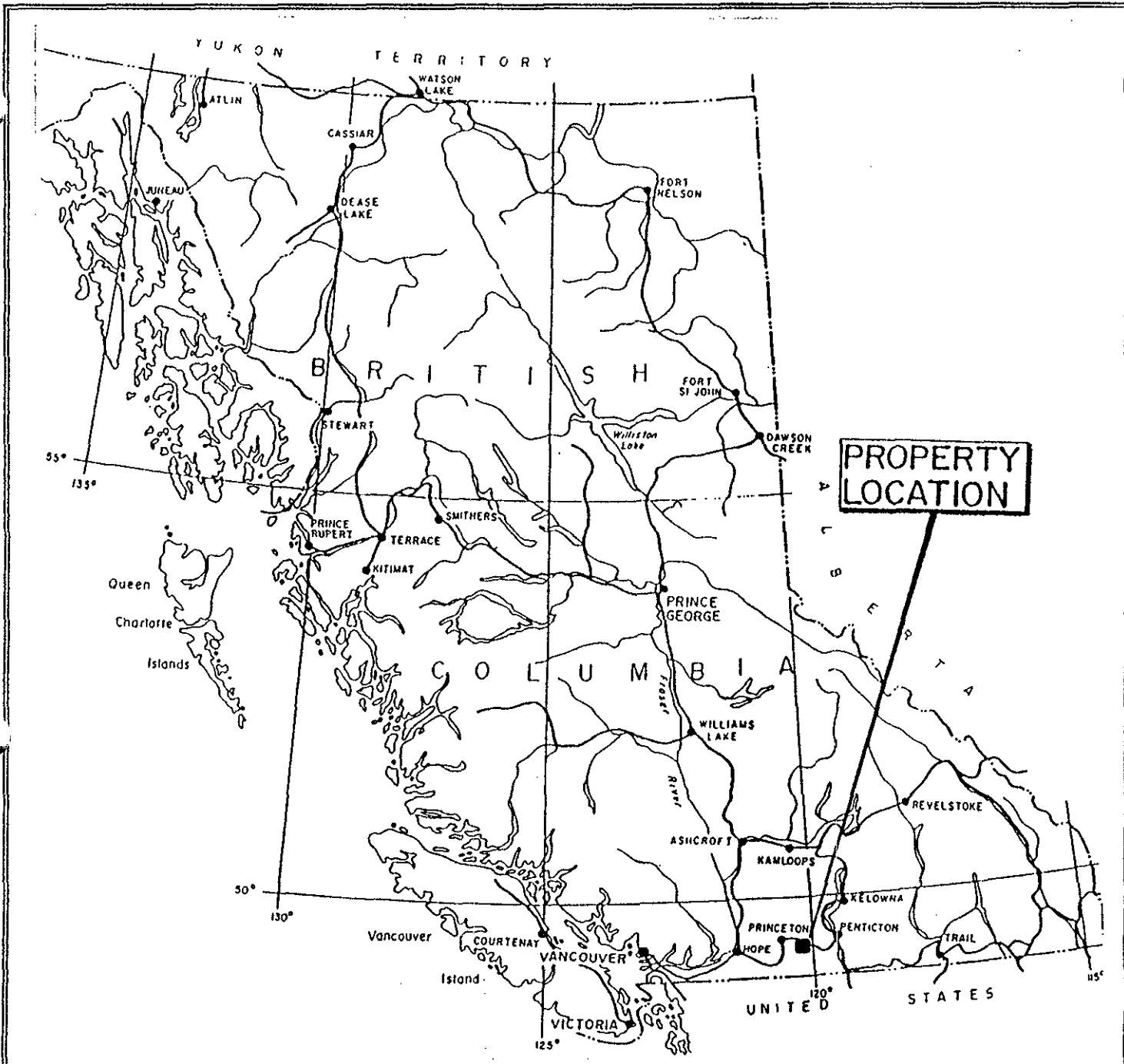
2.3 PHYSIOGRAPHY

The property is located along the eastern edge of the Cascade Mountains and elevation varies from 550 to 2,204 metres above sea level. Topography varies from gentle to steep, with the steepest areas dropping into the creek bottoms. Outcrop is generally sparse. Pettigrew and Whistle creeks flow northerly through the western and central portions of the property, and Johns Creek flows easterly through the eastern portion of the property. The creeks generally flow all year round.

Vegetation varies from open range land to a forest cover of pine, fir, spruce and aspen trees. Many areas of the property were selectively logged 20 or more years ago and clear cutting is being carried out over portions of the property at the present time.

2.4 PROPERTY AND CLAIM STATUS

The property (Figure 2.0) consists of twenty-one four-post and sixty-nine two-post contiguous mineral claims covering 369 units in the Similkameen and Osoyoos Mining Divisions. All of the claims, with the exception of the D 1 to 10 claims are owned by Grant F. Crooker of Box 404 Keremeos, B C. The D 1 to 10 claims are owned by W. Lee Mollison of Box 502 Keremeos, B C. Grant F. Crooker acts as operator for the project.



GRANT F. CROOKER

**HEDLEY PROJECT (NTS 92H-8E)
SIMILKAMEEN & OSOYOOS M. DS., B.C.**

LOCATION MAP

DATE: JANUARY 2002

FIGURE: 1.0

SCALE: 0 100 200 KILOMETRES

TABLE 1.0 - CLAIM DATA

Claim	Units	Mining Division	Tenure Number	Record Date m/d/y	Expiry Date m/d/y
WP-1A	20	Similkameen	351239	12/13/01	12/13/07
WP-2	20	Similkameen	249175	12/13/01	12/13/07
WP-3	16	Similkameen	249176	12/13/01	12/13/07
WP-4A	16	Similkameen	372896	12/13/01	12/13/03*
WP-5A	10	Similkameen	352362	12/13/01	12/13/07
WP-6A	16	Similkameen	352363	12/13/01	12/12/03
WP-7A	16	Similkameen	357984	12/13/01	12/13/02
WP-8A	9	Similkameen	357985	12/13/01	12/13/02
WP-9A	5	Similkameen	357986	12/13/01	12/13/07
W-1	1	Similkameen	356644	12/13/01	12/13/07
W-2	1	Similkameen	356645	12/13/01	12/13/07
W-3	1	Similkameen	356646	12/13/01	12/13/03
W-4	1	Similkameen	356647	12/13/01	12/13/03
W-5A	1	Similkameen	365623	12/13/01	12/13/03
W-6	1	Similkameen	357991	12/13/01	12/13/03
W-7	1	Similkameen	357992	12/13/01	12/13/03
W-8A	1	Similkameen	365624	12/13/01	12/13/03
W-9	1	Similkameen	365625	12/13/01	12/13/03*
W-10	1	Similkameen	365626	12/13/01	12/13/03*
W-11	1	Similkameen	365627	12/13/01	12/13/03*
W-12	1	Similkameen	365628	12/13/01	12/13/03*
W-13	1	Similkameen	365629	12/13/01	12/13/03*
W-14	1	Similkameen	365630	12/13/01	12/13/03*
W-15	1	Similkameen	365631	12/13/01	12/13/03*
W-16	1	Similkameen	365632	12/13/01	12/13/03*
W-17	1	Similkameen	365633	12/13/01	12/13/03*
W-18	1	Osoyoos	365634	12/13/01	12/13/09
W-19	1	Similkameen	365635	12/13/01	12/13/03*
John-1A	8	Similkameen	368905	12/13/01	12/13/02
John-1	1	Similkameen	366732	12/13/01	12/13/09
John-2	1	Similkameen	366733	12/13/01	11/13/09
John-3	1	Similkameen	366734	12/13/01	12/13/09
John-4	1	Similkameen	366735	12/13/01	12/13/09
John-5	1	Similkameen	368901	12/13/01	12/13/10
John-6	1	Similkameen	368902	12/13/01	12/13/10
John-7	1	Similkameen	369464	12/13/01	12/13/02
John-8	1	Similkameen	369465	12/13/01	12/13/02
John-9	1	Similkameen	368903	12/13/01	12/13/02
John-10	1	Similkameen	368904	12/13/01	12/13/02
John-11	1	Similkameen	369466	12/13/01	12/13/02
John-12	1	Osoyoos	369467	12/13/01	12/13/02
Van-1	16	Osoyoos	369098	12/13/01	12/13/02
Van-2	8	Osoyoos	369099	12/13/01	12/13/04
Van-3	12	Osoyoos	377184	12/13/01	12/13/02*
V-1	1	Osoyoos	369103	12/13/01	12/13/02
V-2	1	Osoyoos	369104	12/13/01	12/13/02
V-3	1	Osoyoos	369105	12/13/01	12/13/02
V-4	1	Osoyoos	371066	12/13/01	12/13/02
D-1	1	Osoyoos	375149	12/13/01	12/13/05
D-2	1	Osoyoos	375150	12/13/01	12/13/05
D-3	1	Osoyoos	375151	12/13/01	12/13/05
D-4	1	Osoyoos	375152	12/13/01	12/13/05
D-5	1	Osoyoos	375153	12/13/01	12/13/05
D-6	1	Osoyoos	375154	12/13/01	12/13/05
D-7	1	Osoyoos	375155	12/13/01	12/13/05
D-8	1	Osoyoos	375156	12/13/01	12/13/05
D-9	12	Osoyoos	377183	12/13/01	12/13/02

D-10	6	Similkameen	377500	12/13/01	12/13/02
LH-1	18	Osoyoos	358363	12/13/01	12/13/02
LH-1A	1	Osoyoos	378028	12/13/01	12/13/04
LH-2A	1	Osoyoos	378029	12/13/01	12/13/04
LH-3A	1	Osoyoos	378030	12/13/01	12/13/04
LH-4A	1	Osoyoos	378031	12/13/01	12/13/04
LH-5A	1	Osoyoos	378032	12/13/01	12/13/05
LH-6A	1	Osoyoos	378033	12/13/01	12/13/05
GH-1	1	Osoyoos	374625	12/13/01	12/13/03
GH-2	1	Osoyoos	374626	12/13/01	12/13/03
GH-3	1	Osoyoos	374627	12/13/01	12/13/03
GH-4	1	Osoyoos	374628	12/13/01	12/13/03
GH-5	1	Osoyoos	374629	12/13/01	12/13/03
GH-6	1	Osoyoos	374630	12/13/01	12/13/03
GH-7	1	Osoyoos	374631	12/13/01	12/13/03
GH-8	1	Osoyoos	374632	12/13/01	12/13/10
GH-9	1	Osoyoos	376860	12/13/01	12/13/02
GH-10	1	Osoyoos	376861	12/13/01	12/13/02
GH-11	1	Osoyoos	376862	12/13/01	12/13/02
GH-12	1	Osoyoos	376863	12/13/01	12/13/02
GH-13	1	Osoyoos	376864	12/13/01	12/13/02
GH-14	1	Osoyoos	376865	12/13/01	12/13/02
GH-15	1	Osoyoos	376866	12/13/01	12/13/02
GH-16	1	Osoyoos	376867	12/13/01	12/13/02
GH-17	1	Osoyoos	376868	12/13/01	12/13/02
GH-18	1	Osoyoos	376869	12/13/01	12/13/02
GH-19	1	Osoyoos	376870	12/13/01	12/13/03
GH-20	1	Osoyoos	376871	12/13/01	12/13/03
Paul-1	16	Similkameen	369462	12/13/01	12/13/02
Paul-2	20	Similkameen	369463	12/13/01	12/13/02
Paul-3	16	Similkameen	377499	12/13/01	12/13/03
Paul-4	20	Similkameen	378026	12/13/01	12/13/03
Paul-5	20	Similkameen	378027	12/13/01	12/13/02

* Upon acceptance of this report

2.5 AREA AND PROPERTY HISTORY

Placer mining was first carried out in the Hedley Gold Basin in the 1860s and 1870s. The interest in placer mining led to the discovery of gold on Nickel Plate Mountain in the 1890s, with the first claims being staked in 1896. Many showings were found within the Hedley Gold Basin, both on Nickel Plate Mountain and the surrounding area. The two major producers in the district were the Nickel Plate mine (Nickel Plate, Bulldog, Sunnyside deposits) and Hedley Mascot mine (Mascot Fraction). Production from the mines during the period from 1905 to 1955 was approximately 51 million grams (1.6 million ounces). Minor gold production came from the French, Good Hope and Canty gold skarns. A small amount of gold production also came from the Banbury quartz-carbonate veins (Maple Leaf and Pine Knot veins) located on the south side of the Similkameen River.

In the 1970s exploration renewed in the Hedley Gold Basin. Most of the activity concentrated on properties on Nickel Plate Mountain, although exploration was carried out on other properties within the Hedley Gold Basin. By the mid 1980s, the Nickel Plate mine had sufficient ore reserves (9,900,000 tons grading 0.088 ounces gold per ton) to begin production. The Nickel Plate mine commenced production in August 1987 with a milling rate of 2,700 tons per day and ceased production in July 1996. Approximately 1,000,000 ounces of gold were extracted from the strata-bound and disseminated gold skarns.

A number of gold properties are also located on the south side of the Similkameen River (Hedley Gold Basin South). Historically, most of these properties have been found to be related to quartz-carbonate vein systems and associated shear zones as opposed to skarn-related mineralization at the Nickel Plate mine. Recent geological data by Ray (1986/87) has indicated that similar skarn related gold environments exist on the south side. The Hedley project (Figure 3.0) consists of 369 units (9225 hectares) within the Hedley Gold Basin (Nicola Group rocks) on the south side of the Similkameen River that were staked during the period 1986 through 2000.

The initial work programs were carried out on the WP claims during the period 1987 through 1996. During the period 1998 through 2000, most of the area on the south side of the Similkameen River came open for staking, including a number of old showings (Gold Hill, Mission, Blitz, Lamb, Lost Horse, Lost Horse 86, Don, Speculator). These areas were subsequently staked (W, John, Van, V, Paul, GH, D and LH claim groups) and the 1999, 2000 and 2001 work programs concentrated on these areas. The mineral occurrences are listed in Table 2.0 (occurrences in bold controlled by Crooker/Mollison). Summary descriptions of the showings have been given in previous reports by the author and will not be repeated here.

OCCURRENCE	TYPE	ASSOCIATED METALLIC ELEMENTS	CLAIM (S)	MINFILE NO.	EASTING NAD 83	NORTHING NAD 83
Banbury (Pine Knot)	vein	Au, As, Cu, Zn, Pb	-	92HSE046	708550	5471100
Banbury (Maple Leaf)	vein	Au, As, Cu, Zn, Pb	-	92HSE046	708150	5470950
Banbury	porphyry	Au, Cu	-	92HSE177	708,700?	5,471,250?
Patsy No. 1	vein	Au, As, Zn, Cu, Ag	-	92HSE047	706550	5472450
Patsy No. 2	vein	Au, Ag, As, Sb	-	02HSE048	705350	5470350
Hed	vein	Au, As, Cu, Zn	-	92HSE138	706968	5470771
Snowstorm	shear	Au, Ag, As	-	92HSE053	706597	5470336
Gold Hill	vein	Au, Zn, Cu, As, Pb	GH-8, W-18	92HSE054	707456	5470217
Lost Horse	skarn	Au, As	Paul-3	92HSE050	709625	5461450
Lost Horse 86	skarn	Au, Ag, As, Cu	D 5-8	92HSE088	711856	5462761
Speculator, Don	skarn	Au, Ag, As, Cu	D 1-4	92HSE051	712770	5462970
Blitz North	vein	Au, As	John 3-4	92HSE175	707800	5465780
Blitz South	vein	Au, As, Sb	John 1-2	92HSE175	707775	5465200
Mission	vein	Au, Ag, As, Cu, Zn, Pb	Van-2	92HSE052	710425	5467950
Van North	skarn	Au, As	Van-1	-	709900	5466950
Van South	skarn	Au, Ag, As, Cu, Zn	Van-1	-	709950	5466675
WP	vein	Au, Ag	WP-4A	92HSE174	703, 035	5468251
WP Camp Zone	vein	Ag, Cu, Au	WP-1A	-	704350	5466360
WP Polecutter Zone	skarn	Au, Ag, As	WP 1A, 2	-	704475	5465900
Lamb 1	vein?	Ag, Cu	Paul-4	92HSE172	705513	5460551

Initial work programs conducted by the author on the WP claims consisted of establishing grid lines and carrying out geological, geochemical and geophysical surveys. A silt sampling program on Pettigrew and Whistle creeks highlighted these exploration programs with heavy metal concentrates returning values to 28000 ppb gold.

Four main target areas were developed on the WP claims through a combination of geological, geochemical and geophysical parameters. During 1997 Northpoint Resources Ltd tested these targets by a combination of soil geochemical sampling (2858 samples), induced polarization geophysical surveying (60 kilometres), trenching (16 trenches, 900 lineal metres) or diamond drilling (10 holes, 963.44 metres). The most significant

results from the Northpoint program were a multi-element (Mo-As-Ag) soil geochemical anomaly and a high chargeability induced polarization anomaly on the East Pettigrew zone, anomalous gold and high silver and copper values in drill holes WP001 and WP002 from the Camp zone, and strong sulphide mineralization and hornfels alteration in drill hole WP004 from the Polecutter zone.

During the 1987 work program, the WP showing was discovered on the WP 4A mineral claim. The showing is poorly exposed in a road cut and consists of a north striking, steeply east dipping quartz vein/breccia zone with minor pyrite. A number of chip and grab samples were collected at the showing, giving weakly anomalous gold (10 to 720 ppb) and silver (0.8 to 5.9 ppm) values. The 2001 work program concentrated on follow-up surveys on this showing.

3.0 EXPLORATION PROCEDURE

The 2001 exploration program consisted of establishing grid lines, magnetic and electromagnetic geophysical surveying, rock and soil geochemical sampling and prospecting.

3.1 GRID PARAMETERS

- survey total -950 metres
- baseline directions north-south
- survey lines perpendicular to baseline
- survey line separation 50 metres
- survey station spacing 10 metres
- stations marked with flagging and pickets with grid coordinates
- declination 19 degrees

3.2 GEOCHEMICAL PARAMETERS

- survey total -42 soil samples collected
 - 17 soil samples analysed
 - survey line separation 50 metres
 - survey station spacing 10 metres
 - soil sample depth 10 to 20 centimetres
 - samples taken from brown or orange B horizon
-
- survey total -3 rock samples

The soil (gold and lead) and rock (gold and silver) geochemical data was plotted on Figure 4.0 and the certificates of analysis listed in Appendix I.

3.3 SAMPLE ANALYSIS

The rock and soil samples were sent to Eco Tech Laboratory Ltd., 10041 Dallas Drive, Kamloops BC, V2C 6T4 for analysis. Laboratory technique for soil samples consisted of drying the samples and sieving to minus 80 mesh. Laboratory technique for rock samples consisted of two stage crushing the samples to minus 10 mesh with a 250 gram sub sample pulverized on a ring mill pulverizer to minus 140 mesh. The sub sample was rolled and homogenized. Gold (30 gram sample, fire assay, atomic adsorption finish, results in parts per billion) and 28 element ICP analysis (Jarrel Ash 61E ICP, aqua-regia digestion) were carried out on all the samples.

Eco Tech Laboratory Ltd. is not ISO 9002 certified, however all Eco Tech assayers are certified by the British Columbia government. Resplit and repeat analysis were performed with excellent correlation to the original results.

3.4 GEOPHYSICAL SURVEY PARAMETERS

GROUND TOTAL FIELD MAGNETIC SURVEY

- survey total -950 metres
- survey line separation 50 metres
- survey station spacing 5 metres
- measured total magnetic field in nanoteslas
- instrument - Scintrex MP-2 magnetometer
- instrument accuracy ± 1 nanotesla
- operator faced north for all readings

Readings were taken along the baseline to obtain standard readings for all baseline stations. All loops ran off the baseline were then corrected to these standard values by the straight line method. The total field magnetic contours are illustrated on Figure 5.0 and the data listed in Appendix II.

GROUND VLF-EM SURVEY

- survey total -800 metres
- survey line separation 50 metres
- survey station spacing 5 metres
- transmitting station - Cutler - 24.0 KHz
- direction faced - southerly
- instrument - Geonics EM-16
- in-phase (dip angle) and out-of-phase (quadrature) components measured in percent

The VLF-EM profiles are illustrated on Figure 6.0 and the data listed in Appendix II.

4.0 GEOLOGY AND MINERALIZATION

4.1 REGIONAL GEOLOGY

The Hedley Gold Basin is located within the Intermontane Belt of the Canadian Cordillera. The geological history of the Hedley Gold Basin (after Ray et al) is summarized on Table 3.0 and the regional geology displayed on Figure 3.0.

The Hedley Gold Basin is comprised of Paleozoic to Jurassic volcanic and sedimentary rocks that have been intruded by a series of stocks, plutons and batholiths. It trends in a northeast to south west direction for 35 kilometres and in a northwest to southeast direction for 15 kilometres. The Hedley Gold Basin is geographically subdivided by the Similkameen River Valley (northwest-southeast trending valley) into a northern portion, Hedley Gold Basin North, (Nickel Plate mining district) and a southern portion, Hedley Basin South (Sterling Creek mining district). The Hedley Gold Basin North contains the Nickel Plate mine and all the other former gold skarn producers (Mascot Fraction, Canty, Good Hope, French). The Hedley Gold Basin South contains identical geology to Hedley Gold Basin North with minor gold production from quartz veins at the Banbury mine (Maple Leaf and Pine Knot veins).

The oldest rocks are on the eastern margin of the Hedley Gold Basin and belong to the Paleozoic Apex Mountain Complex. The Apex Mountain Complex consists of a deformed package of chert, argillite, greenstone, tuffaceous siltstone and minor limestone that form the basement of the Hedley Gold Basin.

The Hedley Gold Basin is mainly composed of the Late Triassic Nicola Group rocks that overlay the Apex Mountain Complex. The Nicola Group is a westerly thickening calcareous sedimentary and arc-related volcanoclastic sequence that was deposited on a tectonically active, west-dipping paleoslope (Ray et al). The Hedley Gold Basin is in the upper eastern portion of a much larger regional tectonically controlled margin of a northwesterly deepening Late Triassic marine basin. The Nicola Group rocks are the host rocks for gold deposits in the Hedley Gold Basin.

The calcareous sedimentary succession of the Nicola Group is divided into three distinct stratigraphic packages of basal, proximal and distal facies. The Oregon Claims Formation is the oldest and forms the basal unit of the Nicola Group. It consists of massive, mafic quartz-bearing andesitic to basaltic ash tuff and minor chert-pebble conglomerate. The Oregon Claims Formation is overlain by a 100 to 700 metre thick sedimentary sequence in which a series of east-to-west facies changes are recognized. This sequence progressively thickens westward and the facies changes reflect deposition across the tectonically controlled margin of a northwesterly deepening Late Triassic marine basin.

The French Mine and Hedley formations are the proximal facies. The French Mine Formation has a maximum thickness of 200 metres. The formation is comprised of massive to bedded limestone inter-layered with thinner units of calcareous siltstone, chert-pebble conglomerate, tuff, limestone-boulder conglomerate and limestone breccia. This formation hosts the gold skarn mineralization at the French and Good Hope mines.

The Hedley Formation is stratigraphically equivalent to the French Mine Formation and hosts the gold skarn deposits at the Nickel Plate mine (Nickel Plate, Sunnyside, Bulldog). The Hedley Formation is 400 to 800 metres thick and is characterized by thinly bedded, turbiditic calcareous siltstone and units of pure to gritty, massive to bedded limestone that reach 75 metres in thickness. The formation includes lesser amounts of argillite, conglomerate and bedded tuff and the lowermost portion includes minor chert-pebble conglomerate. The gold skarn deposits occur in the upper section of the formation and are associated with the calcareous siltstones and gritty impure limestones.



QUATERNARY
 [A] River of extensive LA cover or flood deposits
ADVANCED AGE UNICE INTRUSIONS:
 [39] 200-250 m to 1000 m with quartz phenocrysts (represents other intrusions or intrusions from the Hood Falls Formation), 300, 400 (commonly related to the Hood Falls Formation and Hood Falls may be related to Hood Falls (unit 142), 200, basalt to andesite; 204, granite to quartz monzonite (commonly related to Hood Falls and Hood Falls pluton); 205, granodiorite; 206, felsite (a quartz, biotite) porphyry; 207, diorite to gabbro; 208, quartz vein
MID AGE UNICE INTRUSION:
 [19] 10, andesite, trachyandesite and phonitic andesite flows
SPRINGBROOK FORMATION
 [18] 10, grey, crystalline conglomerate, sandstone, siltstone, mudstone and limestone deposits
EARLY CRETACEOUS STRATIFIED ROCK GROUP
 [17] 17a, andesite to tholeiitic flow and minor tuff; 17b, basalt to minor volcanic breccia; 17c, welded tuff and lapilli tuff
WEST CREEK STAGE
 [16] 16, basalt and andesite to quartz monzonite
MID CRETACEOUS STRATIFIED ROCK GROUP
 [15] 15a, small to medium crystal ash and lapilli tuff; 15b, basalt to and minor tuff breccia; 15c, medium to large tuff with basalt; 15d, tuffaceous sandstone, silt tuff, minor argillite and pebble conglomerate; 15e, andesite flow and tuff; 15f, feldspar crystal tuff; 15g, andesite tuff (15a-15g: Hood Falls member; 15f: upper member)
OSOYOOS FORMATION
 [14] 14, quartzite and felsic intrusion (may be related to units 12, 13 and 20a)
OSOYOOS MIDDLE SECTION
 [13] 13a, quartzite to felsic intrusion; 13b, quartzite to felsic intrusion; 13c, quartzite to felsic intrusion; 13d, quartzite to felsic intrusion; 13e, quartzite to felsic intrusion; 13f, quartzite to felsic intrusion; 13g, quartzite to felsic intrusion; 13h, quartzite to felsic intrusion; 13i, quartzite to felsic intrusion; 13j, quartzite to felsic intrusion; 13k, quartzite to felsic intrusion; 13l, quartzite to felsic intrusion; 13m, quartzite to felsic intrusion; 13n, quartzite to felsic intrusion; 13o, quartzite to felsic intrusion; 13p, quartzite to felsic intrusion; 13q, quartzite to felsic intrusion; 13r, quartzite to felsic intrusion; 13s, quartzite to felsic intrusion; 13t, quartzite to felsic intrusion; 13u, quartzite to felsic intrusion; 13v, quartzite to felsic intrusion; 13w, quartzite to felsic intrusion; 13x, quartzite to felsic intrusion; 13y, quartzite to felsic intrusion; 13z, quartzite to felsic intrusion
OSOYOOS LOWER SECTION
 [12] 12a, quartzite to felsic intrusion; 12b, quartzite to felsic intrusion; 12c, quartzite to felsic intrusion; 12d, quartzite to felsic intrusion; 12e, quartzite to felsic intrusion; 12f, quartzite to felsic intrusion; 12g, quartzite to felsic intrusion; 12h, quartzite to felsic intrusion; 12i, quartzite to felsic intrusion; 12j, quartzite to felsic intrusion; 12k, quartzite to felsic intrusion; 12l, quartzite to felsic intrusion; 12m, quartzite to felsic intrusion; 12n, quartzite to felsic intrusion; 12o, quartzite to felsic intrusion; 12p, quartzite to felsic intrusion; 12q, quartzite to felsic intrusion; 12r, quartzite to felsic intrusion; 12s, quartzite to felsic intrusion; 12t, quartzite to felsic intrusion; 12u, quartzite to felsic intrusion; 12v, quartzite to felsic intrusion; 12w, quartzite to felsic intrusion; 12x, quartzite to felsic intrusion; 12y, quartzite to felsic intrusion; 12z, quartzite to felsic intrusion
EARLY JUPITER
HOOD FALLS STAGE
 [11] 11a, quartzite to felsic intrusion; 11b, quartzite to felsic intrusion; 11c, quartzite to felsic intrusion; 11d, quartzite to felsic intrusion; 11e, quartzite to felsic intrusion; 11f, quartzite to felsic intrusion; 11g, quartzite to felsic intrusion; 11h, quartzite to felsic intrusion; 11i, quartzite to felsic intrusion; 11j, quartzite to felsic intrusion; 11k, quartzite to felsic intrusion; 11l, quartzite to felsic intrusion; 11m, quartzite to felsic intrusion; 11n, quartzite to felsic intrusion; 11o, quartzite to felsic intrusion; 11p, quartzite to felsic intrusion; 11q, quartzite to felsic intrusion; 11r, quartzite to felsic intrusion; 11s, quartzite to felsic intrusion; 11t, quartzite to felsic intrusion; 11u, quartzite to felsic intrusion; 11v, quartzite to felsic intrusion; 11w, quartzite to felsic intrusion; 11x, quartzite to felsic intrusion; 11y, quartzite to felsic intrusion; 11z, quartzite to felsic intrusion
LATE TRIASSIC BRUNNEN FORMATION
 [10] 10a, quartzite to felsic intrusion; 10b, quartzite to felsic intrusion; 10c, quartzite to felsic intrusion; 10d, quartzite to felsic intrusion; 10e, quartzite to felsic intrusion; 10f, quartzite to felsic intrusion; 10g, quartzite to felsic intrusion; 10h, quartzite to felsic intrusion; 10i, quartzite to felsic intrusion; 10j, quartzite to felsic intrusion; 10k, quartzite to felsic intrusion; 10l, quartzite to felsic intrusion; 10m, quartzite to felsic intrusion; 10n, quartzite to felsic intrusion; 10o, quartzite to felsic intrusion; 10p, quartzite to felsic intrusion; 10q, quartzite to felsic intrusion; 10r, quartzite to felsic intrusion; 10s, quartzite to felsic intrusion; 10t, quartzite to felsic intrusion; 10u, quartzite to felsic intrusion; 10v, quartzite to felsic intrusion; 10w, quartzite to felsic intrusion; 10x, quartzite to felsic intrusion; 10y, quartzite to felsic intrusion; 10z, quartzite to felsic intrusion
MOLEY INTRUSIONS
 [9] [includes the Steamer, Aberdeen, Forest, Rainbow, Feltre and Laramie stages] 9a, basaltic andesite to andesite; 9b, andesite to andesite; 9c, andesite to andesite; 9d, andesite to andesite; 9e, andesite to andesite; 9f, andesite to andesite; 9g, andesite to andesite; 9h, andesite to andesite; 9i, andesite to andesite; 9j, andesite to andesite; 9k, andesite to andesite; 9l, andesite to andesite; 9m, andesite to andesite; 9n, andesite to andesite; 9o, andesite to andesite; 9p, andesite to andesite; 9q, andesite to andesite; 9r, andesite to andesite; 9s, andesite to andesite; 9t, andesite to andesite; 9u, andesite to andesite; 9v, andesite to andesite; 9w, andesite to andesite; 9x, andesite to andesite; 9y, andesite to andesite; 9z, andesite to andesite
UNIFORM AGE ROCKS OF UNIFORM AGE
 [8] 8a, andesite to andesite; 8b, andesite to andesite; 8c, andesite to andesite; 8d, andesite to andesite; 8e, andesite to andesite; 8f, andesite to andesite; 8g, andesite to andesite; 8h, andesite to andesite; 8i, andesite to andesite; 8j, andesite to andesite; 8k, andesite to andesite; 8l, andesite to andesite; 8m, andesite to andesite; 8n, andesite to andesite; 8o, andesite to andesite; 8p, andesite to andesite; 8q, andesite to andesite; 8r, andesite to andesite; 8s, andesite to andesite; 8t, andesite to andesite; 8u, andesite to andesite; 8v, andesite to andesite; 8w, andesite to andesite; 8x, andesite to andesite; 8y, andesite to andesite; 8z, andesite to andesite
LATE TRIASSIC BRUNNEN FORMATION
 [7] 7a, andesite to andesite; 7b, andesite to andesite; 7c, andesite to andesite; 7d, andesite to andesite; 7e, andesite to andesite; 7f, andesite to andesite; 7g, andesite to andesite; 7h, andesite to andesite; 7i, andesite to andesite; 7j, andesite to andesite; 7k, andesite to andesite; 7l, andesite to andesite; 7m, andesite to andesite; 7n, andesite to andesite; 7o, andesite to andesite; 7p, andesite to andesite; 7q, andesite to andesite; 7r, andesite to andesite; 7s, andesite to andesite; 7t, andesite to andesite; 7u, andesite to andesite; 7v, andesite to andesite; 7w, andesite to andesite; 7x, andesite to andesite; 7y, andesite to andesite; 7z, andesite to andesite
BRUNNEN FORMATION
 [6] 6a, andesite to andesite; 6b, andesite to andesite; 6c, andesite to andesite; 6d, andesite to andesite; 6e, andesite to andesite; 6f, andesite to andesite; 6g, andesite to andesite; 6h, andesite to andesite; 6i, andesite to andesite; 6j, andesite to andesite; 6k, andesite to andesite; 6l, andesite to andesite; 6m, andesite to andesite; 6n, andesite to andesite; 6o, andesite to andesite; 6p, andesite to andesite; 6q, andesite to andesite; 6r, andesite to andesite; 6s, andesite to andesite; 6t, andesite to andesite; 6u, andesite to andesite; 6v, andesite to andesite; 6w, andesite to andesite; 6x, andesite to andesite; 6y, andesite to andesite; 6z, andesite to andesite

STEAMER FORMATION
 [5] 5a, andesite to andesite; 5b, andesite to andesite; 5c, andesite to andesite; 5d, andesite to andesite; 5e, andesite to andesite; 5f, andesite to andesite; 5g, andesite to andesite; 5h, andesite to andesite; 5i, andesite to andesite; 5j, andesite to andesite; 5k, andesite to andesite; 5l, andesite to andesite; 5m, andesite to andesite; 5n, andesite to andesite; 5o, andesite to andesite; 5p, andesite to andesite; 5q, andesite to andesite; 5r, andesite to andesite; 5s, andesite to andesite; 5t, andesite to andesite; 5u, andesite to andesite; 5v, andesite to andesite; 5w, andesite to andesite; 5x, andesite to andesite; 5y, andesite to andesite; 5z, andesite to andesite
MOLEY FORMATION
 [4] 4a, andesite to andesite; 4b, andesite to andesite; 4c, andesite to andesite; 4d, andesite to andesite; 4e, andesite to andesite; 4f, andesite to andesite; 4g, andesite to andesite; 4h, andesite to andesite; 4i, andesite to andesite; 4j, andesite to andesite; 4k, andesite to andesite; 4l, andesite to andesite; 4m, andesite to andesite; 4n, andesite to andesite; 4o, andesite to andesite; 4p, andesite to andesite; 4q, andesite to andesite; 4r, andesite to andesite; 4s, andesite to andesite; 4t, andesite to andesite; 4u, andesite to andesite; 4v, andesite to andesite; 4w, andesite to andesite; 4x, andesite to andesite; 4y, andesite to andesite; 4z, andesite to andesite
FRENCH MINE FORMATION
 [3] 3a, andesite to andesite; 3b, andesite to andesite; 3c, andesite to andesite; 3d, andesite to andesite; 3e, andesite to andesite; 3f, andesite to andesite; 3g, andesite to andesite; 3h, andesite to andesite; 3i, andesite to andesite; 3j, andesite to andesite; 3k, andesite to andesite; 3l, andesite to andesite; 3m, andesite to andesite; 3n, andesite to andesite; 3o, andesite to andesite; 3p, andesite to andesite; 3q, andesite to andesite; 3r, andesite to andesite; 3s, andesite to andesite; 3t, andesite to andesite; 3u, andesite to andesite; 3v, andesite to andesite; 3w, andesite to andesite; 3x, andesite to andesite; 3y, andesite to andesite; 3z, andesite to andesite
OSOYOOS CLAY FORMATION
 [2] 2a, andesite to andesite; 2b, andesite to andesite; 2c, andesite to andesite; 2d, andesite to andesite; 2e, andesite to andesite; 2f, andesite to andesite; 2g, andesite to andesite; 2h, andesite to andesite; 2i, andesite to andesite; 2j, andesite to andesite; 2k, andesite to andesite; 2l, andesite to andesite; 2m, andesite to andesite; 2n, andesite to andesite; 2o, andesite to andesite; 2p, andesite to andesite; 2q, andesite to andesite; 2r, andesite to andesite; 2s, andesite to andesite; 2t, andesite to andesite; 2u, andesite to andesite; 2v, andesite to andesite; 2w, andesite to andesite; 2x, andesite to andesite; 2y, andesite to andesite; 2z, andesite to andesite
CONTACT FAULTED OR OCCUPIED BY CAMEL CREEK PLUTON
PARISOTIC AND SPASSIC
OSOYOOS MOUNTAIN COMPLEX
 [1] 1a, andesite to andesite; 1b, andesite to andesite; 1c, andesite to andesite; 1d, andesite to andesite; 1e, andesite to andesite; 1f, andesite to andesite; 1g, andesite to andesite; 1h, andesite to andesite; 1i, andesite to andesite; 1j, andesite to andesite; 1k, andesite to andesite; 1l, andesite to andesite; 1m, andesite to andesite; 1n, andesite to andesite; 1o, andesite to andesite; 1p, andesite to andesite; 1q, andesite to andesite; 1r, andesite to andesite; 1s, andesite to andesite; 1t, andesite to andesite; 1u, andesite to andesite; 1v, andesite to andesite; 1w, andesite to andesite; 1x, andesite to andesite; 1y, andesite to andesite; 1z, andesite to andesite

Unit	Symbol	Description
1	[Symbol]	Osyoos Mountain Complex
2	[Symbol]	Osoyoos Clay Formation
3	[Symbol]	French Mine Formation
4	[Symbol]	Moley Formation
5	[Symbol]	Steamer Formation
6	[Symbol]	Brunnen Formation
7	[Symbol]	Late Triassic Brunnen Formation
8	[Symbol]	Uniform Age Rocks of Uniform Age
9	[Symbol]	Moley Intrusions
10	[Symbol]	Late Triassic Brunnen Formation
11	[Symbol]	Early Jupiter
12	[Symbol]	Osoyoos Lower Section
13	[Symbol]	Osoyoos Middle Section
14	[Symbol]	Osoyoos Upper Section
15	[Symbol]	Mid Cretaceous Stratified Rock Group
16	[Symbol]	West Creek Stage
17	[Symbol]	Early Cretaceous Stratified Rock Group
18	[Symbol]	Springbrook Formation
19	[Symbol]	Mid Cretaceous Intrusion
20	[Symbol]	Quaternary

GEOLOGY AFTER G. E. RAY, B. C. M. M., 1994

GRANT F. CROOKER

HEDLEY PROJECT (NTS 92H-8E)
 SIMILKAMEEN & OSOYOOS M. DS., B. C.

REGIONAL GEOLOGY

DATE: JANUARY 2002

FIGURE: 3.0

SCALE: 0 500 1000 METRES
 1:50,000

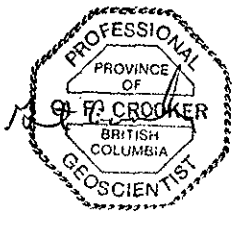


TABLE 3.0
HEDLEY GOLD BASIN GEOLOGICAL HISTORY
 (After Ray et al)

1.0 BASIN DEVELOPMENT EVENTS

- 1.1 Paleozoic structural preparation of the region for the deposition Nicola Group rocks into the Hedley Gold Basin. The Nicola Group deposition was controlled by a westerly dipping paleoslope influenced by northerly trending normal faults. These faults controlled the development of the Hedley Gold Basin, influenced the emplacement of the Hedley intrusions and dictated the development of gold mineralization. These faults are the Chuchuwayha, Bradshaw, Cahill Creek and Winters Creek.
- 1.2 Early Triassic deposition of the Nicola Group with the basal Oregon Claims Formation containing mafic extrusive volcanic rocks.
- 1.3 Late Triassic sedimentary deposition of the French Mine, Hedley, Stemwinder and Chuchuwayha formations (sedimentary rocks with calcareous units).
- 1.4 Sudden collapse of the eastern margin of the basin resulting in the deposition of the Copperfield limestone breccia and the widespread deposition of the arc-related volcanoclastic Whistle Formation (volcanic rocks with calcareous tuff).

2.0 GOLD MINERALIZING EVENTS

- 2.1 During or shortly following deposition of the Nicola Group rocks, two phases of deformation (F1 & F2) occur.
- 2.2 Phase F1 deformation resulted in small-scale structures and the emplacement of the Hedley intrusions and the gold mineralization.
- 2.3 Phase F2 resulted in large-scale structures that produced major north-northeasterly striking, easterly overturned asymmetrical folds (Hedley anticline and Good Hope syncline). These are the overprinting structures in the Hedley Gold Basin as a result of the Late Triassic Bromley batholith.

3.0 POST GOLD MINERALIZING EVENTS

- 3.1 Emplacement of the Mid Jurassic Cahill Creek pluton.
- 3.2 Deposition of the Mid Jurassic Skwel Peken Formation
- 3.3 Early Cretaceous phase of regional thrust faulting.
- 3.4 Eocene or more recent re-activation of the Chuchuwayha, Bradshaw, Cahill Creek and Winters Creek faults.

The Stemwinder Formation is the distal facies that is at least 700 metres thick and characterized by a sequence of black, organic-rich, thinly bedded calcareous argillite and turbiditic siltstone, minor amounts of siliceous fine-grained tuff and impure limestone beds. The Stemwinder Formation is host to the Maple Leaf and Pine Knot gold veins of the Banbury mine.

The Chuchuwayha Formation forms a steeply dipping, wedge shaped unit between the Stemwinder and Hedley formations. To the west and east it is bounded respectively by the Chuchuwayha and Bradshaw faults, while to the north it is intruded by the Lookout Ridge pluton. The formation is at least 1500 metres thick and consists of predominately thinly bedded calcareous siltstone that closely resembles the siltstone of the Hedley Formation. However unlike the Hedley Formation, it does not contain thick or extensive beds of limestone, with the limestone beds seldom exceeding five metres in thickness. The formation also contains minor argillite and some large units of siliceous and tuffaceous argillite. The Chuchuwayha Formation hosts the Peggy gold skarn occurrence.

The sedimentary rocks of the French Mine, Hedley, Stemwinder and Chuchuwayha formations pass stratigraphically upward into the arc-related volcanoclastic sequence of the Whistle Formation. The formation is 700 to 1200 metres thick and is distinguishable from the underlying rocks by a general lack of limestone and a predominance of andesitic volcanoclastic material. The Whistle Formation is host to the Canty gold skarn deposit and numerous vein gold occurrences (Hed, Snowstorm, Gold Hill, WP).

The base of the Whistle Formation is marked by the Copperfield breccia unit that is characterized by the presence of large limestone clasts. The Copperfield breccia is a distinctive and widespread stratigraphic marker horizon in the Hedley Gold Basin. The Copperfield breccia was originally interpreted to be a tectonic feature formed during low-angle thrust faulting (Billingsley and Hume, 1941). A more recent interpretation by Ray et al (1994) indicates that the Copperfield breccia is a stratigraphic feature that formed as a gravity-slide deposit. The Copperfield breccia resulted from the seismically triggered collapse of an unstable, shallow marine carbonate platform that originally lay along the Nicola basin margin east of the Hedley Gold Basin. The Ray et al interpretation explains why the Copperfield breccia is so extensive in the Hedley Gold Basin. As a stratigraphic marker horizon, the Copperfield breccia is an important unit that indicates where the favourable host rocks for Hedley gold skarn deposits may be located in the Nicola Group formations of the Hedley Gold Basin. There are over 20 kilometres of Copperfield breccia presently indicated in the Hedley Gold Basin.

Stratigraphically overlying the Copperfield breccia is a thick sequence of turbiditic siltstones, argillites and tuffs. The lower portions of the formation contain calcareous units.

The Nicola Group rocks in the Hedley Gold Basin are overlain by calcalkaline waterlain tuffs, and derived epiclastic rocks of the Mid Jurassic Skwel Peken Formation. The Skwel Peken Formation is exposed as two erosional outliers in the basin. The largest outlier is centred on the Skwel Kwek Peken Ridge (Hedley Gold Basin South) and the smaller outlier lies north east of the Nickel Plate mine (Hedley Gold Basin North).

Several episodes of plutonism have occurred in the Hedley Gold Basin with three suites of plutonic rocks recognized. The Hedley intrusions are the oldest (Late Triassic to Early Jurassic in age), and are associated with gold mineralization and occur over a broad stratigraphic section of the Nicola Group rocks. The Hedley intrusions form major stocks up to 1.5 kilometres in diameter and swarms of thin sills and dykes up to 200 metres in thickness and over one kilometre in length. The sills and dykes are coarse-grained and massive diorites and quartz diorites with minor gabbro, while the stocks are gabbro through granodiorite to quartz monzonite. When unaltered, they are dark coloured and commonly contain minor disseminations of pyrite and pyrrhotite. When altered to skarn, they are usually pale coloured and bleached. Both unaltered and altered Hedley intrusive rocks form gossans (rusty zones) and the intensity of weathering is exemplified by the abundance of iron sulphides.

In the Hedley Gold Basin, the Nicola Group has been extensively intruded over a broad stratigraphic range by the Hedley intrusions. Varying degrees of sulphide bearing skarn alteration have developed within and adjacent to many of these intrusions and their receptive Nicola Group rocks. The Hedley intrusions are associated with the gold skarn deposits at Nickel Plate (Nickel Plate, Sunnyside, Bulldog deposits), Cauty, French and Good Hope mines and the gold veins at the Banbury mine.

The second plutonic suite is the Mid Jurassic Similkameen intrusions. They are comprised of coarse-grained, biotite hornblende granodiorite to quartz monzodiorite. These intrusions form the Bromley batholith and Cahill Creek pluton and have no known relationship to gold mineralization in the Hedley Gold Basin.

The third intrusive suite is the Early Cretaceous Verde Creek stock. The Verde Creek stock is generally comprised of a fine to medium grained, massive leucocratic microgranite and fine-grained, leucocratic, felsic quartz porphyry. The relationship of gold mineralization to these rocks is not known in the Hedley Gold Basin.

The Hedley Gold Basin has undergone three phases of structural activity. The first phase was the structural preparation of the region for the development of the Nicola basin and the deposition of the Nicola Group rocks into a micro-basin referred to as the Hedley Gold Basin. The Nicola Group deposition was controlled by a westerly dipping paleoslope, influenced by northerly trending normal faults. These faults controlled the development of the Hedley Gold Basin, influenced the emplacement of the Hedley intrusions and dictated the development of gold mineralization. Recurrent movements along these faults have identified them as the Chuchuwayha, Bradshaw, Cahill Creek and Winters Creek faults.

The Hedley intrusions were emplaced into the Nicola Group during deposition or shortly thereafter. The first phase of folding (F1) in the Nicola Group produced small-scale structures that contributed to the control of the gold skarn and vein gold mineralization. The second phase of folding (F2) occurred during the Early Jurassic with the intrusion of the Bromley batholith. This phase resulted in large-scale structures which overprinted the structural pattern on the Nicola Group rocks and the Hedley Gold Basin. The F2 event produced major and minor north-northeasterly striking, easterly overturned asymmetrical folds (Hedley anticline and Good Hope syncline).

4.2 REGIONAL GOLD MINERALIZATION

The gold deposits and occurrences in the Hedley Gold Basin are spatially associated with dioritic bodies of the Hedley intrusions and the gold mineralization is broadly classified as skarn-related or vein-related. The most receptive host rocks for gold mineralization are the Nicola Group. Within the Nicola Group, the host rocks for skarn-related gold are stratigraphically situated within the calcareous siltstones, gritty impure limestones and calcareous tuffs that occur below and above the Copperfield breccia. For vein-related gold, the structural preparation of the Nicola Group rocks provides the ideal gold emplacement environment anywhere in the stratigraphic sequence.

The Hedley Gold Basin contains numerous gold occurrences. At present, there are 55 occurrences documented from MINFILE and other sources. The gold occurrences in the Hedley Gold Basin constitute a concentration of gold within a relatively confined depositional and structural basin at a particular episode in geological time. Other gold rich areas in the world that display similar geological characteristics are Carlin Trend (Nevada, USA) and Witwatersrand (Republic of South Africa). The gold occurrences in the Hedley Gold Basin are list on Table 4.0.

TABLE 4.0 HEDLEY GOLD BASIN - GOLD OCCURRENCES

GOLD	HEDLEY BASIN NORTH		HEDLEY BASIN SOUTH	
	OCCURRENCE	METALLIC ASSOCIATION	OCCURRENCE	METALLIC ASSOCIATION
SKARN	Nickel Plate	Au As Bi Cu Co Te Ag Sb	Don	Au Ag As Cu
	Sunnyside	Au Ag Bi Cu Co Te As Sb	Speculator	Au Ag As Cu
	Bulldog	Au Ag As Bi Co Cu Te Zn	Lost Horse	Au As
	Mascot Fraction	Au Ag Cu As Bi Sb Co Te	LH 86	Au Ag As Cu
	Canty	Au Ag As Mo Sb Co Cu Te Bi	Indian	As
	French	Au Ag Cu Bi Mo W As Co Te	Indian #2	As
	Good Hope	Au Ag Cu Bi As Te W Mo		
	Spar	Au As		
	York	Au As		
	Nordic	Au Cu As		
	Peggy	Au Ag Cu Co As Sb Te		
	Florence	Au As		
	Duffy	Au Ag Cu As		
	South Corall	Au As Cu		
	Kingston	Au Ag Cu As		
	Sweden	Au As Cu Pb Zn		
	Red Mountain	Au As Cu Sb Co Bi		
	Red Top	Au As Cu		
	Rollo	Au As Cu		
	Winters Gold	Cu As		
Kel	Au Cu As			
Iota	Au Ag Pb Zn			
JJ	Cu Zn As			
Tough Oaks	Cu W As			
Patricia	Cu W			
VEIN	Toronto	Au Ag	Pine Knot	Au As Cu Zn Pb
	Victoria	Au Ag As Cu	Maple Leaf	Au Ag Cu Zn Pb
	Hedley Star	Au Ag Cu As	Gold Hill	Au As Zn Cu Au
	Wheelbarrow	Au As	Snowstorm	Au Ag As Cu Zn Pb
	Golden Oaks	Au As Cu Zn Sb Ag	Junction	Au As
	Golden Zone	Au Ag As Sb Bi Cu Zn	Patsy #1	Au As Zn Cu Ag
			Patsy #2	Au Ag As Sb
			U1	Cu Au Ag W
			U2	Cu As
			U3	Cu As
			Van	Au
			Mission	Ag Zn Au Cu
			Blitz	Au As
			Lamb 1	Ag Au Cu
			Camp	Ag Cu Au
			Polecutter	Au Ag As
		WP	Au Ag	

4.2.1 SKARN-RELATED GOLD MINERALIZATION

The skarn-related gold mineralization is characterized by the gold being intimately associated with variable quantities of sulphide bearing garnet-pyroxene-carbonate skarn alteration. The gold tends to be associated with sulphides, particularly arsenopyrite, pyrrhotite and chalcopyrite, and in lesser amounts with pyrite, gersdorffite (NiAsS), sphalerite, magnetite and cobalt minerals. Trace minerals include galena, native bismuth, electrum, tetrahedrite and molybdenite. The pathfinder elements are Ag, As, Bi, Co, Cr, Ni, Cu, Mo, Pb, Sb and Zn. This

type of mineralization is found at the Nickel Plate, French, Good Hope, Peggy and Canty deposits. The skarn alteration occurs associated with strata-bound, layered massive sulphides and with disseminated sulphides within host environments.

Based on the analyses of over 300 samples from various ore zones of the Nickel Plate deposits (Nickel Plate, Sunnyside, Bulldog), Ray et al (1987) have established a geochemical model for skarn-related gold mineralization by providing an inter-relationship of the various pathfinder elements based on their correlation coefficients (Pearson). The correlation coefficients are displayed on Table 5.0.

STRONG		MODERATE		WEAK	
ASSOCIATION	COEFFICIENTS	ASSOCIATION	COEFFICIENTS	ASSOCIATION	COEFFICIENTS
Au:Bi	0.84	Au:Co	0.58	Au:Cu	0.17
Ag:Cu	0.84	Au:As	0.46		
Bi:Co	0.62	Au:Ag	0.46		

The strong positive correlation between gold and bismuth reflects the close association of native gold with hedleyite. The moderate positive correlation between gold, cobalt and arsenic confirms observed association of gold, arsenopyrite and gersdorffite. The strong positive correlation between silver and copper may indicate that some silver occurs as a lattice constituent in the chalcopyrite and/or in association with tetrahedrite (Cu-Sb sulphide often contains Zn, Pd, Hg, Co, Ni and Ag replacing Cu). The gold and silver values are relatively independent of each other despite the presence of electrum, and there is generally a low correlation between gold and copper (Ray et al, 1987).

The skarn-related mineralization is generally strata-bound or disseminated. It follows the thinly-bedded, impure limestone and limey argillite/siltstone within the upper sections of the French Mine, Hedley, Stemwinder and Chuchuwayha formations and the calcareous tuff in the lower sections of Whistle Formation. Swarms of diorite sills and dykes of the Hedley intrusions intruded the favourable hosts and altered them by contact metamorphism to hornfels. Both the intrusions and sediments were subsequently overprinted with the calc-silicate skarn alteration.

4.2.2 VEIN-RELATED GOLD MINERALIZATION

The vein-related gold mineralization is characterized by gold and sulphide mineralization hosted in higher level, fracture-filled quartz-carbonate veins and shears, and stockwork systems. This type of mineralization occurs at the Maple Leaf, Pine Knot and Gold Hill occurrences. The information on the Maple Leaf, Pine Knot and Gold Hill occurrences is taken from BC Ministry of Energy, Mines and Petroleum Resources Bulletin 87.

The geology at the Maple Leaf and Pine Knot occurrences consists of northerly striking, steeply dipping sedimentary and tuffaceous rocks that are intruded by two elongate, easterly trending diorite stocks belonging to the Hedley intrusions. They extend over a strike length of 1.3 kilometres and exceed 300 metres in width. The stocks intrude the Upper Triassic succession, crosscutting calcareous siltstone, argillite, and thin limestone of the Stemwinder Formation in the east, a 200 metre thick section of the Copperfield breccia in the centre, and andesitic tuff of the Whistle Formation in the west. Both stocks comprise two rock types, a leucocratic quartz diorite suite and a highly mafic diorite-gabbro suite. The stocks have irregular intrusive contacts that interfinger with the bedded country rocks, and are surrounded by hornfels alteration. Both the stocks and the hornfels alteration are cut by several irregular, northerly trending fracture zones that are filled by steep and shallow-dipping quartz-carbonate vein systems (Maple Leaf and Pine Knot veins). Individual veins

are up to 3 metres wide, exceed 100 metres in length and contain mainly glassy to white to pale pink-coloured, strained quartz with lesser amounts of coarse calcite, sporadic visible gold, arsenopyrite, pyrrhotite, pyrite, sphalerite, and chalcopyrite. Locally they are sheared, vuggy and contain angular brecciated clasts of chloritized, silicified country rock. The leucocratic diorite locally contains pockets of intense skarn alteration. The quartz veins crosscut and postdate the skarn alteration.

The Gold Hill mineralization is hosted by a carbonate±quartz vein that cuts andesitic ash and lapilli tuff, and some tuffaceous sediments in the lowest stratigraphic portion of the Whistle Formation. The tuffaceous rocks are intruded by dykes and sills of both fine and coarse grained hornblende porphyritic diorite of the Hedley intrusive suite that locally carry disseminated pyrite and arsenopyrite. Some tuff beds adjacent to one porphyritic diorite body are hornfelsed and sporadically overprinted with early calcite-diopside-pyrite-chalcopyrite skarn alteration.

On surface, the Gold Hill vein is comprised of coarse, crystalline, white to pale buff carbonate together with minor quartz and some disseminated pyrite. At depth, the vein contains abundant vuggy quartz vein material similar in appearance to the Maple Leaf and Pine Knot veins. This quartz-rich material contains massive blebs of coarse pyrite with traces of arsenopyrite, chalcopyrite, black sphalerite and galena. The sequence of events at Gold Hill are interpreted as follows: intrusion of the diorite body and biotite hornfelsing of the country rock, weak skarn alteration with some sulphides, fault brecciation, minor ankerite injection, and injection of the carbonate±quartz±sulphide vein with hydrostatic brecciation.

4.3 CLAIM GEOLOGY

The Hedley District was mapped by Ray and Dawson of the Geological Survey Branch during the 1980's and the geology displayed in Bulletin 87, The Geology and Mineral Deposits of the Hedley Gold Skarn District, Southern British Columbia (January 1994). Figure 3.0 displays this geology for the Hedley project. The Hedley project area is underlain by a variety of rock types including volcanic and sedimentary rocks of the Stemwinder (Unit 5), Whistle (Unit 7) and Skwel Peken (Unit 15) formations, as well as some rocks of uncertain age (Unit 8). Intrusive rocks of the Hedley intrusions (Unit 9) and Cahill Creek pluton (Unit 12) have intruded the sedimentary and volcanic rocks, as have andesite dykes (Unit 20c).

The area of the WP showing is underlain by tuffs and tuffaceous argillite of the Whistle Formation. Two poorly exposed outcrops of a mafic dyke are exposed at 1500N & 1580W and 1535N & 1570W. These dykes are probably variants of the Hedley intrusions and associated with the magnetic high delineated by the magnetic survey.

4.4 CLAIM GOLD MINERALIZATION

4.4.1 WP SHOWING

The WP showing is exposed along a road and located at approximately 1575N & 1540W. The showing consists of a two to four metre wide zone of quartz flooding and breccia striking northerly and dipping 70° east. The zone contains milky white quartz with minor rusty fractures, miarolitic cavities, inclusions and traces of fine grained pyrite. Much of the quartz has a crystalline texture, The margins of the zone contain angular, white quartz fragments in an argillaceous matrix. One grab sample (WP-03) collected from the showing gave weakly anomalous gold (65 ppb) and silver (3.2 ppm) values.

Milky white quartz is scattered along the slope above the WP showing, and may be indicating some parallel mineralized zones. Two samples of the quartz float (WP-01, WP-02) gave weakly anomalous gold (70, 35 ppb) and silver (5.4, 0.8 ppm) values respectively.

5.0 GEOCHEMISTRY

5.1 SOIL GEOCHEMISTRY

Seventeen soil samples were analysed from two grid lines established north and south of the WP showing. The soil sampling was conducted to determine if there was a soil geochemical expression for the WP showing. The soil geochemical values for gold and lead are displayed on Figure 4.0.

Gold values ranged from <5 to 35 ppb and values greater than or equal to 20 ppb were considered anomalous. One sample (1600N & 1540W) gave a weakly anomalous gold value of 35 ppb. This sample is located along strike to the north of the WP showing, and may be an expression of the mineralization associated with the WP showing.

Lead values ranged from 10 to 32 ppm and values greater than or equal to 24 ppm were considered anomalous. Two samples (1550N & 1520W and 1550N & 1530W) gave weakly anomalous lead values of 32 and 26 ppm. These samples are located to the south of and slightly down slope from the WP showing, and may be an expression of the mineralization associated with the WP showing. However, lead was not anomalous in the rock samples collected from the showing.

6.0 GEOPHYSICS

6.1 MAGNETIC SURVEY

A total of 950 metres of total field magnetic survey was carried out over the WP showing during 2001. Survey lines were spaced at 50 metre intervals with station spacing 5 metres. The detailed magnetic survey was carried out to determine if there was a magnetic expression for the WP showing. Total field magnetic values ranged from 55655 to 56342 nanoteslas, with background magnetic values in the range of 55750 to 55850 nanoteslas. Total field magnetic contours are displayed on Figure 5.0.

One magnetic high (MH-A) was delineated by the survey. Magnetic high MH-A is a zone of slightly higher magnetism with total field magnetic values ranging up to 56342 nanoteslas occurring approximately 30 metres west of the WP showing. The zone trends in a north-south direction parallel to the strike of the WP showing and averages 25 metres in width. The magnetic high is probably caused by a dyke or sill of the Hedley intrusions. Two small outcrops of a mafic dyke were mapped along the eastern flank of the magnetic high.

The magnetic high is spatially related to the WP showing.

6.2 VLF-EM SURVEY

A total of 800 metres of VLF-EM survey was carried out over the WP showing during 2001. Survey lines were spaced at 50 metre intervals with station spacing 5 metres. The VLF-EM profiles are displayed on Figure 6.0.

VLF-EM profiles show a weak response to conductivity. Topographic bias due to up and down slope VLF-EM instrument orientation is minimal. Topographic bias in steep terrain can produce profile characteristics that resemble real conductors although they are usually broad and follow topographic contours. A number of weak conductors were delineated by the survey. None of the conductors formed conductor systems, nor do they appear to be associated with the WP showing.

7.0 CONCLUSIONS

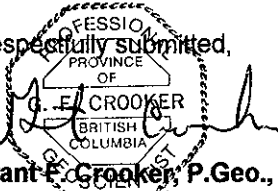
The following conclusions can be drawn from the 2001 work program:

- 7.1 One sample of quartz vein collected from the WP showing, and two samples of quartz vein float up slope and west of the WP showing gave weakly anomalous gold (35-70 ppb) and silver (0.8-5.4 ppm) values.
- 7.2 The scattered quartz vein float up slope from the WP showing may be indicating parallel structures to the WP showing that are covered.
- 7.3 The soil geochemical survey gave one anomalous gold value north of and along strike with the WP showing, and two anomalous lead values south of and along strike with the WP showing. These anomalous soil geochemical values may be expressions of northern and southern extensions of the WP showing.
- 7.4 The total field magnetic values delineated one linear magnetic high extending across all four grid lines and approximately 30 metres west of the WP showing. The magnetic high trends in a north-south direction parallel to the strike of the quartz vein exposed at the WP showing, and averages 25 metres in width. The magnetic high is probably caused by a dyke or sill of the Hedley intrusions and is spatially related to the WP showing.
- 7.5 The VLF-EM survey did not delineate any conductors or conductor systems associated with the WP showing.

8.0 RECOMMENDATIONS

Recommendations are to continue exploration on the Hedley project. This should include establishing grid lines, magnetic and electromagnetic geophysical surveying, soil geochemical sampling, geological mapping and prospecting.

Respectfully submitted,



**Grant F. Crooker, P. Geo.,
Consulting Geologist**

9.0 REFERENCES

- BCEMPR: Annual Report 1925, p 160-170
 Annual Report 1935, p D19-D120
 Annual Report 1936, p D9-D10, D11-D12
 Annual Report 1968, p218-219
- BCEMPR: Minfile 92HSE046 Banbury (vein)
 Minfile 92HSE047 Patsy No. 1
 Minfile 92HSE048 Patsy No. 2
 Minfile 92HSE050 Lost Horse
 Minfile 92HSE051 Speculator, Don
 Minfile 92HSE052 Mission
 Minfile 92HSE053 Snowstorm
 Minfile 92HSE054 Gold Hill
 Minfile 92HSE088 Lost Horse 86
 Minfile 92HSE138 Hed
 Minfile 92HSE172 Lamb 1
 Minfile 92HSE174 WP
 Minfile 92HSE175 Blitz
 Minfile 92HSE177 Banbury (Porphyry)
- Amendolagine, E. (Feb 1, 1982): Geology and Soil Geochemistry Survey Report GM Claim in the Similkameen Mining Division, BC for Kelly Kerr Energy Corporation. AR# 10,013, Part 1 of 2.
- Amendolagine, E. (Feb 1, 1982): Geology and Soil Geochemistry Survey Report EA Claim in the Similkameen Mining Division, BC for Tuscaloosa Oil and Gas Inc. AR# 10.014, Part 1 of 2.
- Amendolagine, E. (Feb 1, 1982): Geology and Soil Geochemistry Survey Report VA Claim in the Similkameen Mining Division, BC for Kadrey Energy Corporation. AR# 10.015, Part 1 of 2.
- Amendolagine, E. (Feb 1, 1982): Geology and Soil Geochemistry Survey Report JA Claim in the Similkameen Mining Division, B.C. for Berle Oil Corporation. AR# 10.016, Part 1 of 2.
- Billingsley, P. and Hume, C.B. (1941): The Ore Deposits of Nickel Plate Mountain, Hedley, BC, The Canadian Institute of Mining and Metallurgy, Transactions, Volume XLIV, 1941, pp.524-590.
- Botel, W. G. (January 13, 1997): Summary Report on the WP Property Hedley Area, Similkameen Mining Division for Northpoint Resources Ltd.
- Candy, C. and White, G. (April 1983): Geophysical Report on a Magnetometer and VLF Electromagnetometer Survey for Fox Resources Ltd, Similkameen Mining Division. AR# 11,688.
- Cavey, G. and Helgason, R. (Jan 5, 1984): Geochemical Report on the EA Claims for Tuscaloosa Oil and Gas Inc., Similkameen Mining Division, Orequest Consultants Ltd.
- Cavey, G. and Helgason, R. (Jan 5, 1984): Geochemical Report on the GM Claims for Kelly Kerr Energy Corporation, Similkameen Mining Division, Orequest Consultants Ltd.
- Cavey, G. and Helgason, R. (Nov 30, 1983): Geochemical and Geophysical Report on JA Claims for Berle Oil Corporation, Similkameen Mining Division, Orequest Consultants Ltd.

Cavey, G. and Helgason, R. (Jan 5, 1984): Geochemical Report on the VA Claims for Kadrey Energy Corporation, Similkameen Mining Division, Orequest Consultants Ltd.

Crooker, G.F. (1989): Geochemical Report on the WP 1-4 Claims, Hedley Area, Similkameen Mining Division for Cannelle Exploration Ltd. AR# 19,413.

Crooker, G.F. and Rockel, E.R. (1987): Geological, Geochemical and Geophysical Report on the WP 1-4 Claims, Hedley Area, Similkameen Mining Division for Cannelle Exploration Ltd. AR# 16,896.

Crooker, G.F. and Rockel, E.R. (1988): Geological, Geochemical and Geophysical Report on the WP 1-4 Claims, Hedley Area, Similkameen Mining Division for Cannelle Exploration Ltd. AR# 18,453.

Crooker, G.F. (1994): Geophysical Report on the WP 1-3 Claims, Hedley Area, Similkameen Mining Division for Grant F. Crooker. AR# 23,412.

Crooker, G.F. (1997): Geological and Geochemical Report on the WP 1A, 2, 3 5A and 6A Claims, Hedley Area, Similkameen Mining Division for Northpoint Resources Ltd. AR# 24,821.

Crooker, G.F. (1997): Geological, Geochemical, Geophysical, Trenching and Core Drilling Report on the WP 1A, 2, 3, 5A, 9A and W 1, 2 Mineral Claims, Hedley Area, Similkameen Mining Division for Northpoint Resources Ltd. AR# 25,269.

Crooker, G.F. (1999): Geological, Geochemical and Geophysical Report on the WP 1A, 2, 3, 5A-9A, W 1-4, 5A, 6, 7, 8A, 9-20, John 1A, 1-12, Van 1, 2, V 1-4, Paul 1, 2, Mineral Claims, Hedley Area, Similkameen and Osoyoos Mining Divisions for Grant F. Crooker. AR# 26088.

Crooker, G.F. (2000): Geological and Geophysical Report on the WP 1A, 2, 3, 5A-9A, W 1-4, 5A, 6, 7, 8A, 9-19, John 1A, 1-12, Van 1-3, V 1-4, GH 1-20, D 1-10 and Paul 1-5 Mineral Claims, Hedley Area, Similkameen and Osoyoos Mining Divisions for Grant F. Crooker and W. Lee Mollison.

Crooker, G.F. (2002): Geological and Geochemical Report on the N 1-42 and Win 1-4 Mineral Claims in Hedley Gold Basin, Osoyoos Mining Division for Goldcliff Resource Corporation.

Dolmage, V. and Brown, C.E. (1945): Contact Metamorphism at Nickel Plate Mountain, Hedley BC, Canadian Institute of Mining and Metallurgy, Transactions, Volume XLVIII, 1945, pp 27-67.

Duba, D., McAllister, S.G. and Getsinger, J.S., (1988): Diamond Drilling, Trenching and Geological Report on the Camsell 3-4 Mineral Claims for Chevron Minerals. AR # 18,228.

Duba, D., McAllister, S.G. and Getsinger, J.S., (1988): Diamond Drilling, Trenching and Geological Report on the Lost Horse 86 Mineral Claim for Chevron Minerals. AR # 18,233.

Falconer, J.S. et al (1987): Geophysical, Geochemical and Geological Surveys on the Lost Horse Project for Montello Resources Ltd., 92H/8E, Osoyoos Mining Division. AR# 15,177.

Freeze, J.C. (Dec 1986): Geological and Geochemical Report on the Blitz Property, Similkameen Mining Division for Fox Resources Ltd. AR# 15,441.

Freeze, J.C. and White, G. (Nov 1986): Geology and Electromagnetic Report on the Blitz Property, Similkameen Mining Division for Fox Resources Ltd. AR#16,275.

Jones, H.W., (1982): Assessment Report, A Geological-Geochemical Report on Gold Mine and Gold Hill Claims, Whistle Creek, Hedley Area, Similkameen Mining Division for Philex Gold and Energy Corporation. AR# 10,882.

Jones, H.W., (1985): Assessment Report, A Geochemical Report on Gold Mine and Gold Hill Claims, Whistle Creek, Hedley Area, Similkameen Mining Division for Philex Gold and Energy Corporation. AR# 13,988.

Jones, H.W., (1986): A Report on Gold Mine and Gold Hill Claims, Whistle Creek, Hedley Area, Similkameen Mining Division for Philex Gold and Energy Corporation.

Jones, H.W., (1987): Assessment Report, Geology - Geochemical Report on Gold Mine and Gold Hill Claims, Whistle Creek, Hedley Area, Similkameen Mining Division for Philex Gold and Energy Corporation. AR# 16,427.

Jones, H.M., (1988): Assessment Report, Geology - Geochemical Report on the Gold Mine and Gold Hill Claims, Whistle Creek, Hedley Area, Similkameen Mining Division for Philex Gold and Energy Corporation. AR # 17,966.

Jones, H.M., (1988): A Report on the Gold Mine and Gold Hill Claims Whistle Creek, Hedley Area, Similkameen Mining Division for Philex Energy Corporation.

Jones, H.M., (1989): Geophysical Report on the Gold Mine and Gold Hill Claims, Whistle Creek, Hedley Area, Similkameen Mining Division for Philex Gold and Energy Corporation. AR# 19,351.

Kregorsky, R. (1987): Diamond Drilling Report on the Flint and Mission Claims for Agio Resources. AR# 16,916.

Little, H.W. (1961): Geology Kettle River (West Half), BC, Geological Survey of Canada Map 15-1961.

MacDonald, C.C. (1976): Geology, Geochemistry and Diamond Drilling Report on the HED Claims, for Canadian Occidental Petroleum Ltd. AR# 6,060.

McAllister, S.G. and McPherson, M.D. (1988): Diamond Drilling, Trenching, Geological and Soil Geochemical Report on the Jesse 1, Brown 1-4, Snafu 1-2, Camsell 1-4, Rice 2, Rice 4 Gap 1-3 and Anabree 1 Mineral Claims for Chevron Canada Resources. AR # 17,012.

McAllister, S.G. and McPherson, M.D. (1988): Diamond Drilling, Geological and Soil Geochemical Report on the Lost Horse 1-4, Lost Horse A and B and Lost Horse 86 Mineral Claims for Chevron Canada Resources. AR # 17,085.

Mariano, A., (1982): Prospecting Report on the Gold Mine Mineral Claim, Whistle Creek - Hedley Area, Similkameen Mining Division, BC for Bransol Management Corp. AR# 10,018.

Peto, P. (1986): Geological, Electromagnetic and soil Geochemical Report on the Alpha, Flint, Ion and Gamma Claims for Agio Resources. AR#15,630.

Pezzot, E.T. and White, G.E. (Jan 1984): Geophysical Report on an Airborne VLF-EM and Magnetometer Survey, GM Claim, Similkameen Mining Division for Kelly Kerr Energy Corporation. AR# 10,013, Part 2 of 2.

Pezzot, E.T. and White, G.E. (Jan 1984): Geophysical Report on an Airborne VLF-EM and Magnetometer Survey, EA Claim, Similkameen Mining Division for Tuscaloosa Oil and Gas Inc. AR# 10,014, Part 2 of 2.

Pezzot, E.T. and White, G.E. (Jan 1984): Geophysical Report on an Airborne VLF-EM and Magnetometer Survey, VA Claim, Similkameen Mining Division for Kadrey Energy Corporation. AR# 10,015, Part 2 of 2.

Pezzot, E.T. and White, G.E. (Jan 1984): Geophysical Report on an Airborne VLF-EM and Magnetometer Survey, JA Claim, Similkameen Mining Division for Berle Oil Corporation. AR# 10,016, Part 2 of 2.

Phendler, R. (1980): Diamond Drilling and Induced Polarization Survey on the Flint and Mission Claims for Agio Resources. AR#9,222.

Ray, G.E., Dawson, G.L. (1994): The Geology and Mineral Deposits of the Hedley Gold Skarn District, Southern British Columbia, Bulletin 87.

Ray, G.E., Simpson, R., Wilkinson W. and Thomas P. (1986): Preliminary Report on the Hedley Mapping Project, B.C. Ministry of Energy, Mines and Petroleum Resources, Geological Fieldwork, 1985, Paper 1986-1, Pages 101-105.

Ray, G.E., Dawson, G.L. and Simpson, R. (1986): The Geology and Controls of Skarn Mineralization in the Hedley Gold Camp Southern British Columbia, B.C. Ministry of Energy, Mines and Petroleum Resources, 1985, Paper 1987-1, pages 65-79.

Ray, G.E., Dawson, G.L. and Simpson, R. (1987): Geology, Geochemistry and Metallogenic Zoning in the Hedley Gold-Skarn Camp (92H/08, 82E/05).

Ray, G.E. and Dawson, G.L. (1987): Geology and Mineral Occurrences in the Hedley Gold Camp, Southern British Columbia (92H-8E), Ministry of Energy Mines and Petroleum Resources, Open File Maps 1987-10 a, b, c.

Ray, G.E. and Dawson, G.L. (1988): Geology and Mineral Occurrences in the Hedley Gold Camp, Southern British Columbia, BC Ministry of Energy, Mines and Petroleum Resources, Open File Map 1986-6.

Rice, H.M.A. (1947): Geology and Mineral Deposits of the Princeton Map-Area BC, Geological Survey of Canada Memoir 243.

Saleken, L.W. and Crooker, G.F. (1989): Exploration Report Phase I on the WP Property, Hedley Area, Similkameen Mining Division for Cannelle Exploration Ltd.

Saleken, L.W. (1997): Summary Report Stage I Drilling Program, The WP Property, Hedley Gold District for Northpoint Resources Ltd.

Seraphim, R.H., (1984): Report on Banbury Gold Mines Ltd Hedley, BC.

Vancouver Stock Watch, Banbury Gold Mines Ltd.: November 13, 1986, June 23, July 7, July 30, August 24 and September 29, 1987.

White, G., (1972): Electromagnetic and Soil Geochemical Report on the Flint Claim for Austro-Canadian Exploration. AR# 3,904.

10.0 CERTIFICATE OF QUALIFICATIONS

I, Grant F. Crooker, of 2522 Upper Bench Road, PO Box 404, Keremeos, British Columbia, Canada, VOX 1N0 do certify that:

I am a Consulting Geologist registered with the Association of Professional Engineers and Geoscientists of the Province of British Columbia (Registration No. 18961);

I am a Fellow of the Geological Association of Canada (Registration No. 3758) and I am a Member of the Canadian Institute of Mining, Metallurgy and Petroleum;

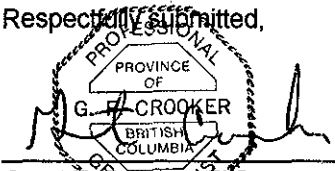
I am a graduate (1972) of the University of British Columbia with a Bachelor of Science degree (B.Sc.) from the Faculty of Science having completed the Major program in geology;

I have practised my profession as a geologist for over 25 years, and since 1980, I have been practising as a consulting geologist and, in this capacity, have examined and reported on numerous mineral properties in North and South America;

I have based this report on field examinations within the area of interest and on a review of the available technical and geological data;

I am the owner of the WP, W, John, Van, V, GH and Paul claim groups;

Respectfully submitted,


Grant F. Crooker, P. Geol.,
GFC Consultants Inc.
January 2002

APPENDIX I
CERTIFICATES OF ANALYSIS

20-Nov-01

ECO-TECH LABORATORIES LTD.
10041 Dallas Drive
KAMLOOPS, B.C.
V2C 6T4

ICP CERTIFICATE OF ANALYSIS AK 2001-403

GEOTEC CONSULTING LTD.
6976 LABURNUM STREET
VANCOUVER, BC
V6P 5M9

Phone: 250-573-5700
Fax : 250-573-4557

ATTENTION: LEN SALEKEN

No. of samples received: 3
Sample type: Rock
Project #: WP Claims
Shipment #: 1

Samples submitted by: Grant Crooker

Values in ppm unless otherwise reported

Et #.	Tag #	Au(ppb)	Ag	Al %	As	Ba	Bi	Ca %	Cd	Co	Cr	Cu	Fe %	La	Mg %	Mn	Mo	Na %	Ni	P	Pb	Sb	Sn	Sr	TI %	U	V	W	Y	Zn
1	WP-01	70	5.4	0.15	15	30	<2	0.04	<1	1	197	13	0.46	<10	0.05	151	3	<0.01	<1	110	8	<2	<20	6	<0.01	<10	6	<10	<1	13
2	WP-02	35	0.8	0.02	30	<5	<2	<0.01	<1	<1	194	3	0.27	<10	<0.01	67	4	<0.01	<1	20	<2	<2	<20	<1	<0.01	<10	2	<10	<1	4
3	WP-03	65	3.2	0.05	10	<5	<2	0.05	<1	<1	192	6	0.31	<10	0.01	117	4	<0.01	<1	40	2	<2	<20	<1	<0.01	<10	2	<10	<1	6

QC DATA:

Resplit:

1	WP-01	65	6.2	0.16	15	30	<2	0.04	<1	1	220	13	0.49	<10	0.06	163	4	<0.01	<1	120	6	<2	<20	2	<0.01	<10	6	<10	<1	13
---	-------	----	-----	------	----	----	----	------	----	---	-----	----	------	-----	------	-----	---	-------	----	-----	---	----	-----	---	-------	-----	---	-----	----	----

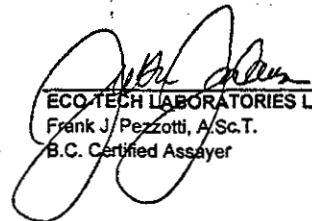
Repeat:

1	WP-01	-	5.6	0.15	15	25	<2	0.04	<1	1	201	13	0.47	<10	0.06	159	4	<0.01	<1	110	6	<2	<20	1	<0.01	<10	6	<10	<1	12
---	-------	---	-----	------	----	----	----	------	----	---	-----	----	------	-----	------	-----	---	-------	----	-----	---	----	-----	---	-------	-----	---	-----	----	----

Standard:

GEO'01		125	1.0	1.65	55	160	<2	1.58	<1	20	67	84	3.68	20	0.93	684	<1	0.02	29	700	22	<2	<20	56	0.07	<10	51	<10	14	80
--------	--	-----	-----	------	----	-----	----	------	----	----	----	----	------	----	------	-----	----	------	----	-----	----	----	-----	----	------	-----	----	-----	----	----

FP/kk
df/401
XLS/01


 ECO-TECH LABORATORIES LTD.
 Frank J. Pezzotti, A.Sc.T.
 B.C. Certified Assayer

20-Nov-01

ECO-TECH LABORATORIES LTD.
10041 Dallas Drive
KAMLOOPS, B.C.
V2C 6T4

ICP CERTIFICATE OF ANALYSIS AK 2001-404

GEOTEC CONSULTING LTD.
6976 LABURNUM STREET
VANCOUVER, BC
V6P 5M9

Phone: 250-573-5700
Fax : 250-573-4557

ATTENTION: LEN SALEKEN

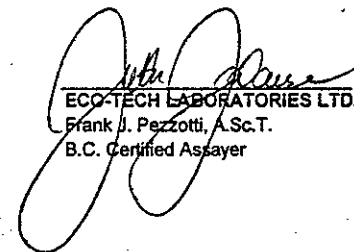
No. of samples received: 17
Sample type: Soil
Project #: WP Claims
Shipment #: None Given
Samples submitted by: Grant Crooker

Values in ppm unless otherwise reported

Et #.	Tag #	Au(ppb)	Ag	Al %	As	Ba	Bi	Ca %	Cd	Co	Cr	Cu	Fe %	La	Mg %	Mn	Mo	Na %	Ni	P	Pb	Sb	Sn	Sr	Ti %	U	V	W	Y	Zn
1	1550N 1520W	10	<0.2	1.73	<5	210	<2	0.71	<1	9	10	24	1.67	10	0.25	1649	<1	0.01	9	620	32	<2	<20	62	0.05	<10	25	<10	11	112
2	1550N 1530W	<5	<0.2	1.39	<5	190	<2	0.49	<1	6	5	15	1.23	<10	0.16	1879	<1	0.01	5	700	28	<2	<20	38	0.04	<10	17	<10	5	119
3	1550N 1540W	<5	<0.2	1.26	<5	145	<2	0.48	<1	5	4	13	1.08	<10	0.15	1671	<1	0.01	4	990	16	<2	<20	39	0.04	<10	15	<10	4	118
4	1550N 1550W	<5	<0.2	1.58	<5	160	<2	0.84	<1	8	9	28	1.53	10	0.24	1260	<1	0.01	8	670	18	<2	<20	60	0.05	<10	17	<10	8	107
5	1550N 1560W	15	<0.2	1.68	10	100	<2	0.67	<1	13	18	61	2.40	20	0.46	652	<1	0.02	12	690	12	<2	<20	85	0.06	<10	51	<10	19	52
6	1550N 1570W	10	<0.2	1.65	<5	115	<2	0.40	<1	10	18	31	2.10	20	0.33	784	<1	0.01	11	530	14	<2	<20	48	0.06	<10	39	<10	13	60
7	1550N 1580W	5	<0.2	1.99	<5	105	<2	0.43	<1	9	17	30	2.12	10	0.30	435	<1	0.01	10	350	10	<2	<20	51	0.07	<10	32	<10	15	48
8	1600N 1520W	10	<0.2	2.48	5	205	2	0.73	<1	11	14	28	2.15	10	0.32	1125	<1	0.01	13	920	14	<2	<20	59	0.06	<10	34	<10	14	83
9	1600N 1530W	5	<0.2	2.46	5	205	2	0.63	<1	12	17	30	2.30	20	0.34	1250	1	0.01	15	760	18	<2	<20	71	0.09	<10	31	<10	20	94
10	1600N 1540W	10	<0.2	1.98	<5	205	2	0.59	<1	9	11	21	1.76	10	0.24	1699	<1	0.01	10	1110	12	<2	<20	50	0.06	<10	29	<10	12	113
11	1600N 1550W	5	<0.2	2.30	5	205	<2	0.62	<1	9	11	23	1.86	10	0.25	1387	<1	0.01	11	830	16	<2	<20	51	0.07	<10	22	<10	13	110
12	1600N 1560W	10	<0.2	2.19	5	180	<2	0.53	<1	10	16	29	2.16	10	0.31	1262	<1	0.02	12	670	14	<2	<20	51	0.06	<10	30	<10	15	109
13	1600N 1570W	10	<0.2	2.15	5	135	<2	0.39	<1	10	18	26	2.23	10	0.32	839	<1	0.02	12	540	12	<2	<20	40	0.07	<10	39	<10	13	77
14	1600N 1580W	5	<0.2	2.08	5	235	<2	1.17	<1	10	15	32	2.02	10	0.31	1443	<1	0.01	15	1470	10	<2	<20	110	0.06	<10	35	<10	11	123
15	1600N 1590W	10	<0.2	2.28	10	195	<2	0.52	<1	10	15	27	2.10	10	0.33	1300	<1	0.02	13	760	12	<2	<20	52	0.10	<10	25	<10	9	106
16	1600N 1600W	10	<0.2	1.80	<5	155	<2	0.36	<1	8	11	17	1.77	10	0.23	950	<1	0.02	9	760	12	<2	<20	38	0.08	<10	28	<10	7	93
17	1600N 1610W	10	<0.2	2.07	<5	130	<2	0.34	<1	9	14	26	2.02	10	0.30	642	1	0.02	11	550	12	<2	<20	35	0.10	<10	26	<10	11	71

Et #.	Tag #	Au(ppb)	Ag	Al %	As	Ba	Bi	Ca %	Cd	Co	Cr	Cu	Fe %	La	Mg %	Mn	Mo	Na %	Ni	P	Pb	Sb	Sn	Sr	Ti %	U	V	W	Y	Zn	
QC DATA:																															
Repeat:																															
1	1550N 1520W	10	<0.2	1.66	<5	205	<2	0.71	<1	8	10	22	1.65	10	0.24	1662	<1	<0.01	9	620	32	<2	<20	56	0.05	<10	26	<10	10	139	
10	1600N 1540W	35	<0.2	1.97	5	210	<2	0.60	<1	9	11	21	1.75	10	0.24	1729	<1	0.01	10	1100	12	<2	<20	51	0.04	<10	24	<10	13	112	
Standard:																															
GEO'01		125	1.0	1.65	50	155	<2	1.52	<1	19	63	86	3.50	20	0.93	662	<1	0.02	31	700	22	<2	<20	56	0.09	<10	57	<10	13	74	

FP/kk
df/401
XLS/01


ECO-TECH LABORATORIES LTD.
Frank J. Pezzotti, A.Sc.T.
B.C. Certified Assayer

APPENDIX II
MAGNETIC AND VLF-EM DATA

Grant F. Crooker

Line and Station: +=Northing/Easting
 --=Southing/Westing

Area: WP4A Claim

File Name: WWPmv101

Grid: WP

Date: October 2001

Instrument Type:

Scintrex MP-2:

Geonics EM-16

Station:

Data Types: #1

#2

#3

Details:

Corrected Total Field Magnetic Values

In-phase and quadrature, percent

Cutler, facing southerly

Corrected Total Field Magnetic Values

VLF-EM In-phase values, percent

VLF-EM quadrature values, percent

N/S	E/W	#1	#2	#3
line 1650				
1650	1650	55863	-8	-1
1650	1645	55865	-8	-2
1650	1640	55884	-9	-2
1650	1635	55928	-12	0
1650	1630	55941	-13	2
1650	1625	55854	-13	0
1650	1620	55850	-16	1
1650	1615	55841	-16	1
1650	1610	55827	-17	1
1650	1605	55856	-18	2
1650	1600	55842	-17	3
1650	1595	55881	-17	1
1650	1590	55916	-16	2
1650	1585	55947	-15	2
1650	1580	56158	-17	2
1650	1575	55908	-15	6
1650	1570	55975	-14	2
1650	1565	56047	-15	2
1650	1560	55704	-14	4
1650	1555	55742	-13	3
1650	1550	55746	-10	3
1650	1545	55742	-12	4
1650	1540	55746	-10	1
1650	1535	55772	-14	2
1650	1530	55792	-12	2
1650	1525	55747	-15	1
1650	1520	55756	-12	3
1650	1515	55758	-12	3
1650	1510	55778	-11	2
1650	1505	55825	-12	2
1650	1500	55961	-12	2
1650	1495	55706	-12	4
1650	1490	55745	-12	7
1650	1485	55731	-14	1
1650	1480	55717	-15	1
1650	1475	55723	-12	4
1650	1470	55740	-12	4
1650	1465	55762	-14	2
1650	1460	55776	-11	1

1650	1455	55791	-11	6
1650	1450	55830	-14	5
line 1600				
1600	1650	55853	-17	-3
1600	1645	55838	-17	-5
1600	1640	55844	-17	-7
1600	1635	55845	-16	-6
1600	1630	55850	-19	-8
1600	1625	55851	-18	3
1600	1620	55852	-18	1
1600	1615	55852	-17	-7
1600	1610	55854	-18	-7
1600	1605	55860	-17	-4
1600	1600	55885	-16	-5
1600	1595	55883	-17	-4
1600	1590	55895	-16	-5
1600	1585	55945	-17	-3
1600	1580	56028	-17	-6
1600	1575	56266	-16	-4
1600	1570	56180	-16	-3
1600	1565	55855	-16	-1
1600	1560	55788	-17	-3
1600	1555	55771	-16	-6
1600	1550	55754	-16	-4
1600	1545	55745	-16	-1
1600	1540	55778	-15	-4
1600	1535	55809	-12	1
1600	1530	55852	-12	1
1600	1525	55885	-12	0
1600	1520	55857	-11	0
1600	1515	55816	-10	-2
1600	1510	55865	-11	-2
1600	1505	55742	-11	0
1600	1500	55766	-10	1
1600	1495	55765	-11	3
1600	1490	55780	-10	3
1600	1485	55748	-12	3
1600	1480	55750	-10	-3
1600	1475	55742	-10	-1
1600	1470	55730	-8	-1
1600	1465	55677	-9	-1
1600	1460	55762	-9	2
1600	1455	55729	-8	-1
1600	1450	55757	-5	4
line 1550				
1550	1650	55771	-14	-1
1550	1645	55780	-14	-8
1550	1640	55773	-14	-5
1550	1635	55786	-15	-4
1550	1630	55794	-13	-5
1550	1625	55798	-14	2
1550	1620	55793	-13	-8
1550	1615	55794	-12	-6
1550	1610	55817	-13	-8
1550	1605	55829	-9	-4
1550	1600	55851	-11	-7
1550	1595	55882	-11	-5
1550	1590	55955	-12	-5
1550	1585	56010	-12	-4

1550	1580	56073	-13	-4
1550	1575	56035	-13	-3
1550	1570	55889	-14	-5
1550	1565	55792	-12	-8
1550	1560	55761	-13	-4
1550	1555	55758	-12	-5
1550	1550	55745	-12	-5
1550	1545	55709	-11	-6
1550	1540	55705	-11	-4
1550	1535	55718	-11	-3
1550	1530	55732	-9	-2
1550	1525	55752	-9	-4
1550	1520	55748	-10	-4
1550	1515	55752	-10	0
1550	1510	55758	-9	-3
1550	1505	55761	-8	-4
1550	1500	55767	-8	6
1550	1495	55771	-8	2
1550	1490	55786	-8	4
1550	1485	55809	-9	2
1550	1480	55824	-8	2
1550	1475	55785	-11	3
1550	1470	55746	-8	-2
1550	1465	55768	-5	-3
1550	1460	55753	-9	-5
1550	1455	55704	-11	0
1550	1450	55704	-10	-5
line 1500				
1500	1650	55736	-2	-6
1500	1645	55767	-2	-4
1500	1640	55780	-4	-4
1500	1635	55729	-2	-4
1500	1630	55727	-1	-3
1500	1625	55763	-2	-2
1500	1620	55780	-2	-9
1500	1615	55820	-1	1
1500	1610	55822	-2	-4
1500	1605	55888	-4	-4
1500	1600	55988	-3	-5
1500	1595	55986	-1	-3
1500	1590	56342	-5	0
1500	1585	55655	-5	-2
1500	1580	55666	-5	-7
1500	1575	55675	-5	-6
1500	1570	55685	-5	-7
1500	1565	55687	-7	-7
1500	1560	55700	-7	-9
1500	1555	55729	-9	-7
1500	1550	55763	-6	-8
1500	1545	55783	-6	-5
1500	1540	55767	-5	-4
1500	1535	55774	-5	-8
1500	1530	55776	-5	-5
1500	1525	55769	-4	-5
1500	1520	55770	-7	-3
1500	1515	55777	-8	-6
1500	1510	55765	-5	-4
1500	1505	55764	-2	-8
1500	1500	55754	-3	-5

1500	1495	55764	-2	-8
1500	1490	55776	-2	-5
1500	1485	55769	-3	-6
1500	1480	55750	-1	-5
1500	1475	55782	-2	-4
1500	1470	55755	-2	-5
1500	1465	55656	-3	-7
1500	1460	55737	-3	-6
1500	1455	55726	-3	-3
1500	1450	55742	-4	0
BL 1550				
1550	1650	55746		
1550	1625	55748		
1550	1600	55754		
1550	1575	55770		
1550	1550	55745		
1550	1525	55762		
1550	1500	55762		

APPENDIX III
GEOPHYSICAL EQUIPMENT SPECIFICATIONS

MP-2 PROTON PRECESSION MAGNETOMETER

Resolution: 1 gamma

Total Field Accuracy: \pm gamma over full operating range

Range: 20,000 to 100,000 gammas in 25 overlapping steps.

Internal Measuring Program: A reading appears 1.5 seconds after depression of Operate Switch & remains displayed for 2.2 secs. Recycling feature permits automatic repetitive readings at 3.7 sec. intervals.

External Trigger: External trigger input permits use of sampling intervals longer than 3.7 seconds.

Display: 5 digit LED readout displaying total magnetic field in gammas or normalized battery voltage.

Data Output: Multiplied precession frequency and gate time outputs for base station recording using interfacing optionally available from Scintrex.

Gradient Tolerance: Up to 5,000 gammas/meter.

Power Source: 8 size D cells \approx 25,000 readings at 25° C under reasonable conditions.

Sensor: Omnidirectional, shielded, noise-cancelling dual coil, optimized for high gradient tolerance.

Harness: Complete for operation with staff or back pack sensor.

Operating Temperature Range: -35 to +60° C.

Size: Console, 8 x 16 x 25 cm; Sensor, 8 x 15 cm; Staff 30 x 66 cm;

Weights: Console, 1.8 kg; Sensor, 1.3 kg; Staff, 0.6 kg;

Manufacturer: Scintrex
222 Snidercroft Road
Concord, Ontario

GEONICS LIMITED
VLF 116

Source of Primary Field VLF transmitting stations

Transmitting Stations Used: Any desired station frequency can be supplied with the instrument in the form of plug-in tuning units. Two tuning units can be plugged in at one time. A switch selects either station.

Operating Frequency Range: About 15-25 Hz.

Parameters Measured: 1- The vertical in-phase component (tangent of the tilt angle of the polarization ellipsoid).
2- The vertical out-of-phase (quadrature) component (the short axis of the polarization ellipsoid compared to the long axis).

Method of Reading: In-phase from a mechanical inclinometer and quadrature from a calibrated dial. Nulling by audio tone

Scale Range: In-phase $\pm 150\%$; quadrature $\pm 40\%$

Readability: $\pm 1\%$

Operating Temperature Range: -40 to 50° C.

Operating Controls: ON-OFF switch, battery testing push button, station selector, switch, volume control, quadrature dial $\pm 40\%$, inclinometer $\pm 150\%$

Power Supply: 6 size AA alkaline cells ≈ 200 hrs.

Dimensions: 42 x 14 x 9 cm (16 x 5.5 x 3.5 in)

Weight: 1.6 kg. (3.5 lbs)

Instrument Supplied With: Monotonic speaker, carrying case, manual of operation, 3 station selector plug-in tuning units (additional frequencies are optional) set of batteries.

Manufacturer: Geonics Limited
1745 Meyerside Drive/Unit 8
Mississauga, Ontario
L5T 1C5

APPENDIX IV
ROCK SAMPLE DESCRIPTIONS

Sample No.	Width cm	DESCRIPTION	Au ppb	Ag ppm	As ppm	Cu ppm	Pb ppm	Zn ppm
WP01	float	milky white quartz, minor rusty fractures, miarolitic cavities	70	5.4	15	13	8	13
WP02	float	milky white quartz, minor rusty fractures, inclusions chlorite	35	0.8	30	<2	8	4
WP03	grab	milky white quartz, minor rusty fractures, miarolitic cavities	65	3.2	10	2	<2	6

APPENDIX V
COST STATEMENT

COST STATEMENT

SALARIES

Grant Crooker, Geologist October 2, 31, November 3, 2001, February 18, 19, 2002 5 days @ \$ 400.00/day	\$ 2,000.00
Lee Mollison, Geological Assistant October 2, 31, November 3, 2001 3 days @ \$ 200.00/day	600.00

MEALS AND ACCOMMODATION

Grant Crooker - 3 days @ \$ 50.00/day	150.00
Lee Mollison - 3 days @ \$ 50.00/day	150.00

TRANSPORTATION

Vehicle Rental (1996 Chev 1/2 ton 4 x 4) October 2, 31, November 3, 2001 3 days @ \$ 60.00/day	180.00
Gasoline	55.00

EQUIPMENT RENTAL

Magnetometer (Scintrex MP-2) October 31, November 3, 2001 2 days @ \$ 25.00/day	50.00
VLF-EM (Geonics EM-16) October 31, November 3, 2001 2 days @ \$ 25.00/day	50.00

GEOCHEMICAL ANALYSIS

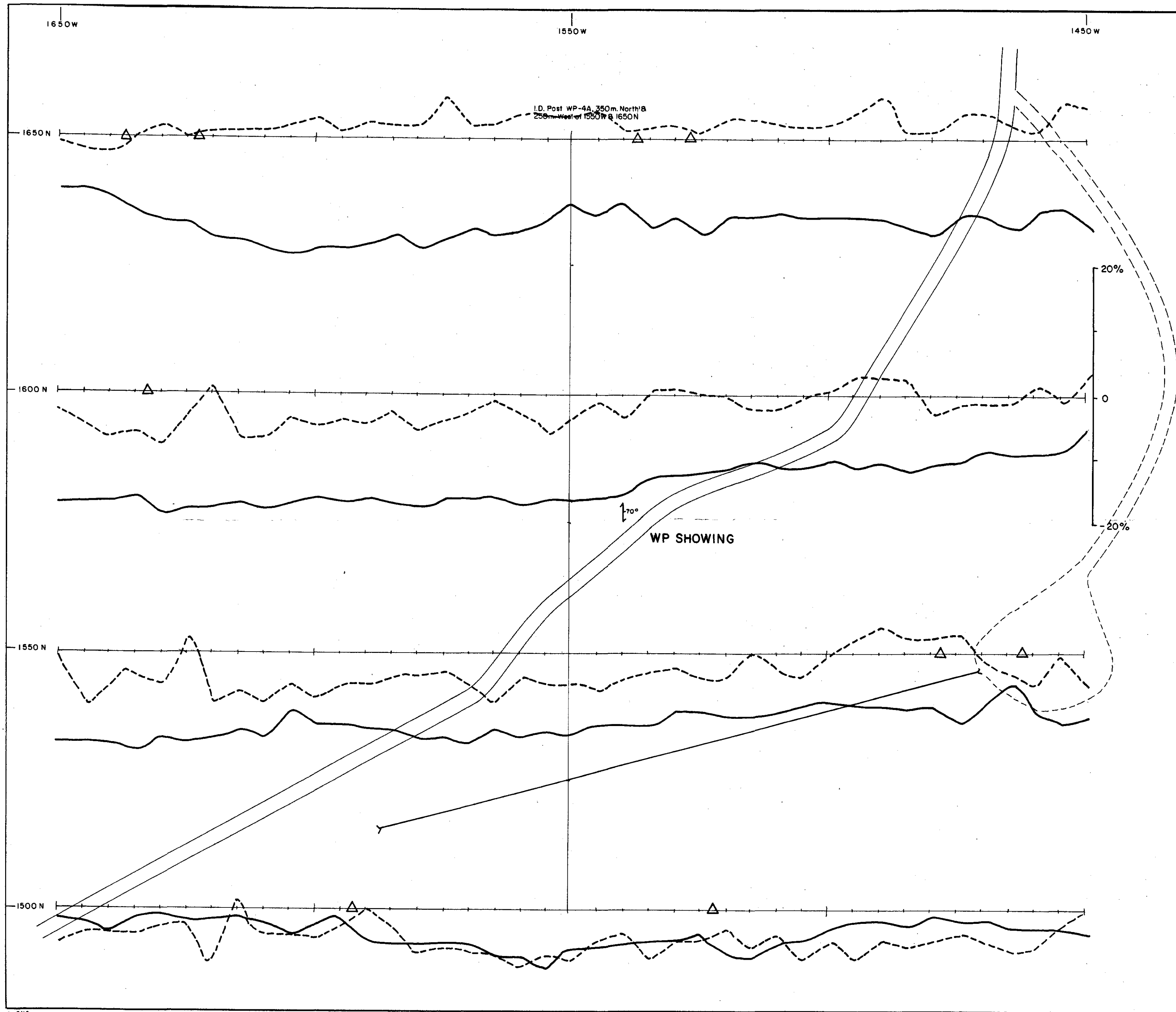
3 rock samples - 28 element ICP, Au (30 gram) @ \$ 26.25	78.78
17 soil samples - 28 element ICP, AU (30 gram) @ \$ 21.00	357.00

DRAFTING	417.40
-----------------	---------------

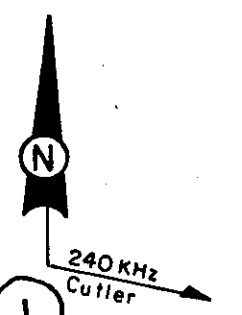
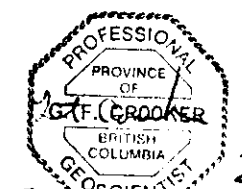
PREPARATION OF REPORT

(Reproduction, copying, telephone, overhead)	<u>50.00</u>
TOTAL\$	4,138.18

26,801



- Grid line
- /// Road
- - - Cat trail
- ||| Trench
- Quartz vein / breccia
- ⊗ Anomalous inflection (In-Phase)
- Inphase
- - - Quadrature
- △ VLF-EM Conductor



26801 ①

GRANT F. CROOKER

HEDLEY PROJECT
N.T.S. 92H-8E SIMLKAMEEN & OSOYOOS M.D., B.C.

WP SHOWING
GROUND VLF-EM PROFILES
(NAA, CUTLER, MA.)

DATE: JAN. 2002 FIGURE: 6.0

SCALE 0 10 20 30 METRES
1:500

1650W

1550W

1450W

GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORT

26,801

1650N

1600N

1550N

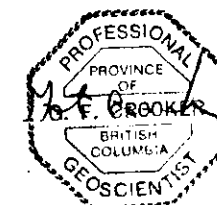
1500N

I.D. Post WP-4A, 350m. North &
250m. West of 1550W & 1650N

- Grid line
- Road
- Cat trail
- Trench
- Quartz vein/breccia
- 1000nT contour interval
- 100nT contour interval
- Magnetic low
- MH-A Magnetic high A

WP SHOWING

MH-A



26801 (2)

GRANT F. CROOKER	
HEDLEY PROJECT	
N.T.S. 92H-8E	SIMILKAMEEN & OSOYOOS M.D., B.C.
WP SHOWING	
GROUND TOTAL FIELD	
MAGNETIC CONTOURS	
DATE : JAN. 2002	FIGURE : 5.0
SCALE 1:500	

1650W

1550W

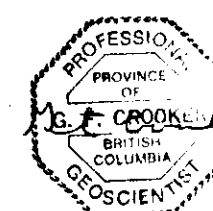
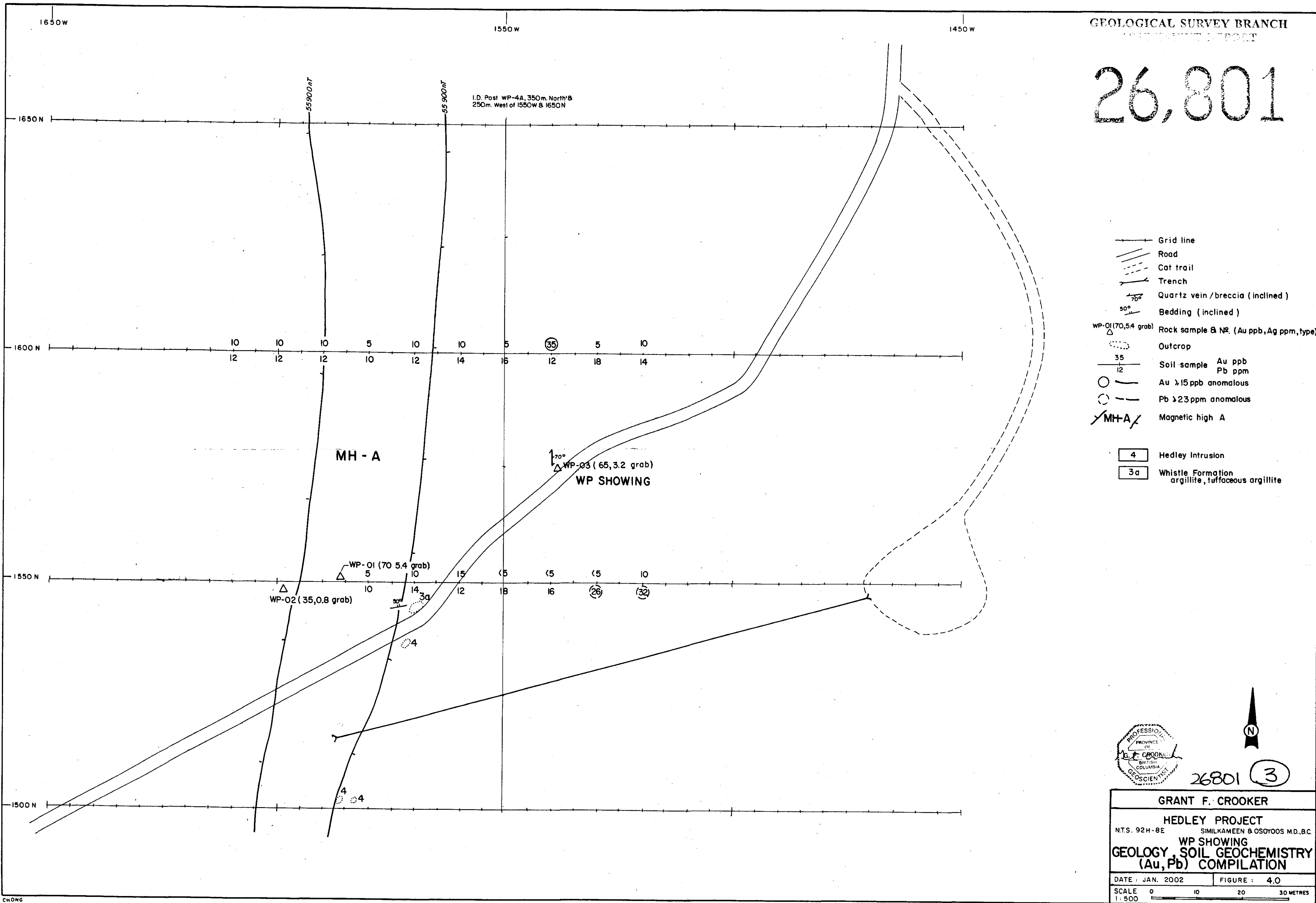
1450W

GEOLOGICAL SURVEY BRANCH

MINING REPORT

26,801

I.D. Post WP-4A, 350m. North & 250m. West of 1550W & 1650N



26801 (3)

GRANT F. CROOKER

HEDLEY PROJECT
 N.T.S. 92H-8E SIMILKAMEEN & OSOYOOS M.D., B.C.
 WP SHOWING
GEOLOGY, SOIL GEOCHEMISTRY
(Au, Pb) COMPILATION

DATE: JAN. 2002 FIGURE: 4.0

SCALE 0 10 20 30 METRES
1:500