PRELIMINARY PROSPECTING
CAHILL 3-12 MINERAL CLAIMS
OSOYOOS MINING DIVISION
HEDLEY, B.C.
NTS 82E5, 92H8
MTR MAP 82E031, 92H040
LATITUDE 49°22'N, LONGITUDE 119°59'30" W

LOCKE B. GOLDSMITH, P.ENG., P.GEO.
CONSULTING GEOLOGIST

SEPTEMBER 20, 2001

TABLE OF CONTENTS

PRELIMINARY PROSPECTING

CAHILL 3-12 MINERAL CLAIMS

OSOYOOS MINING DIVISION

HEDLEY, B.C.

NTS 82E5, 92H8

MTR MAP 82E031, 92H040

SUMMARY

Prospecting commenced on a part of the claim group. A rock sample taken across 2.3 metres of a rusty fracture zone in skarn contains 3440 ppb gold (0.11 oz/ton Au).

Continued prospecting with rock and soil geochemical sampling is recommended at an estimated cost of $7500.00 in the next phase.

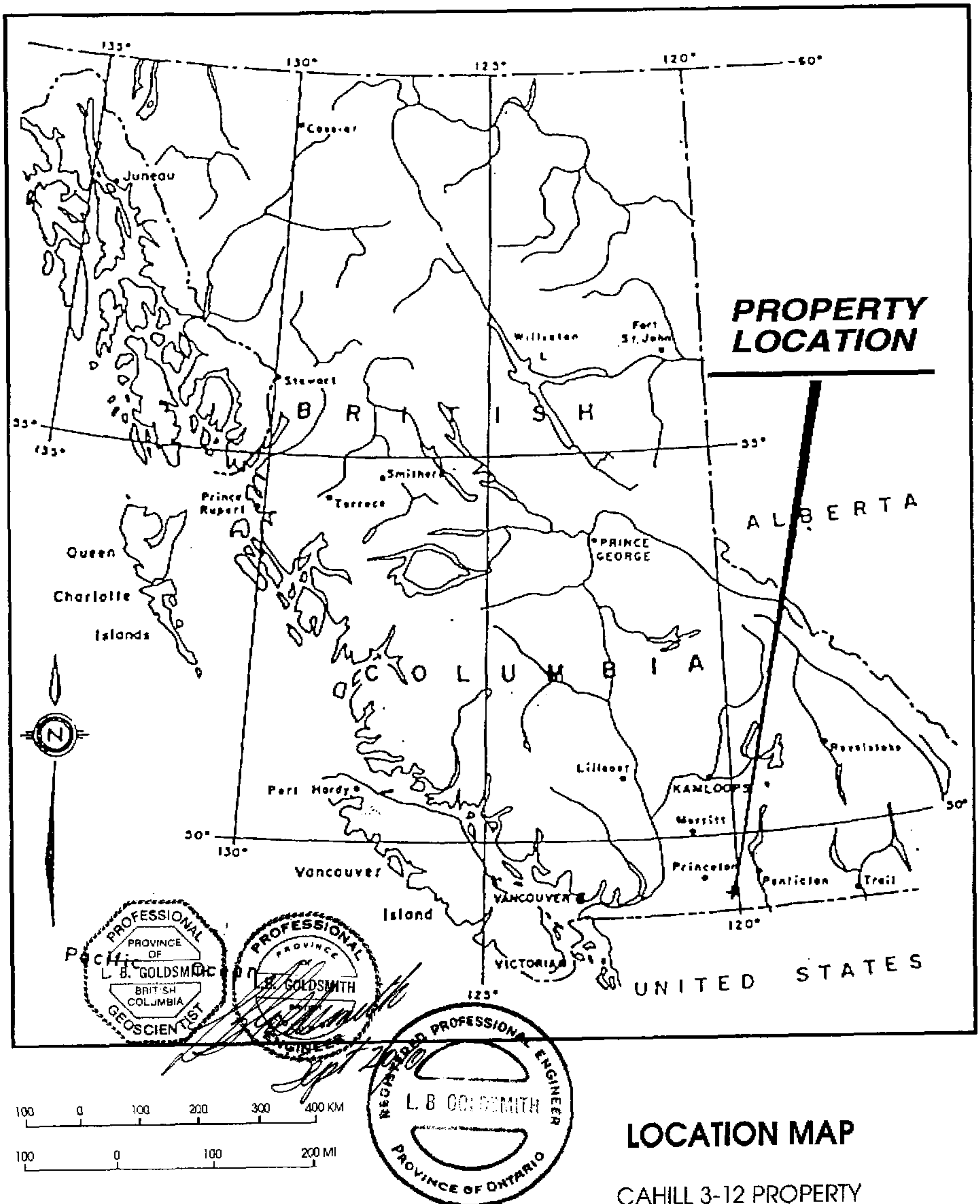
PROPERTY, LOCATION, ACCESS

The Cahill 3-12 mineral claims are located 5.5 km east of the town of Hedley, B.C., 3 kilometres east of Nickel Plate Mountain (Figures 1 and 2). Southwestward-flowing Cahill Creek crosses the northern part of the claims. Elevation of the property ranges from approximately 1550 metres (5100 feet) near the western margin of the Cahill 11 claim, to 1800 metres (5300 feet) at the eastern side of the Cahill 8 claim. Coordinates of latitude 49°22' north, longitude 119°59'30" west cross the property. The property spans the boundary between NTS map sheets 92H/8E and 82E/5W, Osoyoos Mining Division.

Access to the property can be made by gravel road which begins 2.7 km southeast of Hedley on Highway #3. The road crosses Redtop Gulch and Cahill Creek and passes by the Nickel Plate (Mascot) Mine and the Canty Mine. A logging road branches southerly and trends through the centre of the Cahill 3-12 claims, a total distance of about 15 km. An alternate route can be made from Penticton, B.C. by paved road to Apex Ski Resort then by gravel road for a total distance of approximately 45 km. Secondary logging roads lead to additional parts of the claim group.

As can be seen from the accompanying claim map (Figure 2), the Cahill property consists of ten 2-post claims totalling 10 units which is 250 hectares (617.3 acres). However, pre-existing claims cover the southern and northern ends of the area. Net area at the Cahill 3-12 claim group is approximately 215 hectares (530 acres). Claim data are as follows:

Claim Name	*Tenure Number*	*Units*	*Current Expiry Date*
Cahill 3	380915	1	Sept. 23, 2001
Cahill 4	380916	1	"
Cahill 5	380917	1	"
Cahill 6	380918	1	"
Cahill 7	380919	1	"
Cahill 8	380920	1	"
Cahill 9	380921	1	"
Cahill 10	380922	1	"
Cahill 11	380923	1	"
Cahill 12	380924	1	"



LOCATION MAP

CAHILL 3-12 PROPERTY

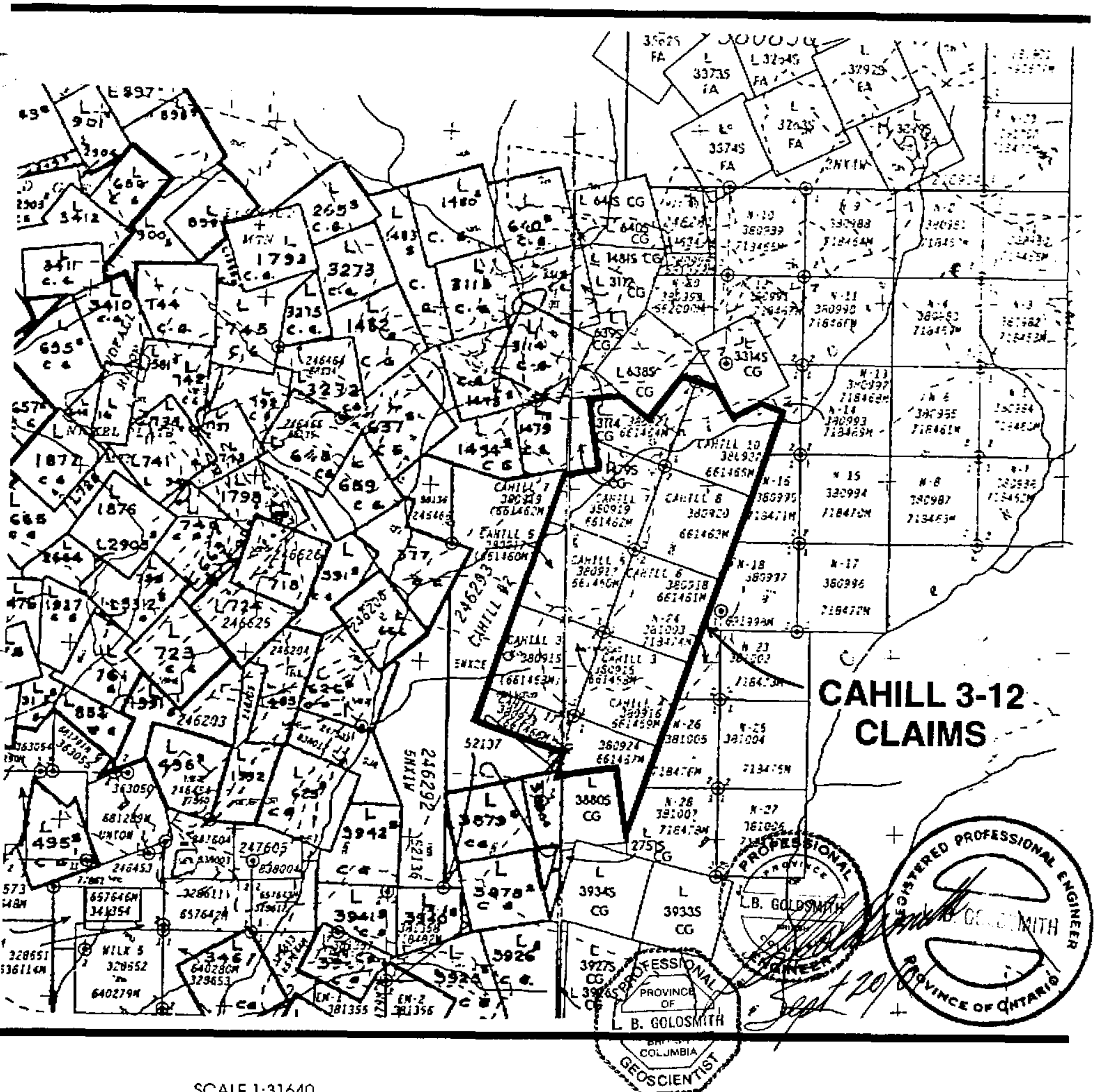
OSOYOOS MINING DIVISION, HEDLEY, B.C.

FIGURE 1

To accompany report by:

LOCKE B. GOLDSMITH, P.Eng., P.Geo.
Consulting Geologist

SEPTEMBER 2001



SCALE 1:31640

0 0.5 1.0 1.5 2.0 KM

CLAIM MAP

MTR 82E031, 92H040

CAHILL 3-12 PROPERTY

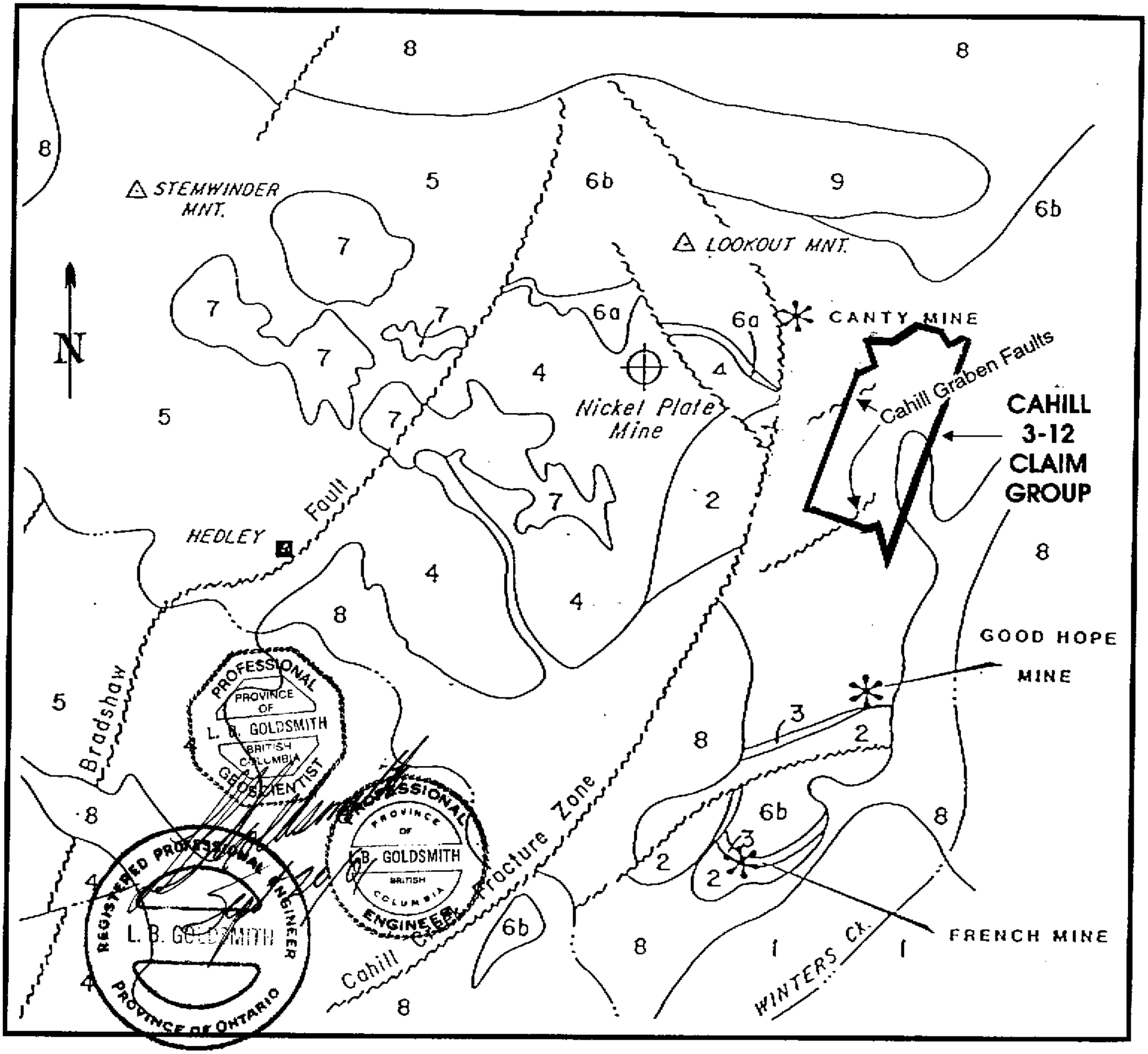
OSOYOOS MINING DIVISION, HEDLEY, B.C.

To accompany report by:

LOCKE B. GOLDSMITH, P.Eng., P.Geo.
Consulting Geologist

SEPTEMBER 2001

FIGURE 2



EARLY CRETACEOUS

9 Spences Bridge Group - ANDESITIC TO DACITIC PYROCLASTICS & FLOWS WITH MINOR SEDIMENTS

EARLY JURASSIC

8 Bromley Batholith & Cahill Creek Pluton GRANODIORITE TO QUARTZ MONZODIORITE

7 Hedley Intrusion - QUARTZ DIORITE, DIORITE, AND GABBRO

LATE TRIASSIC

6b Whistle Creek Formation - BEDDED TO MASSIVE ASH AND LAPILLLI TUFF, MINOR TUFFACEOUS SILTSTONE

6a Copperfield Conglomerate - LIMESTONE BOULDER CONGLOMERATE

5 Stemwinder Mountain Formation (Western Facies) - THINLY BEDDED ARGILLITE AND LIMESTONE

4 Hedley Formation (Central Facies) - THINLY BEDDED SILTSTONE, THICK LIMESTONE BEDS AND MINOR TUFFS

3 French Mine Formation (Eastern Facies) - LIMESTONE, LIMESTONE BRECCIA & PEBBLE CONGOLMERATE

2 Peachland Creek Formation - BASALTIC ASH TUFFS & FLOWS WITH MINOR LIMESTONE & CHERT PEBBLE CONGLOMERATE

PALEOZOIC

1 Apex Mountain Complex - OPHIOLITE SEQUENCE OF CHERTS, GREENSTONES, SILTSTONE, ARGILLITES & MINOR LIMESTONES

SCALE 1:62,500

KM 0 1 2 3 KM

Geology from Ettinger, A.D. & Ray, G.E. (1989)

Graben faults from Geophysics at Cahill Claims

To accompany report by:

LOCKE B. GOLDSMITH, P.Eng., P.Geo.
Consulting Geologist

REGIONAL GEOLOGY

CAHILL 3-12 PROPERTY

Osoyoos Mining Division, Hedley, B.C.

SEPTEMBER 2001

FIGURE 3

For the current report of exploration the author has relied upon assessment reports on file with the recorders office, private reports summarizing previous exploration surveys and government geological publications.

HISTORY

Gold was discovered on Nickel Plate Mountain in 1897. Production between 1902 and 1955 from several gold skarn ore bodies was approximately 51 million grams (1.6 million ounces). Most production came from the Nickel Plate and Hedley Mascot mines located near the summit of Nickel Plate Mountain. As shown on Figure 3, the Nickel Plate Mine lies approximately 2.5 km west of the Cahill 3-12 claims. Open pit mining resumed at the Nickel Plate Mine in 1987. Measured geological (proven) reserves were 6 million tonnes grading 2.57 grams gold/tonne (MINFILE DATABASE, 2001, from Mineral Exploration Review 1990, p. 62).

Auriferous skarn mineralization is also present at the French Mine located 4.0 km south of the Cahill 3-12 claims. Production between 1950 and 1983 was 69508 tonnes (76,598 tons) grading 19.60 grams/tonne gold (0.572 oz/ton), 2.60 grams/tonne silver (0.076 oz/ton), and 0.30 kg/tonne copper (0.03%) (MINFILE DATABASE, June 2001).

Similar mineralization is present at the Good Hope Mine located 2.0 km south of the Cahill 3-12 claim group. Production between 1945 and 1982 totalled 11,115 tonnes (12,249 tons) grading 15.02 grams/tonne gold (0.44 oz/ton), 10.75 grams/tonne silver (0.31 oz/ton), and 0.05 kg/tonne copper (0.005%) (MINFILE DATABASE, June 2001).

Gold skarn mineralization is also present at the Canty Mine located approximately 1.5 km northwest of the Cahill 3-12 claims. Mining in 1939 and 1941 totalled 1,483 tonnes (1,634 tons) grading 11.11 grams/tonne gold (0.32 oz/ton). Homestake Canada Inc. has recently operated an open pit gold mine at the site of the old Canty Mine. Reserves estimated by the company at January 1, 1996 were 696,655 tonnes grading 2.84 grams/tonne gold (MINFILE DATABASE, June 2001, from Information Circular 1996-1, p. 7).

There appears to be no public record of exploration work from the Cahill 3-12 claims, nor are there records of past production at the claims.

REGIONAL GEOLOGY

The Hedley district lies within the Quesnel terrane of the Intermontane belt in the southern part of the Canadian Cordillera. The belt is a mosaic of fault-bounded terranes consisting primarily of lower Paleozoic through Jurassic marine volcanic and sedimentary rocks and comagmatic intrusive rocks deposited in an island-arc or marginal basin setting. The bulk of the Quesnel terrane is composed of the Late Triassic to Early Jurassic Nicola Group. This group of rocks hosts the gold skarn deposits in the Hedley district (Ettlinger and Meinert, 1992).

In the Hedley area the Nicola Group contains three distinct stratigraphic packages. The oldest, the Peachland Creek Formation, largely comprises mafic tuffs and minor conglomerate while the youngest, the Whistle Creek Formation, is essentially an andesitic to basaltic volcaniclastic sequence. Between these two formations is a predominantly sedimentary succession that hosts most of the gold-bearing skarns in the camp. Several east-to-west facies changes are recognized in this sequence, which progressively thickens from 100 metres in the east to over 700 metres in the west. These facies changes probably reflect deposition across the tectonically controlled margin of a Late Triassic marine basin which deepened to the west.

The easternmost and most proximal facies, the French Mine Formation, has a maximum thickness of 150 metres and comprises massive to bedded limestone interlayered with thinner units of calcareous siltstone, chert-pebble conglomerate, tuff, limestone-boulder conglomerate and limestone breccia. It hosts the auriferous skarn mineralization at the French and Good Hope mines (Ettlinger and Ray, 1989).

Further west, rock stratigraphically equivalent to the French Mine Formation is represented by the Hedley Formation which hosts the gold-bearing skarn at the Nickel Plate Mine. The Hedley Formation is 400 to 500 metres thick and characterized by thinly bedded, turbiditic calcareous siltstones that display some soft sediment structures, and a unit of pure to gritty, massive to bedded limestone that reaches 75 metres in thickness and several kilometres in strike length.

The most distal facies to the west is represented by the Stemwinder Mountain Formation which is at least 700 metres thick and characterized by a monotonous sequence of black, organic-rich, thinly bedded calcareous argillite and turbiditic siltstone, and dark impure limestone beds that seldom exceed 3 metres in thickness.

The sedimentary rocks of the Stemwinder Mountain, Hedley and French Mine Formations pass stratigraphically upward into the Whistle Creek Formation. The formation is 700 to 1200 metres thick and distinguishable from the underlying rocks by a general lack of limestone and a predominance of andesitic to basaltic volcaniclastic material. The base of the Whistle Creek Formation is often marked by the Copperfield conglomerate, a limestone-boulder conglomerate 1 to 200 metres thick that forms an important stratigraphic marker horizon in the district (Ettlinger and Ray, 1989).

Two Jurassic plutonic suites are recognized in the area. The oldest, the subalkalic, calc-alkaline Early Jurassic Hedley intrusions, is economically important. It forms major stocks up to 1.5 kilometres in diameter and swarms of thin sills and dykes up to 200 metres in thickness and over 1 kilometre in length. The sills and dykes are mostly coarse-grained, massive diorites while the stocks range in composition from gabbro through granodiorite.

The Hedley intrusions invade the Upper Triassic rocks over a broad area. Varying degrees of sulphide-bearing calcic skarn alteration are developed within and adjacent to many of these intrusions, particularly the dyke and sill swarms.

The second plutonic suite comprises coarse-grained massive biotite hornblende granodiorite to quartz monzodiorite, of Early to Mid-Jurassic age. It generally forms large bodies, such as the Bromley batholith and Cahill Creek pluton. Country rocks up to 1.5 kilometres from the margins of these intrusives are hornfelsed; some minor skarn alteration is also present adjacent to the plutons, but it is generally sulphide poor and not auriferous.

Two distinct phases of folding are recognized in the Nicola Group rocks. The youngest phase resulted in a major north-northeasterly striking, easterly overturned asymmetric anticline which is the dominant structure in the district; the axial plane of this fold dips steeply west. The oldest phase of folding occurred during the emplacement of the Hedley intrusions but is only recognized in the Nickel Plate mine area. It produced small-scale northwesterly striking, gently plunging fold structures that are an ore control at the mine (Ettlinger and Ray, 1989).

PROSPECTING

Preliminary prospecting of an area approximately 30 hectares commenced on the Cahill 6 and 8 claims. Slopes are covered with overburden and large boulders, often of granitic composition. Near the eastern boundary of Cahill 8 biotite granite outcrops in low cliffs. Otherwise, rock exposures are limited to several cuts in recent (2000) logging roads in the vicinity of samples C-1 to C-3 (see Figure 4). Greenish siliceous skarn contains finely disseminated pyrite. Chalcedony occasionally occurs on thin fracture planes or joints. Fracturing at sample location C-1 has allowed oxidation of pyrite in skarn and distribution of iron oxides into the soil downslope to the west.

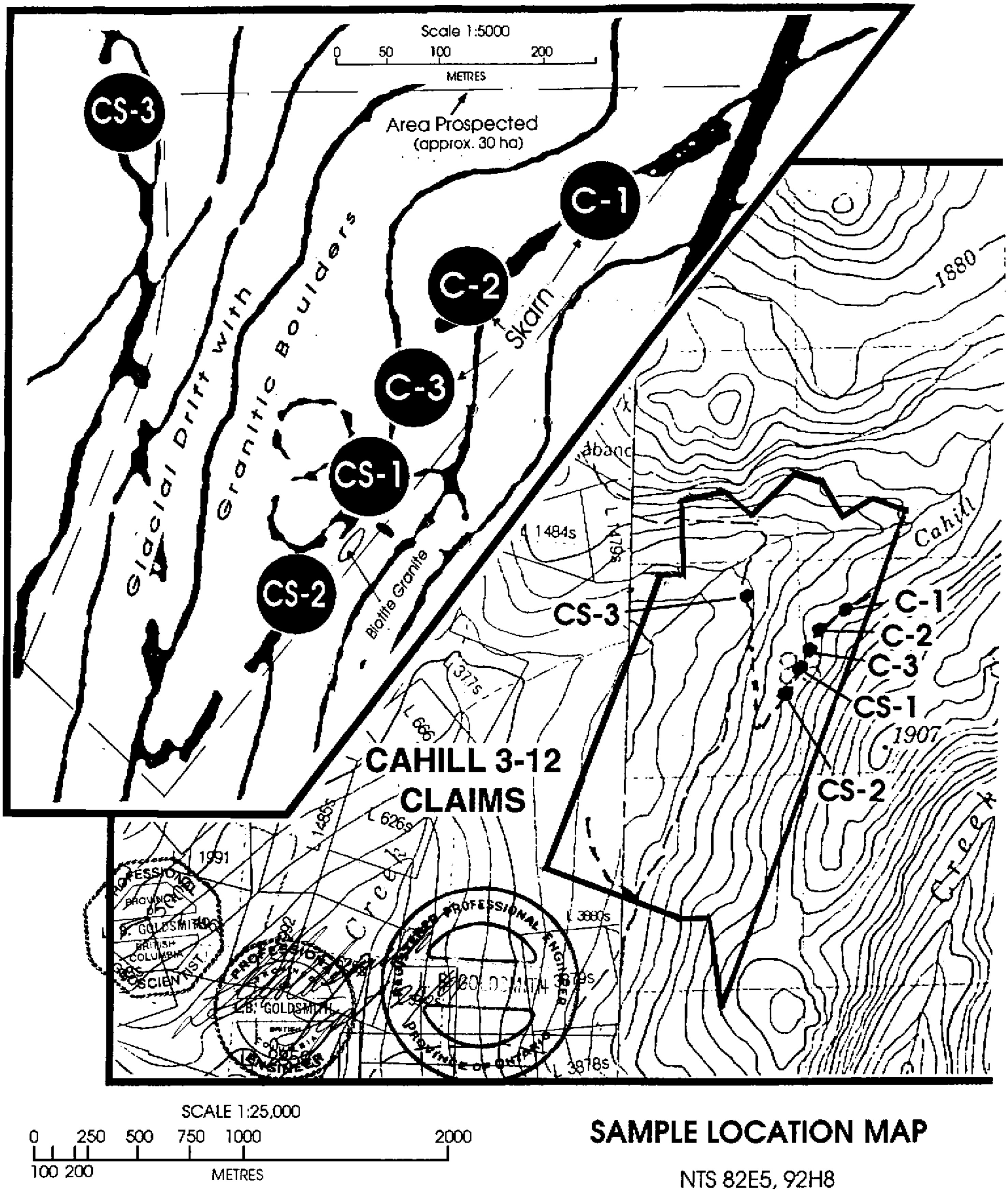
ROCK AND SOIL GEOCHEMISTRY

Rock sample C-1, a horizontal chip-channel across 2.3 metres of a rusty fracture zone, contains 3440 ppb Au (0.11 oz/ton Au). Copper (591 ppm), arsenic (56 ppm), barium (100 ppm), and phosphorus (750 ppm) are somewhat elevated.

Rock sample C-2 contains 104 ppm arsenic but other metal contents are not elevated.

Rock sample C-3 does not contain elevated metal content. The significance of a value of 239 ppm strontium is not understood at this time.

Soil samples CS-1 and -2 contain 340 and 220 ppm barium respectively; other metal contents appear to be at background levels.



SAMPLE LOCATION MAP

NTS 82E5, 92H8

CAHILL 3-12 PROPERTY

OSOYOOS MINING DIVISION, HEDLEY, B.C.

To accompany report by:

LOCKE B. GOLDSMITH, P.Eng., P.Geo.
Consulting Geologist

SEPTEMBER 2001

FIGURE 4

Soil sample CS-3 is located approximately 400 metres downslope from rock sample C-1. Water is percolating through soil across some 60 metres in a road cut with associated deposits of iron oxide gel on the cutbank and in the drainage ditch beside the road. The precipitate contains anomalous arsenic (816 ppm) and phosphorus (2230 ppm).

CONCLUSIONS

Gold is hosted in fractured skarn at rock sample location C-1. Iron oxide gel precipitate downslope may be derived from a source in the vicinity of the rock sample.

RECOMMENDATIONS

Prospecting and geochemical sampling should be continued in the area between and surrounding samples C-1 and CS-3. Soil sampling on a grid is recommended to assist in defining the extent of the gold mineralization.

COST ESTIMATE

A budget of $7500.00 should be available for the next phase.

Results of each phase should be compiled into an engineering report; continuance to the next phase should be contingent upon favourable conclusions and recommendations of an engineer.

Respectfully submitted,

Locke B. Goldsmith, P.Eng., P.Geo.
Consulting Geologist

Vancouver, B.C. September 20, 2001

ENGINEER'S CERTIFICATE

LOCKE B. GOLDSMITH

1. I, Locke B. Goldsmith, am a registered Professional Engineer in the Province of Ontario, and a Registered Professional Geologist in the Provinces of Ontario and British Columbia and the States of Oregon, Minnesota, and Wisconsin. My address is 301, 1855 Balsam Street, Vancouver, B.C.

2. I have a B.Sc. (Honours) degree in Geology from Michigan Technological University, a M.Sc. degree in Geology from the University of British Columbia, and have done postgraduate study in Geology at Michigan Tech and the University of Nevada. I am a graduate of the Haileybury School of Mines, and a Certified Mining Technician. I am a Member of the Society of Economic Geologists, the AIME, and a Fellow of the Geological Association of Canada.

3. I have been engaged in mining exploration for the past 42 years.

4. I have authored the report entitled, "Preliminary Prospecting, Cahill 3-12 Mineral Claims, Osoyoos Mining Division, Hedley, B.C.", dated September 2001. The report is based upon fieldwork and research by the author.

5. I have no direct or indirect interest in any maner in the property, nor do I anticipate receiving any such interest.

6. I consent to the use of this report in a prospectus, or in a statement of material facts related to the raising of funds.

Respectfully submitted,

Locke B. Goldsmith, P.Eng., P.Geo.
Consulting Geologist

Vancouver, B.C.
September 20, 2001

REFERENCES

Ettlinger, A.D., Meinert, L.D., and Ray, G.E., 1992. Gold Skarn Mineralization and Fluid Evolution in the Nickel Plate Deposit, British Columbia. Economic Geology, Vol. 87, pp. 1541-1565.

Ettlinger, A.D. and Ray, G.E., 1989. Geology of Selected PME Skarns in the Intermontane Belt; in Precious Metal Enriched Skarns in B.C.: An Overview and Geological Study. B.C. Geological Survey Branch, Paper 1989-3.

MINFILE DATABASE, 2001. Government of British Columbia, Ministry of Energy and Mines, Computer File numbers 93 HSE 036, 038, 059, 060, and 064.

COST STATEMENT, 2001 PROGRAM

Personnel		
L.B. Goldsmith, Sept. 8, ½ 9, total		
1½ days @ $680/day	$1020.00	
GST	71.40	
	1091.40	$1091.40
Transportation		
4x4 vehicle, 1½ days @ $50/day	75.00	
721 km @ $0.43/km	310.03	
	385.03	
GST	26.95	
	411.98	
Gas	72.07	
$484.05 ÷ 1½ days = $322.70/day	484.05	484.05
Accommodation, Meals		
$148.85 ÷ 1½ days = $99.23/man/day		148.85
Analyses		
6 samples cost = $31.57/sample		189.39
Report		
Drafting, word processing, materials		96.48
	TOTAL	$2010.17

APPENDIX

SAMPLE DESCRIPTIONS

Rock Samples

C-1 Horizontal chip-channel across a fractured rusty zone in greenish skarn or very fine-grained diorite. Coarse-grained weathered silicic intrusive at the south end of the sample location. Iron oxide appears to be distributed downslope to the west.

C-2 Grab. Iron-oxide stained greenish siliceous skarn. Disseminated fresh pyrite. Angular fragments of subcrop. Chalcedony on hairline fractures or joints.

C-3 Grab. Iron-oxide stained outcrop of fine-grained greenish siliceous skarn. Pyrite disseminated to 2%.

Soil Samples

CS-1 Wet seep in cutbank of road. 1.5 metres below surface. Brown, rusty clay and grit.

CS-2 Wet seep in cutbank of road. 1.5 metres below surface. Gray-black clay and grit, possibly derived from coarse-grained silicic intrusive outcropping upslope.

CS-3 Dense iron oxide gel in wet seep. Zone 60 m wide in cutbank of road. 400 m downslope from sample C-1.

ALS Chemex
Aurora Laboratory Services Ltd.
Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221 FAX: 604-984-0218

GOLDSMITH, LOCKE B.

301 - 1855 BALSAM ST.
VANCOUVER, BC
V6K 3M3

Comments: ATTN: L.B. GOLDSMITH

CERTIFICATE A0124500

(QKS) - GOLDSMITH, LOCKE B.

Project:
P.O. # :

Samples submitted to our lab in Vancouver, BC.
This report was printed on 20-SEP-2001.

SAMPLE PREPARATION

METHOD CODE	NUMBER SAMPLES	DESCRIPTION
PUL-31	3	Pulv. <250g to >85%/-75 micron
STO-21	3	Reject Storage-First 90 Days
LOG-22	3	Samples received without barcode
CRU-31	3	Crush to 70% minus 2mm
SPL-21	3	Splitting Charge
229	3	ICP - AQ Digestion charge

* NOTE 1:

The 32 element ICP package is suitable for trace metals in soil and rock samples. Elements for which the nitric-aqua regia digestion is possibly incomplete are: Al, Ba, Be, Ca, Cr, Ga, K, La, Mg, Na, Sr, Ti, Tl, W.

ANALYTICAL PROCEDURES 2 of 2

METHOD CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
W-ICP41	3	W ppm: 32 element, soil & rock	ICP-AES	10	10000
Zn-ICP41	3	Zn ppm: 32 element, soil & rock	ICP-AES	2	10000

ALS Chemex
Aurora Laboratory Services Ltd.
Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221 FAX: 604-984-0218

GOLDSMITH, LOCKE B.

301 - 1855 BALSAM ST.
VANCOUVER, BC
V6K 3M3

Comments: ATTN: L.B. GOLDSMITH

CERTIFICATE A0124500

(QKS) - GOLDSMITH, LOCKE B.

Project:
P.O. # :

Samples submitted to our lab in Vancouver, BC.
This report was printed on 20-SEP-2001.

SAMPLE PREPARATION

METHOD CODE	NUMBER SAMPLES	DESCRIPTION
PUL-31	3	Pulv. <250g to >85%/-75 micron
STO-21	3	Reject Storage-First 90 Days
LOG-22	3	Samples received without barcode
CRU-31	3	Crush to 70% minus 2mm
SPL-21	3	Splitting Charge
229	3	ICP - AQ Digestion charge

* NOTE 1:

The 32 element ICP package is suitable for trace metals in soil and rock samples. Elements for which the nitric-aqua regia digestion is possibly incomplete are: Al, Ba, Be, Ca, Cr, Ga, K, La, Mg, Na, Sr, Ti, Tl, W.

ANALYTICAL PROCEDURES 1 of 2

METHOD CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
WEI-21	3	Weight of received sample	BALANCE	0.01	1000.0
Au-AA23	3	Au-AA23 : Au ppb: Fuse 30 grams	FA-AAS	5	10000
Ag-ICP41	3	Ag ppm: 32 element, soil & rock	ICP-AES	0.2	100.0
Al-ICP41	3	Al %: 32 element, soil & rock	ICP-AES	0.01	15.00
As-ICP41	3	As ppm: 32 element, soil & rock	ICP-AES	2	10000
B-ICP41	3	B ppm: 32 element, rock & soil	ICP-AES	10	10000
Ba-ICP41	3	Ba ppm: 32 element, soil & rock	ICP-AES	10	10000
Be-ICP41	3	Be ppm: 32 element, soil & rock	ICP-AES	0.5	100.0
Bi-ICP41	3	Bi ppm: 32 element, soil & rock	ICP-AES	2	10000
Ca-ICP41	3	Ca %: 32 element, soil & rock	ICP-AES	0.01	15.00
Cd-ICP41	3	Cd ppm: 32 element, soil & rock	ICP-AES	0.5	500
Co-ICP41	3	Co ppm: 32 element, soil & rock	ICP-AES	1	10000
Cr-ICP41	3	Cr ppm: 32 element, soil & rock	ICP-AES	1	10000
Cu-ICP41	3	Cu ppm: 32 element, soil & rock	ICP-AES	1	10000
Fe-ICP41	3	Fe %: 32 element, soil & rock	ICP-AES	0.01	15.00
Ga-ICP41	3	Ga ppm: 32 element, soil & rock	ICP-AES	10	10000
Hg-ICP41	3	Hg ppm: 32 element, soil & rock	ICP-AES	1	10000
K-ICP41	3	K %: 32 element, soil & rock	ICP-AES	0.01	10.00
La-ICP41	3	La ppm: 32 element, soil & rock	ICP-AES	10	10000
Mg-ICP41	3	Mg %: 32 element, soil & rock	ICP-AES	0.01	15.00
Mn-ICP41	3	Mn ppm: 32 element, soil & rock	ICP-AES	5	10000
Mo-ICP41	3	Mo ppm: 32 element, soil & rock	ICP-AES	1	10000
Na-ICP41	3	Na %: 32 element, soil & rock	ICP-AES	0.01	10.00
Ni-ICP41	3	Ni ppm: 32 element, soil & rock	ICP-AES	1	10000
P-ICP41	3	P ppm: 32 element, soil & rock	ICP-AES	10	10000
Pb-ICP41	3	Pb ppm: 32 element, soil & rock	ICP-AES	2	10000
S-ICP41	3	S %: 32 element, rock & soil	ICP-AES	0.01	10.00
Sb-ICP41	3	Sb ppm: 32 element, soil & rock	ICP-AES	2	10000
Sc-ICP41	3	Sc ppm: 32 elements, soil & rock	ICP-AES	1	10000
Sr-ICP41	3	Sr ppm: 32 element, soil & rock	ICP-AES	1	10000
Ti-ICP41	3	Ti %: 32 element, soil & rock	ICP-AES	0.01	10.00
Tl-ICP41	3	Tl ppm: 32 element, soil & rock	ICP-AES	10	10000
U-ICP41	3	U ppm: 32 element, soil & rock	ICP-AES	10	10000
V-ICP41	3	V ppm: 32 element, soil & rock	ICP-AES	1	10000

ALS Chemex
Aurora Laboratory Services Ltd.
Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221 FAX: 604-984-0218

GOLDSMITH, LOCKE B.

301 - 1855 BALSAM ST.
VANCOUVER, BC
V6K 3M3

A0124498

Comments: ATTN: L.B. GOLDSMITH

CERTIFICATE A0124498

(QKS) - GOLDSMITH, LOCKE B.

Project:
P.O. # :

Samples submitted to our lab in Vancouver, BC.
This report was printed on 20-SEP-2001.

SAMPLE PREPARATION

METHOD CODE	NUMBER SAMPLES	DESCRIPTION
SCR-42	3	-180 micron screen - Save Minus
SCR-01	3	Screen - Save Plus Charge
LOG-22	3	Samples received without barcode
229	3	ICP - AQ Digestion charge

* NOTE 1:

The 32 element ICP package is suitable for trace metals in soil and rock samples. Elements for which the nitric-aqua regia digestion is possibly incomplete are: Al, Ba, Be, Ca, Cr, Ga, K, La, Mg, Na, Sr, Ti, Tl, W.

ANALYTICAL PROCEDURES

METHOD CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
WEI-21	3	Weight of received sample	BALANCE	0.01	1000.0
Au-AA23	3	Au-AA23 : Au ppb: Fuse 30 grams	FA-AAS	5	10000
Ag-ICP41	3	Ag ppm: 32 element, soil & rock	ICP-AES	0.2	100.0
Al-ICP41	3	Al %: 32 element, soil & rock	ICP-AES	0.01	15.00
As-ICP41	3	As ppm: 32 element, soil & rock	ICP-AES	2	10000
B-ICP41	3	B ppm: 32 element, rock & soil	ICP-AES	10	10000
Ba-ICP41	3	Ba ppm: 32 element, soil & rock	ICP-AES	10	10000
Be-ICP41	3	Be ppm: 32 element, soil & rock	ICP-AES	0.5	100.0
Bi-ICP41	3	Bi ppm: 32 element, soil & rock	ICP-AES	2	10000
Ca-ICP41	3	Ca %: 32 element, soil & rock	ICP-AES	0.01	15.00
Cd-ICP41	3	Cd ppm: 32 element, soil & rock	ICP-AES	0.5	500
Co-ICP41	3	Co ppm: 32 element, soil & rock	ICP-AES	1	10000
Cr-ICP41	3	Cr ppm: 32 element, soil & rock	ICP-AES	1	10000
Cu-ICP41	3	Cu ppm: 32 element, soil & rock	ICP-AES	1	10000
Fe-ICP41	3	Fe %: 32 element, soil & rock	ICP-AES	0.01	15.00
Ga-ICP41	3	Ga ppm: 32 element, soil & rock	ICP-AES	10	10000
Hg-ICP41	3	Hg ppm: 32 element, soil & rock	ICP-AES	1	10000
K-ICP41	3	K %: 32 element, soil & rock	ICP-AES	0.01	10.00
La-ICP41	3	La ppm: 32 element, soil & rock	ICP-AES	10	10000
Mg-ICP41	3	Mg %: 32 element, soil & rock	ICP-AES	0.01	15.00
Mn-ICP41	3	Mn ppm: 32 element, soil & rock	ICP-AES	5	10000
Mo-ICP41	3	Mo ppm: 32 element, soil & rock	ICP-AES	1	10000
Na-ICP41	3	Na %: 32 element, soil & rock	ICP-AES	0.01	10.00
Ni-ICP41	3	Ni ppm: 32 element, soil & rock	ICP-AES	1	10000
P-ICP41	3	P ppm: 32 element, soil & rock	ICP-AES	10	10000
Pb-ICP41	3	Pb ppm: 32 element, soil & rock	ICP-AES	2	10000
S-ICP41	3	S %: 32 element, rock & soil	ICP-AES	0.01	10.00
Sb-ICP41	3	Sb ppm: 32 element, soil & rock	ICP-AES	2	10000
Sc-ICP41	3	Sc ppm: 32 elements, soil & rock	ICP-AES	1	10000
Sr-ICP41	3	Sr ppm: 32 element, soil & rock	ICP-AES	1	10000
Ti-ICP41	3	Ti %: 32 element, soil & rock	ICP-AES	0.01	10.00
Tl-ICP41	3	Tl ppm: 32 element, soil & rock	ICP-AES	10	10000
U-ICP41	3	U ppm: 32 element, soil & rock	ICP-AES	10	10000
V-ICP41	3	V ppm: 32 element, soil & rock	ICP-AES	1	10000
W-ICP41	3	W ppm: 32 element, soil & rock	ICP-AES	10	10000
Zn-ICP41	3	Zn ppm: 32 element, soil & rock	ICP-AES	2	10000

ALS Chemex

Aurora Laboratory Services Ltd.
Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221 FAX: 604-984-0218

To: GOLDSMITH, LOCKE B.

301 - 1855 BALSAM ST.
VANCOUVER, BC
V6K 3M3

Project :
Comments: ATTN: L.B. GOLDSMITH

Certificate Date: 20-SEP-2001
Invoice No. : I0124500
P.O. Number :
Account :QKS

CERTIFICATE OF ANALYSIS A0124500

SAMPLE	PREP CODE	Weight Kg	Au ppb FA+AA	Ag ppm	Al %	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm
C1	9413 9402	0.96	3440	0.4	1.76	56	< 10	100	0.5	42	3.55	2.5	68	25	591	7.66	< 10	< 1	0.19	< 10
C2	9413 9402	0.70	< 5	0.8	3.02	104	< 10	20	< 0.5	< 2	2.16	1.5	59	34	275	3.35	< 10	< 1	0.20	< 10
C3	9413 9402	0.80	5	0.2	5.54	10	< 10	30	< 0.5	< 2	3.14	< 0.5	12	23	72	1.44	< 10	< 1	0.03	< 10

CERTIFICATION:

ALS Chemex

Aurora Laboratory Services Ltd.
Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221 FAX: 604-984-0218

GOLDSMITH, LOCKE B.

301 - 1855 BALSAM ST.
VANCOUVER, BC
V6K 3M3

Project :
Comments: ATTN: L.B. GOLDSMITH

Page Number : 1-B
Total Pages : 1
Certificate Date: 20-SEP-2001
Invoice No. : I0124500
P.O. Number :
Account : QKS

CERTIFICATE OF ANALYSIS A0124500

SAMPLE	PREP CODE	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
C1	9413 9402	0.63	1205	< 1	0.01	23	790	2	< 0.01	6	8	72	0.08	< 10	10	117	< 10	82
C2	9413 9402	0.41	315	3	0.01	32	110	8	1.10	< 2	< 1	42	0.01	< 10	10	18	< 10	86
C3	9413 9402	0.10	60	2	0.75	22	330	< 2	0.72	< 2	1	239	0.08	< 10	< 10	21	< 10	18

CERTIFICATION: ____________

ALS Chemex
Aurora Laboratory Services Ltd.
Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221 FAX: 604-984-0218

GOLDSMITH, LOCKE B.

301 - 1855 BALSAM ST.
VANCOUVER, BC
V6K 3M3

Project :
Comments: ATTN: L.B. GOLDSMITH

Certificate Date: 20-SEP-2001
Invoice No. : I0124498
P.O. Number :
Account :QKS

CERTIFICATE OF ANALYSIS A0124498

SAMPLE	PREP CODE	Weight Kg	Au ppb FA+AA	Ag ppm	Al %	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm
CS1	94069407	0.26	15	< 0.2	1.90	28	< 10	340	< 0.5	< 2	0.73	0.5	11	25	26	3.06	< 10	< 1	0.46	< 10
CS2	94069407	0.26	10	< 0.2	2.22	22	< 10	220	< 0.5	< 2	0.53	0.5	9	18	29	2.52	< 10	< 1	0.23	10
SS3	94069407	0.42	25	< 0.2	0.63	816	< 10	90	3.5	< 2	0.31	6.0	9	10	43	>15.00	10	3	0.09	10

CERTIFICATION: [signature]

ALS Chemex
Aurora Laboratory Services Ltd.
Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221 FAX: 604-984-0218

GOLDSMITH, LOCKE B.

301 - 1855 BALSAM ST.
VANCOUVER, BC
V6K 3M3

Project :
Comments: ATTN: L.B. GOLDSMITH

Certificate Date: 20-SEP-2001
Invoice No. : I0124498
P.O. Number :
Account :QKS

CERTIFICATE OF ANALYSIS A0124498

SAMPLE	PREP CODE		Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
CS1	940	407	0.90	565	< 1	0.03	13	920	2	< 0.01	2	8	73	0.17	< 10	< 10	79	< 10	64
CS2	940	407	0.56	445	< 1	0.03	12	230	8	< 0.01	< 2	7	46	0.15	< 10	< 10	60	< 10	44
SS3	940	407	0.19	1125	18	0.01	49	2230	2	< 0.01	16	4	53	0.03	< 10	30	29	< 10	148

CERTIFICATION: