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GEOLOGICAL SURVEY BRANCH
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GEOCHEMICAL ASSESSMENT REPORT

on the

S CLAIM GROUP

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Nicola Mining Division

NTS 92I 8W

**GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORT**

24,499

**Vancouver, B.C.
July 24, 1996**

**Sookchoff Consultants Inc.
Laurence Sookchoff, P.Eng**

Sookchoff Consultants Inc.

Geochemical Assessment Report

on the

S Claim Group

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Geochemical Assessment Report
on the
S Claim Group

Introduction

An exploration program consisting of a geochemical survey was completed on the S Claim Group during March, 1996. The localized exploration program covered a portion of an area where pit excavation from a former exploration program located quartz vein material containing significant gold and silver values.

Information for this report was obtained from sources as cited under Selected References and from the writers' supervision of, and the compilation of results from, the exploration program as reported on herein.

Summary

The S Claim Group is located four km southeast of the formerly productive Stump Lake Camp where production from mineralized quartz veins from the Stump Lake Camp reportedly amounted to 77,605 tons averaging a recovered grade of 0.109 oz Au/ton, 3.26 oz Ag/ton, 1.42% Pb and 0.24% Zn. The mineralized quartz veins, which are hosted by shear zones within greenstones of the Nicola volcanics, were explored to a depth of 275 meters and along a strike length of 600 meters. and are of irregular width with an alteration zone of up to "15 feet wide".

On the S claim group ground, exploration work in 1985 on the former CIG 100 claim delineated a northeasterly trending zone of anomalous gold values in the northwest sector of the property where pits and trenches expose barren to lightly mineralized quartz veins. In addition an isolated 420 ppb gold geochem value in the south-central portion of the claim was determined.

The 1987 exploration program completed by New Hombre Resources Ltd. on the CIG claim confirmed the 300 by 400 meter sub-anomalous gold zone (Zone I, Fig. 10) in the northwest sector of the property with no additional significant results. However, detailed exploration in the south-central single station gold value of 1985 resulted in the delineation of a 200 by 40 meter sub-anomalous gold zone (Zone II, Fig. 10) with soil geochem values of up to 1089 ppb Au. In one of three pits dug in the zone a soil sample returned 1520 ppb Au at a depth of 50 cm. Samples of mineralized quartz vein float material in the pit areas assayed up to 0.690 oz Au/ton and 18.22 oz Ag/ton.

The exploration program also delineated a series of magnetometer lows (LO's) correlating with a northeast trending electromagnetic (EM) anomaly which correlates in part to a geochem anomaly and the mineralized quartz vein float material.

The localized 1996 soil geochemical survey on the S claim group which was centred in the area of the pit containing the 1520 ppb soil geochem gold and the 0.690 oz Au/ton quartz float, delineated anomalous gold values of up to 900 ppb gold to the west of the pit. The anomalous zone is open to the north, south and the west.

Property

The property consists of seven contiguously located mineral claims. Particulars are as follows:

| <u>Claim Name</u> | <u>Tenure No.</u> | <u>Expiry Date</u> |
|-------------------|-------------------|--------------------|
| S1 - S7 | 334586 - 334592 | March 28, 1999 |

The claims were staked on March 28, 1995.

Location and Access

The property is located in southwest British Columbia, forty km northwest of Merritt, northwest of Peter Hope Lake and within five km of Mineral Hill, where the production from the Stump Lake Mining Camp occurred.

Access is from the Merritt-Kamloops Highway No. 5 to within three km of the property. A secondary road-the Peter Hope Lake road-joins off to the east within three km south of Stump Lake and provides access to the property.

Physiography

The property is situated at the western edge of the Douglas Plateau which is within the physiographic area designated as the Interior Plateau of British Columbia. Gentle to moderate slopes prevail with relief in the order of some 200 meters from Peter Hope Creek Valley.

Water and Power

Sufficient water for all phases of the exploration program could be available from Peter Hope Lake northeast to Peter Hope Lake in the southwest. In addition to tributaries of Peter Hope Creek, other water courses are indicated draining the property.

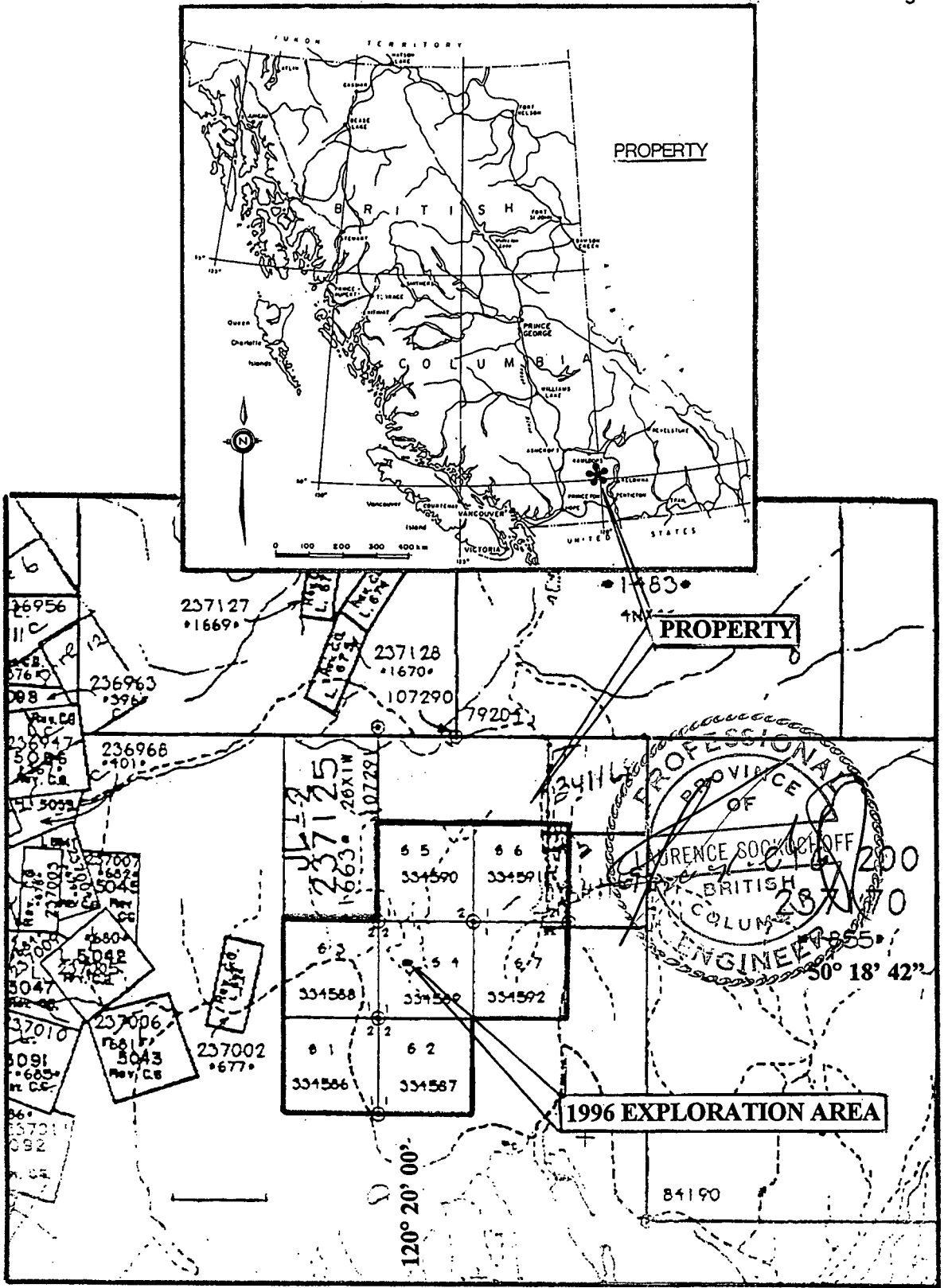


Figure 1. Location & Claim Map. (Claim Map is Ministry of Energy, Mines & Petroleum Resources Map 092I/08W)

History

The history of the immediate area stems from the mineral deposits at Mineral Hill some six km west of the northwestern portion of the S Claim Group. Mineralization at Mineral Hill was discovered in 1882 with exploration and shaft development on the Joshua, Tribal Cain, King William Enterprise and Planet claims prior to 1890.

Exploration and development on Mineral Hill was sporadic to 1929 when a mill was built and operated to 1931. From 1939 to 1942 when operations were suspended some mine development occurred in addition to the rebuilding of the mill.

Since 1942 limited exploration was carried out on the various properties of the area with the most recent performed by Celebrity Energy Corporation who acquired under agreement most of the reverted crown granted claims of the mining camp.

Production from the Stump Lake camp during the period from 1916 to 1944 and from the Enterprise, King William, Tribal Cain and Joshua Veins is reported as 77,605 tons of ore mined yielding 8,494 ounces of gold, 252,939 ounces of silver, 40,822 pounds of copper, 2,206,555 pounds of lead and 367,869 pounds of zinc or a recovered grade of 0.109 oz Au/ton, 3.26 oz Ag/ton, 0.026% Cu, 1.42% Pb and 0.24% Zn. Other properties in closer proximity to the S Claim Group on which exploration was completed include the Mary Reynolds and the Azela within one km east and north.

The Mary Reynolds or the Jean Group was one of the early claims staked in the Stump Lake area and produced a small amount of gold-silver ore. The workings include a "96 foot" deep shaft with a "240 foot" long adit level in addition to numerous other workings exploring a vein system with general characteristics similar to the other Stump Lake deposits.

The Azela is within the Johannesburg camp situated "about 16,000 feet" southeast of the Enterprise Mine and within 100 meters west of the S Claim Group. The main showing is a shaft reportedly "78 feet" deep with open cuts and other workings within the claim. Previous exploration work on the ground included that of Aarn Exploration and Development Co. Ltd. when "250 feet" of trenches and two "miles" of road were completed.

In 1985 Time Square Energy and Resources Ltd. (name change to New Hombre Resources Ltd.) completed localized geological, geophysical and geochemical surveys on the CIG 100 Claim which is presently, in part, the S claim group. In 1987, New Hombre Resources Ltd. completed a soil geochemical survey, a VLF-EM survey, a magnetometer survey, a geological survey in addition to the digging of three test pits (S-1, S-2 & S-3) to examine the soil profile of the southeast gold anomaly. The Cig 100 claim expired in 1992.

From 1992 to 1995 the CIG 100 ground was originally covered in part by the Spud claim group and subsequently by the WJA claim group which was owned by Module Resources Incorporated. Trenching was completed by Module prior to the expiration of the WJA claims in 1995.

The S claim group was staked in 1995 and a localized geochemical survey was completed, the results of which are the subject of this report

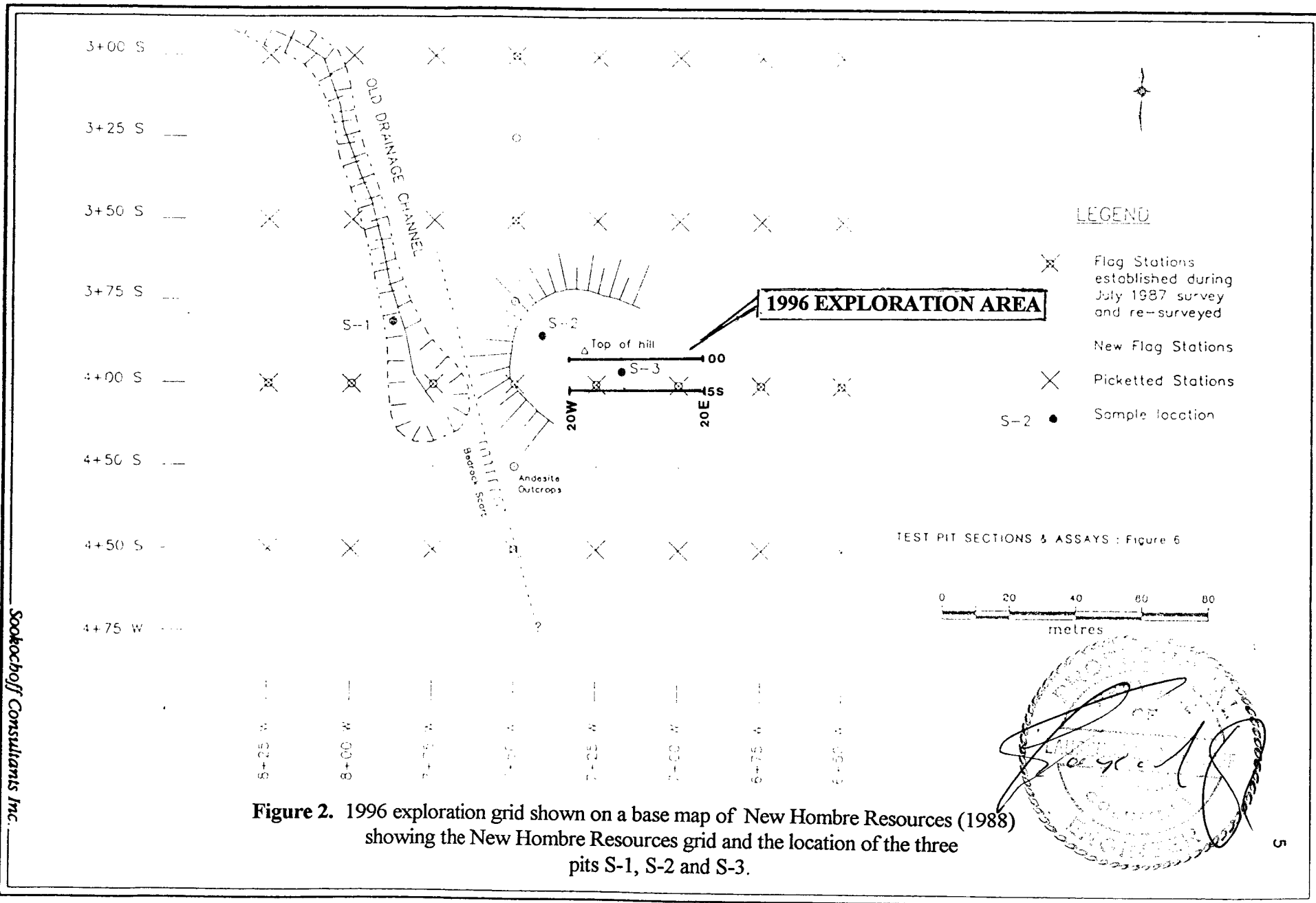


Figure 2. 1996 exploration grid shown on a base map of New Hambre Resources (1988) showing the New Hambre Resources grid and the location of the three pits S-1, S-2 and S-3.

Geology

The regional geology of the area as mapped by W.E. Cockfield and published as map 886 A in G.S.C. Memoir 249 (1947) indicates that the Stump Lake area is underlain by an assemblage of Upper Triassic volcanic flows, pyroclastics and sedimentary units termed the Nicola Group.

In a northerly trending contact with the Nicola the Carboniferous and Permian Cache Creek Group is indicated as occurring at Plateau Lake five km east of the S Claim Group. The Cache Creek rocks are shown to rarely outcrop as windows within the Nicola.

In a later geological map published by the GSC from the geological mapping completed by Monger (1980-82) and McMillan (1969-75 and 77-80) of the B.C. Ministry of Energy, Mines and Resources with supplemental information, the location of the Cache Creek rocks is shown as the Nicola Group. The Nicola Group consists of argillite, siltstone, volcanic sandstone and local intercalated tuff. The formation to the west of the contact and underlying the S Claim Group is indicated as consisting of predominantly volcanics with interbedded argillite. The volcanics consist of augite porphyry and augite-plagioclase porphyry, volcanoclastic breccia and tuff.

The area is dominated by Tertiary faults with the major north northeast trending Quilchena-Stump Lake fault system defining in part the eastern limit of the Nicola batholith with the Nicola Group. The fault trends through the northeastern portion of Stump Lake, centrally through the Stump Lake camp and two km west of the S Claim Group. The major northwest trending Cherry Creek Fault 20 km north of Stump Lake truncates the Quilchena fault system. Secondary or associated structures in the area trend northerly to northwesterly.

In the Stump Lake area and specifically within the area of Mineral Hill where the major development and production was carried out the rocks consist of greenstone of the Nicola Group. The greenstone is an andesitic rock usually fine grained; locally it is coarser-grained and is dioritic to diabasic in texture. Occasional bands of tuff and breccia are included in the formation. The tuff is extremely fine-grained, banded and the breccia contains andesitic fragments up to 10 cm in diameter similar in composition to the matrix.

The greenstones strike 40° to 60° east and dip nearly vertical in the vicinity of the workings. Porphyritic to fine-grained hornblende-andesitic dykes, up to two and one-half meters wide occur in the area. Quartz filled fractures and shear zones strike northerly and dip easterly.

On the Enterprise quartz vein system stoping was primarily carried out below the 150 foot level with a shaft to the "900 foot" level. The vein is commonly under two feet wide and strikes from 350° and 015° and dips easterly from 40° to 80° with considerable pinching and swelling.

The King William vein does not differ greatly from the Enterprise vein off which it forms a branch however it does reach a width of "nine feet". It joins the Enterprise vein at lower levels and has been drifted out south from its intersection with the Enterprise vein on each of the levels except the 800 foot.

Geology (cont'd)

The Joshua mine is developed by a shaft to a depth 755 feet on the dip with the 320 foot drift level continued for "2,160 feet" from the portal to intersect the Joshua vein. The vein follows a fracture and shear zone striking nearly north and dipping 60° east. Below the 400 foot level the dip is stated to be towards the west.

The Planet shaft is about "2,800 feet" southwest of the Enterprise workings. The vein strikes 10° east and dips steeply easterly and is composed of a band of quartz "eight to 18 inches" wide.

At the Azela the occurrence consists of a shear zone six to eight feet wide striking north 015° east and dipping 55° south. Two pits show a vein zone striking north 40° west with a steep northeast dip. In one pit the zone is "three feet" wide with "14 inches" of heavily oxidized country rock carrying bunches of quartz. The cuts show only scanty sulphides.

The Mary Reynolds vein zones strike northeast and dip steeply southwest to northwest. The veins have been traced over "900 feet" by cuts and drill holes. The zones range up to "six feet" wide and carry veins and stringers of quartz mineralized with pyrite, chalcopyrite, galena, zinc blende and tetrahedrite. A fracture zone up to "five feet" wide with stringers of quartz and calcite strikes north 40° E and dips 85° southeast.

On the S claim group ground, Vollo (1983) states that from air photo interpretation and field examination the flows of the Nicola volcanic rocks strike about N 20° E and dip steeply. In addition minor zones of acid rocks, quartz veining and quartz carbonate alteration were noted.

Kuran (1985) states that the S claim group ground is underlain by volcanic rocks which "vary from dark green biotite-hornblende porphyritic flows to pale green, pitted weathering, porphyritic flows with biotite and hornblende phenocrysts altered to chlorite. Two main directions of jointing in the volcanics strike north-northeast to north-northwest and dip vertically."

J. Paxton (1987) reports that the chloritized hornblende-biotite porphyry (Unit 2) appears to be an epidotized facies of dark green biotite-hornblende (Unit 1). In addition several zones of pyroclastic breccia were noted. At several locations quartz vein float was noted.

Mineralization

Mineralization on Mineral Hill of the Stump Lake camp is essentially associated with quartz veins which occur as quartz fillings in shear and fracture zones. The principal quartz veins strike from north 45° west to north 25° east and dip between 45° easterly and vertical.

The quartz is white and vitreous and is mineralized irregularly with sulphides which include pyrite, galena, sphalerite, tetrahedrite, chalcopyrite and bornite. The sulphides occur in segregations, thin seams and disseminations which make up usually a low proportion of the veins. Gold and silver values are rudely proportional to the amount of sulphides in any one vein.

From results of previous exploration on the S claim group ground, mineralization is reported to consist of variable sulphides within quartz veins. Samples of wall rock with low to moderate carbonate and/or ankerite and/or silica alteration ranged from background to 39 ppb Au. The quartz vein samples ranged from background values in gold to 1650 ppb Au in Trench II of Zone I to 0.690 oz Au/ton and 14.64 oz Ag/ton at Zone II. The higher grade gold values were contained in quartz with light to moderate degrees of pyrite, chalcopyrite and argentite occurring as blebs, pockets and clusters.

Results of Previous Exploration on the S Claim Group Ground

Exploration work in 1985 on portions of the S Claim Group ground delineated a northeasterly trending zone of anomalous gold values in the northwest sector of the property where pits and trenches expose barren to lightly mineralized quartz veins. In addition an isolated 420 ppb gold geochem value in the south-central portion of the claim was determined.

The 1987 exploration program completed by New Hombre Resources Ltd. confirmed the 300 by 400 meter sub-anomalous gold zone (Zone I) in the northwest sector of the property with no additional significant results. However, detailed exploration in the south-central single station gold value of 1985 resulted in the delineation of a 200 by 40 meter sub-anomalous gold zone (Zone II) with soil geochem values of up to 1089 ppb Au.

Three test pits were dug to a maximum depth of 75 cm in order to examine the soil profile of the southeast gold anomaly (4+00S, 7+25W). Pit S-2 is located along the perimeter of a gold soil geochemical anomaly between values of 144 ppb Au and 781 ppb Au. Pit S-1 is located to the west within an area of 17 ppb Au and one ppb Au. Pit S-3 is located near a soil value of 310 ppb Au.

Samples from pit S-2 at 3+85S, 7+35W returned anomalous gold values of up to 1520 ppb Au with increasing values to a depth of 50 cm. The lowest value of 230 ppb Au was from the bottom of the pit. Samples from pits S-1 and S-3 are shallower and returned values of up to 39 ppb Au occurring at the bottom of S-3. Samples of mineralized quartz vein float material in the pit areas assayed up to 0.690 Au/ton and 18.22 oz Au/ton.

The exploration program also delineated a series of magnetometer lows (LO's) correlating with a northeast trending electromagnetic (EM) anomaly which correlates in part to a geochem anomaly and the mineralized quartz vein float material.

1996 Geochemical Survey

The geochemical survey was localized and centred on one of the three pits that were excavated in the 1987 exploration program. A five by 40 metre grid was established with samples picked up at five metre intervals along two east-west grid lines spaced five metres apart and centred on Pit S-3, one of the three 1988 pits. Samples were selected from the B horizon of the brown to brownish-grey sandy-silted forest soil at a depth of commonly 30 centimetres. The soil was placed in a brown wet-strength paper bag with the grid coordinates marked thereon and a flagged grid station was placed at the sample site.

The 18 samples that were picked up were delivered to Acme Laboratories of Vancouver, B.C. for analysis. The analysis procedure is first to thoroughly dry the sample. Then a .500 gram sample is digested with 3 ml. of 3:1:2 HCL-HNO₃-H₂O at 95° for one hour and is diluted to 10 mls. with water. The sample is then analyzed by I.C.P. The analysis was for copper, lead, zinc, silver arsenic and gold. Gold analysis is by aqua-regia/MIBK extract and a GF/AA finish.

The results indicate that eight of the 18 samples returned over 400 ppb gold which are highly anomalous in gold. These eight sample sites are all clustered west of line 5W and the pit where the high-grade quartz float was contained. The central four samples ranged from 57 ppb gold to 238 ppb gold and the eastern portion ranging from seven ppb gold to 34 ppb gold (Figure 3). The arsenic values (Figure 4) are in a correlative value ratio to the Au values with the copper, lead and zinc values indicating a similar ratio.

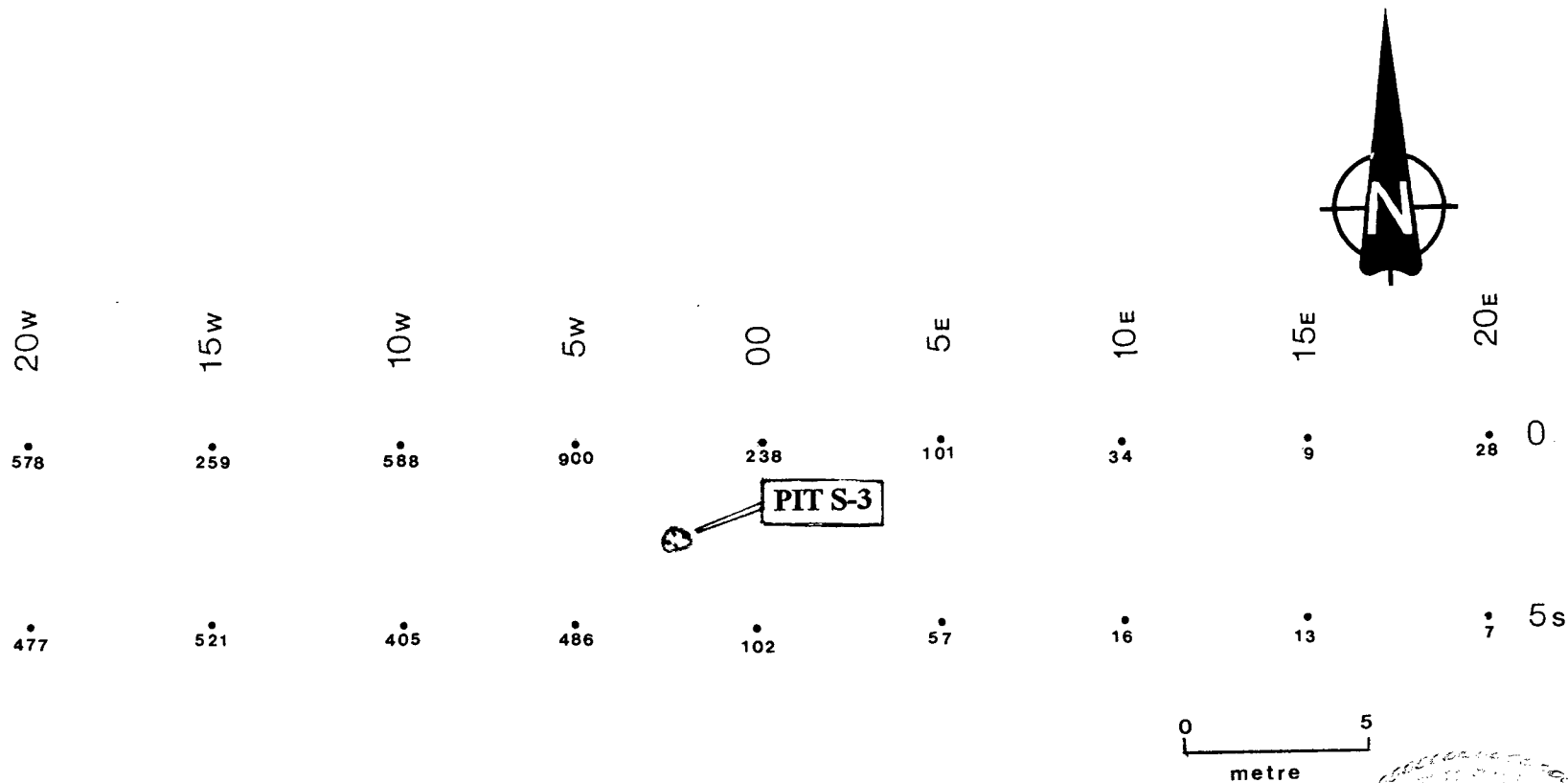
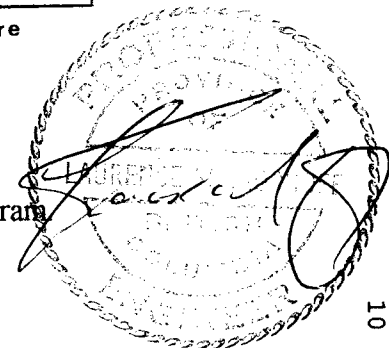


Figure 3. Soil geochemistry gold in ppb results of the 1996 exploration program



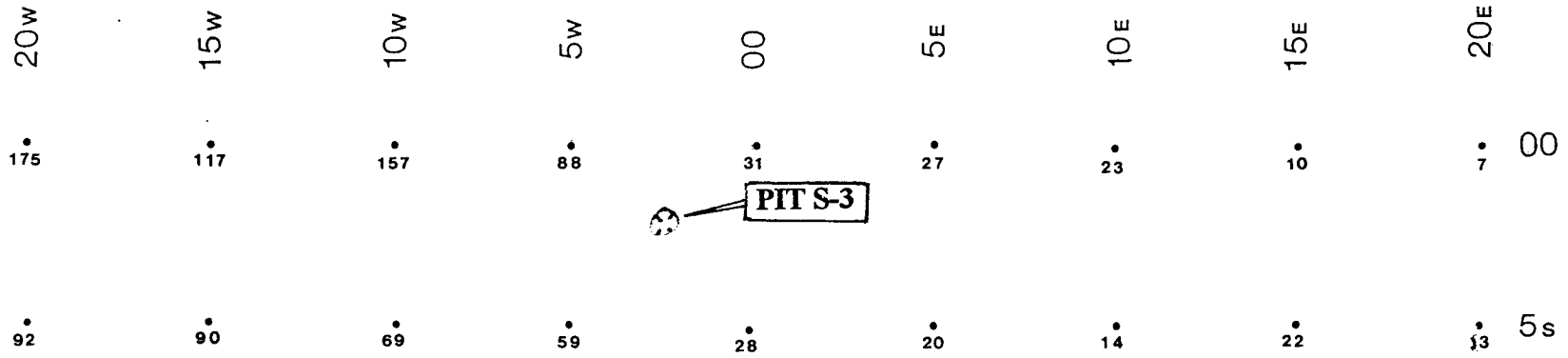
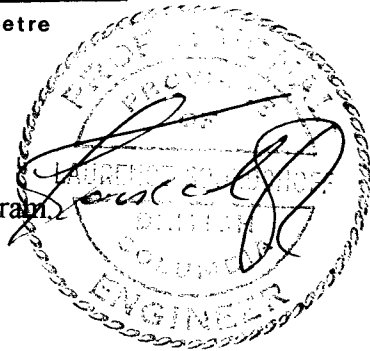


Figure 4. Soil geochemistry arsenic in ppm results of the 1996 exploration program.

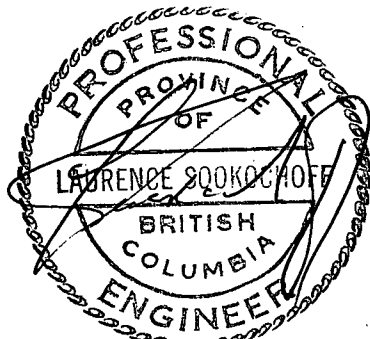


Sookchoff Consultants Inc.

Conclusions

The soil geochem values reveal a 20 metre wide zone of gold mineralized which either reflects mineralization within transported surficial material or bedrock mineralization or a combination of both. If the float originated from proximal bedrock, the anomalous soil values may indicate a number of potential northeasterly trending (as indicated from the VLF-EM anomalous trend) mineral bearing quartz veins over a width of a minimal 20 metres and open to the west. The anomalous soil values, however, may indicate a transported soil and/or mineral bearing float to the west from approximately line 00 E-W. Trenching, with bedrock exposure, would be required to determine the significance of the anomalous zone.

Respectfully submitted
Sookochoff Consultants Inc.



Laurence Sookochoff, P.Eng.

Vancouver B.C.
July 24, 1996

Selected References

- Cockfield, W.E.** - Geology and Mineral Deposits of Nicola Map Area, Memoir 249, G.S.C. 1961.
- B.C. Minister of Mines Report** -1936 p D14-D23
- Geological Survey of Canada** -Bedrock Geology of Ashcroft (92I) map area, Open File 980
- Kuran, V.** - Assessment Report on the CIG 100 claim for Time Square Energy Resources Ltd. April 27, 1986. AR 14785.
- Paxton, J.** - Notes on the Geology of the CIG 100 claim, July 18, 1987
- Notes on the Geology of the CIG 100 claim, September 14, 1987.
- Rayner, G.H.** - A Report on the Stump Lake Property for Celebrity Energy Corporation, April 14, 1983.
- Richardson, P.W.** - Report on the Stump Lake Property for Goldbrae Developments Ltd., July 11, 1985.
- Sookochoff, L.** - Geological, Geophysical & Geochemical Report on the CIG 100 Claim for New Hombre Resources Ltd. March 11, 1988. AR 17489
- Vollo, N.B.** - Report on the CIG 100 claim for Times Square Energy Resources Ltd., 1984.

Certificate

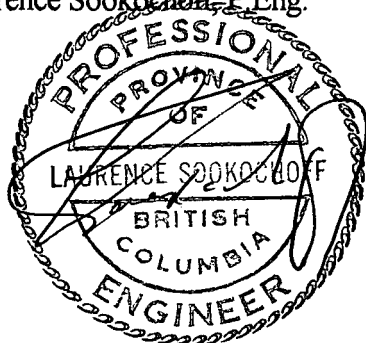
I, Laurence Sookochoff, of the city of Vancouver, in the Province of British Columbia, do hereby certify:

That I am a Consulting Geologist with offices at Suite 1027-510 West Hastings St., Vancouver, V6B 1L8

I further certify that:

1. I am a graduate of the University of British Columbia (1966) and hold a B.Sc. degree in Geology.
2. I have been practicing my profession for the past twenty-nine years.
3. I am registered, and in good standing, with, the Association of Professional Engineers of British Columbia.
4. Information for the accompanying report was obtained from sources cited under Selected References and from the completion of the 1996 exploration program on the S Claim Group.

Laurence Sookochoff, P. Eng.



July 24, 1996
Vancouver, B.C.

**S Claim Group
Statement of Costs**

The field work on the S Claim Group was carried out from March 26, 1996 to March 27, 1996. The value of the work was as follows:

| | |
|---|-------------------------------------|
| L. Sookochoff, P.Eng | |
| 2 man days @ \$500.00 | \$1,000.00 |
| Room, board, truck rental & gas, field supplies | 350.00 |
| Assays | 267.13 |
| Data compilation and draughting | 200.00 |
| Report | <u>750.00</u> |
| | \$2,567.13 <u> </u> |

Appendix I

ASSAY CERTIFICATE



GEOCHEMICAL ANALYSIS CERTIFICATE



Sookochoff Consultants Inc. File # 96-1161 Page 2

1027 - 510 W. Hastings St, Vancouver BC V6B 1L8 Submitted by: LAURENCE SOOKOCHOFF

| SAMPLE# | Cu ppm | Pb ppm | Zn ppm | Ag ppm | As ppm | Au* ppb |
|------------------|-----------|-----------|-----------|-----------|-----------|------------|
| 00+20W | 88 | 294 | 401 | 8.9 | 175 | 578 |
| 00+15W | 65 | 217 | 324 | 5.5 | 117 | 259 |
| 00+10W | 80 | 308 | 464 | 10.0 | 157 | 588 |
| 00+5W | 98 | 303 | 304 | 12.3 | 88 | 900 |
| 00+00 | 45 | 64 | 110 | 1.6 | 31 | 238 |
| 00+5E | 44 | 81 | 146 | .7 | 27 | 101 |
| 00+10E | 38 | 32 | 107 | .4 | 23 | 34 |
| 00+15E | 22 | 6 | 83 | <.3 | 10 | 9 |
| 00+20E | 24 | 15 | 102 | <.3 | 7 | 28 |
| RE 5S+5W | 72 | 161 | 199 | 6.7 | 54 | 486 |
| 5S+20W | 119 | 191 | 284 | 13.8 | 92 | 477 |
| 5S+15W | 89 | 242 | 339 | 6.6 | 90 | 521 |
| 5S+10W | 87 | 247 | 293 | 9.0 | 69 | 405 |
| 5S+5W | 77 | 180 | 219 | 5.9 | 59 | 486 |
| 5S+00 | 48 | 66 | 122 | 1.9 | 28 | 102 |
| 5S+5E | 36 | 37 | 112 | 1.0 | 20 | 57 |
| 5S+10E | 31 | 20 | 85 | <.3 | 14 | 16 |
| 5S+15E | 29 | 21 | 107 | .4 | 22 | 13 |
| 5S+20E | 30 | 18 | 112 | <.3 | 13 | 7 |
| STANDARD C2/AU-S | 60 | 36 | 127 | 6.6 | 43 | 54 |

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.

THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL.

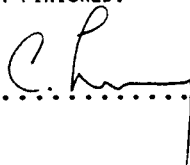
ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB

- SAMPLE TYPE: P1 ROCK P2 SOIL AU* - IGNITED, AQUA-REGIA/MIBK EXTRACT, GF/AA FINISHED.

Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: MAR 27 1996

DATE REPORT MAILED: April 3/96

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