

**RECEIVED**  
MAY 06 2002  
Gold Commissioner's Office  
**VANCOUVER, B.C.**

**CAPPELLA RESOURCES LTD.**

**GEOPHYSICAL (VLF-EM)  
ASSESSMENT REPORT**

for the

**S 1-7 MINERAL CLAIMS**  
(Work on the S4-S7 Mineral Claims)

**Nicola Mining Division**

**NTS M0921039**

**Vancouver, B.C.**  
**April 10, 2002**

**Sookochoff Consultants Inc.**  
**Laurence Sookochoff, P. Eng.**  
**GEOLOGICAL SURVEY BRANCH**  
**ASSESSMENT**

**26,846**

---

**Geophysical  
Assessment Report  
for the  
S 1-7 Mineral Claims**

---

**Table of Contents**

	page
Introduction .....	1.
Summary .....	1.
Property .....	2.
Location and Access .....	2.
Physiography .....	2.
Water and Power .....	4.
History .....	4.
Geology .....	5.
Mineralization .....	7.
Results of Previous Exploration on the S Claim Group Ground .....	7.
2002 Exploration Program	
VLF-EM Survey .....	9.
Conclusions .....	9.
Statement of Costs .....	10.
Selected References .....	11.
Certificate .....	12.

**Illustrations**

Figure 1	Location, Claim & Index Map .....	3.
Figure 2	Geophysical Survey Results .....	after page 8.

**Appendices**

Appendix I	VLF-EM Data
------------	-------------

**Geophysical  
Assessment Report  
for the  
S 1-7 Mineral Claims**

---

**Introduction**

During March, 2002, an exploration program consisting of a localized geophysical survey was completed on the S6 claim of the S Claim Group for assessment work to be applied to the S 1-7 mineral claims. The purpose of the survey was to determine the potential for the northeasterly continuation of the Zone II Ronka VLF-EM anomaly and the anomalous gold in soil values between previously determined anomalies of the Zone II showings (Pit Zone).

Information for this report was obtained from sources as cited under Selected References and from the writers' completion 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 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. In one of three pits dug in on Zone II, 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.

From 1987 to 2001 localized exploration work has been carried out on the S claim group to either delineate the Zone II showing or to locate other zones of potential mineralization.

**Property**

The property consists of a contiguous twenty-four located mineral claims and four, twenty unit claim blocks. Particulars are as follows:

<u>Claim Name</u>	<u>Tenure No.</u>	<u>Expiry Date</u>
S 1 - S 7	334586 - 334592	March 28, 2003
HK 1	360143	October 17, 2002
HK 2 - HK 3	360144 - 360145	October 18, 2002
HK 4 - HK6	382522 - 382524	November 17, 2002
HK 7	360149	October 18, 2002
HK 8	382525	November 17, 2002
HK 9 - HK 11	360151 - 360153	October 18, 2002
Jackpot 1 - Jackpot 2	360528 - 360529	November 9, 2002
Luna 1 - Luna 2	360967 - 360970	December 8, 2002
HAKA (20 units)	360160	October 17, 2002
AURA (20 units)	360695	December 7, 2002
TERRA (20 units)	360966	December 10, 2002
TONY (20 units)	362590	May 6, 2002

**Location and Access**

The property is located in southwestern British Columbia, forty km northwest of Merritt, northwest of Peter Hope Lake and within five km of Mineral Hill, where 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, junctions 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 watercourses are indicated draining the property.

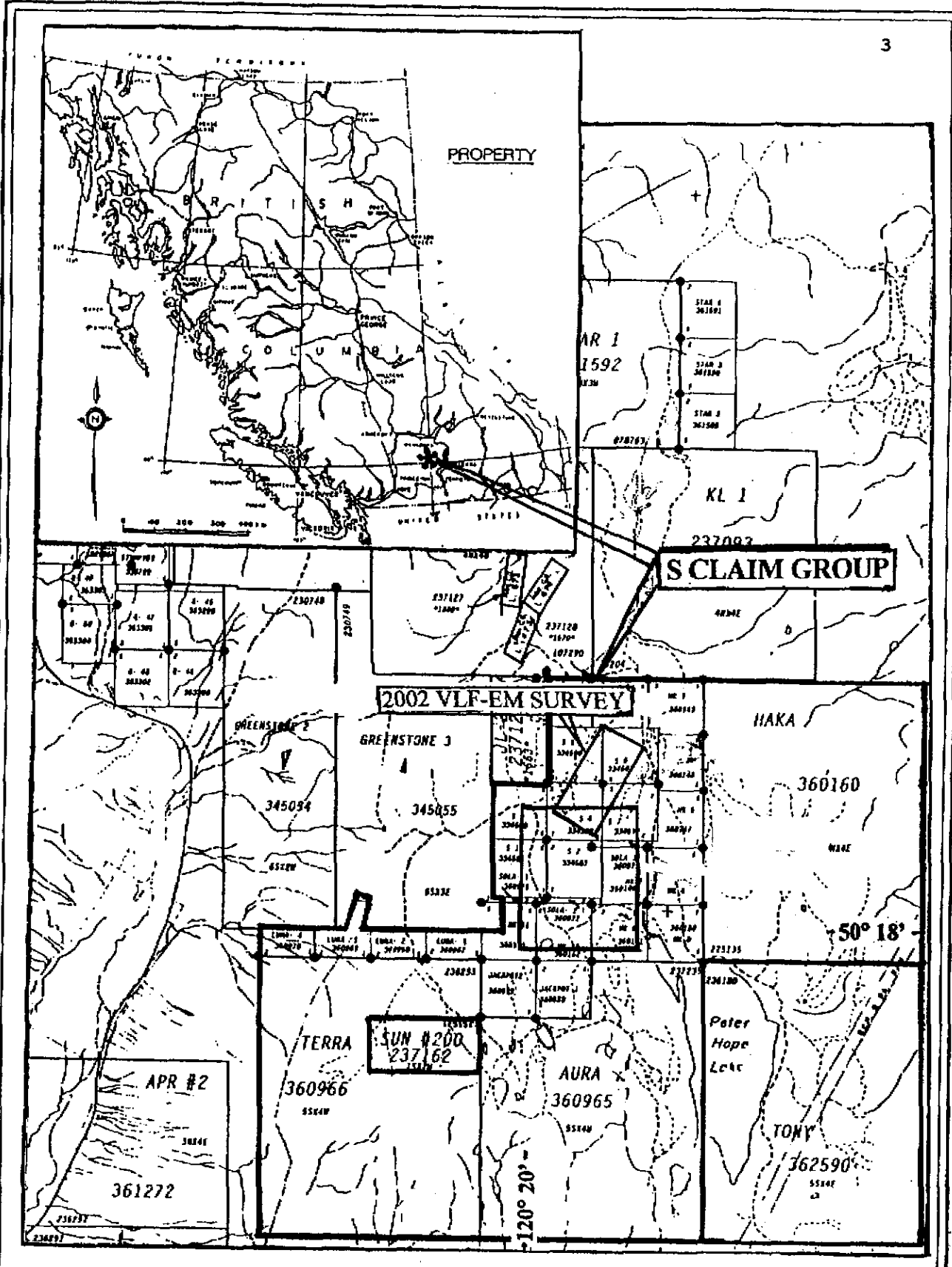


Figure 1. Location & Claim Map. (Claim Map is Ministry of Energy, Mines & Petroleum Resources Map 092I/08W)

## 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.

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. The recovered grade was 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.

On the S claim group ground, Times Square Energy and Resources Ltd. (name subsequently changed 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, and the digging of three test pits (S-1, S-2 & S-3) to examine the soil profile of the southeast gold anomaly designated as Zone II.

In 1990, a fracture density study was completed on the CIG 100 claim. The Cig 100 claim was allowed to expire 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. The only work completed for Module prior to the expiration of the WJA claims in 1995 was some trenching.

The S claim group was staked in 1995 followed by the completion of localized exploration programs over various locations with a focus on delineating Zone II.

## 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 the results of which are the subject of this report 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 level.

**Geology (cont'd)**

A shaft to a depth develops the Joshua mine 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 appears to be an epidotized facies of dark green biotite-hornblende. In addition several zones of pyroclastic breccia were noted. At several locations quartz vein float was also noted.

From 1988 to the current year, localized geochemical and geophysical surveys were completed on the S Claim Group.



**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 that 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 float 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 oz Au/ton and 18.22 oz Ag/ton.

### **Results of Previous Exploration on the S Claim Group Ground (cont'd)**

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 Ronka VLF EM-16 survey completed over the soil gold anomalies of Zone II defined a 350 metre anomaly which bifurcates to the northeast and correlates in part with soil geochem anomalous/sub-anomalous values in gold, a VLF-EM anomaly, and two local magnetometer lows.

The 1996 soil 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. Eight of the 18 samples, all clustered west of line 5W and the pit where the high-grade quartz float (1.158 oz Au/t) was obtained, returned over 400 ppb gold. The central four soil samples ranged from 57 ppb gold to 238 ppb gold and the eastern portion ranging from seven ppb gold to 34 ppb gold. The arsenic values are in a correlative value ratio to the Au values with the copper, lead and-zinc values indicating a similar ratio.

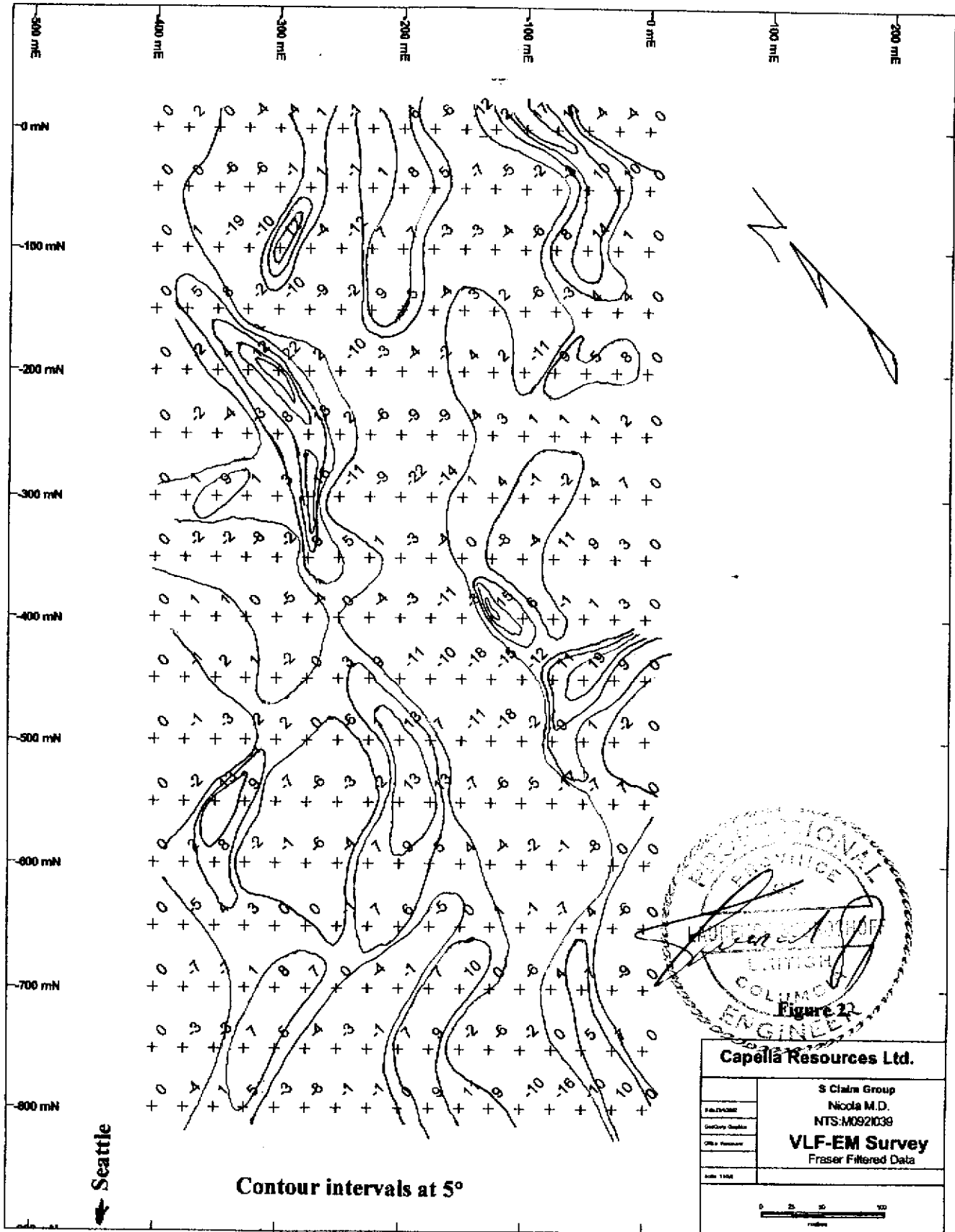
The April-May, 1998 trenching program was not successful in reaching bedrock to determine the source of the high-grade gold-silver float material that was obtained from the shallow pits on Zone II.

The October 1998 trenching program consisted of two trenches peripheral and to the south of the Zone II showings. The trenches, up to 1.25 metres in depth, exposed greenstone containing occasional stringers and fracture fillings of barren quartz-carbonate.

The 1999 geophysical (VLF-EM) survey to the south of Zone II indicated a weak anomaly - possibly indicating a structure paralleling the Zone II gold bearing structure to the west.

A 2001 geochemical and geophysical survey on the HK claims indicated a potential northeasterly trending structure; possibly an extension of Zone II structure

A 2001 localized VLF-EM survey on the Terra claim disclosed a potential mineral bearing structure trending in the direction of the Zone II showing.



**2002 Exploration Program  
VLF-EM Survey**

A Sabre Model 27 VLF-EM receiver manufactured by Sabre Electronics of Vancouver was utilized in the VLF-EM survey. The primary transmission utilized was from Seattle, broadcasting at a frequency of 18.6 Khz. The VLF-EM receiver measures the amount of distortion produced in the primary transmitted field and a secondary magnetic field, which may be induced by a conductive mass such as a sulphide body.

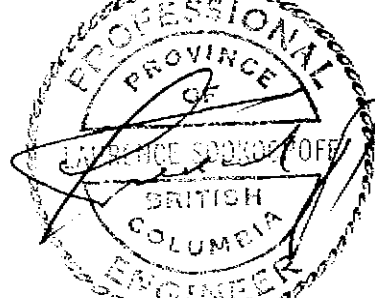
The VLF-EM unit, due to its relatively high frequency, can detect low conductive zones such as fault or shear zones, carbonaceous sediments, or lithological contacts and has the added disadvantage of indicating anomalous conditions from unwanted sources such as swamp edges, creeks and topographical highs.

The purpose of the VLF-EM survey was to trace the northerly extension of the Zone II VLF-EM/Ronka anomaly on the S6 mineral claim. An 800 metre base line oriented at 225° was initially established. VLF-EM readings were taken at 25 metre intervals along 400 metre long perpendicular grid lines at 100 metre intervals along the base line. A total of 3.2 kilometres of survey was completed. The raw data from the survey results was Fraser Filtered (Appendix I) with the resulting data plotted and contoured as indicated on Figure 2.

**Conclusions**

The results of the VLF-EM survey indicate two weak northeasterly trending anomalies, which generally indicate the Zone II northeasterly orientation but not definitively. The most definitive anomalous zone is a 200 metre long northerly zone between S lines 1+00 and 3+00, and W lines 2+25 and 3+25. Localized discontinuous northerly anomalies may be the complementary structural direction to the dominant northeasterly trend expressed on the property. Should that be the case, indicated intersecting mineral controlling structures, should be explored by soil sampling and geological mapping. The aforementioned definitive anomalous zone should be explored for an intersecting structure with the prime Zone II anomalous trend.

Respectfully submitted  
Sookchoff Consultants Inc.



Laurence Sookchoff, P.Eng.

Vancouver, BC  
April 10, 2002

**S Claim Group  
Statement of Costs**

The fieldwork on the S Claim group was carried to the value as follows:

L. Sookochoff, P.Eng.	
2.0 man days @ \$500.	\$1,000.00
Car rental:	
2 days @ \$50.00 plus gas & km	165.00
Room & board:	
1 man day @ \$100.00	100.00
Results & maps compilation	435.00
Report, xerox, & printing	<u>800.00</u>
	<u>\$ 2,500.00</u>

**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

**Sookochoff, L.** - Geochemical Assessment Report on the S Claim Group, July 24, 1996. AR 24499.

**Sookochoff, L.** - Geophysical Assessment Report on the S Claim Group, March 31, 1996. AR 25892.

**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 and principal of Sookochoff Consultants Inc. with offices at 604-1176 Burnaby Street, Vancouver, BC V6E 1P1.

I, Laurence Sookochoff, 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 thirty-six years.
- 3) I am registered and in good standing with the Association of Professional Engineers and Geoscientists of British Columbia.
- 4) The information for this report is based on information as itemized in the Selected Reference section of this report and from work the writer has completed on the S claim group ground from 1980 to March, 2002.



Vancouver, BC  
April 10, 2002

Appendix I

**VLF-EM DATA**



S	W	Null	Filter		S	W	Null	Filter		S	W	Null	Filter
0	0	2			50	0	0			100	0	1	
0	25	1	-4		50	25	5	10		100	25	2	1
0	50	2	-4		50	50	0	10		100	50	4	14
0	75	5	11		50	75	-5	-3		100	75	-2	8
0	100	2	17		50	100	0	-2		100	100	-6	-6
0	125	-6	2		50	125	-2	-5		100	125	0	-4
0	150	-4	-12		50	150	-1	-7		100	150	-2	-3
0	175	-2	-6		50	175	4	5		100	175	0	-3
0	200	4	6		50	200	0	8		100	200	1	7
0	225	-4	1		50	225	-2	1		100	225	0	7
0	250	0	-1		50	250	-2	-1		100	250	-8	-12
0	275	-1	1		50	275	-1	1		100	275	0	-4
0	300	-2	-4		50	300	-2	-1		100	300	6	12
0	325	0	-4		50	325	-2	-6		100	325	-8	-10
0	350	1	0		50	350	0	-6		100	350	2	-19
0	375	1	2		50	375	2	0		100	375	6	1
0	400	0			50	400	2			100	400	7	
S	W	Null	Filter		S	W	Null	Filter		S	W	Null	Filter
150	0	4			200	0	0			250	0	4	
150	25	0	4		200	25	-2	8		250	25	-4	2
150	50	2	4		200	50	-2	5		250	50	0	1
150	75	-2	-3		200	75	-8	9		250	75	-2	1
150	100	0	-6		200	100	-1	-11		250	100	-3	1
150	125	3	2		200	125	2	2		250	125	0	3
150	150	1	3		200	150	0	4		250	150	-6	-4
150	175	-2	-4		200	175	-1	-2		250	175	0	-9
150	200	3	5		200	200	-1	-4		250	200	-2	-9
150	225	0	9		200	225	2	-3		250	225	5	-6
150	250	-4	-2		200	250	0	-10		250	250	2	2
150	275	-2	-9		200	275	4	2		250	275	7	13
150	300	0	-10		200	300	8	22		250	300	-2	8
150	325	3	-2		200	325	-6	12		250	325	-2	-3
150	350	5	8		200	350	-4	4		250	350	-1	-4
150	375	0	5		200	375	-6	-2		250	375	0	-2
150	400	0			200	400	-8			250	400	1	

S	W	Null	Filter	S	W	Null	Filter	S	W	Null	Filter
300	0	2		350	0	0		400	0	0	
300	25	0	7	350	25	2	3	400	25	-2	3
300	50	-1	4	350	50	-1	9	400	50	-3	1
300	75	-4	-2	350	75	0	11	400	75	-2	-1
300	100	-1	-1	350	100	-8	-4	400	100	-4	6
300	125	-2	4	350	125	-4	-8	400	125	0	15
300	150	-2	1	350	150	0	0	400	150	-12	-3
300	175	-5	-14	350	175	-4	-4	400	175	-7	-11
300	200	0	-22	350	200	0	-3	400	200	-2	-3
300	225	7	-9	350	225	0	1	400	225	-6	-4
300	250	10	-11	350	250	-1	5	400	250	0	0
300	275	6	16	350	275	0	9	400	275	-4	-4
300	300	0	3	350	300	-6	-2	400	300	-2	-5
300	325	0	1	350	325	-4	-8	400	325	2	0
300	350	3	9	350	350	0	-2	400	350	-1	1
300	375	-4	1	350	375	-2	-2	400	375	1	1
300	400	-2		350	400	0		400	400	-1	
S	W	Null	Filter	S	W	Null	Filter	S	W	Null	Filter
450	0	3		500	0	0		550	0	-2	
450	25	0	9	500	25	-2	-2	550	25	-4	7
450	50	0	19	500	50	-4	1	550	50	-6	-7
450	75	-6	11	500	75	0	9	550	75	-7	-17
450	100	-13	-12	500	100	-7	-2	550	100	4	-5
450	125	-4	-15	500	125	-6	-18	550	125	0	-6
450	150	-3	-18	500	150	1	-11	550	150	2	-7
450	175	1	-10	500	175	4	7	550	175	8	13
450	200	10	-11	500	200	2	13	550	200	1	13
450	225	-2	9	500	225	-4	1	550	225	-4	-2
450	250	2	3	500	250	-3	-6	550	250	0	-3
450	275	-3	0	500	275	0	0	550	275	-1	-6
450	300	0	-2	500	300	-1	2	550	300	0	-7
450	325	-1	1	500	325	-2	-2	550	325	5	9
450	350	0	2	500	350	-1	-3	550	350	1	13
450	375	-2	-1	500	375	0	-1	550	375	-5	-2
450	400	-1		500	400	0		550	400	-2	

S	W	Null	Filter		S	W	Null	Filter		S	W	Null	Filter
600	0	-2			650	0	-4			700	0	-4	
600	25	0	0		650	25	4	-6		700	25	3	-9
600	50	-2	-8		650	50	1	4		700	50	6	7
600	75	4	-1		650	75	5	-7		700	75	2	4
600	100	2	-2		650	100	-4	-1		700	100	0	-6
600	125	1	-4		650	125	3	1		700	125	4	0
600	150	7	4		650	150	-1	0		700	150	4	10
600	175	0	5		650	175	-1	-5		700	175	0	7
600	200	4	9		650	200	3	6		700	200	-2	-1
600	225	-2	7		650	225	0	7		700	225	-1	-4
600	250	-3	-4		650	250	-4	-1		700	250	0	0
600	275	-2	-6		650	275	0	0		700	275	1	7
600	300	1	-1		650	300	-3	0		700	300	-2	8
600	325	0	-2		650	325	-1	3		700	325	-4	1
600	350	0	8		650	350	-2	4		700	350	-5	-7
600	375	-3	2		650	375	-5	-5		700	375	-2	-7
600	400	-5			650	400	-2			700	400	0	
S	W	Null	Filter		S	W	Null	Filter					
750	0	2			800	0	0						
750	25	5	7		800	25	4	10					
750	50	0	5		800	50	2	-10					
750	75	0	0		800	75	-8	-16					
750	100	0	-2		800	100	4	-10					
750	125	0	-6		800	125	6	9					
750	150	2	-2		800	150	0	11					
750	175	4	9		800	175	1	9					
750	200	0	7		800	200	-6	0					
750	225	-3	-1		800	225	-2	-1					
750	250	0	-3		800	250	-3	-1					
750	275	-2	-4		800	275	-4	-8					
750	300	2	5		800	300	0	-3					
750	325	0	7		800	325	1	5					
750	350	-5	-3		800	350	-2	1					
750	375	0	-3		800	375	-2	-4					
750	400	-2			800	400	0						