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### GENSTAR PROPERTY

(Genesis 5, 9, 10-22, Silver Star, Blue Star, White Star, Dark Star, Ripple)

PRELIMINARY MAPPING, SAMPLING, MAGNETIC SURVEYS

Latitude: 50°25'N

Longitude 120°35'W

N.T.S. 931/7E

FILMED

SUB-RECORDER

206 13 1cm

KAMLOOPS MINING DIVISION British Columbia

B.H. Kahlert PEng
P.L. Grexton GEOLOGICAL BRANCYAncouver, B.C.
ASSESSMENT REPORT August 1993

22,992

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### SUMMARY:

The Genstar Property is located 35 km south of Kamloops, B.C. on N.T.S. map sheet 92I/7E. Claims cover a forested area of low rounded hills and gentle slopes. The Coquihalla Highway crosses the western portion of the property. Access to the eastern part of the claims is available via the Lac Le Jeune Forest Service Road.

Genstar is within the Quesnellia Terrane and occupies the eastern margin of a broad, northerly belt of Nicola Gp. rocks which is bounded to the east and west by the Nicola and Guichon Batholiths, respectively. Quesnellia Terrane is host to a number of significant copper-gold porphyry deposits. Recorded historical data show moderate to strongly anomalous Cu (1200 ppm) occurring in soils over a 4 km² area in the central portion of the claims. Government maps indicate alkaline intrusive rocks bearing similarities to the Iron Mask Batholith occur in the immediate area. A large subcircular magnetic high of moderate relief is present in the western half of the property. A northeast trending linear anomaly of high relief occurs in the east half.

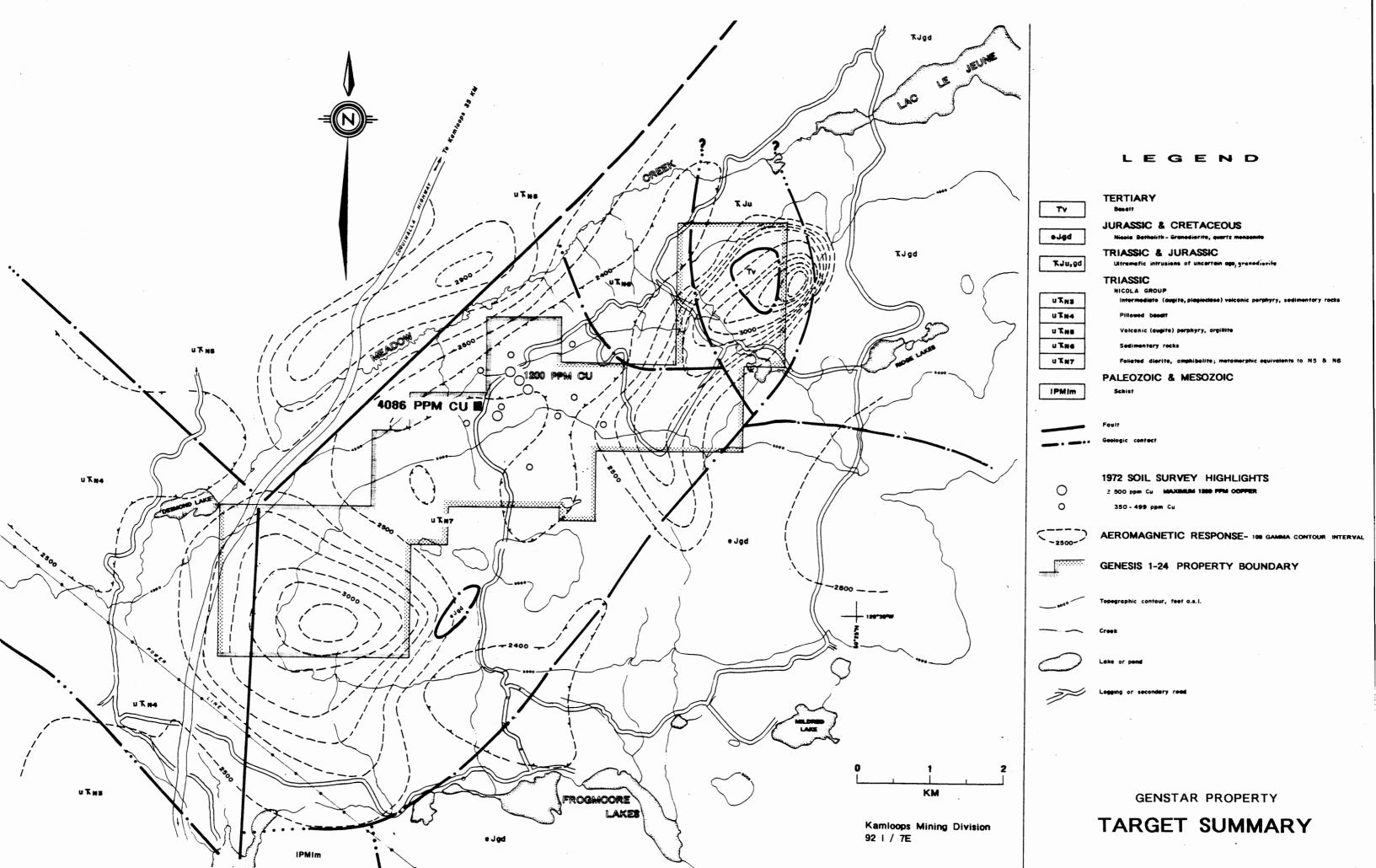
Comprising 63 contiguous units, the claims protect an area having good potential for hosting a copper-gold porphyry deposit. Between July 24, 1992 and May 16, 1993, two individuals spent 14 mandays on the property. This preliminary investigation was aimed at confirming the presence of alkaline intrusions emplaced within favourable Nicola Gp. host rocks, verifying the strong aeromagnetic anomaly on the east half of the claims and sampling any interesting mineralization and alteration encountered. Work included 4.4 km of magnetic traversing, construction of 17 km of flagged reference lines, collection of 26 rock and 4 silt samples, and a cursory examination of exposed bedrock.

Intrusive rocks of compositons ranging from diorite to alkaline granite were found on the west half of the claims. Exposures of syenite were present in the east. Alteration assemblages include ubiquitous chlorite, epidote and local occurrences of quartz, sericite, biotite and potassium feldspar. A sample of (15%) pyritized andesite returned 4086 ppm Cu with 50 ppb Au and anomalous Sb, Bi and Ag. Magnetic traversing outlined a 700 m wide intrusive complex in the vicinity of syenite outcrop.

The 1992-1993 program successfully verified the existance of a geological setting strongly favourable for the formation of an economic copper porphyry deposit. It is reccommended that mapping and bedrock sampling be completed over the entire property, soil sampling and prospecting be conducted in the vicinity of known intrusions with priority given to the intrusive complex associated with the eastern magnetic anomaly, the 4 km² Cu anomaly be resampled, magnetometer surveying be completed over the property and detailed prospecting be conducted in the vicinity of the 4086 ppm Cu sample. Salient features of the property are summarized on Figure 2.



# **LOCATION MAP**



#### **CONCLUSIONS:**

- 1. The presence of alkaline intrusive rocks including syenite have been found across the property.
- 2. Magnetic and geological data indicate that at least three intrusive stocks occur in the southwest and northeast portion of the property. Magnetic profiling has identified the causative source of the eastern magnetic anomaly as a 700 m wide intrusive complex with variable magnetite.
- 3. Propylitization, silicification and potassic alteration assemblages typical of Cu porphyry deposits are present in the west and cental portion of the claims.
- 4. Geochemical analyses detected significant Cu (4086 ppm) in one sample of pyritic andesite.
- 5. Due to limited staining, potassium feldspar alteration and alkaline rock units are probably more extensive than current mapping indicates.

#### **RECCOMMENDATIONS:**

- 1. Reconnaissance geological and bedrock sampling surveys should be completed over the entire property.
- 2. Soil sampling and prospecting should be completed in the vicinity of known intrusives. Priority should be given to the larger intrusive complex and syenite occurrence on the east half of the property.
- 3. Effort should be made to determine the source of the Cu-bearing pyritic andesite which ran 4086 ppm Cu.
- 4. The old Ram Claim Cu soil anomaly in the central part of the property should be verified and detailed by resampling. Gold content of these samples should be determined by geochemical analysis.
- 5. Magnetic profiling should be completed over the western aeromagnetic anomaly to identify and define the causative source.

### LOCATION AND ACCESS

Centred on latitude 50°25.3'N and longitude 120°35.2'W, the Genstar property is located immediately east of Desmond Lake, 40 km south of Kamloops B.C. It is in the Kamloops Mining Division on N.T.S. map sheet 92I/7E.

The Coquihalla Highway crosses the western portion of the property. Access to the eastern and central portion of the claims is possible from Lac Le Jeune via Ridge Mountain Forest Service Road and a network of new and old logging roads. Travel time from Kamloops via either route is 35 to 45 minutes. Most roads are passable with two wheel drive. See Figures 1 and 2 for location and access.

### TOPOGRAPHY, VEGETATION AND GLACIATION

Claims cover an area of low, rounded hills and gentle slopes. Second growth pine, spruce and poplar predominate. Cedar grows in small boggy areas. Deciduous undergrowths of willow and poplar occur locally. Extensive deadfall over much of the property indicates the area burned less than 25 years ago. Clearcut logging blocks are present on the east half of the property. Property elevations range from 1280 to 1706 m asl (4200 to 5600 feet asl). A number of small creeks drain the area.

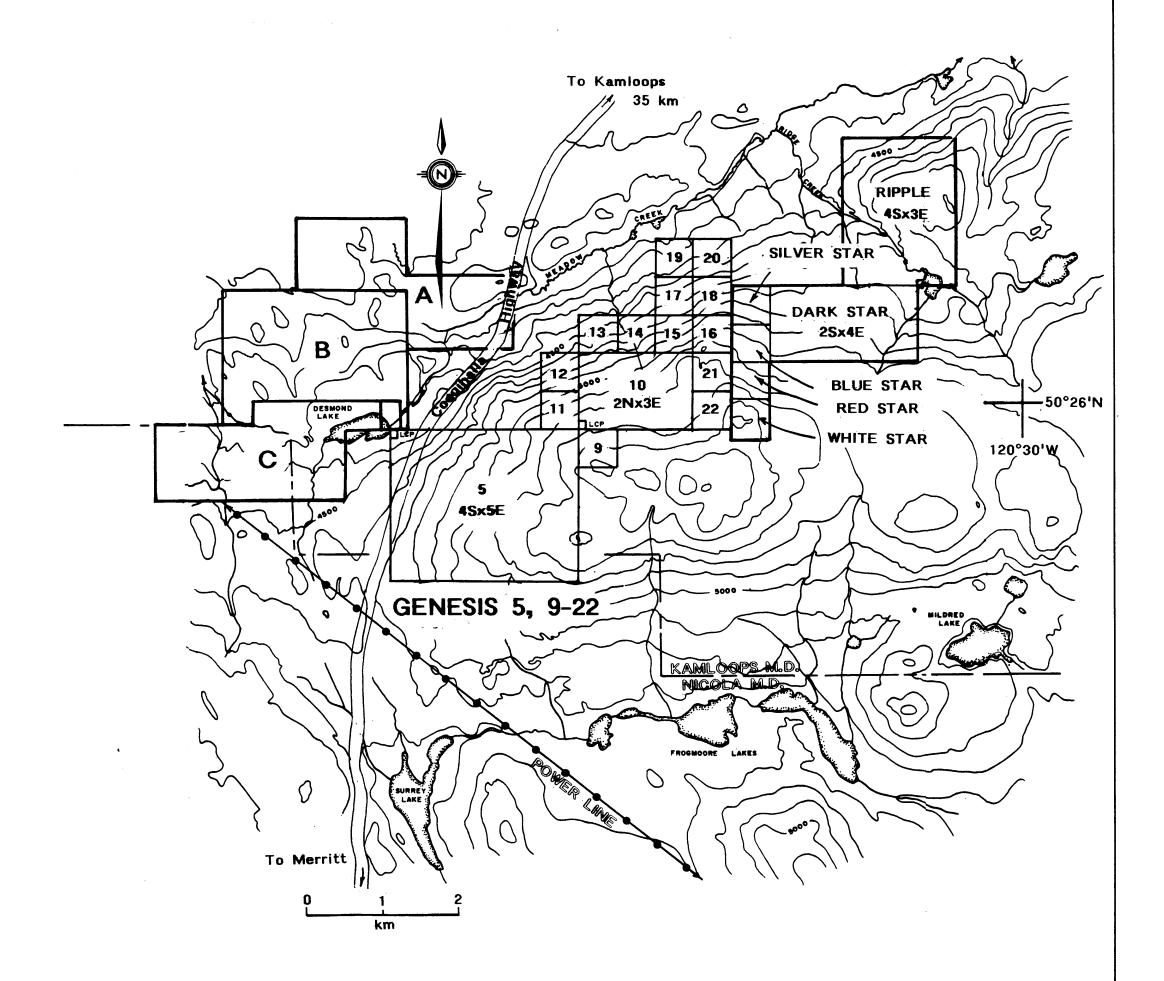
Government maps indicate ice movement through the area was from northwest to southeast. About 85% of the property is covered by glacial debris.

### CLAIM DATA

The property comprises 4 four post claims and 17 two post claims totalling 63 contiguous units. Claim statistics are presented in Table 1 below. Locations are shown on Figures 1 and 3. Copies of claim affidavits are in Appendix I.

TABLE 1 CLAIM DATA

Name	Tenure #	Dimension	Units	Staked	Expires	Owner
Genesis 5	309736	4S x 5E	20	18 05 92	18 05 94	Grexton
Genesis 9	309745		1	17 05 92	17 05 94	Grexton
Genesis 10	309734	2N x 3E	6	22 05 92	22 05 94	Grexton
Genesis 11	309746		1	22 05 92	22 05 94	Grexton
Genesis 12	309747		1	22 05 92	22 05 94	Grexton
Genesis 13	309748		1	22 05 92	22 05 94	Grexton
Genesis 14	309749		1	22 05 92	22 05 95	Grexton
Genesis 15	309750		1	22 05 92	22 05 95	Grexton
Genesis 16	309751		1	22 05 92	22 05 95	Grexton
Genesis 17	309752		1	22 05 92	22 05 95	Grexton
Genesis 18	309753		1	22 05 92	22 05 95	Grexton
Genesis 19	309754		1	22 05 92	22 05 94	Grexton
Genesis 20	309755		1	22 05 92	22 05 94	Grexton
Genesis 21	309756		1	22 05 92	22 05 94	Grexton
Genesis 22	309757		1	22 05 92	22 05 94	Grexton
Silver Star	309991		1	23 05 92	23 05 95	Kahlert
Blue Star	309992		1	23 05 92	23 05 95	Kahlert
Red Star	309993		1	23 05 92	23 05 95	Kahlert
White Star	309994		1	23 05 92	23 05 95	Kahlert
Dark Star	309995	2S x 4E	8	23 05 92	23 05 94	Kahlert
Ripple	309996	4S x 3E	12	22 05 92	22 05 94	Kahlert



**A**JB 1-12

9977-9988

Grant Crooker

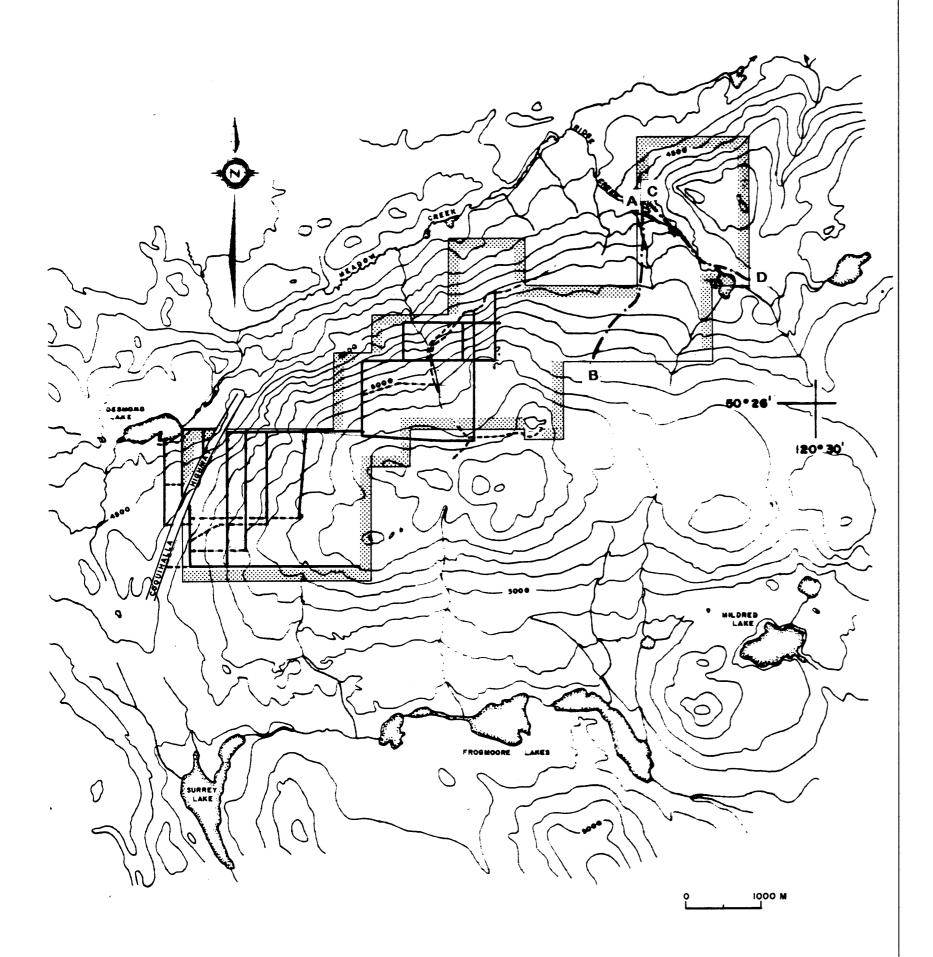
WRT 12 6185 Carulli Resources

DES 1-4 1544, 7856-7858 C. Boitard

### 1992 - 1993 PROGRAM

Purpose of the program was to confirm the potential for Cu (Au) porphyry style mineralization related to the emplacement of alkaline intrusions similar to those of the Iron Mask Batholith. This preliminary investigation aimed at confirming the presence of alkaline intrusions through favourable Nicola Gp. host rocks, verifying the strong aeromagnetic anomaly on the east half of the claims and documenting and sampling any significant alteration and mineralization encountered.

Between July 24, 1992 and May 16, 1993, B. Kahlert and L. Grexton spent 14 mandays on the property. Ground magnetic profiling was completed along two traverse lines across the Dark Star and Ripple claims. Readings were taken at 100 and 200 m intervals over a total distance of 4.4 km. On the west half of the property, roughly 17 km of flagged and sloped corrected lines were constructed using a compass and hipchain. Rock exposures encountered were given a cursory examination. A total of 26 rock and 4 silt samples were collected and delivered to Rossabacher Laboratory of Burnaby, B.C. They were analysed for Cu plus 31 other elements using ICP and for Au by atomic absorption. Traverse lines are plotted on Figure 4. Certificates of Analysis, methods and detection limits are in Appendix II.



	Control Line, slope corrected, flagged
*****	Traverse Line, slope corrected
	Magnetometer Survey Line
	Property Boundary

# GENSTAR PROPERTY TRAVERSE MAP

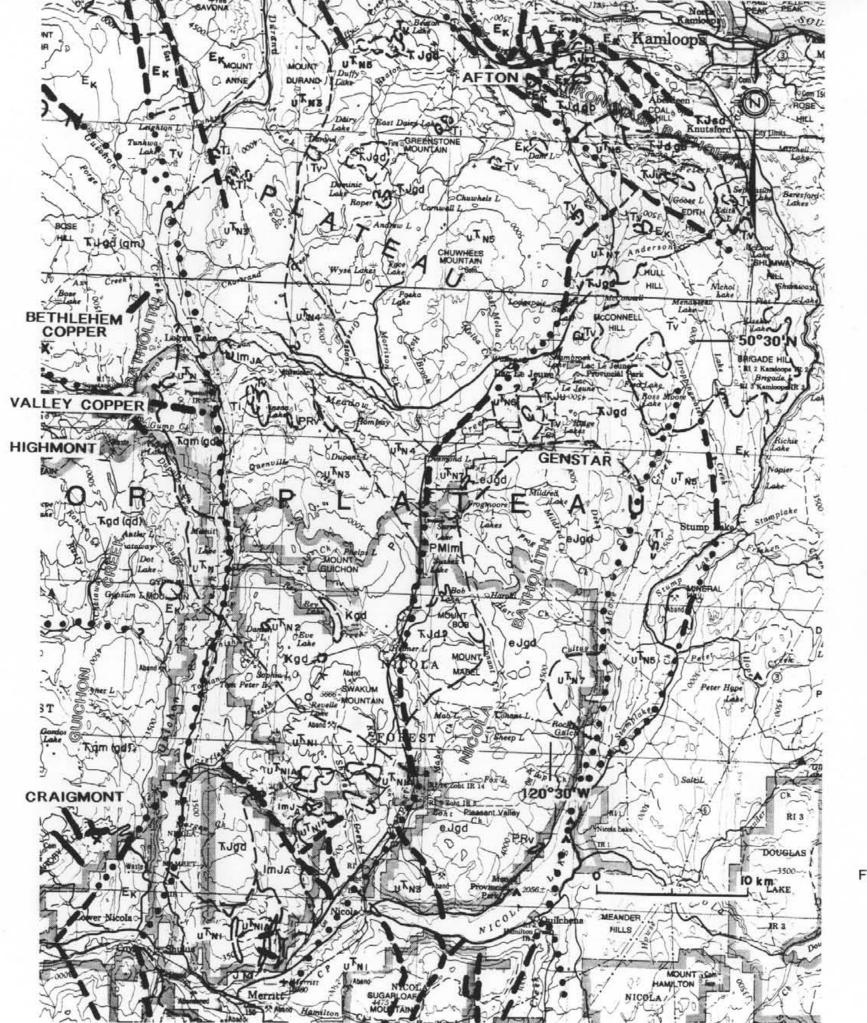
# REGIONAL GEOLOGY (GSC O.F. 980, MAP 42-1989)

According to government maps, the Genstar property is in the Quesnellia Terrane and is primarily underlain by Nicola Gp. metavolcanic rocks. Regionally, the Nicola Gp. forms a broad, northerly belt of mainly subaerial, intermediate-mafic volcanic flow, breccia and pyroclastic rocks, and their metamorphosed equivalents. Lesser clastic sedimentary and acid volcanic rocks occur. To the west this volcanic belt is bounded by Triassic-Jurassic granodiorite and quartz monzonite of the Guichon Creek Batholith. The early Jurassic Nicola Batholith of similar composition marks the eastern boundary. Smaller intrusive bodies ranging in age from Triassic to Cretaceous, are scattered throughout the area. Compositions range from diorite to syenite with local occurrences of ultramafic rocks. Mafic-acidic Tertiary age volcanic rocks are also present.

Large scale, northwest to northeast trending faults dominate the region with lessor west to northwest transverse faults. Regional geology is shown on Figure 5.

According to government Minfile data, all but 10 of the 174 mineral occurrences in the region contain Cu. Vein and porphyry style mineralization dominate. The copper may occur alone or in combination with one or more of Au, Ag, Pb, Zn, Mo and lessor W, Fl and Hg. Mineral occurrences are shown on Figure 6 which also illustrates the strong association between intrusive rocks and mineralization. Rocks of the Guichon and Iron Mask Batholith are of particular importance.

Government aeromagnetic maps show one large subcircular, positive magnetic feature of moderate relief on the western half of the property and a northeast trending, positive linear feature of high relief in the east half of the property.

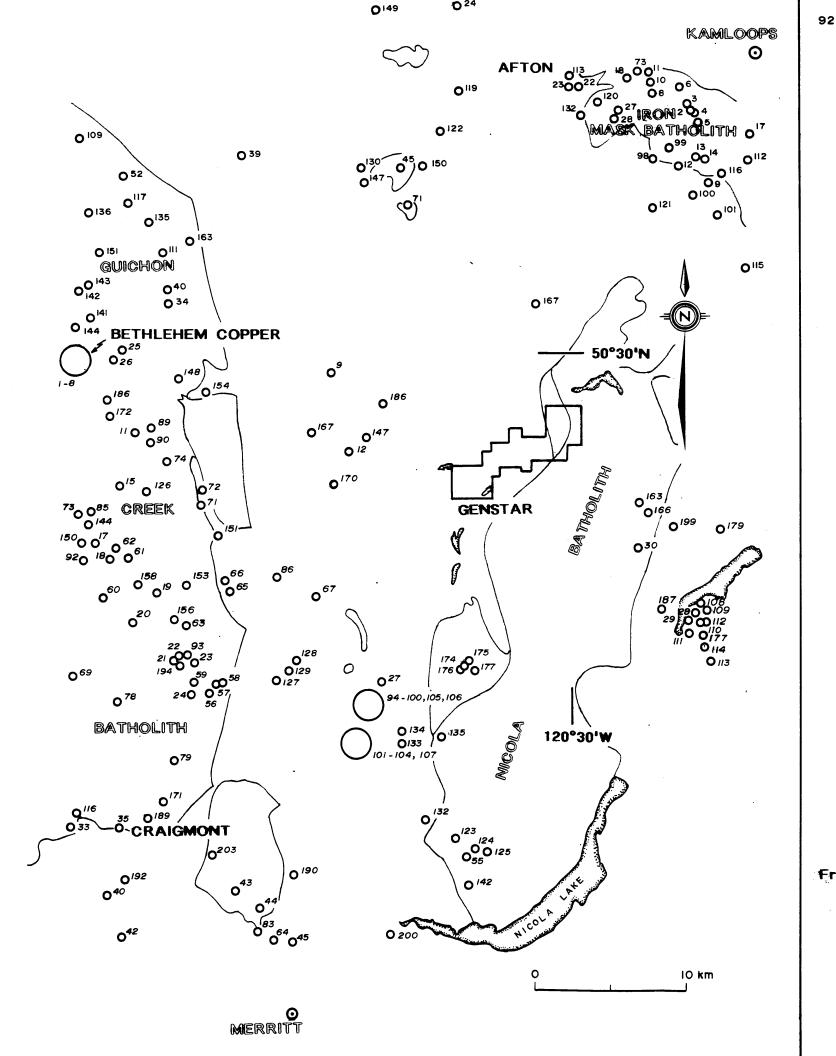


# **LEGEND**

### QUATERNARY PRV TERTIARY TV Ti Intermediate intrusive rocks KAMLOOPS GP. Mafic-acid volcanic rocks, local sedimentary rocks EK CRETACEOUS Kgd Granodiorite JURASSIC & CRETACEOUS ASHCROFT FM. Sedimentary rocks ImJA eJgd Granodiorite, quartz monzonite TRIASSIC & JURASSIC T.Jgd,qm,qd GUICHON CREEK BATHOLITH & similar rocks. Quartz monzonite, granodiorite, quartz diorite KJs,d,gb IRON MASK BATHOLITH & similar alkaline intrusions, Syenite, diorite, gabbro Alkaline intrusions of uncertain age, partly coeval with Iron Mask Batholith. Syenite, diorite, gaturo, KJs, d, gb,u TRIASSIC NICOLA GR u T N Undifferentiated NI Matic - acidic volcanic rocks, sedimentary rocks Nic Acidic volcanic rocks Intermediate (augite-plagioclase) volcanic porphyry, sedimentary rocks Pillowed basic flows N5 Volcanic (augite) porphyry, argillite N6 Sedimentary rock N7 Foliated diorite, amphibolite, metamorphic equivalents to N5 8 N6 PALEOZOIC & MESOZOIC IP M Im Geological contact Copper deposit

From GSC O.F. 980 & Map 42-1989

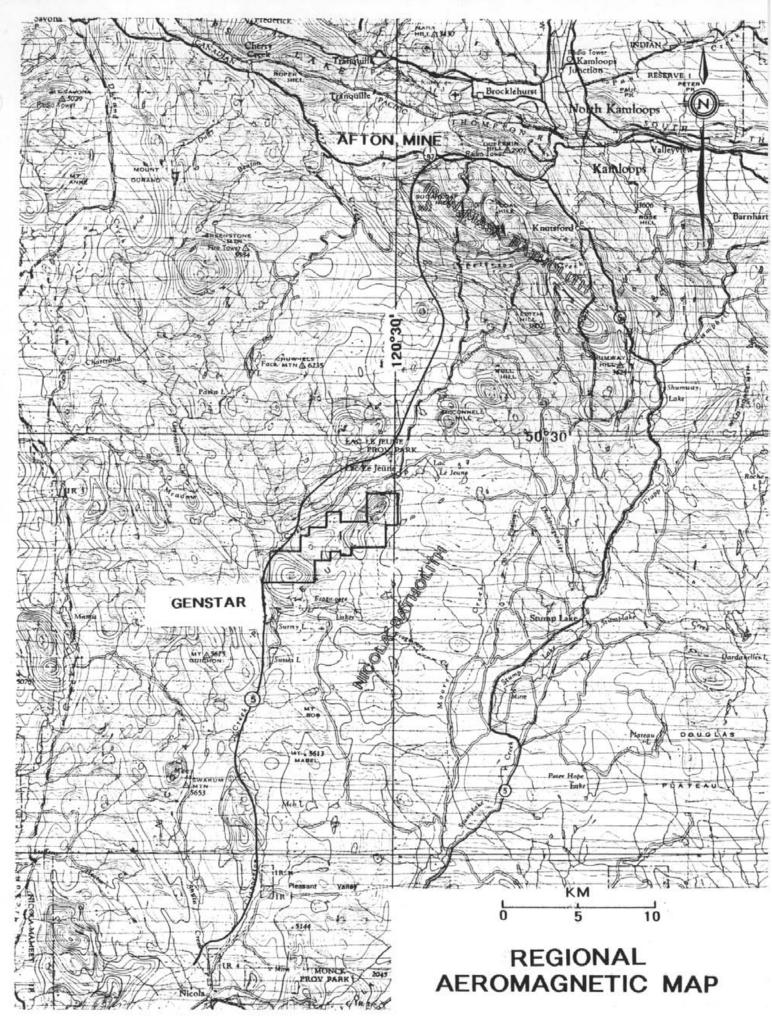
REGIONAL GEOLOGY



2	NORTHEAST	92	SOUTHEAST		
2	. Python Cu Ag Au Fl	1.	Jersey Cu Mo Au	100.	Old Alameada 6 Cu Au Bi 7
3	. Orphan Boy Cu Au Ag	<b>2</b> .	East Jersey Cu Mo	101.	Theima Ag Pb Zn Au Cu
4	. Noon Day Cu Au Ag Mo	<b>3</b> .	South Simons Cu	102.	Bernice Ag Pb Zn Au Cu
5	. Lost Chord Cu Mo	4.	Huestis Cu Mo	103.	Old Evelyn Pb Ag Zn Au
6	. OK Cu Au	<b>5</b> .	Snowstorm Cu Ag Mo Au	10 <b>4</b> .	Old Corona I Ag Pb Zn Cu A
8	. Lucky Strike Cu Ag	<b>6</b> .	Iona Cu Mo	105.	Gloria I Cu Au Ag
9	. Windsor Cu	7.	White Cu	106.	Gold Gossan 2 Cu Ag PbW
10	Iron Mask - Erin Cu Au Ag Gy	8.	Spud Lake Cu	107.	Old Corona 2 Pb Zn Cu
1 1	. Larsen Cu Au Ag	<b>9</b> .	Ford Cu Ag	108.	Tubal Cain Au Ag Cu Pb Zn
12	. Ajax Cu Au Ag Mo	11.	Jim 3 Cu Mo Ag	109.	Joshua 🛮 Au Ag Cu Pb Zn W
13	i. Wheal Tamar Cu Au Ag Mo	1 <b>2</b> .	Bertha - Molly Cu Ag	110.	King William Au Ag Cu Pb Z
14	. Monte Carlo Cu Au Ag	15.	Bornite Ridge Cu	111.	Silver King Au Ag Cu Pb Zi
17	. Kimberly Cu Au Ag	1 <b>8</b> .	Jay I Cu	112.	Emulator Au Ag Cu Pb Zn N
2:	2. Cliff Gift Fe	19.	Wiz 3,5 Cu	113.	Moon Au Ag Cu Pb Zn W
2	3. Afton - Pothook Cu Au Ag Mo	<b>20</b> .	Sho Cu	114.	Raven Au Ag Cu Pb Zn W
24	). Copper King Cu	<b>2</b> 1.	Strike Cu	116.	Marb 4 Cu Fe
2	5. Glen Iron Cu Au Ag	<b>22</b> .	Rich Cu	122.	Raiph Cu Fe
2	7. Lonetree Cu Fe Ag Au Mo	<b>23</b> .	Vimy Cu Ag	123.	Copperado (P66) Cu
28	3. Rainbow Cu Ag Mo	24.	Aberdeen Cu Ag Au	124.	Copperado (A6) U
34	1. JB Cu Mo	<b>27</b> .	Last Chance Cu Pb Zn Au W	125.	Copperado (TM) Cu Ag Mo
39	9. Tunkwa Lake Hg Sb Ag Cu	<b>28</b> .	Enterprise CuPbZn Ag Au W	126.	Ole - Pat Cu Mo
40	O Outrider 16 Cu	<b>29</b> .	Planet Cu Pb Zn	127.	103 Zone Zn Pb
4	5. Bruce Cu Mo	<b>30</b> .	Brite Star Mo	1 <b>28</b> .	Sunshine II Zn Pb Cu Ag
5	2. For Cu	33.	Marb 3 Cu Fe	1 <b>29</b> .	Sunshine Zn Pb Cu Ag
70	D. Hansen Hg	40.	Arh CuFe	130.	Chatko CuFe
7	I. TC Spur Cu Mo	43.	Rye Cu Fe	131.	Iron King Fe
98	B. Rogers Cu Ag	44.	Justice Cu Fe	1 <b>32</b> .	Peacock Cu Ag Au
9	9. No. 7 Fe Cu	45.	Chase Cu Fe Zn Ag	133.	AC Au Ag Cu
10	O. Gold Plate Pb Cu Ag Au	47.	Mouse Pb Cu	134.	A Au Ag
10	I. Chance Cu Pb Au	51.	Soo Cu Fe Ag	135.	Coke Cu Fe
10	9. Jo Cu	<b>55</b> .	Copperado Cu Ag U	143.	Nik Cu
1.1	I. RM Cu	<b>56</b> .	Manchester Au	144.	Pen Cu
11.	2. IM Cu	<i>57</i> .	HC A Fr. Gu	147.	JHC Cu Ag
11	3. Afton - Dominion Cu	5 <b>8</b> .	HC 36 Cu Fe	148.	NYE Cu
11	5. Mot Cu (Au)	<b>59</b> .	Plymouth Queen Cu Fe	150.	Yubet Cu
11	6. Budd Cu	<b>60</b> .	DJ Cu	151.	MLM Cu
- 11	7. Pod Cu	<b>6</b> 1.	Moon Cu	153.	TDM Cu
- 11	9. Led I7 Cu Mo	62.	Sky Cu	154.	Wendy Cu
12	O. DM 62 Cu	<b>63</b> .	Wiz 21, 30 Cu Mo Ag Au	155.	Plug Au Ag Cu Pb Zn
12	I. Tar Cu	64.	Val Fe Cu	158.	Chataway Lake Cu
12	2. Led 3I Cu Mo	<i>65</i> .	Buck Cu	163.	Sar Cu
13	O. Rag 73 Cu Mo	66.	Blueberry Cu	166.	Sack Au Cu Mo
	2. Karen Cu	67.	Mad Arab Cu Pb Zn Ag Au	167.	SA Cu
13	5. WDR Cu	71.	Rod Cu Mo	170.	Pom Pom Cu
	6. Lux Cu	72.	Fiddler Cu Mo	171.	JUA Cu
	I. Showing A Cu Fe	74.	Ole Cu Mo	172.	IND Cu
	2. Showing B Cu	78.	Pat Cu	174.	
	3. Showing C Cu	79.	Be Cu	175.	·
	4. Lodge Cu Mo Fe	83.	Ell Cu	176.	•
	9. YR Cu	85.	Lem Cu	177.	
	O. Ned Cu	89.	Jericho 18, 20 Cu Mo		Redbird Au Ag Fl
	I. Burl Cu	90.	Gnat 2 Fr. Cu Mo	181.	•
.5		90. 91.		185.	
			Malachite Hill		
_		92.	Jay II Cu	186.	
LOI	n B.C. EMPR. Minfile.	93.	Wiz 47 Cu	187.	
		94.	Old Alameada Cu Pb Zn Au Ag		Laron Cu
		<i>95</i> .	Old Alameada I Cu Zn	190.	* ''
		96.	Old Alameada 2 CuPb	192.	
		97.	Old Alameada 3 Pb Zn Cu Au	194.	•
		98.	Old Alameada 4 Cu Pb Zn	199.	Ulla Cu
		20	Old Alamanda E. An Dh	76	Contamont CuEs Au Ad

# MINERAL OCCURRENCE MAP

35. Craigmont CuFe Au Ag



### EXPLORATION HISTORY AND PREVIOUS RESULTS

Mineral Inventory maps show no mineral occurrences in the immediate vicinity of the Genstar property. Work on Cu showings occurring 8 to 12 km to the northwest, dates to 1929. In a 1972 assessment report on the Des claims, C. Lammle states that the Meadow Creek area was not seriously explored during the Highland Valley boom.

Seven properties on and adjacent to the Genstar property have been the focus of recent exploration. Property boundaries and highlights of results are shown on Figure 8.

Earliest recorded assessment work dates to 1972 when three properties were explored for Cu. Rio Sierra Developments conducted soil and ground magnetic surveys on a 30 km grid on their Ram claims in the central portion of the current Genstar property. Moderate to strongly anomalous Cu (maximum 1200 ppm) was found over a 4 sq. km area. Background was 40 ppm. further work was recorded and the claims lapsed. Texada Mines conducted I.P., ground magnetic and soil surveys over their Plug claims immediately north of Genesis 5. Minor galena, sphalerite and chalcopyrite was found in quartz-mariposite schist. Follow-up percussion drilling tested chalcopyrite mineralization in a 30 m thick, pyritic quartz-feldspar sill but failed to find significant mineralization and the claims expired. Since 1972, the Des property has been subjected to various soil and geophysical surveys. In 1989, 2040 m of diamond drilling was completed. Native Cu is reported in core and in at least one surface exposure. Highest assay values reported are 2.9% Cu in hole 89-2 and 1.41 g/t Au in hole 89-4. massive sulfide showing consisting mainly of chalcopyrite and bornite in a quartz-carbonate gange was observed in one surface The Des claims are west of Genstar 5 and are currently held in good standing by C. Boitard.

In 1977, Bethlehem Copper drilled 6 percussion holes totalling 310 m to test I.P. anomalies on their Jas claim. Drilling encountered schist and hornfelsed argillite with heavily pyritized sections reported locally. Inaccessability prevented drill testing of a Cu soil anomaly coincident with a magnetic low. No additional work was recorded and the claims lapsed. The Jas 1 claim was south of the former Ram claims.

Western Resource Technologies restaked the WRT claims over the old Plug showings. Reevaluation of the area by VLF-EM, ground magnetic and soil surveys was completed in 1988. Maximum values of 121 ppm Cu and 700 ppb Au were found in soil samples. A portion of the property remains in good standing.

On the Parl claim, VLF-EM and ground magnetic surveys conducted by Gold Parl Resources on a 20 km grid in 1988, outlined an intrusive-volcanic contact. Results were deemed inconclusive and although additional work was recommended, the claims were allowed to expire. The Parl property covered a portion of the current Genstar 5.

Immediately south of Parl, Luken Resources completed VLF-EM, ground magnetic and soil surveys over a 36 km grid on their Luk property in 1988. Geophysical surveys outlined an intrusive-volcanic contact and 21 EM conductors with predominant northwest and east-west trends. Maximum Cu found in soil samples was 372 ppm while the best Au value was 40 ppb. The results were deemed inconclusive and the claims have expired.

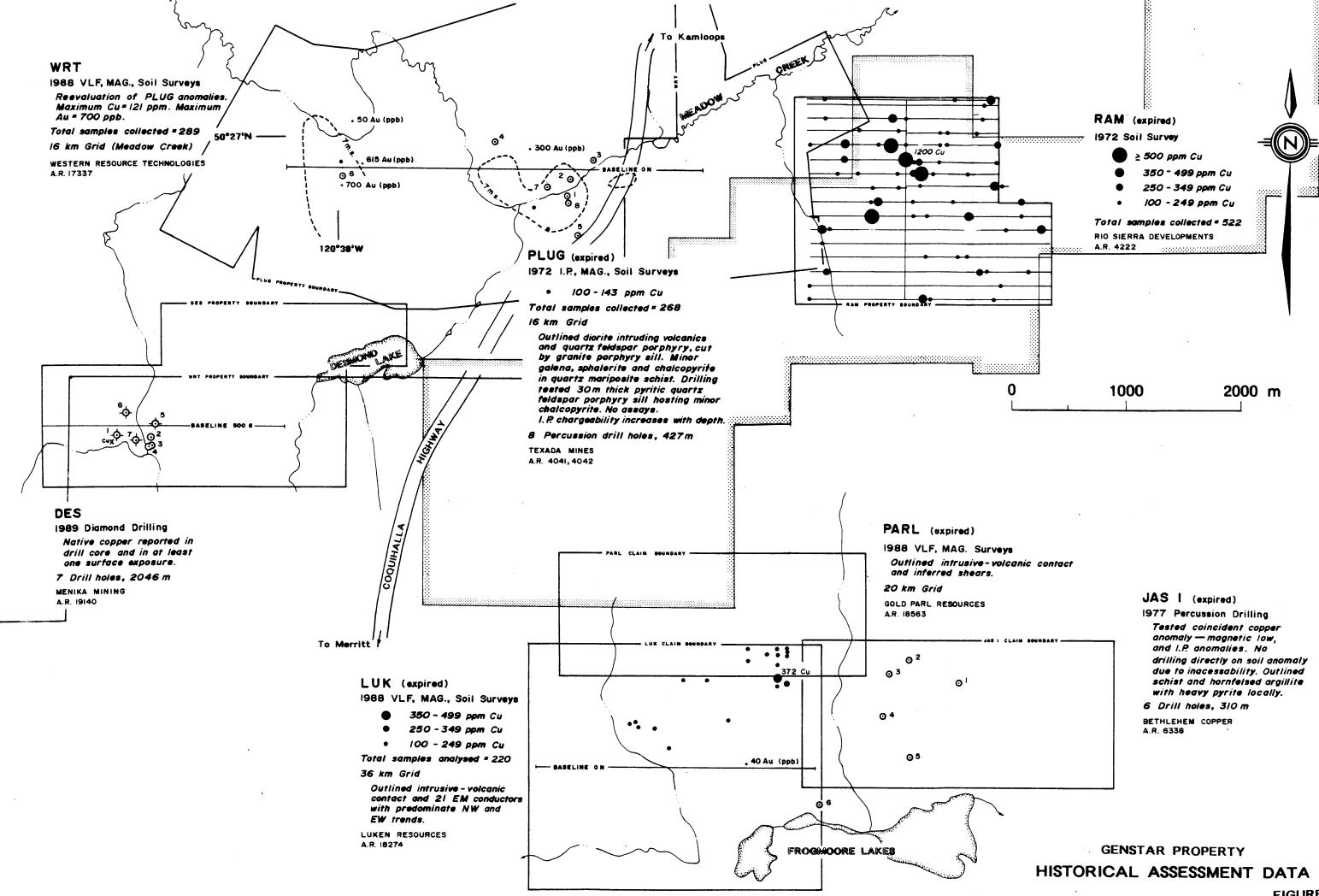


FIGURE 8

### PROPERTY GEOLOGY

General: Genstar is underlain by a (meta)volcano-sedimentary assemblage of Triassic-Jurassic age Nicola Gp. rocks which have been disrupted by a variety of intrusive dykes, sills(?) and small apophyses having compositions ranging from ultramafic to alkaline granite. Only exposures encountered on the west half of the property have been examined in any detail. Geology is plotted on Figure 9 (back pocket).

Lithogy: Nicola Gp. volcanic rocks have been divided into three main groups. Maroon and green andesite-basaltic flows and pyroclastic rocks occur near Desmond Lake in the west. A central zone is dominated by foliated intermediate rocks varying texturally from volcanic to subvolcanic to fine grained intrusive equivalents. Foliation trends northwesterly with moderate to steep southwesterly dips. An assemblage of fairly massive, intermediate volcanic tuffs and flows is located in the northeast section of the map area.

The Clapperton Fault, which is the northern extension of the large scale Coldwater Fault near Merritt, trends northeast across the western edge of the claims. It forms the boundary between maroon-green volcanic and foliated volcanic rocks.

Although the central area is predominantly weakly to strongly foliated, nonfoliated rock types occur locally. Field observation estimated composition of nonfoliated rocks to be andesite and and dacite but later feldspar staining found latite and rhyolitic varieties to be also present. As relatively few "dacite" specimen were collected and stained, felsic alkaline varieties are probably more widespread than current mapping indicates. Relationships between foliated and nonfoliated rock units are not always readily apparent. Some nonfoliated varieties occur as dykes and possibly sills, some appear to be alteration zones

proximal to felsic intrusions, while others may represent compositional variation within the volcanic pile

Intrusive rocks and their finer equivalents were only observed east of Clapperton Fault. Trends of dykes vary from northwest to northeast and commonly transect foliation. Relationship to bedding is unknown. Within the central area of foliated rocks, compositions ranged from diorite to alkaline granite. Further northeast, where nonfoliated volcanic rocks dominate, diorite is most common with lesser quartz diorite. Quartz monzonite and more alkaline varieties were rarely noted. Majority of contacts are obscured by over-They appear to be fairly sharp between volcanic rocks and felsic alkaline intrusive rocks but can be broadly gradational between dioritic varieties and their volcanic host. Difficulty was encountered in classifying outcrops as dioritic contact zones which would indicate intrusive activity or as andesitic subvolcanic units within the volcanic pile. In several locations hybridized zones of volcanic rocks with patchy, irregular and varibly distinct to indistinct intrusive textures were observed.

A number of highly silicous. leucocratic volcanic and fine grained intrusive rocks occur locally west of Clapperton Fault. Those occurring as small discontinuous pods and pockets from 1 to 3 sq. m in area are thought to represent high level seepage zones which caused strong to intense bleacheing and silicification of the volcanic host. In the southeastern portion of the map area is a small subcircular zone of fine grained, leucocratic biotite granite-alkaline granite proximal to a quartz monzonite dyke. This occurrence may represent a partially unroofed, high level alkaline stock which is compositionally similar to rocks of the Iron Mask Batholith. In the northeast portion of the map area, similar leucocratic exposures have compositions equivalent to quartz diorite and alkaline granite. Spatial relationship of these exposures suggests a northwest linear trend with a maximum width of 3 m.

Rare occurrences of gabbro and amphibolite were encountered locally.

Detailed rock unit descriptions are presented in Appendix III.

#### Mineralization:

Nicola Gp: Minor disseminated pyrite (trace to 1%) is common in rocks west of Clapperton Fault and in the foliated volcanic rocks. In the northeast portion of the map area, pyrite occurs only locally in trace amounts, is rarely up to 3% and is conspicuously absent from most exposures. When present, it is often associated with epidote fracture-fillings or stringers. A local float sample (93G-28R) of strongly oxidized, massive andesite with 15% pyrite is the only significant occurrence of sulfide mineralization found. Pyrite was rarely present in any quartz veins or stringers.

Intrusive Rocks: Trace amounts of disseminated pyrite is
generally present.

### Alteration:

Nicola Gp: Chloritization is ubiquitous, occurring as weak to moderate and locally strong alteration of mafic minerals and/or fracture-fillings. Epidote is commonly present in stringers (2.5 cm), fracture-fillings and locally as weak to strong, pervasive alteration with or without obvious fracture association. Massive epidote, ±garnet occurring as lenses, pods and irregular patches are found east of Clapperton Fault. At several occurrences in foliated andesite, epidote stringers predate quartz fracture-fillings and stringers. Saussuritization of feldspar is commonly present. It varies from weak to moderate and from pervasive throughout the host to restricted to individual grains. Carbonate alteration is only found locally as sparse calcite fracture-fillings and as a feldspar alteration

product. Within foliated rocks, moderately to strongly bleached areas occur as pods and patches, 1 to 3 sq. m in area and in linear zones up to 1 m wide. They are variably light grey, buff and /or bluish grey. A remnant felted or foliated texture may be preserved locally. Pervasive silicification within these zones is locally strong to intense. Moderate sericitization and/or potassium feldspar fracture-fillings are found locally. Within bleached zones and elsewhere in foliated volcanic rocks, quartz is found as sparse fracture-fillings, tension gashes, discontinuous veins (5 cm) and more rarely as weak stringer stockworks. Direct association of bleached-silicified zones and intrusions is apparent along a 10 m wide biotite quartz monzonite dyke in the southeast portion of the map area. Within nonfoliated volcanic rocks in the northeast part of the map, sparse quartz stringers, hairline fracture-fillings and lesser lenses occur. Bull quartz float (vein?) up to 20 cm wide was found locally. West of Clapperton Fault quartz was rarely encountered. Fresh, black biotite was found in one exposure of foliated volcanic rocks. Potassium feldspar as fracture-fillings was noted at three localities east of Clapperton Fault. Within foliated rocks these fractures transect foliation. relatively few specimen were collected for staining, potassium feldspar alteration may be more widespread than current mapping indicates.

Intrusive Rocks: Alkaline intrusive varieties with compositions ranging from quartz monzonite to alkaline granite and their aphanitic equivalents tend to be quite fresh. Alteration is limited to weak, moderate and very locally strong chloritization of biotite. Occurrences of diorite and quartz diorite are commonly weak to moderately altered. Chloritization is weak to moderate and pervasive. Mafic minerals are strongly removed locally where chloritization is strong to intense.

Saussuritization is weak, pervasive, with local variations to

moderate intensity. In some occurrences it is found only along epidote stringers. Carbonate was only found as discontinuous fracture-fillings in a quartz diorite quartz-eye porphyry. Potassium feldspar fracture-fillings were found at two localities. Sparse quartz stringers and fracture-fillings were observed in one exposure. Muscovite and sericite fracture-fillings were found locally in a dacite dyke.

Geochemistry: Three silt samples collected in 1993 returned values of greater than 100 ppm Cu. The highest value of 262 ppm Cu was accompanied by 250 ppm Zn. Two silt samples collected during staking returned geochemically anomalous tungsten but only one had greater than 100 ppm Cu. Only one rock sample yielded results of particular interest. The sample or rusty andesite with 15% pyrite (93G-28R) ran 4086 ppm Cu, 50 ppb Au, 2.4 ppm Ag, 16 ppm Sb and 13 ppm Bi. It is important to note that no other sample contained more than 1% pyrite. Sampling was biased toward altered material and in particular, occurrences of silicification. Sample locations and significant results are plotted on Figure 9 (back pocket).

#### **GEOPHYSICS**

Regional Magnetics: The Quesnellia Terrane is a magnetically active region due to the variable magnetite content of the crystalline rocks. Volcanic units consist of mainly basalts with some andesites and olivine basalt. Intrusives ranging from small, simple stocks to large multiphase batholiths range in composition from intermediate diorites and syenites to mafic gabbros and occasionally ultramafic pyroxenites. These intrusives are scattered as irregular bodies and comprise from 15 to 25 percent of the Quesnellia Terrane.

The intrusives usually contain substantially higher concentrations of magnetite than the volcanics. Within the intrusive units, alkalic phases such as syenites and highly mafic phases generally contain more magnetite than dioritic phases. It is these features which give the Quesnellia Terrane the active magnetic background with numerous sub-rounded to oblong magnetic highs. (See Figure 7)

Porphyry copper-gold deposits are known to exist throughout the Quesnellia Terrane. Most of these are related to intrusives and many are known to be associated with strongly magnetic syenite phases.

Exploration activity increased substantially in the Afton Mine area south of Kamloops in early 1992. The "Star" claims were staked to cover a 5 kilometer long, northeasterly trending magnetic anomaly while the "Genesis" claims cover known copper soil anomalies and an adjacent sub-circular magnetic high approximately 3 kilometers in diameter (See Figure 10). Both magnetic anomalies are considered to be caused by intrusive stocks.

### Property Magnetics:

## (a)Instrumentation, Survey Lines and Purpose of Survey:

Induly of 1992, two long reconnaissance magnetic survey lines totalling 4.4 km in length were completed on the Dark Star and Ripple claims.

The instrument used was a Scintrex MP-2 Proton Precession Magnetometer with an accuracy level of 10 gammas. The instrument was set at a base level of 55000 gammas to give the best operating range in the area. Both lines were run along existing tracks in the area using a hip chain to measure distances between stations. Line A-B was run sub-parallel to the western margin of the 5 km long anomaly at 200 m station spacings while line C-D was run southeasterly at 100 m station spacing, normal to the trend of the anomaly and within one kilometer of the highest level read by the aeromagnetic survey. This line crossed the entire aeromagnetic anomaly with background values read on each side. (See Figure 10)

The purpose of reading line A-B was to check for structural features crossing the anomaly while line C-D was read to determine the intensity, nature and dip of the causative source. The base station at point A and C of each line was re-read 3 hours after the first reading, however as the variation was minimal compared to variations along line C-D, no diurnal corrections were made.

### (b) Interpretation of Line A-B

A profile of the magnetic values is shown in Figure 11. As expected, this line was magnetically quite flat with most variations being less than 200 gammas. At station 3, however, a sharp drop over 500 gammas was encountered. As overburden was pervasive in this area, no explanation could be determined from outcrop for this drop. This low value, however, is very close to a small creek crossing northwesterly through the

magnetic anomaly. It is therefore likely that this creek is the manifestation of a shear zone or wide fault which has destroyed much of the existing magnetite. This could well be part of a major northwesterly structure trending through the region.

### (c)Interpretation of line C-D:

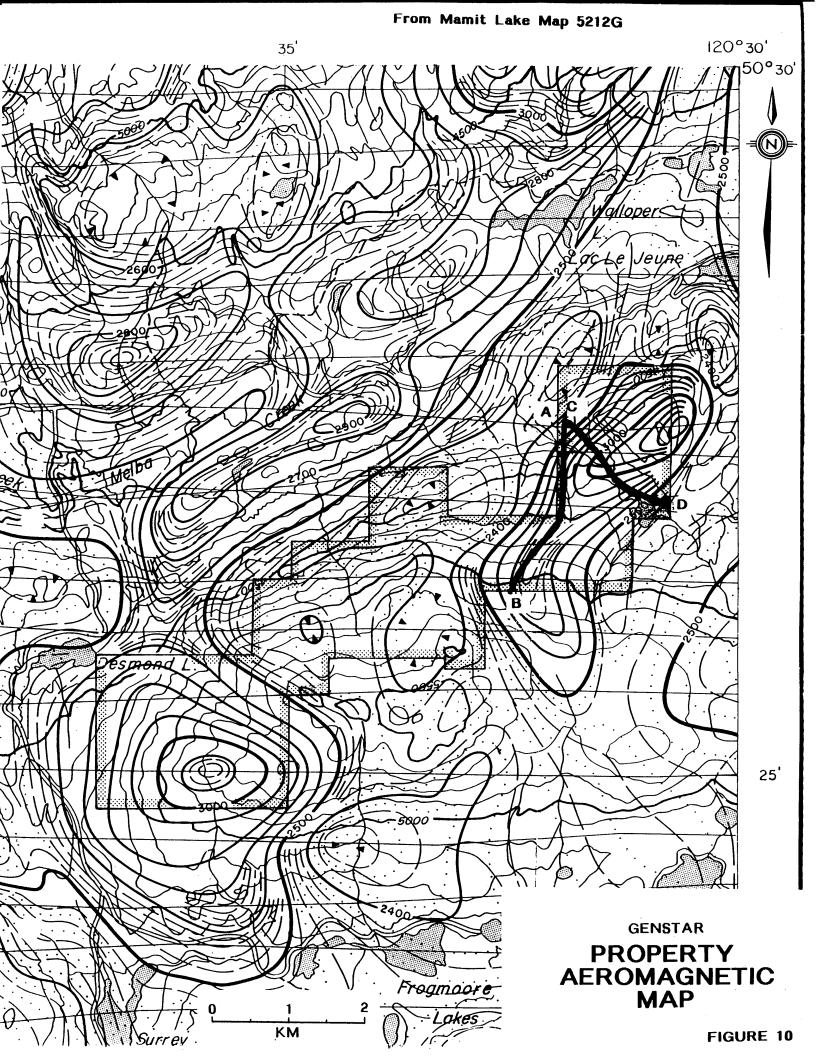
A profile of the magnetic values is shown in Figure 12. The magnetic readings along this line appear to show the nature of the causative body. Background values between 56500 and 56750 gammas were read on each end of this line.

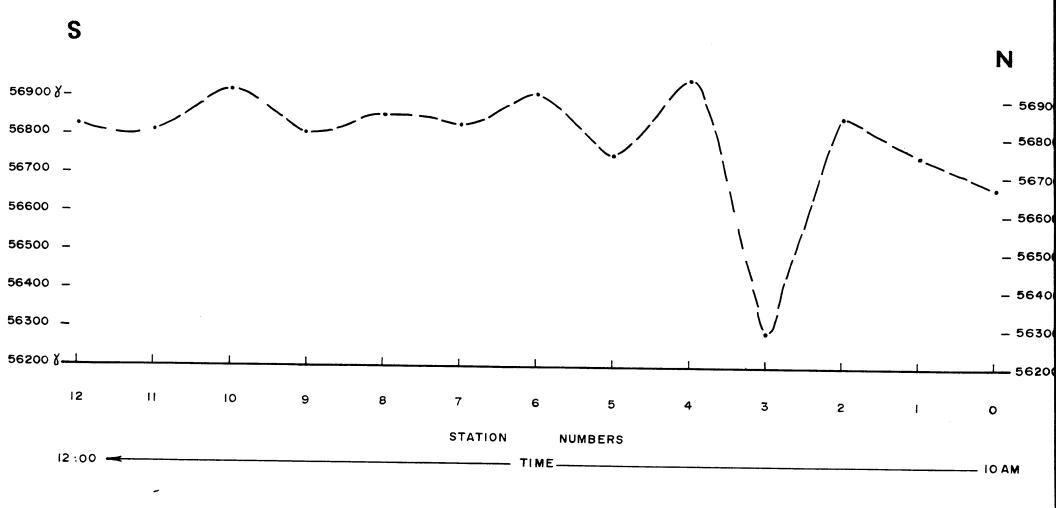
The magnetic anomaly, however, stands out sharply. A double peaked anomaly is indicated with values 1500 and 4000 gammas above background. The source of this anomaly appears to be approximately 700 metres wide between stations 10 and 17. A steep easterly dip of 80-85° is indicated by the small 300 gamma negative value read at station 9.

The main anomaly appears to be caused by two magnetic lobes with the eastern one containing substantially more magnetite. Ground examination of low scattered outcrops between stations 14 and 17 confirmed the presence of syenitic and dioritic intrusive with abundant magnetite. Fractures with chlorite-epidote alteration were noticeable, sulfide content was less than one percent pyrite with trace chalcopyrite.

### (d)Conclusions of Magnetic Survey Results:

The two long magnetic traverse lines of the "Star" claims confirmed the presence of the aeromagnetic anomally and identified part of the causative source as an intrusive complex with variable magnetite content. The 4000 gamma peak on line C-D indicates that the absolute magnetic peak one kilometer to the northeast may be much stronger. The magnetic low on line A-B indicates a possibly strong northwesterly structure. Detailed magnetic work is required in this area to show the full complexity of this anomaly.

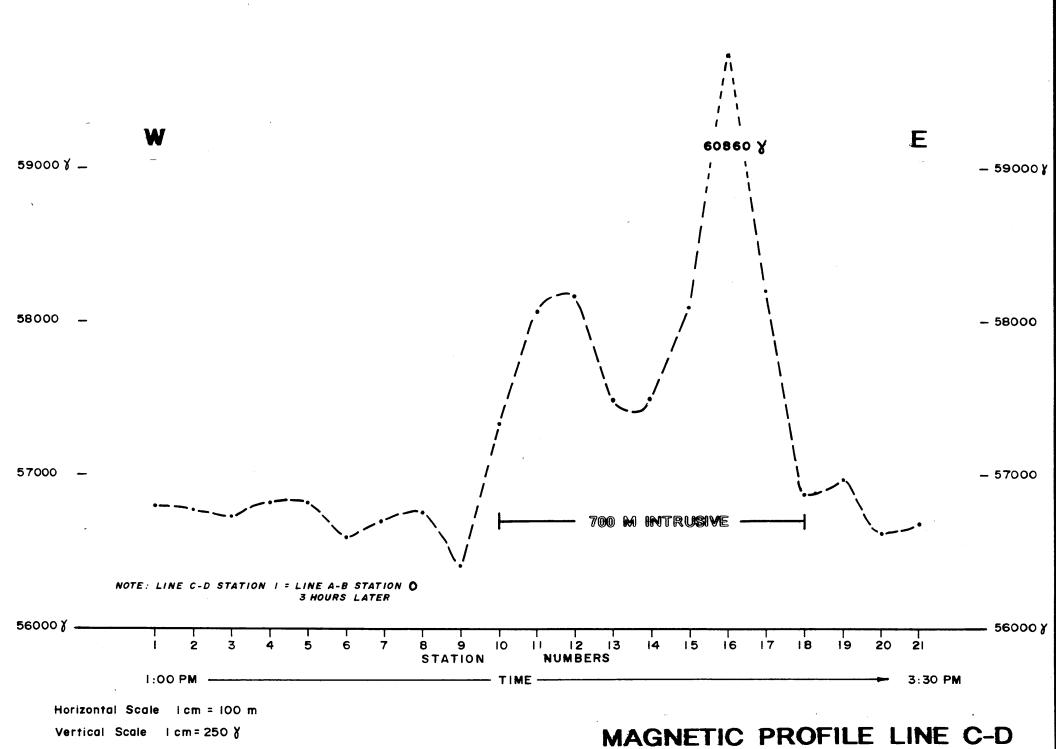




Horizontal Scale | 1cm = 100 m Vertical Scale | 1cm = 100 y

# MAGNETIC PROFILE LINE A-B

FIGURE 11



# FIGURE 12

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APPENDIX I
Claim Affidavits

Signature of Locator

	Pro	wince of British Columbia Ministry of Energy Mines at	ad Petroleum Reso	Wirces					
DH-H-		Province of British Columbia Ministry of Energy, Mines and Petroleum Resources  RECORD OF 4 POST CLAIM - MINERAL TENURE ACT							
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		I, L. GREXTON NAME OF LOCATOR	AGENT FOR	se If					
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I have complied with all the terms and conditions of the Mineral Tenure Act Regulation pertaining to the location of 2 post claims and have attached a plan of the location on which the positions of the initial and final posts (and witness and identification posts if applicable) are indicated.

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I have complied with all the terms and conditions of the Mineral Tenure Act Regulation pertaining to the location of 2 post claims and have attached a plan of the location on which the positions of the initial and final posts (and witness and identification posts if applicable) are indicated.

P.1 -- ~

M.R. # L \$ 240 VANCOLIVER, B.C.

n	Prov	vince of British Columbia Ministry of Energy, Mines and F	etroleum Resources	,	
1111			M — MINERAL TENURE ACT		
	MAP NO		01423	RECORD NO.	
Ξ	MINING RECE	IPT NORECORDED AT	B.C. DATE OF RECO	ORD	19
USE	DO NOT W	,			
Ē	THIS SHADE			MINING DIVISION	
		1. L. Grexton	AGENT FOR	se / of	
AP	PLICATION	920 East 28 th AUE		ADDRESS	
T	O RECORD A	VANCOUVER B.C.			
	2 POST CLAIM	879-4342 VSV 2P2 POSTAL CODE	TELEPHONE		POSTAL COL
		VALID SUBSISTING F.M.C. NO. 110 38/	VALID SUBSIST	ING F.M.C. NO.	
		FMC CODE	FMC CODE		
$\neg$	··	hereby apply for a record of a 2 post claim for the location as			
		No. 92I 7E , in the Kanto	1P5 M	ning Division.	
<b>&gt;</b>	embossed	curely affixed the portion of the metal identification tag d" INITIAL POST (NO. 1)" to the initial post and impressed	embossed " FINAL POS	the portion of the metal identifica T (NO. 2)" to the final post (or the	
	this inform	nation on the tag:  TAG NUMBER 644345M		BER 644345M	
		INITIAL POST (NO. 1)		NAL POST (NO. 2)	
T	CLAIM NA	1 / 1	· ·	cnesis 13 Greyton	<u></u>
T A G	LOCATOR	111		1f	<del></del>
Į N	AGENT F	11.			<del></del> :
F			DIST. FROM NO. 1 POST	MAY 22 199	
Ř		PM ACI 1-		12:00 hou	
-NFORMAT-O		0. 2 POST	TIME COMPLETED		3
0 N		TO RIGHT	*If witness post placed fo	. All 1	
iv	METRES	TO LEFT	Bearing to true position of distance	metres.	-,
<b> </b>  -			<u> </u>	SUB-RECORDER	-5

I have complied with all the terms and conditions of the Mineral Tenure Act Regulation pertaining to the location of 2 post claims and have attached a plan of the location on which the positions of the initial and final posts (and witness and identification posts if applicable) are indicated.

P.7\_-

JUN - 4 1992
M.R. # \$ 240

VANICOUVER, B.C.
RMS JUNES 180 RECEIVED

<b>-</b>		M — MINERAL TENURE ACT
MAP NO	SECT	10N 23 RECORD NO
DO NOT	WRITE IN	B.C. DATE OF RECORD
THIS SHAD	L. Grexton	AGENT FORSELL
APPLICATION TO RECORD A	AUDIESS	ADDRESS
2 POST CLAIM	## V5V-2/2  TELEPHONE V5V-2/2  VALID SUBSISTING F.M.C. NO. 11338/  FMC CODE	TELEPHONE POSIAL CO  VALID SUBSISTING F.M.C. NO.  FMC CODE
ACCESS	description of the post location.	Mining Division.  nces to roads, trails, topographic features, permanent landmarks, and a
5	initial Port of Genesis 13	hof Morritt to within the; Initial post on east Initial post 500 m to of

I have complied with all the terms and conditions of the Mineral fenure Act Regulation pertaining to the location of 2 post claims and have attached a plan of the location on which the positions of the initial and final posts (and witness and identification posts if applicable) are indicated.

P. Inn a

SUB-RECORDER

RECEIVED S.

JUN - 4 1992

M.R. # \$ 240

VANICALITY B.C.

PMS - June 5192

MINING RECE				
	IPT NORECORDED AT	B.C. DATE	OF RECORD	19 _
DO NOT W	/RITE IN			
THIS SHADE	ED AREA GOLD COMMISSIONER		MINING DIVISION	
	L. GREXTON	AGENT FOR	<u>self</u>	
PLICATION	920 East 28 Ave		MANIE	
RECORD	VANCOUVER		ADDRESS	
A 2 POST		<del></del>		
CLAIM	879-4342 V5V-2P2 TELEPHONE POSTAL CODE	TELEPHOA	VE	POSTAL C
Ĭ	VALID SUBSISTING F.M.C. NO. 110 381		SUBSISTING F.M.C. NO.	
	FMC CODE	FMC CO	ODE	
	hereby apply for a record of a 2 post claim for the location as			
	No. 927 75 in the Kan	•		
ACCESS:	description of the post location			
	COQUIHALLA HIGHWAY TO	within 05	km of Dermond	
	Lake Initial Part on ear	et side of	hicken and	
	CogulHALLA HIGHWAY to Lake, Initial Post on eas	10 0-1	3 N/ 21- I	
,	15 yre common post to	) IN POST	21/ 35 0 5	
	Genesis 10			<del></del>
embossed	curely affixed the portion of the metal identification tag d*INITIAL POST (NO. 1)" to the initial post and impressed nation on the tag:	embossed " FIN/	affixed the portion of the metal identification AL POST (NO. 2)" to the final post (or the wassed this information on the tag:	
	TAG NUMBER 644347 M INITIAL POST (NO. 1)	TA	G NUMBER 6443474 FINAL POST (NO. 2)	
CLAIM NA		CLAIM NAME	Genesis 15	
LOCATOR		LOCATOR	L. Grexton	
AGENT FO	or <u>self</u>	AGENT FOR	self	
DATE CON	MMENCED May 22 1992	DIST. FROM NO.	1 POST SOO M	
TIME CON	MMENCED 240 pm	DATE COMPLETE	D May 22 1997	
DIR. TO N	0. 2 POST	TIME COMPLETE	330 pm	
METRES	TO RIGHT	*If witness post pl	laced for final post:	
	TO LEFT 500	Bearing to true po	osition of final post	7
			metres.	
			1	_
			SUB-RECORDER	2

P. 2-

SUB-RECURDER

RECEIVED

JUN - 4 1992

M.R. # \$ 248

VANCOUVE B.C.

RMS-Je 5/92.

, NO:	·	SECTION 23	RECORD NO.
MINING RECE	IPT NORECORDED AT	В	C. DATE OF RECORD
DO NOT W	RITE IN	·	
THIS SHADE	ED AREA GOLD COMMISSIONER		MINING DIVISION
	L. Grexton	AGENT FOR _	se/f
PLICATION	920 East 28th Ave		Se / L
) RECORD	Vancouver B.C		ADDRESS
A 2 POST			
CLAIM	879-4342 V5V2) TELEPHONE POSIA	<b>02-</b> L CODE । ।	ELEPTIONE POSTAL
	VALID SUBSISTING F.M.C. NO. 110 39/		/ALID SUBSISTING F.M.C. NO.
	FMC CODE	F	MC CODE
	hereby apply for a record of a 2 post claim for the local No. $93776$ , in the		
ACCESS:		••	
	Lake; Initial Post or is common to PATE Corner	to within n east side	o.5 km of Dosmond e of highway and of Genesis 10.
embossed	curely affixed the portion of the metal identification tag	I have sec	urely affixed the portion of the metal identification tag " FINAL POST (NO. 2)" to the final post (or the witness
embossed	curely affixed the portion of the metal identification tag I" INITIAL POST (NO. 1)" to the initial post and impressed nation on the tag:	I have sec	urely affixed the portion of the metal identification tag " FINAL POST (NO. 2)" to the final post (or the witness mpressed this information on the tag:
embossed	curely affixed the portion of the metal identification tag d" INITIAL POST (NO. 1)" to the initial post and impressed nation on the tag:  TAG NUMBER 6 44348 M INITIAL POST (NO. 1)	I have sec embossed post') and	urely affixed the portion of the metal identification tag " FINAL POST (NO. 2)" to the final post (or the witness impressed this information on the tag:  TAG NUMBER 6 443 48 11 FINAL POST (NO. 2)
embossed this inform	curely affixed the portion of the metal identification tag I "INITIAL POST (NO. 1)" to the initial post and impressed nation on the tag:  TAG NUMBER 6 44348 M INITIAL POST (NO. 1)  SME 6 PRESIS 16	I have sec embossed post') and	urely affixed the portion of the metal identification tag "FINAL POST (NO. 2)" to the final post (or the witness impressed this information on the tag:  TAG NUMBER 644348  FINAL POST (NO. 2)  TAG OF THE SIST STATE AND THE SISTER OF THE SISTER OF THE SIST STATE OF THE SISTER OF THE
embossed this inform CLAIM NA LOCATOR	curely affixed the portion of the metal identification tages of "INITIAL POST (NO. 1)" to the initial post and impressed nation on the tag:  TAG NUMBER 6 44348 M INITIAL POST (NO. 1)  MME 6 9 16 5 16  L. Grexton	I have sec embossed post') and CLAIM NAM LOCATOR_	urely affixed the portion of the metal identification tag "FINAL POST (NO. 2)" to the final post (or the witness impressed this information on the tag:  TAG NUMBER 64434811  FINAL POST (NO. 2)  AE Genesi's 14
embossed this inform  CLAIM NA  LOCATOR  AGENT FO	curely affixed the portion of the metal identification tag by INITIAL POST (NO. 1)" to the initial post and impressed nation on the tag:  TAG NUMBER 6 44348 M INITIAL POST (NO. 1)  MME 6 16 16 16  L. Grexton  OR 16 16	I have sec embossed post') and CLAIM NAM LOCATOR_ AGENT FO	urely affixed the portion of the metal identification tag "FINAL POST (NO. 2)" to the final post (or the witness impressed this information on the tag:  TAG NUMBER 6 443 48 11  FINAL POST (NO. 2)  AE Genesi's 14  L. Grexton  R. self
CLAIM NA LOCATOR AGENT FO	curely affixed the portion of the metal identification tag I "INITIAL POST (NO. 1)" to the initial post and impressed nation on the tag:  TAG NUMBER 6 44348 M INITIAL POST (NO. 1)  MME Genesis 16  L. Grexton  OR 164  MMENCED May 22 1992	I have sect embossed post') and to the control of t	urely affixed the portion of the metal identification tag "FINAL POST (NO. 2)" to the final post (or the witness impressed this information on the tag:  TAG NUMBER 644348  FINAL POST (NO. 2)  AE 6 enessis 14  L. Grexton  R 100. 1 POST 500 M
CLAIM NA LOCATOR AGENT FO	curely affixed the portion of the metal identification tag I "INITIAL POST (NO. 1)" to the initial post and impressed nation on the tag:  TAG NUMBER 6 44348 M INITIAL POST (NO. 1)  Senes is 16  L. Grexton  OR 1492  MMENCED May 22 1992  MMENCED 11 1992	I have sect embossed post') and to the composition of the composition	urely affixed the portion of the metal identification tag "FINAL POST (NO. 2)" to the final post (or the witness impressed this information on the tag:  TAG NUMBER 64434811  FINAL POST (NO. 2)  AE 640 155 14  L. Grexton  R 100. 1 POST 500 11  PLETED 447 22 1992
CLAIM NA LOCATOR AGENT FO DATE COI TIME COI DIR. TO N	Tag NUMBER 6 44348 M INITIAL POST (NO. 1)" to the initial post and impressed nation on the tag:  TAG NUMBER 6 44348 M INITIAL POST (NO. 1)  AME Genesis 16  L. Grexton  OR Self  MMENCED May 22 1992  MMENCED 10. 2 POST NO. 2 POST	I have sec embossed post') and d CLAIM NAN LOCATOR_ AGENT FO DIST. FROM DATE COM	urely affixed the portion of the metal identification tag "FINAL POST (NO. 2)" to the final post (or the witness impressed this information on the tag:  TAG NUMBER 64434811  FINAL POST (NO. 2)  AE 640 Sis 14  L. Grexton  R 100. 1 POST 500 M  PLETED May 22 1992  PLETED 330 pm
CLAIM NA LOCATOR AGENT FO DATE COI TIME COI DIR. TO N METRES	TO RIGHT  To Interest a fixed the portion of the metal identification tag in the initial post and impressed nation on the tag:  TAG NUMBER 6 44348 M  INITIAL POST (NO. 1)  Senes is 16  L. Grexton  MAY 22 1992  MMENCED May 22 1992  TO RIGHT 500 m	I have sectembossed post') and to the composition of the composition o	TAG NUMBER 644348 M FINAL POST (NO. 2)  ME Genesis 14  L. Grexton  R. self  MNO. 1 POST 500 M  PLETED May 22 1992  PLETED 330 pm  post placed for final post:
CLAIM NA LOCATOR AGENT FO DATE COIDIR. TO NA METRES	Tag NUMBER 6 44348 M INITIAL POST (NO. 1)" to the initial post and impressed nation on the tag:  TAG NUMBER 6 44348 M INITIAL POST (NO. 1)  AME Genesis 16  L. Grexton  OR Self  MMENCED May 22 1992  MMENCED 10. 2 POST NO. 2 POST	I have sect embossed post*) and of the composition	urely affixed the portion of the metal identification tag "FINAL POST (NO. 2)" to the final post (or the witness impressed this information on the tag:  TAG NUMBER 64434811  FINAL POST (NO. 2)  AE 640 Sis 14  L. Grexton  R 100. 1 POST 500 M  PLETED May 22 1992  PLETED 330 pm
CLAIM NA LOCATOR AGENT FO DATE COIDIR. TO NA METRES	TO RIGHT  To Interest a fixed the portion of the metal identification tag in the initial post and impressed nation on the tag:  TAG NUMBER 6 44348 M  INITIAL POST (NO. 1)  Senes is 16  L. Grexton  MAY 22 1992  MMENCED May 22 1992  TO RIGHT 500 m	I have sect embossed post*) and of the composition	urely affixed the portion of the metal identification tag "FINAL POST (NO. 2)" to the final post (or the witness impressed this information on the tag:  TAG NUMBER
CLAIM NA LOCATOR AGENT FO DATE COIDIR. TO NA METRES	TO RIGHT  To Interest a fixed the portion of the metal identification tag in the initial post and impressed nation on the tag:  TAG NUMBER 6 44348 M  INITIAL POST (NO. 1)  Senes is 16  L. Grexton  MAY 22 1992  MMENCED May 22 1992  TO RIGHT 500 m	I have sect embossed post*) and of the composition	urely affixed the portion of the metal identification ta "FINAL POST (NO. 2)" to the final post (or the witnes impressed this information on the tag:  TAG NUMBER

M.R. # 1 \$ 246-VANCOLIVER, B.C. RASSINESOR.

POSTAL CODE

P	rovince of British Columbia Ministry of Energy, Mines and RECORD OF 2 POST CLAI SEC		URE ACT
3 NO			RECORD NO.
MINING RE	CEIPT NORECORDED AT	B.C	DATE OF RECORD
	WRITE IN GOLD COMMISSIONER		MINING DIVISION
THIS SHA			
	L. Grexton	AGENT FOR	SR /F
DDLLOATIO	and but sak he		
PPLICATIO TO RECORD		<del></del>	ADDRESS
A 2 POST			
CLAIM	879-4342 V5V-2P	<u>'</u> 2	. EPHONE POSIA
	VALID SUBSISTING F.M.C. NO		ALID SUBSISTING F.M.C. NO.
	FMC CODE		AC CODE
	hereby apply for a record of a 2 post claim for the location as		
	via Coquihallu Highway to us Lake Initial Post on eas North of Genesis 15	Hin 0.5 I side of Initial Po	highway 500 m
I have	securely affixed the portion of the metal identification tag	I have secu	rely affixed the portion of the metal identification to
I have emboss	securely affixed the portion of the metal identification tag sed "INITIAL POST (NO. 1)" to the initial post and impressed ormation on the tag:	I have secu embossed "	rely affixed the portion of the metal identification to
I have emboss	securely affixed the portion of the metal identification tag sed "INITIAL POST (NO. 1)" to the initial post and impressed ormation on the tag:  TAG NUMBER 644349 M	I have secu embossed "	rely affixed the portion of the metal identification to FINAL POST (NO. 2)" to the final post (or the witner appressed this information on the tag:  TAG NUMBER
I have emboss this info	securely affixed the portion of the metal identification tag sed "INITIAL POST (NO. 1)" to the initial post and impressed ormation on the tag:  TAG NUMBER 644349 M INITIAL POST (NO. 1)	I have secu embossed " post*) and in	rely affixed the portion of the metal identification to FINAL POST (NO. 2)" to the final post (or the witness of this information on the tag:  TAG NUMBER
I have emboss this info	securely affixed the portion of the metal identification tag sed "INITIAL POST (NO. 1)" to the initial post and impressed ormation on the tag:  TAG NUMBER 644349 M INITIAL POST (NO. 1)  NAME Generis 17	I have secu embossed " post*) and in	rely affixed the portion of the metal identification to FINAL POST (NO. 2)" to the final post (or the witner appressed this information on the tag:  TAG NUMBER
I have emboss this info	securely affixed the portion of the metal identification tag sed "INITIAL POST (NO. 1)" to the initial post and impressed ormation on the tag:  TAG NUMBER 644349 M INITIAL POST (NO. 1)  NAME Generis 17  OR L. Grexton	I have secu embossed " post*) and in CLAIM NAMI	rely affixed the portion of the metal identification to FINAL POST (NO. 2)" to the final post (or the witness appressed this information on the tag:  TAG NUMBER
I have emboss this info	securely affixed the portion of the metal identification tag sed "INITIAL POST (NO. 1)" to the initial post and impressed ormation on the tag:  TAG NUMBER 644349 M INITIAL POST (NO. 1)  NAME 690815 17  OR 2008 Self	I have secu embossed " post*) and in CLAIM NAMI LOCATOR AGENT FOR	rely affixed the portion of the metal identification to FINAL POST (NO. 2)" to the final post (or the witness appressed this information on the tag:  TAG NUMBER
I have emboss this info	securely affixed the portion of the metal identification tag sed "INITIAL POST (NO. 1)" to the initial post and impressed ormation on the tag:  TAG NUMBER 644349 M INITIAL POST (NO. 1)  NAME Genesis 17  OR Self COMMENCED May 22 1993	I have securembossed "post*) and in CLAIM NAMI LOCATORAGENT FOR DIST. FROM	rely affixed the portion of the metal identification to FINAL POST (NO. 2)" to the final post (or the witness inpressed this information on the tag:  TAG NUMBER
I have emboss this info	securely affixed the portion of the metal identification tag sed "INITIAL POST (NO. 1)" to the initial post and impressed formation on the tag:  TAG NUMBER 644349 M INITIAL POST (NO. 1)  NAME 664515 17  OR 676 X 17  COMMENCED May 22 199 X COMMENCED May 22 199 X COMMENCED May 335 pm	I have securembossed "post*) and in CLAIM NAM!  LOCATOR  AGENT FOR DIST. FROM	rely affixed the portion of the metal identification to FINAL POST (NO. 2)" to the final post (or the witness of the post of the witness of the final post of the witness of the final post of the witness of the final post of the witness of the final post of the fin
I have emboss this info	securely affixed the portion of the metal identification tag sed "INITIAL POST (NO. 1)" to the initial post and impressed formation on the tag:  TAG NUMBER 644349 M INITIAL POST (NO. 1)  NAME 664515 17  OR 6764515  FOR 5614  COMMENCED May 22 19934  COMMENCED May 335 pm  ONO. 2 POST M	I have seculembossed "post*) and in CLAIM NAM!  CLAIM NAM!  LOCATOR  AGENT FOR DIST. FROM  DATE COMP	rely affixed the portion of the metal identification to FINAL POST (NO. 2)" to the final post (or the witness of the his information on the tag:  TAG NUMBER
I have emboss this info	securely affixed the portion of the metal identification tag sed "INITIAL POST (NO. 1)" to the initial post and impressed formation on the tag:  TAG NUMBER 644349 M INITIAL POST (NO. 1)  NAME 664515 17  OR 676 X 17  COMMENCED May 22 199 X COMMENCED May 22 199 X COMMENCED May 335 pm	I have seculembossed "post") and in CLAIM NAM!  LOCATOR AGENT FOR DIST. FROM DATE COMP  TIME COMP	rely affixed the portion of the metal identification ta FINAL POST (NO. 2)" to the final post (or the witness in the pressed this information on the tag:  TAG NUMBER

I have complied with all the terms and conditions of the Mineral Tenure Act Regulation pertaining to the location of 2 post claims and have attached a plan of the location on which the positions of the initial and final posts (and witness and identification posts if applicable) are indicated.

ACKNOWLHDGHM:

SUB-RECORDER RECEIVED JUN - 4 1992 RMS JUN 5/90

		Petroleum Resources  M — MINERAL TENURE ACT  ITON 23  RECORD NO	
MINING REC	EIPT NORECORDED AT	B.C. DATE OF RECORD	19
DO NOT V	,		
THIS SHAD		MINING DIVISION	
	L. Grexton	AGENT FORSe/f_	
PLICATION	920 Eust 28th Ave	ADDRESS	
O RECORD A 2 Post	Vancour B.C.		
CLAIM	879-4347 V5V-2P2 TELEPHONE POSIAL CODE	TELEPHONE	POSTA
	VALID SUBSISTING F.M.C. NO. 110 38/	VALID SUBSISTING F.M.C. NO.	
	FMC CODE	FMC CODE	
	hereby apply for a record of a 2 post claim for the location as No. $92176$ , in the <u>Kambo</u>	oulined on the attached copy of mineral titles reference map	
ACCESS	description of the past location	within 0.5 km of Desmon st side of Highway 500,	
embosse	recurely affixed the portion of the metal identification tagged "INITIAL POST (NO. 1)" to the initial post and impressed mation on the tag:  TAG NUMBER 644350M	I have securely affixed the portion of the metal identification embossed "FINAL POST (NO. 2)" to the final post (or the post') and impressed this information on the tag:  TAG NUMBER	
CL AIM N	INITIAL POST (NO. 1)  IAME Genasis 19	FINAL POST (NO. 2)  CLAIM NAME Genetis 18	
LOCATO	) C	LOCATOR L. Grextn	
AGENT I	FOR self	AGENT FOR Self	
	DMMENCED May 32 1992	DIST. FROM NO. 1 POST SUO M	
	DMMENCED 335 pm	DATE COMPLETED May 22 1992	<b>-</b>
	NO. 2 POST	TIME COMPLETED 4: 20 pm	n
	S TO RIGHT	*If witness post placed for final post:	1-
	S TO LEFT	Bearing to true position of final post metres.	~ <u></u>
-		SUB-RECORDER  SCH Regulation RECEIVED	

applicable) are indicated.

which the positions of the initial and final posts (and witness and identification posts if

Pr P NO	<u>,</u>	nd Petroleum Resources  LAIM — MINERAL TENURE ACT SECTION 23  RECORD NO
LI E	j	B.C. DATE OF RECORD
	WRITE IN DED AREA GOLD COMMISSIONER	MINING DIVISION
	L. GREX 70 N	AGENT FOR SELF
	NAME	NAME
APPLICATIO	ADDRESS	ADDRESS
TO RECORD	VANCOUVER B.C.	
2 POST		
CLAIM	879 4342 V5V 2P A	DDE TELEPHONE POSIAL CODE
	VALID SUBSISTING F.M.C. NO	VALID SUBSISTING F.M.C. NO.
	FMC CODE	FMC CODE
<del></del>		as oulined on the attached copy of mineral titles reference map
		Mining Division.
ACCES	description of the post location	ferences to roads, trails, topographic features, permanent landmarks, and a
A C C C E C S	Via Coanihally Hishway to w	of highway 1000 m nork 2N 35 of Genesis 10
Ĕ	Initial Part as part side	of hichway 1000 m nork
S S	for Course Part	2 7 N/ 2 2 - 5 Garania la
,	Trun Corner 1011	P Z /V J F O F CIVACS /S 1-
CLAIM I T A LOCATO G AGENT N DATE CO R M DIR. TO T METRE:	securely affixed the portion of the metal identification tag sed "INITIAL POST (NO. 1)" to the initial post and impressed formation on the tag:  TAG NUMBER	I have securely affixed the portion of the metal identification tag embossed "FINAL POST (NO. 2)" to the final post (or the witness post') and impressed this information on the tag:  TAG NUMBER
K pertainir N which th	complied with all the terms and conditions of the Mineral Tenurong to the location of 2 post claims and have attached a plan of the positions of the initial and final posts (and witness and identicated).	f the location on

-			
DHH-	Pro	vince of British Columbia Ministry of Energy, Min RECORD OF 2 PO	es and Petroleum Resources ST CLAIM — MINERAL TENURE ACT
	4P NO		SECTION 23 RECORD NO.
G <sub>III</sub>	MINING RECE	IPT NO RECORDED AT	B.C. DATE OF RECORD
USE	DO NOT W	RITE IN	
<b>G</b>	THIS SHADE	ED AREA GOLD COMMISSIONER	MINING DIVISION
	PLICATION D RECORD	1. L. Grexton 920 Eqst 28th Ave Vancouver	ADDRESS
	A 2 POST		
	CLAIM	879 - 4342 V5V-3	\$\text{\$\sigma\$}\text{\$\text{CODE}\$} \tag{\text{TELEPHIONE}} \tag{\text{POSTAL CODE}}
		VALID SUBSISTING F.M.C. NO. 103	VALID SUBSISTING F.M.C. NO.
_		hereby apply for a record of a 2 post claim for the loc	Eation as oulined on the attached copy of mineral titles reference map
			Mining Division.
A	ACCESS:	description of the post location.	de references to roads, trails, topographic features, permanent landmarks, and a
		Via Coquihalla Highway	to within 0.5 km of nitial Post on East side of
CCESS		Dosmand Lake; /	nitial Post on East side of
S		highway 1000 m	Vorth of Genesis 15 Initial
		Post	
	embossed	curely affixed the portion of the metal identification ta " INITIAL POST (NO. 1)" to the initial post and impresse lation on the tag:	d embossed " FINAL POST (NO. 2)" to the final post (or the witness post*) and impressed this information on the tag:
		TAG NUMBER 644352 M INITIAL POST (NO. 1)	TAG NUMBER 644352 M FINAL POST (NO. 2)
		ME Genesis 20	CLAIM NAME Genesis 20
T A	LOCATOR	L. Grexton	LOCATOR L. Grexton
G	AGENT FO		AGENT FOR Self
N F	DATE CON	MENCED May 22 1992	DIST. FROM NO. 1 POST 500 M
O R		MENCED 425 pm	DATE COMPLETED May 2 2 1992
M A T	DIR. TO NO	D. 2 POST	TIME COMPLETED 4:50 pm
0	METRES J	TO RIGHT 500	*If witness post placed for final post:
N	METRES 1	TO LEFT	Bearing to true position of final post, distance, metres.
TOKNOS L MOGHST	pertaining which the	aplied with all the terms and conditions of the Mineral 1 to the location of 2 post claims and have attached a ple positions of the initial and final posts (and witness and are indicated.  M. D	lan of the location on

THE	Prov	vince of British Co		of Energy, Mines		MINERAL TEN				
K	AP NO				RECORD NO.					
E	MINING RECE	IPT NO	RECORDE	D AT		B.C	DATE OF RECOI	₹D		19
SE	DO NOT W THIS SHADE	RITE IN	GOLD COMMI	,					MINING DIVISION	
	THO OHADE	. O ANEA	GOLD COMM	SOIONER		<del></del>			MINING GVISION	
		ı	rexton		<del></del>	AGENT FOR		se It	MĒ	
ΑF	PLICATION	920	East 28	K Ave				ADDR		
	O RECORD A	Vancou	er R.C.					ADDR	ESS	
	2 POST CLAIM	879-43	42	V5V	2P2	ĪĒŪ	EPHONE			POSTAL COL
		VALID SUBSISTING F	.M.C. NO	38/	<del>- a</del>	VA	LID SUBSISTIN	IG F.M.C. NO.		
		FMC CODE				FN	CODE			
_		hereby apply for a No. 927	record of a 2 post of $7k^-$ , in	1 .					ence map	
	ACCESS:	Describe how you	gained access to th		•				ient landmark:	s, and a
A		description of the p	ost location.	hishwar	to	within	U.5 K	m of i	Dormoi	nd
ACCESS		Luke	cihalla lo Initial l' common	Post on	east	side of	F H's	hwa	500	× 11
Š		and is	Common	nost	た	Genesis	- 10	Corne	rnost	2N 3E
		有量	1	M						
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MINING RECEI	PT NORECORDED AT		B.C. DATE OF RECORD
DO NOT WE THIS SHADE	RITE IN D AREA GOLD COMMISSIONER		MINING DIVISION
APPLICATION TO RECORD	L. Grexton  920 Eart 28th Ave  NAME  Vancouver  8794342  VSV 2P2  POSTAL GODE	AGENT FOR	Se H NAME ADDRESS
A 2 POST CLAIM	Van (0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		TELEFFICINE FOSTAL CO VALID SUBSISTING F.M.C. NO.
ACCESS: ACCESS: CCESS:	hereby apply for a record of a 2 post claim for the location as No. 9277 The in the Kanny in the Kanny Describe how you gained access to the location; include refered description of the post location.  VIA Coyuihalla Hishway to hake is Initial Post on a South of Initial Post	ences to roads, tra	Mining Division.  ails, topographic features, permanent landmarks, and a
embossed this inform  CLAIM NATA LOCATOR A AGENT FOR DATE CONTRIBUTION OF TIME CONTRIBUTION OF THE CONTRIB	curely affixed the portion of the metal identification tag  "INITIAL POST (NO. 1)" to the initial post and impressed ation on the tag:  TAG NUMBER 644354 M INITIAL POST (NO. 1)  ME 6000515 ML  Crey 60	t have se embossed post*) and CLAIM N/LOCATOF AGENT F DIST. FRO DATE COLUMN TIME COLUMN TI	ecurely affixed the portion of the metal identification tag d "FINAL POST (NO. 2)" to the final post (or the witness d impressed this information on the tag:  TAG NUMBER 644354M  FINAL POST (NO. 2)  AME Genesis 22  AME Grexan  FOR 90M NO. 1 POST 90M  MPLETED 90M  September 1992  MPLETED 7:40 pm  In true position of final post
			SUB-RECORDER

P-2~ I

which the positions of the initial and final posts (and witness and identification posts if

applicable) are indicated.

SUB-RECORDER

RECEIVED

JUN - 4 1992

M.R. # \$ 240

VANCOUVER, B.C.

RAS JULES 192.



### **Province of British Columbia**

Ministry of Energy, Mines and Petroleum Resources
MINERAL RESOURCES DIVISION — TITLES BRANCH

DOCUMENT No. 3035866 OFFICE USE ONLY

Mineral Tenure Act SECTION 21

# APPLICATION TO REDUCE THE SIZE OF A 4 POST CLAIM

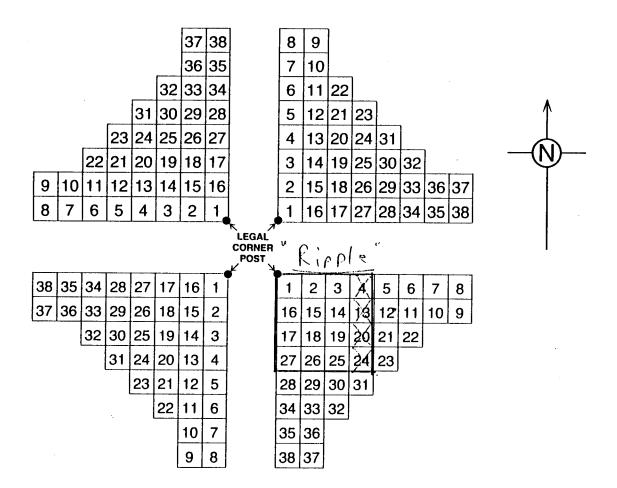
SUB-RECORDER RECEIVED

MAY 2 1 1993

M.R. # 0/ \$ 20 · VANCOUVER, B.C. /3

RECORDING STAMP

1. Bernard Hk	CAHLERT	*Agent for(Name(s) o	of Lessee(s))
1195 Sutt	on Pl ess) ver BC	(Add	dress)
V 7 5 2 L 3	(Postal Code)	(Telephone)	(Postal Code)
Valid subsisting FMC No.			
make application to reduce by dropping units in accor- application has been used t	dance with the regulation	aims in the AM LOOP  n. The unit numbering system she dropped.  Map No.	92T 7E
Name of claim	Title No.	Units to be dropped	OFFICE USE ONLY Value of exploration and development to be credited to reduced claim
Ripple	309996	4,13,20,24	
		То	etal \$
		May 21 (Date)	93
		Valtan	
*Agent must have specific written authority.		(Signature of Applic	cant) MTL 117 REV 90/09



#### **UNIT NUMBERING SYSTEM**

To use the unit numbering system:

- 1. Relate the claims to be reduced to the diagram shown above by placing the L.C.P. of the reduced claim on top of the L.C.P. of the appropriate quadrant.
- 2. List the numbers of the units you wish to drop in the appropriate space on the front of the application.



#### **Province of British Columbia**

Ministry of Energy, Mines and Petroleum Resources MINERAL RESOURCES DIVISION - TITLES BRANCH

DOCUMENT No. 3035865 OFFICE USE ONLY

**Mineral Tenure Act** SECTION 21

## **APPLICATION TO REDUCE THE SIZE** OF A 4 POST CLAIM

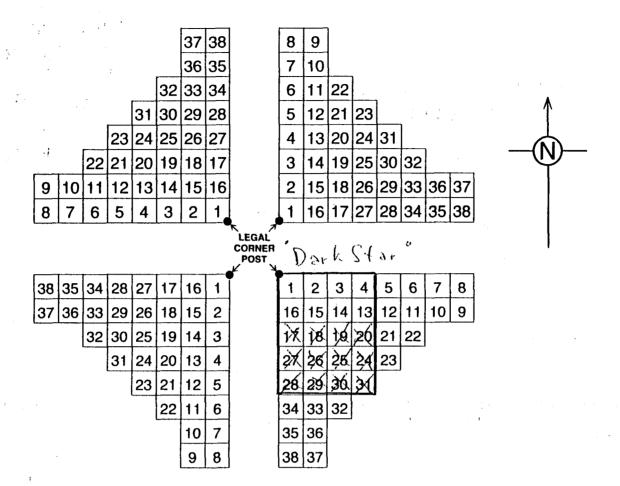
SUB-RECORDER RECEIVED

MAY 2 1 1993

M.R. # 01 \$ 20. VANCOUVER, B.C.

RECORDING STAMP

1, Bernard H. (Name)		*Agent for(Name(s) of Les	ssee(s))
(Address) W V A U (1) L ( )	. 30	(Address	)
(725 774/3 (Telephone)	√ 7 5 2 L <sup>3</sup> (Postal Code)	(Telephone)	(Postal Code)
Valid subsisting FMC No. (/ /		Valid subsisting FMC No.	
FMC Code	· · · · · · · · · · · · · · · · · · ·	FMC Code	
make application to reduce the object of the secondary described by dropping units in accordance application has been used to de	ce with the regulation	n. The unit numbering system show	n on the reverse of the 2 1 7 E
Name of claim	Title No.	Units to be dropped	Value of exploration and development to be credite to reduced claim.
DARK STAR		17, 18, 19, 20.	
		24, 25, 26, 27, 28, 29, 30	
		51	A CONTRACTOR OF STREET
		* *   1	
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			and the second second second
	•	Total \$	
		May 24/93 (Date)	
Agent must have specific		BCFall (Signature of Applicant)	// 



#### **UNIT NUMBERING SYSTEM**

To use the unit numbering system:

- 1. Relate the claims to be reduced to the diagram shown above by placing the L.C.P. of the reduced claim on top of the L.C.P. of the appropriate quadrant.
- 2. List the numbers of the units you wish to drop in the appropriate space on the front of the application.



#### **Province of British Columbia**

Ministry of Energy, Mines and Petroleum Resources
MINERAL RESOURCES DIVISION — TITLES BRANCH

DOCUMENT No. 3035809 OFFICE USE ONLY

## SUB-RECORDER RECEIVED

MAY 20 1993 CL

Mineral Tenure Act SECTION 52

## **BILL OF SALE ABSOLUTE**

INDICATE TYPE OF TITLE

MINERAL

(Mineral or Placer)

		RECORDING STAMP
SELLER  1, WILLIAM S. KAR  (Full Name)  1195 Sutton Place  (Mailing Address)  West Vancouver  (City)  925-2743  (Telephone)  Valid and Subsisting FMC 132  FMC Code	B.C. (Province) 75 2L3	PURCHASER  [BERNARD H. KAHLERT  (Full Name)  1195 Scitton Place  (Mailing Address)  Vest Vancouver  [Province)  925-2743  (Telephone)  Valid and Subsisting FMC  [Postal Code]  VAIL BH  FMC Code KAHL BH
and in consideration of the sum of	Six	dollars (\$ 6.00)
paid to me, do hereby sell	O VO	of my interest in the following mineral titles located in the
KAMLOOPS	Mining Di	vision:
CLAIM NAME	TITLE NUMBE	CLAIM OR LEASE
Silver Star	30 <i>919</i>	1 Claim
Blue Star	30999	2 "
Red Star	30999	3
White Star	<i>3099 9 4</i>	11
Dayle Star	309995	′ ′ ′ ′ ′ ′ ′ ′ ′ ′ ′ ′ ′ ′ ′ ′ ′ ′ ′ ′
Ripple	309996	11

I declare that I have good title to these records and every right to sell the same, in witness whereof I have today signed my legal name.

12.0 16

(Signature of Seller)

### APPENDIX II

Certificates of Analysis, Methods and Detection Limits

# ROSSBACHER LABORATORY LTD.

**CERTIFICATE OF ANALYSIS** 

To:

LYNN GREXTON 920 EAST 28 th AVE.

VANCOUVER, B.C. GENSTAR

Project: (Type of Analysis:

**ICP** 

2225 Springer Ave., Burnaby, British Columbia, Can. V5B 3N1 Ph:(604)299-6910 Fax:299-6252

Certificate:

93047

Invoice: Date Entered: 40118 93-05-28

File Name:

GRE93047.I

Page No.:

1

RE	SAMPI	LE NAME	PPM MO	PPM CU	PPM PB	PPM ZN	PPM AG	PPM Ni	PPM CO	PPM MN	% FE	PPM AS	PPM U	PPM AU	PPM HG	PPM SR	PPM CD	PPM SB	PPM Bi	PPM V	% CA	% P	PPM LA	PPM CR	% MG	PPM BA	% Ti	% AL	% NA	% v	PPM w	PPM RF	PPB AU AA	
	· ·	EE TO-SHE								OM N		~3				JK	w	36	ы	٧	•	r	LA	CR	mu.	BA	• • • • • • • • • • • • • • • • • • • •	AL	NA	•	7	DE	AU AA	
<b>A</b>		93G 1R	3	14	4	37	0.2	10	1	223	1.97	2	5	ND	ND	8	1	1	1	11	0.10	0,02	10	40	0.29	26	0.08	0,38	0.04	0,10	2	1	5	
A		93G 2R	3	29	2	31	0.2	1	1	124	1.45	2:	- 5	NĐ	ND:	4	. 1	1	1	9	0.02	0.01	5.	66	0.06	11	0.05	0.19	0.05	0.02	. 1	1	5	
Α		930 3R	1	8	6	75	0,2	2	1	440	2.66	6	5	ND	ND.	19	1	1	. 1	5	0.20	0.03	8.	50	0.36	19	0.10	0.62	0.05	0.02	1	1	5	
A		93G 4R	2	8	4	19	0.2	2	1	168	1.49	3	5.	ND	ND	18:	1		1	6	0.19	0.01	3	69	0.14	26	80.0	0,40	0.04	0.04	1	1	5	
A		93G 5R	1	10	3	31	0.2	13	3	165	0.90	3	5	NĐ	ND	3	1	2	1	13	0.15	0.03	1	136	0.28	14	0.03	0.37	0.03	0.01	1	. 1	5	
A		93G 6R	1	5	4	19	0.2	2	1	121	1.20	2	5	ND	ND	5	1	1	1	2	0.09	0.01	2	58	0.09	29	0.04	0.23	0.05	0.08	1	1	5	
A		93G 7R	1	6	2	33	0.2	3	1	370	2.18	2	5	ND	ND	3	1	1	1	9	0.20	0.01	7	63	0.08	35	0.02	0.27	0.06	0.12	1	1	5	
L		93G 8L	1	262	13	250	0.6	30	3	480	2.45	10	5	ND	ND	32	2	7	1	60	1.38	0.07	9	51	0.74	121	0.08	1.61	0.03	0.10	6	1	5	
A		93G 9R	1	8	2	14	0.2	3	2	116	1.36	2	5	ND	ND	4	1	1	1	13	0.09	0.01	2	96	0.08	7	0.04	0.22	0.04	0.01	1	1	5	
A	•	93G 10R	1	7	3	13	0.2	2	1	113	1.05	2	5	ND	ND	9	1	1	1	7	0.17	0.01	3	53	0.08	12	0.05	0.31	0.05	0.01	1	1	5	
A		93G 11R	1	2	1	13	0.2	1	2	107	1.19	2	5	ND	ND	- 5	1	1::	- 1	3	0.09	0.01	1	47	0.10	7	0.04	0.20	0.04	0.01	1	1	5	
Α	•	93G 12R	. 1:	12	1	16	0.2	2	3	145	1.37	2	5	ND	ND	9.	1	1	. 1	5	0,15	0.01	3	89	0,08	12	0,04	0.25	0,04	0.01	. 1	1	5	
<b>A</b>	•	93G 13R	. 1	6	3	22	0.2	1	3	159	1.26	2	S.	NO	NĐ	15	1	1.	1	12	0.26	0.03	2:	53	0.22	10	0.Q7	0.44	0.04	0.04	. 1	1	5	
A	•	93G 14R	1	4::	1	9	0.2	3	4:	110	0.54	2	- 5	ND:	ND	1	1	1	1	11	0.02	0.01	. 1	142	0.15	3	0.01	0,20	0.01	0.01	1	1	5	
A	•	93G 15R	1	7	1	6	0.2	- 1	3	136	0.17	2	5	ND	NO	3	1	•	1	1	0.10	0.01	6	65	0.01	22	0.01	0.19	0.05	0.13	1	. 1	- 5	
A	9	93G 16R	1	16	7	16	0.2	4	3	448	1.96	6	5	ND	ND	49	1	3	1	27	1.72	0.04	1	26	0.35	17	0.06	0.78	0.06	0.02	1	1	5	
A	9	93G 17R	1	4	1	8	0.2	1	3	95	0.22	2	5	ND	ND	7	1	1	1	2	0.04	0.01	4	59	0.02	13	0.01	0.17	0.05	0.10	1	1	5	
A	9	93G 18R	1	3	2	13	0.2	1	2	133	0.21	2	5	ND	ND	5	1	1	1	1	0.09	0.01	5	47	0.02	28	0.01	0.30	0.04	0.10	1	1	5	
A	ç	93G 19R	2	94	12	53	0.2	16	6	680	4.16	6	5	ND	ND	20	1	10	1	96	0.67	0.15	3	27	1.61	34	0.35	2.07	0.07	0.08	3	1	5	
A	Ç	93G 20R	1	14	3	14	0.2	4	7	281	1.01	4	5	ND	ND	10	1	3	1	15	0.50	0.05	1	36	0.32	12	0.10	0.57	0.07	0.01	1	1	5	
L	•	93G 21L	1	171	10	79	0.2	26	11	520	2.92	8	5	ND	ND	34	1	8	1	86	0.82	0.08	5	55	0.86	81	0.17	1.30	0.03	0.10	5	1	5	
A	•	93G 22R	. 1	11	3	20	0.2	2	2	211	1.08	3	S	ND	ND:	34	1	3		15	0.43	0.02	1	43	0.24	9	0.06	0.58	0,04	0.01	1	1	s	
A		93G 23R	1	3	1	12	0.2	1	4	90	0.19	2	5	ND:	ND	2	1	1	1	1	0.02	0.01	5	47	0.01	10	0,01	0,18	0.03	0.16	1	1	5	
A:::::		93G 24R	. 1	2	1:	15	0.2	1	3	93	0.19	2	<b>5</b>	NĐ	ND	2	1	1	1	1	0.02	0.01	4	40	a.01	9	0.01	0.19	0.04	0.15	1	1	5	
L		93G 25L	1	165	9	53	0.4	21	- 8	411	2,31	8	5	ND	ND	34	1	8	1	69	0.93	0.05	4	35	0.70	76	0.13	1.08	0,02	0.11	5	1	10	
L	(	93G 26L	1	72	10	43	0.4	18	8	388	2.25	8	5	NO	ND	35	1	6	1		0.82		4		0.66				0.03		5	1	5	
	9	93G 27		MISSIN	G																					-					_			
A	¢	93G 28R	5	4086	15	74	2.4	22	63	489	6.38	9	5	NO	ND	49	1	16	13	89	0.83	0.09	2	56	1.09	43	0.62	1.58	0.05	0.10	7	1	50	
A		93G 29R	1	51	1	13	0.4	2	4	84	0.56	2	5	NO	ND	9	1	1	1		0.03		3	52					0.06		1	,	5	
Δ.		93G 30R	1	39	1	11	0.4	•	- 7		0.30	-	5	ND	ND	4	•	:	:		0.03		3		0.02					0.08			-	

**CERTIFIED BY:** 

Hossbrol

# ROSSBACHER LABORATORY LTD.

**CERTIFICATE OF ANALYSIS** 

To: LYNN GREXTON

920 EAST 28 th AVE.

VANCOUVER, B.C.

Project: (

**GENSTAR** 

Type of Analysis:

ICP

2225 Springer Ave., Burnaby, British Columbia, Can. V5B 3N1 Ph:(604)299-6910 Fax:299-6252

Certificate:

93075

invoice: Date Entered: 40133 93-06-22

File Name:

GRE93075.I

Page No.:

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PRE FIX	SAME	PLE NAME	PM MO	PPM CU	PPM PB	PPM ZN	PPM AG	PPM N1	PPM CO	PPM MN	% FE	PPM AS	PPM U	PPM AU	PPM HG	PPM SR	PPM CD	PPM SB	PPM Bl	PPM V	% CA	% P	PPM LA	PPM CR	% MG	PPM BA	% TI	% AL	% NA		% K S	x PF	PM PI	PM PP BE AU F		
A	93Ç-	-27R+261 2‡	1	8	1	7	0.2	8	1	90 (	).43	3	5	ND:	ND:	1	1	1	1	8	0.03	0.01	1	190	0.13	6:	0,01	0:14	0.01	0,0	9 0.0	l	1	1	5	
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CERTIFIED BY :

Horsback

# ROSSBACHER LABORATORY LTD.

**CERTIFICATE OF ANALYSIS** 

To:

LYNN GREXTON

920 EAST 28 th AVE.

VANCOUVER, B.C.

Project:

**GENSTAR** 

Type of Analysis:

**ICP** 

2225 Springer Ave., Burnaby, British Columbia, Can. V5B 3N1 Ph:(604)299-6910 Fax:299-6252

Certificate:

92200

Invoice:

40133

Date Entered: File Name:

93-06-22 GRE9200.I

Page No.:

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L 92C-001L 2 03 15 27 0.1 15 18 402 2.48 9 5 NO NO 47 1 1 1 59 1.03 0.10 5 16 0.87 131 0.17 1.54 5.01 0.22 0.01 11 2 5 1 20-001L 3 87 14 22 0.4 40 20 451 2.07 15 5 NO NO 48 2 1 1 1 72 1.70 0.10 5 21 0.85 172 0.15 1.47 0.00 0.20 0.00 17 2 5 1 5 1 0.85 172 0.15 1.47 0.00 0.20 0.00 17 2 5 1 0.85 172 0.15 1.47 0.00 0.20 0.00 17 2 5 1 0.85 172 0.15 1.47 0.00 0.20 0.00 17 2 5 1 0.85 17 0.85 17 0.15 1.47 0.00 0.20 0.00 17 2 5 1 0.85 17 0.85 17 0.15 1.47 0.00 0.20 0.00 17 2 5 1 0.85 17 0.8	PRE FIX	SAMPLE ?	NAME	PPM MO	PPM CU	PPM PB	PPM ZN	PPM AG	PPM N1	PPM CO	PPM MN	% FE	PPM AS	PPM U	PPM AU	PPM HG	PPM SR	PPM CD	PPM SB	PPM B1	PPM V	% CA	% P	PPM LA	PPM CR	% MG	PPM BA	% T1	% AL	% NA	% K	% SI	PPM W	PPM BE	PPB AU FA	
				000000000000000000000000000000000000000	999499999			2000/2000	20000000000	00000000000							V.V.V.V.V.		200000000000000000000000000000000000000																	
	•																																			

CERTIFIED BY:

# Rossbacher Laboratory Ltd.

2225 S SPRINGER AVE., BURNABY, B.C. CANADA TELEPHONE. 299-6910 AREA CODE: 604

METHODS OF ANALYSIS, 1990

#### GEOCHEMICAL:

Gold: 10 Grams of -80 mesh soil, or -100 mesh pulverized silt or rock sample is roasted at 550 °C, and digested with Aqua Regia. The dissolved Gold is then extracted with Methyl Isobutyl Ketone, and the resulting solution analysed using Atomic Absorption spectroscopy.

Multi Element ICP: 0.5 Grams of sample is digested with a 3-1-2 dilute Aqua Regia mixture, and analysed using Inductively Coupled Plasma Spectroscopy.

#### ASSAY:

Gold (A.A.): 30 gram -100 mesh\*) sample is roasted at 550 °C and digested with Nitric Acid, followed by a double digestion with Aqua Regia. The resulting solution is extracted using Methyl Isobutyl Ketone, and analysed using Atomic Absorption Spectroscopy.

Gold (F.A.): 15 or 30 gram -100 mesh sample is fused using standard Fire Assay fluxes, the resulting Au/Ag/Lead button is cupelled, and the Au/Ag bead analysed using Atomic Absorption, or a Gravimetric finish.

#### Various Elements:

Silver - 3.0 to 6.0 grams is digested with Aqua Regia, taken to dryness, and dissolved in 25 % HCl.

Copper - 0.5 to 2.0 grams is digested with HNO<sub>3</sub>-HCl-HClO<sub>4</sub> mixture , taken to HClO<sub>4</sub> fumes, and dissolved in 10 % HClO<sub>4</sub>.

Lead - 0.5 to 2.0 grams is digested with HNO<sub>3</sub>-HC1O<sub>4</sub>, taken to dryness, and dissolved in 50% HNO<sub>3</sub>.

Zinc - 0.5 grams is digested with HNO<sub>3</sub>-HClO<sub>4</sub>-HCl mix, taken to HClO<sub>4</sub> fumes, dissolved in H<sub>2</sub>O, or HNO<sub>3</sub>. Each solution is subsequently analysed for the required element by Atomic Absorption Spectroscopy. Jan. 1990.

## GEOCHEMICAL ANALYTICAL METHODS CURRENTLY IN USE AT ROSSBACHER LABORATORY LTD.

#### A. SAMPLE PREPARATION

Geochem. Soil and Silt:
 Samples are dried and sifted to minus 80 Mesh, through stainless steel or nylon screens.

 Geochem. Rock: Samples are dried, crushed to minus 1/4 inch, split, and pulverized to minus 100 mesh.

#### B. METHODS OF ANALYSIS

Multi element: (Mo, Cu, Ni, Co, Mn, Fe, Ag, Zn, Pb, Cd, As):

0.50 Gram sample is digested for four hours with
a 15:85 mixture of Nitric-Perchloric acid. The
resulting extract is analyzed by Atomic Absorbtion
spectroscopy, using Background Correction where
appropriate.

#### 2. Antimony:

0.50 Gram sample is fused with Ammonium Iodide and dissolved. The resulting solution is extracted into TOPO/MIBK and analyzed by Atomic Absorbtion spectroscopy.

3. Arsenic: (Generation Method)

0.25 Gram sample is digested with Nitric-Perchloric acid. Arsenic from the solution is converted to arsine, which in turn reacts with silver D.D.C. The resulting solution is analyzed by colorimetry.

4. Barium:

0.20 Gram sample is repeatedly digested with HClO4-HNOs and HF. The solution is analyzed by atomic absorbtion spectroscopy.

5. Biogeochemical:

Samples are dried and ashed at 550°C. The resulting ash analyzed as in \*1, Multielement Analysis.

6. Bismuth:

0.50 Gram sample is digested with Nitric acid. The The solution is analysed by Atomic absorbtion spectroscopy.

#### METHODS OF ANALYSIS (CONT'D)

- 7. Chromium:
  - 0.25 Gram sample is fused with Sodium Peroxide. The solution is analyzed by atomic absorbtion spectroscopy.
- 8. Fluorine:

0.50 Gram sample is fused with Carbonate Flux, and dissolved. The solution is analysed for Fluorine by use of an Ion Selective Electrode.

- 9. Gold AR/AAS:
  - 10.0 Gram sample is roasted at 550°C and dissolved in Aqua Regia. The resulting solution is subjected to a MIBK extraction, and the extract is analyzed for Gold using Atomic Absorbtion spectroscopy.
- 9A Gold FA:
  - 10.0 Gram sample is fused with appropriate fluxes, and the resulting lead button is cupelled to produce a gold/silver bead. The bead is dissolved in Aqua Regia and analyzed for gold by AAS.
- 10. Mercury:

  1.00 Gram sample is digested with Nitric and Sulfuric acids. The solution if analyzed by Atomic Absorbtion spectroscopy, using a cold vapor generation technique.
- 11. Partial Extraction and Fe/Mn oxides:
  - 0.50 Gram sample is extracted using one of the following: hot or cold 0.5 N. HCl, 2.5% E.D.T.A., Ammonium citrate, or other selected organic acids. The solution is analyzed by use of Atomic Absorbtion spectroscopy.
- 12. pH:

An aqueous suspension of soil, or silt is prepared, and its pH is measured by use of a pH meter.

- 13. Rapid Silicate Analysis:
  - 0.10 Gram sample is fused with Lithium Metaborate, and dissolved in HNO3. The solution is analyzed by Atomic Absorbtion for SiO2, Al2O3, Fe2O3, MgO, CaO, Na2O, K2O, TiO2, TiO2, P2O5, and MnO.
- 14. Tin:
  - 0.50 Gram sample is sublimated by fusion with Ammonium Iodide, and dissolved. The resulting solution is extracted into TOPO/MIBK and analysed by atomic absorbtion spectroscopy.

- 15. Tungsten:
  - 1.00 Gram sample is sintered with a carbonate flux, and dissolved. The resulting extract is analyzed colormetrically, after reduction with Stannous Chloride, by use of Potassium Thiocyanate.
- 16. ICP:
  - 0.5 Gram sample is digested with Aqua Regia, and analyzed using a JOBIN YVON MODEL JY 32 1987 ICP Emission Spectrophotometer for Ag, Al, As, Au, B, Ba, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, Hg, La, Mg, Mo, Mn, Ni, P, Pb, Sb, Si, Sr, Ti, U, V, W, Zn.

## TRACE LEVEL GEOCHEMICAL ANALYSIS

A. ATOMIC ABSORPT	TON MU	UT ELEN	MENT PAC	KAGE
Digestion by HCIO.				
First element \$2.25		No. 22 occ	为39.2%	
Subsequent elemen	+ SO 75	的特別的	STATE OF THE STATE OF	1000

ELEMENT	DETE	CTION	UPPER LIMIT
The second	LIMIT	Acres 1	
Arsenic	200	ppm	1.0%
Copper	7 2	<b>100</b> 0000000000000000000000000000000000	1.0%
Molybdenum	Self K	ppm	1.0%
Lead	2	ppm.	1.0%
Zinc	经。1度图	ppm	1.0%
Silver	0.1	ppm	20 ppm
Nickel	12 福	ppm	1.0%
Cobalt	2:13	ppm	1.0%
Cadmium	0.2	ppm	1.0%
Manganese 4	.5	ppm	1.0%
Iron	1.5	ppm	10.0%
Chromium	2	- ppm	01%

Background correction applied.

- B: ICP MULTI ELEMENT PACKAGE. a. Digestion by Aqua Regia 6 elements \$5.00 12 elements \$6.00
  - All elements \$7.00 b. Digestion by HClO<sub>4</sub> / HNO<sub>3</sub> / HF mixture (Total) 24 elements \$12.00

Company of the	THE STREET STREET	William St. William St. College	Mary 1 10 7 4 1
* Aluminum	0.01%	Magnesium	0.01%
Antimony -	3 ppm	Manganese	1 ppm
Arsenic 1	3 ppm	Mercury	-3 ppm 4
* Barium	1 ppm	Molybdenum	1 ppm
* Beryllium	1 ppm	Nickel	.1 ppm.
Bismuth	3 ppm	Phosphorus.	-0.001%
Boron	1 ppm	Silicon F	0.001%
Cadmium	0.5 ppm	Sodium	0.01%
* Calcium	0,01%	Strontium	1 ppm
Chromium	1 ppm	Titanium	0.01%
Cobait	-1 ppm	Tungsten	3 ppm
Copper	1 ppm	Uranium	10 ppm
Iron	0.01%	Silver	0.2 ppm
Gold	3 ppm	Vanadium	1 ppm
Lanthanum	1 ppm	Zinc	1 ppm
Lead	2 nnm	<b>"</b> "	95734 113 F135

Elements for which the digestion is possibly incomplete are marked with an asterisk.

### C. NOBEL METALS GEOCHEMICAL ANALYS

Gold, Aqua Regla / AA Finish	5 ppb \$4.75
Gold, Fire Assay, AA Finish	5'ppb \$ \$7.25
Gold & Platinum & Palladium,	Fire Assay / AA Finish
6年,中国是中国民主义的"大学	2ppb, 15 ppb, 2ppb \$15.00

ELEMENT	DETECTION	ON UPPER	PRICE
	LIMIT	LIMIT	<b>建设的</b>
	Aug and an area		
Antimony A	TOP TOP TO	0.1%	\$4.00
Arsenic Arsenic	<b>Wallppmin</b>	551.0%	Market 4.00
Barium	10 ppm	1.0%	4.50
Beryllium	0.1 ppms.	0.1%	25.00
Bismuth	2ppm	0.1%	4.00
Chromium	5 ppm	1.0%	4.50
Fluorine	10 ppm ila	5 × 1.096	5.00
Lithium	1 ppm	1.0%	4.50
物。LOI	0.01%	100%	4.00
Mercury	10 pob	0.01%	2.75
Rubidium	1 ppm	1.0%	5.00
Selenium Selenium	f ppm +	0.1%	5.00
Strontium	1 ppm	1.0%	4.50
Sulfur Sulfur	0.1%	100%	7.00
Tellurium	0.1 ppm	0.1%	6.00
Thallium	0.5 ppm	0.1%	5.00
Time to state	2ppm	0.1%	
Tungsten	2ppm	0.1%	4.25
The second second	~ ppin	U.I 70 tal fact and	4.25

#### E PH ANALYSIS.

Mary Control	STATE OF THE PARTY OF THE PARTY.	<b>医性性原性 白宝龙</b>	Period have been	<b>电影 的现在分</b>	Manager at 1875
COURCIN	and Matas	1/12/2012/2012	Deden Falls	Company of the	September 1
THE THINK SHE	and Water	SELECTION OF THE PARTY.	Control of the		\$4.00
	THE SALES OF THE SALES	Barriotte Co.	THE RESERVE OF	A 15 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	通り かんりゅう
	ALL DESCRIPTION OF THE PERSON	<b>建200月15日至10</b>	<b>医环巴纳</b> 尔克亚亚	As a 1442 1788	12425 124

	\$4.50	
	The second second	
Additional to the second		
		į

All prices are on an individual basis, discounts may be negotiated for

## APPENDIX III

Detailed Rock Unit Descriptions

#### ANDES ITE-BASALT

### West of Clapperton Fault

- -medium to dark green, greyish green, maroon, locally varigated maroon and green
- -massive flows, tuffs, lapilli tuffs, locally porphyritic, locally amygdaloidal and/or vesicular
- -fragment composition typically similar to matrix, fragments are commonly indistinct, difficult to distinguish
- -finer nonporphyritic varieties tend to have weak felted texture
- -amygdules are filled with feldspar, chlorite and/or calcite, locally white feldspar rims yellow olivine(?), rare chlorite rimmed by K-feldspar
- -phenocrysts of feldspar, 2-15%, white, 2-3 mm, anhedral to subhedral, locally removed leaving fine vugs
- variably nonmagnetic, weakly to moderately magnetic, patchy variably non to moderately calcareous, pervasive
- SULFIDES: Pyrite-trace to 2%, fine to very fine, disseminated, subhedral to anhedral, weakly tarnished
- ALTERATION: -generally quite fresh, only locallized alteration effects noted
  - -plagioclase phenocrysts locally weak to moderately saussuritized
  - -epidote fracture filling common, locally as weak pervasive patches, rarely moderate to strong; one veinlet 1.5 cm with selvages of calcite and quartz
  - -chlorite fracture fillings sparse to common in finer nonporphyritic varieties; moderate to strong pervasive chloritization of felted varieties
  - -rare quartz veinlets, white, massive to coarse grained weakly drusy, discontinuous, maximum 1.5 cm wide
  - -carbonate as minor local calcite fracture fillings and local alteration of feldspar
- OXIDES: Hematite-trace to 1%; locally apparent as very fine disseminations and masses in matrix, maximum 8% Magnetite-only observed in one local as very fine grained, massive, 5%
  - Limonitic surfaces sparse to common

be 1 to 2 m wide, poorly exposed

- WEATHERS: -variably smooth rounded-smooth blocky-highly irregular; bleached medium to light grey locally, varies to very dark grey with strong lichen over
- oTHER: -varies from massive to moderately well fractured, strongly fractured along Clapperton Fault
  -occasional subcrop of basalt dykes(?), very dark green to blackish, massive, up to 5% very fine grained augite phenocrysts, matrix weak-moderate pervasive epidote alteration but restricted to select grains; estimated to

#### FOLIATED ANDESITE-DIORITE

West of Clapperton Fault

- -dark greenish grey, dark green, aphanitic to subvolcanic to fine grained, locally porphyritic
- -weak to stronly foliated, less foliated varieties tend to exhibit weak to strong, finely felted texture
- -feldspar phenocrysts white-eipidote green, 15%, maximum 2 mm, vague grain boundaries, generally indistinct
- -commonly noncalcareous; strong pervasively calcareous in one occurrence of Mn and dolomitic pinkish carbonate in a foliated andesite feldspar porphyry exhibiting a coarsely knotted texture
- -commonly moderate to strongly magnetic, local variations non and weakly magnetic
- -dioritic varieties dark greenish grey, foliation moderate to strongly apparent, feldspar 25 to 35%, chloritized mafics 65 to 75%, nonmagnetic, noncalcareous; several localities with subgneissic segregated texture
- -local minor narrow beds or lenses dark grey siltstone, moderate to strongly magnetic, noncalcareous, very silious, trace pyrite

SULFIDES: Pyrite-trace to 1%, disseminated, generally weak to moderately and locally strongly oxidized, rarely in quartz veins/stringers

- ALTERATION: -locally moderate to strongly bleached buff to bluish grey with/without patchy remnant felted/foliated texture, in irregular pods, patches of 1 to 3 sq. m area and linear zones up to 1 m wide, intrusive association at one local
  - -chloritization commonly moderate to strong, pervasive -saussuratization of feldspar common, weak to moderate,

pervasive

- -carbonate generally not common but when present tends to be calcite fracture filling or feldspar alteration product
- -silicification locally strong to intense, pervasive in bleached areas; quartz milky, pink, greenish (epidote), medium orange and/or brownish, massive, cryptocrystalline to coarsely crystalline; minor fracture fillings, tension gashes and discontinuous veins, maximum 5 cm, local weak stringer stockwork
- -epidote common in fracture fillings, minor stringers, appear to predate quartz stringers
- -biotite found in one locality, fine black books, difficult to distinguish
- -K-feldspar as rare fine frature fillings cutting foliation, at two localities

OXIDES: Magnetite-rarely apparent, locally 10 to 20%, very fine grained, disseminated

Limonite-as fine fracture fillings and surface coatings, varies with pyrite

WEATHERS: -medium grey, brownish, dark greenish grey to black, finely irregular surfaces varying with foliation

OTHER: -epidote with lessor pinkish brown garnet as local lenses, irregular masses and small pods, likely due to hornfelsing of calcareous lens/bed within volcanics

#### ANDESITE-BASALT

#### EAST OF CLAPPERTON FAULT

- -medium green, greenish grey, dark green, massive, aphanitic
- -locally porphyritic, feldspar 5 to 8%, white, maximum 1 mm, anhedral to subhedral, hazy and sharp margins; rarely with hornblende 8%, 3 mm long, subhedral to euhedral
- -nonmagnetic, varies to strongly magnetic
- -noncalcareous

SULFIDES: Pyrite-commonly nil, locally trace \* moderately oxidized

ALTERATION: -epidote locally weak to moderate, pervasive, rare fine

fine tension gash

-minor white siliceous fracture filling locally

OXIDES: Magnetite locally 5 to 10%, very fine grained, disseminated

WEATHERS: brownish grey, smooth

OTHER: massive epidote lenses locally in northeast section of map area

COMMENTS: -epidote lenses likely hornfesed, formerly calcareous lenses within volcancis

-some occurrences likely dyke rocks, others likely variation within volcanic pile

#### NONFOLIATED ANDESITE

## East of Clapperton Fault

- -light to dark green, medium greenish grey
- -aphanitic varying to subvolcanic and locally as fine grained diorite
- -massive, locally tuffaceous and/or porphyritic, commonly nonfoliated, locally very weakly foliated
- -feldspar phenocrysts 3 to 5%, some 8 to 12%, creamy, anhedral to subhedral
- -augite (±hornblende) phenocrysts 10 to 15%, medium to dark green anhedral to subhedral, massive, decussate, set in chloritic matrix, augite locally very fresh, blackish grains, some with minor feldspar laths
- -weak flow texture apparent locally in feldspar porphyry -generally nonmagnetic, augite porphyry varies to moderately magnetic, subvolcanic varieties vary moderate to strongly magnetic locally
- SULFIDES: Pyrite-commonly nil, locally trace, bright brassy to weakly oxidized, anhedral, disseminated, rarely 2 to 3 %, locally associated with epidote fracture fillings and stringers
- ALTERATION: -chloritization commonly weak, pervasive
  -epidote as minor fracture fillings maximum 1mm,
  locally stringers up to 2.5 cm with associated weak
  pervasive alteration of host
  -saussuritization of feldspar weak, pervasive, varies
  to moderate in subvolcanic and dioritic varieties
  - and feldspar alteration product
    -silicification as sparse, local quartz stringers,
    lessor lenses, occasional crisscrossing hairline
    fracture fillings

-carbonate rare, as calcareous fracture fillings

- OXIDES: Magnetite-rarely apparent, one occurrence 5%, very fine grained, subhedral locally euhedral, disseminated Limonite-locally very minor fracture fillings, rarely as cores in quartz stringers
- OTHER: -distinct porphyritic variety, light to medium green, feldspar 15 to 20%, anhedral, some subhedral, maximum 1.5 cm, most 2 to 3 mm; set in aphanitic matrix; nonmagnetic; noncalcareous; pyrite trace, anhedral to subhedral, strongly oxidized; minor K-feldspar hairline fracture fillings -distinct subvolcanic to dioritic variety with feathery texture due to subhedral, white feldspar laths with sharp boundaries, locally with trachyoid texture developed locally/patchy

#### DACITE

## East of Clapperton Fault

- -light brownish grey, medium to dark green, medium greenish grey
- -massive, locally porphyritic
- -feldspar phenocrysts 3 to 10 %, anhedral to subhedral, 1 to 2 mm
- t irregular grain boundaries
- -and/or dark green chloritized hornblende(?) phenocrysts, 5%, weakly alligned (flow texture?); locally fresh hornblende
- 8 to 10%, blackish, decussate
- -biotite as very fine books, medium brown to near clear (?)
- -matrix very aphanitic, hard
- -strongly magnetic to nonmagnetic
- -noncalcareous

SULFIDES: Pyrite-commonly nil, locally trace, fine to very fine, andhedral to subhedral, disseminated, moderately

oxidized

ALTERATION: -appears quite fresh

-chlorite weak, pervasive

-biotite showing progressive removal of iron?

-possible muscovite(?)

COMMENTS: as small local occurrences

#### GABBRO

## East of Clapperton Fault

- -dark green, fine to medium grained, massive, decussate
- -feldspar 40 to 60%, anhedral, medium greenish hue, subhedral and anhedral, maximum 1.5 mm
- -mafics 40 to 50%, anhedral masses interstitial to feldspar, strong pervasive chloritization
- -strongly magnetic
- -noncalcareous
- -nil sulfides
- -magnetite 8 to 10%, very fine, disseminated
- -weathers dark green grey, well rounded, weakly pitted
- -one occurrence

#### AMPHIBOLITE

## East of Clapperton Fault

- -dark green to medium dusty green, fine grained, random orientation restricted to specific planes produces strong foliation
- -amphibole (?) 70 to 80%, fine, accicular, dark green
- -feldspar 20 to30%, interstial to amphibole, massive
- -moderately and nonmagnetic
- -noncalcareous
- -nil sulfides
- -chloritization moderate to strong at one local
- -two occurrences

#### INTRUSIVE ROCKS

#### BIOTITE QUARTZ MONZONITE-GRANITE

In central foliated zone

- -light grey, fine grained, massive, holocrystalline, hypidiomorphic, equigranular, locally with pinkish rusty stain as fine patches, pervasively distributed producing a pinkish brown hue
- -feldspar 60%, white to creamy, most anhedral intergrowths, a few subhedral; K-feldspar 30 to 40%, plagioclase 20 to 30%; grain boundaries distinct to sharp, commonly irregular
- -quartz 20 to 25%, clear to greyish, anhedral grains
- -biotite 12 to 15%, very fine, thin books and scaley plates, blackish to dark green
- -muscovite(?) 2 to 5%, fine, clear scaley aggregates
- -nonmagnetic
- -noncalcareous

SULFIDES: Pyrite-trace, very fine grained, disseminated, weak to moderately oxidized

ALTERATION: -quite fresh

-chloritization of biotite weak to moderate, locally strong

OXIDES: -minor irregularly angular vugs coated with dark rust

WEATHERS: -buff to medium grey with strong dark lichen cover, smooth but finely irregular surface, massive to blocky

OTHER: -platey parallel texture 245°/15° RHR at on local

COMMENTS: -contact with foliated volcanics not directly exposed, appears to be fairly sharp to distinct, trend at one local 225°

-appears to be somewhat sinuous, northeast trending dyke, 30 to 50 m wide

#### INTRUSIVE ROCKS

#### BIOTITE GRANITE-BIOTITE ALKALINE GRANITE

Southeast portion of Central foliated zone

- -light grey, very fine grained, massive, holocrystalline, hypidiomorphic granular, equigranular
- -feldspar 75%, white, very fine grained, anhedral, locally subhedral, locally as perthitic intergrowths with plagioclase; K-feldspar 40 to 60%, plagioclase 15 to 25%
- -quartz 8 to 15%, clear, fine to very fine grained, and as massive aggregates up to 2 mm
- -biotite 8 to 10%, dark brown to blackish, platey aggregates
- -muscovite 8 to 10%, locally apparent
- -nonmagnetic
- -noncalcareous

SULFIDES: Pyrite-trace, fine to very fine grained, disseminated, weakly oxidized

ALTERATION: -quite fresh

-chloritzation of biotite locally weak to strong with biotite locally strongly removed leaving scaley

aggregates of pale green chlorite

COMMENTS: -appears to be similar to biotite quartz monzonite

dyke (related?)

#### INTRUSIVE ROCKS

#### BIOTITE QUARTZ MONZONITE

Southeast portion of Central foliated zone

- -light grey, brownish grey to pinkish, massive, holocrystalline, hypidiomorphic granular, equigranular, locally subporphyritic feldspar 50 to 60%, white, very fine grained, anhedral and nearly aphanitic, massive intergrowths; K-feldspar 20 to 25% as very fine masses
- -quartz 15 to 20%, clear, fine grained, anhedral grains with sharp boundaries but generally intergrown with feldspar; also as fine grained subhedral and rounded, clear to light grey quartz eyes, most less than 1mm, maximum generally 3 mm rarely to 5 mm
- -biotite 12 to 20%, fine to very fine, rarely coarse grained books and as dark masses interstitial to quartz-feldspar mix, also as massive closts up to 4 mm
- -muscovite/sercite 8 to 10%, very fine to extremely fine grained, clear plates and scaley aggregates locally present
- -nonmagnetic
- -noncalcareous

SULFIDES: Pyrite-trace, disseminated, anhedral to subhedral, weak to moderately oxidized

ALTERATION: -fresh; patchy very weak to moderate, pervasive chloritization of biotite

WEATHERS: -medium grey, rounded, blocky, generally with strong lichen cover

OTHER: -dyke 10 m wide, 145 to 150° dip likely steep, through foliated andesite to diorite -contact grades finer

#### INTRUSIVE ROCKS

### HORNBLENDE QUARTZ DIORITE

### Central foliated zone

- -medium grey, mottled, fine locally medium grained equigranular, locally subporphyritic, hollocrystalline, hypidiomorphic granular
- -hornblende 25 to 30%, anhedral masses to subhedral grains
- -feldspar 50 to60%, white, anhedral masses and subhedral grains, slight coarsening up to 4 mm locally giving subporphyritic texture
- -quartz 8 to 10%, clear, anhedral, intermixed with feldspar, minor euhedral grains
- -nonmagnetic
- -noncalcareous

SULFIDES: -nil

ALTERATION: -fresh

OXIDES: Limonite-weak on irregular microfractures and along feldspar grain boundaries

COMMENTS: -dyke(?)

## OUARTZ DIORITE OUARTZ-EYE PORPHYRY

Northeast map area, one occurrence in southeeast central foliated zone

- -light grey to mottled green and pinkish, fine grained, porphyritic -feldspar 40%, white, fine, anhedral intergrowths with indistinct
  - boundaries
- -mafics 25%, anhedral, remnants
- -quartz 10%, clear, anhedral fine grained, mixed with feldspar, 5 to 15% clear, anhedral to subhedral phenocrysts 5 to 15% -nonmagnetic
- -nonmagneere

SULFIDES; Pyrite-trace, anhedral to subhedral, disseminated, generally fine grained, locally 2 mm, brassy to strongly oxidized

ALTERATION: -weak to moderately altered

- -chloritization of mafics strong to intense, mafics moderately and locally strongly removed
- -saussuritization of feldspar nil to weak locally pervasive near minor epidote fracture fillings
- -carbonate as minor pinkish to brownish discontinuous fracture fillings

#### INTRUSIVE ROCKS

## DIORITE (-QUARTZ DIORITE)

## East of Clapperton Fault

- -medium to dark greenish grey, fine locally medium grey, generally finely mottled whita/green, massive, hollocrystalline, hypidiomorphic granular, equigranular, locally extremely vague foliation
- -hornblende 50 to 80% medium to dark green, commonly dusty green anhedral to subhedral
- -augite very minor occurring locally
- -feldspar 30 to 30%, white, anhedral, interstitial to mafics, rare subhedral phenocrystst with hazy to sharp but irregular boundaries
- -quartz locally present, maximum 10%, clear, anhedral
- -moderate to strongly magnetic locally nonmagnetic
- -noncalcareous

SULFIDES: Pyrite-trace, fine to very fine grained, anhedral, disseminated not ubiquitous

ALTERATION: -chloritization of mafics commonly weak to moderate, pervasive

-saussuritization of feldspar commonly weak, pervasive

locally moderate

-silicification as rare quartz stringers maximum

1 to 2 mm, as white to clear massive, cryptocrystalline

and fine granular quartz, fracture related,

OXIDES: Magnetite-locally up to 5%, very fine, anhedral, disseminated

WEATHERS: -very dark grey, flat blocks

OTHER: -contacts not directly observed but appear gradational with volcanics

-one distinct variety with subtrachyoidal texture; hornblende 10 to 15%, subhedral and anhedral phenocrysts maximum 2mm, taugite; feldspar very fine to fine decussate white laths with random areas of parallel allignment, varies to feathery texture in specimen lacking trachyoidal texture; becomes very fine grained to subvolcanic; appears to grade into equivalent andesite feldspar porphyry -one distinct variety locally present with mafics as anhedral clots with plagioclase as anhedral intergrowths and subhedral to euhedral phenocrysts generally less than 2%, maximum 5 mm, K-feldspar fracture fillings at two locallities; matrix commonly pervasive, moderately chloritized but large mafic clots are fresh to very weakly chloritized; hornblende 25 to 30% set in matrix of chlorite and feldspar; nonmagnetic; noncalcareous; nil pyrite; more correctly named crowded andesite feldspar porphyry

-one variety of quartz diorite, light grey to buff, very fine grained, mafics strongly removed (less than 5%) highly siliceous matrix, quartz 15 to 20% intermixed with feldspar, nonmagnetic, noncalcareous; as a dyke maximum 5 m wide, trending 170°, dip likely steep

#### OTHER

#### DACITE

# East of Clapperton Fault

- -medium greenish grey, massive, equivalent to quartz diorite
  -locally with fine anhedral to subhedral feldspar phenocrysts
  with variably sharp to insistinct margins
- -matrix aphanitic, siliceous
- -moderately magnetic
- -noncalcareous

SULFIDES: -nil

ALTERATION: -locally cut by fine, clear quartz stringers

-occasional fine muscovite/sericite in fine fracture

fillings

COMMENTS: dykes

#### QUARTZ LATITE-ALKALINE RHYOLITE

Central foliated zone

- -light to medium grey to pinkish brown aphanitic and and subvolcanic equivalent to quartz monzonite and alkaline granite intrusive rocks
- -subvolcanic varieties with plagioclase phenocrysts, 8%, maximum 0.5 mm; set in K-feldspar-rich matrix; mafics as biotite, 1%, blackish, tweak to moderately chloritized; muscovite 3 to 5%, very fine grained
- -nonmagnetic
- -noncalcareous

SULFIDES: -nil

ALTERATION: -chloritization of mafics, weak to moderate, only

apparent where mafics are macroscopic

OTHER: -field relationships uncertain

-described as "dacite" in field but later feldspar staining

determined strong alkaline compositions

COMMENTS: -due to limited collection/staining of "dacite" specimen,

alkaline varieties are likely more extensive than

current mapping indicates

APPENDIX IV
Sample Descriptions

ROCK SAMPLES

**GENSTAR 1993** 

(1) WEAR (2) MODERATE (3) STRONG (4) INTERSE ff) Indicatos number- eg ese "vala" METALLIC MINERALS MAIN MINERALS ALTERATION OXIDES ATTITUDE TYPE m VEINS ANALYSES PLOAT/TALUS
LOCAL
COUTCADE / SUBCOUTCADE / SUBCOUTCAD I. CONTACT
2. BEDOME
3. POLIATION
4. CLEAVAGE
5. FAULT
6. SHEAR
7. PRACTUME
9. DYNE
10. (Pieglociese) LENGTH (m) Areenopyrite Molybdenite TOTAL SAMPLE DESCRIPTION 3 Hornbiands Biotite AMOUNT WIDTH 93G SERIES Au Ag Cu APAR | pper JR Anderite? - dk rusty brn surface weathers angular irreg. anish by fresh surface, strong vfg dist w-s ox, w-m well act generally i Mn, locally ign y, fg mas along v, fine fract, nancale; rare feld pheno apparent in sections that are v fine Edk an iceler varies dk an with putcher w-5 bleathed & parcher dk YUTLY 2 R ANDERTE? strongly 31)?

Variet buff to man, who is it;
larully i bleached possibly & y f

crystalline a in vact (from table
1035?), original teld phane 1-3 mc SX x x Q D 4.m vacue to absent; sr fract : throughout obscures texture; g vns  $\Box$ y sweath discont, dry mussive white r stained, must etem, ----w-r fract & q; mag ashed. fs irreg musses
5 blds scuttered over 5 m 3R Dacite mgn weathers
msy & strong why & gy
lichem rough i reg, to black,
surface; appenitic vasue fort
uni formly hard; py diss ann. x Q (1) 2ctox accusional a trusty
crypto, most with slightly hary
margiar, most < 2cm
vary strong parch & swell to
fairly regular 4R ALTERED ANDESITE? - highly 4

blds in tree to 5; highly siliceour

Smooth surface weathers buff = built bilds in tree rook, highly siliceour

Smooth surface weathers hast to be built in the first property of the first childs the first property of the first p

4 rx

فالمداد والمجتل الرياضي يصرفوا والمجا

Page 2 of 6 POCK CAMPIES GENSTAR 1993

ROCK SAMP	L	E	S					(	3E	N	ទា	ΓΑ	R	19	93	<b>3</b> ,												() WEAR	<b>3</b>	<b>#</b> 04	M M	<b>PE</b>	<b>3</b> •	770	**	<b>③</b>	). IM	TEN	se		**)	indi	Para e	• ~	-	- =		₩ *W	Ma"	,				
	1	YF	E	Т	m	7			M	All	N .	М	INE	RA	LS	•,	6		Α	LTE	R	AT	ON	T	οx	IDE	s	ATTITUD	4	_	VE	INS	S	T	ME	TA	TT.	ic	M	IN	ER/	ALS		<b>%</b>	Т	Т			AN	AL	SE:	Š		_
SAMPLE DESCRIPTION	FLOAT/TALUS	-	-	-	_	-	Quert z	Feldspar	-		Dietite		Chierite		Carponero				GENERAL	П	П	П	T	h	BALACHITE			L CONTRET 2. SESSIONS 3. POLITION 4. CLEAVAGE 5. FAULT 6. SHEAR 7. FRACTUME 9. VENO 10.	_	STOCK WORK	TYPE		WIDTH (m)	LENGTH (m)	Pyrite	Pyrrhotite	Chalcopyrite	941911	Sphalorite	Areenepyrite	Molybdenite	-		10404	9708		<b>س</b> ا	Ag		iu .	,,	,,,,		
5R BULL QUARTE VEIN-wht- pinkish orange stuning coarsely crystalline, vary looking 30 cm strike experient Assemble (1985) distinct hat wicres contacts distinct hat wicres contacts distinct has a manage, a sportly many honcolt allignment at chi, occasional applications of chi, occasional i bleached pad a gradetional macgins; similar sil sample;																														<i>x</i>			3- ¥c-																		-			
indicating bedding to sent passibly indicating bedding to sent passibly indicating bedding to sent passibly indicating bedding to sent per seal and sent per seal and sent per seal and sent per sent which pest date vince on stress which pest date vince on stress the arrestiated pow sil 2 93 648 over 0,5 m² arres		5		X															2	X	34		X						×	1																								_
Altered Andria: to Decit - similar to GYR & GGR but sil stronger perv from fine treut extending 3-5 mm (selvaner) grudettonal margins; a store white red bry www.agy a white red bry www.agy a															2				3							2%				1	Q																							_
remnants apparent; s variable- in color dkgy to mit to reddish bra to angri py diss																																																						
nil to med mayn																																																						
3L SILT FROM VERY SMALL																									$\prod$																													
OMMENTS:				_	_													_							_																					- -			•				•	_

ROCK SAMPLES

The second secon

GENSTAR 1993

1 WEAK & MODERATE & STRONG 4. INTENSE (1) Indicates number- of and "vote" METALLIC MINERALS % MAIN MINERALS ALTERATION OXIDES VEINS ANALYSES PLOAT/TALUS
LOCAL
LOCAL
OUTCROP/SUB.
CONTOBITE
CONTOBITE
SALE
SALE
SALE
WIDTH L CONTACT
2. SEROMS
3. POLIATION
4. CLEAVES
5. PALLATE
5. PALLATE
6. CLEAVES
6. CLEAVES
7. PALLATE
TOTAL SAMPLE DESCRIPTION A ... Ag Cu -\*\*\* -0 GG ALTERED ANDESITE? - DAUTE FENDE m blue gy, v hard, fold phenor anh, < Imm vacue remnante, week network with bull a mex 3cm must 1-2 mm & r mars (rypto g reddish r or bro louilly tonish (PD) local en haveling toni 10% Interelly altered equivalent to GAR GIIR while sy colour y fig diss chi (hb?) crystals ove-and locally each y × × × apparent against matrix: Fold s soust round must py si ax along much finer ep ff minur 2 str cleur - wht locally mr or ben less than I per 10cm w magn.  $\Box$ <del>-|-|-|-|-</del> IIR Slightly more blegghed ea unvulent X
of 669, y to mahar, by dist - 69-11 occurrence surrounded

b 5, N C E by A-D, to listed;

- lucy pad? 2 gradulonal contact

12 ALTERED ANDISITE? - on to

live gy to buff with increased -----3 × 2  $\Pi \Pi$ XXIIQ all variet soft to i hard with sil, a tension (?) gasher strun-stud mad som mart Sharp boundaries regular

Sharp boundaries regular

nouthing place varieties sugary

a ep str state of the regular

health arrow is cox fa py,

have broadly bleached margins

- bull saint arrows Ш -bull cpink unt book drye Bre gepft look juicy 13 R Silicifier Amostite varies ble 0 × 10

any to near what: Similar to that

sumpled previously; 9 str spore or pinkish & lester white most Or tem ent of the more common

Some with ox ax in store

bio developed at distill books

DIMMENTS: in foliated A; comple taken proximal to (25564788) contact to bio QM? dy

ROCK SAMPI	LI	E'	S	ı				GI	EN	15	T/	4F	L	19	93	3.																																		6	Pag	/ <b>-</b> _	4_	_ 01
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SAMPLE DESCRIPTION	FLOAT/TALUS	OUTCROP/BUB.	CHIP	0780	LENGTH	WIDIn	Quert z	Foldspor (Planinglose)	(Plagiociose)	Horablende	Dietite		Chierite		Carbonate					BENERAL	CPIDOTE	CARBONALE SIL ICA	FOTABRIUM	BLE ACHED	JANORIT.	MANGAMERE MALACHITE	Megnetity ./.		L CONTACT 2. SEDOME 3. POLIATION 4. CLEAWAGE 5. FAMILT 6. SHEAR 7. PRACTUME 8. VEIN 9. DYNE 10.	878146£86 VEIN	STOCK WORK	TVPE		WIDTH (m)	LENGTH (m)	Pyrite	Pyrrhotite	Chelcopyrite	•a i en a	Sphelerite	Areenopyrile	Molybdenite				TOTAL	0700	4		Ag	GK	20	ppm	
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Quantz VEIN - milky, clear med-dk grey, v. fine - ly crypto to fine rusary arsely massive; v. minor rusty		13		十	+	+	+	+	+	+	+	+	+	+	+	+	4	$\overline{}$		+	++	#	-	Н	1	+++	十	+	<del></del>		+	+	1	1	1	$\top$	$\top$	$\exists$	1	$\neg$	1				コ	$\vdash$	$\Box$	1	-				i	j
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SAMPLE DESCRIPTION	FLOAT/TALUS LOCAL	OUTCROP/BUB.	CHIP	LENGTH	WIDTH	Quarts	Feldspar	(Piaglociase)	Stotite		Chiorite	Carbonate				BENERAL	CHLORITE	SILICA	CLAY	BLEACHED Seutsuri 5 204	"LIMOMITE" MANGANESE	MALACHITE	Magnetite */.	I. CONTACT 2. SEDDING 3. FOLIATION 4. CLEAVASE 5. FAULT 6. SHEAR 7. FRACTURE 9. VEIN 9. DYKE 10.	STRINGERS Vein	STOCK WORK TYPE	AMOUNT	WIDTH (m)	LENGTH (m)	Pyrrhotite	Chalcopyrite	Galena	Sphalerite	Arsenopyrite Molybdenite	2.		TOTAL	GOLD	AU			TU P	o p m	pp m
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Elimeonit mix nustre surfues for									工							口		$\pm$	$\perp$		口																土	土	1	Ì	1	- 1		
# 19R Anderte m-dkgn, mass, noncalc, nonmagn, with idk Mn Eliment mix, rusty syrtuate on fract surface; trace add irridesence spotty in axide mix = Cu?, miss- X-teld fracture fillings			#	E			+		‡			+											+						#								$\pm$	#		-				
# 20 R Quarte Diarit - v. It, sy to near wit, perv. alt; matics si chi generally		5	X			15	2	$\mp$	$\mp$		10	$\mp$		=		34	2.8	?		3					1	Q			#,	E					J.F		圭	丰			1	1	$\top$	
# 20 R Quarte Diarite - u. It. sy benear wht, perv. alt; mutics si chi generally strongly remared; feld community m-5 saure (ep) c? carb alt?, g as indistinct mass; steel gy metallic?, nonmass, 2, lecally or swheath diss mi ax; miner dk on chi FF often as								$\pm$				+							#	+									$\pm$							$\pm$	$\pm$	$\pm$						
minor dk on chi FF often as							$\pm$	+			$\pm$																		$\pm$							$\equiv$	$\pm$	$\pm$	L		$\perp$	$\perp$	$\bot$	
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# 22R Quart Priort - Grandforte :  printing grand phyric dy matics : "/"  m removed locally s removed;							+	+								2	34	0	$\dagger$	$\parallel$		+	$\pm$		0			+	#	-	$\vdash$	+	+	+	$\vdash$	#	#	$\sharp \exists$						
matrix a fold mix unhell-al intercould assort; a eyes 20 to clear rounded grains; texture indistinct, local r hals around a eyes; minus rare thairline fract = lim or ep; py						+	#	-	+		-	+		1	+		$\frac{1}{1}$												Ŧ					-		丰	Ŧ	$\exists$					Ì	
** half around a eyes; minor hare  # hairline fract = lim or ep; py  anh, 5-i ox; nammagn, namale					_	7	+										$\prod$															7	7	-		$\mp$	$\mp$	$\exists$		+	+	+	+	$\dashv$
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ROCK SAMPLES

**GENSTAR 1993** 

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PRIdepor STRINGERS VEIN STOCKWORK TYPE AMOUNT WIDTH (m) Sphalerite Arsenopyrite Molybdenite 2. BEDDING 3. FOLIATION 4. CLEAVAGE Chalcopyrite 2709 SAMPLE DESCRIPTION Hornblende Magnetite 5. FAULT 6. SHEAR 7. FRACTURE 8. VEIN 9. DYKE 2 Αu Ag Cu --ppm ppm | ppm #24R AT 936-23R but does not have applearance at a 2 unjust v. faj unknown dk metallic on this as anh aggregate; v. murr to well fract Staining indicater Granitic composito # 25 4-# 26% -# 27R Quarte vein - milky wht-char FX to FF q - unface coaling an argular felongated vugs, 3 slos, minimum 20 cm width 1111 # 29R Anderia - highly ox surface Py minus brussy most sier neamagn neacale, in brid; I highly angular cebble; 15 cm minimum idth # 292 Feltite - Rhywlite dy ... iait A?

but - wht - It sy must well front <5%

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# APPENDIX V

Statement of Expenditures

# **EXPENDITURES:**

WAGES: L. Grexton 16 days @ \$200/day	\$3200.00
B.H. Kahlert 1 day @ \$400/day	400.00
FOOD & LODGING: including Fountain Motel, Kamloops	
(May 1 to 16, 1993)	680.45
TRANSPORTATION: Toyota Truck Rental @ \$198/week	448.00
Jeep Truck Rental @ \$50/day	50.00
Fuel	115.89
Mileage (Toyota) @ 15¢/km	342.90
(Jeep) @ 20¢/km)	128.00
Coquihalla Highway toll	40.00
FIELD SUPPLIES: (flagging, sample bags, topofil etc)	146.16
MAGNETOMETER RENTAL: Scintrex Ltd., Vancouver	
2 days @ \$50/day	100.00
ANALYSES: Rossbacher Laboratory, Burnaby	
4 silt samples at \$13.38 each	53.52
26 rock samples at \$16.05 each	417.30
REPORT: Research, compilation, drafting 5 days @ \$160/day	800.00
Feldspar staining, 3 hrs @ \$20/hr	60.00
Writing, Typing-B.H. Kahlert $\frac{1}{2}$ day @ \$400/day	200.00
-L. Grexton $3\frac{1}{2}$ days @ \$200/day	700.00
Reproduction _	150.00
	\$8032.22
MISCELLANEOUS @ 10%	803.00
Total Expenditures:	\$8835.22
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# APPENDIX VI

Statement of Qualifications

# BERNARD H. KAHLERT P.Eng.

Consulting Geologist Mineral Exploration

1195 Sutton Place, West Vancouver, B.C. V7S 2L3 Tel. (604) 925-2743

# Statement of Qualifications

I, Bernard H. Kahlert, of the City of West Vancouver, in the Province of British Columbia do hereby certify that:

- I am a Consulting Geologist and a principal in
   B.H. Kahlert and Associates Ltd. with an office at
   1195 Sutton Place, West Vancouver, British Columbia;
- 2. I am a graduate of the University of British Columbia, 1966 with a Degree of B.Sc. in Geology;
- 3. I was registered with the Association of Professional Engineers of British Columbia in 1971;
- 4. I have practiced my profession as an exploration geologist continuously for over 27 years in Canada, the United States and China;
- 5. I have been employed by major mining, oil and consulting companies;
- 6. I have a direct interest of 70% in the "Star" and Ripple mining claims discussed in this report.

BHall

## Statement of Qualifications

I, Lynn Grexton, graduated from the University of Waterloo, Waterloo, Ontario with an Honours Applied Bachelor of Science Degree, Earth Science major, in May 1980. I have worked as an exploration geologist for major companies and consulting firms in the Canadian Cordillera since that time. I have a direct interest of 60% in the Genesis mineral claims discussed in this report.

Vancouver, British Columbia August 14, 1993

Lynn Grexton, Geologist

