091888

ASSESSMENT REPORT

GEOLOGICAL MAPPING AND GEOCHEMICAL SAMPLING CHARLIE 1-16 CLAIMS

(YA82409-YA82424)
Whitehorse Mining District
105D-3,6

Latitude 60 15'N
Longitude 135 10'W
July 26 to August 3,1986

for
MR.E. BERGVINSON
706-595 Howe Street
Vancouver,B.C.,V6C 2T5

by
T.GARAGAN
AURUM GEOLOGICAL CONSULTANTS INC.
1614-675 West Hastings Street,
Vancouver,B.C.,V6B 4W3

December 10,1986

This report has been examined by
the Geological Evaluation Unit
under Section 53 (4) Yukon Quartz
Mining Act and is allowed as
representation work in the amount
of $ 3200.00 .

D D Emond

for Regional Manager, Exploration and
Geological Services for Commissioner
of Yukon Territory.

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the Geological Evaluation Unit
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Regional Manager, Exploration and
Geological Services for Commissioner
of Yukon Territory.

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INTRODUCTION

This report was prepared at the request of Mr.E.Bergvinson and describes the limited exploration program carried out by AURUM Geological Consultants Inc. on the CHARLIE 1-16 claims during the 1986 field season.

CLAIM OWNERSHIP

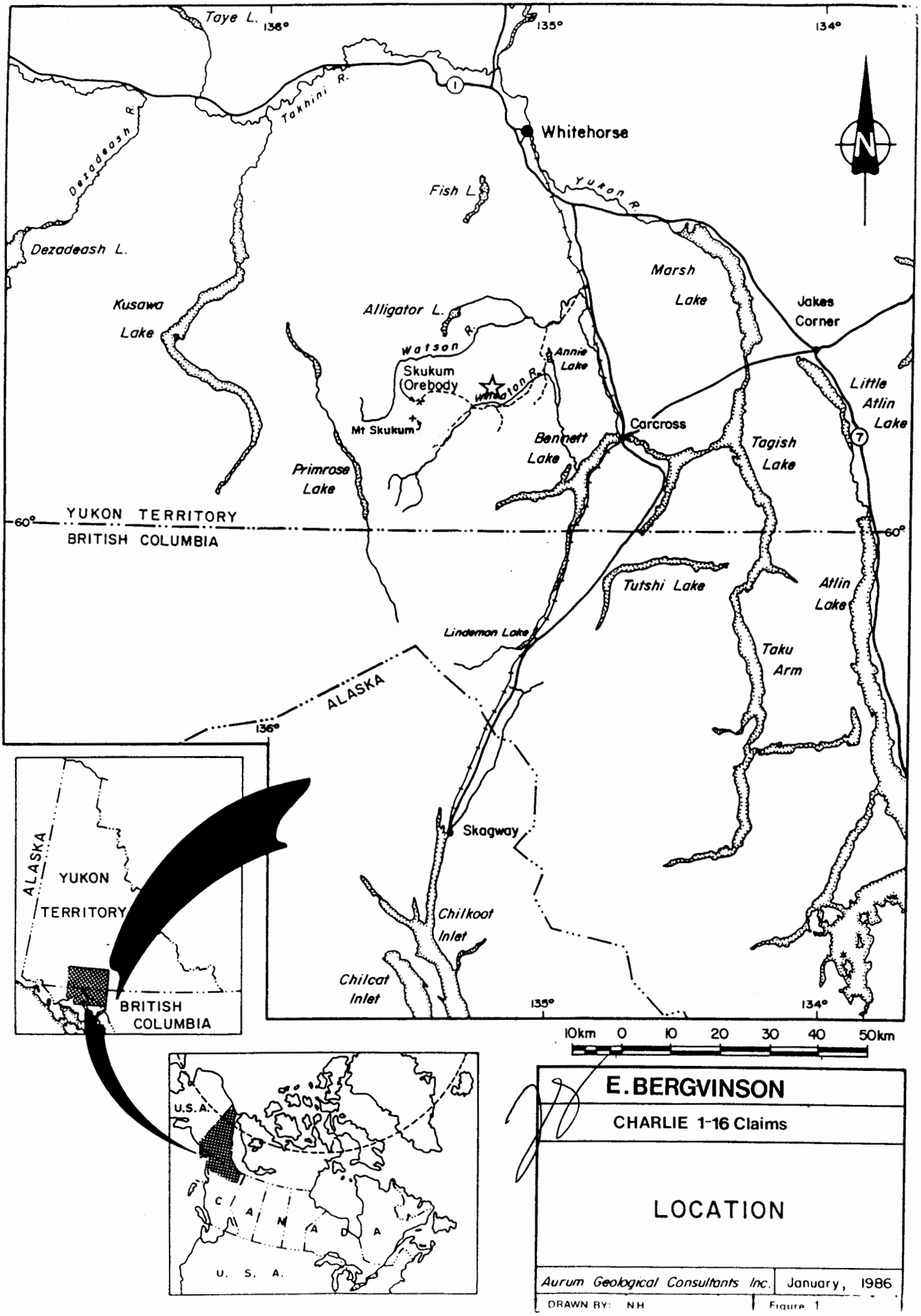
The CHARLIE 1-16 (YA82409-424) claims were staked under the Yukon Quartz Mining Act by Shakwak Exploration Co.Ltd. on June 10th,1984. The present owner, Mr E.Bergvinson, purchased the claims from Shakwak in the spring of 1986. The claim distribution is shown in figure 2.

LOCATION, ACCESS AND PHYSIOGRAPHY

The CHARLIE 1-16 claims are located in the Whitehorse Mining District (claim sheet 105D3,D6,latitude 60 15'N,longitude 135 10'W) approximately 55 km southwest of Whitehorse (figure 1). The claims are bordered by the Wheaton River on the south and Dawson Charlie Creek to the east.

Access to the Wheaton River district is by an all weather road (Annie Lake road) leading from the Klondike highway (Whitehorse-Carcross road) to the Mt.Skukum minesite. The road passes 1.5 km south of the property immediately south of the Wheaton River. There is no road or bridge across the Wheaton River at this point. A tote road leads from near Annie Lake south of Red Ridge to Gold Hill, 4 km north-east of the property. At present, access to the claims is by a seasonally based helicopter located at the old Wheaton River airstrip, 2 km southeast of the property.

The terrain on the property is mountainous with a flat top mountain centrally located on the claims. The east and west side of the property consist of steep slopes which face north-south flowing creeks (flow from spring to fall). The south side of the property is comprised of steep and rugged slopes facing the Wheaton River. These are drained by a north south seasonally (spring) flowing creek. The elevation varies between 915m in the Wheaton River valley to 1675m in the central part of the claims.

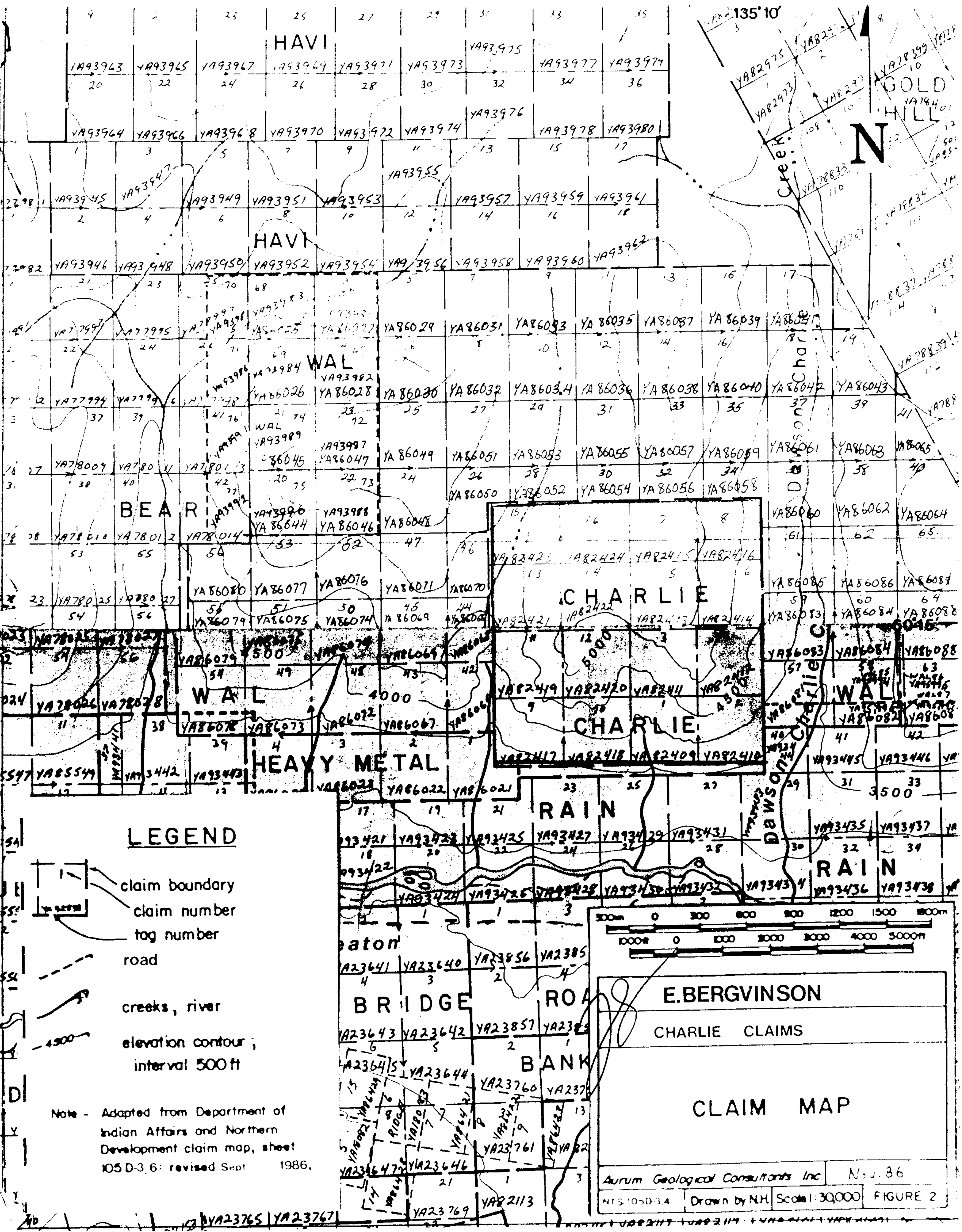


E. BERGVINSON

CHARLIE 1-16 Claims

LOCATION

Aurum Geological Consultants Inc.	January, 1986
DRAWN BY: N.H.	Figure 1


135°10'
N
HAVI
GOLD HILL
WAL
BEAR
CHARLIE
WAL
HEAVY METAL
RAIN
Dawson Charlie Creek
4000
4500
5000
3500
eaton
BRIDGE
ROA
BANK
LEGEND
claim boundary
claim number
tag number
road
creeks, river
elevation contour; interval 500 ft
Note - Adapted from Department of Indian Affairs and Northern Development claim map, sheet 105 D-3,6: revised Sept 1986.
300m 0 300 600 900 1200 1500 1800m
1000ft 0 1000 2000 3000 4000 5000ft
E.BERGVINSON
CHARLIE CLAIMS
CLAIM MAP
Aurum Geological Consultants Inc
NTS 105D-3,4
Drawn by N.H.
Scale 1:30,000
FIGURE 2

Much of the claims are located above the tree line with vegetation consisting of alpine shrubs, mosses and alders. A variety of pine, spruce, fir and poplar trees occur in the Dawson Charlie Creek and the Wheaton River valleys.

HISTORY

Exploration in the Wheaton River district started in 1893 when Frank Corwin and Thomas Rickman located several claims on Carbon Hill, Chieftain Hill, Idaho Hill and possibly Gold Hill. The men died shortly after without disclosing the location of their claims. Exploration recommenced in earnest with the discovery of gold-silver tellurides on Gold Hill in 1906. Several claims and mineral showings were located in the area at this time. No claims were located at the present location of the CHARLIE claims. Exploration continued sporadically until the 1980-83 discovery of the Mt. Skukum gold deposit by AGIP Canada Ltd. As a result, exploration has increased dramatically in the area and the CHARLIE 1-16 claims were staked by Shakwak in June, 1984. Exploration by Shakwak consisted of limited geological mapping and geochemical sampling. The claims were subsequently sold to E.Bergvinson in the spring of 1986. Exploration during the 1986 season consisted of further geochemical sampling and mapping and is the subject of this report.

REGIONAL GEOLOGY

The CHARLIE claims are situated near the eastern margin of the Coast Plutonic Complex. The regional geology has been well described by Cairnes (1912), Wheeler (1961) and Lambert (1974) and will only be briefly summarized in this report.

The Coast Plutonic Complex consists of Cretaceous foliated and non-foliated granitoid rocks which intrude sediments and volcanics of the Mesozoic Whitehorse-Nechako Trough and quartzites, schists and gneisses of the late PreCambrian Early Paleozoic Yukon group.

Tertiary andesite and rhyolite flows and pyroclastics of the Tertiary Skukum group, occurring in 2 major paleovolcanic centers, unconformably overlie all older units in the region. Late stage rhyolite and andesite dykes and plugs related to the volcanics, cut the Skukum group volcanics and underlying rocks.

The structural trend in the Wheaton River area is northwest. This is cut by structures related to Tertiary volcanism and caldera collapse.

PROPERTY GEOLOGY

The CHARLIE claims are underlain by granodiorite of the Cretaceous Coast Plutonic Complex which is intruded by Tertiary rhyolite dykes and related gas charged breccias. Thin andesite dykes occur on the northwest side of the property.

The granodiorite consists of a resistant weathering, medium to coarse grained hornblende-biotite (5-15% mafics) bearing granitoid rock with 15-20% quartz. The potassiun feldspars are euhedral and usually coarser grained than the subhedral plagioclase. The mafics are slightly altered to chlorite and epidote.

The granodiorite is cut by a swarm of northeast trending rhyolite dykes which appear to be off shoots of a much larger northwest trending dyke. The dyke swarm is up to 600m wide with individual dykes varying between 2 and 50m(?) wide. The dykes pinch and swell and coalesce and separate along strike. The large northwest trending dyke appears to be up to 70m wide. The rhyolites are generally orange-white and platey weathering. They contain 0-10% fine to medium grained quartz eyes and 0-10% fine grained feldspar phenocrysts in an aphanitic matrix. Flow banding is common in thinner dykes and along dyke margins. The flow banded rocks are often green-white weathering, possibly due to sericitization. Spherulites are rare.

The northwest trending rhyolite dyke is intruded by a zone of anostamosing breccia dykes and pipes which trends parallel to the dyke. The breccia dykes vary drastically in width between 0.5cm and 25m and can be traced along strike for up to 600m. The breccia contains a grey to black very fined grained to aphanitic matrix consisting of rock flour with subangular to subrounded fragments of rhyolite. Granodiorite fragments have only been seen where the breccia dyke intrudes near or at the rhyolite dyke, granodiorite contact. The fragments vary between <1cm in diameter to 3-5m in diameter, but usually average 1-5cm in diameter. The clasts are rarely altered and occasionally have reaction rims. The ratio of clasts to matrix

is highly variable from 70% clasts to 5% clasts. Clast dominated zones occur closer to the margins. No sulphides were seen in the matrix.

The breccia is interpreted to represent a phreatic (gas charged) breccia developed when circulating fluids (possibly ground water or hydrothermal) came in contact with a hot rhyolite dyke. The interaction of the fluids with the hot dyke caused instant boiling and gasification which lead to the development of the breccia. These breccias are common in subaerial volcanic environments and are often mineralized or associated with epithermal veins (Sillitoe,1985). According to R.Robertson (pers.comm.,1986), several precious metal bearing veins located to the east, on Gold Hill, are associated with similar breccias. Further exploration on the CHARLIE claims in the area of the breccia is therefore; highly recommended.

ALTERATION AND MINERALIZATION

Two types of quartz veins have been located on the property. On the west and northwest side of the property several boulders of bull quartz up to 0.5m in diameter were located (Figure 3). The boulders are often hematite stained, but rarely contain sulphides. A 1cm thick quartz vein in Wolf Gully (661003) contains malachite and chalcopyrite.

The second type of veining is located on the northeast side of the property and consists of chalcedony veinlets and vein breccia zones up to 1.5m wide within rhyolite dykes and in the adjacent granodiorite. The veining occurs in several zones near the intersection of faults and rhyolite dykes and along fault zones intruded by rhyolite dykes. A chalcedonic microfractured rhyolite (6T1004) is also located adjacent to a phreatic breccia pipe in Wolf Gully. The granodiorite and rhyolite dykes are usually silicified adjacent to the chalcedonic breccias and vein zones.

A zone of intense clay alteration occurs at the intersection of two faults within the granodiorite and rhyolite immediately northeast of the property. No silicification and only minor microfractures were found associated with the clay alteration, but the chalcedonic vein breccia zones within the CHARLIE claims occur along strike and may be related. Geologically, the area appears to have good potential for locating epithermal style mineralization.

In Wolf Gully the granodiorite is hematitized, moderately to locally strongly sericitized and clay altered (crumbly). The extent of the alteration has not been determined.

GEOCHEMICAL EXPLORATION

Geochemical exploration on the CHARLIE claims consisted of talus and rock sampling and the collection of 1 stream sediment sample (Wolf Gully). All talus samples and the stream sediment sample were analysed for gold, silver, antimony, lead, and zinc. Rock samples were analysed for gold and silver and a few were also analysed for arsenic, antimony, lead and zinc. The sample locations are shown in figure 3 and the talus and stream sediment geochemical results and the rock geochemical results plus descriptions are listed in Appendices A and B respectively.

Four talus fine sample lines were run on the CHARLIE claims. Talus fine samples were collected at 30 to 50m intervals around the inside of Wolf Gully and were collected at 30 to 50m intervals below cliffs on the south side of the property. In addition, samples were collected at 50m intervals in 2 lines at approx- imately the 1550m to 1580m and the 1425m to 1460m levels along the slope facing Dawson Charlie Creek.

The best gold value (255 ppb-661004) in talus on the property occurs on the northeast side of the claims up slope of boulders of chalcedonic vein breccia. Samples in this area are also slightly anomalous in lead and zinc (up to 65 ppb lead and 116 ppm zinc). The best precious metal value in rock samples of the chalcedonic vein material was 30 ppb gold. One sample taken during the 1985 field season contained 660 ppb gold (Davidson, 1986). More prospecting and rock sampling should be carried out in this area. Several samples taken at the south end of both of the Dawson Charlie talus lines are slightly anomalous in silver, lead and zinc (up to 0.5 ppm,82 ppm lead and 188 ppm zinc). The source of this anomaly is not known.

Talus fine samples taken between cliffs on the south side of the property contained elevated metal values relative to the rest of the property with lead, zinc and silver values up to 72 ppm, 152 ppm and 1.0 ppm respectively. One sample (666040) taken near the northwest end of the line and below outcrop of breccia contained 35 ppb gold. The elevated metal values in this area

are probably related to enrichment within or related to the phreatic breccias.

A talus fine sample taken in Wolf Gully adjacent to (uphill) outcrop of the phreatic breccia contained 80 ppm lead, 156 ppm zinc and 0.5 ppm silver. A rock sample of microfractured rhyolite adjacent to the breccia taken in the same area contained 185 ppb gold and 2.1 ppm silver. A grab sample of the thin quartz chalcopyrite vein in Wolf Gully contained 325 ppb gold and 10.0 ppm silver.

DISCUSSION

The CHARLIE claims have many geological characteristics typical of areas of epithermal mineralization. The presence of chalcedonic veining and alteration associated with fault zones and rhyolite dykes and the presence of phreatic breccia zones are indicative of circulating hydrothermal fluids. The phreatic breccia zones appear to have elevated metal values and there is some gold enrichment associated with the chalcedony veins (225 ppb in soil and 660 ppb in rock) indicating that the fluids were carrying metals. Although, geochemical results, to date, are generally low (except the 255 ppb gold soil anomaly and the slightly anomalous values associated with the breccia), the geological similarity between the CHARLIE claims and other properties and regions with epithermal style mineralization suggests that much further sampling and prospecting should be carried out on the claims. Much of the property has not yet been sampled or prospected and further exploration should be carried out in these areas.

RECOMMENDATIONS AND BUDGET

The results of the 1986 exploration program warrant further exploration and the following program and budget is recommended.

1. Geological mapping and geochemical sampling in the area of the 225 ppb gold soil anomaly.

2. Geological mapping , prospecting and further geochemical sampling in the area of the phreatic breccias.

3. Prospecting, mapping and geochemical sampling on the southeast, south and west sides of the property (previously unexplored).

4. Establishment of a soil geochemical grid on the flat upper parts of the property.

The budget for this initial program would be approximately:

Geology & Prospecting:	$ 4000.00
Geochemistry:	$ 3000.00
Helicopter:	$ 1500.00
Camp Support:	$ 1500.00
Contingency 10%:	$ 1000.00
Total:	$11000.00

The extent and budget of a followup program would largely depend on the results of this initial program.

REFERENCES

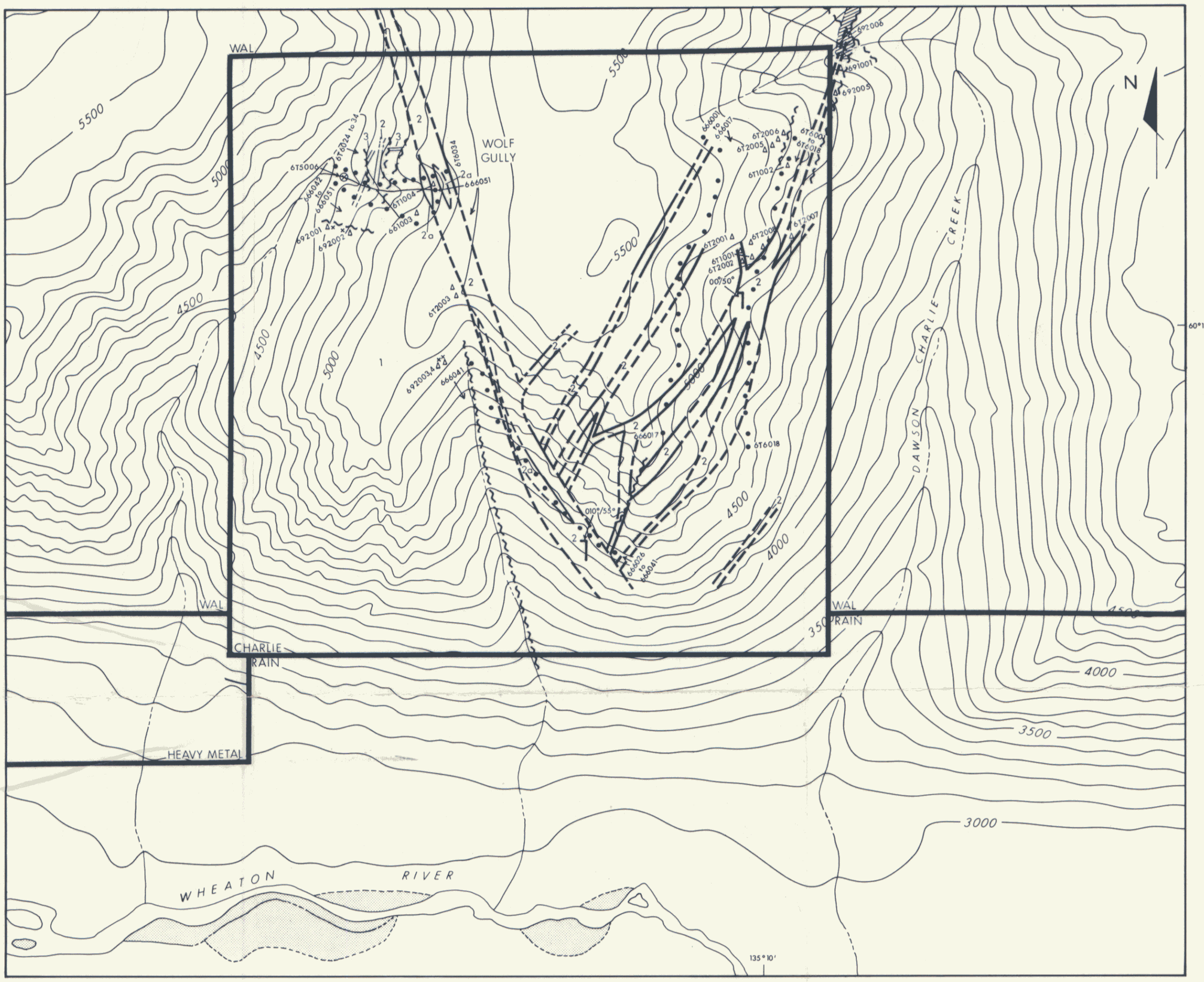
Cairnes, D.D.,1912: Wheaton District, Yukon Territory, G.S.C. Memoir 31.

Davidson, G.S.,1986: Prospecting and Geochemical Sampling, CHARLIE 1-16 claims (YA82409-YA82424) Wheaton River Area: Assessment Report, Whitehorse Mining District. 091775

Lambert, M.B.,1974: The Bennett Lake Cauldron Subsidence Complex, British Columbia and Yukon Territory, G.S.C. Bulletin 227.

Sillitoe, R.H.,1985: Ore Related Breccias in Volcanoplutonic Arcs:in : Economic Geology, Vol 80, NO 6, pg. 1467-1514.

Wheeler, J.O.,1961: Whitehorse Map Area, Yukon Territory, 105D. Memoir 312.



GEOLOGICAL CONTACT (DEFINED, ASSUMED)

FAULT (DEFINED, ASSUMED)

INTENSE CLAY ALTERATION

010/55° JOINTING

● 666042 SOIL SAMPLE

⊗ 6T5006 STREAM SEDIMENT SAMPLE

× Δ 692001 ROCK SAMPLE

Δ QUARTZ and/or CHALCEDONY VEINING

WAL / CHARLIE APPROXIMATE CLAIM BOUNDARIES according to INDIAN and NORTHERN AFFAIRS CLAIM SHEETS 105 D3, D6

LEGEND:

TERTIARY

3 ANDESITE DYKE

2 | 2a RHYOLITE DYKE, 2a - PHREATIC BRECCIA DYKE ZONE

CRETACEOUS

1 GRANODIORITE, QUARTZ DIORITE

SCALE 1:10,000

0 100 200 300 400 500m

E. BERGVINSON

CHARLIE CLAIMS

PRELIMINARY GEOLOGY & SAMPLE LOCATIONS

AURUM GEOLOGICAL CONSULTANTS INC.

FIELD WORK BY:	DRAWN BY:	FIGURE:	DATE:
T.G. P.G.	PRECISE DRAFTING SERVICES	3	DECEMBER, 1986

091888

APPENDIX A

SOIL GEOCHEMICAL RESULTS

ACME ANALYTICAL LABORATORIES LTD.
852 E.HASTINGS ST.VANCOUVER B.C. V6A 1R6
PHONE 253-3158 DATA LINE 251-1011

GEOCHEMICAL ICP ANALYSIS

.500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER. THIS LEACH IS PARTIAL FOR MN.FE.CA.P.CR.MG.BA.TI.B.AL.NA.K.W.SI.ZR.CE.SN.Y.NB AND TA. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: SOILS & ROCKS AU* ANALYSIS BY AA FROM 10 GRAM SAMPLE.

ASSAYER: .DEAN TOYE. CERTIFIED B.C. ASSAYER.

BERGLYNN RESOURCES PROJECT - ERNIE-86 FILE # 86-1854 PAGE 1

SAMPLE#	Pb PPM	Zn PPM	Ag PPM	As PPM	Sb PPM	Au* PPB
6T6001	29	60	.2	5	2	1
6T6002	15	34	.1	7	2	47
6T6003	27	53	.1	6	2	1
6T6004	22	78	.1	2	2	1
6T6005	24	70	.1	4	2	2
6T6006	26	45	.1	6	2	1
6T6007	53	82	.1	4	2	1
6T6008	28	79	.1	6	2	1
6T6009	22	64	.1	4	2	8
6T6010	28	72	.4	8	3	1
6T6011	25	57	.1	4	2	1
6T6012	82	68	.1	2	2	4
6T6013	59	99	.4	2	2	1
6T6014	49	188	.5	5	2	1
6T6015	39	105	.2	8	2	1
6T6016	3	101	.3	8	2	1
6T6017	27	104	.2	4	2	1
6T6018	45	95	.5	5	2	1
6T5006	27	56	.3	2	2	1
6T6024	28	48	.1	2	2	1
6T6025	36	67	.3	4	5	21
6T6026	47	90	.3	2	2	3
6T6027	28	53	.2	3	2	1
6T6028	22	41	.2	3	2	1
6T6029	26	50	.2	3	2	1
6T6030	21	48	.2	4	2	1
6T6031	18	58	.2	2	2	1
6T6032	42	101	.4	2	2	1
6T6033	22	72	.2	2	2	1
6T6034	80	156	.5	2	2	1

GEOCHEMICAL ICP ANALYSIS

.500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR MN.FE.CA.P.CR.MG.BA.TI.B.AL.NA.K.W.SI.ZR.CE.SN.Y.NB AND TA. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: SOILS -80 MESH AU* ANALYSIS BY AA FROM 10 GRAM SAMPLE.

P3-Rocks

ASSAYER: ..D. Toye..DEAN TOYE. CERTIFIED B.C. ASSAYER.

BERGLYNN RESOURCES PROJECT - ERNIE-86 FILE # 86-1702 PAGE 1

SAMPLE#	Pb PPM	Zn PPM	Ag PPM	As PPM	Sb PPM	Au* PPB
666001	16	43	.1	4	2	12
666002	65	79	.2	10	2	3
666003	22	51	.1	4	2	1
666004	47	116	.4	8	2	255
666005	29	70	.1	5	2	1
666006	15	78	.1	3	2	1
666007	15	69	.1	2	2	13
666008	31	49	.1	2	2	1
666009	30	84	.1	5	2	8
666010	50	96	.1	6	2	28
666011	38	82	.3	2	2	1
666012	19	63	.1	6	2	3
666013	22	86	.1	8	2	1
666014	28	72	.1	6	2	1
666015	68	178	.1	6	2	8
666016	47	91	.1	2	2	1
666017	38	63	.2	6	2	4
666026	18	62	.1	2	2	1
666027	72	105	1.0	7	2	1
666028	62	113	.7	7	2	10
666029	61	116	.7	7	2	3
666030	52	89	.7	10	2	8
666031	55	102	.8	9	2	1
666032	54	106	.7	6	2	1
666033	48	152	.7	11	2	2
666034	40	119	.6	10	2	1
666035	67	105	.5	7	2	3
666036	40	100	.6	7	2	1
666037	39	83	.5	8	2	1
666038	76	136	.9	7	2	1
666039	20	64	.3	8	2	1
666040	71	79	.5	6	2	35
666041	21	72	.2	7	2	2
666042	36	66	.1	2	2	2
666043	28	70	.1	3	2	1
666044	29	51	.2	3	2	1
666045	18	41	.1	2	2	1
666046	51	61	.2	2	2	1
666047	49	41	.3	2	2	1
666048	29	65	.2	4	2	1
666049	20	89	.1	2	2	1
666050	25	70	.1	2	2	12
666051	19	68	.2	2	2	1

APPENDIX B

ROCK DESCRIPTIONS AND RESULTS

AURUM GEOLOGICAL CONSULTANTS INC.

SAMPLE NO.	LOCATION	DESCRIPTION	ATTITUDE	WIDTH METERS	ANALYTICAL RESULTS Au ppb *(FA/AA)	Ag ppm	Pb ppm	Zn ppm	As ppm	Sb ppm
661003	Wolf Gully	qtz-chalco-mal vein in altered grdr		1cm grab	325	10	2	5	1975	938
692001	south of Wolf Gully	bull qtz vein boulders		50cm grab	1*	0.2				
692002	south of Wolf Gully	bull qtz vein boulders		grab	2*	0.1				
692003	west central side of claims	sugary white qtz vein boulders minor hem		grab	1*	0.1				
692004	west central side of claims	sugary white qtz vein boulders minor hem		grab	1*	0.1				
692005	immediately NE of claims	chalcedonic vein breccia boulders		10-30cm grab	2*	0.1				
692006	immediately NE of claims	microfractured and altered rhyolite		grab	1*	0.2				
691001	immediately NE of claims	chalcedonic vein breccia zone		0.5m chip	1*	0.2				
6T1001	NE side of claims	chalcedonic breccia zone in rhyolite		0.6m chip	1*	0.1				
6T1002	extreme NE side of claims	chalcedonic breccia zone in silicified rhyolite		1m grab	30*	0.1				
6T1004	Wolf Gully	clay altered and micro-fractured chalcedony veined rhyolite		grab	185	2.1	100	6	18	8
6T2001	NE side of claims	composite grab;silicified & chalcedonic brecciated rhyolite	00/50W	grab	2*	0.1				
6T2002	NE side of claims	milky white chalcedony vein(banded)		.1-.15cm grab	1*	0.1				
6T2003	W of NW trending rhyolite	grey bull qtz vein boulder (0.15 by 0.2cm)		grab	1	0.2	2	2	7	16
6T2005	NE side of claims	composite grab of chalcedony vein fragments		grab	2	0.1	4	2	3	9

AURUM GEOLOGICAL CONSULTANTS INC.

SAMPLE NO.	LOCATION	DESCRIPTION	ATTITUDE	WIDTH METERS	ANALYTICAL RESULTS Au ppb *(FA/AA)	Ag ppm	Pb ppm	Zn ppm	As ppm	Sb ppm
6T2006	NE side of claims	composite grab of chalcedony vein fragments		grab	1	0.1	2	2	3	6
6T2007	NE side of claims	chalcedonic breccia in rhyolite		grab	1	0.1	2	2	10	23
6T2008	NE side of claims	sugary qtz vein in clay altered grdr		grab	1	0.2	2	2	3	6

APPENDIX C
ANALYTICAL METHODS

The geochemical analyses were carried out by ACME ANALYTICAL LABORATORIES of 852 East Hasting St., Vancouver, B.C.

Soil samples are dried and sieved to -80 mesh and a split is analysed. Rock samples are pulverized to -100 mesh and a split is analysed.

Silver, lead, zinc, arsenic and antimony are analysed by ICP (Inductively Coupled Argon Plasma) methods. A 5 gram sample is digested in 3ml Aqua Regia and diluted to 10ml with demineralized water prior to analysis.

Some of the analyses are by Atomic Absorption of an MIBK extract using a background correction. The MIBK extract involves igniting a 10 gram sample for four hours at 600 C followed by digesting the sample in 30ml of hot dilute aqua regia; 75mls of clear solution obtained is extracted with 5mls of Methyl Isobutal Ketone (MIBK). The remaining gold analyses are by regular fire assay techniques, followed by dissolving of the lead bead in Aqua regia and analysis by Atomic Absorbtion.

APPENDIX D

AURUM GEOLOGICAL STAFF

T.Garagan, BSc.,F.G.A.C., Director, Geologist.
Project Supervision, Geological mapping, Geochemical Sampling, Prospecting, Report Writing.

P.Garagan, BSc., Geologist.
Geological mapping, Geochemical Sampling, Prospecting.

APPENDIX E

STATEMENT OF COSTS

Labour:			
T.Garagan:	4 Days fieldwork 2.5 Days report preparation		
	6.5 Days at $200/Day:	$ 1300.00	
P.Garagan:	4 Days fieldwork at $125/Day:	$ 500.00	
Total Labour Costs:		$ 1800.00	$1800.00
Analytical Costs:			
Analyses by ACME Analytical of Vancouver,B.C.			
Soil Samples:	72 samples analysed for Au,Ag,As,Sb,Pb and Zn by ICP analyses. 72 samples @ $4.75 per sample:	$ 342.00	
Stream Sediment Sample:	1 sample analysed for Au,Ag,As,Sb,Pb and Zn by ICP analyses. 1 sample @ $4.75 per samples	$ 4.75	
Rock samples:	11 samples analysed for Au and Ag using FA/AA techniques. 11 samples @ $10.50 per sample:	$ 115.50	
	7 samples analysed for Au,Ag,As,Sb,Pb and Zn by ICP analyses. 7 samples @ $7.00 per sample:	$ 49.00	
Total Analytical Costs:		$ 511.25	$ 511.25
Helicopter Costs:			
	July 26,27,29,August 3: Hughes 500D on casual charter from Frontier Helicopters, Wheaton River Airstrip. 1.5 hours @ $440/hour:	$ 660.00	
	Fuel: 180 liters JP-4 (120 liters/hour) at $0.75/litre:	$ 135.0	
Total Helicopter Costs:		$ 795.00	$ 795.00

Camp Costs: Camp supplied by Berglynn Resources at $ 15.00 per man day.		
8 mandays @ $15.00 per manday:	$ 120.00	
Total Camp Costs:	$ 120.00	$ 120.00
Report costs: Typing, Drafting, Photocopying and binding.	$ 200.00	$ 200.00
Total Costs for Assessment on the CHARLIE 1-16 claims:		$3426.25

APPENDIX F

STATEMENT OF QUALIFICATIONS

I, THOMAS GARAGAN, hereby certify that:

1. I am a geologist with Aurum Geological Consultants Inc. of 1614 675 West Hastings Street, Vancouver, B.C. and that I caused to be performed the work described in this report.

2. I obtained a Bachelor of Science degree with Honours in Geology from the University of Ottawa, Ontario, in 1980.

3. I am a fellow of the Geological Association of Canada (F3819) and a member of the Mineralogical Association of Canada.

4. I have been engaged in mineral exploration and geological survey mapping on a full and part time basis for 9 years, of which 6 have been spent on mineral exploration programs in the Yukon Territory.

5. I have no interest in the claims nor do I expect to obtain any.

DATED at Calgary, Alta., this 15th day of December 1986.

Thomas Garagan,
Geologist