ARIS SUMMARY SHEET

District Geologist, Smithers Off Confidential: 92.08.26

ASSESSMENT REPORT 21884 MINING DIVISION: Skeena

PROPERTY: Sulphurets
LOCATION: LAT 56 20 00 LONG 130 10 00
UTM 09 6243577 427864
NTS 104B08E

CAMP: 050 Stewart Camp

CLAIM(S): Tedray 12,Tedray 17,Red River 7
OPERATOR(S): Newhawk Gold Mines
AUTHOR(S): Visagie, D.A.
REPORT YEAR: 1991, 103 Pages
COMMODITIES
SEARCHED FOR: Gold,Silver
KEYWORDS: Jurassic,Unuk River Formation,Betty Creek Formation,Andesites
Tuffs,Pyrite,Tetrahedrite,Arsenopyrite,Sphalerite,Galena

WORK
DONE: Geochemical,Geological,Physical
GEOL 450.0 ha
Map(s) - 1; Scale(s) - 1:1000
ROAD 4.0 km
ROCK 470 sample(s) ;AU,AG
Map(s) - 1; Scale(s) - 1:1000
TREN 470.0 m 27 trench(es)
MINFILE: 104B 276

GEOCHEMICAL REPORT
BRUCESIDE 1 GROUP

SKEENA MINING DIVISION

Latitude 56°20'N
Longitude 130°10'W
NTS 104B/8

OWNER: Newhawk Gold Mines Ltd.
Granduc Mines Limited

OPERATOR: Newhawk Gold Mines Ltd.

REPORT BY: Dave Visagie, B.Sc.
October 15, 1991

SU91-410.13

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1.0 INTRODUCTION

The Bruceside 1 Group is located within the "Golden Triangle" area of northwestern B.C. occurring 60 kilometres north of the village of Stewart. The Group is part of the larger Sulphurets property which is presently being evaluated by Newhawk Gold Mines and Granduc Mines under a joint venture agreement. The Sulphurets property hosts several bulk tonnage gold and/or copper deposits along with high grade gold/silver veins with the Bruceside 1 Group hosting areas of both bonanza and bulk tonnage grade gold/silver deposition. It is underlain by Hazelton Group volcanics and volcaniclastics that have been intruded by plutons of sub-alkaline composition. Work on the property dates back to 1935 when copper-molybdenum mineralization was located in the vicinity of the Main Copper Zone. Since then it has had various exploration programs completed on it with the main development occurring in the vicinity of the West Zone, located at Brucejack Lake. As part of the 1991 work program the area within the vicinity of the Golden Marmot showing was trenched, mapped and sampled with a total of 474 rock chip samples being collected and assayed for gold and silver. The results show veins of limited length to contain anomalous gold and silver with the best trench averaging .851 opt Au and .34 opt Ag over 2 metres.

2.0 LOCATION AND ACCESS

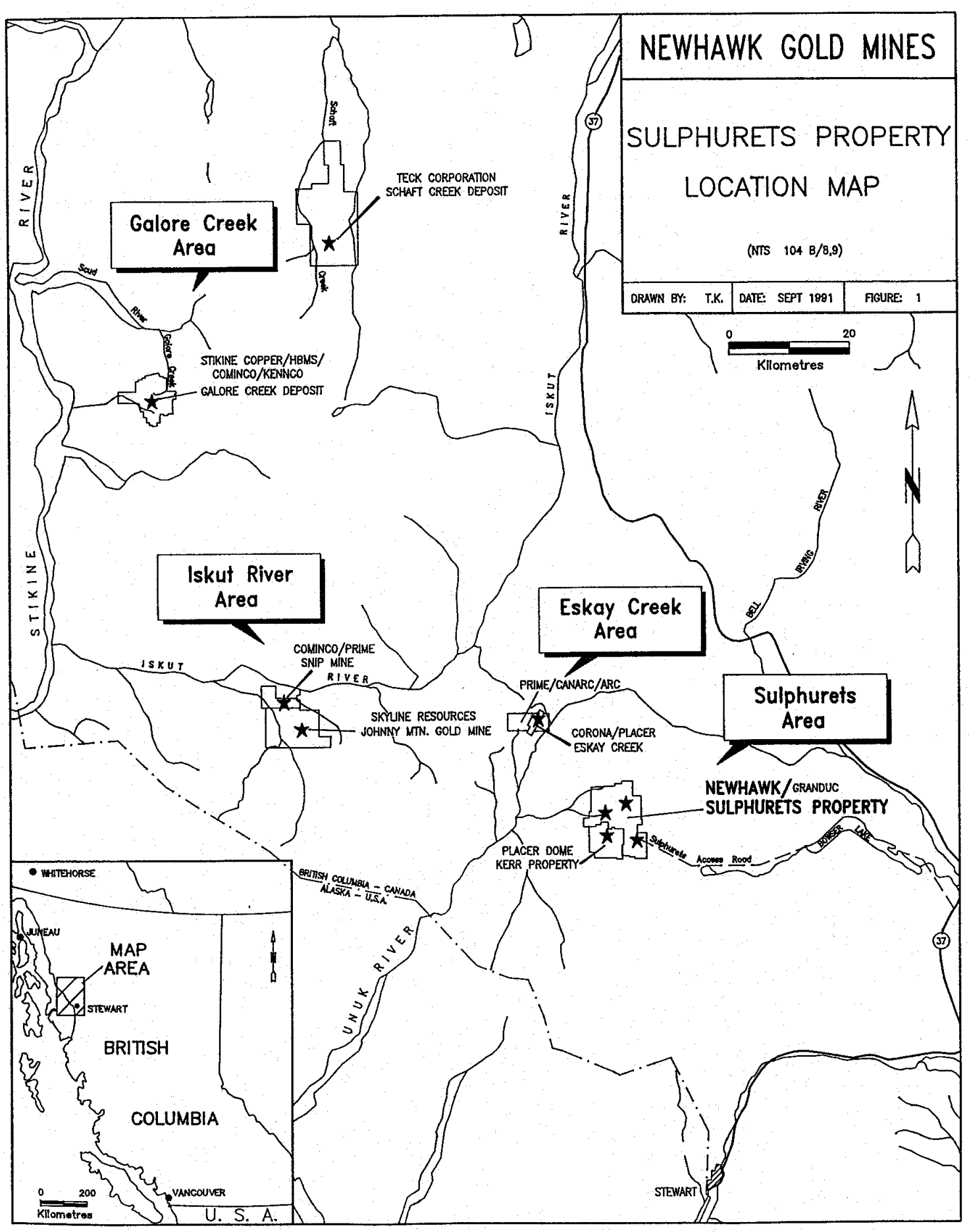
The property is located within the Coast Range mountains of northwestern B.C., some 60 kilometres northwest of the village of Stewart approximately 920 kilometres northwest of Vancouver, B.C., being centred at 130° 10'W, 56° 28'N on NTS sheet 104B/8.

Access during the early summer is by helicopter from Stewart. During the later part of the summer, supplies were mobilized to the Tide Lake airstrip 35 kilometres south of the property and flown in using a helicopter. During major summer programs, access is by barge along Bowser Lake, then by road along the Bowser River with the final access to the camp being by tracked vehicle 16 kilometres up the Knipple Glacier.

3.0 PHYSIOGRAPHY AND VEGETATION

The topography of the Sulphurets property is typical of the Coast Range Mountains with steep glaciated U-shaped valleys being the norm. Elevations range from 670 metres at the foot of Mitchell Glacier to in excess of 1830 metres on some of the mountain ranges. Extensive ice-fields are common throughout the property.

Winters tend to be severe with extensive snowfall and winds while summers tend to be cool and wet. Most of the snowfall occurs between mid-February and mid-April.


NEWHAWK GOLD MINES
SULPHURETS PROPERTY
LOCATION MAP
(NTS 104 B/8,9)
DRAWN BY: T.K.
DATE: SEPT 1991
FIGURE: 1
0 20
Kilometres
Galore Creek Area
TECK CORPORATION
SCHAFT CREEK DEPOSIT
STIKINE COPPER/HBMS/
COMINCO/KENNCO
GALORE CREEK DEPOSIT
Iskut River Area
COMINCO/PRIME
SNIP MINE
SKYLINE RESOURCES
JOHNNY MTN. GOLD MINE
Eskay Creek Area
PRIME/CANARC/ARC
CORONA/PLACER
ESKAY CREEK
Sulphurets Area
NEWHAWK/GRANDUC
SULPHURETS PROPERTY
PLACER DOME
KERR PROPERTY
Sulphurets Access Road
BOWSER LAKE
STIKINE RIVER
ISKUT RIVER
UNUK RIVER
BELL IRVING RIVER
Schaft Creek
Scud River
Galore Creek
BRITISH COLUMBIA - CANADA
ALASKA - U.S.A.
WHITEHORSE
JUNEAU
MAP AREA
STEWART
BRITISH COLUMBIA
VANCOUVER
U. S. A.
0 200
Kilometres
STEWART
37

Vegetation throughout the property is varied with spruce and fir trees occurring at the lower elevations while lichens, mosses and scrub timber dominate the uplands.

4.0 PROPERTY HISTORY

Exploration in the area dates back to the 1880's when placer gold was located in Sulphurets Creek. In 1935, copper-molybdenum mineralization was located in the vicinity of the Main Copper showing. Until 1959 the property was intermittently evaluated. In 1959, gold and silver values were located in the Brucejack Lake area. Granduc Mines, as a result of this previous work, staked the main claim area in 1960. Follow-up work included an airborne magnetometer survey, a few ground follow-up magnetometer lines and reconnaissance geology. As a result, copper mineralization was located along the Mitchell-Sulphurets Ridge while gold and silver values were discovered at the base of the Iron Cap area.

In 1961, Granduc drilled 224 metres of packsack core in 32 holes at four locations to test the extent of the known copper showings. Additional prospecting resulted in the discovery of gold/silver mineralization in the Hanging Glacier area and molybdenite on the south side of Mitchell Glacier. In 1962, two diamond drill holes, totalling 611 metres in length, tested molybdenum mineralization in the Quartz Stockwork Zone. In 1968, Granduc drilled 1016 metres in six holes on the Main Copper Zone and mapped the area below the Hanging Glacier. In 1970, plane table mapping was carried out from the Hanging Glacier to the south edge of the Mitchell Glacier. Granduc in 1974/75 carried out bedrock geochemical sampling and geological reconnaissance and prospecting throughout much of the property.

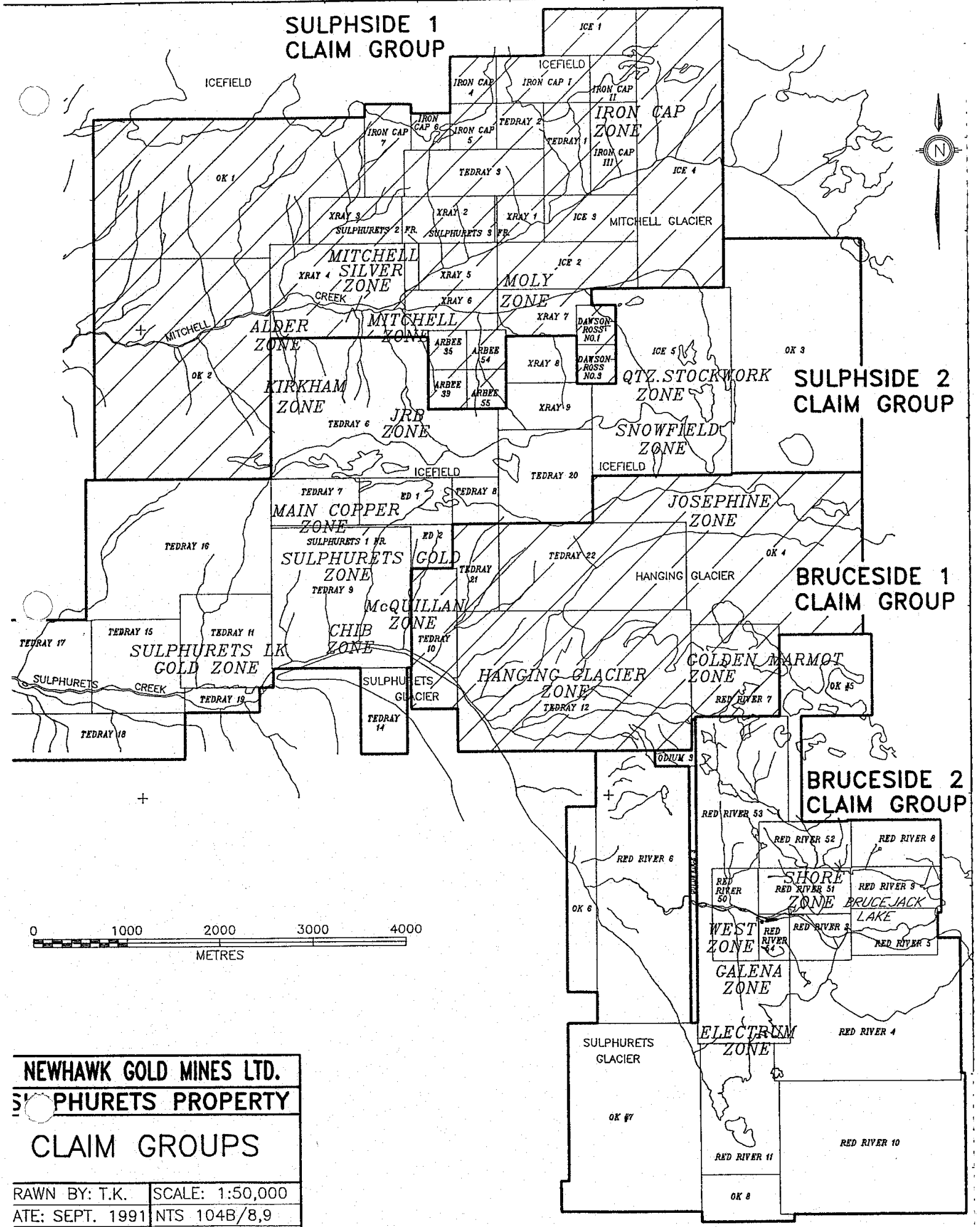
In 1980, Esso Minerals optioned the property from Granduc and subsequently completed between then and 1985, an extensive program consisting of mapping, trenching, geochemical sampling that resulted in the discovery of several showings including Snowfields, Shore, West and Galena zones. Esso surrendered its interest in 1985.

In 1985, Newhawk Gold Mines optioned the property from Granduc. Since then it has completed work on the Snowfields, Mitchell, Golden Marmot, Sulphurets Gold, Main Copper zones along with lesser known targets.

5.0 CLAIM STATUS

All claims comprising the Sulphurets property occur within the Skeena Mining Division. All claims are in good standing.

The property is held under a joint venture agreement between Granduc Mines Limited and Newhawk Gold Mines Ltd. with Newhawk acting as operator.



NEWHAWK GOLD MINES LTD.
SULPHURETS PROPERTY
CLAIM GROUPS
RAWN BY: T.K. / SCALE: 1:50,000
ATE: SEPT. 1991 / NTS 104B/8,9

For assessment purposes, the property has been divided into four groups; Sulphside 1, Sulphside 2, Bruceside 1 and Bruceside 2 with this report focusing on the Bruceside 1 Group.

BRUCESIDE 1 GROUP

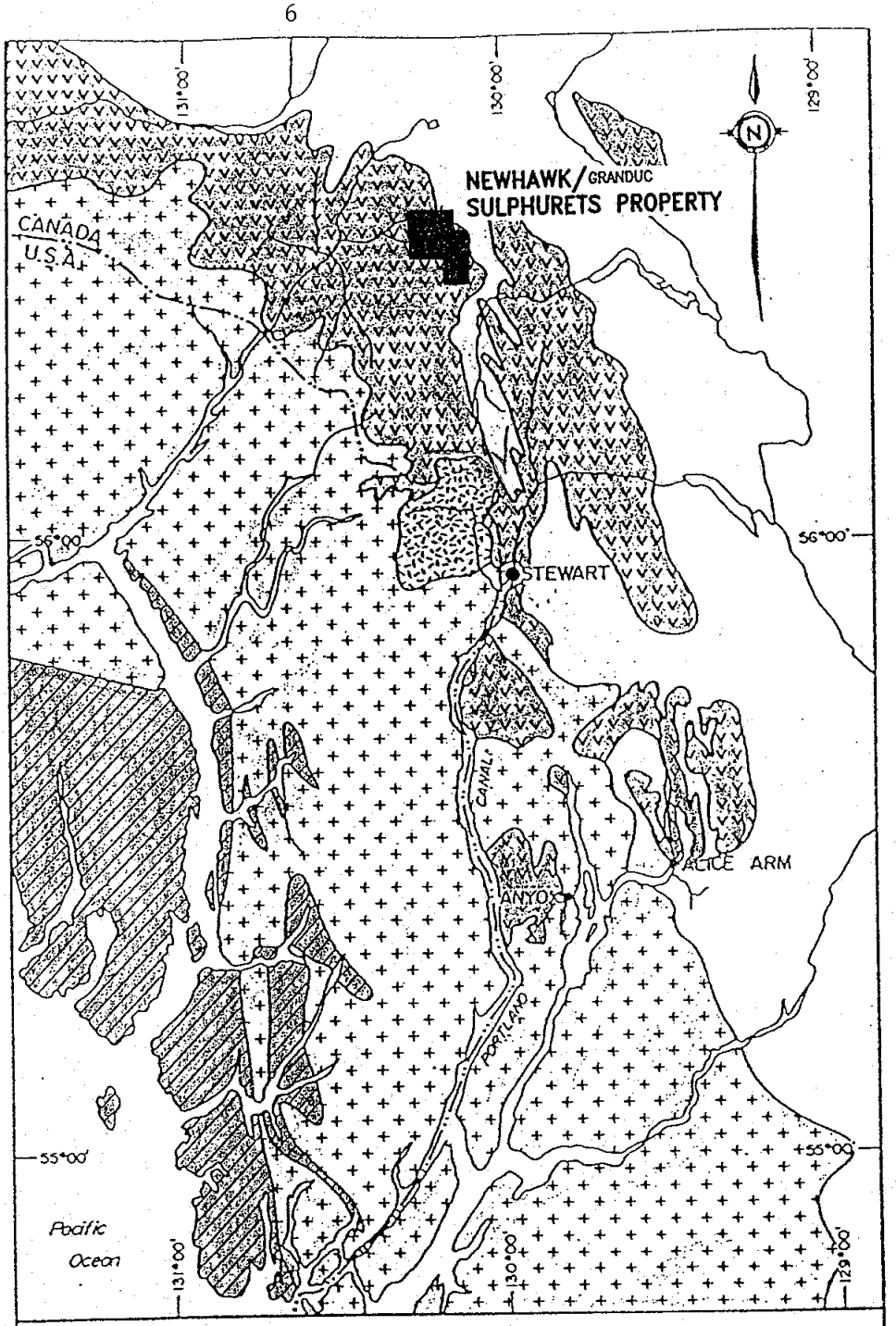
Name of Claim	Title Number	Number of Units
Tedray 10	250386	3
Tedray 12	250388	15
Tedray 21	250990	2
Tedray 22	251066	8
OK 4	251283	18
Red River 7	250986	4
Marmont Fr.	302498	1

6.0 REGIONAL GEOLOGY

The Sulphurets property is underlain by a thick sequence of Lower to Middle Jurassic volcanic and sedimentary rocks of the Hazelton Group that have been intruded by plutons of sub-alkaline composition. This complex has been folded and faulted and is now elongated in a northerly direction. It is bounded to the west by the Coast Crystalline complex and to the east by Bowser Basin sediments.

The oldest rocks on the property are the Lower Sediments, reported to have a minimum thickness of 1500 metres, consists mainly of argillites, siltstone and cherts along with minor amounts of wackes, arenites, tuffs and trachytes. Younger pyroclastic rocks, that range from fine tuff to breccias, are evidence of a major volcanic event in the area. These sometimes contain blocks greater than one metre in size and occur in a northerly trending elongate zone through the central part of the area. Most of the pyroclastics are of andesitic composition and have been subjected to varying degrees of alteration. These altered tuffs and breccias are host for most of the vein deposits in the Stewart area.

The Upper Sediments consist of an extensive sequence of black shales and argillites that are similar in character to the Lower Sediments. The volcanic-sedimentary sequence is cut by numerous elongated, sub-parallel northerly trending, late stage intrusive plutons that are probably of Mid-Jurassic age. These intrusives range from diorite to granite in composition and appear to be sub-alkaline. The emplacement of these plutons appears to be related to faulting and associated intense alteration, silicification and mineralization. Sericite and pyrite are the most abundant alteration minerals with other assemblages locally dominated by feldspar, chlorite and propyllitic minerals.



LEGEND

- LOWER - MIDDLE JURASSIC BOWSER ASSEMBLAGE
- UPPER TRIASSIC - LOWER JURASSIC TAKLA & HAZELTON ASSEMBLAGE (STEWART COMPLEX)
- WRANGELL METAMORPHIC BELT (UNDEFINED AGE)
- UPPER TRIASSIC - LOWER JURASSIC TEXAS CREEK INTRUSION
- CRETACEOUS - TERTIARY COAST RANGE INTRUSIONS

REGIONAL GEOLOGY OF THE STEWART - ANYOX AREA

20 10 0 20 40 60 kilometres

Figure 3 (after Dykes et al, 1988)

Some clay alteration minerals have also been recognized in the Brucejack Lake Zones. Porphyry copper-gold mineralization occurs in the northern and central parts of the property and is often associated with K-spar and sericitic alteration.

Structurally controlled gold/silver bearing veins occur mainly in volcanic rocks within one kilometre wide zones of intense predominantly sericitic alteration. The veins consist of quartz, minor calcite, and trace to 20% sulphide minerals. These range from simple single veins to complex vein zones and stockworks. Sulphides within these veins consist of pyrite, sphalerite, galena, tetrahedrite, electrum and chalcopyrite along with argentite, pyragerite and polybasite.

7.0 1991 WORK PROGRAM

As part of the 1991 Sulphurets property evaluation the following was completed on the Golden Marmot Zone:

i) The upgrading of 3 kilometres of road from the Brucejack campsite to the Golden Marmot Zone.
ii) The building of 1 kilometre of road within the Golden Marmot Zone.
iii) 400 metres of backhoe trenching of selected areas.
iv) taking of 474 rock chip samples from outcrop.
v) Mapping of sampled areas within the Golden Marmot area.

The road construction and upgrading was completed using the Newhawk owned Caterpillar D7G bulldozer while the backhoe trenching was conducted using a Caterpillar 225 excavator. The rates quoted in the cost statement are estimates for the area and include fuel and maintenance.

All rock chip samples were prepared on site at the company laboratory then sent to CDN Laboratories, Burnaby B.C. for gold and silver analysis.

Surveying of selected trenches and drill sites was completed by Newhawk personnel.

8.0 GEOCHEMISTRY

8.1 Field Procedure

Rock chip samples weighing up to 5 kilograms were taken from outcrop over measured widths. Grab samples were taken from outcrop to determine the tenor of selected samples. All samples were described in field notes then transcribed into field description forms (Appendix 1). During the field program a total of 474 samples were taken.

8.2 Assaying

All of the samples were initially geochemed for gold and silver with those samples returning values of >10,000 ppb Au and >100 ppm Ag being assayed using a one assay ton sample. Samples assaying >.15 opt Au were screened for metallics. The following is an outline of the procedure involved in the preparation and assaying of the samples.

i) Sample preparation

Rocks: Sample is crushed to 1/4" or finer then riffled to give approximately 250g. This sub-sample is ring pulverized to approximately -100 mesh.

ii) Analytical procedure

Assay: Au,Ag - Fire assay, gravimetric finish on 1/2 AT sample. (One assay ton upon request).

Ag,Cu,Pb,Zn - A 0.50g sample is digested in a nitric acid-potassium chlorate mixture. Hydrochloric acid is added and the sample is taken to dryness. Sample is taken up in hydrochloric acid, bulked to volume with distilled water and then presented to the AA.

Geochem by AA: Au - A 10g sample is inquarted and fire assayed. The prill is parted in a test tube with 0.5 ml nitric acid. The gold is taken into solution with the addition of 1.5 ml hydrochloric acid. Sample is bulked to 5.0 ml with distilled water, then presented to AA.

Ag,Cu,Pb,Zn - A 0.5 g sample is ashed then transferred to a test tube. Sample is digested with 1.0 ml nitric acid and 2.0 ml hydrochloric acid in a hot water bath for two hours. Sample is bulked to 10.0 ml with distilled water and presented to AA.

9.0 GEOLOGY - GOLDEN MARMOT ZONE

The Golden Marmot Zone occurs within a north trending zone of hydrothermal alteration that is at least 36 kilometres long with widths of up to 5 kilometres. It occurs within altered Unuk River Formation rocks consisting primarily of intermediate volcanics near the contact with overlying clastic to chemical sediments of the younger Betty Creek Formation. The volcanics have been extensively altered: quartz-sericite-pyrite, resulting in the destruction of most of the primary structures.

The strongly silicified-sericitically altered volcanics are well-jointed. In close proximity to the veins, the volcanics are intensely fractured and brecciated.

The overlying Betty Creek Formation rocks consists of interbedded, interlaminated arenaceous cherty tuffaceous rocks. The cherty tuff beds are up to 10 metres thick and exhibit will developed bedding.

In the northwestern and southeastern part of the zone, are small occurrences of feldspar porphyry that consists of 25 to 40% feldspar phenocrysts in a very fine grained quartz-feldspathic matrix. The unit has undergone little alteration.

To date, seven gold-silver bearing zones have been located. The veins; GM-1 (Ptamigan), GM-2, GM-3 (Deb and Marmot), GM-4, GM-5, Weasel and Wall, define the multiple and stacked nature of vein mineralization hosted within the hydrothermal alteration system. They typically have a well developed ribbon texture and are extremely vuggy. Vein mineralogy consists of pyrite+/- tetrahedrite/polybasite +/- arsenopyrite +/- chalcopyrite +/- sphalerite +/- galena +/- molybdenite +/- malachite within a gangue of quartz, carbonate and pyrolusite. Table 1 summarizes the nature of the veins.

10.0 SUMMARY AND CONCLUSIONS

The Bruceside 1 Group is part of the larger Sulphurets property which is presently being evaluated under joint venture agreement by Newhawk Gold Mines and Granduc Mines. The property located 60 kilometres north of Stewart, hosts several bulk tonnage porphyry style copper and or gold deposits along with gold/silver bearing veins within Hazelton Group volcanics. On the Bruceside 1 Group, gold/silver mineralization has been located within quartz-carbonate veins. As part of the property evaluation, backhoe trenching, sampling and mapping of outcrops within the zone were completed. Results show the zone to be comprised of at least seven quartz veins with the best results occurring in vein GM-3 averaging .851 opt Au, .34 opt Ag over 2 metres. Although this by itself is significant the sampling and mapping of all veins shows the Golden Marmot Zone to have limited potential due to the lack of continuous gold/silver mineralization or alteration.

Table 1

VEIN DESCRIPTION - BRUCESIDE 1 GROUP

Vein	Location Within Zone	Dimension (m)	Description	Significant Results Type	Length (m)	Au opt	Ag opt
GM-1	northwest	120 x upto 1.2	The zone, occurring within clastic/chemical seds varies in thickness from 0.40-1.00m. It splays from and is transected by GM-4 at an angle of 60°.	grab		0.022	4.32
GM-2	northwest	210 x upto 2.0	The zone, occurring within sediments is composed of quartz stockwork in which pyrite +/- galena +/- molybdenite occur. The structure splays from GM-4 at 80° S.	grab		0.032	0.05
GM-3 (Deb, Marmot)	centre	1350 x 1-50	The system consists of quartz vein lenses in quartz stockwork crosscutting both volcanics and sediments. It has an arcuate shape with convergence and increased width to the southeast The highest values occur within a 30m long quartz vein with significant results also occurring in a fold nose.	grab		0.040	1.31
				channel	1.90	0.047	0.82
				grab		0.024	1.40
				grab		0.026	0.87
				grab		0.036	1.75
				channel	2.70	0.427	0.35
				channel	2.00	0.851	0.34
				channel	0.65	0.025	2.22
				channel	3.00	0.384	1.10
				grab		1.628	86.30
				grab		0.088	1.20
				grab		0.008	1.98
				grab		0.008	2.92
GM-4	centre	200 x upto 2.0	The zone, crosscutting both sediments and volcanics striking northeast-southwest is composed of both quartz vein and stockwork. The zone is open along strike. About the vein strong silicification occurs. It iis interpreted that GM-4 either transects GM1,2 & 3 or that those zones are splays to GM-4.	grab		0.044	3.41
				grab		0.326	7.90
				grab		0.033	7.58
				channel	2.40	0.024	2.42
GM-5	north	50 x upto 2.5	Multiple quartz veins and stockwork crosscutting volcanics. The vein parallels GM-4.	No Significant values			
Weasel	south	25 x upto 1.0	The zone trending north-south paralleling a diabase dyke swarm consists of quartz stockwork in strongly silicified volcanics.	channel	2.40	0.046	0.36
				channel	1.80	0.051	0.45
Wall	east	50 x upto 3.0	Occurring within volcanics, the zone trending north-south consists of stacked, en-echelon quartz vein lenses.	channel	2.00	0.056	0.11
				grab		0.328	0.30

11.0 RECOMMENDATIONS

It is recommended that:

i) Additional mapping be completed on the property with the main focus being completed on the GM-3 vein.

ii) Soil sampling should be completed in areas of limited bedrock exposure to determine whether any buried veins occur in the Golden Marmot area.

12.0 COST STATEMENT - BRUCESIDE 1 GROUP

1. Labour (94 man-days) **Total: $ 18,955.00**

B. Way	August 16-23	8 days @ $416
S. Roach	August 16-23	8 days @ $312
G. McGillvary	August 16-23	8 days @ $225
M. Holmes	August 16-23	8 days @ $178
M. Harkema	August 11, 13-23	12 Days @ $200
K. Sinclair	August 16-23	8 days @ $170
R. Scheerschmidt	August 16-23	8 days @ $114
S. Rodway	August 16-23	8 days @ $137
D. Soucie	August 16-23	8 days @ $200
N. Larson	August 20-23	4 days @ $160
T. Kirby	August 24	1 day @ $174
B. Malahoff	August 13	1 day @ $194
A. Maarkus	August 13,17,26	3 days @ $137

2. Transportation **Total: $ 5,200.00**

i) Crew airfare: Vancouver-Stewart Return
10 people x $262/ticket $2,620

ii) Mobe to Knipple airstrip from Smithers
Otter, DC3 $2,486.00

iii) Helicopter $3,669.00
206 - June 5: 3 hrs @ $698/hr
500 - Aug. 16,17,19: 2.1 hrs @ $750/hr

3. Room & Board **Total: $ 9,400.00**
94 man days @ $100/day

4. Consumables **Total: $ 500.00**
Office supplies, plastic & nylon bags, dymo, etc.

5. Communication **Total: $ 500.00**
Spacetel

6. Sample shipping, freighting of goods **Total: $ 300.00**

7. Machinery Rental **Total: $ 18,500.00**
i) Bulldozer 12 days @ $100/hr x 10hrs/day
ii) Backhoe 5 days @ $120/hr x 10hrs/day
iii) 4x4 Quads 7 days @ $50/day x 2 Quads

8. Expediting **Total: $ 500.00**

9. Sampling **Total: $ 3,435.50**
474 samples - gold geochem @ $5.75/sample
474 samples - silver geochem @ $1.50/sample

10.	**Report** Includes drafting, typing, etc.	**Total: $ 5,000.00**
	SUBTOTAL:	$ 62,290.50
11.	**Management Fee 10%**	**$ 6,229.05**
	TOTAL:	**$ 68,519.55**

13.0 STATEMENT OF QUALIFICATIONS

I, D.A. Visagie of 860 - 625 Howe Street, Vancouver, British Columbia, do hereby declare that:

1. I graduated from the University of British Columbia with a Bachelor of Science Degree, majoring in Geology, in 1976.

2. I have been steadily employed in the mining industry since then and have since January 1990 been employed by Northair Mines Ltd. as Senior Geologist.

3. The work undertaken on the Bruceside 1 Group was under my supervision.

Dated at Vancouver, British Columbia, this 15th day of October, 1991.

Dave Visagie

APPENDICES

Appendix 1 Sample Description

THE NORTHAIR GROUP SAMPLE DESCRIPTION

Project NEWHAWK

Sampler B. MALAHOFF

Date	Sample No.	Type	Location: Claim	Northing	Easting	Zone	Sample Data: No.	From (m)	To (m)	Int. (m)	Assay Data: Cu	Au	Ag oz/t	Alteration	Sample Description
Aug24/91	16201	ROCK				GOLDEN MARMOT		CHIP FROM O/C				<.001	.029	STR CARB WKCHL.	MOD SIL, Grey weak green black mafic dyke, spherical Qtz eyes, STR CARB. ALT., MOD. MAGNETIC Bladed black tourmaline? crystals wk CHL. TR PY
"	16202	"				"		"	" "			<.001	.064	WKCHL STRLIM	STR SIL, QTZ SER, PY, VSTR Qtz flooding 1-2% disseminated PY Remnant Feldspar phenocryst Fragmental to Bx.
"	16203	"				"		"	" "			<.001	.026	Same as 16202	Same as 16202 with 2-3% PY
"	16204	"				"		"	" "			<.001	.067	WKCHL MODLIM	MOD STR SIL, STR Qtz FLOODED, STR QUSW 30-40% 1% PY Q Ser Stky. FRAG.
"	16205	"				"		"	" "			<.001	.012	WKLIM	MOD SIL, QTZ FLOODED CHERTY FRAG. Rounded Subangular Frags 2-3% PY Remnant feldspar.

THE NORTHAIR GROUP **SAMPLE DESCRIPTION**

Project NEWHAWK Sampler B. MALAHOFF

Date	Sample No.	Type	Location: Claim	Northing	Easting	Zone	Sample Data: No.	From (m)	To (m)	Int. (m)	Assay Data: Cu	Au	Ag		Alteration	Sample Description
Aug 24/91	16206	Rock				GOLDEN MARMOT		CHIP FROM O/C				.010	.846		MOD. LIM	Qtz. Vein to STR QUSW 50-70% TR PY and black sulphide
"	16207	"				"		CHIP FROM O/C				4.628	86.30			Qtz Vein with TR PY TR-1% black sulphide Tet?
"	16208	"				"		CHIP FROM O/C				.088	1.96		V STR LIM	STR SIL, V. STR LIM., STR QUSW 30-40% 1-3% PY Qtz Fragmental to Bx ØQPS.

THE NORTHAIR GROUP **SAMPLE DESCRIPTION**

Project NEWHAWK Sampler B. MALAHOFF

Date	Sample No.	Type	Location: Claim	Northing	Easting	Zone	Sample Data: No.	From (m)	To (m)	Int. (m)	Assay Data: Cu	Au	Ag	Alteration	Sample Description
Aug 25/91	16209	ROCK				GOLDEN MARMOT		0	1.0	1.0m		.006	1.98	MOD STR LIM Hematite	Qtz. Vein with MOD STR. LIM, Hematites along fractures. TR Black sulphides? Hematite?
"	16210	"				"		0	.4m	.4m		.006	7100		Qtz vein + VSTR Q USW 40-80%. Qtz vein + Lim STR SW QSP TR-1% PY TR Black ~~Jet~~? dark black sulphide
"	16211	"				"		CHIP FROM O/C				.004	14.9	MOD-STR	Vuggy drusy. MOD-STR LIM MOD-STR SIL, Q Black WK Ser, WK PY, ~~MOD~~ STR Q USW 40-50%. FRAGments to BX
"	16212	"				"		CHIP FROM O/C				.001	2.4	MOD LIM WK CHL	QSP Pyritized to ~~BX~~ tuff 1-2% PY WK CHL MOD LIM ACT

THE NORTHAIR GROUP

SAMPLE DESCRIPTION

Project ______________________ Sampler ______________________

Date	Sample No.	Type	Location: Claim	Northing	Easting	Zone	Sample Data: No.	From (m)	To (m)	Int. (m)	Assay Data: Cu	Au	Ag	Alteration	Sample Description
Aug23/91	16213	Rock				Golden Marmot		CHIP FROM OK				.001	3.0 ppm	Same as 16212	Same as 16212 with wk-mod CHL, TR-PY
"	16214	"				"		"	"	"		<.001	0.9 ppm	Same as 16212	same as 16212 with 2-3% PY
"	16215	"				"		"	"	"		<.001	1.0 ppm	" "	" " " with 1-2% PY
"	16216	"				"		"	"	"		<.001	0.4 ppm	WK LIM MOD CHL	WKly altered, WK LIM vol) clastic - fragmental STRLY FOLIATED MOD-HIGHLY FRACTURED 1% euhedral PY TR Hematite Possible Remnant Feldspar [illegible] Subangular to rounded Chert [illegible]. MOD CHL [illegible] flooded
"	16217	"				"		"	"	"		<.001	1.0 ppm		same as above with chert - subrounded to rounded frags [illegible] + specular hematite?
"	16218	"				"		"	"	"		<.001	0.6 ppm		Same as above with frags mostly chert + intrusive frags

THE NORTHAIR GROUP SAMPLE DESCRIPTION

Project: NEWHAWK

Sampler: B. MALANOFF

Date	Sample No.	Type	Location: Claim	Location: Northing	Location: Easting	Location: Zone	Sample Data: No.	Sample Data: From (m)	Sample Data: To (m)	Sample Data: Int. (m)	Assay Data: Cu	Assay Data: Au	Assay Data: Ag	Alteration	Sample Description
Aug 20/91	16235	Rock				GOLDEN MARMOT		CHIP FROM OK				.001	4.5 ppm	WKLIM	MOD SIL, Light green fragmental? angular to subrounded fragment possibly sed. TR-1% dissem PY.
"	16236	"				"		"	" "			.001	3.2 ppm	STRLIM MODSER	WK MOD SIL Highly altered QSP VSTRLIM TR-1% PY MODSER HIGHLY FRACTURED GOSSANOUS, Bleached
"	16237	"				"		"	" "			<.001	0.5 ppm	STRCARB WKLIM	cherty fragmental angular to brx 1-2% dissem PY Sed? massive Blocky. bleached
"	16238	"				"		"	"			<.001	0.5 ppm	WKCarb	Same as 16237 with more Qtz flooding and wk Carb Fragmental to Brx, bleached white 5-10% QVSW Sed?
"	16239	"				"		0	.2	.2m		.004	23.6 ppm		STRSIL, Qtz vein + Stockwork zone narrow TR GA TR-1% PY

RTHAIR
OUP

SAMPLE DESCRIPTION

Project NEWHAWK

Sampler B. MALAHOFF

Date	Sample No.	Type	Location: Claim	Northing	Easting	Zone	Sample Data: No.	From (m)	To (m)	Int. (m)	Assay Data: Cu	Au	Ag	Sample Description: Alteration	
Aug 29/91	16240	Rock				GOLDEN MARMOT		CHIP from O/C				<.001	1.4 ppm	MOD LIM STR CARB	MOD STR SIL. Bleached light white green 1-2% PY disem Fragmental ~~to BOX~~ angular to 13R+ Frags Fine ground Sed?
"	~~162~~ 16241					"		0	.7	.7m		.005	3.94		Qtz minor Carb Vein + QVSW TR Cu Tet. PY. MOD. Lim STR SIL.
"	16242	"				"		CHIP FROM O/C				.011	3.85	WK Hem WK Lim	Qtz vein with TR PY TR-~~1%~~ Tet Gu? Black Frags?
"	16243	"				"		0	1.5	1.5		.07	2.49	Same as above	Same as above with STR QSWV Zone.

THE NORTHAIR GROUP

SAMPLE DESCRIPTION

Project NEWHAWK

Sampler B. MAWHOFF

Date	Sample No.	Type	Location: Claim	Northing	Easting	Zone	Sample Data: No.	From (m)	To (m)	Int. (m)	Assay Data: Cu	Au	Ag		Sample Description: Alteration	
Aug 29/91	16244	Rock				Golden Snowy Marmot		0	.10	.10m		.061	17.10		STRLIM	High grade frozen Qtz vein 2-5% PY to semi massive TR CPY, Tet
"	16245	"				"		CHIP From O/C				.002	.557		MOD STRLIM WK MOD SER	VSTR ALT QSP WK PY TR, TR tet' 30-70% QUSW MOD-STRLIM WK-MOD? SER Fragmental to Bx Cherty.
"	16246	"				"		CHIP from O/C				.005	.268		STRLIM MODSER	Same as above without TR Tet with TR PY 30-50% QUSW
"	16247	"				"		CHIP From O/C				.001	.219		Same as 16245	Same as 16245 30-40 QUSW
"	16248	"				"		CHIP From O/C				.001	.137		VSTRLIM MOD SER	STR SIL QSP Fragmental STR Qtz FLOODER 1-2% PY Fragmental to Bx 30-70% Qtz USW?

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THE NORTHAIR GROUP

SAMPLE DESCRIPTION

Project NEWHAWK

Sampler B. MALANOFF

Date	Sample No.	Type	Location				Sample Data				Assay Data			Sample Description	
			Claim	Northing	Easting	Zone	No.	From (m)	To (m)	Int. (m)	Cu	Au	Ag	Alteration	
Aug 29/91	20201	ROCK				GOLDEN WARRIOR		0	1.0	1.0		.005	.79	STR ALT	STR SIL. QSP 1-2% PY STR Qtz FLOODING 30-40% QVS&V
"	20202	"				"		1.0	2.0	1.0		.005	.709	same as above	same as above with AO-20% QTHSW 1-2% PY
"	20203	"				"		2.0	3.0	1.0		.004	.318	same as above	same as above.
"	20204	"				"		3.0	4.0	1.0		.004	.335	MOD LIM	Qtz vein TR PY
"	20205	"				"		4.0	5.0	1.0		.004	.525	" " "	" " TR Tet
"	20206	"				"		5.0	6.0	1.0		.003	.458	MOD LIM	Qtz vein TR PY
"	20207	"				"		6.0	7.0	1.0		.004	.347	MOD LIM	STR SIL, QSP Fragmental TR PY 30-50% QVS&V
"	20208	"				"		7.0	8.0	1.0		.003	.400	same as above	same as above 1-2% PY
"	20209	"				"		8.0	9.0	1.0		.003	.423	STR LIM	V STR SIL QSP 50-80% QVS&V TR-1% PY

THE NORTHAIR GROUP

SAMPLE DESCRIPTION

Project: NEWHAWK

Sampler: B. [illegible]

Date	Sample No.	Type	Location: Claim	Northing	Easting	Zone	Sample Data: No.	From (m)	To (m)	Int. (m)	Assay Data: Cu	Au	Ag		Sample Description: Alteration	
Aug 31/91	16249	ROCK				GOLDEN MARMOT		CHIP from O/C				.23 .265	>100 ppm 6.85		STRLIM	STR SIL, QSP to Qtz vein TR PY STR Gossan
"	16250	"				"		"	"	"		.018	.99		same as above	same as above with 40-60% QUSW
"	20210	"				"		"	"	"		.008	.204		STRLIM	Qtz flooded QSP, TR PY, CPY STRLIM Gossan
"	20211	"				"		"	"	"		.015	.198		STRLIM	Cherty [illegible] TR PY.
"	20212	"				"		"	"	"		.006	.088		STRCHL	Light green CHL [illegible] tuff TR PY
"	20213	"				"		"	"	"		.005	.079		STRLIM	STR ALTER QSP TR PY STR Qtz flooding Gossanous.

THE NORTHAIR GROUP SAMPLE DESCRIPTION

Project: Sulphurets - Bruceside

Sampler: Norm Larson

Date	Sample No.	Type	Location: Claim	Northing	Easting	Zone	Sample Data: No.	From (m)	To (m)	Int. (m)	Assay Data: Cu	Au	Ag	Alteration	Sample Description
AUGUST 22-91	17401	CHANNEL ROCK								3.0		0.002	0.03	STR HEM - CB	ANDITE - BN COLOR; STR HEM - GOSSANOUS; HEM MATRIX ABOUT QZ-FELD Δ ≤ 2cm; <1% PY
GOLDEN MARMOT															
	17402	ROCK								3.0		0.005	0.02	STR HEM CB (DOL)	ANDITE · BN TO BN GRAY COLOR GOSSANOUS, STR CB → WELL DEVELOPED CB ≤ 2 - 3cm - CB MATRIX ABOUT Δ/XTLS; <1 %
	17403	ROCK								3.0		<0.001	0.03	STR HEM - WK CB	ANDITE · BN COLOR; STR GOSSANOUS, Δ TEXTURE; <1% PY
	17404	ROCK								3.0		0.002	0.02	STR CB	ANDITE - BN TO GN WHITE COLOR. FRAC WITH CB VNS → STR CB ABOUT VNS; Δ TEXTURE; <1% PY
	17405	ROCK								3.0		0.053	0.084	STR CB	ANDITE ? - BL WHITE COLOR; VFG - MSV; STR CB; <1% PY
	17406	ROCK								3.0		0.0016	0.026	STR SIL (SER)	ANDITE (QSP) · BL WHITE FROM TO BN GOSSANOUS COLOR; STR SIL (SER); SH; <1 - 5% PY
	17407	ROCK								3.0		0.004	0.06		ANDITE + QCV - GRAYISH WHITE CB VN XCUTTING & INCORPORATING ANDITE INCL (≤ 3cm); ANDITE C STR HEM, FRAC - BX; Δ TEXTURE; <1% PY

THE NORTHAIR GROUP

SAMPLE DESCRIPTION

Project SULPHURETS - BRUCESIDE

Sampler NORM JARSON

Date	Sample No.	Type	Location: Claim	Northing	Easting	Zone	Sample Data: No.	From (m)	To (m)	Int. (m)	Assay Data: Cu	Au	Ag	Alteration	Sample Description
AUGUST 22.9 GOLDEN MARMOT	17408	CHANNEL ROCK								3.0		0.003	0.10	STR SIL - SER	QSP (ANDITE) - BN ON WEATHERED SURFACE & BL WHITE; STR SIL (SER); 5% TO 10% PIROL; ≤ 3% TO 5% PY
	17409	ROCK								2.0		0.017	0.22	STR SIL	SIL ZONE (HOST ANDITE) - BL WHITE TO WHITE COLOR; SIL MATRIX ABOUT PROBABLY FLT SIL ... 0.5 TO 1.0 cm, FRAC - BX; FT ON BARITE IN MATRIX (... CALCITE?); 5% - 10% PY & ...
	17410	ROCK								3.0		<.001 (25)	0.006	STR SIL	SIL ZONE . BL WHITE TO WHITE COLOR; STR SIL VFG MATRIX 5% VFG PY
	17411	ROCK								3.0		<.001 (5)	0.003	STR SIL	SIL ZONE . SIMILAR TO 17410 - STRONGER ... - ...
	17412	ROCK								2.0		<.001 (5)	0.003	STR SIL	SIL ZONE - ... BN ON WEATHERED SURFACE; STR SIL; WK CB; 5% PY (ASPY?)
	17413	ROCK								3.0		<.001 (25)	0.003	STR SIL KSPAR?	SIL ZONE . BL WHITE TO WHITE COLOR; VFG STR SIL; WK CB; PINKISH RED ... - KSPAR IN SIL MATRIX; 5% TO 10% SCATTERED PY

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THE NORTHAIR GROUP SAMPLE DESCRIPTION

Project: Sulphurets · Bruceside

Sampler: Norm Jarson

Date	Sample No.	Type	Claim	Northing	Easting	Zone	No.	From (m)	To (m)	Int. (m)	Cu	Au	Ag	Alteration	Sample Description
AUGUST 22-91	17414	CHANNEL ROCK								3.0		<5 <.001	0.006	STR SIL (KSPAR?)	SIL ZONE · BL TO GRAYISH WHITE COLOR; STR SIL WK CB, VFG-MSU; ≤5% PINKISH FEL LATHS (KSPAR); 5%-10% PY
GOLDEN MARMOT															
	17415	ROCK								3.0	15 <.001		0.008	STR SIL	SIL ZONE - BL WHITE TO GRAYISH WHITE COLOR, HMNNT SIL D; FRAC WITH PY FRAC-FILLING 5% - ASPY 1%?
	17416	ROCK								3.0		.002	<0.003	STR SIL	SIL ZONE (ANDESITE FP?) · BL WHITE TO GRAYISH WHITE COLOR STR SIL; 5%-10% KSPAR? (PINKISH RED WE); REMNANT LT GN SER RECTANGULAR LATHS; 3% TO 5% PY
	17417	ROCK								3.0		5 <.001	<.003	STR SIL	SIL ZONE (ANDTF) · BL WHITE COLOR STR SIL WITH SCATTERED CHL HB 1% TO 6% ≤.1CM; WK KSPAR IN VFG SIL MATRIX 5%-10% PY
	17418	ROCK								3.0		5 <.001	.003	STR SIL-SER	QSP (ANDTF) · GN WHITE TO CREAMY WHITE COLOR; STR SIL-SER; ≤5% PY-ASPY
	17419	ROCK								3.0		10 <.001	.003	STR SIL	SIL ZONE (ANDTF) · GN WT TO CREAMY WT COLOR; SCATTERED 5%-8% CHL HB XLS IN STR SIL MATRIX

THE NORTHAIR GROUP

SAMPLE DESCRIPTION

Project: Sulphurets - Bruceside

Sampler: [illegible signature]

Date	Sample No.	Type	Location: Claim	Northing	Easting	Zone	Sample Data: No.	From (m)	To (m)	Int. (m)	Assay Data: Cu	Au	Ag	Alteration	Sample Description
August 24-9[illegible] Golden Marmot	17420	CH [illegible] Rock								3.0		.006	0.10	STR LIM - WK-MOD CB	GOSSANOUS [illegible] CHERT - BN COLOR, VFG, APHANITIC, WK FRAC; <1 [illegible] <1: PY
	17421	Rock								3.0		15 <.001	0.023	MOD CB	CHERT / MUDSTONE ([illegible]) - BN TO GRAY BN COLOR; VFG, STR SIL - MOD CB FINELY LAM - BANDED, <5: THIN QCS GASH ≤ 0.7 cm; .6cm WIDE LAM; <1: PY
	17422	Rock								3.0		15 <.001	0.020	MOD CB CALCAREOUS	CHERT - CREAMY WHITE, STR SIL - MOD CB; CALCAREOUS, VFG & MSV; APHANITIC, <1: PY (TOT)
	17423	Rock								1.8		10 <.001	0.01	STR SIL	CHERTY TF (ANDTE) - QSP - BL WHITE COLOR, STR SIL VFG APHANITIC MATRIX ABOUT [illegible] SEAMS (5%) ≤ .2cm; <1% PY
	17424	Rock								3.0		15 <.001	0.01	STR SIL MOD (STR) SER)	QSP (ANTE) - CREAMY TO LT GN WHITE COLOR, STR SIL - 5% TO 10: PYROLUSITE; STR SIL - SER - SH, <1: PY
	17425	Rock								2.6		15 <.001	0.015	STR CHL & STR SIL - SER	CHL SCHIST / QSP - DK GREEN [illegible] GRN COLOR GRAD CONTACT; STR CHL WK CB GRAD TO [illegible] STR SH; <1: PY

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THE NORTHAIR GROUP SAMPLE DESCRIPTION

Project: SULPHURETS - BRUCESIDE

Sampler: [illegible]

Date	Sample No.	Type	Location: Claim	Northing	Easting	Zone	Sample Data: No.	From (m)	To (m)	Int. (m)	Assay Data: Cu	Au	Ag		Alteration	Sample Description
AUGUST 24-9[illegible] GOLDEN MARMOT	17426	CHANNEL ROCK ROCK								3.0		15 <.001	0.003		STR SIL	SIL ZONE (QSP); BL WHITE COLOR, STR SIL, VFG MSV; HM FRAC; 5% PY
	17427	ROCK								2.0		.0026	0.004		STR SIL	ANTE-XTLTE - SIL ZONE; BL WHITE COLOR, STR SIL; VFG SIL MATRIX ABOUT FELD (5% TO 10%); ± 5% PY
	17428	ROCK								3.0		15 <.001	0.009		STR SIL	SIL ZONE - CREAMY TO GRAYISH WHITE COLOR, STR SIL, VFG; 5% TO 10% VFG FELD A XTALS IN A VFG AMANITIC SIL MATRIX; <1% PY
	17429	ROCK								3.0		30 <.001	0.012		STR SIL	SIL ZONE (ANVLP) - BN GRAY COLOR, HM WITH MOD (STR) SIL - WK CB; A WITH 5%-10% FELD; FRAC-BX GRANULAR TEXTURE; <1% PY
	17430	ROCK								3.0		15 <.001	0.009		STR SIL	SIL ZONE (ANVL) - SIMILAR TO SAMPLE 17429 WITH MOD CB, <1% PY
	17431	ROCK								3.0		10 <.001	0.006		STR SIL MOD CB	SIL ZONE (ANVL) - GN WHITE TO LT GRAYISH WHITE COLOR, GRANULAR FRAC-BX TEXTURE, ±1% PY AS SCATTERED GRAINS

THE NORTHAIR GROUP

SAMPLE DESCRIPTION

Project: Sulphurets · Brucejack

Sampler: [illegible]

Date	Sample No.	Type	Location: Claim	Northing	Easting	Zone	Sample Data: No.	From (m)	To (m)	Int. (m)	Assay Data: Cu	Au	Ag	Alteration	Sample Description
AUGUST 24-91 GOLDEN MARMOT	17432	CHANNEL ROCK								3.2		.001	0.03	STR SIL ABOUT PY-MOLY FRAC	SIL ZONE (ANTF) - BL GRAY COLOR; VFG QRTZ MATRIX ABOUT 15-20% FELD Φ | XTLS ≤ .3cm STR SIL ABOUT 5% PY-MOLY FRAC. - ≤5% PYROLUSITE
	17433	ROCK								0.9		.058	0.08	STR SIL	SIL ZONE · BL WHITE COLOR VFG SIL APHANITIC - HEM FRAC 5-10% PY (ASPY), ≤1% TET W/C SULPHIDES OCCUR AS FRACTURE FILLING & SCATTERED GRA
	17434	ROCK								3.0		.026	0.027	STR SIL	SIL ZONE (ANTF) · SIMILAR TO SAMPLE 17432
	17435	ROCK								3.0		25 <.001	0.01	STR SIL	SIL ANTF | CHERTY TF - BL WHITE COLOR, STR SIL; VFG SIL MATRIX ABOUT FELD SPHERULITES ? (ROUNDED) — VESICLES, 5-10% PYROLUS ≤1% PY
	17436	ROCK								3.0		.016	0.018	STR SIL MOD CB	SIL ZONE (ANDTF) - BL WHITE TO GRAYISH WHITE COLOR; STR SIL - MOD CB, SIL-CB MATRIX ABOUT Φ ≤ .2-.3cm, HEM MATRIX, ≤1% PY

THE NORTHAIR GROUP SAMPLE DESCRIPTION

Project: SULPHURETS - BRUCESIDE

Sampler: [illegible]

Date	Sample No.	Type	Location: Claim	Northing	Easting	Zone	Sample Data: No.	From (m)	To (m)	Int. (m)	Assay Data: Cu	Au	Ag	Alteration	Sample Description
AUGUST 24-91	17437	ROCK								2.0		.009	0.05	MOD SIL HEM - WK CB	ANDITE - BN TO BN GRAY COLOR; MOD SIL - FRAC, ≤ 2% - 3% PY ALONG FRAC SEAMS
	GOLDEN MARMOT														
										3.0		.008	0.06		
	17438	ROCK												MOD - STR SIL	QSP - STR BN (GOSSANOUS) TO GRAY - BN COLOR, HEM; SH; ≤ 1% TO 5% PY
	17439	ROCK								3.0		.0066	0.07	STR SIL (SER) - WK MOD CB	QSP - BL WHITE ON FRESH SURFACE, VFG, STR SIL, ≤ 1% TO 5% PY ALONG FRAC AND AS SCATTERED GRAINS
	17440	ROCK								3.0		.0085	0.08	STR SIL WK - MOD CB	QSP - ANDITE - CREAMY WHITE TO BN WHITE COLOR, VFG; STR SIL, 5% PY FRAC FILLING
	17441	ROCK								3.0		.011	0.12	STR SIL	SIL ZONE (FRAC ZONE - QTSW) - BN WEATHERED COLOR; BL WHITE FRESH COLOR; STR SIL - FRAC - BX TEXTURE; ≤ 1% TO 10% PY (ASPY)
	17442	ROCK								3.0		.048	0.17	STR SIL	SIL ZONE - BL WHITE COLOR; STR SIL; VFG - MSV; ≤ 1% TO 5% QCS; 5% TO 10% PY
	17443	ROCK								3.0		.004	0.19	STR HEM & SIL	SIL ZONE (QTSW) - STR GOSSAN HEM BN COLOR; VFG; FRAC SIBX; 10% QS? ≤ 1% TO

THE NORTHAIR GROUP — **SAMPLE DESCRIPTION**

Project: SULPHURETS - BRUCESIDE   Sampler: NORM LARSON

Date	Sample No.	Type	Location: Claim	Northing	Easting	Zone	Sample Data: No.	From (m)	To (m)	Int. (m)	Assay Data: Cu	Au	Ag		Alteration	Sample Description
AUGUST 24-91 GOLDEN MARMOT	17444	CHANNEL ROCK								3.0		.004	0.4		STR SIL	SIL ZONE (QSP) - GRAYISH WHITE COLOR; GRANULAR TEXTURE; 5:-10: PY
	17445	ROCK								3.0		.006	0.26		STR SIL SER	QSB (AUXIF): BN GRM COLOR; HEM - MOD-STR SIL-SER; D TEXTURE 15:-20: XTLS; FRAC; <1: PY 32
	17446	ROCK								3.7		30 <.001	0.06		STR SIL	SIL ZONE (QSP) - GRAYISH WHITE COLOR; D TEXTURE <.1-.2 cm, 15: SCATTERED PY
	17447	ROCK								3.0		10 <.001	0.05 0.04		STR SIL	SIL ZONE (QSP) - GRAY COLOR STR SIL, VFG MSV, WK TO MOD FRAC; 5: 05, ≤5% PY (ASPY) ALONG FRAC
	17448	ROCK								3.0		10 <.001	0.06		STR SIL	SIL ZONE (QSP) - LT GY WHITE COLOR; VFG MSV - APHANITIC; 5: SCATTERED PY
	17449	ROCK								3.0		10 <.001	0.06		STR SIL	SIL ZONE (QSP) - LT GRAYISH WHITE COLOR; VFG-MSV APHANITIC; 5:-10: PY (ASP
	17450	ROCK								3.8		10 <.001	0.06		STR SIL	SIL ZONE: SIMILAR TO SAMPLE 17449

THE NORTHAIR GROUP

SAMPLE DESCRIPTION

Project: [illegible] - Bruceside

Sampler: Norm Jarson

Date	Sample No.	Type	Claim	Northing	Easting	Zone	No.	From (m)	To (m)	Int. (m)	Cu	Au	Ag	Alteration	Sample Description
Nov 24-91	17451	Channel Rock								2.5		.008	0.46	Str Sil	Sil Zone (QSP) - Grayish white color, Str Sil, VFG 5% QS; wk [illegible], 5-10% Py with ≤1% Cpy - wk Mal stain
Golden Marmot															
	17452	Rock								2.0		.005	0.07	[illegible] Sil Ser	QSP - Buff white color, Str Sil - Ser; Mod - Str Sh [illegible] texture, <1% Py
	17453	Rock								2.8		.010	0.12	Str Sil	Sil Zone (QSP) - Bn [illegible] Gray-ish wt color, VFG DMSV, ≤ [illegible] Frac ≤5% QS
	17454	Rock								3.0		.002	0.05	Str Sil	Sil Zone (QSP) - Grayish wh[illegible] color, VFG Granoblastic texture ≤5% Py - [illegible]
	17455	Rock								3.0		.0035	0.07	Str Sil	Sil Zone (QSP) - Gray[illegible] wt color: ≤5% QS Frac; Granoblastic texture, D ≤.2cm; 5% [illegible]
	17456	Rock								3.0		25 <.001	0.05	Str Sil	Sil Zone ([illegible]) Buff [illegible] Gray color, VFG MSV [illegible] ≤5% QS [illegible] Frac, <1 [illegible]
	17457	Rock								3.0		10 <.001	0.04	Str Sil	Sil Zone ([illegible]) - Gray to Gray[illegible] wt, VFG DMSV Frac, ≤1% Py
	17458	Rock								3.0		10 <.001	0.036	Str Sil-Ser	QSP - Bn [illegible] Gossanous; [illegible] Sil Ser ≤1% 5% [illegible]

THE NORTHAIR GROUP — **SAMPLE DESCRIPTION**

Project: Skouras · Bruceside

Sampler: [illegible signature]

Date	Sample No.	Type	Location: Claim	Northing	Easting	Zone	Sample Data: No.	From (m)	To (m)	Int. (m)	Assay Data: Cu	Au	Ag	Alteration	Sample Description
August 25 91	17459	Channel Rock								3.0		10 <.001	.011	STR SIL	SIL ZONE · QSP (ADIF?) - BL WHITE COLOR; STR SIL; GRANULAR TEXTURE; ≤1% 5% PY
	17460	ROCK								3.0		20 <.001	.010	STR SIL	QSP (QTSW·QTVN) · BL WHITE COLOR, STR SIL; FRAC & BX ≤1% 2.5% QS, 5%-10% PY ALONG FRAC & SCATTERED GRAINS
	17461	ROCK								3.0		15 <.001	.010	STR SIL	SIL ZONE (QSP) (CHERTY TF) · WK QTS. BL WHITE; STR SIL, 5%-10% QS; 5% TO 10% PY FRAC FILLING; XCUTTING CHERTY TF (VITE - MSI AMIANITIC SIL MATRIX)
	17462	ROCK								3.0		25 <.001	0.04	STR SIL	SIL ZONE · CHERTY TF · BL WHITE TO BN COLOR; STR SIL Kfeld MATRIX, FRAC, ≤1% 5% PY AS SCATTERED GRAINS
	17463	ROCK								3.0		.0025	0.04	STR SIL WK CB	SIL ZONE (QSP) - GRAYISH WHITE COLOR; STR SIL, WK CB, SH; 5%-10% PY ALONG SH FRAC PLANES
	17464	ROCK								3.0		.008	0.27		SIL ZONE (QSP) - BL WHITE TO CREAMY WHITE COLOR; VITE; STR SIL (SOR); ≤5% PY DISS PY

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THE NORTHAIR GROUP SAMPLE DESCRIPTION

Project: Sulphurets · Bruceside

Sampler: NORM LARSON

Date	Sample No.	Type	Location: Claim	Location: Northing	Location: Easting	Location: Zone	Sample Data: No.	Sample Data: From (m)	Sample Data: To (m)	Sample Data: Int. (m)	Assay Data: Cu	Assay Data: Au	Assay Data: Ag	Alteration	Sample Description
August 25·91 Golden Marmot	17465	Channel Rock								3.0		.0019	0.10	Str Sil	Sil Zone (Cherty TF) - 30% Grayish white color, Str Sil, VFG MSV aphanitic, 10% Pyrolusite, <1% Py — Cherty TF / Sil TF?
	17466	Rock								1.0		.0025	0.08	Str Sil Loc. mod CB	Sil Zone (QSP) - Lt gn wt color; VFG aphanitic MSV; 5% [illegible] w/ [illegible] texture [illegible]; <1% Py
	17467	Rock								3.0		.001	0.10	Str Sil mod. Str CB	Sil Zone (QSP) - Similar to Sample 17466 ≤1% to locally 10% Py
	17468	Rock								3.0		<.001 25	0.035	Str Sil (Ser)	Sil Zone (QSP) · Pl white to creamy white color; VFG; 5% to 10% scattered Py (AsPy?)
August 27·91 Golden Marmot	17469	Rock								3.0		<.001 30	0.03	Str Sil (Ser)	Sil Zone (QSP) · Grayish white color; Δ texture Δ ≤ .2 cm; SH, 5% to 10% VFG Py
	17470	Rock								3.0		.0013 45 .0015	0.02	Str Sil (Ser)	Sil Zone (QSP) · Creamy gn white color; SH; very fine Δ texture; ≤1% to 5% Py grains

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THE NORTHAIR GROUP — **SAMPLE DESCRIPTION**

Project: Sulphurets · Bruceside

Sampler: Norm Larson

Date	Sample No.	Type	Location: Claim	Northing	Easting	Zone	Sample Data: No.	From (m)	To (m)	Int. (m)	Assay Data: Cu	Au	Ag	Alteration	Sample Description
AUGUST 27-9[illegible] Golden Marmot	Channel 17471	Rock								3.0		<.001 (30)	0.02	STR SIL (SER)	SIL ZONE (QSP) · CREAMY WHITE COLOR; SIL, V.FINE Δ TEXTURE; 5% PY
	17472	Rock								3.0		.001 (30)	0.02	STR SIL (SER)	SIL ZONE (QSP) · GRAYISH WHITE COLOR, STR SIL, VFG Δ TEXTURE 5% SCATTERED PY
	17473	Rock								3.0		.002	0.15	STR SIL (SER)	SIL ZONE (QSP) · CREAMY GN WHITE COLOR, VFG, SIL; <1% · 2% HAIRLINE QS; <1% - 5% PY
	17474	Rock								3.0		<.001 (30)	0.08	STR SIL	SIL ZONE · GRAY TO BN GRAY COLOR; CHERTY APPEARANCE, STR SIL, VFG FRAC MSV, <1% - 5% PY
	17475	Rock								3.0		.001 (40)	0.02	STR SIL	SIL ZONE (QSP) - GRAYISH WHITE TO BL WHITE COLOR, STR SIL, VFG - MSV, HEM FRAC, Δ TEXTURE, 5% PY
	17476	Rock								3.1		<.001 (10)	0.006 / 0.006	STR SIL	SIL ZONE (QSP) · GRAYISH WHITE TO BL WHITE COLOR, STR SIL, VERY FINE Δ TEXTURE, 5% - 10% VFG PY
	17477	Rock								3.0		<.001 (10)	0.006 / 0.006	MOD-STR SIL (SER	SIL ZONE (QSP) · LT GN WHITE TO BL WHITE COLOR; GOOD Δ TEXTURE; FINE <1% - 2% QS; <1% TO 5% PY

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THE NORTHAIR GROUP

SAMPLE DESCRIPTION

Project: SULPHURETS - BRUCESIDE

Sampler: NORM JARSON

Date	Sample No.	Type	Location: Claim	Northing	Easting	Zone	Sample Data: No.	From (m)	To (m)	Int. (m)	Assay Data: Cu	Au	Ag	Alteration	Sample Description
AUGUST 27-91 GOLDEN MARMOT	17478	CONTACT ROCK								3.0		20 <.001	0.01	MOD-STR SIL	SIL ZONE (QSP) BL WHITE TO CREAMY WHITE COLOR; VEIN [illegible] TEXTURE; [illegible], <1: D:OS, <1 TO 5: PY
	17479	ROCK								3.0		.002	0.06	[illegible]	GOSSAN ZONE (SIL ZONE - QSP: [illegible] COLOR; STR HM, SHOW <1: PY
	17480	ROCK								3.0		10 <.001	0.02	STR SIL	SIL ZONE (QSP) - BL WHITE COLOR; [illegible] PY
	17481	ROCK								3.0		5 <.001	0.01	STR SIL	SIL ZONE (QSP) - BL WHITE COLOR: VFG & SH; 5: SCATTERED PY GRAINS & FRAC.
	17482	ROCK								3.0		5 <.001	0.009	STR SIL	SIL ZONE (QSP) - BL WHITE COLOR, VFG & SH - WR TEXTURE, 5: -10: SCATTERED PY CUBES
	17483	ROCK								3.0		5 <.001	0.006	STR SIL	SIL ZONE (QSP) - BL WHITE COLOR, [illegible] FRAC; <1: OS, 5: TO 15: DISS & H PY
	"									3.0					

THE NORTHAIR GROUP SAMPLE DESCRIPTION

LEGEND: Δ = APHANITIC; α = APHAN - FGRND; β = l grey - white; γ = l grey - green; φ = dk grey green; [illegible]; STG = STRINGER; QP = qtz pyrite

Project: GOLDEN MARMOT — 1/2

Sampler: STEVE [illegible] #5, NORM LARSON, MIKE H. — SAMPLE DESCRIB.

Date 1991	Sample No.	Type	Claim	Northing	Easting	Zone	No.	From (m)	To (m)	Int. (m)	Cu	Au	Ag		Alteration	Sample Description
27 AUG GOLDEN MARMOT	17484	ROCK								3.0		10 <.001	0.003		S SIL	αβQP, STR LIM, 3% SEC, [illegible] % DISS py
	17485	ROCK										10 <.001	0.009		M SIL	αβQSP, SL, 1-3% DISS
	17486	ROCK										5 <.001	0.01		S SIL	αβQP, SL, 1-5% DISS
	17487	ROCK										15 <.001	0.02		S SIL	αβQP, SL, 5-9% py S
	17488	ROCK										10 <.001	0.17		S SIL	αβQP, SL, 3-5% DISS py, <3% SEC
	17489	ROCK										5 <.001	0.12		S SIL	αβQP, WK SEC (5%), STR LIM,
	17490	ROCK										5 <.001 / 5 <.001	0.07		S SIL	ΔβQP, SL, 2-4% py STG
	17491	ROCK										.001	0.03		S SIL	αβQP, SL, 3-5% DISS py, 1-2% SEC
	17492	ROCK										.002	0.04		S SIL	αβQP, SL, 3-5% DISS py, 1% SEC
	17493	ROCK										30 <.001	0.07		S SIL	Δ-αβQP, 1% [illegible], 3-4% SER, 3-4% DISS py

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LEGEND p. 1/2 — 2/2

STEVE K.? ??? NORM - SAMPLER

THE NORTHAIR GROUP SAMPLE DESCRIPTION

Project: GOLDEN MARMOT

Sampler: MIKE H. - DESCRIPT.

Date 1991	Sample No.	Type	Location: Claim	Northing	Easting	Zone	Sample Data: No.	From (m)	To (m)	Int. (m)	Assay Data: Cu	Au	Ag		Alteration	Sample Description
27 AUG	17494	ROCK										20 <.001	0.035		S SIL	αBQP, SL, 1-2% SER 10-12% STG py
GOLDEN MARMOT																
	17495	ROCK										10 <.001	0.07		S SIL	αBQP, SL, 2-4% DISS py, 1-3% SER
	17496	ROCK										10 <.001	0.04		M-S SIL	αBQP/QSP SL, 3-5% py blebs
	17497	ROCK										10 <.001	0.05		M-S SIL	αBQSP, SL, 3-4% DISS py, ~~SL~~
													0.05			
	17498	ROCK										5 <.001	0.05		M-S SIL	αBQP, WK SER, 4-6 DISS py, SL
	17499	ROCK										5 <.001	0.03		S SIL	αBQP, WK SER, 2-4 DISS (CUBE) py, SL
	17500	ROCK										20 <.001	0.03		S SIL	αBQP/QSP, WK SER, 5-7% py STG, SL
AUGUST 29-91	17551	ROCK										<.001	0.07		STR SIL	SIL ZONE (QSP - ANTE-NT BL WHITE COLOR: VFG : STR SIL MATRIX WITH 15: [illegible] ABOUT [illegible] ± .6cm
GOLDEN MARMOT																
	17552	ROCK										<.001	0.05		STR SIL	SIL ZONE (QSP) : GRAYISH TO BL WHITE COLOR; VFG SIL MATRIX; ±1 [illegible] S: [illegible] ± 2cm; 1: [illegible] 2: [illegible]

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THE NORTHAIR GROUP

SAMPLE DESCRIPTION

Project Sulphurets - Bruceside

Sampler Norm Larson

Date	Sample No.	Type	Location				Sample Data				Assay Data			Sample Description	
			Claim	Northing	Easting	Zone	No.	From (m)	To (m)	Int. (m)	Cu	Au	Ag	Alteration	
Aug 28-91	17553	Rock										<.001	0.06	Str Sil	Sil Zone - grayish white color; vfg & msv wk frac; 10: 2%: vfg Py
Golden Marmot															
	17554	Rock										.002	0.05	Str Sil	Sil Zone (QSP) - bl white color; Str Sil vfg, ≤ 5% QS ≤ 5% Py
	17555	Rock										.001	0.09	Str Sil	Sil Zone (QSP) - bl white color; vfg & msv, ≤ 1% - 5%
	17556	Rock										.002	0.08	Str Sil	Sil Zone (QSP) - bl white color, vfg msv & wk frac; ≤ 1% - 2% QS; 5% - 10% Py
	17557	Rock										.003	0.10	Str Sil	Sil Zone (QSP) - bl white color, vfg - msv; minor QS ≤ 1%; 5% - 10% Py
	17558	Rock										.009	0.07	Str Sil	Sil Zone (QSP) - bl white color, str Sil, vfg - frac-jnted; ≤ 1% QS; 5% to 10% Py
	17559	Rock										.007	0.11	Str Sil	Sil Zone (QSP) - Similar to 17558 with 5% vcu ≤ 2" to 3% irregular QS → frac

THE NORTHAIR GROUP

SAMPLE DESCRIPTION

Project: Sulphurets · Brucejack

Sampler: Norm Jarson

Date	Sample No.	Type	Location: Claim	Location: Northing	Location: Easting	Location: Zone	Sample Data: No.	Sample Data: From (m)	Sample Data: To (m)	Sample Data: Int. (m)	Assay Data: Cu	Assay Data: Au	Assay Data: Ag	Alteration	Sample Description
August 22/91	17560	Rock										30 <.001 30 <.001	0.08	STR SIL	SIL ZONE (QSP) · BL WHITE TO GRAY COLOR, STR SIL, VFG & MSV; 5 TO 10 : PY
	17561	Rock										5 <.001	0.02	STR SIL	SIL ZONE (QSP) · BL WHITE COLOR, STR SIL – VFG, MSV, ≤1 TO 5 : PY
	17562	Rock										5 <.001	0.04	STR SIL	SIL ZONE (QSP) · BL WHITE COLOR; STR SIL VFG, ≤2-3
	17563	Rock										30 <.001	0.38	STR SIL WK-MOD SER	QSP · CREAMY WHITE COLOR, STR SIL · WK-MOD SER; VFG & SH, ≤1 : PY
	17564	Rock										30 <.001	0.29	STR SIL	SIL ZONE (QSP) · BL WHITE COLOR STR SIL VFG - MSV, ≤1-2 : 05 5 : SCATTERED PY
	17565	Boulder										15 <.001	0.04		BETTY CREEK · INTERMEDIATE VOLCANICLASTIC FM
	17566	Rock										.010	1.17		QTVN - MILKY WHITE, VFG & FRAC, ≤1 TO 2 : PY - CPY WITH WK-MOD MAL STAIN ≤1 : GN-MOLY & <1 : TET
	17567	Rock										.007	0.48 0.48	STR SIL	SIL ZONE (QSP) · BL WHITE COLOR, VFG & MSV; ≤1-2 : PY

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THE NORTHAIR GROUP **SAMPLE DESCRIPTION**

Project: Sulphurets - Bruceside

Sampler: Norm Jarson

Date	Sample No.	Type	Location: Claim	Location: Northing	Location: Easting	Location: Zone	Sample Data: No.	Sample Data: From (m)	Sample Data: To (m)	Sample Data: Int. (m)	Assay Data: Cu	Assay Data: Au	Assay Data: Ag	Assay Data:	Alteration	Sample Description
Augst 28-91 Golden Marmot	17568	Rock										.005	0.47		Str Sil	QSP - ?L white color; Str Sil; ±5% ?? ?; ±1% locally 10% Py ?; ±1% Tet-Gn
	17569	Grab Rock										.004	0.03 / 0.03		-	Intermediate Volcaniclastic: Greywacke - Lt gray light green; Qtz-Fld matrix; ±5% to 10% rounded granules, ±1% to 5% Py-Aspy 42
	17590	Grab Rock										30 <.001	0.03		Str Sil	Cherty TF - dull gray lime color; Str Sil - VFG-MSV aphanitic, <1% Py
Augst 29-91 Golden Marmot	17571	Grab Rock										6 .001	0.66		Vn	QCV xcutting Andte - grayish white, Qtz-Cb comp; Vn ≤5cm wide; 3% to 5% Gn-Py
Augst 29-91 Golden Marmot	17751	Rock										.003	0.07		Str Sil	Cherty TF - dull Gn gray color, Qtz-Sil composition; 5%-10% Pyro, ±1%-2% Py
	17752	Rock										10 <.001	0.04		Mod (Str) Sil	Andte-Xtf (F.P.) - Gn gray color; Mod (Str) Sil - prominent ??? texture; 15% Fld in Qtz-Fld matrix; ±1%-2% Py-Aspy ±1% along frac or as VFG diss grains

THE NORTHAIR GROUP SAMPLE DESCRIPTION

Project: Sulphurets: Bruceside

Sampler: Norm Dawson

Date	Sample No.	Type	Location: Claim	Northing	Easting	Zone	Sample Data: No.	From (m)	To (m)	Int. (m)	Assay Data: Cu	Au	Ag	Alteration	Sample Description
August 29-91 Golden Marmot	17753	Rock										.006	1.46	Str Sil	QTSW - Milky white quartz wk CB, frac 50% to 60% DS ≤1% - 2% Py - Tet - wk mal stain
August 31-91 Golden Marmot	17572	Rock										.0015	0.03	Wk inter Sil	Andte - Atlte (F.P.) - lt gn to gn gray color; wk sil inter comp; sub-porp with feld 10% to 15% ≤ 2cm; ≤1% to 5% Py
	17573	Rock										.010	0.12	Str Sil	QTVN - QTSW - bl white to bn white color; str sil, 20% to 25% DS, ≤1% to 2% Py & <1% Cpy - Tet
	17574	Rock										.003	0.08	Mod - Str Sil - CB	Andte - buff to spotty gn buff color, VFG mod sil - CB; remnant shards ≤5% → ≤5% hypowsite, ≤1% Py
	17575	Rock										.003	0.06	Str Sil Wk Ser	QTVN - QTSW - bn white color, str sil; Bx - frac texture; CB - Ser - Argnt QTZ "clasts"; 1cm - 4mm frac, ≤1% Py
	17576	Rock										<.001	0.009		Andte - lt gn to gray gn color; mod sil with 5% to 10% rectangular ◊ - trachytic texture ◊ ≤ .2cm, 10 to 15% wk ser feld ◊ <1% Py

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THE NORTHAIR GROUP

SAMPLE DESCRIPTION

Project: Sulphurets - Brucejack

Sampler: [illegible]

Date	Sample No.	Type	Location: Claim	Northing	Easting	Zone	Sample Data: No.	From (m)	To (m)	Int. (m)	Assay Data: Cu	Au	Ag		Alteration	Sample Description
Aug 31-91 Golden Marmot	17577	Rock										.006 .0064	0.58		STR SIL	QTVN-QTSW - BN WHITE COLOR QTZ COMP; FRAC LIM; <1% PY
	17578	Rock										.001	0.05		MOD (STR) SIL	ANDES. LT GN GRAY COLOR MOD (STR) SIL, V.F.G. [illegible] [illegible] MSV, WK FRAC; <1 QS; <1 PY
Sept 2-91 Gossan Hill	17579	Rock										.012	41.70		STR SIL	QTVN-QTSW - BL WHITE COLOR; STR SIL, STR FRAC; 3X; 5 TO 10% PY & 2 TO 4% TET
	17580	Rock										.011	1.00		STR SIL	QTVN - BL WHITE COLOR; ≥ 80% QS-QV - STR SIL; 2% TO 5% PY & ≤ 1% TET
Sept 4-91 Gossan Hill	17581	Rock										.402	23.30		STR SIL	QTVN-QTSW - BL WHITE COLOR STR SIL VFG FRAC; ≤ 1% - 3% TET - PY
	17582	Rock										.602	17.9		–	QTVN - BL WHITE COLOR, STR SIL; VFG & FRAC; ≤1% PY-TET
	17583	Rock										.099	123.1		STR SIL	QTVN-QTSW - BN WHITE COLOR TO BN COLOR; STR SIL, FRAC-QS ≤1% TO 3% PY-TET

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THE NORTHAIR GROUP SAMPLE DESCRIPTION

Project: SULPHURETS: BRUCESIDE

Sampler: [illegible]

Date	Sample No.	Type	Location: Claim	Northing	Easting	Zone	Sample Data: No.	From (m)	To (m)	Int. (m) (As)	Assay Data: Cu	Au	Ag	Zn	Alteration	Sample Description
AUGUST 17-91	17331	ROCK								10	124	<.001	.006	51	MOD - STR CB (BETTY CREEK)	ANDIT - VOLCANICLASTIC; WHITISH ... ON FRESH SURFACE; 15% TO 25% QTZ - CB Δ ≤ 2 cm; Δ IN AN IRON - OX ... MATRIX; MINOR CHL 5% BLACK METALLIC ... <1% PY
GOLDEN MARMOT																
	17332	ROCK								55	201	.002	.12	20	STR SIL	CHERT - BUFF WHITE COLOR; STR SIL; VFG APHANITIC; ≤1% TO 5% PY - LOCALLY 15% PY ... ON FRAC
	17333	ROCK								95	107	.003	.14	8	STR SER (SIL)	QSP? - GN WHITE COLOR; VFG & MOD SH - WK LAM; APHANITIC; ... FRAC; 5% SCATTERED PY
	*17334	ROCK								805	61	.075	.18	14	STR SIL	QTVN - PY - GRAY WHITE TO BEIGE COLOR; VFG QTZ WITH 25% TO 35% VFG PY & <1% TET
	*17335	ROCK								110	69	.004	.06	7	STR SIL	CHERT - BUFF ... COLOR; VFG & STR SIL, APHANITIC; ... LAM; <1% PY
AUGUST 18-91	17336	ROCK										.027	.21		STR SIL	QTSW-(QTVN) - PART OF QTSW GRAYISH WHITE COLOR; STR SIL; FRAC; 2% - 3% PY & <1% TET
GOLDEN MARMOT																

THE NORTHAIR GROUP

SAMPLE DESCRIPTION

Project: SULPHURETS - BRUCESIDE

Sampler: [illegible signature]

Date	Sample No.	Type	Claim	Northing	Easting	Zone	No.	From (m)	To (m)	Int. (m)	Cu	Au	Ag		Alteration	Sample Description
AUGUST 19-9[illegible] GOLDEN MARMOT	17337	ROCK										.022	0.35		STR SIL	QTSW - QSP - PART OF QTSW 9C 20% QS-QV; GRAYISH WHITE COLOR STR FRAC - MOD SH, ≤1% - 2% PY (TET)
	17338	ROCK										.0015	0.03		STR SIL	CHERT - GRAYISH BN COLOR VFG & MSV - APHANITIC; WK FRAC WITH HEM, ≤1 to 5% PY FRX FILLING & DISS GRAINS
	17339	ROCK										.008	0.18		STR SIL	QTSW - BL WHITE TO GRAYISH WHITE; 20% QS - WK-MOD SH; FRAC; ≤1-2% PY; <1% TET
	17340	ROCK										<.001	0.03		STR SIL	SIL ANDTF - VOLCANICLASTIC, ([illegible]) BL WHITE COLOR; FRAC WITH HEM 5% SCATTERED PY (TET?)
	17341	ROCK										.009	0.03		STR SIL	CHERT PEBBLE [illegible] - BUFF TO GRAYISH WHITE COLOR, VFG & MSV, APHANITIC, ≤1% PY
	17342	ROCK										.040	1.31		STR SIL	QTSW (QTVN) - GRAYISH WHITE HEM BN; STR SIL, ≥25% QS FRAC + HEM FRAC; ≤1% PY

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THE NORTHAIR GROUP SAMPLE DESCRIPTION

Project: SULPHURETS - BRUCESIDE

Sampler: [illegible]

Date	Sample No.	Type	Location: Claim	Northing	Easting	Zone	Sample Data: No.	From (m)	To (m)	Int. (m)	Assay Data: Cu	Au	Ag	Alteration	Sample Description
AUGUST 13-91 GOLDEN MARMOT	17343	ROCK										.015	0.10	STR SIL	QTSW - [illegible] WHITE COLOR, STR SIL & VFG [illegible]
	17344	ROCK										.006	0.07	[illegible] SIL	[illegible] VOLCANICLASTIC, [illegible] WHITE COLOR; [illegible] 10% 0.5 [illegible] 2cm; [illegible] [illegible], ≤2% TO 5% [illegible] Py <1% TET [illegible]
	17345*	ROCK										.014	0.14	STR SIL	QSP - BL WHITE TO GRAYISH WHITE COLOR; STR SIL; VFG [illegible] 5% [illegible] XTLS, 5%-10% Py WITH ≤1%-2% TET-SP
	17346	ROCK										.032	0.05	STR SIL	QSP - BL WHITE TO CREAMY WHITE COLOR, STR SIL, VFG & MOD SH; 5%-10% Py & ≤1% TET AS FRAC FILLING & GRAIN
	17347	ROCK										.018	0.11	STR SER	QSP - CREAMY WHITE TO GRAYISH WHITE COLOR; STR SH; STR SER SIL; 5%-10% DISS Py AS SH & EQUANT GRAIN
AUGUST 20-91 GOLDEN MARMOT	17348	CHANNEL ROCK GM-4								3.0		.014	0.08	STR SER SIL	QSP (2A) - BL WHITE TO BN COLOR; STR LIM-OXIDIZED, 3%-5% Py - CHERTY TUFF

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THE NORTHAIR GROUP SAMPLE DESCRIPTION

Project: Squarets - Briceside

Sampler: [illegible]

Date	Sample No.	Type	Location: Claim	Location: Northing	Location: Easting	Location: Zone	Sample Data: No.	Sample Data: From (m)	Sample Data: To (m)	Sample Data: Int. (m)	Assay Data: Cu	Assay Data: Au	Assay Data: Ag	Alteration	Sample Description
AUGUST 20 Golden Marmot	17349	Channel Rock								3.0		.009	0.05	STR SIL SER	QSP (2A) - BL WHITE TO BN COLOR; STRONG HEM (OXIDATION) ±1-10% PY; & MINOR QV ±5-15cm EXTENT TF
	17350	Rock								2.8		.003	0.05	MOD SER CB	QSP (2A) - LT GN WHITE; MOD (STR) SER-CB; VFG & MOD-STR SIL; CB FRAC; ±1-2% PY
	17351	Rock								3.0		.007	0.05	MOD SER-SIL-CB	QSP AND QV (±15cm WIDE); GRAYISH WHITE COLOR; HEM BN; 15cm WIDE QTZ(V) (STR SIL) ±5% PY & ±1% TET-SP-G
	17352	Rock								3.0		.016	0.13	STR SIL-SER	QSP - BL WHITE COLOR; STR SIL SER; VFG & SH; ±1% ±5% TO 10% SCATTERED PY
	17353	Rock								2.8		.009	0.18		CHERT - BL WHITE TO BUFF BN COLOR, VFG STR SIL, VFG - APHANITIC, ±1-2% PY
	17354	Rock								1.9		.003	0.09	STR SIL (SER)	ANDE-VL - LT GN TO BN HEM COLOR, STR SIL (SER); VFG - APHANITIC; 5% PY AS FRAC FILLING

THE NORTHAIR GROUP SAMPLE DESCRIPTION

Project: Sulphurets - Bruceside

Sampler: [signature]

Date	Sample No.	Type	Claim	Northing	Easting	Zone	No.	From (m)	To (m)	Int. (m)	Cu	Au	Ag	Alteration	Sample Description
August 20-9 Golden Marmot	17355	Channel Rock								1.9		.047	0.82	STR SIL	QTSW - SIL 2A; GRAYISH WHITE COLOR; 15: TO 20: QS; STR SIL & FRAC; BX; 5: TO 10: PY & ≤1: - 2: TET
	17356	Rock								0.8		.002	0.02		CHERT - LT GN TO BL WHITE COLOR; VFG - MSV & APHANITIC NUMEROUS HEAL FRAC, ≤1: - 2: P
	17357	Rock								2.2		<.001 (5)	0.025	MOD - STR SIL - STR CB	ANTF (QSP) - LT GN COLOR; ≤5: QCS AS GASH VNS; BRX WITH QCS, ≤1: PY
	17358	Rock								3.0		.005	0.01	MOD - STR SIL (SER)	ANTF (QSP) - LT GN GRN COLOR WK TO MOD CB; MSV; VIT WK FRAC; ≤5: PY
	17359	Rock								3.0		<.0005	0.025	MOD - STR CB - MOD SER	ANTF - LT GN TO APPLE GN COLOR; WK FRAC; Δ TEXTURE Δ ≤ .2cm (5: TO 10:), ≤1: - 2: PY
August 21-9 Golden Marmot	17360	Rock								2.5		<.001 (30)	0.026	MOD SER (CHL) WK - MOD CB	ANTF - LT GN TO GN COLOR VFG WITH 15: TO 20: Δ ≤ .2cm TO 0.4 cm; 5: PYRRHOTITE; ≤1: PY
	17361	Rock								1.1		<.001 (25)	0.015	STR SER	QSP - CREAMY BN TO BN - STRONGLY OXIDIZED - HEM; WK Δ TEXTURE, STR SH; ≤1: - 3: PY SPLASHED & FRAC

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THE NORTHAIR GROUP

SAMPLE DESCRIPTION

Project: SULPHURETS - BRUCESIDE

Sampler: [illegible]

Date	Sample No.	Type	Location: Claim	Northing	Easting	Zone	Sample Data: No.	From (m)	To (m)	Int. (m)	Assay Data: Cu	Au	Ag	Alteration	Sample Description
AUGUST 21-9 GOLDEN MARMOT	17362	CHANNEL ROCK								3.0		.001	0.02	WK-MOD SER-CB	ANDTE - LT GN TO GN GRAY COLOR; .2-.3cm SIZED; 5: PYRO; 1-3: PY
	17363	ROCK								3.0		.001	0.02	WK MOD CB (SER)	ANDTE - SIMILAR TO 17362 10-15: PYRO
	17364	ROCK								3.0		.001	0.015	MOD CB (SER)	ANDTE - LT GN TO GN COLOR; TEXTURE, 5 TO 10: .2-.3cm QTZ-FELD; 5: PYRO; 1 PY
	17365	ROCK								3.0		.011	0.018	WK-MOD SER (CHL) NO CB	ANDTE - LT GN BN COLOR TEXTURE; .2-.3cm; WK SH; 1: PY 5: PYRO
	17366	ROCK								4.0		.007	0.035	WK SER-CB	ANDTE - LT GN BN COLOR; MOD HEM (OXIDATION), INTER COMP; MSV TO WK SH; 5-10: PYRO 1: PY
	17367	ROCK								3.0		.001	0.015	WK SER	ANDTE - LT GN BN COLOR, INTER COMP, WK-MOD SH WITH PYRO ALONG SH FRAC, 1-2: REMNANT; 1: PY
	17368	ROCK								2.8		<.001 (.10)	0.01	MOD-(STR) SER-CB	ANDTE GN WT TO LT GN COLOR; FRAC WITH NUMEROUS 5-10: QCS FRAC FILLING; 1-2: VFG VFG PY & 1: ASPY

THE NORTHAIR GROUP **SAMPLE DESCRIPTION**

Project: SOUTHWEST · BAYSIDE Sampler: [illegible signature]

Date	Sample No.	Type	Location: Claim	Northing	Easting	Zone	Sample Data: No.	From (m)	To (m)	Int. (m)	Assay Data: Cu	Au	Ag		Alteration	Sample Description
AUGUST 21-91 Golden Marmot	17369	CHANNEL ROCK								3.2		25 <.001	0.015		MOD SER WK CB	ANDITE - LT GN TO GN WHITE COLOR, FRAC WITH MINOR QCS ≤1:2; 5:-10: PYRO; ≤1: PY
	17370	ROCK								2.9		15 <.001	0.020		MOD SIL WK CB	ANDITE · GN WHITE - GRAY COLOR; FRAC WITH QZ·CB FRAC; 2:-3: ASPY > PY
	17371	ROCK								3.0		25 <.001	0.015		MOD SIL WK CB	ANDITE - GN GRAY WHITE COLOR; MOD-STR SIL; WK-MOD FRAC; 5:-10: PYRO; ≤1: ASPY-PY
	17372	ROCK								4.0		25 <.001	0.018		MOD-STR SIL-WK CB	ANDITE · GN GRAY COLOR; WK-MOD FRAC; 5:-10: PYROL; 5: TO LOCALLY 10: PY
	17373	ROCK								GRAB		.015	0.21		STR SIL (SER)	QSP · GRAYISH WHITE COLOR; D TEXTURE 5:-10: D ≤.2-.3cm; 5:-10: PY
AUGUST 22-91 GOLDEN MARMOT	17374	ROCK										.016	0.08		STR SIL	QTSW - MILKY WHITE TO BUFF WHITE COLOR; STR FRAC; 10:-20 QS, ≤1: PY
	17375	ROCK										.007	0.17		STR SIL	QTSW - MILKY WHITE TO BUFF WHITE COLOR; STR SIL; 15:-20:QS ≤1:3: TET-GN & ≤1:-2: PY IN SIL MATRIX

THE NORTHAIR GROUP

SAMPLE DESCRIPTION

Project: SULPHURETS · BRUCESIDE

Sampler: [illegible]

Date	Sample No.	Type	Location: Claim	Northing	Easting	Zone	Sample Data: No.	From (m)	To (m)	Int. (m)	Assay Data: Cu	Au	Ag	Alteration	Sample Description
AUGUST 22-91 GOLDEN MARMOT	17376	ROCK										10 <.001	0.006	STR SIL WK SER	QSP (POST ANDITE) · BL WHITE COLOR; STR SIL - WK SER, STR SH, 5% SCATTERED PY
	17377	ROCK										.003	0.09		QTVN - MILKY WHITE COLOR 15%-20% VR <0.3m WIDE, VFG STR SIL; [illegible] FRAC, <1% PY
	17378	ROCK										10 <.001	0.03	STR SIL	QSP - BN WT GOSSANOUS COL FROM OXIDIZED STR SH, <1% PY
	17379	ROCK										10 <.001	0.01	-	CHERT - BUFF WHITE COLOR, VFG, MSV APHANITIC, <1% PY
	17380*	ROCK										.013	27.70	STR SIL	*QTSW - BROWNISH MILKY WHITE COLOR, STR SIL, VFG FRAC. BX; 15%-20% VS, 5%-10% TET
	17381*	ROCK										.022	4.32	STR SIL	* QTSW - QTVN - BN WHITE COLOR; STR SIL - FRAC; 5% [illegible] PY - ASPY AS FRAC FILLING IN QV
	17382*	ROCK										.211	36.80	-	*QTVN - MILKY WHITE COLOR, 15 CM WIDE; STR SIL, VFG FRAC; <2% T.S. TET DISS & SPLOTCHED

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THE NORTHAIR GROUP

SAMPLE DESCRIPTION

Project: Sulphurets - Bruceside

Sampler: Stephen Peachman

Date	Sample No.	Type	Claim	Northing	Easting	Zone	No.	From (m)	To (m)	Int. (m)	Cu	Au	Ag	Alteration	Sample Description
AUGUST 22/91 Golden Marmot	17383	Rock										<.001 (10)	0.09	STR SIL	QTSW (HOST CHERT) - GRAY TO LT GN WHITE COLOR, FRACTURED WITH 5 TO 10 QS, VFG APHANITIC CHERT, <1: D: TET IN QS & WR 5: TO 10: SCATTERED PY
AUGUST 24/91 Golden Marmot	17384	Rock										<.001 (30)	.07	SIL	CHERT - GRAYISH BUFF COLOR; STR SIL; VFG APHANITIC - LAM; 3: TO 5: PY
	17385	Rock										<.001 (10)	.02	SIL	QTVN - BN WHITE COLOR; STR SIL - FRAC WITH [illegible] - SER FRAC, <1: PY
	17386	Rock										.002	.026	SIL	CHERT - BUFF GRAY COLOR, STR SIL, VFG - MSV - APHANITIC; WK FRAC <1: PY
	17387	Rock										.0175	.27	STR SIL	QTSW - BL WHITE COLOR, STR SIL; VFG & FRAC; 15: 25: QS, [illegible] FRAC FILLING; <1: TO 5: PY & <1: TET
	17388	Rock										.044	3.41	STR SIL	QSP - W/QTSW - BUFF TO BN WHITE COLOR, STR SIL & VFG FRAC; 2: TO 3: PY & <2: TO 3: TET-GN & <1: CPY

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THE NORTHAIR GROUP **SAMPLE DESCRIPTION**

Project SULPHURETS - BRUCEJACK **Sampler** J. Tg PaC

Date	Sample No.	Type	Location: Claim	Northing	Easting	Zone	Sample Data: No.	From (m)	To (m)	Int. (m)	Assay Data: Cu	Au	Ag		Alteration	Sample Description
AUGUST 27.9 GOLDEN MARMOT	17389	ROCK										.021	.36		STR SIL	QTSW - BN WHITE COLOR; DUE TO HEM; STR SIL & FRAC - HEM FRAC; 15% QS, BX - FRAC WITH LATE STAGE QZ-PY XCUTTING QZ; ≤5% PY FRAC FILLINGS
	17390	ROCK										.326	7.96			QTVN - MILKY WHITE COLOR; OXIDIZED BLUE-GN MAL-AZUR & MALACHITE/AZURITE; STR FRAC; 5-10% PY ≤1-3% CPY & <1% TT-GN; SULPHIDES OCCUR AS FRACTURE FILLING IN QS-QV
	17391	ROCK										.010	.21		SIL	CHERT - BUFF GRAY COLOR, SIL COMP, VFG - MSV; APHANITIC; ≤1% 5% QS; ≤1-3% PY (ASCU)
	17392	ROCK										.020	.21		STR SIL	QTSW (QTVN) - BN WHITE COLOR STR SIL - FRAC; VFG 20% 30% QS, ≤1% SCATTERED PY
AUGUST 27.9 GOSSAN HILL	17393	ROCK										.039	7.55		STR SIL	QTSW - QTVN - BL WHITE COLOR; 60% QS; STR FRAC; BX; ≤5% PY ≤1% TET
	17394	ROCK										.010	0.65	✓	STR SIL	QTSW - QTVN - BL WHITE COLOR; 60% QS, STR FRAC, ≤5% PY & <1% TET?

THE NORTHAIR GROUP

SAMPLE DESCRIPTION

Project Sulphurets – [illegible] **Sampler** [illegible]

Date	Sample No.	Type	Location: Claim	Northing	Easting	Zone	Sample Data: No.	From (m)	To (m)	Int. (m)	Assay Data: Cu	Au	Ag		Sample Description: Alteration	
August 27-91	17395	Rock										.010	[illegible]		[illegible]	QTSW - QTVN [illegible]
Gossan Hill																[illegible]
																30% OS, FRAC [illegible]
	17396	[illegible]										.063	21.90		[illegible] SIL	QTSW (QTVN) - [illegible] WHITE [illegible]
												.060				> 95% OS [illegible]
																[illegible]
	17397	[illegible]										.015	[illegible]		[illegible]	QTSW - [illegible]
																[illegible]
																[illegible]
																([illegible] ?)
	17398	Rock										.267	65.60		STR SIL	QTSW - [illegible] WHITE [illegible]
																GRAY COLOR [illegible]
																OVERALL, [illegible]
																PY [illegible]
	17399	Rock										.157	34.70		STR SIL	QTSW : [illegible] COLOR
																[illegible]
																[illegible]
Aug [illegible]-91	17400	[illegible]										.035	7.58		[illegible]	QTSW (QTVN) - [illegible] MILKY
Golden Marmot																WHITE [illegible] FRAC; VEG,
																[illegible]
																[illegible]

THE NORTHAIR GROUP

SAMPLE DESCRIPTION

α = aphanitic - fgrnd
β = phenocrysts

ST LIMON = SL
WELL-CLEAVED = WC
WR = WALL ROCK

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Project MARMOT ZONE

Sampler MIKE HOLMES

Date 1991	Sample No.	Type	Location: Claim	Northing	Easting	Zone	Sample Data: No.	From (m)	To (m)	Int. (m)	Assay Data: Cu	Au	Ag		Sample Description: Alteration	
20 AUG	19491 (0-1.9m)	ROCK								1.9		.006	0.14		S SIL	α β QSP: 3-5% (STG) py,
															M ARG	SL, WC
	19492 (1.9-2.3m)	ROCK								0.4		.017	0.38		S SIL	α β QSP w. QSTW ~~+5%~~ (10%). 8-12% py
															M ARG	IN QSTWC, 3-5% STG
																py IN QSP, SL
	19493 (2.3-3.1m)	ROCK			T 277	.0054	Au	8.8 m		0.8		016	0.26	↘	S SIL	α β QSP w. 5% QV, 8-10
						.19	Ag								M ARG	BLEB py IN QV, 2-3%
						.012	Au	1.2 m								py IN WR, SL, WC
	19494 (3.1-5.9m)	ROCK				.30				2.8		.003	0.19	↘	S SIL	α β QSP w. 3% QV
															M ARG	(CONTAINING 5-8% BLEB py), 2-3% py, SL, WC
	19495 (5.9-7.6m)	ROCK								1.7		.004	0.15		S SIL	α β QSP, 3-6% py,
															M ARG	WC, SL
	19496 (7.6-8.8m)	ROCK								~~2.2~~		.005	0.22		S SIL	α β QSP, 1-2% py DISS
															M ARG	SL, WC
T277	19497 ~~194~~ (0-1.1m)	ROCK								1.1		.003	0.06		S SIL	α β QSP w. <5% QSTW,
															M ARG	CONTAINING 5-6% FGRN
																DISS + STG py, 3-5% DISS
																py OVERALL

THE NORTHAIR GROUP

SAMPLE DESCRIPTION

Legend p. 1/2

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Project MARMOT ZONE

Sampler MIKE HOLMES

Date 1991	Sample No.	Type	Location Claim	Location Northing	Location Easting	Location Zone	Sample Data No.	Sample Data From (m)	Sample Data To (m)	Sample Data Int. (m)	Assay Data Cu	Assay Data Au	Assay Data Ag	Sample Description Alteration	Sample Description
20 AUG	19498 (1.1-2.3m)	ROCK								1.2		.005	0.51	S SIL M ARG	αβQSP @ 15-20% QSTW (5-8% py, 2-3% TETR), ML, 7-10% DISS py OVERALL, SL
	19499 (2.3-4.0m)	ROCK			T079 -					1.7		.010	0.33	S SIL M ARG	αβQSP @ 5% QV (5-8% py), 5% py OVERALL, SL
	19500 (4.0-6.0m)	ROCK								2.0		.0035	0.11	S SIL M ARG	αβQSP, 5-10% py BLEB SL, WC
	18051 (6.0-8.0m)	ROCK								2.0		.004	0.18	S SIL M ARG	αβ QSP, 2-3% DISS py, SL, WC
	18052 (8.0-10.0m)	ROCK								2.0		.002	0.09	S SIL M ARG	αβ QSP, 4-6% BLEB + STG py, SL, WC
	18053 (10-12.5m)	ROCK								2.5		.004	0.38	S SIL M ARG	αβ QSP, 2-4% DISS py SL,
	18054 (12.5-13.6m)	ROCK								1.1		.003	0.08	S SIL M ARG	αβ QSP, 4-6% STG py, WC, SL

THE NORTHAIR GROUP

SAMPLE DESCRIPTION

α = APHAN - FGRND
β = 1 gray - wht

SL = STR LIMON
WC = WOLL FOLIATED

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Project MARMOT ZONE

Sampler MIKE HOLMES

Date 1991	Sample No.	Type	Location Claim	Northing	Easting	Zone	Sample Data No.	From (m)	To (m)	Int. (m)	Assay Data Cu	Au	Ag	Sample Description Alteration	
21 AUG	18055	ROCK										.003	0.31	S SIL	80-90% QSTW (IN
	(0-0.5)											.003		W ARG	QSP), SL, 1% py
	18056	ROCK										.006	0.32		
T278	(0.5-1.8m)													S SIL	α β QSP; SL, WC, 1-2% DI
	18057	ROCK										.003	0.64	M ARG	py
	(1.8-2.0m)													S SIL	α β QP; 3-5% py
	18058	ROCK										.002	0.29	W ARG	BLEBS, 1-2% TETR., SL
	(2.0-3.3m)													S SIL	α β QSP, 3-5% DISS
	END													M ARG	py, SL
	18059	ROCK										.011	0.35	S SIL	α β QSP/QP, 2-4%
	(1.7m)													W-M ARG	py (STR)
T274	18060	ROCK										.016	1.60	S SIL	80% QSTW IN QSP
	(1.7-2.8m)														3-5% py STR, 2-3%
															cpy DISS, 1-2% GAL
															DISS, 1-2% TETR.,
															1% Sphal?, SL
	18061	ROCK										.012	0.11	S SIL	α β QSP/QP, 3-4% py
	(2.8-5.2m)											.014	0.11	M ARG	DISS (10% WIRE)
	END														

THE NORTHAIR GROUP

SAMPLE DESCRIPTION

Legend p. 1/2

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Project MARMOT ZONE

Sampler MIKE HOLMES

Date 1991	Sample No.	Type	Location: Claim	Location: Northing	Location: Easting	Location: Zone	Sample Data: No.	Sample Data: From (m)	Sample Data: To (m)	Sample Data: Int. (m)	Assay Data: Cu	Assay Data: Au	Assay Data: Ag	Sample Description: Alteration	Sample Description
21 AUG T273	18062 (0-1.1m)	ROCK												S SIL	QV, SL, BARREN? WK- VUGGY
	18063 (3.3-4.9)	ROCK	->	(0-3.3	< OVERBURDEN)							.0095	0.23	S SIL W ARG	80-90% QSTW, 2-3% py, 1-2% cpy, 2-3% TETR?, <1% MAL ~~Epy~~
	18064 (4.9-6.7m)	ROCK										.0085	0.16	S SIL M ARG	αβ QSP, 4-6% DISS py SL,
	18065 (6.7-8.6m)	ROCK										.0096	6.21	S SIL W-M ARG	αβ QSP/QP, 2-4% DISS py., SL
	18066 (8.6-10.5m)	ROCK										.08	0.24	S SIL W ARG	αβ QP, 2-3% FINE py SL
T270 T2	18067 (10.5-11.7m)	ROCK										.013	0.114	S SIL W ARG	60-~~70~~% ~~QSP~~ QSTW IN QSP (αβ), <1% Sphal, 1% TETR? (~~GRAY SEMI-METALLIC~~) SL
	18068 (11.7-13.7m) END	ROCK										.03	0.29	S SIL M ARG	αβ QSP, 3-5% DISS py SL,

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α = APHAN - FGRND
β = 2 qtz - white
γ = 2 qtz - green

~~S/M LIMON~~
S/M L = STR/MOD LIMON.

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THE NORTHAIR GROUP SAMPLE DESCRIPTION

Project ~~Forbes~~ MARMOT Zone

Sampler MIKE HOLMES

Date	Sample No (m)	Type	Location: Claim	Northing	Easting	Zone	Sample Data: No.	From (m)	To (m)	Int. (m)	Assay Data: Cu	Au	Ag		Alteration	Sample Description
1991 22 AUG	18069 (0-1.5)	ROCK										.008	0.40 / 0.38		S SIL	αβQP, 1% py, 15-20% QV ("BROKEN, DIRTY") 2-4% py
	18070 (1.5-3.9)	ROCK										.024	2.42		S SIL QSTW	80-90% QSTW, 5-10% FINE py, goes up to 25% py, <1% MAZ, 1-2% cpy, RARE VUGS, ML 1-2% TETR.
	18071 (3.9-5.2)	ROCK										.005	0.16	Z →	S SIL	αβ QP, 3-6% py, DISS + ~~STK~~, SL
	18072 (14.0-15.2)	ROCK										.024	0.09		S SIL M ARG	αβ QP/QSP FABRIC, WR-CHL 2-3% py DISS, SL
	18073 (15.2-18.5)	ROCK										.008	0.08		S SIL	αβ QP/CHERT? GRADING ~~into~~ αγ QP/(ANDES?), 3-5% py DISS + BLEB, SL
	18074 (20.7-25.2)	ROCK										.008	0.06		S SIL	αβ QP/ANDES?, 2-5% py BLEBS + DISS, SL
	18075 (26.8-30.0)	ROCK										.014	0.11		S SIL	S RUSTY/LIM, αβQP, 1-3% SER, 2-4% py blebs

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LEGEND P. 1/3

2/3

THE NORTHAIR GROUP

SAMPLE DESCRIPTION

Project: MARMOT ZONE

Sampler: MIKE HOLMES

Date	Sample No.	Type	Location: Claim	Northing	Easting	Zone	Sample Data: No.	From (m)	To (m)	Int. (m)	Assay Data: Cu	Au	Ag	Sample Description: Alteration	
1991 22 AUG	18076 (36-39)	ROCK										.004	0.06	S SIL	αγ QP, WK-PHYRIC, S… (ANDES??), 2-3% py DI…
	18077 (39-42.3)	ROCK										.0016	0.06	S SIL	RUSTY WTHD, αβ QSP/QP 3-5% py blebs, WK PHYRIC → GRADES TO → APHYR…
	18078 (42.3-45.4)	ROCK										.008	0.79	S SIL W ARG	M RUSTY αβ QSP W. APPARENT CHERT LENS… SL, 3-5% py DISS …
	18079 (45.4-48.5)	ROCK										.009	0.08	S SIL	αγ QSP, 3-5% py STG
	18080 (48.5-50.3)	ROCK										.012	0.11	S SIL	αβ QP (<2% SER), 3-5… py (STG, bleb + DISS) - XT… OFTEN 1-2 mm EUHEDRAL, …
	18081 (50.3-52.5)	ROCK										.007	0.10	S SIL	αβ QP, MOD PHYRIC, 3-5% py blebs (<5% SER)
	18082 (52.5-55.2)	ROCK										.015	0.27	S SIL	αβ QP/QSP, 1% GALENA, 3-4% FINE DISS py, STR LIM
	18083 (55.2-57.3)	ROCK										.007	0.07 (?)	S SIL	αβ QP, 2-3% FINE DISS py, W-M PHYRIC, SL

T 27 (?)

THE NORTHAIR GROUP **SAMPLE DESCRIPTION**

LEGEND P. 2/3

Project: MARMOT ~~Zone~~

Sampler: MIKE HOLMES

Date 1991	Sample No (m)	Type	Claim	Northing	Easting	Zone	No.	From (m)	To (m)	Int. (m)	Cu	Au	Ag	Alteration	Sample Description
22 AUG T271	18084 ~~(0-1.9)~~ (57.3-59.9)	ROCK										.008	0.08	S SIL	αβ QP/ ~~(QSP)~~, 3-6% DISS + STG py, W-M PHYR SL
T269	18085 (0-1.9)	ROCK										.017	0.24	S SIL QSTW	αγ QSP W- 40% QSTW (2CM VUGS) 2-3% py, SL
	18086 (1.9-2.5)	ROCK										.014	0.11	S SIL	αβ QP/QSP, 5% QV, loss of clast/plag? 3-5% fine dis py
	18087 (2.5-3.1)	ROCK										.012	0.23	QV	1% GALENA, 2-3% py STG, SL
	18088 (3.1-4.4)	ROCK										.010	0.22	S SIL W ARG	αβQP, 5-8% py BLEBS + STG, 5% QV, 1% TETR SL, < 5% SER
	18089 (4.4-6.4)	ROCK										.0093	0.20	S SIL W ARG	αγ QP, 1% TETR (GROW AROUND py), 4-6% py STG + BLOBS, 5-8% QV, SL 1-2% MAL, < 4% SER
	18090 (6.4-7.3) END	ROCK										.005	0.11	S SIL	αβQP, M PHYRIC/LIM, 2-4% MAL, 1-3% py DISS, 1-2% ~~py DISS~~ TETR?

α = APHAN- F.GRAIN
β = l gray - white
γ = l gray - green

Σ = APHANITIC
SL = STR LIMON

STG = STRINGER

THE NORTHAIR GROUP SAMPLE DESCRIPTION

Project: MARMOT ZONE

Sampler: MIKE HOLMES

Date 1991	Sample No.	Type	Location: Claim	Northing	Easting	Zone	Sample Data: No.	From (m)	To (m)	Int. (m)	Assay Data: Cu	Au	Ag	Alteration	Sample Description
24 AUG T-276	18091 (4-5.2)	ROCK								1.20		.451	0.33	QSTW S SIL	30-40% QSTW (IN ... VNGS) IN αγ QP/ANDES (3-5% DISSEM py IN QT ZONES OF MASS py UP TO 2 IN QSTW, POSS. 1% TETR
	18092 (5.2-6.7) END	ROCK								1.50		.408	0.37	S SIL	αγQP / ANDES? (WK ANHYDRIC W. 30-40% QSTW, WK CHL, 3-5% py, 1% Sphal?
	18093 (0-1)	ROCK								1.0		1.319	0.38	QV	80-90% QVSTW, 10-1.. MASS py, WK-CP, 2-4.. TETR?
	18094 (1-2) END	ROCK								1.0		.383	0.29	QV	80-90% QVSTW, 12-17% MASS py, WK-CP, 2-3% SER, 2-4% TETR?
T 282	18095 (0-0.7)	ROCK										.005	0.026	S SIL	α-Δ l gray- QP/WACKE ("V. DIRTY"), 2-4% py, 1% S..
	18096 (7.1-7.75)	ROCK										.025	2.22	S SIL QSTW	80% QSTW W. CHERT FRAGS (ANG.< 2cm), 1% MAL/CPY, 3-5% TETR? 5-10% py IN αγQP MATRIX, 3-5% py IN QSTW

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THE NORTHAIR GROUP **SAMPLE DESCRIPTION**

LEGEND P. 1/3

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Project MARMOT ZONE

Sampler MIKE HOLMES

Date 1991	Sample No.	Type	Claim	Northing	Easting	Zone	No.	From (m)	To (m)	Int. (m)	Cu	Au	Ag	Alteration	Sample Description
24 AUG	18097	ROCK										.0047	.07	S SIL	α γ CHERT (FRAG?)
↑	(15.5-17)														FELDSPAR(?) SPHERULES,
	18098	ROCK										.001	.01	S SIL	α γ CHERT, WK-OXID
	(17-19.1)														ON M-S FT, W-FISS.
T															GRADES IN/OUT DIRTY
															W CHL WACKE? (SULS?
2	18099	ROCK										15 <.001	.01	S SIL	α γ CHERT, WK OXID
8	(19.1-21)														ON FT, M-FISS.
2	18100	ROCK										10 <.001	.006	S SIL	α-Δ β QP/WACKE?
	(21-22.4)													W CHL	W CHL, W OXID >30%
															QTZ, 1% TOUR?,
	18101	ROCK										5 <.001	.003	S SIL	α-MGRND, BRN. QP/WACKE
	(22.4-24.5)													W CHL	WK OXID, W-M PHYRIC,
														W ARG	>30% QTZ
	18102	ROCK										20 <.001	.003	S SIL	α-MGRND & QP/WACKE
	(24.5-27.1)													W CHL	W-M PHYRIC, WK-OXID
↓	END													W ARG	

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THE NORTHAIR GROUP

SAMPLE DESCRIPTION

Project MARMOT BASE   Sampler MIKE HOLMES

Date	Sample No.	Type	Claim	Northing	Easting	Zone	No.	From (m)	To (m)	Int. (m)	Cu	Au	Ag		Alteration	Sample Description
1991 24 AUG	18103 (18.5-20.5)	ROCK										10 <.001 / .384	.009 / 1.10		S SIL	lapilli tuff? (α-mafic frag?), 1-3% TET? 3-5% SER, <1% py
	18104 (23.1-26.1)	ROCK													WK-[illegible]	RUBBLE/EARTH (Soil "B" horizon), 40% [illegible], <1% py? w/ [illegible]
	18105 (30.6-33.7)	ROCK										.012	0.11		S SIL	α β QP, 3-6% DISS (+ STG) py, RARE cc Vs, WK-[illegible]
	18106 (33.7-37.3)	ROCK										.005	0.026		S SIL	α - MARND, β WACKE/Q 2-4% SER, 4-6% DISS + STG py, STR LIM
	18107 (37.3-39.6) END FOR DAY	ROCK										.0076	0.032		S SIL W CHL	α β QP/ANDES?, 2-4% py blebs + STG, WK-PERVASIVE STR-LIM., 2-4% SER

T-MH-91-1

THE NORTHAIR GROUP **SAMPLE DESCRIPTION**

ML = MOD LIMONITE [illegible] 1/2

Project [illegible] **Sampler** [illegible]

Date	Sample No.	Type	Location: Claim	Northing	Easting	Zone	Sample Data: No.	From (m)	To (m)	Int. (m)	Assay Data: Cu	Au	Ag	Alteration	Sample Description
1991 25 AUG TMH91-1	18108 (39.6–42.6)	ROCK										0.030	0.08	S SIL	αδ QP (ANDES? - [illegible] [illegible]), 3-5% DISS [illegible], ML [illegible]
	18109 (53.2–54.2)	ROCK										0.001	0.01	S SIL W CHL [illegible]	αδ QP, WK PHYRIC? ~~RARE OVOID~~ ~~[illegible]~~ (<1cm), WK-SER, 5% py [illegible]
	18110 (59.0–62.2)	ROCK										0.039	0.13	S SIL VW CHL	αδ QP, RARE OVOID-SUB-[illegible] QTZ-EYE (<1cm), WK. SER, 5-8% DISS py., ML
	18111 (62.2–64.4)	ROCK										10 <.001	0.02	S SIL	αβ QP, 5-10% (+ STG) DISS py, [illegible], ML
	18112 (64.4–66.7)	ROCK										15 <.001	0.01	S SIL W ARG	αδ QP, 5-10% [illegible] py, ML, 1-2% TOUR?, WK SER

TMH91-1

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LEGEND p. 1/3

THE NORTHAIR GROUP **SAMPLE DESCRIPTION**

Project [illegible] Sampler [illegible]

Date	Sample No.	Type	Location: Claim	Northing	Easting	Zone	Sample Data: No.	From (m)	To (m)	Int. (m)	Assay Data: Cu	Au	Ag		Alteration	Sample Description
1991 15 AUG	19113 (66.7-71.0)	ROCK										5 <.001	0.009		S SIL	αβ [illegible], 5-8% [illegible] (STG) [illegible] ML
	18114 (71.0-74.8)	ROCK										10 <.001	0.08		S SIL	αδ QP/[illegible], 5-10% [illegible] ML
												10 <.001	0.08			
	19115 (74.8-78.8)	ROCK													S SIL VN CHL?	α β QP/BSP, [illegible] (SOME CL-RICH STG, DISS, [illegible] DK [illegible] BLOCK), [illegible], ML
	19116 (78.8-81.1)	ROCK										0.0014	0.09		S SIL	α β QP/BSP, [illegible] 15-25% [illegible] (78.8-[illegible]) [illegible] 1-2% [illegible] [illegible]
	19117 (81.1-84.3) END	ROCK										10 <.001	0.02		S SIL W ARG	α β BSP/QP, 5-8% py blebs, 5-8% [illegible] ML
9/16																

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THE NORTHAIR GROUP

SAMPLE DESCRIPTION

α = APHAN - FELSIC γ = l gray-green ϕ = DK GRY-GREEN
δ = l-med gry ML = MOD LIM
β = l gry- STG = STRNG GR

Project GOLDEN MARMOT

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Sampler MIKE HOLMES

Date 1991	Sample No.	Type	Location: Claim	Northing	Easting	Zone	Sample Data: No.	From (m)	To (m)	Int. (m)	Assay Data: Cu	Au	Ag		Sample Description: Alteration	
27 AUG	18118 (2.5-4.4)	ROCK										.007	0.68			~5% QSTW, 10-15%
																WK-CHL, 5-8% py CQP
															~~HRS~~	1-2% py in QSTW, WK SER, 2-4% poly bns?
	18119 (4.4-6.4)	ROCK										.004	0.15		S SIL	50-60% QSTW (2-4%
															QSTW	DISS py, 2-4% poly bns:
																15-25% αδβP (5-7%
																DISS py).
T 265	18120 (6.4-8.6)	ROCK										.007	0.20		S SIL	30-40% QSTW (2-4%
															QSTW	DISS py, zones of STG MINS py UP TO 20%), MOD LIM
																20-30% αβQSP, 5-10%
																py DISS.
	18121 (6.6-11.3) END	ROCK										.005	0.10	↘	S SIL	αβQSP, WK CHL,
																8-12% DISS py, ML
	18122 (32.3-35.3)	ROCK										<.001	0.01		S SIL	α-MICRO FELDSPAR
															M PORP	PORPHYRY INTRUS, SUB-EUHEDRAL PHENOS <4mm
																EXHIBIT LT YELLOW-BRN
T 1911.3																EP ALT., 1% HEM
	18123 (35.3-38.6)	ROCK										.006	0.06	↘	S SIL	αδQSP/QP, WK CHL/SER,
																5-6% DISS py, ML/MI

NORTHAIR GROUP — SAMPLE DESCRIPTION

Project: GOLDEN MARMOT

Sampler: MIKE [illegible]MES

Date 1991	Sample No.	Type	Claim	Northing	Easting	Zone	No.	From (m)	To (m)	Int. (m)	Cu	Au	Ag		Alteration	Sample Description
27 AUG	18124 (38.6-39.8)	ROCK										20 <.001	0.02		DYKE	(39.3-39.5) α φ [illegible] eye-RICK (<0.01mm) DIABASE DYKE ∠81 026 2-1% py DISS in dirty αδQP, 1-3% py diss.
	18125 (39.8-41.1)	ROCK										30 <.001	0.03		S SIL W CHL	αβQP/QSP, W-MOD SER, 3-5% py [illegible], [illegible] (<0.01mm) QTZ EYES, S LIM
	18126 (41.1-53.2)	ROCK										30 <.001	0.03		S SIL W CHL	αδQP, WK-SER, 2-3% DISS py, SL
[illegible]	18127 (53.2-55.1)	ROCK										20 <.001	0.02		DYKE S SIL W CHL	(54-54.25) αδ DIABASE DYKE 85/170 in αβQP, WK-SER, 2-3% DISS py, SL
	18128 (64.7-65.6)	ROCK										.0125	0.23		M SIL W CHL	αδQP/QSP, 5-7% DISS py, S LIM
	18129 (65.5-69.5)	ROCK										.010	0.15		S SIL	αδQSP/QP, MOD LEACHED, 8-10% DISS py, M-S LIM
	18130 (82.7-85.9)	ROCK										.0055 .005	0.10		S SIL	αδQSP/QP, STR DECOMP., 3-5% DISS py, SLIM

THE NORTHAIR GROUP **SAMPLE DESCRIPTION**

Project: GOLDEN MARMOT

Sampler: MIKE [illegible]ES

Date 1991	Sample No.	Type	Location: Claim	Northing	Easting	Zone	Sample Data: No.	From (m)	To (m)	Int. (m)	Assay Data: Cu	Au	Ag		Sample Description: Alteration	
27 AUG	18131 (85.9-88.9)	ROCK										2σ <.001	0.026		DYKE; WK CHL	(?-this?) the [illegible] of the diabase dyke cropping out in 18127, quite blocky, αδ, <1% py; (88.2-88.9) → αβ QP, w SER, 1-2% DISS py.
	18132 (88.9-91.7)	ROCK										.006	0.07		S SIL, W CHL	αδ QP, MOD DECOMP, 5-7% DISS py
	18133 (94.2-95.1)	ROCK										.006	0.04		DYKE	Vα-αδ-φ diabase dyke, <1% DISS py
	18134 (181.3-185.5)	ROCK										.015	0.02		M SIL	αβ QSP, STRSER/LIM, W-M DECOMP, 5-10% DISS py.
	18135 (188.3-193.4)	ROCK										.0011	0.02		M SIL	αβ QSP, S SER/LIM, W-M DECOMP, 5-10% DISS py.
END																

TMH 91-3 (CONT)

★ LAST SAMPLE, BUT TRENCH ENDS @ 286 m.

THE NORTHAIR GROUP

SAMPLE DESCRIPTION

Project: GOLDEN MARMOT   Sampler: M

Date 1991	Sample No.	Type	Claim	Northing	Easting	Zone	No.	From (m)	To (m)	Int. (m)	Cu	Au	Ag		Alteration	Sample Desc.
28 AUG	18146 (5.1-6.9)	ROCK										.014	0.18		QV	60-70% QSTW 10-12% polybas/A[illegible], y ? 2-3% DISS py, WL
	18147 (6.9-8.6)	ROCK										.0145	1.60		QV	60-70% α WHITE QST[illegible], 10% polybas/ARSpy ? 3-5% DISS py, WL
	18148 (8.6-10.2)	ROCK										.009	0.09		QV	60-70% α WHITE QSTW, 15-20% polybas/ARSpy ? 5-8% DISS Py
	18149 (10.2-12.6) END	ROCK										.012	0.92		QV	40-50% α WHITE QSTW, IN αβQSP, 5-8% DISS py, 20% [illegible], WL
	18150 (GRAB)	Rock										.004 .005	0.22		S SIL	SL, M Fe, αBQP/QSP, 1-2% DISS py - TAKEN 17m @ 094° FROM T264

(Margin annotation beside samples 18146–18149: T264 [illegible])

HUNTER GROUP **SAMPLE DESCRIPTION**

β = light gray-white

Project GOLDEN MARMOT **Sampler** MIKE HOLMES

Date 1991	Sample No. (m)	Type	Location: Claim	Northing	Easting	Zone	Sample Data: No.	From (m)	To (m)	Int. (m)	Assay Data: Cu	Au	Ag	Sample Description: Alteration	
28 AUG	18136 (0-4.7)	ROCK										.010	0.25	DYKE 0-0.2	αΦ DIABASE DYKE, 1% py, 3% FP LATHES <1mm
														M-S SIL 0.2-2.5	αβQSP, 3-6% DISS py, SL, M-S Fr, SL
														DYKE 2.5-4.7	αΦ DIAB DYKE, 1% py, 3-5% FP LATHES <1mm
	18137 (4.7-8.6)											.024	0.26	4.7-8.4 M-S SIL	SL, M Fr, αβQSP, 3% QV < 0.5cm, 5-6% DISS, STG+bbb py
													0.26		
														DYKE 8.4-8.6	αΦ DIAB DYKE, 1% py
	18138 (8.6-11.0) END											.046	0.36	M-S SIL 8.6-10.4	SL, SFr, αβQSP w 4-6% DISS py
														10.4-11.0 QSTW	SL, SFr, αβQSP w 40-50% QSTW 5-8% polybasite?, 3-5% DISS py, 5-Folded QV < 0.5cm
END															

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THE NORTHAIR GROUP

SAMPLE DESCRIPTION

Project: GOLDEN MARMOT

Sampler: MIKE HUGHES

Date 1991	Sample No. (m)	Type	Location: Claim	Northing	Easting	Zone	Sample Data: No.	From (m)	To (m)	Int. (m)	Assay Data: Cu	Au	Ag	Alteration	Sample Description
28 AUG	18139 (0-3.2)	ROCK										.014	0.36	M-S SIL	SL, S Fr, α β QSP, 8-10% DISS + STG py, 3-5% QV < 3cm
														SHEAR	2.8-3.2 81 ∖ 162
	18140 (3.2-6.6)	ROCK										.016	0.73	M-S SIL	SAME AS 18139
T 263	18141 (6.6-9.3)	ROCK										.041	0.32	M-S SIL	SAME AS 18139
	18142 (9.3-11.1) END	ROCK										.051	0.45	M-S SIL	SL, S Fr, S "BAKED" (IE: W-M FISSILE, OFF-WHITE) QSP, 5-8% py DISS, 2-4% QV < 3cm.
	18143 (1.0-2.0)	ROCK										.021	0.16	QV	80-90% α S QSTW, <1% SER, 8-12% polybas/arseno py?, 2-4% DISS py, WL
	18144 (2.0-3.8)	ROCK										.011	1.27	QV	80% WHITE QSTW α, 2% SER, 10-15% Polybas/Arspy?, WL, 2-4% DISS py
T 264	18145 (3.8-5.1)	ROCK										.026	0.18	QV	70-80% α WHITE QSTW, < 2% SER, 10-15% polybas/ARSENOPYRITE?, 2-3% DISS py

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THE NORTHAL GROUP

SAMPLE DESCRIPTION

Project Gold Marmot Trench GM14

Sampler G. M.

Date	Sample No.	Type	Location				Sample Data				Assay Data			Sample Description	
			Claim	Northing	Easting	Zone	No.	From (m)	To (m)	Int. (m)	Cu	Au	Ag	Alteration	
08/22/91	16282	Chip					16282	3.0	6.0	3.0		.006	.07	WK Sil	le (And. Tuff) - v. weak planar fabric, 0.5-1.0% Py (blebs)
08/22/91	16283	Chip					16283	6.0	9.0	3.0		.0044	.07	WK-Mod Sil	le (And. Tuff) - weak planar fabric, med. grained ≈1-2% Py (blebs)
08/22/91	16284	Chip					16284	19.0	22.0	3.0		.0076	.03	WK Sil	le (And. Tuff) - no visible fabric, fine grained, 0.5% Py
08/22/91	16285	Chip					16285	25.0	28.0	3.0		.011	.033	Mod Sil WK Ser	le - weak planar fabric, med. grained, 1-2% Disseminated Py Tr Cpy
08/22/91	16286	Chip					16286	38.0	40.0	2.0		.056	.11		Laminated Qtz Vein, (possibly ribbon text.), well defined fabric, 15-20% Py in bands parallel to & V. laminae), Tr Tet?
08/22/91	16287	Chip					16287	50.0	52.0	2.0		.012	.04	Mod Sil WK Ser	Laminated Qtz Vein within le, ≈1-2% Py // to laminae

THE NORTHA GROUP SAMPLE DESCRIPTION

Project Gol. Marmot Trench GM3

Sampler G.I.

Date	Sample No.	Type	Location Claim	Northing	Easting	Zone	Sample Data No.	From (m)	To (m)	Int. (m)	Assay Data Cu	Au	Ag	Sample Description Alteration	
	16267	Chip					16267	1.0	4.0	3.0		.0017	.023	Weak Sil	1a (And. Tuff) – weak planar fabric, ≈1% Dissem Py
	16268	Chip					16268	4.0	7.0	3.0		Tr	.012	ModSil WKSer	1a(And. Tuff) – well-developed planar fabric 2-3% Dissem Py + Tr Cpy
	16269	Chip					16269	7.0	10.0	3.0		Tr	.012	ModSil ModSer	QSP – strong planar fabric, 3-4% Dissem Py
	16270	Chip					16270	10.0	13.0	3.0		Tr	.012	ModSil ModSer	QSP – well-develop foliation (Si), 3-4% Dissem Py
	16271	Chip					16271	13.0	16.0	3.0		Tr	.012	StrSer ModSil	QSP – intense shearing, narrow clay (Kaol?) rich intervals ≈1% Dissem Py
	16272	Chip					16272	16.0	19.0	3.0		Tr	.07	ModSer ModSil	QSP – W.D. fabric, limonite weath. ≈1% Dissem Py
	16273	Chip					16273	19.0	22.0	3.0		.0017	.64	StrSer ModSil	QSP – Strong Si fabric 1-2% Dissem Py, Tr Cpy
	16274	Chip					16274	22.0	25.0	3.0		Tr	.023	identical, to previous sample	
	16275	Chip					16275	25.0	28.0	3.0		.0017	Tr	" " " "	
	16276	Chip					16276	28.0	31.0	3.0		Tr	Tr	" " " "	
	16277	Chip					16277	31.0	34.0	3.0		Tr	Tr	" " " "	
	16278	Chip					16278	34.0	37.0	3.0		Tr	Tr	ModSer WKSil	QSP – Well-defined Si fabric, ≈1% Py
	16279	Chip					16279	37.0	40.0	3.0		Tr	.02	StrSer ModSil	QSP – Verry fissile, narrow clay rich sections, 0.5-1.0% Dissem Py
	16280	Chip					16280	40.0	43.0	3.0		Tr	.02	ident. to previous description	

THE NORTHA GROUP

SAMPLE DESCRIPTION

Project: G[illegible]a Marmot Trench GM2

Sampler: G. N[illegible]

Date	Sample No.	Type	Location: Claim	Northing	Easting	Zone	Sample Data: No.	From (m)	To (m)	Int. (m)	Assay Data: Cu	Au	Ag		Alteration	Sample Description
08/20/91	16256	Chip						1.5	4.5	3.0		.00044	.0146		Str Sil, Ser	Well-defined planar fabric, very fissile, 0.5-1.0% Dissem Py
08/20/91	16257	Chip						4.5	7.5	3.0		Tr	.012		Str Ser, Sil	Strong planar, fissile fabric, Limonitic weathering 0.3-0.6% Dissem Py
08/20/91	16258	Chip						7.5	10.5	3.0		Tr	.012		Str Ser, Sil	Strong planar fabric Limonite weathering, 0.5-1.0% Dissem Py
08/20/91	16259	Chip						10.5	13.5	3.0		Tr	.012		Mod Ser, Sil	Well-defined planar fabric 0.2-0.5% Dissem Py
08/20/91	16260	Chip						13.5	16.5	3.0		Tr	Tr		Str. Ser, Sil	Strong planar fabric 0.5-1.0% Dissem Py
08/20/91	16261	Chip	*					16.5	19.5	3.0		.001	.014		WK Sil	Moderate planar fabric (S1) Green chl. mtx, Tr-0.25% Dissem Py, Ie And. Tuff
"	16262	Chip	*					19.5	22.5	3.0		.0006	.009		WK Ser	Mod. sheared And. Tuff, Green Chl. mtx. Tr Py
"	16263	Chip						22.5	23.5	1.0		.0003	.012		—	Weak planar fabric Green Chl mtx, Tr Py
"	16264	Chip						23.5	26.5	3.0		Tr	.006		Mod Ser	Well-defined Planar fabric 0.25-0.5% Py
"	16265	Chip						26.5	29.5	3.0		Tr	.009		Mod Ser	Mod.-Strong Planar (S1) fabric, 0.2-0.5% Dissem Py
"	16266	Chip						29.5	32.5	3.0		.0003	.006		Weak Ser	Mod. Planar fabric Tr Py

* Ie And. Tuff, all other samples QSP Schist

THE NORTHA GROUP **SAMPLE DESCRIPTION**

Project: Gi Marmot Zone

Sampler: G. M.

Date	Sample No.	Type	Location				Sample Data				Assay Data			Sample Description	
			Claim	Northing	Easting	Zone	No.	From (m)	To (m)	Int. (m)	Cu	Au	Ag	Alteration	
Aug 17/91	16251	Grab										.027	.079	wk. silicif	le Andesite Tuff Chl mtx, 10-15% <1cm qtz. veinlets
Aug 17/91	16252	Grab										.0087	.093	QSP, strong	v. weak planar fabric, med. grained, 2-3% finely dissem Py
Aug 17/91	16253	Grab										.0135	.157	QSP, strong	weak planar fabric, med. grained, 0.5-1.0% Py, Tr Cpy
Aug 18/91	16254	Grab										.0106	.079	QSP, strong	med. grained equigranular texture, limon. stain along microfract, Tr Py along fractures
Aug 18/91	16255	Grab										.0106	.032		
														wk silicif	le, And. Tuff, chl. mtx. fine-grained, Tr Py
Aug 21/91	16281	Grab										Tr	.07		Qtz. Vein, recrystallized equigranular fabric, Tr Py
												.022	.033		limonite staining
Aug 22/91	16288	Grab													Chert - displaying well-developed laminated fabric expressed by bluish grey (<1cm) qtz veinlets, Tr Py
Aug 22/91	16289	Grab										.328	0.30		Qtz Vein - recryst. equigranular fabric, 10-15% Py (clots + blebs)
Aug 22/91	16290	Grab										.023	.064	Strong Sil	QTSW - parallel qtz veinlets (<0.5cm) defining laminated fabric within silica-sat. mtx. 0.2-0.3% Dissem Py

NORTHAIR GROUP

SAMPLE DESCRIPTION

Project G. EN MARMOT

Sampler G.M.

Date	Sample No.	Type	Location				Sample Data				Assay Data			Sample Description	
			Claim	Northing	Easting	Zone	No.	From (m)	To (m)	Int. (m)	Cu	Au	Ag	Alteration	
08/24/91	16291	Grab										.014	.25		Q.V. - recrystall. equidimensional texture, Limon. stain Tr Py
08/24/91	16292	Grab										Tr	Tr	Mod Sil Mod Ser	QTSW - 60-70% Qtz within QSP schist, well-defined planar fabric, Tr Py Hem. & Lim. Staining
08/24/91	16293	Grab										.024	1.40	Mod Sil WK Ser	QTSW - ≈ 65-75% Qtz within QSP schist, weak planar fabric, 0.5% Py, Tr Tet
08/24/91	16294	Grab										.026	.87		Q.V. - recrystall equidimensional text, mod. fractured, Tr Py within QTSW system

THE NORTHAIR GROUP **SAMPLE DESCRIPTION**

Project Marmot

Sampler BCW / 1/4

Date	Sample No.	Type	Location				Sample Data				Assay Data				Sample Description	
			Claim	Northing	Easting	Zone	No.	From (m)	To (m)	Int. (m)	Cu	Au	Ag		Alteration	
Aug 23	16477	Rx										55	0.9		Sup	cy QZ schist after m/s QZ schist. Py leached. lt br color. soft.
	16478	Rx										205	3.1		Sup	cy QZ schist after m/s QZ schist. Py leached. Soft. lt br color.
	16479	Rx										370	7.7		MS QZ	MS QZ schist. Partial supergene ALT to cy. Py leached. lt br greenish color. Soft
	16480	Rx										410	13.2		MS QZ	Same. Some Py preserved. No CB
	16481	Rx										90	7.2		QZ MS	QZ m/s Schist. lt gy. Thin lam fol. Py 10%, preference to py on lam.
	16482	Rx										90	7.1		MS QZ	MS QZ schist. Py 10%. Py knots in late QZ mini boudins, not conformable. No CB. Mid gy color

THE NORTHAIR GROUP

SAMPLE DESCRIPTION

Project Mormot

Sampler BCW 2/4

Date	Sample No.	Type	Location				Sample Data				Assay Data				Sample Description	
			Claim	Northing	Easting	Zone	No.	From (m)	To (m)	Int. (m)	Cu	Au	Ag		Alteration	
Augz's	16483	Rx										25	4.3		Sup	CY QZ schist stained ∃ LI, goethite. Resinous surfaces. PY gone. schist after MS QZ schist
	16484	Rx										5	0.4		QZ MS	QZ, MS schist. Lgy color. Hard. PY 12% D but preference to 1oms.
	16485	Rx										5	0.2		MSQZ	MS QZ schist. Mid gy color. PY 10%. Most PY vfg. Soft. Partial leach.
	16486											5	0.1		MSQZ	MS QZ schist. Mid gy color. PY 15% Most PY coarse, clustered. soft. Partially leached. No CK
	16487											10	0.1		MSQZ	Same
	16488											5	0.1		MSQZ	Same. Stronger leach.
	16489											5	0.1		MSQZ	Same. PY 15-18%

THE NORTHAIR GROUP

SAMPLE DESCRIPTION

Project Marmot

Sampler BCW 3/4

Date	Sample No.	Type	Location				Sample Data				Assay Data			Sample Description	
			Claim	Northing	Easting	Zone	No.	From (m)	To (m)	Int. (m)	Cu	Au	Ag	Alteration	
Aug 23	16490	RX										5	0.1	QZ, MS	QZ MS schist. Mid gy color. Hard. PY 20%. PY even grain size <1mm. No CB. Weak leach Supergene.
	16491	RX										10	0.4	MS QZ	MS QZ Schist. Mid gy color. Soft. PY 8%, fg. Weak leach.
	16492	RX										5	0.3	MS QZ	MS QZ schist. Mid gy to greenish color. PY 2-3% vfg. Greenish unit — Tuff?
	16493	RX										20	1.3	MS QZ	MS QZ Schist. Mid gy color. PY 15%, vfg. Tuffaceous unit massive blocky. Other platy fol. soft No CB.
	16494	RX										10	0.4	MS QZ	MS QZ Schist. Mid gy color. Platy fol. PY 15% generally vfg.

THE NORTHAIR GROUP

SAMPLE DESCRIPTION

Project Marmot.

Sampler BCW 4/24

Date	Sample No.	Type	Location				Sample Data				Assay Data			Sample Description	
			Claim	Northing	Easting	Zone	No.	From (m)	To (m)	Int. (m)	Cu	Au	Ag	Alteration	
Aug 23	16495	Rx										80	0.6	MS QZ	as 16494. Advanced supergene leach. Some Py remains.
	16496	Rx										170	8.4	MS	MS schist. little Qz. V lt gy color. Soft leached. No Py.
	16497	Rx										190	7.1	MSQZ	MS QZ schist. Py. up to 15%. lt gy color. No CB. Thin platy lams.
	16498	Rx										330	20.0	MS QZ	MS QZ schist. lt gy to mid gy color. Py 15% conc in certain lams. No CB.
	16499	Rx										330	7.8	MS QZ	MS QZ schist w later structural distur Py 8%. Mid gy color
	16500	Rx										170	4.6	MS QZ	MS QZ schist. Md gy color. Py 8%. Soft
	20001											570	6.4	MS QZ	Same.

THE NORTHAIR GROUP

SAMPLE DESCRIPTION

Project: Marmot

Sampler: ZCW 1/2

Date	Sample No.	Type	Location: Claim	Location: Northing	Location: Easting	Location: Zone	Sample Data: No.	Sample Data: From (m)	Sample Data: To (m)	Sample Data: Int. (m)	Assay Data: Cu	Assay Data: Au	Assay Data: Ag	Sample Description: Alteration	Sample Description
Aug 22	16469	Rx										300	3.8	MS QZ	QZ, MS schist after porphyritic GNDS. Soft. PY 8%. PY tends to occur w QZ lams. CB absent. well foliated.
	16470	Rx										355	4.0	MS QZ	QZ MS Schist w 8% PY. Supergene ALT to CY and BY leached & partial
	16471	RX										300	4.5	QZ, MS	QZ, MS schist. Intensely silicified. PY 15%. PY partially leached.
	16472	RX													
	16473	Rx										230	3.0	QZ, MS	QZ MS Schist. Intensely silicified. PY 15%. fg PY - D. light gray color. Hard.
	16474	Rx										610	9.3	MS QZ	MS, QZ Schist. soft Hgy color. PY 6-9% PY up to 60%. lam poorly devl'd.

THE NORTHAIR GROUP

SAMPLE DESCRIPTION

Project Marmot

Sampler Bold 2/2

Date	Sample No.	Type	Location				Sample Data				Assay Data (ppb / ppm)			Sample Description	
			Claim	Northing	Easting	Zone	No.	From (m)	To (m)	Int. (m)	Cu	Au	Ag	Alteration	
Aug 22	K475	RX										175	6.4	QZ,	QZ MS Schist. Silicified
															QZ Veins interupt.
															Py 5%.
	K476	RX										130	0.9	MS QZ.	Leached MS QZ
															schist. Soft.
															Friable. Stained
															brown clay minerals.

THE NORTHAIR GROUP

SAMPLE DESCRIPTION

Project: Marmot

Sampler: BCW 1/4

Date	Sample No.	Type	Location: Claim	Location: Northing	Location: Easting	Location: Zone	Sample Data: No.	Sample Data: From (m)	Sample Data: To (m)	Sample Data: Int. (m)	Assay Data: Cu	Assay Data: Au (ppb)	Assay Data: Ag (ppm)	Alteration	Sample Description
Aug 21	16451	Rx										25	0.3		Trench S side of Gossan. Deep supergene ALT to CY Tr Remnant PY as knots. Proto-MS QZ schist w PY.
	16452	Rx										10	0.4		Supergene ALT to CY. Completely silicified - QZ MS schist? Little PY remains.
	16453	Rx										15	0.4		Supergene ALT to clay. Former MS QZ schist? Little remnant PY.
	16454	Rx										15	1.9		Mixed interval w above MS QZ schist leached and supergene ALT to CY & silicified intervals - QZ MS schist w 9% PY.

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THE NORTHAIR GROUP SAMPLE DESCRIPTION

Project: Marmot | ppb ppm | Sampler: BCW 2/4

Date	Sample No.	Type	Location: Claim	Northing	Easting	Zone	Sample Data: No.	From (m)	To (m)	Int. (m)	Assay Data: Cu	Au	Ag	Alteration	Sample Description
Aug 21	16455	[illegible]										15	1.5		Supergene ALT as previous. Interval has high proportion of silicified Rx. c̄ up to 60% PY. Contorted Rx. MS genus to CY [illegible]
	16456	Rx										5	0.3		CY after MS? QZ schist. Bleach white 2-3% PY c̄ tendency for PY to occur in knots / clusters. Salt and Pepper, spotted appearance. No CB.
	16457	Rx										5	0.3		Supergene ALT? to CY. CY QZ schist. 10% PY. PY tends to occur in silica clusters/knots. No CB.
	16458	Rx										5	0.2		Supergene ALT? to CY. QZ CY schist c̄ 15% PY. PY tends to occur in individual laminations.

THE NORTHAIR GROUP

SAMPLE DESCRIPTION

Project Marmot

Sampler JCW 3/4

Date	Sample No.	Type	Location Claim	Location Northing	Location Easting	Location Zone	Sample Data No.	Sample Data From (m)	Sample Data To (m)	Sample Data Int. (m)	Assay Data Cu	Assay Data Au ppb	Assay Data Ag ppm	Alteration	Sample Description
Aug 21	16459	RX										5	0.1		Supergene ALT to CY after QZ MS schist. PY 20% occurring as clusters, D, in selected Lam. No C.B.
	16460	RX										10	0.1		Silicified interval (87) QZ CY schist. CY after MS. PY 15-20%. mostly D.
	16461	RX										15-	0.1		CY QZ schist after MS QZ schist. 10% PY. TY tends to clusters. WK CB in PY cluster.
	16461														CY QZ schist after MS QZ schist. Supergene 10% PY. Decsam
	16462	RX										20	0.2		QZ CY schist after QZ MS schist. Supergene 10-15% PY. TR CB in PY.

THE NORTHAIR GROUP **SAMPLE DESCRIPTION**

Project Marmot ppb ppm Sampler BCW 4/14

Date	Sample No.	Type	Location				Sample Data				Assay Data				Sample Description	
			Claim	Northing	Easting	Zone	No.	From (m)	To (m)	Int. (m)	Cu	Au	Ag		Alteration	
Aug 21	16463	Rx										5	0.1			CY QZ schist after Ms QZ schist. Supergene 20% Py w slight tendency Py to cluster. Tr cb.
	16464	Rx										5	0.1			Same.
	16465	Rx										5	0.1			Same.
	16466	Rx										5	0.1			CY QZ schist after Ms QZ schist. Supergene. 20% Py ~D and cluster Some laminations Ms QZ schist w No Py.
	16467	Rx										5	0.1			Same. Py mostly leached
	16468	Rx										5	0.1			Same. Py mostly leached.

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** ASSAY REPORT ** *

Appendix 2 Assay Results

To: Newhawk Gold Mines Ltd.
860 - 625 Howe Street
Vancouver, B.C.
V6C 2T6

Number: 91156
Date: September 26, 1990
Proj.: Bruceside

Attn: D. Visagie

	Au oz/ton	Ag oz/ton
16207	1.628	86.3
16221		34.7
16223		88.7
16234	0.553	
16241		3.94
16242		3.85
16244		17.1
16249	0.265	6.85
16289	0.328	
16297	0.274	
16302		4.07
17380		27.7
17381		4.32
17382	0.211	16.8
17388		3.41
17390	0.326	7.96
17393		7.55
17396		21.9
17398	0.267	65.6
17399		34.7
17400		7.58

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** GEOCHEMICAL REPORT **

To: Newhawk Gold Mines Ltd.
860 - 625 Howe Street
Vancouver, B.C.
V6C 2T6

Attn: D. Visagie

Number: 91132
Date: September 10, 1990
Proj.: Bruceside

	Au ppb	Ag ppm	Reassay Au ppb	Reassay Ag ppm
16201	20	1.0		
16202	< 5	2.2		
16203	15	0.9		
16204	20	2.3	15	
16205	< 5	0.4		
16206	350	29		
16207	>10000	> 100		
16208	3000	41		
16209	275	68		
16210	215	>100		
16211	140	14.9		
16212	10	2.4		
16213	35	8.0		
16214	10	0.9		
16215	10	1.0		
16216	35	0.9		
16217	15	1.0		
16218	10	0.6		
16219	100	5.5		
16220	490	4.6		
16221	660	> 100		
16222	230	31.0		
16223	3000	> 100		
16224	310	36.0		
16225	220	4.0		
16226	220	26.0		
16227	345	8.5		
16228	225	15.5		
16229	230	5.8		
16230	170	21.2		
16231	150	16.3	160	
16232	480	45.0		
16233	220	14.3		
16234	>10000	12.3		
16235	40	4.5		
16236	45	3.2		
16237	10	0.5		
16238	10	0.5		0.5
16239	120	23.6		
16240	< 5	1.4		
16241	180	> 100		
16242	380	> 100		
16243	250	85.5		

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* GEOCHEMICAL REPORT *

To: Newhawk Gold Mines Ltd.
860 - 625 Howe Street
Vancouver, B.C.
V6C 2T6

Attn: D. Visagie

Number: 91140
Date: September 14, 1990
Proj.: Bruceside

	Au ppb	Ag ppm	Reassay Au ppb	Reassay Ag ppm
16309	220	8.6		9.4
16310	350	8.3		
16311	360	15.2		
16312	320	13.5		
16313	390	10.5		
16314	320	9.5		
16315	290	8.7		
16316	10	1.1		
16317	5	1.4		
16318	290	62		
16319	40	6.8	30	
16320	30	2.3		
16321	20	9.4		
16322	260	4.0		
16323	160	2.1		
16324	760	14.6		
16325	290	12.8		
16326	1250	60.0		
16327	1280	34.5		
17399	4700	> 100		
17400	1160	> 100		
19491	205	4.7		
19492	580	12.9		
19493	355	8.9		
19494	115	6.4		
19495	140	5.2		
19496	180	7.6		
19497	100	2.0		
19498	190	17.6		
19499	345	11.5		
19500	120	3.8		

CDN RESOURCE LABORATORIES LTD.
6329 BERESFORD STREET, BURNABY, B.C. V5E 1B3 / PH: 435-8376 / FAX: 435-9746

** GEOCHEMICAL REPORT **

To: Newhawk Gold Mines Ltd.
860 - 625 Howe Street
Vancouver, B.C.
V6C 2T6

Attn: D. Visagie

Number: 91124
Date: August 30, 1991
Proj.: Bruceside

	Au ppb	Ag ppm		
15893	10500	85		
15894	30400	510		
16251	930	2.7		
16252	300	3.2		
16253	465	5.4		
16254	365	2.7		
16255	365	1.1		
16256	15	0.5		
16257	< 5	0.4		
16258	< 5	0.4		
16259	< 5	0.4		
16260	< 5	0.1		
16261	35	0.5		
16262	20	0.3		
16263	10	0.4		
16264	< 5	0.2		
16265	< 5	0.3		
16266	10	0.2		
16267	60	0.8		
16268	15	0.4		
16269	< 5	0.4		
16270	10	0.4		
16271	35	0.4		
16272	35	2.4		
16273	60	21.8		
16274	15	0.8		
16275	60	0.6		
16276	10	0.4		
16277	10	0.4		
16278	10	0.4		
16279	15	0.7		0.8
16280	10	0.7	15	
16281	40	2.4		
16282	200	2.3		
16283	150	2.4		
16284	260	1.0		
16285	380	1.1		
16286	1915	3.8		
16287	420	1.4		
16288	740	1.1		
16289	7000	10.2		
16290	805	2.2		
16291	480	8.6		
16292	85	3.0		
16293	830	48		
16294	[illegible]	[illegible]		

ECO-TECH LABORATORIES LTD.
10041 EAST TRANS CANADA HWY.
KAMLOOPS, B.C. V2C 2J3
PHONE - 604-573-5700
FAX - 604-573-4557

SEPTEMBER 5, 1991

NEWHAWK GOLDMINES ETK 91-701
860, 625 HOWE ST.
V6C 2T6

COPY

ATTENTION: DAVID VISAGIE

VALUES IN PPM UNLESS OTHERWISE REPORTED

SHIPMENT NO: 43
PROJECT: SULPHSIDE
31 ROCK PULP SAMPLES RECEIVED AUGUST 26, 1991

ET#	DESCRIPTION	Au(ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
25 -	17331	<5	.2	.74	10	8	190	<5	2.86	<1	8	15	124	1.19	.11	<10	.58	1283	4	<.01	<1	1130	<2	5	<20	16	.03	<10	17	<10	6	51
26 -	17332	-	4.2	.58	55	6	65	<5	.34	<1	3	17	201	1.59	.13	<10	.46	245	7	<.01	4	920	8	5	<20	8	.05	<10	16	<10	2	20
27 -	17333	-	5.0	.28	95	6	35	<5	.12	<1	5	15	107	2.20	.14	<10	.10	60	4	<.01	3	660	22	<5	<20	5	.02	<10	5	<10	<1	8
28 -	17334	-	6.2	.19	805	8	15	<5	.83	<1	7	70	61	5.34	<.01	<10	.13	164	8	<.01	10	3000	132	15	<20	12	<.01	<10	2	<10	<1	14
29 -	17335	-	2.0	.29	110	8	50	<5	.32	<1	2	54	69	1.02	.12	<10	.07	85	8	<.01	4	1650	14	5	<20	6	<.01	<10	5	<10	<1	7
30 -	19722	-	1.2	.20	55	8	10	<5	.03	<1	4	41	53	1.91	.10	<10	.06	33	8	<.01	4	110	8	<5	<20	15	<.01	<10	1	<10	<1	5
31 -	19723	-	1.8	.12	20	6	25	<5	.09	<1	4	27	45	1.28	.09	<10	.04	30	4	<.01	5	100	36	<5	<20	9	<.01	<10	1	<10	<1	23

NOTE: < = LESS THAN

ECO-TECH LABORATORIES LTD.
Frank J. Pezzotti, A.Sc.T.
B.C. Certified Assayer

PROJECT: SULPHSIDE
SHIPMENT NUMBER: 43

ET#	Description	AU (g/t)	AU (oz/t)	CU (%)
25 -	17331	<.03	<.001	-
26 -	17332	.07	.002	-
27 -	17333	.11	.003	-
28 -	17334	2.57	.075	-
29 -	17335	.15	.004	-

CDN RESOURCE LABORATORIES LTD.
6329 BERESFORD STREET, BURNABY, B.C. V5E 1B3 / PH: 435-8376 / FAX: 435-9746

** GEOCHEMICAL REPORT **

To: Newhawk Gold Mines Ltd.
860 - 625 Howe Street
Vancouver, B.C.
V6C 2T6

Attn: D. Visagie

Number: 91124
Date: August 30, 1991
Proj.: Bruceside

	Au ppb	Ag ppm		
17336	930	7.1		
17337	765	12.1		
17338	50	1.0		
17339	265	6.1		
17340	20	1.0		
17341	225	1.1		
17342	1360	45		
17343	500	3.5		
17344	200	2.5		
17345	465	4.8		
17346	1100	1.6		
17347	635	3.8		
17348	480	2.6		
17349	300	1.6		
17350	105	1.6		
17351	230	1.5		
17352	555	4.6		
17353	300	6.3		
17354	110	3.2		
17355	1600	28		
17356	60	0.7		
17357	< 5	0.9		
17358	170	0.4		
17359	20	0.9		
17360	30	0.9		1.0
17361	25	0.5		
17362	45	0.7		
17363	45	0.7	45	
17364	50	0.5		
17365	380	0.6		
17366	230	1.2		
17367	35	0.5		
17368	10	0.4		
17369	25	0.5		
17370	15	0.7		
17371	25	0.5		
17372	25	0.5		
17373	505	7.1		
17374	565	2.8		
17375	235	5.7		
17376	10	0.2		
17377	115	3.2		
17378	10	1.0		
17379	10	0.4		0.4
17380	440	>100		
17381	765	>100		
17385	10	0.8		
17386	60	0.9		
17387	600	9.2		9.6
17388	1500	>100		
17389	720	12.4		
17390	6900	>100		
17391	355	7.3	420	
17392	700	7.5		

CDN RESOURCE LABORATORIES LTD.
6329 BERESFORD STREET, BURNABY, B.C. V5E 1B3 / PH: 435-8376 / FAX: 435-9746

** GEOCHEMICAL REPORT **

To: Newhawk Gold Mines Ltd.
860 - 625 Howe Street
Vancouver, B.C.
V6C 2T6

Number: 91128
Date: September 5, 1990
Proj.: Bruceside

Attn: D. Visagie

	Au ppb	Ag ppm	Reassay Au ppb	Reassay Ag ppm
17382	>10000	>100		
17383	10	3.0	5	
17401	65	1.0		
17402	50	0.7		
17403	15	1.0		
17404	65	0.7		
17405	1825	2.9		
17406	55	0.9		
17407	165	2.1		
17408	105	3.6		
17409	570	7.4		
17410	25	0.2		
17411	< 5	0.1		
17412	5	0.1		
17413	< 5	0.1		
17414	< 5	0.2		
17415	15	0.1		0.2
17416	85	<0.1		
17417	< 5	<0.1		
17418	< 5	0.1		
17419	10	0.1		
17420	200	3.3		
17421	15	0.8		
17422	15	0.7		
17423	10	0.4		
17424	15	0.4	25	
17425	15	0.5		
17426	15	0.1		
17427	50	0.3		
17428	15	0.3		
17429	30	0.4		
17430	15	0.3		
17431	10	0.2		
17432	35	1.0		
17433	1990	2.9		
17434	90	0.6		0.5
17435	25	0.4		
17436	55	1.5		
17437	330	1.6		
17438	290	2.1		
17439	225	2.5		
17440	290	2.8		
17441	390	4.0		
17442	1660	5.9		

ECO RESOURCE LABORATORIES LTD.
6329 BERESFORD STREET, BURNABY, B.C. V5E 1B3 / PH: 435-8376 / FAX: 435-9746

** GEOCHEMICAL REPORT **

To: Newhawk Gold Mines Ltd.
860 - 625 Howe Street
Vancouver, B.C.
V6C 2T6

Attn: D. Visagie

Number: 91128
Date: September 5, 1990
Proj.: Bruceside

	Au ppb	Ag ppm	Reassay Au ppb	Reassay Ag ppm
18055	110	10.6	105	
18056	200	11.0		
18057	110	22.1		
18058	70	9.9		
18059	390	12.1		
18060	550	55		
18061A	400	3.9		
18061B	490	3.8		
18063	325	7.8		
18064	290	5.6		
18065	330	7.3		
18066	615	8.3		
18067	455	15.2		
18068	455	9.8		
18069	280	13.9		13.5
18070	830	83		
18071	175	5.6		
18072	130	3.2		
18073	270	2.9		
18074	275	1.9		
18075	485	3.8		
18076	165	2.1	160	
18077	55	2.0		
18078	290	27.0		
18079	300	2.8		
18080	425	3.9		
18081	250	3.0		
18082	515	9.4		
18083	230	2.5		
18084	290	2.7		
18085	590	8.4		
18086	475	3.8		
18087	400	8.0		
18088	330	7.6		7.6
18089	320	6.7		
18090	165	3.7		
18091	>10000	11.4		
18092	>10000	12.8		
18093	>10000	13.2		
18094	>10000	10.1		
18095	180	0.9		
18096	870	76		
18097	160	2.3		
18098	40	0.4		
18099	15	0.4		
18100	10	0.2		
18101	5	0.1		
18102	20	0.1		
18103	10	0.3		
18104	9400	38		
18105	425	3.7		3.3
18106	170	0.9		
18107	260	1.1		
20001	570	6.4		

Samples above, received as pulps, were mixed by rolling.
Assay procedures: Au - fire assay, AA (10g sample)
Ag - mixed acid digestion, AA finish.

Duncan Sanderson

CDN RESOURCE LABORATORIES LTD.
6329 BERESFORD STREET, BURNABY, B.C. V5E 1B3 / PH: 435-8376 / FAX: 435-9746

** GEOCHEMICAL REPORT **

To: Newhawk Gold Mines Ltd.
860 - 625 Howe Street
Vancouver, B.C.
V6C 2T6

Attn: D. Visagie

Number: 91128
Date: September 5, 1990
Proj.: Bruceside

	Au ppb	Ag ppm	Reassay Au ppb	Reassay Ag ppm
16451	25	0.3		
16452	10	0.4		
16453	15	0.4		
16454	15	1.9		
16455	15	1.5		
16456	< 5	0.3		
16457	< 5	0.3		
16458	< 5	0.2		0.3
16459	< 5	0.1		
16460	10	0.1	15	
16461	15	0.1		
16462	20	0.2		
16463	< 5	0.1		
16464	< 5	0.1		
16465	< 5	0.1		
16466	< 5	0.1		
16467	< 5	0.1		
16468	< 5	0.1		
16469	300	3.8		
16470	355	4.0		
16471	300	4.5		
16472	230	3.0		
16473	610	9.3		
16474	330	4.9		
16475	175	6.4		
16476	130	0.9		
16477	55	0.9		
16478	205	3.1		
16479	370	7.7		
16480	410	13.2		
16481	90	7.2		
16482	90	7.1		
16483	25	4.3		
16484	5	0.4		0.4
16485	< 5	0.2		
16486	5	0.1		
16487	10	<0.1		
16488	< 5	0.1	< 5	
16489	< 5	<0.1		
16490	< 5	0.1		
16491	10	0.4		
16492	< 5	0.3		
16493	20	1.3		
16494	10	0.4		
16495	80	0.6		
16496	170	8.4		
16497	190	7.1		
16498	330	20.0		
16499	330	7.8		
16500	170	4.6		
17284	30	2.5		

Duncan Sanderson

CDN RESOURCE LABORATORIES LTD.

6329 BERESFORD STREET, BURNABY, B.C. V5E 1B3 / PH: 435-8376 / FAX: 435-9746

** GEOCHEMICAL REPORT **

To: Newhawk Gold Mines Ltd.
860 - 625 Howe Street
Vancouver, B.C.
V6C 2T6

Number: 91129
Date: September 5, 1990
Proj.: Bruceside

Attn: D. Visagie

	Au ppb	Ag ppm	Reassay Au ppb	Reassay Ag ppm
18108	1020	2.8		2.9
18109	35	0.4		
18110	1330	4.6		
18111	10	0.8		
18112	< 5	0.4		
18113	5	0.3		
18114	10	2.7		
18115	10	2.8		
18116	50	3.1		
18117	10	0.8		
18118	285	23.3		
18119	140	5.2		
18120	250	6.8		
18121	210	3.3		
18122	20	0.4		
18123	200	2.0		
18124	20	0.8		
18125	30	1.0		
18126	30	1.0		
18127	20	0.6		
18128	430	7.8		
18129	355	5.3		
18130	190	3.5	170	
18131	20	0.9		
18132	205	2.3		
18133	210	1.5		
18134	50	0.6		
18135	40	0.5		
18136	345	8.7		
18137	835	9.0		9.0
18138	1580	12.4		
18139	490	12.5		
18140	560	25.1		
18141	1390	11.1		
18142	1750	15.5		
18143	710	5.4		
18144	370	43.6		
18145	875	6.2		
18146	490	13.5		
18147	500	55.0		
18148	320	3.0		
18149	430	31.4		
18150	155	7.7	160	

CDN RESOURCE LABORATORIES LTD.
6329 BERESFORD STREET, BURNABY, B.C. V5E 1B3 / PH: 435-8376 / FAX: 435-9746

* GEOCHEMICAL REPORT *

To: Newhawk Gold Mines Ltd.
860 - 625 Howe Street
Vancouver, B.C.
V6C 2T6

Number: 91140
Date: September 14, 1990
Proj.: Bruceside

Attn: D. Visagie

	Au ppb	Ag ppm	Reassay Au ppb	Reassay Ag ppm
17443	130	6.4		
17444	140	4.8		
17445	210	8.8		
17446	30	2.2		
17447	10	1.6		1.5
17448	10	2.2		
17449	10	2.0		
17450	10	2.1		
17451	280	15.8		
17452	180	2.4		
17453	345	4.1		
17454	70	1.6		
17455	120	2.4		
17456	25	1.5		
17457	10	1.3		
17458	10	0.9		
17459	10	0.4		
17460	20	0.4	35	
17461	15	0.4		
17462	25	1.5		
17463	85	1.4		
17464	280	9.3		
17465	65	3.5		
17466	85	2.7		
17467	35	3.3		
17468	25	1.2		
17469	30	1.1		
17470	45	0.6	50	
17471	30	0.6		
17472	35	0.7		
17473	80	5.3		
17474	30	2.8		
17475	40	0.7		
17476	10	0.2		
17477	10	0.2		0.2
17478	20	0.4		
17479	80	2.1		
17480	10	0.6		
17481	5	0.4		
17482	5	0.3		
17483	5	0.2		
17484	10	0.1		
17485	10	0.3		
17486	5	0.4		
17487	< 5	0.8		
17488	10	5.7		
17489	5	4.3		
17490	5	2.5	5	
17491	40	1.2		
17492	60	1.3		
17493	30	2.5		
17494	20	1.2		
17495	10	2.3		
17496	10	1.3		
17497	10	1.7		1.8
17498	5	1.8		
17499	5	1.1		
17500	20	1.0		

CDN RESOURCE LABORATORIES LTD.
6329 BERESFORD STREET, BURNABY, B.C. V5E 1B3 / PH: 435-8376 / FAX: 435-9746

* GEOCHEMICAL REPORT *

To: Newhawk Gold Mines Ltd.
860 - 625 Howe Street
Vancouver, B.C.
V6C 2T6

Number: 91140
Date: September 14, 1990
Proj.: Bruceside

Attn: D. Visagie

	Au ppb	Ag ppm	Reassay Au ppb	Reassay Ag ppm
17551	< 5	2.4		
17552	< 5	1.8		
17553	30	2.2		
17554	70	2.2		
17555	35	3.1		
17556	70	2.7		
17557	110	3.5		
17558	80	2.4		
17559	235	3.7		
17560	30	2.6	30	
17561	5	0.9		
17562	5	1.3		
17563	20	13.2		
17564	30	9.9		
17565	15	1.3		
17566	355	40.0		
17567	230	16.4		16.3
17568	180	16.2		
17569	150	1.2		1.0
17570	30	0.9		
17571	40	22.6		
17572	50	0.9		
17573	340	4.3		
17574	95	0.6		
17575	100	2.0		
17576	10	0.3		
17577	210	20.0	220	
17578	40	2.2		
17751	95	2.4		
17752	10	1.3		
17753	205	50.0		
19741	35	3.7		
19742	80	4.3		
19743	105	4.2		

Duncan Sinclair

CDN RESOURCE LABORATORIES LTD.
6329 BERESFORD STREET, BURNABY, B.C. V5E 1B3 / PH: 435-8376 / FAX: 435-9746

* GEOCHEMICAL REPORT *

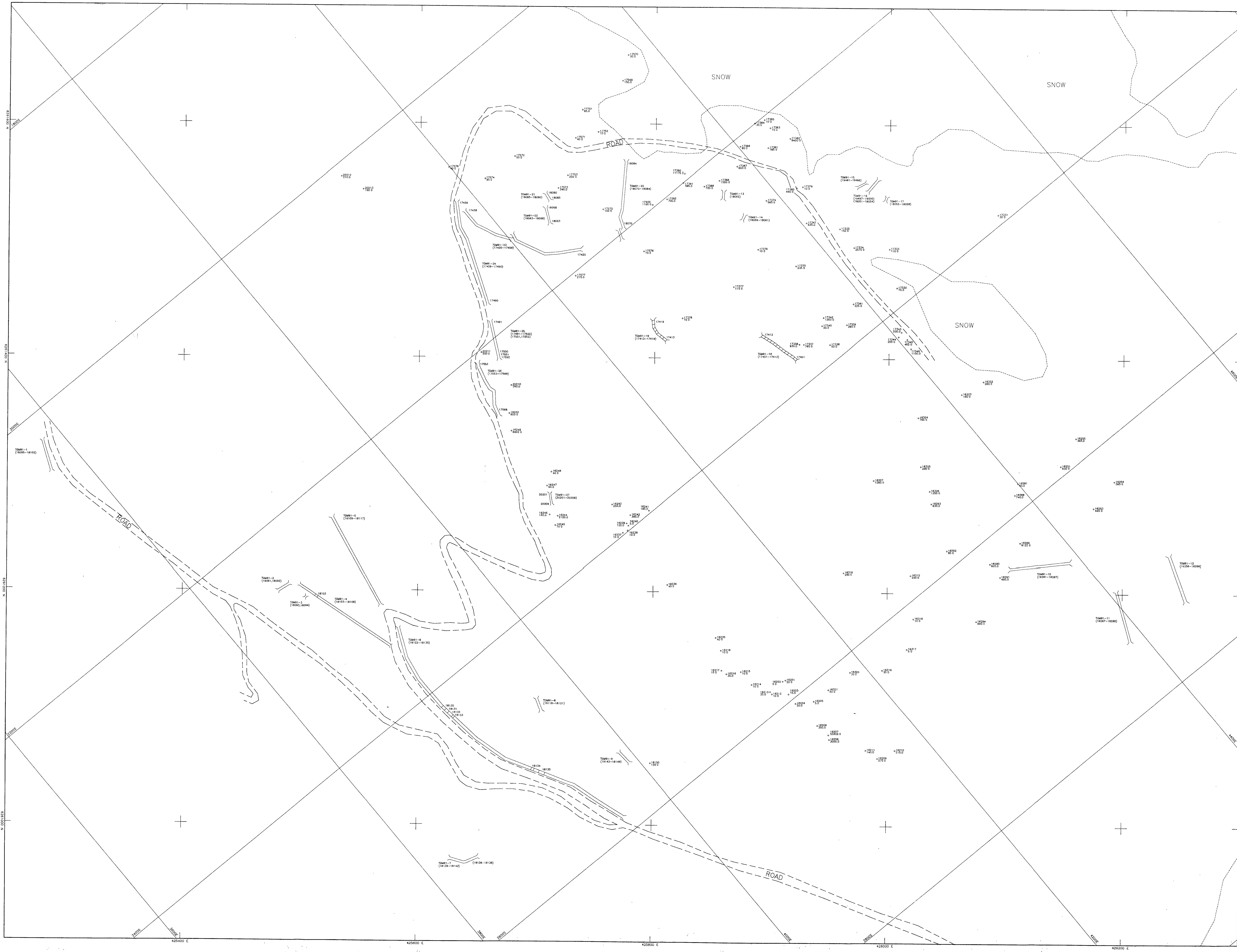
To: Newhawk Gold Mines Ltd.
860 - 625 Howe Street
Vancouver, B.C.
V6C 2T6.

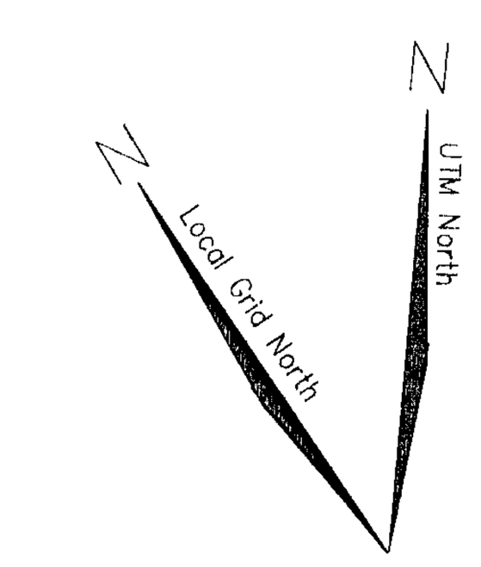
Attn: D. Visagie

Number: 91141
Date: September 16, 1990
Proj.: Bruceside

	Au ppb	Ag ppm	Reassay Au ppb	Reassay Ag ppm
16244	2100	> 100		
16245	70	19.1		
16246	180	9.2		
16247	40	7.5		
16248	40	4.7		
16249	7900	> 100		
16250	600	34.1		
16319	40	6.8	30	
16320	30	2.3		
16321	20	9.4		
16322	260	4.0		
16323	160	2.1		
16324	760	14.6		
16325	290	12.8		
16326	1250	60.0		
16327	1280	34.5		
17399	4700	> 100		
17400	1160	> 100		
20201	180	27.2		
20202	160	24.3		
20203	135	10.9		
20204	130	11.5		
20205	130	18.0		
20206	100	15.7		
20207	140	11.9		
20208	110	13.7		
20209	110	14.5		
20210	260	7.0		
20211	510	6.8	490	
20212	210	3.0		
20213	160	2.7		

Au: fire assay (10g), AA.
Ag: mixed acid digestion, AA.





GEOLOGICAL BRANCH
ASSESSMENT REPORT

21,884

LEGEND

ROCK CHIP SAMPLE LOCATION

ROCK TRENCH

17390 / 11175.0 — SAMPLE NO. / AU (PPB)

TGM91-2 (18091,18092) — TRENCH NO (SAMPLE NO.'S)

TRENCH AU VALUES

SAMPLE NO.	AU (PPB)	SAMPLE NO.	AU (PPB)
16256	15	17553	30
16257	5	17554	70
16258	5	17555	35
16259	5	17556	70
16260	5	17557	110
16261	35	17558	80
16262	20	17559	235
16263	10	17560	30
16264	5	17561	5
16265	5	17562	5
16266	10	17563	20
16267	60	17564	30
16268	15	17565	15
16269	5	17566	355
16270	10	17567	230
16271	35	17568	180
16272	35	18051	140
16273	60	18052	80
16274	15	18053	135
16275	60	18054	105
16276	10	18055	110
16277	10	18056	200
16278	10	18057	110
16279	15	18058	70
16280	13	18059	390
16281	40	18060	550
16282	200	18061	490
16283	150	18062	400
16284	260	18063	325
16285	380	18064	290
16286	1915	18065	330
16287	420	18066	615
17401	65	18067	455
17402	50	18068	455
17403	15	18069	280
17404	65	18070	830
17405	1825	18071	175
17406	55	18072	130
17407	165	18073	270
17408	105	18074	275
17409	570	18075	485
17410	25	18076	165
17411	5	18077	55
17412	5	18078	290
17413	5	18079	300
17414	5	18080	425
17415	15	18081	250
17416	85	18082	515
17417	5	18083	230
17418	5	18084	290
17419	10	18085	590
17420	200	18086	475
17421	15	18087	400
17422	15	18088	330
17423	10	18089	320
17424	20	18090	165
17425	15	18091	15460
17426	15	18092	13986
17427	50	18093	45215
17428	15	18094	12101
17429	30	18095	180
17430	15	18096	870
17431	10	18097	160
17432	35	18098	40
17433	1990	18099	15
17434	90	18100	10
17435	25	18101	5
17436	55	18102	20
17437	330	18103	10
17438	290	18104	13164
17439	225	18105	425
17440	290	18106	170
17441	390	18107	260
17442	1660	18108	1020
17443	130	18109	35
17444	140	18110	1330
17445	210	18111	10
17446	30	18112	5
17447	10	18113	5
17448	10	18114	10
17449	10	18115	10
17450	10	18116	50
17451	280	18117	10
17452	180	18118	285
17453	345	18119	140
17454	70	18120	250
17455	120	18121	210
17456	25	18122	20
17457	10	18123	200
17458	10	18124	20
17459	10	18125	30
17460	25	18126	30
17461	15	18127	20
17462	25	18128	430
17463	85	18129	355
17464	280	18130	180
17465	65	18131	20
17466	85	18132	205
17467	35	18133	210
17468	25	18134	50
17469	30	18135	40
17470	45	18136	345
17471	30	18137	835
17472	35	18138	1580
17473	80	18139	490
17474	30	18140	560
17475	40	18141	1390
17476	10	18142	1750
17477	10	18143	710
17478	20	18144	370
17479	80	18145	875
17480	10	18146	490
17481	5	18147	500
17482	5	18148	320
17483	5	18149	430
17484	10	19491	205
17485	10	19492	580
17486	5	19493	355
17487	5	19494	115
17488	10	19495	140
17489	5	19496	180
17490	5	19497	100
17491	40	19498	190
17492	60	19499	345
17493	30	19500	120
17494	20	20201	180
17495	10	20202	160
17496	10	20203	135
17497	10	20204	130
17498	5	20205	130
17499	5	20206	100
17500	20	20207	140
17551	5	20208	110
17552	5	20209	110

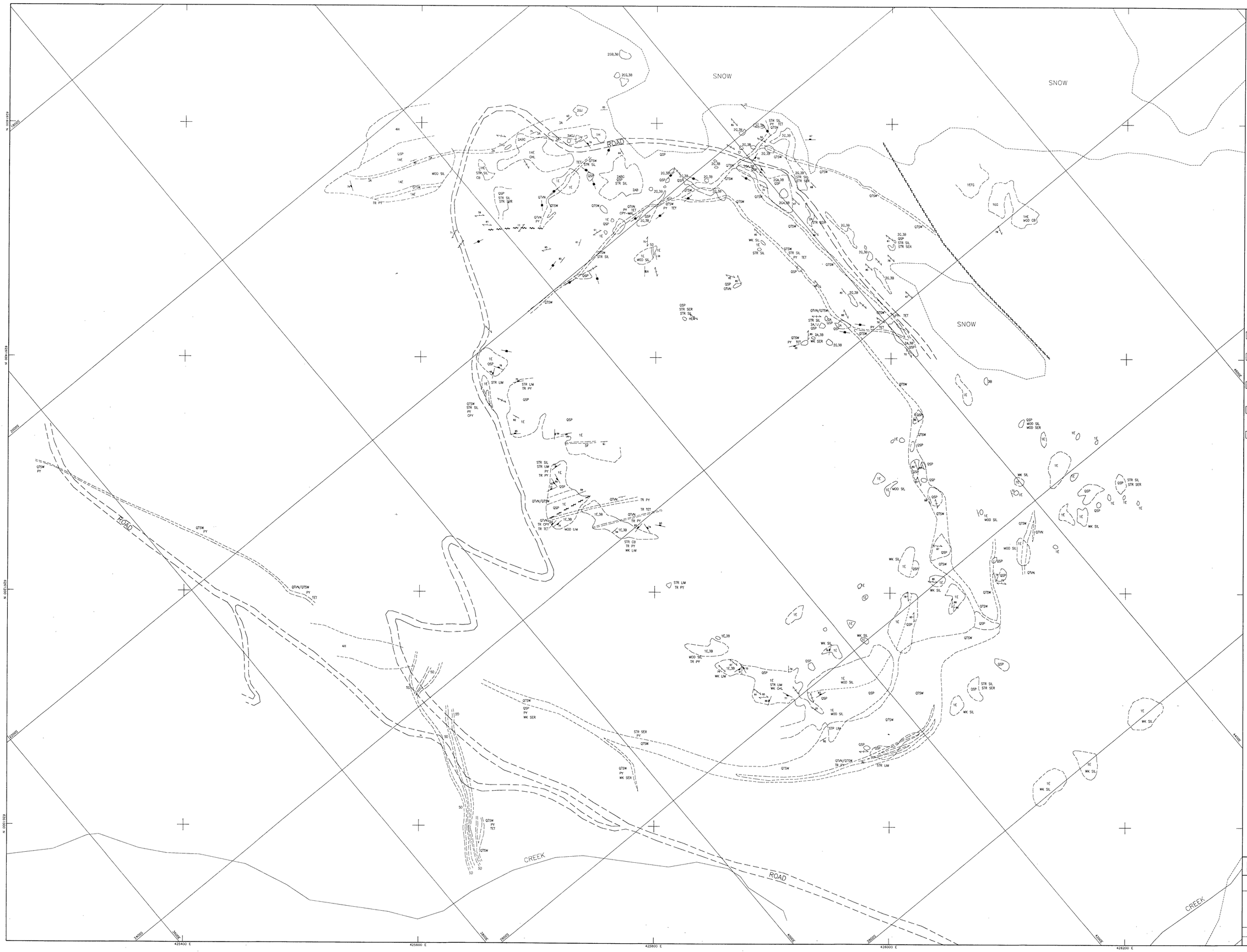
0 20 40 60 80 100
METRES
SCALE 1:1000

NEWHAWK GOLD MINES

SULPHURETS PROPERTY

GOLDEN MARMOT ZONE
1991 SAMPLE LOCATIONS

DRAWN BY: T.K.	NTS 104B/8
DATE: NOV 1991	FIGURE NO: 4



LEGEND

5 INTERMEDIATE TO MAFIC INTRUSIVES

5A UNSUBDIVIDED, 5B DIORITE (DIOT), 5C GABBRO (GABR), 5D DIABASE (DIAB), 5E LAMPROPHYRE DYKES-SILLS (LAMP)

4 FELSIC TO INTERMEDIATE INTRUSIVES

4A UNSUBDIVIDED, 4B GRANITE (GRAN), 4C SYENITE (SYEN), 4D QUARTZ-MONZONITE (QMON), 4E MONZONITE (MONZ), 4F GRANODIORITE (GRAD), 4G QUARTZ-EYE PORPHYRY (FPQE), 4H FELDSPAR-PORPHYRY (FPFP), 4I QUARTZ-FELDSPAR PORPHYRY (QFPP), 4J HORNBLENDE-FELDSPAR PORPHYRY (FPHB)

3 CHEMICAL METASEDIMENTS

3A CHERT (CHER), 3B CHERTY TUFF (CTUF), 3C OXIDE FACIES IF (OXIF), 3D CARBONATE-FACIES IF (CBIF), 3E SILICATE-FACIES IF (SIIF), SULPHIDE-FACIES IF (SPIF)

2 METASEDIMENTS

2A UNSUBDIVIDED, 2B ARENITE (ARNT), 2C ARKOSE (ARKS), 2D ARGILLITE (ARGT), 2E GREYWACKE (GRWK), 2F CONGLOMERATE (CONG), 2G CHERT (CERT), 2H LIMESTONE (LIME)

1 METAVOLCANICS – RHYOLITE (RH), DACITE (DA), ANDESITE (AN), BASALT (BA)

1A UNSUBDIVIDED, 1B MASSIVE FLOWS (ANFL), 1C PORPHYRITIC FLOWS (ANPO), 1D PILLOWED FLOWS/PILLOW BRECCIA (ANPL), 1E TUFF (ANTF), 1F LAPILLI TUFF (ANLT), 1G TUFF-BRECCIA (ANBX), 1H CRYSTAL TUFF (ANXT), 1I PORPHYRY (ANPP), 1J VOLCANICLASTIC-LAHAR (ANVL)

ALTERED ROCKS

ALB	ALBITIZATION
BIO	BIOTITEROUS
CB	CARBONATE ALTERATION
CHL	CHLORITIZATION; CHLORITIC
KSP	POTASSIC ALTERATION
QSP	QUARTZ-SERICITE; PYRITE SCHIST
SER	SERICITIZATION; SERICITIC
SIL	SILICIFICATION; SILICIFIED

WK – WEAK MOD – MODERATE STR – STRONG

SYMBOLS

- OUTCROP BOUNDARY
- BEDDING (VERTICAL, INCLINED)
- SHEARING (VERTICAL, INCLINED)
- JOINTING (HORIZONTAL, INCLINED, VERTICAL)
- LINEATION WITH PLUNGE
- PILLOWS (TOPS UNKNOWN, KNOWN)
- GEOLOGICAL CONTACT (OBSERVED, ASSUMED)
- FAULT (DEFINED, ASSUMED)
- SHEAR ZONE, LINEAMENT
- TRENCH, PIT
- DRILL HOLE (VERTICAL, INCLINED)
- DIAMOND SAW CHANNEL INTERVAL

ABBREVIATIONS

AU	– NATIVE GOLD	GN	– GALENA
AG	– NATIVE SILVER	HEM	– HEMATITE
ANK	– ANKERITE	LIM	– LIMONITE
ARG	– ARGENTITE	MAG	– MAGNETITE
ASPY	– ARSENOPYRITE	MAL	– MALACHITE
AZ	– AZURITE	MO	– MOLYBDENITE
BA	– BARITE	POLY	– POLYBASITE
BAVN	– BARITE VEIN	PY	– PYRITE
BN	– BORNITE	PYRA	– PYRARGYRITE
BX	– BRECCIA	PO	– PYRRHOTITE
CHAL	– CHALCOCITE	QCS/QCV	– QUARTZ-CARBONATE STRINGER/VEIN
CPY	– CHALCOPYRITE	QS/QV	– QUARTZ STRINGER/VEIN
CU	– NATIVE COPPER	SID	– SIDERITE
DOL	– DOLOMITE	SP	– SPHALERITE
EL	– ELECTRUM	TENN	– TENNANTITE
GP	– GRAPHITE	TET	– TETRAHEDRITE

QTVN – QUARTZ VEIN >80% QTVN/QTSW
QTSW – QUARTZ STOCKWORK 20%-80% QTVN/QTSW

GEOLOGICAL BRANCH
ASSESSMENT REPORT

21,884

0 20 40 60 80 100
METRES
SCALE 1:1000

NEWHAWK GOLD MINES

SULPHURETS PROPERTY

GOLDEN MARMOT ZONE
GEOLOGY

DRAWN BY: T.K.	NTS 104B/8
DATE: NOV 1991	FIGURE NO: 5,6