MAP NO.:	**ASSESSMENT REPORT**	X	**DOCUMENT NO:**	092144
	PROSPECTUS		**MINING DISTRICT:**	WHITEHORSE
105 D 2 & 3	**CONFIDENTIAL**	X	**TYPE OF WORK:**	DIAMOND DRILLING, GEOLOGICAL, GEOCHEMICAL
	OPEN FILE			

REPORT FILED UNDER:		Island Mining and Explorations Ltd.		
DATE PERFORMED:		June 3 - August 6, 1987	**DATE FILED:**	May 22, 1988
LOCATION:	**LAT.:**	$60^{O}13'N$	**AREA:**	Mt. Stevens
	LONG.:	$134^{O}59'W$	**VALUE $:**	
CLAIM NAME & NO.:		TON 1-16 YA78181-196; ISLAND 1, 2 Fr. YA93380-381; JL 1-80 YA59033-056, YA85597-652; GRAY 1-4 YA78743-745; AFI 187, 188, 201-204, 206, 208, 210, 212, 214, 225-296 YA85839, 840, 853-856, 858, 860, 882, 864, 866, 877-948		
WORK DONE BY:		A. Montgomery		
WORK DONE FOR:		Island Mining and Explorations Ltd.		

DATE TO GOOD STANDING:	

REMARKS: #32 MT. STEVENS, #19 CHARLESTON EIP Project
(see assessment report 091991)
Work in 1988 included 8 NQ/HQ diamond drill holes totalling 898.5 m which tested mineralized dykes north of MIDNIGHT GULCH. Poor ground conditions prevented the holes from reaching target depth.

GEOLOGICAL, GEOCHEMICAL, TRENCHING & DIAMOND DRILLING

REPORT (WORK FROM JUNE 3 - AUG. 6 1987)

ON

ISLAND MINING & EXPLORATIONS CO. LTD.

MIDNIGHT GULCH PROPERTY (TON 1-16, JL 1-80, ISLAND FR 1,2,
AFI 187, 188, 201-204, 206, 208,
210, 212, 214, 225-296, GRAY 1-4)

LATITUDE: 60° 13'
LONGITUDE: 134° 59'
NTS 105D/2, D/3

FOR

YUKON ECONOMIC DEVELOPMENT:
MINES & SMALL BUSINESS
BOX 2703, WHITEHORSE, YUKON
Y1A 2C6
EXPLORATION INCENTIVE PROGRAM
DESIGNATION # E1P87-028

BY

ALLAN MONTGOMERY, BSC GEOL.

ISLAND MINING & EXPLORATIONS CO. LTD.

092144

SUMMARY

Exploration activity on the Midnight Gulch showings began in the early party of this century with trenching and driving at least 3 adits.

In 1980 Island Mining staked the JL claims and has since staked claims south east to Bennet Lake and carried out exploration work including rock and soil sampling, mapping, cat trenching and diamond drilling, including 2946 ft. of diamond drilling in 1987. Most of this work has focused on a dike swarm north of Midnight Gulch.

This area is underlain by Triassic tuffs, volcanic flows and "augite andesite", and clastics northward, intruded by Cretaceous plutonic stocks. Eocene rhyolite and quartz-feldspar porphyry dikes intrude all older units.

Mineralization occurs as auriferous galena and pyrite (plus or minus rare visible native gold) bearing quartz vein stockwork hosted by Eocene dikes. Veining appears to be ontrolled by cross faults and limited in extent. Host dikes are often silicified and sericite and limonite altered.

A number of anomalous samples were collected from the 1987 grid area and to the north and south including from a newly discovered narrow silver-rich shear to the north; drilling to date however has not intersected economically significant

mineralization.

It is recommended that a 1988 exploration program include soil and rock sampling, mapping and prospecting, and trenching if warranted on areas not yet closely explored including to the north and south of the 1987 grid, the "soil anomaly zone" and the east side of the grid area.

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INTRODUCTION

This report, Written for Yukon Economic Development: Mines and Small Business as a requirement for application of payment for an exploration incentives program grant, describes mineral exploration work completed during 1987 on Island Minings' Midnight Gulch Property. Diamond drilling, trenching, geological mapping and sampling in 1987 follow previous mapping and sampling and limited diamond drilling.

PERSONNEL

GEOLOGICAL PERSONNEL EMPLOYED ON THE PROPERTY

FULL-TIME INCLUDED:

NAME	POSITION	ADDRESS
Allan Montgomery	project geologist (author this report; 12 days)	4764 Moss St. Vancouver, B. C. V5R 3T2
Hugh MacKinnon	geologist	693 Edinburgh Rd. S. Guelph, Ontario N1G 3S9
Adam Travis	geological assistant	1700 Centenary Dr. Naniamo, B. C. V9R 5K1

PART-TIME GEOLOGICAL STAFF INCLUDED:

Terrance Elliott	geological advisor	Whitehorse, Yukon
Markus Vanwermeskerken	geologist	5443 Wildwood Cres. Delta, B. C. V4M 3S8
Lorne Rowan	geologist	32595 Dahlstrom Ave. Clearbrooke, B. C. V2T 4E4
Brennan Lang	assistant	336 Talisman Ave. Vancouver, B. C. V5Y 2L7
Eric Bergvinson	assistant	1235 Chartwell Pl. West Vancouver, B.C. V7S 2S2
Tom Garagan	consulting geologist	Aurum Geological Consultants Inc. 1614 675 W. Hastings Vancouver, B. C. V6B 4W3

CONTRACTORS EMPLOYED INCLUDE:

COMPANY	ADDRESS
E. Caron Diamond Drilling Ltd.	7 Roundel Road Whitehorse, Yukon Y1A 3M3
Frontier Helicopters Ltd.	P.O. Box 220 Abbotsford, B. C. V2S 4N9
Acme Analytical Laboratories Ltd.	852 E. Hastings St. Vancouver, B. C. V6A 1R6
Canadian Airlines International	1 Grant McConachie Way Vancouver International Airport, B. C. V7B 1V1

LOCATION & ACCESS

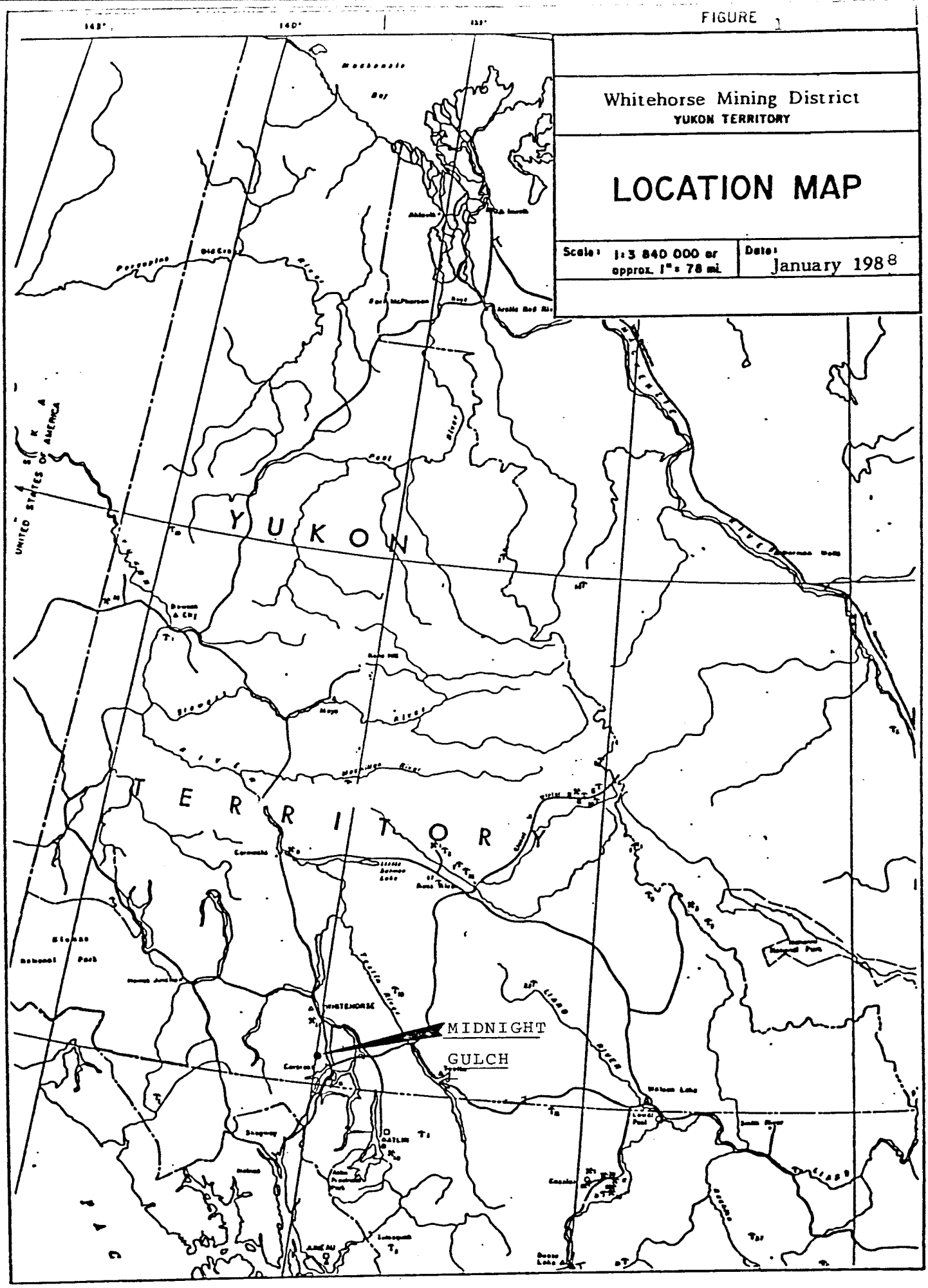
The Midnight Gulch Property is located approximately 60 km south of Whitehorse, Yukon Territories to the southeast of Mt. Stevens (Figure 1). Access is by an all weather road (Annie Lake Road) leading from the Whitehorse-Carcross Highway. A good 4-wheel drive road runs up Partridge Creek to the west side of the property. From there 4-wheel drive roads lead to 1987 drill sites.

CLAIM STATUS

The following claims comprise the Midnight Gulch Property.

CLAIM NAME & NUMBER	RECORD NUMBER	REGISTERED OWNER
TON 1 - 16	YA78181-196	Canadian Nickel Co. Ltd.
ISLAND 1,2 fr	YA93380-381	Island Mining & Explorations Co.Ltd.
JL 1-80	YA59033-056	"
	YA85597-652	"
AFI 187,188,201-204	YA85839,840,853-856	"
206,208,210,212	858,860,682,864,	"
214,225-296	866,877-948	
GRAY 1-4	YA78743-745	"

FIGURE 1


Whitehorse Mining District
YUKON TERRITORY
LOCATION MAP
Scale: 1:3 840 000 or approx. 1" = 78 mi.
Date: January 1988
YUKON
TERRITORY
MIDNIGHT
GULCH
WHITEHORSE
DAWSON
CARMACKS
STEWART
KLUANE
NATIONAL PARK
WATSON LAKE
ATLIN
JUNEAU

PREVIOUS WORK

The Midnight Gulch area was originally staked as the Hidden Ore Group around 1907. Several dikes with narrow quartz veins were trenched and three adits were driven into the dikes. Exploration discontinued in the 1930's and did not resume until Island Mining staked the JL 1-24 claims in 1980. During 1981 a preliminary evaluation was carried out including limited soil sampling, re-location of old workings, geological mapping and trenching (Holcapek, 1981).

The TON claims were staked by Inco in 1983 and optioned by Island Mining in 1985. The remaining JL, AFI, gray & Island Fr claims were also staked at this time.

During 1985 a program of geological mapping and soil and rock sampling was conducted on the JL, TON, and AFI claims (Verley, 1986 a,b,c).

In 1986 activities included geological mapping, prospecting, rock and soil sampling, cat trenching, road building and diamond drilling (748 ft on the TON claims) (Garagan, 1986).

1987 EXPLORATION ACTIVITY

1987 exploration activities included geological mapping, rock and soil sampling, road construction, cat trenching and diamond drilling. The focus of the 1987 program was a swarm of rhyolite dikes north of Midnight Gulch.

MAPPING

A 50m x 50m spaced chain and compass grid was established over a 600m x 700m area north of Midnight Gulch to facilitate mapping control. Much of this area was mapped at 1:2000 scale (Figure 2); diamond drill targets were mapped at 1:1000 or 1:500 scale (Figures 3-6). Other mapping included 1:2000 scale and 1:500 scale mapping along the 1987 drill access road (north of the grid) (Figure 7), and 1:2000 scale mapping to the south (Southern Gulch) (Figure 8).

SAMPLING

Rock, soil and talus fine samples were collected over the 1987 grid area, to the north and south, and from cat trenches on the Island fractional and TON claims (Figures 8-10). Sampling was carried out to confirm previous sampling and to test unexplored areas. A total of 175 rock samples, 149 B-C- horizon soil samples and 4 talus fine samples were collected including 116 B- or C- horizon soils collected at 30m spacing along the 1987 drill access road.

Most samples were analyzed for Au, Ag, Cu, Pb, Zn and As at Acme Analytical Labs in Vancouver; Ag, Cu, Pb, Zn and As by ICP from a 0.500g sample digested in an HCL-HNO3-H2O solution and Au by AA from a 10g sample (soils were sieved to -80 mesh). Select high grade samples were assayed for Au and/or Ag by fire assaying -100 mesh crushed and pulverized fractions; samples were further tested for native gold by fire assaying the +100 mesh fraction.

DIAMOND DRILLING

Eight diamond drill holes totalling 2946 ft (898.5 m) were drilled in 1987 to test mineralized dikes north of Midnight Gulch (Figure 11). All holes were initially drilled using HQ core but because of poor ground conditions all were reduced to NQ; hole 87-C1 was further reduced to BQ and finally shut down before reaching its proposed target. All drilling was completed by E. Caron Diamond Drilling of Whitehorse. Core is stored at the government core library in Whitehorse. Table I lists drill hole data.

TABLE I

HOLE	TARGET	DATE START	DATE FINISH	BEARING	DIP	O/B	TOTAL LENGTH
87-A1	ADIT ZONE	JUL 1	JUL 6	227	-51	29.9'	387'
87-WB1	WHEELBARROW ZONE	7	10	218	-50	66'	311'
87-WB2	"	10	13	206	-55	72'	406
87-WB3	"	13	16	155	-65	24'	471'
87-WB4	"	16	18	135	-65	31'	301'
87-I1	IVAN ZONE	19	22	220	-50	4'	339'
87-I2	"	22	24	170	-50'	6'	259'
87-C1	SOIL ANOMALY ZONE	24	31	180	-55	5'	472'

ROAD WORK & TRENCHING

During the 1987 season a D7-Cat was used to extend the property access road approximately 2.5 km to allow drill access to the "Wheelbarrow" and "Adit" zones and to facilitate trenching (Figures 9 & 11). Trench material excavated consisted of soil and subcrop, with an approximate total volume of 1290 cubic metres.

GEOLOGY

PREVIOUS INTERPRETATIONS

Previous work (Garagan, 1986; Verley, 1985; Manson, 1984) indicates that Midnight Gulch is underlain by Triassic (Lewis River Group ?) meta-andesite, basalt (TON claims), tuffs, clastics and flows, bounded to the south (directly south of Midnight Gulch) and north by Cretaceous plutonics thought to be part of the Coast Plutonic Complex. Directly northwest of Midnight Gulch a northwest trending swarm of Eocene rhyolitic dikes, often mineralized, cuts the older rocks.

CURRENT WORK

GRID AREA GEOLOGY & STRUCTURE

The grid area mapped in 1987 covers approximately 700 metres of the rhyolite dike swarm (Figure 2). Outcrop accounts for approximately 5% of the area, with glacial overburden and talus, coverage.

Predominate underlying rock types in the area include Triassic green meta-tuffs and flows with interbedded clastics to the north, and dark green Triassic augite andesite to the south; both intruded by Eocene rhyolite and quartz-feldspar porphyry dikes and Cretaceous plutonic stocks.

By far the most abundant rock type to the north is andesitic tuff (and its metamorphosed equivalent, chlorite schist), which varies from fine grained to lapilli with minor crystal tuff and flows. Interlayered but less common are dark, felsic porphyritic flows, felsic and mafic clastics(?) and felsic tuffs. Foliation varies from strong to absent and consistently trends northwest dipping steeply to moderately to the northeast (subparalled to paralled with dikes). The augite andesite to the south is generally weakly foliated also trending northwest and dipping northeast.

Dikes generally trend northwest and dip steeply to moderately northeast. Individual dikes are from a few to over 10 metres wide. The relationship between the rhyolite and quartz-feldspar porphyry dikes is unclear however field evidence suggests that they may grade into one another, possibly being different phases of the same system, and appear to continue for hundreds of metres, with offset up to at least 15m by crosscutting faults.

Small stocks of quartz monzonite and granodiorite have been mapped in on surface and encountered in drilling to the southeast (Holes 87-WB1 to WB4); diking appears to cut these units.

Rock descriptions are listed in Appendix A.

Faulting (commonly trending north to northeast) has been mapped in at the Adit Zone (Figure 4), and the Ivan Showing (Figure 6) offsetting dikes up to 15 metres on surface. Airphoto lineations suggest there may be north-northeast and east-west faulting.

NORTH & SOUTH GEOLOGY & STRUCTURE

Limited mapping was carried out at 1:2000 & 1:500 scale north of the grid area along the 1987 drill access road (Figure 7). Rock units in this area include siltstone and pebble conglomerate, and andesitic tuffs and flows, indicating a strong clastic component in the Triassic volcanics. Rhyolite diking and muscovite schist also occur in the area.

There seems to be a major structural change from the south as foliation more commonly dips southwest northward.

Approximately 1 to 1 1/2 kilometres south, "Southern Gulch", Triassic andesitic tuffs and what may be the augite andesite and rhyolite have been identified (Figure 8).

MINERALIZATION

PREVIOUS WORK

A number of old trenches and at least 3 caved adits have been located within the grid area, all located along rhyolite and quartz-feldspar porphyry dikes. Recent work shows that mineralization occurs predominantly within dikes as mineralized quartz vein stockwork localized at warps in the dikes thought to be caused by cross faulting or natural bends in the dikes (Holcapek, 1981). Veining occurs with an associated sericitization, silicification and minor fine dissemenated pyrite.

CURRENT WORK

Seven zones of mineralization were investigated in 1987. These include: the Adit, Wheelbarrow, Ivan, Soil Anomaly, North, Lower Adit and Southern Gulch Zones. (Figures 3 - 8, 12).

WHEELBARROW ZONE

The Wheelbarrow zone appears to be a caved adit with a number of associated trenches along a quartz-veined rhyolite and/or quartz-feldspar porphyry dike (Figure 3).

Dump material found at the adit consists of white quartz vein up

to approximately 30 cm wide. Quartz vein, fractured with fe-carbonate and fe-oxide seams, commonly carries from 0.1% - 5% disseminated fine grained pyrite, galena, sphalerite, and rare fine dissemenated native gold (assay results suggest an association between gold and lead, silver and zinc). Cat trenching in this area revealed a narrow galena, pyrite, sphalerite bearing veinlet cutting the quartz-feldspar porphyry dike approximately 10 metres west of the carved adit.

Diamond drilling (Appendix B & C) and surface mapping (Figure 3) indicate that the Wheelbarrow zone is underlain by augite andesite, andesitic volcanics and Cretaceous quartz monzonite and granodiorite cut by a sequence of dikes. Airphoto examination and surface geology suggest a northeast trending fault may intersect the dike at the location of mineralization.

ADIT ZONE

The Adit zone is also an abandoned, caved adit driven into a quartz veined rhyolite dike (Figure 4).

Quartz vein stockwork can be seen in outcropping rhyolite adjacent to the caved adit consisting of vuggy white quartz veins mm's-5 cm's (50 cm in float) with up to 5% disseminated fine-medium grained galena and 1% disseminated, fine-medium grained pyrite. The host rhyolite is orange-yellow weathered, silicified and sericitized with abundant limonitic fractures,

6 metres wide, trending northwest and dipping 78 degrees northeast (as determined by drilling) cutting strongly to weakly foliated, unmineralized andesitic tuffs. A number of northeast trending faults offset the rhyolite dike. Mineralized quartz stockwork seems to be localized at the adit sight. Although quartz veining was encountered at depth (drill int. ~ 100 metres, (361 ft.) below surface) gold values were only slightly anomalous.

IVAN SHOWING

The Ivan showing is the location of narrow mineralized quartz veining and a prominent soil gossan at the intersection of two strong airphoto lineations (one a known fault) (Figure 6). White quartz veins occur up to 7 cm wide with < 1% disseminated galena and pyrite. Mapping and drilling (Holes 87-I1 and 87-I2) indicate that the area is underlain by andesitic tuffs and flows cut by rhyolite dikes.

SOIL ANOMALY ZONE

This area, underlain by a number of rhyolite and quartz-feldspar porphyry dikes cutting andesitic volcanics and augite andesite, is the location of three significant 1986 soil anomalies (1290 ppb, 3100 ppb & 2790 ppb gold) (Figure 5). 1987 sampling located a number of anomalous float and outcrop samples of quartz veined dikes with minor galena and pyrite.

LOWER ADIT

Mineralized quartz vein up to 10 cm wide from dump material was found near a third adit at the southeast corner of the grid area (Figure 2). This area seems to be underlain predominantly by felsic flows with rhyolite diking.

SOUTHERN GULCH

Southern Gulch, approximately 1 - 1 1/2 kilometres south of the 1987 grid, is the location of a 1985/86 soil anomaly (Figure 12, Figure 8). This years results confirmed this anomaly. Mapping indicates that the area is mainly underlain by andesitic volcanics.

NORTH ZONE

The North zone, north of the 1987 grid along a drill access road, is a sequence of strongly sheared and fractured, sericite, limonite, chlorite, carbonate and clay altered clastics, andesitic volcanics and rhyolite (?) hosting silver rich quartz-sulphide veinlets (Figure 12, Figure 7). Veinlets are up to 2 cm wide with as much as 30% galena and 5% pyrite.

RESULTS

SAMPLING

Numerous rock and soil samples were collected over the 1987 grid area, to the north and to the south. Samples high in gold and associated metals (Ag, Pb, Zn, As) were found in most areas explored (Appendix D). A silver rich shear zone was discovered north of the grid (Figure 7), and the 1985/86 soil anomaly to the south of Midnight Gulch was reconfirmed (Figure 8).

In general most "anomalous" rock samples were collected from rhyolite or (quartz-) feldspar porphyry dikes. Over 50 rock samples returned gold values greater than 50 ppb gold, the highest, 2.484 opt gold, was collected from a galena bearing quartz veined rhyolite dike at the Adit zone. Quartz vein stockwork in dikes often with a few percent galena, pyrite, +/- sphalerite & cholcopyrite is the most common form of mineralization observed within the grid area. Multi-element analysis shows a good "association" between gold and lead and silver, +/- arsenic and/or zinc (Appendix E); copper seems to be independent.

Sampling highlights include the identification of visible native gold in quartz vein dump at the Wheelbarrow zone and the discovery of a narrow silver rich shear (as high as 30.09 opt silver with 4450 ppb gold) at the North zone.

Based on a 1985 statistical analysis of soil sample results from the JL and TON claims (Verely, 1985), Table II, thirteen Au +/- Ag, Pb, Zn, As, Cu anomalous or possible anomalous soils have been indentified with in the grid area Table III:

TABLE II MULTI-ELEMENT INTERPRETATION OF SOIL SAMPLE DATA-SOURCE, VERELY, 1985 A, B.

	Range	Background	Possibly Anomalous	Anomalous
Au	1- 810 ppb	1- 99 ppb	100-299 ppb	300+ ppb
Ag	0.1- 8.3 ppm	0.1-0.7 ppm	1.8-3.0 ppm	3.1+ ppm
Pb	2-3010 ppm	2-199 ppm	200-399 ppm	400+ ppm
Zn	29-1143 ppm	29-349 ppm	350-499 ppm	500+ ppm
As	2- 113 ppm	2- 49 ppm	50- 79 ppm	80+ ppm
Cu	11- 810 ppm	11-199 ppm	200-299 ppm	300+ ppm

TABLE III ANOMALOUS AU IN SOIL SAMPLES, GRID AREA.

SAMPLE #	Au (ppb)	AREA
8735B7106	390	Road cut survey - north
8735B7130	103	"
8735B7181	105	Ivan Showing
8735B7183	108	"
8735B7091	405	"
8735B7092	695	"
8735721	395	"
8735B7033	132	(100m west of) Adit Zone
8735B7047	107	Adit Zone
8735B760	1780	Adit Zone
87A731	143	Road cut survey-southeast
875B765	150	L2 + 50N, 3 + 50E
875A757	46,320	Wheelbarrow Zone

Most of these samples are related to known mineralization; samples 8735B7106 and 130 are of interest in that they line up in a northwest direction, possibly representing an underlying dike.

To the north a very prominent arsenic (+/- gold and copper) anomaly was detected in road cut sampling (19 out of 34 soils > 50 ppm arsenic).

Soil sampling at Southern Gulch returned gold values of 615 ppb,

820 ppb and 1100 ppb gold at the site of the 1985/86 soil anomaly.

A single copper high (1552 ppm Cu) was collected from the cat trench on the TON 14 claim.

DIAMOND DRILLING

Drill logs and drill core sample descriptions and results are listed in Appendixes B and C. The most significant mineralization encountered was a 2.5 cm wide galena, pyrite bearing quartz vein in altered and quartz veined rhyolite porphyry in hole 87-WB2 which assayed 0.335 opt gold with 0.11 opt silver over 1'6". Although quartz veined dikes and minor weak mineralization were encountered in this and other holes no economically significant intersections were encountered Hole 87-C1 did intersect a quartz veined rhyolite dike which consistently carried between 147 ppb - 430 ppb gold over 26ft.

DISCUSSION & CONCLUSIONS

Quartz vein stockwork is widespread in rhyolite and quartz-feldspar porphyry dikes north of Midnight Gulch. Veins are generally less than 2 cm wide (quartz vein float has been found up to 30 cm wide) and at best only weakly mineralized, but locally well mineralized with galena and pyrite, +/- native gold, sphalerite, and cholopyrite recognized. Surface sampling indicates that mineralized quartz stockwork in dikes is common but of limited extent. Diamond drilling revealed only weakly anomalous gold values in dikes at depth, with one exception, a 2.5 cm veinlet assaying 0.335 opt gold.

Crosscutting faults have been mapped in at the Adit Zone and Ivan Showing, and a fault has been hypothesized at the Wheelbarrow Zone, supporting the theory that faults have acted to concentrate the gold mineralization as suggested by Holcapek, 1981. Mineralization may occur as shoots along fault-dike intersections and/or as fault associated gash veins within the dikes, at oblique angles to the dike walls creating difficult drill targets.

To the north of the dike swarm a prominent arsenic soil anomaly was discovered. This anomaly approximately corresponds to a change in lithology from volcanic clastics and flows with minor clastics to predominantly clastics northward. Because of the

minor role arsenic plays in the quartz vein stockwork mineralization, it is suspected that this lithological change is the source of the higher arsenic values.

To the south a Au soil anomily has been duplicated, however no source has been clearly established.

RECOMMENDATIONS

In consideration of work completed to date on the Midnight Gulch Property, the following work program is recommended for 1988.

1. Completing the soil grid at 50 metre line spacing directly east of the TON - JL claim boundary, (lines 1850E to 2250E, OON to 1200N on the 1986 soil grid).

2. 50 metre x 50 metre spaced soil sampling over the Southern Gulch soil anomaly area.
   ~ (500 metres x 500 metres)

3. 1:2000 scale mapping and sampling of Southern Gulch.

4. Prospecting and sampling:
   - north of 1987 grid
   - southeast and south areas of 1987 grid
   - soil anomaly area

Contingent on Results:

5. Cat or hand trenching.
   (D7 or D6 cat with ripper)

6. Diamond drilling.

REFERENCES

GARAGAN, T. 1986. Preliminary report on 1986 exploration activities JL 1-80 claims. Report for Island Mining and Explorations Co. Ltd.

HOLCAPEK, P. 1981. Evaluation report on the JL 1-24 mineral claims, Midnight Gulch, map sheet 105K - Yukon Territory. Report for Island Mining & Explorations Co. Ltd.

MANSON, W. 1984. Geological & Geochemical report TON claims 1-16. Report for Canadian Nickel Co. Ltd.

VERLEY, CARL. G. 1986a. Geological & Geochemical report on the JL 1-80 claims. Report for Island Mining & Explorations Co. Ltd.

1986b. Geological & Geochemical report on the TON 1-16 claims. Report for Island Mining & Explorations Co. Ltd.

1986c. Geological & Geochemical report on the AFI 183-296, GRAY 1-4 claims. Report for Island Mining & Exploration Co. Ltd.

APPENDIX A

LITHOLOGIC DESCRIPTIONS

092144

APPENDIX A. LITHOLOGIC DESPRIPTIONS

INTERMEDIATE TUFFS: Variably coloured (commonly green); aphanitic to fine grained +/- heterolithic fragments mm's to cm's; massive to strongly foliated (schistose); commonly with interlayered intermediateflows, flow breccias and crystal tuffs, and rarely felsic tuffs; weakly to strongly altered: sericite, limonite, iron carbonate and (especially) chlorite.

FELSIC PORPHYRITIC FLOWS: Commonly grey (black weathered); aphanitic ground mass with 1% - 5% 1 mm - 3 mm feldspar phenocrysts: irregular flow banding common; often with interbedded tuff; phenocrysts may be clay (?) altered.

FELSIC/MAFIC CLASTICS: Buff to grey (fresh) weathered; fine grained to medium grained, sandy textured, occasionally laminated; interlayered with more common volcanics (not intersected in drill core).

FELSIC TUFF: Grey and green in core, brown weathered, fine grained with fragments 0.5 mm to 2 cm; (uncommon).

AUGITE ANDESITE:	Buff to green weathered, dark green fresh; fine grained ground mass with pyroxene (& plagioclase) phenocrysts 1 mm - 3 mm; weakly foliated, weakly banded; pyroxene phenocrysts chloritized, minor epidote alteration.
QUARTZ MONZONITE:	Brownish green to greenish grey (buff, yellow weathered); medium to fine grained; 25% mafics (chloritic); Variable chlorite, sericite, carbonate & limonite alteration.
GRANODIORITE:	Grey to green, medium to fine grained, occasional porphyritic phase; chlorite, sericite and silicic alteration.
RHYOLITE DIKES:	Yellow to orange weathered, greenish-grey fresh; v. fine grained to aphanitic +/- feldspar phenocrysts < 2 mm; <1% fine-medium grained disseminated cubic pyrite; rusty (limonite) fracturing common; silicic, sericite, iron oxide & iron carbonate alteration common. Quartz veined equivalent: quartz vein stockwork, white to clear quartz (+/- minor pyrite/galena/ (sphalerite & native gold)) veins commonly 1 mm to 1 cm wide.

(QUARTZ-) FELDSPAR PORPHYRY DIKE	Light brown weathered, light brown to pinkish brown fresh; aphanitic to fine grained matrix with 0% -35% euhedral to subhedral feldspar (+/-quartz) phenocrysts 0.5 mm -5 mm; commonly fractured; minor pyrite common; silicic, sericite, carbonate & limonite alteration common; (mineralized) quartz veining locally: qtz veins hairline to 1 - 2 cm.
(META) PEBBLE CONGLOMERATE:	Whitish-green & grey fresh & weathered; fine quartz grain matrix supporting elongate round clastics of quartz & mafic volcanic porphyry up to 6 cm long.
MUSCOVITE SCHIST: (NORTH ZONE ONLY)	Pinkish-brown-grey fresh, pinkish-white weathered; v. strongly foliated, strong chlorite, iron-carbonate, iron-oxide, sericite alteration.
SILTSTONE:	Buff to lt. green fresh, lt. lime green weathered; soft (chloritic, argillic altered); v.f. grained; strongly foliated to schistose; 1 mm qtz eves; minor pyrite.

APPENDIX B

DRILL LOGS

RQD FACTOR = 12cm for HQ NQ = 10 cm

DIAMOND DRILL LOG

HOLE No. DDH 87-A1 Page 1 of

Property MIDNIGHT GULCH	NTS 105 D/2	Claim JL	Elevation 4200'	Azimuth 227°	Length 387'	Dip -51°
Coordinates 5+25N 1+25E	Dip Tests —	Advance 243.5'	Depth 300.8'	Date Collared JULY 1, 1987	Date Completed JULY 6	
Purposes TESTING RHYOLITE DYKE AT ADIT (4+12SN, 0+90E)	Drilled by CARON	Assays by ACME	Logged by A. [illegible]			

Interval From	Interval To (m)	Rec'y %	RQD	DESCRIPTION	Sample No.	Interval From	Interval To	Core (m) Width	% PY	PPM Cu	PPM Pb	PPM Zn	PPM Ag	PPM As	PPM Au (ppb)
0	25.9			CASING											
5.18	16.15	40%	0.03	OVERBURDEN(?)	8366	14.63	16.15	1.52	0%	24	13	59	.1	3	3
				MIXED ROCK FRAGMENTS, PEBBLES & SOIL; ROCK FRAGMENTS IDENTIFIED INCL'D: SILICIFIED ANDESITIC LAPILLI TUFF, FE ALTERED & SHEARED LAPILLI TUFF, FLOW BANDED TUFF BRECCIA, MILKY QTZ-Fe Carb VEIN FRAGMENTS OR(?) Fe ALTERED RHYOLITE; MINOR GOSSANOUS CLAY RICH GRITTY SOIL (CARBONACEOUS)										
				- MINOR QTZ/CALCITE VEIN W/ 1% SUBEDRAL PY (FRAGMENT) @ 13.65m											
				- $FeCO_3$ ALT'N COMMON IN ROCKS											
16.15	19.2	45%	0	GOSSANOUS SOIL / MNR TUFF? FRAGMENTS	8367	16.15	18.35	2.20	TRC	40% RECV'Y 26	12	92	.1	2	5
				YELLOW-BROWN CLAY RICH SOIL W/ ANGULAR ROCK FRAGMENTS - MAINLY $FeCO_3$/SERICITE ALTERED, FOLIATED TUFF?; SOIL FIZZES IN DILUTE HCL.											
				18.35 - 18.65: SIMILAR TO ABOVE W/ ~ 30% QTZ-CALCITE VEIN FRAGMENTS W/ RUSTY LIMONITIC FRACTURES THROUGHOUT; VUGGY (APPEARS TO BE IN PLACE)	8368	18.35	18.65	0.30		5	6	64	.1	5	3
				FRAGMENTS OF $FeCO_3$ ALT'D RHYOLITE? AT 18.15 - POSSIBLE DYKE CONTACT?	8369	18.65	19.2	0.55		23	10	83	.1	4	1
19.20	29.90	60%	0	ALTERNATING BLOCKY BROKEN ALT'D TUFF/GRITTY-CLAY RICH SOIL					TRC						
				COMMONLY LESS GOSSANOUS GRITTY SOIL W/ ANGULAR, RUSTY BROWN $FeCO_3$ ALT'D TUFF FRAGMENTS, ALTERNATING W/ VARIABLY ALT'D ($FeCO_3$ + SERICITE), FOLIATED (50°-70° TO C.A.) TUFF, CARBONACEOUS LIMONITIC FRACTURES; $FeCO_3$ + MNR QTZ FRACTURE FILLINGS. ← BLOCKY & BROKEN	8370	19.20	21.00	1.80		4	5	59	.1	2	3
					8371	21.00	23.00	2.00		11	6	65	.1	4	1
					8372	23.00	25.00	2.00		(23.77-26.21) 11 ~25% RECV'Y	9	63	.1	3	1
					8373	25.00	27.00	2.00		68	29	81	.1	2	1
					8374	27.00	29.00	2.00		(25% RECV'Y) 18	13	70	.1	2	2

AURUM GEOLOGICAL CONSULTANTS INC. — **DIAMOND DRILL LOG** — HOLE No. 87-A1 — Page 2 of 12

Property	NTS	Claim	Elevation	Azimuth	Length	Dip
Coordinates	Dip Tests	Advance	Depth	Date Collared	Date Completed	
Purposes	Drilled by			Assays by	Logged by	

Interval From	Interval To	Rec'y %	RQD	DESCRIPTION	Sample No.	Interval From	Interval To	Core Width	Cu	Pb	Zn	Ag	As	Au
				-22.5 TO 22.8: MINOR DULL GREEN (SERICITIC?) QTZ VEIN FRAGMENTS; LOCALLY VUGGY W/ RUSTY HAIR LINE FRACTURES.										
				29.-29.5; MINOR QTZ VEIN FRAGMENTS W/ RUSTY LIMONITIC FRACTURES; SIMILAR IN APPEARANCE TO QTZ @ 18.25-18.65. * NOTE - 28.35-29.87 ~ 30% RECOVERY	8375	29.00	29.90	0.90	(30% REC'Y) 30	11	79	.2	6	3
				26.5-26.8': 2% subhedral py + possible sph in fractures + altered tuff										
				contact fairly sharp ⊥ to 80° to C.A.										
29.90	30.33	88	.35'	ALTERED TUFF	8398	29.90	30.33	0.43	57	10	53	.4	9	2
				Yellowish to reddish buff brown, fine grained, strongly limonitized (Fe carbonatized) + weakly chloritized. Moderate foliation @ 75° to C.A., with 20% - 1mm chloritized plag (?) xtals, @ 1% - 1 mm py xtals. Cloudy white qtz veins up to 8mm, often discontinuous & ⊥ by foliation. Largest vein varies from 11 to 35° to C.A., Dominant fracture 20° to C.A.; weak carb.										
				Gradational										
30.33	31.85	98	.31	FRACTURED + ALTERED LITHIC LAPILLI TUFF										
				Brownish green to dark green, grades from moderate limonitization into strong silicification, with weak carb along fractures. May be partially brecciated; moderate pervasive chloritization throughout. Lapilli fragments of heterolithic volcanics. Several qtz-chl bands (@ 65° to C.A.) one of which is offset ⅛" = 1cm by a fracture. Lim gr, chl along most fractures. Trace py										

AURUM GEOLOGICAL CONSULTANTS INC. — **DIAMOND DRILL LOG** — HOLE No. 87 A1 — Page 4 of 12

Property	NTS	Claim	Elevation	Azimuth	Length	Dip
Coordinates	Dip Tests	Advance	Depth	Date Collared	Date Completed	
Purposes	Drilled by			Assays by	Logged by	

Interval From	Interval To	Rec'y %	RQD	DESCRIPTION	Sample No.	Interval From	Interval To	Core Width	Cu	Pb	Zn	Ag	As	Au
				– 30.33 to 30.67 : Up to 1cm white qtz veins, X cutting veins, probably 2 generations. Lim halos around fractures.	8399	30.33	30.67	0.34	28	6	74	.2	4	1
				– 30.67 to 30.98 : Strong sil with qtz-carb veinlets & irregular fracture filling	8400	30.67	30.98	0.31	45	7	65	.6	7	1
				– 31.48 to 31.78 : Chl-qtz-carb ± py bands.	8401	31.48	31.78	0.30	51	8	62	.4	5	1
				— Gradational —										
31.85	44.86			LITHIC LAPILLI ANDESITIC TUFF										
				Dark green to grey green; heterolithic fragmentals - fine grained flows, & tuffs; porphyritic felsic volcanics flows, & zoned bombs (up to 65mm). Occasional qtz ± carb vein, up to 6mm wide, commonly 20-30° to C.A. Carb ± qtz tension fracture filling. Minor lim &/or wad along fractures. Weak to moderate pervasive chloritization, occasional silicified or strongly chloritized band.										
31.85	33.6	90	.34											
33.6	36.2	82	.49											
36.2	36.8	90	.60											
36.8	41.8	90	.64											
41.8	44.86	85	.47											
				– 33.6 – 33.75 : Blocky core grading into limonitized & chloritized clayey fracture										
				– 35.3 – 35.81 : Siliceous band, with qtz-chl fractures (?) 80-85° to C.A. Upper contact @ 85° to C.A.										
				– 40.4 – 40.97 : Several 5cm felsic porphyritic to massive flows interbedded with lapilli tuff & a fine grained andesitic flow. Weak foliation & contact @ 45-50° to C.A.										

AURUM GEOLOGICAL CONSULTANTS INC. DIAMOND DRILL LOG HOLE No. 87-A1 Page 4 of 12

Property	NTS	Claim	Elevation	Azimuth	Length	Dip
Coordinates	Dip Tests	Advance	Depth	Date Collared	Date Completed	
Purposes	Drilled by	Assays by	Logged by MM			

Interval From	Interval To	Rec'y %	RQD	DESCRIPTION	Sample No.	Interval From	Interval To	Core Width
				- 41.46 to 41.55 & 43.58 to 43.8 : Black to grey green, felsic (black rhyolite) porphyritic flows with plag xtals ± 3mm.				
				- 41.8 to 44.86 ; Becomes lighter green, & more limonitized (weak) toward base. Moderately foliated @ 53° to C.A.				
				Sharp				
44.86	45.13	~65	0	SHEARED & ALTERED INTERMEDIATE VOLCANIC	8402	44.86	45.13	0.27
				Yellowish light to buff brown with green tint; contact 62° to C.A.; soft, very well foliated; moderate carbonatization, limonitization & sericitization(?) ; potential argillic alt. as well ?				
				Sharp				
45.13	47.93			ALTERED INTERMEDIATE TUFFS				
45.13	46.2	56	.13	Light or buff yellowish green ; variably				
46.2	47.93	86	.37	altered ; grades from moderate limonitization, sericitization, into weak carbonatization, to weak to moderate chloritization. Patchy silicification occurs throughout. Relict lapilli tuff bands (45.95, 47.1) silicified flow breccias (47.95). Strong limonitization along fractures with fractures decreasing with depth				
				- - - Gradational - - -				

Sample No.	Cu	Pb	Zn	Ag	As	Au
8402	9	10	61	.2	3	3

DIAMOND DRILL LOG

HOLE No. B7-A1 Page 5 of 12

Interval From	Interval To	Rec'y %	RQD	DESCRIPTION	Sample No.	Interval From	Interval To	Core Width
47.93	50.59	73	.28	INTERMEDIATE (ANDESITIC) LITHIC LAPILLI TUFF Green to dark green, moderately chloritized & in places silicified; fragments commonly ≤ 3cm, heterolithic w/ @ 75% tuff, 20% porphyritic flows & 5-% altered granitoids. Scattered tension fracture qtz veins, & minor limonite along fractures.				
				— — —

DIAMOND DRILL LOG

HOLE No. 87-A1 Page 6 of 12

Interval From	Interval To	Rec'y %	RQD	DESCRIPTION	Sample No.	Interval From	Interval To	Core Width
61.67	67.84	96	.75	INTERMEDIATE (ANDESITIC) LAPILLI TUFF				
				Contact @ 62° to C.A. Dark green, medium to coarse lapilli fragments w/ occasional bomb (up to 130 mm). @ 1% generally coarse 1 cm altered granitoid fragments, moderate chloritization throughout. Few fractures, qtz-carb ± limonite infilling; ⊥, 70°, 20° most common.				
				- 66.02 - 66.15 Feldspar porphyritic andesitic flow (as 61.4 - 61.7).				
				sharp 72° to C.A.				
67.84	69.14	95	.81	INTERMEDIATE (ANDESITIC) FLOWS & TUFF (?)				
				Dark green, fine grained porphyritic, ~5% ≤ 1mm plag laths, ~15% mafic-chlorite altered xtals, moderate to strong chloritization. Few scattered q.v. & fractures.				
				sharp ~80° to C.A.				
69.14	74.20	96	.52	INTERMEDIATE (ANDESITIC) LAPILLI TUFF				
				Dark green, moderately chloritized, in places weak epidotization & moderate silicification. Ave fragment size 8 mm, with bombs up to 60 cm; < 1% granitic fragments. Sparse fractures, << 1mm common, with qtz, qtz ± carb or lim ± carb infilling. Extent & orientation variable.				
				- 70.05 to 70.23 ' moderately magnetic, amygdaloidal (?) andesite (basalt); amygdules epidote rimmed w/ chlorite ± qtz centre				

Interval From	Interval To	Rec'y %	RQD	DESCRIPTION	Sample No.	Interval From	Interval To	Core Width	CU	PB	ZN	AG	AS	AU
				-71.05 ; Epidote & albitized(?) breccia 7mm wide 65° to C.A										
				-71.33 - 71.64 ; Silicified lapilli tuff w/ 35% angular fragments. Fragments appear darker against matrix.										
				sharp 28° to C.A.										
74.20	74.53	92	0	SHEARED & BRECCIATED LAPILLI TUFF	8403	74.20	74.53	.33	24	10	90	.3	6	1
				Dark green broken core & mud grading into broken core. Moderate carb alt. especially along fractures. Weak lim & hem.										
				Gradational										
74.53	77.40	87	.52	INTERMEDIATE (ANDESITIC) LAPILLI TUFF										
				Dark green; coarse lapilli fragments of porphyritic volcanics & tuff; Weak-Mb moderate chloritization, with qtz & carb & lim along sparsely scattered fractured.										
				Gradational										
77.40	79.76	85	.30	FOLIATED TO UNFOLIATED INTERMEDIATE (ANDESITIC) TUFFS (AND FLOWS?)										
				Dark green to pale brownish green; grades into then out of stronger foliated bed. Fine grained, moderately chloritized w/10% qtz V. and/or fractures. Trace to 2% py										
				-78.24 - 78.83 ; Moderately foliated - @60° to C.A., moderate sericitic & chloritic alteration with irregular qtz-carb-chl & hem & lim veins up to 1cm wide. Weak, spotted argillic alteration in strongest sericitic	8404	78.16	78.83	0.67	21	17	68	.3	5	2

Interval From	Interval To	Rec'y %	RQD	DESCRIPTION	Sample No.	Interval From	Interval To	Core Width
				altered zone, 2% py adjacent to qtz in veins. Sheared bx at 78.30				
				— — Gradational — —				
79.76	81.8	81	.68	INTERMEDIATE (ANDESITIC) LAPILLI TUFF				
				Dark green with green matrix; 50% angular chloritized tuff fragments in a moderately chloritized matrix. Interbedded with up to .3m tuffs. Moderately well fractured, 35° & 65° to C.A. dominant, with chlorite ± qtz ± carb ± lim infillings.				
				— — Gradational — —				
81.8	89.46			INTERMEDIATE (ANDESITIC) TUFFS & FLOWS				
81.8	87.0	95	.50	Dark green, fine to very fine grained,				
87.0	89.46	41	.21	occasionally porphyritic with ≤ 7% ≤ 1mm plag phenocrysts. Moderate chloritization, ± minor weak epidotization. Few fractures, usually limonite infillings.				
				86.3 – 86.7: very fine grained, well fractured, with ≤ 3mm carb ± qtz veins & occasional thin lapilli band				
				88.0: 1.5cm chloritized g.v. bx.				
				87.0 – 89.46 Blocky core				
89.46	89.61	100	80	INTERMEDIATE (ANDESITIC) LAPILLI TUFF				
				Dark green, chloritized, 40% porphyritic lapilli fragments.				
				Sharp 40° to C.A.				

DIAMOND DRILL LOG

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Interval From	Interval To	Rec'y %	RQD	DESCRIPTION	Sample No.	Interval From	Interval To	Core Width	Cu	Pb	Zn	Ag	As	Au
89.61	96.35	53	0	FRACTURED - CLAY RICH - BRECCIATED (?)	8405	89.61	90.21	0.60	46	3	77	.4	8	1
				INTERMEDIATE (ANDESITIC) LAPILLI TUFFS,	8406	90.7	91.81	1.11	37	13	71	.4	8	1
				CRYSTAL TUFF AND FLOWS.	8407	92.0	93.10	1.00	47	18	76	.4	7	1
					8408	93.0	94.18	1.18	35	13	83	.4	6	2
				Dark green broken core often supported by clay mud or fragment matrix. Moderate chloritization, weak to strong carbonatization, weak - patchy limonization. Scattered qtz. ≤3mm. - 90.83: 2cm vuggy calcite vein										
—	—	—	—	— Gradational —	—	—	—	—	—	—	—	—	—	—
96.35	99.45	69	.54	INTERMEDIATE PORPHYRITIC FLOWS & CRYSTAL TUFF										
				Dark brownish green, moderate chloritization weak carb, weak limonitization. 1% carbonate veins or fracture filling										
—	—	—	—	— Gradational —	—	—	—	—	—	—	—	—	—	—
99.45	103.05	74	.24	MODERATE TO STRONGLY ALTERED INTERMEDIATE LAPILLI TUFF & TUFF.										
				Brownish green to brown; moderate to strongly Fe carbonate altered; mod carb & lim along fractures, moderate pervasive chloritization. Generally highly fractured &/or broken core. Core rubble - 99.45 - 99.7, 99.8, 100.6 - 100.9, 102.41 - 103.05. Abundant (≥5%) qtz ± carb ± lim veins.										
				- 100.0 - 100.56 10% Qtz - carb ± lim breccia "veins" (≤1 cm thick). Irregular orientation - 75° & 65° main "veins".	8409	100.1	100.56	.46	13	14	78	.1	26	4
				- 102.41 - 103.05 Altered hanging	8410	102.41	103.05	.64	18	16	192	.1	2	2

AURUM GEOLOGICAL CONSULTANTS INC. DIAMOND DRILL LOG HOLE No. 87-A1 Page 1 of 12

Property	NTS	Claim	Elevation	Azimuth	Length	Dip
Coordinates	Dip Tests	Advance	Depth	Date Collared	Date Completed	
Purposes	Drilled by			Assays by	Logged by	

Interval (m) From	To	Rec'y %	RQD	DESCRIPTION	Sample No.	Interval From	To	Core Width	(W	PB	ZN	AG	AS	AU (ppb)
		—	—	— — — — sharp — — — — —										
103.05	114.98			SILICIFIED & SERICITIZED RHYOLITE DYKE										
				LIGHT GREENISH-GREY, PORPHYRITIC; 15% PLAG. PHENO-CRYSTS IN A STRONGLY SILICIFIED & MOD. SERICITIZED APHANITIC MATRIX. PHENOS. COMMONLY ALT'D TO SERICITE, INCREASE IN SIZE (UP TO 2mm) AND NUMBER TOWARD F.W.; QTZ VEINS & VEINLETS UP TO 1cm OCCUR PREDOMINANTLY ADJACENT TO THE H.W.; WELL FRACTURED W/ LIMONITE INFILLING & ALTN HALO. Minor (<1%) diss. fine grained py										
		94	0.10	-103.05 to 104.20; Light greenish grey to greenish grey strongly fractured, qtz veined &/or brecciated silicified rhyolite below sharp hanging wall contact. Brecciation defined by small xtalline grey to white qtz (commonly <3mm) veinlets or variations in intensity of alteration. Silicification & sericitization pervasive, but sericitization often more intense along fractures as halos around certain vein(lets) or in patches. Porphyritic texture weak. Lim and/or hem along fractures. Fractures commonly 25-45° to C.A., but variably, and often open space tension gashes	8376	103.05	103.33	0.28	11	22	23	.3	7	3
					8377	103.33	104.20	0.87	3	23	7	.3	7	4
		56	0	-104.20 to 105.46; Dark grey to brownish grey unconsolidated mud with dark green (often epidotized) diorite (?) cx frag. Weak carb.	8378	104.20	105.46	1.26	90	18	119	.2	2	1
		48	0	-105.46 to 106.62; Light greenish grey, porphyritic strongly silicified & sericitized; Blocky recc'y w/ lim infilling along fractures. Trace py within rhy. or q.v. q.v. up to 1cm irregular	8379	105.46	106.00	.54	4	39	8	.2	4	5
					8380	106.00	106.62	.62	11	13	22	.4	5	2

AURUM GEOLOGICAL CONSULTANTS INC. — **DIAMOND DRILL LOG** — HOLE No. 87-A1 — Page 1 of 12

Property	NTS	Claim	Elevation	Azimuth	Length	Dip
MIDNIGHT GULCH		JL				

Coordinates	Dip Tests	Advance	Depth	Date Collared	Date Completed

Purposes	Drilled by	Assays by	Logged by
	CARON	ACME	AL MONTGOMERY & HUGH MACKINNON

Interval From	Interval To	Rec'y %	RQD	DESCRIPTION	Sample No.	Interval From	Interval To	Core Width	Cu	Pb	Zn	Ag	As	Au
		67	0.05	- 106.62 to 109.00 ; Greenish grey, more strongly sericitized than overlying rx. Strong lim along & surrending fractures ; 5°, 87°, 50°, 60° to C.A. dom dip. V. small q.v. generally increase in # with depth ; ⊥, 85°, 76 to C.A.	8381	106.62	107.5	0.88	18	21	32	0.2	33	8
					8382	107.5	108.27	0.77	22	68	86	0.1	56	4
					8383	108.27	108.6	0.33	(Not split, test Suc Au in fractures)				46, 49, 93, 4, 31, 14	
					8384	108.6	109.0	0.4	40	29	63	0.3	39	7
		80	0	- 109.00 to 109.88 : Greenish grey, qtz vein stockworked veins up to 1cm, ave. 5cm. 1% Py (1mm), mostly weathered away ; few fresh all anhedral ; subeal relict pits	8385	109.0	109.4	0.4	32	32	21	0.8	46	58
					8386	109.4	109.88	0.48	25	31	24	0.4	32	5
		70	.19	- 109.88 to 113.74 : Pale greenish grey to greenish grey. Strong to moderate sericitization both pervasive & as feldspar alteration. Strong limonite alteration halos. Scattered <2mm q.v generally at a low angle (10-20°) to C.A. Very blocky fracture & broken core 111.0 to 111.55, & 112.1 to 112.40. 2% py diss & in 3mm q.v. & vuggy chy 110.67 to 111.0.	8387	109.88	110.67	0.79	34	48	20	0.6	23	10
					8388	110.67	111.0	0.33	20	85	21	0.9	43	19
					8389	111.0	111.55	0.55	28	37	38	0.5	26	12
					8390	111.55	112.30	0.75	37	32	42	0.7	62	13
					8391	112.30	113.74	1.44	25	238	49	1.0	16	17
		95	.45	- 113.74 to 114.07 : Pale greenish grey, porphyritic with 2-3mm plag phenocrysts less sericitized than those overlying ; ½ to 2% euhedral to subhedral py as diss or along fractures. Generally more massive than previous chy.	8392	113.74	114.07	0.33	24	34	25	0.3	13	11
		92	.29	- 114.07 to 114.48 : Pale greenish grey to pinkish brown or brown. Sharp but irregular contact marked by partially chloritized & strongly silicified porphyritic chy. Qtz veinlets are sparse, lim & chlorite fill irregular vuggy fractures ; ~1% subhedral 1mm py. Contact bxn as indicated by several altered to unaltered 1-4cm mafic/intermediate angular volcanic clasts	8393	114.07	114.48	0.41	25	25	86	0.4	10	14

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Property	NTS	Claim	Elevation	Azimuth	Length	Dip
MIDNIGHT GULCH		JL				

Coordinates	Dip Tests	Advance	Depth	Date Collared	Date Completed

Purposes	Drilled by	Assays by	Logged by
			A.M. & H.M.

Interval From	Interval To	Rec'y %	RQD	DESCRIPTION	Sample No.	Interval From	Interval To	Core Width	Cu	Pb	Zn	Ag	As	Au
				Sharp contact										
114.98	115.66	66	0.49	SHEARED ANDESITIC CRYSTAL TUFF	8394	114.98	115.21	0.23	6	12	105	0.4	9	3
					8395	115.21	115.66	0.45	5	7	94	0.2	5	1
				Dark greenish brown, very well foliated 25° to C.A., pervasive moderate limonitization, silicification & chloritization. Fine grained to very fine grained with porphyritic or tuffaceous nature becoming more apparent with distance from contact. Several (114.56 & 114.64) nearly ptygmatic carb-chl-lim (+ qtz) veins or fracture fillings, with trace py.										
				- 114.78 - 114.92 : As 114.07 to 114.48										
				Gradational contact										
115.66	117.95	88	0.48	ANDESITIC CRYSTAL TUFF	8396	115.66	116.65	0.99	11	11	62	0.4	3	1
					8397	116.85	117.45	0.60	15	10	90	0.2	5	3
				Yellowish or brownish dark green to dark green. Variably altered & occasionaly weakly sheared. Ave. crystal size 1-3mm, with no preferred orientation. Moderately chloritized, with slight increase in alteration with depth. Irregular fractures filled with carbonate and/or limonite or qtz. General fracture trends 95°, 35°, & 85° to C.A.. Trace py in fractures. Slight (1mm) offset of some fractures.										
				- 116.85 - 117.95' : Slightly more fractured & patchy altered; more limonitization										
117.95	/BBT			E.O.H.										

GICAL CONSULTANTS LTD. **DIAMOND DRILL LOG** HOLE No. 17-WB 1 Page 1 of 4

Property ISLAND MNG - JL CLAIMS	NTS 105 D/2	Claim JL	Elevation 3700'	Azimuth 218°	Length 311' (94.8M)	Dip -50°
Coordinates 2+25N / 3+10E	Dip Tests —	Advance 199.9'	Depth 238.2'	Date Collared July 7, 1987	Date Completed July 9/87	
Purposes Test Wheelbarrow Zone under old workings; visible gold in quartz on dump	Drilled by CARON D.D.	Assays by ACME LABS	Logged by T.ME			

Interval From	Interval To	Rec'y %	RQD	DESCRIPTION	Sample No.	Interval From	Interval To	Core Width	RQD + % Recovery by A.K.T
0	34' (10.36M)			CASING - pebbles and small pieces of core recovered.					
				Mainly SILICIFIED GREEN ANDESITE Tuff.					
0	51	25	0	occasional 2-3mm. carb (some calcite) veins; up to					
51	55	0	0	5-10% lapilli (1cm. frags.)					
55	66	45	0	at 15' = Several fragments of rusty RHYOLITE					
34	66' (20.12M)			OVERBURDEN - pebbles and gravelly soil of mixed Andesitic Tuff and Rhyolite.					
				51-55' = no recovery → washed hole					
66'	75.5' (23.01)	70	.20	FELSIC TUFF - rusty gray; 1-2mm. sand-sized frags; occasionally lapilli to 1cm. across					
				71.5-73.2 = fault gouge; only minor fine dissem. py.					
				From 73.2' - tuff becomes very fine. and soft; medium brown colour.					
				Lower contact is fault gouge for 0.15'; gouge is 65° to core axis					Ag (oz/t) Au (oz/t)
75.5	77.0' (23.47)			LIGHT GRAY, QUARTZ-VEINED F.GR. RHYOLITE	8411	75.5	77	1.5'	Assay Au, Ag 0.01 0.001
75.5	85.5	70	.15	- many hairline to 2 mm. Q vns w. local dissem. pyrite (some cubic); also, tension gashes filled w. quartz. Broken lower contact.					
85.5	97.0	75	.10						
77.0'	98.0'			RUSTY GRAY TO DARK GRAY FELDSPAR PORPHYRY ←					
				- 10-15% 1-4mm white feldspar phenos in					
97	104	70	.40	an aphanitic groundmass					
				- very hard ? silicified?					
				- some hairline - 1mm. Q veins					
				85½ - 89½' = bleached selvages along occas. Q	8412	85.5' (85.95)	90.5' 90.5	5'	0.01 0.001
				- Py veins					
				90.5' = 0.1' of fault gouge at 80° to c.a.					
				92-98' = strongly fractured zone; some brecciation					

DIAMOND DRILL LOG

HOLE No. 87-WB #1 Page 2 of 4

Interval From	Interval To	Rec'y %	RQD	DESCRIPTION	Sample No.	Interval From	Interval To	Core Width
98.0'	116'			MASSIVE, GRAY MEDIUM GR. GRANODIORITE - upper contact broken - 5% chloritized shreddy mafics - grain size 1-2 mm 104.6 - 104' = BUFF APHANITIC RHYOLITE - broken contacts w. granodiorite; 0.3' of				
104	120	90	0.65	fault gouge near lower contact. 104.3' = Q-Chl vn. at 45° to c.a; approx 2mm 114-115' - becomes bleached near lwr. contact.				
116'	138'			LIGHT BROWN RHYOLITE PORPHYRY - 20-25% 1-2mm. white feldspar phenos in an aphanitic matrix - 116'-117.5' = several 2-4 mm Q vn. w. minor pyrite near upper contact (? attitude of contact?)				
120	145.25	TO	0.22	- 126-130' = brecciation w. minor rotation of frags. - rhyo. is locally f.gr. (up to 1/2 mm grains) equigranular; i.e. texture is variable - 135.7' = creme carb. vn at 75° to c.a. (1-2mm accessory) - 137' = Q-Py vn. at 45° to c.a. (2-3 mm. wide)				
138'	140' (in 16')			M. GR. GRANODIORITE - locally silicified - broken contacts; possibly an inclusion.				
140'	145.5' (in 4')			LIGHT BROWN RHYOLITE PORPHYRY - as from 116-138'				
145.25	160.5	95	0.55	- 143' = 2 cm. fault gouge at 20° to c.a.				
145.5	154.5' (in 9')			M. GR. GRANODIORITE - 12 one to five mm. Q-Carb ± Chl ± py	8413	145.5	150.5	5'
160.5	166	85	0.31	vns 30-60° to c.a. Visible galena near	8414	150.5	155.5	5'
166	171	95	0.55	lower contact at 45° to c. axis.				
154.5'	186.5'			LIGHT BROWN RHYOLITE PORPHYRY - 155.8' = 2mm - 4mm. Q vn w. Py - galena	8415	155.5	160.5	5'

Ag (oz/t)	Au (oz/t)
0.01	0.001
0.01	0.001
0.05	0.005

DIAMOND DRILL LOG

HOLE No. 87-NB#1 Page 3 of 4

Interval From	Interval To	Rec'y %	RQD	DESCRIPTION	Sample No.	Interval From	Interval To	Core Width	Ag (oz/t)	Au (oz/t)
				160.5 - 165.5' = Five 1-3 mm Q vns mainly at	8416	160.5	165.5	5'	0.05	0.001
171	194	65	0.27	30° to c.a. Minor galena in 1 vein.						
				164' - 166' = Strong fracturing w. some fault gouge						
				165.5 - 170.5' = Four 1-4mm Q vn. w. some	8417	165.5	170.5	5'	0.02	0.001
				pyrite; one vein has minor galena.						
				170.5' on = occas. Q ± Py vnlts.						
				183.5 - 184.5' = Brecciation & fault gouge; 4mm.						
				carb. vn in shear at 70° to c.a's.						
				185.3' = dissem. py. in rhyo.						
186.5'	199' (60.5)			MEDIUM GRAINED GRANODIORITE - same as previously logged.						
194	215	85	0.36	- bleached to 194°						
				- 2 Q-py vns (1-3 mm) at upper contact.						
199'	238' (39.5')			GRAY RHYOLITE PORPHYRY - 10-15% 4mm. feldspar laths (subhedral to euhedral). Feldspars are mainly fresh						
				201' - feldspar phenos become smaller → 1mm.						
215	229	97	0.32	(25-30% by vol.); aphanitic gdmass						
				- commonly tiny Q-Py vnlts.						
				- 212.5' = bleached (1cm) fractures.						
				- 213' = "large" phenos again						
				- 216' - 217' = fault gouge at 35° to c.a.						
				- 221.5 - 226.5' = abundant Q-Py vns at 20-60°	8418	221.5 (67.5')	226.5	5'	0.02	0.001
				to core axis; overall 1% dissem. pyrite.						
		*		- 229.5' - DRILLERS REDUCED TO NQ core.	8419	226.5'	228.7' (2.01)	3.2'	0.02	0.001
229	247	70	0.34	- 228.5' - 229.7' = Inclusion of green ANDESITE.	8420	229.7'	234.7' (71.5')	5'	0.01	0.001
				After the inclusion, rhyo is strongly shattered						
				and locally brecciated w. abund. tiny (hairline to	8421	234.7'	238' (71.5')	3.3'	0.01	0.006
				1mm) Q and Py vnlts						
238'	243' (4.5')			BANDED ANDESITIC TUFF ctg. numberous carb.	8422	238	243	5'	0.01	0.001
				- Q vns parallel to foliation (45° to c.a.)						
				- f/w. contact at 60° to c.a; upper cont. 50° to c.a.						
243'	247'			RUFF BRECCIATED RHYOLITE	8423	243	247'	4'	0.01	0.002

DIAMOND DRILL LOG

HOLE No. 87-WB 1. Page 4 of 4

Interval From	Interval To	Rec'y %	RQD	DESCRIPTION	Sample No.	Interval From	Interval To	Core Width	Ag (oz/t)	Au (oz/t)
				sheared at 60° to c.a.	8424	247'	252' (76.80)	5'	0.02	0.002
247	255.7' (77.93)			GREEN MASSIVE ANDESITE -251.6' = 2cm. white to creme Q – Carb. vn at 45° to c.a	8425	252'	257' (78.33)	5'	0.01	0.001
247	274	87	0.60	– abundant hairline to 1mm calcite veins throughout.						
255.7'	260.6' (79.43)			COARSE GRAINED AUGITE ANDESITE w. a "blotchy" texture. – UNIT 3e → "blotchy" texture caused by 40–50% 2–5mm glomeritic? feldspars? – irregular upper contact.	8426	257' (78.33)	262' (79.85)	5'	0.01	0.001
260.6'	275.9' (84.14)			FOLIATED GREEN ANDESITE – foliation 45° to c.a.	8427	262	267' (81.38)	5'	0.02	0.001
274	288	75	0.16	– abundant calcite veins parallel to foliation, perpendicular to fol'n and running down core axis.	8428	267'	272' (82.90)	5'	0.02	0.001
					8429	272'	275.9' (84.07)	3.9'	0.03	0.001
275.9'	288' (87.78)			STRONGLY FRACTURED, PINKISH BROWN RHYOLITE PORPHYRY. – occasional hairline – 1mm Q ± Py veins. – broken contacts – ? attitude						
288'	295.9 (90.14)			GREEN ANDESITE – locally rusty – fol'n local ∠ 35° to c.a.						
288	296	90	0.75	– abundant calcite stringers and gash veins from 292–295.9'; Assay if other similar Au "kicks!"						
295.9	302.7' (92.26)			RUSTY ALTERED RHYOLITE – f.gr. texture						
296	301	65	0.09	– lower contact 60° to c.a.						
302.7	311' (94.79)			CALCITE – VEINED GREEN ANDESITE – tuffaceous; foliation 45° to c.axis.						
301	311	85	0.56							

E 311 – 311.1

FOUR GULCH NTS: 105D/2 CLAIM: JL ELEVATION 3710' COLLARED: 10/7/87 COMPLETED: 13/7/87

SN / 3+10E' DIP TEST: -51 at E.O.H. ADVANCE: 249.3' HOLE No. 87-WB2
EXT VG BEARING RXS AT WHITE/GARNET ZONE **DIAMOND DRILL LOG** DEPTH: 324.1' Az 206 Dip -55
Page 1 of 10 Logged by HUGH MACKENZIE

From	To	Rec'y %	RQD	DESCRIPTION	Sample No.	Interval From	Interval To	Core Width	Au (oz/TON)	Ag (oz/TON)
0	16'			Casing						
16'	72'			OVERBURDEN						
				Broken core of predominantly intermediate lapilli tuffs w/ < 5% tuff breccia. Limonitization along fractures. 66-71' Core lost						
72'	80'6"			INTERMEDIATE (ANDESITIC) LAPILLI TUFF						
0	81	25	0.05	Dark brownish green, 7% fragments commonly < 6mm. Weak to mod. chloritization & limonitization. Lower contact broken						
	93'			Switch to NQ						
80'6"	111'			MEDIUM GRAINED QUARTZ MONZONITE				1'		
81	93	90	0.30	Brownish green to greenish grey, 30% mafics = chlorite, 7% 1-2mm Kspar phenocrysts, remaining xtals ave 1mm. Variable amounts of limonitic alteration, either as pervasive ve to 15%, or fracture silling. 1% fractures, commonly 5-10°, 40-45° and 80° to C.A., < 1% q.v., trace py. Minor carb and/or argillic alteration along fractures.						
				- 91' - 91'10", 101 - 101'5", 107'5" - 108' ≤ 1cm qtz veins with albite(?) and calcite rims. 1% ≤ 2mm subhedral to euhedral py in & adjacent to veins.	8451	90'10"	91'10"	1'	.002	.02
93	118.5	90	0.20	- 109' - 109'6" Strong argillic & carb alteration & accumulation along fractures.						
				Lower contact broken						

DIAMOND DRILL LOG

HOLE No. 87-WB2 Page 2 of 10

Interval From	Interval To	Rec'y %	RQD	DESCRIPTION	Sample No.	Interval From	Interval To	Core Width
111'	116'			RHYOLITE - FELDSPAR PORPHYRY Light pinkish brown, perphyritic with 5% 1mm plag phenocrysts in an aphanitic matrix. moderately silicified; 2-5% fractures w/ 1mm white halo around & limonite & carb infilling fractures; variable fracture orientation. Trace py; Mostly broken core, contact broken				
116'	125'			MEDIUM GRAINED QUARTZ MONZONITE As 80'6" - 111' but 50% of core is limonitically bleached & more strongly limonitized fractures. Lower contact limonitically altered & fine grained irregular 55-63° to C.A.				
118.8	121	90	35	112'-112'6" Qtz vein tension gash infilling with 20% chlorite trace py.				
125'	126'			RHYOLITE - FELDSPAR PORPHYRY Brownish grey, with 1-3mm plag phenocrysts in an aphanitic matrix. 5-10% pervasive or fracture filling limonitization. 1% disseminated py				
126'	131'3"			MEDIUM GRAINED QUARTZ MONZONITE As 80'6" to 111'. Contact with unit above & below broken. - 127' - 127'3" 2-3 mm quartz-chlorite vein 25-30° to C.A. w/ 5% subhedral py.				

DIAMOND DRILL LOG

HOLE No. 87-WB2 Page 3 of 10

Interval From	Interval To	Rec'y %	RQD	DESCRIPTION	Sample No.	Interval From	Interval To	Core Width	Au (oz/t)	Ag (oz/t)
131'3"	140'			RHYOLITE PORPHYRY	8452	136'7"	137'7"	1'	.001	.01
				Pinkish brown to light brown, 1mm subhedral plag phenocrysts in an aphanitic matrix. 1% py along fractures & trace diss py. Weak silicification & limonitization. Minor <1mm qtz. w/ 1% subhedral py. Lower contact broken.						
140'	151'2"			MEDIUM GRAINED QUARTZ MONZONITE						
				Greenish grey, with 35% 1-3mm feldspar phenocrysts in a matrix of 1mm ave. feldspar + qtz + chlorite. 2% 6 to 10 mm chlorite patches. 2-10% limonite bleaching increasing toward both contacts. Strong carb along fractures. Trace py, ≤ 1% 5mm qtz ± chlorite ± calcite veins. Lower contact broken.						
151'2"	173'			QUARTZ VEINED RHYOLITE PORPHYRY	8453	151'2"	154'	2'10"	.001	.03
					8454	154'	156'6"	2'6"	.001	.04
				Light greenish brown to pinkish brown, but variable w/ 10% 1mm ave. plagioclase	8455	156'6"	158'	1'6"	.004	.05
151	165	100	0.22	phenocrysts. 1-2% qtz veins up to 2mm	8456	158'	163'	5'	.001	.01
				wide, with a band of silicification	8457	163'	168'	5'	.004	.03
				& pyritization (up to 5%) surrounding vein.	8458	168'	169'	1'	.011	.04
				Weak chloritization in places &	8459	169'	173'	4'	.004	.04
				pervasive weak to moderate or fracture						
				filling limonitization. Minor 1% magnetite						
165	179	82	0.75	(?) in chloritic areas.						
				- 157.5' + 168 - 169 [redacted] ite ?)						
				[redacted] qtz vein & fracture. Variable						
				orientation 15-20° to C.A.						
				Lower contact irregular, mostly broken						

DIAMOND DRILL LOG

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Interval From	Interval To	Rec'y %	RQD	DESCRIPTION	Sample No.	Interval From	Interval To	Core Width	Au (oz/t)	Ag (oz/t)
173'	176'6"			MEDIUM GRAINED QUARTZ MONZONITE						
				Greenish grey, bleached (by limonite) pinkish brown toward contacts. Moderate to strong chloritization with 2% 4mm chlorite patches. 3% disseminated biotite (magnetite?). Lower contact 42-47° to C.A..						
176'6"	185'			MIXED QUARTZ MONZONITE + ALT'D RHYOLITE						
179	200	95	0.20	Pinkish brown qtz monzonite + light greenish to pinkish brown rhyolite. Moderate Fe carb, limonitic and/or sericitic alteration. Rhyolite moderately silicified. 2% py in fractures & ≤2mm q.v. toward lower contact, weak carb in fractures	8460	182'6"	185'	2'6"	.001	.01
185'	199'			RHYOLITE PORPHYRY						
				Light pinkish brown turning to light greenish brown toward lower contact or buff light brown where strongly alt'd. 5% ≤1mm plag phenocrysts in an aphanitic matrix. 1% diss py, up to 2% py along fractures &/or q.v. Qtz veinlets comprise 5% of unit are commonly 0.5 to 2mm wide & 25° to C.A.. Fractures & q.v. up to 10% ankerite(?) or limonite surrounded by a silicification halo.	8461	191	196	5'	.001	.03
					8462	196	199	3'	.001	.03
199'	207'4"			ALT'D MEDIUM GRAINED QUARTZ MONZONITE						
200	213	98	0.98	Dark green where strongly chloritized & pink to greenish brown where bleached (by Fe carb or limonite). 2% fractures or qtz veinlets, 1% diss py. Lower	8463	207'4"	207'4"	5'	.001	.01

Interval From	Interval To	Rec'y %	RQD	DESCRIPTION	Sample No.	Interval From	Interval To	Core Width	Au (oz/T)	Ag (oz/T)
"				contact irregular 15°-70° to C.A.						
207¼"	242'			QUARTZ VEINED & ALTERED RHYOLITE PORPHYRY						
				Grades from dark pinkish brown to pinkish brown then brownish white toward lower contact. 5-10% plag						
213	242	92	0.58	phenocrysts varying from <0.5mm to 4 mm in an aphanitic matrix. 1-20% qtz veins & veinlets from 1mm to 25mm. Poor (1%) to very well (15%) fractured zones. Fe-carbonate (ankerite), calcite & chlorite accessory (up to 30%) minerals in veins & fractures. 1-2% diss py, upto 5% subhedral to euhedral <1-2mm py & trace gn in veins & fractures. Several sericitic alt'd, fault gouged & argillic alt'd gouge zones						
				-207'4" to 213' : Chloritized & limonitically bleached coarse (≤4mm) porphyry. Few veins, upto 3mm, 25-30° to C.A., weak to mod sericitic alt. along fractures, 1-2% py.	8464	207¼"	210'	2'8"	.001	.02
					8465	210	213	3'	.001	.02
				-213'-214' : Broken core						
				-213-219' : Pink to pinkish brown, QFP (?) w/ 3-7%, 1-5mm qtz vn's of several generations. Sericitized toward base.	8466	213	216	3'	.001	.04
					8467	216	219	3'	.001	.01
				-219-221'6" : Pinkish dark brown, silicified(?) & fractured qtz-ankerite-chlorite ± limonite veins w/ to 5mm. 5% py in veins, trace gn.	8468	219	221'6"	2'6"	.007	.01
				-221'6"-223' : ≤25 mm qtz vein w/ 15% chlorite, 5-7% ankerite, 10% albite (?) 1-3% ≤4mm euhedral py, & trace gn	8469	221'6"	223'	1'6"	.335	.11 (PYRITE GN)
				-223'-229' : Pale reddish brown, well fractured, w/ small fractures 60-70° to C.A. & larger fractures & veins 10-40° to C.A. 2	8470	223'	226'	3'	.006	.03
					8471	226'	229'	3'	.001	.02

Interval From	Interval To	Rec'y %	RQD	DESCRIPTION	Sample No.	Interval From	Interval To	Core Width	Au (oz/ton)	Ag (oz/ton)
				of several gray veins by white qtz carb vns.						
				2% vns = 1cm, similar composition to above.						
				224' F sericitically alt'd band						
				- 229' - 235' 8" : Grades from 6" sericitic(?)	8472	229	230	1'	.001	.02
				schist (shear) at 70-80° to C.A. to	8473	230	231'6"	1'6"	.001	.01
				pyritic (5%) fractured, silicified & Fe altered	8474	231'6"	235'8"	4'2"	.003	.01
				3' band into a pinkish brown silicified						
				porphyry w/ 1% py.						
				- 235'8" - 239' : Light brown, well silicified,	8475	235'8"	239'	3'4"	.001	.05
				< 1% py., few fresh plag phenos.						
				- 239' - 242' : Weak carb + strong argillic	8476	239'	242'	3'	.001	.01
				altered particularly along						
				fractures. Lower contact						
				irregular @ 40° to C.A., partially chloritized						
242'	248'6"			INTERMEDIATE (ANDESITIC) TUFF (?)	8477	242	248	6'	.001	.03
				Dark green, v. fine grained, 2-4% <1-3mm	tension					
242	268	79	0.80	fractures filled with calcite ± qtz. Moderately						
				pervasive chloritization w/ chlorite ±						
				limonite or ankerite (?) in veins or fractures.						
248'6"	268'			INTERMEDIATE (ANDESITIC) VOLCANICS						
				Dark green to green, aphanitic to fine	8478	248'6"	253'	3'6"	.001	.01
				grained (dioritic?) ground mass w/ 20-30%						
				≤ 2mm augite phenocrysts. Moderately						
				chloritized w/ 4% grading to 2% qtz						
				or qtz + carbonate veins & fracture/tension						
				gash fillings. Slightly foliated at 30°-						
				40° to C.A. at depth, w/ veins X cutting						
				foliation.						
				- 248'6" : 4" qtz (± chlorite) bx						
				- 253'8" : Strong carbonatization surrounding						
				1cm qtz + carb vein						
				- 254' - 260' : "Blotchy" texture light						

Interval From	Interval To	Rec'y %	RQD	DESCRIPTION	Sample No.	Interval From	Interval To	Core Width	Au (oz/T)	Ag (oz/T)
				green feldspars (?) surrounded by augite (?) & chlorite xtals; may be partially migmatized?						
				– 262'6" – 263'6": Limonitically bleached surrounding a 1cm q.v. at 35° to C.A.	8479	262	265	3'	.001	.01
				– 265': Well foliated & chloritized adjacent to 1cm q.v. at 20° to C.A.						
268'	271'			RHYOLITE PORPHYRY						
268	284	57	0.11	Dark purplish brown; 30% .5–2mm feldspar xtals commonly altered in centre to sericite. Sericite + limonite along fractures. < 1% py. Blocky & broken, poor recovery.						
271'	280'6"	18	.03	ALT'D & QUARTZ VEINED ANDESITE					.001	.01
				Dark green for 60% of cx remainder is limonitically bleached. Quartz-calcite veins up to 2.5cm wide w/ largest 11 to 10° to C.A.'s. Very broken, only @ 18% recovery. Strongly carbonatized.	8480	271'	280'6"	9'6"	(Only 18% rec'y)	
280'6"	285'			RHYOLITE PORPHYRY						
				As above; Lower contact sharp @ 60° to C.A.						
285'	285'8"			ALT'D ANDESITE						
284	314	98	0.44	As above; Lower contact sharp 80° to C.A.						

Interval From	Interval To	Rec'y %	RQD	DESCRIPTION	Sample No.	Interval From	Interval To	Core Width	Au (oz/T)	Ag (oz/T)
285'8"	313'			FINE GRAINED GRANODIORITE (FELSITE)						
				-285'8" - 300' 6" : Buffs pale yellowish green, more reddish for 40% where bleached by limonite, or greenish for 30% where chloritized. 25-30% ≤ 5mm matic minerals in chloritic zones @ 10% in silicified & sericitized parts. Few fresh feldspars 1% ≤ 5mm fractures w/ calcite infilling. Trace py.						
				-300'6" - 310 : V. fine grained, pale-green w/ occasional porphyritic phase. 6" m.gr. hornblende granodiorite at 301'6". Vuggy, zoned - qtz - ankerite(?) - calcite fracture filling, occasional chloritic fracture. Fracture orientation commonly 10-30° to C.A. Trace diss py. 1 mag, upt 3% py in fractures.	8481	305	310	5'	.001	.03
				-310 - 313' : Greenish white to greenish grey, more chloritized w/ depth; fine grained. Contact sharp 55-60° to C.A.						
313'	327'8"			ANDESITIC FLOW(?)						
				Dark green to grey, moderately foliated at 70-80° to C.A. & moderately chloritized.						
314	326	90	0.44	Occasional (5%) bleaching, carbonatization (pervasive & fracture filling), and qtz veined.						
				- 317-320 : Limonitically bleached, rubble core w/ poor rec'y						
				- 325'6" - 327'8" : Strongly foliated grading into a vuggy calcite vein then qtz veined unit. Qtz vns up to 25cm wide, white to dark grey. Becomes silicified at base. Foliation adjacent to q.v. 50° to C.A. Bx at 326' & lower contact. Limon	8482	325'6"	327'8"	2' 2"	.001	.01

DIAMOND DRILL LOG

HOLE No. 87-WB2 Page 9 of 10

Interval From	Interval To	Rec'y %	RQD	DESCRIPTION	Sample No.	Interval From	Interval To	Core Width	Au (oz/T)	Ag (oz/T)
327'8"	348'6"			RHYOLITE (FELSITE)						
				Buff light brown, v. fn grained, 5-15%						
326	348	97	0.14	1mm qtz and/or feldspar pheno. Weak sericitization,						
				chloritization & limonitic bleaching. 1%						
				≤ 3mm qtz ± py vns. Lower contact sharp						
				70-75° to C.A.						
348'6"	359'			INTERMEDIATE (ANDESITIC) VOLCANIC						
348	359	99	0.11	Green to dark green, "blotchy" texture,						
				≤ 15% hairline to 5mm carbonate vns &						
				fracture filling w/ occasional q.v.						
				- 348'6" - 350' : Moderately foliated @ 60° to						
				C.A.						
				Lower contact sharp @ 60° to C.A.						
359'	369'			FINE-GRAINED GRANODIORITE (FELSITE) & QUARTZ PORPHYRY						
				Greenish brown to buff brown; v. fn grained,						
359	376	98	0.12	grades from chloritic altered to limonitically						
				bleached qtz porphyry. 3% 1-2mm phenocrysts						
				in an aphanitic to v. fn grained matrix						
				< 1% qtz or py vns & fracture fillings.						
				Limonitized along fractures.						
				- 362'6" + 368' : 8mm bx bands at						
				65-85° to C.A.						
				Lower contact sharp but irregular 30° to 65°						
				to C.A.						
369'	375'6"			RHYOLITE (PORPHYRY)						
				Dark purplish grey to greenish brown w/ 10-15%						
				1-2mm feldspar phenocrysts in an aphanitic						
				matrix						
				- 371' - 373' : Moderately sericitized,	8483	371'	373'	2'	.001	.01

DIAMOND DRILL LOG

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Interval From	Interval To	Rec'y %	RQD	DESCRIPTION	Sample No.	Interval From	Interval To	Core Width	Au (oz/T)	Ag (oz/T)
				Core very broken.						
375'6"	385'6"			SHEARED INTERMEDIATE (ANDESITIC) VOLCANICS						
376	390	85	0.54	Dark green, sheared & contorted w/ most foliations at 30°-45° to C.A., 2% carbonate + qtz veins & fracture fillings. 2cm q.v. at 377'. - 381'-382': Buff greenish grey rhyolite (may be silicified andesite?), well fractured w/ chlorite &/or limonite along fractures.	8484	376	378	2'	.001	.02
385'6"	393'			FINE GRAINED GRANODIORITE (FELSITE)						
390	406	94	0.15	Light greenish brown to buff brown, v. fine grained sub porphyritic to porphyritic - 3% .5 to 2mm chlorite laths or sericitized feldspars. - 389'-389'6": Purplish brown porphyritic rhyolite band.						
393'	406'			ALT'D AUGITE ANDESITE						
				Dark green, blotchy & contorted flow banded porphyritic textured; few fresh augite xtals moderate chloritization, 1% qtz &/or carb veins 60-80° to C.A., Lim &/or hem along fractures, minor epidotization, - 403'6"-404'6": Strong carb alt'd, broken core - fault gouge?						
406'				E.O.H.						

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DIAMOND DRILL LOG

HOLE No. 87-WB3 Page 1 of 5

Property ISLAND MINING – JL CLAIMS	NTS 105 D/2	Claim JL	Elevation 3760	Azimuth 155°	Length 471'	Dip –65°
Coordinates ~ 2+30N, 2+75E	Dip Tests –60 (Bad test)	Advance 217.41	Depth 417.7'	Date Collared JULY 13, 1987	Date Completed JULY 16/87	
Purposes TO CUT ACROSS VEINS NEAR WHEELBARROW ADIT.	Drilled by CARON D.D	Assays by ACME LABS.	Logged by TME			

Interval From	Interval To	Rec'y %	RQD	DESCRIPTION	Sample No.	Interval From	Interval To	Core Width	RQD + % Recovery by H.R.T
0	21'			OVERBURDEN					Ov
21'	24' (1.32)			FAULT GOUGE? or GOLDEN-BROWN SOIL?					
24'	53' (16.15m)			FINE GRAINED (½mm) RUSTY GRAY RHYOLITE PORPHYRY – leucocratic; 2% 2mm Q. eyes – strongly broken ground – 36.5' = 2mm. Q vn. w. minor pyrite	8430	36	41'	5'	Au (oz/ton) 0.001 Ag (oz/ton) 0.01
0	53	32	0	– 36-41' = Many tiny Q vn. w. minor pyrite		10.97		12.50	
53	66	71	0.45	– 43-53' = Very poor recovery – 48-53' = Fault gouge – At 53' – good core to 58'					
53'	79 (24.08m)			FELSIC TO INTERMEDIATE TUFF? – medium green where fresher surfaces – strong brown carbonate alteration – abundant Q–carb. vns up to 6 mm. access vns. 20-70° to c.axis.	8431	53 16.15	58 17.68	5	.001 .01
66	88	85	0.30	– 61-66' = Shear foliation ca. 30° to c.a = intense Q–carb (calcite) veining; 62.5-64.5' = 10% veins by volume	8432	61' 18.59	66' 20.12	5'	.001 .01
				– 66-76' = Mainly fault gouge.	8433	66	71' 21.64	5'	.001 .01
					8434	71'	76' (23.16)	5'	.001 .01
79'	84' (25.60m)			BROWN, MASSIVE, DACITE DYKE or SILL – soft; ? angle of contacts – excellent core recovery					
84'	114.5' (34.90m)			FELSIC TO INTERMEDIATE TUFF & LAPILLI TUFF and ANDESITIC FLOWS? – veined (Q–Carb) w. strong brown carb. alteration					
88	118.5	86	0.38	– fault from 84-86' – 1% calcite veins from hairline to 3mm. – moderate silicification. – foliation 30° to c.a.					

DIAMOND DRILL LOG

HOLE No. 87-WB 3 Page 2 of 5

Interval From	Interval To	Rec'y %	RQD	DESCRIPTION	Sample No.	Interval From	Interval To	Core Width	Au (oz/ton)	Ag (oz/ton)
				100' and 103' = Quartz lenses adjacent to shears. ; 7cm and 1-2cm, respectively) the latter lense or vein is 10-20° to the core axis.						
				- last 1.3' = bleached light green; contact 45° to c.a.						
114.5'	151' (46.02m)			BUFF RHYOLITE PORPHYRY - MINERALIZED to 126.5'	8435	114.5	118.5 (36.12)	4'	.009	.01
				- 10% 3-5 mm glassy feldspar laths in an aphanitic matrix.	8436	118.5	122.5 (37.34)	4'	.013	.08
				114.5'-115.5' = contact brecciation with Q-py infilling between fragments; some veins 30° to c. axis.	8437	122.5	126.5 (38.56)	4'	.007	.01
				- hairline to 1mm carb. vns common; ↗ COARSE GR GALENA IN CHL. ALT'D SECTION						
				- 118.5' = f.gr. GALENA? in Q. vn at 20° to c.a						
118.5	153	86	0.10	OVERALL 1-2% PYRITE and many Q VNS.						
				- 121-121.5' = a 4mm Q vn at 25° to c.a. and a 1-2cm Q vn at 30° to c. axis.						
				- 124' - a 1cm. Q vn at 25° to c.a.						
				- 126.1' = Brown weathered carb. w. galena(?)						
				- 126.5' - mineralized zone ends.						
				- 131.2' - 132.5' = Fault gouge & strongly fract. rhyo. porph. Strong fracturing to 136'						
151'	155' (47.24m)			ALTERED GREEN ANDESITE						
				- fault gouge to 153'						
				- abund. calcite vnlts.						
				- lwr. contact 70° to c.a.						
155'	160' (48.77m)			MEDIUM GRAINED GRANODIORITE						
				- 5% chloritized mafics						
				- fresh feldspars only occas. sericitized						
153	178	80	0.10	- 159-160' = fault breccia ; lwr. contact ca. 45° to c.a.						
160	182.5 (55.63m)			PINKISH BROWN RHYOLITE						
				- becomes f.gr. 2' from contact after first 2' of an aphanitic gdmass w. 5% 1-2mm anhedral feldspar ph...						

DIAMOND DRILL LOG

HOLE No. 87-WB3 Page 3 of 5

Interval From	Interval To	Rec'y %	RQD	DESCRIPTION	Sample No.	Interval From	Interval To	Core Width	Au (oz/ton)	Ag (oz/ton)
				- hairline fract. w. dissem. py common - very hard (nail won't scratch) - lower contact approx. 60° to c.a.						
192.5'	190.6' (58.07m)			MASSIVE MEDIUM GRAINED GRANODIORITE - 7-16% chloritized mafics - locally rusty brown carb. alt'n especially near contacts. - lower contact irregular and 45° to c.a.						
190.6	198' (60.35m)			PINKISH BROWN RHYOLITE PORPHYRY - 15% anhedral to subhedral feldspars (1-2 mm.) in an aphanitic groundmass						
178	201	90	0.35	- 194' = 2% dissem. PYRITE over 0.3' - lower contact 80° to c.a. (?) broken						
198'	202' (4.57m)			MASSIVE MEDIUM GRAINED GRANODIORITE - lwr. contact ca. 80° to c.a.						
201	237.5	70	0.12	* REDUCED TO NQ CORE at 201'						
202'	239.5' (73m)			RUSTY BROWN RHYOLITE PORPHYRY 203-204' = Shear zone w. 0.5' of GN-SL-PY-Bearing QUARTZ; 2% total sulphides of mainly gn and sl.	8438	203	204	1'	.003	.13
				204'-206' = Silicified rhyolite in fault zone w minor PYRITE - poor recovery	8439	204	206 (2.7')	2'	.002	.03
				208-222' = strongly fract.; local fault gouge 211.5' = fault gouge down core axis						
231.5	266	80	0.30	213.2' = 2-4 mm. Q-Py vn. at 30° to c.a. 221.2' = 1 cm. wide piece of white Q vn. 223' = 4-6 mm. Q vn. at 30° to c.axis 225.7' = 2 mm. py vn. at 45° to c.a. 231-233' = fault zone ASSAYED SECTIONS CTG Q-Py vns.; ca. 1-2 per foot of core length	8440	222.5	227.5' (60.3')	5'	.009	.05
					8441	227.5	232.5	5'	.004	.03
					8442	232.5	237.5 (1.39)	5'	.002	.01
239.5'	261.5'			MEDIUM GRAINED GRANODIORITE						

DIAMOND DRILL LOG

HOLE No. 87-WB 3 Page 4 of 5

Interval From	Interval To	Rec'y %	RQD	DESCRIPTION	Sample No.	Interval From	Interval To	Core Width
				- lightly rusty and lightly bleached to 253'				
261.5'	271.5' (9.75m)			CARBONATE-VEINED GREEN ANDESITE - upper cont. with foliation ca. 30° to c.a.				
266	307.5	80	0.10	-267' - 271.5' = fault zone; lower contact is gouge; ca. 30° to c.a.				
271.5'	308' (93.88m)			PINKISH BROWN RHYOLITE PORPHYRY - occas. 1-2 mm. Q. vnlt. -279' = fault gouge (2cm) w. 3cm. Q vn. ctg. 1% pyrite at 70° to c.a. -281.2' = 3-4 mm. Q vn w. 2-3% PY. running down core axis at ca. 10° -286.5' = 3-4 mm Q-Chl-Py vn. at 10° to c.a. -288' = 2mm. Q-PY vn at 30° to c.axis. - the WHOLE ZONE IS STRONGLY FRACTURED.				
307.5	333	95	0.28	-295.8' = 2-3mm Q vn. w. minor PY at 5-10° to c.a. -301.6' = 1mm. Q vn running down core axis; pinches out -303 - 304' = fault gouge.				
308'	312.5' (95.25m)			GREEN ANDESITE -bleached for 1' from broken contact. -creme to buff 1cm. Q-Carb. vn in bleached zone at 20-25° to c.a. - calcite vns 1-3mm. wide common. FROM 308' on → rock is less fractured than before.				
312.5'	320.5' (97.53m)			ALTERED MEDIUM GRAINED GRANODIORITE - upper contact ca. 60° to c.a. -313 - 314' = well fract. rhyolite dyke -318.4' - 319.1' = inclusion of foliated green andesite → upper contact 35° to c.a.				
320.5'	329.5' (100.33m)			BROWN RHYOLITE PORPHYRY - 20% 1-3 mm. feldspars in aph. gdmass. - [illegible] 45°				

DIAMOND DRILL LOG

HOLE No. 87-WB #3. Page 5 of 5

Interval From	Interval To	Rec'y %	RQD	DESCRIPTION	Sample No.	Interval From	Interval To	Core Width
329.5'	332.5' (101.35m)			FOLIATED GREEN ANDESITE - fol'n 45° to c.a.				
333	343	90	0.05	- contact (lower) ca. 45° to c.a.				
332.5'	367.2' (111.92m)			RUSTY F. GR. to M. GR. GRANODIORITE - massive, unmineralized. - 347' = bleached light to medium gray.				
343	388	95	0.35	- 357.5' = Two 2-5 mm Q. vns at 45° to c.a.				
367.2'	387.5' (118.11m)			PINK/BH-BROWN RHYOLITE PORPHYRY - upper contact ca. 45° to c.axis. - 371.5' = 2 - Two mm. Q. vns at 45° & 60° to c.a. - 25% 1-3mm. feldspar phenos. - 382' = Several hairline PY veins.				
387.5	464.8' (141.67m)			GREEN ANDESITE (TUFFACEOUS) - 1% hairline to 3mm. calcite or non-fizzing Carb. vns; Vns 20-60° to c.axis. - dark green colour; massive; rel. high R.Q.D. - broken upper contact.				
388	471	98	0.70	- several irregular lenses of Q-brown carb. up to 3cm. across. - locally brecciated and altered. - 431-432' = Brecciation w. calcite infilling at 60° to c.a. - lower contact foliated and bleached for 2 feet. - contact ca. 45° to c.a.				
464.8	471'			GRAY and BROWN RHYOLITES - 2 phases of rhyolites → a buff and a gray phase and vein py. - local disseminated pyrite in brown rhyo. - contacts 30°-80° to c.a. - 468' = hairline Q vn. cuts across both contacts. - gray rhyo later. E.O.H. = 471'				

DIAMOND DRILL LOG

HOLE No. 87-WB4 Page 1 of 6

Property ISLAND MINING - JL CLAIMS	NTS 105 D/2	Claim JL	Elevation	Azimuth 135°	Length 301'	Dip -65°
Coordinates N 2+30N, 2+75E	Dip Tests -63 at EOH.	Advance 131.93	Depth 270.52	Date Collared JULY 16/87	Date Completed JULY 18/87	
Purposes TEST STRIKE OF MINZ'N INTERSECTED IN 87-WB3	Drilled by CARON D.D.	Assays by ACME LABS.	Logged by HUGH MACKINNON & TERRY M. FLINT			

Interval From	Interval To	Rec'y %	RQD	DESCRIPTION	Sample No.	Interval From	Interval To	Core Width	Au (oz/t)	Ag (oz/t)
0	31' (9.45m)			OVERBURDEN - soil recovered from 21-27'						
0	37	25	0.35							
31'	33.3' (10.15m)			RUSTY M. GR. to C. GR. INTRUSIVE - 5-7% altered mafics.						
33.3	37' (11.28m)			RUSTY DARK GREEN ANDESITE - hairline to 3mm. Q - Carb. vns. - sheared lwr. contact						
37'	63'(?) (19.20m)			LIGHT BROWN RHYOLITE PORPHYRY - 37.5' = fault gouge 4 cm. thick at 45° to c.a. - 5-10% 4-5 mm creme feldspar phenos in an aphanitic groundmass - abund rusty Carb alteration. - rock is strongly fractured w. narrow zones of fault gouge less than 1 cm across. - 43.7' = Q - Fe carb. vn w. minor py at 20° to c.a. - 54-56' - only pebbles of fgr. Rhyo recovered; minor disseminated fract. PYRITE. - gradational lwr. contact into lightly bleached Gd.						
37	91	88	0.83							
63(?)	69.5' (21.18m)			PORPHYRITIC GRAY F. GR. GRANODIORITE - 5-10% 4-6 mm. feldspar phenos which are rusty and altered to clay(?)						
69.5	123.5' (37.64m)			BUFF-WEATHERING F. GR FELDSPAR PORPHYRY - 5% 3-4mm. clay alt'd, buff (Eq golden brown) feldspars in a f. gr. (<1mm) groundmass.	8443	90' (27.43m)	95' (28.95m)	5'	.010	.01
91	110	190	0							
110	124	80	0.29	- 89.5' = breccia (0.5-1 cm. frags) w. minor py & white Qtz. infilling - 90 to 95' = Abundant Q vns. 1mm - 1cm; minor pyrite - 95-100' = Fault gouge to 99' - 100-109.5' = " " - poor recovery.	8444	95'	100'	5'	.011	.04

DIAMOND DRILL LOG

HOLE No. 87-113 4 Page 2 of 6

Interval From	Interval To	Rec'y %	RQD	DESCRIPTION	Sample No.	Interval From	Interval To	Core Width	Au (oz/ton)	Ag (oz/ton)
				100-105' = fault gouge	8445	100	105' (32.00m)	5'	.001	.02
				105-109.5' = " "						
				112-113' = brecciated // core axis	8446	105'	110' (33.53m)	5'	.001	.03
				-lwr contact ca. 45° to c.a.						
123.5	134'2" (40.89m)			GREEN ANDESITE						
				- abundant Qtz+carbonate veins up to 5 mm wide.					Cu Pb Zn Ag As Au(PPB)	
				-125' = 7cm. fault gouge	8447	124.6' (37.95m)	125'8" (38.30m)	1'2"	25 18 71 .4 4 1	
124	136	100	0.25	- 125'8" - 127'6" : Moderately to strongly limonitically bleached & chloritized w/ Limonite, hematite or Fe carb along fractures. Moderately foliated at 30° to C.A.						
				- 127'6" : 7cm fault gouge	8448	127' (38.71m)	128'6" (39.17m)	1'6"	13 20 75 .1 5 1	
				- 127'11" - 128'8" : Strong limonitic alteration, becoming more patchy at depth						
				- 128'8" - 129'8" : Variably altered fault gouge both contacts irregular	8449	128'8" (39.22m)	129'8" (39.52m)	1'	33 17 62 .5 7 2	
				- 129'8" - 132'6" : moderately chloritized & foliated dark green, weakly porphyritic w/ 15 mm qtz-carbonate vn breccia at 130'. Vn may be 2 generations, 1 is weakly hematized (particularly along rims) & has tr py, cpy & boronite (?). Vn oriented @ 33° to C.A.	8450	129'8"	130'8" (39.83m)	1'	108 17 92 .4 2 2	
				- 132'6" - 139'6" : Upper contact @ 15° to C.A. ; Limonitically altered fault gouge grading into chlorite & Fe carbonate altered fault gouge. Lower contact sharp @ 30° to C.A.	8601	132'6" (40.39m)	139'6" (41.00m)	2'	8 17 62 .3 9 1	
134'2"	162' (49.38m)			BUFF BROWN ALT'D & QUARTZ VEINED RHYOLITE PORPHYRY (MINERALIZED)						
136	159.5'	0 97	0.03	Buff brown to pinkish brown, w/ 7-15% 1mm feldspar phenocrysts in an aphanitic matrix. Pervasive & fracture filling moderate to strong limonite & fe carb alteration throughout.						

DIAMOND DRILL LOG

HOLE No. 87-WB4 Page 3 of 6

Interval From	Interval To	Rec'y %	RQD	DESCRIPTION	Sample No.	Interval From	Interval To	Core Width	Cu	Pb	Zn	Ag	As	Au
				- 1-2% ≤1.5mm diss. gn or fracture filling py.										
				- 134'2" - 138' : Strongly altered & brecciated,	8602	134'2"	136'	1'10"	10	67	86	.7	10	720
				w/ tr - 1% galena either w/ py in groundmass,	8603	136'	137'	1'	6	60	93	.4	2	14
				or in q.v. Main galena bearing vn 3mm	8604	137'	138'	1'	3	680	141	1.7	7	49
				grey quartz vn at 65° to C.A.										
				- 138' - 143' : V. blocky & broken core. 3mm	8605	138'	143' (43.59m)	5'	17	161	217	1.1	6	240
				q.v. at 138'6".										
				- 143' - 148'6" : Mostly blocky & broken core,	8606	143'	146'	3'	5	169	141	1.1	7	112
				moderate sericitization, Fe ox & carb alt.	8607	146' (44.50m)	151' (46.02m)	5'	3	76	83	.6	5	24
				Up to 5% euhedral py in veinlets										
				- 148'6" - 152' : Pinkish brown, moderate pervasive	8608	151'	152' (46.33m)	1'	9	88	96	.8	6	3
				Fe ox & Fe carb altered, w/ 25% ≤1mm										
				subhedral to euhedral feldspar xtals. Partially										
				silicified w/ 1% ≤3mm q.v., either										
				individual or as a collection of stringers.										
				Tr py.										
1595'	200'	93	0.95	- 152' - 159'6" : Brecciated, w/ py bearing	8609	152'	159'6" (47.09m)	2'6"	16	138	211	.6	8	25
				carb - qtz - ankerite(?) - limonite veins.										
				- 159'6" - 162' : ≤5% diss fine grained py ;	8610	159'6"	159'6"	5'	15	175	149	.6	5	1
				≤30% ≤4mm feldspar xtals, may be	8611	159'6"	162' (49.38m)	2'6"	4	114	88	.4	16	270
				a Q.F.P. ; matrix alt'd as before.										
				≤3% hairline q.v., variable degrees										
				of chloritic alteration. 160'8" 4mm										
				qtz - chlorite - albite(?) vein at 15° to										
				C.A. Lower contact gradational.										
				may be a mix'd of rhyolite porphyry &										
				altered granodiorite. 155' tr - 1% gn.										
162'	199'6" (60.81m)			DARK GREEN ALT'D MEDIUM GRAINED QUARTZ										
				MONZONITE (W/ MINERALIZED VEINS)										
				Dark green to pink, Strong to moderate pervasive										
				chloritization w/ mafics ≤ 30%.										
				Strongly sericitized afacent to qtz vns &										
				vnlts, w/ ≤ 8% euhedral ≤ 1.5mm py in										
				altered areas. Galena occurs only in graywhite										

DIAMOND DRILL LOG

HOLE No. 87-WB4 Page 4 of 6

Interval From	Interval To	Rec'y %	RQD	DESCRIPTION	Sample No.	Interval From	Interval To	Core Width		Cu	Pb	Zn	Ag	As	Au
				aggregates. Pervasive moderate carbonatization (calcite & Fe carb) especially along fractures											
					8612	162'	167'	5'		8	21	77	.3	3	40
				- 162' - 168'8": Moderately altered, patchs of strong chloritization. 2% ≤ 5mm qtz - chlorite vns.	8613	167' (50.90m)	168'8" (51.41m)	1'8"		16	46	83	.3	7	4
				- 168'8" - 170'6": 3% Cu in qtz - chlorite (10%) - albite (?) veins & vnlts at 70-80° to C.A.	8614	168'8"	170'6" (51.97m)	1'10"	Assay Au, Ag Geochem: Pb, Zn, As, Sb, Cu	3	1293	207	2.1	11	380
				- 170'6" - 172': As above but 15mm wide & 5°-15° to C.A. & more chloritic. Albite (?) usually concentrated near centre of vein while chlorite occurs toward rims of vein. Very strong alteration adjacent to vein. Vn has many small splays.	8615	170'6"	172' (52.43m)	1'6"	"" + Special Prep.	4	1207	176	2.4	15	700
				- 172' - 176': Tr to 1% qn, slightly more Fe alt'd & carbonatized than above, becomes more chloritized at depth.	8616	172'	174'	2'	Assay Au, Ag	6	41	125	.3	6	8
					8617	174' (53.04m)	176' (53.65m)	2'	" " "	6	116	231	.4	7	10
				- 176' - 179': strongly chloritized particularly along qtz vns. Tr to 1% qn. END OF MINERALIZATION	8618	176'	178'	2'		19	417	508	1.3	3	5
					8619	178'	179'	1'		16	173	140	.9	8	1
				- 179' - 199'6": Slightly coarser xtal size (≤3mm) better granitic texture, less altered. Strong carbonatization along vns & fractures. Chloritic alteration moderate to weak at depth; usually as a replacement of biotite (?). Lower contact strongly alt'd (Fe + chl), sharp but irregular at 5-15° to C.A.	8620	179' (54.56m)	184'	5'		20	14	46	.2	7	2
199'6"	207' (63.09m)			PINKISH BROWN RHYOLITE PORPHYRY											
200'	230'	62	0.10	10% 1-2mm euhedral to subhedral sericite or clay (silicic?) alt'd feldspar xtals in an aphanitic matrix. Matrix commonly fe carb or sericitically altered. 1% ≤2mm q.v.; ≤3mm euhedral rusty py cubes along fracture											

DIAMOND DRILL LOG

HOLE No. 87-WB4 Page 5 of 6

Interval From	Interval To	Rec'y %	RQD	DESCRIPTION	Sample No.	Interval From	Interval To	Core Width	Cu	Pb	Zn	Ag	As	Au
				-200'6" - 202' : Sericitically bleached minor q.v.	8621	200'	203'	3'	6	172	189	.5	11	37
				-202' - 207' : Mostly broken core	8622	203'	207'	4'	6	345	177	1.0	9	250
						(61.87m)	(63.09m)							
207'	219' (66.75m)			GREENISH BROWN ALT'D MEDIUM GRAINED QUARTZ MONZONITE										
				Moderate to strongly alt'd to chlorite (up to 40% of core), Fe carbonate, limonite & calcite. Blocky & broken core 215' - 219'. Fractures commonly 40° & 70-80°										
219'	230' (70.10m)			PINKISH BROWN RHYOLITE PORPHYRY										
				As before. Fe carb & ox altered, calcite along fractures. Blocky & broken core poor recy.										
~~227'~~				Switch to NQ core										
230'	245'6" (74.83m)			GREENISH BROWN MEDIUM GRAINED QUARTZ MONZONITE										
230'	260'	70	0.25	As before but less altered. 30-~~45~~% chlorite either pervasive alt (236'6" - 237'6") or as replacement of mafic minerals (biotite?). 1-2mm feldspars weakly to moderately altered to Fe carbonate. Tr py. Blocky & broken core 236' - 239' & 243' - 245'6"										
245'6"	286' (87.17m)			BUFF BROWN RHYOLITE PORPHYRY										
				Buff to pinkish brown, w/ 7-12% 1-3mm subhedral feldspar phenocrysts in an aphanitic matrix. Weak to moderate Fe-carb & ox & sericitic alteration.										
260'	286'	70	0.09	Carbonate & limonite altered fractures w/ up to 10% ≤ 2mm subhedral py xtals.	8623	251'	258'	5'	7	42	53	.3	12	4
					8624	261' (79.55m)	266' (81.08m)	5'	7	24	37	.7	2	2

DIAMOND DRILL LOG

HOLE No. 87-WB4 Page 6 of 6

Interval From	Interval To	Rec'y %	RQD	DESCRIPTION	Sample No.	Interval From	Interval To	Core Width	CU	PB	ZN	AG	AS	AU
				Minor py bearing qtz veins ≤ 2mm. Vn & fracture orientation commonly 50° to C.A. Blocky & broken core; 255' - 256', 258' - 261', 262' - 265'; 272' - 286'.	8625	271	276	5'	7	28	41	.2	2	1
286'	301'			DARK GREEN ALTD MEDIUM GRAINED QUARTZ MONZONITE										
				Moderate to strong chloritic & carbonate alteration.										
286	301	93	0.98	Mafic minerals comprise ≤ 40% of rock & are altered to chlorite or Fe carbonate. Intensity of carbonatization & chloritization increases with depth. Minor argillic alteration (illitization?) of Kspar(?) at depth. 10mm carbonate (calcite) - chlorite vn(s) at 287'6". 1 - 2% fractures & vns at several generations commonly 70° & 10° to C.A, but variable.										

W04

Mineralized zones: 1) 4' section from 134'2" - 138', w/ tr - 1% galena vn. Fe altered & brecciated rhyolite porphyry, 1" A vn section w/ tr - 1% gn at 155' in same dyke, but not brecciated

2) 10' section from 169' - 179' w/ tr - 5% gn 1mm to 15mm qtz - chlorite - albite vns in strongly chlorited & Fe altered (Fe carb & Ox) quartz monzonite.

GEOLOGICAL ENGINEERS INC.

DIAMOND DRILL LOG

HOLE No. 87-I1 | Page 1 of 9

Property MIDNIGHT GULCH	NTS 105 D/2	Claim TON	Elevation 4900'	Azimuth 220°	Length 339'	Dip -50	
Coordinates 4+90N / 1+20W	Dip Tests -50° at EOH	Advance 217.9'	Depth 259.7'	Date Collared JULY 19, 1987	Date Completed JULY 22, 1987		
Purposes TEST JUNCTION OF 2 MAJOR LINEAMENTS & MINERALIZATION AT JUAN SHOWING	Drilled by CARON D.D.	Assays by ACME	Logged by HUGH MALLOCH				

Interval From	Interval To	Rec'y %	RQD	DESCRIPTION	Sample No.	Interval From	Interval To	Core Width	Cu	Pb	Zn	Ag	Au	Au (check)
0	4' (1.22m)			CASING.										
4'	29' (8.84m)			ANDESITIC LAPILLI TUFF & TUFF										
0	4'+15'	22	0.18	4'+16" : Dark green lapilli tuff w/ 7% ± 15mm angular fragments. Blocky & broken core. 6" ± flow w/ 10% ±1mm mafic (chlorite?) phenocrysts at 13'; flow contact @ 155° to C/A.										
				16'-17'6" : Dark greyish green moderately silicified lapilli tuff.										
				17'6" - 22' : Dark green lapilli tuff grading into fine grained tuff.										
				22' - 24' : Dark green to grey green, brecciated tuff, w/ some silicification of bx. Bx band variable thickness & orientation to C/A. Slightly vuggy w/ calcite infilling	B485	22' (6.71m)	24' (7.32)	2'	27	6	81	.4	5	1
				24' - 26' : Brownish green to grey green, weakly porphyritic, 'chaotic' silicified to unsilicified tuffs.										
				26' - 29' : Brownish green, fine grained tuff, massive. Lower contact broken										
29'	32' (9.75m)			FINE GRAINED ALT'D RHYOLITE PORPHYRY	B486	29' (8.84)	32'	3'	13	6	21	.3	2	1
				Purplish brown, w/ 35% <1mm feldspar xtals in an aphanitic matrix. 5-10% limonitization spotting, may also be silicified. Fracturing & qtz. increase with depth. Sericite & limonite along fractures, with up to 50% limonite in 8mm qtz. & 1% py. Mostly broken core.										

DIAMOND DRILL LOG

HOLE No. 87-I1 Page 2 of 7

Interval From	Interval To	Rec'y %	RQD	DESCRIPTION	Sample No.	Interval From	Interval To	Core Width						
32'	38'6" (11.73m)			ALT'D & SHEARED PORPHYRITIC ANDESITE(?) FLOW										
				Buff orangish brown, w/ 10-15% 1-4mm elongate (lenticular) sericitically & carbonate altered feldspars in a fine grained limonite & carbonate (Fe & Ca) alt'd matrix. Foliation @ 50° to C.A.	8487	32'	33' (10.06m)	1'	9	9	36	.1	4	1
				- 32'6"-33': 2 ≤ 1cm qtz - limonite vns with 1-3% ≤1mm py	8488	33'6" (10.21m)	37' (11.28m)	3'6"	7	9	26	-2	2	1
				- 33' 6" - 33'6" & 37' - 38' : Rounded pebbles; overburden seam(?)										
				- 38'4" - 38'6" : Carbonate alt'd fault gouge. Sharp contacts both roughly ⊥ to C.A.	8489	38' (11.58m)	38'6"	6"	13	9	23	.1	2	2
38'6"	86' (26.21m)			ANDESITIC TUFF, LAPILLI TUFF AND FLOWS										
				- 38'6" - 41' : Dark brownish green, v.fn to fine grained tuffs. Strong sericitic alt. at top of unit, weak limonitization throughout rest. 1% carb fracture filling										
40.5	95	98	0.70	- 41' - 45' : 'mottled' lapilli tuff, moderately chloritized. 1% 2mm to 30mm jasper clasts (w/ 1% py), 3% hairline to 5mm carbonate fracture filling. Trace diss py.	8490	43' (13.11m)	45' (13.72m)	2'	159	6	109	-.5	6	1
				- 45' - 46' : Dark green, amygdaloidal flow, w/ 1-2mm amygdules filled with calcite & chlorite.										
				- 46' - 52' : Green to dark green, highly fractured, moderately epidotized & strongly carbonatized along fractures. Fractures most commonly 20-30° to C.A. Combination of tuffs & flows.										
				- 52' - 53' : 'mottled lapilli tuff.										
				- 53' - 67' : Dark green, principally mottled lapilli tuff with small flow units.										

DIAMOND DRILL LOG

HOLE No. 87-I1 Page 3 of 9

Interval From	Interval To	Rec'y %	RQD	DESCRIPTION	Sample No.	Interval From	Interval To	Core Width						
				- 67' - 83' : Dark green, principally weakly porphyritic flows w/ 3% 1-4mm chloritized or epidotized mafic & feldspar phenocrysts. Several mottled sections; minor lapilli tuffs & flow breccias. Strongly epidotized at 78'. <1% calcite filled tension fractures. Grades into fine grained non porphyritic tuffs at base. 81' an 8" amygdaloidal flow.										
				- 83' - 86' : Dark green, mottled lapilli tuff, strongly epidotized at base.										
86'	87' (26.52M)			RHYOLITIC OVERBURDEN (?)										
				80% pinkish brown fine grained rhyolite & 20% andesitic volcanic cobble fragments.										
87'	107'4" (32.72M)			ANDESITIC VOLCANICS										
				Dark green, green to greenish grey flows, tuffs & lapilli tuffs. Scattered epidote vns & fracture fillings. Several generations of vns including qtz + calts, carb vnlts & fracture fillings, & epidote. Py, chalcopyrite, malacite +/or bornite occur in trace amounts in amygdules, qtz vnlts, along epidote + qtz vns & in fractures. Good recovery.										
95	111'	94	0.33	- 87 - 90' : Mottled lapilli tuffs & tuff bx (?). 88' + 88'6" 5 to 10mm epidote vns at 50° - 60° to C.A. Trace cpy, py, mal & bornite	8491	87'	89' (27.13)	2'	156	10	130	.1	2	1
				- 90' - 93'6" : Moderate to strongly epidotized porphyritic & amygdaloidal flows (w/ cpy, mal & py) grading in to fn gr. tuffs.	8492	90'	92'	2'	87	5	124	.1	8	2
				- 93'6" - 94'6" : mottled lapilli tuffs										

DIAMOND DRILL LOG

HOLE No. 87-I2 Page 4 of 9

Interval From	Interval To	Rec'y %	RQD	DESCRIPTION	Sample No.	Interval From	Interval To	Core Width
				-94'6" - 100' : Porphyritic to amygdaloidal flows & tuffs. Chloritization of mafic phenos.				
				-100' - 103'6" : mottled lapilli tuff w/ trace malachite along fractures. Minor epidote-calcite vns & bx vns at 50-60° to C.A.	8493	100'	103'	2'
				-103'6" - 107'4" : Grades from 1mm amygdule flows into mottled lapilli tuff. ANDESITIC				
107'4"	109'6" (33.38m)			ALTERNATING (GRADED) CRYSTAL TUFF TO CRYSTAL & LITHIC TUFF				
				Sequence of fine grained dark green tuff or in some case may be flows grading into grey to white 30% 1-3mm euhedral xtals, 15% ≤ 10mm lithic fragments in a silicified, chloritized & fractured matrix. Unit is repeated 7 times with each bed from 2cm to 9cm thick. Contacts commonly 75-85° to C.A.				
109'6"	126' (38.40m)			MIXED ANDESITIC VOLCANICS				
				Succession starting at top w/ tuff, mottled lapilli tuff, mottled xtal tuff then fine grained tuff.				
111	126	80	0.65					
				Switch to NQ at 111'				
126'	150' (45.72m)			ALT'D ANDESITIC VOLCANICS & RHYOLITE "bleached" -				
126	136	55	0.25	Buff orangish brown, carbonate (Fe & Ca), limonite & sericite tuff, lapilli tuff & porphyritic flows, moderately foliated in places at 55-60° to C.A. 40% blocky & broken core. Sct fn gr py << 1%.				

303	7	136	.1	8	3	

DIAMOND DRILL LOG

HOLE No. 87-I1 Page 5 of 9

Interval From	Interval To	Rec'y %	RQD	DESCRIPTION	Sample No.	Interval From	Interval To	Core Width						
				- 129'6" - 135' ; sheared & faulted porphyritic flows & fault gauge. Poor rec'y.	8494	129'6" (39.47m)	135' (41.15m)	5'6" 30% rec'y	29	10	67	.4	8	11
				- 135' ; Potential small rhyolite unit. (41.15m) v. poor rec'y	8495	135'	140' (42.67m)	5' 25% rec'y	26	10	64	1.8	22	34
				- 146' - 146'6" ; Greenish white sericitized 3mm feldspars in a strongly silicified brilliant orange aphanitic matrix - rhyolite porphyry ?										
150' (45.72m)	218' (66.45m)			ALTD RHYOLITE & RHYOLITE PORPHYRY										
				Orangish-pinkish brown becoming greyish, at depth ; fe carb, limonitized (?) bleached	8496	151'	154'	3'	7	6	18	.6	6	13
					8497	154'	156'	2'	14	5	26	.5	3	6
176	227.5	78	0.27	&/or silicified &/or sericitized.	8498	156'	161'	5'	9	6	21	.3	5	4
				aphanitic matrix w/ sericitized &/or 'bleached' feldspars. Alteration & fracturing	8499	161'	166'	5'	13	11	32	.5	7	17
				less intense with depth. Tr to 1% py.										
				1-2% hairline to 5mm q.vns usually with	8500	188'	190'	2'	4	11	30	.3	2	12
				an accompanying alteration halo. Limonite	8501	207'	210'	3'	5	16	30	.3	5	20
				and/or Fe carb (ankerite) along 40% of	8502	210'	212'	2'	4	7	31	.2	7	6
				fractures & veins. 1-2% carbonate vns &										
				tension gash fillings. Upper core										
				mostly broken. Trace of volcanic										
				xenoliths. Qtz veining decreases w/										
				depth										
				- 151' - 154' ; Strong bleaching, 3% q.v., 2% fractures ; 1% py.										
				- 154' - 156' ; As above but 5mm sericitized q.v. at 155'										
				- 156' - 161' ; Moderate to strong bleaching, sericitized & silisitied around q.v.										
				- 161' - 166' ; Mostly broken & blocky core										
				- 166' - 188' ; moderately altered rhyolite porphyry w/ 5-7% 1-2mm phen										

Interval From	Interval To	Rec'y %	RQD	DESCRIPTION	Sample No.	Interval From	Interval To	Core Width						
				- 188' - 190' : 4% py fracture filling, 4mm qtz-carb vn at 50° to C.A. & strongly altered 'crumbly' core.										
				- 190' - 207' : Rhyolite porphyry, as before, but most feldspar are rimmed w/sericitic centres.										
				- 207' - 212' : Strongly alt'd.										
				- 213' : Q.v. with 2mm euhedral py	8503	212'6"	213'6"	1'	4	10	24	.3	2	2
				- 216'6" : Sericitized 2cm bx.	8504	216'	217'	1'	4	10	25	.4	4	2
				- 217-218' : Core rubble										
218'	227' (69.19m)			MIXED ALT'D RHYOLITE & ANDESITIC TUFF										
				- 218' - 219' : Orangish brown fn-gr. tuff										
				- 219' - 220'6" : Alt'd (as above) rhyolite, bx at top, porphyritic toward base										
				- 220'6" - 222'6" : Dark green fn grained xtal tuff w/ 10% 1mm chlorite phens; unit orangish brown where bleached.										
				- 222'6" - 227' : Alt'd rhyolite; silicified, bleached (sericite, limonite & Fe carb), with 4mm qtz-ankerite (?) vn & fracture filling. Lower contact @ 85° to C.A. (broken).	8505	222'6"	224'	1'6".	6	11	20	.3	8	4
					8506	224'	227'	3'	5	177	39	.7	11	13
227'	236' 71.93			ANDESITIC TUFF										
227.5	251	93	0.55	Dark brownish green, fine grained, weakly foliated at @ 65° to C.A., limonitically bleached at top, & weakly chloritized throughout remainder of section. <1% 1-3mm q.v. at 60-90° to C.A., in addition qtz-albite fracture fillings at @ 25° to C.A.										

Interval From	Interval To	Rec'y %	RQD	DESCRIPTION	Sample No.	Interval From	Interval To	Core Width						
236'	245' (74.68M)			MIXED ANDESITIC LAPILLI TUFF & FELSIC (RHYOLITIC) PORPHYRITIC FLOWS										
				- 236' - 237'6": As above but with lapilli fragments ≤ 1cm & weakly bleached										
				- 237'6" - 238': Dark purplish grey, porphyritic w/ 5% 3mm phenos in an aphanitic matrix. 5% 1-2 mm q.v. - Rhyolite flow.										
				- 238' - 239': Lapilli tuff as above										
				- 239' - 239'6": Rhyolitic flow as above.										
				- 239'6" - 245': Lapilli tuff as above but slightly more bleached, becomes tuffaceous at depth. Lower contact sharp 55° to C.A.										
245'	252' (76.81M)			RHYOLITE PORPHYRY										
				Dark purplish grey to orangish brown, w/ 2% subhedral to euhedral 2-3 mm plagioclase phenocrysts in an aphanitic & occasionally flow banded matrix. Slightly bleached.										
252'	272' (82.91M)			ALT'D RHYOLITE PORPHYRY										
				Orangish to light greenish brown, fg. carb, sericitized &/or silicified, w/ Mn & weak carb alteration along fractures. 1-5% q.v., w/ 1-2% subhedral py. 2-7 2cm irregular tuff bands near top of unit. Variable amounts of bleaching. 3-5% fractures at base with ankerite(?), py infilling. Variable orientation; commonly // , 20° & 80° to C.A.	8507	252'	254'	2'	4	2	24	.1	4	1
251	286	81	0.26		8508	256'	258'	2'	5	15	34	.2	6	4
					8509	267'	272'	5'	4	20	43	.3	11	2

DIAMOND DRILL LOG

HOLE No. 87-I1 Page 8 of 9

Interval From	Interval To	Rec'y %	RQD	DESCRIPTION	Sample No.	Interval From	Interval To	Core Width	
272'	276' (84.0m)			RHYOLITE QUARTZ-FELDSPAR PORPHYRY Light greyish to orangish brown, weakly Fe bleached w/ 8% (5% plagioclase, 3% qtz) 1-2mm euhedral to subhedral phenocrysts, in an aphanitic matrix. Becomes a purplish grey porphyry at base. Lower contact 50-60° to C.A.					
276'	277'6" (84.58m)			FINE GRAINED ALT'D ANDESITIC TUFF Light green where chloritized & brownish grey toward contacts where bleached w/ 2mm qtz-aplite vn/fracture fillings at 20° to C.A.					
277'6"	279'6"			RHYOLITE PORPHYRY Dark purplish grey porphyry, as before, grading into a flow banded rhyolite. - 278'6": 3cm lapilli tuff band					
279'6"	295'6" (90.06m)			ALT'D ANDESITIC LAPILLI TUFF					
286	301.5	52	0.08	Dark green w/ either limonitic or sericitic bleaching. - 287' - 294'6": Blocky & V. broken core					
295'6"	302'6" (92.20m)			MIXED ALT'D ANDESITIC VOLCANICS & RHYOLITE					
301	316	70	0.30	Very blocky & broken core w/ 30% rhyolite fragments. 30% qz veins in rhyolite. 30% recy.	8510	300'6"	302'6"	2'	(35% recy) 10 | 41 | 90 | .5 | 5 | 4
302'6"	315' (96.01m)			ANDESITIC CRYSTAL TUFF (OR PORPHYRITIC FLOW) Dark green, w/ 30% 0.5-1mm chlorite (mafic) grading to 1-2mm feldspar xtals & <1% ≤2mm carbonate (calcite) vns.					

DIAMOND DRILL LOG

HOLE No. 87-I-1 Page 9 of 9

Interval From	Interval To	Rec'y %	RQD	DESCRIPTION	Sample No.	Interval From	Interval To	Core Width						
				- 309' : 2 cm qtz-chlorite-carbonate vn at 75° to C.A.										
				- 311'-313' : V. blocky & broken core (rubble).										
				- 312'6"-313'6" : Qtz-epidote-calcite-chlorite-mn oxide vn & fracture filling. Trace py	8511	312'6" (95.25m)	313'6" (95.56m)	1'	61	7	68	.2	2	1
315'	328'6" (100.13m)			ANDESITIC VOLCANICS variably alt'd										
316	339	83	0.107	Dark green, A tuffs (lithic lapilli & crystal)										
				- 315'6"-316' : Fault gouge, carb alt.	8512	315'6" (96.16m)	317' (96.62m)	1'6"	↑(Poor recy) 23	9	70	.1	6	2
				- 316'-317' : Broken core, v. poor recy										
				- 317'-325' : Broken core, lapilli tuff, 5% carbonate fracture filling										
				- 325'-326' : V. poor recy, clay & limonite & carb alt'd tuff.	8513	325' 99.06	326' 99.36	1'	↑(Poor recy) 7	10	59	.1	9	3
				- 326'-328'6" : Bleached-limonite & calcite, & well foliated xtal tuff & lapilli tuff										
328'6"	330' (100.58m)			ALT'D RHYOLITE.										
				Grey to light green strongly sericitized & qtz veined, v. poor recy, broken core	8514	329' (100.28m)	330'	1'	↑(Poor recy) 33	6	37	.2	7	3
330'	332' (101.19m)			FINE GRAINED FELSIC TUFF (?)										
				Pinkish grey, w/ 0.5mm angular qtz fragments, + 5% ≤0.5mm diss magnetite (?). may be a fgr. granodiorite ?										
332'	339' (103.33m)			ANDESITIC XTAL TUFF										
				Dark green, fn to med. grained, 1% calcite fracture fillings (minor bx). Mostly broken core										
				- 335' : 4 cm, silicified & sericitized rhyolite porphyry.										
339'				EOH										

DIAMOND DRILL LOG

HOLE No. 87-I2 | Page 1 of 8

Property MIDNIGHT GULCH	NTS 105D/2	Claim JL	Elevation 4900'	Azimuth 170°	Length 259	Dip -50
Coordinates 4+40N / 1+20W	Dip Tests -50° at E.O.H.	Advance 166.48'	Depth 198.41'	Date Collared JULY 22	Date Completed JULY 24	
Purposes TEST E/W LINEAMENT & MINERALIZATION AT TVAN SHOWING	Drilled by CARON D.D.	Assays by ACME	Logged by HUGH MACKINNON			

Interval From	Interval To	Rec'y %	RQD	DESCRIPTION	Sample No.	Interval From	Interval To	Core Width	Cu	Pb	Zn	Ag	As	Au (ppb)
0	6'			CASING										
6' (1.83m)	21' (6.4m)			ANDESITIC TUFF, LAPILLI TUFF & BRECCIAS										
0	16'	97	0.08	Dark green to brownish green, pervasive										
16'	43'	96	0.23	weak limonitization & chloritization										
				- 6'-9': mostly blocky & broken core, strong Fe (limonitic) alt of lapilli tuff										
				- 9' 6" Fault gouge zone										
				- 9'-13': more greyish coloured, angular 'dicty' quartz (silicification) gneiss, w/ weak to strong silicification throughout. lapilli tuff. trace py	8515	11' (3.35m)	12' (3.66m)	1'	6	9	87	.3	8	2
				- 13'-15': Fine grained tuff, blocky fracture with white qtz infillings. Brecciated at 13'6", with non tuffaceous infilling.										
				- 15'-16': Blocky & broken core										
				- 16'-17': Lapilli tuff, weakly brecciated by sets of hairline to 4mm ankerite (?) & white qtz filled fractures. Fracture orientation commonly 20-40° w/ 2ND set at 20° oss setting larger veins up to 8mm.	8516	16' (4.88m)	18' (5.49m)	2'	6	14	102	.1	15	14
				- 17'-21': Lapilli tuff w/ 30% ≤ 10mm rounded to subangular volcanic fragments. Trex 17'6" is 2.5cm breccia band at 30° to C.A. with 25-40% 2-5mm feldspar xtals & 10-25% tuff fragments in a fgr matrix. Intrusive breccia?										
21'	35' (10.67m)			ANDESITIC LAPILLI TUFF										
				Dark green to grey green; moderately chloritized. 40% broken & blocky core at top of unit. Variable fragment size, generally ≤ 20cm. Weakly to moderately silicified toward top.										

DIAMOND DRILL LOG

HOLE No. 81-I-2 Page 2 of 8

Interval From	Interval To	Rec'y %	RQD	DESCRIPTION	Sample No.	Interval From	Interval To	Core Width	
				≤ 10 cm crystal tuff bombs between 29' & 31'.					
35'	37'6" (11.4m)			ALT'D ANDESITIC LAPILLI TUFF					
				Dark green moderately chloritized w/ 35% light brownish white moderately argillic (clay) (?) & silicic alt'd ≤ 15mm volcanic fragments. Core broken for lower half of unit.					
37'6"	43' (13.1m)			ANDESITIC LAPILLI TUFF					
				Green to greenish brown moderately chloritized, weakly limonitized. 39'-40': Weakly foliated (at @ 5° to c.a) Lower contact sharp 50-60° to c.a.					
43'	45'6" (13.9m)			ALT'D ANDESITIC TUFF					
43	70	80	0.10	Green at top of unit, grading to brown. Fg grained, w/ limonite & wet along fractures. Blocky core.					
45'6"	46'6" (14.17m)			RHYOLITE					
				Pinkish brown, felsic v. fg grained, broken core, poor rec'y.					
46'6"	51'6" (15.7m)			ALT'D SHEARED PORPHYRITIC ANDESITE (?) FLOW					
				Orangish brown, w/ 3mm elongated sericitized feldspar (?). Foliation at @ 70° to c.a. Strong limonitic alteration.	8517	47' (14.33m)	50' (15.24m)	3'	12 | 6 | 36 | .3 | 3 | 2

DIAMOND DRILL LOG

HOLE No. 87-I2 Page 3 of 8

Interval From	Interval To	Rec'y %	RQD	DESCRIPTION	Sample No.	Interval From	Interval To	Core Width	
54'6"	62' (18.90m)			MIXED ALTERED TUFF & PEBBLE LAYERS.					
				Fine grained dark green to brown, fairly massive mixed pebble lithologies of rhyolite (A.A.), + tuff at 57'-58'6", & 59'-59'6". May be an overburden seam?					
62'	97'			ANDESITIC LAPILLI TUFF					
				Grades from strongly limonitically bleached & weakly foliated (at 20°-40° to c.a) to weakly					
70	86	94	0.12	bleached (limonite spotting + 5% alt'd fragments) 1-2% ≤5mm limonite & carbonate fracture filling or vns. Weak carbonate all. Becomes slightly mottled at depth, w/ moderate chloritization & weak epidotization 1-2% calcite fracture/tension gash fillings.					
				- 75'-76': Broken core rubble					
				- 79'-80'6": Mostly broken core; strong limonitization along fractures. ~2 bands of fault gouge?					
				- 87'6"-88'6": Amygdaloidal flow w/ 7% 1mm chlorite &/or carbonate filled amygdules. chloritized & hematized gwy & patch.	85518	87'6" (26.67m)	88'6" (26.97m)	1'	22 | 25 | 131 | .2 | 11 | 2
				- 96': 9 cm v.fg. grained clast.					
				Lower contact irregular					
97'	122' (37.19m)			ANDESITIC TUFF					
				Dark green fg. grained, occasionally weakly					
86	111	88	0.55	mottled, moderately chloritized, V. weak epidotization. ≤10% calcite tension gash &					
111	139	90	0.69	fracture filling generally increasing w/ depth, often as multi generation networks, minor epidote veining, & strong chloritization					

DIAMOND DRILL LOG

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Interval From	Interval To	Rec'y %	RQD	DESCRIPTION	Sample No.	Interval From	Interval To	Core Width						
				along fractures at depth.										
				- 107' 6" : Patch of cpy in a small	8519	107' (32.61m)	109' (33.22m)	2'	168	11	110	.5	4	1
				-111': ~~Switch to~~ chloritized band										
				- 114 - 115' : Strongly epidotized, w/	8520	114' (34.75m)	115' (35.05m)	1'	58	58	72	.5	7	2
				3mm calcite vnsd vnlts, weak hematization.	c									
				- 115' - 122' : Trace cpy, cpy+mal;	8521	115	120' (36.58m)	5'	101	23	111	.8	14	1
122' (37.22m)	129' (39.32m)			ANDESITIC LAPILLI TUFF.										
				Dark green, v. strongly mottled, w/	8522	124' (37.80m)	129' (39.32m)	5'	90	11	128	.7	5	1
				anastomosing calcite vns & fractures.										
				Weak pervasive limonitization, moderate										
				chloritization & limonitized fractures										
129' (39.32m)	134' (40.84m)			ANDESITIC AMYGDALOIDAL FLOW										
				- 129' - 130' 6" : Dark orangish/brownish green	8523	129'	130'6" (39.78m)	1'6"	35	12	83	.4	9	1
				grading to orangish brown, tuff w/										
				10% 1mm chloritic filled amygdules grading										
				into carbonate or qtz filled amygdules (may be a										
				porphyritic flow ?). 4cm qtz +										
				ankerite ? - carbonate vein at 130'.										
				F/n surrounded by pervasive strong limonitic										
				& weak carbonate & sericite (?) alteration										
				- 130'6" - 134' : Dark green, with slight	8524	130'6"	133' (40.54m)	2'6"	254	11	107	1.3	8	4
				orangish brown limonitic bleaching;										
				10% chloritic amygdules as above. 5mm &										
				2cm qtz veins at 131' & 132'6" respectively,										
				Tr py, 3% carbonate vnlts & fracture										
				fillings.										
134' (40.84m)	135'6" (41.30m)			ALTERNATING ANDESITIC TUFF & CRYSTAL/LITHIC TUFF										
				Dark green slightly mottled tuff &	8525	134'	135'6"	1'6"	326	14	94	1.0	6	1
				light grey crystal/lithic tuff w/ 10%										
				2-3mm white plagioclase xtals, 10% angular										

DIAMOND DRILL LOG

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Interval From	Interval To	Rec'y %	RQD	DESCRIPTION	Sample No.	Interval From	Interval To	Core Width						
				lithic fragments in chloritized, siliceous matrix. Well fractured & partially brecciated by hairline to 2mm carbonate ± qtz veins. Hematized 1cm fragments with cpy & cpy-calcite-chlorite veins at base of unit										
135'6"	138'6" (42.21m)			MIXED ANDESITIC TUFFS & AMYGDALOIDAL FLOWS										
				Dark green, slightly mottled, w/ 1-5% amygdules. Moderate to strongly fractured w/ qtz carb infilling fractures & vns. Minor limonite & Fe-carb in & adjacent to veins.										
				-137': 5cm band with carbonate filled amygdules & qtz-carb veins w/ tr cpy	8526	136'6" (41.60m)	138 (42.06m)	1'	20	7	78	.3	8	1
138'6"	150' (45.72m)			ALT'D & SHEARED ANDESITIC VOLCANICS										
139	150	90	0.06	Orangish brown, strongly foliated at 20-26° to C.A.										
				-138'6" - 142'6": Strongly Fe carb & limonite, & weak carbonate altered amygdaloidal flows.	8527	139' (42.37m)	144' (43.89m)	5'	88	9	80	.7	2	4
				-142'6" - 145': Alt'd & sheared lapilli tuff & tuff.										
				-145' - 149'6": Sandy core rubble v. poor rec'y	8528	145' (44.20m)	149' (45.42m)	4'	38	17	73	.6	9	1
150'	151'			FINE GRAINED GRANODIORITE (?)										
150	190	60	0.84	Dark green w/ 30% mafics (chlorite)										
151'	182' (55.47m)			ANDESITIC LAPILLI TUFF										
				Green to dark green, moderate to weak foliation at between 10-50° to C.A. 3-5% ≤ 1cm qtz or carbonate										

DIAMOND DRILL LOG

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Interval From	Interval To	Rec'y %	RQD	DESCRIPTION	Sample No.	Interval From	Interval To	Core Width						
				Fe carb or limonite w/ vns. Foliation decreases w/ depth.										
				– 152'-153': Possible chloritized v.fn grained granodiorite. Upper contact @ 35° to C.A. Large calcite vein. Tr py										
				– 154'-155': Limonitically bleached w/ 3mm q.v.										
				– 160'-162': Broken core, +4cm q.v. at 161'	8529	160'6" (48.91m)	161'6" (49.21m)	1'	14	9	85	.4	2	1
				– 164-165': Strongly foliated, moderate bleaching										
				– 165'-182': Weak to non foliated, multi-lithic fragments, several small silicified bands, slightly mottled tr py.										
182'	184' (56.00m)			ANDESITIC TUFF										
				Green w/ 5% 1mm chlorite x-tals										
				Upper contact @ 45° to C.A.										
184'	242'1" (73.76m)			ANDESITIC LAPILLI TUFF & TUFF										
				Dark green. Upper half: Fragments generally										
190	199	83	0.08	smaller than overlying lapilli tuffs (ave < 5mm);										
199	221	89	0.81	weak (< 1%) limonitization of selected mafic										
241	259	75	0.73	minerals; moderately chloritized throughout &										
				sporadically silicified; occasional crystal										
				tuff & lithic tuff (< 15 cm) bands. Lower										
				half: Greater percentage of tuffaceous										
				layers; weak to strong epidotization &										
				chloritization, either pervasive or along										
				fractures & vns. Scattered (1-3%) <										
				5mm carbonate vns.										
				– Limonite & Fe carb altered < 10 cm										
				bands at 218' & 229'6".										
				– 227'8"-228'6": 15 cm epidote-calcite	8530	227' (69.19m)	229' (69.80m)	2'	81	13	101	.5	6	2
				± qtz vn w/ adjacent smaller epidote-calcite vnlts.										
				Smaller vns are fractured & offset by										

DIAMOND DRILL LOG

HOLE No. 87-I2 Page 7 of 8

Interval From	Interval To	Rec'y %	RQD	DESCRIPTION	Sample No.	Interval From	Interval To	Core Width						
				- 231' - 237': Crystal tuff (may be ash flow?) w/ 15-30% ≤ 1.5mm clay x'tals.										
				- 237' - 242' 1": As above but becomes more Fe alt'd w/ depth.										
242'1"	250'10" (76.4m)			ALT'D, BRECCIATED & STRAINED LAPILLI TUFF & FELSIC FLOWS										
				-242'1" - 242'6": Brown to brownish green lapilli tuff, moderately foliated at 70° to C.A. Lithic fragments partially stretched out, & more strongly alt'd than matrix	8531	242'1" (73.76m)	243' 74.07	1'	5	8	71	.2	4	1
				-242'6" - 243': yellowish brown, x'tal tuff & lapilli tuff, less sheared than above unit.										
				-243' - 250': Grey to buff to brownish grey, strongly alt'd, porphyritic, flow banded, & weakly brecciated felsic (rhyolitic) flows, w/ 1% clay (?) altered 1mm euhedral phenocrysts, at 243' - 244'4", 247' - 247'11" & 249'8" - 250'.	8532	243'	245' (74.68m)	2'	76	10	43	.6	2	1
				Brecciated & variably alt'd lapilli tuff. Angular, silicified, irregular shaped, orangish brown to grey (often rimmed) altered fragments ≤ 27mm in a grey variably chloritized (?) Fe altered (carb) & silicified matrix with < 10mm lithic fragments. Chaotic fragmental & matrix, patterns, but roughly aligned 50° to 70° to C.A. Possible fault breccia, w/ an alteration overprint. chlorite & qtz vn.	8533	245'	247' (75.29m)	2'	40	14	39	.4	2	1
					8534	247'	250' (76.2m)	3'	33	11	48	.5	4	2
				Later stage (?) brecciation at 243'11", 246'9" - 246'11", 247' - 247'2" & 248'7". 1-2% ≤ 2mm qtz vnlts.										
				- 250' - 250'10": Less altered lapilli tuff.										
250'10"	259' (78.94m)			ANDESITIC LAPILLI TUFF										
				Dark green to grey, moderate to strongly chloritized, moderate silicification in places. 2% calcite										

DIAMOND DRILL LOG

HOLE No. 87-T2 Page 2 of 2

Interval From	Interval To	Rec'y %	RQD	DESCRIPTION	Sample No.	Interval From	Interval To	Core Width
				Vein + units, usually w/ chlorite rim				
				minor limonitization along fractures.				
259'				E.O.H.				

DIAMOND DRILL LOG

HOLE No. 87-C1 Page 1 of 11

Property	NTS	Claim	Elevation	Azimuth	Length	Dip
ISLAND MINING - MIDNIGHT GRID	105 D/2	JL		180°	472'	-55°

Coordinates	Dip Tests	Advance	Depth	Date Collared	Date Completed
	- NOT TAKEN	270.7'	386.6'	JULY 24	JULY 31

Purposes	Drilled by	Assays by	Logged by
TEST SOIL ANOMALY ZONE (COLOUR ZONE)	CALON	ACME	A. MONTGOMERY

Interval From	Interval To	Rec'y %	RQD	DESCRIPTION	Sample No.	Interval From	Interval To	Core Width	Cu	Pb	Zn	Ag	As	Au (PPB)
0	5'			O/B										
5'	23'	48%	.17	DARK GREEN LAPILLI TUFF										
	7.01	TO 16.5'												
		15%		DARK GREEN APHANITIC MATRIX ENCLOSING FRAGMENTS										
		16.5' TO 23'		OF VARIOUS LITHOLOGIES (OFTEN: BLACK APHANITIC &										
				DK GREEN W/ FELDSPAR PHENOS 1mm - 40mm										
				ON AVG, GENERALLY SILICIOUS (SILICIFIED?),										
				LOCALLY CHLORITIC & CALCITIC / FeOx FRACTURE										
				COATINGS; MINOR CALCITIC ± EPIDOTE STRINGERS;										
				5'-7'; SERICITIC ALT'N ± ~~STRUCTURAL~~ ELONGATION										
				OF FRAGS. (WELDING?) @ ~ 50° TO C.A.										
				* GROUND; BROKEN CORE FROM 16½' - 26½'										
23'	72.5	36%	.00	ALT'D DULL GREEN TO MAR BROWN LAPILLI TUFF										
	(22.0M)	TO 26'	TO 26'											
				BROCKEN & BLOCKY ± SERICITE/FeOx ALT'D TUFF;										
		70%	.00	FRAGMENTS COMMONLY 1mm - 40mm OR NOT PRESENT,										
		26'-36'	TO 28.5	WHERE FRAGMENTS PRESENT ELONGATION (WELDING?)										
				@ 40° - 50° TO C.A.; RARE DISSEMINATED PY (<0.1%)										
		17%	.15											
		36'-61'	28.5-72.5	23'-27.0' - DULL GREEN V. FINE GRAINED W/	8535	23'	28.5'	3'	10	9	85	.3	6	1
				MINOR QTZ? PHENOS, <1mm; MINOR CALCITIC			(8.69M)	(LOST CORE)						
		78%	.13	24 -27.0' BROKEN ± BLOCKY W/ ROUNDED FRAGMENTS										
		FROM 61 TO 86+	72.5-80	27.0'-35.5' - LIGHT TO DULL GREEN CORE	8536	27.0'	35.0	5.5'	22	8	84	.4	2	2
				V. FINE GRAINED ANDESITE - FeOx STAINING		(8.84M)	(10.67M)							
	?	120%	.39	LOCALLY, ABUNDANT X-CUTTING CALCITIC VEINLETS	8537	35.0	36.0	1'	42	13	72	.4	8	2
	TAGS MISSPLACED	86'-91'	80-86	LOCALLY, FINE GRAINED ROCK FRAGMENTS LOCALLY			(10.97M)							
				30.0 MINOR SERX W/ CALCITIC MATRIX										
			.14	35.5'-72.5' GREEN TO GREENISH-GREEN	8538	36.0	51.0	4' (LOST CORE)	9	11	71	.3	2	3
			86-88.5	FeOx ± SERICITE ALT'D. FRAGMENTS 1mm - 40mm			(15.54M)							
				SUBANGD @ 30° - 50° TO C.A.; ABUNDANT RUSTY CALCITIC										

DIAMOND DRILL LOG

HOLE No. 87-C1 Page 2 of 11

Interval From	Interval To	Rec'y %	RQD	DESCRIPTION	Sample No.	Interval From	Interval To	Core Width	Cu	Pb	Zn	Ag	As	Au (ppb)
				VEINLETS (<2mm) LOCALLY										
				35.5 - 35.7 - GOSSANOUS GRITTY CLAY SILTY W/ MINOR QTZ FRAGMENTS										
				* ~36' - 41' <20% REC'Y 41' - 51' 17% REC'Y } GROUND CORE 51' - 61' ~20% REC'Y										
				BETWEEN 51' - 61.5' CORE LOCALLY RUBBLY W/ ROUNDED RUBBLES	8539	51.0	62.5 (19.05m)	5' (LOST 1' CORE)	9	9	69	.3	2	1
				61.5 - 62.5 - FELSIC PORPHYRITIC FLOW FRAGMENTS (?) UP TO 6cm										
				50.5 - ~0.5% PY STRINGERS ~90° TO C.A.										
				71.0 - 72.5 - GRITTY CALCITIC SOIL ALONG FRACTURE, ABUNDANT FeOx STRINGERS (FROM ~68.5' - 72.5')	8540	68.5 (20.88m)	72.5 (22.10m)	4'	5	18	95	.4	6	2
72.5	79.5 (24.23m)			ALTERNATING FELSIC PORPHYRITIC FLOW / ALT'D LAPILLI TUFF										
				DARK GREY FELSIC FLOW (FLOW BANDS MAY OR MAY NOT BE PRESENT) W/ ~4% WHITE FELDSPAR PHENOCRYSTS ~2mm DIA., IRREGULARLY INTERBEDDED W/ DULL GREEN-BROWN LAPILLI TUFF (SIMILAR TO ABOVE UNIT) LOCALLY SILICIFIED, MUDDY / CLAY/SERICITE GOUGE ZONES 10cm - 15cm (BROKEN CORE) (74.6 - 75.6)	8541	74.6 (22.74m)	75.6 (23.04m)	1'	18	41	.81	.3	6	3
				* NOTE CONTACTS SHOW FELSIC FLOW POST-DATES TUFF.										
79.5	97.0' (29.57m)	80% 91-96	.56 88.5-96.0'	DARK GREEN (ANDESITIC) LAPILLI TUFF/MINOR PORPHYRITIC ANDESITE (XSTL TUFF?)										
				DARK GREEN TUFF W/ FRAGMENTS (max. ≈60mm DIA. (DARK GREEN / DARK GREY APHANITIC / PORPHYRITIC, MINOR SALMON APHANITIC SILICEOUS FRAGMENTS), STRAIN ~50° TO C.A., CALCITIC STRINGERS LOCALLY (20-30° TO C.A.); INTERBEDDED PORPHYRITIC ANDESITE (BIOTITE? PLAG. PHENOS. TO 2mm) - SILICIFIED WEAKLY MAGNETIC.										

DIAMOND DRILL LOG

HOLE No. 87-C1 Page 3 of 11

Interval From	Interval To	Rec'y %	RQD	DESCRIPTION	Sample No.	Interval From	Interval To	Core Width	Cu	Pb	Zn	Ag	As	Au (ppb)
				79.5 - UPPER CONTACT IRREGULAR ~20° TO C.A.?										
				81.6 - 83.4 - SILICIFIED ANDESITIC PORPHYRITIC UNIT IN CONFORMABLE CONTACT W/ TUFF; UPPER CNTCT IRREG., LOWER CONTACT ~80° TO C.A.										
				83.4 - 86.0 - TUFF										
				86.0 - 87' - BROKEN/BLOCKY RUBBLE W/ GRITTY RUSTY SOIL & HIGHLY ALT'D (SERICITE) TUFF FRAGS. (GROUND CORE - RUBBLE RECOVERY)	8542	86.0' (26.21m)	87.0' (26.52m)	1'	24	13	86	.3	2	1
				87' - 88.5 - TUFF W/ MNR APHAN. FELSIC FLOW										
				~88.5 - 89.5 - GRITTY SOIL W/ RUBBLY ALT'D ROCK FRAGS.	8543	88.5 (26.97m)	89.5	1'	37	16	87	.2	5	2
				89.5 - 97' - TUFF										
				89.8 - 92.0 - 2% CALCITE STRINGERS TO 1cm (IRREGULAR)	8544	89.8	92.0	2.2'	5	9	77	.4	4	1
				96.0 - 97.0 - CALCITE STRINGERS & SHEARING (~60° TO C.A.)	8545	96.0	97.0	1'	10	11	75	.3	5	2
97.0	109.5 (33.85m)	60% 96-102	.11 96-107.5	BROWN - WEATHERED FINE, GR. FELDSPAR PORPHYRY	8546	97.0	109.5 (33.85m)	7.5'	24	10	76	.5	2	1
				DULL BROWN TO GREENISH BROWN V. FINE - FINE GRAINED & VISIBLE FELDSPAR & MNR QTZ PHENOS.; NO STRUCTURE NOTED. MINOR RUSTY CALCITE STRINGERS @ <10° & 50° (OBLIQUE TO EACH OTHER) TO C.A.; MINOR FeOx ALONG FRACTURES; SERICITE & Fe-CBNT (?) ALTN PERVASIVE. UPPER CONTACT BROKEN, LOWER CONTACT ~ 50° TO C.A.; LOCALLY RUBBLY & BROKEN.										
109.5	125.0	71% 102-120	.24 107.5-120.0	ALT'D LAPILLI TUFF W/ MNR INTERBEDDED FELSIC PORPHYRITIC FLOW										
			.56 120.0-125.5	DULL GRUFF-GREEN SHEARED TUFF W/ MULTI-LITHIC FRAGS <1mm->4cm STRAINED @ 50° TO C.A.; LOCALLY BLOCKY & BROKEN W/ MNR GRITTY GOUGE. PERVASIVE SERICITE/FeCBNT ALTN; MNR IRREGULAR CALCITE STRINGERS, INTERBEDDED FLOW-BANDED PORPHYRITIC FELSIC FLOW (POST TUFF?), TAN (Fe-CBNT ALTD) & GREY W/ FELDSPAR PHENOS 2mm - 3mm & IRREGULAR BANDING.										
				104.5 - 107.0 - BROKEN & STAINED W/ FeOx ON FRAC & GRITTY GOUGE. MINOR CALCITE STRINGERS	8547	104.5	107.0	2.5' 70% Rec'y	10	6	62	.4	3	1

DIAMOND DRILL LOG

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Interval From	Interval To	Rec'y %	RQD	DESCRIPTION	Sample No.	Interval From	Interval To	Core Width	Cu	Pb	Zn	As	Ag	Au (ppb)
				109.3 - 111.0 - 1% IRREGULAR CALCITE STRINGERS	8548	109.3	111.0	1.7'	12	6	65	.3	2	2
				TO 1cm		(33.32m)	(33.83m)							
				113.1 - 116.1 - INTERBEDDED TUFF / FLOW ?	8549	113.1	116.1	3.0'	19	17	57	.6	2	2
				SERICITE / Fe CARB ALT'N; CONTACTS V. IRREGULAR,		(34.49m)	(35.39m)							
				MUDDY GOUGE AT 106.1										
125.0	172.0	94%	.33	GREY - BUFF PORPHYRITIC FELSIC FLOW W/ MINR LAPILLI										
	(52.43m)	120-164	125-149.5	TUFF										
		77%	.70	BUFF TO DULL W/ LTE GREENISH-GREY FELSIC										
		164-180	149.5-168.3	FLOW W/ IRREGULAR FLOW										
				BANDING AND FELDSPAR PHENOS. (2mm-3mm)										
			.12	LOCALLY WELL SILICIFIED; MINOR INTERBEDDED										
			168.3-180.0	GREEN-BROWN ALT'D LAPILLI TUFF W/ STRAIN ~										
				60° TO C.A. (FLOW BANDING 30°-70° TO C.A.)										
				FLOW LOCALLY STRONGLY FRACTURED & QTZ-PY (0.1%)										
				STRINGERS (1mm WIDE), SERICITIC ALT'N ALONG										
				FRACTURES.										
				126.0-127.0 - BROWN GRITTY SOIL W/ RUBBLY ROCK										
				SOIL FIZZES W/ HCl										
				125.5 - 128.0 - 0.1% QTZ-Fe CBNT STRINGERS W/ 0.1%	8550	125.5	128.0	2.5'	10	11	39	.6	4	1
				PY X-CUTTING FLOW BANDING		(38.25m)	(39.0m)							
				146.8 - 1mm QTZ/Fe CBNT PATCH & VEINLET (NO SULPHIDES)	8551	146.5	147.5	1'	23	12	23	.4	3	1
				MINOR QTZ/Fe-CBNT " & 2cm x 1cm		(44.65m)	(44.8m)							
				STRINGERS IN ADJACENT ROCK & LAPILLI										
				163.3 - 164.9 - ALTERNATING DULL GREEN TUFF &	8552	163.3	167.5	4.2'	10	11	62	.1	4	4
				SILICIFIED PORPHYRITIC (FELDSP. PHENOS 1mm) (TUFF?)		(49.77m)	(51.05m)							
				CONTACTS 50° TO C.A. & IRREGULAR										
				164.9 - 167.5 - DARK GREEN FINE GRAINED ANDESITE,										
				W/ MINOR MED. GRAINED CLASTIC (FRAGMENTS?)										
				CLEAN CALCITE STRINGERS @ 40° TO C.A. (FLOW?)										
				LOWER CNTC ~35° TO C.A.										
				148.0 - 149.0 - BROKEN & HIGHLY FRACTURED TUFF	8553	148.0	149.0	1'	10	11	35	.5	5	1
				W/ CALCITE VEINLETS & ASSOCIATED GOUGE		(45.11m)								

DIAMOND DRILL LOG

HOLE No. 87-C1 Page 5 of 11

Interval From	Interval	Rec'y %	RQD	DESCRIPTION	Sample No.	Interval From	Interval To	Core Width	Cu	Pb	Zn	Ag	As	Au (ppb)
				ALT'D										
172.0	174.0 (530.4m)			DULL GREEN - BROWN FAINTLY LAMINATED FINE GRAINED PYRO - - CLASTIC ( ) (XSTL TUFF ?)										
				YELLOW TO GREEN-BROWN FINE GRAINED HETEROGENEOUS MATRIX W/ 1% ELONGATE (ALT'D FELDSPAR ?) PHENOS.										
				LAMINATION @ 70° TO C.A., CONTACTS BROKEN										
174.0	177.0 (539.5m)			DULL BROWN SILICIOUS FELDSPAR PORPHYRY (SILICIFIED EQUIVALENT OF ABOVE?)	8553	174.0 (530.4m)	175.0 (533.4m)	1'	14	11	53	.2	7	1
				BROWN FINE GRAINED MATRIX W/ SERICITIZED FRESH FELDSPAR PHENOS (1mm-2mm) WEAKLY ORIENTED @ 60°-70° TO C.A.; MUDDY GOUGE RUBBLE @ UPPER CONTACT, CONTACTS BROKEN.										
177.0	178.0 (542.9m)			DULL GREEN PYRO-CLASTIC (XSTL TUFF?)										
				SIMILAR TO 172-174 BUT GREENER COLOUR; PHENOS. LESS VISIBLE.										
178.0	183.5 (559.3m)	64% 160-191	.08 180-179	ALT'D LAPILLI TUFF W/ MNR FELSIC PORPH. FLOW										
				V. BLOCKY & BROKEN DULL GREEN to BROWN; FRAGMENTS (<1mm - 10mm) COMMONLY DULL BROWN Fe-CBNT / Fe-OX. ALT'D, WEAK ALLIGNMENT ~50° TO C.A.; GREY FINE GR. MATRIX W/ 2mm-3mm SILICIFIED FELDSP. PHENOS. @ 50° TO C.A.										
180.0				* REDUCED TO NQ CORE (BAD GROUND)										
183.5	188.0 (578.0m)			DULL BROWN SILICIOUS FELDSPAR PORPH	8555	183.5 (559.3m)	188.0	4.5'	3	11	26	.5	.5	2
				DULL BROWN TO GREEN BROWN SILICIOUS V. FINE GRAINED MATRIX (ABUNDANT RUSTY Fe-CBNT; ALT'N SPECS.) W/ 1mm-2mm WHITE FELDSPAR & PALE QTZ PHENOCRYSTS; MOD. HAIR LINE FRACTURED W/ MINOR SERICITIC SHEARS, CONTACTS BROKEN, MINOR SHOE-STRING QTZ VEINS.										

DIAMOND DRILL LOG

HOLE No. 87-C1 Page 6 of 11

Interval From	Interval To	Rec'y %	RQD	DESCRIPTION	Sample No.	Interval From	Interval To	Core Width	Cu	Pb	Zn	Ag	As	Au(FA)
188.0	200.0 (60.96M)	40% 191-198 24% 191-196		ALT'D LAPILLI TUFF W/ MINOR FELSIC FLOW	8556	197.7 (60.26M)	200.0	2.3'	6	15	114	.2	7	1
				DULL GREEN BROWN TUFF AS 178-183.5 W/ RARE V.FINE GRAINED DULL GREEN-BROWN SILICIOUS (FLOW?), Fe-CBNT ALT'D SPECS THROUGHOUT										
				* CORE V. BROKEN, COMMONLY RUBBLE FROM 180'-199'										
				ABUNDANT (1%-2%) IRREGULAR RUSTY QTZ, QTZ-CALCITE STRINGERS, PATCHES (<1cm) FROM ~197.7 TO LOWER CONTACT; MINOR MUDDY SHEARING.										
200.0	203.7 (62.09M)	95% 198-229.9	.63 199-227.9	SILICIOUS FELDSPAR PORPHYRY / FINE GRAINED PYROCLASTIC (XSL TUFF?)	8557	200.0	203.7	3.7'	9	13	110	.4	7	18
				SIMILAR UNITS RESPECTIVELY TO 174', 177', 172-174', LAMINATION, CONTACTS ~ 55°-60° TO C.A.; MINOR CALCITE, QTZ-CALCITE STRINGERS (± RARE PY) ALONG BEDDING, LATER QTZ-Fe CBNT STRINGERS @ 60° TO C.A. ABUNDANT (~2%) TOWARDS UPPER CONTACT; UPPER CONTACT IS DEFINED BY SHEAR GOUGE, A 2 cm QTZ-CALCITE VEINLET ALONG BEDDING, LOWER CONTACT GRADATIONAL.										
203.7	223.7 (68.18M)			DARK GREEN ANDESITIC LAPILLI TUFF										
				DARK GREEN V. FINE GRAINED MATRIX COMMONLY SILICIFIED W/ DARK GREEN-BLACK SILICIOUS FRAGMENTS (<1mm - 40mm), STRAIN WEAK OR NOT NOTICABLE @ 50° TO C.A.; MINOR INTERBEDDED DARK GREY FELSIC PORPHYRITIC FLOW, DARK GREEN F. GRAINED ANDESITE; MINOR QTZ-CALCITE STRINGERS, VEINLETS THROUGHOUT, TUFF COMMONLY BROWNISH, Fe-CBNT ALT'D, MORE STRONGLY STRAINED WHERE VEINING MORE ABUNDANT (>1%) EG. 208.2'-209.4'	8558	208.2 (63.46M)	210.4 (64.13M)	2.2'	17	19	77	.3	6	1
				210.2'-210.4' - BRXX W/ YELLOW QTZ-CBNT MATRIX										
				STY PALE GREEN SERICITIC TUFF?, SHEARED ON LOWER										

DIAMOND DRILL LOG

HOLE No. 87-C1 Page 7 of 11

Interval From	Interval To	Rec'y %	RQD	DESCRIPTION	Sample No.	Interval From	Interval To	Core Width	Cu	Pb	Zn	Ag	As	Au
223.7	227.1 (72.36m)	0%	.00	INTERBEDDED FELSIC PORPHYRITIC FLOWS / ALT'D LAPILLI TUFF										
		229.7 - 231	227.0 - 229.0											
		65%		DARK GREY, V. FINE GRAINED, STRONGLY FLOW BANDED (AT CONTACTS), PORPHYRITIC (WHITE FELDSPAR PHENOS. 1mm - 2mm), FLOWS; DISTINCT CRIMSON (STAINING?) COMMON										
		231-234	23	IN FLOW. ALT'D & FRESH (DARK GREEN & SILICIFIED) MAGNETIC										
		90%		LAPILLI TUFF & MINOR FINE TUFF (ANDESITE) AS ABOVE										
		234-236		UNITS* COMPRISE ~ 70% OF SECTION.										
				231 - 236 - CORE V. BROKEN & LOCALLY RUBBLE OR MUD	8559	231.0 (70.41m)	237.4	6.4'	33	40	76	.4	2	1
				* ACE RELATIONSHIP BETWEEN FLOW & TUFF NOT CLEAR AS TUFF ENCLOSES BXX'D FLOW YET FLOW ENCLOSES TUFF FRAGMENTS.										
237.4	262.8 (80.10m)	90%	.39	ALT'D & FRESH LAPILLI TUFF										
		236.0 - 241.0	239.0 - 239.5											
				RUSTY BROWN TO GREEN, WEAKLY TO MODERATELY										
			.00	STRAINED LAPILLI TUFF W/ MINOR INTERBEDDED										
			250.5 - 251.5	FELS TUFF & FINE GRAINED ANDESITE. LAPILLI TUFF										
			.52	SIMILAR TO TUFF ENCOUNTERED ABOVE; HOSTED A PYRITIC (1%										
			251.5 - 252.0	FINE DISS.) QTZ FRAGMENT @ 245.6'. IRREGULAR										
				QTZ / Fe-OX & Fe-CBNT VEINLETS (<1cm) LOCALLY;										
			.00	SANDY OR MUDDY SECTIONS OF CORE; MOD FRESH										
			255-256	TUFF & ANDESITE GENERALLY WEAKLY MAGNETIC.										
			.09	237.4 - 240.3 - RUSTY WEATHERED LAPILLI TUFF W/	8560	237.4	240.3	2.9'	11	15	99	.2	8	2
			256.0 - 272.0	1-2% QTZ & Fe-CBNT STRINGERS; RUSTY FRACTURE			(73.24m)							
				PLANES										
				250.5 - 251.5 - MUDDY SAND (GOOD RECOVERY)	8561	250.5	251.5	1.0'	372	42	276	.6	8	3
				255.0 - 256.0 - RUBBLE (INCL'D PALE GREEN PUY) LEADING	8562	255.0 (77.72m)	256.0 (78.02m)	1.0'	16	31	90	.3	8	.1
				TO LIGHT BROWN CLAY RICH MUD (GOOD REC'Y)										
				258.0 - 258.3 - RUSTY CLAY/CBNT SHEAR IN BROKEN CORE;	8563	257.8 (78.58m)	261.2 (79.61m)	2.4'	13	10	64	.1	4	1
				SIMILAR @ 260.5 - 261.0										
				262.8 LOWER CONTACT @ 30° TO C.A. (STRAINING @ 30° TO 50° TO C.A.)										

DIAMOND DRILL LOG

HOLE No. 87-C1 Page 8 of 11

Interval From	Interval To	Rec'y %	RQD	DESCRIPTION	Sample No.	Interval From	Interval To	Core Width	CU	PB	ZN	AG	AS	AU
262.8	267.0 (81.38m)			PALE GREEN RHYOLITE (DYKE?)	8564	262.8 8.10	267.0	4.2'	7	26	7	.6	4	4/5
				PALE GREEN TO BUFF SILICEOUS "RHYOLITE" W/ FAINT FINE GRAINED LIMITE ~FELDSPARS; DISTINCTIVE LIGHT YELLOW-BROWN Fe OX FRACTURES THROUGHOUT; RARE QTZ VEINLETS (<1cm) & MINOR VUGGY FRACTURES									
267.0	369.0 (112.47m)	88% 272.0-317.0	.44 272.0-316.0	COARSE TUFF										
		50% 317-319	.31 316.0-324.0	DARK GREEN (LOCALLY ALT'D PALE GREEN TO BUFF), COMMONLY SILICIFIED, WEAKLY MAGNETIC, DARK SUB-ANGULAR FRAGMENTS (<4mm) IN A DARK GREEN V. FINE GR. MATRIX W/ RARE COARSER FRAGMENTS & ABUNDANT PATCHES (FRAGMENTS?) & SECTIONS OF PORPHYRITIC XSTL TUFF or MED-FINE GRAINED GRANODIORITE; MINOR CALCITE/QTZ STRINGERS THROUGHOUT; GENERALLY COMPETENT, LOCALLY BROKEN & BLOCKY.									
		95% 319-376	.05 324.0-331											
				267.0 - 271.6 - BUFF COLORED, STRAINED (50°-60° TO C.A.) FRACTURED, Fe CONT & SILICIFIED? ALT'D TUFF W/ MINOR CALCITIC VEINLETS & RARE FINE GRAINED DISS. PY. BROWN CLAY RICH MUD FROM 267.0 - 267.6	8565	267.0	271.6 (82.78m)	4.6'	6	5	52	.2	5	1
				296.6-297.6 - QTZ/CALCITE VEINLET (1cm WIDE) 80° TO C.A. BROKEN SANDY CORE DOWN HOLE TO 297.6										
				315.2 - 320.0 - RUSTY STAINED W/ ~ 1%-2% RUSTY QTZ/CALCITE STRINGERS; CALCITE ALT'D, RUBBLEY & BROKEN LOCALLY	8566	315.2 (96.07m)	320.0 (97.54m)	4.8'	8	53	94	.1	2	2
				329.0' - 331.5 - RUBBLEY BROKEN & BLOCKY, MINOR GROUND CORE										
			*	331' - REDUCED TO BQ CORE										
			.83 331.0-369.0	347.0 - 369.0 - COMMONLY COARSER FRAGMENTS = LAPILLI TUFF & LESS SILICEOUS										
				368.3 - 369.0 - PATCHES OF YELLOW APHANITIC RHY ENCLOSING TUFF FRAGMENTS; BEARING AT CONTACT @ 60° TO C.A., CONTACT BROKEN.	8567	368.0 (112.17m)	369.0		5	23	437	.5	6	1

DIAMOND DRILL LOG

HOLE No. 87-C1 Page 9 of 11

Interval From	Interval To	Rec'y %	RQD	DESCRIPTION	Sample No.	Interval From	Interval To	Core Width
369.0	395.0 (120.40M)	35% 376.0-378.0	.15 369.0-396.0	PALE GREEN RHYOLITE (DYKE)				
		70% 378.0-382.0		PALE GREEN, SUBAPHYRITIC (FAINT FELDSPAR PHENOS (1-2mm)) SILICEOUS QTZ-VEINED RHYOLITE W/ VERY DISTINCTIVE BRIGHT YELLOW-BROWN LIMONITIC ALT'N ALONG & AS HALOS TO FRACTURES (ABUNDANT).				
		70% 382.0-394.0		DYKE IS BROKEN & BLOCKY THROUGHOUT; QTZ VEINS GENERALLY SHOE-STRING & UP TO 2cm (RARE); MINOR DISSEMINATED FINE GRAINED PY [redacted] RHYOLITE & QTZ & RARE COARSE GR. PY IN LE[redacted]TIC GN IN VEINS,				
		70% 384.0-396.0		MINOR BOXWORK & ULGS IN RHYOLITE & QTZ VEIN THROUGHOUT CONTACTS SHARP BUT BROKEN. * QTZ VEINS WHITE TO YELLOW				
				369.5 1cm QTZ VEIN ∥ 1% CRS GR. PY @ ~0° TO C.A.	8568	369.0	374.0 (119.00)	5.0'
				371.8 1cm QTZ VEIN ~ 11 TO C.A.				
				372.7 1cm QTZ VEIN ~5° TO C.A.	8569	374.0	378.0	4.0'
				378.5 - QTZ VEIN (W/TRC GN) FRAGMENTS TO 2 c.m. WIDE	8570	378.0	379.0	1.0'
				382.5 - 3 PARALLEL VEINS <1cm, ULGY & MUR PY, 30° TO C.A.	8571	379.0	384.0	5.0'
					8572	384.0	390.0	6.0'
					8573	390.0	395.0	5.0'
							120.80	
395.0	411.7 (125.49M)	38% 396.0-400.0	.90 396.0-411.0	ALT'D LAPILLI TUFF/ COARSE TUFF				
		93% 400.0-449.0		RUSTY BUFF Fe-CBNT & SERICITE ALT'D LAPILLI TUFF (TO 400') STRAINED 65° TO C.A. BROKEN & BLOCKY W/ MINOR LIMONITIC & CLAYEY FRACTURES NEAR UPPER CONTACT. ANDESITIC COARSE TUFF, SIMILAR TO 367'-369', CALCITE STRINGERS @ ~50° TO C.A., WEAKLY MAGNETIC	8574	395.0	396.5 (120.85)	1.5'
				400.0' - RUSTY ALT'N DISSAPPEARS DOWN HOLE AS COARSENESS OF TUFF IS REDUCED				
				411.0-411.7 MUR RUSTY QTZ STRINGERS & CALCITE/Fe-OX ALT'N. IRREGULAR				
411.7	416.0 (126.80M)		.89 411.0-416.0	TAN TO DULL GREEN ANDESITE (QFP)				
				FINE GRAINED MAFIC				

Cu	Pb	Zn	Ag	As	Au
38	447	276	3.0	25	168
27	397	116	1.7	25	157
15	868	70	3.6	36	220
40	246	290	1.3	52	147
46	666	196	2.3	63	430
28	1547	193	6.1	44	340
6	68	1128	.5	7	1

DIAMOND DRILL LOG

HOLE No. 87-C1 Page 10 of 11

Interval From	Interval To	Rec'y %	RQD	DESCRIPTION	Sample No.	Interval From	Interval To	Core Width
				PORPHYRITIC (QTZ ± FELDSPAR PHENOS. <1mm) BANDS ± ROUND (RE-ABSORBED QTZ?) QTZ EYES (1mm-2mm) LOCALLY FAINT BANDING 50° TO C.A., RARE QTZ/CALCITE STRINGERS. CONTACTS SHEP ALONG SHEAR PLANES ~ 50° TO C.A.				
416.0	438.5 (133.65m)		.50 416.0-445.0	ALT'D LAPILLI TUFF				
				DARK GREEN TO BUFF (Fe-CBNT ± CHLORITE ALT'N AT FRACTURES) LAPILLI TUFF SIMILAR TO UNITS ABOVE, MODERATELY FRACTURED (LIMONITIC), MINOR WHITE CALCITE STRINGERS THROUGHOUT, WEAKLY DETECTABLE STRAIN 50°-60° TO C.A., LOCALLY BROKEN ± BLOCKY, LOWER CONTACT GRADES IN ± OUT OF PORPHYRITIC FLOW @ ~ 60° TO C.A. OVER ~ 2'.				
438.5	451.0 (137.46m)	74% 449.0-461.0	.27 445.0-453.0	PORPHYRITIC FELSIC FLOW				
			.66 453.0-461.0	GREY-BROWN APHANITIC SILICIOUS MATRIX W/ WHITE (RUSTY) FELDSPAR PHENOS. (2mm) THROUGHOUT; ABUNDANT IRREGULAR FRACTURES OFTEN RUSTY; ABUNDANT RUSTY F. GRAINED SPECS, COMMONLY BROKEN ± BLOCKY, MINOR QTZ ± Fe-CBNT STRINGERS				
				441.7 - IRREGULAR QTZ-Fe CBNT STRINGER (2mm-4mm)	8575	441.5 (134.57m)	446.5 (136.09m)	5.0
				443.2 - QTZ-Fe CBNT STRINGER (2cm) 45° TO C.A.				
				446.4 - X-CUTTING QTZ-Fe CBNT STRINGERS 0°, 30° TO C.A.				
451.0	461.0 (140.51m)			ALT'D LAPILLI TUFF				
				DARK GREEN TO BUFF LAPILLI TUFF, MINOR CALCITIC STRINGERS THROUGHOUT COMMONLY 50° TO C.A.; TUFF SIMILAR TO ABOVE LAPILLI TUFF (NOT SILICIOUS).				
				455.5-456.5 ~ 2% YELLOW-WHITE CALCITIC STRINGERS	8576	455.5 (138.84m)	456.5 (139.14m)	1.0'
4'								

Cu	Pb	Zn	Ag	As	Au
3	3	18	.2	8	3
2	4	58	.1	4	1

DIAMOND DRILL LOG

HOLE No. 87-C1 Page 11 of 11

Interval From	Interval To	Rec'y %	RQD	DESCRIPTION	Sample No.	Interval From	Interval To	Core Width
461.0	472.0	13%	.11	FELSIC PORPHYRITIC FLOW				
	(143.87m)	461.0 -465.0	461.0 -472.0	BROWNISH-GREY APHANITIC CRYSTAL MASS W/				
				FELDSPAR PHENOS. (2mm) ± FAINT FLOW BANDING				
		85%		(40°-50° TO C.A.), MINOR RUSTY PUGGY FRACTURES				
		465.0 -472.0		THROUGHOUT; MINOR QTZ STRINGERS ± VEINLETS THROUGHOUT				
				(HAIR LINE TO 0.5cm) ± 0.1% ASSOCIATED DISS. Py				
				OVERALL SIMILAR UNIT TO 438.5-451.0				
				461.0 - 465.0 - V. BROKEN ± RUBBLEY (13% REC'Y)				
				468.0 - 469.5 - 0.5cm QTZ-(FeCO3) VEINLET @ 0° TO C.A.	8577	468.0 (142.65m)	469.5 (143.10m)	1.5'
472.0				E.O.H.				

Cu	Pb	Zn	Ag	As	Au
3	4	11	.2	6	5

APPENDIX C

DRILL SAMPLE RESULTS & DESCRIPTIONS

ANALYTICAL RESULTS AND METHODS

DDH 87-A1

AURUM GEOLOGICAL CONSULTANTS INC. ADIT ZONE **Property:** ISLAND MINING JL CLAIMS

Sample Type	Sample No.	METRES ~~Footage~~ (first hole only)	Geochemical Analysis Cu	PB	ZN	AG	AS	AU (ppb)
MIXED OVERBURDEN (?)	8366	14.63-16.15	24	13	59	.1	3	3
GOSSANOUS SOIL	8367	16.15-18.35	26	12	92	.1	2	5
" + 30% Q-Cal. vns	8368	18.35-18.65	5	6	64	.1	4	1
GOSSANOUS SOIL	8369	18.65-19.20	23	10	83	.1	4	1
ALT'D TUFF & CLAY SOIL	8370	19.20-21.00	.4	5	59	.1	2	3
"	8371	21.00-23.00	11	6	65	.1	4	1
"	8372	23.00-25.00	11	9	63	.1	3	1
"	8373	25.00-27.00	68	29	89	.1	2	1
"	8374	27.00-29.00	18	13	70	.1	2	2
"	8375	29.00-29.90	30	11	79	.2	6	3
ALTERED TUFF	8398	29.90-30.33	57	10	53	.4	9	2
ALT'D LAPILLI TUFF	8399	30.33-30.67	28	6	74	.2	4	1
"	8400	30.67-30.98	45	7	65	.6	7	.1
"	8401	31.48-31.78	51	8	62	.4	5	1
ALT'D INTERMEDIATE VOLCANIC	8402	44.86-45.13	9	10	61	.2	3	3
BRECCIATED LAPILLI TUFF	8403	74.20-74.53	24	10	90	.3	6	1
ALT'D & BRECCIATED TUFF	8404	78.16-78.83	21	17	68	.3	5	2
ALT'D TUFF & GOUGE	8405	89.61-90.21	46	3	77	.4	8	.1
"	8406	90.7-91.81	37	13	71	.4	8	1
"	8407	92.0-93.0	47	18	76	.4	7	1
"	8408	93.0-94.18	35	13	83	.4	6	2
Q.-Cal. Lim vns	8409	100.1-100.56	13	14	78	.1	26	4
ALT'D INTERMEDIATE VOLCANICS	8410	102.4-103.05	18	16	192	.1	2	2
ALT'D Q. VEINED RHYOLITE	8376	103.05-103.33	11	22	23	.3	7	3

DDH 87-A1

AURUM GEOLOGICAL CONSULTANTS INC. Property: ISLAND MINING JL CLAIMS

Sample Type	Sample No.	METRES Footage (FIRST HOLE ONLY)	Geochemical Analysis Cu	PB	ZN	AG	AS	AU(ppb)
ALT'D, Q. VEINED RHYOLITE	8377	103.33 - 104.20	3	23	7	.3	7	4
MUD WITH MAFIC BX. FRAG.	8378	104.20 - 105.46	90	18	119	.2	2	1
ALT'D RHYOLITE	8379	105.46 - 106.00	4	34	8	.2	4	5
"	8380	106.00 - 106.62	11	13	22	.4	5	2
ALT'D - STRONGLY SERICITIZED RHYOLITE	8381	106.62 - 107.5	.18	21	32	.2	33	8
" "	8382	107.5 - 108.27	22	68	86	.1	56	4
"	8383	108.27 - 108.6	46	49	93	.4	31	14
"	8384	108.6 - 109.0	40	29	63	.3	39	7
Q. VEINED RHYOLITE	8385	109.0 - 109.4	32	32	21	.8	46	58
"	8386	109.4 - 109.88	25	31	24	.4	32	5
ALT'D RHYOLITE	8387	109.88 - 110.~~56~~67	34	48	20	.6	23	10
"	8388	110.67 - 111.0	20	85	21	.9	43	19
"	8389	111.0 - 111.55	28	37	38	.5	26	12
"	8390	111.55 - 112.30	37	32	42	.7	62	13
"	8391	112.30 - 113.74	25	238	49	1.0	16	17
"	8392	113.74 - 114.07	24	34	25	.3	13	11
ALT'D RHYOLITE & TUFF BRECCIA	8393	114.07 - 114.~~4~~8	25	25	86	.4	10	14
SHEARED ANDESITIC XTAL TUFF	8394	114.48 - 115.21	6	12	105	.4	9	3
"	8395	115.21 - 115.66	5	7	94	.2	5	1
ANDESITIC XTAL TUFF	8396	115.66 - 116.65	11	11	62	.4	3	1
"	8397	116.85 - 117.45	15	10	90	.2	5	3

ANALYTICAL RESULTS AND METHODS

DDH 87-WB #1

AURUM GEOLOGICAL CONSULTANTS INC. WHEEL-BARROW ZONE Property: ISLAND MINING JL CLAIMS

Sample Type	Sample No.	Footage	Geochemical Analysis Ag oz/t	Au oz/t
RHYOLITE W. Q. VEINS	8411	75.5 - 77'	0.01	0.001
FELDSPAR PORPHYRY	8412	85.5 - 90.5'	0.01	0.001
VEINED M. GR. GRANODIORITE	8413	145.5 - 150.5'	0.01	0.001
GRANODIORITE & RHYO. PORPH.	8414	150.5' - 155.5'	0.01	0.001
RHYOLITE PORPHYRY	8415	155.5 - 160.5'	0.05	0.005
"	8416	160.5 - 165.5'	0.05	0.001
"	8417	165.5 - 170.5'	0.02	0.001
"	8418	221.5 - 226.5'	0.02	0.001
RHYO. PORPH. & GREEN ANDESITE	8419	226.5 - 229.7'	0.02	0.001
RHYOLITE PORPHYRY	8420	229.7 - 234.7	0.01	0.001
"	8421	234.7 - 238'	0.01	0.006
ANDESITIC TUFF	8422	238 - 243'	0.01	0.001
BRECCIATED RHYOLITE	8423	243 - 247'	0.01	0.002
CALCITE-VEINED ANDESITE	8424	247 - 252'	0.02	0.002
AUGITE ANDESITE	8425	252 - 257'	0.01	0.001
"	8426	257 - 262'	0.01	0.001
CALCITE-VEINED ANDESITE	8427	262' - 267'	0.02	0.001
"	8428	267' - 272'	0.02	0.001
"	8429	272' - 275.9'	0.03	0.001

97 WB2

AURUM GEOLOGICAL CONSULTANTS INC. WHEELBARROW ZONE Property: JL CLAIMS - MIDNIGHT GULCH

Sample Type	Sample No.	Footage	Geochemical Analysis Au (oz/ton)	Ag (oz/ton)
Py qtz vn in int. qz. Qtz monz. RHYOLITE PORPHYRY	8451	90'10" - 91'10"	.002	.02
	8452	136'7" - 137'7"	.001	.01
QUARTZ VEINED RHYOLITE PORPHYRY	8453	151'2" - 154'	.001	.03
" "	8454	154' - 156'6"	.001	.04
" " w/galena	8455	156'6" - 159'	.004	.05
" "	8456	159' - 163'	.001	.01
" "	8457	163' - 165'	.004	.03
" " w/galena	8458	165' - 169'	.011	.04
" "	8459	169' - 173'	.004	.04
Qtz monzonite & RHYOLITE RHYOLITE PORPHYRY	8460	182'6" - 185'	.001	.01
	8461	191' - 196'	.001	.03
" "	8462	196' - 199'	.001	.03
ALT'D QTZ MONZONITE	8463	202'4" - 207'4"	.001	.01
QUARTZ VEINED ALT'D RHYOLITE PORPHYRY	8464	207'4" - 210'	.001	.02
" "	8465	210' - 213'	.001	.02
" "	8466	213' - 216'	.001	.04
" "	8467	216' - 219'	.001	.01
" " w/galena	8468	219' - 221'6"	.007	.01
" " w/galena	8469	221'6" - 223'	.335	.11
" "	8470	223' - 226'	.006	.03
" "	8471	226' - 229'	.001	.02
" "	8472	229' - 230'	.001	.02
" "	8473	230' - 231'6"	.001	.01
" "	8474	231'6" - 235'8"	.003	.01

ANALYTICAL RESULTS AND METHODS

87-WB2

AURUM GEOLOGICAL CONSULTANTS INC. WHEELBARROW ZONE Property: MIDNIGHT GULCH PROJECT JL CLAIMS

Sample Type	Sample No.	Footage	Geochemical Analysis Au (oz/T)	Ag (oz/T)
QTZ VEINED & ALT'D RHYOLITE PORPHYRY	8475	235'8" - 239'	.001	.05
	8476	239' - 242'	.001	.01
ANDESITIC TUFF	8477	242' - 246'	.001	.03
QTZ-CHL-Bx IN ANDESITIC VOLC.	8478	248'6" - 252'	.001	.01
BLEACHED ANDESITIC VOLC. & Q.V.	8479	262' - 265'	.001	.01
ALT'D & Q.V. ANDESITE	8480	271' - 290'6" (19% recov)	.001	.01
Py-chl-qtz-carb fractures in ANDESITE	8481	305' - 310'	.001	.03
25 cm Q.V. in ANDESITE	8482	325'6" - 327'8"	.001	.01
Q.V. in RHYOLITE PORPHYRY	8483	371' - 373'	.001	.01
SHEARED ANDESITIC VOLCANIC w/Q.V.	8484	376' - 378'	.001	.02

ANALYTICAL RESULTS AND METHODS

DDH 87-VVB 3

AURUM GEOLOGICAL CONSULTANTS INC. Property: ISLAND MINING JL CLAIMS

Sample Type	Sample No.	Footage	Geochemical Analysis Ag oz/t	Au oz/t
VEINED RHYO. PORPHYRY	8430	36-41'	0.01	0.001
GREEN TUFF?	8431	53-58'	0.01	0.001
"	8432	61-66'	0.01	0.001
SHEARED TUFF?	8433	66-71'	0.01	0.001
"	8434	71-76'	0.01	0.001
MINERALIZED RHYO. PORPH.	8435	114.5-118.5'	0.01	0.009
"	8436	118.5-122.5'	0.05	0.013
"	8437	122.5-126.5'	0.01	0.007
SHEARED QTZ N. Gn-Sl-Py	8438	203-204'	0.13	0.003
SHEARED and SILIC. RHYO.	8439	204-206'	0.03	0.002
VEINED RHYO. PORPHYRY	8440	222.5-227.5'	0.05	0.009
"	8441	227.5-232.5'	0.03	0.007
"	8442	232.5-237.5'	0.01	0.002
	~~REPEAT~~			
	~~Repeat~~			

ANALYTICAL RESULTS AND METHODS

DDH 87-WB4

AURUM GEOLOGICAL CONSULTANTS INC. **Property:**

Sample Type	Sample No.	Footage	Geochemical Analysis Au (oz/T)	Ag (oz/T)
F. Gr. FELD. PORP.	8443	90'-95'	0.010	.01
"	8444	95'-100'	.011	.04
Fault Gouge	8445	100'-105'	.001	.02
"	8446	105'-110'	.001	.03

Sample Type	Sample No.	Footage	Cu	Pb	Zn	Ag	As (ppm)	Au (ppb)
Green Andesite	8447	124'6"-125'8"	25	18	71	.4	4	1
As above + fault gouge	8448	127'-128'6"	13	20	75	.1	5	1
Alt'd fault gouge	8449	128'6"-129'8"	33	17	62	.5	7	2
Chloritized + foliated	8450	129'8"-130'8"	108	17	92	.4	2	2
Limonite alt'd gouge to chlorite alt'd gouge	8601	132'6"-134'6"	8	17	62	.3	9	1
Altered + Brecciated Andesite Porphyrite Tr - 1% galena	8602	134'6"-136'	10	67	86	.7	10	720
" "	8603	136'-137'	6	60	93	.4	2	14
" "	8604	137'-138'	3	680	141	1.7	7	49
Blocky + Broken	8605	138'-143'	17	161	217	1.1	6	240
Moderate silicification	8606	143'-146'	5	169	141	1.1	7	112
Fe alt'd	8607	146'-151'	3	76	83	.6	5	34
< 3 mm qtz veins tr of py	8608	151'-152'	9	88	96	.3	6	3
Brecciated w/ py (calc-qtz-ankerite ?) < 5% py, fold axials	8609	152'-154'6"	16	135	211	.6	5	35
Qtz Monzonite	8610	154'6"-159'6"	15	175	149	.6	5	1
	8611	159'6"-162'	4	114	88	.4	16	270
	8612	162'-167'	3	31	77	.3	3	40
"	8613	167'-168'8"	16	46	93	.3	7	4
Gn in qtz-chlorite vein(s) veins	8614	168'8"-170'6"	3	1293	207	2.1	11	950
"	8615	170'6"-172'	4	1207	176	2.4	15	700
tr to 1% Gn	8616	172'-174'	6	41	125	.3		5

DDH 87-034

AURUM GEOLOGICAL CONSULTANTS INC. Property:

Sample Type	Sample No.	Footage	Geochemical Analysis CU	PB	ZN	AG	AS	AU
Qtz Monzonite	8617	174'-176'	6	116	231	.4	7	10
Strongly chloritized Tc → 1% Py	8618	176'-178'	19	417	508	1.3	3	5
"	8619	178'-179'	16	173	140	.9	5	1
Slightly coarser xtals	8620	179'-184'	20	41	46	.2	7	2
Pinkish Brown Rhyolite Porp.	8621	200'-203'	6	172	189	.5	11	32
"	8622'	203'-207'	6	345	177	1.0	9	250
Buff Brown Rhyolite Porp.	8623	251'-256'	7	42	53	.3	12	2
"	8624	261'-266'	7	24	37	.7	2	3
"	8625	271'-276'	7	29	41	.2	2	1

DDH 87-I1

AURUM GEOLOGICAL CONSULTANTS INC. IVAN SHOWING Property: ISLAND MINING JL CLAIMS

Sample Type	Sample No.	Footage	Geochemical Analysis Cu	Pb	Zn	Ag	As	Au (ppb)
Brecciated Tuff	8485	22' - 24'	27	6	81	.4	5	1
Altd & q.v. Rhyolite porphyry	8486	29' - 32'	13	6	21	.3	2	1
Altd & sheared porphyritic Andesite	8487	32' - 33'	9	9	36	.1	4	1
" "	8488	33'6" - 37'	7	9	26	.2	2	1
" " fault gouge	8489	39' - 39'6"	13	9	23	.1	2	2
Py jasper clasts in lapilli tuff	8490	43' - 45'	159	6	109	.5	6	1
Tuff bx & lapilli tuff. Tr cpy, py, mal, perrite	8491	87' - 89'	156	10	130	.1	2	1
Amygdaloidal flow tr. cpy, mal & py	8492	90' - 92'	87	5	124	.1	8	2
mottled lapilli tuff. Ep-carbonate bx. Tr mal & cpy	8493	100' - 102'	303	7	136	.1	8	3
Sheared & Altd porphyritic flows & fault gouge	8494	129'6" - 135' (30% recy)	29	10	67	.4	8	11
Altd rhyolite	8495	135' - 140' (25% recy)	26	10	64	1.8	22	34
Altd RHYOLITE wl q.v.	8496	151' - 154'	7	6	18	.6	6	13
" " sec qtz (5mm)	8497	154' - 156'	14	5	26	.5	3	6
" "	8498	156' - 161'	9	6	21	.3	5	4
" "	8499	161' - 166'	13	11	32	.5	7	17
" "	8500	185' - 190'	4	11	30	.3	2	12
" "	8501	207' - 210'	5	16	30	.3	5	20
" "	8502	210' - 212'	4	7	31	.2	7	5
" "	8503	212'6" - 213'6"	4	10	24	.3	2	2
sec bx	8504	216' - 217'	4	10	25	.4	4	2
" "	8505	222'6" - 224'	6	11	20	.3	8	4
"	8506	224' - 227'	5	177	39	.7	11	13
Altd Rhyolite porphyry	8507	252' - 254'	4	2	24	.1	4	1
	8508	256' - 259'	5	15	34	.2	6	4

ANALYTICAL RESULTS AND METHODS

DDH 87-I1

AURUM GEOLOGICAL CONSULTANTS INC. IVAN SHOWING Property: ISLAND MINING JL CLAIMS

Sample Type	Sample No.	Footage	Geochemical Analysis Cu	Pb	Zn	Ag	As	Au(ppb)
Alt'd rhyolite porphyry	8509	267' - 272'	4	20	43	.3	11	2
Qtz veined Rhyolite	8510	300'6" - 302'6" (35% recy)	10	41	90	.5	5	4
Qtz-ep-cc-chl vn with py	8511	312'6" - 313'6"	61	7	68	.2	2	1
Alt'd Andesitic Volcanics. Fault gouge	8512	315'6" - 317'	23	9	70	.1	6	2
" "	8513	325' - 326'	.7	10	59	.1	9	3
Alt'd Rhyolite	8514	329' - 330'	33	6	37	.2	7	3

~~DDH 87-I2~~

AURUM GEOLOGICAL CONSULTANTS INC. Property:

Sample Type	Sample No.	Footage	Geochemical Analysis Cu	Pb	Zn	Ag	As	Au (ppb)
~~Andesitic Tuff~~	~~8515~~	~~11'-12'~~	6	9	87	.3	8	2
"	~~8516~~	~~16'-19'~~	6	14	102	.1	15	14.
~~ALT'D + Sheared Porph. Andesite(?)~~	~~8517~~	~~47'-50'~~	12	6	36	.3	3	2
~~Amygdaloidal Flow Andesitic Lapilli Tuff~~	~~8518~~	~~87.5'-88.5'~~	22	25	131	.2	11	2
~~Andesitic Tuff~~	~~8519~~	~~107'-109'~~	168	11	110	.5	4	1
~~epidotized above~~	~~8520~~	~~114'-115'~~	58	58	72	.5	7	2
Epidote, Chalcopyrite + malachite	8521	15'-120'	101	23	111	.8	14	1
Andesitic Lapilli Tuff	8522	124'-129'	90	11	128	.7	5	1
Andesitic Amygdaloidal Flow	8523	129'-130.5'	35	12	83	.4	9	1
"	8524	130.5'-133'	254	11	107	1.3	8	4
Andesitic Tuff + Crystal Lithic Tuff	8525	134'-135.5'	326	14	94	1.0	6	1
Andesitic Tuff + Amygdaloidal Flows	8526	135.5'-138'	20	7	78	.3	8	1
ALT'D + Sheared Andesitic Volcanics	8527	139'-141'	88	9	80	.7	2	4
"	8528	145'-149'	38	17	73	.6	9	1
"	8529	160'6"-161'6"	14	9	85	.4	2	1
Andesitic Lapilli Tuff + Tuff	8530	227'-229'	81	13	101	.5	6	2
ALT'D + Brecciated Above + Felsic Flows	8531	242'-243'	5	8	71	.2	4	1
Felsic Flow	8532	243'-245'	76	10	43	.6	2	1
"	8533	245'-247'	40	14	39	.4	2	1
"	8534	247'-250'	33	11	48	.5	4	2

DDH 87-C1

AURUM GEOLOGICAL CONSULTANTS INC. Property:

Sample Type	Sample No.	Footage	Geochemical Analysis Cu	Pb	Zn	Ag	As	Au (ppb)
V. FINE GRAINED ALT' LAPILLI TUFF	8535	23'-28.5'	10	9	85	.3	6	1
V. FINE GRAINED ANDESITIC, CALCITIC V.	8536	29'-35.0'	22	8	84	.4	2	2
" "	8537	35.0'-36.0'	42	13	72	.4	8	2
FeO_x + Sericite ALT'D Tuff	8538	36.0'-51.0'	9	11	71	.3	2	3
Rubbly " "	8539	51.0'-62.5'	9	9	69	.3	2	1
Calcitic Soil along FRACTURES of above	8540	68.5'-72.5'	5	18	95	.4	6	2
Clay/Sericite gouge zones, FELSIC PORP & above	8541	74.6'-75.6'	18	41	81	.3	6	3
Broken, rusty soil +Alt'd tuff frags	8542	86.0-87.0'	24	13	86	.3	2	1
Gouge soil + as above	8543	88.5'-89.5'	37	16	87	.2	5	2
2% calcite stringers + as above	8544	89.6-92.0'	5	9	77	.4	4	1
Calcite stringers + shearing	8545	96.0-97.0	10	11	75	.3	5	2
Brown-weathered Fn. Gr. Felds. Porp.	8546	97.0'-104.5'	24	10	76	.5	2	1
Broken + sheared as above	8547	104.5'-107.0'	10	6	62	.4	3	1
Irregular calcite stringers to 1 cm	8548	109.3'-111.0'	12	6	65	.3	2	2
~~Interbedded tuff + flow~~ with sericite	8549	113.1'-116.1'	19	17	57	.6	2	2
~~Qtz-Fe CONT STRINGERS~~	3550	125.5'-128.0'	10	11	39	.6	4	1
Limonite, Qtz/Fe CONT	8551	146.5'-147.5'	23	12	23	.4	3	1
~~Tuffy Siliceous Porp. Flow~~ + Andesite (calcite stringers)	8552	163.3'-167.5'	10	11	62	.1	4	4
Highly fractured Tuff w/ Calcite + gouge	8553	148.0'-149.0'	10	11	35	.5	5	1
Siliceous FELDSPAR-PORPHYRY	8554	174.0'-175.0'	14	11	53	.2	7	1
" "	8555	183.5'-188.0'	3	11	26	.5	5	2
ALT'D LAPILLI TUFF W/ MINOR FELSIC FLOW	8556	197.7'-200.0'	6	15	114	.2	7	1
Siliceous Feld Porp. Fn. Gn. Pyroclastic?	8557	200.0'-203.7'	9	13	110	.4	7	18
D Green Andesitic Lapilli Tuff	8558	208.2'-210.4'	17	14	77	.3	6	1

ANALYTICAL RESULTS AND METHODS

DDH 87-C1

AURUM GEOLOGICAL CONSULTANTS INC. **Property:**

Sample Type	Sample No.	Footage	Geochemical Analysis CU	PB	ZN	AG	AS	AU (ppb)
FELSIC PORP. FLOW/ ALT'D LAPILLI TUFF	8559	231.0' - 237.4'	33	40	76	.4	2	1
RUSTY LAPILLI TUFF W QTZ/FE CBNT VEINLETS	8560	237.4' - 240.3	11	15	99	.2	8	2
Muddy Sand	8561	250.5 - 251.5	372	42	276	.6	8	3
Rubble (pale green rhyolite) to clay rich mud	8562	255.0' - 256.0	16	31	90	.3	8	1
Clay/CBNT Shear	8563	257.8 - 261.2'	18	10	64	.1	4	1
Pale Green Rhyolite	8564	262.8' - 267.0'	7	26	7	.6	4	45
Coarse TUFF	8565	267.0' - 271.6'	6	5	52	.2	5	1
RUSTY w/ Calcite Stringers	8566	315.2' - 320.0'	8	53	94	.1	2	2
Veiled Aphanitic Rhy. w/ Tuff Frags.	8567	368.0' - 369.0'	5	23	437	.5	6	1
Pale Green Rhyolite	8568	369.0 - 374.0'	38	447	27%	30	25	168
"	8569	374.0' - 378.0'	27	397	116	1.7	25	159
"	8570	378.0 - 379.0'	15	868	79	3.6	90	220
"	8571	379.0 - 384.0	40	246	290	1.3	52	147
"	8572	384.0' - 390.0'	4%	666	1%	2.3	4	5%
"	8573	390.0' - 395.0'	28	1597	193	.1	44	462
Alt'd Lapilli Tuff/ Coarse Tuff	8574	395.0' - 396.5'	6	58	1108	.5	7	1
Porp. Felsic Flow	8575	441.5' - 446.5'	3	3	18	.2	8	3
Alt'd Lapilli Tuff	8576	455.5' - 456.5'	2	4	58	.1	4	
FELSIC PORP. FLOW	8577	468.0' - 469.5'	3	4	11	.2	6	5

APPENDIX D

ROCK & SOIL DESCRIPTIONS & RESULTS

ARUM GEOLOGICAL CONSULTANTS INC. — ROCK SAMPLE LOCATION AND DESCRIPTION RECORD

Date: JUNE 11, 1987 **Project:** ISLAND MIN. & EXPL. **Area:** JL CLAIMS **Page** 1 **of** ____

Sample No. (Assay #)	Location	Description	Attitude	Width	Analytical Results
~~8351~~					Cu Pb Zn Ag As Au
✓ 87-3-Sb-1-1 ~~8352~~	JL At 10E/2+50N WHEELBARROW ADIT	Buff brownish pink, strongly altered rhyolite dyke. Fe carbonate + minor qtz veinlets.			38 43 .1 2 47
87-3-Sb-2-3	JL - OLD WORKINGS 3+10E/1+60N	Bull qtz vein; whitish grey, minor Fe carbonate + sericite in fractures. 1mm fleck of Visible Gold, <1% pyrite + sphalerite.			HIGH GRADE SAMPLE TO UBC THEN TO ERNIE
✓ 87-3-Sb-2-4 ~~8353~~	JL - OLD WORKINGS	Bull qtz vein; whitish grey with minor Fe carbonate + sericite in fractures - massive galena pod (~5%) + pyrite (1%) along fractures.	maybe high grade. High grade Pb		13 15
87-3-Sb-2-5	JL - OLD WORKINGS	Bull qtz vein; Mineralogy representative sample: Galena (4%), Sphalerite (6%), Pyrite (<1%), Trace Visible gold (several flecks)	Representative sample of high grade for camp		
✓ 87-3-Sb-2-6 ~~8354~~	JL - OLD WORKINGS	Bull qtz vein; Minor Fe carbonate + sericite along fractures. Mineralogy sphalerite (3%) (brown resinous), <1% Pyrite.	High grade Zn		0.059 opt
✓ 87-3-Sb-1-7 ~~8355~~	JL - OLD WORKINGS	Buff brown to orange weathered, pinkish brown fresh altered rhyolite. Fe carbonate + minor sericitic alteration with minor (1% disseminated euhedral pyrite (<1mm), weak flow banding and qtz or siderite?) veinlets.			6 39 56 02 3 5
✓ 87-3-Sb-2-8 ~~8356~~	JL L1900E/500N (1986 GRID)	Pyritic quartz vein and Fe carbonate altered rhyolite fragments.	Near soil anomaly		57 16 01 2
✓ 87-3-Sb-2-9 ~~8357~~	JL L 1900E/5+50N (1986 GRID)	Altered rhyolite (with qtz veinlets) and quartz vein fragments.	Over soil anomaly		8 444 93 1.9 6 42
✓ 87-3-Sb-2-10 ~~8358~~	JL ~~(0+10E/1+60N)~~ -19+75E/5+60N	Fe carbonate altered rhyolite bearing galena and qtz veinlets	High Pb possible		4 65 21 0.1 2 105

AURUM GEOLOGICAL CONSULTANTS INC. ROCK SAMPLE LOCATION AND DESCRIPTION RECORD

Date: JUNE 11, 1997 **Project:** ISLAND MINING & OIL **Area:** JL CLAIMS **Page** 2 **of** ____

Sample No.	Location	Description	Attitude	Width	Analytical Results
✓87-3-Sb-1-11 [redacted]	JL N18+60E / S+80N	Buff green weathered, dark green to black fresh with white to brownish orange stains. Carbonatized, magnetite bearing chlorite schist in sheared andesites.	AREA OF STRIKING SALIENT NORMAL		Cu Pb Zn AG As Au 81 6 270 0.1 10 6
✓87-3-Sb-1-12 [redacted]	JL N1900E / S+80N	Rusty weathered, dark green to light green chlorite schist, Carbonate, Fe carbonate, chlorite ~~d~~green mica(?) alteration with minor qtz. veins,	"		11 360 43 0.7 5 70
✓87-3-Sb-1-13 [redacted]	JL N1900E / S+80N 1986 GRID	Light green to buff white to rusty weathered light green to grey fresh rhyolite dyke. Numerous qtz veins up to 5cm, Fe carbonate alteration with minor (<1%) galena and pyrite	"		6 477 138 1.1 4 49
[redacted]					
[redacted]					
[redacted]					
[redacted]					

A[illegible]UM GEOLOGICAL CONSULTANTS INC. R[illegible]K SAMPLE LOCATION AND DESCRIPTION REC[illegible]RD

SAMPLER: HUGH MACKINNON ISLAND MINING & EXPLORATION

Date: JUNE 21, 1987 **Project:** MIDNIGHT GULCH (GL CLAIMS) **Area:** WHEATON RIVER **Page** 3 **of** ____

Sample No.	Location	Description	Attitude	Width	Analytical Results
87-3-5b-1-016	0+60W / 2+45N	Silicified & hematized rhyolite; <1% galena and (fresh) pyrite. Carbonate alteration & minor chlorite patches; few q.v. Buff green to orangish weathered.			Cu Pb Zn Ag As Au 5 340 35 .9 8 52
87-3-5b-1-017	0+50W / 2+50N	Pinkish orange weathered, silicified, carbonate & fe altered rhyolite. Abundant q.v. (<5cm), minor pyrite & galena; chloritic bands		~2m	4 116 30 .5 4 340
87-3-5b-1-020	1+60E / 1+90N	Rusty orange to brown weathered qtz carbonate vein. Bull to chalcedonic quartz; white, green to purple in colour. Black magnetic patches & chloritic schist 'inclusions'.	34 / 320	≤75cm	13 8 58 .1 7 5
87-3-5b-1-021	As 020	Similar to 020 but more chalcedony, & carbonate. Green schistose breccia(?) matrix;			11 6 78 .1 10 6
87-3-5b-1-022	As 020	Quartz - calcite vein		5cm	2 18 47 .1 5 3
87-3-5b-1-023	As 020	Silicified, chlorite & green mica (?) schist.		~ 1½m	5 9 77 .2 5 66
87-3-5b-1-024	As 020	Quartz, carbonate, siderite & limonite vein	44 / 246	5cm	4 13 68 .1 4 2
87-3-5b-1-025	As 020	Buff orangish yellow to rusty brown weathered quartz-carbonate-chalcedonic magnetite bearing shear zone.			87 6 27 .1 3 1
87-3-5b-1-027	~ 1+75E / ~1+65N	Chalcedonic-rhyolite breccia (fragments up to 4cm) yellowish green to buff brown weathered; minor fine grained disseminated pyrite (<1%)		~ 1½m	4 11 7 .1 4 15
87-3-5b-1-029	~1+75E / ~1+65N	Silicified, sericitized & Se carbonate altered rhyolite. Abundant q.v., generally < 7cm,			6 39 49 .2 4 17

ARUM GEOLOGICAL CONSULTANTS INC. — ROCK SAMPLE LOCATION AND DESCRIPTION RECORD

SAMPLER : HUGH MACKINNON — ISLAND MINING & EXP.

Date: JUNE 21, 1987 **Project:** MIDNIGHT GULCH (3L CLAIMS) **Area:** WHEATON RIVER **Page** 1 **of** ____

Sample No.	Location	Description	Attitude	Width	Analytical Results
					Cu Pb Zn Ag As Au
87-3-Sb-3-032	OLD ADIT ~1+25E / 4+55N	Limonitically weathered sericitized & silicified rhyolite. Buff greenish white fresh face; galena (2%), minor (1%) pyrite (<1mm) cubes. Qtz veins up to 50 cm. mineralization very sparse.		~12m	8 1390 19 4.5 2 2650 — Sl. Cu Stain
87-3-Sb-7-033	0+10W / 4+45N	Soil sample over altered andesite adjacent to q.v. rhyolite			30 32 105 .3 8 132
87-3-Sb-7-034	As 033	Soil sample over q.v. rhyolite (see 87-3-5-1-002).			51 50 127 .5 18
	CHANNEL (CHIP) SAMPLES				
FOOTWALL					
87-3-Sb-1-035	~0+40E / 4+50N	Orangish brown weathered, blackish brown fresh; well foliated & silicified. minor siderik & limonite veinlets; altered andesite.	75 / 240	0-50 cm	5 6 37 .1 2 1
87-3-Sb-1-036	" "			50-100 cm	5 23 88 .1 5 2
DYKE					
87-3-Sb-1-037	" "	Yellowish orange weathered; light greenish grey to grey fresh q.v. rhyolite. Sericitized & silicified, with carbonate & Se alteration. Quartz veins up to 3cm (?); minor disseminated pyrite.	65 / 310	100-150	68 28 201 .1 8 1
87-3-Sb-1-038	" "			150-200	14 233 41 1.1 11 32
87-3-Sb-1-039	channel "			200-250	9 62 21 .3 8 64
87-3-Sb-1-040	" "			250-300	15 29 20 .1 4 24
87-3-Sb-1-041	" "			300-350	12 11 19 .1 4 1
87-3-Sb-1-042	" "			350-400	17 21 20 .3 7 16
87-3-Sb-1-043	" "			400-450	14 51 20 .5 2 6
87-3-Sb-1-044				450-470	16 36 16 .2 2 7

...RUM GEOLOGICAL CONSULTANTS INC. ...K SAMPLE LOCATION AND DESCRIPTION RE...D

SAMPLER: HUGH MACKINNON ISLAND MINING & EXPLORAT...

Date: JUNE 21, 1987 **Project:** MIDNIGHT GULCH (GL CLAIMS) **Area:** WHEATON RIVER **Page** 5 **of** ____

Sample No.	Location	Description	Attitude	Width	Analytical Results
87-3-Sb-7-045	L 0+50E / 4+50N	Soil sample over andesitic schist			Cu Pb Zn Ag As Au 56 64 124 .3 18 85
87-3-Sb-7-047	" "	Soil sample over g.v. rhyolite			46 53 162 .3 16 107
CHANNEL (CHIP) SAMPLES					
87-3-Sb-1-048	L 0+50E / 4+45N Hanging wall contact	Limonitically weathered g.v. rhyolite, light grey fresh; silicified.		120cm	4 21 15 .1 2 1
87-3-Sb-1-049	Hanging wall	Strongly foliated, fine grained volcaniclastic(?)	85 / 313	160 cm	4 6 55 .1 3 3
87-3-Sb-1-049a	~0+45E / 4+30N	Silicified, fe carbonate & limonite altered volcaniclastic.		50cm (chip)	190 9 70 .5 3 1
87-3-Sb-1-050	As 049a	Similar to above but more strongly foliated	49 / 265		25 10 49 .1 3 1
* 87-3-Sb-1-053	~0+10E / 4+90N	Rusty brown to brown weathered, strongly altered fine grained, well foliated volcaniclastic. Fe, carbonate, & silication alteration, minor disseminated pyrite.	48 / 297		36 29 49 .1 2 3
87-3-Sb-1-054	~0+00E / 5+30N	Extremely altered porphyritic volcanic. Buff grey ish weathered, light grey fresh, well foliated & strongly carbonatized. minor diss. py & qtz veinlets.	65 / 310		36 29 49 .1 2 3
87-3-Sb-1-055	0+65W / 5+25N	Altered rhyolite dyke; buff brown weathered, light pink to grey fresh. Diss py; Fe alt. patchy; siderite & qtz veins generally < 2cm & patchy.	80-85 / 130		8 16 27 .1 2 2

...RUM GEOLOGICAL CONSULTANTS INC. — ...K SAMPLE LOCATION AND DESCRIPTION RECORD

SAMPLER : HUGH MACKENZIE

Date: JUNE 26, 1987 **Project:** MIDNIGHT GULCH (SL CLAIMS) **Area:** WHEATON RIVER **Page** 6 **of** ____

Sample No.	Location	Description	Attitude	Width	Analytical Results
87-3-Sb-1-057	30m from Stn. 1W/3N at @ 330° ~1+20W / 3+15N (MTON CLAIMS?)	Limonitically stained rhyolite dyke. minor (1%) py ; q.v. generally <3mm but may be up to 2cm. Sericitically altered, vuggy q.v. ; light grey to light grey green fresh.	326/61 .1 ; 335/60		Cu Pb Zn Ag As Au 10 195 20 .6 8 69
87-3-Sb-1-058	As above	As above but with 1% 1mm galena xtals, Galena found adjacent to hanging wall. (selected samples)			Special prep. 9 560. 30 1.9 12 37
87-3-Sb-1-059	20m from 0+50W/3+50N at 155°, Road cut.	Rhyolite dyke ; strong limonitic & carbonate staining. Partially sericitized & silicified ; minor <1mm diss py.		1½m	15 263 23 1.6 9 90
87-3-Sb-7-060	Below Adit ~1+00E/4+25N	Yellowish brown B/C horizon soil sample over altered rhyolite. Drainage to SE. Panning sample also collected here.			66 792 178 2.0 41 1780
87-3-Sb-1-063	~3+65E/ 2+80N	Fe, carbonate, sericitized & partially brecciated rhyolite. Rusty brown weathered, blocky, with few q.v. ; & minor diss <1mm pyrite.			20 20 70 .1 2 28
87-3-Sb-7-065	L2+50N / 3+50E	Yellowish brown to brown B/C horizon soil sample, over Fe altered foliated andesite porphyry. Drains SSW.			44 83 127 .3 8 150
87-3-Sb-1-066	As above	Highly altered - Fe carb, limonite silicified ; lapilli to Xtl tuff. 3mm diss py cubes.			32 42 52 .2 2 3

...URUM GEOLOGICAL CONSULTANTS INC. — ...CK SAMPLE LOCATION AND DESCRIPTION RECORD

SAMPLER : HUGH MACKINNON — ISLAND MIN. & EXPL.

Date: JUNE 26, 1987 **Project:** MIDNIGHT GULCH (GL CLAIMS) **Area:** WHEATON RIVER **Page** 7 **of** ____

Sample No.	Location	Description	Attitude	Width	Analytical Results
87-3-Sb 3-067	WHEELBARROW ZONE ADIT. 3+15E/1+20N	High grade adit float. V.G trace, galena(2%) in white bull qtz matrix. V.G. sample for ossice			Cu Pb Zn Ag As Au OFFICE V.G. SAMPLE
87-3-Sb-3-068 (1)	WHEELBARROW ZONE ADIT. 5m below.	High grade float: Galena (3%) bearing white bull qtz veins.			Special prep 3.15 oz/t .712 oz/t 108200 3850 24.4 10 4200 3
87-3-Sb-1-074 74	1+80E/1+90N	Galena (≤2%) bearing Fe altered rhyolite, Rusty brown weathered Pinkish brown to grey. Chloritic alteration and patchy 1-4mm q.v. - may be asheared qd. may be float?			Special prep. 2378 3.4 2820 23 1935 12
JUNE 27/1987 87-3-Sb-1-075 75	2+25E/0+90N	Rusty brown weathered pinkish grey fresh. Small <1mm veinlets with qtz, chlorite, py & <1% galena. Fe alteration dominant, some carbonatization; blocky fracture. Altered rhyolite - may be an altered granodiorite.			832 1.6 690 7 316 3
77 87-3-Sb-1-077 - 080	3+10E/0+85N	Quartz, magnetite, carbonate veins in chloritic schists meta volcanics (andesites) & hornblende diorite.	60 ⇐ 243	1/2 to 2m Vein	15 21 45 .1 3 7 4 7 41 .1 2 3
87-3-Sb-1-078 78	3+10E/0+75N	Black to grey basaltic(?) epidotized meta volcanic with minor <1cm qtz veins with <1% chalcopyrite & malachite, mineralization also occurs as ~1cm patches. Difficult to sample because of massive nature of o/c.			75 7 48 .1 2 9

...OM GEOLOGICAL CONSULTANTS INC. ...K SAMPLE LOCATION AND DESCRIPTION RECORD

SAMPLER: HUGH MACKINNON

Date: JUNE 1987 Project: MIDNIGHT GULCH Area: WHEATON RIVER Page 8 of

Sample No.	Location	Description	Attitude	Width	Analytical Results
JUNE 28 87-3-Sb-1-082	3+80E/2+15N	Buff greenish white weathered, whitish grey fresh; Silicified & carbonatized 3a-lappilli tuff. Relict lithic fragments up to 10cm. Minor cpy, malachite + disseminated py.			Cu Pb Zn Ag As Au 649 126 62 2.5 3 10
87-3-Sb7-084	4+20E/2+30N	Soil sample above rhyolite dyke. Brown soil; B horizon; drains SSE; numerous QFP fragments.			14 20 89 .1 4
87-3-Sb-2-085	New road cut to mineralization zone, below adit zone. See new road map	Dark green, porphyritic, quartz diorite (?). cpy & malachite (<1%) along fractures.			1274 8 69 2.4 2 6
87-3-Sb-2-086	L1+00W/4+00N Road cut/Road bed	White bull qtz vein; <1% py, gn, trace cpy. Py very fresh; some sericite in vein.	Shallow dip NE.		Special prep 105 2714 628 10.2 12 130
JUNE 29 87-3-Sb7-087 to 7-133	See location map - New Road	Soil samples			See results map " " "
JUNE 30/JULY 1 87-3-Sb-7-134 to 7-180	" "	" "			

Date: JUNE /[redacted] '87 Project: MIDNIGHT GULCH Area: WHEATON RIVER Page 9 of

Sample No.	Location	Description	Attitude	Width	Analytical Results
87-3-5b-1-144 — /	SEE ROAD CUT MAP - NORTH ZONE	limonitically weathered & altered, strongly foliated - sheared rhyolite? Chloritic & limonitic alteration patch with galena (≤ 1%), & pyrite (<1%).			Cu Pb Zn Ag As Au 115 10894 51.9 533 7 132
87-3-5b-1-145 — /	" " "	Limonitic & chloritic altered quartz-carbonate-galena vein. Galena up to 30%, pyrite ≤ 5%. selected samples. Host a Fe, carbonate altered & sheared rhyolite(?) (muscovite - carbonate - Fe schist),		2 cm	16494 297.3 1050 3093 9727 35 (17.42 opt Ag)
87-3-5b-1-146 — /	" " "	As above, 2ND vein ~40 cm from first,		2 cm	18019 281.1 4450 6398 13703 27 (30.09 opt Ag)
87-3-5b-1-151 / —	" " "	Dark green, v. well foliated, but irregular foliation due to qtz veins. < 10% chalcopyrite, pyrite & malachite.			1185 7.3 548 797 21 13
87-3-5b-1-143 /	" " "	Light to rusty brown, mod. well foliated, pervasively sericitized and/or limonitized. Qtz-chl or limonite + carbonate fracture filling; often forming breccia, vein network, veins ≤ 1 cm			1045 4.4 26 85 3 21
87-3-5b-1-147 /	" " "	Rusty brown to green, v. well foliated, Pervasive carbonatization + sericitization. Patchy or fracture filling limonitization. Minor green mica (Fuchsite?), possible talc, muscovite - limonite schist (?)			185 2.9 98 147 46 9

Date: JUNE / JULY '87 Project: MIDNIGHT GULCH Area: WHEATON RIVER Page 10 of

Sample No.	Location	Description	Attitude	Width	Analytical Results
JUNE 30 87-3-Sb-1-148	SEE ROAD CUT MAP - NORTH ZONE	Dark brown to rusty brown weathered, greenish grey to rusty brown fresh. Oval quartz pebbles (up to 4cm) in a sericitized & limonized v. well foliated aphanitic - (chloritic (?)) matrix. Altered & strained pebble conglomerate.			Cu Pb Zn Ag As Au 63 54 100 .4 22 3
87-3-Sb-1-149	" " "	Orangish rusty brown weathered, pinkish grey fresh, strongly limonized limonite - calcite andesite breccia. Angular fragments up to 5cm divided (or surrounded) by veinlets or veins up to 3cm across. Pyrite (≤1%), trace gn. Fragments strongly sericitized, with minor chlorite, clay and fuchsite (?).			12 24 .42 .3 19 1
87-3-Sb-1-150	" " "	Orangish rusty brown to brownish weathered, pinkish brown fresh. Well foliate Fe altered mn rich (?), mod. carbonatized tuff. Diss. py, with discontinuous qtz calcite veinlets up to .5cm. Carbonate & argillic alteration halo around veinlets. Mod. brecciated.			15 58 94 .7 18 1
87-3-Sb-1-152	" " "	Quartz - calcite - limonite tuff breccia. Minor diss py. Similar to 1-149.			46 47 43 .6 157 48
87-3-Sb-1-153	~30m due E from sample 7-128	Up to 15cm wide bull white qtz vein. Gn (≤3%), py (<1%) dk sphalerite (<0.5%) with azurite & malachite staining, along several sericitized fractures Selected sulphide bearing samples.		15cm (?)	special prep 233 217 15 17 193.4 7 1 ↓ 5.3 opt Ag

AURUM GEOLOGICAL CONSULTANTS INC. — ROCK SAMPLE LOCATION AND DESCRIPTION RECORD

Date: JULY '87 — Project: JL-CLAIMS MIDNIGHT GULCH — Area: WHEATON RIVER — Page 11 of

Sample No.	Location	Description	Attitude	Width	Analytical Results (Au oz/ton / Ag oz/ton)
JULY 9	CHANNEL SAMPLES				
87-3-Sb-1-154	~~9+75N~~ 9+25N / 1+50E	FOOTWALL - "C" horizon, crumbly, yellowish to orangish brown highly altered, intemediate volcanic. Fe rich, with scattered qtz veins.		0 - 50cm	L0.01 / 0.02
87-3-Sb-1-155	" "	As above but including contact		50 - 100cm	0.01
87-3-Sb-1-156	" "	Highly altered ("C" horizon) RHYOLITE dyke, whitish green to buff yellowish brown, strongly sericitized. Abundant q.v. upt 15cm; relict diss py in rhy & q.v.		100 - 150	0.01
87-3-Sb-1-157	" "			150 - 200	0.03
1-158	" "			200 - 250	0.02
1-159	" "			250 - 300	0.01
1-160	" "			300 - 350	0.01
1-161	" "			350 - 400	0.02
1-162	" "			400 - 450	0.01
1-163	" "			~~450~~ - 500	0.02
1-164	" "			500 - 550	0.04
1-165	" "			550 - 600	L0.01
1-166	" "			600 - 650	0.01
1-167	" "			650 - 700	L0.01
1-168	" "			700 - 750	0.02
1-169	" "	HANGING WALL - "C" horizon. Strongly altered, whitish green to grey, with limonitic veinlets & fractures. Mn stained.		750 - 800	0.01
1-170	" "			800 - 850	0.02

ROMUM GEOLOGICAL CONSULTANTS INC. — ROCK SAMPLE LOCATION AND DESCRIPTION RECORD

SAMPLER: HUGH

Date: JULY '87 Project: MIDNIGHT GULCH (JL) Area: WHEATON RIVER Page 12 of

Sample No.	Location	Description	Attitude	Width	Analytical Results
87-3-5b-1-171	SEE NORTH ZONE ROAD CUT MAP	Limonite-calcite quartz breccia. Quartz fine grained & sugary; matrix is silicified to chloritized or talc(?) altered intermediate volcanic. <1% diss py, <<1% mal.			Cu Pb Zn Ag As Au 596 13 42 1.5 170 13
87-3-5b-2-172	" " "	12 cm wide limonite, siderite-ankerite chalcedonic to sugary qtz breccia - Angular fragments of qtz or foliated and altered fine grained int. volcanics, up to .4cm; Minor (<1%) sphalerite(?)			17 65 55 .7 71 1
87-3-5b-1-173	Wheelbarrow Adit - New trench	4" wide bull white qtz vein. 1% galena, 1% py, 1% sphalerite. Selected samples.			~~Special prep.~~ 2662 8.5 12360 2 1316 9
87-3-5b-3-174	Above "Always Adit" @ 6+80E/1+30N	Q.v. up to 10 cm in thickness, bull white qtz with 5-10% limonite & sericite patches & fractures. 1-5% py, ≤1% gn.			Special prep. 27 9979 34.3 139 171 22
87-3-5b-3-175	" "	As above but possible trace V.G.(?) surrounded by limonite			Special prep. 17 748 246 4.1 15 3777
87-3-5b-1-176	See geology map. E. of always adit	Old trench, up to 10% gn along q.v. & fractures or diss. in fine to medium grained Fe carb altered & limonitized granodiorite, ≤2mm euhedral py, 2-5% sph. Selected "high grade" grab samples.			12 4633 23 310 5573 12.1
87-3-5b-1-177	" " "	Altered rhyolite & q.v., w/ chlorite & limonite 20% in q.v.. Light pinkish brown rhyolite diss. py. (<1mm).			6 279 494 0.8 13 18

HORUM GEOLOGICAL CONSULTANTS INC. ROCK SAMPLE LOCATION AND DESCRIPTION RECORD

Date: JULY 20 Project: MIDNIGHT GULCH (JLCLAIMS) Area: WHEATON RIVER Page 13 of

Sample No.	Location	Description	Attitude	Width	Analytical Results
					Cu Pb Zn Ag As Au ppb
87-3-Sb-S-178	" "	Stream sed. sample -178 1/2m down from rhyolite, -179, up stream from same rhyolite			90 35 86 -.6 13 96
87-3-Sb-S-179					180 25 95 .7 10 34
87-3-Sb-1-178	New trench 4+30N/0+10E	Limonitically weathered, sericitically altered fine to v.fine grained rhyolite (?). Greenish grey fresh, minor (<1%) <1mm q.vnlts, 1% diss py			6 58 20 .2 27 61
87-3-Sb-7-181	Adjacent to ODH #1,2 in gully to W @ 4+50N/1+50E	Soil samples in fault zone gully, to test influence of fault on q.v. rhyolite. Footwall → Hangingwall			65 122 175 .8 12 105
-7-182					60 33 192 -5 11 35
-7-183					88 48 123 2.5 29 108
-7-184					27 15 90 .3 6 16
87-3-Sb-1-185	" "	Sericitically alt'd q.v. rhyolite. Limonitically stained w/ q.v. up to 5cm. 1% py, trace sphalerite (?),			4 30 6.7 10 17
87-3-Sb-2-194	Southern Gulch 60m NW of anomaly	Quartz veined (8 mm) chloritized & hematized granodiorite			31 3 22 .2 10 6
87-3-Sb-1-186	Southern Gulch	Rusty, gossanous, carbonatized hornblende diorite (?). Minor malachite, limonite after py or other sulphides (?)			1858 14 27 1.5 9 77
87-3-Sb-1-187	" "	Mauve tored weathered (hematitic), 20% 1.5cm weakly sericitized plagioclase phenocrysts in a fine grained matrix. Hematitic andesite (?) flow.	46 → 110		8 13 91 .1 29 2

AGRUM GEOLOGICAL CONSULTANTS INC. ROCK SAMPLE LOCATION AND DESCRIPTION RECORD

Date: JULY 27, 1987 Project: MIDNIGHT GULCH Area: JL CLAIMS - WILSON RIVER Page 14 of

Sample No.	Location	Description	Attitude	Width	Analytical Results
87-3-Sb-1(2)-188 /	Southern Gulch	Carbonate, limonite breccia in schistose light green to grey, tuffs.	54 → 147		Cu Pb Zn Ag As Au(ppb) 26 28 150 .3 9 10
87-3-Sb-1-189 /	" " "	Whitish brown limonite weathered, qtz-carbonate breccia in carbonatized & Fe altered intermediate volcanics			6 11 106 .4 6 27
87-3-Sb-1-190 /	" "	See Pat Varas's Notes			184 132 300 5.5 46 615
-191 /		Soil samples above &			163 133 240 4.2 46 820
-192 /		below band of O/c at soil anomaly.			217 213 272 9.9 53 1100
87-3-Sb-1-193 /	" "	Rusty orange weathered, greenish light grey to pinkish fresh face; fine grained rhyolite (?) with diss (1%) py & Fe carb alteration. Limonite / carb vns 1cm wide.	57 → 113		40 9 74 .1 6 21
87-3-Sb-2-194 /	" "				31 3 22 2 10

Lorne

ANUM GEOLOGICAL CONSULTANTS INC. — ROCK SAMPLE LOCATION AND DESCRIPTION RECORD

Date: _____ Project: _____ Area: _____ Page ____ of ____

Sample No.	Location	Description	Attitude	Width	Analytical Results
JUNE 10th	Midnight Gulch.				Cu Pb Zn Ag As Au
✓87-331001	~ 1900+50E/575N (1986 GEOL COOR.)	DARK GREEN to white carbonate vein breccia in a chlorite schist	Area of Soil Anomaly		36 5 62 .01 5 3
✓87-331002	~ 1900E/600N	Dark Green to buff green fresh weathered magnetite bearing Chlorite schists + qtz veined andesites.	"		48 4 16 .1 13 4
✓87-332001	~ 1900E/500N (?)	Fe Carbonate + Sericitically altered rhyolite Minor qtz veining.	"	*87-332003	7 14 26 .7 7 14
✓87-332002	~ 1900E / 550N (?)	Fe Carbonate altered qtz vein.	"	↖ LOCATION?	4 6 25 .1 5 4
					5 2 31 .1 3 1
Marco					
JUNE 16th 87-3-2-1-11 ✓	Midnight Gulch STATION A5 ~163/56E	silicified rhyolite, sericite alteration qtz stringers < 5 mm, FeO weathering trace of pyrite			6 184 5 0.8 5 25
✓87-3-2-1-12 ✓	STATION A6 @ 096/62N	In shear near claim boundary, orange brown - yellow brown gauge			11 14 47 0.1 6 3
Lorne					
A5-1 ✓	~163/56E Above rhy. dike.	TALUS Fines & silt out creek bed along the fault			23 418 276 1.1 8
A5-2 ✓	Below dike.				23 177 188 .8 10 15
Lorne 87-3-5c-1001	Midnite Gulch 0+50E, 2+95N	Brown weathering, very silicified and weak sericitized Rhyolite. Less than 1% 1mm cubic Pyrite			
87-3-5c-1002		Descriptions are on a separate Sheet. Al declared me miscellaneous.			

AHRUM GEOLOGICAL CONSULTANTS INC. T.M. ELLIOTT

ROCK SAMPLE LOCATION AND DESCRIPTION RECORD

Date: JULY 20/87 Project: JL Claims Area: LOWER ADIT ZONE Page 1 of 1

Sample No.	Location	Description	Attitude	Width	Analytical Results
87-331-009	W. Bank Midnight Gulch @ TRENCH (LOWER ADIT AREA?)	Trenched area of Rhyolites cutting Granodiorite. Quartz-galena vein in granodiorite	000 / 75 =	3-5 mm.	Cu Pb Zn Ag As Au .48 oz/ton 0.061 oz/ton
JUNE 29TH 87-3-3-1-004	~~7cm~~ @ 068° FROM 4+00N / 1+00W ON ROAD	7cm QTZ VEIN, MNR GN, SI, PY ± CPY (COVELLITE)	60 // 045	7cm	27 513 272 10.7 22 310
" 87-3-3-1-005	2½M DOWN ROAD FROM -004	7cm DYKE (VEIN?)	MOD-STEEP ? // 080	7cm	3 31 27 3.3 15 .1
" 87-3-3-1-006	WEST WALL OF RD	MAGNETIC DARK GREY ANDESITE OR BASALT			
" 87-3-3-1-007	N35m @ 300° (ON ROAD CUT) FROM 4+00N 1+00W	FELSIC BXA ? W/ MYRIAD OF HAIRLINE TO 2mm QTZ VNLTS; STRONGLY WEATHERED NO FRESH SULPHIDES			3 32 53 .1 4 45
" 87-3-3-1-008	N10m SOUTH ALONG ROAD CUT (TRENCH) FROM 007	5cm QTZ VEIN, LIMONITE AFTER FORMER SULPHIDES	57 // 087	5cm	20 91 43 2.3 11 52

FORM ALPINE GEOLOGICAL CONSULTANTS INC. ROCK SAMPLE LOCATION AND DESCRIPTION RECORD

Date: JUNE 11, 1987 Project: Isbod. Mining & Exp. Area: JL Claims Page ___ of ___

Sample No.	Location	Description	Attitude	Width	Analytical Results
June 9					Au .179 oz/t
87-3-5a-2-1	Midnight Gulch (~1900E/6+75N) (~Heilbarow Zone)	Bull qtz vein, whitish grey, minor fe carbonate in fractures: Galena (~2%), Pyrite (<1%), sphalerite (~1%), Visible Gold trace. (High Grade)			CU PPM 3, PB PPM 6, ZN PPM 54, AG PPM .1, AS PPM 2, AU PPB 2
87-3-5a-2-2	30 m E of L 1900E/6+75N	Magnetite bearing shear zone			14 7 84 .1 6 1
June 10					
87-3-5a-1-3	~1900E/6+50N	Magnetite in chloritic schist ?			13 1966 25 101 18 850
87-3-5a-2-4	1900E/6+75N	Qtz float just below qtz veining in schists + andesite? (~7m wide) High graded galena			
June 16					3 9 35 .6 3 540
87-3-5a-1-05	STATION A8 (6+50N - 1+00W)	Minor galena + pyrite in rhyolite (~1%)			12 17 13 .1 5 3
June 19					
1-06	4+50N 0+00E	Silicified rhyolite. (mineralization ?)			5 63 55 .2 2 235
1-07	2+25N 0+25W	Minor galena + pyrite in dull green silicified rhyolite (near contact ?)			3 13 48 .1 6 32
1-08	200N 0+00E	Fuchsite in quartz veined rhyolite; (with $(Mg,Fe)_7Si_8O_{22}(OH)_2$)			4 304 39 .6 < 10
1-09	200N 0+10W	Galena + pyrite remnants in quartz veining in rhyolite. (old trench)			25 12515 25 42.8 9 513
3-10	4+50N 1+00E. (Big Adit)	High grade galena sample just above old adit. ~5%			0.112 opt Au

AURUM GEOLOGICAL CONSULTANTS INC. ROCK SAMPLE LOCATION AND DESCRIPTION RECORD

Date: Aug 25 Project: Area: Page of

Sample No.	Location	Description	Attitude	Width	Analytical Results
June 24					Cu Pb Zn Ag As Au
61-3-SA-1-011 11	4+50 E 20 N	qtz veining in rhyolite, max width 30 cm, sericized + pyrolusite.			11 12 8 .3 55 16
June 25					
1-1-012 12	5+00 E 0+60 N	chloritic schist, rusty with carbonate veining and malachite staining?			137 7 45 .1 2 4
1-1-013 13	5+00 E 1+00 N	qtz veining in chloritic schist visible galena (sparse)			33 128 .8 .5 2 20
1-1-014	1+00 N 5+00 E not to send in.	GRDR intrusive with qtz veining + pyrite.			—
1-1-015 15	2+15 N 5+00 E	green rhyolite with qtz veining. (Tan's 35:205)			8 39 2 .6 2 20
June 26th					
2-016	rusty gossan Southern Gulch (near boundary)	calcite, barite, qtz veined float with galena ~1% and sphalerite.			71 2488 3TR .3 16 2
1-017 17	just below above sample	qtz veined andesitic rock, magnetite.			26 9 50 .1 3 2
1-018 18	" "	heavily qtz veined, calcite in rhyolite with hematite veining also.			23 6 41 .1 2 3
7-019 19	Southern Gulch Anomalies	grey - soil sample. below brown sandy rhyolite?			124 32 99 .1 5 28
1-020 20	south ridge of above	"b" Soil			133 98 131 1.1 6 44
1-021 21	Anomalies	Sandy brown rhyolite - minor py + galena.			29 10 92 .1 2 13
1-022 22	Site 3 up creek on S.G	Qtz veining with pyrite (arseno?)			111 7 41 .1 15 4
1-023 23	up from site	Qtz veining in diorite? Pyrite ~1%			625 2 51 .3 3 13

AURUM GEOLOGICAL CONSULTANTS INC. ROCK SAMPLE LOCATION AND DESCRIPTION RECORD

Date: Aug 12 Project: Area: Page of

Sample No.	Location	Description	Attitude	Width	Analytical Results
					Cu Pb Zn Ag As Au
87-3-5A 1-024 14	1+20 N 3+50 E	Malachite staining in sheared bx., calcite veinlets chalcopyrite minor			532 9 55 .3 2 15
June 28th					
7-025	3+50E 2.00N (near wheelbarrow Zone)	Gossanous soil sample taken on edge of bank			40 54 123 .1 9 5
1-026	25m @ 140° from 300E 600N.	Minor copper in sheared volcanics?			7 51 33 .2 4 31
July 5th.					
7-027 ↓ 27	Extended road's ie: Past DDH A1 + Down to Wheelbarrow (see road map)	Soils @ 30 m spacing + gossanous regions			29, 31, 37, 44 only possibly anomalous copper and only 31 possibly anomalous Au (141)
7-044					
July 15th					
7-045 43	on drill pad below DDH 87-A1	gossanous soil, near qtz veined rhyolite?			26 16 60 .1 6 1
					10 52 26 .2 9 1
7-046 46	On road near 7-122 (See road map).	gossanous soil			
July 16th					
7-047	Lower TRENCH Island Fraction	Semi-gossanous, in shear zones of chloritic schists.			82 16 107 .5 7 3
2-048	Above road in Lower TRENCH "as above"	Subcrop? qtz veined felsite			7 131 27 1.0 104 43

AUROM GEOLOGICAL CONSULTANTS INC. ROCK SAMPLE LOCATION AND DESCRIPTION RECORD

Date: Aug 16 Project: 1151 Area: Page of

Sample No.	Location	Description	Attitude	Width	Analytical Results
July 16th.					Cu Pb Zn Ag As Au
7-049	Upper TRENCH on Island Fraction	heavily gossanous soil below rhyolite? (weathered qtz vein)			151 19 80 .6 3 4
					17 20 74 .6 2 1
7-050	" "	" "			11 10 91 .2 2 1
7-051	" "	" "			
	" "				1552 15 33 .3 7
7-052	See trench map for above	closest to weathered qtz vein			
7-053	Road down to wheelbarrow Adit.	Selective samples along road with 7-052 being in juicy shear, should kick in Pb at least.			
↓					
7-057		(057 ~ 10m before wheelbarrow Adit location)		-057 3 cm	67 2076 1502 109.5 166 4320

ASUM GEOLOGICAL CONSULTANTS INC. ROCK SAMPLE LOCATION AND DESCRIPTION RECORD

SAMPLER: ALLAN MONTGOMERY

Date: JUNE 1987 **Project:** MIDNIGHT GULCH (JL) **Area:** WHEATON RIVER **Page** 1 **of** ____

Sample No.	Location	Description	Attitude	Width	Analytical Results
87-3-S-2-001 ✓	~5m NORTH OF 1987 GRID STATION 3100N/ 6100E	QTZ VEINED RHYOLITE: GRAB FROM OLD TIMERS TRENCH; RYH. ALTD CHALKY WHITE W/ RUSTY PY CUBES. MINOR PY AND ABUNDANT VUGS IN QTZ VEINS (UP TO 2cm WIDE)	—	—	Cu Pb Zn Ag As Au 8 341 33 1.4 12 76
87-3-S-1-002 ✓	~12m SOUTH OF 1987 GRID STATION 0100E/ 4+50N	PALE GREEN QTZ VEINED RHYOLITE: FROM OLDTIMERS PIT EXPOSING ~2m WIDTH OF RHY; MINOR QTZ VEINLETS ~1mm WIDE & MINOR PY, FUCHITE PATCHES	—	—	8 9 5 .1 8 °
87-3-S-2-003 ✓	15m @ 355° FROM 0100E/3100N	PALE GREEN RUSTY WEATHERED RHYOLITE W/ QTZ VEINING (<1cm WIDE) STOCKWORK (NO SULPHIDES NOTED)	—	—	8 29 15 .2 2 12
87-3-S-1-004 ✓✓	10m @ 142° FROM 3100N/ 0100E	PALE GREEN W/ RUSTY YELLOW WEATHERING: SELECTED QTZ VEINED PEICES OF ~4m WIDE RHYOLITE DYKE; QTZ VEINS (mm → 2cm) VUGGY VUGGY W/ MINOR BOXWORK. 0.5% RUSTY DISSEMINATED PY IN RHY	—	—	13 324,65 1.4 27 138
87-3-S-1-005 ✓✓	10m NORTH OF 0100E 2+00N	PALE GRN RHYOLITE W/ RUSTY WEATHERING; MINOR QTZ STRINGERS, MINOR RUSTY PY; O/C ~1 FT WIDE.	—	—	3 164 34 0.6 8 1
87-3-S-1-006 ✓✓	AS 87-3-S-1-005	PALE GREEN-WHITE ~RHYOLITE W/ X-CUTTING QTZ VEINLETS (<1cm WIDE): FUCHITE/SERICITE/BARITE?/$FeCO_3$ ALTERED. (BARITE SUSPECTED BECAUSE OF HIGH S.G. & NO FIZZ)	—	4"	1 24 75 .1 6 1

A[illegible]UM GEOLOGICAL CONSULTANTS INC. F[illegible]K SAMPLE LOCATION AND DESCRIPTION RE[illegible]RD

SAMPLER: AL M.

Date: JUNE / 1987 **Project:** MIDNIGHT GULCH (JL) **Area:** WHEATON RIVER **Page** 2 **of** ____

Sample No.	Location	Description	Attitude	Width	Analytical Results
87-3-S-1-007	20m @ 295° FROM 15+50N/7+75E (1985 GRID?) (TON CLAIMS?)	BULL QTZ VEIN W/ LIMONITIC FRACTURES + MINOR $FeCO_3$ THROUGH OUT: INTRUDING INTENSELY FOLIATED ± CHLORITIZED SCHIST; VEIN >1m WIDE WHERE EXPOSED IN OLD TIMER TRENCH; SAMPLE COLLECTED DISCONTINUOUSLY ACROSS WIDTH	—	1m	Cu Pb Zn Ag As Au (ppm / ppb): 484 3 6 .8 3 2
87-3-S-2-008	19100E 6400N (1986)	PALE TO DULL GRN RHY, LIGHT BUFF/HEMATITE-RED WEATHERED: QTZ VEINS ± $FeCO_3$ VEINS; RUSTY RED HEMATITIC VEINLETS LOCALLY; VUGGY W/ MINOR RUSTY PY IN QTZ VEINS	—	—	3 6 11 .1 2 2
87-3-S-2-010	5m SOUTH OF -008	OFF WHITE RHYOLITE W/ VUGGY QTZ VEINS: ABUNDANT RUSTY (FeO) VUGS, ± SPECULAR HEMATITE IN VUGS; <1% RUSTY PY IN RHY.	—	—	5 5 18 .1 3 1
87-3-S-2-011	AS-010	RUSTY BROWN - BROWNISH ORANGE WEATHERED QTZ VEINED WHITISH RHYOLITE; QTZ VEIN STOCKWORK; VEINS (± RHY) VUGGY, MINOR RUSTY PY IN VEINS			13 253 22 1.3 18 165
87-3-S-2-012	TALUS ON 19100E (1986) LINE, MIDWAY BETWEEN 500N ± 550N.	RUSTY YELLOWISH STRONGLY BOXWORKED QTZ VEIN FRAGMENTS: ANGULAR, GENERALLY ~1cm WIDE (NO SULPHIDES NOTED)	—	—	12 1811 312 12.1 20 7760 Sr 0.306

A[illegible]RUM GEOLOGICAL CONSULTANTS INC. R[illegible]CK SAMPLE LOCATION AND DESCRIPTION RE[illegible]RD

SAMPLER: AL M.

Date: JUNE / 87 Project: MIDNIGHT GULCH (JL) Area: WHEATON RIVER Page 3 of

Sample No.	Location	Description	Attitude	Width	Analytical Results
87-3-S-1-013 ✓	2M NORTH OF 19+00E S+60N (1986 GRID)	QUARTZ-FELDSPAR PORPHYRY: RUSTY BROWN TO YELLOW BROWN W/ RARE QTZ STRINGERS ± 0.1% RUSTY PY	—	—	Cu Pb Zn Ag As Au (PPM / PPB): 9 10 27 .2 4 1
87-3-S-1-014 ✓	25m @ 120° FROM 1987 GRID STN 01SOE 2+00N	SILICIOUS, BROWN-PINK TO PINKISH RHYOLITE ± QFP?; MINOR QTZ-SULPHIDE STRINGERS (<1% PY ± MINOR GALENA, MINOR FeO). @ UPPER CONTACT OF QFP W/ MAFIC HNBLD PORPHYRY	70° / 321°	6"	13 945 1428 2.9 7 SLO
87-3-S-1-015 ✓	10m @ 081° FROM 0+50E / 2+00N (1987 GRID)	SILICIOUS DULL GREEN RHYOLITE: QTZ VEINLETS (<0.5cm WIDE), MINOR RUSTY VUGS + RUSTY PY		DYKE ~ 10m WIDE ON SURFACE (APP. WIDTH)	4 30 30 .5 3 1
87-3-S-1-016 ✓	30m @ 330° FROM 3100N / 1+00W (TON?)	YELLOW-BROWN WEATHERED "16" RHYOLITE: PALE BROWN-GREEN FRESH W/ ABUNDANT QTZ VNLTS (<1cm WIDE), ABUNDANT RUSTY VUGS IN RHY ± QTZ.	325° ~ / 80°	SAMPLE FROM 1m WIDE DYKE	12 240 63 0.9 21 141
87-3-S-7-017 17 ✓	20m @ 155° FROM 0+50W / 3150N	REDDISH-BROWN SOIL ALONG SMALL SHEAR ADJACENT TO RHY H.W. OF RHY DYKE ALONG ROAD CUT.	90° / 260°	2"	10 24 115 .1 5 8
87-3-S-2-018 18 ✓	10m @ 288° FROM 1+00E / 5+00N	BUFF-TAN WEATHERED, GREEN (FRESH) "16" RHYOLITE: MINOR QTZ VNLTS W/ ~0.1% GN ± YELLOW/BROWN RUSTY VUGS. WITHIN HIGHLY SHEARED ± ALTERED ~TUFF AKA. CHLORITE SCHIST.	—	—	11 1393 7 S.1 7 85

UM GEOLOGICAL CONSULTANTS INC. CK SAMPLE LOCATION AND DESCRIPTION RE RD

Date: JUNE 24 Project: MIDNIGHT GULCH (3) Area: WHITSON PLUG Page 4 of

Sample No.	Location	Description	Attitude	Width	Analytical Results
87-3-S-2-019 ✓ 19	10m ABOVE TIMBER OF CAVED ADIT @ ~ 0+75E / 4+25N	16 RHYOLITE: RUSTY YELLOW BLEACHED QTZ VEINED, PHY FROM DYKE ABOVE CAVED ADIT; ABUNDANT VUGS W/ QTZ XTLS; ~1% EUHEDRAL GN, MINOR SPHALERITE(?); SAMPLE HAND SELECTED FROM HANGING WALL SIDE OF DYKE, SELECTING QTZ VEINED, GN-BEARING SAMPLE.	~ 66° / 326	DYKE IS ~4m	(SAC. PREP A.A.) Cu Pb Zn Ag As Au 24 8268 25.1 74100 78 6 SP (2.184 opt Au)
87-3-S-2-020 ✓ 20	5m @ 76° FROM 4+00N, 1+00W	QTZ VEIN FLOAT: WHITE QTZ VEIN ~5cm WIDE W/ BANDS OF DISSEMINATED GN (1%) & PY (1%) ALONG EDGES OF VEIN, UNCOVERED IN SOIL GOSSAN ALONG ROADWAY ~~(5m @ 76° FT~~			SP PREP A.A. 72 596 20 3174 10.6 225
87-3-S-7-021 ✓ 21	AS ABOVE	YELLOW-BROWN SOIL: CLAY RICH W/ QTZ VEIN FRAGMENTS ABUNDANT; GOSSAN SEEMS TO TREND NE-W ALONG ROADWAY.			543 1358 156 2581 19.0 395
87-3-S-1-021 ✓ 21	20m @ 270° FROM 3+00N, 0+50E	RUSTY YELLOW BROWN RHYOLITE (16): QTZ VEINLETS, VUGGY & RUSTY PY CUBES + BOXWORK COMMON.		DYKE APPEARS TO BE ~5m WIDE.	25 51 51 1039 4.7 150
(JUNE 26TH) 87-6-S-7-022 ✓ 22	~~TO~~ WEST SIDE OF GULCH DIRECTLY WEST OF 3+00N / 1+00W @ 285° (TON?)	YELLOWISH CLAY RICH SOIL: QTZ VEIN, RHY BXA AS FLOAT	—	—	11 10 25 .1 4 7

AURUM GEOLOGICAL CONSULTANTS INC.

Date: JUNE Project: MIDNIGHT GULCH Area: MT. STEVENS

Sample No.	Location	Description	Attitude	Width	Analytical Results
					Cu Pb Zn Ag As Au
87-6-5-1-022 ✓ 23 ✓	1E - 02.2.	QTZ VEINED MED OR L. PLUTONIC? OR ALTD RHY: ADJACENT TO RHY BXA; TRC GN IN QTZ VEINS (<1cm WIDE)	02° / 217°	—	10 108 25 .8 81 20
87-3-5-1-024 ✓ 24 ✓	~15m @ ~270° FROM 3+00N / 0+00E	TYPE 1b RHYOLITE; RARE GN IN QTZ VEINS	76 / 320	—	14 269 179 .9 8 24
87-3-5-1-025 25 ✓	~2+75N / 0+00E	PALE GREEN → WHITE WEATHERED RHY: RARE QTZ VEINS & PY STRINGERS; ARCING VARIABLE FRACTURES	80° / 270	~3m TOTAL WIDTH OF DYKE	5 11 15 .1 2 11
87-3-5-2-026 26 ✓	~15m @ 290° FROM 2+50N / 0+00E	YELLOW WEATHERED RHYOLITE: MINOR QTZ STRINGERS, POSSIBLY PART OF 1c DYKE TO SOUTH.			12 10 6 .4 6 7
87-3-5-2-027 27 ✓	5m NORTH OF 19+00 5+60E (1986 GRID)	DULL PALE GREEN RHYOLITE: MINOR IRREGULAR QTZ VEINLETS (VUGGY) W/ RARE PY.			5 124 92 .3 56 47
87-3-5-1-028 28 ✓	~15m @ 330 FROM 0+50W / 2+00N (IN TRENCH) (NO MARKER FLAG LEFT)	1C TYPE RHYOLITE DYKE: MINOR QTZ VEINS (LOCALLY VUGGY W/ PY & MSSV GREEN CHLORITE)	—	—	— 23 337 242 .6 3 325
87-3-5-1-029 ✓	ALONG FINAL STRETCH OF NEW ROAD DOWN TO ADIT ZONE (SEE NORTH ZONE MAP)	SHEAR & ADJACENT SHEARED RHYOLITE ALONG NEW ROAD CUT TOWARD ADIT ZONE: YELLOWISH GOSSAN SHEAR ALONG HIGHLY FRACTURED MAFICS & MINOR RHYOLITE	—	—	HAVEN'T PROCESSED LOCATIONS YET. 236 699 21223 829 4 540
87-3-5-2-030 ✓	TRENCH ~5m NORTH OF 6+00E, 3+00N	1b TYPE RHYOLITE: YELLOWISH BROWN WEATHERED LT. GREEN FINE GRAINED RHY W/ ABUNDANT QTZ VEINLETS (<2cm WIDE) W/ RARE GN; SILICIOUS DARK GREEN FRAGMENTS WITH QTZ STOCKWORK (WALL ROCK?)	—	—	SP. PREP 36 3628 146 12.8 19 1110

HUNTER GEOLOGICAL CONSULTANTS INC. — ROCK SAMPLE LOCATION AND DESCRIPTION RECORD

AL MONTGOMERY

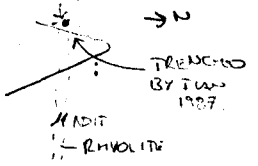
Date: JUNE 30TH 1987 **Project:** MIDNIGHT GULCH **Area:** WESTERN END MT. STEWART **Page** 6 **of**

Sample No.	Location	Description	Attitude	Width	Analytical Results
					GC Cu Pb Zn Ag As Au
87-3-5-1-031 ✓	ROAD CUT DIRECTLY ~~WEST~~ EAST OF 2+00E / 2+50N @ 103°	BUFF TO YELLOWISH-GREEN WEATHERED, INTENSELY SERICITIZED, SHEARED & FRACTURED RHYOLITE (~1b). QTZ VEINS, LOCALLY W/ RUSTY VUGS, UP TO 4cm WIDE. SELECTED VEINED SAMPLES	~ 82 / 302	DYKE IS 2-3m WIDE	2 108 34 .1 3 18
87-3-5-1-032 ✓	8m SOUTH ALONG ROAD CUT FROM -031.	SHEARED, ALT'D & FRACTURED 1a/1c TYPE RHYOLITE; BUFF TO DULL BROWN WEATHERED, SHEARED QTZ VEINLETS LOCALLY; SELECTED VEINED MATERIAL	80 / 300; 68 D / 256	-	GC 4 89 83 .1 6 15
87-3-5-1-033 ✓	WHEELBARREL ZONE EAST END OF %c	TYPE 1b RHYOLITE FROM RHYOLITE EXPOSED @ WHEELBARREL ZONE ADIT (EAST END OF %c), MINOR QTZ VEINING W/ RUSTY VUGS	-	SELECTED WITHIN 1' AREA	GC 1 21 11 .1 5 15
87-3-5-1-034 ✓	~15m @ 140° FROM 4+00E / 2+00N	SELECTED VEINED PIECES OF 1b TYPE RHYOLITE, PALE GREEN & PINK ON FRESH SURFACE (RHODOCROSITE?), MINOR RUSTY PY	-	-	GC 7 12 1 .3 11 143
87-3-5-7-035 ✓	22m @ 146° FROM ROAD CUT SOIL SAMPLE #-164 (87-3-Sa-7-164) OF THE "ROAD CUT SOIL SAMPLE SERIES"	B to C HORIZON, ~1.5' DEPTH, YELLOW TO YELLOWISH-BROWN CLAY RICH GRITTY SOIL, ANGULAR & ROUNDED ROCK FRAGS.	-	-	GC 22 1962 .1 15
JULY 3 87-3-5-2-037 ✓	10m @ 120° FROM 4+00N / 0+50W	BRECCIATED RHYOLITE: PALE GRN SHEARED W/ SUB-ROUNDED PEBBLES OF RHY, QTZ & $FeCO_3$ VEINS; LIMONITE	-	-	GC 23 20 71 .4 3 1
87-3-5-2-038 ✓	MAJOR N-S TRENDING GULLEY @ JL-TON BOUNDRY 10m @ 208° FROM (TON?) 87-3-5b-2-053	1b TYPE RHYOLITE FLOAT: MINOR BOXWORKED QTZ STRINGERS			GC 3 16 1 .1 9 10

AURUM GEOLOGICAL CONSULTANTS INC. — ROCK SAMPLE LOCATION AND DESCRIPTION RECORD

AL MONTGOMERY

Date: JULY 4 Project: MIDNIGHT GULCH Area: WHEATON RIVER Page 6 of

Sample No.	Location	Description	Attitude	Width	Analytical Results
87-3-S-7-039	11m NORTH OF NEW ROAD CUT SOIL SAMPLE SERIES SAMPLE # – 125, WEST SIDE OF ROAD.	GOSSANOUS SOIL HORIZON: - SUBROUNDED ROCK FRAGMENTS - SILTY-CLAY RICH - YELLOW-BROWN - B-C HORIZ	—	—	GC 73 67 165 1.1 76 5
87-3-S-7-040	NORTH WALL WHEELBARROW ZONE DRILL PAD	GOSSANOUS SOIL HORIZON; - MINOR ANGULAR FRAGS. - V. CLAY RICH - YELLOW-BROWN-OLIVE GRN - 7' DEPTH (C-HORIZON)			GC 19 13 46 .7 6 1
87-3-S-1-041	20m DOWN (TOLAROS PAD) FROM ROAD SIDE SOIL #-040 (87-3-Sm-7-040)	V. GOSSANOUS SHEAR 5cm→25cm IN ROAD CUT SURROUNDED BY $FeCO_3$ ALT'D ROCK (~TYPE IC RHY)	253°/N080°	5cm→25cm	19 177 245 1.7 22 5
JULY 10 87-3-S-2-046	WHEELBARROW ZONE *CHECK LOCATION!	SHEARED & VEINED WALL ROCK TO TRENCHED DYKE (EAST OF WHEELBARROW)	COLLECTED ON TRAVERSE OUTING WITH ED MONTGOMERY (NOT PLOTTED)	VEINS <1cm	* NOT PLOTTED - CHECK LOCATION 22 327 75 2.7 37 6840
87-3-S-1-045	SOUTH EAST OF WHEELBARROW ?(UNKNOWN)	MASSIVE DIORITE			52 2 27 .1 6 2
JULY 24 87-3-S-2-049	NORTH SIDE 87-I2 PAD	SELECTED (VEINED) PIECES OF RHYOLITE (TYPE IC) FLOAT @ 87-I2 DRILL PAD, VGS BUT NO SULPHIDES NOTED	—	—	7 87 3 .2 10 80
87-3-S-7-050	31m FROM LAST SOUTHING JUST ABOVE ADIT ZONE ALONG ROAD  	GOSSANOUS (A/C HORIZON) CLAY RICH SOIL W/ MNR SILTY COMPONENT	—	—	98 19 75 .7 12 3
JULY 25 87-3-S-1-051	10m WEST OF WHEELBARROW TRENCH ALONG ROAD-TRENCH PUT IN BY IVAN IN 1987. SAME LOC AS 87-3-Sm-7-059	STRONGLY MN2'D (>10% GN) IPY QTZ VEIN/SHEAR UP TO 5cm WIDE IN PLACE ALONG FRACTURE WITHIN RHYOLITE (~IC TYPE) DYKE		1cm-5cm	136 760 38 32,127 395.3 2094

FORM

RUM GEOLOGICAL CONSULTANTS INC. — OCK SAMPLE LOCATION AND DESCRIPTION RI ORD

Date: June 19, 87 **Project:** Island Mining & Exp. **Area:** JL Claims **Page** ____ **of** ____

Sample No.	Location	Description	Attitude	Width	Analytical Results
June 19					Cu Pb Zn Ag As Au
					ppm ppm
87-3-5c-1001	0+50 E, 2+95 N	Brown weathering, sericitized and very silicified Rhyolite. Less than 1%, 1mm sized, cubic pyrite.			3 170 21 1.2 15 76
87-3-5c-1002	1+00 E, 2+25 N	Brown weathering, quartz veined Rhyolite with galena and pyrite.			9 2867 885 49 2 2530 ppb Au check
87-3-5c-1003	1+00 E, 2+00 N	Brown quartz veined Rhyolite dyke, silicified and with minor pyrite.			3 33 36 .1 2 3
87-3-5c-1004	1+00 E, 1+50 N	Small quartz vein outcropping near weakly argillic altered diorite.			4 18 55 .1 2 1
87-3-5c-1005	2+00 E, 2+00 N	1m thick brown weathering, silicified Rhyolite dyke. Up to 1% 2mm sized cubic pyrite.			4 6 9 .1 4 2

AUROM GEOLOGICAL CONSULTANTS INC. ROCK SAMPLE LOCATION AND DESCRIPTION RECORD

Date: _____ Project: MIDNIGHT [illegible] Area: _____ Page ____ of ____

Sample No.	Location	Description	Attitude	Width	Analytical Results
87-3-5-2-057	SHEAR AT INITIAL TRENCH COMP BY IAN IN 1987 @ IAN FOWLING	(SERICITE ALT'N) PALE GREEN W/ FeOx & WHITE CARBONACEOUS COATINGS CRUSHED & PARTED BOULD BEAD-LIKE SILVER (NUGGETS (<0.5mm)	-	-	ANALYZED FOR Au, Ag & Au (PPb) Pd Pt Ag(ppm) 140 2 2 3.3

APPENDIX E

ANALYTICAL RESULTS

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

DATE RECEIVED: JUNE 17 1987
DATE REPORT MAILED: June 25/87.

GEOCHEMICAL ICP ANALYSIS

.500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG.C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER. THIS LEACH IS PARTIAL FOR MN FE CA P LA CR MG BA TI B W AND LIMITED FOR NA AND K. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: Rock Chips AU* ANALYSIS BY AA FROM 10 GRAM SAMPLE.

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

ISLAND MINING PROJECT-MIDNIGHT GULCH File # 87-1838

SAMPLE#	CU PPM	PB PPM	ZN PPM	AG PPM	AS PPM	AU* PPB
87-331001	36	5	62	.1	5	3
87-331002	48	4	166	.1	13	4
87-332001	7	14	26	.7	7	14
87-332002	4	6	25	.1	5	4
87-332003	5	2	31	.1	3	1
87-3-5A 1-3	14	7	84	.1	6	1
87-3-5A 2-2	3	10	54	.1	2	2
87-3-5B-2-4 ~~87-3-5A 2-4~~	13	1966	25	10.1	18	850
87-3-5B 1-1	3	8	43	.1	2	47
87-3-5B 1-7	6	39	56	.2	3	5
87-3-5B 1-11	81	6	270	.1	10	6
87-3-5B 1-12	11	350	43	.7	5	70
87-3-5B 1-13	6	447	138	1.1	4	49
87-3-5B 2-8	5	7	16	.1	2	40
87-3-5B 2-9	8	444	93	1.9	6	42
87-3-5B 2-10	4	65	21	.1	2	105
STD C/AU-R	62	41	139	7.2	41	505

ACME ANALYTICAL LABORATORIES LTD.
852 E. HASTINGS, VANCOUVER B.C.
PH: (604)253-3158 COMPUTER LINE:251-1011

DATE RECEIVED JUN 17 1987

DATE REPORTS MAILED June 24/87

ASSAY CERTIFICATE

SAMPLE TYPE : ROCK - CRUSHED AND PULVERIZED TO -100 MESH.
AU BY FIRE ASSAY
ND=None Detected

ASSAYER _____ DEAN TOYE , CERTIFIED B.C. ASSAYER

ISLAND MINING PROJECT MIDNIGHT GULCH FILE# 87-1838A PAGE# 1

SAMPLE	Sample wt. gm	Au-100 oz/t	Native Au mg	Average oz/t
87-3-5A 2-1	280	.108	.68	.179
87-3-5A 2-4	280	.009	ND	.009
~~87-3-5A 2-6~~ 87-3-5B-2-6	290	.023	.36	.059

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

DATE RECEIVED: JUNE 24 1987
DATE REPORT MAILED: June 29/87.

GEOCHEMICAL ICP ANALYSIS

.500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG.C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER. THIS LEACH IS PARTIAL FOR MN FE CA P LA CR MG BA TI B W AND LIMITED FOR NA AND K. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: P1-2 ROCK P3-SOIL P4-TALUS FINES AU* ANALYSIS BY AA FROM 10 GRAM SAMPLE.

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

ISLAND MINING PROJECT-MIDNIGHT GULCH File # 87-1979 Page 1

SAMPLE#	CU PPM	PB PPM	ZN PPM	AG PPM	AS PPM	AU* PPB
87-3-2-1-11	6	184	5	.8	5	25
87-3-2-1-12	11	14	47	.1	6	3
87-3-5-1-002	8	9	5	.1	8	8
87-3-5-1-004	13	324	65	1.4	27	138
87-3-5-1-005	3	164	34	.6	8	1
87-3-5-1-006	1	24	75	.1	6	1
87-3-5-1-007	484	3	6	.8	3	2
87-3-5-1-013	9	10	27	.2	4	1
87-3-5-1-014	13	1428	945	2.9	7	520
87-3-5-1-015	4	30	30	.5	3	1
87-3-5-2-001	8	341	33	1.4	12	76
87-3-5-2-003	8	29	15	.2	2	12
87-3-5-2-008	3	6	11	.1	2	2
87-3-5-2-010	5	5	18	.1	3	1
87-3-5-2-011	13	253	22	1.3	18	165
87-3-5-2-012	12	1811	312	12.1	20	7760
87-3-5A-1-005	3	9	35	.6	3	540
87-3-5A-1-006	12	17	13	.1	5	3
87-3-5A-1-007	5	63	55	.2	2	235
87-3-5A-1-008	3	13	48	.1	6	32
87-3-5A-1-009	4	304	39	.6	6	1290
87-3-5A-3-010	25	12575	25	42.8	9	5130
87-3-5B-1-016	5	340	35	.9	8	52
87-3-5B-1-017	4	116	30	.5	4	340
87-3-5B-1-020	13	8	58	.1	7	5
87-3-5B-1-021	11	6	78	.1	10	6
87-3-5B-1-022	2	18	47	.1	5	3
87-3-5B-1-023	5	9	77	.2	5	66
87-3-5B-1-024	4	13	68	.1	4	2
87-3-5B-1-025	87	6	27	.1	3	1
87-3-5B-1-027	4	11	7	.1	4	15
87-3-5B-1-029	6	39	49	.2	4	17
87-3-5B-1-035	5	6	37	.1	2	1
87-3-5B-1-036	5	23	88	.1	5	2
87-3-5B-1-037	68	28	201	.1	8	1
87-3-5B-1-038	14	233	41	1.1	11	32
STD C/AU-R	58	38	135	7.0	42	495

SAMPLE#	CU PPM	PB PPM	ZN PPM	AG PPM	AS PPM	AU* PPB
87-3-5B-1-039	9	62	21	.3	8	64
87-3-5B-1-040	15	29	20	.1	4	24
87-3-5B-1-041	12	11	19	.1	4	1
87-3-5B-1-042	17	21	20	.3	7	16
87-3-5B-1-043	14	51	20	.5	2	6
87-3-5B-1-044	16	36	16	.2	2	7
87-3-5B-1-048	4	21	15	.1	2	1
87-3-5B-1-049	4	6	55	.1	3	3
87-3-5B-1-049A	190	9	70	.5	3	1
87-3-5B-1-050	25	10	49	.1	3	1
87-3-5B-3-032	8	1390	19	4.5	2	2650
87-3-5C-1-001	8	170	21	1.2	15	76
87-3-5C-1-002	9	2867	885	4.9	2	2530
87-3-5C-1-003	3	33	36	.1	2	5
87-3-5C-1-004	4	18	55	.1	2	1
87-3-5C-1-005	4	6	9	.1	4	2
STD C/AU-R	58	40	136	6.8	40	505

SAMPLE#	CU PPM	PB PPM	ZN PPM	AG PPM	AS PPM	AU* PPB
87-3-5B-7-033	30	32	105	.3	8	132
87-3-5B-7-034	51	50	127	.5	18	46
87-3-5B-7-045	56	64	124	.3	18	85
87-3-5B-7-047	46	53	162	.3	16	107

SAMPLE#	CU PPM	PB PPM	ZN PPM	AG PPM	AS PPM	AU* PPB
A5 #1	23	418	276	1.1	8	6
A5 #2	23	177	188	.8	10	15

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

DATE RECEIVED: JULY 2 1987

DATE REPORT MAILED: July 9/87

GEOCHEMICAL ICP ANALYSIS

.500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG.C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER. THIS LEACH IS PARTIAL FOR MN FE CA P LA CR MG BA TI B W AND LIMITED FOR NA AND K. AU DETECTION LIMIT BY ICP IS 3 PPM.

- SAMPLE TYPE: Rock Chips AU* ANALYSIS BY AA FROM 10 GRAM SAMPLE.
P3 - SOILS

ASSAYER: DEAN TOYE, CERTIFIED B.C. ASSAYER

ISLAND MINING MIDNIGHT GULCH File # 87-2154 Page 1

SAMPLE#	CU PPM	PB PPM	ZN PPM	AG PPM	AS PPM	AU* PPB
87-3-5-1-16	12	240	63	.9	21	141
87-3-5-2-18	11	1393	7	5.1	7	85
87-3-5-2-19	24	8268	78	25.1	6	74100
87-3-5-2-20	72	3174	596	10.6	20	225
87-3-5-1-21	25	1039	51	4.7	51	150
87-3-5-1-23	10	108	25	.8	81	20
87-3-5-1-24	14	269	179	.9	8	24
87-3-5-1-25	5	11	15	.1	2	11
87-3-5-2-26	12	10	6	.4	6	7
87-3-5-2-27	5	124	92	.3	56	47
87-3-5-1-28	23	242	337	.6	3	325
87-3-5a-1-11	11	12	8	.3	55	16
87-3-5a-1-12	137	7	45	.1	2	4
87-3-5a-1-13	33	128	18	.5	2	20
87-3-5a-1-15	8	39	2	.6	2	20
87-3-5a-2-16	71	2488	3772	.3	16	2
87-3-5a-1-17	26	9	50	.1	3	2
87-3-5a-1-18	23	6	41	.1	2	3
87-3-5a-1-21	29	10	92	.1	2	13
87-3-5a-1-22	111	7	41	.1	15	4
87-3-5a-1-23	625	2	51	.3	3	3
87-3-5a-1-24	532	9	55	.3	2	15
87-3-5-1-029 ~~87-3-5a-1-29~~	236	21223	699	82.9	4	540
87-3-5-2-030 ~~87-3-5a-1-30~~	36	3628	146	12.8	19	1110
87-3-5b-1-53	36	29	49	.1	2	3
87-3-5b-1-54	12	40	67	.1	3	2
87-3-5b-1-55	8	16	27	.1	2	2
87-3-5b-1-57	10	195	20	.6	8	69
87-3-5b-1-58	9	560	30	1.9	12	37
87-3-5b-1-59	15	263	23	1.6	9	90
87-3-5b-1-63	20	20	70	.1	2	28
87-3-5b-1-66	32	42	52	.2	2	3
87-3-5B-3-068 ~~87-3-5b-1-68~~	10	3850	4200	24.4	3	108200
87-3-5b-1-74	23	2378	1935	3.4	12	2820
87-3-5b-2-75	7	832	316	1.6	3	690
87-3-5b-1-77	15	21	45	.1	3	7
87-3-5b-1-78	75	7	48	.1	2	9
STD C/AU-R	64	41	140	7.0	40	500

SAMPLE#	CU PPM	PB PPM	ZN PPM	AG PPM	AS PPM	AU* PPB
87-3-5b-1-80	4	7	41	.1	2	3
87-3-5b-1-82	649	126	62	2.5	3	10
87-3-5b-2-85	1274	8	69	2.4	2	6
~~87-3-5b-1-86~~ 87-3-58-2-86	105	2714	628	10.2	12	130

SAMPLE#	CU PPM	PB PPM	ZN PPM	AG PPM	AS PPM	AU* PPB
[illegible]-3-5-7-17	10	24	115	.1	5	8
[illegible]-3-5-7-21	543	2581	1358	19.0	156	395
[illegible]-3-5-7-22	11	10	25	.1	4	7
[illegible]D C/AU-S	59	40	132	7.3	42	48
[illegible]-3-5a-7-19	124	32	99	.1	5	28
[illegible]-3-5a-7-20	133	98	131	1.1	6	44
[illegible]-3-5b-7-60	66	792	178	2.0	41	1780
[illegible]-3-5b-7-65	44	83	127	.3	8	150
[illegible]-3-5b-7-84	14	20	89	.1	4	4

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

DATE RECEIVED: JUL 4 1987

DATE REPORT MAILED: July 11/87

GEOCHEMICAL ICP ANALYSIS

.500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG.C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER. THIS LEACH IS PARTIAL FOR MN FE CA P LA CR MG BA TI B W AND LIMITED FOR NA AND K. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: P1-3 SOILS P4-ROCK AU* ANALYSIS BY AA FROM 10 GRAM SAMPLE.

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

ISLAND MINING MIDNIGHT GULCH File # 87-2192 Page 1

SAMPLE#	CU PPM	PB PPM	ZN PPM	AG PPM	AS PPM	AU* PPB
B						
87-3-5a-7 87	96	60	156	.5	3	8
87-3-5a-7 88	42	32	141	.2	3	5
87-3-5a-7 89	19	9	77	.2	3	1
87-3-5a-7 90	13	3	52	.1	2	1
87-3-5a-7 91	442	1960	1594	21.9	221	405
87-3-5a-7 92	69	342	336	23.7	166	695
87-3-5a-7 93	37	34	80	.5	7	27
87-3-5a-7 94	52	47	97	.1	7	20
87-3-5a-7 95	59	124	144	.7	9	19
87-3-5a-7 96	25	15	55	.1	2	2
87-3-5a-7 97	46	32	84	.1	3	7
87-3-5a-7 98	46	42	97	.2	3	37
87-3-5a-7 99	74	37	130	.5	4	30
87-3-5a-7 100	93	96	135	.4	6	21
87-3-5a-7 101	39	44	80	.1	3	4
87-3-5a-7 102	21	5	67	.1	2	1
87-3-5a-7 103	66	52	144	.2	5	18
87-3-5a-7 104	36	68	145	.1	6	1
87-3-5a-7 105	33	38	63	.1	7	29
87-3-5a-7 106	58	102	119	.3	25	390
87-3-5a-7 107	44	58	132	.1	13	17
87-3-5a-7 108	44	45	126	.1	5	15
87-3-5a-7 109	63	56	105	.2	8	97
87-3-5a-7 110	68	23	102	.1	5	1
87-3-5a-7 111	52	106	183	.4	7	7
87-3-5a-7 112	80	37	100	.4	5	16
87-3-5a-7 113	58	35	103	.1	10	8
87-3-5a-7 114	177	53	218	.1	70	5
87-3-5a-7 115	251	60	263	1.0	142	12
87-3-5a-7 116	137	46	160	.1	122	4
87-3-5a-7 117	72	20	82	.1	12	4
87-3-5a-7 118	55	14	74	.7	38	16
87-3-5a-7 119	106	33	124	.6	38	12
87-3-5a-7 120	127	19	103	.2	15	4
87-3-5a-7 121	47	5	106	.1	8	1
87-3-5a-7 122	6	27	26	.1	6	1
STD C/AU-S	60	38	138	7.3	41	49

SAMPLE#	CU PPM	PB PPM	ZN PPM	AG PPM	AS PPM	AU* PPB
87-3-5a-7 123	124	44	120	1.0	50	10
87-3-5a-7 124	85	20	101	.1	45	2
87-3-5a-7 125	79	31	127	.1	21	320
87-3-5a-7 126	63	36	140	.4	9	18
87-3-5a-7 127	55	44	156	.8	29	15
87-3-5a-7 128	67	27	108	.1	8	12
87-3-5a-7 129	79	26	159	.5	10	4
87-3-5a-7 130	61	22	87	.1	10	103
87-3-5a-7 131	65	25	94	.1	12	20
87-3-5a-7 132	53	21	120	.1	12	15
87-3-5a-7 133	51	38	99	.1	12	26
87-3-5a-7 134	41	10	66	.1	39	2
87-3-5a-7 135	108	42	103	.4	49	5
87-3-5a-7 136	213	44	106	.5	253	14
87-3-5a-7 137	56	29	103	.2	35	19
87-3-5a-7 138	68	49	92	.1	42	22
87-3-5a-7 139	119	27	149	.4	103	8
87-3-5a-7 140	62	32	97	.1	28	83
87-3-5a-7 141	89	41	98	.8	64	145
87-3-5a-7 142	54	26	74	.1	10	18
87-3-5a-7 143	149	45	181	.9	220	19
87-3-5a-7 144	133	205	526	4.9	92	69
87-3-5a-7 145	77	117	208	.8	224	10
87-3-5a-7 146	88	41	92	.4	29	35
87-3-5a-7 147	167	31	212	.1	151	5
87-3-5a-7 148	146	97	179	.2	160	5
87-3-5a-7 149	155	38	131	.2	66	8
87-3-5a-7 150	194	47	136	.5	88	14
87-3-5a-7 151	112	35	138	.4	67	17
87-3-5a-7 152	127	12	91	.4	68	3
87-3-5a-7 153	111	34	107	.2	85	8
87-3-5a-7 154	226	41	119	.4	74	7
87-3-5a-7 155	117	39	106	.3	52	29
87-3-5a-7 156	57	30	94	.1	14	78
87-3-5a-7 157	86	31	94	.1	9	19
STD C/AU-S	59	39	132	7.0	43	48

SAMPLE#	CU PPM	PB PPM	ZN PPM	AG PPM	AS PPM	AU* PPB
B						
87-3-5a-7 159	78	46	84	.1	9	75
87-3-5a-7 160	73	24	109	.1	25	11
87-3-5a-7 161	296	29	126	.3	82	26
87-3-5a-7 162	48	31	122	.3	16	4
87-3-5a-7 163	45	21	101	.1	8	3
87-3-5a-7 164	44	22	81	.1	11	18
87-3-5a-7 165	102	15	83	.2	12	23
87-3-5a-7 166	54	21	82	.3	16	15
87-3-5a-7 167	59	24	72	.2	7	20
87-3-5a-7 168	72	26	80	.1	12	24
87-3-5a-7 169	45	27	75	.2	10	6
87-3-5a-7 170	52	24	99	.1	5	15
87-3-5a-7 171	44	18	101	.1	16	5
87-3-5a-7 172	72	36	93	.2	16	12
87-3-5a-7 173	74	26	71	.1	7	33
87-3-5a-7 174	136	37	109	.1	13	18
87-3-5a-7 175	103	21	76	.3	12	91
87-3-5a-7 176	27	20	64	.2	5	5
87-3-5a-7 178	154	59	234	.7	8	25
87-3-5a-7 179	20	7	26	.1	2	2
87-3-5a-7 180	120	36	86	.6	12	9
87-3-5a-7 025	40	54	123	.1	9	5
87-3-5-7 035	22	19	62	.1	15	4
STD C/AU-S	60	43	128	7.3	40	51

SAMPLE#	CU PPM	PB PPM	ZN PPM	AG PPM	AS PPM	AU* PPB
87-3-3-1 004	27	513	272	10.7	22	310
87-3-3-1 005	3	31	27	3.3	15	230
87-3-3-1 007	3	32	53	.1	4	45
87-3-3-1 008	20	91	43	2.3	11	52
87-3-5-1 031	2	108	34	.1	3	18
87-3-5-1 032	4	89	83	.1	6	16
87-3-5-1 033	1	21	11	.1	5	15
87-3-5-1 034	7	12	1	.3	11	143
87-3-5a-1 026	7	51	33	.2	4	31
87-3-5b-1 144	115	10894	533	51.9	7	132
87-3-5b-1 145	3093	16494	9727	297.3 ✓	35	1050
87-3-5b-1 146	6398	18019 ✓	13703 ✓	281.1 ✓	24	4450
87-3-5b-1 151	548	1185	797	7.3	21	13
STD C/AU-R	58	44	132	7.1	42	495

✓ - ASSAY REQUIRED FOR CORRECT RESULT -

BONDAR-CLEGG & COMPANY LTD.

136B INDUSTRIAL RD, WHITEHORSE, YUKON Y1A 2V1 PHONE: (403) 667-6523

Certificate of Analysis

TO Island Mining

REPORT NO. 47-4340

DATE July 8, 1987

I hereby certify that the following are the results of analyses made by us upon the herein described .....rock..... samples

MARKED	oz/ton Au	oz/ton Ag								
87-3-56-1-154	L0.01	0.02								
-155	L0.01	0.01								
-156	L0.01	0.01								
-157	L0.01	0.03								
-158	L0.01	0.02								
-159	L0.01	0.01								
-160	L0.01	0.01								
-161	L0.01	0.02								
-162	L0.01	0.01								
-163	L0.01	0.02								
-164	L0.01	0.04								
-165	L0.01	L0.01								
-166	L0.01	0.01								
-167	L0.01	L0.01								
-168	L0.01	0.02								
-169	L0.01	0.01								
-170	L0.01	0.02								

BONDAR-CLEGG & COMPANY LTD.

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

DATE RECEIVED: JULY 8 1987
DATE REPORT MAILED: July 14/87

GEOCHEMICAL ICP ANALYSIS

.500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG.C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER. THIS LEACH IS PARTIAL FOR MN FE CA P LA CR MG BA TI B W AND LIMITED FOR NA AND K. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: P1-ROCK P2-SOIL AU* ANALYSIS BY AA FROM 10 GRAM SAMPLE.

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

ISLAND MINING MIDNIGHT GULCH File # 87-2278 Page 1

SAMPLE#	CU PPM	PB PPM	ZN PPM	AG PPM	AS PPM	AU* PPB
87-3-5-1-41	19	177	245	1.7	22	5
87-3-5-2-37	23	20	71	.4	3	1
87-3-5-2-38	3	16	1	.1	9	10
87-3-5b-1-143	26	1045	85	4.4	3	21
87-3-5b-1-147	98	185	147	2.9	46	9
87-3-5b-1-148	63	54	100	.4	22	3
87-3-5b-1-149	12	24	42	.3	19	1
87-3-5b-1-150	15	58	94	.7	18	1
87-3-5b-1-152	46	47	43	.6	157	48
87-3-5b-1-171	596	13	42	1.5	170	13
87-3-5b-1-172	17	65	55	.7	71	1
87-3-5b-2-153	233	21715✓	17	183.4✓	7	1
STD C/AU-R	55	38	126	7.4	42	480

✓ ASSAY REQUIRED FOR CORRECT RESULT -

SAMPLE#	CU PPM	PB PPM	ZN PPM	AG PPM	AS PPM	AU* PPB
87-3-5-7-39	73	67	165	1.1	76	5
87-3-5-7-40	19	13	46	.7	6	1
87-3-5a-7-27	49	23	73	.6	9	6
87-3-5a-7-28	27	16	103	.4	2	1
87-3-5a-7-29	107	47	205	1.1	6	49
87-3-5a-7-30	58	33	166	.5	8	9
87-3-5a-7-31	106	58	188	1.0	8	143
87-3-5a-7-32	37	16	124	.5	2	3
87-3-5a-7-33	40	23	142	.8	9	4
87-3-5a-7-34	51	15	46	.6	2	11
87-3-5a-7-35	81	28	85	.8	15	9
87-3-5a-7-36	30	27	74	.3	4	18
87-3-5a-7-37	182	41	202	.9	6	10
87-3-5a-7-38	18	77	66	1.3	10	72
87-3-5a-7-39	42	38	236	1.2	7	2
87-3-5a-7-40	12	12	56	.7	2	2
87-3-5a-7-41	73	28	136	.7	21	4
87-3-5a-7-42	47	26	151	.5	6	20
87-3-5a-7-43	53	19	43	.4	4	8
87-3-5a-7-44	106	45	206	.3	17	5
87-3-5b-7-158	86	31	91	1.0	6	17
87-3-5b-7-177	26	13	75	.5	2	1
STD C/AU-S	57	37	129	7.0	43	47

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

DATE RECEIVED: JULY 14 1987

DATE REPORT MAILED: July 22/87

GEOCHEMICAL ICP ANALYSIS

.500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG.C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER. THIS LEACH IS PARTIAL FOR MN FE CA P LA CR MG BA TI B W AND LIMITED FOR NA AND K. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: Core AU* ANALYSIS BY AA FROM 10 GRAM SAMPLE.

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

ISLAND MINING PROJECT-MIDNIGHT GULCH File # 87-2426

SAMPLE#	CU PPM	PB PPM	ZN PPM	AG PPM	AS PPM	AU* PPB
F8366	24	13	59	.1	3	3
F8367	26	12	92	.1	2	5
F8368	5	6	64	.1	5	3
F8369	23	10	83	.1	4	1
F8370	4	5	59	.1	2	3
F8371	11	6	65	.1	4	1
F8372	11	9	63	.1	3	1
F8373	68	29	81	.1	2	1
F8374	18	13	70	.1	2	2
F8375	30	11	79	.2	6	3
F8376	11	22	23	.3	7	3
F8377	3	23	7	.3	7	4
F8378	90	18	119	.2	2	1
F8379	4	39	8	.2	4	5
F8380	11	13	22	.4	5	2
F8381	18	21	32	.2	33	8
F8382	22	68	86	.1	56	4
STD C/AU-R	57	41	123	7.4	42	495

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

DATE RECEIVED: JUL 21 1987

DATE REPORT MAILED: July 28/87

GEOCHEMICAL ICP ANALYSIS

.500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG.C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER. THIS LEACH IS PARTIAL FOR MN FE CA P LA CR MG BA TI B W AND LIMITED FOR NA AND K. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: P1-SOIL P2-CORE/ROCK AU* ANALYSIS BY AA FROM 10 GRAM SAMPLE.

ASSAYER: DEAN TOYE, CERTIFIED B.C. ASSAYER

ISLAND MINING PROJECT-MIDNIGHT GULCH File # 87-2593 Page 1

SAMPLE#	CU PPM	PB PPM	ZN PPM	AG PPM	AS PPM	AU* PPB
87-3-5A-7-45	26	16	60	.1	6	1
87-3-5A-7-46	10	52	26	.2	9	1

SAMPLE#	CU PPM	PB PPM	ZN PPM	AG PPM	AS PPM	AU* PPB
F8383	46	49	93	.4	31	14
F8384	40	29	63	.3	39	7
F8385	32	32	21	.8	46	58
F8386	25	31	24	.4	32	5
F8387	34	48	20	.6	23	10
F8388	20	85	21	.9	43	19
F8389	28	37	38	.5	26	12
F8390	37	32	42	.7	62	13
F8391	25	238	49	1.0	16	17
F8392	24	34	25	.3	13	11
F8393	25	25	86	.4	10	14
F8394	6	12	105	.4	9	3
F8395	5	7	94	.2	5	1
F8396	11	11	62	.4	3	1
F8397	15	10	90	.2	5	3
F8398	57	10	53	.4	9	2
F8399	28	6	74	.2	4	1
F8400	45	7	65	.6	7	1
F8401	51	8	62	.4	5	1
F8402	9	10	61	.2	3	3
F8403	24	10	90	.3	6	1
F8404	21	17	68	.3	5	2
F8405	46	3	77	.4	8	1
F8406	37	13	71	.4	8	1
F8407	47	18	76	.4	7	1
87-3-5-1-045	52	2	27	.1	6	2
87-3-5-2-046	22	327	75	2.7	37	6840
STD C/AU-R	62	39	132	7.6	40	490

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

DATE RECEIVED: JUL 23 1987

DATE REPORT MAILED: July 31/87

GEOCHEMICAL ICP ANALYSIS

.500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG.C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER. THIS LEACH IS PARTIAL FOR MN FE CA P LA CR MG BA TI B W AND LIMITED FOR NA AND K. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: P1-CORE P2-SOIL/ROCK AU* ANALYSIS BY AA FROM 10 GRAM SAMPLE.

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

ISLAND MINING PROJECT-MIDNIGHT GULCH File # 87-2653 Page 1

SAMPLE#	CU PPM	PB PPM	ZN PPM	AG PPM	AS PPM	AU* PPB
8408	35	13	83	.4	6	2
8409	13	14	78	.1	26	4
8410	18	16	192	.1	2	2

SAMPLE#	CU PPM	PB PPM	ZN PPM	AG PPM	AS PPM	AU* PPB
87-3-5A-7-047	82	16	107	.5	7	3
87-3-5A-7-049	151	19	80	.6	3	4
87-3-5A-7-050	17	20	74	.6	2	1
87-3-5A-7-051	11	10	91	.2	2	1
87-3-5A-7-052	1552	15	33	.3	7	1
87-3-5A-2-048	7	31	27	1.0	104	43
87-3-5B-1-173	2	2662	1316	8.5	9	12360
STD C/AU-R	60	40	141	7.2	42	520

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

DATE RECEIVED: JUL 23 1987
DATE REPORT MAILED: July 31/87

ASSAY CERTIFICATE

- SAMPLE TYPE: Core

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

ISLAND MINING PROJECT-MIDNIGHT GULCH File # 87-2653A

SAMPLE#	AG OZ/T	AU OZ/T
8411	.01	.001
8412	.01	.001
8413	.01	.001
8414	.01	.001
8415	.05	.005
8416	.05	.001
8417	.02	.001
8418	.02	.001
8419	.02	.001
8420	.01	.001
8421	.01	.006
8422	.01	.001
8423	.01	.002
8424	.02	.002
8425	.01	.001
8426	.01	.001
8427	.02	.001
8428	.02	.001
8429	.03	.001
8430	.01	.001
8431	.01	.001
8432	.01	.001
8433	.01	.001
8434	.01	.001
8435	.01	.009
8436	.08	.013
8437	.01	.007
8438	.13	.003
8439	.03	.002
8440	.05	.009
8441	.03	.007
8442	.01	.002

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

DATE RECEIVED: JUL 29 1987
DATE REPORT MAILED: Aug. 10/87.

GEOCHEMICAL ICP ANALYSIS

.500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG.C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER. THIS LEACH IS PARTIAL FOR MN FE CA P LA CR MG BA TI B W AND LIMITED FOR NA AND K. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: P1-ROCK P2-STREAM SEDIMENT AU* ANALYSIS BY AA FROM 10 GRAM SAMPLE.

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

ISLAND MINING PROJECT-MIDNIGHT GULCH File # 87-2814 Page 1

SAMPLE#	CU PPM	PB PPM	ZN PPM	AG PPM	AS PPM	AU* PPB
87-3-5B-3-174	27	9979	171	34.3	22	139
87-3-5B-3-175	17	748	246	4.1	15	3700
87-3-5B-1-176	12	5573	4633	12.1	23	310
87-3-5B-1-177	6	279	494	.8	13	18

SAMPLE#	CU PPM	PB PPM	ZN PPM	AG PPM	AS PPM	AU* PPB
87-3-5B-5-178	90	35	86	.6	13	96
87-3-5B-5-179	100	25	95	.7	10	34

ACME ANALYTICAL LABORATORIES LTD.
852 E. HASTINGS, VANCOUVER B.C.
PH: (604)253-3158 COMPUTER LINE:251-1011

DATE RECEIVED JUL 29 1987

DATE REPORTS MAILED Aug 10/87

ASSAY CERTIFICATE

SAMPLE TYPE : CORE/ROCK

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

ISLAND MINING PROJECT MIDNIGHT GULCH FILE# 87-2814A

SAMPLE	Ag oz/t	Au oz/t
F-8443	.01	.010
F-8444	.04	.011
F-8445	.02	.001
F-8446	.03	.001
F-8451	.02	.002
F-8452	.01	.001
F-8453	.03	.001
F-8454	.04	.001
F-8455	.05	.004
F-8456	.01	.001
F-8457	.03	.004
F-8458	.04	.011
F-8459	.04	.004
F-8460	.01	.001
F-8461	.03	.001
F-8462	.03	.001
F-8463	.01	.001
F-8464	.02	.001
F-8465	.02	.001
F-8466	.04	.001
F-8467	.01	.001
F-8468	.01	.007
F-8469	.11	.335
F-8470	.03	.006
F-8471	.02	.001
F-8472	.02	.001
F-8473	.01	.001
F-8474	.01	.003
87-331-009	.48	.069

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

DATE RECEIVED: JULY 30 1987
DATE REPORT MAILED: Aug. 12/87

GEOCHEMICAL ICP ANALYSIS

.500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG.C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER. THIS LEACH IS PARTIAL FOR MN FE CA P LA CR MG BA TI B W AND LIMITED FOR NA AND K. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: P1-ROCK P2-SOIL AU* ANALYSIS BY AA FROM 10 GRAM SAMPLE.

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

ISLAND MINING PROJECT-MIDNIGHT GULCH File # 87-2868 Page 1

SAMPLE#	CU PPM	PB PPM	ZN PPM	AG PPM	AS PPM	AU* PPB
87-3-5-1-051	136	32127✓	760	395.3✓	38	2094
87-3-5-2-049	7	87	3	.2	10	80
87-3-5b-1-178	6	58	20	.2	27	61
87-3-5b-1-185	4	30	6	.7	10	17
87-3-5b-1-186	1858	14	27	1.5	9	77
87-3-5b-1-187	8	13	91	.1	29	2
87-3-5b-1-188	26	28	150	.3	9	10
87-3-5b-1-189	6	11	106	.4	6	27
87-3-5b-1-193	40	9	74	.1	6	21
87-3-5b-2-194	31	3	22	.2	10	6

✓ ASSAY REQUIRED FOR CORRECT RESULT -

SAMPLE#	CU PPM	PB PPM	ZN PPM	AG PPM	AS PPM	AU* PPB
87-3-5-7-050	98	19	75	.7	12	3
87-3-5a-7-53	12	30	55	.7	10	12
87-3-5a-7-54	79	72	83	1.2	10	19
87-3-5a-7-55	153	30	77	1.1	12	66
87-3-5a-7-56	121	33	79	.7	15	67
87-3-5a-7-57	67	21076	1502	109.5	166	46320
87-3-5b-7-181	65	122	175	.8	12	105
87-3-5b-7-182	60	33	192	.5	11	35
87-3-5b-7-183	88	48	123	2.5	29	108
87-3-5b-7-184	27	15	90	.3	6	16
87-3-5b-7-190	184	132	300	5.5	46	615
87-3-5b-7-191	163	133	240	4.2	46	820
87-3-5b-7-192	217	213	272	9.9	53	1100
STD C/AU-S	59	38	131	7.1	41	47

ACME ANALYTICAL LABORATORIES LTD.
852 E. HASTINGS, VANCOUVER B.C.
PH: (604)253-3158 COMPUTER LINE:251-1011

DATE RECEIVED JULY 30 1987

DATE REPORTS MAILED Aug 12/87

ASSAY CERTIFICATE

SAMPLE TYPE : CORE - CRUSHED AND PULVERIZED TO -100 MESH.

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

ISLAND MINING PROJECT MIDNIGHT GULCH FILE# 87-2868A

SAMPLE	Ag oz/t	Au oz/t
8475	.05	.001
8476	.01	.001
8477	.03	.001
8478	.01	.001
8479	.01	.001
8480	.01	.001
8481	.03	.001
8482	.01	.001
8483	.01	.001
8484	.02	.001

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

DATE RECEIVED: AUG 06 1987

DATE REPORT MAILED: Aug.14/87..

GEOCHEMICAL ICP ANALYSIS

.500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG.C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER. THIS LEACH IS PARTIAL FOR MN FE CA P LA CR MG BA TI B W AND LIMITED FOR NA AND K. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: Core AU* ANALYSIS BY AA FROM 10 GRAM SAMPLE.

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

ISLAND MINING PROJECT-MIDNIGHT GULCH File # 87-3054 Page 1

SAMPLE#	CU PPM	PB PPM	ZN PPM	AG PPM	AS PPM	AU* PPB
F 8559	33	40	76	.4	2	1
F 8560	11	15	99	.2	8	2
F 8561	372	42	276	.6	8	3
F 8562	16	31	90	.3	8	1
F 8563	13	10	64	.1	4	1
F 8564	7	26	7	.6	4	45
F 8565	6	5	52	.2	5	1
F 8566	8	53	94	.1	2	2
F 8567	5	23	437	.5	6	1
F 8568	38	447	276	3.0	25	168
F 8569	27	397	116	1.7	25	159
F 8570	15	868	70	3.6	36	220
F 8571	40	246	290	1.3	52	147
F 8572	46	666	196	2.3	63	430
F 8573	28	1597	193	6.1	44	340
F 8574	6	68	1128	.5	7	1
F 8575	3	3	18	.2	8	3
F 8576	2	4	58	.1	4	1
F 8577	3	4	11	.2	6	5
F 8607	3	76	83	.6	5	24
F 8608	9	88	96	.8	6	3
F 8609	16	138	211	.6	8	25
F 8610	15	175	149	.6	5	1
F 8611	4	114	88	.4	16	270
F 8612	8	31	77	.3	3	40
F 8613	16	46	93	.3	7	4
F 8614	3	1293	207	2.1	11	380
F 8615	4	1207	176	2.4	15	700
F 8616	6	41	125	.3	6	8
F 8617	6	116	231	.4	7	10
F 8618	19	417	508	1.3	3	5
F 8619	16	173	140	.9	8	1
F 8620	20	14	46	.2	7	2
F 8621	6	172	189	.5	11	37
F 8622	6	345	177	1.0	9	250
F 8623	7	42	53	.3	12	4
STD C/AU-R	59	39	132	7.4	39	470

SAMPLE#	CU PPM	PB PPM	ZN PPM	AG PPM	AS PPM	AU* PPB
F 8624	7	24	37	.7	2	2
F 8625	7	28	41	.2	2	1

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

DATE RECEIVED: AUG 07 1987

DATE REPORT MAILED: Aug 18/87

GEOCHEMICAL ICP ANALYSIS

.500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG.C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER. THIS LEACH IS PARTIAL FOR MN FE CA P LA CR MG BA TI B W AND LIMITED FOR NA AND K. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: P1-CORE P2 TO P3-ROCK AU* ANALYSIS BY AA FROM 10 GRAM SAMPLE.

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

ISLAND MINING PROJECT-MIDNIGHT GULCH File # 87-3112 Page 1

SAMPLE#	CU PPM	PB PPM	ZN PPM	AG PPM	AS PPM	AU* PPB
F-8485	27	6	81	.4	5	1
F-8486	13	6	21	.3	2	1
F-8487	9	9	36	.1	4	1
F-8488	7	9	26	.2	2	1
F-8489	13	9	23	.1	2	2
F-8490	159	6	109	.5	6	1
F-8491	156	10	130	.1	2	1
F-8492	87	5	124	.1	8	2
F-8493	303	7	136	.1	8	3
F-8494	29	10	67	.4	8	11
F-8495	26	10	64	1.8	22	34
F-8496	7	6	18	.6	6	13
F-8497	14	5	26	.5	3	6
F-8498	9	6	21	.3	5	4
F-8499	13	11	32	.5	7	17
F-8500	4	11	30	.3	2	12
F-8501	5	16	30	.3	5	20
F-8502	4	7	31	.2	7	6
F-8503	4	10	24	.3	2	2
F-8504	4	10	25	.4	4	2
F-8505	6	11	20	.3	8	4
F-8506	5	177	39	.7	11	13
F-8507	4	2	24	.1	4	1
F-8508	5	15	34	.2	6	4
F-8509	4	20	43	.3	11	2
F-8510	10	41	90	.5	5	4
F-8511	61	7	68	.2	2	1
F-8512	23	9	70	.1	6	2
F-8513	7	10	59	.1	9	3
F-8514	33	6	37	.2	7	3
F-8515	6	9	87	.3	8	2
F-8516	6	14	102	.1	15	14
F-8517	12	6	36	.3	3	2
F-8518	22	25	131	.2	11	2
STD C/AU-R	62	41	133	7.8	43	510

ISLAND MINING PROJECT MIDNIGHT GULCH FILE# 87-3112

bq F/A-MS

SAMPLE	Ag ppm	Au** ppb	Pt** ppb	Pd** ppb
~~87-7-5-2-054 MG.~~	~~.4~~	~~8~~	~~2~~	~~2~~
87-3-5-2-057 MG.	3.3	140	2	2

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

DATE RECEIVED: AUG 10 1987

DATE REPORT MAILED: Aug. 18/87....

GEOCHEMICAL ICP ANALYSIS

.500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG.C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER. THIS LEACH IS PARTIAL FOR MN FE CA P LA CR MG BA TI B W AND LIMITED FOR NA AND K. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: Core AU* ANALYSIS BY AA FROM 10 GRAM SAMPLE.

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

ISLAND MINING PROJECT-MIDNIGHT GULCH File # 87-3143 Page 1

SAMPLE#	CU PPM	PB PPM	ZN PPM	AG PPM	AS PPM	AU* PPB
F-8447	25	18	71	.4	4	1
F-8448	13	20	75	.1	5	1
STD C/AU-R	57	42	130	6.9	38	490
F-8449	33	17	62	.5	7	2
F-8450	108	17	92	.4	2	2
F-8519	168	11	110	.5	4	1
F-8520	58	58	72	.5	7	2
F-8521	101	23	111	.8	14	1
F-8522	90	11	128	.7	5	1
F-8523	35	12	83	.4	9	1
F-8524	254	11	107	1.3	8	4
F-8525	326	14	94	1.0	6	1
F-8526	20	7	78	.3	8	1
F-8527	88	9	80	.7	2	4
F-8528	38	17	73	.6	9	1
F-8529	14	9	85	.4	2	1
F-8530	81	13	101	.5	6	2
F-8531	5	8	71	.2	4	1
F-8532	76	10	43	.6	2	1
F-8533	40	14	39	.4	2	1
F-8534	33	11	48	.5	4	2
F-8535	10	9	85	.3	6	1
F-8536	22	8	84	.4	2	2
F-8537	42	13	72	.4	8	2
F-8538	9	11	71	.3	2	3
F-8539	9	9	69	.3	2	1
F-8540	5	18	95	.4	6	2
F-8541	18	14	81	.3	6	3
F-8542	24	13	86	.3	2	1
F-8543	37	16	87	.2	5	2
F-8544	5	9	77	.4	4	1
F-8545	10	11	75	.3	5	2
F-8546	24	10	76	.5	2	1
F-8547	10	6	62	.4	3	1
F-8548	12	6	65	.3	2	2
F-8549	19	17	57	.6	2	2
F-8550	10	11	39	.6	4	1

SAMPLE#	CU PPM	PB PPM	ZN PPM	AG PPM	AS PPM	AU* PPB
F-8551	23	12	23	.4	3	1
F-8552	10	11	62	.1	4	4
F-8553	10	11	35	.5	5	1
F-8554	14	11	53	.2	7	1
F-8555	3	11	26	.5	5	2
F-8556	6	15	114	.2	7	1
F-8557	9	13	110	.4	7	18
F-8558	17	14	77	.3	6	1
F-8601	8	17	62	.3	9	1
F-8602	10	67	86	.7	10	720
F-8603	6	60	93	.4	2	14
F-8604	3	680	141	1.7	7	49
F-8605	17	161	217	1.1	6	240
F-8606	5	169	141	1.1	7	112
STD C/AU-R	58	41	131	7.1	40	500

ACME ANALYTICAL LABORATORIES LTD.
852 E. HASTINGS, VANCOUVER B.C.
PH: (604)253-3158 COMPUTER LINE: 251-1011

DATE RECEIVED AUGUST 20 1987

DATE REPORTS MAILED Sept 14/87

ASSAY CERTIFICATE

SAMPLE TYPE : PULP
AG** BY FIRE ASSAY

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

ISLAND MINING PROJECT MIDNIGHT GULCH FILE# 87-2192 R PAGE#

SAMPLE	Ag** oz/t
87-3-56-1 145	17.42
87-3-56-1 146	30.09

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

DATE RECEIVED: AUGUST 20 1987
DATE REPORT MAILED: Sept. 30/87

ASSAY CERTIFICATE

- SAMPLE TYPE: REJECT AU BY FIRE ASSAY

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

ISLAND MINING PROJECT-MIDNIGHT GULCH File # 87-2154R

SAMPLE#	SAMPLE WT. GM	AU-100 OZ/T	NATIVE AU MG	AVG. OZ/T
87-3-5-2-19	210	1.880	4.35	2.484
87-3-5B-1-68	270	1.180	7.23	1.961

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

DATE RECEIVED: AUGUST 20 1987
DATE REPORT MAILED: Oct. 8/87.

ASSAY CERTIFICATE

- SAMPLE TYPE: REJECT AU BY FIRE ASSAY

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

ISLAND MINING PROJECT-MIDNIGHT GULCH File # 87-1979R

SAMPLE#	SAMPLE wt. gm	AU-100 oz/t	NATIVE Au mg	AVG. oz/t
87-3-5-2-012	110	.216	.34	.306
87-3-5A-3-010	190	.101	.07	.112
87-3-5B-3-032	100	.222	.10	.251
87-3-5C-1-002	310	.004	.36	.038

ACME ANALYTICAL LABORATORIES LTD.
852 E. HASTINGS, VANCOUVER B.C.
PH: (604) 253-3158 COMPUTER LINE: 251-1011

DATE RECEIVED AUGUST 20 1987

DATE REPORTS MAILED ~~Sept 22~~ /87

ASSAY CERTIFICATE

SAMPLE TYPE : PULP
AG** BY FIRE ASSAY

ASSAYER _____ DEAN TOYE , CERTIFIED B.C. ASSAYER

ISLAND MINING PROJECT MIDNIGHT GULCH FILE# 87-2278 R

SAMPLE	Ag** oz/t
87-3-5b-2-153	5.31

To Mt. Steven's

To Mt. Steven's

DDH 87-I1
I2

DDH 87-C1

DDH 87-A1

DDH 87-WB3
-WB4

DDH 87-WB1
-WB2

WB4

WB3

WB1

WB2

Midnight Gulch

APPROXIMATE CLAIM BOUNDARY

TON | JL

LEGEND

- Trench
- Adit
- Diamond drill hole (DDH 87-WB1 / WB1)
- Access road

DRILL HOLE	AZIMUTH	DIP
DDH 87-A1	227°	51°
DDH 87-WB1	218°	50°
DDH 87-WB2	206°	55°
DDH 87-WB3	155°	65°
DDH 87-WB4	135°	65°
DDH 87-I1	220°	50°
DDH 87-I2	170°	50°
DDH 87-C1	180°	55°

50m 0 50 100m

SCALE 1:2000

DRILL HOLE LOCATION FROM LEGAL CLAIM POST

TON 12

JL 15

ISLAND 1 fr.

ISLAND 2 fr.

POST 1
ISLAND FRACTIONS 1, 2
YA93380, 81

DRILL HOLES DDH 87-I1, I2
(as surveyed in from post 1
Island fractions 1 & 2.)

TON 13

TON 14

NOTE: OTHER DRILL HOLES CAN BE SURVEYED IN FROM HOLE DDH 87-I1, I2.

1:5000

Note: grid slope corrected and installed with chain and compass

ISLAND MINING & EXPLORATION CO. LTD.

JL CLAIMS

MIDNIGHT GULCH

DRILL HOLE LOCATIONS

DATE: JULY, 1987

NTS 105 D/2, D/3 | DRAWN BY: | FIGURE:

To Mt. Steven's

Mt. Steven's

IVAN ZONE

ADIT ZONE

COIL ANOMALY ZONE

WHEEL BARROW ZONE

LOWER ADIT

Midnight Gulch

approximate claim perimeter

TON

JL

GRID at 290°

LEGEND

LITHOLOGY

Tertiary

- 1a Rhyolite
- 1b Rhyolite; Quartz vein stockwork
- 1c (Quartz) Feldspar Porphyry

Cretaceous

- 2 Quartz Monzonite, Granodiorite

Triassic

- 3a Intermediate Tuffs and Flows
- 3b Felsic Porphyritic Flows
- 3c Felsic and Mafic Clastics (?)
- 3d Felsic Tuff
- 3e Augite Andesite
- 3f Pebble Conglomerate
- 3g Siltstone

SYMBOLS

- Foliation
- Dyke / Vein
- Bedding
- Fractures
- Jointing
- Outcrop
- Geologic Contact, Observed, Approximate
- Fault; Known, Inferred
- Sheer
- Breccia
- Oldtimers Adit
- Oldtimers Trench
- Drill Access Road
- 1987 Grid Station

Note: grid slope corrected and installed with chain and compass

50m 0 50 100m

SCALE 1:2000

ISLAND MINING & EXPLORATION CO. LTD.		
JL CLAIMS		
1987 MIDNIGHT GULCH GEOLOGY MAP 092144 795		
		DATE: JULY, 1987
NTS 105 D/2, D/3	DRAWN BY: AM, TLH	FIGURE: 2

EXPLANATION

TERTIARY

- 1a — Rhyolite (Muscovite chlorite schist)

TRIASSIC

- 3a — Intermediate tuffs and flows
- 3e — Augite andesite
- 3f — Pebble conglomerate
- 3g — Siltstone

SYMBOLS

- Foliation
- Dyke/Vein

SYMBOLS

- Bedding
- Fractures
- Jointing
- Outcrop
- Geological contact: observed, approx.
- Fault: known, inferred
- Shear
- Breccia
- Escarpment

092144

ISLAND MINING & EXPLORATION Co., LTD.

MIDNIGHT GULCH PROJECT

WHEELBARROW ZONE

GEOLOGY 796

NTS: 105 D·2	DATE DRAWN: Jan. 1988
DRAWN BY: HM, TH	FIGURE: 3

LEGEND

LITHOLOGY

Tertiary

- 1a Rhyolite
- 1b Rhyolite; Quartz Vein stockwork
- 1c (Quartz) Feldspar Porphyry

Cretaceous

- Z Quartz Monzonite, Granodiorite

Triassic

- 3a Intermediate Tuffs and Flows
- 3b Felsic Porphyritic Flows
- 3c Felsic and Mafic Clastics (?)
- 3d Felsic Tuff
- 3e Augite Andesite
- 3f Pebble Conglomerate
- 3g Siltstone

SYMBOLS

- Foliation
- Dyke / Vein
- Bedding
- Fractures
- Jointing
- Outcrop
- Geologic Contact, Observed, Approximate
- Fault; Known, Inferred
- Sheer
- Breccia
- Oldtimers Adit
- 1987 Diamond Drill Hole and Dip
- 1987 Grid Station
- Embankment

092144

797

ISLAND MINING & EXPLORATION LTD.	
MIDNIGHT GULCH PROJECT	
ADIT ZONE GEOLOGY	
105 D-2	Date; Jan, 1988
Drawn by; A.M Tutt	Figure 4

LEGEND

LITHOLOGY

Tertiary

- 1a Rhyolite
- 1b Rhyolite; Quartz vein stockwork
- 1c (Quartz) Feldspar Porphyry

Cretaceous

- 2 Quartz Monzonite, Granodiorite

Triassic

- 3a Intermediate Tuffs and Flows
- 3b Felsic Porphyritic Flows
- 3c Felsic and Mafic Clastics (?)
- 3d Felsic Tuff
- 3e Augite Andesite
- 3f Pebble Conglomerate
- 3g Siltstone

SYMBOLS

- Foliation
- Dyke/Vein
- Bedding
- Fractures
- Jointing
- Outcrop
- Geologic Contact, Observed Approximate
- Fault; Known, Inferred
- Sheer
- Breccia
- DDH87-C1 — 1987 Diamond Drill Hole and Dip
- Oldtimers Trench
- 1986 Anomalous Soil Sample
- 0+50 • 1987 Grid Station

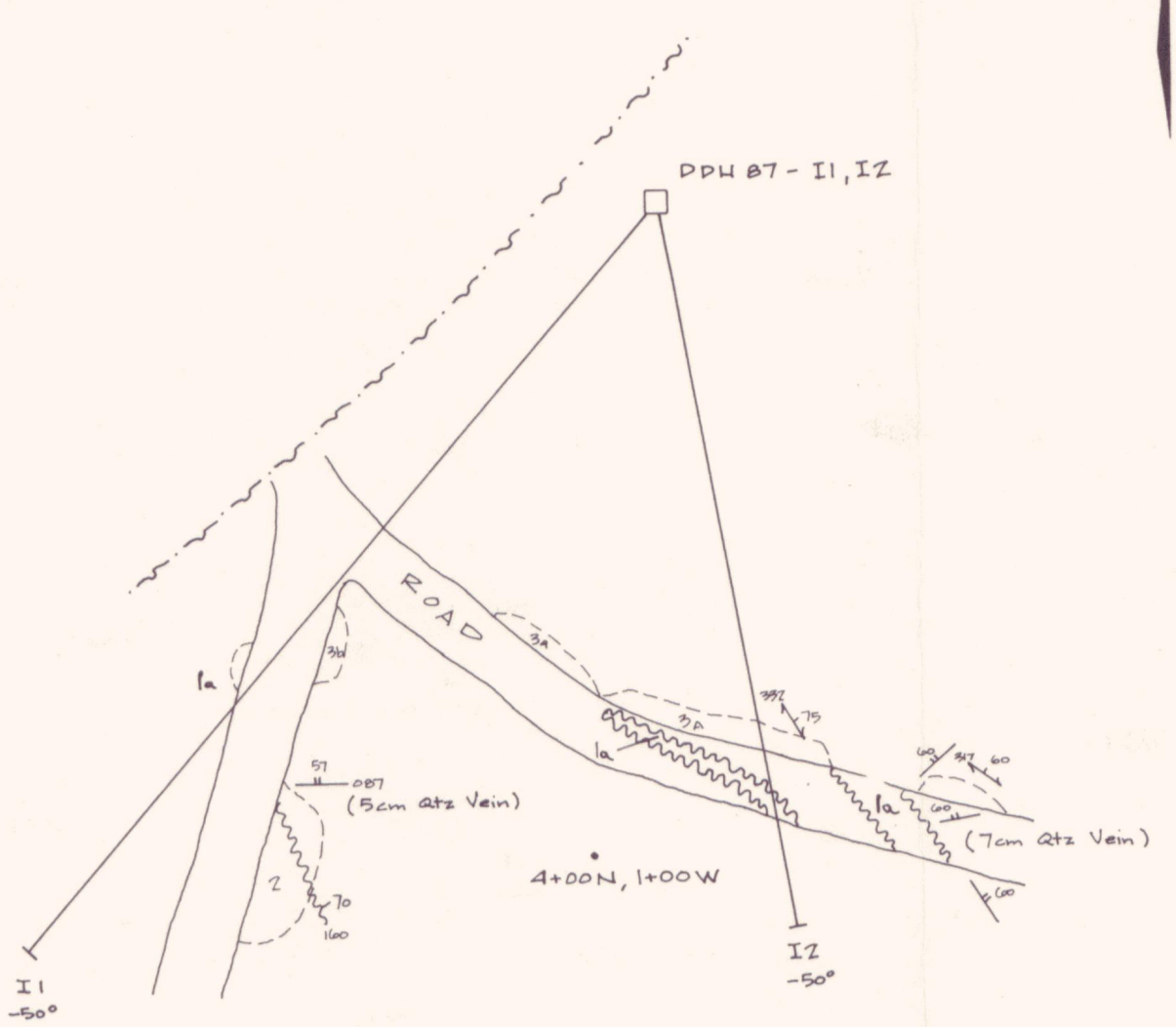
0m 10 20 30 40m

Scale 1:1000

092144

798

ISLAND MINING & EXPLORATION Co. Ltd.	
MIDNIGHT GULCH PROPERTY	
SOIL ANOMALY ZONE GEOLOGY	
NTS: 105D/2,3	DATE: Jan. 1988
DRAWN BY: AM/TH	FIGURE: 5



N

0+50 W, 4+50 N

LEGEND

• 1+50W 3+50N

LITHOLOGY

Tertiary

- 1a Rhyolite
- 1b Rhyolite; Quartz vein stockwork
- 1c (Quartz) Feldspar Porphyry

Cretaceous

- 2 Quartz Monzonite, Granodiorite

Triassic

- 3a Intermediate Tuffs and Flows
- 3b Felsic Porphyritic Flows
- 3c Felsic and Mafic Clastics (?)
- 3d Felsic Tuff
- 3e Augite Andesite
- 3f Pebble Conglomerate
- 3g Siltstone

SYMBOLS

- Foliation
- Dyke/Vein
- Bedding
- Fractures
- Jointing
- Outcrop
- Geologic Contact,
- Fault; Known, Inferred
- Sheer
- Breccia
- 1987 Diamond Drill Hole & Dip (-50°)
- 1987 Grid Station

• 0+50W 3+50N

1:500

0 5 10 15 20m
Scale in metres

092144

799

ISLAND MINING & EXPLORATION Co, LTD.	
MIDNIGHT GULCH PROJECT	
IVAN SHOWING PRELIMINARY GEOLOGY and DRILL HOLE LOCATION	
NTS: 105D/2,3	DATE: Jan. 1988
DRAWN BY: AM/TM	FIGURE: 6

EXPLANATION

TERTIARY

- 1a Rhyolite (Muscovite chlorite schist)

TRIASSIC

- 3a Intermediate tuffs and flows
- 3e Augite andesite
- 3f Pebble conglomerate
- 3g Siltstone

SYMBOLS

- Foliation
- Dyke / Vein

SYMBOLS

- Bedding
- Fractures
- Jointing
- Outcrop
- Geological contact: observed, approx.
- Fault: known, inferred
- Shear
- Breccia
- Escarpment

800

092144

ISLAND MINING & EXPLORATION Co., LTD.	
MIDNIGHT GULCH PROJECT	
NORTH ZONE AREA GEOLOGY	
NTS: 105 D·2	DATE DRAWN: Jan. 1988
DRAWN BY: HM, TH	FIGURE: 7

△8735A2016
8735A1017-019

0 50 100 metres

Scale 1:2000

△8735A1023

△8735A1022

LEGEND

LITHOLOGIES

3a - Intermediate tuffs & flows

3e - Augite andesite

1a - Rhyolite

SYMBOLS

- Foliation
- Outcrop
- Shear

△8735A1023 - 1987 Rock sample (▲ outcrop △ float)

○8735A7020 - 1987 Soil sample

- Gulley

△8735B2194

8735B1187 8735B1186

8735B1189 8735B7190-192

8735B1193, 8735A1021

8735A7019

8735A7020

3T2015

3T2014

8735B1188

NOTE: Locations approximate - based on air photo plotting.

801

ISLAND MINING & EXPLORATION CO., LTD.

MIDNIGHT GULCH PROJECT

SOUTHERN GULCH

PRELIMINARY GEOLOGY and SAMPLE LOCATION

NTS: 105D/2,3	DATE: January 1988
DRAWN BY: AM/TH	FIGURE: 8

092144

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B735B1144 - B1148
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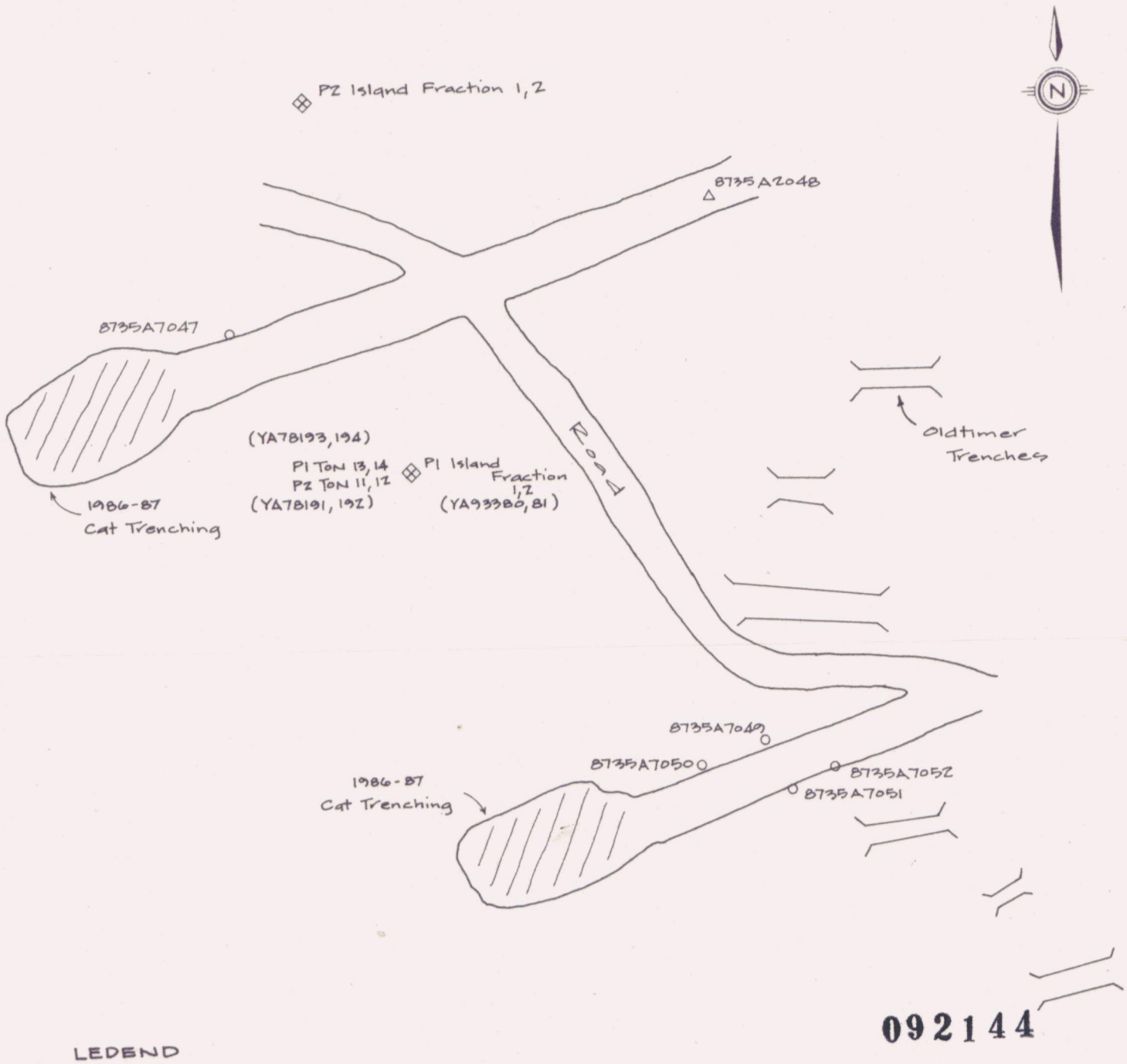

092144

LEGEND

- ⊠ Claim Post
- ○ 8735A7052 Soil Sample
- △ 8735A2048 Rock Sample
  - (▲ outcrop)
  - (△ Float)

10 5 0 5 10 15
Scale in Metres
1:500

NOTE: Trench Locations from GARAGAN, 1986

Island Mining & Exploration LTD	
MIDNIGHT GULCH PROJECT	
SAMPLE LOCATIONS	
ISLAND FRACTIONAL TRENCHES	
105 D/2,3	Date Jan, 1988
Drawn By AM, TH	FIGURE 10

To Mt. Steven's

To Mt. Steven's

DDH 87-I1
I2

DDH 87-A1

DDH 87-C1

DDH 87-WB3
-WB4

DDH 87-WB1
-WB2

Midnight Gulch

APPROXIMATE CLAIM BOUNDARY

TON | JL

LEGEND

DDH 87-WB3 — 1987 Diamond Drill Hole; Plan View, Hole Number and Dip.

1987 Cat Trenches

*Oldtimers Hand Trenches

Oldtimers Adit

Drill Access Road

Elevation Contours; 50' Intervals.

* Only those tied into Grid while 1987 Mapping.

50m 0 50 100m

SCALE 1:2000

092144 803

ISLAND MINING & EXPLORATION CO. LTD.		
JL CLAIMS		
1987 MIDNIGHT GULCH DIAMOND DRILL HOLE & TRENCH LOCATION MAP		
		DATE : JULY, 1987
NTS 105 D/2, D/3	DRAWN BY: AM, N.H, TLH	FIGURE : 11

Perimeter

Claim

Approximate

North Zone Map Area

Approximate Road Location

5000

5000

60°13'

Island Fractional Claim Trenching Map Area.

4500

4000

1987 Grid Location

"Lower Adit" Approximate Location

3500

3000

Midnight

Gulch

TON

JL

500' El. Contour

5000

0 50 100 200m.

1:5000

Southern Gulch Map Area

134°56'

804

ISLAND MINING & EXPLORATION LTD.

MIDNIGHT GULCH PROPERTY

1987

AREA LOCATION MAP

092144

NTS 105 D/2,3	Date; Jan 1988
Drawn by; A.M. Tutt	Figure 12