

EVALUATION REPORT

on the

JL 1 - 24 MINERAL CLAIMS

MIDNITE GULCH

MAPSHEET 105 K - YUKON TERRITORY

for

ISLAND MINING & EXPLORATIONS CO. LTD.

SURREY, B.C.

NOVEMBER 2, 1981

F. HOLCAPEK, P. ENG.

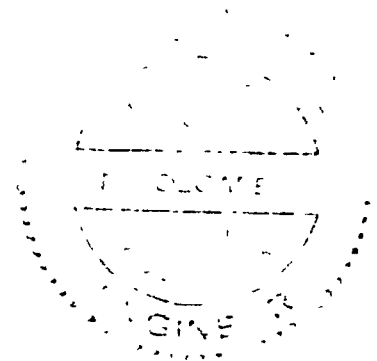


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M A P S

CLAIM SKETCH - JL 1- 24

Scale 1 : 5,000

GEOLOGY AND SAMPLE PLAN

Scale 1 : 500

SUMMARY:

The Midnite Gulch Showings have been known for more than 60 years. Past exploration consisted of 3 short adits and a multitude of hand trenches. All old workings are caved or sloughed.

During August 1981 an evaluation program consisting of limited soil sampling, re-location of old workings, geological mapping and trenching was completed.

Results of the above program show that the gold mineralization on the claim group is localized within granite porphyry dykes, where cut by cross faults or shears. Soil sample data confirmed three anomalous areas which have not been delineated. Mineralogical data suggest close association of quartz veining with gold value. Galena and pyrite have been observed within the quartz veins, but the importance of galena in respect to gold mineralization has not been definitely established.

A work program has been recommended in the amount of \$ 55,250.00 to establish the mine potential of the property.



EVALUATION REPORT
on the
JL 1 - 24 MINERAL CLAIMS
MIDNITE GULCH
MAPSHEET 105 K - YUKON TERRITORY
for
ISLAND MINING & EXPLORATIONS CO. LTD.

1-00 INTRODUCTION:

At the request of Mr. Ernie Bergvinson, president of Island Mining & Explorations Co. Ltd., the writer initiated an evaluation program on the JL 1 - 1-24 mineral claims covering the old showings located along Midnite Gulch.

The program consisted of relocation of old showings, trenches, tunnels, etc. and selected soil geochemistry for gold along the grid.

The purpose of this report is to summarize the findings and to design a follow up exploration program if warranted.

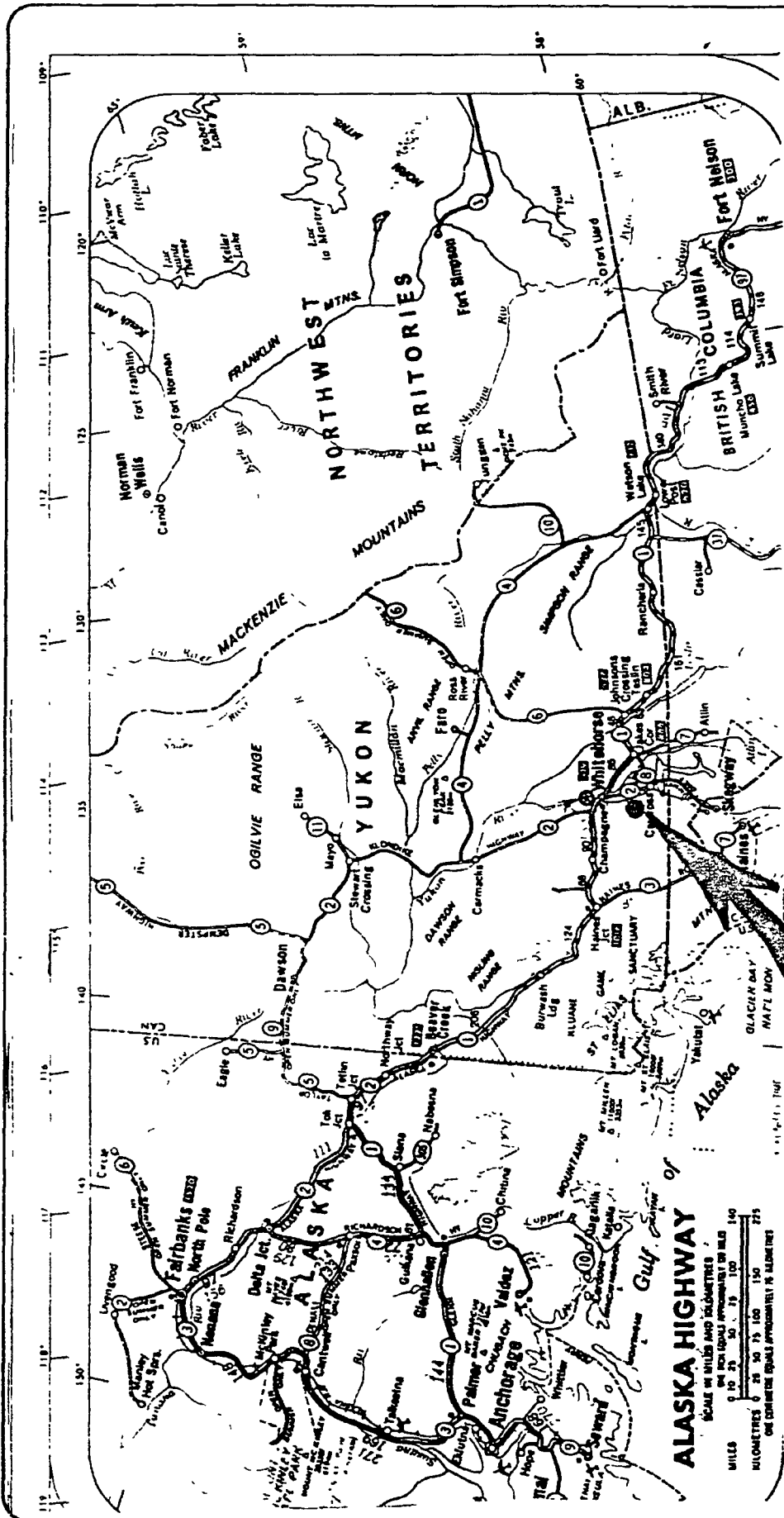
2-00 GEOGRAPHY:

2-10 Location and Access:

The JL 1-24 mineral claims are located along the south east slopes of Mt. Stephens straddling Midnite Gulch, mapsheet 105 K.

Access to the property is from Whitehorse via the Carcross road to the Annie Lake turnoff, hence following the Annie Lake road to the Wheaton River bridge. From there via helicopter to the property, a distance of approximately 10 km. A heliport has been constructed on the JL 18 mineral claims, about 150 m from Midnite Gulch, at an elevation of 1,000 m above sealevel.

The lower part of the old workings lies in the bottom of Midnite Gulch.



LOCATION MAP
 JL 1 - 24 MINERAL CLAIMS
 WHEATON RIVER DISTRICT, Y.T.
 ISLAND MINING & EXPLORATIONS

FL

JL 1 - 24 MINERAL CLAIMS
 MIDNITE GULCH

2-20 Topography, Climate and Vegetation:

The topography on the claim group is steep, with average slopes of 20° in the western part. Rugged sections are confined to Midnite Gulch, which is surrounded by extremely steep talus slopes and escarpment consisting of rock cliffs and near vertical faces of packed glacial erratics.

The eastern part of the claim group lies along the Wheaton River valley which has moderate slopes and numerous swampy flats.

A river embankment of up to 20 m high outlines the present valley floor following the meandering course of the river.

Below the 1,000 m elevation contour, glacial till, boulders and rock flour form a thick cover obliterating all geological expression.

The climate in the district is typical for the southern Yukon Territory. Dry, short, hot summers, followed by long, cold winters. The snowfall in the area does not exceed 1.5 m on the ground, temperatures may drop to - 45° Celsius.

The vegetation in the lower reaches consists of large stands of mature spruce along the main river valley, except in swampy sections. Areas covered by heavy glacial till show mixed pine and spruce. Along the middle slopes thick underbrush and poplar stands occur as second growth, windfall of partially burned and blackened trees suggest a forest fire area.

3-00 TITLE AND OWNERSHIP:

The JL 1-24 mineral claims were recorded in Whitehorse on October 21, 1980 and are held by Island Mining & Explorations Co. Ltd.

4-00 HISTORY:

The first claims located in the area date back to the early part of the century. During this period extensive exploration work consisting of trenching & drifting in three adits had been carried out. Work was concentrated along Midnite Gulch and to the north of same. Mineralization explored, reportedly, was associated with granitic porphyry dykes showing quartz stockwork, alteration pyrite and galena. In association with the latter, free gold was found.

Exploration was renewed during the 1930's, concentrated within

the same general areas.

Since the 1930's the area was staked by several different parties, but no extensive work of importance was executed.

During October 1980 the JL 1-24 mineral claims were located on behalf of Island Mining & Explorations Co. Ltd.

During August 1981 a four men crew under supervision of the writer completed a preliminary evaluation program.

5-00 GEOLOGY:

5-10 General Geology:

The claim group lies along the south eastern slopes of Mt. Stephens overlooking the Wheaton River valley. The area is extensively overburden covered, glacial in origin, with outcrops confined to the upper segment of small creeks or bluffs along the break of the slope near timberline. In general, less than 25 % of the claim area has rock exposure.

From outcrops observed, the predominant rock types are volcanic greenstones and greenschist, possibly related to the Lewes River Group.

The rocks have been intruded by granitic porphyry and andesitic dykes. The dykes are best exposed along Midnite Gulch. Quartz stockwork or quartz seams, sericite development producing in places foliation cutting across the dykes, suggest cross faulting. None of the cross faults have been observed.

5-20 Detailed Geology:

During the course of the initial prospecting to locate the old showings it was decided to map the main area of interest at a scale of 1:5,000 (see enclosed detailed geology map and sample location).

Lower Showing:

The Lower Showing is located along the south side of Midnite Gulch at the point where the creek enters the main Wheaton River valley, approximately 150 m south west of the heliport.

Here the creek cuts across the granite porphyry dyke at a small angle. The dyke forms a steep bluff. Wall rocks are not exposed. The dyke shows alteration in the form of quartz seams, silicification and sericite seams. Pyrite can be observed as fine dissemination following fractures or quartz seamlets.

At one location, along the edge of the creek, quartz veinlets up to 1 cm wide, apparently cross cutting, carrying pyrite and disseminated galena were observed. An attempt to trace the extent of the mineralization was futile due to overburden.

On the north side of the creek an ore dump shows granite porphyry material well mineralized with pyrite and galena. This material appears to have been derived from a shallow hollow - old sloughed trench?

Following the dyke westerly two andesite dykes were observed cutting the granite. The contact is gradational, expressed by mafic minerals and darker color of the granite. Approximately 80 m to the west, the first of the old adits, caved, was found behind an old cabin. Dump material suggest that the adit was driven along the same granite porphyry dyke. Heavy brush and overburden obliterate the bedrock.

Summary of Samples taken:

<u>Sample #:</u>	<u>Sample Width, m:</u>	<u>Au Oz/ton:</u>	<u>Ag Oz/ton:</u>	<u>Remarks:</u>
49158	Grab	0.003	0.01	Trench above creek, dump sample, porph.
49160	Composite	0.003	0.24	High grade dump beside creek, gale. pyrite, sericite along qtz veinlets or fractures.
49161	5.00	0.003	0.08	Bluff beside creek, porph. with qtz veinlets, minor pyr. as disseminat. minor sericite, silicification.
49162	5.00	0.003	0.01	Contin. of above, more silicified.
49163	7.00	0.003	0.02	As above, pyrite.
49164	Select. Sample	0.003	0.04	Silica flooding, qtz. stockwork, pyrite.
49165	4.00	0.003	0.14	As above.

<u>Sample #:</u>	<u>Sample width, m:</u>	<u>Au Oz/ton:</u>	<u>Ag Oz/ton:</u>	<u>Remarks:</u>
49166	4.00	0.003	0.10	Porph., qtz. stock-work, veinlets up to 1 cm, pyrite, galena in qtz. veinlets and cross fractures.
49167	10.00	0.003	0.01	Composite grab along edge of creek, altered min. qtz. veinlets, silicification, pyrite along fract.

Intermediate Showing:

The intermediate workings are located about 130 m north west of the Lower Showing on the north side of the creek, 100 m higher than the lower most outcrop of the granite porphyry. The adit, now caved, has been driven along a shear fracture along a granite porphyry - andesite dyke contact. The contact is not well exposed, but from talus fragments seen, it appears to be gradational.

A second dyke is partially exposed to the west of the adit, also intruding granite porphyry dykes.

Pump material is a sericite granite porphyry showing minor sericite, silicification and occasional quartz seams with disseminated pyrite. A color change is apparant from a reddish tan of the fresher porphyry to a greyish dark hue in the altered porphyry, especially where silicification is more intensive.

About 80 m north of the adit a line of trenches, now sloughed, trend north westerly, showing granite porphyry. Strong foliation is indicated.

Summary of Samples taken:

<u>Sample #:</u>	<u>Sample Width, m:</u>	<u>Au Oz/ton:</u>	<u>Ag Oz/ton:</u>	<u>Remarks:</u>
49151	15.00	0.003	0.03	Composite grab, porphyry, sericite, some quartz veinlets, dissem. pyrite.
49152	0.50	0.003	0.01	Andesite dyke - porphyry contact shear with 5cm gouge, pyrite pyrite - silicified.

<u>Sample #:</u>	<u>Sample Width, m:</u>	<u>Au Oz/ton:</u>	<u>Ag Oz/ton:</u>	<u>Remarks:</u>
49153	5.00	0.003	0.01	Fractured porphyry, outcrop in talus, sericitic alteration, minor pyrite.
49168	5.00	0.003	0.01	Composite grab, outcrop near trenches above adit # 2, foliated porp.
49169	Grab	0.005	0.02	Trench above adit # 2, as above.
49170	3.00	0.003	0.03	Composite, as above.
49171	3.00	0.003	0.02	Compcsite as above, more extensively shear.

Upper Showing:

The Upper Showing is located about 80 m south west of the initial post of the JL 17 mineral claim or 400 m N 30° W of the adit from the intermediate workings.

Granite porphyry has been explored by trenching and pitting. Old timber frames give evidence of a sloughed adit. Dump material consists of a mixture of quartz and strongly silicified porphyry. The latter is showing disseminated pyrite.

Two dumps, consisting of what appears to be selected quartz have been found. Minor disseminated galena and occassional pyrite specks are the only sulfides seen.

A draw trending southerly from the claim post suggests a possible fault. This is re-enforced by strong foliation within the greenschist partly exposed below the escarpment. The greenstone bluffs forming the escarpment at this location exhibit no foliation.

Summary of Samples taken:

<u>Sample #:</u>	<u>Width, m:</u>	<u>Au Oz/ton:</u>	<u>Ag Oz/ton:</u>	<u>Remarks:</u>
49159	Selected	0.003	0.06	Porphyry above adit # 3, quartz veinlets.
49154	grab fr. dump	1.256	0.62	White gutz. with occ. speck of galena a. pyr. Derived from adit.

<u>Sample #:</u>	<u>Width, m:</u>	<u>Au Oz/ton:</u>	<u>Ag Oz/ton:</u>	<u>Remarks:</u>
49155	5.00	0.003	0.01	Porphyry above adit # 3 altered and fractured, minor sericite and pyrite.
49156	5.00	0.003	0.07	As above, continuation.
49157	Grab	0.074	0.08	Quartz selected from dump beside adit.
49159	Selected	0.003	0.06	Porphyry above adit, quartz veinlets.

5-30 Economic Geology:

Detailed sampling of all workings found was completed during the evaluation program. Although the majority of the trenches were sloughed and all adits caved, outcrops of the postulated gold bearing granite porphyry dykes are in vicinity of the workings to allow chip sampling or composite grab sampling. Further the ore dumps in vicinity of the adits provided material for the preliminary sampling.

Comparing sample results with the rock types and intensity of alteration present, the following becomes apparant:

1. The granite porphyry dykes appear to be the favored host rock.
2. Sericite development and minor pyrite as dissemination appears to have no effect on gold values present.
- 3.. Silicification, quartz veinlets or quartz seams associated with intense fracturing, containing pyrite and minor galena in a granite porphyry host, show a slight increase of gold values to a maximum of 0.005 oz/ton.
4. The presence of galena and abundant pyrite does not necessarily indicate good gold values.
5. Best gold values obtained were found to be associated with white quartz carrying minor pyrite and galena. The quartz appears to be in cross cutting fractures.

In general, the past exploration work was localized in and along Midnite Gulch where outcrops are most abundant and overburden cover is dissected by the creek.

Away from this area no evidence of past work was found, but from geological observations it is evident that the favorable granitic porphyry host rock continues.

The spatial arrangement of the quartz veinlets, quartz seams and fractures suggest a relationship to cross cutting faults or shears. None was found to be outcropping.

No relationship between andesite dykes and gold mineralization has been observed or is indicated.

6-00 GEOCHEMICAL SAMPLING:

6-10 General Conditions:

The JL 1-24 mineral claims lie along the south eastern slopes of Mt. Stephens, facing the Wheaton River valley. Geomorphological data suggest that this was the location of a large valley glacier moving south ward. From the river to about the 1,000 m elevation contour a thick layer of glacial deposits is evident.

Above the 1,000 m contour, the Midnite Gulch Creek formed a deep, steep gradient - V-shaped valley with the head waters emerging from a 30 m high escarpment, formed by semi consolidated glacial material.

Above the creek between 1,000 and 1,200 m elevation a layer of fine, white silt covers the slopes. Outcrops are confined to steep escarpments only. Wasting forms extensive coarse talus slopes without soil development.

The use of soil sampling for detecting possible gold bearing structures in such a setting is highly suspect.

6-20 Field Method:

Soil sampling was executed on a grid basis with lines 200 m apart and stations marked at 50 m intervals. The lines were established by chain and compass and flagged. The stations were marked on flagging and by pickets.

Samples were taken by grubhoe from the B horizon at an average depth of 20 cm. During the course of sampling it was found that soil profile was extremely poorly developed and in locations a fine white silt layer could not be penetrated.

At locations where the silt layer or glacial till or coarse talus was estimated to be too deep, no samples were taken.

A total of 8,000 m of grid lines were established and a total

of 35 soil samples were collected and analyzed for gold and lead by the atomic absorption method.

6-30 Soil Sample Results:

No statistical analysis was made of the sample data since the population was considered to be too small.

Gold: Gold values range from less than 10 parts per billion to a high of 760 parts per billion. Using a threshold value of 40 ppb, three areas of possible anomalous gold values are indicated.

Area 1: At station 13+00 N, 10+00 W a high of 760 ppb in gold was located. The station lies 200 m west of the adit on the Upper Showing. Considering the indicated strike of the postulated mineralized granite porphyry, the high gold soil value would lie along the surface trace. A 88 ppm lead high lies 50 m to the west, suggesting a close relationship of lead sulfides with gold mineralization. Rock samples collected from the dump beside the adit gave gold values of 1.256 oz/ton and 0.074 oz/ton respectively. Galena was observed in the samples.

Area 2: Area 2 is located on line 10+00 W, 10+00 N to 11+00 N. Maximum value is 60 ppb gold. No coinciding lead values exist. The area lies between Midnite Gulch and a southerly branch. These stations are located along the western limit of the semi-consolidated glacial till and could represent transported gold.

Area 3: Area 3 is located on line 10+00 W, 0+00 N to 2+50 N. Peak value is 620 ppb gold. An associated lead high, 190 ppm suggest the anomaly is near to - in situ - mineralization. The area is completely overburden covered, but lies above the extensive glacial till deposit.

Lead: The samples were analyzed for lead to see if a correlation between the two metals, gold and lead exists and if it can be used as a pathfinder.

The close correlation between gold anomalies and high lead values, i.e. 620 ppb gold - 184 ppm lead, and 760 ppm gold - 88 ppm lead to the north do suggest a close association.

Lead values range from a low of 2ppm to a high of 190 ppm with 40 ppm threshold values indicated. About

Lead: 20 % of the samples have values greater than threshold.
All lead anomalies coincide with gold highs.

7-00 CONCLUSIONS:

Preliminary geological evaluation and soil sampling of the JL 1-24 mineral claims show that:

The old known gold showings appear to be localized within the granite porphyry dykes, where cut by cross faulting and shearing.

A definite relationship between the intensity of quartz veining and gold values exists.

Pyrite and galena are usually associated with quartz veining. Sericite development has been observed at a distance from intense quartz veining.

No relationship could be established between andesite dykes and mineralization, but silicification has been observed along the contacts, diminishing outward.

Soil sample results suggest a close relationship between gold and lead values. This relationship has not been confirmed by the rock samples and has to be investigated further.

Soil sampling has outlined two areas which are definitely anomalous and one area possibly anomalous in gold.

No independent lead anomaly has been found.

Additional work is recommended to delineate and check the indicated gold anomalies and to develop a geochemical method to obtain reliable results from the heavy overburden covered areas of the claim group.

8-00 RECOMMENDATIONS:

1. Consultation with a geochemist who has extensive experience in gold chemistry as related to glacial terrain.
2. Geological mapping of the claim group at a scale of 1:5,000 with special emphasis on structural setting and relationship of mineralization to indicated alteration and intensity of quartz veining.
3. Cleaning of old trenches, re-sampling and detailed

3. mapping to establish the relationship of mineralization to indicated alteration and intensity of quartz veining.
4. Re-evaluation of results in respect to overall ore potential of the claim group.

Additional exploration will depend on the results of above program.


9-00 COST ESTIMATE:

1. Consultation with geochemist, allow	\$ 500.00
2. Mobilization - demobilization, camp supp.	
By helicopter - say 30 days - allow	\$ 10,000.00
3. Geochemistry, gridding, 4 men - 30 days	\$ 10,000.00
4. Geological mapping - 30 days @ \$ 200.00/dy	\$ 6,000.00
5. Camp supplies, groceries, etc.	\$ 6,000.00
6. Engineering and supervision	\$ 5,000.00
7. Assaying, soil and rock samples, allow	\$ 5,000.00
	<hr/>
	\$ 42,500.00
Allow 30 % for contingency and inflation	\$ 12,750.00
	<hr/>
TOTAL COSTS	\$ 55,250.00

Surrey, B.C.

November 2, 1981

Respectfully submitted



F. Holcapek, P. Eng.

CERTIFICATION

I, Ferdinand Holcapek of 9972 - 124 Street, Surrey, B.C.,
certify that:

1. I am a graduate of the University of British Columbia with a B.Sc. degree in Geology in 1969.
2. I am a registered member in good standing of the Association of Professional Engineers of British Columbia.
3. I have been engaged in mining exploration and geology in Canada, Australia, United States of America, Mexico and Central America.
4. This report is based on field work conducted under my supervision on the JL 1-24 mineral claims during the period of August 11, to August 26, 1981.
5. I have no interest and do not expect to receive any interest directly or indirectly in the properties or securities of Island Mining & Explorations Co. Ltd.

Surrey, B.C.
November 2, 1981.


F. Holcapek, P. Eng.

REFERENCES

1. G.S.C. open file 164, The Bennett Lake Cauldron Subsidence Complex, British Columbia and Yukon Territory, by M.B. Lambert.
2. G.S.C. Memoir 218, pp 12 - 13.
3. G.S.C. Summary Report 1922 pp 7-8.



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ANALYTICAL CHEMISTS · GEOCHEMISTS · REGISTERED ASSAYERS

CERTIFICATE OF ASSAY

TO : ISLAND MINING & EXPLOR. CO. LTD;
900-475 HOWE ST;
VANCOUVER, B.C.
V6C 2B3

CERT. # : A8114083-001-A
INVOICE # : I8114083
DATE : 14-OCT-81
P.O. # : NONE

CC: HOLCAPEK ENG.

Sample description	Prep code	Pb %	Zn %	Ag FA oz/t	Au FA oz/t		
49151	207	--	--	0.03	<0.003	--	--
49152	207	--	--	0.01	<0.003	--	--
49153	207	--	--	0.01	<0.003	--	--
49154	207	--	--	0.62	1.256	--	--
49155	207	--	--	<0.01	<0.003	--	--
49156	207	--	--	0.07	<0.003	--	--
49157	207	--	--	0.08	0.074	--	--
49158	207	--	--	0.01	<0.003	--	--
49159	207	--	--	0.06	<0.003	--	--
49160	207	--	--	0.24	0.003	--	--
49161	207	--	--	0.08	0.003	--	--
49162	207	--	--	<0.01	<0.003	--	--
49163	207	--	--	0.02	<0.003	--	--
49164	207	--	--	0.04	<0.003	--	--
49165	207	--	--	0.14	<0.003	--	--
49166	207	--	--	0.10	0.003	--	--
49167	207	--	--	0.01	<0.003	--	--
49168	207	--	--	0.01	<0.003	--	--
49169	207	--	--	0.02	0.005	--	--
49170	207	--	--	0.03	<0.003	--	--
49171	207	--	--	0.02	<0.003	--	--
49172	207	<0.01	<0.01	0.02	<0.003	--	--

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MEMBER
CANADIAN TESTING

**YEIP
87-028
Vol. 2**

87-028

**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.

SUMMARY

Exploration activity on the Midnight Gulch showings began in the early part 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 controlled by cross faults and limited in extent. Most 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:

<u>NAME</u>	<u>POSITION</u>	<u>ADDRESS</u>
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:

<u>COMPANY</u>	<u>ADDRESS</u>
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.

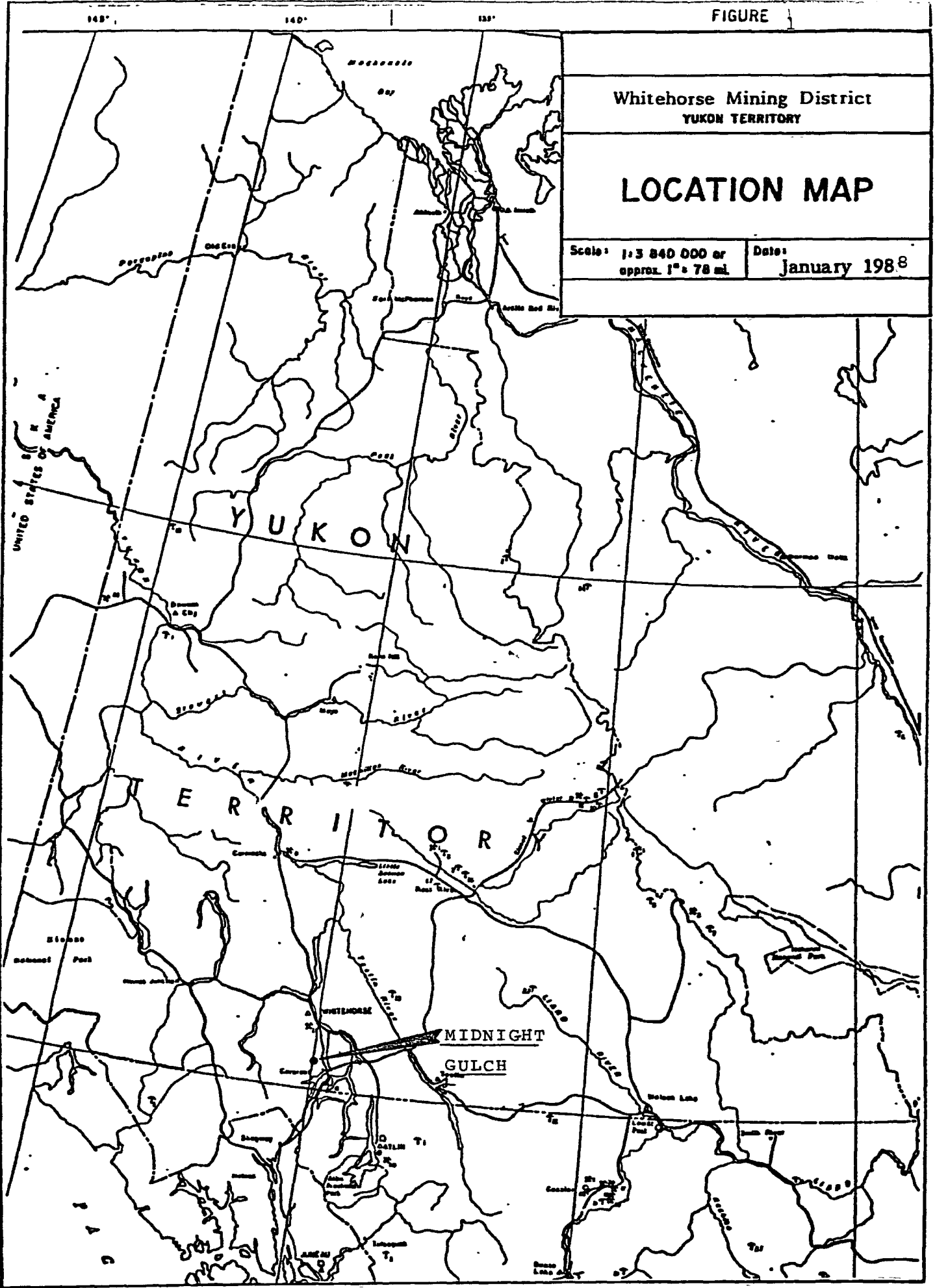
<u>CLAIM NAME & NUMBER</u>	<u>RECORD NUMBER</u>	<u>REGISTERED OWNER</u>
TON 1 - 16	YA78181-196	Canadian Nickel Co. Ltd.
ISLAND 1,2 fr	YA93380-381	Island Mining & Explorations Co.Ltd.
JL 1-80	YA59033-056 YA85597-652	" "
AFI 187,188,201-204 206,208,210,212 214,225-296	YA85839,840,853-856 858,860,682,864,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

Whitehorse Mining District
YUKON TERRITORY

LOCATION MAP

Scale: 1:3 840 000 or
approx. 1" = 78 mi.

Date: January 1988



MIDNIGHT
GULCH

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		BEARING	DIP	O/B	TOTAL LENGTH
		START	FINISH				
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 (subparallel to parallel 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 disseminated 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 disseminated 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 & chalcopyrite 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.

	<u>Range</u>	<u>Background</u>	<u>Possibly Anomalous</u>	<u>Anomalous</u>
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.

<u>SAMPLE #</u>	<u>Au (ppb)</u>	<u>AREA</u>
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 chlopyrite 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 anomaly 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.**



TON

JL

approximate claim perimeter

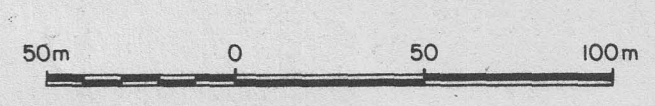
LEGEND

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

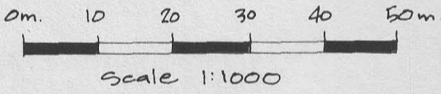
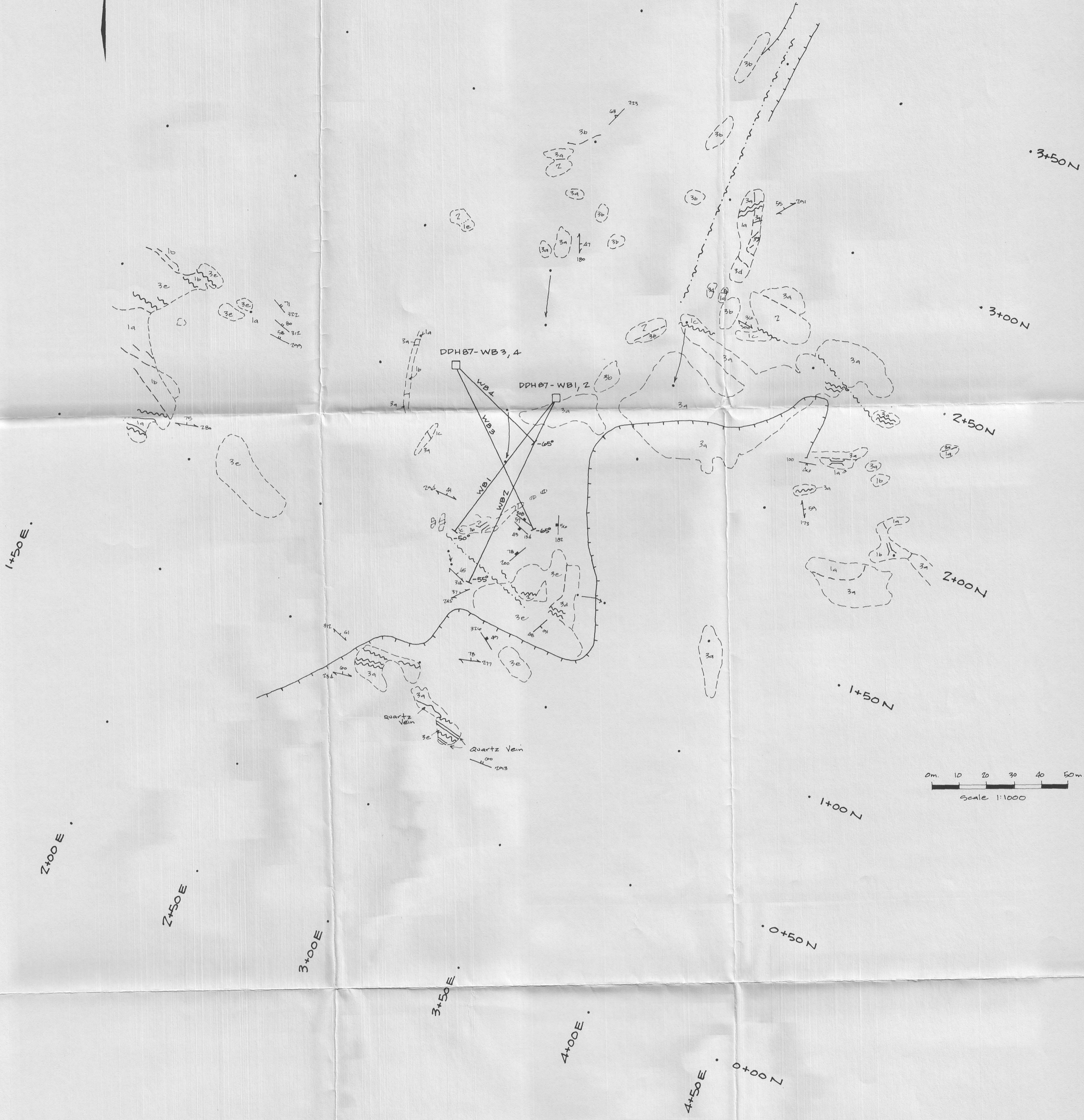
- Foliation
- Dyke/Vein
- Bedding
- Fractures
- Jointing
- Outcrop
- Geologic contact, Observed, Approximate
- Fault; Known, Inferred
- Shear
- Breccia
- Oldtimers Adit
- Oldtimers Trench
- Drill Access Road
- 1987 Grid Station



SCALE 1:2000

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

Note: grid slope corrected and installed with chain and compass



EXPLANATION

TERTIARY

- 1a Rhyolite (Muscovite chlorite schist)
- 2a TRIASSIC Intermediate tuffs and flows
- 2b Augite andesite
- 2c Pebble conglomerate
- 2d Siltstone

SYMBOLS

- 30°/15° Foliation
- 30°/30° Dyke/Vein

SYMBOLS

- 295/80 Bedding
- 295/65 Fractures
- 300/30 Jointing
- Outcrop
- Geological contact: observed, approx.
- 222 Fault: known, inferred
- Shear
- ▲▲ Breccia
- Escarpment

ISLAND MINING & EXPLORATION Co., LTD
MIDNIGHT GULCH PROJECT

WHEELBARROW ZONE
GEOLOGY

NTS: 108 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

- 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
- Shear
- Breccia
- Oldtimers Adit
- 1987 Diamond Drill Hole and Dip
- 1987 Grid Station
- Embankment

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



LEGEND

LITHOLOGY

Tertiary

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

Cretaceous

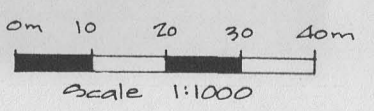
- 2 Quartz Monzonite, Granodiorite

Triassic

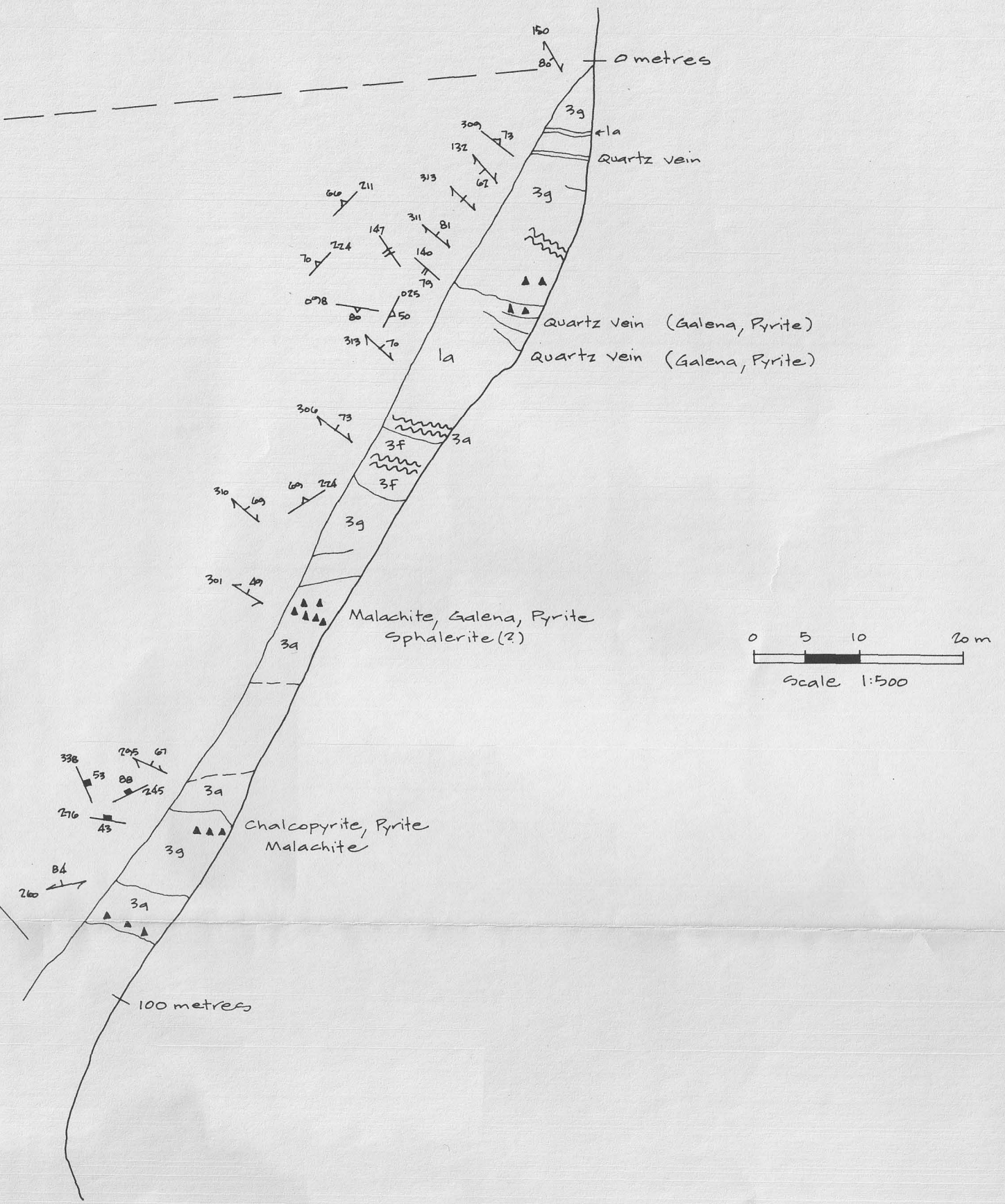
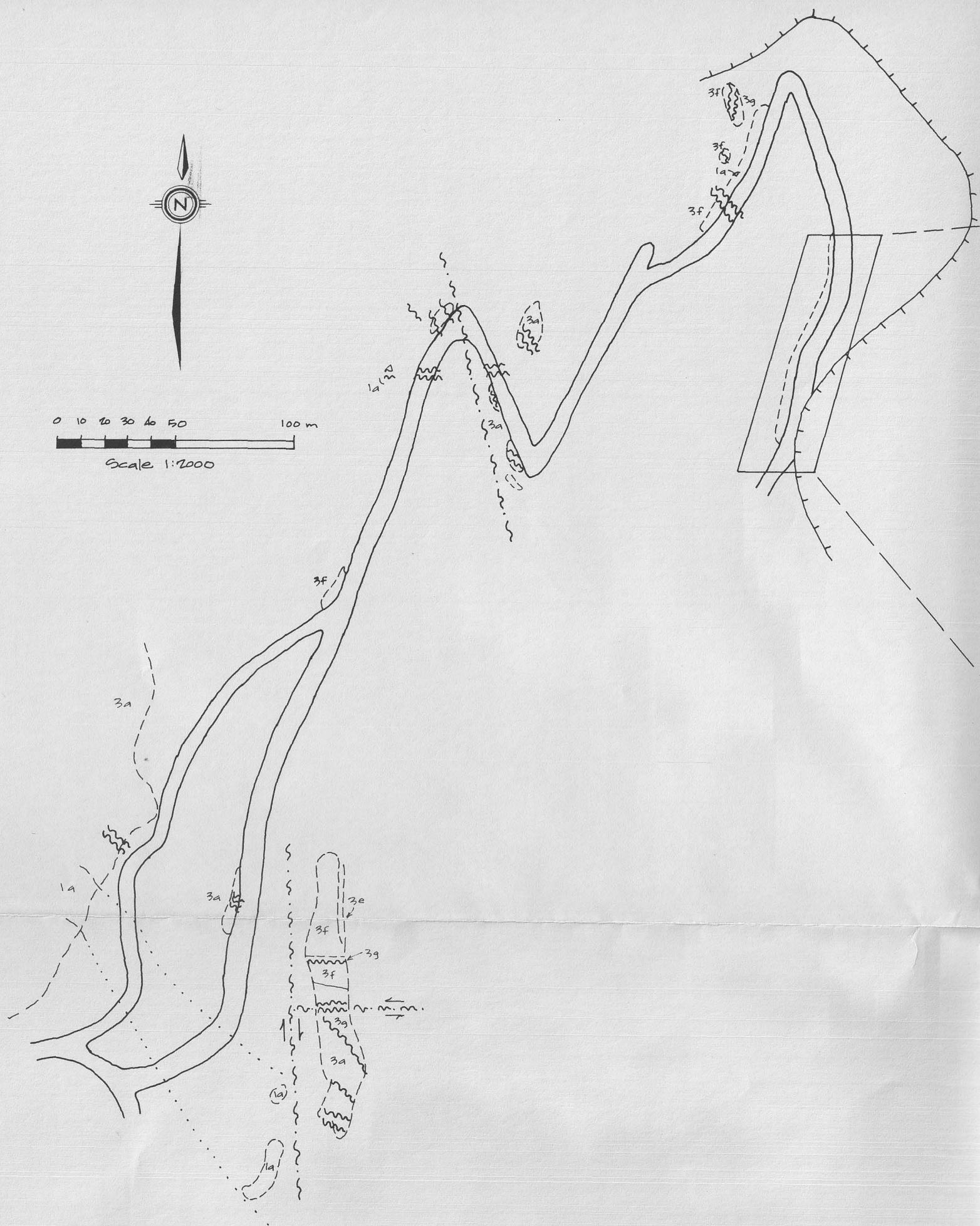
- 3a Intermediate Tuffs and Flows
- 3b Felsic Porphyritic Flows
- 3c Felsic and Mafic Clastics (?)
- 3d Felsic Tuff
- 3e Augite Andesite
- 3f Pebble Conglomerate
- 3g Siltstone

SYMBOLS

- Foliation
- Dyke/Vein
- Bedding
- Fractures
- Jointing
- outcrop
- Geologic contact, Observed
- Fault, Known, Inferred
- Shear
- Breccia
- 1987 Diamond Drill Hole and Dip
- Oldtimers Trench
- 1986 Anomalous Soil Sample
- 1987 Grid Station



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



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

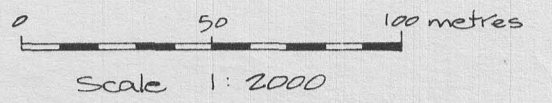
Shear

Breccia

Escarpment

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
8735A1017-018



△ 8735A1023

△ 8735A1022

LEGEND

LITHOLOGIES

- 3a - Intermediate tuffs & flows
- 3e - Augite andesite
- 1a - Fhyolite

SYMBOLS

- ↗ - Foliation
- - Outcrop
- ~ - Shear

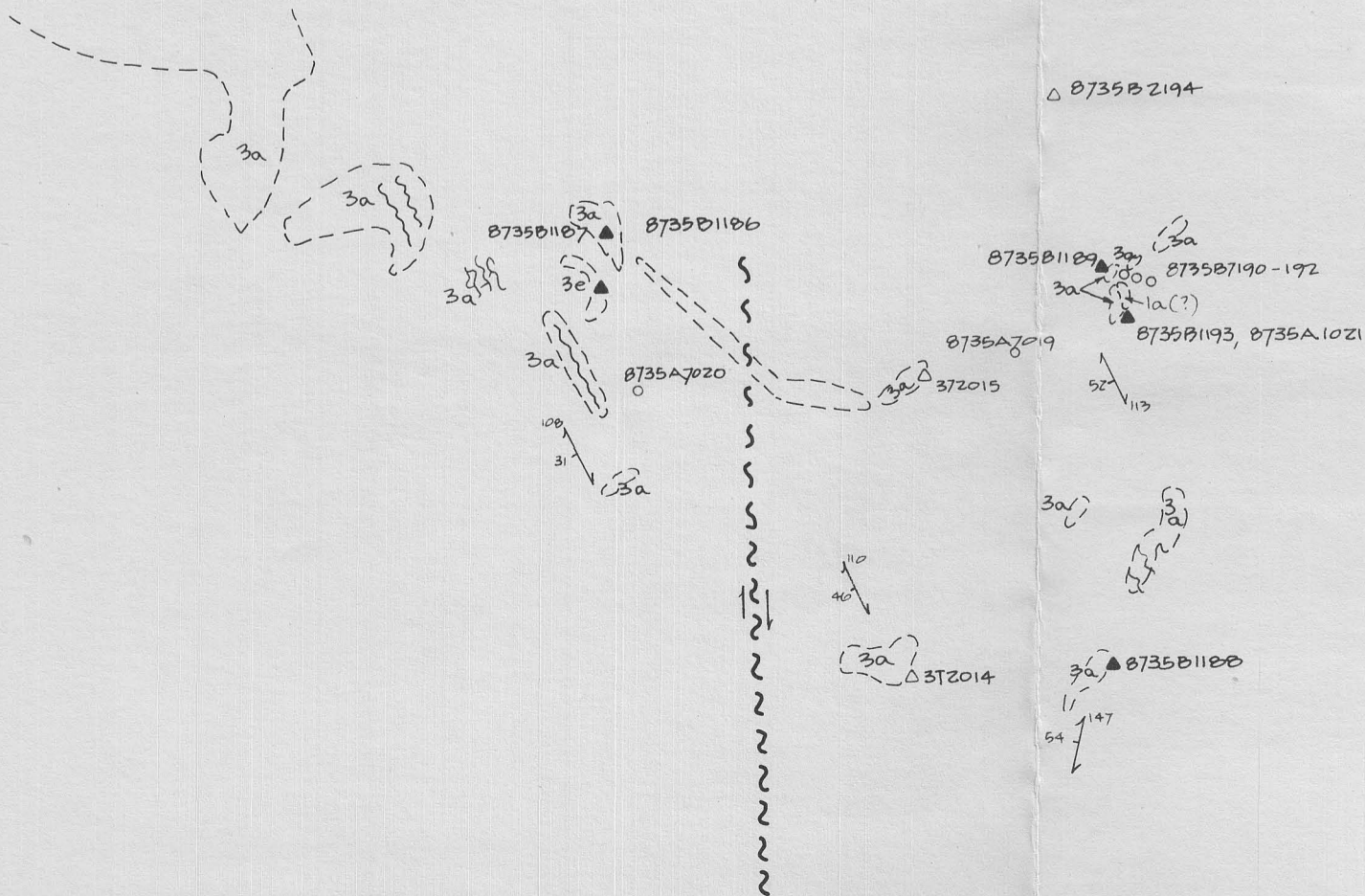
△ 8735A1023 - 1987 Rock sample (▲ outcrop, △ float)

○ 8735A7020 - 1987 Soil sample

└└└ - Gully

△ 8735B2194

NOTE: Locations approximate - based on air photo plotting.



ISLAND MINING & EXPLORATION CO., LTD.

MIDNIGHT GULCH PROJECT

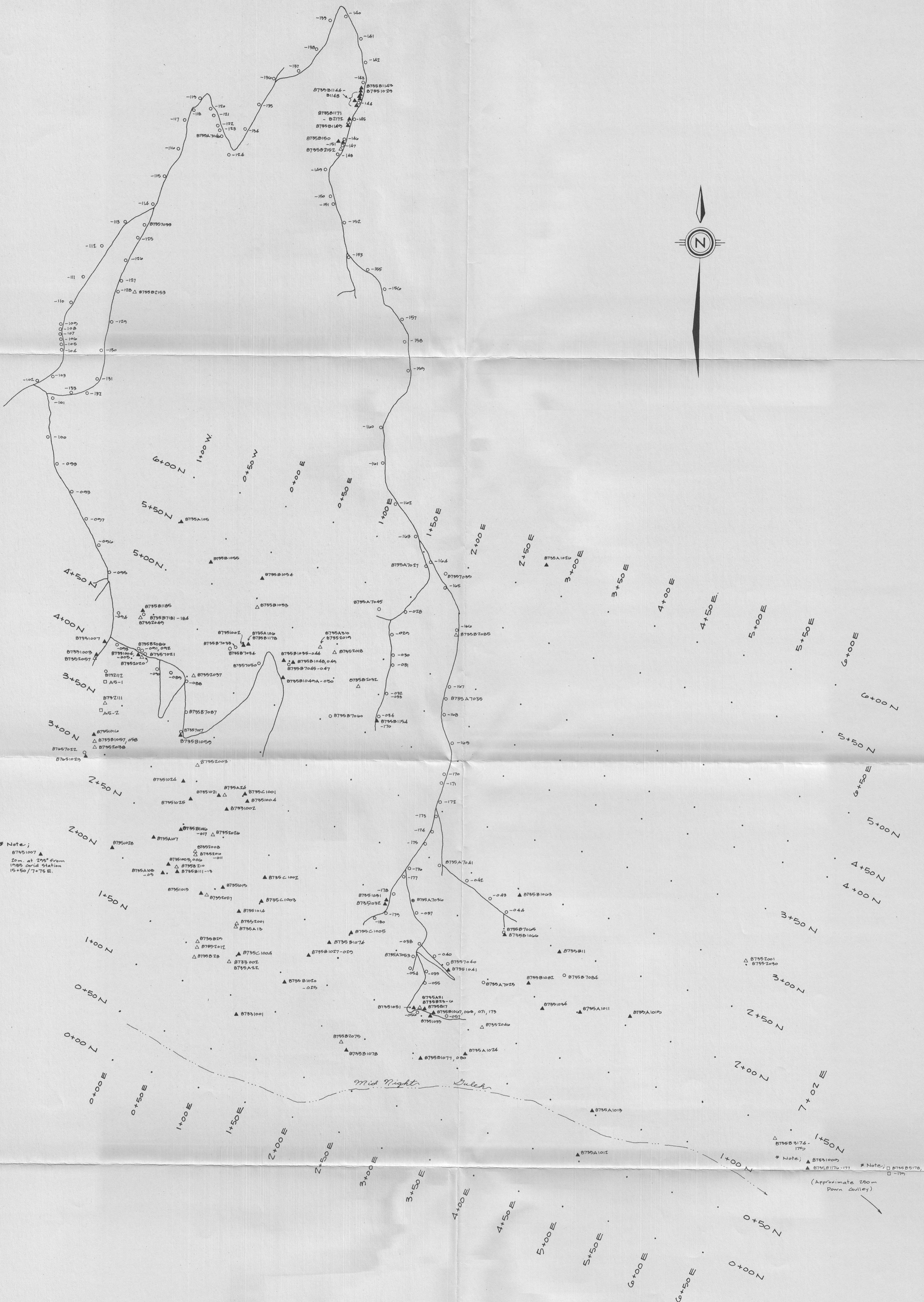
SOUTHERN GULCH
PRELIMINARY GEOLOGY
and
SAMPLE LOCATION

NTS: 1050/2,3

DATE: January 1988

DRAWN BY: AM/TH

FIGURE: 8

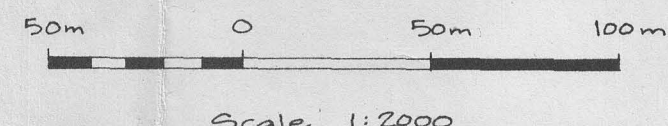


* Note;
 87351007
 20m. at 295° from
 1989 Grid Station
 15+50/7+75 E.

* Note; 87351009
 87351176-177
 (Approximate 250m
 Down Gully)
 * Note; 87351010
 87351176-177

LEGEND

- 1987 Grid station
- △ 87351012 Rock Sample, Float; Sample Number
- ▲ 873510295 Rock Sample, outcrop; Sample Number
- 873510101 Soil Sample; Sample Number
- AS-2 Talus Finer / Stream Sediments Sample; Sample Number
- Drill Access Road



ISLAND MINING & EXPLORATION CO. LTD.		
MIDNIGHT GULCH PROPERTY		
1987		
SAMPLE LOCATIONS		
1987 GRID AREA and NORTHERN ACCESS ROAD		
		DATE: Jan, 1988
NTS 105 D/2, 3	DRAWN BY: AM, TLH	FIGURE: 9



◆ PZ Island Fraction 1,2

△ BT35A2048

BT35A7047

(YAT8193, 194)

PI Ton 13, 14
PZ Ton 11, 12

(YAT8191, 192)

◆ PI Island Fraction 1,2
(YA99980, 81)

1986-87
Cat Trenching

ROAD

oldtimer
Trenches

BT35A7049

BT35A7050

BT35A7052

BT35A7051

1986-87
Cat Trenching

LEGEND

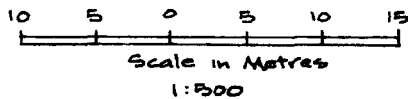
◆ Claim Post

○ BT35A7052 Soil Sample

△ BT35A2048 Rock Sample

(▲ outcrop)

(△ Float)



NOTE: Trench Locations from GARAGAN, 1980

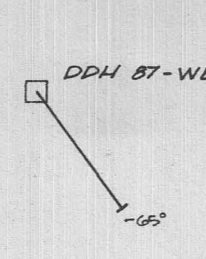

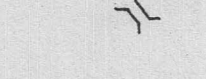

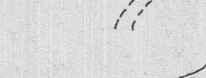

Island Mining & Exploration LTD	
MIDNIGHT GULCH PROJECT	
SAMPLE LOCATIONS	
ISLAND FRACTIONAL TRENCHES	
105 D/2,3	Date Jan, 1988
Drawn By AM, TH	FIGURE 10



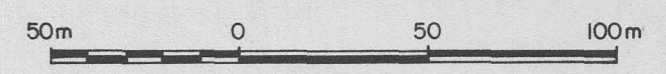
TON JL

APPROXIMATE CLAIM BOUNDARY

LEGEND

-  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 and while 1987 Mapping.



SCALE 1:2000

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, NH, TLH	FIGURE: 11

5000

5000

60°13'

Perimeter

North Zone Map Area

Claim

Approximate

Approximate Road Location

Island Fractional Claim Trenching Map Area.



1987 Grid Location

4500

4000

"Lower Adit" Approximate Location

3000

Midnight

3500

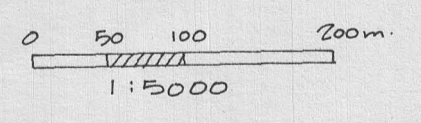
Gulch

TON

JL

500' El. Contour

5000



Southern Gulch Map Area

ISLAND MINING & EXPLORATION LTD.

MIDNIGHT GULCH PROPERTY

1987
AREA LOCATION MAP

NTS 105 D/23 Date; Jan 1988

Drawn by: A.M. TCH Figure 12

55° 55'

APPENDIX A
LITHOLOGIC DESCRIPTIONS

APPENDIX A. LITHOLOGIC DESCRIPTIONS

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 intermediate flows, 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; sillicic, 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 eyes; minor pyrite.

APPENDIX B

DRILL LOGS

RSD INTERVAL = 12cm for HQ No. 10 cm

DIAMOND DRILL LOG

HOLE No. DDH 87-A1

Page 1 of

Property MIDNIGHT GULCH | NTS IOS D/2 | Claim JL | Elevation 4200' | Azimuth 227° | Length 387' | Dip -51°
 Coordinates S+25N 1125E | Dip Tests | Advance 243.5' | Depth 300.8' | Date Collared JULY 1, 1987 | Date Completed JUL 16
 Purposes TESTING RHYOLITE DYKE AT ADIT (412SN, 0190E) | Drilled by CAKONI | Assays by ACME | Logged by A.I. ...

Interval From	To (m)	Rec'y %	RQD	DESCRIPTION	Sample No.	Interval		Core (m) Width	% PY	PPM									
						From	To			Cu	PB	ZN	AG	AS	AU	PPB			
0	25.9			CASING															
5.28	16.15	40%	0.03	OVERBURDEN(?) MIXED ROCK FRAGMENTS, PEBBLES & SOIL; ROCK FRAGMENTS IDENTIFIED INCL'D: SILICIFIED ANDRESITIC LAPILLI TUFF, FE ALTERED & SHEARED LAPILLI TUFF, FLOW BANNED TUFF BRECCIA, MILKY QZ-Fe CARB VEIN FRAGMENTS OR(?) FE ALTERED RHYOLITE; MINOR GOSSANOUS CLAY RICH GRITTY SOIL (CARBONACEOUS) - MINOR QZ/CALCITE VEIN w/ 1% SUBORD PY (FRAGMENT) @ 13.65m - FeCO ₃ ALTH COMMON IN ROCKS	8366	14.63	16.15	1.52	0%										
16.15	19.2	45%	0	GOSSANOUS SOIL/MNR TUFF? FRAGMENTS YELLOW-BROWN CLAY RICH SOIL w/ ANGULAR ROCK FRAGMENTS - MAINLY FeCO ₃ /SERICITE ALTERED, RELATED TUFF? SOIL FREEZES IN DILUTE HCL. 18.35-18.65: SIMILAR TO ABOVE w/ ~30% QZ-CALCITE VEIN FRAGMENTS w/ RUSTY LIMONITIC FRACTURES THROUGHOUT; MUCGY (APPEARS TO BE IN PLACE) FRAGMENTS OF FeCO ₃ ALTH RHYOLITE? AT 18.15 - POSSIBLE DYKE CONTACT?	8367	16.15	18.35	2.20	TRC	40% REC'Y	26	12	92	.1	2	5			
				18.35-18.65: SIMILAR TO ABOVE w/ ~30% QZ-CALCITE VEIN FRAGMENTS w/ RUSTY LIMONITIC FRACTURES THROUGHOUT; MUCGY (APPEARS TO BE IN PLACE) FRAGMENTS OF FeCO ₃ ALTH RHYOLITE? AT 18.15 - POSSIBLE DYKE CONTACT?	8368	18.35	18.65	0.30											
				FRAGMENTS OF FeCO ₃ ALTH RHYOLITE? AT 18.15 - POSSIBLE DYKE CONTACT?	8369	18.65	19.2	0.55											
19.20	29.98	60%	0	ALTERNATING BLOCKY BROKEN ALT'D TUFF/GRITTY-CLAY RICH SOIL COMMONLY SEES GOSSANOUS GRITTY SOIL w/ ANGULAR RUSTY BROWN FeCO ₃ ALT'D TUFF FRAGMENTS, ALTERNATING w/ WRIBLY ALT'D (FeCO ₃ /SERICITE), FOLIATED (50°-70° TO C.A.) TUFF, (CARBONACEOUS LIMONITIC FRACTURES); FeCO ₃ MINOR QZ FRACTURE FILLINGS. ← BLOCKY & BROKEN					TRC										
				COMMONLY SEES GOSSANOUS GRITTY SOIL w/ ANGULAR RUSTY BROWN FeCO ₃ ALT'D TUFF FRAGMENTS, ALTERNATING w/ WRIBLY ALT'D (FeCO ₃ /SERICITE), FOLIATED (50°-70° TO C.A.) TUFF, (CARBONACEOUS LIMONITIC FRACTURES); FeCO ₃ MINOR QZ FRACTURE FILLINGS. ← BLOCKY & BROKEN	8370	19.20	21.00	1.80											
				RUSTY BROWN FeCO ₃ ALT'D TUFF FRAGMENTS, ALTERNATING w/ WRIBLY ALT'D (FeCO ₃ /SERICITE), FOLIATED (50°-70° TO C.A.) TUFF, (CARBONACEOUS LIMONITIC FRACTURES); FeCO ₃ MINOR QZ FRACTURE FILLINGS. ← BLOCKY & BROKEN	8371	21.00	23.00	2.00											
				RUSTY BROWN FeCO ₃ ALT'D TUFF FRAGMENTS, ALTERNATING w/ WRIBLY ALT'D (FeCO ₃ /SERICITE), FOLIATED (50°-70° TO C.A.) TUFF, (CARBONACEOUS LIMONITIC FRACTURES); FeCO ₃ MINOR QZ FRACTURE FILLINGS. ← BLOCKY & BROKEN	8372	23.00	25.00	2.00		(23.77-26.21)	11	9	63	.1	3	1			
				RUSTY BROWN FeCO ₃ ALT'D TUFF FRAGMENTS, ALTERNATING w/ WRIBLY ALT'D (FeCO ₃ /SERICITE), FOLIATED (50°-70° TO C.A.) TUFF, (CARBONACEOUS LIMONITIC FRACTURES); FeCO ₃ MINOR QZ FRACTURE FILLINGS. ← BLOCKY & BROKEN	8373	25.00	27.00	2.00		~25% REC'Y	68	29	81	.1	2	1			
				RUSTY BROWN FeCO ₃ ALT'D TUFF FRAGMENTS, ALTERNATING w/ WRIBLY ALT'D (FeCO ₃ /SERICITE), FOLIATED (50°-70° TO C.A.) TUFF, (CARBONACEOUS LIMONITIC FRACTURES); FeCO ₃ MINOR QZ FRACTURE FILLINGS. ← BLOCKY & BROKEN	8374	27.00	29.00	2.00		(25% REC'Y)	18	13	70	.1	2	2			

DIAMOND DRILL LOG

HOLE No. B7-A1Page 6 of 12

Interval		Rec'y %	RQD	DESCRIPTION	Sample No.	Interval		Core Width
From	To					From	To	
61.67	67.04	96	.75	<p>INTERMEDIATE (ANDESITIC) LAPILLI TUFF</p> <p>sharp</p> <p>Contact @ 62° to C.A. Dark green, medium to coarse lapilli fragments w/ occasional bomb (upto 130mm). @ 1% generally coarse 1 cm ^{altered} granitic fragments. Moderate chloritization throughout. Few fractures, qtz-carb &/or limonite infilling. 70°, 20° most common.</p> <p>- 66.02 - 66.15 Feldspar porphyritic andesitic flow (as 61.4 - 61.7).</p>				
67.04	69.14	95	.81	<p>INTERMEDIATE (ANDESITIC) FLOWS & TUFF (?)</p> <p>sharp 72° to C.A.</p> <p>Dark green, fine grained porphyritic, 5% ± 1mm plag laths, 15% mafic-chlorite altered xtals. moderate to strong chloritization. Few scattered qtz. & fractures.</p>				
69.14	74.20	96	.52	<p>INTERMEDIATE (ANDESITIC) LAPILLI TUFF</p> <p>sharp ~ 80° to C.A.</p> <p>Dark green, moderately chloritized, in places weak epidatization & ^{moderate} silicification. Ave fragment size 8mm, with bombs upto 60cm, < 1% granitic fragments. Sparse fractures, < 1mm common, with qtz, qtz carb or lim carb infilling. Extent of orientation variable.</p> <p>- 70.05 to 70.23: moderately magnesian, amygdaloidal (?) andesite (basalt); amygdules epidote rimmed w/ chlorite & qtz centres</p>				

DIAMOND DRILL LOG

HOLE No. 87-A1

Page 7 of 12

Interval		Recy %	RQD	DESCRIPTION	Sample No.	Interval		Core Width											
From	To					From	To		Cu	PB	ZN	AG	AS	AU					
				-71.05' Epidote & albite (?) breccia from wide 65° to CA															
				-71.33-71.64; Silicified lapilli tuff w/ 35% angular fragments. Fragments appear darker against matrix.															
74.20	74.53	92	0	sharp 28° to C.A. SHEARED & BRECCIATED LAPILLI TUFF	8463	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.															
74.53	77.40	87	.52	Gradational INTERMEDIATE (ANDESITIC) LAPILLI TUFF															
				Dark green; coarse lapilli fragments & perphyritic volcanic tuff. Weak to moderate chloritization, with qtz & carb lim along sparsely scattered fractures.															
77.40	79.76	85	.30	Gradational 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% q.v. and/or fractures. Trace to 2% apy															
				-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					

DIAMOND DRILL LOG

HOLE No. 37-A1

Page 8 of 12

Interval		Recy %	RQD	DESCRIPTION	Sample No.	Interval		Core Width
From	To					From	To	
				altered zone, 2% py adjacent to 4 in veins. Sheared by 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 & calc & lim infillings.				
				— — Gradational — — — —				
81.8	89.46			INTERMEDIATE (ANDESITIC) TUFFS & FLOWS				
81.8	87.0	95	.50	Dark green, fine to very fine grained, occasionally porphyritic with $\leq 7\% \leq 1mm$ plag phenocrysts. Moderate chloritization, & minor weak epidatization. Few fractures, usually limonite infilling.				
87.0	89.46	41	.21					
				86.3 - 86.7: very fine grained, well fractured, with $\leq 3mm$ qtz & calc veins & occasional thin lapilli band				
				88.0: 1.5cm chloritized qtz by.				
				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

HOLE No. 87-A1

Page 9 of 12

Interval		Rec'y %	ROD	DESCRIPTION	Sample No.	Interval		Core Width	CU	PB	ZN	AG	AS	AU
From	To					From	To							
89.61	96.35	53	0	FRACTURED CLAY RICH - BRECCIATED (?) INTERMEDIATE (ANDESITIC) LAPILLI TUFFS, CRYSTAL TUFF AND FLOWS	8405	89.61	90.21	0.60	46	3	77	.4	8	1
					8406	90.7	91.81	1.11	37	13	71	.4	8	1
					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. ≤ 3 mm. - 90.83: 2m wuggy 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 (25%) qtz & carb & lim veins.										
				- 100.0 - 100.56 10% qtz carb & lim breccia veins (1cm thick). Irregular orientation - 45° & 65° matrix "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

Property		NTS		Claim		Elevation		Azimuth		Length		Dip		
Coordinates		Dip Tests		Advance		Depth		Date Collared		Date Completed		Purposes		
Interval (m)		Rec'y %	RQD	DESCRIPTION	Sample No.	Interval		Core Width	Assays by					
From	To					From	To		Cu	Pb	Zn	Ag	As	Au (ppb)
103.05	114.48			<p>Sharp</p> <p>SILICIFIED & SERICITIZED RHYOLITE DYKE</p> <p>1119</p> <p>LIGHT GREENISH-GREY, PORPHYRITIC; 15% PLAG. PHENOCRYST IN A STRONGLY SILICIFIED & MOD. SERICITIZED APHYRITIC MATRIX. PHENOS COMMONLY ALTD TO SERICITE, INCREASE IN SIZE (UP TO 2mm) AND NUMBER TOWARD F.W. QZ 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</p>										
94	0.10			<p>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 x-taline grey to white qtz (commonly <2mm) veinlets or variations in intensity of alteration. Silicification & sericitization pervasive, but sericitization often more intense along fractures (as halos around certain veinlets) or in patches. Porphyritic texture weak. Lim and/or hem along fractures. Fractures commonly 25-45° to S.A., but variably, and often open space tension gashed.</p>	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			<p>104.20 to 105.46; Dark grey to brownish grey unconsolidated mud with dark green (often epidatized) diorite (?) or frag. Weak carb.</p>	8378	104.20	105.46	1.26	90	18	119	.2	2	1
48	0			<p>105.46 to 106.62; light greenish grey, porphyritic strongly silicified & sericitized. Blocky grey sil. lim infilling along fractures. Trace py within chy. of q.v. Q.v. up to 1cm, irregular.</p>	8379	105.46	106.00	.54	4	39	8	.2	4	5
					8380	106.00	106.62	.62	11	13	22	.4	5	2

Property ISLAND MNG - JL CLAIMS. NTS 105 D/R Claim JL Elevation 3700' Azimuth 219° 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 TME

Interval From To	Rec'y %	RQD	DESCRIPTION	Sample No.	Interval		Core Width	Assays	
					From	To		Ag (oz/t)	Au (oz/t)
0 34' (10.36m)			CASING - pebbles and small pieces of core recovered						
0 51	25	0	Mainly SILICIFIED GREEN ANDESITE Tuff.						
51 55	0	0	occasional 2-3mm carb (some calcite) veins; up to 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 71.8-73.2 = fault gouge; only minor fine dissemin. py. From 73.2' - tuff becomes very frag. and soft; medium brown colour. Lower contact is fault gouge for 0.15'; gouge is 65° to core axis						
75.5 77.0' (2.07m)			LIGHT GRAY, QUARTZ-VEINED F.G.R. RHYOLITE	8411	75.5	77	1.5'	Assay Au, Ag	0.01 0.001
75.5 85.5	70	0.15	- many hairline to 2mm Q vns w/ local dissemin. pyrite (some cubic); also tension gashes filled w. quartz. Broken lower contact.						
85.5 97.0	75	0.10							
77.0' 98.0'			RUSTY GRAY TO DARK GRAY FELDSPAR PORPHYRY ← - 10-15% 1-4mm white feldspar pieces in an aphanitic groundmass - very hard? silicified? - some hairline - 1mm Q vnts						
97 98.5'	70	0.40	85.5-89.5' = bleached selvages along occas. Q - Py veins	8412	85.5	90.5'	5'		0.01 0.001
			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		Rec'y %	RQD	DESCRIPTION	Sample No.	Interval		Core Width			
From	To					From	To				
98.0'	116'			MASSIVE, GRAY MEDIUM GR. GRANODIORITE - upper contact broken - 5% chloritized shedy mafics - grain size 1-2 mm 101.6-104' = BLUFF APHANITIC RHYOLITE - broken contacts w. granodiorite; 0.3' of fault gauge near lower contact. 104.3' = Q-Chl. vn. at 45° to c.a.; approx 2mm 114-115' - becomes bleached near lwr. contact.							
104	120	90	0.65								
116'	138'			LIGHT BROWN RHYOLITE PORPHYRY - 20-25% 1-2mm. white feldspar phenos in an aphanitic matrix - 116'-117.5' = several 2-4mm Q vn. w. minor pyrite near upper contact (? attitude of contact?) - 126-130' = brecciation w. minor rotation of frags. - rhyol. is locally f.g. (1-2mm) equigranular; its texture is variable. - 135.7' = cream carb. vn at 75° to c.a. (1-2mm approx) - 137' = Q-Py vn. at 45° to c.a. (2-3 mm. vult.)							
120	145.25	70	0.22								
138'	140'			M. GR. GRANODIORITE - locally silicified - broken contacts; possibly an inclusion.							
140'	145.5'			LIGHT BROWN RHYOLITE PORPHYRY - as from 116-138'							
145.25	160.5	95	0.55	- 143' = 2 cm. fault gauge at 20° to c.a.					Ag (oz/t)	Au (oz/t)	
145.5	154.5'			M. GR. GRANODIORITE - 12 one to five mm. Q-Carb ± Chl ± py vns 30-60° to c.a. Visible galena near lower contact at 45° to c.a. axis.	8413	145.5	150.5	5'	0.01	0.001	
160.5	166	85	0.31		8414	150.5	155.5	5'	0.01	0.001	
166	177	95	0.55								
154.5'	186.5'			LIGHT BROWN RHYOLITE PORPHYRY - 155.8' = 2mm-4mm. Q vn w. Py-galena	8415	155.5	160.5	5'	0.05	0.005	

DIAMOND DRILL LOG

HOLE No. 87-WB#1

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Interval		Rec'y %	ROD	DESCRIPTION	Sample No.	Interval		Core Width	Ag (oz/t)	Au (oz/t)
From	To					From	To			
177	171	65	027	160.5 - 165.5' = Fine 1-3 mm Q vns mainly at 30° to c.a. Minor galena in 1 vein. 164' - 166' = Strong fracturing w. some fault gouge 165.5 - 170.5' = Four 1-4 mm Q vns. w. some pyrite; one vein has minor galena. 170.5' on = occas. Q ± Py vnts. 183.5 - 184.5' = Brecciation & fault gouge; 4mm carb. vns in shear at 70° to c.a. 185.3' = dissam. py. in rhyo.	8416	160.5	165.5	5'	0.05	0.001
186.5'	199'			MEDIUM GRAINED GRANODIORITE - same as previously logged. - bleached to 194' - 2 Q-py vns (1-3 mm) at upper contact.						
199'	215'	85	036							
199'	238'			GRAY RHYOLITE PORPHYRY - 10-15% 4mm feldspar faths (subhedral to euhedral). Feldspars are mainly fresh 201' - feldspar phenos become smaller → 1mm. (25-30% by vol.); aphanitic gmass - commonly fine Q - Py vnts. - 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° to core axis; overall 1% dissam. pyrite.						
215	229	97	032							
				* - 229.5' - DRILLERS REDUCED TO NQ core. - 228.5' - 229.7' = inclusion of green ANDESITE. After the inclusion, rhyo is strongly shattered and locally brecciated w. abund. fine (hairline to 1mm) Q and Py vnts	8418	221.5	226.5	5'	0.02	0.001
					8419	226.5	228.7	3.2'	0.02	0.001
229	247	70	034		8420	228.7	234.7	5'	0.01	0.001
					8421	234.7	238'	3.3'	0.01	0.006
238'	243'			BANDED ANDESITIC TUFF c.tg. numerous carb. - Q vns parallel to foliation (45° to c.a.) - lwr. contact at 60° to c.a. upper cont. 50° to c.a.	8422	238	243	5'	0.01	0.001
242'	247'			RIFE BRECCIATED DIORITE	8422	242	247'	4'	0.01	0.002

DIAMOND DRILL LOG

HOLE No. 87-WB 1.

Page 4 of 4

Interval		Rec'y %	RQD	DESCRIPTION	Sample No.	Interval		Core Width	Ag (oz/t)	Au (oz/t)
From	To					From	To			
				sheared at 60° to c.a.	8424	247'	252' 76.80	5'	0.02	0.002
247	255.7' (77.93)			GREEN MASSIVE ANDESITE -25/6' = 2cm. white to cream Q - Carb vein at 45° to c.a.	8425	252'	257' 76.33	5'	0.01	0.001
247	271	87	0.60	- abundant hairline to 1mm calcite veins throughout.						
255.7	260.6' (71.13)			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'	262' 78.32	5'	0.01	0.001
260.6	275.9' (81.14)			FOLIATED GREEN ANDESITE - foliation 45° to c.a.	8427	262'	267' 81.32	5'	0.02	0.001
271	288	75	0.16	- abundant calcite veins parallel to foliation, perpendicular to fol'n and running down core axis.	8428	267'	272' 82.89	5'	0.02	0.001
275.9	288' (87.13)			STRONGLY FRACTURED, PINKISH BROWN RHYOLITE PORPHYRY. - occasional hairline - 1mm Q ± Py veins. - broken contacts - ? attitude.	8429	272'	275.9' 84.07	3.9'	0.03	0.001
288	295.9 (90.15)			GREEN ANDESITE - locally rusty - fol'n local 4 35° to c.a.						
288	296	90	0.75	- abundant calcite stringers and dash veins from 292-295.9'; Assay if other similar And. "Kicks!"						
295.9	302.7' (91.16)			RUSTY ALTERED RHYOLITE - fig. 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							

SN/310E' DIP TEST: -51 at E.O.H. DIAMOND DRILL LOG ADVANCE 294.3' HOLE No. 87-WB2 Page 1 of 10
 VE BEARING AXS AT WINDY RAMP RANGE DEPTH 224.1' AZ 206 DIP -55 Logged by [unclear]

To	Rec'y %	RQD	DESCRIPTION	Sample No.	Interval		Core Width	
					From	To		
0	16'		Casing					
16'	72'		OVERBURDEN					
			Broken core of predominantly intermediate lapilli tuff w/ < 5% tuff breccia. Lamination along fractures. 66-71' Core lost.					
72'	80'6"		INTERMEDIATE (ANDESITIC) LAPILLI TUFF					
	81	85 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					
	81	93 0.30	Brownish green to greenish grey, 30% mafics = chlorite, 7% 1-2mm Kspac phenocrysts, remaining xstls are limon. Variable amount of limonitic alteration, either as pervasive up to 15%, or fracture filling. 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'	8451	90'10"	91'10"	1'	Au (oz/ton) .002 Ag (oz/ton) .02
			≤ 1cm qtz veins with albite(?) and calcite rims. ≤ 2mm euhedral to subhedral py in adjacent to veins.					
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-W32

Page 2 of 10

Interval		Recy %	RQD	DESCRIPTION	Sample No.	Interval		Core Width
From	To					From	To	
111'	116'			<p>RHYOLITE - FELDSPAR PORPHYRY</p> <p>Light pinkish brown, porphyritic with 5% 1mm plagioclase phenocrysts in an aphanitic matrix, moderately silicified; 2-5% fractures w/ thin white halo around + limonite + carb infilling fractures; variable fracture orientation. Trace py. Mostly broken core, contact broken</p>				
116'	125'			MEDIUM GRAINED QUARTZ MONZONITE				
118.5'	121'	90	.35	<p>As 80'6" - 111' but 50% of core is limonitically bleached & more stringently limonitized fractures.</p> <p>Lower contact limonitically altered & fine grained irregular 55-62° to C.A.</p> <p>112'-112'6" Qtz vein tension path</p> <p>Infilling with 20% chlorite trace py.</p>				
125'	126'			<p>RHYOLITE - FELDSPAR PORPHYRY</p> <p>Brownish grey, with 1-3mm plagioclase phenocrysts in an aphanitic matrix. 5-10% perthite on fracture filling limonitization. 1% disseminated py.</p>				
126'	131'3"			<p>MEDIUM GRAINED QUARTZ MONZONITE</p> <p>As 80'6" to 111'. Contact with unit above & below broken.</p> <p>- 127'-127'3" 2-3mm quartz-chlorite vein 25-30° to C.A. w/ 5% subhedral py.</p>				

DIAMOND DRILL LOG

HOLE No. 87-WB2

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Interval		Rec'y %	RQD	DESCRIPTION	Sample No.	Interval		Core Width	Au (oz/t)	Ag (oz/t)
From	To					From	To			
131'3"	140'			RHYOLITE PORPHYRY	8452	136'7"	137'7"	1'	.001	.01
				Pinkish brown to light brown, 1mm subhedral plagioclase 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.						
40'	151'2"			MEDIUM GRAINED QUARTZ MONZONITE						
				Greenish gray, with 35% 1-3mm feldspar phenocrysts in a matrix of 1mm qtz. Feldspar & qtz & chlorite. 2% G to 10mm 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"	159'	2' 10"	.001	.03
					8454	151'	156'6"	2' 6"	.001	.04
				Light greenish brown to pinkish brown, but variable w/ 10% 1mm ave. plagioclase phenocrysts, 1-2% qtz veins up to 2mm wide, with a band of silicification & pyritization (vein 5%) surrounding vein. Weak chloritization in places & pervasive weak to moderate or fracture filling limonitization. Minor 1% magnetite (?) in chloritic areas.	8455	156'6"	158'	1' 6"	.004	.05
151	165	100	0.22		8456	158'	163'	5'	.001	.01
					8457	163'	168'	5'	.004	.03
					8458	168'	169'	1'	.011	.04
					8459	169'	173'	4'	.004	.04
165	179	82	0.75							
				- 157.5' + 168-169 [redacted] (white?) [redacted] vein & fracture. Variable orientation 15-20° to CIA. Lower contact irregular, mostly broken						

DIAMOND DRILL LOG

HOLE No. B7-WB2

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Interval		Rec'y %	RQD	DESCRIPTION	Sample No.	Interval		Core Width	Au (oz/t)	Ag (oz/t)
From	To					From	To			
173'	176'6"			MEDIUM GRAINED QUARTZ MONZONITE Greenish grey, bleached (by limonite) pinkish brown toward contacts. Moderate to strong chloritization, with 2% 1mm chlorite patches. 3% disseminated biotite (magnetite?) lower contact 42-47° to CIA.						
176'6"	185'			MIXED QUARTZ MONZONITE + ALT'D RHYOLITE						
179	200	95	920	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 pl. plag phenocrysts in an aphanitic matrix. 1% diss py, up to 2% py along fractures &/or q.v. Qtz veinlets comprise 5% of vol are commonly 0.5 to 2mm wide & 25° to CIA. Fractures & q.v. up to 10% ankite(?) or limonite surrounded by a silicification halo.	8461 8462	191 196	196 199	5' 3'	.001 .001	.03 .03
199'	207'4"			ALT'D MEDIUM GRAINED QUARTZ MONZONITE 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

DIAMOND DRILL LOG

HOLE No. 87-WR2

Page 5 of 10

Interval		Rec'y %	RQD	DESCRIPTION	Sample No.	Interval		Core Width	Au (oz/t)	Ag (oz/t)
From	To					From	To			
"				contact irregular 15-70° to C.A.						
207'4"	212'	92	0.58	QUARTZ VEINED & ALTERED RHYOLITE PORPHYRY Grades from dark pinkish brown to pinkish brown then brownish white toward lower contact. 5-10% plagioclase phenocrysts varying from $\le 0.5\text{mm}$ to 4mm 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, up to 5% subhedral to euhedral $\le 1-2\text{mm}$ py & trace gn in veins & fractures. Several sericitic alt'd, fault gouged & argillic alt'd gouge zones						
				-207'4" to 213': Chloritized & linearitically bleached coarse ($\le 4\text{mm}$) porphyry, few veins, up to 3mm, 25-30° to C.A., weak to mod carb alt. along fractures, 1-2% py.	8464	207'4"	210'	2'8"	.001	.02
					8465	210'	213'	3'	.001	.02
				-213' - 214': Broken core						
				-213' - 219': Pink to pinkish brown, QFP (?) w/ 13-70% 1-5mm qtz 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 up to 5mm. 5% py in veins, trace gn.	8468	219'	221'6"	2'6"	.007	.01
				-221'6" - 223': $\le 25\text{mm}$ qtz vein w/ 15% chlorite, 2-7% ankerite, 10% albite (?) 1-3% $\le 4\text{mm}$ euhedral py, & trace gn	8469	221'6"	223'	1'6"	.335	.11 (P ⁹ , TRC 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

DIAMOND DRILL LOG

HOLE No. 87-WB2

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Interval		Recy %	RQD	DESCRIPTION	Sample No.	Interval		Core Width	A _w (oz/ton)	A _g (oz/ton)
From	To					From	To			
				of several gray veins by white qtz carbons. '2% vns = 1cm, similar composition to above.						
				229' 1' sericitically alt'd band						
				- 229' - 235' 8" : Grades from 6" sericitic(?) schist (shear) at 70-80° to C.A. to	8472	229	230	1'	.001	.02
				pyritic (5%) fractured, silicified & Fe altered	8473	230	231 1/6"	1 1/6"	.001	.01
				2' band into a pinkish brown silicified porphyry w/ 1% py	8474	231 1/6"	235' 8"	4 1/2"	.003	.01
				- 235' 8" - 239' : Light brown, well silicified, < 1% py, few fresh plg phen.	8475	235' 8"	239'	3' 4"	.001	.05
				- 239' - 242' : Weak carb + strong argillic altered particularly along fractures. Lower contact irregular @ 40° to C.A., partially chloritized	8476	239'	242'	3'	.001	.01
242'	248' 6"			INTERMEDIATE (ANDESITIC) TUFF (?)	8477	242	248	4'	.001	.03
248'	253'	77	0.80	Dark green, v. fine grained, 2-4% 1-3mm fractures filled with calcite ± qtz. Moderately pervasive chloritization w/ chlorite ± hematite or ankerite (?) in veins or fractures.						
248' 6"	260'			INTERMEDIATE (ANDESITIC) VOLCANICS						
				Dark green to green, aphanitic to fine grained (diortitic?) 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.	8478	248' 6"	252'	3' 6"	.001	.01
				- 248' 6" : 4" qtz (± chlorite) bx						
				- 253' 8" : strong carbonatization surrounding 1cm qtz + carb vein						
				- 254' - 260' : "blotchy" texture light						

DIAMOND DRILL LOG

HOLE No. BT-1032

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Interval		Rec'y %	RQD	DESCRIPTION	Sample No.	Interval		Core Width	Au (oz/t)	Ag (oz/t)
From	To					From	To			
				green feldspars (?) surrounded by augite (?) & chlorite x'tals; 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	269	57	0.11	Dark purplish brown; 30% .5-2mm feldspar x'tals commonly altered in centre to sericite. Sericite & limonite along fractures. ~ 1% py, blocky & broken, poor recovery.						
271'	280'6"	18	0.03	ALT'D & QUARTZ VEINED ANDESITE						
				Dark green for 60% of rx, remainder is limonitically bleached. Quartz-calcite veins up to 2.5cm wide w/ largest 11 to 10° to C.A. Very broken, only @ 18% recovery. Strongly carbonatized.	8480	271'	280'6"	9'6"	.001	.01
				(Only 18% rec'y)						
10'6"	285'			RHYOLITE PORPHYRY						
				As above; lower contact ^{sharp} @ 60° to C.A.						
285'	285'8"			ALT'D ANDESITE						
				As above; lower contact sharp 80° to C.A.						
284	314	98	0.44							

DIAMOND DRILL LOG

HOLE No. 87-WB2

Page 8 of 10

Interval		Recy %	RQD	DESCRIPTION	Sample No.	Interval		Core Width	Au (oz/t)	Ag (oz/t)
From	To					From	To			
285'8"	313'			FINE GRAINED GRANODIORITE (FELSITE) - 285'8" - 300'6" : Buff pale yellowish green, more reddish for 40% where bleached by limonite, or greenish for 30% where chloritized. 25-30% \leq 5mm matrix minerals in chloritic zones @ 10% in silicified & sericitized parts. Few fresh feldspars 1% \leq 5mm fractures w/ calcite infilling. Trace py. - 300'6" - 310 : N. 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 + mag, up to 2% py in fractures. - 310 - 313' : Greenish white to greenish grey, more chloritized w/ depth; fine grained. Contact sharp 55-60° to C.A.						
					8481	305	310	5'	.001	.03
313'	327'8"			ANDESITIC FLOW(?) Dark green to grey, moderately foliated at 70-80° to C.A. & moderately chloritized. Occasional (2%) 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 veins up to 25cm wide, white to dark grey. Becomes silicified at base. Foliation adjacent to q.v. 50° to C.A. By at 326' & lower contact, however						
314	326	90	044		8482	325'6"	327'8"	2" 2"	.001	.01

DIAMOND DRILL LOG

HOLE No. 87-462

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Interval		Rec'y %	RQD	DESCRIPTION	Sample No.	Interval		Core Width	Au (oz/T)	Ag (oz/T)
From	To					From	To			
327'6"	348'6"			RHYOLITE (FELSITE)						
326	328	93	0.14	Blk light brown, v. fgn. grained, 5-15% 1mm qtz and/or feldspar phen. 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	0.21	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						
359	368	98	0.18	Greenish brown to buff brown; v. fgn. grained, grades from chloritic altered to limonitically bleached qtz porphyry, 3% 1-2mm phenocryst in an aphanitic to v. fgn. 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 phenocryst in an aphanitic matrix - 371' - 373' : moderately sericitized,	8483	371'	373'	2'	.001	.01

DIAMOND DRILL LOG

HOLE No. 87-WB2

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Interval		Recy %	RQD	DESCRIPTION	Sample No.	Interval		Core Width	Au (oz/t)	Ag (oz/t)
From	To					From	To			
				Core very broken.						
375'6"	385'6"			SHEARED INTERMEDIATE (ANDESITIC) VOLCANICS						
376	392	85	0.59	Dark green, sheared & contorted w/ most foliations at 30°-45° to C.A., 2% carbonate + Qtz veins & fracture fillings. 2mm Qtz at 377'. - 381' - 382' : Buff greenish grey rhyolite (may be silicified andesite?), well fractured w/ chlorite &/or limonite along fractures.	9484	376	376	2'	.001	.02
385'6"	393'			FINE GRAINED GRANODIORITE (FELSITE)						
390	400	94	0.15	Light greenish brown to buff brown, v. fine scoured sub porphyritic to porphyritic - 3% Qtz & 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 xtls moderate chloritization, 1% Qtz &/or carb veins 60-80° to C.A., Lim &/or hemat along fractures. Minor epidotization. - 403'6" - 404'6" : Strong carb alt'd, broken core - fault gouge?						
406'				E.O.H.						

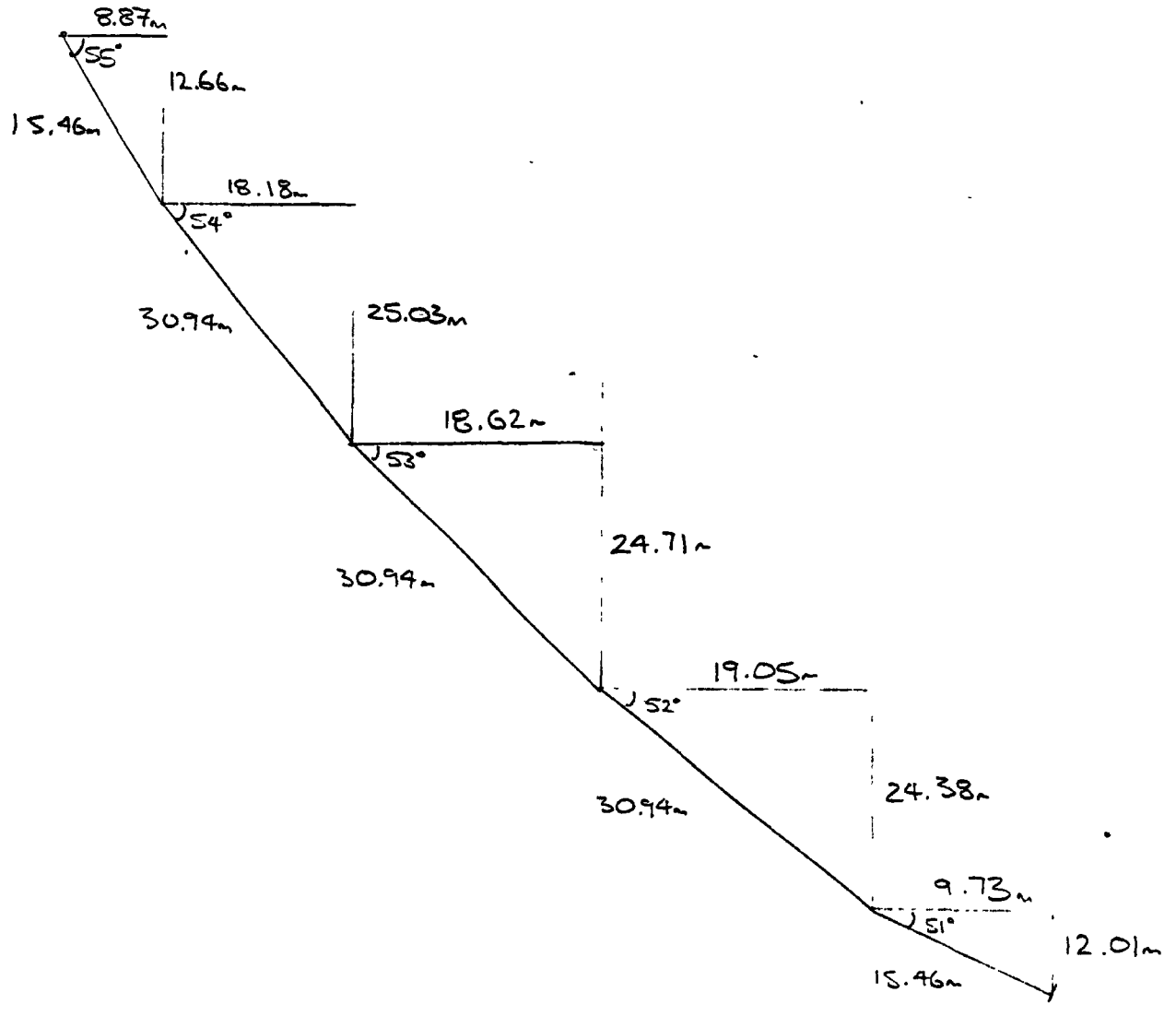
LENGTH 406'

ADVANCE: 74.45m (244.3')

DIP @
RECEPT -55

DEPTH: 98.79m (324.1')

DIP @
EXIT -51



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+7SE Dip Tests - 60 (lead test) Advance 217.4' 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		Recy %	RQD	DESCRIPTION	Sample No.	Interval		Core Width	RQD + % Recovery by H.K.T.	
From	To					From	To		A ₀ (oz/tw)	A ₅ (oz/tw)
0	21'			OVERBURDEN						
21'	24'			FAULT GOUGE? or GOLDEN-BROWN SOIL?						
24'	53'			FINE GRAINED (1/2 mm) RUSTY GRAY RHYOLITE PORPHYRY - leucocratic; 2% 2mm. Q. eyes - strongly broken ground. - 36.5' = 2mm. Q. vns. w. minor pyrite	8430	36	41'	5'	0.001	0.01
0	53	32	0	-36-41' = Many tiny Q vns. w. minor pyrite		1050		1.50		
53	66	71	0.15	-43-53' = very poor recovery -48-53' = Fault gouge - At 53' - good core to 58'						
53'	79'			FELSIC TO INTERMEDIATE TUFF? - medium green where fresher surfaces - strong brown carbonate alteration - abundant Q - carb. vns up to 6mm. across vns. 20-70° to c.a.	8431	53	58	5	.001	.01
						16.5	17.65			
66	88	85	0.30	-61-66' = Shear foliation ca. 30° to c.a. = intense Q - carb. veining; 62.5-64.5' = 10% veins by volume	8432	61'	66'	5'	.001	.01
						18.55	20.12			
				-66-76' = Mainly fault gouge	8433	66	71'	5'	.001	.01
							21.04			
79'	84'			BROWN, MASSIVE DACITE DYKE or SILL - soft; ? angle of contacts - excellent core recovery	8434	71'	76'	5'	.001	.01
							23.16			
84'	114.5'			FELSIC TO INTERMEDIATE TUFFY 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-WLB 3

Page 2 of 5

Interval		Rec'y %	RQD	DESCRIPTION	Sample No.	Interval		Core Width		
From	To					From	To		Au (gr/ton)	Ag (gr/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' (46.2m)			BUFF RHYOLITE PORPHYRY - MINERALIZED ^{to 126.5'} - 10% 3-5mm glossy feldspar laths in an aphanitic matrix. 114.5'-115.5' = contact brecciation with Q-py infilling between fragments; some veins 30° to c. axis. - haulie to 1mm carb. vns common; ^{COARSE GR. GALENA IN CHL. ALTP SECTION} - 118.5' = fig. GALENA? in Q. vn at 20° to c.a.	8435	114.5	118.5 36.12	4'	.009	.01
					8436	118.5	122.5 37.34	4'	.013	.08
					8437	122.5	126.5 98.56	4'	.007	.01
118.5	153	86	Q10	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.a. - 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' (47.2m)			ALTERED GREEN ANDESITE - fault gouge to 153' - abund. calcite vnlts. - lwr. contact 70° to c.a.						
155'	160' (49.7m)			MEDIUM GRAINED GRANODIORITE - 5% chloritized mafics - fresh feldspars only occas. sericitized						
153	172	80	Q10	- 159-160' = fault breccia; lwr. contact ca. 45° to c.a.						
160	182.5' (56.6m)			PINKISH BROWN RHYOLITE - becomes fig. 2' from contact after first 2' of an aphanitic glass w. 5% 1-2mm anhedral feldspar						

DIAMOND DRILL LOG

HOLE No. 87-WB3

Page 3 of 5

Interval		Rec'y %	ROD	DESCRIPTION	Sample No. #	Interval		Core Width		
From	To					From	To			
				- hairline fract. w. dissem. py. common - very hard (nail won't scratch) - lower contact approx. 60° to c.a.						
182.5'	190.6'			MASSIVE MEDIUM GRAINED GRANODIORITE - 7-10% chloritized matrix - locally rusty brown carb. att ^m especially near contacts - lower contact irregular and 45° to c.a.						
190.6'	198'			PINKISH BROWN RHYOLITE PORPHYRY - 15% anhedral to subhedral feldspars (1-2 mm) in an aphanitic glass						
170	201	90	0.35	- 194' = 2% dissem. PYRITE over 0.3' - lower contact 80° to c.a. (?) broken						
198'	202'			MASSIVE MEDIUM GRAINED GRANODIORITE - lower contact ca. 90° to c.a.						
201	227.5	70	0.12	* REDUCED TO NQ CORE at 201'					Ag (Ct/cm)	As (Ct/cm)
202'	239.5'			RUSTY BROWN RHYOLITE PORPHYRY 203-204' = Shear zone w. 0.5' of Gw-sl-Py - Bearing QUARTZ; 2% total sulphides of mainly gn and sl. 204'-206' = silicified rhyolite in fault zone w minor PYRITE - poor recovery 208-222' = strongly fract. ; local fault gouge 211.5' = fault gouge down core axis	8438	203	204	1'	.003	.13
				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.a. 225.7' = 2 mm. py vn. at 45° to c.a. 231-233' = fault zone	8439	204	206	2'	.002	.03
				ASSAYED SECTIONS CTG Q - Py vns ; ca. 1-2 per foot of core length						
231.5	266	80	0.30		8440	222.5	227.5	5'	.001	.05
					8441	227.5	232.5	5'	.007	.03
					8442	232.5	237.5	5'	.002	.01

DIAMOND DRILL LOG

HOLE No. B7-WB 3Page 4 of 5

Interval		Recy %	RQD	DESCRIPTION	Sample No.	Interval		Core Width
From	To					From	To	
				- lightly rusty and lightly bleached to 253'				
261.5'	271.5'			CARBONATE-VEINED GREEN ANDESITE				
	(5.75m)			- upper contact 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'			PINKISH BROWN RHYOLITE PORPHYRY				
	(9.98m)			- occas. 1-2 mm. Q. vnt.				
				- 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.a. axis.				
				- the whole zone is STRONGLY FRACTURED.				
307.5	323	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'			GREEN ANDESITE				
	(5.15m)			- bleached for 1' from broken contact.				
				- cream to buff 1cm. Q - Calc. 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'			ALTERED MEDIUM GRAINED GRANODIORITE				
	(6.1m)			- 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'			BROWN RHYOLITE PORPHYRY				
	(10.97m)			- 20% 1-3 mm. feldspars in aphy. g.d.m.				

DIAMOND DRILL LOG

HOLE No. 87-WB #3

Page 5 of 5

Interval		Rec'y %	RQD	DESCRIPTION	Sample No.	Interval		Core Width
From	To					From	To	
329.5'	332.5'			FOLIATED GREEN ANDESITE				
	(101.35 m)			- fol'm 45° to c.a.				
333	343	90	0.05	- contact (lower) ca. 45° to c.a.				
332.5'	367.2'			RUSTY F. GR. to M. GR. GRANODIORITE				
	(112.2 m)			- 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.				
72'	387.5'			PINKISH-BROWN RHYOLITE PORPHYRY				
	(118.11 m)			- upper contact ca. 45° to c.axis.				
				- 371.5' = 2 - Two mm. Q. vns at 45° & 60° to c.o.				
				- 25% 1-3mm. feldspar phenos.				
				- 382' = Several hairline PY vnts				
387.5	464.8'			GREEN ANDESITE (TUFFACEOUS)				
	(141.67 m)			- 1% hairline to 3mm. calcite or non-fizzing Calc vns; vns 20-60° to c.axis.				
				- dark green colour; massive; rel. high RQ.D.				
				- broken upper contact.				
388	471	90	0.70	- several irregular lenses of Q - brown calc. 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 dissem pyrite in brown rhyo.				
				- contacts 30-80° to c.a.				
				- 468' = hairline Q. vns cuts across both contacts				
				- gray rhyo later.				
				F.O.H. = 471'				

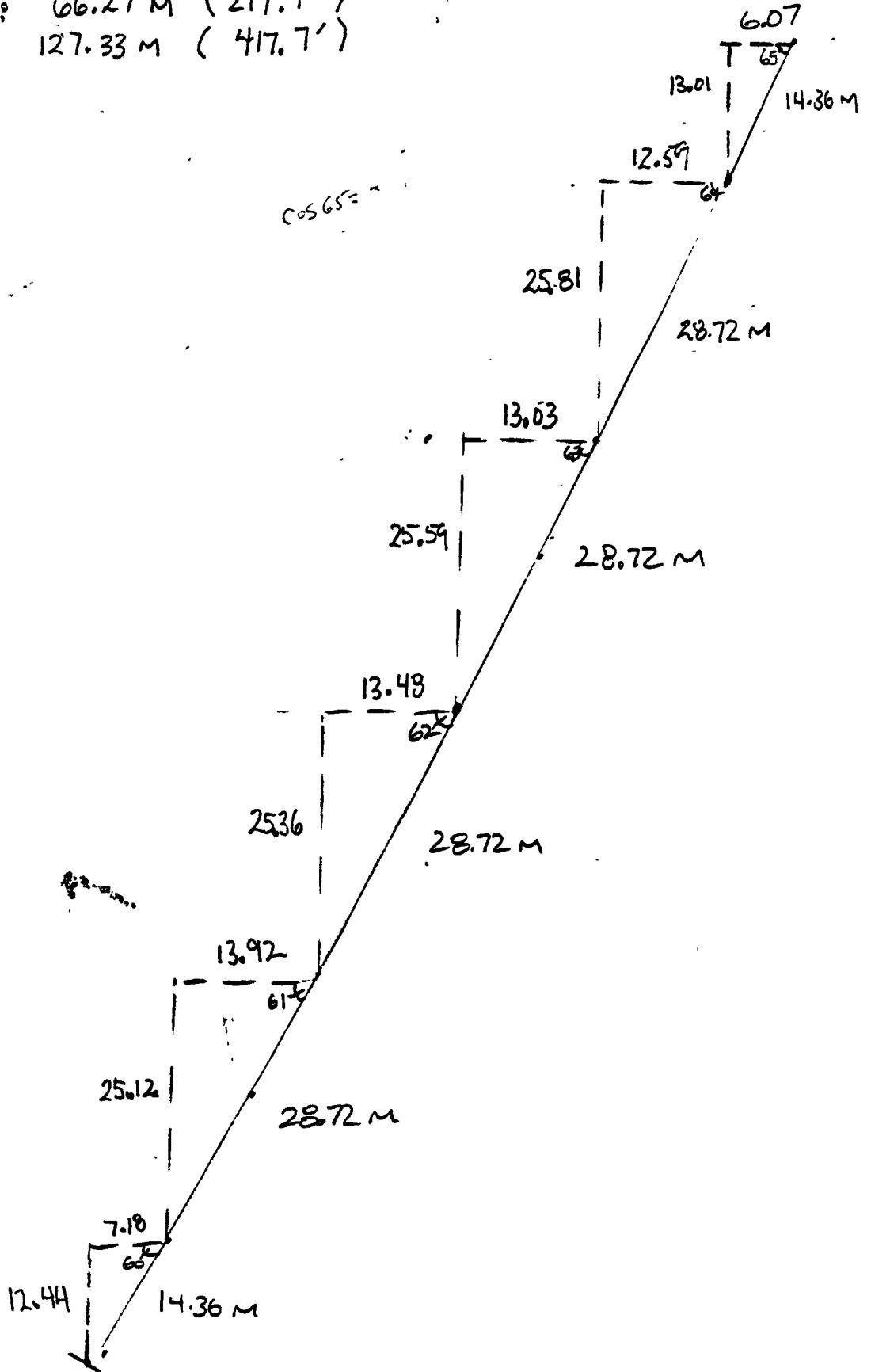
LENGTH : 471

Dip @
Collar : -65°

Dip @
E.O.H : -60°

14.36, 28.72

Advance: 66.27 M (217.4')
Depth: 127.33 M (417.7')



DIAMOND DRILL LOG

HOLE No. 87-WB4

Page 1 of 2

Property ISLAND MINING-JL CLAIMS NTS 105 D/2 Claim JL Elevation Azimuth 135° Length 301' Dip -65°
 Coordinates ~230N 275E Dip Tests -63 at EQH. 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. BLUNT

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

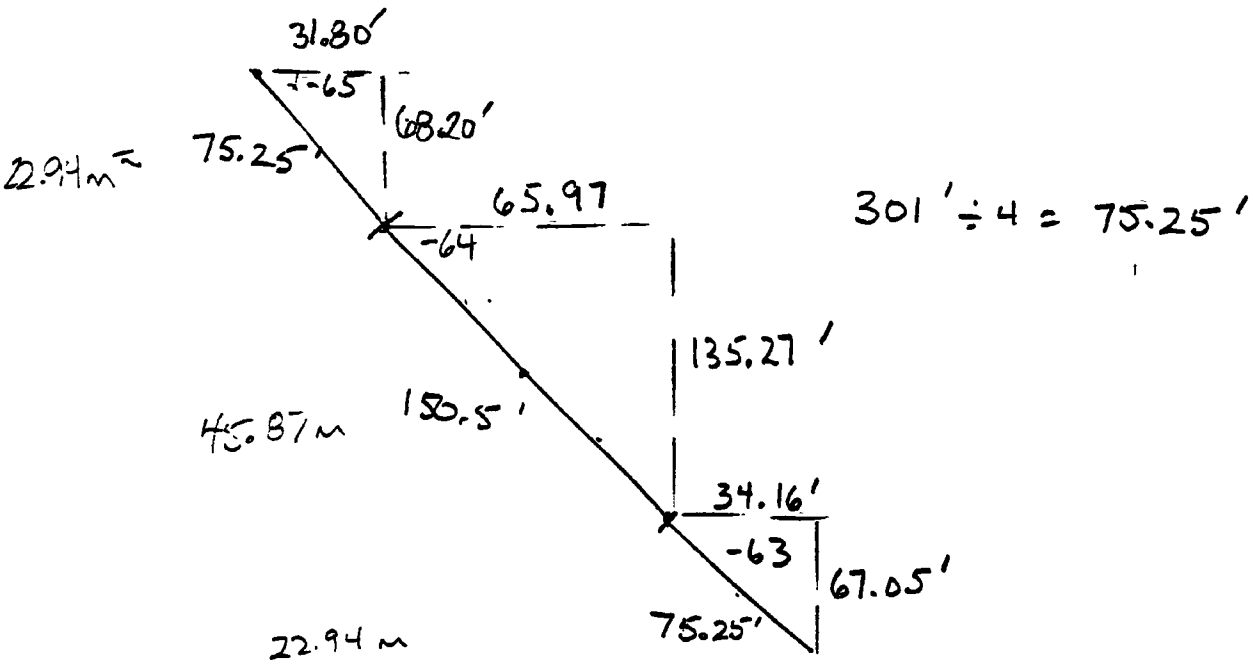
DIAMOND DRILL LOG

HOLE No. 87-WB4

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Interval		Rec'y %	ROD	DESCRIPTION	Sample No.	Interval		Core Width	CU	PB	ZN	AG	AS	HV
From	To					From	To							
				-200'6" - 202' : Sericitically bleached minor quartz	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
207'	219'			GREENISH BROWN ALT'D MEDIUM GRAINED QUARTZ MONZONITE		6' 5"	63.09"							
				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'			PINKISH BROWN RHYOLITE PORPHYRY										
				As before. Fe carb & ox altered, calcite along fractures. Blocky & broken core poor rec'y.										
227'	230'			Switch to NG core										
230'	245'6"			GREENISH BROWN MEDIUM GRAINED QUARTZ MONZONITE										
230'	260'	38	025	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 238' - 239' & 243' - 245'6"										
245'6"	286'			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 & sericitic alteration										
260	286'	30	009	Carbonate & limonite altered fractures w/ up to 10% < 2mm subhedral py x'tals.	8623	251'	256'	5'	7	42	53	.3	12	4
					8624	261'	256'	5'	7	24	37	.7	2	2

LENGTH : 301'
 Dip @ Coliar : -65°
 Dip @ E.O.H : -63°



Advance : 131.93'
 Depth : 270.52'

W04

Mineralized zones : 1) 4' section from 134'2" - 138', w/
tr - 1% galena in Fe altered & brecciated rhyolite
porphyry. A 1' 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.

Property MIDDLETOWN GULCH NTS 105 D12 Claim TON Elevation 4900' Azimuth 220° Length 339' Dip -50°
 Coordinates 4+40N/1+20W Dip Tests -90° at EOH Advance 217.9' Depth 259.7' Date Collared JULY 19, 1987 Date Completed JULY 22, 1987
 Purposes TEST JUNCTION OF 2 MAJOR UNIFORMS & MINERALIZATION AT TUN SHOWING Drilled by CARON D. O. Assays by ACME Logged by MUGGERIDGE

Interval From To	Rec'y %	RQD	DESCRIPTION	Sample No.	Interval		Core Width	ASSAYS									
					From	To		CU	ZN	Fe	Ca	Mg					
0 4' (1.22m)			CASING														
4' 29' (8.94m)			ANDESITIC LAPILLI TUFF & TUFF														
0 40.5'	23	0.10	4' - 16' : Dark green lapilli tuff w/ 7% of 15mm angular fragments. Blocky & broken core. 6" flow w/ 10% fine matrix (chlorite?) phenocrysts at 13'; flow contact @ 15.5' to CIA. 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 by. By band variable thickness & orientation to CIA. Slightly vuggy w/ calcite infilling	8485	22'	24'	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 Purplish brown, w/ 35% < 1mm feldspar xtal 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 & 1/4 py. mostly broken core.	8486	29'	32'	3'	13	6	21	.3	2	1				

DIAMOND DRILL LOG

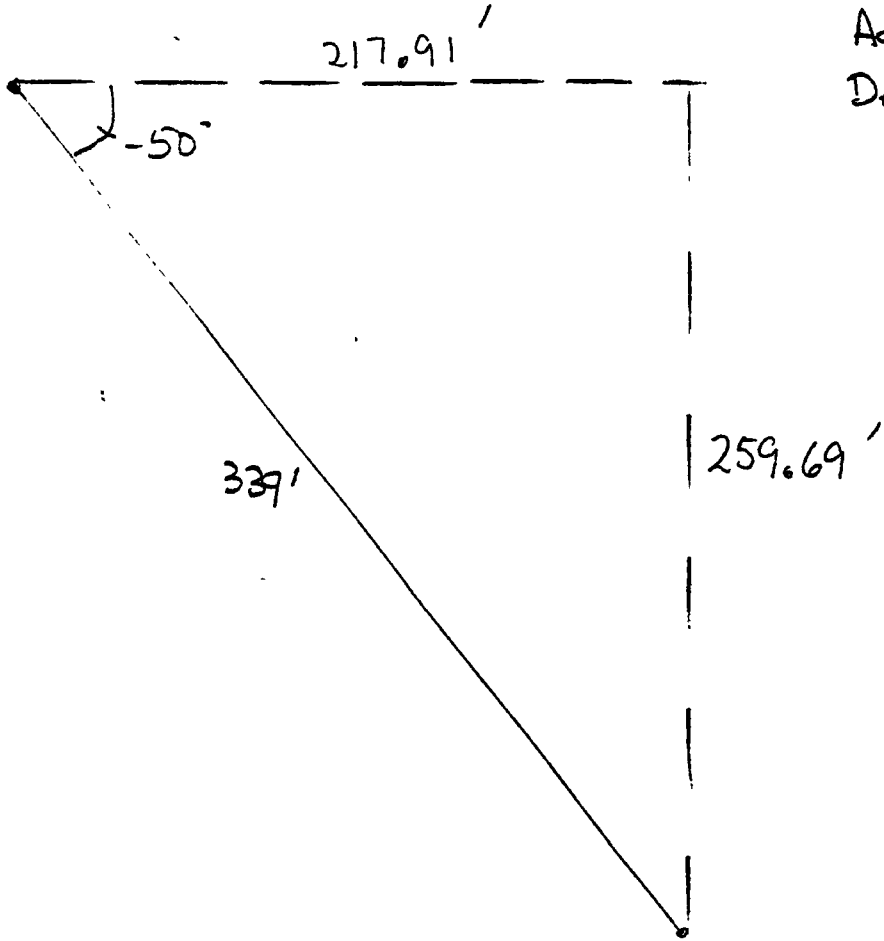
HOLE No. 87-T4

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Interval		Rec'y %	RQD	DESCRIPTION	Sample No.	Interval		Core Width								
From	To					From	To									
236'	245' (74.68m)			MIXED ANDESITIC LAPILLI TUFF & FELSIC (RHYOLITIC) PORPHYRIC FLOWS - 236' - 237'6": As above but with lapilli fragments < 1cm & weakly bleached - 237'6" - 238': Dark purplish grey, porphyritic w/ 5% 3mm phen. in an aphanitic matrix. 5% 1-2mm 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 2-3mm plagioclase phenocrysts in an aphanitic & occasionally flow banded matrix. Slightly bleached.												
252'	272' (82.91m)			ALT'D RHYOLITE PORPHYRY Orangish to light greenish brown, fr. 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° to 90° to C.A.												
251'	256'	81	0.26		8507	252'	254'	2'	4	2	24	.1	4	1		
					8508	256'	258'	2'	5	15	31	.2	6	4		
					8509	267'	272'	5'	4	20	43	.3	11	2		

LENGTH: 339'
Dip @ Collar: -50°
Dip @ E.O.H.: -50°

Advance: 217.9'
Depth: 259.7'



DIAMOND DRILL LOG

HOLE No. 81-T2

Page 2 of 8

Interval		Rec'y %	RQD	DESCRIPTION	Sample No.	Interval		Core Width												
From	To					From	To													
				≤ 10 cm crystal tuff bombs between 29' & 31'.																
35'	37'6"			ALT'D ANDESITIC LAPILLI TUFF																
				Dark green moderately chloritized w/ 35% light brownish white matrix, argill. (?) & siliceous alt'd ≤ 15 mm volcanic fragments. Core broken for lower half of unit.																
37'6"	43'			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"			ALT'D ANDESITIC TUFF																
				Green at top of unit grading to brown. Fr. grained, w/ limonite & wad along fractures. Blocky core.																
45'6"	46'6"			RHYOLITE																
				Pinkish brown, felsic v. sugared, broken core, poor rec'y.																
46'6"	51'6"			ALT'D DISHEARED PORPHYRITIC ANDESITE (?) FLOW																
				Orangeish brown, w/ 3mm elongated sericitized feldspar (?). Foliation at @ 70° to c.a. Strong limonitic alteration.	8517	47'	50'	3'	12	6	36	.3	3	2						

DIAMOND DRILL LOG

HOLE No. 87-J2

Page 2 of 8

Interval		Recy %	ROD	DESCRIPTION	Sample No.	Interval		Core Width	
From	To					From	To		
54'6"	62'			MIXED ALTERED TUFF & LITHIC LAYERS.					
	18.90m			Fine grained dark green to brown, fairly massive mixed pebble lithologies. S. rhyolite (A.A.), + tuff at 57' - 58'6" & 59' - 59'6". May be an overburden seam?					
62'	97'			ANDESITIC LAPILLI TUFF					
70'	86'	74	012	Grades from strongly limonitically bleached & weakly foliated (at 20-40' to 80') to weakly bleached (limonite spotting & 5% alt'd fragments) 1-2% \leq 5mm limonite & carbonate fracture filling on 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 - 77' - 80'6" : Mostly broken core; strong limonitization along fractures - 2 bands of fault gouge? - 87'6" - 88'6" : Amygdaloidal flow w/ 7% 1mm chlorite & carbonate filled amygdules. chloritized & hematized qtz & patch. - 96' : 9 cm v. fine grained elast.	8518	87'6"	88'6"	1'	22 25 131 .2 11 2
				Lower contact irregular					
97'	122'			ANDESITIC TUFF					
	37.7m			Dark green fa. grained, occasionally weakly mottled, moderately chloritized, v. weak epidotization. \approx 10% calcite tension gash & fracture filling generally increasing w/ depth; also as multi generation networks, minor epidote veining, & strong chloritization					
96'	111'	88	055						
111'	138'	90	067						

DIAMOND DRILL LOG

HOLE No. 87-12Page 4 of 8

Interval		Rec'y %	ROD	DESCRIPTION	Sample No.	Interval		Core Width						
From	To					From	To							
				along fractures at depth. - 107' 6" : Patch of spy in a small - 111' - 112' : chloritic zone band	8519	107'	109'	2'	168	11	110	.5	4	1
				- 114' - 115' : Strongly epidotized, w/ 3mm calcite vns & vltz, weak hematization.	8520	114'	115'	1'	58	58	72	.5	7	2
122'	129'			- 115' - 122' : Trace py, epidomal; ANDESITIC LAPILLI TUFF.	8521	115'	120'	5'	101	23	111	.8	14	1
				Dark green, v. strongly mottled, w/ anastomosing calcite vns & fractures. Weak pervasive limonitization, moderate chloritization & limonitized fractures	8522	124'	129'	5'	90	11	128	.7	5	1
129'	134'			ANDESITIC AMYGDALOIDAL FLOW										
				- 129' - 130' 6" : Dark orangish/brownish green grading to orangish brown, tuff w/ 10% lam chloritic filled amygdules grading into carbonate orqtz filled amygdules (may be a perphyritic flow?). 4cm qtz + ankerite? - carbonate vein at 130'. In surrounded by pervasive strong limonitic & weak carbonate & sericite (?) alteration	8523	129'	130' 6"	1' 6"	35	12	83	.4	9	1
				- 130' 6" - 134' : Dark green, with slight orangish brown limonitic bleaching; 10% chloritic amygdules as above. Small 2cm qtz veins at 131' + 132' 6" respectively Tr py, 3% carbonate vnlts & fracture fillings	8524	130' 6"	133'	2' 6"	254	11	107	1.3	8	4
134'	135' 6"			ALTERNATING ANDESITIC TUFF & CRYSTALLINE/LIMONIC TUFF										
				Dark green slightly mottled tuff & light grey crystal / lithic tuff w/ 10% 2-3mm white plagioclase x'tals, 10% angular	8525	134'	135' 6"	1' 6"	326	14	94	1.0	6	1

DIAMOND DRILL LOG

HOLE No. 87-T2

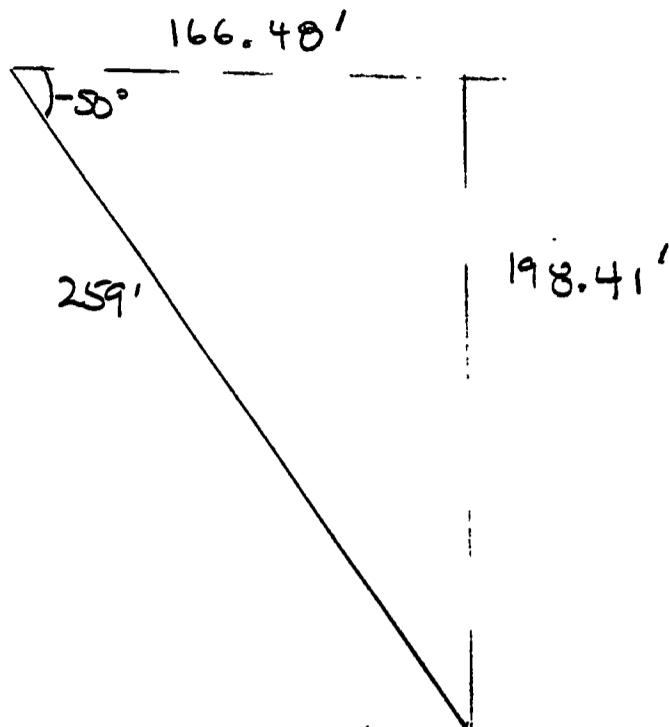
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Interval		Rec'y %	RQD	DESCRIPTION	Sample No.	Interval		Core Width										
From	To					From	To											
				Fe carb or limonite w/ vns. Foliation decreases w/ depth. - 152'-153': Possible chloritized, grainy granodiorite. Upper contact @ 35° to C.A. Large calcite vein. Tr py. - 154'-155': Limonitically bleached w/ 2mm q.v. - 160'-162': Broken core, +4cm q.v. at 161'. - 164'-165': Strongly foliated, moderate bleaching. - 165'-167': Weak to non-foliated, multi-lithic fragments, several small silicified bands, slightly mottled tr py.														
182'	184'			ANDESITIC TUFF Green w/ 5% 1mm chlorite x'tals. Upper contact @ 45° to C.A.														
184'	242'			ANDESITIC LAPILLI TUFF & TUFF Dark green. Upper half: Fragments generally smaller than overlying lapilli tuff (ave < 5mm); weak (< 1%) limonitization of selected mafic minerals; moderately chloritized throughout & sporadically silicified; occasional crystal tuff & lithic tuff (< 15cm) 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 < 10cm bands at 218' & 229' 6". - 227' 8"-228' 6": 1.5cm epidote-calcite ± qtz vn w/ adjacent smaller epidote-calcite vnts. Smaller vns are fractured & offset by														
190	199	83	0.08															
199	221	89	0.81															
241	259	75	0.43															
					8529	160' 6"	161' 6"	1"	14	9	85	.4	2	1				
					8530	227'	229'	2'	81	13	101	.5	6	2				

Length:

Dip @ Collar: -50

Dip @ EOH: -50



Advance: 166.48'

Depth: 198.41'

DIAMOND DRILL LOG

HOLE No. 87-C1

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Interval		Recy %	RQD	DESCRIPTION	Sample No.	Interval		Core Width	Cu	Pb	Zn	Ag	As	Au (ppb)
From	To					From	To							
				79.5 - UPPER CONTACT IRREGULAR ~20° TO C.A.?										
				81.6 - 83.4 - SILICIFIED AMPHIBOLIC PORPHYRYC UNIT										
				III CONFORMABLE CONTACT W/ TUFF; UPPER CONTACT IRREGULAR										
				LOWER CONTACT ~80° TO C.A.										
				83.4 - 86.0 - TUFF										
				86.0 - 87' - BROKEN/BLOCKY RUBBLE W/ GRITTY RUSTY SOIL & HIGHLY ALTD (SILICITE) TUFF FRAGS. (GROUND CORE - RECAL RECOVER)	8542	86.0'	87.0'	1'	24	13	86	.3	2	1
				87' - 88.5 - TUFF W/ MINOR ALTH. FELSIC FLOW		2.82m	2.63m							
				~88.5 - 89.5 - CRITTY SOIL W/ BLOCKY ROCK FRAGS. ALTD	8543	88.5	89.5	1'	37	16	87	.2	5	2
				89.5 - 91' - TUFF		26.97m								
				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 & BEARING (~65° TO C.A.)	8545	96.0	97.0	1'	10	11	75	.3	5	2
97.0	109.5	60%	.11	BROWN - WEATHERED FINE GR. FELDSPAR PORPHYRY	8546	97.0	109.5	7.5'	24	10	76	.5	2	1
	31.85m	96-101	96-101.7				31.85m							
				ALL GRAY TO CRUMBY BROWN V. FINE - FINE GRAINED & VISIBLE FELSPAR & MINOR Qtz PEBBLES;										
				NO STRUCTURE NOTED. MINOR RUSTY CALCITE STRINGERS @ 90°; 50° (OBLIQUE TO EX. OTHER) TO C.A.; MINOR FeOx ALONG FRACTURES; SILICITE & Fe-CENT(?) ALTH RELATIVE. UPPER CONTACT BROKEN, LOWER CONTACT ~ 50° TO C.A.; LOCALLY RUBBLE & BROKEN.										
104.5	125.0	71%	.24	ALTD LAPILLI TUFF W/ MINOR INTERBEDDED FELSIC PORPHYRYC FLOW										
		101-110	107.5-125.0											
			.56	DULL GRFF-GREEN SANDY TUFF W/ MULTI-LITHIC FRAGS <1mm-24cm STRAINED @ 50° TO C.A.; LOCALLY BLOCKY & BROKEN W/ MINOR GRITTY GUDGE, RELATIVE SILICITE/Fe-CENT ALTH; MINOR IRREGULAR CALCITE STRINGERS;										
			1220-1255	INTERBEDDED FLOW-BANDS PORPHYRYC FELSIC FLOW (POST TUFF?), TAU (Fe-CENT ALTD) GIBBY W/ FELDSPAR PEBBLES 2mm-3mm; IRREGULAR BANDING.										
				104.5 - 107.0 - BROKEN SANDY W/ FeOx ON FINE GRITTY GUDGE; MINOR CALCITE STRINGERS	8547	104.5	107.0	2.5'	10	6	62	.4	3	1
								70% RECY						

DIAMOND DRILL LOG

HOLE No. 87-C1

Page 1 of 11

Interval		Rec'y %	RQD	DESCRIPTION	Sample No.	Interval		Core Width	Cu	Pb	Zn	As	Ag	Au (ppb)	
From	To					From	To								
	109.2 - 111.0			1% w/ green calcite stringers	8548	109.5	111.0	1.7'	12	6	65	.3	2	2	
	113.1 - 116.1			INTERBEDDED BUFF FELSIC TUFF SCLERITE + Fe CRIN ALK; QUINITE V. IRREGULAR MUCON GOUGE AT 106.1	8549	113.1	116.1	3.0'	19	17	57	.6	2	2	
120.0	172.0	94%	.33	EARLY-BUFF PORPHYRIC FELSIC FLOW W/ MINR LAPILLI TUFF											
		77%	.70	BUFF TO DULL W/ GREENISH-GREY FELSIC FLOW W/ IRREGULAR FLOW BANDING AND FELDSPAR MENOS. (2-3%)											
			.12	LOCALLY WELL SORTED; MINR INTERBEDDED GREEN-BROWN ALK'D LAPILLI TUFF W/ SPAN ~ 60° TO C.A. (FLOW BANDING 30°-70° TO C.A.) FELSIC LOCALLY STRONGLY FRACTURED ± QTR-PY (0.1%) STRINGERS (1mm WIDE); SCLERITE ALN ALONG FRACTURES.											
	126.0 - 127.0			BROWN GRITTY SOIL W/ RUBBLY ROCK SOIL FIZZES W/ HCl											
	125.9 - 128.0			0.1% QTR-Fe CONT STRINGERS W/ 0.1% PY X-CUTTING FLOW BANDING	8550	125.5	128.0	2.5'	10	11	39	.6	4	1	
	146.8			WHITE QTR/Fe CONT PATCHES MINR (NO SULPHIDES) MINR QTR/Fe CONT 2cm x 1cm STRINGERS W/ ADJACENT ROCK LAPILLI	8551	146.5	147.5	1'	23	12	23	.4	3	1	
	163.3 - 164.9			ALTERNATING DULL GREEN TUFF SILICIFIED PORPHYRIC (FELDSP. MENOS. 1mm) (TUFF?) CONTACTS 50° TO C.A. OR IRREGULAR	8552	163.3	167.5	4.2'	10	11	62	.1	4	4	
	164.9 - 167.5			DARK GREEN FINE GRAINED ANDESITE W/ MINR MED. GRAINED ALKITE (FRAGMENTS?) CLEAN CALCITE STRINGERS @ 40° TO C.A. (FLOWS?) LOW-ANGLE CNT ~ 35° TO C.A.											
	148.0 - 147.0			BROKEN HIGHLY FRACTURED TUFF W/ CALCITE VEINETS ASSOCIATED GOUGE	8553	148.0	147.0	1'	10	11	35	.5	3	1	

DIAMOND DRILL LOG

HOLE No. 87-C1

Page 5 of 11

Interval From	Interval To	Rec'y %	RQD	DESCRIPTION	Sample No.	Interval		Core Width	Cu	Pb	Zn	Ag	As	Au (ppb)
						From	To							
172.0	174.0			ALT'D DULL GREEN-BROWN FAINTLY LAMINATED FINE GRAINED PYROCLASTIC (XSTL TUFF?) WELLS TO GREEN-BROWN FINE GRAINED HETEROGENEOUS MATRIX W/ 1% ELONGATE (ALT'D FELDSPAR?) PLENS. LAMINATION @ 70° TO C.A., CONTACTS BROKEN										
174.0	177.0			DULL GREEN SILICIOUS FELDSPAR PORPHYRY (SILICIFIED EQUIVALENT OF ABUE?) GREEN FINE GRAINED MATRIX W/ SILICIFIED FRESH FELDSPAR PLENS (1mm-2mm) WEAKLY ORIENTED @ 60°-70° TO C.A.; MUDDY GOUGE RUDDLE @ UPPER CONTACT; CONTACTS BROKEN.	8553	174.0	175.0	1'	4	11	53	.2	7	1
177.0	178.0			DULL GREEN PYRO-CLASTIC (XSTL TUFF?) SIMILAR TO 172-174 BUT GREENER COLOR PLENS. LESS VISIBLE.										
178.0	183.5	64%	.08	ALT'D LAPILLI TUFF W/ MINOR FUSIC PORPH. FLOW V. BLOCKY & BROKEN DULL GREEN-BROWN; FRAGMENTS (<1mm - 10mm) COMMONLY DULL GREEN Fe-CENT/Fe-OX. ALT'D. WEAK ALIGNMENT ~50° TO C.A., GREY FINE GR. MATRIX W/ 2mm-3. SILICIFIED FELDSPAR PLENS. @ 50° TO C.A.										
180.0				* REDUCED TO NQ CORE (BAD GROUND)										
183.5	188.0			DULL GREEN SILICIOUS FELDSPAR PORPHYRY DULL GREEN TO GREY SILICIOUS V. FINE GRAINED MATRIX (ABUNDANT PUSTY Fe-CENT; ALT'D SPEC.) W/ 1mm-2mm WHITE FELDSPAR & PAPE QTR MENOCRYSTIS, FID. HAZELINE FRACTURED W/ MINOR SILIC SILAPS; CONTACTS GREEN, MINOR SIDE-STRING 172 LENS.	8555	183.5	188.0	4.5'	3	11	26	.5	.5	2

DIAMOND DRILL LOG

HOLE No. 87-C1

Page 6 of 11

Interval		Rec'y %	RQD	DESCRIPTION	Sample No.	Interval		Core Width	Cu	Pb	Zn	Ag	As	Au (ppm)
From	To					From	To							
188.0	200.0	40%		ALTD LAPILLI TUFF w/ MINOR FELIC FLOW	8556	197.7	200.0	2.3'	6	15	114	.2	7	1
	(60.9M)	197-198 24%		DULL GREEN BROWN TUFF AS 178-183.5 w/ PALE V. FINE GRAINED. DULL GREEN-BROWN SILICIOUS (FLOW?), Fe-CONT ALTD SPECS THROUGHOUT * CORE V. BROKEN & COMMONLY RUBBLE FROM 180'- 199' ABUNDANT (1%-2%) IRREGULAR LUSTY QTZ & QTZ- CALCITE STRINGERS & PATCHES (<1cm) FROM ~197.7 TO LOWER CONTACT; MINOR MUDY SEALING.		(60.2M)								
200.0	203.7	95%	.63	SILICIOUS FELDSPAR MATRIX / FINE GRAINED PYROCLASTIC (XSL TUFF?)	8557	200.0	203.7	3.7'	9	13	110	.4	7	18
	(62.0M)	198-200.0 22.9%	199-203.7	SIMILAR UNITS RESPECTIVELY TO 174'-177' & 172'-174'; LAMINATION & CONTACTS ~ 55°-60° TO C.A. MINOR CALCITE & QTZ-CALCITE STRINGERS (: PALE PY) ALONG BEDDING. LATER QTZ-Fe CONT 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			DARK GREEN ANDESITIC LAPILLI TUFF										
	(68.18M)			DARK GREEN w/ FINE GRAINED MATRIX COMMONLY SILICIFIED w/ DARK GREEN-BLACK SILICIOUS FRAGMENTS (<1mm - 40mm), STRAIN WEAK OR NOT NOTICEABLE (@ 80° TO C.A.); MINOR INTRODUCED DARK GREY FELSIC PLAGIOPHASE FLOW & DARK GREEN F. GRAINED ANDESITE; MINOR QTZ-CALCITE STRINGERS & VEINLETS THROUGHOUT. TUFF COMMONLY BROWNISH Fe-CONT ALTD. MORE STRONGLY STRAINED WHERE VEINING MORE ABUNDANT (>1%) EG. 208.2'-209.4' 210.2'-210.4' - BETTER w/ YELLOW QTZ-CONT MATRIX STILL PALE GREEN SILICIFIED TUFF? SEALING ON VEINLET	8558	208.2	210.4	2.2'	17	14	77	.3	6	1
						(63.46M)	(64.12M)							

DIAMOND DRILL LOG

HOLE No. 87-C1

Page 10 of 11

Interval		Rec'y %	RQD	DESCRIPTION	Sample No.	Interval		Core Width										
From	To					From	To		Cu	PB	ZN	AG	AS	AU				
				PERHYDRIC (QTR FELDSPAR MENOS <1mm) BANDS FOUND (PE-ABSORBED QTR?) QTR EYES (1mm-2mm) LOCALLY FAINT BANDING 50° TO C.A. RARE QTR/CALCITE STRINGERS. CONTACTS SWP ALONG SHEAR PLANES ~ 50° TO C.A.														
416.0	438.5 (133.65m)		.50 46.0-495.0	ALT'D LAPILLI TUFF DARK GREEN TO BUFF (Fe-CONT; CHERTY MAT'N AT FRACTURES) LAPILLI TUFF SIMILAR TO UNITS ABOVE; MODERATELY FRACTURED (LIMONITE), MINOR WHITE CALCITE STRINGERS THROUGHOUT. WEAKLY DETECTABLE STRAIN 50°-60° TO C.A.; LOCALLY BROKEN BLOCKY. LOWER CONTACT GRADES IN CUT OF PERHYDRIC FLOW @ ~ 60° TO C.A. OVER ~ 2'.														
438.5	451.0 (137.46m)	74%	.27 444.0-461.0 445.0-453.0	PORPHYRITIC BASIC FLOW GREY-BROWN APHYRITIC SILICIOUS MATRIX W/ WHITE (RUSTY) FELDSPAR MENOS. (2mm) THROUGHOUT; ABUNDANT IRREGULAR FRACTURES OFTEN RUSTY; ABUNDANT RUSTY F. GRAINED SPECS, COMMONLY BROKEN BLOCKY; MINOR QTR & Fe-CONT STRINGERS														
			.66 451.0-461.0															
				441.7 - IRREGULAR QTR-Fe-CONT STRINGER (2mm-4mm) 443.2 - QTR-Fe-CONT STRINGER (2mm) 55° TO C.A. 446.4 - X-CUTTING QTR-Fe-CONT STRINGERS @ 30° TO C.A.	8575	441.5	446.5 (134.57m) (136.01m)	5.0	3	3	18	.2	8	3				
451.0	461.0 (140.51m)			ALT'D LAPILLI TUFF DARK GREEN TO BUFF LAPILLI TUFF, MINOR CALCITE STRINGERS THROUGHOUT COMMONLY 50° TO C.A.; TUFF SIMILAR TO ABOVE LAPILLI TUFF (NOT SILICIOUS).														
				455.5 - 456.5 ~ 2% YELLOW-WHITE CALCITE STRINGERS	8576	455.5	456.5 (138.81m) (139.14m)	1.0'	2	4	58	.1	4	1				

DIAMOND DRILL LOG

HOLE No. 87-C1

Page 11 of 11

Interval		Rec'y %	RQD	DESCRIPTION	Sample No.	Interval		Core Width
From	To					From	To	
461.0	472.0	13%	.11	FELSIC PORPHYRITIC FLOW				
	(143.37m)	461.0-465.0	461.0-472.0	BLUISH-GREY ANHITIC CROWNED MASS w/ FELDSPAR PLENOS. (2-3) PAINT FLOW BANDING (40°-50° TO C.A.), MINOR FUSTY PUGGY FRACTURES THROUGHOUT; MINOR QFZ SPINDLES VEINLETS THROUGHOUT (HAIR LINE TO 0.5cm) ± 0.1% ASSOCIATED DIS. PY OVERALL SIMILAR UNIT TO 438.5-451.0				
		85%	468.0-471.0					
				461.0 - 465.0 - v. BROKEN & RUBBLEY (13% REC'Y)				
				468.0 - 469.5 - 0.5cm QFZ - (FELDSPAR) VEINLET @ 0° TO C.A.	8577	468.0	469.5	1.5'
						(142.65m)	(143.10m)	
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 METHOD.

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
"								
4 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	81	.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	16	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	96	.3	6	1
ALT'D & BRECCIATED TUFF	8404	78.16-78.83	21	17	68	.3	5	2
ALT'D TUFF & GOUZE	8405	89.61-90.21	46	3	77	.4	8	1
"	8406	90.7-91.81	37	13	71	.4	5	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: h.vns	8409	100.1-100.56	13	14	78	.1	26	4
ALT'D INTERMEDIATE VOLCANIC	8410	102.4-103.05	18	16	142	.1	2	2
ALT'D Q. Vns & RAHYOLITE	8376	103.05-103.33	11	22	23	.3	7	3

ANALYTICAL RESULTS AND METHOD.

27 WBA

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 in int. gr. 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" - 151' 4"	.001	.03
"	8454	154' - 156' 6"	.001	.04
" w/galena	8455	156' 6" - 158'	.004	.05
" "	8456	158' - 163'	.001	.01
" "	8457	163' - 168'	.004	.03
" w/galena	8458	168' - 169'	.011	.04
" "	8459	169' - 173'	.004	.04
Qtz monz. in RHYOLITE PORPHYRY	8460	182' 6" - 184'	.001	.01
	8461	191' - 196'	.001	.03
" "	8462	196' - 199'	.001	.03
ALTO Qtz MONZONITE	8463	202' 4" - 207' 4"	.001	.01
QUARTZ VEINED ALTO 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 METHOD

DDH 87-WB4

AURUM GEOLOGICAL CONSULTANTS INC.

Property:

Sample Type	Sample No.	Footage	Geochemical Analysis							
			Au (oz/T)	Ag (oz/T)	Cu	Pb	Zn	As	AS ₂ S ₃	Bi
F. Gr. FELD. PERR	8443	90'-95'	0.010	.01						
"	8444	95'-100'	.011	.04						
Fault Gänge	8445	100'-105'	.001	.02						
"	8446	105'-110'	.001	.03						
Green Andesite	8447	124'6" - 125'8"	25	18	71	.4	4	1		
As above + fault gange	8448	127'-128'6"	13	20	75	.1	5	1		
Alt'd fault gange	8449	128'5" - 129'5"	33	17	62	.5	7	2		
Chloritized + foliated	8450	129'8" - 130'8"	108	17	92	.4	2	2		
Limonite alt'd gage to chlorite alt'd gage	8601	132'6" - 134'6"	8	17	62	.3	9	1		
Altered + Brecciated Pyrite + Chrys. + Fe Tr. - 1% galena	8602	124'6" - 136'	10	67	86	.7	10	<u>720</u>		
"	8603	136' - 137'	6	60	93	.4	2	14		
"	8604	137' - 138'	3	680	141	1.7	7	49		
Blacky + Broken	8605	138' - 142'	17	161	217	1.1	6	<u>240</u>		
M. fer. + oxidation	8606	143' - 146'	5	169	141	1.1	7	<u>112</u>		
Fe alt'd	8607	146' - 151'	3	76	83	.6	5	24		
± 3mm qtz veins pyrite	8608	151' - 152'	9	68	96	.5	6	3		
Brecciated w/ py carn. - qtz - unkn. + galena < 4% py, feld + sils Qz + 1% galena	8609	152' - 154'6"	16	138	211	.6	5	25		
"	8610	154'6" - 159'6"	15	175	149	.6	5	1		
Gr. - Monzonite	8611	159'6" - 162'	4	114	88	.7	6	<u>270</u>		
"	8612	162' - 167'	3	31	77	.3	3	.40		
"	8613	167' - 168'8"	16	40	93	.3	7	4		
Gn in qtz- chlorite + sils (?) veins	8614	168'8" - 170'6"	3	1293	207	2.1	11	<u>950</u>		
"	8615	170'6" - 172'	4	1207	176	2.4	15	<u>700</u>		
Fe to 1% Gn	8616	172' - 174'	6	41	125	.3		3		

ANALYTICAL RESULTS AND METHOD

DDH 87-II

ISLAND MINING

AURUM GEOLOGICAL CONSULTANTS INC. IVAN SHOWING

Property: JL CLAIMS

Sample Type	Sample No.	Footage	Geochemical Analysis					
			Cu	Pb	Zn	Hg	As	Au:ppm
Brecciated Tuff 8485	8485	22' - 24'	27	6	81	.4	5	1
Aldid & q.v. Rhyolite porphyry	8486	29' - 32'	13	6	21	.3	2	1
Aldid & sheared porphyritic Andesite	8487	32' - 33'	9	9	36	.1	4	1
" "	8488	33'6" - 37'	7	9	26	.2	2	1
" "	8489	38' - 39'6"	13	9	23	.1	2	2
Fault gouge Py Jasper clasts in lapilli tuff	8490	43' - 45'	159	6	109	.5	6	1
Tuff bx & lap. th tuff. Tr. cov. py, mal, barrosite	8491	87' - 89'	156	10	130	.1	2	1
Amygdaloidal flow tr. cov. mal & py	8492	90' - 92'	87	5	124	.1	8	2
mottled lapilli tuff. Ep-carbovas & br. Tr. mal & py	8493	100' - 102'	303	7	136	.1	8	3
Sheared & Aldid porphyritic flows py, mal, barrosite	8494	129'6" - 135' (30% recry)	29	10	67	.4	8	11
Aldid rhyolite	8495	135' - 140' (35% recry)	26	10	64	1.8	22	34
Aldid RHYOLITE w/ q.v.	8496	151' - 154'	7	6	18	.6	6	13
" "	8497	154' - 156'	14	5	26	.5	3	6
sec. gou. (5cm)	8498	156' - 161'	9	6	21	.3	5	4
" "	8499	161' - 166'	13	11	32	.5	7	17
" "	8500	188' - 190'	4	11	30	.3	2	12
" "	8501	207' - 210'	5	16	30	.3	5	20
" "	8502	210' - 212'	4	7	31	.2	7	6
" "	8503	222'6" - 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
Aldid Rhyolite porphyry	8507	252' - 254'	4	2	24	.1	4	1
" "	8508	256' - 258'	5	15	34	.2	6	4

ANALYTICAL RESULTS AND METHOD.

DDH 87-C1

AURUM GEOLOGICAL CONSULTANTS INC.		Property:					
Sample Type	Sample No.	Footage	Geochemical Analysis				
			Cu	Pb	Zn	As	Au (ppb)
V. FINE GRAINED ALT' LAPILLI TUFF	8535	23'-28.5'	10	9	85	.3	6 1
V. FINE GRAINED ANDESITIC, CALIC. V.	8536	29'-35.0'	22	8	84	.4	2 2
" "	8537	35.0'-36.0'	42	13	72	.4	8 2
FeO _x + SENCITE ALTD Tuff	8538	36.0' - 51.0'	9	11	71	.3	2 3
Rubby "	8539	51.0' - 62.5'	9	9	69	.3	2 1
Calic. Soil along FRACTURES of above	8540	68.5' - 72.5'	5	18	95	.4	6 2
Clay, silt, calc. zones, Fe. prop. & calc.	8541	74.6' - 75.6'	18	41	81	.3	6 3
BROKEN, rusty soil + ALT' tuff frags	8542	86.0 - 87.0'	24	13	86	.3	2 1
Calic. soil + as above	8543	88.5' - 89.5'	37	16	87	.2	5 2
2% CALICITE stringers as above	8544	89.6 - 92.0'	5	9	77	.4	4 1
Calc. stringers + shouring	8545	96.0 - 97.0	10	11	75	.3	5 2
Brown-weathered Fm Gr. Fe. prop.	8546	97.0' - 104.5'	24	10	76	.5	2 1
Brown shouring as above	8547	104.5' - 107.0'	10	6	62	.4	2 1
Irregular calcite stringers to 1 cm interbedded tuff & flow with sencite	8548	109.3' - 111.0'	12	6	65	.3	2 2
8549	113.1' - 116.1'	19	17	57	.6	2 2	
Qtz Fe cont stringers	8550	125.5' - 128.0'	10	11	39	.6	4 1
Monite, Qtz/Fe cont	8551	146.5' - 147.5'	23	12	23	.4	3 1
Tuff siliceous prop. flow Andesite (white stringers)	8552	163.3' - 167.5'	10	11	62	.1	4 4
Highly fractured tuff w/ calc. & Fe. & calc.	8553	178.0' - 179.0'	10	11	35	.5	5 1
Siliceous Fe. prop. PORPHYRY	8554	174.0' - 175.0'	14	11	53	.2	7 1
" "	8555	183.5' - 188.0'	3	11	26	.5	5 2
ALTD LAPILLI TUFF w/ MINOR FELSIC FLOW	8556	197.7' - 200.0'	6	15	114	.2	7 1
Siliceous Fe. prop. Fm. Gr. Porphyry?	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

APPENDIX D

ROCK & SOIL DESCRIPTIONS & RESULTS

Date: June 11, 1987

Project: ISLAND MIN. + C.I.P.C.

Area: JL CLAIMS

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Sample No. (Assay #)	Location	Description	Attitude	Width	Analytical Results
87-3-5b-1-1 ✓ 87-3-5b-1-1	JL A110E/2150N WHEELBARROW ADIT	Buff brownish pink, strongly altered rhyolite dyke. Fe carbonate + minor qtz veinlets.			Cu Pb Zn Ag As Au 3 8 43 .1 2 47
87-3-5b-2-3 ✓ 87-3-5b-2-3	JL - OLD WORKINGS 310E/1460N	Bull qtz vein; whitish grey, minor Fe carbonate + sericite in fractures. 1mm fleck of <u>Visible Gold</u> , <1% pyrite + sphalerite			HIGH GRADE SAMPLE TO USE WHEN TO ERNIE FILL IN 1000 13 15
87-3-5b-2-4 ✓ 87-3-5b-2-4	JL - OLD WORKINGS	Bull qtz vein, whitish grey with minor Fe carbonate + sericite in fractures - massive galena nod (25%) + pyrite (1%) along fractures.	may be high grade. High grade Pb		Representative sample of high-grade zone
87-3-5b-2-5 ✓ 87-3-5b-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 zone		0.059 gpt
87-3-5b-2-6 ✓ 87-3-5b-2-6	JL - OLD WORKINGS	Bull qtz vein; Minor Fe carbonate + sericite along fractures. Mineralogy sphalerite (3%) (brown residues), <1% Pyrite.	High grade Zn		6 39 8 02 3 5
87-3-5b-1-7 ✓ 87-3-5b-1-7	JL - OLD WORKINGS	Buff brown to orange weathered, pinkish brown fresh altered rhyolite. Fe carbonate + minor sericitic alteration with minor (1% disseminated euhedral pyrite (4mm), weak flow banding and qtz or siderite(?) veinlets.			5 7 16 01 2 40
87-3-5b-2-8 ✓ 87-3-5b-2-8	JL L1900E/500N (1986 GRID)	Pyritic quartz vein and Fe carbonate altered rhyolite fragments.	Near soil anomaly		8 44 93 1.9 6 42
87-3-5b-2-9 ✓ 87-3-5b-2-9	JL L1900E/5150N (1986 GRID)	Altered rhyolite (with qtz veinlets) and quartz vein fragments.	Over soil anomaly		4 65 21 0.1 2 105
87-3-5b-2-10 ✓ 87-3-5b-2-10	JL - 18175E/5160N (OTISE/HOON)	Fe carbonate altered rhyolite bearing galena and qtz veinlets	High Pb possible		

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

Sample No.	Location	Description	Attitude	Width	Analytical Results
87-3-Sb-1-11	JL N18+60E / S150N	Dull green weathered, dark green to black fresh with white to brownish orange stains. Carbonatized, magnetite bearing chlorite schist in sheared andesites.	AREA 01, S111°16'		Cu 18 Zn AG AS Au 81 6 270 21 10 6
87-3-Sb-1-12	JL N1900E / S180N	Rusty weathered, dark green to light green chlorite schist. Carbonate, Fe carbonate, chlorite, dark green mica(?) alteration with minor qtz veins.			11 350 43 07 5 70 6 47 138 41 4 49
87-3-Sb-1-13	JL N1900E / S180N 1986 GRID	Light green to buff white to buffy weathered light green to grey fresh rhyolite dyke. Numerous qtz veins up to 5cm, Fe carbonate alteration with minor (a1%) galena and pyrite.	"	"	
87-3-Sb-1-14					
87-3-Sb-1-15					
87-3-Sb-1-16					
87-3-Sb-1-17					

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. Buss 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/4+40N	Rusty orange to brown weathered qtz carbonate vein. Bull to chalcedonic quartz; white, green to purple in colour. Black magnetic patches & chlorite 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.		~ 1 1/2 m	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	Buss 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 buss brown weathered; minor fine grained disseminated pyrite (<1%)		~ 1 1/2 m	4 ¹¹ 7 .1 4 15
87-3-5b-1-029	~ 1+75E/~ 1+65N	Silicified, sericitized & Fe carbonate altered rhyolite. Abundant q.v., generally < 7cm,			39 .2 17 6 49 4

SAMPLER: HUGH MACKINNON

ISLAND MINING & EXP.

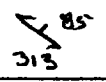
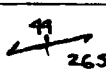


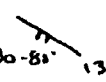
Date: JUNE 21, 1987

Project: MIDNIGHT GULCH (31 CLAIMS)

Area: WHEATON RIVER

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Sample No.	Location	Description	Attitude	Width	Analytical Results
87-3-Sb-3-032 ✓/	OLD MORT ~1+2SE/4+5SN	Limonitically weathered, sericitized & silicified rhyolite. 0.55 greenish white fresh face; galena (2%), minor (1%) pyrite (4mm) cubes. Qtz veins up to 50 cm. mineralization very sparse.		~12m	Cu Pb Zn Ag As Au 8 1390 19 4.5 2 2650 Sp. C. 251ept
87-3-Sb-7-033 ✓/	0+10W/4+4SN	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 46
CHANNEL (CHIP) SAMPLES					
FOOTWALL					
87-3-Sb-1-035	~0+40E ₁ /4+5DN	Orangish brown weathered, blackish brown fresh; well foliated & silicified. minor siderite & limonite veinlets; altered andesite.	75 / 240	0-50cm	5 6 37 .1 2 1
87-3-Sb-1-036	" "			50-100cm	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 & Fe 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 26 16 .2 2 7		

Sample No.	Location	Description	Attitude	Width	Analytical Results
87-3-Sb-7-045	L 0 + SOE / 4 + 50N	Soil sample over andesitic schist			Cu Pb Zn Ag As Au 56 64 124 .3 18 AS
87-3-Sb-7-047	" "	Soil sample over q.v. rhyolite			46 53 162 .3 16 107
CHANNEL (CHIP) SAMPLES					
87-3-Sb-1-048	L 0 + SOE / 4 + 50N Hanging wall contact	limonitically weathered q.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(?)		160cm	4 ⁶ 55 .1 3 ³
87-3-Sb-1-049a	0 + 4SE / 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			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.			36 ²⁹ 49 .1 2 ³
87-3-Sb-1-054	0 + 100E / 5 + 30N	Extremely altered porphyritic volcanic buff greyish weathered, light grey fresh, well foliated & strongly carbonatized. Minor diss. py & qtz veinlets.			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.			8 ¹⁶ 27 .1 2 ²

SAMPLE NO. 87-3-SB-1-057-066

Date: JUNE 26, 1987

Project: MIDNIGHT GULCH (SL CLAIMS) Area: WHEATON RIVER

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Sample No.	Location	Description	Attitude	Width	Analytical Results
87-3-Sb-1-057 ✓	30m from stn. 1W/3N at @ 330° ~ 1+20W / 3+15N new claim?	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 .1 460 335'		Cu Pb Zn Ag As Au 10 195 20 .6 8 69 Special prep. 9 560 30 1.9 12 30
87-3-Sb-1-058 1 ✓	As above	As above but with 1% 1mm galena xtals, Galena found adjacent to hanging wall. ^{selected} samples			
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 4mm diss py.		1 1/2 m	263 1.6 90 15 23 9
87-3-Sb-1-060 ✓	Below Adit ~ 1+00E / 4+25N	Yellowish brown B/C horizon Soil sample over altered rhyolite. Drainage to SE. Panning sample also collected here.			792 2.0 1780 66 178 41
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 4mm pyrite.			20 20 70 .1 28 2
87-3-Sb-1-065 ✓	Latson / 3+50E	Yellowish brown to brown B/C horizon soil sample, over Fe altered foliated andesite porphyry. Drains SSW.			83 .3 150 44 127 8
87-3-Sb-1-066 ✓	As above	Highly altered - Fe carb, limonite silicified; lapilli to Xtl tuff. 3mm diss py cubes.			32 42 .2 3 52 2

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 bullqtz matrix. V.G. sample for office			Cu Pb Zn Ag As Au OFFICE V.G. SAMPLE
37-3-Sb-3-069 N (1) /	WHEELBARROW ZONE ADIT. 5m below.	High grade float; Galena (3%) bearing white bullqtz veins.			Special prep 3156 opt .712-10825 3850 24.4 1.16 10 4200 3
37-3-Sb-1-071 Y 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 a sheared qd. May be float?			Special prep. 2378 3.4 2820 23 1935 12
ONE 27 1987 87-3-Sb-2-075 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
87-3-Sb-1-077 -080 ✓	3+10E/0+85N	Quartz, magnetite, carbonate veins in chloritic schists meta volcanics (andes.) & hornblende diorite.	60 293	1/2 to 2m vein	15.21 45.1 3 7 4 7 1 2 3
37-3-Sb-1-078 79/	3+20E/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

16
21
"
51

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Date: JUNE 1987

Project: MIDNIGHT GULCH

Area: WHEATON RIVER

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Sample No.	Location	Description	Attitude	Width	Analytical Results
JUNE 28 87-3-56-1-082 ✓	3+80E/2+15N	Buss greenish white weathered, whitish grey fresh. Silicified & carbonatized 3a-lappilli tuft. Relict lithic fragments up to 10cm. minor cpy, malachite + disseminated py.			Cu Pb Zn Ag As Au 649 ¹²⁶ 2.5 3 10 62
87-3-56-7-084 ✓	4+20E/2+30N	Soil sample above rhyolite dyke. Brown soil; B horizon; drains SSE; numerous QFP fragments.			14 ²⁰ 89 : 1 4 4
87-3-56-2-085 PS/	New road cut to wheelbarrow zone, below adit zone. See new road map	Dark green, porphyritic, quartz debris (?). cpy & malachite (<1%) along fractures.			1274 ^B 69 2.4 2 6
87-3-56-2-086 ✓	L1+00W/4+00N Road cut/road bed	White bull qtz vein; <1% py, sgn, trace cpy. Py very fresh; some sericite in vein.	Shallow dip to NE		Special prep 105 ²⁷¹⁴ 628 ^{10.2} 12 ¹³⁰
JUNE 29 87-3-56-7-087 to 7-133	See location map - New Road	Soil samples			See results map
JUNE 30/JULY 1 87-3-56-7-134 to 7-180	" "	" "			" " "

Date: JUNE / 1987 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 ($\leq 1\%$), & pyrite (1%).			Cu Pb Zn Ag As Au 115 ¹⁰⁸⁹⁴ 533 ^{51.9} 7 ¹³²
87-3-5b-1-145	" " "	limonitic & chloritic altered quartz ^{carbonate} galena vein. Galena up to 30%, pyrite $\leq 5\%$. Selected samples. Host a Fe, carbonate altered & sheared rhyolite? (Muscovite - carbonate - Fe schist).		2 cm	16494 ^{297.3} 1050 3093 9727 35 (17420pp Ag)
87-3-5b-1-146	" " "	As above, 2 nd vein ~ 40 cm from first,		2 cm	18019 ^{291.1} 4450 6398 13703 27 (30.09pp Ag)
87-3-5b-1-151	" " "	Dark green, v. well foliated, but irregular foliation due to qtz veins. $< 10\%$ chalcopyrite, pyrite & malachite.			548 ¹¹⁸⁵ 797 ^{7.3} 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 14 21 26 85 3
87-3-5b-1-147	" " "	Rusty brown to green, v. well foliated. Pervasive carbonatization & sericitization. Patchy or fracture filling limonitization. Minor green mica (Suehite?), possible talc, Muscovite-limonite schist (?)			185 2.9 9 98 147 46

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

Sample No.	Location	Description	Attitude	Width	Analytical Results
87-3-5b-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, well foliated aphanitic - (chloritic (?) matrix, altered pebble conglomerate.			Cu Pb Zn Ag As Au 63 ⁵⁴ 100 .4 22 3
87-3-5b-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 ($\leq 1\%$), trace gn. Fragments strongly sericitized, with minor chlorite, clay and suchsite(?).			12 ²⁴ .42 .3 19 ¹
87-3-5b-1-150	" " "	Orangish rusty brown to brown weathered, pinkish brown fresh. Well foliate feathered Mn rich (?), mod. carbonatized tuff. Diss. py, with discontinuous qtz calcite veinlets up to .5cm. Carbonate + argillie alteration halo around veinlets. Mod. brecciated.			15 ⁵⁸ 94 .7 18 ¹
87-3-5b-1-152	" " "	Quartz-calcite-limonite tuff breccia. minor diss py. Similar to 1-149.			46 ⁴⁷ 43 .6 48 157
87-3-5b-2-153	~30m due E from sample 7-128	Up to 15cm wide bull white qtz vein. Gn ($\leq 3\%$), py ($\leq 1\%$), sphalerite ($\leq 0.5\%$) with azurite + malachite staining, along several sericitized fractures. Selected sulphide bearing samples.		15cm (?)	special prep 21715 193.1 1 233 17 ↓ 7 / Si 10pt Ag

Date: JULY '87

Project: ^{2L-CLAIMS} MIDNIGHT GULCH

Area: WHEATON RIVER

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Sample No.	Location	Description	Attitude	Width	Analytical Results	
					Au oz/ton	Ag oz/ton
JULY 4 37-3-5b-1-154	CHANNEL SAMPLES S75N/1750E A125N	FOOTWALL - "c" horizon, crumbly, yellowish to orangish brown highly altered, intermediate volcanic. Fe rich, with scattered qtz veins.		0 - 50cm	L001	0.02
37-3-5b-1-155	" "	As above but including contact		50 - 100cm		0.01
37-3-5b-1-156	" "	Highly altered ("c" horizon) RHYOLITE dyke. Whitish green to buff yellowish brown, strongly sericitized.		100 - 150		0.01
37-3-5b-1-157	" "	Abundant q.v. up to 15cm; relict diss py in rhy + q.v.		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		L001
1-166	" "			600 - 650		0.01
1-167	" "			650 - 700		L001
1-168	" "			700 - 750		0.02
1-169	" "	MANGING WALL - "c" horizon.		750 - 800		0.01
1-170	" "	Strongly altered, whitish green to grey, with limonitic veinlets & fractures. Mn stained.		800 - 850		0.02

SAMPLE # 11064

Date: JULY '87

Project: MIDNIGHT GULCH (JL)

Area: WHEATON RIVER

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Sample No.	Location	Description	Attitude	Width	Analytical Results
87-3-5b-1-171	SEE NORTH ZONE ROAD EXT 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 4 cm. 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. 27 ⁹⁷⁹ 171 34.3 22 139
87-3-5b-3-175	" " "	As above but possible trace V.G. (?) surrounded by limonite			Special prep. 17 ⁷⁴⁸ 246 4.1 15 371
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 t.q.v., w/ chlorite & limonite 20% in q.v. Light pinkish brown rhyolite diss. py. (< 1mm)			6 279 494 0.8 13 18

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Project: MIDNIGHT GULCH (JLCLAMS) Area: WHEATON RIVER

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Sample No.	Location	Description	Attitude	Width	Analytical Results																								
87-3-5b-5-178	" "	Stream sed. sample - 178 1/2 m down from rhyolite, -179, up stream from same rhyolite			<table border="1"> <tr> <td>Se</td> <td>Pb</td> <td>Zn</td> <td>Ag</td> <td>As</td> <td>Au_{ppb}</td> </tr> <tr> <td>90</td> <td>35</td> <td>86</td> <td>.6</td> <td>13</td> <td>96</td> </tr> <tr> <td>180</td> <td>25</td> <td>95</td> <td>.7</td> <td>10</td> <td>34</td> </tr> </table>	Se	Pb	Zn	Ag	As	Au _{ppb}	90	35	86	.6	13	96	180	25	95	.7	10	34						
Se	Pb	Zn	Ag	As	Au _{ppb}																								
90	35	86	.6	13	96																								
180	25	95	.7	10	34																								
87-3-5b-5-179																													
87-3-5b-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. vults, 1% diss py			<table border="1"> <tr> <td>6</td> <td>58</td> <td>20</td> <td>.2</td> <td>27</td> <td>61</td> </tr> </table>	6	58	20	.2	27	61																		
6	58	20	.2	27	61																								
87-3-5b-7-181	Adjacent to ODM I42 in gully to W @ 4+50N/1+50E	Soil samples in fault zone gully, to test influence of fault on q.v. rhyolite. Foot wall → Hanging wall			<table border="1"> <tr> <td>65</td> <td>122</td> <td>175</td> <td>.8</td> <td>12</td> <td>105</td> </tr> <tr> <td>60</td> <td>33</td> <td>192</td> <td>.5</td> <td>11</td> <td>35</td> </tr> <tr> <td>88</td> <td>48</td> <td>123</td> <td>2.5</td> <td>29</td> <td>108</td> </tr> <tr> <td>27</td> <td>15</td> <td>90</td> <td>.3</td> <td>6</td> <td>16</td> </tr> </table>	65	122	175	.8	12	105	60	33	192	.5	11	35	88	48	123	2.5	29	108	27	15	90	.3	6	16
65	122	175	.8	12	105																								
60	33	192	.5	11	35																								
88	48	123	2.5	29	108																								
27	15	90	.3	6	16																								
87-3-5b-1-185	" "	Sericitically alt'd q.v. rhyolite. Limonitically stained w/ q.v. up to 5cm. 1% opy, trace sphalerite (?),			<table border="1"> <tr> <td>4</td> <td>30</td> <td>6.7</td> <td></td> <td>10</td> <td>17</td> </tr> </table>	4	30	6.7		10	17																		
4	30	6.7		10	17																								
87-3-5b-2-194	Southern Gulch 60m NW of anomaly	Quartz veined (8mm) chloritized & hematized granodiorite			<table border="1"> <tr> <td>31</td> <td>3</td> <td>22</td> <td>.2</td> <td>10</td> <td>6</td> </tr> </table>	31	3	22	.2	10	6																		
31	3	22	.2	10	6																								
87-3-5b-1-186	Southern Gulch	Rusty, gossanous, carbonatized hornblende diorite (?). Minor malachite, limonite after py or other sulphides (?)			<table border="1"> <tr> <td>1858</td> <td>14</td> <td>27</td> <td>1.5</td> <td>9</td> <td>77</td> </tr> </table>	1858	14	27	1.5	9	77																		
1858	14	27	1.5	9	77																								
87-3-5b-1-187	" "	Mauve to red weathered (hematitic), 20% 1.5cm weakly sericitized plagioclase phenocrysts in a fine grained matrix. Hematitic andesite (?) flow.			<table border="1"> <tr> <td>8</td> <td>13</td> <td>91</td> <td>.1</td> <td>29</td> <td>2</td> </tr> </table>	8	13	91	.1	29	2																		
8	13	91	.1	29	2																								

Date: JULY 27, 1987

Project: MIDNIGHT GULCH

Area: 3L CLAIMS - VILCATION RIVER

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Sample No.	Location	Description	Attitude	Width	Analytical Results
87-3-Sb-1(2)-183 /	Southern Gulch	Carbonate, limonite breccia in schistose light green to grey, tuffs.	59 ↘ 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-7-190 /	"	See Pat Varas's Notes			184 132 300 5.5 46 61
-191 /	"	Soil samples above & below band of O/C at soil anomaly.			163 133 240 4.2 46 820
-192 /	"				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 22 2 10 6

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

Sample No.	Location	Description	Attitude	Width	Analytical Results
JUNE 10th ✓ 87-331001	Midnight Gulch. ~ 1800+50E/575N	DARK GREEN to white carbonate vein breccia in a chlorite schist	Area of Soil Primary		Cu Pb Zn Ag As Au 36 5 62 0.1 5 3
✓ 87-331002	~ 1900E/600 N	1986 Oxid Coar. Dark Green to buff green fresh weathered magnetic bearing chlorite schists + qtz veined andesites. Fe Carbonate + sericitically altered rhyolite Minor qtz veining. Fe carbonate altered qtz vein.	"		48 4 166 .1 13 4 7 14 26 .7 7 14 4 6 25 .1 5 4
✓ 87-332001	- 1900E/500N (?)		"	87-332003	5 2 31 .1 3 1
✓ 87-332002	~ 1900E/550N (?)		"	LOCATION?	
Marco June 16th 87-3-2-1-11 ✓	Midnight Gulch STATION AS ~ 163/56 E		Silicified rhyolite, sericite alteration qtz stringers, < 5 mm, FeO weathering trace of pyrite		
87-3-2-1-12 ✓	STATION AG @ 096/62 N	In shear near claim boundary, orange brown - yellow brown gouge			
Lorne AS-1	~ 163/56E Above rhy. dike.	Talus fines & silt out creek bed along the fault			23 418 276 1.1 8 6
AS-2	Below dike				23 177 188 .8 10 15
Lorne 87-3-5c-1001	Midnite Gulch 10+50E, 2+95' N	Brown weathering, very silicified and weak sericitized rhyolite. Less than 18 mm cubic pyrite			
87-3-5c-1002		Descriptions are on a separate sheet. All declared me miscellaneous.			

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T.M. ELLIOTT

Date: JULY 20/87 Project: JL Claims

Area: LOWER ADIT ZONE

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Sample No.	Location	Description	Attitude	Width	Analytical Results						
					Cu	Pb	Zn	Ag	As	Au	
87-331-009	W. Bank Midnight Gulch (TRENCH) (LOWER ADIT ZONE?)	Trenched area of Rhyolites cutting Granodiorite. Quartz-galena vein in granodiorite	000 75°	3-5 mm.				.48 oz/ton	0.069 oz/ton		
87-3-3-1-004	JUNE 29th 7m @ 068° FROM 4100N / 1100W ON ROAD	7cm QPZ VEIN, MNE GN, SL, PYRCPY (COVELLITE)	60° / 045	7cm	27	513	272	10.7	22	310	
87-3-3-1-005	2 1/2 m DOWN ROAD FROM -004	7cm WIDE (VEIN?)	MUS SILK 7° / 080	7cm	3	31	27	3.3	15	230	
87-3-3-1-006	WEST WALL OF RND	MAGNETIC DARK GREY ANDRESITE OR BASALT									
87-3-3-1-007	N 35m @ 200° (ON ROAD CUT) FROM 4100N 1100W	FELSIC BXA? w/ MYRIAD OF HAIRLINE TO 2mm QPZ UNITS; STRONGLY WEATHERED NO FRESH SULPHIDES			3	32	53	.1	4	45	
87-3-3-1-008	110m SOUTH ALONG ROAD CUT (TRENCH) FROM 007	5cm QPZ VEIN, LIMONITE AFTER FORMER SULPHIDES	57° / 087	5cm	20	91	43	2.3	11	52	

Date: JUNE 11, 1987 Project: Island Mining Exp. Area: JL Claims Page of

Sample No.	Location	Description	Attitude	Width	Analytical Results
June 9 -87-3-5a-2-1	Midnight Gulch (location) (wheelbarrow zone)	Bull qtz vein, whitish grey, minor Fe carbonate in fractures. Galena (~2%), Pyrite (<1%), sphalerite (~1%), <u>Visible Gold trace (High Grade)</u>			<u>Au .179 oz/t</u>
-87-3-5a-2-2	30 m E of L 122E/4150N Midnight Gulch	Magnetite bearing shear zone			Cu 3 Pb 6 Zn 54 Ag 2 As 2 PPM PPM PPM PPM PPM PPM
June 10 -87-3-5a-1-3	~1400 E 1500N	magnetite in chloritic schist?			14 7 81 .1 6 1
-87-3-5a-2-4	1900 E / 6175N	Qtz float just below atz veining in schists + andesite? (~7m wide) High graded galena			13 <u>1966</u> 25 101 18 <u>E</u>
June 16 -87-3-5a-1-05	STATION AB (5150N - 1100W)	Minor galena + pyrite in rhyolite (~1%)			3 9 35 .6 3 540
June 19 1-06	4150 N 0100 E	Silicified rhyolite. (mineralization?)			12 17 13 .1 5 3
1-07	2125 N 0125 W	Minor galena + pyrite in dull green silicified rhyolite (near contact?)			5 63 55 .2 2 235
1-08	200 N 0100 E	Fuchsite in quartz veined rhyolite (with $CaMg_2Fe_2Si_2O_{12}(OH)_2$)			3 13 48 .1 6 32
1-09	200 N 0110 W	Galena + pyrite remnants in quartz veining in rhyolite. (old trench)			+ 304 39 .6 6 <u>140</u>
3-10	4150 N 1100 E. (Dig Adit)	High grade galena sample just above old adit. ~5%			<u>25</u> <u>12575</u> <u>25</u> <u>4289</u> <u>9</u> <u>513</u> 0.112 g/t Au

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Sample No.	Location	Description	Attitude	Width	Analytical Results
June 24 67-3-5A-1-011	4150 E 200 N	qtz veining in rhyolite, max width 30 cm. seritized + pyroclastic.			6 Fe 30 Ks Au 11 12 8 .3 55 16
June 25 1-1-012	5700 E 0+60N	chloritic schist, rusty with carbonate veining and malachite staining?			137 7 45 .1 2 4
1-1-013	5700 E 1700N	qtz veining in chloritic schist visible galena (sparse)			33 128 .8 .5 2 20
1-014	1110N 5720 E not to send in.	GRDR intrusive with qtz veining + pyrite.			8 39 2 .6 2 20
1-015	2115 N 5700 E	green rhyolite with qtz veining (Toni 351205)			
JUNE 26 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	rust below above sample	qtz veined andesitic rock, magnetite.			26 9 50 .1 3 2
1-018	" "	heavily qtz veined, calcite in rhyolite with hematite veining also.			23 6 41 .1 2
7-019	Southern Gulch Anonatics	grey-soil sample. below brown sandy rhyolite?			124 .32 99 .1 5 28
1-020	South ridge of above	" Soil			133 98 131 1.1 6 44
1-021	Anonatics	Sandy brown rhyolite. minor py + galena			29 10 92 .1 2 13
1-022	Site 3 up creek on S.G.	Qtz veining with pyrite (arseno?)			111 7 41 .1 15 4
1-023	up from site	Qtz veining in diorite? Pyrite ~ 1%			625 2 51 .3 3 13

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Sample No.	Location	Description	Attitude	Width	Analytical Results
3-3-5A ✓ 1-024 14/16	1+20 N 215° E	Malachite staining in slanted bed, calcite veins, chalcopyrite minor			Cu Pb Zn Ag As Au 532 9 35 3 2 15
JUNE 28 th / 7-025	3 rSDE 200N (near wheelbarrow zone)	Gossanous soil sample taken on edge of bank.			40 54 123 .1 9 5
1-026 /	25m @ 140° from 300G 600N.	Minor copper in sheared volcanics?			7 51 33 .2 4 31
July 5 th .					
7-027 / ↓ 27	Extended road's ie: Past DDH A1 + Down to wheelbarrow (see road map)	Soils @ 30m spacing + gossanous regions			29, 31, 37, 44 only possibly anomalous copper and only 31 possibly anomalous Au (141)
7-044 /					
July 15 th					
7-045 / 45	on drill pad below DDH 37-A1	gossanous soil, near qtz veined rhyolite?			26 16 60 .1 6 1
7-046 / 16	on road near 7-122 (see road map).	gossanous soil			10 .52 26 .2 9 1
July 16 th					
7-047 /	Lower TRENCH Island Fraction	Semi-gossanous, in shear zones of chloritic schists.			82 16 107 .5 1 3
2-048 /	Above road in Lower TRENCH "as above"	Subcrop? qtz veined felsite			7 131 27 1.0 104 43

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Adm.

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Sample No.	Location	Description	Attitude	Width	Analytical Results
July 16 th					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
7-050 /	" "	" "			17 20 74 .6 2 1
7-051 /	" "	" "			11 10 91 .2 2 1
7-052 /	See " trench map for @ bare	closest to weathered qtz vein			1552 15 33 .3 7 1
7-053 /	Road down to wheelbarrow Adit.	Selective samples along road with 7-052 being in juicy shear, should kick in Pb at least. (052) ~ 10m before wheelbarrow Adit location			
7-054 /	↓				
				⁰⁵⁷ 3 cm	67 2076 1552 <u>109.5</u> 166 <u>4320</u>

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SAMPLER: ALLAN MONTGOMERY

Date: JUNE 1987

Project: MIDNIGHT GULCH (JL)

Area: WHEATON RIVER

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Sample No.	Location	Description	Attitude	Width	Analytical Results
87-3-S-2-001 ✓	~5m NORTH OF 1987 GRID STATION 3100N/ 6100E	QZT VEINED RHYOLITE; GRAB FROM OLD TIMERS TRENCH; RYH. ALT'D CHALKY WHITE W/ RUSTY PY CUBES. MINOR PY AND ABUNDANT VUGS IN QZT VEINS (UP TO 2cm WIDE)	-	-	Cu Pb Zn Ag As Au 8 34 33 1.4 12 76
87-3-S-1-002 ✓	~12m SOUTH OF 1987 GRID STATION 0100E/ 4150N	PALE GREEN QZT VEINED RHYOLITE; FROM OLDTIMERS PIT EXPOSING ~2m WIDTH OF RYH; MINOR QZT VEINLETS ~1mm WIDE & MINOR PY. FUCHITE PATCHES	-	-	8 9 5 .1 8 8
87-3-S-2-003 ✓	15m @ 355° FROM 0100E/3100N	PALE GREEN RUSTY WEATHERED RHYOLITE W/ QZT 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 QZT VEINED PEICES OF ~4m WIDE RHYOLITE DYKE; QZT VEINS (mm → 2cm) WUGGY 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 2100N	PALE GRN RHYOLITE W/ RUSTY WEATHERING; MINOR QZT 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 NRHYOLITE W/ X-CUTTING QZT 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

SAMPLER: AL M

Date: JUNE / 1987

Project: MIDNIGHT GULCH (IL)

Area: WHEATON RIVER

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Sample No.	Location	Description	Attitude	Width	Analytical Results												
87-3-5-1-007 ✓	20m @ 295° FROM ISSON/7+7SE (1985 GRO?) (TON CLAIMS?)	BULL QTE VEIN W/ LIMONITIC FRACTURES + MINOR FeCO ₃ THROUGH OUT: INTRODUCING INTENSELY RELATED CHLORITIZED SCHIST; VEIN >1m WIDE WHERE EXPOSED IN OLD TINDER TRENCH; SAMPLE COLLECTED DISCONTINUOUSLY ACROSS WIDTH	-	1m	<table border="1"> <tr> <td>Cu</td> <td>Pb</td> <td>Zn</td> <td>Ag</td> <td>As</td> <td>Au ppb</td> </tr> <tr> <td>484</td> <td>3</td> <td>6</td> <td>.8</td> <td>3</td> <td>2</td> </tr> </table>	Cu	Pb	Zn	Ag	As	Au ppb	484	3	6	.8	3	2
Cu	Pb	Zn	Ag	As	Au ppb												
484	3	6	.8	3	2												
87-3-5-2-008 ✓	19100E 6+00N (1986)	PALE TO DULL GRN RHY, LIGHT BUFF/HEMATITE-RED WEATHERED: QTE VEINS ± FeCO ₃ VEINS; RUSTY RED HEMATITIC VEINLETS LOCALLY; VUGGY W/ MINOR RUSTY PY IN QTE VEINS	-	-	<table border="1"> <tr> <td>3</td> <td>6</td> <td>11</td> <td>.1</td> <td>2</td> <td>2</td> </tr> </table>	3	6	11	.1	2	2						
3	6	11	.1	2	2												
87-3-5-2-010 ✓	5m SOUTH OF -008	OFF WHITE RHYOLITE W/ VUGGY QTE VEINS; ABUNDANT RUSTY (FeO) VUGS, SPECULAR HEMATITE IN VUGS; <1% RUSTY PY IN RHY,	-	-	<table border="1"> <tr> <td>5</td> <td>5</td> <td>18</td> <td>.1</td> <td>3</td> <td>1</td> </tr> </table>	5	5	18	.1	3	1						
5	5	18	.1	3	1												
87-3-5-2-011 ✓	AS-010	RUSTY GRN - BRUINISH CRANGE WEATHERED QTE VEINED WHITISH RHYOLITE; QTE VEIN STOCKWORK; VEINS (± RHY) VUGGY, MINOR RUSTY PY IN VEINS	-	-	<table border="1"> <tr> <td>13</td> <td>253</td> <td>22</td> <td>1.3</td> <td>18</td> <td>165</td> </tr> </table>	13	253	22	1.3	18	165						
13	253	22	1.3	18	165												
87-3-5-2-012 ✓	TALUS ON 19100E (1986) LINE, MIDWAY BETWEEN S00N & SSON.	RUSTY YELLOWISH STRONGLY BOXWORKED QTE VEIN FRAGMENT; ANGULAR, GENERALLY ~1cm WIDE (NO SULPHIDES NOTED)	-	-	<table border="1"> <tr> <td>12</td> <td>312</td> <td>20</td> <td></td> <td></td> <td></td> </tr> <tr> <td>1811</td> <td>12.1</td> <td>7760</td> <td></td> <td></td> <td></td> </tr> </table> <p>si. 0306</p>	12	312	20				1811	12.1	7760			
12	312	20															
1811	12.1	7760															

SAMPLER: AL M

Date: JUNE 1 '87

Project: MIDNIGHT GULCH (JL) Area: WHEATON RIVER

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Sample No.	Location	Description	Attitude	Width	Analytical Results
87-3-S-1-013 ✓	2M NORTH OF 19100E / 5160N (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 1 ppb 9 10 27 .2 4 1
87-3-S-1-014 ✓	25m @ 120° FROM 1987 OLD STN O150E 2100N	SILICIOUS, BROWN-PINK TO PINKISH RHYOLITE α QFP?; MINOR QTZ-SULPHIDE STRINGERS (<1% PY + MINOR GALENA, MINOR FeO). @ UPPER CONTACT OF QFP W/ MAFIC HNBLED PORPHYRY	70° / 321°	6"	13 945 7 1428 2.9 520
87-3-S-1-015 ✓	10m @ 081° FROM O150E / 2100N (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 / 1100W (TON?)	YELLOW-BROWN WEATHERED "16" RHYOLITE; PALE BROWN-GREEN FRESH W/ ABUNDANT QTZ VENTS (<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 ✓	20m @ 155° FROM O150W / 3150N	REDDISH-BROWN SOIL ALONG SMALL SHEAR ADJACENT TO NEW H.W. OF RHY DYKE ALONG ROAD CUT.	90° / 260°	2"	10 24 115 .1 5 8
87-3-S-2-018 ✓	10m @ 288° FROM 1100E / 5100N	BUFF-TAN WEATHERED, GREEN (FRESH) "16" RHYOLITE; MINOR QTZ VENTS W/ ~ 0.1% GN + YELLOW/BROWN RUSTY VUGS, WITHIN HIGHLY SHEARED + ALTERED TUFF ALA. CHLORITE SCHIST.	-	-	11 1393 7 5.1 7 85

Date: JUNE 24

Project: MINIMUM GEOLOGICAL CONSULTANTS INC.

Area: MOUNTAIN PASS

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Sample No.	Location	Description	Attitude	Width	Analytical Results
37-3-S-2-019 ✓ 19	10m ABOVE TRAIL OF CAVED ADIT @ N 0+75E / 4+25N	16 PHYOLITE: RUSTY YELLOW WEATHERED QTZ VEINED. RHY FROM DYKE ABOVE CAVED ADIT; ABUNDANT UUGS W/ QTZ XTLS; ~1% EUPHERAL GN, MINOR SPHALERITE(?); SAMPLE HAND SELECTED FROM HANGING WALL SIDE OF DYKE, SELECTING QTZ VEINED, GN-BEARING SAMPLE.	66° 326	DYKE IS ~4m	(SAC. REP. N.A.) Cu Pb Zn Ag As Au 24 8268 78 25.1 74.100 6 SP (2.784 opt Au)
87-3-S-2-020 ✓ 20	5m @ 76° FROM 4+00N, 1+00W	QTZ WEIN FLOAT: WHITE QTZ WEIN ~5cm WIDE W/ BANDS OF DISSEMINATED GN (1%) & PY (1%) ALONG EDGES OF WEIN; UNCOVERED IN SOIL GOSSAN ALONG ROADWAY (5m @ 76° IT			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 WEIN FRAGMENTS ABUNDANT; GOSSAN SEEMS TO TEND NE-W ALONG ROAD- WAY.			543 1358 156 2581 17.0 3
87-3-S-1-021 ✓ 21	20m @ 270° FROM 3+100N, 0+50E	RUSTY YELLOW BROWN RHYOLITE (16): QTZ VEINETS, UGGY & 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 CULLEY DIRECTLY WEST OF 3+00N / 1+00W (?) 285° (TON?)	YELLOWISH CLAY RICH SOIL: QTZ WEIN, RHY BVA AS FLOAT			11 10 25 .1 4 7

Date: JUNE

Project: MIDNIGHT GULLY

Area: #7 CLAIMS

Page 5 of 5

Sample No.	Location	Description	Attitude	Width	Analytical Results					
					Cu	Pb	Zn	Ag	As	Au
37-6-5-1-023 ✓ 23	12 - 022	QZT VEINED MED GR. PLUTONIC? CN ALTB RHY; ADJACENT TO RHY EXA; TRC GN IN QZT VEINS (<1cm WIDE)	↙ 02° 217°	-	10	108	25	.8	81	20
37-3-5-1-024 ✓ 24	~15m @ 270° FROM 3100N / 0100E	TYPE 1B RHYOLITE; RARE GN IN QZT VEINS	↘ 76° 320	-	14	269	179	.9	8	24
37-3-5-1-025 25	~217SN / 0100E	PALE GREEN → WHITE WEATHERED RHY RARE QZT VEINS & PY STRINGERS; ARCING VARIABLE FRACTURES	↘ 80° 270	~3m TOTAL WIDTH OF DYKE	5	11	15	.1	2	11
37-3-5-2-026 26 ✓	~15m @ 290° FROM 2150N / 0100E	YELLOW WEATHERED RHYOLITE; MINOR QZT STRINGERS, POSSIBLY PART OF 1c DYKE TO SOUTH.	-	-	12	10	6	.4	6	7
37-3-5-2-027 27 ✓	5m NORTH OF 19100 5160E (1986 GRID)	DULL PALE GREEN RHYOLITE; MINOR IRREGULAR QZT VEINLETS (VOGGY) W/ RARE PY.	-	-	5	124	92	.3	56	47
37-3-5-1-028 28 ✓	~15m @ 320 FROM 0150W / 2100N (IN TRENCH) (NO MARKER FLAG LEFT)	1c TYPE RHYOLITE DYKE: MINOR QZT VEINS (LOCALLY VOGGY W/ PY & MSSV GREEN CHLORITE)	-	-	23	337	242	.6	3	325
37-3-5-1-029 /	ALONG FINAL STRETCH OF NEW ROAD DOWN TO ADIT ZONE (S-LW NORTH ZONE CAMP)	SEAR & ADJACENT SHEARED RHYOLITE ALONG NEW ROAD CUT TOWARD ADIT ZONE; (YELLOWISH GOSSAN SEAR ALONG HIGHLY FRACTURED MAFICS & MINOR RHYOLITE)	-	-	236	699	21223	829	4	540
37-3-5-2-030 ✓	TRENCH ~5m NORTH OF 6100E, 3100N	1b TYPE RHYOLITE. YELLOWISH BROWN WEATHERED LT. GREEN FINE GRAINED RHY W/ ABUNDANT QZT VEINLETS (<2cm WIDE) W/ RARE GN; SILICIOUS DARK GREEN FRAGMENTS WITH QZT STOCKWORK (WALL ROCK?)	-	-	36	3628	146	12.8	19	1110

AL MONTGOMERY

Date: JUNE 20TH 1987

Project: MIDNIGHT GULCH

Area: WESTERN SIDE MT. STANLEY

Page 6 of 6

Sample No.	Location	Description	Attitude	Width	Analytical Results
87-3-5-1-031	ROAD CUT DIRECTLY WEST OF 2100E / 2150N @ 103°	BUFF TO YELLOWISH-GREEN WEATHERED, INTENSELY SERICITIZED, SHEARED & FRACTURED RHYOLITE (16). QTZ VEINS, LOCALLY W/ RUSTY VUGS, UP TO 4cm WIDE. SELECTED VEINED SAMPLES	N 82 / 302	DIKE IS 2-3m WIDE	GC Cu Pb Zn Ag As Au 2 108 24 .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 GREEN WEATHERED, SHEARED QTZ VEINLETS LOCALLY; SELECTED VEINED MATERIAL	N 80 / 300 68 / 256	-	GC 4 89 83 .1 6 1
87-3-5-1-033	WHEELBARROW ZONE EAST END OF 9C	TYPE 16 RHYOLITE FROM RHYOLITE EXPOSED @ WHEELBARROW ZONE ADIT (EAST END OF 9C); 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 4100E / 2100N	SELECTED VEINED PIECES OF 16 TYPE RHYOLITE; PALE GREEN + PINK ON FRESH SURFACE (RHODOCHROSITE?); MINOR RUSTY PY	-	-	GC 7 12 1 .3 11 143
87-3-5-7-035	22m @ 146° FROM ROAD CUT SOIL SAMPLE #164 (87-3-5-7-164) OF THE ROAD CUT SOIL SAMPLE SERIES	B to C horizon, ~1.5' DEPTH, YELLOW TO YELLOWISH-BROWN CLAYEY CRITTY SOIL; ANGULAR & ROUNDED ROCK FRAGS.	-	-	GC 22 1762 .1 15 4
87-3-5-2-037	JULY 3 10m @ 120° FROM 4100N / 0150W	BLEACHED 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	MARZ N-S TRENDING GULLY @ JL-TON BOUNDARY 10m @ 208° FROM (TON?) 87-3-5-2-053	16 TYPE RHYOLITE FLOAT: MINOR BOXWORKED QTZ STRINGERS	-	-	GC 3 16 1 .1 9 10

AL MONTGOMERY

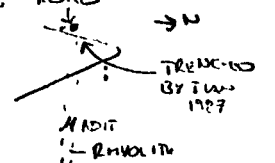
Date: JULY 4

Project: MIDNIGHT GOLDEN

Area: WHEATON PAD

Page 6 of 6

Sample No.	Location	Description	Attitude	Width	Analytical Results
87-3-5-7-039 21	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	-	-	73 67 165 1.1 76 5
87-3-5-7-040 10	12M N WALL WHEELBARROW ZONE DRILL PAD	GOSSANOUS SOIL HORIZON; - MINOR ANGULAR FRAGS. - V. CLAY RICH - YELLOW-BROWN-DULL GRN - 7' DEPTH (C-HORIZON)	-	-	19 13 46 .7 6
17-3-5-1-041 11	20m DOWN (TOWARDS PAD) FROM ROAD SIDE SOIL #. 040 (87-3-5-7-040)	V. GOSSANOUS SHEAR 5cm → 25cm IN ROAD CUT SURROUNDED BY FeCO ₃ ALTD ROCK (TYPE 1A RHY)	253°/N030°	5cm → 25cm	19 177 245 1.7 22 5
87-3-5-2-046 JULY 10	*WHEELBARROW ZONE *CHECK LOCATION!	SHEARED & VEINED WALL ROCK TO TRENCHED DYKE (EAST OF WHEELBARROW) W/BLD DOLRITE	(COLLECTED ON WHEELING OUTLINE WITH ED MONTGOMERY (NOT PLOTTED))	VEINS < 1cm	* MOST PLOTTED - CHECK LOCATION 72 327 75 2.7 37 6840
37-3-5-1-045 JULY 24	*SOUTH END OF WHEELBARROW (UNEXPOSED)				82 2 27 .1 6 2
87-3-5-2-049 JULY 24	NORTH SIDE 87-I2 PAD	SELECTED (VEINED) PERCS OF ANHYLITE (TYPE 1A) FLOAT @ 87-I2 DRILL PAD, VES BUT NO SULPHIDES NOTED	-	-	7 87 3 .2 10
87-3-5-7-050	3m FROM LAST SOUTHERN JUST ABOVE ADIT ZONE ALONG ROAD	GOSSANOUS (N/C HORIZON) CLAY RICH SOIL W/ MMR SILTY COMPONENT	-	-	98 19 75 .7 12 3
87-3-5-1-051 JULY 25	10m WEST OF WHEELBARROW TRENCH ALONG ROAD-TRENCH PUT IN BY IVAN IN 1987. SAME LOC AS 87-3-5-7-039	STRONGLY MIN'D (>10% GN) I PY QTZ VEIN/SHEAR. UP TO 5cm WIDE IN PLACE ALONG FRACTURE WITHIN ANHYLITE (~1 TYPE) DYKE		1cm - 5cm	136 760 38 32,127 395.3 2094



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

Sample No.	Location	Description	Attitude	Width	Analytical Results												
June 19 87-3-5c-1001 ✓	0+50 E, 2+95 N	Brown weathering, sericitized and very silicified Rhyolite. Less than 18, 1mm sized, cubic pyrite.			<table border="1"> <tr> <td>Cu</td> <td>Pb</td> <td>Zn</td> <td>Ag</td> <td>As</td> <td>Au</td> </tr> <tr> <td>8</td> <td>170</td> <td>21</td> <td>1.2</td> <td>15</td> <td>76</td> </tr> </table>	Cu	Pb	Zn	Ag	As	Au	8	170	21	1.2	15	76
Cu	Pb	Zn	Ag	As	Au												
8	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.			<table border="1"> <tr> <td>9</td> <td>2867</td> <td>885</td> <td>4.9</td> <td>2</td> <td>2530</td> </tr> </table>	9	2867	885	4.9	2	2530						
9	2867	885	4.9	2	2530												
87-3-5c-1003 ✓	1+00 E, 2+00 N	Brown quartz veined Rhyolite dyke, silicified and with minor pyrite.			<table border="1"> <tr> <td>3</td> <td>33</td> <td>36</td> <td>.1</td> <td>2</td> <td>5</td> </tr> </table>	3	33	36	.1	2	5						
3	33	36	.1	2	5												
87-3-5c-1004 ✓	1+00 E, 1+50 N	Small quartz vein outcropping near weakly argillic altered diorite.			<table border="1"> <tr> <td>4</td> <td>18</td> <td>55</td> <td>.1</td> <td>2</td> <td>1</td> </tr> </table>	4	18	55	.1	2	1						
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 18 2mm sized cubic pyrite.			<table border="1"> <tr> <td>4</td> <td>6</td> <td>9</td> <td>.1</td> <td>4</td> <td>2</td> </tr> </table>	4	6	9	.1	4	2						
4	6	9	.1	4	2												

Date:

Project: MICHIGANITE CREEK

Area:

Page of

Sample No.	Location	Description	Attitude	Width	Analytical Results
87-3-5-2-057 /	SPEAR AT INITIAL TRENCHING DONE BY IAN IN 1987 (3) IAN JOURNALING	(Serpentine matrix) PALE GREEN w/ Fe Oxide & WHITE CARBONACEOUS COATINGS CRUSTED & PANGED BOUND BEAD-LIKE SILVER (NUGGETS (< 0.5mm))	-	-	ANALYZED FOR Au, Ag, Pt Au Pd Pt Ag (ppm) 140 2 2 3.3

6

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: *[Signature]* 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
37-3-5B-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 21/87

ASSAY CERTIFICATE

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

AU BY FIRE ASSAY

ND=None Detected

ASSAYER Dean Toye 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-SA 2-1	280	.108	.68	.179
87-3-SA 2-4	280	.009	ND	.009
87-3-SA 2-6 87-3-SB-2-6	290	.025	.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: *D. Toye* 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-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/ALL-R	44	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	105	2714	628	10.2	12	130
87-3-5b-2-86						

SAMPLE#	CU PPM	PB PPM	ZN PPM	AG PPM	AS PPM	AU PPB
7-3-5-7-17	10	24	115	.1	5	8
7-3-5-7-21	543	2581	1358	19.0	156	395
7-3-5-7-22	11	10	25	.1	4	7
TD C AU-6	59	40	132	7.3	42	48
7-3-5a-7-19	124	32	99	.1	5	28
7-3-5a-7-20	133	98	131	1.1	6	44
7-3-5b-7-60	66	792	178	2.0	41	1780
7-3-5b-7-65	44	83	127	.3	8	150
7-3-5b-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
<i>Z</i>						
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
2						
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	PB	ZN	AG	AS	AU*
B	PPM	PPM	PPM	PPM	PPM	PPB
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 -



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	oz/ton							
	Au	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							

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 NB 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. Toy* 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: *D. Toye* 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	FB 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 HG 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

PAGE# 1

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 NB 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

PAGE# 1

SAMPLE	Ag	Au
	oz/t	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

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. J. Jones* 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 3625	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 NB 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	FB 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	37	.3	8	2
F-8516	6	14	102	.1	15	14
F-8517	12	6	36	.3	3	2
F-8518	22	25	151	.2	11	2
STD. CALIBR	62	41	173	7.8	43	510

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

by F/A-MS

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 JML 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	2
F-8539	9	9	69	.3	2	1
F-8540	5	18	95	.4	6	2
F-8541	18	14	81	.3	6	1
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	79	.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 22/87*

ASSAY CERTIFICATE

SAMPLE TYPE : PULP
AG** BY FIRE ASSAY

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

ISLAND MINING PROJECT MIDNIGHT GULCH FILE# 87-2278 R PAGE# 1

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

ACME ANALYTICAL LABORATORIES DATE RECEIVED: AUGUST 20 1987
852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6
PHONE 253-3158 DATA LINE 251-1011 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 AU-100		NATIVE	AVG.
	wt. gm	oz/t	Au mg	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
852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6
PHONE 253-3158

DATE RECEIVED: AUGUST 20 1987
DATA LINE 251-1011 DATE REPORT MAILED: *Sept 30/87*

ASSAY CERTIFICATE

- SAMPLE TYPE: REJECT AU BY FIRE ASSAY

ASSAYER: *[Signature]* DEAN TOYE, CERTIFIED B.C. ASSAYER

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

SAMPLE#	SAMPLE AU-100 NATIVE		AVG.	
	WT. GM	OZ/T	AU MG	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 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 : PULF
AGRE BY FIRE ASSAY

ASSAYER *D. J. ...* DEAN TOYE . CERTIFIED E.C. ASSAYER

ISLAND MINING PROJECT MIDNIGHT GULCH FILE# 87-2192 F

PAGE#

SAMPLE	Ag** oz/t
87-2-56-1 145	17.42
87-2-56-1 146	20.09