

Prospectus  
March 16, 1983.  
062145

SUMMARY REPORT

1981 Exploration Program

ON THE

WAYNE 2-6, DON 2-8, and MARY E. 1F-2F CLAIMS

LATITUDE 63°53'N; LONGITUDE 135°40'W  
NTS 105M/13

MAYO MINING DISTRICT, YUKON TERRITORY

FOR

ISLAND MINING & EXPLORATIONS CO. LTD.  
900-475 HOWE STREET  
Vancouver, B.C. V6C 2B3

November, 1982

A.R. Archer, B.A.Sc., P.Eng.

T.M. Elliott, M.S.

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### APPENDIX I

Statement of Qualifications

## SUMMARY AND RECOMMENDATIONS

Island Mining & Explorations Co. Ltd. owns all rights to a contiguous 14 claim, road-accessible, property in the Keno Hill District, Yukon Territory. A 1981 program consisting of 1212 m of drilling in 14 holes, bulldozer trenching and mapping was directed toward a known silver-lead bearing vein on the Wayne 5 claim. This work unexpectedly located two gold-tungsten bearing skarn horizons and several gold-bearing pyritic areas within a nearby zone of rhyolite dykes and/or sills. Summaries of drill results from each of the occurrence types are as follows:

Wayne Silver-Lead Vein - nine of the drill holes intersected the vein and traced it over a length of 95 m and through a vertical range of 80 m. The best intersection returned 2.74 oz/ton silver, 0.032 oz/ton gold and 2.16 percent lead over a core length of 1.4 m. Similar low silver to lead ratios were typical of intersections from all nine holes and this, along with a drill-indicated westerly dip, suggests the Wayne vein is not of the type which hosts economic deposits in the Keno Hill District;

Gold-Tungsten Horizons - two apparently stratigraphically conformable horizons were located. The upper horizon was cut by eight holes and lies approximately 7 m above a contact between quartzite of the Central Quartzite Formation and chlorite, graphitic schist, quartzite and limestones of the Upper Schist Formation. It consists of a weakly foliated pyrrhotite-rich diopside, chlorite skarn with crystalline scheelite. Assays ranged from 0.077 to 2.07 percent  $WO_3$ , and 0.020 to 0.972 oz/ton gold over core widths from 0.45 m to 3.6 m.

The lower horizon consists of locally brecciated, pyrite- and pyrrhotite-bearing schistose quartzites within the Central Quartzite Formation approximately 16 m below its contact with the Upper Schist Formation. This horizon was intersected by four holes and returned assays ranging from 0.03 to 0.4 per cent  $WO_3$  and 0.003 to 0.437 oz/ton gold over core widths from 1.6 to 5.0 m;

Gold in Rhyolite - seven drill holes intersected rhyolite dykes and/or sills. Of these, four holes located pyritic zones, some of which exhibited associated quartz-carbonate vein material with arsenopyrite. Assays ranged from 0.035 to 0.146 oz/ton gold over core widths from 3.5 m to 12.7 m.

Continued drill exploration of the two skarn horizons should receive top priority with major emphasis given to the upper horizon. The zone of rhyolite dykes and/or sills should be explored along strike by a combination of bulldozer trenching and diamond drilling. No further work is justified on the Wayne vein.

An overall budget of \$510,000 in three equal stages is recommended as follows:

Stage 1

Supervision, technical reports and assays	-	\$ 20,000
Bulldozer site preparation and trenching, 200 hours @ \$100/hour	-	20,000
Diamond drilling, 2000 feet @ \$65/ft.	-	<u>130,000</u>
SUB-TOTAL		\$170,000

Stage 2

Identical to Stage 1	-	\$170,000
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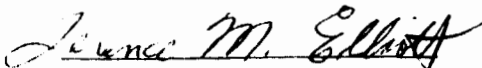
Stage 3

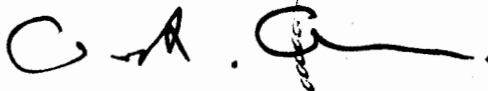
Identical to Stage 1 and 2	-	<u>\$170,000</u>
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TOTAL	-	<u><u>\$510,000</u></u>
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Respectfully submitted,

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

  
T.M. Elliott, M.S.

  
A.R. Archer, B.A.Sc., P.Eng.



INTRODUCTION

This report is written at the request of Mr. Ernie Bergvinson, President of Island Mining & Explorations Co. Ltd. The junior writer (T.M. Elliott) supervised the exploration program conducted on the Wayne #5 claim during the spring and early summer of 1981. The senior writer (A.R. Archer) visited the property during June of 1981, examined most of the core, and gave advice on the geology and drilling.

PROPERTY

The Wayne property consists of 14 claims or fractions which have been grouped together for the filing of assessment work. The following is a list of the claims and their expiry dates:

<u>Claim Name</u>	<u>Tag Numbers</u>	<u>Expiry Date</u>
Wayne 2-4	62880-62882	Aug. 30, 1986
Wayne 5-6	62901-62902	Dec. 17, 1986
Don 2-8	62884-62890	Aug. 30, 1987
Mary E. 1F	80531	Aug. 30, 1986
Mary E. 2F	80532	Aug. 30, 1987

The Wayne 5 and 6 claims are surveyed as lots 1157 and 1158, respectively. These claims, the Wayne 2-4, the Mary E. fractions and the Don 2-8 claims are owned by Island Mining & Explorations Co. Ltd.

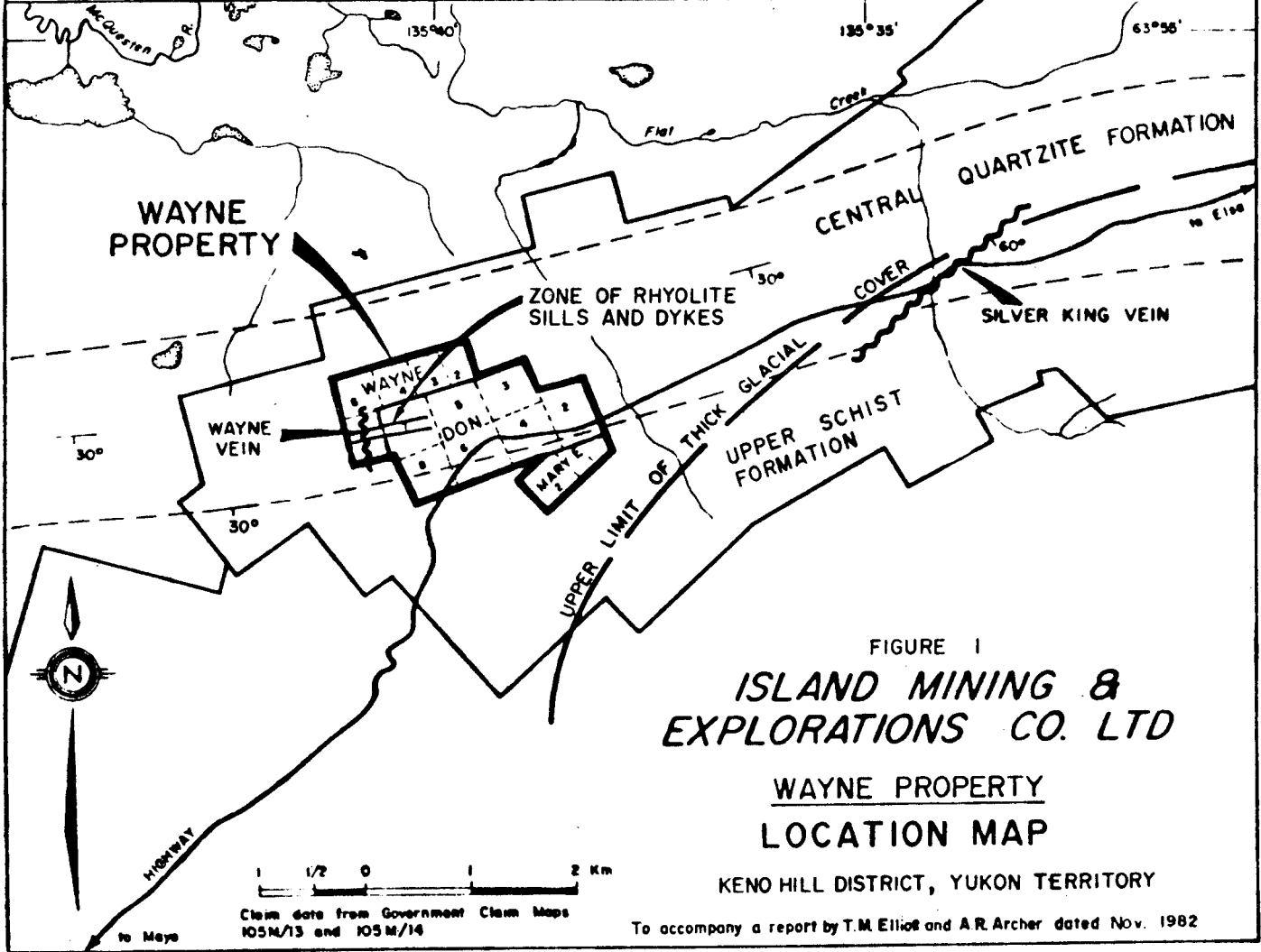
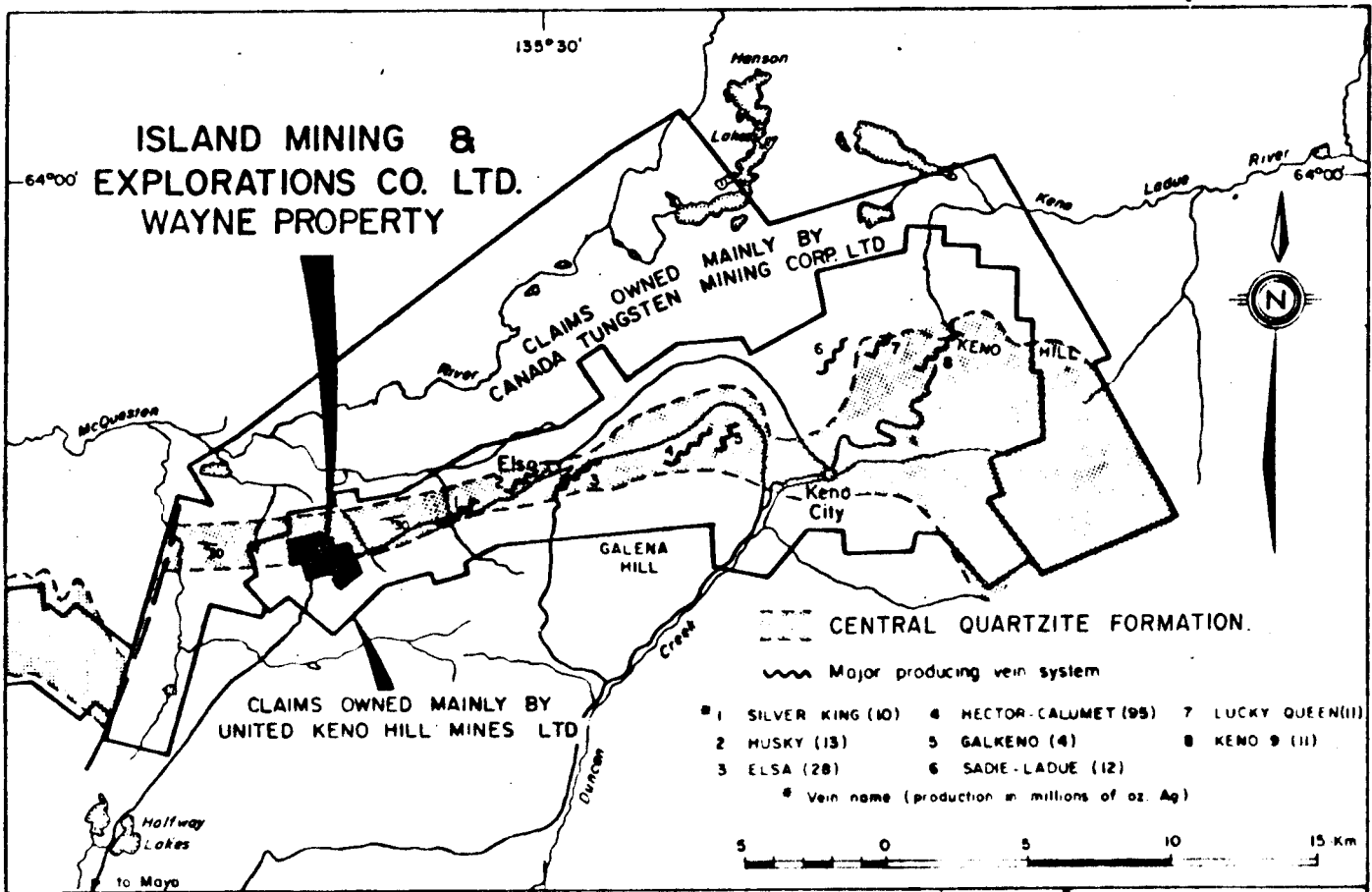


FIGURE 1  
**ISLAND MINING & EXPLORATIONS CO. LTD**  
**WAYNE PROPERTY**  
**LOCATION MAP**

KENO HILL DISTRICT, YUKON TERRITORY

To accompany a report by T.M. Elliot and A.R. Archer dated Nov. 1982

### LOCATION AND ACCESS

The Wayne property is located 9 km west of Elsa in the Keno Hill District, within NTS map area 105M/13. Elsa is a company town owned by United Keno Hill Mines Ltd. and is the site of its ore concentrator. It is accessible by 443 km of all-weather gravel road from Whitehorse, which is about 180 km by rail or road from the deepsea port of Skagway, Alaska. The Elsa to Whitehorse road crosses the Don claims about 800 m southeast of the Wayne 5 claim.

Scheduled air service is available daily from Whitehorse and Dawson to Mayo, which is approximately 36 km south of the property by road. In addition, a short airstrip suitable for single engine aircraft lies on the Don claims.

### HISTORY

#### Keno Hill District

The first silver discovery in the Keno Hill District, the Silver King vein, was made in 1903. Serious production began in the district in 1924 when Treadwell Yukon Co. Ltd. constructed an ore concentrator on Keno Hill. Treadwell moved the concentrator to Elsa in 1935 and operated until a wartime labour shortage and the untimely death of the manager led to closure of the operations in 1941. Keno Hill Mining Co. purchased the Treadwell holdings in 1945 and reorganized in 1946 as United Keno Hill Mines Ltd., which has operated continuously since then. Total production from the district to the end of 1980 has been approximately 200 million ounces of silver from 4.88 million tons of ore mined. Total production from the Silver King vein, which is the nearest producing vein to the Wayne property has been 10.3 million ounces of silver during five short periods of operation between 1913 and 1965.



### Wayne Property

The Wayne 2-6 and Don 2-8 claims were staked in 1955 and the Mary E. 1 and 2 fractions were added in 1960. The Wayne 5 and 6 claims were optioned in 1967 by Fort George Mining and Exploration Ltd., which explored a mineralized vein (Wayne vein) on the Wayne 5 claim by bulldozer trenching and 61 m of short-hole drilling. A shipment of 6.48 tons (dry weight) of ore grading 133.6 oz/ton Ag, 56% Pb, 4.4% Zn and 0.059 oz/ton Au was hand-cobbed from the Wayne Vein by Fort George Mining and shipped to the Trail smelter. Work was discontinued in 1968 following a legal dispute and only sporadic bulldozer trenching was performed on the Wayne 5 claim between then and 1981.

During the late 1970's, considerable trenching and back-hoeing was done by Ron Holway on the adjoining Don claims. This work exposed a small area of rhyolite breccia weakly mineralized with galena and sphalerite.

### WORK DONE

The 1981 exploration program conducted by Island Mining & Explorations Co. Ltd. consisted of 1212 m of drilling in 14 holes and a series of bulldozer trenches along the northern projection of the Wayne vein.

The first 13 drill holes were aligned along a north-south fence and drilled at angles east or west to intersect the near-vertically dipping Wayne vein. The last hole was a widespaced step-out to test the easterly extension of gold-tungsten mineralization that was unexpectedly intersected in the initial drilling.

In addition to the trenching and drilling, detailed geological mapping was done on the Wayne 5 claim in order to determine the areas underlain by the favourable Central Quartzite Formation and to outline a zone of rhyolite sills and/or dykes encountered in the drilling.

No work was done during the field season of 1982.

## REGIONAL GEOLOGY

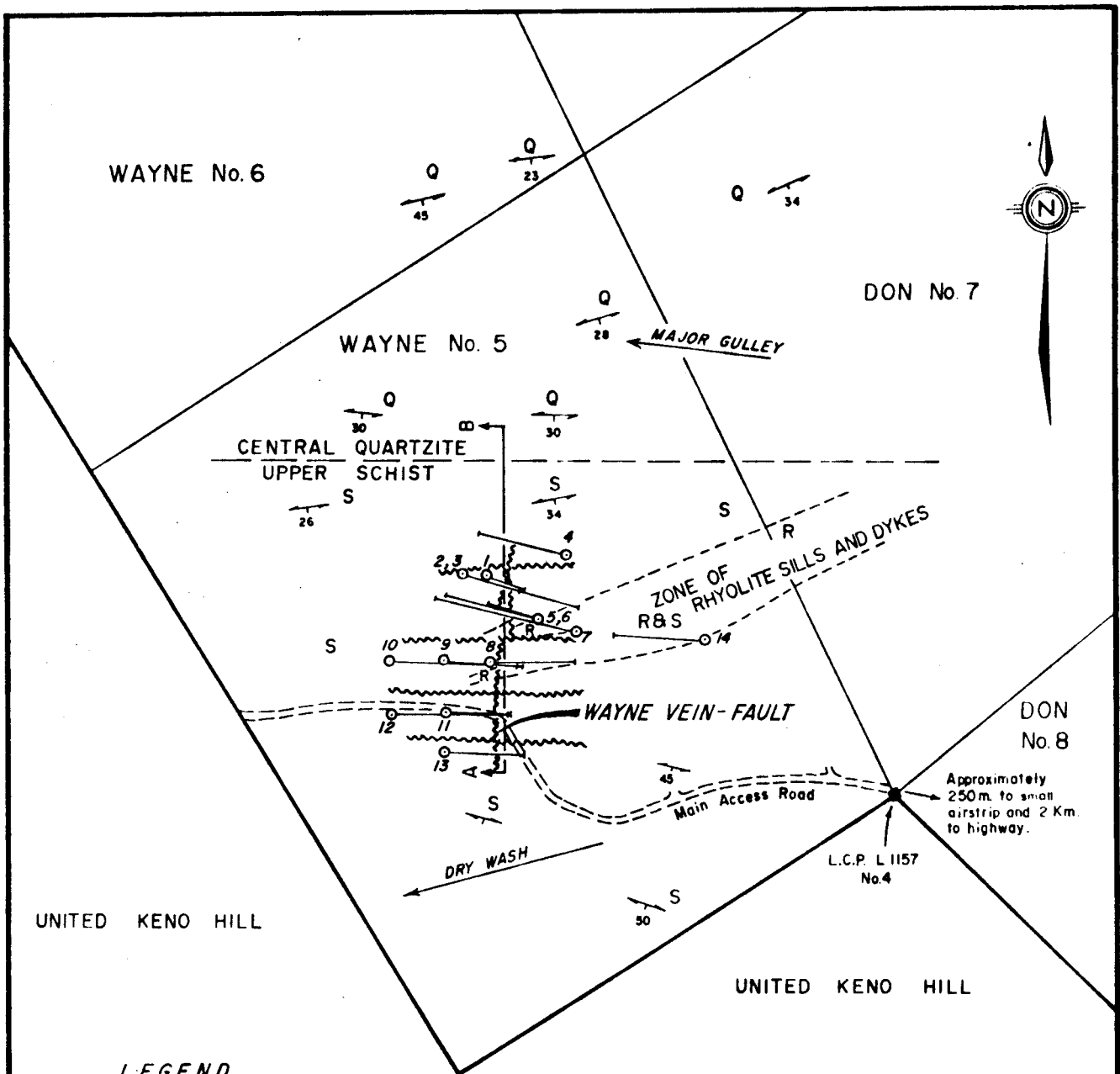
### Stratigraphy

The Keno Hill District is underlain by regionally metamorphosed quartzites and schists that are thought to be of Paleozoic age. The Wayne claims straddle a portion of the east-striking contact between the Central Quartzite Formation, which hosts all of the major silver-lead vein occurrences in the district, and the overlying Upper Schist Formation, which is mainly a quartz-muscovite schist with minor interbeds of chloritic and graphitic schist, quartzite and limestone. In this area, these formations lie on the south limb of a regional anticline that dip about 30° to the south.

Both the Central Quartzite and Upper Schist Formations are intruded by numerous diabase sills which have been altered to greenstone and the occasional dyke of quartz-feldspar porphyry that is locally called rhyolite. Some of these intrusions have widths of up to 50 m and strike lengths up to 1500 m.

### Mineralization

All silver-lead mineralization in the Keno Hill District occurs in veins of which there are two types, transverse and longitudinal. The transverse veins strike north to northeast, dip steeply southeast and have produced most of the ore in the district. Their mineralization exhibits silver to lead ratios



**LEGEND**

- R RHYOLITE SILLS AND DYKES
- S UPPER SCHIST FORMATION
- Q CENTRAL QUARTZITE FORMATION

KNOWN FAULT

ANGLED DRILL HOLE

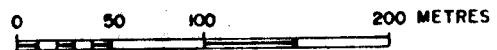
FOLIATION, STRIKE AND DIP

**DRILL HOLE ANGLES**

81 - 1	-46°	81 - 8	-45°
81 - 2	-45°	81 - 9	-45°
81 - 3	-55°	81 - 10	-45°
81 - 4	-45°	81 - 11	-47°
81 - 5	-45°	81 - 12	-45°
81 - 6	-60°	81 - 13	-45°
81 - 7	-45°	81 - 14	-45°

FIGURE 2  
**ISLAND MINING & EXPLORATIONS CO. LTD.**  
**WAYNE NO. 5 CLAIM**  
**GEOLOGY AND DRILL HOLE LOCATIONS**  
 KENO HILL DISTRICT, YUKON TERRITORY

SCALE: 1:4000



To accompany company report T.M. Elliott and A.R. Archer, Nov. 1982.

of 3 to 1 or greater, with only traces of gold. Mineralization from longitudinal veins, which strike easterly and dip steeply south, is characterized by silver to lead ratios of less than 3 to 1 and the presence of arsenopyrite with gold values up to 1 ounce per ton.

#### PROPERTY GEOLOGY

Results of geological mapping of trenches and outcrop on the Wayne 5 claim are illustrated on Figure 2. The contact between the Central Quartzite and Upper Schist Formation was located approximately 50 m north of diamond drill hole 81-4. All surface dip measurements of this contact are 20-40° south, whereas the drilling indicates the dip is only 10° south. This apparent flattening is believed to be caused by a series of east-striking reverse faults whose postulated locations are illustrated in plan on Figure 2 and in section on Figure 3.

A previously unmapped 40 m wide zone of rhyolite dykes and/or sills was found striking easterly across the Wayne 5 claim. Surface mapping has traced the zone over a strike length of 200 m and drilling has intercepted it up to 80 m below surface.

Weak silicification sometimes occurs peripheral to the rhyolite. White, tabular andalusite(?) crystals up to 8 mm long were observed in graphitic phyllite of the Central Quartzite Formation in 5 of the drill holes and locally comprised up to 10% of the rock.

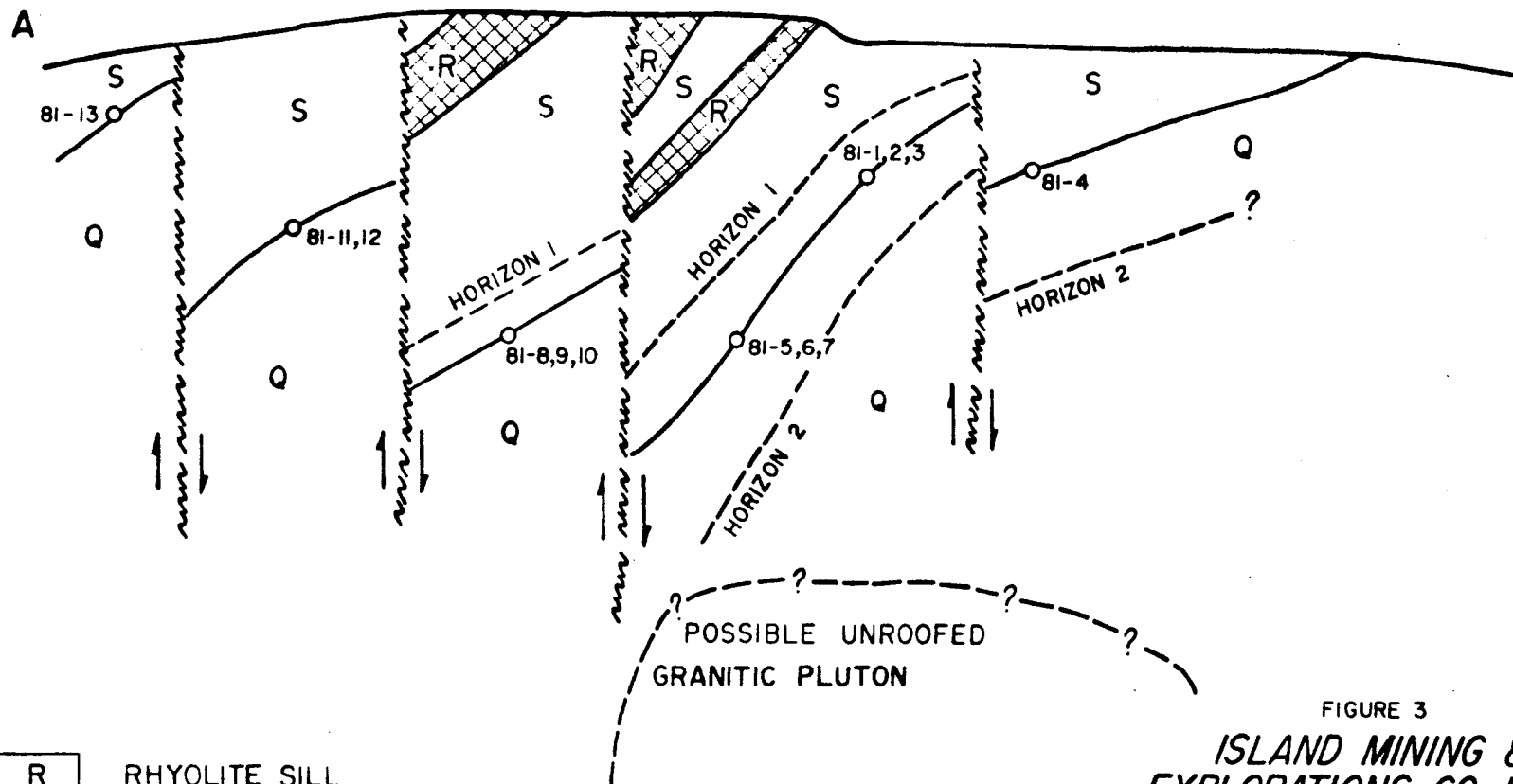
#### MINERALIZATION

##### Silver-Lead Veins

The first 13 holes of the 1981 program were directed toward exploration of the Wayne vein which, because of its northerly

SOUTH

NORTH

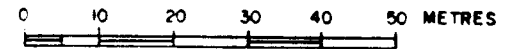


- R RHYOLITE SILL
- S UPPER SCHIST FORMATION
- Q CENTRAL QUARTZITE FORMATION

FIGURE 3  
**ISLAND MINING &  
EXPLORATIONS CO. LTD.**  
WAYNE PROPERTY  
**STRUCTURAL GEOLOGIC  
CROSS SECTION A-B**

KENO HILL DISTRICT, YUKON TERRITORY

SCALE: 1 : 1000



strike, was believed to fall into the favourable transverse vein category. Surface trenching and mapping shows that the vein splits into two branches in the area that was high graded in 1967. The veins are up to 15 cm in width and locally contain pockets of galena in a siderite gangue. Holes 81-1 to 81-4 explored beneath this area but failed to intersect the vein. Drilling to the south was more successful and holes 81-5 to 81-13 traced the vein over a strike length of 95 m and through a vertical range of 80 m. Assay results of vein intersections in these holes are listed in Table 1 as follows:

Table 1 - Assays from Silver-Lead Vein Intersections

Hole Number	Intersection depth in drill hole (m)	Apparent width of intersection (m)	A S S A Y R E S U L T S			
			Silver oz/ton	Gold oz/ton	Lead %	Zinc %
81-5	38.7-39.45	0.75	4.02	0.058	5.22	4.78
81-5	46.8-48.2	1.40	2.74	*L0.003	2.16	3.58
81-7	111.4-113.6	2.20	2.88	0.032	2.06	2.53
81-9	47.3-48.6	1.30	0.16	L0.002	0.02	0.58
81-9	48.6-49.5	0.90	0.19	0.013	0.05	0.34
81-10	78.1-78.45	0.35	0.34	L0.002	0.27	0.73
81-11	47.75-50.4	2.65	0.10	0.009	0.07	0.19
81-12	76.7-76.9	0.20	0.55	0.020	0.18	0.57
81-13	48.5-48.7	0.20	N/A**	N/A	N/A	N/A

\*L = Less than

\*\*N/A = Not Assayed

The location of individual holes is illustrated in plan on Figure 2. Vein intercepts do not project well from hole to hole, possibly because of the previously-mentioned faulting. Drilling shows that the Wayne vein dips approximately 80° west rather than steeply east as previously thought.

### Gold-Tungsten Horizons

Two gold and tungsten-bearing horizons were unexpectedly intersected by the drill holes. Their relative stratigraphic positions are illustrated in section in Figure 3. The first horizon lies within the Upper Schist Formation 3 m to 11 m above the quartzite contact and was cut by 8 of the drill holes. It consists primarily of a foliated, spotted, green and white banded, quartz-calcite-plagioclase-epidote-diopside-amphibole-chlorite skarn containing up to 15% coarse grained pyrrhotite with minor chalcopyrite. In holes 81-2 and 81-3, this horizon changes to a pyritic (10-15%) brecciated schist peripheral to a zone of light to medium grey limestone. Scheelite is seen as medium to coarse unfoliated crystals up to 5 mm across.

The second horizon lies within the quartzite 12 m to 21 m below the Upper Schist Formation contact and was cut by 4 of the 7 holes that reached this location. It consists of locally brecciated, foliated or banded, gray quartzite or schisty quartzite. A thin section from hole 81-7 exhibits alternating bands of quartz (25-30%), muscovite (20-25%) - chlorite (10-15%), pyrite (15-17%) and pyrrhotite (10-15%). In addition, there is 3-5% ankerite which is intergrown with muscovite and chlorite.

Assay results of drill intersections from horizons 1 and 2 are listed in Table 2 as follows:

Table 2 - Assays from Gold-Tungsten Horizons

Hole Number	Intersection depth in drill hole (m)	Apparent width of Intersection (m)	A S S A Y   R E S U L T S		
			Gold oz/ton	WO <sub>3</sub> %	Silver oz/ton
HORIZON 1					
81-2	18.0-20.5	2.5	0.082	0.09	0.12
81-3	15.3-16.3	1.0	0.972	0.48	0.14
81-3	16.3-18.3	2.0	0.056	10.01	0.12
81-5	51.3-52.5	1.2	0.014	0.43	0.34
81-6	33.65-34.1	0.45	0.145	2.07	0.05
81-6	35.5-37.8	2.3	0.082	1.51	0.02
81-7	47.5-49.9	2.4	0.020	0.16	0.02
81-7	51.2-52.7	1.5	0.124	0.26	0.06
81-8	36.6-40.2	3.6	0.024	0.11	10.05
81-9	49.5-52.0	2.5	0.200	0.077	0.07
81-10	54.4-56.0	1.6	0.180	1.51	0.09
HORIZON 2					
81-2	51.0-51.2	1.2	0.148	0.08	0.08
81-3	41.6-46.6	5.0	0.066	0.065	0.07
81-4	50.6-53.8	3.2	0.190	0.08	0.15
81-4	53.8-56.3	2.5	0.003	0.03	0.08
81-7	90.8-92.4	1.6	0.437	0.40	0.20
81-5, 6, 10	Horizon not located				

No free gold has been seen and it is not certain with which (if any) of the sulphides the gold is associated.



Gold in Rhyolites

Rhyolite dykes and/or sills were intersected in 7 of the 13 drill holes directed toward the Wayne vein and in hole 81-14 which was aimed specifically toward the zone of rhyolite mapped on surface. The rhyolites consist of approximately 60% quartz of which 5-15% is seen as quartz eyes up to 4 mm across and the remainder as fine dissemination in the matrix. Feldspar phenocrysts and matrix have been altered to sericite and calcite. Zones containing up to 2% disseminated arsenopyrite, pyrrhotite and pyrite were observed in some altered rhyolite intersections and assays of these zones are listed in Table 3 as follows:

Table 3 - Assays from Sulphide-Rich Sections of Rhyolite

<u>Hole Number</u>	<u>Intersection depth in drill hole (m)</u>	<u>Apparent width of Intersection (m)</u>	<u>Gold in oz/ton</u>
81-7	18.3-25.0	6.7	0.035
81-8	46.0-58.7	12.7	0.053
81-9	34.9-44.5	9.6	0.047
81-14	23.6-27.1	3.5	0.146
81-14	34.1-40.5	6.4	0.039

Assays for silver and tungsten returned only trace amounts and geochemical analysis of adjacent core returned only traces of gold. In general, the gold assays increase with increasing arsenopyrite content. The 6.4 m wide section from 34.1 to 40.5 in hole 81-14 contained some vein quartz and carbonate as well as arsenopyrite.

# ARCHER, CATHRO

& ASSOCIATES LIMITED

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November 15, 1982

## CERTIFICATE

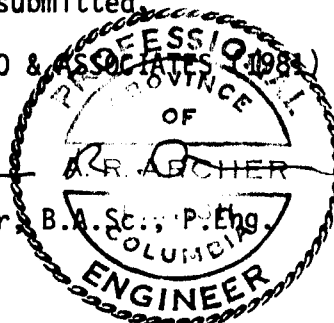
I, Alan R. Archer, with business addresses in Whitehorse, Yukon Territory, and Vancouver, British Columbia, and residential address in South Burnaby, British Columbia, do hereby certify that:

1. I am a consulting engineer.
2. I graduated from the University of British Columbia with a B.A.Sc. in Geological Engineering in 1957.
3. I am a registered Professional Engineer in British Columbia and Yukon Territory.
4. From 1957 to 1966 I was engaged in mineral exploration in Canada as a geologist for a number of companies. I was Chief Geologist for United Keno Hill Mines Ltd. when I retired to private practice in 1966.
5. I have examined all publications and reports referred to in this report and have personally examined the Wayne property.
6. I have not received, nor do I expect to receive, any interest, directly or indirectly, in the properties or securities of Island Mining & Explorations Co. Ltd.

Respectfully submitted,

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

Alan R. Archer, B.A.Sc., P.Eng.



CONCLUSIONS

The 1981 drill program, which was intended to explore a silver vein on the Wayne 5 claim, unexpectedly located two gold-tungsten skarn horizons and a swarm of rhyolite dykes and/or sills with several gold-bearing sections. Both occurrence types are new to the Keno Hill District.

The gold-tungsten skarns are apparently conformable with the stratigraphy and have values and widths approaching economic requirements for underground mining. In addition, gold values returned from sulphide-rich zones within the rhyolites are within the range required for open-pit deposits. The encouraging grades of both occurrence types justifies systematic drill exploration to determine their extent, continuity and structural complications that could affect mining.

The source of the gold-tungsten skarn is uncertain. Although the rhyolite is the nearest intrusive, it does not appear to be directly related to skarn formation. The presence of andalusite in graphitic phyllite beneath the rhyolite in some of the holes suggests an underlying pluton as the most likely source.

Exploration of the Wayne vein, which was the main target for the 1981 program, returned disappointing results. The low (1 to 1) silver to lead ratio obtained from drill core and the westerly dip indicates that it is not of the type which produces ore deposits in the Keno Hill District.