

THIS PROSPECTUS CONSTITUTES A PUBLIC OFFERING OF THESE SECURITIES ONLY IN THOSE JURISDICTIONS WHERE THEY MAY BE LAWFULLY OFFERED FOR SALE AND THEREIN ONLY BY PERSONS PERMITTED TO SELL SUCH SECURITIES.

NO SECURITIES COMMISSION OR SIMILAR AUTHORITY IN CANADA HAS IN ANY WAY PASSED UPON THE MERITS OF THE SECURITIES OFFERED HEREUNDER AND ANY REPRESENTATION TO THE CONTRARY IS AN OFFENCE.

NEW ISSUE

AMERICAN RESERVE MINING CORPORATION  
(hereinafter called the "Issuer")

250,000 Units (the "Units"), each Unit consisting of one common share and one right (the "Right") to earn one additional common share for each \$0.50 of Resource Expenditures (as described herein) made by the Issuer on behalf of the investor. The Rights are non-transferable.

	Price to Public	Commission	Net Proceeds to Be Received by the Issuer (1)
Per Unit	\$ 1.00 (2)	\$ .10	\$ .90
Total	\$250,000.00	\$25,000.00	\$225,000.00

- (1) Before deduction of the costs of the issue estimated to be \$25,000.00.
- (2) The subscription price of \$1.00 per Unit will be allocated by the Issuer for tax purposes as follows: \$0.50 towards the purchase of one common share and \$0.50 towards the purchase of one Right.

A PURCHASE OF THE SECURITIES OFFERED BY THIS PROSPECTUS MUST BE CONSIDERED AS SPECULATIVE. THE PROPERTY IN WHICH THE ISSUER HAS AN INTEREST IS IN THE EXPLORATION AND DEVELOPMENT STAGE ONLY AND IS WITHOUT A KNOWN BODY OF COMMERCIAL ORE. NO SURVEY OF THE PROPERTY HAS BEEN MADE AND THEREFORE IN ACCORDANCE WITH THE LAWS OF THE JURISDICTION IN WHICH THE PROPERTY IS SITUATE, ITS EXISTENCE AND AREA COULD BE IN DOUBT. IN ADDITION, NO ADVANCE TAX RULINGS HAVE BEEN REQUESTED FROM REVENUE CANADA AND ACCORDINGLY THERE CAN BE NO ASSURANCE THAT THE AMOUNT OF ANY PARTICULAR EXPENDITURE OR THE ALLOCATION OF THE SUBSCRIPTION PRICE WILL BE ALLOWED IN WHOLE OR IN PART BY THE MINISTER OF NATIONAL REVENUE. SEE THE HEADING "RISK FACTORS" ON PAGES 18 TO 20.

RESOURCE EXPENDITURES WILL CONSTITUTE CANADIAN EXPLORATION EXPENSE UNDER THE INCOME TAX ACT (CANADA) AND WILL ENTITLE THE INVESTOR TO DEDUCTIONS FOR INCOME TAX PURPOSES. SEE THE HEADING "INCOME TAX CONSIDERATIONS" ON PAGES 4 TO 12.

THE VANCOUVER STOCK EXCHANGE HAS CONDITIONALLY LISTED THE SECURITIES BEING OFFERED PURSUANT TO THIS PROSPECTUS. LISTING IS SUBJECT TO THE ISSUER FULFILLING ALL THE LISTING REQUIREMENTS OF THE VANCOUVER STOCK EXCHANGE ON OR BEFORE DECEMBER 17, 1986 INCLUDING PRESCRIBED DISTRIBUTION AND FINANCIAL REQUIREMENTS.

NO PERSON IS AUTHORIZED BY THE ISSUER TO PROVIDE ANY INFORMATION OR TO MAKE ANY REPRESENTATION OTHER THAN THOSE CONTAINED IN THIS PROSPECTUS IN CONNECTION WITH THE ISSUE AND SALE OF THE SECURITIES OFFERED BY THE ISSUER.

UPON COMPLETION OF THIS OFFERING THIS ISSUE WILL REPRESENT 17.85% OF THE SHARES THEN OUTSTANDING AS COMPARED TO 75% THAT WILL THEN BE OWNED BY THE CONTROLLING PERSONS, PROMOTERS, DIRECTORS AND SENIOR OFFICERS OF THE ISSUER. REFER TO THE HEADING "PRINCIPAL HOLDERS OF SECURITIES" ON PAGE 24 HEREIN FOR DETAILS OF SHARES HELD BY DIRECTORS, OFFICERS, PROMOTERS AND CONTROLLING PERSONS.

ONE OR MORE OF THE DIRECTORS OF THE ISSUER HAS AN INTEREST, DIRECT OR INDIRECT, IN OTHER NATURAL RESOURCE COMPANIES. REFERENCE SHOULD BE MADE TO THE HEADING "DIRECTORS AND OFFICERS" ON PAGES 24 TO 25 FOR A COMMENT AS TO THE RESOLUTION OF POSSIBLE CONFLICTS OF INTEREST.

THIS PROSPECTUS ALSO QUALIFIES FOR SALE TO THE PUBLIC AT THE MARKET PRICE FOR THE SHARES AT THE TIME OF SALE ANY SHARES OF THE ISSUER WHICH THE AGENT MAY ACQUIRE PURSUANT TO THE AGENT'S WARRANTS AND ANY COMMON SHARES OF THE ISSUER EARNED BY THE INVESTORS. REFERENCE SHOULD BE MADE TO THE HEADING "SHARE OFFERING AND PLAN OF DISTRIBUTION" ON PAGES 1 TO 4.

WE, AS AGENT, CONDITIONALLY OFFER THESE SECURITIES SUBJECT TO PRIOR SALE, IF, AS AND WHEN ISSUED BY THE ISSUER AND ACCEPTED BY US IN ACCORDANCE WITH THE CONDITIONS CONTAINED IN THE AGENCY AGREEMENT REFERRED TO UNDER THE HEADING "SHARE OFFERING AND PLAN OF DISTRIBUTION" ON PAGES 1 TO 4 OF THIS PROSPECTUS, SUBJECT TO APPROVAL OF ALL LEGAL MATTERS ON BEHALF OF THE ISSUER BY MESSRS. SOBOLEWSKI ANFIELD.

CANARIM INVESTMENT CORPORATION LTD.  
2200 - 609 Granville Street  
Vancouver, British Columbia

DATED: MAY 28, 1986

EFFECTIVE DATE: June 20, 1986

THORN  
888711  
Tom Schmitt  
# 387 g/m  
PROSPECTUS  
?

income for a given year are losses arising as a result of CEE, CDE and depletion deductions and the otherwise tax-free half of capital gains. Furthermore, the investment income deduction will not be allowed in arriving at the adjusted income amount nor will the dividend tax credit be permitted as a deduction from the minimum tax otherwise calculated. **Individual investors may be affected by this proposal and should thus consult their tax advisors.**

#### Borrowing by Investor

A person who borrowed funds for the purpose of earning income from the Units may deduct interest thereon in full against income from all sources, provided the amount of such interest is reasonable.

#### Taxation of the Issuer

The Issuer is required to calculate its income or loss for each of its taxation years, file income tax returns and pay its taxes. The computation of the Issuer's taxable income or loss will exclude any deduction in respect of CEE incurred on behalf of the Rightsholders in the transactions described in this Prospectus.

#### THE ISSUER

The Issuer was incorporated by registration of Memorandum and Articles under the name of American Reserve Oil Corporation on December 29, 1980 with the Registrar of Companies, pursuant to the Company Act of British Columbia. A Certificate of Change of Name was issued by the Registrar of Companies for the Province of British Columbia on February 27, 1986, changing the name of the Issuer to American Reserve Mining Corporation.

The Issuer's head office address is #420 - 625 Howe Street, Vancouver, British Columbia. It's registered and records office is situated at #700 - 609 Granville Street, Vancouver, British Columbia.

#### DESCRIPTION OF BUSINESS AND PROPERTY OF THE ISSUER

##### **Business**

The Issuer is a natural resource company engaged in the acquisition, exploration and development of mining property. The Issuer has the right to earn an interest in the Thorn

Property described under the heading "Property" in respect of which the Issuer intends to expend funds from this Offering according to the exploration and development program set out therein. The Issuer is seeking additional properties worthy of exploration and development.

### Property

By a Property Interest Acquisition Agreement dated February 28, 1986 (the "Agreement"), the Issuer acquired from Inland Recovery Group Ltd. of #420 - 625 Howe Street, Vancouver, British Columbia, ("Inland") the right to earn an undivided 50% interest in certain claims owned by Inland and located in the Atlin Mining Division, Province of British Columbia, described as follows:

<u>Claim Name</u>	<u>No. of Units</u>	<u>Record No.</u>	<u>Expiry Date</u>
Daisy	20	1302	April 24, 1989
Daisy 2	10	1317	June 15, 1988

(the "Thorn Property").

Under the terms of the Agreement, the Issuer will earn an undivided 50% interest in the Thorn Property by funding an exploration program on the Thorn Property in the amount of \$200,000.00 (the "Exploration Funds"), as recommended by J.P. Woodcock, P. Eng., in a report dated January 24, 1986 (the "Woodcock Report"), and independently reviewed by Robert S. Adamson, B.A.Sc., P. Eng., in a report dated February 11, 1986. Details of the exploration program are described under the subheading "Recommendations". A copy of the Woodcock Report is attached to and forms a part of this Prospectus.

The Issuer has reserved \$200,000.00 from the proceeds of this Offering towards the exploration program, of which \$125,000.00 will be expended as Resource Expenditures (see the headings "Plan of Distribution", specifically the sub-heading "Resource Expenditures", and "Use of Proceeds" for details).

Upon full expenditure of the Exploration Funds, Inland will deliver registerable documents to the Issuer entitling the Issuer to register its 50% interest.

Once the Issuer has acquired its 50% interest, the Issuer and Inland will proceed to jointly explore the property and will enter into a Joint Venture Agreement under which the Issuer and Inland will each pay 50% of all future

exploration and development costs on the Thorn Property. In the event either the Issuer or Inland wish to dispose of all or a portion of its participating interest in the joint venture, each party will have a right of first refusal for a 30 day period to acquire such interest. Inland will act as the operator of the Thorn Property and will be paid a fee as follows:

- (a) prior to the commencement of Commercial Production, 5% of all Expenditures except in the case of Expenditures under a single contract in excess of \$100,000.00 in which case the fee will be 2% of such Expenditures, and
- (b) after the commencement of Commercial Production, 3% of all Expenditures except in the case of Expenditures under a single contract in excess of \$100,000.00 in which case the fee will be 2% of such Expenditures.

To the date of this Prospectus, Inland has expended a total of \$76,785.00 towards acquisition costs, a work program consisting of line cutting, geochemical sampling, geological mapping, geophysical surveys, preparation of reports and filing fees on the Thorn Property. The Issuer has not expended any funds on either acquisition or exploration costs on the Thorn Property.

Inland is a reporting company whose shares are listed for trading through the facilities of the Exchange. Carl F. Zuber, the Chairman of the Board and a Director of the Issuer, is the Chairman of the Board, President and a Director of Inland.

Following are details of the location and access of the Thorne Property and the history and geology of the area, which have been summarized from the Woodcock Report.

#### **Location and Access**

The Thorn Property lies on a northwesterly flowing tributary of the Sutlahine River in northwestern British Columbia. The Sutlahine River flows northeastward into the Taku River. The Taku River cuts through the Coast Mountains and drains into the Pacific Ocean through the Alaska Panhandle near Juneau, Alaska.

The nearest centres of communication and supply are Juneau, Alaska, 100 km to the west, Atlin, B.C. 125 km to the northwest, and Telegraph Creek 125 km to the southeast. Access to the property is best achieved by fixed wing

aircraft from either of these communities to Trapper Lake which lies approximately 13 km to the southeast of the property, followed by a short helicopter flight. Helicopters are based at Atlin.

### **Geology of Area**

The Thorn Property is situated 8 km to the northeast of the eastern contact of the Coast Range Plutonic Complex. Physiographically the property lies on the Tahltan Highland adjacent to the Taku Plateau. The Highland in this area is underlain essentially by Pre-Upper Triassic metamorphic sedimentary and volcanic rocks, Upper Triassic intermediate volcanic rocks of the Stuhini Group, and Lower to Middle Jurassic sedimentary rocks of the Takwahoni Formation. A small granodiorite stock, probably Late Jurassic in age, intrudes those units above and to the east of the Thorn Property. The youngest rocks in the area are those of the Sloko Group, Late Cretaceous to Early Tertiary in age and generally of acidic intrusive and extrusive origin. In the Taku River region the intrusive stock of the Sloko Group frequently represent centres of extensive pyritization associated with base and precious metal mineralization. An intrusive complex centred on the Thorn Property hosts mineralization of this nature.

### **The East Target**

The eastern extremity of the zone was trenched and sampled in 1969 and returned 0.25 oz. Au per ton, 9.1 oz. Ag per ton and 0.3% Cu across 12 feet. The old trench is now completely sloughed in. A sample cut across 1.2 metres of the mineralized zone during July, 1983 returned 0.115 oz. Au per ton, 6.13 oz. Ag per ton and 0.03% Cu. A grab sample of the mineralized material from the trench assayed 0.172 oz. Au per ton, 3.58 oz. Ag per ton and 0.15% Cu.

Mapping done in 1983 has indicated a mineralized zone that extends at least 300 metres easterly from La Jaune Creek. The rock is silicified and contains considerable pyrite in places with much of this zone exhibiting breccia texture and, in places, angular fragments of sulphides can be noted within the silicified breccia. Intermittently along this zone tetrahedrite and enargite mineralization occur.

### **The Main Target**

In 1964 prospecting on the southwest side of La Jaune Creek, on strike with Zone B, led to the discovery of massive sulphide boulders. Mineralization consisted of pyrite with

appreciable tetrahedrite and enargite. A grab sample assayed 8.45% Cu, 0.64 oz. Au per ton, and 9.06 oz. Ag per ton. These boulders occurred in slide debris; their source was probably the overburden area in or above the slide. Some hand stripping was done but the source of the sulphide float was not found.

Mapping and prospecting in 1983 led to the discovery of exposures along the southwest side of the stock which could be the source of the float. A fairly recent slide has exposed a 7 metre wide zone which contains an echelon veins of tetrahedrite, enargite, pyrite and quartz with individual veins ranging in width from one to 15 centimetres. A chip sample taken across one metre of this zone cut five of the veinlets and assayed 0.059 oz. Au per ton, 4.82 oz. Ag per ton and 4.75% Cu.

### **History of Area**

In 1963 Julian Mining Company staked the Thorn Property to cover mineralized outcrops in the drainage basin of the creeks. One zone that outcrops on a branch creek was mapped and tested by drilling four short holes using Pack Sack equipment. In 1964 the property was enlarged and extensive prospecting and reconnaissance geochemical sampling was undertaken. As a result, many other mineralized occurrences were discovered. On some, hand trenching and sampling were carried out. A preliminary geological map of the core of the property was prepared. In 1965 several gold-silver bearing quartz vein zones that outcrop along and parallel Camp Creek were mapped and sampled. Finally, reconnaissance soil surveys were undertaken on both sides of the Main Creek between Camp and Drill Creeks.

### **Conclusions**

The Woodcock Report states the following conclusions:

"1. Mineralization and alteration at the Thorn Property are associated with an intrusive-extrusive centre of Eocene Age. Alteration includes intense pyritization, generally oxidized to brilliant jarosite, sericite, kaolinite and silicification. Besides the pyrite mineralization, enargite, tetrahedrite and stibnite are widespread in the complex. These occur in altered shear zones or in structurally controlled breccia zones. Good grades of gold and silver are associated with much of the enargite-tetrahedrite.

2. The geology at this mineralized complex indicates that it is not a near surface epithermal deposit but that it conforms very closely to the enargite model. Probably the most spectacular and well known example of the enargite model is the El Indeo deposit in Chile where high grade precious metal lodes are associated with structurally controlled quartz veins and zones of intense alteration. Alteration includes silicification, argillic, and alunite-quartz-sericite types. In addition to the mill feed reserves at El Indeo totalling five million tons with an average grade of 0.3 oz. per mt Au, 3.4 oz. per mt Ag and 5% Cu, high grade shipping ore in much smaller tonnages averages 5.9 oz. per mt Au and 4.3 oz. per mt Ag.

3. Work by Mr. Doug Blanchflower has indicated two main targets in the Thorn complex, the East Zone and the Main Target. In both silicified and altered breccia zones are mineralized with pyrite, and in places with enargite-tetrahedrite. Good silver and gold and copper values are associated with the enargite-tetrahedrite. The Main Target is largely covered by overburden and slide areas, is triangular in area, about 250 metres by 200 metres. The East Target is linear extending for 300 metres with widths up to 30 metres.

4. Both Mr. Blanchflower and Mr. J. Wallis have recommended a number of short drill holes in the two targets. The present writer recommends initially a program of 2500 feet of drilling in six to eight holes from about four drill sites. Topography is steep and therefore preparation of drill sites somewhat difficult. Proper selection of drill sites should enable several exploratory holes to be fanned out from one site."

### **Recommendations**

The Woodcock Report states the following details of the recommended exploration program:

"Initially a program of 2500 feet of drilling in six to eight holes from about four drill sites. Prior to and during the drill program more detailed mapping should be done at a scale of 1:1000. In preparation for this and for surveying of the drill sites, base stations should be established throughout the drill target areas, preferably by a stadia and transit. Estimated budget for this program is as follows:

Helicopter (mob, demob, drill moves, supply days)	\$ 19,000.
Single engine Otter for drill mob and demob from Atlin	9,500.
Earlier mob of geologist and helpers from Whitehorse	1,500.
Drill costs - direct drilling of NQ @ \$32 per ft.	80,000.
Misc. drill costs - polymer, core boxes, misc.	7,500.
Mob/demob of drill, drillers, camp construction, drill sites	10,000.
Geologist and two helpers	16,000.
Consulting, management, field mapping	7,000.
Assay costs	4,500.
Report, drafting, etc.	7,000.
Travel	3,000.
Freight, vehicle	4,000.
Equipment rentals, misc. supplies	5,000.
Sub-total	\$174,000.
Contingency @ 15%	26,000.
Total	\$200,000."

### **Plant and Equipment**

There is no surface or underground plant or equipment located on the Thorn Property.

THE THORN PROPERTY IS WITHOUT A KNOWN BODY OF COMMERCIAL ORE AND ACCORDINGLY, THE PROPOSED PROGRAM IS AN EXPLORATORY SEARCH FOR ORE.

### **RISK FACTORS**

#### **Mineral Exploration**

The securities offered by this Prospectus must be considered speculative due to the nature of the Issuer's business.

Mineral exploration and development is inherently speculative and carries with it many risks that even the most careful evaluation and management cannot overcome. There is no assurance that any production will be obtained. If production is obtained, prices received are subject to market fluctuations.

No survey has been made of the mineral claims in which the Issuer has an interest and in accordance with the mining laws of the jurisdiction in which the claims are situate, their precise location and area may be in doubt.



ORCAN MINERAL ASSOCIATES LTD.  
CONSULTING ENGINEERS

SUITE 1417 - 409 GRANVILLE STREET  
VANCOUVER, CANADA V6C 1T2  
TELEPHONE (604) 682-3722

February 11, 1986

Mr. R. W. Donaldson, President  
American Reserve Mining Corporation  
705 - 750 West Pender Street  
Vancouver, B.C.  
V6Z 2B2

**Re: Thorn Property  
Sutlahine River, B.C.**

Dear Sir:

As requested, I have reviewed the report by J. R. Woodcock dated January 24, 1986 entitled "The Thorn Property, BC 104K-10W, Daisy, Daisy 2 Claim, Atlin Mining Division".

I had carried out exploration work on the Thorn property in 1963, 1964, and 1965 when I was employed by Julian Mining Co. Ltd. who then owned the property. In November, 1982, I prepared a report on the property for Inland Recovery Group Ltd. and recommended a program of exploration, the first stage of which was subsequently undertaken.

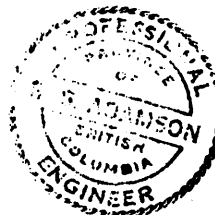
On the basis of the results of that program, which are embodied in Mr. Woodcock's most recent report, I agree with the exploration program that he has now proposed and concur with his estimate of the cost of implementing the program.

Yours very truly,

ORCAN MINERAL ASSOCIATES LTD.



Robert S. Adamson, P.Eng.

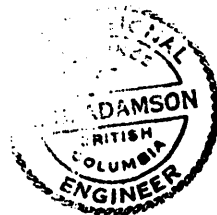


RSA/ke  
Encl.

CERTIFICATE

I, Robert S. Adamson, with business and residential addresses in Vancouver, British Columbia, do hereby certify that:

1. I am a consulting geological engineer.
2. I am a graduate of the University of British Columbia (B.A.Sc. in Geological Engineering, 1957).
3. I am a registered Professional Engineer of the Province of British Columbia.
4. From 1957 until 1967, I was engaged in mineral exploration in Canada for a number of companies. Positions included Senior Geologist, Chief Geologist, and Vice-President, Exploration. Since 1967, I have been practising as a consulting geological engineer and, in this capacity, have examined and reported on numerous mineral properties in Africa, Europe, and North and South America.
5. I last examined the Thorn property in 1965.
6. I have not received, directly or indirectly, nor do I expect to receive any interest, direct or indirect, in the property of American Reserve Mining Corporation, or of any affiliate thereof, nor do I beneficially own, directly or indirectly, any securities of American Reserve Mining Corporation or any affiliate thereof.



Respectfully submitted,

A handwritten signature in cursive script, appearing to read 'R S Adamson', written over a horizontal line.

Robert S. Adamson, B.A.Sc., P.Eng.  
Vancouver, Canada

THE THORN PROPERTY

B. C. 104K-10W

Daisy, Daisy 2 Claims  
Atlin Mining Division

For:

AMERICAN RESERVE MINING CORPORATION

by

J. R. Woodcock

J. R. Woodcock Consultants Ltd.  
806 - 602 W. Hastings Street  
Vancouver, B. C. V6B 1P2

January 24, 1986

JRW

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## THORN PROPERTY

### SUMMARY

The Thorn property, a polymetallic mineral prospect, situated in the Sutlahine River of northwestern British Columbia, is presently covered by the 30-unit Daisy claim block. The property has had a history of exploration that dates intermittently from 1959.

The geological setting consists of an intrusive-extrusive acidic complex of Tertiary age that is centred on a small stock of quartz feldspar porphyry. This complex occurs at the contact between Upper Triassic volcanic rocks of the Stuhini Group and some older meta-sedimentary and volcanic rocks. The acidic complex and its few small satellites are extensively pyritized, hydrothermally altered, and locally mineralized.

Mineral occurrences are numerous within and surrounding the intrusive complex. Fissure vein deposits containing enargite, tetrahedrite, and stibnite occur essentially along a major shear zone manifested by the southwest flowing Camp Creek. Small pods of chalcopyrite, pyrite, galena, barite, etc. occur within the Upper Triassic volcanic rocks at the south contact of the acidic complex.

The most important mineral showings include the "Main Target" and "East Zone" which consist of silicified and altered breccia zones mineralized with pyrite, enargite and tetrahedrite. Good values in silver and gold occur with the enargite-tetrahedrite mineralization.

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Stream geochemistry, done in a number of phases over the years, has indicated anomalous copper values, accompanied by some anomalous silver and zinc, in the drainages west of La Jaune Creek and anomalous lead, silver and zinc values northeast of La Jaune Creek. Soil sampling in the 1983 program indicated good anomalies with copper, silver, and zinc corresponding to the Main Target and the East Target and lesser anomalies scattered in other parts of the grid system.

A drill program to test the Main Target and the East Zone, with initial allowance of 2500 feet is recommended in six to eight holes. This drill program should be preceded and accompanied by establishment of survey stations to allow more detailed mapping of the surface geology and surveying of the drill sites. Budget estimated for this program, including mobilization costs in this remote area, total \$194,000.

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## THORN PROPERTY

### INTRODUCTION

J. R. Woodcock Consultants Ltd. has been requested to review the available technical data and to write an updated report on the Thorn prospect located in northwestern British Columbia. The writer last visited the area in 1981 when he collected some rock specimens for petrography and a few silt samples for geochemistry. In 1982 he did a petrographic study of these rocks and submitted the results for assessment work.

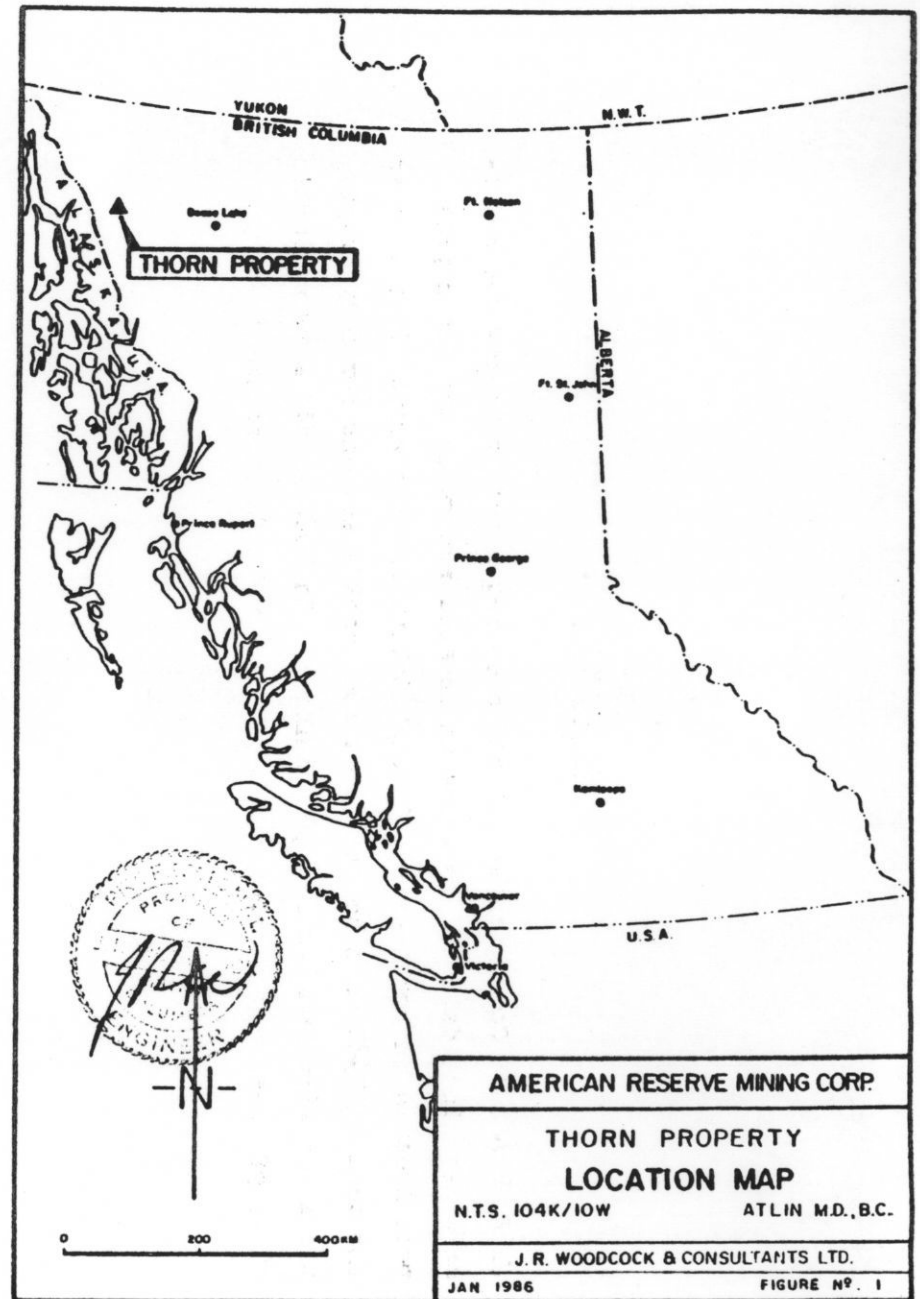
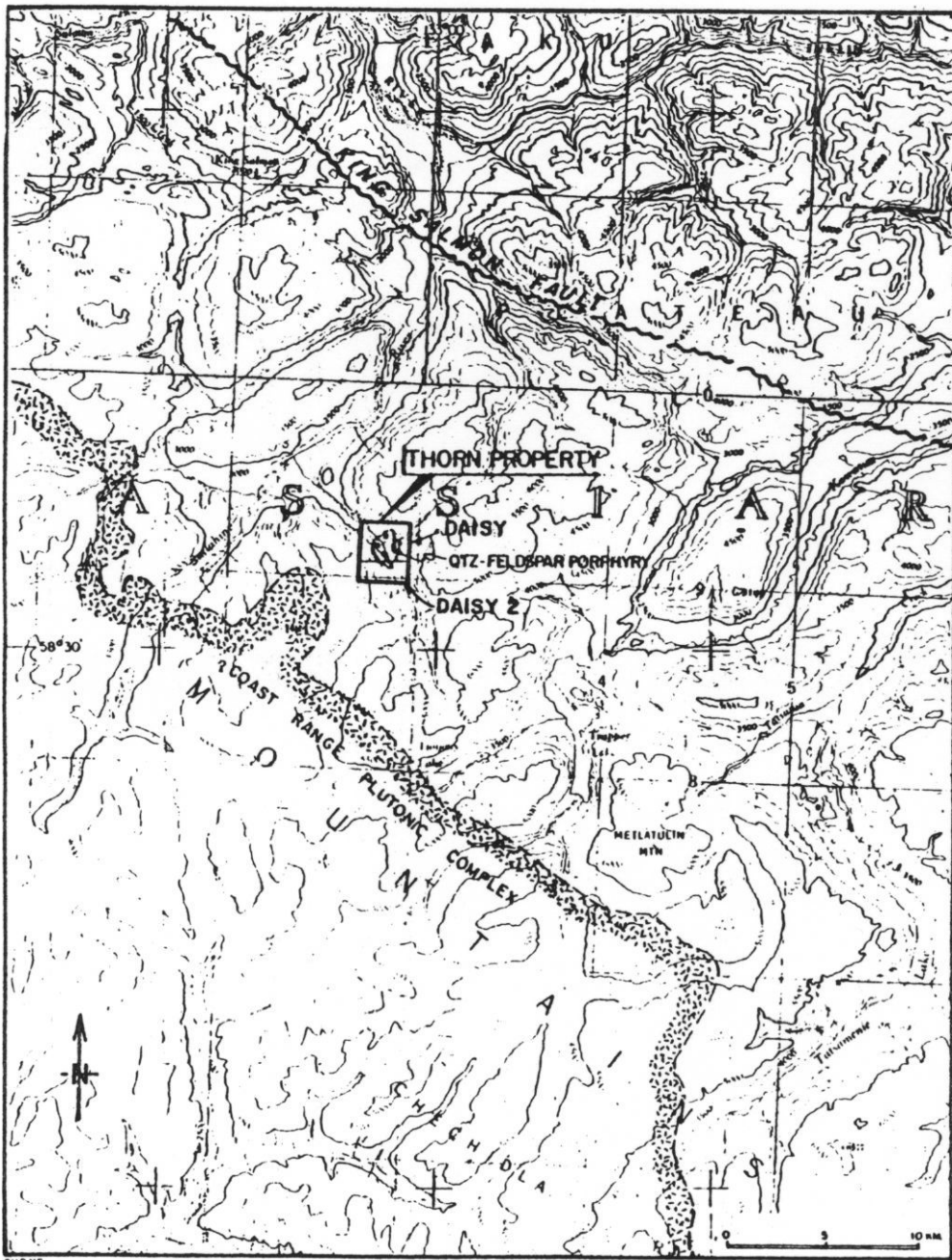
In 1983 the writer contacted an independent geologist, Mr. Doug Blanchflower, to map the property and supervise a program of geochemical soil sampling and VLF-EM geophysics for Inland Recovery Group Ltd. Mr. Mark Kilby, working for J. R. Woodcock Consultants Ltd., did the geophysical work and aided in the geochemical survey and employees of Mr. J. E. Wallis, P. Eng. of Atlin, British Columbia aided in the line cutting and soil sampling. Much of the drafting work was done under the supervision of Mr. J. Wallis who also compiled a report dated August 1983. The present report is a summary of the 1983 data and prior data taken from many of the reports listed in the references.

### LOCATION

The Thorn prospect is located at 58° 33' N. latitude; 132° 48' W longitude, map sheet 104K-10W. It lies on a northwesterly flowing tributary of the Sutlahine River in northwestern British Columbia (Figure 1). The Sutlahine River flows northeastward into the Taku River. The Taku River cuts through the Coast Mountains and drains into the Pacific Ocean through the Alaska Panhandle near Juneau, Alaska.

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The nearest centres of communication and supply are Juneau, Alaska 100 km to the west, Atlin, B. C. 125 km to the northwest, and Telegraph Creek 125 km to the southeast. Access to the property is best achieved by fixed wing aircraft from either of these communities to Trapper Lake which lies approximately 13 km to the southeast of the property, followed by a short helicopter flight. Helicopters are based at Atlin.

The property is centred on the intersection of two fast-flowing, deeply incised creeks; a northwest flowing main creek (La Jaune or Main Creek) flowing to the Sutlahine River and a southwest flowing tributary (Camp Creek). La Jaune Creek is too deep and swift to cross by foot and so in 1983 two foot bridges were constructed to give access to the south part of the property. Elevation at the junction of the two rugged canyons is approximately 720 m A.M.S.L. Elevations increase rapidly above the canyon floor on either side of both creeks to approximately 1800 m on the southwest corner and to 1200 m on the northeast corner of the property. A flat area at the junction of La Jaune and Camp Creeks is suitable for a drill camp.

Timberline on the property lies at 1400 metres. Much of the property at the lower levels is covered by thick coastal-style vegetation; tag elders and devil's club occur within a predominantly coniferous forest.

#### CLAIM DATA

The Thorn property currently comprises two located mineral claims which were staked in 1981 by F. Timpany as agent for Mr. J. R. Woodcock. These claims were subsequently sold outright to Inland Recovery Group Ltd.

The claims, which collectively contain 30 units, are enumerated as follows:

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Daisy (20 units) Record No. 1302 Recorded April 24, 1981  
Daisy 2 (10 units) Record No. 1317 Recorded June 15, 1981

The mapping of 1983 was submitted for assessment work. The Daisy claim is valid until 1989 and the Daisy 2 claim is valid until 1988.

#### HISTORY

Prominent yellow-tinted alteration of an intrusive centre apparently attracted Kennco Exploration geologists to this branch of the Sutlahine River in 1959. There is no record of staking any claims as a result of this initial discovery.

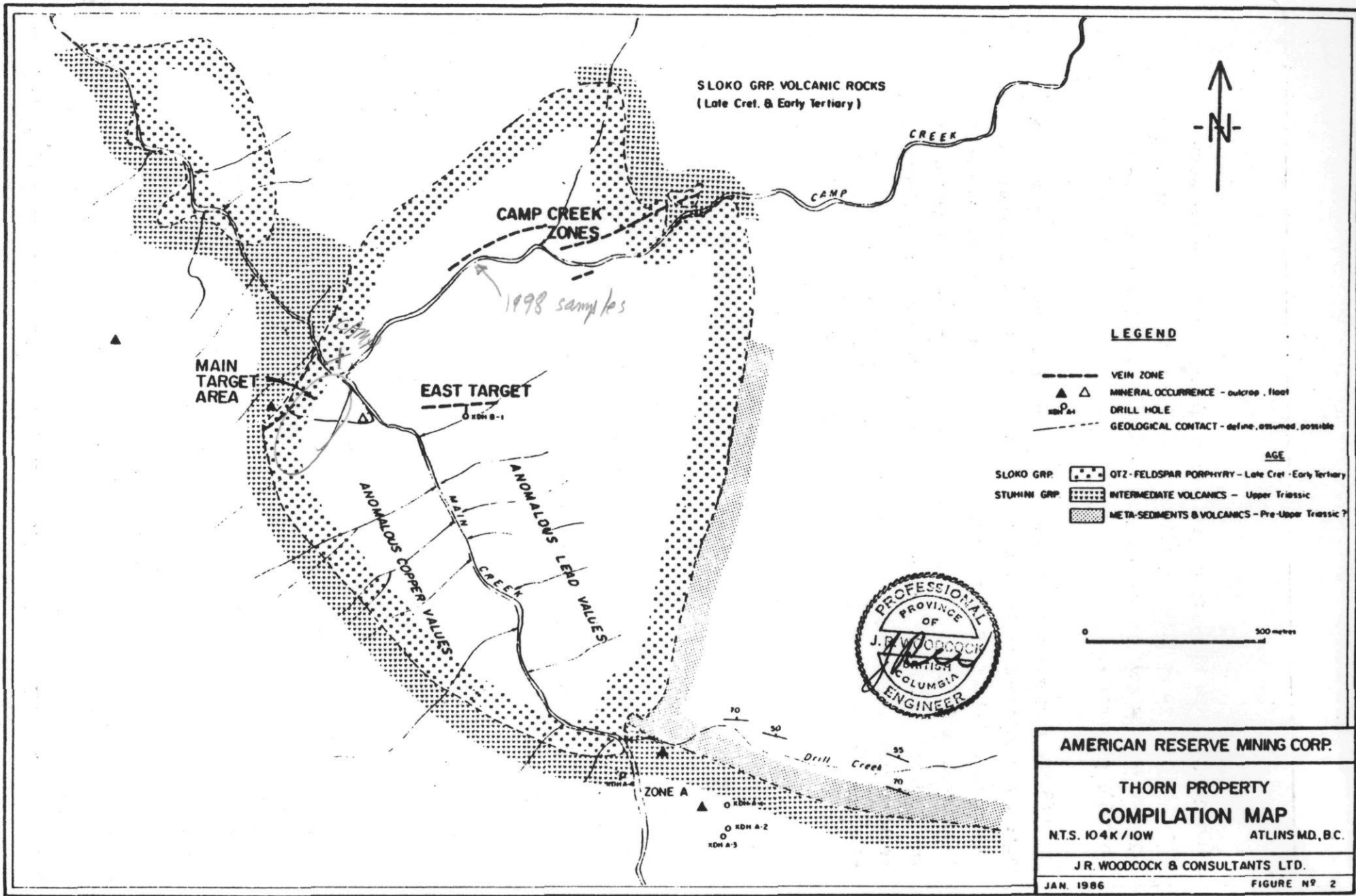
In 1963 Julian Mining Company staked the Thorn property to cover mineralized outcrops in the drainage basin of the creeks. One zone that outcrops on a branch creek, (Zone A), was mapped and tested by drilling four short holes using Pack Sack equipment.

In 1964 the property was enlarged and extensive prospecting and reconnaissance geochemical sampling was undertaken. As a result, many other mineralized occurrences were discovered. On some, hand trenching and sampling were carried out. A preliminary geological map of the core of the property was prepared.

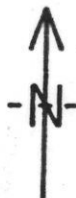
In 1965 several gold-silver bearing quartz vein zones that outcrop along and parallel Camp Creek were mapped and sampled. Zone A on Drill Creek was geophysically and geochemically surveyed. The surveys were followed by drilling four holes (179 m) on the zone, with no encouraging results. Finally, reconnaissance soil surveys were undertaken on both sides of the Main Creek between Camp and Drill Creeks.

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SLOKO GRP. VOLCANIC ROCKS  
(Late Cret. & Early Tertiary)



**LEGEND**

- VEIN ZONE
- ▲ △ MINERAL OCCURRENCE - outcrop, float
- DRILL HOLE
- - - - - GEOLOGICAL CONTACT - define, assumed, possible

- AGE**
- SLOKO GRP. [stippled pattern] OTZ - FELDSPAR PORPHYRY - Late Cret - Early Tertiary
  - STURMIN GRP. [dotted pattern] INTERMEDIATE VOLCANICS - Upper Triassic
  - [cross-hatched pattern] META-SEDIMENTS & VOLCANICS - Pre-Upper Triassic?

0 500 metres



AMERICAN RESERVE MINING CORP.

THORN PROPERTY  
**COMPILATION MAP**  
 N.T.S. 104K/10W      ATLINS MD, B.C.

J.R. WOODCOCK & CONSULTANTS LTD.  
 JAN. 1986      FIGURE NO 2

Subsequently, the property was allowed to lapse. It had become evident that the vein zones lacked adequate grade, particularly in light of the then prevailing (gold) price, and continuity of mineralization to be economically attractive.

In 1968 the property was restaked as the Ink Group, acquired by Montana Mines, and optioned to American Uranium Ltd. In 1969 Cordilleran Engineering, on behalf of American Uranium, cut 22 hand trenches on the Camp Creek vein zone and sampled the trenches. They also conducted a reconnaissance magnetic survey and carried out reconnaissance stream sediment and soil sampling. After completion of the program no further work was recommended and the property was allowed to lapse in 1970.

In 1981 J. R. Woodcock acquired the Daisy claims which were staked to cover the intrusive complex that hosts the vein zones and in 1981 he did minor rock sampling and stream sediment sampling. In 1982 he sold these claims to Inland Recovery Group Ltd.

In 1983 Mr. Douglas Blanchflower, an independent geologist, supervised a program of geological mapping, geochemistry and VLF-EM on the property. Mr. J. E. Wallis, P. Eng. of Atlin provided logistics for this work and compiled the data into a report.

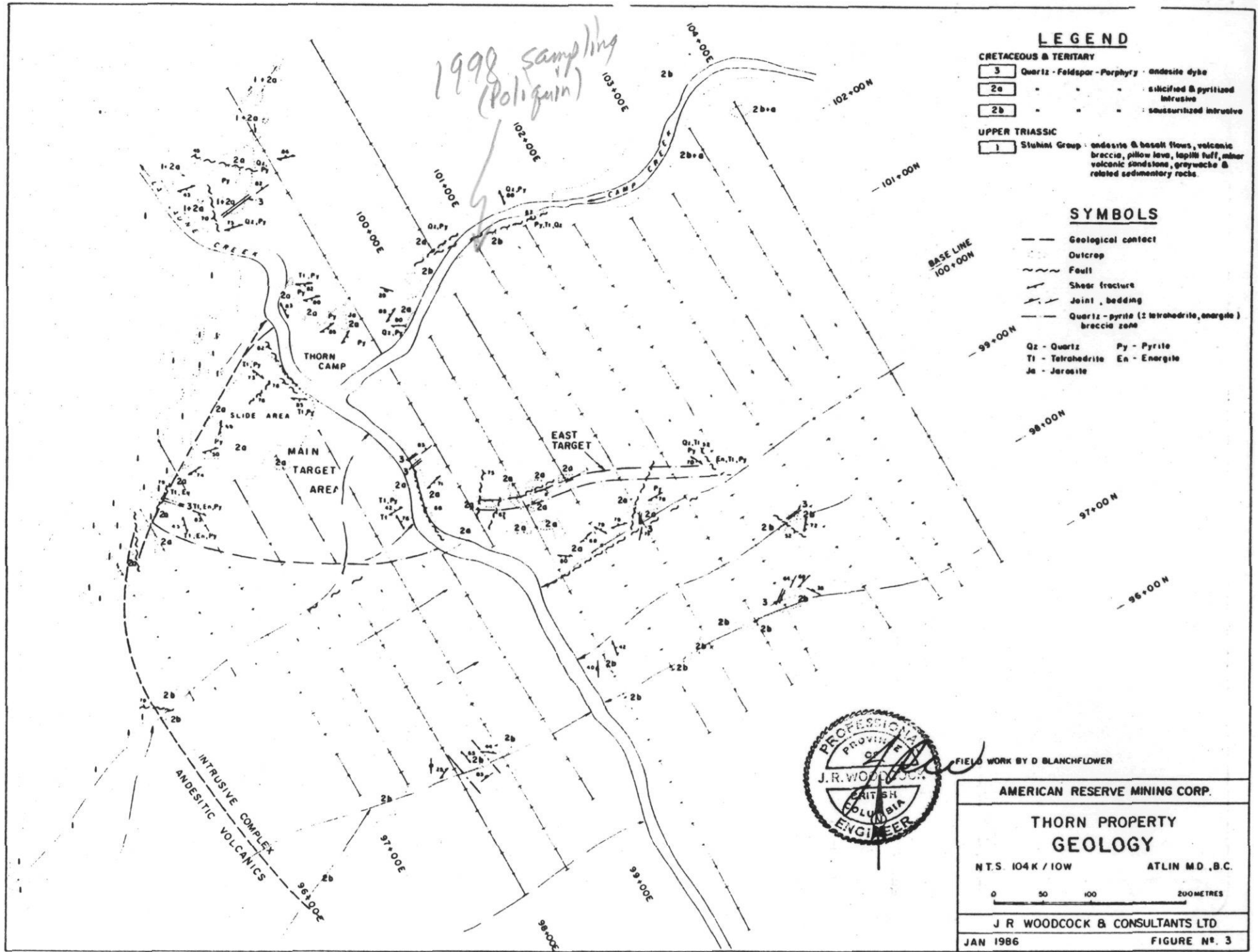
1998 Sampling  
(Poliquin)

**LEGEND**

- CRETACEOUS & TERTIARY**
- 3 Quartz - Feldspar - Porphyry - andesite dyke
  - 2a - - - - - silicified & pyritized intrusive
  - 2b - - - - - soustaurized intrusive
- UPPER TRIASSIC**
- 1 Stuhini Group: andesite & basalt flows, volcanic breccia, pillow lava, lapilli tuff, minor volcanic sandstone, greywacke & related sedimentary rocks

**SYMBOLS**

- Geological contact
  - Outcrop
  - Fault
  - Shear fracture
  - Joint, bedding
  - Quartz - pyrite (± tetrahedrite, enargite) breccia zone
- Qz - Quartz      Py - Pyrite  
 Tl - Tetrahedrite    En - Enargite  
 Ja - Jarosite



FIELD WORK BY D. BLANCHFLOWER

<b>AMERICAN RESERVE MINING CORP.</b>	
<b>THORN PROPERTY GEOLOGY</b>	
N.T.S. 104K/10W	ATLIN MD, B.C.
J.R. WOODCOCK & CONSULTANTS LTD	
JAN 1986	FIGURE NO. 3

## GEOLOGICAL SETTING

### REGIONAL GEOLOGY

The Thorn property is situated eight km to the northeast of the eastern contact of the Coast Range Plutonic Complex (Figure 1 b). Physiographically the property lies on the Tahltan Highland adjacent to the Taku Plateau.

The Highland in this area is underlain essentially by Pre-Upper Triassic metamorphic sedimentary and volcanic rocks, Upper Triassic intermediate volcanic rocks of the Stuhini Group, and Lower to Middle Jurassic sedimentary rocks of the Takwahoni Formation, (G.S.C. 1971). A small granodiorite stock, probably Late Jurassic in age, intrudes those units above and to the east of the property. The youngest rocks in the area are those of the Sloko Group, Late Cretaceous to Early Tertiary in age and generally of acidic intrusive and extrusive origin.

In the Taku River region the intrusive stocks of the Sloko Group frequently represent centres of extensive pyritization associated with base and precious metal mineralization. Several small mining groups actively explored Sloko Group rocks in 1980 and 1981, principally for their potential gold content. An intrusive complex centred on the Thorn property hosts mineralization of this nature.

### PROPERTY GEOLOGY

The intrusive complex on the Thorn property is somewhat elliptical in plan, being approximately 1830 m in length and 1340 m along its short axis. Trending northwesterly along the axis of the main creek, it has

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been exposed by the erosion of La Jaune and Camp Creek canyons. Several smaller satellite bodies occur along La Jaune Creek to the northwest of the main intrusive body. Centred at the junction of Camp and La Jaune Creeks, the complex is apparently cored by quartz feldspar porphyry which has abundant phenocrysts. Rounded quartz phenocrysts are very prominent. Plagioclase porphyry with less plentiful quartz phenocrysts also occurs. Finer-grained acidic rocks (felsites), apparently related to the porphyry, are also present. A breccia of unknown origin, but possibly related to the intrusion, occurs on Camp Creek. The intrusive complex appears to have intruded the contact between a metasedimentary-volcanic unit and an intermediate volcanic unit.

Metasedimentary rocks have been mapped along the eastern side of the intrusion. Rocks closest to the stock have been mapped as siltstone, but limestone and chert occur at higher elevations to the east. The unit as mapped along Drill Creek at the south side of the stock strikes essentially east-west and dips  $55^{\circ}$  -  $77^{\circ}$  to the north.

Volcanic rocks of the Stuhini Group are exposed at intervals along the southwest side of La Jaune Creek and east of the intrusion on Camp Creek, (Figure 2). They consist of porphyritic andesite and tuff. Attitudes are unknown. Rhyolitic volcanic rocks of the Sloko Group occur in the northeastern part of the property above Camp Creek.

#### MINERAL OCCURRENCES

Pyrite mineralization occurs, extensively and erratically, throughout the intrusive complex. Some pyrite mineralization, more massive in texture, occurs along shear zones in the intrusion, frequently associated with energite, tetrahedrite and stibnite. Numerous mineralized occurrences lie within and peripheral to the stock. Many of these are described in the various reports by Adamson, four of them will be discussed in this report. The names presently used and the letter notation of Adamson's 1964 report are included.

Camp Creek Vein Zones (F, M)

A prominent, northeasterly striking siliceous vein zone outcrops along the northern wall of Camp Creek. The vein zone extends in discontinuous fashion for the full width of the intrusive complex. The overall width of the vein zone is in the order of 60 metres. Parallel but shorter and narrower zones occur on the south side of Camp Creek. Hydrothermal alteration, visible as limonitic staining, silicification, and general bleaching of the intrusion envelopes all zones.

Within the main zone at least two parallel bands of discontinuous sulphides are evident. These bands, which vary from one to ten metres in width, comprise irregular pods of pyrite and tetrahedrite with lesser amounts of enargite and stibnite. Gold and silver values range up to 0.20 oz. Au and 9.8 oz. Ag per ton. Generally, average values are low and mineralization lacks continuity.

The Drill Creek Zone (A)

Mineralization consisting of chalcopyrite, galena, pyrite, calcite, barite, and quartz occurs in brecciated rhyolites within andesitic volcanic rocks at the southeastern end of the intrusion (Zone A). The andesitic wall rocks are generally pyritic for some distance beyond the base metal mineralization.

In 1965 the zone was geophysically surveyed (IP) and tested by drilling four X-ray holes (179 m). Mineralized outcrops were initially sampled in 1963 by drilling four Pack Sack drill holes (79 m). The zone was not investigated further as the mineralization appeared to be discontinuous and low grade.

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East Zone (B)

The East Zone lies about 350 metres southeast of the junction of Camp Creek and La Jaune Creek. This showing was originally some mineralized boulders of quartz-rich rock containing finely disseminated tetrahedrite and pyrite. Six character samples taken in 1963 from the mineralized float averaged 0.202 oz. Au per ton, 8.01 oz. Ag per ton and 1.2% Cu.

Some significant float material located among the boulders on the north side of La Jaune Creek in 1963 were thought to have also come from Zone B. This float consisted of a single large boulder of massive chalcopyrite and several smaller boulders of massive tetrahedrite. Galena and sphalerite occur to a minor extent in other boulders.

Mapping done in 1983 has indicated a mineralized zone that extends at least 300 metres easterly from La Jaune Creek. The rock is silicified and contains considerable pyrite in places. Much of this zone exhibits breccia texture and in places angular fragments of sulphides can be noted within the silicified breccia. Intermittently along this zone tetrahedrite and enargite mineralization occur.

The eastern extremity of the zone was trenched and sampled by Cordilleran in 1969 and returned 0.25 oz. Au per ton, 9.1 oz. Ag per ton and 0.3% Cu across 12 feet. The old trench is now completely sloughed in. A sample cut across 1.2 metres of the mineralized zone during July 1983 returned 0.115 oz. Au per ton, 6.13 oz. Ag per ton and 0.03% Cu. A grab sample of the mineralized material from the trench assayed 0.172 oz. Au per ton, 3.58 oz. Ag per ton and 0.15% Cu.

In 1964 one short drill hole was spotted to intersect the extension of an outcropping quartz vein in the hope of encountering the source of the mineralized boulders. However no mineralization was intersected in the drill hole; it may have been collared too far from the source of the float.

The Main Target (B)

In 1964 prospecting on the southwest side of La Jaune Creek, on strike with Zone B, led to the discovery of massive sulphide boulders. Mineralization consisted of pyrite with appreciable tetrahedrite and enargite. A grab sample assayed 8.45% Cu, 0.64 oz. Au per ton, and 9.06 oz. Ag per ton. These boulders occurred in slide debris; their source was probably the overburden area in or above the slide. Some hand stripping was done but the source of the sulphide float was not found.

The mapping and prospecting by Blanchflower in 1983 led to the discovery of exposures along the southwest side of the stock which could be the source of the float. A fairly recent slide has exposed a 7-metre wide zone which contains en echelon veins of tetrahedrite, enargite, pyrite and quartz with individual veins ranging in width from one to 15 centimetres. A chip sample taken across one metre of this zone cut five of the veinlets and assayed 0.059 oz. Au per ton, 4.82 oz. Ag per ton and 4.75% Cu.

Blanchflower has designated the triangular area 200 metres by 250 metres on the west side of La Jaune Creek, across from the Thorn camp as his Main Target. This target is bounded on the northwest by the volcanic rocks outside of the intrusive complex and on the northeast by La Jaune Creek. It includes the mineralized float discovered in 1964; mineralized exposures along the bank opposite Thorn camp with abundant pyrite and with veinlets and disseminations of tetrahedrite-enargite; mineralized exposures in the bank along strike with the East Zone; and the en echelon veinlets with tetrahedrite-enargite that occur near the western volcanic contact.

GEOCHEMISTRY

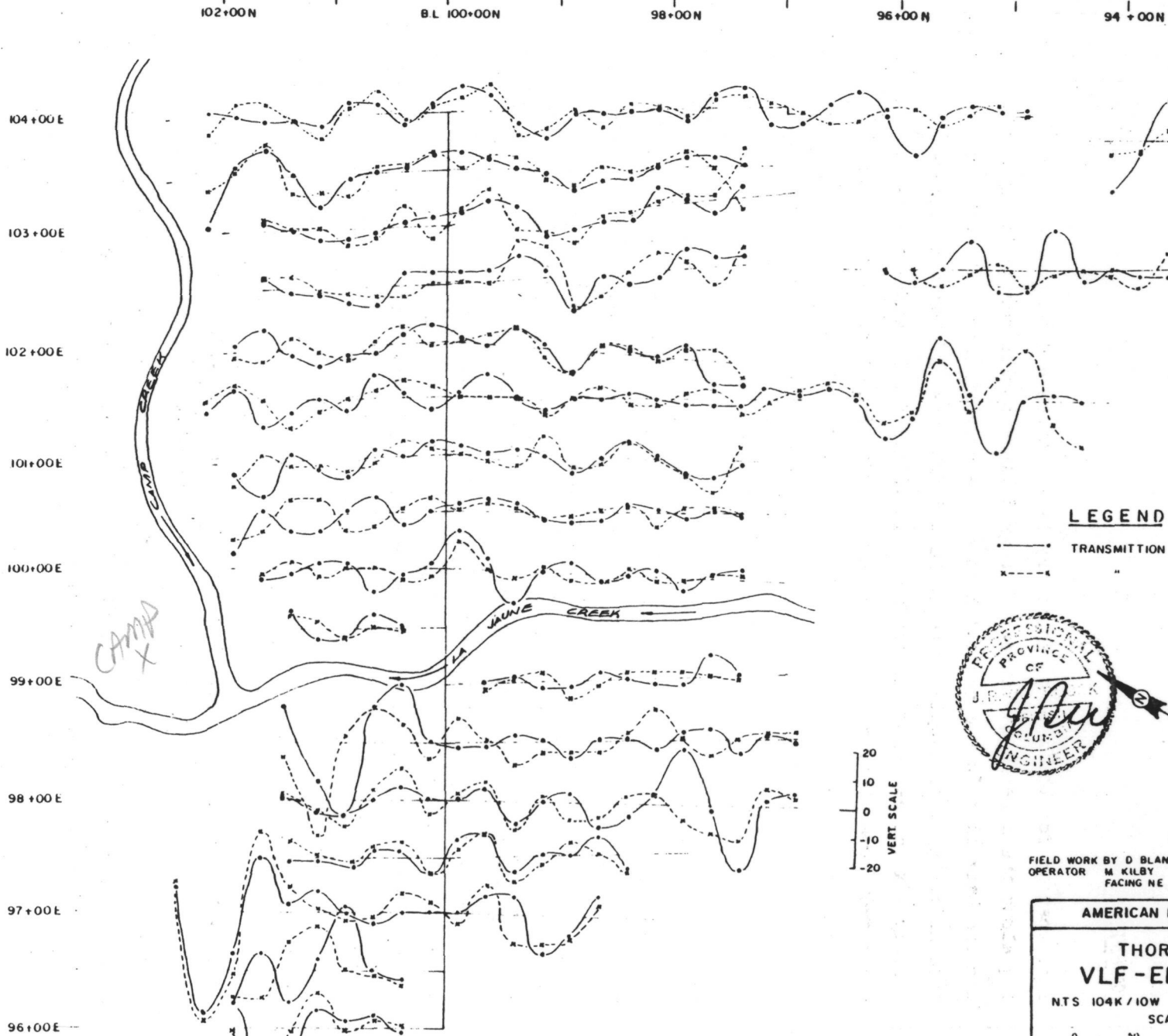
TECHNIQUES

Line spacing for the soil geochemistry is 50 metres and sample spacing along the line is 25 metres. The grid lines strike northwesterly and the base line in the central part of the grid strikes northeasterly. A total of 435 soil samples were collected from the "B" horizon approximately six inches below the surface. In addition silt samples were taken from some streams. All samples were placed in Kraft bags and the locations marked with flagging tape. The samples were analyzed for copper, zinc, silver and gold by the Whitehorse laboratory of Bondar-Clegg & Company.

The -80 mesh size portion of the soil and silt samples was analyzed for copper, zinc and silver using aqua regia digestion and AA detection. The gold was digested with HBr-Br and detected with carbon rod AA. These are not the usual analytical techniques used in most commercial laboratories today as some of the techniques only give partial extraction. For gold analysis, the sample is generally digested with fire assay fusion or by aqua regia and detected geochemically with atomic absorption. For other metals, the digestion generally includes some  $\text{HNO}_3$  often accompanied by perchloric acid and the detection is by AA.

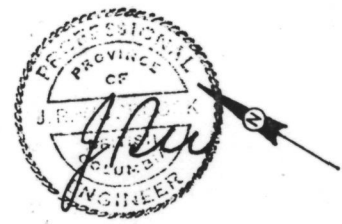
STREAM GEOCHEMISTRY

In 1964 stream sediment sampling was carried out on both sides of La Jaune Creek by Julian Mining prospectors. Samples from the southwest side of the creek were anomalous in copper; samples from the northeast side were anomalous in lead and zinc. The samples were not analyzed for gold, silver, antimony or arsenic.



**LEGEND**

- TRANSMISSION STATION, HAWAII
- - - x - - - ANNAPOLIS, MD







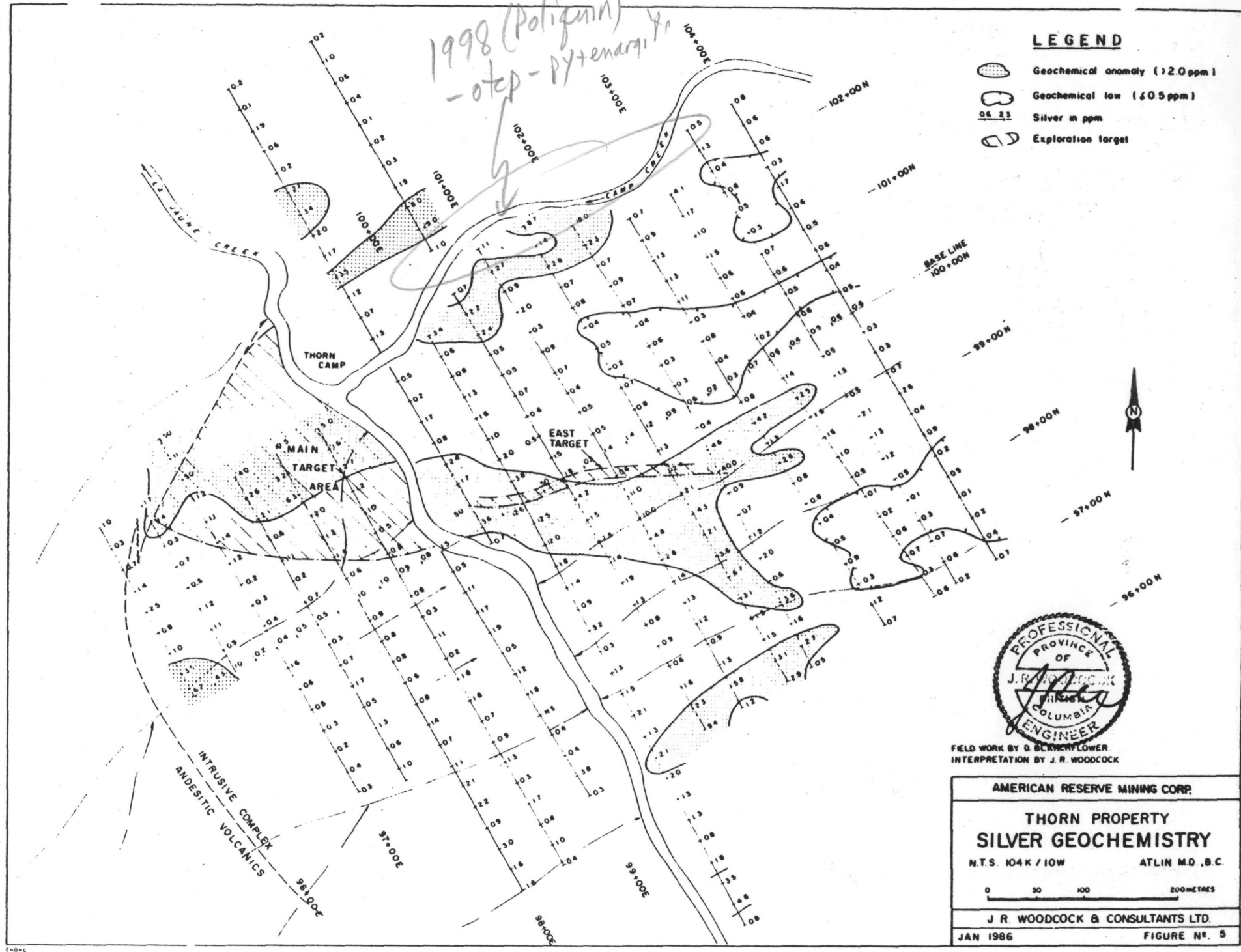
FIELD WORK BY D. BLANCHFLOWER  
 OPERATOR M. KILBY  
 FACING NE

AMERICAN RESERVE MINING CORP.	
<b>THORN PROPERTY VLF-EM PROFILES</b>	
NTS 104K/10W	ATLIN MD, B.C
SCALE 1:2500	
J. R. WOODCOCK & CONS	CONSULTANTS LTD
JAN 1986	SHEET NO. 4

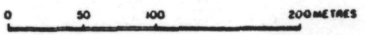
1998 (Polignin)  
 - step - py + enarg. yr

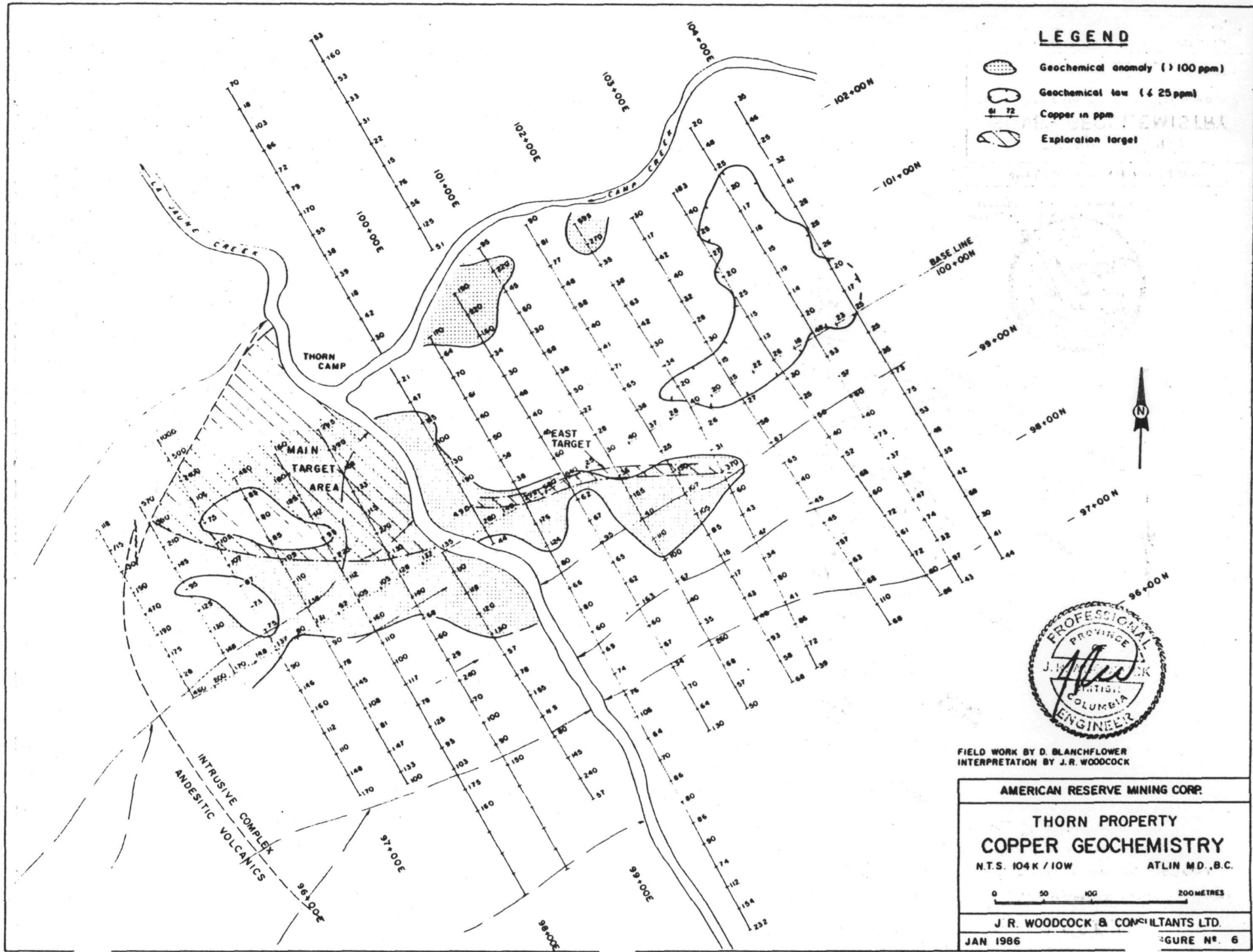
**LEGEND**

-  Geochemical anomaly (>2.0 ppm)
-  Geochemical low (<0.5 ppm)
-  Silver in ppm
-  Exploration target







FIELD WORK BY D. BURNERFLOWER  
 INTERPRETATION BY J. R. WOODCOCK

AMERICAN RESERVE MINING CORP.	
<b>THORN PROPERTY SILVER GEOCHEMISTRY</b>	
N.T.S. 104K / 10W	ATLIN M.D., B.C.
	
J. R. WOODCOCK & CONSULTANTS LTD.	
JAN 1986	FIGURE NO. 5

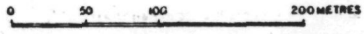


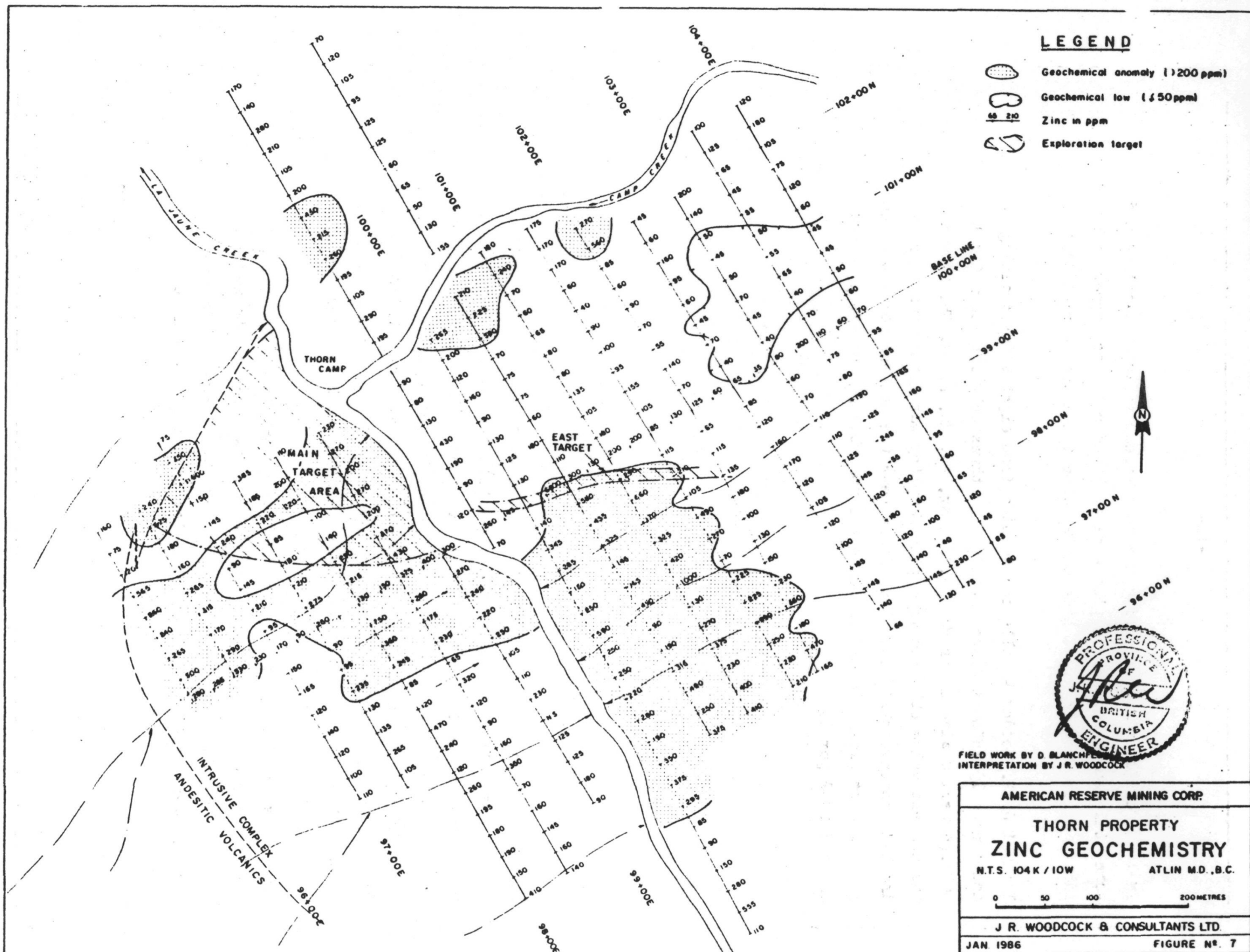
**LEGEND**

-  Geochemical anomaly (> 100 ppm)
-  Geochemical low (< 25 ppm)
-  Copper in ppm
-  Exploration target



FIELD WORK BY D. BLANCHFLOWER  
 INTERPRETATION BY J.R. WOODCOCK

<b>AMERICAN RESERVE MINING CORP.</b>	
<b>THORN PROPERTY</b>	
<b>COPPER GEOCHEMISTRY</b>	
N.T.S. 104K / 10W	ATLIN MD., B.C.
	
<b>J. R. WOODCOCK &amp; CONSULTANTS LTD.</b>	
JAN 1986	FIGURE NO. 6



In 1969 Cordilleran Engineering did some stream sediment sampling and some soil sampling. The samples were analyzed only for copper. The silt samples from the west side of La Jaune Creek were anomalous.

In 1981 J. R. Woodcock collected samples from eight sites draining southwesterly into La Jaune Creek and northwesterly into Camp Creek. Samples were analyzed for Pb, Zn, Cu, Ag, Au, Mn, F, As, Sb, Mo and W. The highest value obtained from this sampling was from a small creek draining northwesterly into Camp Creek near the eastern contact of the intrusive complex. Values included 312 ppm Pb, 5.6 ppm Ag, 1760 ppm Zn, and 1000 ppm As. B1?

In 1983 samples were collected from the streams along the west side of La Jaune Creek. All were anomalous in Cu, Zn and Ag with very high values (1900 ppm Cu, 845 ppm Zn, 6.8 ppm Ag) in a stream draining the Main Target.

#### SOIL GEOCHEMISTRY

This is an area of steep topography cut by recent sharp rugged canyons. Most of the area is overlain by glacial till and the sample medium in such places is generally the "B" soil horizon. Along the rugged canyons the vegetation is lacking and the sample medium would be mainly talus fines. In many places, for example southeast of the Thorn camp, the steep topography has caused overburden slides and this factor, along with downhill creep, has tended to displace the anomalous soils.

The values for Cu, Zn, and Ag are plotted on separate maps (Figures 4 to 6). Included on these maps are the main two creeks, the west contact of the intrusive complex and the two target areas suggested by Blanchflower, herein called the Main Target and the East Zone.

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The writer has analyzed the data and selected two contours for each of the three elements including a contour outlining an anomalously high area and a contour outlining an anomalously low area.

The silver geochemical map seems to give the best picture as the anomalous zones on this map correlate most closely with Blanchflower's mineralized targets. The copper geochemistry also gives fairly close correlation and the zinc geochemistry gives some correlation although it is not as definitive. Anomalous gold values are very scattered; this is possibly due to the type of analyses (partial extraction).

The East Zone is reflected by the silver anomaly and also by the copper anomaly, although with some extension in a southerly direction. This may be partly downslope creep.

The Main Target is reflected by the silver anomaly and also by a much larger overlying and surrounding copper-zinc anomaly. The northern part of this target is mainly a slide. The very high metal values including copper, silver and zinc which occur at the foot of this slide, even overlying the volcanic rocks outside of the complex, are probably largely transported anomalous soils.

All of the metal anomalies have a sharp change or offset at La Jaune Creek with a relatively narrow eastern anomaly and much wider anomalies west of the creek. This supports the suggestion by Blanchflower that the mineralized zone is probably offset by a fault along La Jaune Creek.

An area of relatively low background values or negative anomaly occurs in the northeast part of the grid. This is best displayed on the copper and zinc maps, but also to some extent on the silver map. This low could be due to a change in overburden conditions, but is more likely due to a unique rock type in this small area.

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Relatively small anomalies occur along the south side of Camp Creek on the three geochemical maps. These may reflect the extension of the Camp Creek veins in the rugged areas adjacent to the creek where the soil samples would be mainly talus fines rather than anomalous till.

The soil samples taken north of the Thorn camp are confined to two short lines. Some of the values are anomalous in the various metals; additional geochemical work is needed to better define the anomalies.

GEOPHYSICS

In conjunction with the soil sample program, Mr. Mark Kilby did a VLF-EM survey to try and detect structures, as an aid in discovering the source of some of the float. The VLF-EM survey used two transmitting stations, Annapolis and Hawaii. The direction to both these stations is roughly perpendicular to the survey lines and the general strike of the mineralization.

The profiles for the survey lines are given in Figure 7 showing the readings for both transmitting stations. These values were also Fraser-filtered and contoured immediately for use in the field.

The results at present are of secondary value compared to the geological map and the geochemistry. Many of the cross-overs correspond to depressed areas and therefore are probably topographical.

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CONCLUSIONS AND RECOMMENDATIONS

1. Mineralization and alteration at the Thorn property are associated with an intrusive-extrusive centre of Eocene Age. Alteration includes intense pyritization, generally oxidized to brilliant jarosite, sericite, kaolinite and silicification. Besides the pyrite mineralization, enargite, tetrahedrite and stibnite are widespread in the complex. These occur in altered shear zones or in structurally controlled breccia zones. Good grades of gold and silver are associated with much of the enargite-tetrahedrite.
  
2. The geology at this mineralized complex indicates that it is not a near surface epithermal deposit but that it conforms very closely to the enargite model. Probably the most spectacular and well known example of the enargite model is the El Indeo deposit in Chile where high grade precious metal lodes are associated with structurally controlled quartz veins and zones of intense alteration. Alteration includes silicification, argillic, and alunite-quartz-sericite types. In addition to the mill feed reserves at El Indeo totalling five million tons with an average grade of 0.3 oz. per mt Au, 3.4 oz. per mt Ag and 5% Cu, high grade shipping ore in much smaller tonnages averages 5.9 oz. per mt Au and 4.3 oz. per mt Ag.
  
3. Work by Mr. Doug Blanchflower has indicated two main targets in the Thorn complex, the East Zone and the Main Target. In both silicified and altered breccia zones are mineralized with pyrite, and in places with enargite-tetrahedrite. Good silver and gold and copper values are associated with the enargite-tetrahedrite. The Main Target is largely covered by overburden and slide areas, is triangular in area,

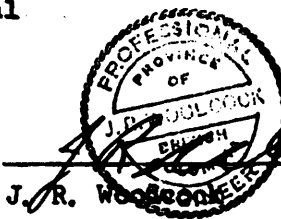
about 250 metres by 200 metres. The East Target is linear extending for 300 metres with widths up to 30 metres.

4. Both Mr. D. Blanchflower and Mr. J. Wallis have recommended a number of short drill holes in the two targets. The present writer recommends initially a program of 2500 feet of drilling in six to eight holes from about four drill sites. Topography is steep and therefore preparation of drill sites somewhat difficult. Proper selection of drill sites should enable several exploratory holes to be fanned out from one site.

5. The mapping done in 1983 was on a scale of 1:2500. Prior to and during the drill program more detailed mapping should be done at a scale of 1:1000. In preparation for this and for surveying of the drill sites, base stations should be established throughout the drill target areas, preferably by a stadia and transit.

6. Estimated budget for this program is as follows:

Helicopter (mob, demob, drill moves, supply days)	\$ 19,000
Single engine Otter for drill mob and demob from Atlin	9,500
Earlier mob of geologist and helpers from Whitehorse	1,500
Drill costs - direct drilling of NQ @ \$32 per ft.	80,000
Misc. drill costs - polymer, core boxes, misc.	7,500
Mob/demob of drill, drillers, camp construction, drill sites	10,000
Geologist and two helpers	16,000
Consulting, management, field mapping	7,000
Assay costs	4,500
Report, drafting, etc.	7,000
Travel	3,000
Freight, vehicle	4,000
Equipment rentals, misc. supplies	5,000
Sub Total	\$174,000
Contingency @ 15%	26,000
Total	<u>\$200,000</u>



J. R. Woodcock  
January 24, 1986

JRW

REFERENCES

- Adamson, R.S., B.A. Sc., November 1963; "Thorn Property Report," for Julian Mining Co. Ltd.
- Adamson, R.S., B.A. Sc., December 1964; "Report on the Thorn Project," for Julian Mining Co. Ltd.
- Adamson, R.S., P. Eng., December 1965; "Report on the Thorn Project, Lower Zones, 1965," for Julian Mining Co. Ltd.
- Adamson, Robert S., November 15, 1982; "Report on the Thorn Prospect."
- Payne, J. G., September 1983; "Petrographic Study of Thorn Specimens."
- Sanguinetti, M.H., B. Sc., Cordilleran Engineering Limited, November 24, 1969; "Report on the Ink and Lin Claims, Sutlahine River Area," for American Uranium Limited, Assessment Report No. 2512.
- Souther, J. G., 1971; "Geology and Mineral Deposits of Tulsequah Map Area, B. C.," Geological Survey of Canada Memoir 362.
- Wallis, J.E., August 1983; "Geology, Geochemistry, Geophysics of the Thorn Property."
- Walthier, T.N., Sirvas, E., and Araned, R., October 1985; "The El Indeo Gold, Silver, Copper Deposit," E & MJ, Oct. 1985, pp. 38-42.
- Woodcock, J.R., January 19, 1982; "Report on the Thorn Property, Trapper Lake, B. C."

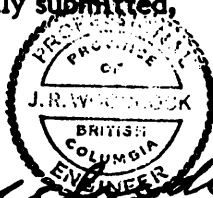
**CERTIFICATE**

January 24, 1986

I, John Richard Woodcock, with business address at 806-602 West Hastings Street, Vancouver, British Columbia, do hereby certify that:

1. I graduated from the University of British Columbia in 1951 with a Bachelor of Applied Science Degree and from the California Institute of Technology in 1953 with a Master of Science Degree.
2. I am a Professional Engineer registered in the Province of British Columbia.
3. I have been engaged in mineral exploration in Canada, the United States and foreign countries since graduation and have been consulting in mineral exploration since 1969.
4. This report incorporates and updates all data from previous reports on the Thorn property. I visited the property and did some mapping in 1981.
5. I am the owner of 100,000 shares of Inland Recovery Group Ltd. I do not own directly or indirectly any shares of American Reserve Mining Corp.

Respectfully submitted,



*J.R. Woodcock*  
J.R. Woodcock

JRW:lam

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