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## GEOPHYSICAL SURVEYS

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## AMERICAN BOY PROPERTY

(Cindy Lou, Janelle, AB#1-AB#8, AB#13-16,24, Roosevelt Recovery, Silver Bell, Lucky Jim, Bunker Hill, FN fr., Mohawk)

Omineca Mining Division

93M / 5E

55° 18' 127° 34'

OWNER & OPERATOR: Can-Ex Resources Ltd.

**AUTHOR:** 

A.M. Homenuke, P. Eng. (Geol.)

SUBMITTED:

October 31, 1988

# GEOLOGICAL BRANCH ASSESSMENT REPORT

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#### I. INTRODUCTORY NOTES

#### Location and Access

The American Boy Property is located a few kilometres north of New Hazelton, B.C. (Fig. 1). The claims cover the west to southwest slope of Nine Mile Mountain down to Four Mile Mountain and are bounded on the west by Two Mile Creek Valley.

Two historically active mining sites are present: the "American Boy" workings on the north part of the claims and the "Babine and Mohawk" workings on the southcentral part of the claims.

Access on the west and north is provided by the Nine Mile Mountain microwave road, maintained by B.C. Tel, and on the south by Four Mile Mountain Road.

Locally, there are many old mining and logging trails, except in the central portion of the property where access is on foot or by helicopter.

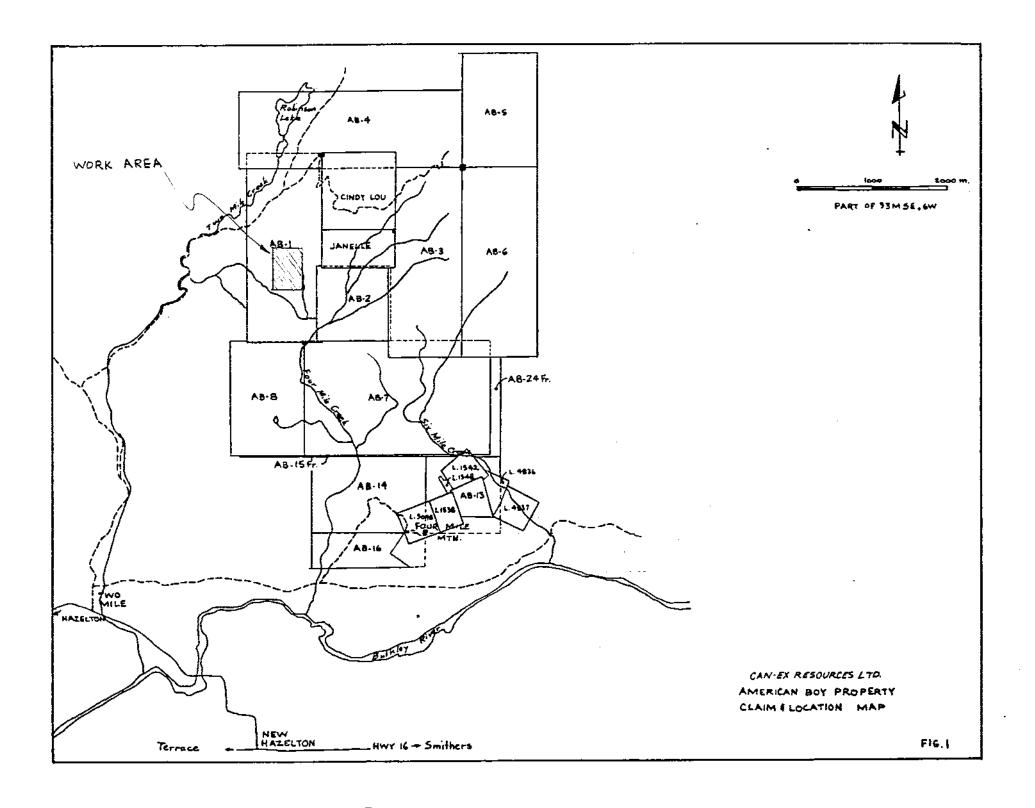
#### Physical Features

The area of the claims is characterized by very steep southerly to westerly slopes, in many cases, to the point of forming escarpments. There is a broad, flatter area to the southwest. Two major creeks flow in a general southerly direction across the property, in part through steep-walled canyons.

The area is heavily forested, ranging from interior rain forest, through open spruce groves to subalpine vegetation. The type of vegetation is controlled by topography and elevation. There are a few open, grassy slopes with deciduous trees, and many swampy areas. Much of the timber is over mature and windfalls often impede progress.

## History

The first miners came into the Hazelton area with completion of the railway through that town. The American Boy Property was first staked by D.A. Harris in 1910. From 1911 to 1916, Harris Mines Limited carried out surface trenching and underground development of five veins. Small shipments of high-grade silver ore were made to the Trail Smelter.



In 1917, 254 tons of lower-grade development ore were hauled to the Silver Standard gravity mill on Two Mile Creek.

In 1927, further minor development work was done and G.S.C. Memoir 223 mentions "some work done during 1937", but no details were given.

American Standard Mines acquired the property in 1950 and did considerable stripping, diamond drilling and underground work. A new vein (No. 6) was discovered in the fall of 1951.

In 1952, Pioneer Gold Mines of B.C. Limited did some further surface stripping.

In 1955, J. Gallo shipped 21 tons of crude ore from a shoot on the No. 6 vein. Apparently, other operators did some work on the property in the late 1950's, but no records are available.

George Braun re-staked the property in 1967, and the Northwestern Midland Development Co. Ltd. shipped 10.35 tons of Wilfley Table concentrate, stockpiled by previous operators. Minor trenching was done in 1968 and 1971.

Tri-Con Mining Ltd. re-staked the property in 1976, and in 1978 and 1980 carried out backhoe trenching, sampling and limited electromagnetic surveying.

In 1981, the property was expanded. During staking and prospecting, one new vein was found, an old vein was "rediscovered", and mineralized float from a probable third vein was found. In addition, reconnaissance soil sampling was done on many of the claim lines.

In 1982, the property was vended to Can-Ex Resources Ltd. Additional claims were staked covering the old "Babine" property and Mohawk Group was optioned from Cumo Resources. A major program of geochemical and geophysical surveying, mapping, sampling, diamond drilling and trenching was completed by the end of 1984.

Follow-up geochemistry, geophysics, trenching and diamond drilling have been continued since 1984.

## Property Description

The property has been reduced to a total of 100 units. Table I lists the pertinent data from the claims. All of the claims have been regrouped as the American Boy Group. Can-Ex Resources Ltd. is owner and operator of the property. The claims are shown on Figure 1.

TABLE I
MINERAL CLAIMS

				YEAR RECORD		
NAME	UNITS	RECORD #	LOT #	LOCATED	DATI	Ξ
						_
Cindy Lou	4	320	_	1976	June	8
Janelle	2	319	_	1976	June	
AB-1	10	3785	_	1981	June	
AB-2	4	3786	_	1981	June	
AB-3	10	3787	_	1981	June	
AB-4	12	3788	_	1981	June	
AB-5	6	4116	_	1981	June	
AB-6	10	4117	<u> </u>	1981	Aug.	
AB-7	15	4118	_	1981	Aug.	
AB-8	6	4119	_	1981	Aug.	
AB-13	4	4871	_	1981	Nov.	4
AB-14	6	5694	_	1983	Aug.	19
AB-15 Fr.	1 3	5695	_	1983	Aug.	19
AB-16		5696	-	1983	Aug.	19
AB-24 Fr.	1	5704	_	1983	Aug.	19
Roosevelt Recovery	1	5897	4837	1983	Oct.	19
Silver Bell	1	4952	4836	1983	Dec.	31
Lucky Jim	1	240	1538	1976	Mar.	10
Bunker Hill	1	241	1542	1976	Mar.	10
FN Fr.	1	242	1548	1976	Mar.	10
Mohawk	1	243	5048	1976	Mar.	10

## Economic Assessment

There are at least 15 silver-gold-base metal bearing veins on the property. A few small, but very high grade ore shoots were previously mined. The Silver Standard mine, just to the west of the American Boy, produced over 7 million ounces of silver, and the Sunrise Silver Mine on Nine Mile Mountain, and the Mohawk Mine on Four Mile Mountain also had some production.

Reconnaissance geochemistry has shown many more target areas, increasing the probability of putting together enough ore shoots to make a mine.

#### Present Work and Distribution

Five kilometres of VLF - EM and magnetometer surveying were done on the AB - 1 Claim.

#### II. MAGNETIC AND ELECTROMAGNETIC SURVEYS

## Purpose

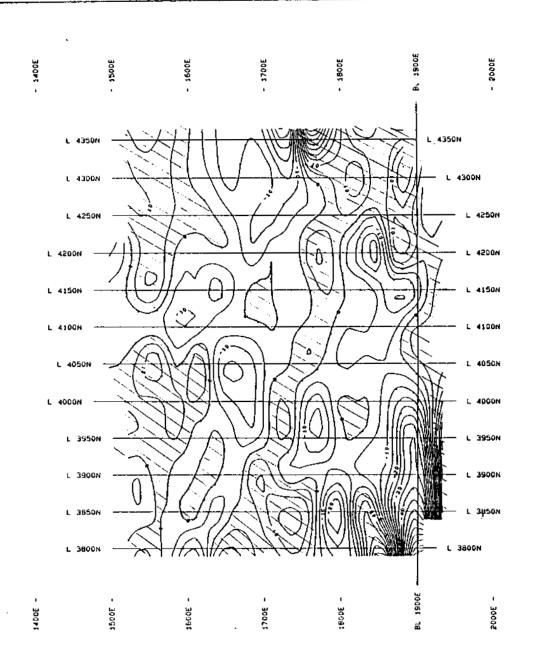
Previous work on an adjoining area to the east consisted of VLF - EM surveys, geochemical sampling and trenching on the northeasterly trend of the No. 6 vein. Veins on this part of the American Boy Property also trend northerly. During 1987, a geochemical survey indicated anomalous values on the north half of the present work area. Magnetic surveying was added this year to assist in structural interpretation.

## Procedures

Magnetic readings were taken at 25 metre intervals using a Geometrics GSM - 8 total field instrument. A computer contoured plan is shown on Fig. 3 and raw data profiles on Fig. 5.

Electromagnetic readings were taken at 12.5 metre intervals using a Geonics Ronka EM - 16 with the receiver set to the Seattle transmitter. Fraser filtered results contoured by computer are shown on Fig. 2 and the raw data profiles on Fig. 4.

A total of 5000 metres of line were surveyed at the line spacing of 50 metres. Probable structures were identified by superimposing the magnetic and electromagnetic contour plans and tracing the trends and interruptions. These probable structures are shown on Fig. 3.

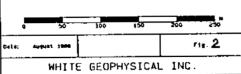


CAN-EX RESOURCES LTD.

AMERICAN BOY PROPERTY

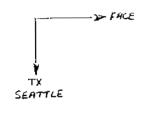
VLF SEATTLE:

FRAZER FILTERED (4 POINT) DIP ANGLE

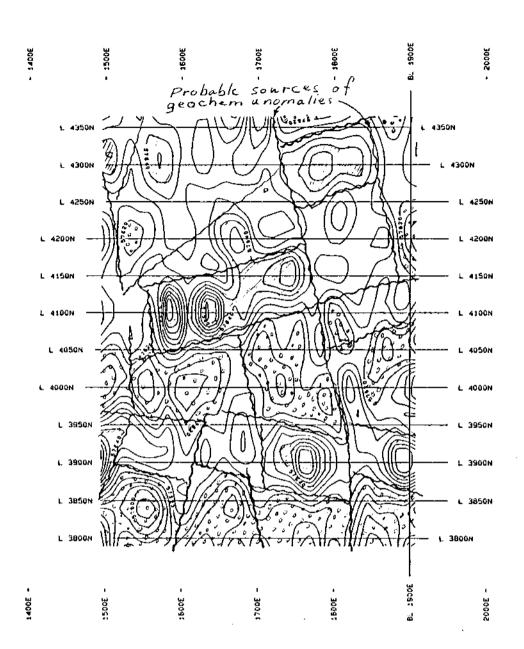


Contour Interval 5%

Positive areas shaded



INST. - RONKA EM-16



Contour Interval 5 gammas

CAN-EX RESOURCES LTD.

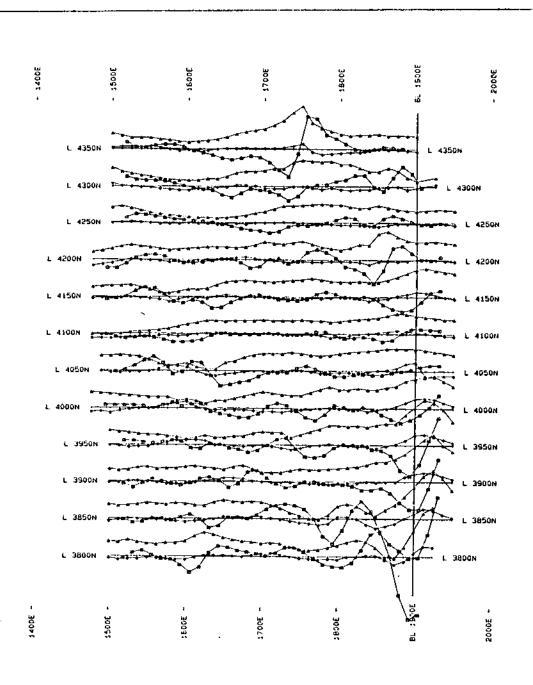
AMERICAN BOY PROPERTY

CONTOURED TOTAL FIELD MAGNETICS

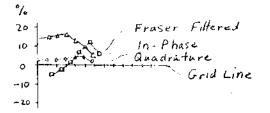
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MHITE GEOPHYSICAL INC.







CAN-EX RESOURCES LTD.

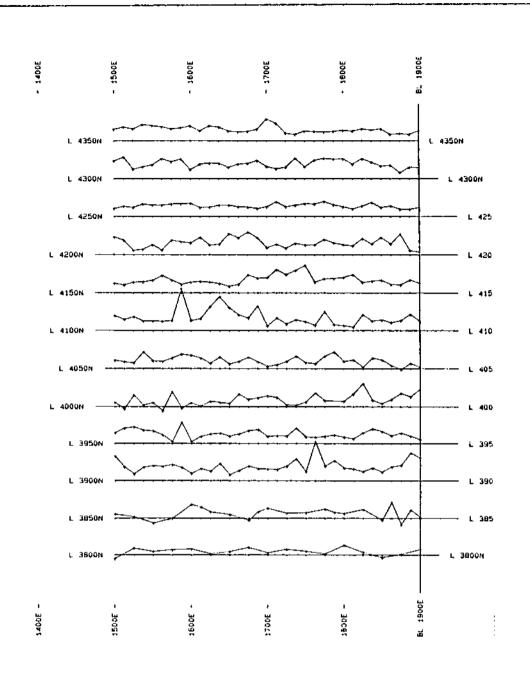
AMERICAN BOY PROPERTY

VLF PROFILES - SEATTLE

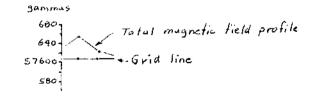
O 30 100 150 200 250

te: August 1986 Fig. 4

WHITE GEOPHYSICAL INC.

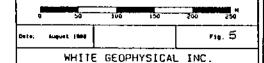






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AMERICAN BOY PROPERTY

TOTAL FIELD MAGNETIC PROFILES



## Discussion of Results

The VLF - EM survey showed an interesting conductor trending north-northeast. The magnetic data showed relatively low relief with a general range of 100 gammas and no significant dipole trends, however, there did appear to be a number of blocks with differing magnetic intensity. A comparison of the two surveys indicated a series of probable block faults with east-west and north-south trends. The northeasterly trending VLF - EM conductor was shown more likely have a northerly tend with a series of offsets. Previously located geochemical anomalies may have been derived from two of these north trending zones, with a contribution from east of the present grid.

#### III. CONCLUSIONS AND RECOMMENDATIONS

- l. Using a combination of VLF EM and magnetometer surveys is more effective for delineating possible structures than VLF EM alone.
- 2. Two north-trending apparent structures defined by the surveys appear to be partially the source for previously located geochemical anomalies.
- 3. Follow-up profiling and prospecting in the area of these two structures is warranted prior to trenching or drilling.

Respectfully submitted, TRI-CON MINING LTD.

A.M. Homenuke, P. Eng. Senior Vice-President

## COST STATEMENT

July 28 - August 6, 1988

5 km VLF - EM and magnetic surveys subcontracted by White Geophysical Inc. including flagged grid and map preparation.

\$ 6000.00 Breakdown Party chief 5 days @ 350 \$1750 5 days @ 250 Operator 1250 Vehicle 5 days @ 100 500 Room & Board 10 days @ 50 500 Inst. Rental 5 days @ 60 300 Mob & Demob 900 Maps 800 \$6000

A. Homenuke, P. Eng. Orientation, interpretation and report 2.5 days @ 400 1000.00

TOTAL \$ 7000.00

## REFERENCES

Homenuke, A.M., 1978 - 1987, Various assessment reports.

## CERTIFICATE OF QUALIFICATION

## I, ALEXANDER M. HOMENUKE, do hereby certify:

- THAT I am a member in good standing of the Association of Professional Engineers of British Columbia.
- THAT I received the Degree of Bachelor of Science in Geological Engineering from the Colorado School of Mines in 1974.
- 3. THAT I received a Diploma of technology in Mining from the B.C. Institute of Technology in 1969.
- 4. THAT I have been employed in various aspects of mining exploration for 19 years and am presently employed by Tri-Con Mining Ltd., of #2580 1066 West Hastings Street, Vancouver, British Columbia.
- THAT I presently reside at 29825 Harris Road, Mt. Lehman, B.C.
- THAT this Report is based on work supervised or conducted by myself.

DATED AT VANCOUVER, British Columbia, this 31st day of October, 1988.

A.M. Homenuke, P. Eng. Geological Engineer