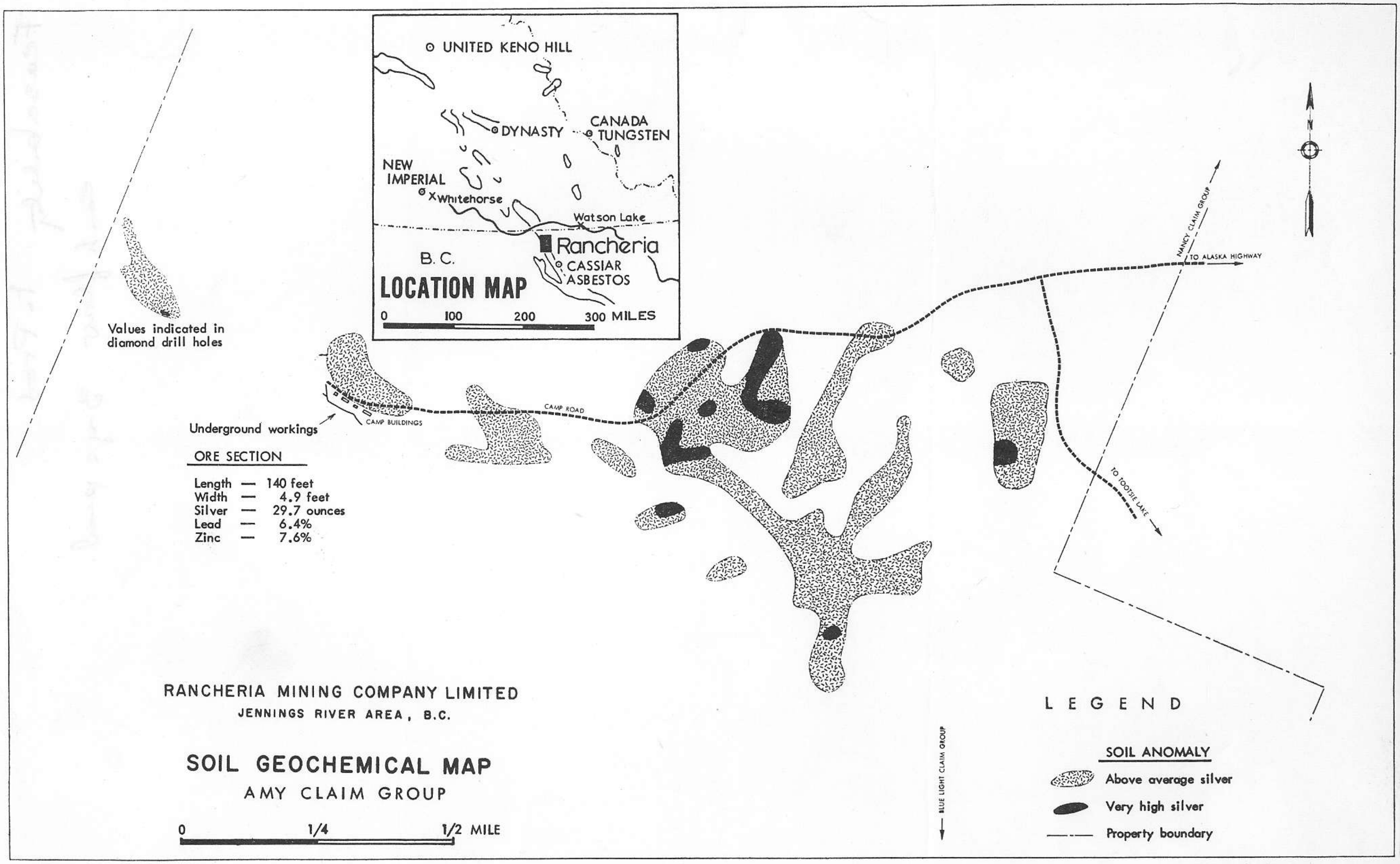
UNITED KENO HILL
DYNASTY
CANADA
TUNGSTEN
NEW
IMPERIAL
Whitehorse
Watson Lake
Rancheria
B. C.
CASSIAR
ASBESTOS
LOCATION MAP
0 100 200 300 MILES
Values indicated in
diamond drill holes
Underground workings
CAMP BUILDINGS
CAMP ROAD
ORE SECTION
Length — 140 feet
Width — 4.9 feet
Silver — 29.7 ounces
Lead — 6.4%
Zinc — 7.6%
NANCY CLAIM GROUP
TO ALASKA HIGHWAY
TO TOOTSIE LAKE
N
RANCHERIA MINING COMPANY LIMITED
JENNINGS RIVER AREA, B.C.
SOIL GEOCHEMICAL MAP
AMY CLAIM GROUP
0 1/4 1/2 MILE
BLUE LIGHT CLAIM GROUP
LEGEND
SOIL ANOMALY
Above average silver
Very high silver
Property boundary

680729

J. FOSTER IRWIN
ENGINEERING & MANAGEMENT SERVICES LTD.
EDMONTON, ALTA.

1902 CENTENNIAL BUILDING,
10015 - 103RD AVENUE.

TELEPHONE AREA CODE
403
429-5941

January 15, 1968.

Rancheria Mining Company Limited,
409, 25 Wellington Street West,
TORONTO 1, Ontario.

Att: Mr. W. S. Kennedy, President

Gentlemen:

The following report outlines in resume the impressions derived from Chapman, Wood and Griswold Ltd. report on examination Rancheria Mining Company Limited, AMY Group, Liard Mining District, British Columbia, September, 1967.

We note two discrepancies in the Chapman, Wood and Griswold report namely; 1) page 16 - stage 2 - block C - the elevation illustrates indicates a slope raise length of 300 feet, not 120 feet. 2) page 21 - item C; application custom duties - PB 0.75 dollars per pound ZN 0.67 dollars per pound. This we believe should read cents per pound.

In order to evaluate the proposition we must accept certain standards and as a guide we are governed by the data and compilation presented by Chapman, Wood and Griswold. For the purpose of this report the following are assumed:

1. Statistics and data presented by Chapman, Wood and Griswold Ltd. to be factual.

2. Freight rate of $50.00 per ton (U.S.) to smelter as valid - $54.00 per ton Canadian.

3. Geologically inferred tonnaged is a reasonable basis for calculating reserves.

4. Average grade will persist in the geologically inferred tonnage.

5. Diamond drill results suggest probable increase of 5.3 feet in mining width.

... 2

6. Established width 4.6 feet for 60,000 tons ore reserves.

7. Probable width 9.9 feet for 130,000 tons

8. Average grade (60,000 tons) silver 24 ounces per ton, lead 4.87%, zinc 6.83%.

9. Lead price, net at smelter, 9-1/2¢/lb. - less freight.
   Zinc price, net at smelter, 8-1/2¢/lb. - less freight.

We are not in complete agreement with Chapman, Wood and Griswold in respect to smelter returns, and present the following terms as probable conditions to apply:

Silver settlement - 95% less 1¢/ounce.
Lead pay 9.5¢/lb. at smelter.
Zinc pay 8.5¢/lb. at smelter.

Ore Value: Recovery silver 90% of 24 ounces/ton.
Lead 90% of 97 lbs./ton.
Zinc 92% of 136 lbs./ton.

Value at Smelter: Silver - 90% x 24 ounces/ton x $2.00/ounce = $43.20/ton.
Lead - 88% x 97 lbs./ton x $0.95/lb. = $8.11/ton.
Zinc - 92% x 136 lbs./ton x $0.85/lb. = $10.64/ton.
Total Value Gross - $61.95/ton.

Costs Per Ton:	Mining	$ 4.35	
	Development	6.85	
	Diamond drilling & exploration	2.35	$13.55
	Milling	9.50	
	Mine office, head office & general	16.80	
	Research & overhead	1.85	28.15
	Total Costs		$41.70

Concentration Ratio: 16.9%, equivalent to 12.68 tons/day from 75 ton/day operation.

At $50.00/ton to smelter, per diem freight cost $634.00, or $8.45/ton mined. Total operating costs plus freight $50.15/ton.

Net Mine return - $11.80/ton.

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If we are interpreting the elevations presented by Chapman, Wood and Griswold Ltd. correctly, they propose an entrance on the 4,200 foot elevation with raising to 4,450 foot elevation. We consider this excessive for practical mining, both for the development phase and for the mining phase. A deposit of this type suggests intermittent values and demands a greater latitude of flexibility in the mining procedures than would be permitted by intervals in the order of 300 feet without intermediate access. We would suggest an entry at 4,300 feet and a second entry at 4,150 feet, if terrain permits. This would result in an increased development cost initially but will improve mining practices and reflect favourably in overall mining costs.

Our revision in mining interval would result in some additional development costs and we suggest that Chapman, Wood and Griswold Ltd. have estimated their costs low in certain areas.

Applying the original assumptions our cost estimates indicate:

<u>Stage 1</u>

A. Development on 4,350 foot level	$130,500.00
B. Development on 4,150 foot level	113,100.00

<u>Stage 2</u>

A. Raising		49,500.00
B. Stope preparation		24,000.00
	Total	$317,100.00

Surface Diamond Drilling	$240,000.00
Development of Blocks D,E,F, & G	85,000.00
Initial Cash Requirement for mine development	642,100.00

It is noted from the balance sheet June 30th, 1966 that liabilities stand at $213,129.00, plus contingent and contractoral liabilities as per notes 1, 4 & 6. Should these conditions still prevail another $283,000.00 should be available, bringing total requirement to approximately $925,000.00.

No less than $400,000.00 plus sufficient funds to retire current liabilities should be made available before commencing stage one of this venture.

Approximately 54,500 tons of ore neting $11.80/ton will be required to retire the initial development and exploration costs.

It is our understanding that this organization would be approached to operate and administer the program for Rancheria Mining Company Limited. Appended find a Management Contract outlining the terms to apply.

Yours truly,

J. FOSTER IRWIN, B.Sc., P.Eng.

JFI/lb