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Report on the

Geological, Magnetic Geophysical and Soil Geochemical Field Surveys and Mineralogical Studies of Sulphide Showings on Part of the Amy Claim Group of Rancheria Mining Company Limited Tootsee Lake Area, Liard Mining Division British Columbia

by W. H. Gross, PhD, P.Eng.
Consulting Geologist

Claim Location 20 Miles South of Mile 701
Alaska Highway
Latitude 59°53'N, Longitude 130°25'W

Work Period - June 18 to Sept. 3, 1964

Table of Contents

Maps (enclosed in pockets in the end of the report)

#1 (A) Map of general geology 1" = 300'
#2 (B) Magnetic geophysical map 1" = 300'
#3 (C) Soil geochemical map 1" = 300'
#4 Key Map 1" = 16 miles
#5 Detailed Geological Map

Summary

(1) Geological, magnetic geophysical, and soil geochemical surveys were done on 38 claims of the Amy group which are held by Rancheria Mining Company Limited, 2107-80 King Street West, Toronto.

(2) The claims are located in the Tootsee Lake area of Northern B.C. about 20 miles south of Mile 701 on the Alaska Highway.

(3) The field work was done between June 18th and September 3rd, 1964, under the direction of W. H. Gross.

(4) Laboratory work, which included analyses of soil samples and laboratory study of sulphide samples, was done during the fall of 1964.

(5) A total of $12,299.13 was spent on the field and follow-up laboratory work.

(6) The country rocks are essentially limestones, argillites and quartzites of Cambrian age that have been intruded by granites of the Cassiar batholith of Jura-Cretaceous age.

(7) The most important silver-lead-zinc sulphide mineralization found to date is known as the "Camp Creek" showing. The sulphides occur as vein and replacements in limestone. The mineral assemblage is almost identical with those from Keno Hill and concentration procedures for those ores would likely be effective for sulphides from Camp Creek.

(8) The claims are extensively covered by overburden. However, by combining the results of the various field surveys, it is found that at least four places on the property warrant further investigation. The location of these areas is marked on the accompanying maps and the work to be done in the future is briefly outlined in this report.

Toronto, Ontario
May 25, 1965.

Signed W. H. Gross
W. H. Gross, P.Eng.

2. Introduction

Geological, magnetic geophysical and soil geochemical surveys were done on a portion of the Amy group of claims during the summer of 1964 (June 18 to Sept. 3). These claims for the most part are heavily covered with talus and overburden. The purpose of the geological and magnetic surveys was to try to learn more about the structure and distribution of the rocks in the vicinity of the Camp Creek lead-zinc-silver deposit which is presently being opened up underground. The sulphide mineralization at Camp Creek occurs near a limestone-phillite contact within a few hundred feet of the eastern contact of the Cassiar granodiorite batholith. It was hoped that the results of the geological and magnetic surveys when combined might help to determine the overall trend and geographic extent of the favorable limestone-phillite contacts under the overburden. It was also hoped that these surveys might indicate the contact of the Cassiar batholith with the country rock and perhaps indicate such secondary structures as faults which might displace the various rock units.

A soil geochemical survey using dithizone to detect heavy metals in the overburden was done on a small area around the Camp Creek showing in 1963. Soil analyses proved to be an effective method for locating sulphide bodies under overburden in this area. The present survey, therefore, was done over a large area of the property to test overburden areas for their heavy metal content with the hope of locating covered sulphide bodies.

3. Property and Location

(a) General -The claims are located north west of Tootsee Lake, in the Liard Mining Division of Northern British Columbia as shown

on the key inset map of Figure 1. The present access to the property is by a 25 mile bulldozed track from mile 701 on the Alaska Highway. This track is sufficiently well made to allow four-wheel drive vehicles to supply the property during the early development period.

(b) The Rancheria Mining Company Limited holds a large block of claims in the Tootsee Lake area some of which are shown on Figure 1. The figure also shows the location of the main sulphide occurrence found to date on the property, called the Camp Creek deposit, which is presently under development. In 1964, detailed geological and geophysical studies were made in the vicinity of the "Camp Creek deposit". The location of the claims surveyed is shown on Figure 2 and the record of these claims is shown on Table 1.

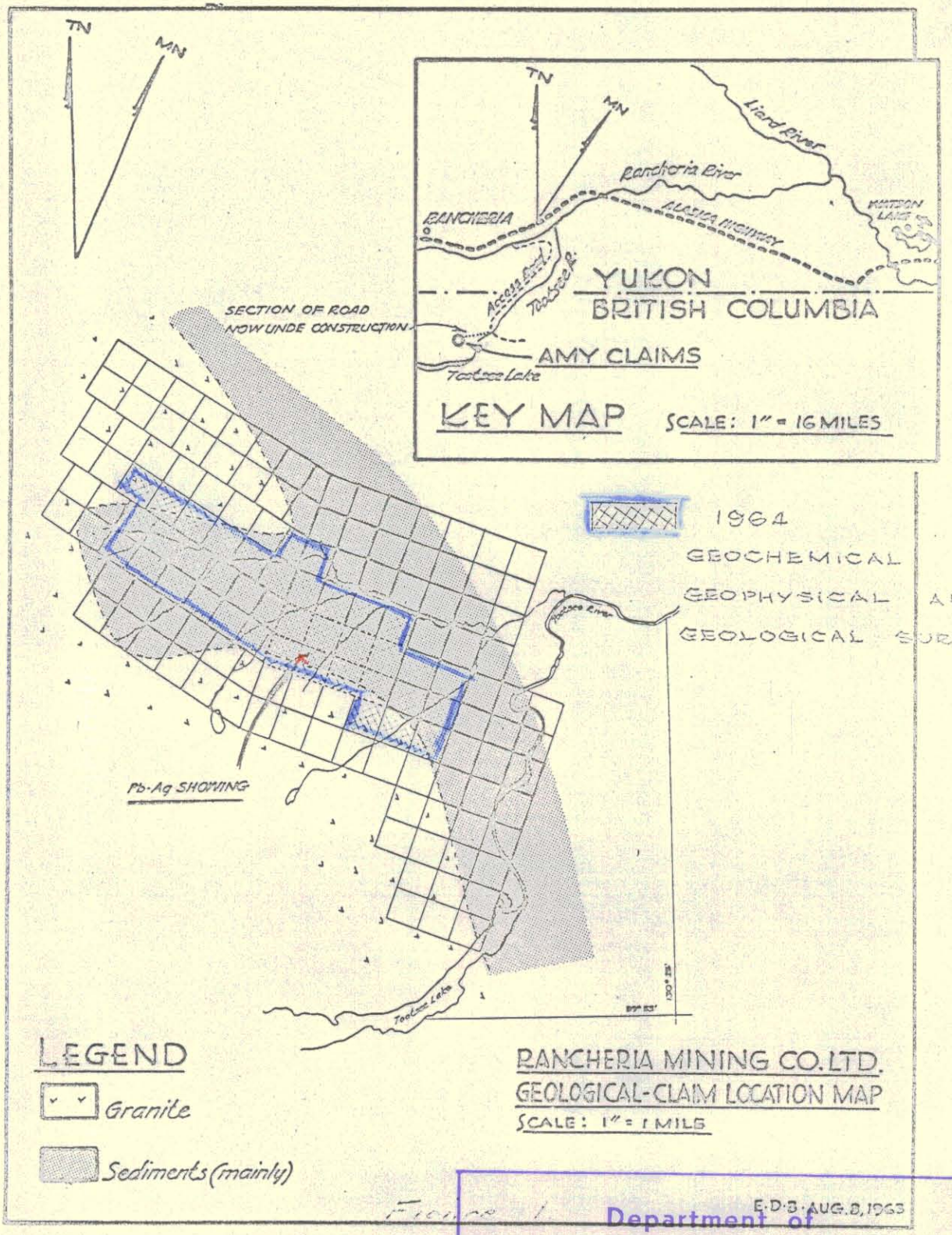
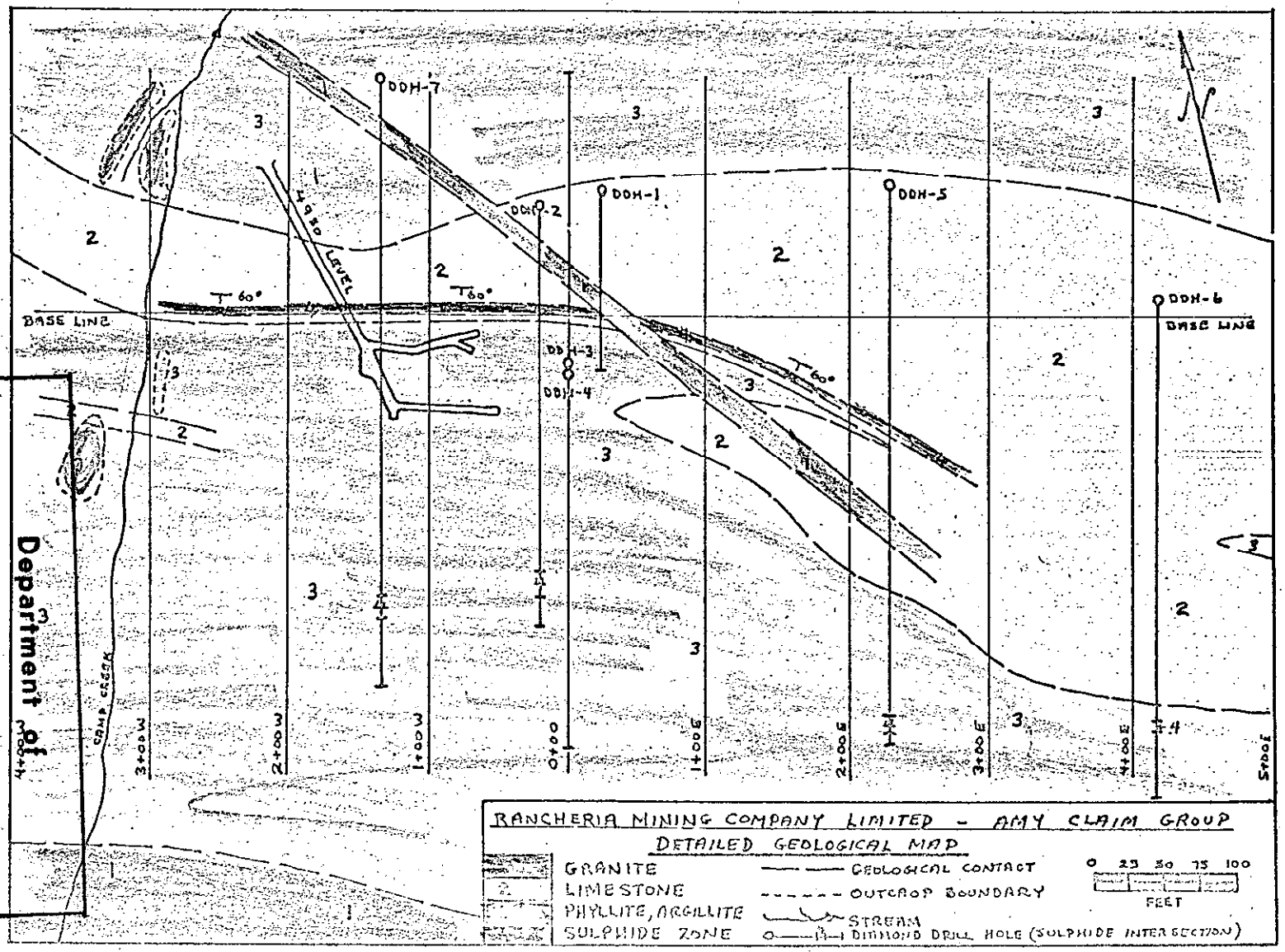


Figure 1



Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 734 MAP 345

Department of

Figure 3

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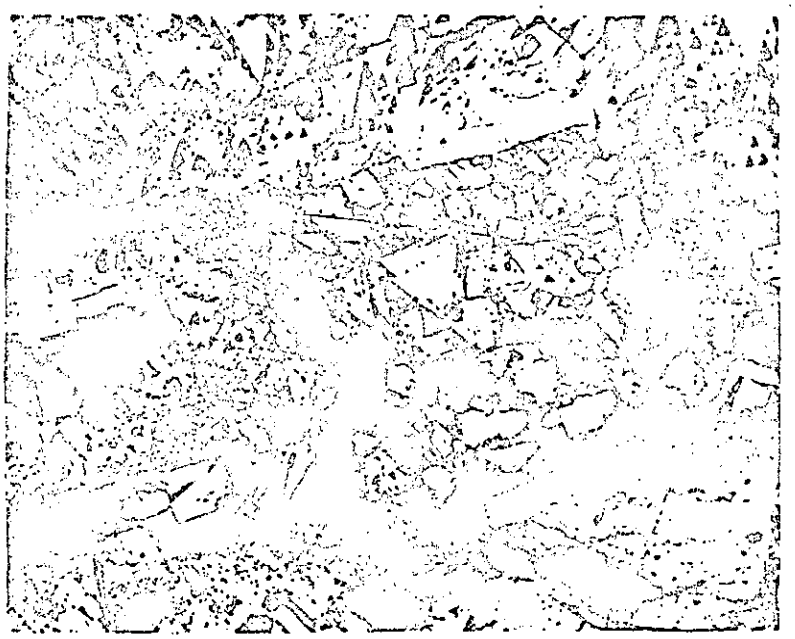

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Table 1

Claim No.	Tag No.	Record No.	Date Staked	Date Recorded
1	494331	11649	Aug. 3-1963	Aug. 8-1963
2	494332	11650	"	"
3	471039	11419	Oct. 2-1962	Jan. 4-1963
4	64	20	"	"
5	38	21	"	"
6	65	22	"	"
7	37	23	"	"
8	50	24	"	"
9	36	25	"	"
10	471051	11426	"	"
18	494208	11658	July 29-1963	Aug. 8-1963
20	494210	11660	"	"
22	494212	11662	"	"
51	494241	11691	"	"
53	43	93	"	"
54	44	94	"	"
55	45	95	"	"
56	46	96	"	"
57	47	97	"	"
58	48	98	"	"
59	49	99	"	"
60	50	11700	"	"
61	51	01	"	"
62	52	02	"	"
63	53	03	"	"
64	494254	04	"	"
79	494269	11719	July 30-1963	Aug. 8-1963
81	71	21	"	"
83	73	23	"	"
85	75	25	"	"
86	76	26	"	"
87 Fr.	494277	11727	July 25-1963	"
88 Fr.	78	28	"	"
89	79	29	"	"
91	81	31	"	"
93	83	33	"	"
95	85	35	"	"
97	87	37	July 31-1963	"

38 claims in total

4. History

The discovery of silver-bearing sulphide float was made at Camp Creek in 1948 by Messrs. St. Godard and G. E. Monson. In 1949, the Hudson Bay Mining and Smelting Company drilled 8 holes totalling 2,734 feet to test under the main sulphide boulder zone for a strike length of 775 feet. The results of drilling apparently were not sufficiently encouraging and the claims were allowed to lapse.

The claims, covering the "Camp Creek Showing", were acquired in 1962 on a "grubstake" headed by W. S. Kennedy. In 1963 and 1964, additional claims were staked by Kennedy and his associates.

The surface and underground work done during 1963 and 1964 under Kennedy's direction materially improved the economic outlook for the property. It is expected that work on the property will continue through 1965.

Detailed reports, undergound maps and assay data are on file at the Rancheria Mining Company Limited office at Room 2107, 80 King Street West, Toronto.

5. General Geology

There are no detailed government geological maps of this section of British Columbia. However, the Amy claims are known to lie in a group of Palaeozoic sediments that occur on the eastern flank of the Cassiar granitic batholith. The sediments range in composition from limestones to quartzites, and regional mapping to the north by the Geological Survey of Canada# suggests that they are lower Cambrian in age.

Poole, W. H., 1960, Wolf Lake, Yukon Territory, G.S.C. Preliminary Map, 10-1960.

6. Field Work done during 1964

From June 18 to Sept. 3, 1964, the following work was done:-

(a) Line cutting - A total of 147,800 feet of line was cut. A base line was cut in a N 45° W direction. Cross lines were cut at right angles to this base line at 300-foot intervals and pickets placed at 100-foot intervals along the cross lines.

(b) Geological survey - Twelve days, August 13 to 24th inclusive, were spent by the author making a geological map of the 38 claims listed on Table 1. The results of this survey are shown on a map drawn to a scale of 300 feet to the inch which is included in the envelope at the back of the report. The Camp Creek showing was examined in detail both on the surface and underground and the details of the geology of this showing are given on Figure 3.

Rock exposures on the claims examined are quite limited. The country rocks are essentially impure quartzites, limestones and argillites that have been intruded by granitic rocks of the Cassiar batholith. Cross-cutting and intrusive relationships of the intrusive with the country rock can be seen in the field in a number of places.

The general strike of the sedimentary sequence is S-E with dips averaging about 65° south. There are indications of broad-scale flexuring of the rocks as seen on the map by the change in strikes from place to place. However, because of the paucity of outcrops it is impossible, on the basis of geological outcrops alone, to get any firm conception of the intensity or frequency of this flexuring. As will be pointed out later, there seems to be a flexure in the vicinity of the Camp Creek showing and it is possible that

this fold played some part in localizing the sulphide mineralization in this locality.

The areas of economic interest, so far as is known at present, appear to be those that occur at or near the limestone contacts and at the same time are close to the Cassiar batholith.

Three areas of limestone are known to exist on the property. Two large masses occur to the east and to the west of the mapped area; both are cut off along strike by the batholith as can be seen on the map. The westerly limestone, in the vicinity of Area F, appears to be several hundred feet thick but it fingers out into greywacke and other sediments eastward along strike. Regional traverses in this area also indicated that some of the limestone beds were lens-like and discontinuous along strike.

Figure 3 shows that the main sulphide zone at Camp Creek occurs near the south contact of a limestone bed. The ground in the vicinity of the showing is extensively covered by overburden so that the distribution of the limestone, the structure of the area and the extent of the mineralization, on geological grounds, is unknown.

Silver-bearing sulphide float was also found in areas D and E but as yet the extent and possible economic importance of this material is unknown. See geological map in pocket.

The mineralogy of the Camp Creek sulphide body was studied in detail by ore microscopic, x-ray defraction, x-ray fluorescence and electron probe techniques. The purpose of this work was largely to determine what minerals contained silver and how these minerals occurred within the ore zone. It was considered that the work would give useful information on the origin and character of the deposit

and would act as a basis for ore concentration tests which would be done in the future if sufficient tonnage is developed to warrant production.

The minerals found in the Camp Creek deposit include:

Guangue	Sulphides	Others
Quartz	galena	native gold
siderite	sphalerite	" silver
calcite	pyrite	
limonite	arsenopyrite	
	freibergite	
	chalcopyrite	
	pyrargyrite	
	pyrrhotite	
	covellite	
	marcasite	

The mineral assemblage at Camp Creek is almost identical to the Keno Hill deposits and it is, therefore, likely that the experience obtained in the milling of the Keno Hill ores could be gainfully employed on Camp Creek material.

A representative group of polished section photographs of the Camp Creek sulphides follow overleaf to give the reader a general idea of the texture of the ores and the characteristics of the silver distribution within them.

7. Geophysical Survey

A fluxgate magnetometer, model M 500 A - #6351, was used to measure the relative vertical component of the earth's magnetic field. The relative magnetic readings for each station are recorded on the map in the pocket at the back of the report. The instrument could be read to the nearest 10 gammas.

Plate 21

X 236

Two large irregular grains of native silver (white) are formed in a fracture in galena (light grey) in the Camp Creek vein. Fragments of galena and the native silver are cemented in the fracture by quartz.

Plate 22

X 850

Small veinlets of native silver fill fractures in sphalerite. The brecciated sphalerite forms a veinlet from 3 mm. to 5 mm. wide across the earlier hypogene sulphide mass. The largest native silver veinlet is 0.006 mm. across.

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Plate 9

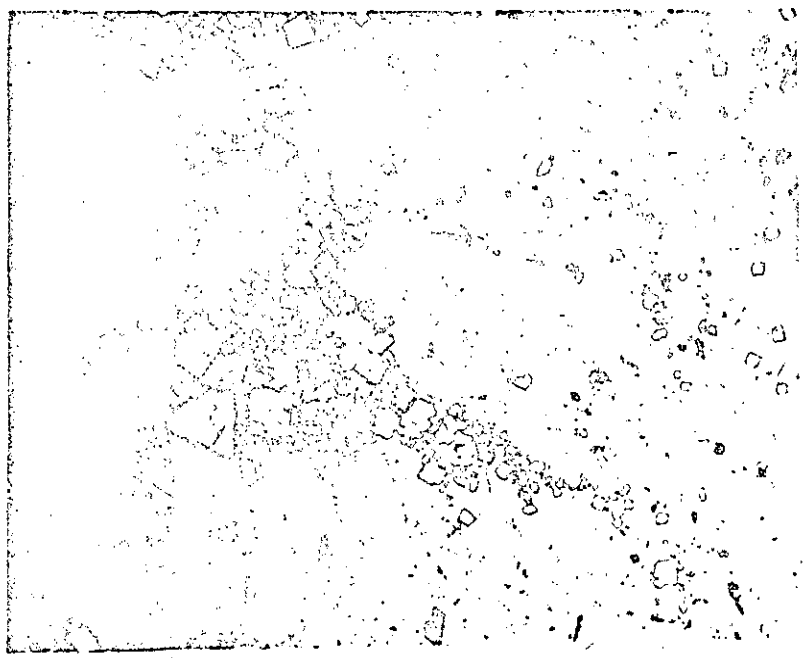
X 145

Camp Creek Vein: large masses of freibergite (dark grey) intergrown with galena (light grey) showing a texture characteristic of contemporaneous deposition. Euhedral crystals and crystal fragments of pyrite (white) occur throughout the other sulphide minerals. The pyrite crystals range in size from 0.1 mm. to 0.005 mm. to the cube edge. The black areas are pits and quartz fragments.

Plage 10

X 236

A rounded grain of pyrargyrite in galena from the Camp Creek vein. The pyrargyrite grain is 0.05 mm. in diameter. A small fracture in the galena is seen to terminate at the pyrargyrite grain; the part of the fracture nearest the pyrargyrite grain is filled with pyrargyrite. The rest of the fracture is filled with siderite and quartz. The rectangular and triangular blade areas are pits in the galena.



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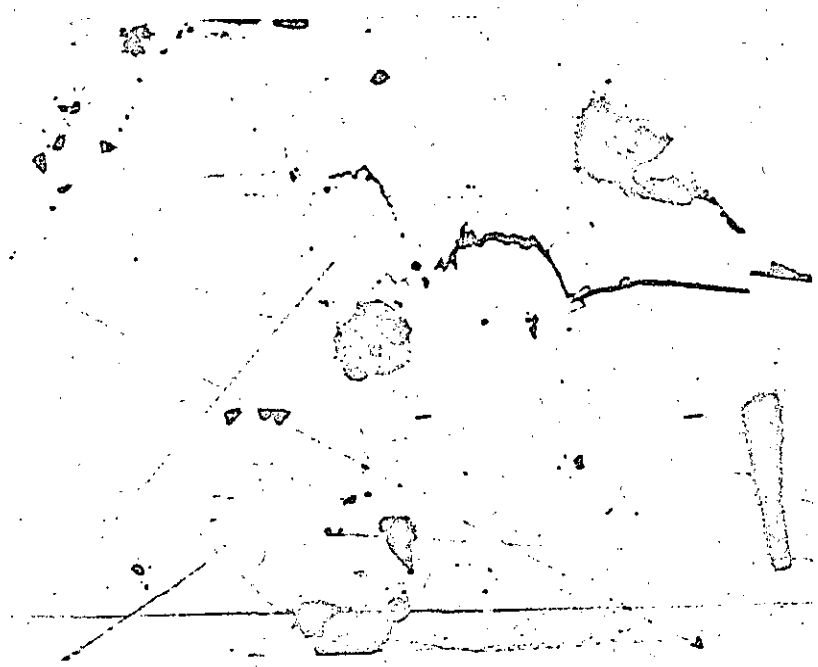

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Plate 1

X 145

Galena from the Camp Creek deposit showing fracturing. One fracture has been severely brecciated; the other shows very little movement. Both fractures have been healed with quartz.

Plate 2

X 145

Galena (white) and sphalerite (light grey) from the Camp Creek veins showing severe brecciation. The fracture has been healed with quartz.

There was very little difference in the magnetic susceptibilities of the rocks for the area covered so that the readings to show up the subtle contrasts were contoured at 100 gamma intervals. Areas considered to be higher than normal have been coloured blue on the map whereas areas considered to be lower than normal have been coloured red.

The magnetic contours were of some value in indicating the general "grain" or trend of the sediments of the country rock but they were of little value in defining the contact between the various sedimentary units or between the batholith and the country rock. Furthermore, the distribution of the high and low magnetic areas was too nebulous for them to be used in delineating fault offsets or broad fold patterns which might well exist within this country rock sequence close to the batholith.

On the other hand, the limestone that occurs in the vicinity of the "Camp Creek Deposit" shows up as a fairly distinct magnetic low. The trend of this low zone continues to the N-W for a distance of approximately 1500 feet and is marked "Area B" on all maps. Referring to the geological map, it can be seen that there are no outcrops in the vicinity of "Area B". However, the magnetic trend agrees with strike directions obtained in outcrops of greywackes on line 961 and also with the trend of the sulphide zone obtained underground.

To the east of the "Camp Creek Showing" (line 1000), the magnetic contours appear to change their direction as indicated by the line marked "Area A". This direction is more in line with strikes in outcrops obtained nearby, as for example on line 1024 (see geo-

logical map).

Therefore, although the magnetic survey was found to be of little use in definitely delineating the distributions of various rock masses, nevertheless it has been useful in suggesting that the "Camp Creek" limestone extends at least 1500 feet to the N.W. of the main showing and in suggesting that there is a broad fracture or fold in the rocks in the vicinity of the showing.

It is not known whether limestone underlies "Area A" as there are no outcrops in this area. The magnetic reading of Area A, although approximately 100 gammas higher than those of Area B, are nevertheless similar to magnetic readings taken on limestone outcrops both to the east and west of the map sheets. Therefore, it is possible that the "favourable" limestone at Camp Creek bends at the Creek and extends east of the sulphide showing.

8. Geochemical Survey

Soil samples were collected from below the surface layers at each survey point. These samples were analysed for their heavy metal content using the dithizone technique. The location of the samples analysed and an estimate of their metal content in parts per million are shown on the "Soil Geochemical Map" in a pocket at the end of this report. Areas with higher than normal metal content have been contoured and coloured red. The areas to be discussed below have been labeled Areas "A to F" for easy reference.

The soil chemical anomaly over the "Camp Creek Showing" is clearly shown on the map.

Area A - is a broad anomaly located about 1000 feet east of the Camp Creek Showing. Referring to the map, it can be seen that soil readings in this area are similar to those of the main showing. Furthermore, as was pointed out earlier, Area A could be on the eastward continuation of the "Camp Creek" limestone. This area will likely be explored during the 1965 season.

Area B - is a distinct soil anomaly which appears to be on the N.W. extension of the showing. This anomaly appears to agree with the N.W. extension of the "favourable" limestone, and, although it is relatively weak, it could be the surface manifestation of more deeply buried sulphides. This area should be tested either by extending lower development levels at Camp Creek westward or by surface drilling.

Area C - appears to result from the downward wash of material from the Camp Creek showing.

Area D - is near the limestone granite contact where some galena float was discovered in 1964. Although the zone does not appear to have an extensive strike length, the sulphide had a relatively high silver content and the area is worth testing by a minimum of two diamond drill holes.

Area E - Sulphide float low in silver content was found in the vicinity of Area E. The soil geochemical surveys in this area are small and weak and it is doubtful if large sulphide bodies exist in this area.

Area F - This is a distinct geochemical anomaly, about 1500 feet long, that appears to be near the south contact of the west limestone band. It would appear that some detailed prospecting in this area is war-

ranted.

As can be seen on the geochemical map, there are numerous small geochemical anomalies sprinkled over the map. Mostly they are small and of low metal content and it is doubtful if they have economic significance.

W. H. Gross, P. Eng.
Toronto May 21.

Appendix A

Qualifications of W. H. Gross
Field Engineer
Rancheria Mining Company Limited

I, W. H. Gross, of the City of Toronto, Province of Ontario, do hereby certify that I was born in New Westminster, B.C., in 1917, and am now residing at 25 Whitney Avenue, Toronto 5, Ontario.

I certify that I obtained my B.Sc degree in geology from the University of British Columbia in 1942 and my PhD degree from the University of Toronto in 1950. I am a member of five scientific societies and am a member of the Association of Professional Engineers of Ontario.

I have practised my profession of geology since graduation and have worked in many parts of the world, including the northern B.C. area near where the Amy groups of claims are located. I did the geological field work on the portion of the Amy claims reported here and I also did the dithizine analyses of the soil samples.

I have no interest, either direct or indirect, in the shares of the Rancheria Mining Company.

Signed W. H. Gross
W. H. Gross, P.Eng.

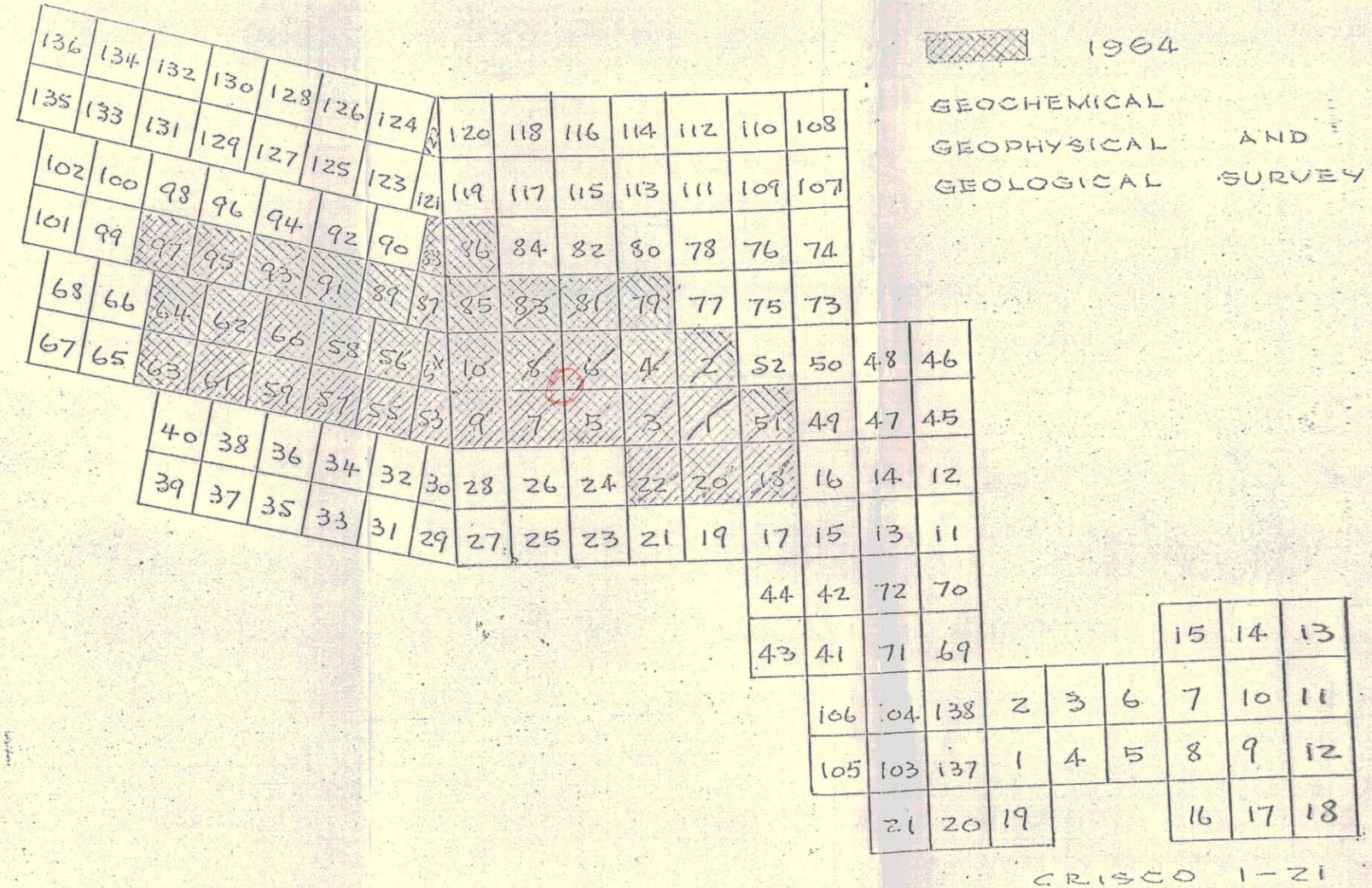
1964
GEOCHEMICAL
GEOPHYSICAL AND
GEOLOGICAL SURVEY
CRISCO 1-21

Figure 2

Appendix B

Summary of work done, project personnel and major expense items (Figures supplied by Don Campbell of Rancheria Mining Company Ltd.)
2107 - 80 King Street West, Toronto 1, Canada.

Period June 18 to August 7, 1964

Lineal feet of line cutting 143,900 feet

	Man Days	Cost
Line cutting	191	$4,049.79
Surveying	88.5	2,193.70
Office	3.5	195.00
Overhead		1,619.17
	Total	$8957 .66

Period August 8 to September 3, 1964

	Man Days	Cost
Line cutting	4	$ 91.51
Surveying	44	1,056.13
Geochemical	50	1,020.22
Geophysical	5.5	226.56
Geological	12	832.24
Final report, mineralogical studies and extra geochemical work	12	500.00
Overhead		514.81
	Total	$4,241.47

Apart from W. H. Gross, whose qualifications are set out in Appendix A, project personnel were under the direction of the consulting firm of Marshall, Macklin, Monaghan Limited. The details of their expenditures are shown over[illegible]f.

MARSHALL MACKLIN MONAGHAN LIMITED
Consulting Professional Engineers · Town Planners

MARSHALL, MACKLIN AND MONAGHAN
Ontario Land Surveyors

1480 Don Mills Road, DON MILLS, ONTARIO · *447-7271*

PRINCIPALS
O. J. MARSHALL, B.A.Sc., C.E., O.L.S., P.Eng., F.A.S.C.E.
H. L. MACKLIN, B.A.Sc., O.L.S., D.L.S., P.Eng., M.E.I.C.
P. A. MONAGHAN, B.E., M.Sc., M.B.A., O.L.S., P.Eng., M.E.I.C.
J. W. L. MONAGHAN, B.E., O.L.S., D.L.S., P.Eng., M.E.I.C.

ASSOCIATES
S. G. BARBER, B.A.Sc., M.A.Sc., P.Eng., M.E.I.C.
G. L. WILKS, B.A.Sc., O.L.S., P.Eng.
M. BRUNO, B.A.Sc., P.Eng., M.E.I.C.
L. R. McCARTNEY, B.Sc., P.Eng., A.M.E.I.C.
A. TARVYDAS, O.L.S.

May 18, 1965

Rancheria Mining Company Limited,
Suite 2107,
80 King Street West,
Toronto 1, Ontario.

Attention: Dr. Gross

Gentlemen:

This is to certify that John Verhaegen, who conducted the field work on the Rancheria property last year under your direction, has the following educational qualifications:

- Completed senior matriculation in Belgium in 1958.
- Maritime Navigation School course in Antwerp in 1960.
- Completed the International Correspondence School's surveying and mapping course in 1962.
- In addition, he has completed the requirements for his Ontario Land Surveying commission with the exception of his term of articles which will be completed next year, and the second part of the final exams.

He has been employed with this firm since 1962 and is considered an excellent surveyor.

Yours very truly,

MARSHALL MACKLIN MONAGHAN LIMITED,

J. W. L. Monaghan,
Chief Surveyor.

JWLM:er

MARSHALL MACKLIN MONAGHAN LIMITED
Consulting Professional Engineers · Town Planners

MARSHALL, MACKLIN AND MONAGHAN
Ontario Land Surveyors

1480 Don Mills Road, DON MILLS, ONTARIO · *447-7271*

PRINCIPALS
O. J. MARSHALL, B.A.Sc., C.E., O.L.S., P.Eng., F.A.S.C.E.
H. L. MACKLIN, B.A.Sc., O.L.S., D.L.S., P.Eng., M.E.I.C.
P. A. MONAGHAN, B.E., M.Sc., M.B.A., O.L.S., P.Eng., M.E.I.C.
J. W. L. MONAGHAN, B.E., O.L.S., D.L.S., P.Eng., M.E.I.C.

ASSOCIATES
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G. L. WILKS, B.A.Sc., O.L.S., P.Eng.
M. BRUNO, B.A.Sc., P.Eng., A.M.E.I.C.
L. R. McCARTNEY, B.Sc., P.Eng., M.E.I.C.
A. TARVYDAS, O.L.S.

May 5, 1965

Rancheria Mining Company Limited,
Suite 2107,
80 King Street West,
Toronto 1, Ontario.

Attention: Dr. Gross

Gentlemen:

This is to certify that Rancheria Mining Company Limited have paid the sum of $12,280.62 to Marshall Macklin Monaghan Limited for geophysical and geo-chemical surveys, conducted on their Rancheria property during 1964.

Yours very truly,

MARSHALL MACKLIN MONAGHAN LIMITED

J. W. L. Monaghan,
Chief Surveyor.

JWLM:er

Sworn before me at the Township of North York in the County of York on this 5th day of May, 1965

G. L. Wilks

G. L. Wilks

A Commissioner for taking affidavits in and for the County of York. My commission expires May 6, 1965.

MARSHALL MACKLIN MONAGHAN LIMITED

Consulting Professional Engineers · Town Planners

1480 Don Mills Road, DON MILLS, ONTARIO · HIckory 7-7271

Rancheria Mining Company Limited,
19 Melinda Street,
Suite 106,
TORONTO 1, Ontario.

Invoice No. L 4591
Date July 31, 1964
Our Reference SL-64-201
Progress Billing No. 2
Period Covered

Terms: Net

Authority:

To: Rancheria Property

Services of field party in setting base lines, cutting geophysical lines, taking geochemical soil samples and magnetometer readings, and other miscellaneous surveys as required.

Fees	$ 6,053.00	
Disbursements (previously invoiced)	1,460.03	
	$ 7,513.03	
Less amount of P.B. #1, our Invoice No. L-4538, dated June 30th, 1964.	4,427.65	
AMOUNT OF THIS INVOICE		$ 3,085.38

INVOICE

Fees

June	J. Verhaegen	10 hrs. @ $1.85	$18.50	
		13/30 month @ $550.00/month	238.33	
	J. C. McManus	14/30 month @ $500.00/month	233.33	
	L. Quinn	10 hrs. @ $1.35	13.50	
		13/30 month @ $450.00/month	195.00	
			$ 698.66	
		Add 100%	698.66	$ 1,397.32
	J.W.L. Monaghan	11 days @ $100.00		1,100.00
	D. Johnny	5 days @ $12.00	60.00	
	M. Lutz	5 days @ $12.00	60.00	
	J. Smith	9 days @ $12.00	108.00	
			$ 228.00	
		Add 12 1/2%	28.50	256.50
July	S. Podkowinski	5 hrs. @ $2.60	$ 13.00	
	F. Geisler	1 hr. @ $2.50	2.50	
	J. Verhaegen	16/21 month @ $550.00/month	283.87	
	J. C. McManus	23/31 month @ $500.00/month	370.97	
	L. Quinn	1 month @ $450.00/ month	450.00	
			$1120.34	
		Add 100%	1120.34	2,240.68
	J.W.L. Monaghan	1 day @ $100.00		100.00
	D. Johnny	15 days @ $12.00	$ 180.00	
	M. Lutz	28 days @ $12.00	336.00	
	J. Smith	28 days @ $12.00	336.00	
			$ 852.00	
		Add 12 1/2%	106.50	958.50
				$ 6,053.00

MARSHALL MACKLIN MONAGHAN LIMITED

Consulting Professional Engineers · Town Planners

1480 Don Mills Road, DON MILLS, ONTARIO · HIckory 7-7271

Rancheria Mining Company Limited,
19 Melinda Street,
Suite 106,
Toronto 1, Ontario.

Invoice No. L 4622

Date Aug. 31, 1964

Our Reference SL-64-201

Progress Billing No. 3

Period Covered

Terms: Net

Authority:

To: Rancheria and Silver Tip Properties

Services of field party in setting base lines, cutting geophysical lines, taking geochemical soil samples and magnetometer readings, and other miscellaneous surveys as required.

Fees	$2,281.03	
Disbursements	159.14	
AMOUNT OF THIS INVOICE		$2,440.17

Note:

This may be apportioned as follows:

Rancheria Property	$1800.00
Silver Tip Property	$ 640.17

INVOICE

Fees

J. Verhaegen	14/31 month @ $550.00/month	$248.39	
L. Quinn	1 month @ $450.00/month	450.00	
		698.39	
	Add 100%	698.39	$1,396.78
D. Johnny	31 days @ $12.00/day	372.00	
M. Lutz	41/2 " " "	54.00	
J. Smith	30 days @ $12.00/day	360.00	
		786.00	
	Add 12 1/2%	98.25	884.25
			$2,281.03

Disbursements

	Description	Supplier	
July	Long distance telephone	Bell Telephone	2.25
July 29	Contact Prints	Dept. of Mines & Tech. Surveys	4.20
July 6 & 13	Freight Charges	C.N. Express	38.26
July 1-15	22 miles @ $.10	S. Podkowinski	2.20
June 15 & 16	Freight Charges on Survey Equipment	T.C.A.	80.53
June 17 & 18	Taxis en route & meals	J. Verhaegen	20.34
Aug. 10	Freight on field supplies	C.N. Express	1.70
July	Telegraphs to Watson Lake	C.N. Telecommunications	9.66
			$159.14

DO NOT FILM

Rancheria Mining Co. Ltd.
Box 327
Watson Lake, YUKON
November 2, 1965

Mr R.H. McCrimmon
Gold Commisioner
Dept. Mines and Natural Resources
Victoria, B.C.

9613

Dear Sir:-

Re file 22 Liard. Copies of your letters of August 18th and October 18th/65 have just reached me.

Concerning Item (1) in your August 18th letter. 1300 soil samples were taken during the geochemical survey on the "AMY" group of claims. These samples were taken at 100 foot intervals on every cross line shown on our grid. The sampler dug a hole from 8" to 12" deep at each station and collected approximately one half cup full of material at the bottom of the hole. These samples were all dried and sieved through an 80 mesh screen. The minus 80 mesh portion wa s sent to Barringer Research Limited, Toronto, for analysis of its heavy metal content. The results were then plotted and contoured to give the finished Soil Geochemical Map.

The individual samples were each sealed in special paper sample envelopes and these were packed in cardboard boxes before being shipped to Barringer Research.

Item (2) The maps you returned to Toronto to be signed must still be there. I am going to Toronto next week and will see that they get signed and returned to you immediately.

Item (3) I do not know if Dr. Gross is licenced to practice in British Columbia but will check on this matter in Toronto.

REFERED TO	DATE	INITIAL
D.M.		
C.C.		
D.C.C.C.	11/7/65	
D.C.C.		
G.C.		
ACCTS		
C.M.S.		
C.I.		
C.A.		
R.T.		
C.P.E.		
	9/11	
FILING OFFICE		

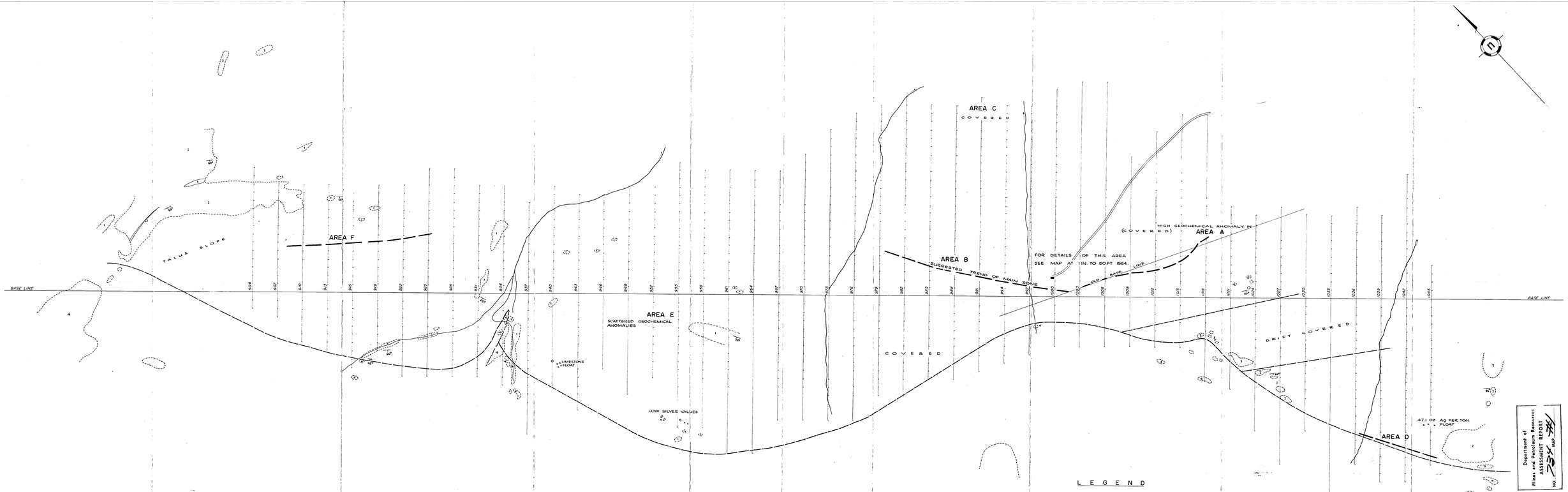
Yours truly

J.H.Shepherd

Geologist- Rancheria Mining Co. Ltd.

NOV 5 '65 PM

DEPT. OF MINES
AND PETROLEUM RESOURCES


AREA C
COVERED
AREA F
TALUS SLOPE
AREA B
SUGGESTED TREND OF MAIN ZONE
HIGH GEOCHEMICAL ANOMALY IN (COVERED) AREA A
FOR DETAILS OF THIS AREA SEE MAP AT 1 IN. TO 50 FT. 1964.
OLD BASE LINE
BASE LINE
BASE LINE
AREA E
SCATTERED GEOCHEMICAL ANOMALIES
LIMESTONE
FLOAT
LOW SILVER VALUES
COVERED
DRIFT COVERED
AREA D
47.1 OZ. Ag PER TON
FLOAT
N
LEGEND
STRIKE AND DIP OF BEDDING
BOUNDARY OF ROCK OUTCROP
CONTACT DEFINED, ASSUMED
FAULT, ASSUMED
ROAD
MINERALIZED FLOAT
4 ACID INTRUSIVES - GRANITE
3 PHYLLITE, ARGILITE
2 LIMESTONE
1 QUARTZITE, GREYWACKE
Department of Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 734
RANCHERIA MINING COMPANY LIMITED
LIARD MINING DISTRICT - NORTHERN BRITISH COLUMBIA
MAP OF GENERAL GEOLOGY
300 0 300 600 900 1200
FEET
FEB. 1965

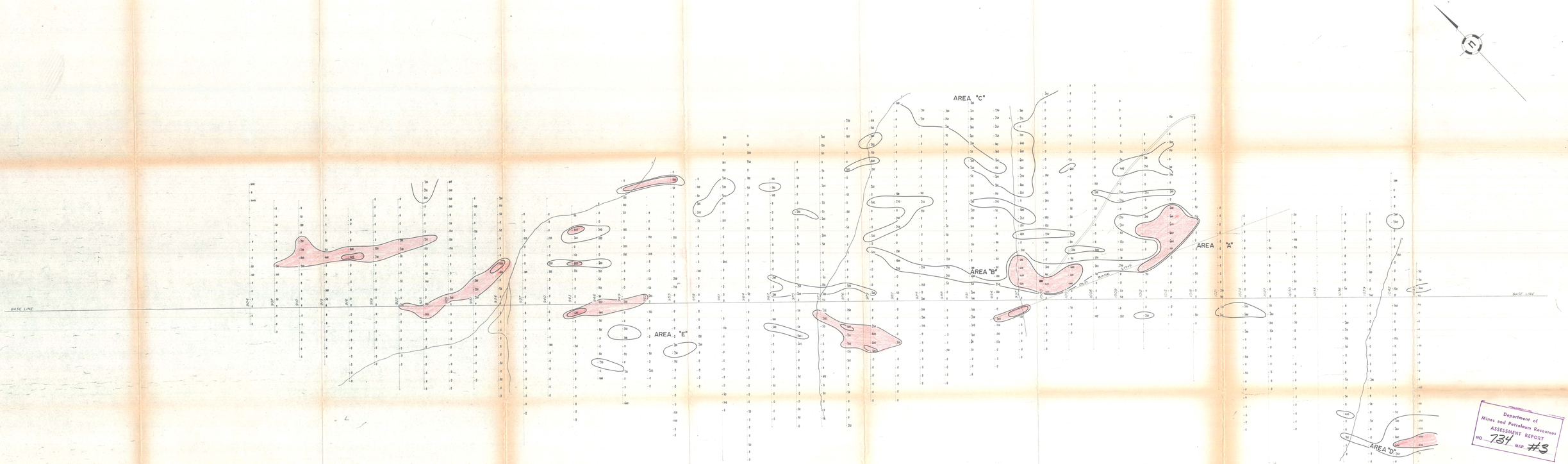
734

RANCHERIA MINING COMPANY LIMITED

LIARD MINING DISTRICT · NORTHERN BRITISH COLUMBIA

MAGNETIC GEOPHYSICAL MAP

FEB. 1965



L E G E N D

- MUCH HIGHER THAN AVERAGE HEAVY METAL* CONTENT IN SOILS
- HIGHER THAN AVERAGE HEAVY METAL CONTENT IN SOILS
- AVERAGE HEAVY METAL CONTENT IN SOILS

* COPPER, LEAD AND ZINC.
(FIGURES ARE ESTIMATES IN PARTS PER MILLION.)

734

RANCHERIA MINING COMPANY LIMITED
LIARD MINING DISTRICT, NORTHERN BRITISH COLUMBIA

SOIL GEOCHEMICAL MAP

300 0 300 600 900 1200
FEET

FEB. 1965