

'80-#396-#

ROUGH OPTION, B.C.

GEOCHEMISTRY 1980

'80-#396-#8169

Liard M.D. N.T.S. 94L/8E

58° 17'N, 126° 10'W

G.D. Hodgson July, 1980

Owner: Texasgulf Canada Ltd. Operator: Riocanex Ltd.

Work performed on Rough 6,8,9 Record # 423, 425, 426

Expiry Date 800708

8169
part 2
of 2

SUMMARY

The Rough claims are underlain by a package of Paleozoic sediments, being predominantly shales and siltstones. Structure is controlled by southwesterly dipping thrust faults.

Texasgulf Canada Ltd. staked the claims in 1976 after discovery of a sphalerite showing, and subsequent work outlined Pb geochemical anomaly underlain by Devonian shales. A Riocanex exploration programme in 1979 focused on the shales and further geochemical sampling delineated two zones of high lead values in soils.

In June 1980, a small programme of prospecting and stream silt geochemistry was directed at the northwards strike extension of the Devonian shales.

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1. INTRODUCTION

The Rough claims were staked in 1976 by Texasgulf Canada Ltd., following work in the Gataga River area. Work by them in 1977 and 1978 was directed at sphalerite along a lower Paleozoic carbonate/shale contact and a major PB geochemical anomaly in soils over Devonian shales.

In 1979 Riocanex Ltd. refined the Texasgulf Pb anomaly over the Devonian shales with a detailed soil sampling programme. This report describes work done in 1980 in the north of the property on the strike extension of the Devonian shales.

2. LOCATION AND ACCESS

The Rough claims are situated in the western ranges of the Rocky Mountains of northern British Columbia, between the Gataga River and its tributary, Through Creek (Dwg. L-6647).

Latitude: 58°17'N

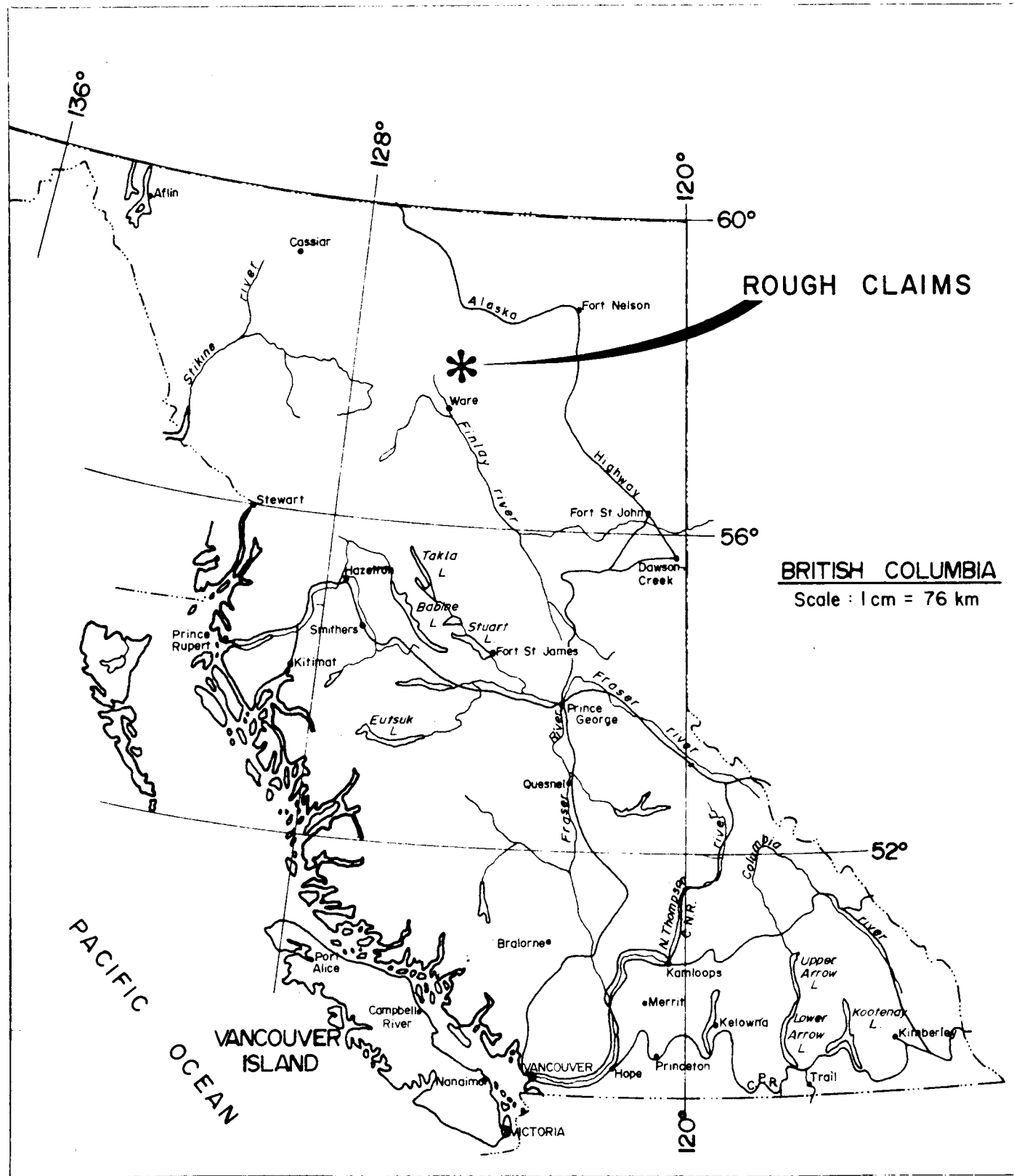
Longitude: 126°10'W

N.T.S. 94L/8E

Liard Mining Division

The nearest major centres are Fort Nelson, B.C., 200 km to the northeast and Watson Lake, Y.T., 240 km to the northwest. Between these two towns the Alaska Highway swings to within 75 km of the property at Muncho Lake. A bulldozer trail is reported to end 23 km east of the claims at the divide between the West Road and the Gataga Rivers.

Access to the property is by helicopter, which in 1980 was based at the Riocanex camp on Pretzel Lake, 115 km to the south.



BRITISH COLUMBIA
Scale : 1 cm = 76 km



MINERAL RESOURCES BRANCH
ASSESSMENT REPORT

8169
Part 2
OF 2

N.T.S. 94 L/8 E
LIARD M.D.

SCALE : 1:250,000



RIO TINTO CANADIAN EXPLORATION LTD.		
ROUGH CLAIMS		
LOCATION MAP		
JUNE 1980	GDH / dag	DWG. L 6647

3. HISTORY AND PREVIOUS WORK

Canex Placer discovered lead-zinc mineralization at Driftpile Creek (27 km to the S.E. of the present Rough claims) in 1973. Texasgulf staked the Rough claims in August 1976. Prospecting and geological mapping by Texasgulf in 1977 located several sphalerite-galena occurrences along a limestone-shale contact, and soil geochemistry established extensive anomalies with respect to lead and zinc. The 1978 programme comprised further mapping, soil sampling and also trenching and geophysics. Riocanex Ltd. had a reconnaissance mapping and soil sampling programme on the Rough claims in 1979.

Regional geological and stratigraphic work has been by Cathro and Carne (1978), Gabrielse (1962, 1977), Taylor and Stott (1973), and MacIntyre (1980).

4. WORK PERFORMED IN 1980

The Riocanex exploration programme in June 1980 comprised (i) prospecting and (ii) stream silt sampling.

5. GEOLOGY

Rock ranging in age from Proterozoic to early Triassic are exposed regionally. The various formations have been folded into northwest trending linear belts bounded by sub-parallel thrust faults. The most recent geological mapping has been by Cathro & Carne (1978) and MacIntyre (1980).

The Rough claims are underlain by a belt of northwest trending shales dipping to the southwest and flanked by limestones. Oldest rocks are limestones and quartzites of the Cambrian Atan Group which are thrust over Ordovician shales of the Road River Formation and dolomitic siltstones of Silurian age. These in turn are thrust over siliceous Devono-Mississippian shales which are locally baritic.

Sphalerite mineralization is known from the thrust contact between Cambrian limestones and Ordovician shales where the rocks are sheared and brecciated. In 1980, sphalerite was also found in the Devonian shales.

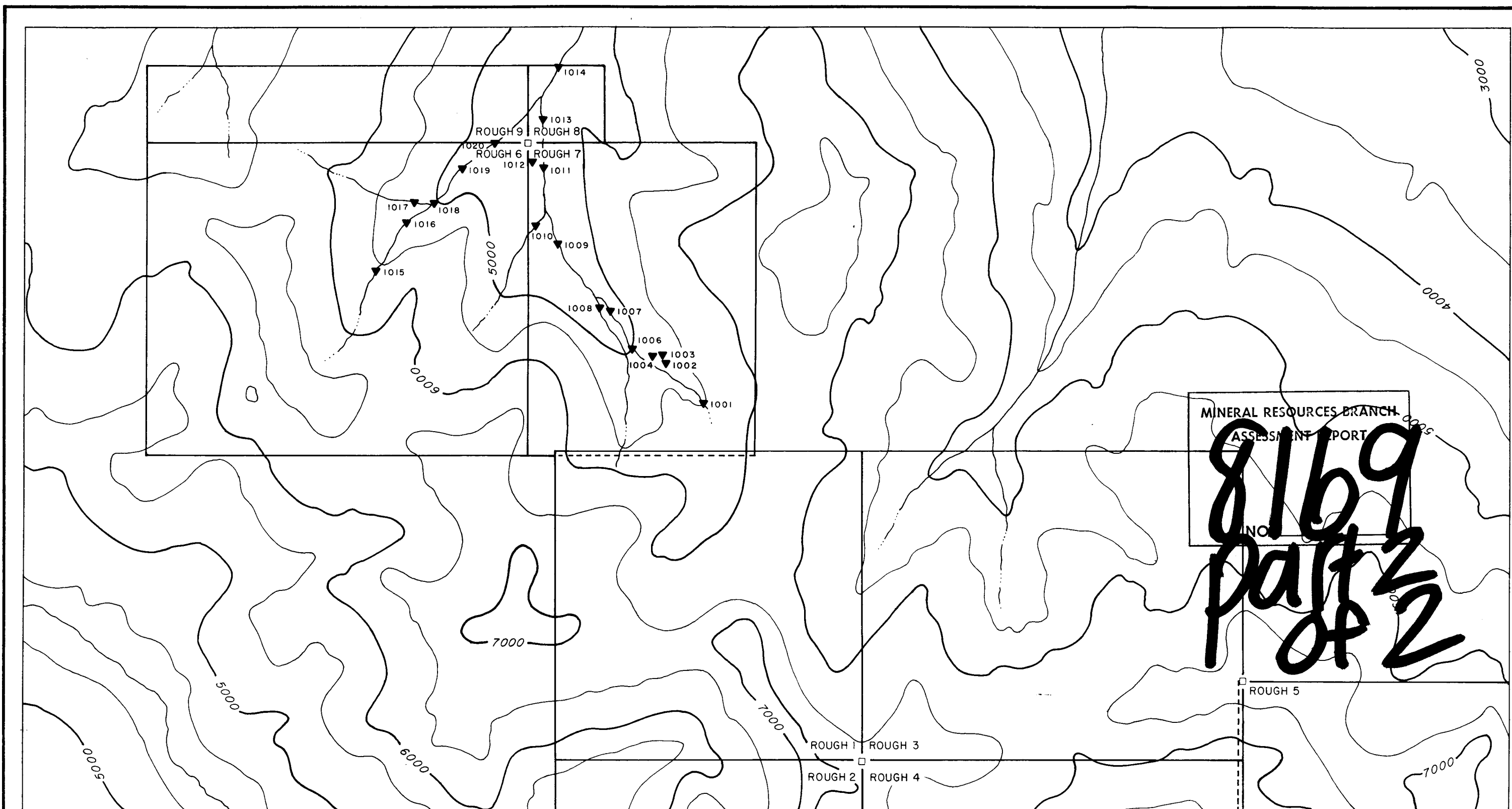
More detailed geological descriptions of the property can be found in Boyle (1978), Graham (1978) and Hodgson (1980).

6. GEOCHEMISTRY

Geochemical sampling by Texasgulf in 1978 in the southern part of the claim group established an extensive area of ground with greater than 50 ppm Pb in soils. Values of more than 1,000 ppm Pb were also reported (Boyle, 1978) and in 1979 the Riocanex soil sampling programme was directed at this area of highly anomalous geochemistry.

In early 1980, an initial prospecting and silt sampling programme explored the northwards strike extension of the shales. The silt samples were prepared by drying and sieving to -80 mesh. 0.6 gm of each sample was placed in a test tube to which was added 2 ml concentrated nitric acid. The solution was heated in a hot water bath at 95°C for ½ hour and then allowed to cool. 1 ml concentrated hydrochloric acid was then added, and the solution heated in a hot water bath at 95°C for 1½ hours. After being cooled each sample solution was diluted with deionized water to a final volume of 12 ml. The sample solutions were then analyzed by atomic absorption for Pb, Zn and Ag.

Sample locations are plotted on Dwg. GC-6648 and results on Dwg. GC-6649 .



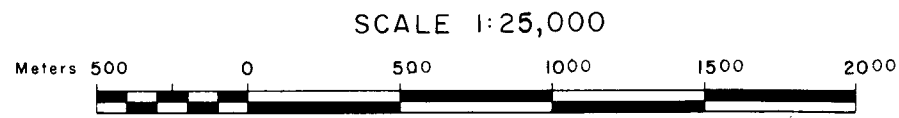
MINERAL RESOURCES BRANCH
ASSESSMENT REPORT

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Part 2

LEGEND
▼ 1015 Silt Sample Locations
(All Numbers Preceeded by 800)

N.T.S. 94/8E
LIARD M.D.

RIO TINTO CANADIAN EXPLORATION LTD.
ROUGH CLAIMS
SILT SAMPLE LOCATIONS



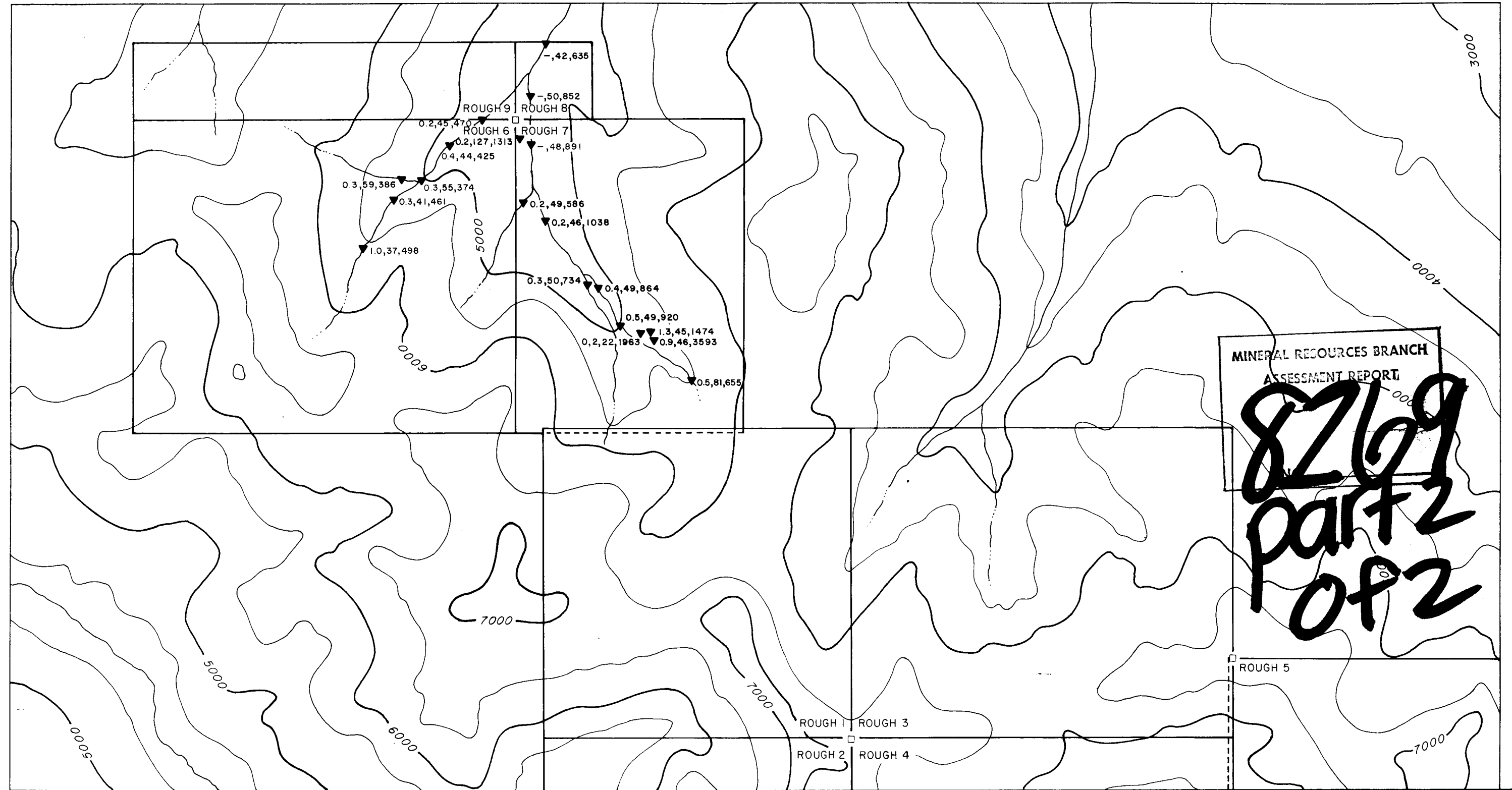
DATE JULY 1980	DRAWN BY GDH / dag	DWG. GC 6648
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Results

Zinc values in stream silts are not thought to be particularly significant, the highest values being in the 1000 - 3500 ppm range only.

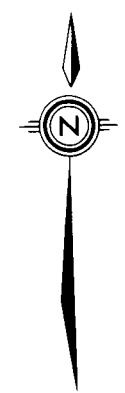
Most Pb values are 40 ppm or better and are quite encouraging.

The significance of the Ag results is not known. However, two samples returned \gg 1 ppm Ag.



MINERAL RESOURCES BRANCH
ASSESSMENT REPORT

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of 2

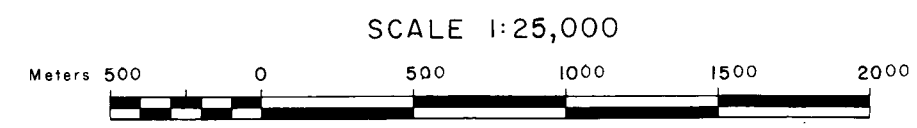


LEGEND

▼ 03, 50, 734 PPM Ag, Pb, Zn

N.T.S. 94/8E
LIARD M.D.

RIO TINTO CANADIAN EXPLORATION LTD.		
ROUGH CLAIMS		
PPM Ag, Pb, Zn		
DATE	DRAWN BY	DWG.
JULY 1980	GDH / dag	GC 6649



7. PROSPECTING

Prospecting along the northern edge of the property was unsuccessful in discovering further Pb or Zn mineralization. It was noted, however, that the Devonian shales, locally pyritic, continued on strike but were not so well exposed. Silurian siltstones have been thrust, and in part overturned, from the southwest.

8. CONCLUSIONS

Lead values are not discouraging and should be followed up by further prospecting and soil sampling.

9. REFERENCES

- Boyle, P.J.S., 1978: B.C. Ministry of Energy, Mines & Petroleum Resources, Assessment Rept. 6997.
- Cathro, R.J. & Carne, R.C., 1978: B.C. Ministry of Energy, Mines & Petroleum Resources, Assessment Rept. 6666.
- Gabrielse, H., 1962: Kechika map-area. Geol. Surv. Can. Map 42-1962.
- 1977: Ware west half and Toodoggone River map areas. Geol. Surv. Can. O.F. 483
- Graham, R.A.F., 1978: Texasgulf memo dated October 27, 1978.
- Hodgson, G.D., 1980: Rough claims; MS dated April 1980.
- MacIntyre, D.G., 1980: Driftpile Creek - Akie River Project. B.C. Ministry of Energy, Mines & Petroleum Resources Paper 1980-1, 55-67.
- Taylor, G.C. & Stott, D.F., 1973: Tuchodi Lakes map-area, British Columbia, Geol. Surv. Can. Mem. 373

APPENDIX I

GEOCHEMICAL SAMPLE RESULTS

RIOCANEX

LABORATORY REPORT 88-35

30 JUNE 1988

PROJECT - 8613 - ROUGH

COPY 1 - VANCOUVER OFFICE
COPY 2 - G HODGSON - SIKANNI CAMP
COPY 3 - LABORATORY

SAMPLE NO.	AG, PPM	PB, PPM	ZN, PPM	COMMENTS
8001001	.5	81.0	655.0	SOIL
8001002	.9	46.0	3593.0	SOIL
8001003	1.3	45.0	1474.0	SOIL
8001004	.2	22.0	1963.0	SOIL
8001006	.5	49.0	920.0	SOIL
8001007	.4	49.0	864.0	SOIL
8001008	.3	50.0	734.0	SOIL
8001009	.2	46.0	1038.0	SOIL
8001010	.2	49.0	586.0	SOIL
8001011	.0	48.0	891.0	SOIL
8001012	.2	127.0	1313.0	SOIL
STD A	.6	36.0	646.0	CONTROL
8001013	.0	50.0	852.0	SOIL
8001014	.0	42.0	635.0	SOIL
8001015	1.0	37.0	498.0	SOIL
8001016	.3	41.0	461.0	SOIL
8001017	.3	59.0	386.0	SOIL
8001018	.3	55.0	374.0	SOIL
8001019	.4	44.0	425.0	SOIL
8001020	.2	45.0	470.0	SOIL
8001021	.0	40.0	447.0	SOIL
BLANK	.0	.0	.0	BLANK
8001003	.9	48.0	1496.0	REPEAT
8001008	.0	51.0	714.0	REPEAT
8001014	.3	46.0	658.0	REPEAT
8001018	.3	55.0	384.0	REPEAT

APPENDIX II

COST STATEMENT

COSTS STATEMENT
 B.C. ROUGH OPTION
 GEOLOGY, GEOCHEMISTRY, & PROSPECTING
 1 APRIL - 29 JUNE 1980

<u>Food & Accomodation</u>		
5 Men, 12 Apr-29 Jun, 16 Man Days @ \$20.54	\$	329
<u>Supplies</u>		790
<u>Fuel (Including Camp & Aircraft)</u>		310
<u>Fixed Wing</u>		
Northern Thunderbird Air		
13 May 660 Mi @ \$1.95 (Otter)	\$	1,287
Universal Travel		
1 Apr-29 Jun, 6 trips, Van-P.G.	<u>933</u>	2,220
<u>Helicopter</u>		
Northern Mountain		
12 Apr-20 Jun, 8.03 Hrs @ \$305 (206B)		2,452
<u>Report Preparation</u>		<u>985</u>
 <u>TOTAL GENERAL COSTS</u>		 <u>\$7,086</u> =====

GEOLOGY COSTS

<u>Salaries & Wages</u>		
5 Men, 1 Apr-29 Jun, 10 Man Days @ \$48		480
<u>Benefits @ 20%</u>		96
<u>Riocanex Equipment 10 Man Days @ \$3</u>		30
<u>General Costs</u>		
10/16 X \$ 7,086		<u>4,429</u>
 <u>GEOLOGY TOTAL</u>		 <u>\$5,035</u> =====

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GEOCHEMISTRY COSTSSalaries & Wages

2 Men, 1 Apr-29 Jun, 6 Man Days @ \$48	\$ 288
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<u>Benefits @ 20%</u>	58
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<u>Riocanex Equipment 6 Man Days @ \$3</u>	18
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Geochemical Analysis

Riocanex Lab, 20 Silts, For Ag, Pb, Zn @ \$3.35	67
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General Costs

6/16 X \$7,086	<u>2,657</u>
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<u>GEOCHEMISTRY TOTAL</u>	<u><u>\$3,088</u></u>
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COSTS APPORTIONED
TO CLAIMS

<u>CLAIMS</u>	<u>UNITS</u>	<u>GEOLOGY</u>	<u>GEOCHEMISTRY</u>	<u>TOTAL</u>
Rough 6	20	\$ 3,873	\$ 2,375	\$ 6,248
Rough 8	1	194	119	313
Rough 9	<u>5</u>	<u>968</u>	<u>594</u>	<u>1,562</u>
TOTALS	<u>26</u>	<u>\$ 5,035</u>	<u>\$ 3,088</u>	<u>\$ 8,123</u>

APPENDIX III

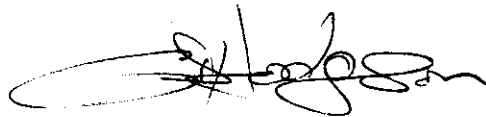
CERTIFICATE

CERTIFICATE

I, Geoffrey David Hodgson, with business address in Vancouver, British Columbia, and residential address in North Vancouver, British Columbia, do hereby declare

1. I am a geologist employed by Rio Tinto Canadian Exploration Limited.
2. I graduated from Exeter University, U.K. in 1972 with a B.Sc. (Hons.) degree in geology.
3. I graduated from the University of Alberta in 1976 with an M.Sc. degree in geology.
4. I am a Professional Geologist with the Association of Professional Engineers, Geologists and Geophysicists of Alberta.
5. From 1970 to 1979 I have been employed on both a temporary and full-time basis by the Geological Survey of Greenland, Research Council of Alberta, University of Alberta, Cominco Ltd., and Riocanex Ltd.

Respectfully submitted,



G. D. Hodgson