

TODD CREEK PROPERTY

on

(104A-5W)

for

Riocanex Incorporated

by

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and
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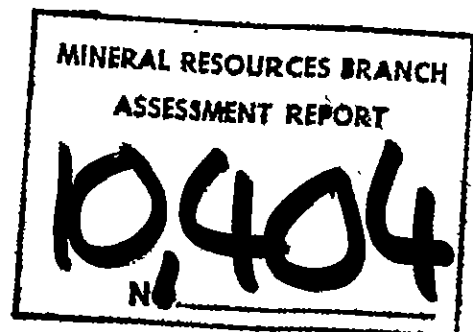


TABLE OF CONTENTS

	<u>Page No.</u>
INTRODUCTION.....	1
LOCATION AND ACCESS.....	1
CLAIM DATA.....	2
REGIONAL GEOLOGY.....	2
PROPERTY GEOLOGY	
Rock Types.....	3
Alteration.....	4
Distribution of Alteration.....	5
Mineralization.....	6
GEOCHEMISTRY	
General.....	9
Geochemistry of the Detailed Area.....	9
CONCLUSIONS.....	13

REFERENCES

TABLES

1. TABLE 1 - GEOCHEMISTRY OF THE DETAILED AREA	10
2. TABLE 2 - GEOCHEMISTRY OF THE JASPER-BARITE ZONE	11
3. TABLE 3 - GEOCHEMISTRY OF THE BARITE-GALENA ZONE	12
4. TABLE 4 - GEOCHEMISTRY OF DRILL CREEK MINERALIZATION	12
5. TABLE 5 - SIGNATURE ELEMENTS	12a

APPENDICES

1. APPENDIX I - GEOCHEMICAL TECHNIQUES	
2. APPENDIX II - COSTS	

FIGURES

	<u>Page No.</u>
1. Location Map (Scale 1:600,000)	1a
2. Claim Map (Scale 1:50,000)	1b
3. Geology Map (Scale 1:5,000)	In Pocket
4. Survey Map (Scale 1:1,000)	In Pocket
5. Geology-Detailed Area (Scale 1:1,000)	In Pocket
6. Sample Numbers (Rock and Silt)(Scale 1:5,000)	In Pocket
7. Sample Numbers (Barite)(Scale 1:5,000)	In Pocket
8. Pb Geochemistry (Scale 1:5,000)	In Pocket
9. Zn Geochemistry (Scale 1:5,000)	In Pocket
10. Cu, Mo Geochemistry (Scale 1:5,000)	In Pocket
11. Ag, Au Geochemistry (Scale 1:5,000)	In Pocket

TODD CREEK PROPERTY

INTRODUCTION

A large conspicuous gossan occurs along the steep western side of Todd Creek, north of Stewart. In 1980, J. R. Woodcock was able to charter a helicopter one evening to briefly examine some of the gossan zones lying north of Stewart, including the one on the Todd Creek. In this quick stop below the gossan zone, a float of mineralized rock was collected and this included white volcanics with quartz sericite alteration, barite-bearing float, etc. The quartz sericite rock was somewhat anomalous in base metals.

In June of 1981, the claims which covered this part of this gossan zone expired and Dennis Gorc and Henry Awmack went to Stewart to stake the Todd 1 and 2 claims in preparation for some detailed prospecting and mapping to be carried on when the snow conditions improved.

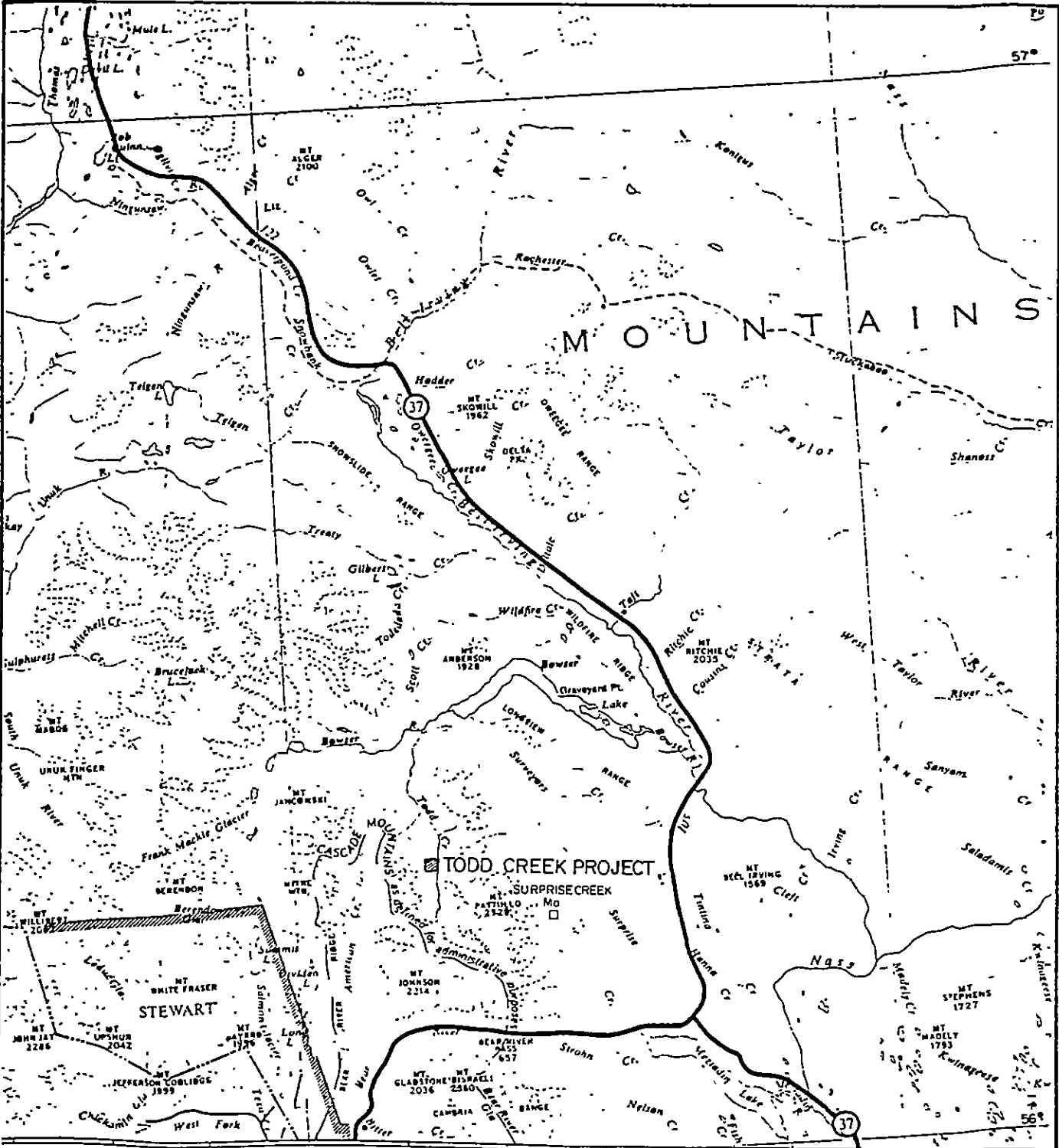
Dennis Gorc and Henry Awmack returned to the area with J. R. Woodcock in July to start a program of mapping and prospecting. The base map for this mapping was an enlargement of a 40 chain air photo, B.C. 5504-041. This mapping and prospecting led to the discovery of widespread barite mineralization, in places associated with jasper and galena. In late July and early August, a stadia base map was made over the zone containing the most abundant barite-jasper-galena mineralization and this zone was mapped and sampled. Part of this latter program was integrated with the reconnaissance work in the area and the checking of additional gossan zones using the camp on Todd Creek as a base. The reconnaissance checking of gossans was inhibited by poor flying conditions and during such periods mapping continued on the Todd Claims. This made for a longer period of mapping than had been originally planned.

For convenience we have named the major creeks traversing the property.

LOCATION AND ACCESS

The Todd Creek gossan lies along the west side of Todd Creek at latitude $56^{\circ} 17'$, longitude $129^{\circ} 47'$ on map sheet 104A-5W.

It is an area of extremely rugged and steep terrain with the mineralized zone extending between elevations 2700 feet and 6700 feet. The treeline is at 4000 feet and most of the gossan is above treeline. Access is only by helicopter from Stewart, 40 kilometers to the south-southwest. Access for any mine would need to be down Todd Creek to the valley of the Bowser River and then easterly to the Stewart-Cassiar Highway.

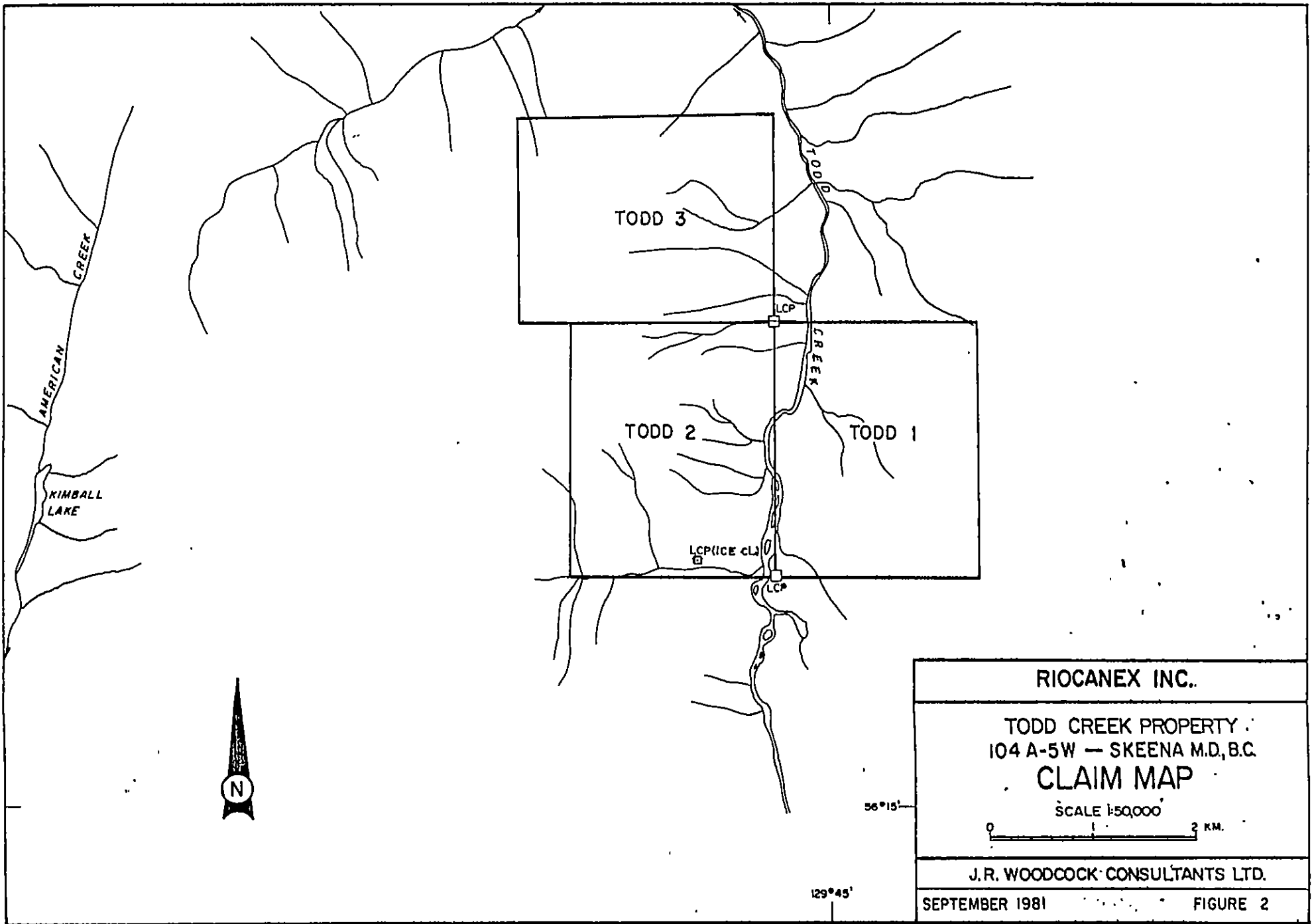


130° To Stewart PO 11 kilometres

To Hazelton 160 kilometres 129°



RIOCANEX INC.	
TODD CREEK PROJECT LOCATION MAP	
SCALE 1:600,000	
J R. WOODCOCK CONSULTANTS LTD.	
JANUARY 1982	FIGURE NO. 1



TODD 3

TODD 2

TODD 1

AMERICAN CREEK

TODD CREEK

KIMBALL LAKE



RIOCANEX INC.

TODD CREEK PROPERTY
 104 A-5W - SKEENA M.D., B.C.
CLAIM MAP

SCALE 1:50,000



J.R. WOODCOCK CONSULTANTS LTD.

SEPTEMBER 1981

FIGURE 2

56°15'

129°45'

LCP (ICE CL)

LCP

LCP

LCP

-31-

CLAIM DATA

The Todd 1 and 2 claims were staked by Dennis Gore and Henry Awmack in the spring to protect the gossan on the west side of the valley. This gossan is largely covered by the Todd 2 claim. The Todd 1 claim covers the east side of the valley. However, the mapping done in 1981 shows that the Todd 1 claim does not cover any gossan area and is worthless. The Todd 3 claim was added to the north of the Todd 2 while mapping because additional showings and float of mineralized rock were found in this area and because the main zone of barite-jasper-galena occurs near the northern boundary of the Todd 2 claim.

The claims were staked by Dennis Gore in his own name. An unrecorded bill of sale transferring these claims to Riocanex Incorporated is on file.

The claim data is as follows:

<u>Claim Name</u>	<u>Units</u>	<u>Record Number</u>	<u>Date Staked</u>	<u>Dates Recorded</u>
Todd 1	20	3093	June 5, 1981	June 12, 1981
Todd 2	20	3094	June 5, 1981	June 12, 1981
Todd 3	20	3153	July 17, 1981	Aug. 6, 1981

REGIONAL GEOLOGY

Although the Todd Creek area is on the edge of a region which has received considerable exploration intermittently over the last 80 years, the geological mapping has not covered this area. The map and studies made by George Hansen of the Portland Canal area, cover the area to the west and the area to the south as far as Alice Arm. The more detailed recent study of the Stewart area by E.W. Grove concentrates only on the area west of Todd Creek. The only geological map covering this area is the large reconnaissance survey of the Stikine River area (map 9-1957).

The upper part of Todd Creek is underlain by volcanics of the Hazelton Group (lower to middle Jurassic age). These consist of red and green volcanic conglomerates, crystal and lithic tuffs, and minor breccia and minor siltstone. Bowser Lake sedimentary rocks are largely black, in places very carboniferous, shales, greywackes, and gritstones. These extend from the edge of the Bowser Basin southwesterly, remnants occurring in the high mountains where they unconformably overlie the strata of the Hazelton Group.

carboniferous?
TH

Gently dipping strata of the Bowser Lake Sediments crop out along the lower reaches of Todd Creek. These strata and the underlying Hazelton Group of strata appear to be gently folded, with the fold axis striking north-northwest.

To the west of the Todd Creek, intrusive dykes and small plugs are quite common and in places dykes appear as swarms. However, on the Todd Creek property only a few basic dykes occur.

PROPERTY GEOLOGY

Rock Types

Intermediate Volcanics

These rocks are predominantly massive light-grey, fine-grained tuffs with little or no bedding. In places the rocks are characterized by small (.5cm) white clasts and/or small vugs. The rocks, which contain only trace pyrite, weather grey.

The rocks crop out predominantly along the eastern edge of the property on the slope adjacent to Todd Creek.

Red Agglomerate

This is a distinctive rock with a predominantly reddish to purplish matrix, characterized by abundant subrounded clasts up to 30 cm across. Most of the clasts are of fine-grained volcanic rocks. In places the agglomerate has a greyish matrix but such zones are minor. A few thin horizons of crystal tuffs were also noted. The unit contains only trace pyrite and is not iron-stained. The unit is characteristically hard, resistant and massive, although good bedding occurs in a few places. The massive and resistant nature of these rocks account for much of the ruggedness of the area.

Red Tuff

This unit, with a similar reddish to purplish matrix, may in part be equivalent to the red agglomerate. However, the clasts of this unit are less than 0.5 cm. The unit is also massive with only trace pyrite. It occurs predominantly in the northern part of the property where it is widespread. This unit is uniform except for a few thin lenses or horizons of greyish fine-grained intermediate volcanics. In a triangular area between Shear and Cirque Creek, the rock is strongly sheared (orientation 154° dip 59° E).

Light-grey Siliceous Tuff

This unit is found only at the junction of the Todd Creek and Fall Creek. It is characteristically light-grey, fine-grained, massive, hard and siliceous and contains no pyrite.

Brown-weathering Tuff

Adjacent to the above siliceous unit is a soft, brown-weathering, fine-grained carbonate-rich tuff.

Volcanic Breccia

This unit is found only along Fall Creek. It is characteristically

grey-weathering, massive and resistant. The unit has a fine-grained grey matrix with abundant angular clasts of volcanic rock. Generally the unit contains no pyrite; however, a few random small pods of very altered, iron-stained rock occur. These are associated with barite and/or quartz-pyrite veins.

Carbonate-Rich Pyritic Tuff

Also found along Fall Creek is a unit which contains abundant carbonate and up to 15% finely disseminated pyrite. Despite the high pyrite content the unit is grey weathering. This unit is the host for copper-gold mineralization which will be described in a subsequent section. The unit is fine-grained, very light-grey and relatively soft. Note that little of the unit is exposed because a thin zone of glacial debris covers most of the valley.

Rock similar to this unit also occur a short distance to the north near sample site 516.

Limestone

A platy, thinly-bedded grey limestone occurs on the northern edge of the property.

Basic Dykes

Thin (20-30 cm) basic dykes are the only intrusive rocks on the property. The dykes are fine-grained, dark-grey with small hornblende phenocrysts. They contain no pyrite and have no alteration selvages.

Alteration

The Todd Creek target is characterized by intensely altered rock which is hard siliceous and pyritic and which weathers to create a brilliant yellow to orange gossan. The hard, resistant nature of the altered rock forms steep iron-stained cliffs to the west of Todd Creek.

The alteration includes introduction of abundant silica and pyrite and bleaching associated with the introduction of the silica and minor sericite.

The altered rocks are classified and mapped according to three grades of intensity:

Intense

Intensely altered rock is very fine-grained, highly siliceous and generally white but grey in places of very high pyrite content. The alteration is so intense that the original rock and bedding is indecipherable. It is feasible that felsic rock units may be included within the larger altered zones. The widespread surface

leaching of the pyrite makes it difficult to estimate pyrite content. However, the abundant jarosite stain both on the surface and within small vugs within the rock as well as small pockets containing up to 15% pyrite suggest that originally the pyrite content was high.

Two variations of intense alteration are mapped within the area of detailed mapping (Figure 5). One variation has a red hematite colour and lower pyrite content. Within the area of this red silification is a small area of light-grey completely silicified rock.

Medium Alteration

Such alteration is also quite intense but differs from the above in that the resulting rock is coarser-grained and contains less pyrite (1%). The amount of pyrite is again difficult to estimate because of surface leaching. However, the preponderance of orange limonite versus jarosite suggests a lower pyrite content. Silica alteration is somewhat less than in the intensely altered zones.

Low to Minimal Alteration

These rocks are fine-grained intermediate volcanics slightly altered with sporadic, small patches (5 square cm to 5 square m) of highly altered rock. Pyrite content is low although noticeably more than in the unaltered intermediate volcanics. Often such rock reacts to acid, sometimes quite vigorously. Except for the small altered patches, the rock is grey weathering. This rock is not siliceous.

Distribution of Alteration

The gossans and zones of alteration occur within an area bounded by Glacier Creek to the north, Drill Creek to the west and Todd Creek to the east. The southern boundary is not well defined because of forest cover, but it probably does not extend far beyond the area of exposure.

Within this large area (1500 m by 1200 m) are four separate zones of intense to medium alteration that stand out distinctly from the unaltered or minimally altered rock.

Main Zone

Occurring between Drill and Camp Creeks and bounded by sample sites G-81342, 392, 402, 183, 359, and 355, this zone of alteration and iron-staining is the largest on the property (1000 m x 500 m) and encompasses much of the barite mineralization.

The zone is bounded very sharply on the west and northwest by a discontinuity which may be a fault with an easterly dip. This

discontinuity, be it fault or otherwise, is significant in that it so sharply delimits the zone of alteration and gossan. Essentially no pyrite or alteration extends to the west of this contact.

The eastern boundary of this main altered zone is partly obscured by talus.

Camp Creek, Fault Creek, Glacier Creek

The remaining altered zones are much smaller and seem to be related to or affected by faults. The alteration zones along Glacier and Fault Creeks especially are noticeably linear. In places, small faults separate unaltered from altered rock.

Structure

Bedding is almost non-existent. The few unquestionable bedding attitudes and any possible bedding attitudes indicate northwest to north strike and an easterly dip of 45° . Such attitudes are compatible with Grove's measurements to the west along American Creek.

Faults are numerous with two and perhaps three sets of faults:

- a) Main Set - strike NW; dip approximately 60° W
- b) Second Set - strike E; vertical dip
- c) Third Set - strike E; dip approximately 25° N.

These faults have had a significant effect on the distribution of alteration and on the barite mineralization.

Mineralization

Pyrite

Pyrite is the most widespread and abundant mineralization. Although much of the pyrite has been leached from the surface rocks, pockets of up to 15% pyrite and abundant jarosite suggest a high content in the original rock. The pyrite is predominantly finely disseminated with lesser amounts along fractures or within barite veins.

Barite

Barite is found throughout the property although much of the mineralization occurs within the zones of alteration. Only the larger more significant barite showings are indicated on Figure 3.

The barite mineralization occurs in pods or lenses, veins, and small concentrations.

The pods are irregular in shape but generally elongated. These pods range in size from one meter width to 30 meters by 7 meters. The pods consist of massive white barite with minor galena and pyrite in places. The barite is quite pure, generally without jasper, quartz or calcite.

The veins vary in thickness from 10 cm to 2 m and most veins have a length of 10 m to 20 m. A few of the larger veins have a length of 30 m to 60 m. One should stress the discontinuous nature of most veins.

The two largest veins may have a length of 300-500 m, but this is based partly on projection under semi overburden. One of these includes the "Jasper-Barite Zone" which was the locus of the detailed mapping (Figure 5). The other structure extends southeasterly from G-81-468 to 460 and perhaps to 218. In this second vein, calcite is the dominant mineral with secondary amounts of jasper and barite and only a trace of galena.

The small concentrations of barite are up to a maximum of 4 cm across and are found both within altered rock and within unaltered rock near the altered zones. In many of these concentrations the barite may have replaced some of the surrounding rock. In such cases barite is intermixed with the volcanic.

Jasper-Barite Zone

This zone consisting of jasper, barite, jasper breccia and minor galena and pyrite, extends from G-81-519 to 407 (Figure 5).

It is characterized by somewhat convoluted banding in which layers of brick-red jasper or jasper breccia alternate with layers of coarse bladed barite. The amount of barite versus jasper varies considerably along the zone. In its western part, near G81-519 and G81-526, the zone is predominantly barite with most horizons of jasper only 3-4 cm wide and one horizon of 1 meter width. However, at G81-385, the zone is predominantly jasper with only small amounts of barite. At G81-407, the zone is again predominantly barite.

The jasper breccia is a distinctive rock type within the zone. The breccia is found only in localized pockets and is best observed near G81-526 and G81-407. Characterized by clasts of brick-red jasper to 20 cm across, the breccia varies from that with a barite cementing matrix to that with a jasper matrix.

This zone is not the only vein structure containing such breccia. Jasper breccia is also found along many veins within the property.

The zone appears to be thinning and pinching out at the western end but may swing around to the south and abut against an east-west fault (south of G81-396). The eastern end may abut against another east-west fault.

The main large silicified gossan zone and this barite-jasper zone are part of a marked zonation in geology. From the southeast to northwest this zonation includes:

1. White to medium-grey highly silicified and pyritic volcanics.
2. Hematite-rich and highly silicified rock which is less pyritic and has a width of about 50 meters.
3. Jasper-barite zone which is approximately 10 meters wide.
4. Non-pyritic, unaltered coarse-red agglomerate.

The sharp change in alteration on the northwest side of this jasper-barite zone and the geological zonation imply that the jasper-barite zone lies along a discontinuity which could be fault or a depositional feature.

To the northeast the jasper-barite zone gives way to some of the bleached pyritic rock.

Copper-Gold Mineralization

Adjacent to Fall Creek in the south part of the property, there are three trenches, each about 20 meters long. Several drill sites and scattered core lie west of the trenches. The trenches expose brecciated volcanics which are cut by quartz and calcite veins. The veins contain pyrite and chalcopryrite with minor malachite and azurite. The mineralization is hosted by a light-grey, highly pyritic, carbonate-rich volcanic tuff.

This showing was recently covered by the Ice claims of P. Ferguson. These lapsed in 1981.

Assay and geochemical analyses from channel samples in the trenches are shown on Table 4. The results are only geochemically anomalous. Note that sample 453 was taken about 30 m west of the trenches within the pyritic host rock.

5 km to the south is another mineralized zone referred to as the Todd prospect in government reports. Mineralization, similar to the Fall Creek mineralization, is described as consisting of chalcopryrite and pyrite in quartz-impregnated brecciated dacite with minor silver and gold values. The history of the property is meager but first mention of it in government reports is 1960 at which time Newmont owned the property. In 1969, Kerr Addison Mines staked it for a short time after which it was soon acquired by C.S. Powney. In 1971, A.G. Hodgson examined the property for Mr. Powney.

Miscellaneous Mineralization

Occasionally chalcopryrite or malachite were noted within the zones of intense alteration. Copper stain was also noted along several of the quartz-pyrite veins that occur along Fall Creek. The most interesting copper showing occurs along a small shear at G81-567 (Figure 5). This small showing, consisting of malachite and perhaps

tetrahedrite, returned a value of >100 ppm Ag.

Sphalerite was noted at only one locality, but the many high zinc values (up to 3350 ppm) suggest that traces of zinc mineralization must be widespread.

GEOCHEMISTRY

General

A total of 241 rock samples, 132 barite samples and 97 silt samples were taken. Rock samples were analyzed for Mo, Pb, Zn, Cu, and occasionally Au. Silt samples were analyzed for Mo, Pb, Zn, Ag, and occasionally Au. Most barite samples were not analyzed. Ten samples from the mineralization at Fall Creek were assayed for Au and/or Cu (Table 4). Nine samples of barite-galena mineralization were assayed for Pb and Ag (Table 3).

The geochemical maps (see Figures 8-11) indicate that the zones of intense to medium alteration contain anomalous lead, zinc and silver and sporadically anomalous copper and molybdenum. Copper and molybdenum values are for the most part background. However, a cluster of slightly anomalous copper and molybdenum occurs just to the south of the jasper-barite zone.

Scattered rock and silt samples were selected for gold analyses. These results were disappointing with few results greater than 10 ppb. One of the barite samples returned a value of 110 ppb and one of the silt samples returned a value of 120 ppb.

Geochemistry of the Detailed Area

Geochemical results from the detailed area (Figure 5) are given on Table 1. Although there are too few samples to interpret geochemical trends, one can note the following features in the geochemistry:

1. The zones of medium to intense alteration are generally high in lead, zinc and silver with many anomalous values.
2. Copper values are low (generally < 30 ppm). The few sporadic highs are within the zones of intense alteration.
3. Anomalous metal values occur within the altered rocks to the northeast and southwest of the jasper-barite zone.
4. There is a sharp contrast between the metal values from the unaltered and non-pyritic red agglomerate northwest of the barite zone and those from the jasper-barite zone and from the altered rocks to the south and east of the barite zone. The metal values (especially silver) are very low within the red agglomerate.

TABLE 1

GEOCHEMISTRY OF THE DETAILED AREA

(Figure 5)

Sample No.	Sample Type	Cu (ppm)	Mo (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)
G81-153	rock	36		35	1100	3.9
154	rock	12		75	330	2.8
155	rock	10		36	70	0.4
156	rock	24		55	48	1.3
157	barite	330		36	180	3.0
158	rock	120		30	168	6.6
159	rock	12		40	28	1.3
160	barite	31		115	2200	12.5
161	rock	55		35	970	9.0
162	rock	16		35	75	2.1
163	barite	107		80	270	4.7
166	rock	50		20	170	7.0
169	rock	40	2	145	535	5.0
170	rock	410	3	280	35	2.2
192	rock	8	5	45	52	4.5
193	rock	22	2	32	63	1.7
372	rock	18	5	65	55	0.9
373	rock	9	7	64	150	1.8
376	rock	385	7	1650	3300	10.0
381	rock	25	1	86	235	1.6
382	rock	14	1	60	200	0.9
383	rock	23	2	145	52	5.3
384	rock	25	2	175	820	14.0
386	rock	6	1	35	72	1.6
391	rock	14	1	260	205	7.3
394	rock	32	1	1050	90	14.0
398	rock	25	3	28	66	0.5
403	rock	18	4	220	160	5.3
406	rock	54	2	145	1200	2.8
539	rock	12		25	27	18.0
540	rock	27		12	80	0.3
541	rock	30		4	90	0.2
543	rock	36		190	1100	15.0
544	rock	17		12	140	0.3
546	rock	10		90	43	2.8
547	rock	9	1	20	95	1.2
554	rock	10	1	33	150	4.1
555	rock	18	1	22	112	4.5
556	rock	5	1	27	42	0.9
557	rock	4	1	55	170	1.0
560	rock	15	1	52	105	4.2
562	rock	11	1	38	70	1.9
563	rock	66	1	96	90	2.4
564	barite	100	1	170	61	8.4
565	barite	105	1	88	330	18.1
566	rock	26	1	75	100	5.0
567	rock	2200	1	2850	480	>100.0
568	rock	88	1	300	108	9.6

TABLE 1 Cont'd.

Sample No.	Sample Type	Cu (ppm)	Mo (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)
G81-569	rock	19	1	61	155	3.4
570	rock	54	1	120	95	13.8
579	rock	97	1	205	200	11.9
580	rock	27	1	17	95	1.6
A81-133	silt	53		185	670	3.5
134	silt	115		430	1350	7.5
135	silt	375		1000	2900	6.2
187	silt		9	240	960	3.5

TABLE 2

GEOCHEMISTRY OF THE JASPER-BARITE ZONE

(Proceeding along Strike from West to East)

Sample No.	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	ASSAYS		
					Pb %	Ag oz/t	% Zn
G81-525	150	214	550	11.5			
519	200	100	1650	18.0			
520	80	28	100	6.0			
521	700	140	135	15.0			
522	470		240		12.8	6.78	
393	350				26.8	18.56	.02
392	not analyzed						
523	80	158	400	3.8			
524	170	100	540	8.0			
548	375	420	310	14.6			
534	46						
535	45						
536	270		340		0.86	1.48	
537	30	22	36	9.5			
538	16	37	14	4.5			
388	not analyzed						
555	18	22	112	4.5			
545	18	3	52	4.5			
557A	23	14	200	3.3			
558	17	110	58	2.2			
559	42	50	705	9.5			
365	not analyzed						
383	23	145	52	5.3			
408	not analyzed						
407	not analyzed						
166	50	20	170	7.0			
165 (float)					15.5	2.64	0.52
					(Au- < .003 oz/t)		

TABLE 3

GEOCHEMISTRY OF THE BARIITE-GALENA MINERALIZATION

Sample No.	Width	ASSAYS			GEOCHEMISTRY			
		Pb %	Zn %	Ag oz/t	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)
G81-150	grab	0.69	0.33	0.3				
165	grab	15.5	0.52	2.64				
314	grab	1.17		0.42				
378	grab	0.79		1.00				
379	grab	0.58		2.24				
380	grab	27.7		5.82				
393	grab	26.8	0.02	18.56				
440	grab	3.65	2.13	1.18				
442	grab	1.37	1.99	1.06				
522	0.7m	12.80		6.78	470	assayed	240	assayed
536	1.9m	0.86		1.48	270	assayed	340	assayed
G81-151	grab				75	79	50	30
152	grab				17	220	68	3.2
157	grab				330	36	180	30
160	grab				31	115	2200	12.5
163	grab				107	80	270	4.7
167	grab				120	1500	920	9.0
564	grab				100	170	61	8.4
565	grab				105	88	330	18.1

TABLE 4

GEOCHEMISTRY OF DRILL CREEK

Cu-Au Mineralization

Sample No.	Width (m)	ASSAY		GEOCHEMISTRY				
		Cu %	Au oz/t	Pb (ppm)	Zn (ppm)	Mo (ppm)	Ag (ppm)	Au (ppb)
G-81 449	.2	2.4		3800	620		30.0	380
G-81 450	grab	7.8		1500	245		30.0	3100
G-81 451	7	0.28		2050	160		4.8	140
G-81 452	3	0.62		1200	385		7.8	60
G-81 453	grab	0.04		710	82		1.5	20
A-81 207	silt			24	130	3	0.1	30
A-81 250	.7	0.87	0.003	50	275	7	3.7	
A-81 251	1.5	0.15	0.003	80	515	15	1.8	
A-81 252	.9	2.16	0.012	62	545	28	10.5	
A-81 253	3.2	0.05	<.003	35	220	11	0.3	
A-81 254	2.9	<.01	<.003	18	105	2	0.1	

TABLE 5

SIGNATURE ELEMENTS

Sample No.	Sample Description	Hg (ppm)	As (ppm)	Sb (ppm)	Ag (ppm)
G81-151R	barite	1500	27	100.0	30.0
G81-380R	jasper-barite	>10000	113	73.0	(5.82 oz/t)*
G81-393R	jasper-barite	4400	20	130.0	(18.56 oz/t)*
G81-449R	Falls Ck. trench	250	115	6.2	30.0
G81-170R	intense alteration	760	85	6.0	2.2
G81-179R	intense alteration	5300	190	15.0	12.2
G81-204R	altered red agglomerate	>10000	610	13.6	20.0
G81-251R	intense alteration	750	29	10.4	6.0
G81-315R	intense alteration	3900	295	11.4	3.8
G81-333R	medium alteration	260	22	7.0	2.2
G81-339R	intense alteration	890	32	4.2	6.8
G81-354R	medium alteration	400	15	3.8	3.9
G81-416R	medium alteration	770	19	9.2	4.0
G81-422R	intense alteration	930	73	10.4	2.5
G81-519R	jasper-barite zone	9200	19	42.0	18.0
G81-521R	jasper-barite zone	1600	33	49.0	15.0
G81-540R	red agglomerate	130	14	5.4	0.3
G81-566R	shear with copper mineralization	>10000	355	220.0	>100.0
A81-132L	silts	470	81	7.8	1.0
A81-133L	silts	850	88	10.8	3.5
A81-134L	silts	2100	53	18.4	7.6
A81-135L	silts	1400	88	20.0	6.2
A81-138L	silts	380	79	8.6	0.9
A81-145L	silts	720	103	11.6	1.3
A81-146L	silts	480	125	17.0	1.6
A81-148L	silts	730	92	12.4	4.5
A81-158L	silts	270	23	3.6	0.5
A81-164L	silts	120	19	7.6	0.1
A81-207L	silts	360	N. S. S.	N. S. S.	0.1

* assay result

Geochemistry of the Jasper-Barite Zone

Geochemical analyses from the jasper-barite zone (Table 2) indicate sporadic anomalous values in copper, lead and zinc. There seems to be mineralization control to the copper, lead and zinc values with the more barite-rich western half of the zone having significantly higher values compared to the jasper-rich eastern half. Silver values are more uniformly anomalous with most values greater than 4 ppm.

Assayed galena-rich barite samples returned up to 18.56 oz./t Ag. However, in general, the silver to lead ratios are not as high as desirable for a precious metal camp.

Geochemistry of Barite Mineralization

Only a few barite samples were geochemically analyzed or assayed. The results returned from these samples were sporadically anomalous in copper, lead and zinc and uniformly anomalous in silver (≥ 3.0 ppm) (Table 3).

Geochemistry of Copper-Gold Mineralization

As indicated on Table 4, copper, lead, zinc, molybdenum, silver and gold are all sporadically anomalous in the area of mineralization on Fall Creek. There are also some additional anomalous copper values in the volcanic rocks adjacent to the trenches (Figure 10).

CONCLUSIONS

1. The property lies west of Todd Creek. It is underlain by fine to coarse pyroclastics of the Lower to Middle Jurassic Hazelton Group. Minor limestone and a few basic dykes are also present.
2. Brilliant iron-stained, highly pyritic and silicified altered rock occurs extensively in the center of the property. The alteration consists of quartz, pyrite and minor sericite.
Four zones of medium to intense alteration occur, the largest being 1000 m by 500 m.
3. Across the northwestern border of the main zone of alteration, there is a marked zonation in the geology which, from south to north, is as follows:
 1. White to medium grey, highly silicified and pyritic volcanics.
 2. Hematite-rich and highly silicified rock which is less pyritic.
 3. Jasper-barite zone.
 4. Non-pyritic, non-altered, red agglomerate.

4. Pyrite is the most abundant form of mineralization. Associated with the zones of alteration, it is primarily finely disseminated.
5. Barite mineralization is also widespread and is also found predominantly within the zones of alteration. However, barite lenses and veins also occur well beyond the zones of alteration. The mineralization consists of barite with minor galena and pyrite and varying amounts of calcite, jasper and jasper breccia. The barite is found as pods (up to 30 m by 7 m), veins and small concentrations (4 cm across). Most veins are discontinuous, but two structures have lengths of 300-500 m. The most attractive of the large structures is the jasper-barite zone. Geochemical analyses and assays of such mineralization returned sporadically anomalous Cu, Pb, Zn and Ag with up to 18.56 oz./t Ag.
6. Copper-gold mineralization within brecciated carbonate-rich volcanics occurs along Fall Creek. Samples of this mineralization returned anomalous Cu, Pb, Zn, Mo, Ag and Au.
7. The zones of alteration are anomalous in lead, zinc and silver and sporadically anomalous in copper and molybdenum.
8. Gold analyses are disappointly low.
9. Subsequent to the writing of the report and the above conclusions, a number of samples were selected to test for additional signature elements. These included silts and rock samples from the main alteration and mineralized zone. The results are given in Table 5. Note that most of the samples are anomalous in silver, antimony, arsenic and many of them are highly anomalous in mercury. In addition to these elements, which are generally associated with precious metal mineralization, tungsten analyses were obtained and some tin analyses were obtained by mistake. The tungsten values are generally background with a maximum of 8 ppm and the tin values are all background, approximately 1 ppm.

J. R. Woodcock
Dennis Gorc

Dennis Gorc

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- Hansen, G., 1929, "Bear River and Stewart Map Areas, Cassiar District, B.C.": G.S.C. Memoir 159.
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- Lovering, T.G., 1981, "Jasperoid and Stream Cobbles as Tools in Geochemical Exploration": Journal of Geochemical Exploration, Vol. 14, Pg. 69-81.
- B.C. Dept. of Mines and Petroleum Resources, 1972, "Geology, Exploration and Mining in British Columbia": Pg. 513
- Geological Survey of Canada, 1957, Stikine River Area, Map 9.
- Minister of Mines Reports, B.C., 1960, Todd Group. Pg. 7

APPENDIX I

GEOCHEMICAL TECHNIQUES



VANGEOCHEM LAB LTD. 1521 PEMBERTON AVE., NORTH VANCOUVER, B.C., CANADA 986-5211 604-~~988-1172~~

V7P 2S3

November 20, 1981

TO: J.R. Woodcock Consultants
#806-602 W. Hastings St.
Vancouver, B.C. V6B 1P2

FROM: Vangeochem Lab Ltd.
1521 Pemberton Ave.
North Vancouver, B.C. V7P 2S3

SUBJECT: Analytical procedure used to determine fluoride concentration in geochemical soil, silt, lake sediments and rock samples.

1. Sample Preparation

- (a) Geochemical soil, silt, lake sediments or rock samples were received in the laboratory in wet-strength $3\frac{1}{2}$ x $6\frac{1}{2}$ Kraft paper bags and rock samples in 4" x 6" Kraft paper bags.
- (b) The wet samples were dried in a ventilated oven.
- (c) The dried soil and silt samples were sifted by hands using a 8" diameter 80-mesh stainless steel sieves. The plus 80-mesh fraction was rejected and the minus 80-mesh fraction was transferred into a new bag for analysis later.
- (d) The dried rock samples were crushed by using a jaw cursher and pulverized to 100-mesh for finer by using a disc mill. The pulverized samples were then put in a new bag for later analysis.

2. Method of Extraction

- (a) 0.50 grams of the minus 80-mesh samples were used. The samples were weighted out into nickel crucibles by using a top-loading balance.
- (b) 3.00 grams of sokium carbonate were weighed out into the nickel crucibles, using a top-loading balance, and thoroughly mixed with the samples.
- (c) The samples were fused in muffle furnace at 900° C so that the sodium carbaonate was in the melted state for at least twenty minutes.

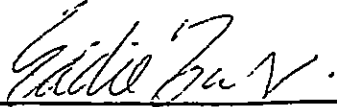
...2

2. Method of Extraction (continued)

- (d) The samples were cooled and leached overnight with distilled water.
- (e) The samples were removed from the crucibles, by dissolving them on the hot plate, and added to 100 ml polyethylene beakers and the volume made up to 60 mls with distilled water.
- (f) The samples were titrated using a pH meter with 2N sulphuric acid to a pH of 7.5 and the volume adjusted to 100 mls.

3. Method of Analysis

- (a) The pH of the samples was re-adjusted to 7.5, using a pH meter, with 2N H₂SO₄.
 - (b) The concentration of fluoride in parts per million (ppm) was determined by using an Orion Specific Ion Electrode Meter, Model 407, with a fluoride electrode, which was calibrated with a set of standards prepared in a similar manner as for the samples.
4. The analyses were supervised or determined by Mr. Eddie Tang or Mr. Conway Chun and his laboratory staff.



Eddie Tang
VANGEOCHEM LAB LTD.



986-5711

604-933-2172

VANGEOCHEM LAB LTD. 1521 PEMBERTON AVE., NORTH VANCOUVER, B.C., CANADA

V7P 2S3

November 20, 1981

TO: J.R. Woodcock Consultants
#806-602 W. Hastings St.
Vancouver, B.C. V6B 1P2

FROM: Vangeochem Lab Limited
1521 Pemberton Avenue
North Vancouver, B.-C. V7P 2S3

SUBJECT: Analytical procedure used to determine tin
in geochemical silt, soil and rock samples.

1. Sample Preparation

- (a) Geochemical soil, silt or rock samples were received in the laboratory in wet-strength 3½ x 6½ Kraft paper bags and rock samples in 4" x 6" Kraft paper bags.
- (b) The wet samples were dried in a ventilated oven.
- (c) The dried soil and silt samples were sifted by hands using a 8" diameter 80-mesh stainless steel sieves. The plus 80-mesh fraction was rejected and the minus 80-mesh fraction was transferred into a new bag for analysis later.
- (d) The dried rock samples were crushed by using a jaw crusher and pulverized to 100-mesh or finer by using a disc mill. The pulverized samples were then put in a new bag for later analysis.

2. Method of Extraction

- (a) 0.25 gram of the minus 80-mesh samples was used. Samples were weighed out by using a top-loading balance.
- (b) Samples were heated over a bunsen burner with 1 gram of ammonium iodide with constant cooling by water on the upper 2/3 of the test tube.
- (c) 5 ml of 1N HCl were added when cooled.

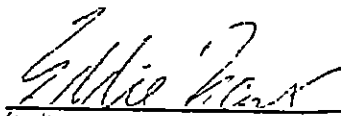
Continued2

- (d) The solutions were then warmed on a hot water bath to dissolve the sublimate and let settled.

3. Method of Detection

- (a) 1.0 ml of aliquots were transferred into other cleaned test tubes and mixed with 4 ml of buffers (NaOH; chloroacetic acid, ascorbic acid, pH 2.4).
- (b) 0.1 ml of gallein reagents were added to the mixed solution and shook (gallein in ethyl alcohol).
- (c) The concentration of the tin in parts per million were determined colorimetrically by comparing the intensity of the colour of the yellowish layer with a set of known tin standards prepared in a similar method as the samples.

4. The analyses were supervised or determined by Mr. Conway Chun or Mr. Eddie Tang and the laboratory staff.



Eddie Tang
VANGEOCHEM LAB LIMITED



November 20, 1981

TO: J.R. Woodcock Consultants
#806-602 W. Hastings St.
Vancouver, B.C. V6B 1P2

FROM: Vangeochem Lab Ltd.
1521 Pemberton Ave.
North Vancouver, B.C. V7P 2S3

SUBJECT: Analytical procedure used to determine hot acid soluble arsenic in geochemical silt, soil, lake sediments and rock samples.

1. Sample Preparation

- (a) Geochemical soil, silt, lake sediments or rock samples were received in the laboratory in wet-strength $3\frac{1}{2}$ x $6\frac{1}{2}$ Kraft paper bags and rock samples in 4" x 6" Kraft paper bags.
- (b) The wet samples were dried in a ventilated oven.
- (c) The dried soil and silt samples were sifted by hands using a 8" diameter 80-mesh stainless steel sieves. The plus 80-mesh fraction was rejected and the minus 80-mesh fraction was transferred into a nwq bag for analysis later.
- (d) The dried rock samples were crushed by using a jaw crusher and pulverized to 100-mesh or finer by using a disc mill. The pulverized samples were then put in a new bag for later analysis.

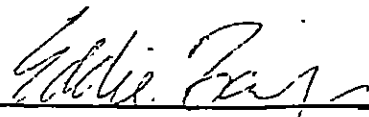
2. Method of Digestion

- (a) 0.25 gram of the minus 80-mesh sample was used. Samples were weighed out by using a top-loading balance.
- (b) Samples were heated in a sand bath with concentrated perchloric acid (70 - 72% HClO_4 by weight) at a medium heat for four hours.
- (c) The digested samples were diluted with demineralized water.

...2

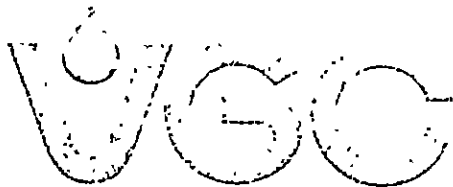
3. Method of Analysis

- (a) Potassium iodide and stannous chloride in HCL were added to the digested samples.
 - (b) Zinc metal was introduced and the arsenic in solution was gassed off as arsene through a glass wool scrubber plug saturated with lead acetate and into a solution of silver diethyldithiocarbamate in chloroform with l-ephedrine, forming a red complex with the silver diethyldithiocarbamate.
 - (c) The concentration of the arsenic was determined colorimetrically by comparing the intensity of the color of the red complex with a set of known standards prepared in a similar fashion as the samples.
4. The analyses were supervised or determined by Mr. Eddie Tang or Mr. Conway Chun and their laboratory staff.



Eddie Tang

VANGEOCHEM LAB LTD.



V7P 2S3

November 20, 1981

To: J.R. Woodcock Consultants
#806-602 W. Hastings St.
Vancouver, B.C. V6B 1P2

From: Vangeochem Lab Ltd.
1521 Pemberton Ave.
North Vancouver, B.C. V7P 2S3

Subject: Analytical procedure used to determine trace tungsten in geo-chemical samples by fusion.

1. Sample Preparation

- (a) Geochemical soil, silt and rock samples were received in the laboratory in high wet-strength 4" x 6" Kraft paper bags or rock samples in 8" x 10" plastic bags.
- (b) The wet samples were dried in a ventilated oven.
- (c) The dried soil and silt samples were sifted by hands using a 8" diameter 80-mesh stainless steel sieves. The plus 80-mesh fraction was rejected and the minus 80-mesh fraction was transferred into a new bag for analysis later.
- (d) The dried rock samples were crushed by using a jaw crusher and pulverized to 100-mesh or finer by using a disc mill. The pulverized samples were then put in a new bag for later analysis.

2. Method of Dissolution by Fusion

- (a) 0.50 gram of the minus 80-mesh samples were used. Samples were weighed out by using a top-loading balance.
- (b) Two grams of flux (NaCO_3 , KNO_3 and NaCl) were mixed with each sample and the samples were fused over a muffled furnace in high temperature.

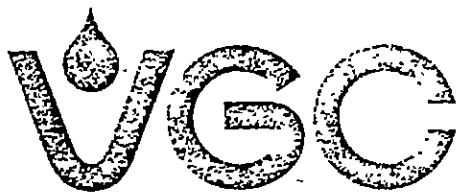
...2

3. Method of Analysis

- (a) The fused samples were then dissolved in demineralized water by heating in a hot water bath.
 - (b) A fixed volume was subsequently adjusted.
 - (c) An aliquot from each sample for tungsten analysis is developed in a strongly acid (HCl) solution of stannous chloride using a thiocyanate as the complexing agent.
 - (d) The tungsten-thiocyanate complex was extracted into 1/2 ml of a carbon tetrachloride and tri-n-butyl phosphate solvent mixture.
 - (e) The concentration of tungsten was calculated colorimetrically by comparing the intensity of its color organic layer with a set of known standards prepared in a similar fusion as the samples.
4. The analyses were supervised or determined by Mr. Conway Chun or Mr. Eddie Tang and the laboratory staff.



Eddie Tang
Vangeochem Lab Ltd.



VANGEOCHEM LAB LTD. 1521 PEMBERTON AVE., NORTH VANCOUVER, B.C., CANADA 986-521
604-~~886xxx~~

V7P 2S3

November 20, 1981

To: J.R. Woodcock Consultants
#806-602 W. Hastings St.
Vancouver, B.C. V6B 1P2

From: Vangeochem Lab Ltd.
1521 Pemberton Avunue
North Vancouver, B.C. V7P 2S3

Subject: Analytical procedure used to determine hot acid soluble
Mo, Cu, Mn, & Sbin geochemical silt, soil and rock samples.

1. Sample Preparation

- (a) Geochemical soil, silt or rock samples were received in the laboratory in wet-strength $3\frac{1}{2}$ x $6\frac{1}{2}$ Kraft paper bags and rock samples in 4" x 6" Kraft paper bags.
- (b) The wet samples were dried in a ventilated oven.
- (c) The dried soil and silt samples were sifted by hands using a 8" diameter 80-mesh stainless steel sieves. The plus 80-mesh fraction was rejected and the minus 80-mesh fraction was transferred into a new bag for analysis later.
- (d) The dried rock samples were crushed by using a jaw crusher and pulverized to 100-mesh or finer by using a disc mill. The pulverized samples were then put in a new bag for later analysis.

2. Methods of Digestion

- (a) 0.50 gram of the minus 80-mesh samples was used. Samples were weighed out by using a top-loading balance.
- (b) Samples were heated in a sand bath with nitric and perchloric acids (15% to 85% by volume of the concentrated acids respectively).


.....2

(C) The digested samples were diluted with demineralized water to a fixed volume and shaken.

3. Method of Analysis

Mo, Cu, Mn & Sb analyses were determined by using a Techtron Atomic Absorption Spectrophotometer Model AA4 or Model AA5 with their respective hollow cathode lamps. The digested samples were aspirated directly into an air and acetylene flame, but Mo digestion were aspirated into an acetylene and nitrous flame. The results, in parts per million, were calculated by comparing a set of standards to calibrate the atomic absorption unit and displayed in a strip chart recorder.

4. The analyses were supervised or determined by Mr. Conway Chun or Mr. Eddie Tang and the labroatory staff.


Eddie Tang
VANGEOCHEM LAB. LTD.

ET:jl



VANGEOCHEM LAB LTD. 1521 PEMBERTON AVE., NORTH VANCOUVER, B.C., CANADA

986-521

604-~~832XXXX~~

V7P 2S3

November 20, 1981

To: J.R. Woodcock Consultants
#806-602 W. Hastings St.
Vancouver, B.C. V6B 1P2

From: Vangeochem Lab Ltd.
1521 Pemberton Avenue
North Vancouver, B.C. V7P 2S3

Subject: Analytical procedure used to determine hot acid soluble
Pb, Zn, Ag in geochemical silt, soil, and rock samples.

1. Sample Preparation

- (a) Geochemical rock, silt, and soil samples were shipped to the lab by the above client. The rock samples were either stored in 8" x 13" plastic bags or in 4" x 9" cotton mailing bags. The silt and soil samples were stored in the wet-strength 3½" x 6½" Kraft paper bags.
- (b) The wet samples were dried in a ventilated oven over-night.
- (c) The dried soil or silt samples were sifted by hands, using a 8" diameter 80-mesh stainless steel sieve. The plus 80-mesh fraction materials were rejected and the minus 80-mesh fraction materials were transferred into coin envelopes for analyses later.
- (d) The dried rock samples were crushed by a jaw crusher and pulverized by using a disc mill to minus 100-mesh. The pulverized samples were stored in the 4" x 6" paper bags for later analysis.

.....2

2. Method of Digestion

- (a) 0.50 gram of the minus 80-mesh samples was used. Samples were weighed out by using a top-loading balance.
- (b) Samples were heated in a sand bath with nitric and perchloric acids (15% to 85% by volume of the concentrated acids respectively.)
- (c) The digested samples were diluted with demineralized water to a fixed volume and shaken.

3. Method of Analysis

Pb, Zn Ag analyses were determined by using a Techtron Atomic Absorption Spectrophotometer Model AA4 with their respective hollow cathode lamps. The digested samples were aspirated directly into an air and acetylene mixture flame. The results, in parts per million, were calculated by comparing a set of standards to calibrate the atomic absorption units.

4. Back Ground Correction

- A Hydrogen continuum lamp is used to correct the Silver background interferences.

5. Analysts

The analyses were supervised or determined by Mr. Conway Chun or Mr. Eddie Tang and the laboratory staff.



Eddie Tang

VANGEOCHEM LAB LTD.

ET:jl

APPENDIX II

COSTS

Disbursements:

Food, accommodation, office supplies	\$1,058
Freight	289
Transportation	970
Expediter in Stewart	267
Helicopters	2,753
Drafting	928
Reproductions	352
Equipment Rentals	450
Geochemical Analyses	<u>3,206</u>
Total Disbursements	\$10,273

FEES:

H. Awmack @ \$120

June 21 - July 4	4	days
July 5-18	14	days
July 10 - Aug. 1	<u>12</u>	<u>days</u>

30 days @ \$120 = \$3,600.00

D. Gore @ \$216

June 21 - July 4	5 1/2	days
July 5 - 18	14	days
July 19 - Aug. 1	14	days
Sept. 13-26	3/4	day
Nov. 22- Dec. 5	1	day
Dec. 6 - 19	4 3/4	days
Jan. 3 - 16	2 1/4	days
Jan. 17 - 30	2 3/4	days
Feb. 28-Mar. 13	2 1/4	days
Mar. 14 - 27	2 1/2	days
Mar. 28 - Apr. 10	<u>1/2</u>	<u>day</u>

51 1/4 days @ \$216 = 11,070.00

J. R. Woodcock @ \$400

July 24 - Aug. 1	3	days
Jan. 1 - Apr. 18	<u>2 1/4</u>	<u>days</u>

5 1/4 days @ \$400 = 2,100.00

E. McCallum @ \$15

Feb. 14 - Mar. 26	9 1/4	hrs. @ \$15	=	<u>138.75</u>
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Total Fees \$16,908.75

Total Disbursements 10,273.00

Total Fees & Disbursements \$27,181.75



GLACIER

not mapped

not mapped

sheared

CIRQUE CK

sheared

SHELL CK

not mapped

GLACIER

GLACIER CK

FAULT
TODD3
TODD2
TODD1

GLACIER

Area of 1:1000 scale map

not mapped

TODD CREEK

? grey rock
not mapped ?

LEGEND

- VOLCANICS**
- V Intermediate volcanics
 - rA Red tuff agglomerate (large clasts)
 - rt Red tuff
 - St Light grey siliceous tuff
 - bt Brown weathering, carbonate-rich tuff
 - Vb Volcanic breccia
 - Ct Carbonaceous pyritic tuff
- SEDIMENTS**
- L Limestone
- INTRUSIVES**
- bd Basic dykes
- ALTERATION**
- [Pattern] Intensely altered, white silification, high pyrite content
 - [Pattern] Intensely altered, red silification, includes minor grey silification
 - [Pattern] Medium alteration, generally less pyrite than above, siliceous
 - [Pattern] Low to minimal alteration, equivalent to intermediate volcanics
- [Symbol] Barite mineralization, pad, vein
 - [Symbol] Abundant barite float
 - [Symbol] Gravel

- SYMBOLS**
- Stream
 - Edge of glacier
 - Trench
 - Outcrop
 - Geological contact
 - Fault

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
10404

J.R. Woodcock
J.R. WOODCOCK CONSULTANTS LTD.
ENGINEERS

RIOCANEX INC.

**TODD CREEK PROJECT
GEOLOGY**

SCALE 1:5000
0 100 200 300m

J.R. WOODCOCK CONSULTANTS LTD.
DECEMBER 1981

FIGURE NO. 3

Drill site

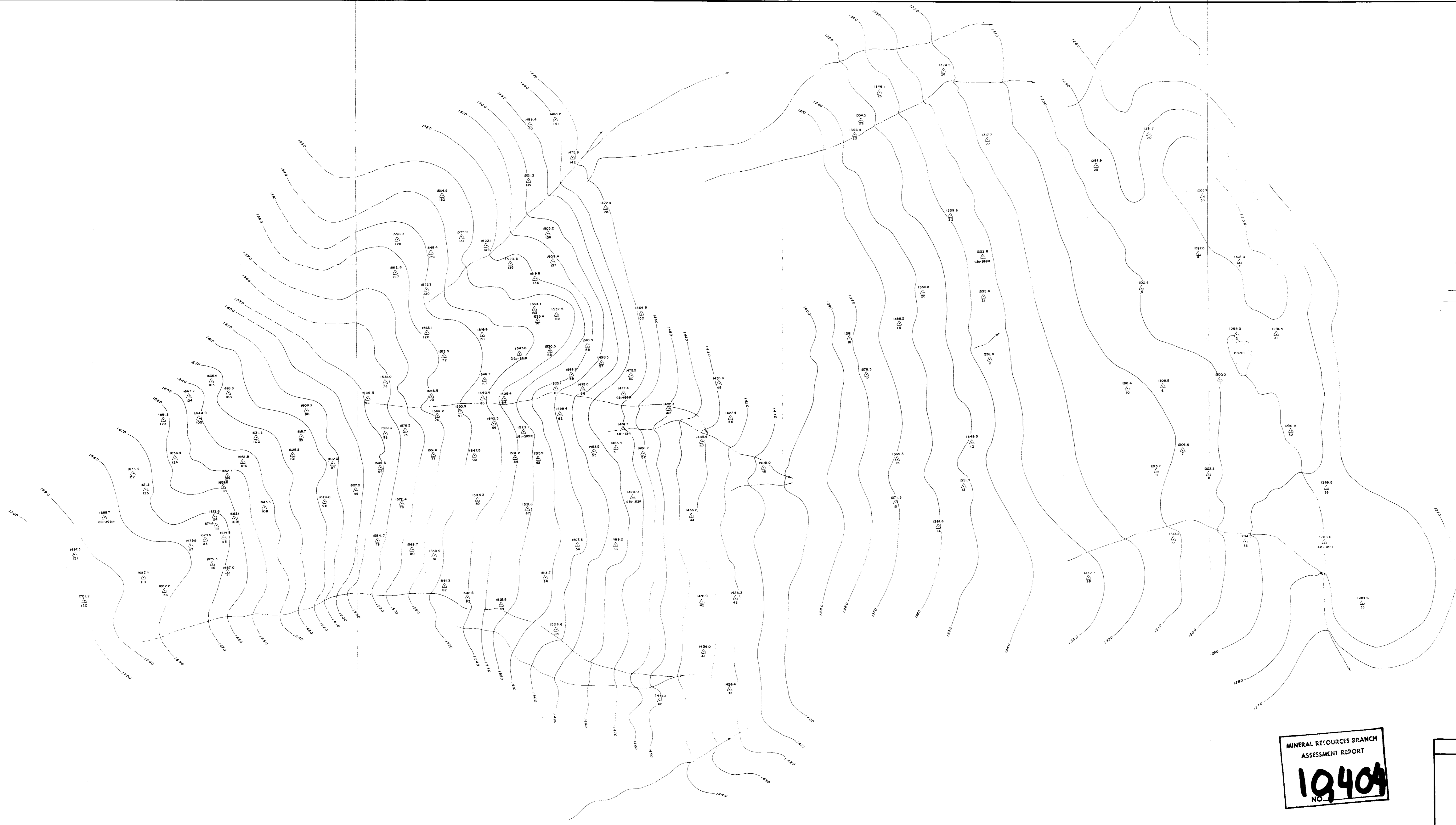
FALL CREEK

TODD
TODD
LCP



LEGEND

- 1501.5 Elevation (metres)
- △ Survey station
- 4 Station number
- Stream
- - - Contour at 10m intervals (defined, approx.)



J.R. Woodcock

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
19404
NO.

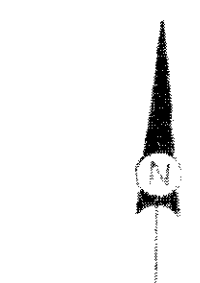
RIOCANEX INC.
TODD CREEK PROSPECT
SURVEY MAP
SCALE 1:1000 0 50 metres
J.R. WOODCOCK CONSULTANTS LTD. DECEMBER 1981

LEGEND

- Intermediate volcanics; unaltered
- Reddish tuff agglomerate (large clasts) - unaltered; intensely altered
- Basic dykes
- Jasper, Jasper breccia (includes varying amounts of barite)
- Barite mineralization; pod, vein (barite with galena)

ALTERATION

- Intensely altered; white silification, high pyrite content
- Intensely altered; red silification
- Intensely altered; greyish to whitish silification
- Medium alteration; generally less pyrite than above; siliceous
- Low to minimal alteration; equivalent to intermediate volcanics



SYMBOLS

- Elevation (metres)
- Survey station
- Utility marker
- Contour line
- Outcrop
- Geological contact (defined, approx.)
- Rock sample
- Barite
- Channel
- Rock specimen
- Silt sample
- Edge of tree
- snow

NOTE: There are two series of sample numbers on this map. They are the GBI, & ABI series. The numbers have been abbreviated e.g. GBI-557 R to 557 ABI-150 L to A-150



RIOCANEX INC.

TODD CREEK PROSPECT
GEOLOGY
DETAIL AREA

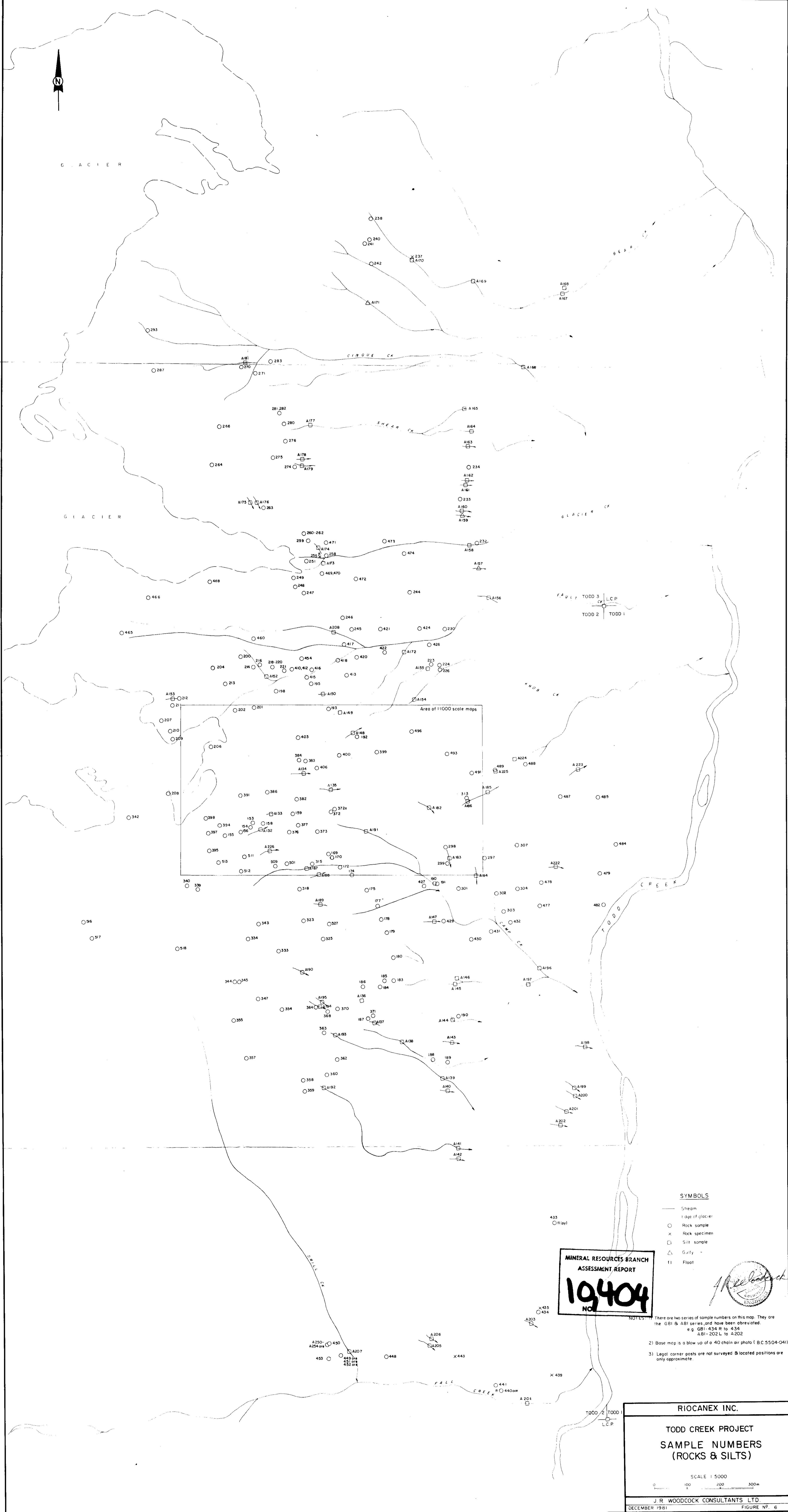
MINERAL REPORT
ASSESSMENT REPORT
10404

J.P. WOODBANK CONSULTANTS LTD.
1000-10th Street, Vancouver, B.C. V6Z 1G1
Tel: (604) 681-1111



G I A C I E R

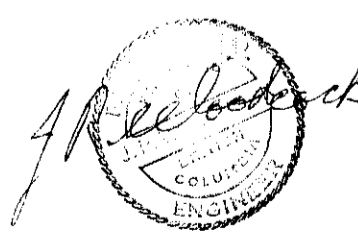
G I A C I E R



SYMBOLS

- Stream
- Ridge of glacier
- Rock sample
- × Rock specimen
- △ Silt sample
- Gully
- Float

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
19404
NO.



NOTES: 1) There are two series of sample numbers on this map. They are the GB1 & AB1 series, and have been abbreviated. e.g. GB1-434 R to 434 AB1-202 L to 202
2) Base map is a blow up of a 40 chain air photo (BC.5504-041)
3) Legal corner posts are not surveyed & located positions are only approximate.

RIOCANEX INC.

TODD CREEK PROJECT
SAMPLE NUMBERS
(ROCKS & SILTS)

SCALE 1:5000

0 100 200 300m

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FIGURE NO. 6



GLACIER

BEAR CK

CIRQUE CK

SHEAR CK

GLACIER CK

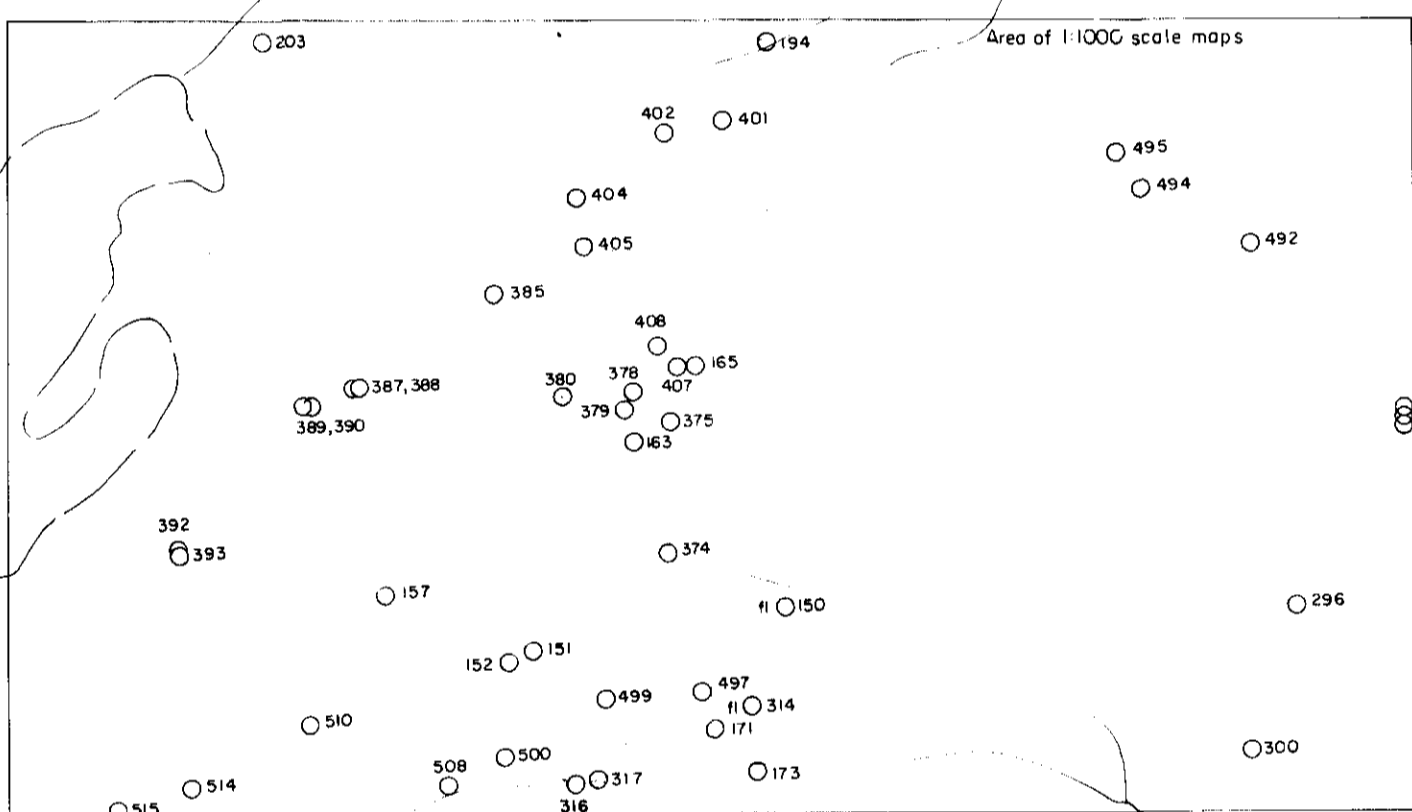
FALLT

TODD 3

TODD 2

TODD 1

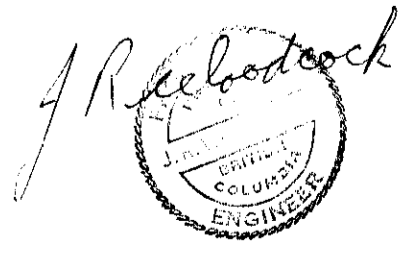
XNOB CK



MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
10404
NO.

- SYMBOLS**
- Stream
 - - - Edge of glacier
 - Borite sample
 - fl. Float
 - 561 Sample number (GB1-361 R to 361)

NOTES: 1) Base map is a blow up of a 40 chain air photo BC 5504-041.
2) Legal corner posts are not surveyed & located positions are only approximate.



RIOCANEX INC.

**TODD CREEK PROJECT
SAMPLE NUMBERS
(BARITE)**

SCALE 1:5000

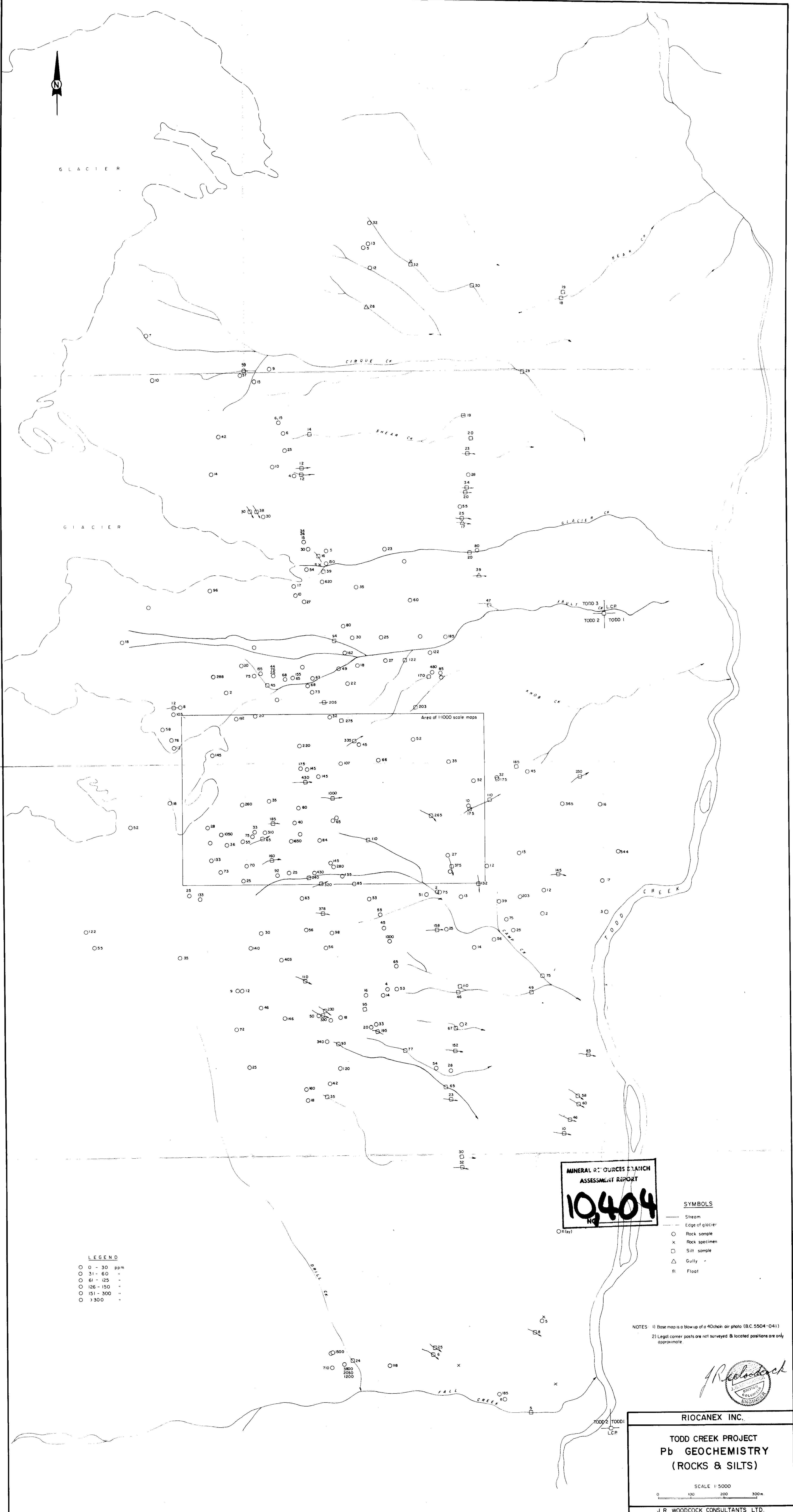
0 100 200 300m

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GLACIER

GLACIER



LEGEND

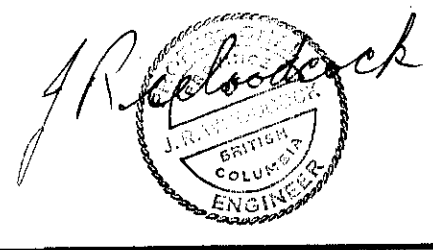
- 0 - 30 ppm
- 31 - 60 "
- 61 - 125 "
- 126 - 150 "
- 151 - 300 "
- 3000 "

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
10404
NQ

SYMBOLS

- Stream
- - - Edge of glacier
- Rock sample
- x Rock specimen
- Silt sample
- △ Gully
- fl Flood

NOTES: 1) Base map is a blow-up of a 40cm air photo (BC 5504-041)
2) Legal corner posts are not surveyed & located positions are only approximate.



RIOCANEX INC.

**TODD CREEK PROJECT
Pb GEOCHEMISTRY
(ROCKS & SILTS)**

SCALE 1:5000

0 100 200 300m

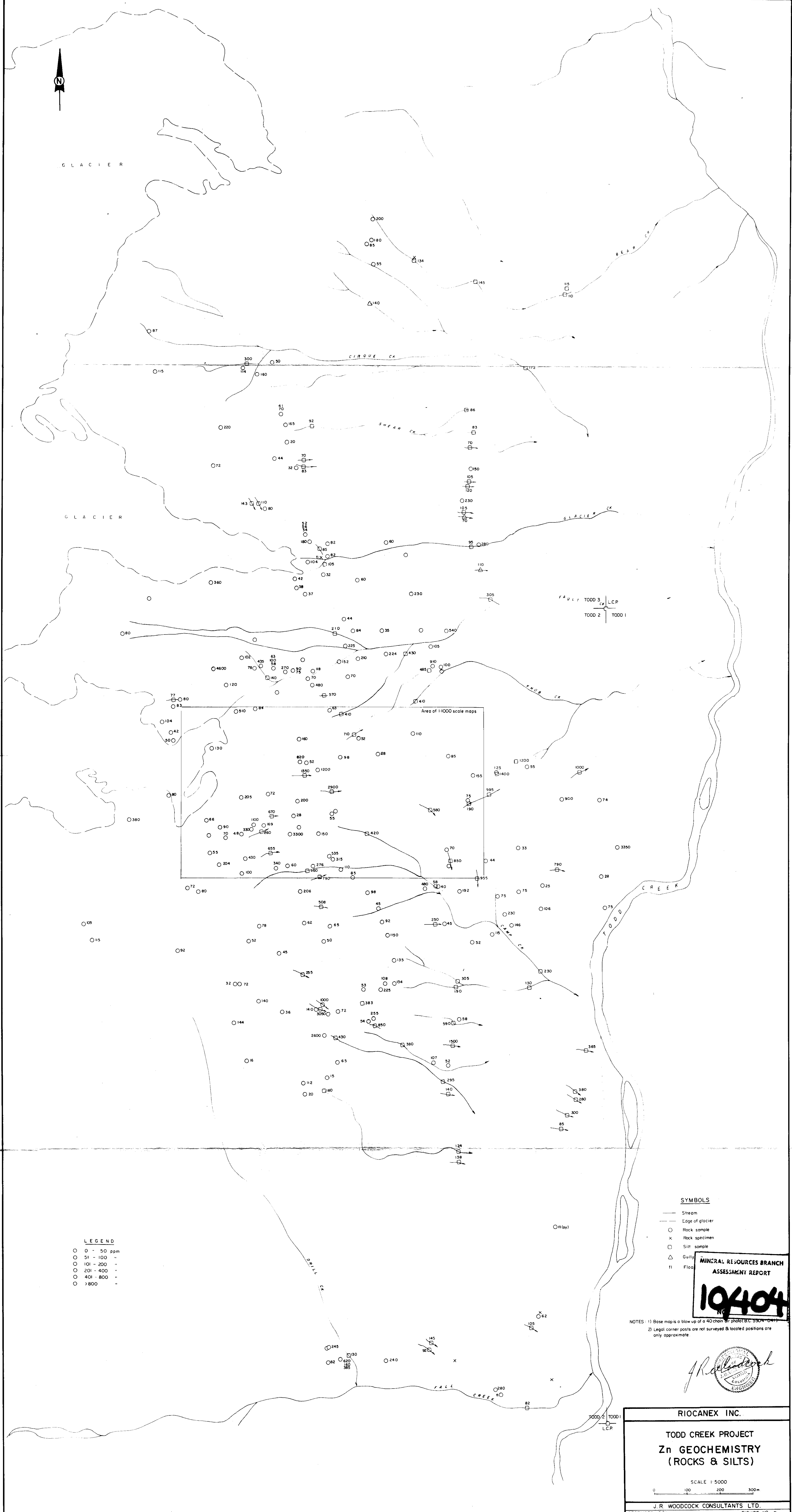
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FIGURE NO. 8



GLACIER

GLACIER



LEGEND

○	0 - 50 ppm
○	51 - 100 -
○	101 - 200 -
○	201 - 400 -
○	401 - 800 -
○	>800 -

SYMBOLS

—	Stream
- - -	Edge of glacier
○	Rock sample
x	Rock specimen
□	Silt sample
△	Gully
ff	Flood

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
10404

NOTES: 1) Base map is a blow up of a 40 chain air photo (B.C. 3504-047)
2) Legal corner posts are not surveyed & located positions are only approximate.

J.R. Woodcock
J.R. WOODCOCK
CONSULTANTS
ENGINEERS

RIOCANEX INC.

TODD CREEK PROJECT
Zn GEOCHEMISTRY
(ROCKS & SILTS)

SCALE 1:5000
0 100 200 300m

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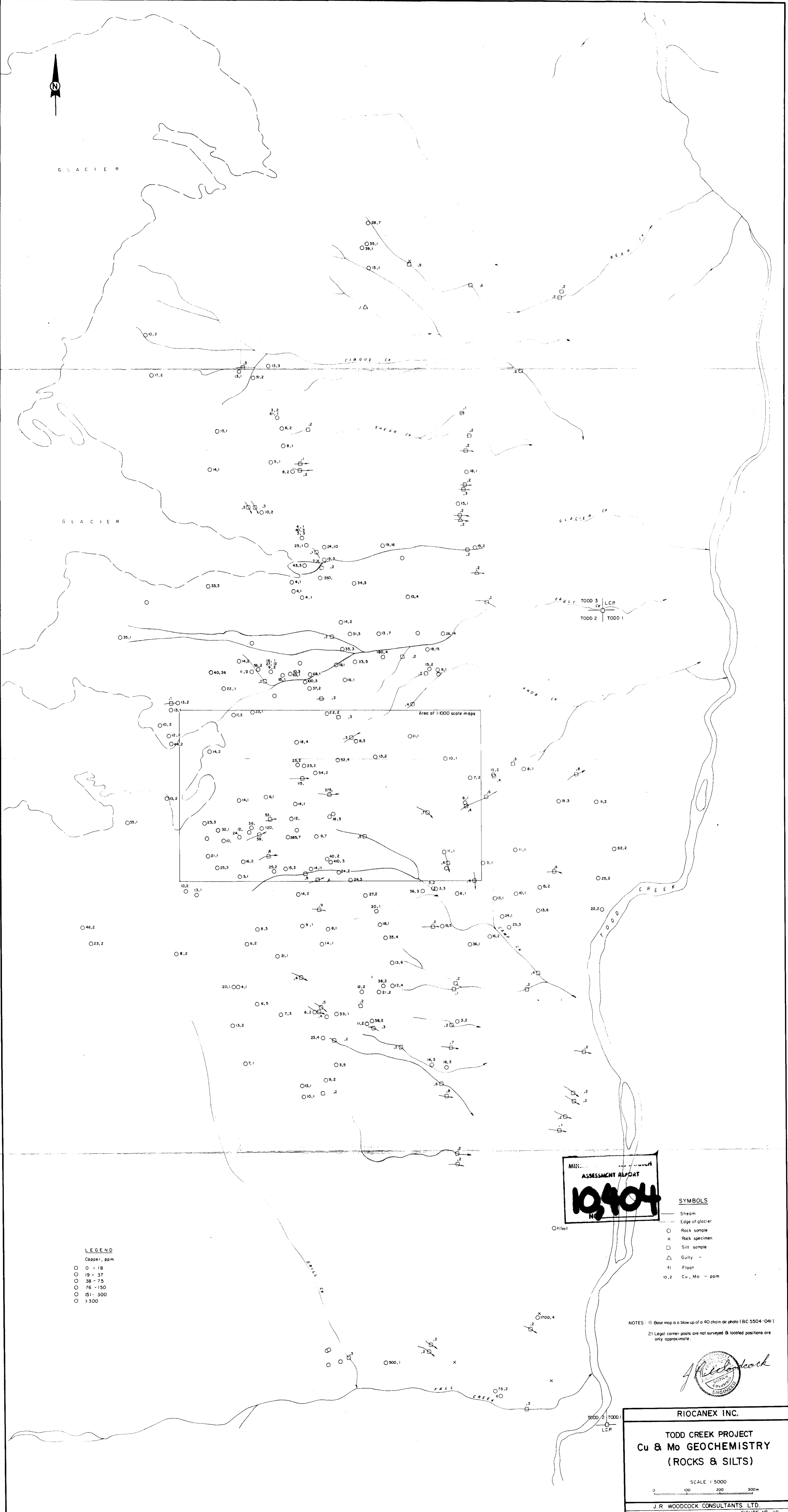
FIGURE NO. 9



GLACIER

GLACIER

GLACIER

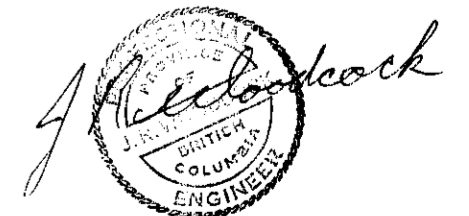


- LEGEND**
Copper, ppm
- 0 - 18
 - 19 - 37
 - 38 - 75
 - 76 - 150
 - 151 - 300
 - > 300

MIN. ASSESSMENT REPORT
10,404
NO.

- SYMBOLS**
- Stream
 - Edge of glacier
 - Rock sample
 - x Rock specimen
 - Silt sample
 - △ Gully
 - fl Float
 - 10,2 Cu, Mo - ppm

NOTES: 1) Base map is a blow up of a 40 chain air photo (BC 5504-041)
2) Legal corner posts are not surveyed & located positions are only approximate.



RIOCANEX INC.

TODD CREEK PROJECT
Cu & Mo GEOCHEMISTRY
(ROCKS & SILTS)

SCALE 1:5000

0 100 200 300m

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FIGURE NO. 10

