

85-113-13517

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**13,517**

Geological and Geochemical Assessment Report

on the

ATLIN 1, COLLEEN, DAVID 1 FR Claims

and the

RICK, MAURICE, TONKA AND CHUCK Reverted Crown Grants

Atlin Mining Division

N.T.S. 104-N-12/E

59°43'N

113°33'W

February, 1985

D. B. Petersen

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Owner:

J. Wallis

Trident Resources Inc.

Daiwan Engineering Ltd.

Operator:

Trident Resources Inc.

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Fig. 5	"ppm Cu"	In Pocket
Fig. 6	"ppm Pb"	In Pocket
Fig. 7	"ppm Zn"	In Pocket

1. Introduction

This report describes the work that was done on the ATLIN 1, COLLEEN, DAVID 1 FR Claims and the RICK, MAURICE, TONKA, and CHUCK Reverted Crown Grants between 30th September and the 15th October, 1984.

G. Lohman and H. Lougheed conducted a partial 1st phase exploration program of the claims which included line flagging, reconnaissance soil geochemistry and mapping and prospecting.

Overall supervision of the field work was carried out by G. Lohman.

2. Location and Access

The claims are located in the Atlin Mining Division approximately 19km Northeast of the village of Atlin, and are centred at geographic co-ordinates  $59^{\circ}43'N$ ,  $133^{\circ}33'W$ . N.T.S. is 104-N-12/E. See Fig. 1, "Location Map".

Access is by the Atlin-Whitehorse highway to the Atlin-Ruffner mine road, and then along this road for approximately 16km to where it crosses the COLLEEN claim.

3. Topography and Vegetation

The claims occupy the West-facing slope between Mount Vaughan, 20km to the East and the valley of Fourth of July Creek that crosses the ATLIN 1 and COLLEEN claims. Elevations vary from 1,000m to 1,500m a.s.l.

Vegetation consists of small scrub conifers and bush at lower elevations and grass-covered and bare slopes at higher elevations.

4. General Geology

According to Aitken (1959), see Fig. 2, "Atlin Area Geology", the oldest rocks in the area are pre-Permian schists and gneisses that are known

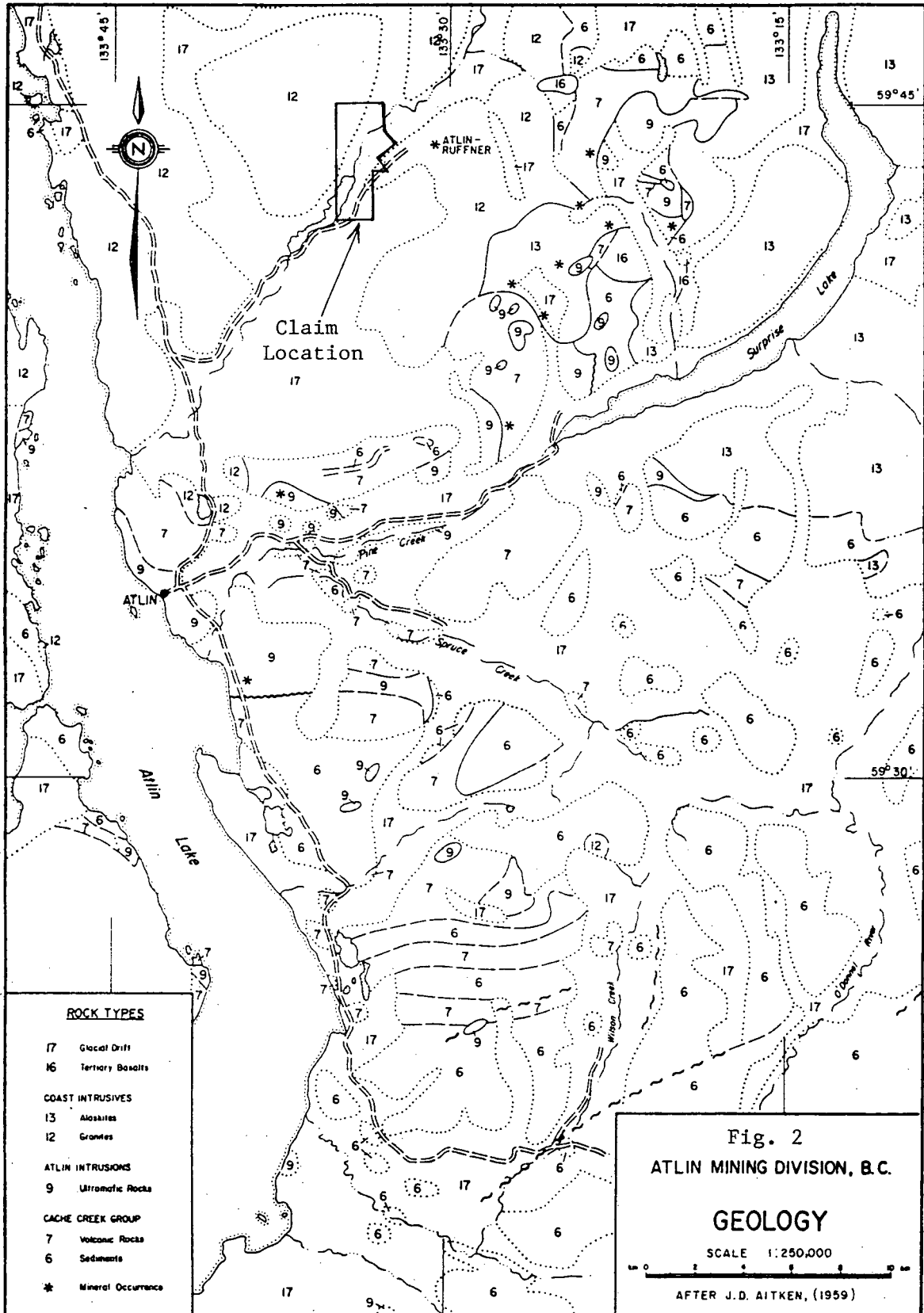


Claim Location

FIGURE 1

*W. Petersen*

TRIDENT RESOURCES INC.
ATLIN 1, COLLEEN, DAVID FR Claims
<b>LOCATION MAP</b>
<p>KILOMETRES</p> <p>0 100 200 300 400</p> <p>1:8,000,000</p>



4. General Geology (Cont'd)

as the Yukon Group which were followed by sedimentary and volcanic rocks of the Cache Creek Group in Permian times. These rocks were intruded by the Atlin intrusives, a group of rocks that are ultramafic in composition and consist principally of serpentized peridotites and dunites. In the Jurassic period, the Laberge group of marine sedimentary rocks were laid down which, in turn, were followed by emplacement of the siliceous Coast intrusives consisting of granodiorites, quartz monzonites, granites and alaskites. Tertiary rocks include olivine basalts, minor sediments and various intrusive rocks.

Mineralization is of four main types:-

1. a porphyry type stockwork molybdenum deposit located near the centre of an alaskitic intrusive, the Ruby Creek deposit, 24km Northeast of Atlin.
2. placer gold deposits whose origin is thought by Aitken to be eroded quartz vein systems and lodes.
3. silver-lead-gold lode deposits in lamprophyre dykes, such as the Atlin-Ruffner mine.
4. wolframite showings in comb quartz in sericitized alaskite.

5. Local Geology

According to Aitken (1959), the claims are underlain by a granite body known as the Fourth of July Creek batholith and by glacial drift. The intrusive belongs to the Coast Intrusive Complex and is a zoned intrusion that consists of granodiorite and quartz monzonite.

Both the Ruby Creek molybdenum deposit and the Atlin-Ruffner silver deposit are located within the granodioritic phase of this batholith.

6. Work Done in 1984

The following work was done in 1984:

1. Line Flagging

Between 30th September and 15th October, 1984, G. Lohman and H. Loughheed spent 9 man days flagging 7.2km of North-South grid lines spaced 250m apart and 2.6km of East-West grid line. Flags with the station co-ordinates written on them were hung at 25m intervals.

2. Geochemical Soil Sampling

During the course of the traversing, G. Lohman and H. Loughheed took a total of 232 soil samples spaced 50m apart along the lines and 25m apart on a road traverse on the COLLEEN claim. On the road traverse, the samples were taken 15m above the road cut so as to avoid contamination. As the 'B' horizon is very poorly developed, sampling consistency was maintained by taking an approximate 50-50 mix of material from the 'A' and 'C' horizons and placing this in a Kraft paper bag that was marked with the station co-ordinates. The material from the 'A' horizon was taken from below the grass root zone and contained no organic substance.

The samples were sent to Acme Analytical Laboratories in Vancouver where they were dried, sieved to -80 mesh and a 0.5g sample of the residue digested in 3ml of aqua regia at 95°C for 1 hour. After diluting to 10ml with demineralized water, the Ag, As, Cu, Pb, and Zn content was determined by ICP analysis.

The results are shown plotted in Figs. 3, 4, 5, 6, and 7, "ppm Ag", "ppm As", "ppm Cu", "ppm Pb", and "ppm Zn", respectively.

6. Work Done in 1984 (Cont'd)

3. Geological Mapping

During the course of the traversing, G. Lohman and H. Lougheed conducted prospecting and geological mapping along the lines.

G. Lohman spent a half day traversing the David Fr claim.

7. Results of Work Done

The following are the results of the work done:-

1. Geological Mapping

The areas traversed were found to be devoid of outcrop and covered entirely by overburden. The hill to the Northwest of the Fourth of July Creek was covered with ice and was found to be impassable. The overburden was found to consist of till and rounded glacial debris.

2. Soil Geochemistry

The results of the soil sampling has shown that background values for the elements are approximately: 0.3ppm Ag, 20ppm As, 30ppm Cu, 15ppm Pb, and 60ppm Zn.

An area of geochemical interest is evident in the area North of the Indian Reserve and West of the Chuck reverted Crown Grant. Values in this area are as high as 3.2ppm Ag and average approximately 1ppm, as high as 236ppm As and average approximately 130ppm, as high as 213ppm Pb and average approximately 100ppm, as high as 375ppm Zn and average approximately 230ppm. Cu shows very little increase over background values.

What is noticeable about this area of interest is the coincidence of high Ag, high As, which is often a good indicator for Au, and high Pb values that normally indicate proximity to the source of the anomaly.



8. Conclusions

It is concluded that:-

1. the partial soil geochemical survey has succeeded in outlining an area of interest North of the Indian Reserve and West of the Chuck Reverted Crown Grant that is evidenced by high Ag, As, Pb and Zn values.
2. despite the underlying presence of till in the area of interest, the high Pb values indicate proximity to the source of the anomaly.
3. the high As values indicate possible high associated Au values.

9. Recommendations

It is recommended that:-

1. a detailed (100m x 25m) soil geochemical survey be conducted East of the Fourth of July Creek in the area shown in Fig. 3, "ppm Ag".
2. a reconnaissance survey (250m x 50m) be extended West of Fourth of July Creek.

4. this is expected to cost:-

1. detailed survey:                    300 samples @ \$23.00       =     \$7,000
2. reconnaissance survey:            70 samples @ \$23.00       =     \$1,600
3. the samples be analyzed for Ag, As, Au, Pb, Zn.

10. Statement of Costs

The following costs were incurred in the program:

Salaries

G. Lohman, Geologist	1,2,14,15 October 4 days @ \$175	\$ 700	
H. Loughheed, Sampler/ Prospector	30 September 1,2,12,14,15 October 5 days @ \$126	<u>630</u>	\$1,330

Analyses and Freight

232 samples @ \$7			1,624
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10. Statement of Costs (Cont'd)

<u>Transport and Travel</u>			\$ 325
<u>Meals and Accommodation</u>			250
<u>Supplies and Miscellaneous</u>			120
<u>Reporting</u>			
G. Lohman, Geologist	1 day @ \$175	\$ 175	
D. Petersen, Geologist	3 days @ \$275	825	
S. Wheat, Typing	6 hours @ \$15	90	
Drafting, Printing		<u>80</u>	<u>1,170</u>
		TOTAL:	<u>\$4,819</u>

11. Title

The particulars of the claims are as follows:-

<u>Name of Claim</u>	<u>Record No.</u>	<u>No. of Units</u>	<u>Owner</u>	<u>Date of Record</u>
Atlin 1	2242	16	Daiwan Engineering	28 March
Colleen	983	18	J. Wallis	21 February
David 1 Fr	987	1	J. Wallis	21 February
Rick	747	1	Trident Resources	24 July
Tonka	748	1	Trident Resources	24 July
Maurice	749	1	Trident Resources	24 July
Chuck	750	1	Trident Resources	24 July

The operator of the program described in this report was Trident Resources Inc.

*SB Petersen*

12. References

Aitken, J.D., 1959, Atlin Map Area, British Columbia; GSC Mem 307.

To Wit:

In the Matter of the geological and geochemical survey on the ATLIN 1, COLLEEN, DAVID 1 FR Claims and the CHUCK, TONKA, RICK and MAURICE Reverted Crown Grants:

I. David B. Petersen

of Daiwan Engineering Ltd., #1010 - 409 Granville Street, Vancouver, B. C. V6C 1W9

in the Province of British Columbia, do solemnly declare that the following costs were incurred in conducting the surveys:-

Salaries:

G. Lohman, Geologist	4 days @ \$175	\$ 700	
H. Loughed, Sampler/Prospector	5 days @ \$126	<u>630</u>	\$ 1,330

Field Costs:

Analyses and Freight		\$ 1,624	
Transport and Travel		325	
Meals and Accommodation		250	
Supplies		<u>120</u>	2,319

Reporting:

G. Lohman, Geologist	1 day @ \$175	\$ 175	
D. Petersen, Geologist	3 days @ \$275	825	
Typing, S. Wheat	6 hours @ \$15	90	
Drafting and Printing		<u>80</u>	<u>1,170</u>

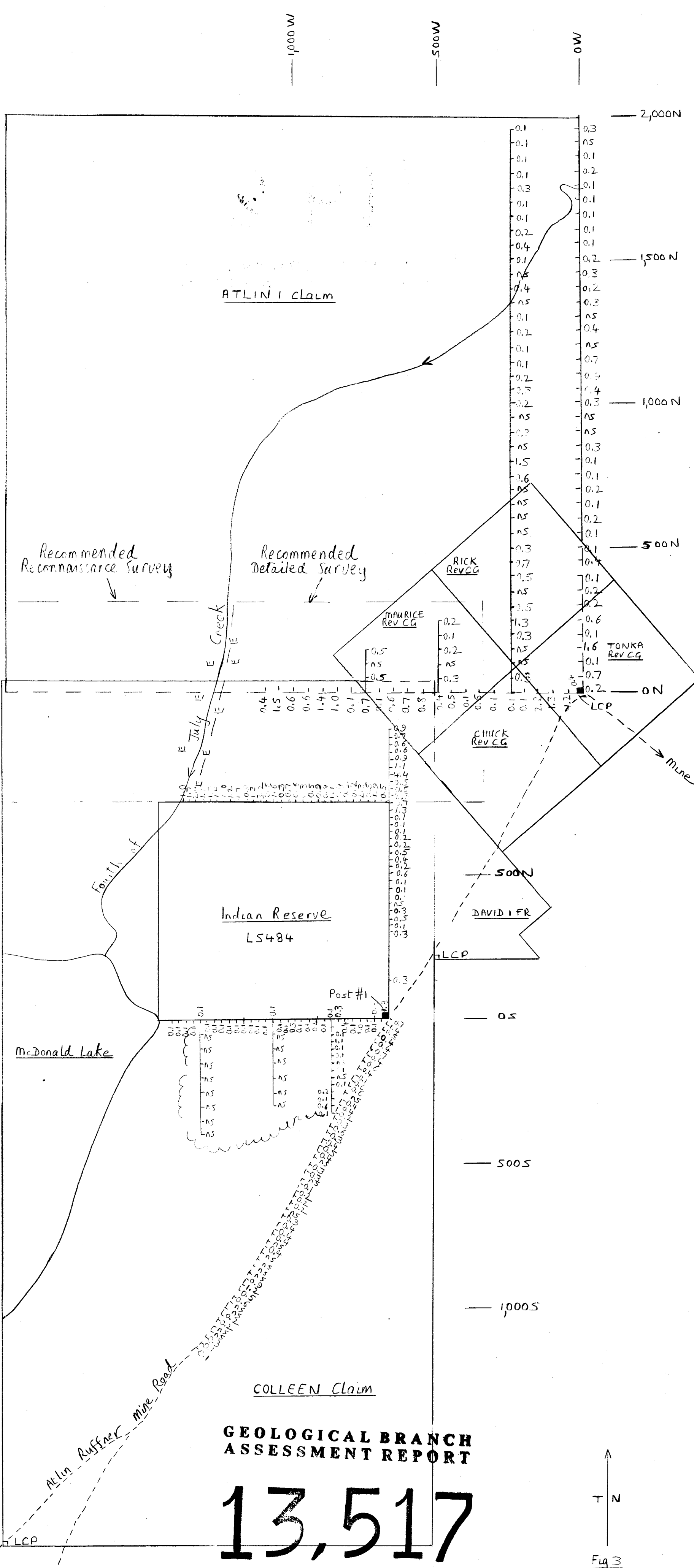
TOTAL: \$ 4,819

And I make this solemn declaration conscientiously believing it to be true, and knowing that it is of the same force and effect as if made under oath and by virtue of the "Canada Evidence Act."

Declared before me at the City of Vancouver, in the Province of British Columbia, this 14th day of March 1985, A.D.

D.B. Petersen

[Signature] (CAY) A Commissioner for taking Affidavits for British Columbia or A Notary Public in and for the Province of British Columbia.



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↑ N  
T N  
Fig 3

COLLEEN, ATLIN I,  
DAVID I FR CLAIMS,  
MAURICE RICK CHUCK TONKA Reverted  
Crown Grants

ppm Ag  
Sample Locations  
NS No Sample  
Talus

*BB Petersen*

ppm Ag  
Scale 1:10,000  
0 100 200 300 400 500 600 700 m

1000W

500S

0W

2,000N

1,500N

1,000N

500N

6  
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36  
29

ATLIN I CLAIM

RICK REV CG

MAURICE REV CG

TONKA REV CG

CHUCK REV CG

500N

DAVID I FR

Indian Reserve  
LS484

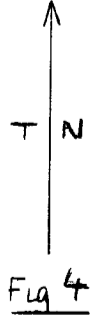
Post #1

McDonald Lake

COLLEEN CLAIM

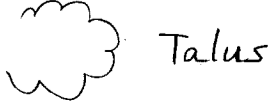
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COLLEEN, ATLIN I,  
DAVID I FR CLAIMS,  
MAURICE RICK CHUCK TONKA Reverted  
Crown Grants

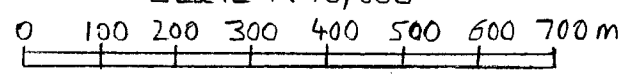
20 ppm As  
40 ppm As  
Sample Locations  
ns No Sample



*spetersen*

ppm As

Scale 1:10,000



1000W

500S

0W

Atlin

Atlin Ruffner Mine Road

Fourth of

E Creek

E Tule

Mine

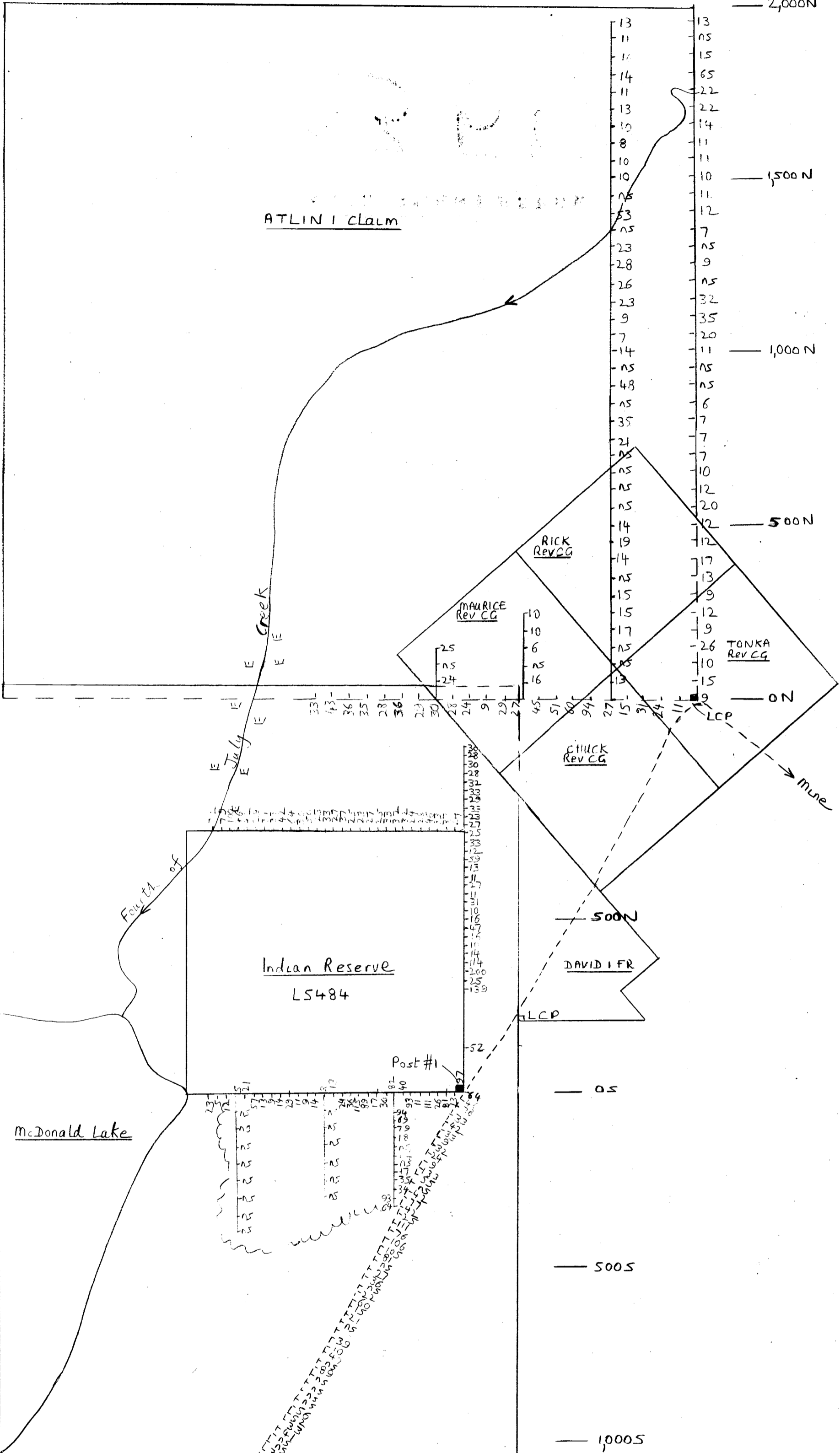
LCP

LCP

LCP

1000W 500W 0W

2,000N  
1,500N  
1,000N  
500N  
0N



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T N  
Fig 5

COLLEEN, ATLIN I,  
DAVID I FR CLAIMS,  
MAURICE RICK CHUCK TONKA Reverted  
Crown Grants

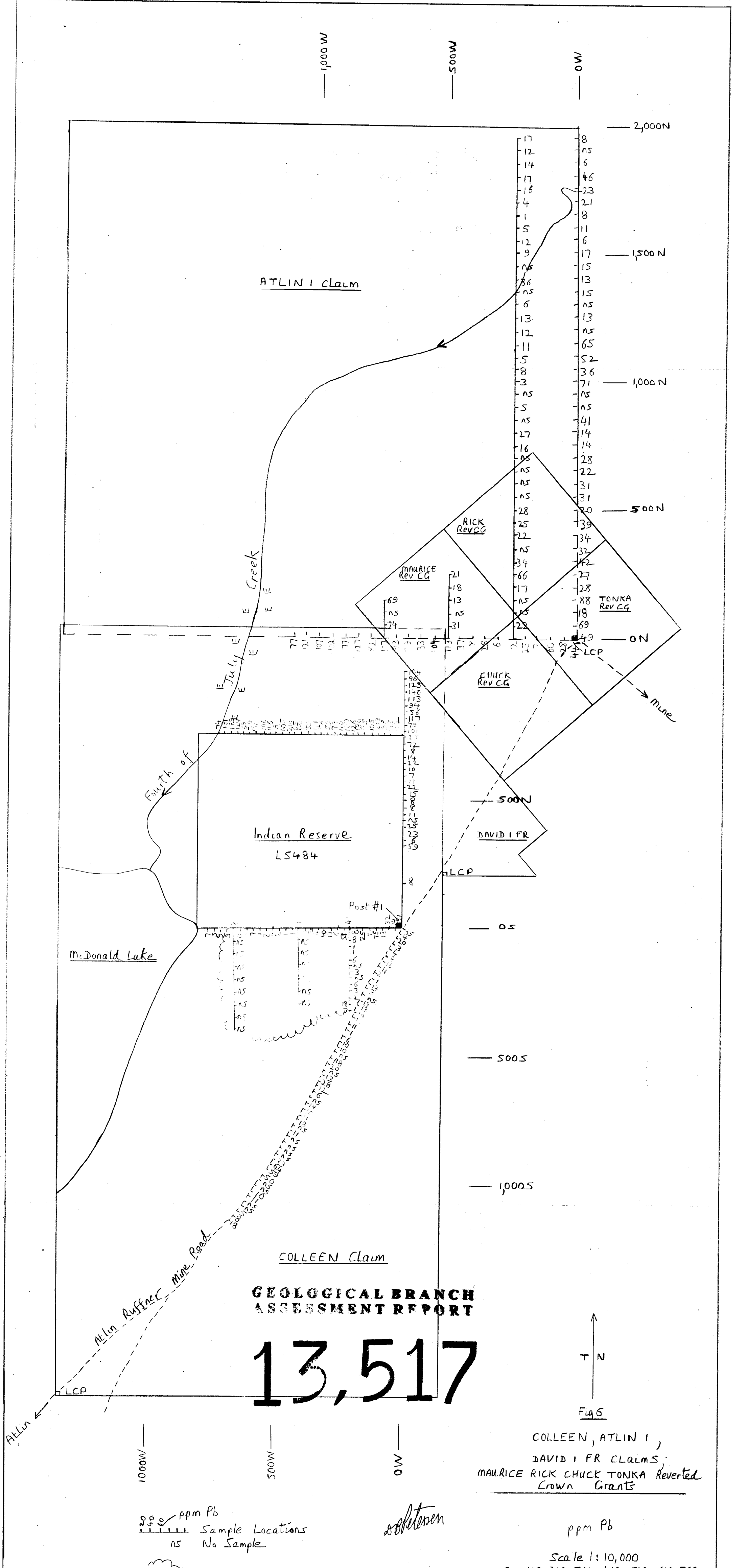
ppm Cu  
20 40 60  
Sample Locations  
ns No Sample

Talus

Petersen

ppm Cu

Scale 1:10,000  
0 100 200 300 400 500 600 700 m



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↑  
T N  
Fig 6

COLLEEN, ATLIN I,  
DAVID I FR CLAIMS;  
MAURICE RICK CHUCK TONKA Reverted  
Crown Grants

ppm Pb  
Sample Locations  
ns No Sample

Talus

*softeren*

ppm Pb

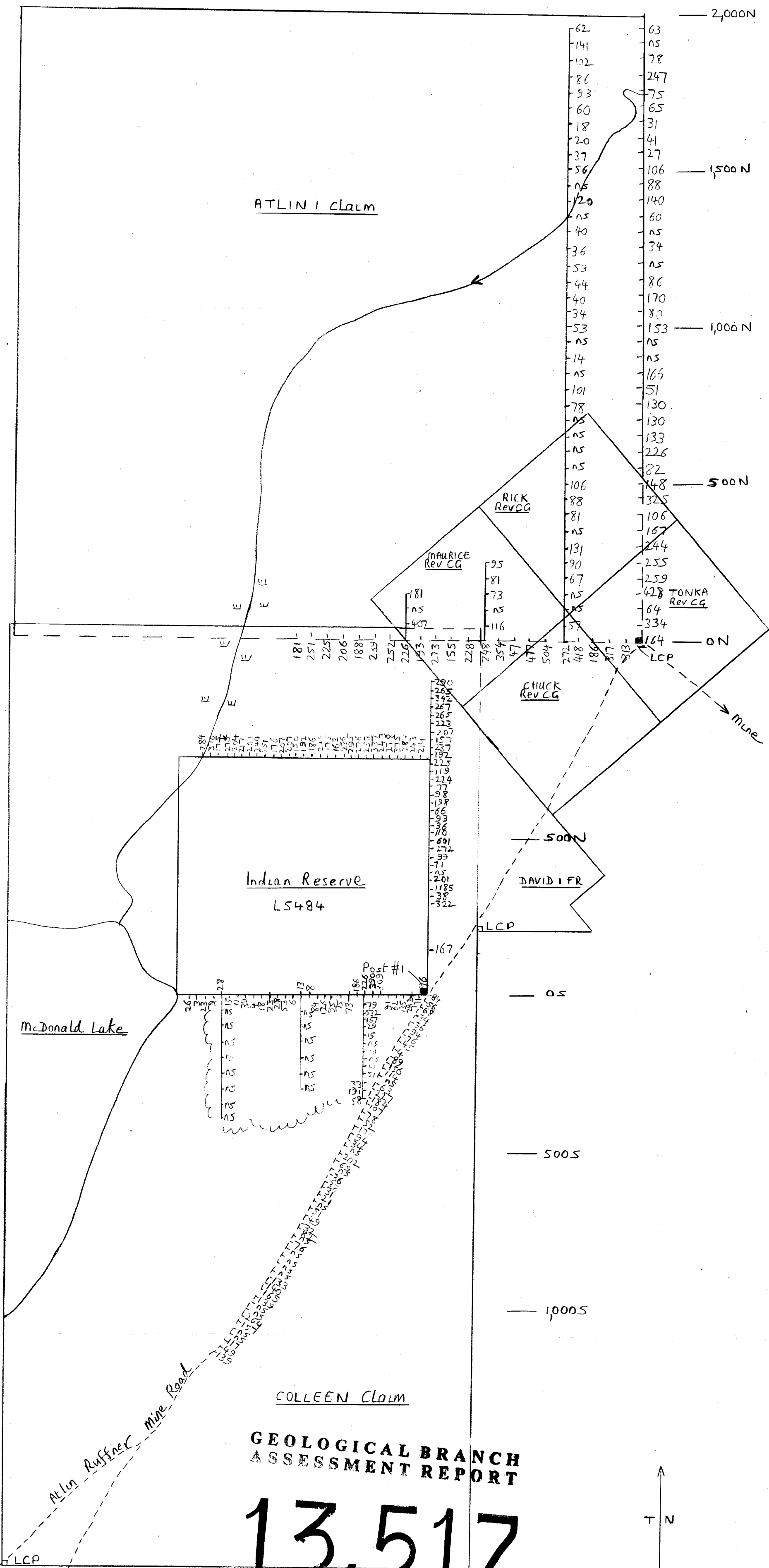
Scale 1:10,000  
0 100 200 300 400 500 600 700 m



1000W

500S

0W



200 ppm Zn  
140  
100  
Sample Locations  
ns No Sample

Talus

*Bob Petersen*

ppm Zn

Scale 1:10,000

0 100 200 300 400 500 600 700 m