

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

13,646

Geological and Geochemical Assessment Report

on the

ATLIN 11 and ATLIN 12 Claims

ATLIN MINING DIVISION

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

59°37'N, 133°33'W

D. B. Petersen

March, 1985

Owner: Daiwan Engineering Ltd.

Operator: Daiwan Engineering Ltd.

Table of Contents

		<u>Page</u>
1.	Introduction	1 /
2.	Location and Access	1 /
3.	Topography and Vegetation	1 /
4.	General Geology	3 /
5.	Local Geology	3 /
6.	Work Done in 1984	5 /
7.	Results of Work Done in 1984	6 /
8.	Discussion	6 /
9.	Conclusions	7 /
10.	Recommendations	7 /
11.	Statement of Costs	8 /
12.	Title	9 /
13.	References	9 /
14.	Affidavit	10 /

Illustrations

Fig. 1	"Location Map"	2 /
Fig. 2	"Atlin Area Geology"	4 /
Fig. 3	"ppm Ag"	In Pocket /
Fig. 4	"ppm As"	In Pocket /
Fig. 5	"ppm Cu"	In Pocket /
Fig. 6	"ppm Pb"	In Pocket /
Fig. 7	"ppm Zn"	In Pocket /
Fig. 8	"Geology"	In Pocket /

1. Introduction

This report describes the work that was done on the ATLIN 11 and ATLIN 12 claims between the 30th July and 29th August, 1984.

G. Lohman* and H. Loughheed conducted a partial first-phase exploration program of the claims that included line flagging, reconnaissance soil geochemistry and mapping and prospecting.

Overall supervision of the field work was carried out by G. Lohman. Daiwan Engineering Ltd. was the operator of the program.

2. Location and Access

The subject claims are located in the Atlin Mining Division, approximately 10km Northeast of the town of Atlin. Geographic co-ordinates are $59^{\circ}37'N$, $133^{\circ}33'W$. N.T.S. is 104-N-12/E. See Fig. 1, "Location Map".

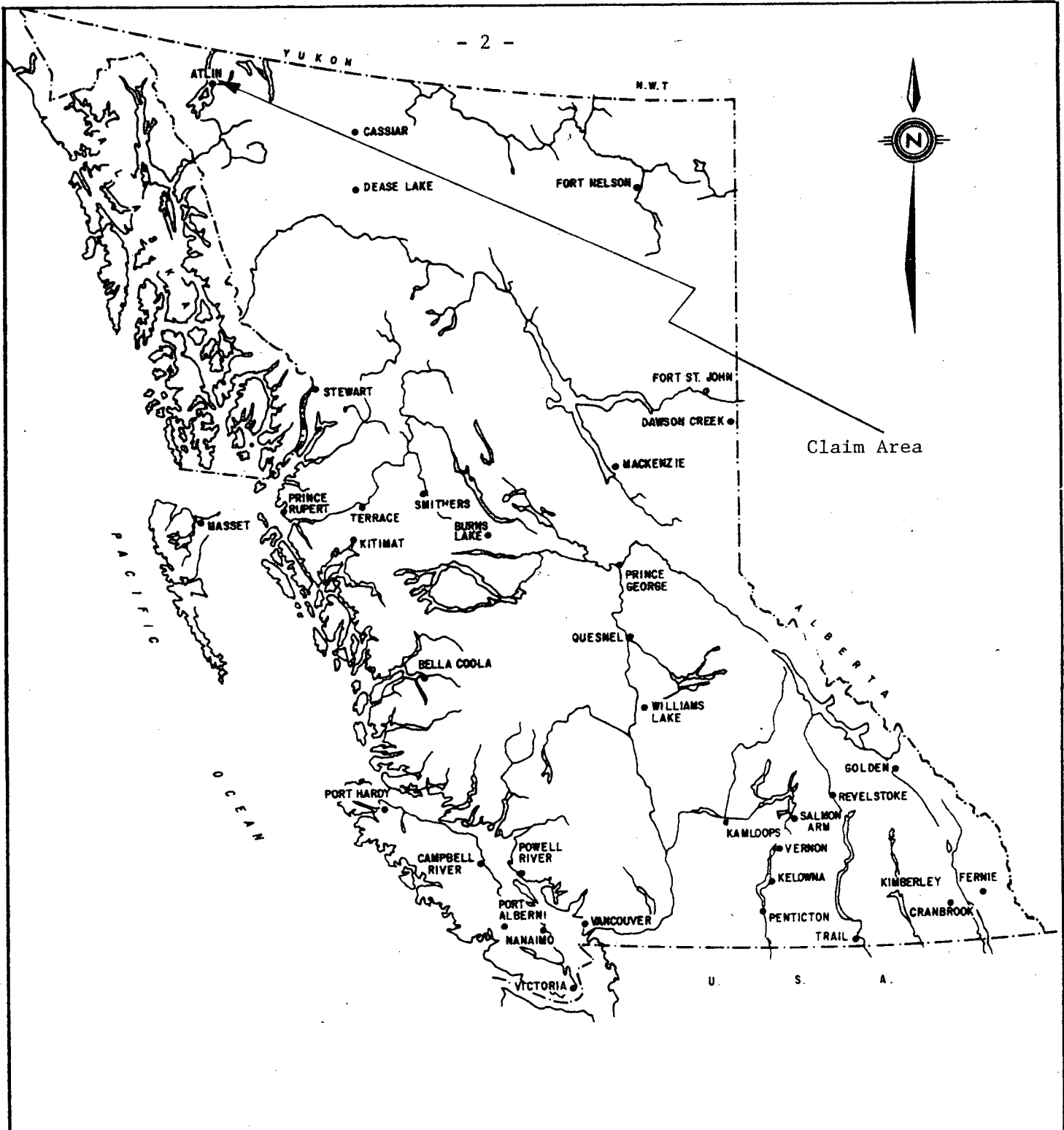
Access is by dirt road that leads from Atlin to Surprise Lake. A jeep road leads off this road to Moose Lake at the Southern boundary of the claims.

3. Topography and Vegetation

The claims cover the ridge East of Mount Munro and the steep Southerly facing slopes to the South. Elevations vary between 900m and 1,410m a.s.l.

Vegetation consists of sparse conifers on the lower slopes and stunted brush above.

* Grad. geol. U of T 1981; Hornex, Brineo ----



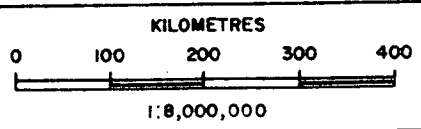
Claim Area

FIGURE: 1

Daiwan Engineering Ltd.

ATLIN 11, 12 Claims

LOCATION MAP



so Petersen

4. General Geology

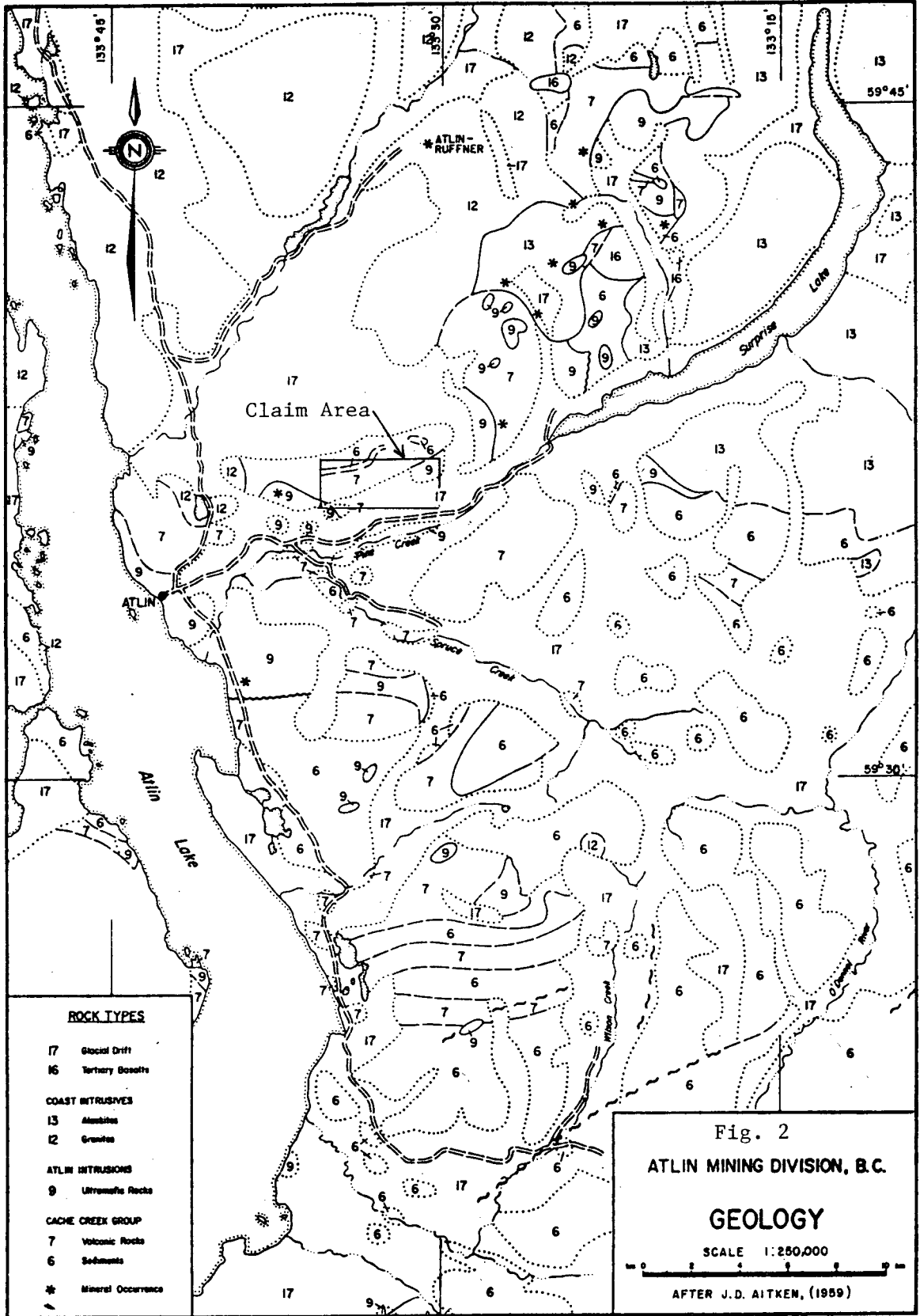
According to Aitken (1959), see Fig. 2, "Atlin Area Geology", the oldest rocks in the area are pre-Permian schists and gneisses that are known as the Yukon Group which were followed by sedimentary and volcanic rocks of the Cache Creek Group in Permian times. These rocks were intruded by the Atlin intrusives, 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 prophyry 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 sedimentary volcanic rocks of the Cache Creek Group, by ultramafic rocks of the Atlin intrusions and by glacial drift.



6. Work Done in 1984

G. Lohman and H. Lougheed, from 30th July to 29th August, spent a total of 12½ man-days performing the following work:

1. Line Flagging

A total of 29.8km of East-West baseline and North-South grid line was flagged. Lines were a nominal 250m apart. Station spacing was 50m along the lines.

2. Prospecting and Reconnaissance Mapping

Prospecting and reconnaissance mapping was conducted along the lines during the course of the gridding and on ridges where the chance of finding outcrop was thought to be good.

3. Geochemical Soil Sampling

During the course of the gridding and the prospecting, a total of 461 soil samples were taken. Because the property is predominantly covered by talus and by till, soil development is poor and sampling consisted mainly of taking material from the 'C' horizon. Samples were taken by placing approximately 200g of soil in a Kraft paper bag numbered with the station co-ordinates and sending these to Acme Analytical Laboratories Ltd. 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. *15 cm deep*

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

7. Results of Work Done in 1984

The results of the work that was done is as follows:

1. Geological Mapping

As shown on Fig. 8, "Geology", the area that was traversed is underlain by amphibolitized volcanics and greywacke and limestone of the Cache Creek Group, and by metadiorite and metagabbro of the Permian Atlin Intrusions. A trench at 750W 1,700S had sloughed and filled in. Traces of pyrite were noted at 750W 200S and 2,250W 850S. Quartz-calcite stringers without accompanying mineralization 2,750W 250S were noted.

2. Geochemical Soil Sampling

The results of the sampling showed that background values of approximately 0.2ppm Ag, 6ppm As, 30ppm Cu, 6ppm Pb, and 40ppm Zn are present.

Ag, As and Pb values are uniformly low. Sporadic one to two-line Cu highs in the 100-200ppm range are present at several locations. Similarly, several spot Zn highs are present that, generally, are unaccompanied by Cu values.

8. Discussion

The geochemical soil sampling has shown that a few spotty, isolated Cu and Zn highs are present, that do not appear to be important.

The mapping showed that the area surveyed is overlain predominantly by till. The mineralization that was observed was restricted to a single location of quartz-calcite stringers and two locations of trace amounts of pyrite.

8. Discussion (Cont'd)

According to Nelson (1981), a shear zone that contains a mineralized quartz vein is present on the Imperial Crown Grants approximately 2km West of the ATLIN 11 claim. The vein strikes at 130° and dips at 70° to the Southwest. It pinches and swells and varies between 20cm and 2m in width with an average of 50cm. The vein has been traced for 200m along strike. Ground magnetometry was used to try and trace the extension of the shear zone beneath overburden, but failed.

Sampling showed that gold with a little copper is confined to the vein itself and does not penetrate the wall rock.

A tonnage calculation showed that approximately 21,000 tons were present to a depth of 80m at an average grade of 0.3 oz/t.

9. Conclusions

The work that has been done has proved negative.

10. Recommendations

Because of the negative results encountered, exploration of the balance of the ATLIN 11 claim does not appear warranted.

If deemed necessary, however, this is expected to cost:

215 samples @ \$14 = \$ 3,000

11. Statement of Costs

The following costs were incurred in the program:

Salaries

G. Lohman, Geologist	30, 31 July 2, 5, 8-11, 13-15, 18, 19, 27, 29 August (half days) 1, 6, 20, 23 August (full days)	11½ days @ \$175	\$ 2,012	
H. Lougheed, Sampler/Prospector	31 July (½ day), 13, 19 August	2½ days @ \$126	<u>315</u>	
				\$ 2,327

Field Costs

Sampling and Freight	461 samples @ \$7		\$ 3,227	
Transport			338	
Supplies			50	
Meals and Accommodation			<u>150</u>	
				\$ 3,755

Reporting

G. Lohman, Geologist	1 day @ \$175		\$ 175	
D. Petersen, Geologist	3 days @ \$275		825	
S. Wheat, Typist	4 hours @ \$ 15		60	
Drafting & Printing			<u>85</u>	
				\$ <u>1,145</u>

TOTAL: \$ 7,227

12. Title

Particulars of the claims are as follows:

<u>Name of Claim</u>	<u>No. of Units</u>	<u>Record No.</u>	<u>Owner</u>	<u>Date of Record</u>
ATLIN 11	20	2250	Daiwan Engineering Ltd.	28 March, 1984
ATLIN 12	20	2251	Daiwan Engineering Ltd.	28 March, 1984

13. References

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

Nelson, J., 1981, Imperial and Imp Claims - Geology, Ground Magnetic and Assay Results; B. C. Dept. Mines and Pet. Res. Ass. Rpt. 9868.

OB Petersen

In the Matter of the geological and geochemical surveys on the ATLIN 11, ATLIN 12 claims:

To Wit:

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	11½ days @ \$175	\$ 2,012	
H. Lougheed, Sampler/ Prospector	2½ days @ \$126	<u>315</u>	\$ 2,327

FIELD COSTS

Analyses and Freight	\$ 3,227	
Transport and Travel	338	
Supplies	50	
Meals and Accommodation	<u>150</u>	\$ 3,755

REPORTING

G. Lohman, Geologist	1 day @ \$175	\$ 175	
D. Petersen, Geologist	3 days @ \$275	825	
S. Wheat, Typing	4 hours @ \$ 15	60	
Drafting & Printing		<u>85</u>	\$ 1,145

TOTAL: \$ 7,227

And I make this solemn declaration conscientiously believing it to be true, and knowing that it is 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 18th day of April 1985, A.D. [Signature]

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

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

13,646

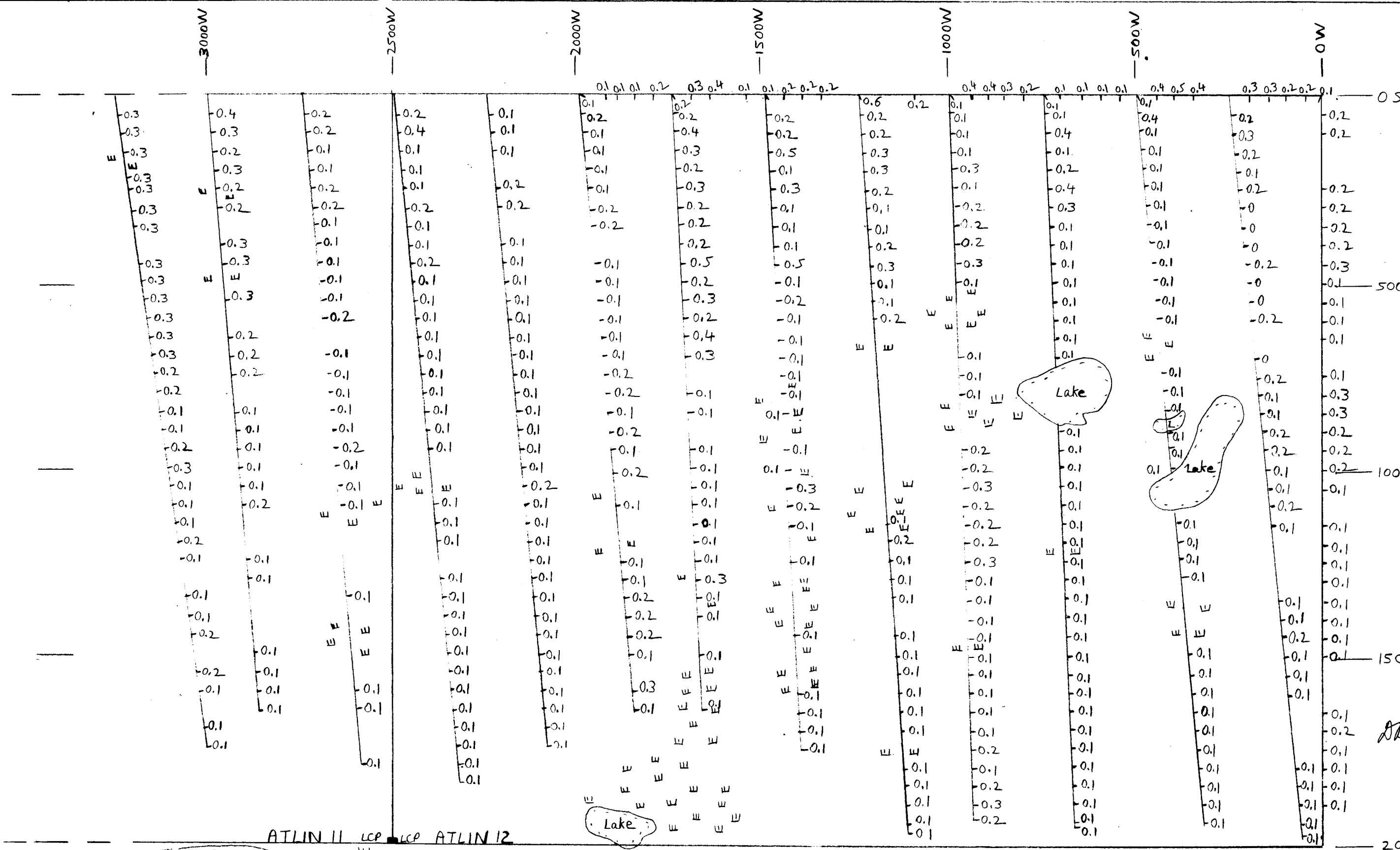


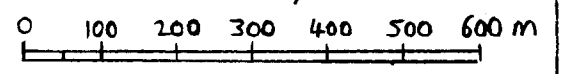
Fig 3

DAIWAN ENGINEERING LTD

ATLIN 11, 12 Claims

ppm Ag

Scale 1:10,000



S.P. Petersen

Moose Lake

Lake

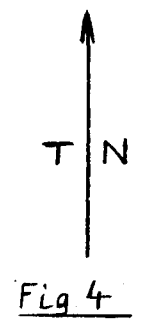
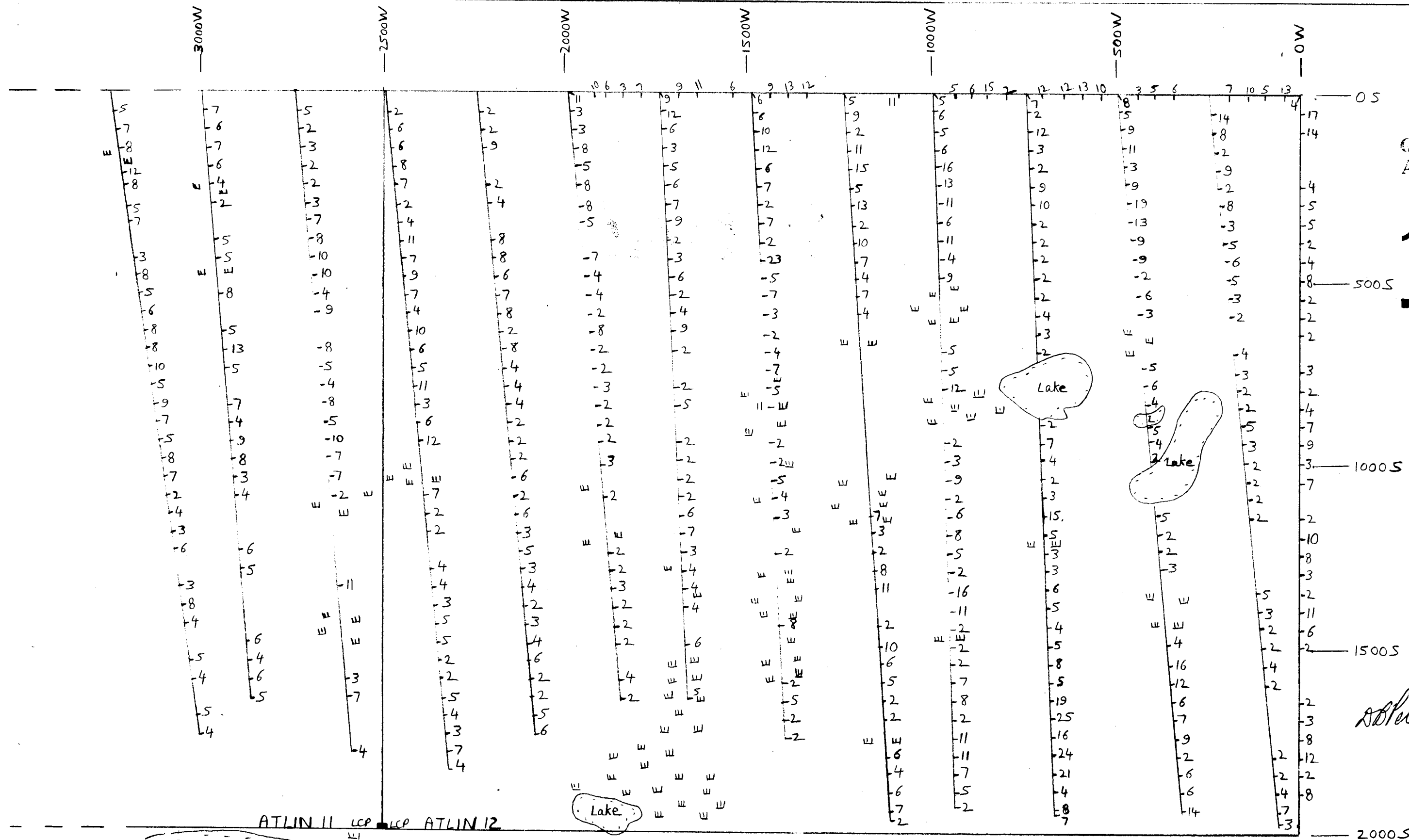
Lake

Lake

ATLIN 11 LCP LCP ATLIN 12

GEOLOGICAL BRANCH
ASSESSMENT REPORT

13,646



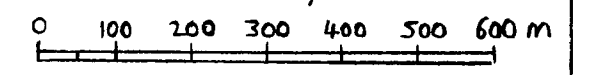
DAIWAN ENGINEERING LTD

ATLIN 11, 12 Claims

S. Petersen

ppm As

Scale 1:10,000



ATLIN 11 LCP LCP ATLIN 12

Moose Lake

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

13,646

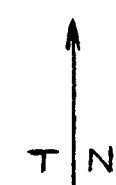
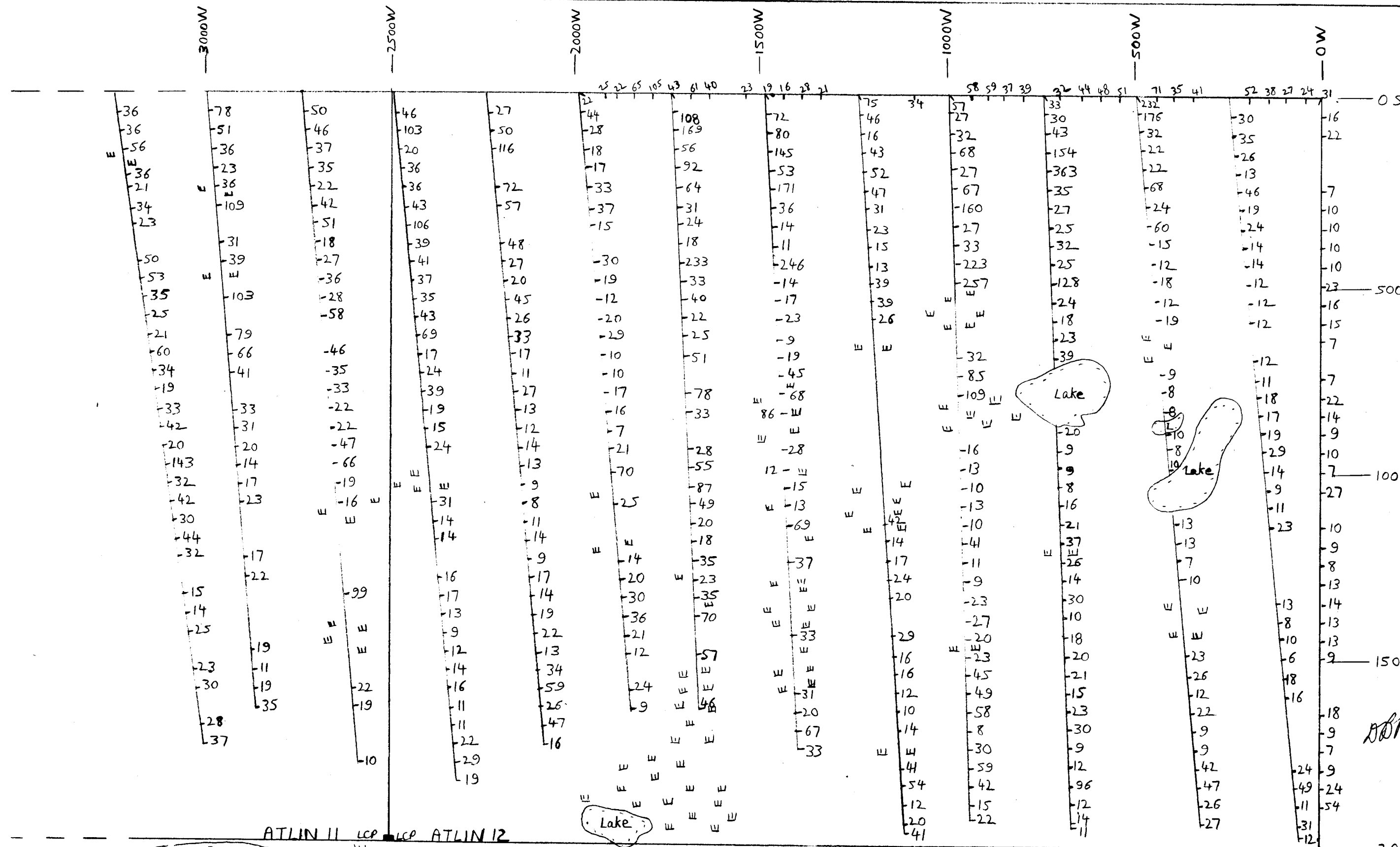


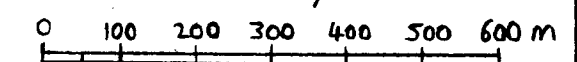
Fig 5

DAIWAN ENGINEERING LTD

ATLIN 11, 12 Claims

ppm Cu

Scale 1:10,000



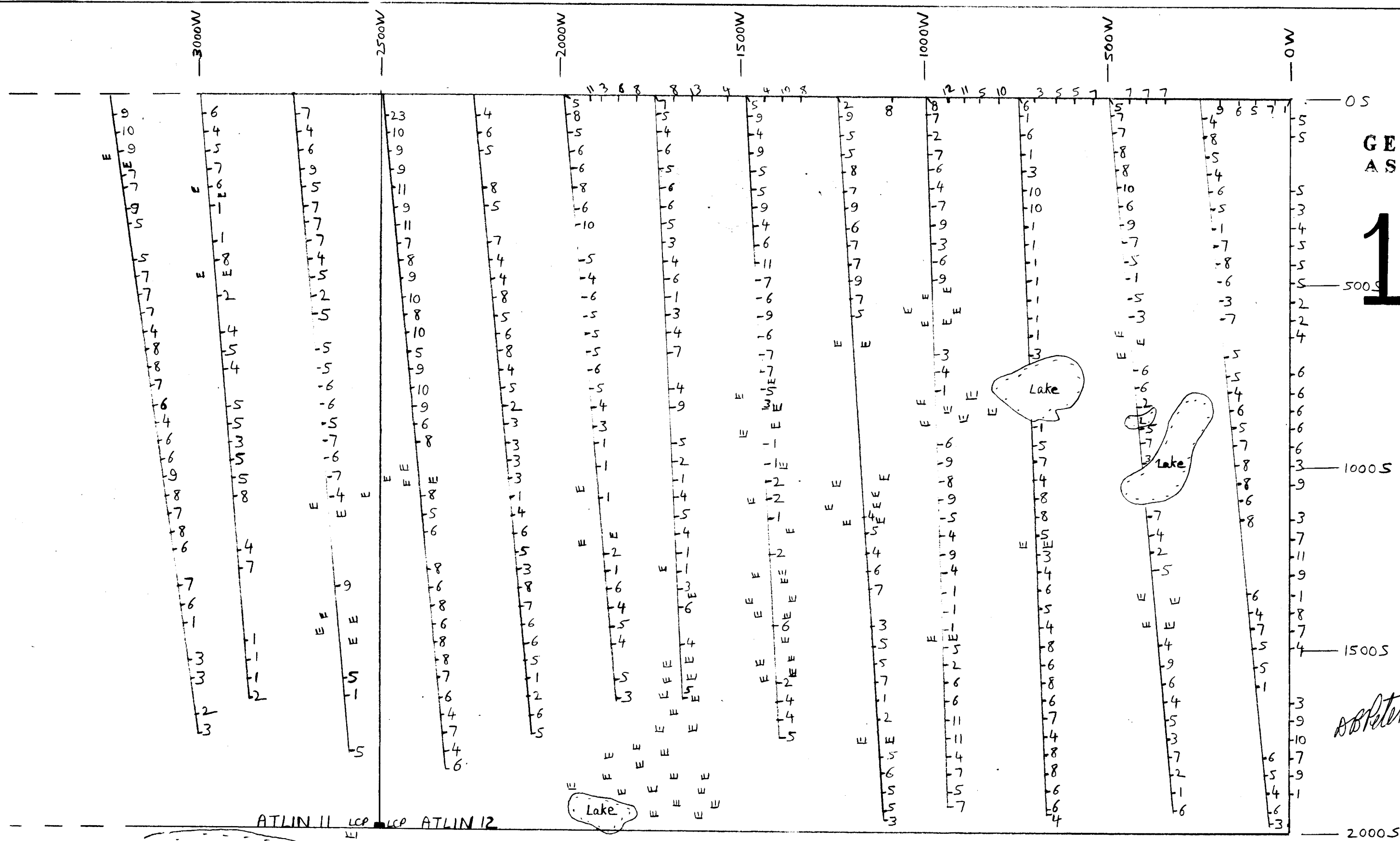
Peterson

ATLIN 11 LCP LCP ATLIN 12

Moose Lake

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

13,646

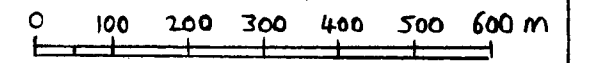


DAIWAN ENGINEERING LTD

ATLIN 11, 12 Claims

ppm Pb

Scale 1:10,000



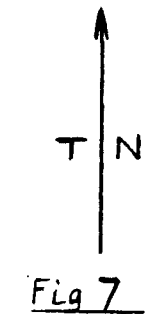
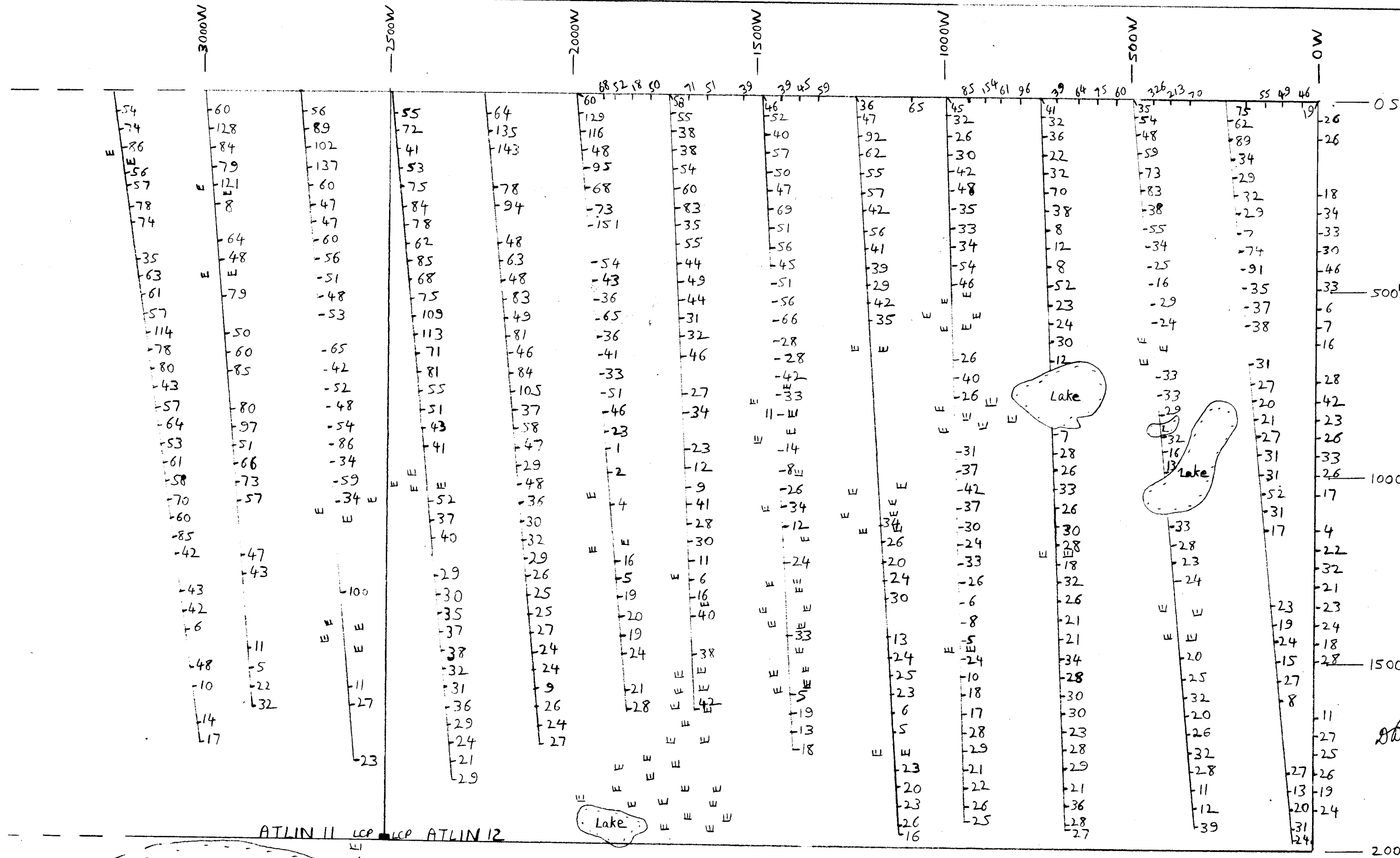
BB Petersen

Moose Lake

ATLIN 11 LCP LCP ATLIN 12

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

13,646

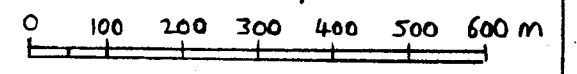


DAIWAN ENGINEERING LTD

ATLIN 11, 12 Claims

ppm Zn

Scale 1:10,000



Moose Lake

ATLIN 11 LCP LCP ATLIN 12

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

13,046

ATLIN 11 LCP LCP ATLIN 12

Moose Lake

- III Swamps
- o Outcrop
- x Small outcrop
- ▲ Cliffs
- ≡ Trenches
- ATlin Intrusions
- 9 meta diorite, Metagabbro
- Cache Creek Group
- 8 Limestone
- 7 Amphibolised Volcanics, Greywacke
- tr trace
- py pyrite
- qtz quartz
- calc calcite



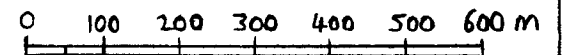
Fig 8

DAIWAN ENGINEERING LTD

ATLIN 11, 12 Claims

Geology

Scale 1:10,000



S. Peterson

