

GEOLOGICAL SURVEY BRANCH ASSESSMENT REPORTS
DATE RECEIVED JUN 21 1996

ASSESSMENT REPORT
LINE CUTTING/GRID EMPLACEMENT, MAGNETOMETER SURVEY
LEM 1-3 CLAIMS

TAWEEL LAKE AREA, B.C.
Kamloops Mining Division

Lat: 51 deg 37'N - Long: 120 deg 15'W

For: Canadian Zeolite Ltd.
1408 - 1166 Alberni St.
Vancouver, B.C.
V6E - 3Z3

FILMED

By: John Jenks, P.Geo.(B.C.)
Salmon Arm, B.C.
June 18, 1996

GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORT

24,471

SUMMARY

The following describes the work activities undertaken March 6th through 11th, 1996 on the Lem 1 to 3 mineral claims situated in the Taweel Lake area eighteen kilometres west of Clearwater, B.C. Access to the property was by four wheel drive logging road from Clearwater and by snowmobile over trail, lake and overland portions. A modest programme of line-cutting, grid emplacement and ground magnetometer survey was undertaken as a forerunner to a more substantial exploration effort at a latter date.

The programme was directed by John Jenks, P.Geo., who conducted the ground magnetic survey, a portion of the line-cutting and was responsible for interpretation and report preparation. Percy Cox of Kelowna, B.C. carried out most of the line-cutting and grid emplacement.

Approximately 3,700 metres of crosslines were blazed and flagged plus 400 metres of baseline. 1,300 metres of ground magnetic survey was also completed. Melting weather conditions deteriorated the snowpack to the point where movement by snowmobile and snowshoe became virtually impossible; accordingly, the programme was terminated somewhat prior to completion.

The claim area is underlain by a Triassic flysch sequence, largely argillitic, in fault contact with various andesitic volcanics of Jurassic age. Small Cretaceous monzonite stocks occur in the general area and likely underlie certain portions of the claim. A series of NNWly-trending fault linears traverse the area. Massive sulphides, including pyrrhotite, have been found near the headwaters of Lemieux Creek and some 700 metres to the northeast.

The limited magnetic survey indicated a northwesterly trend similar to the regional geological and topographic grain. One anomaly, 300 gammas in magnitude, in the vicinity of station 125N - 104 + 25E is suggestive of a response to an underlying geological formation. It requires further definition.

Recomendations are made for extending the current grid, completing the magnetic survey and undertaking soil sampling. A budget of \$23,800 is proposed to complete this work in it's entirety.

A total of \$6,067.21 was expended on the current programme.

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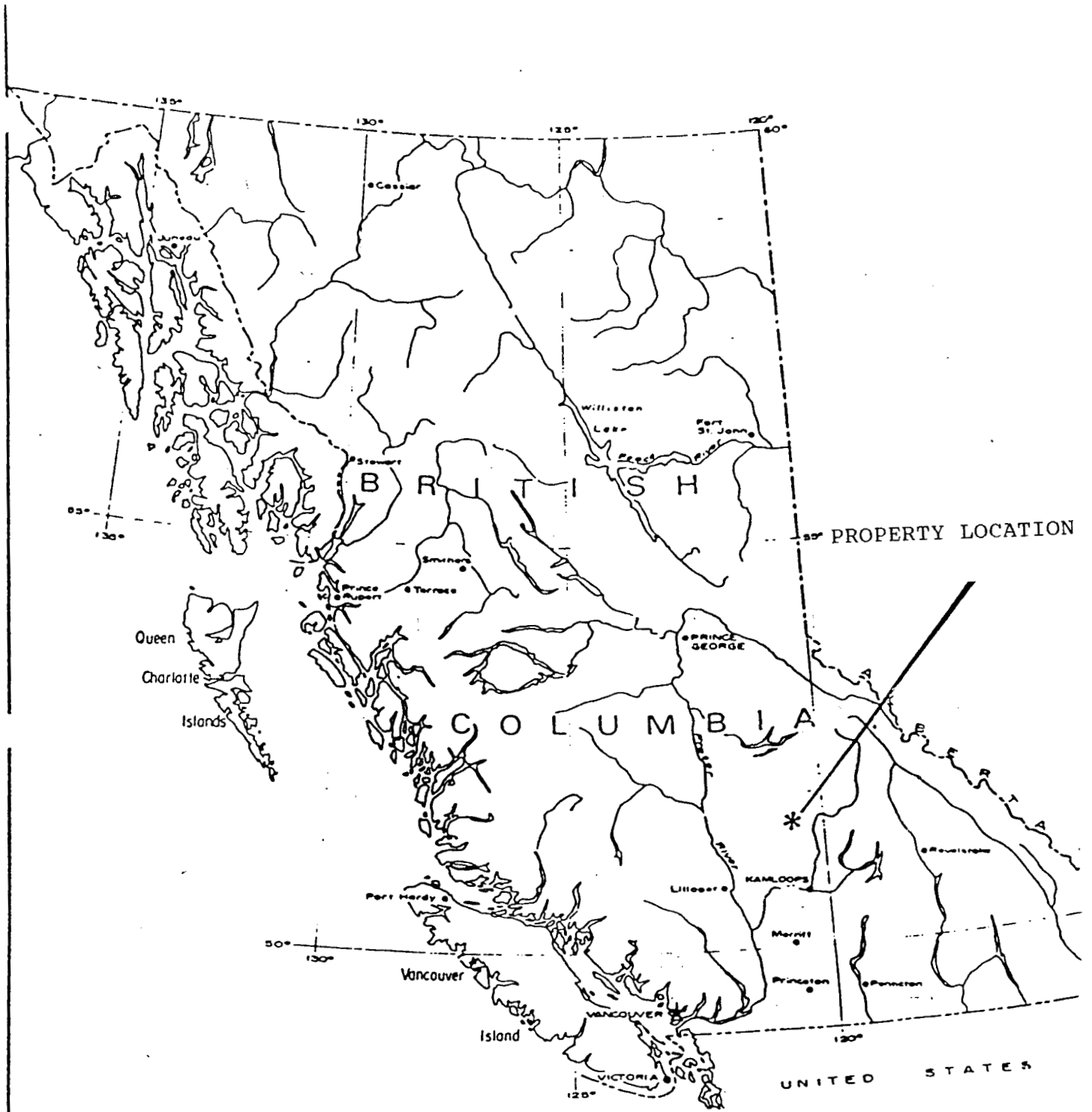
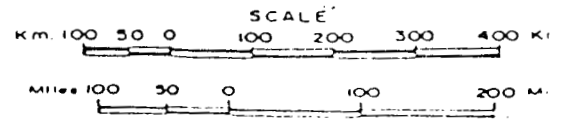


FIG. 1

TAWEEL LAKE, KAMLOOPS M.D., B.C.

LOCATION MAP



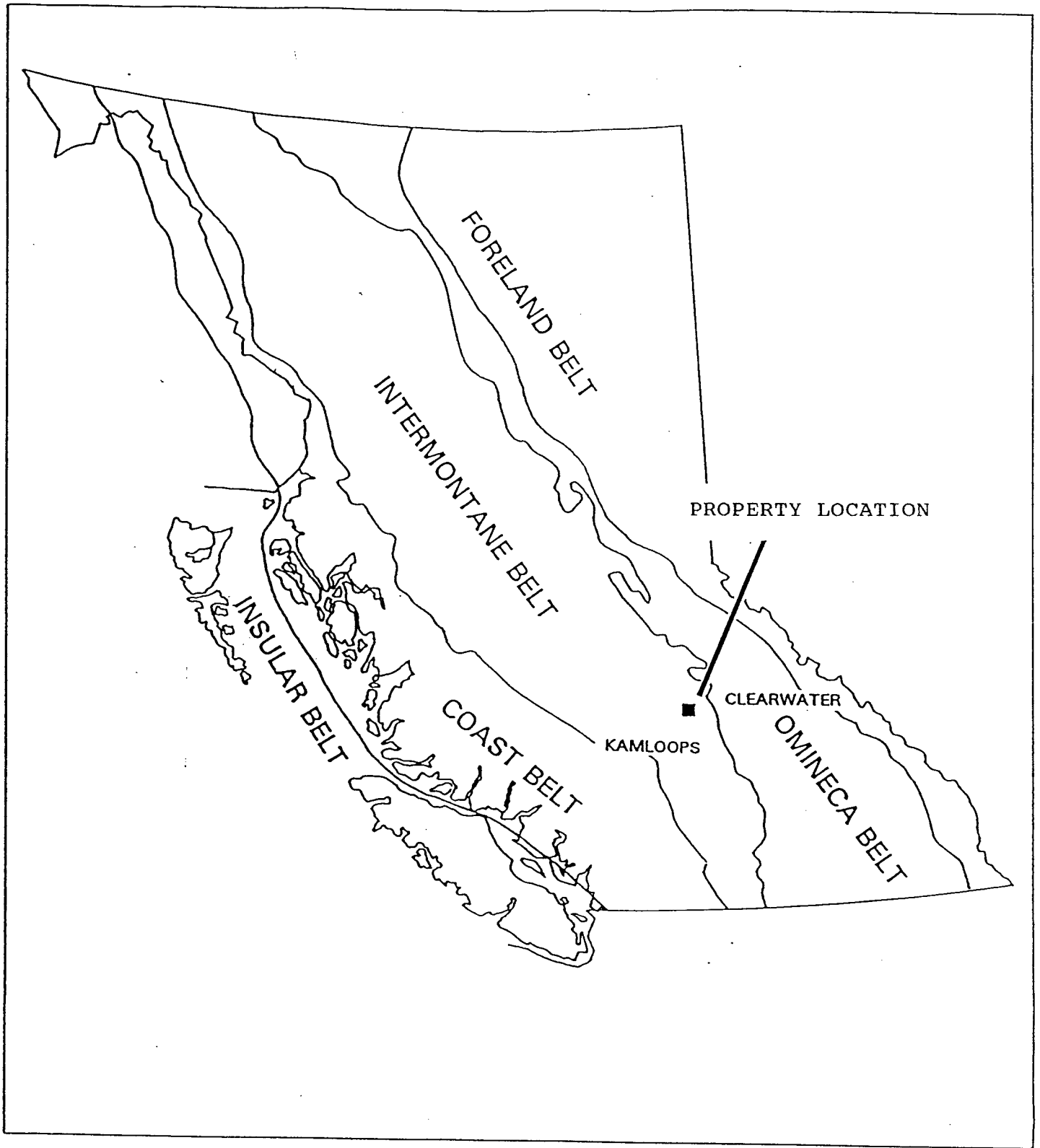


Figure 2
PHYSIOGRAPHIC LOCATION MAP
THE LEM CLAIMS
Taweel Lake Area, B.C.
NTS 92P/9

1. INTRODUCTION:

1a. Location and Access:

The Lem claims are situated 24 air kilometres NNW of Little Fort, B.C. and 18 kilometres west of Clearwater, B.C. During the project the claims were accessed from Clearwater as follows:

<u>Odometer(Kms)</u>	<u>Description</u>
0	Junction of Hwy #5 and Old Thompson Hwy. Take Old Thompson Hwy. west from Hwy.#5.
1.45	Cross river, turn right.
2.25	Left turn onto Mann Ck gravel logging rd. #2.
23.23	Turn left onto logging road #7 @ 21 km. sign.
27.36	Turn left onto logging road #163.
31.06	Park vehicle; transfer to snowmobile; take right fork (Logging road #167).
32.51	Road 167E forks to left. Stay right.
32.67	Right fork. Stay left. Concrete barrier erected to prevent traffic to Taweel Lake.
32.83	Road 167C to left. Stay right.
33.15	Road forks to right. Stay left.
33.80	Road 167F to the right. Stay left.
34.44	Road 167A to the right. Stay left.
35.41	Start of forest cover. Trail through woods.
36.05	Taweel Lake shoreline. Travel SE along NE shoreline.
40.07	Start of grid (125N- 100E) and LEM 1 - SW cornerpost.

At the time of the survey a one to two metre snow cover required full use of snowshoes throughout the grid area. One-way travel time from Clearwater to the grid area including road and snowmobile time varied from 1.5 to 4 hours, depending upon snow conditions.

1b. Topography and Vegetation:

The claim area consists of rolling, hilly upland terrain with elevations ranging from 1,000 to 1,250 metres. Well-timbered, the forest cover is thick, submature with a mixture of conifers (spruce, hemlock, balsam fir, jackpine) up to two feet in diameter. Logging activities are encroaching upon the area from the northeast. Lemieux Creek is the only permanent stream traversing the claim area.

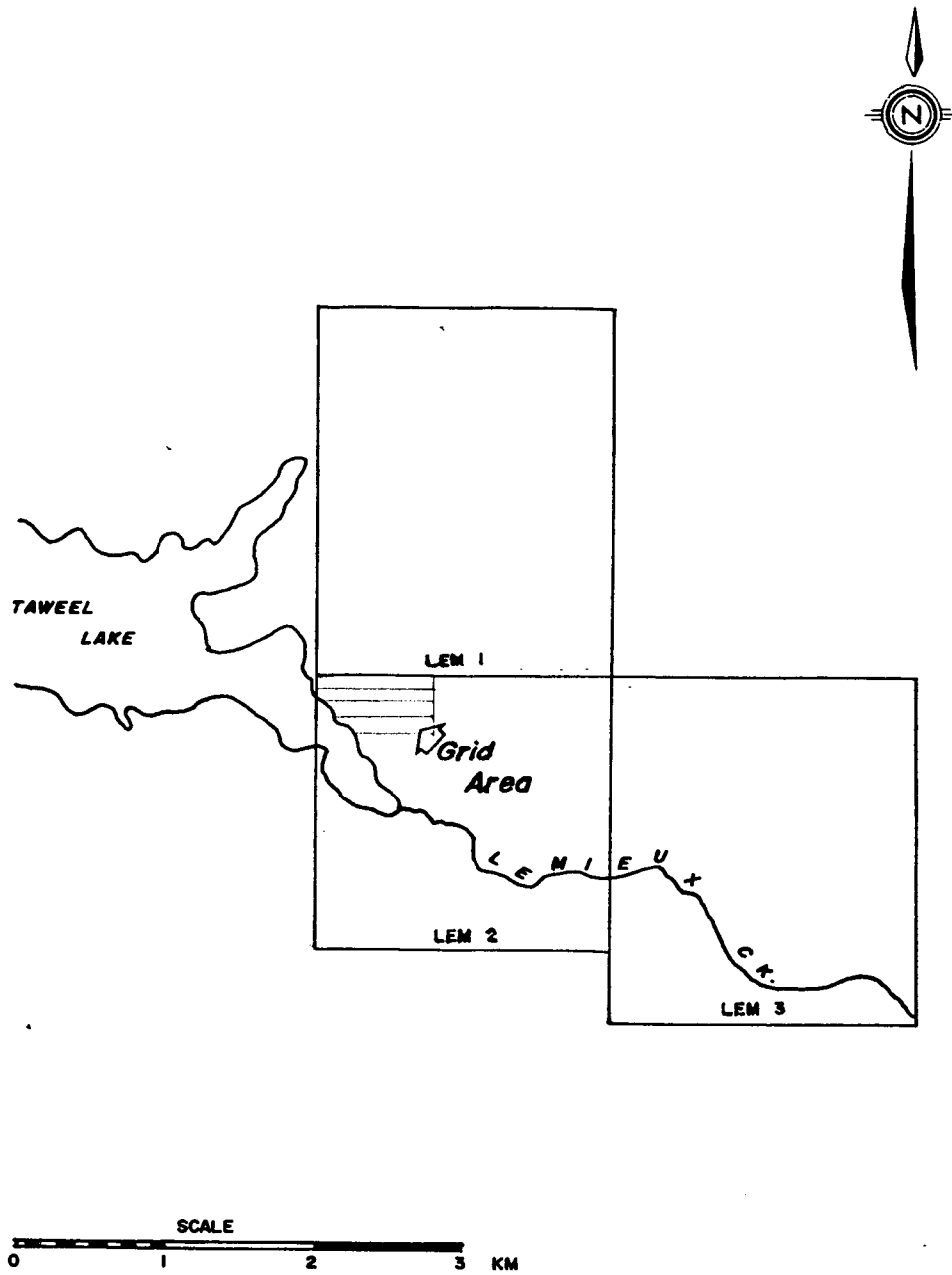


Figure 3
 CLAIM MAP
 THE LEM CLAIMS
 Taweel Lake Area, B.C.
 NTS 92P/9

1c. Land Tenure:

The Lem 1-3 claims consist of 56 contiguous units (28,000 hectares) situated around the eastern portion of Taweel Lake and including the eastern 10% of the lake itself. Details are as follows:

<u>Claim Name</u>	<u>No.Units</u>	<u>Tag No.</u>	<u>Anniv.Date</u>	<u>Owner of Record</u>
Lem #1	20			
Lem #2	16			
Lem #3	20			

The claims are wholly owned by Canadian Zeolite Ltd.

1d. History of Exploration:

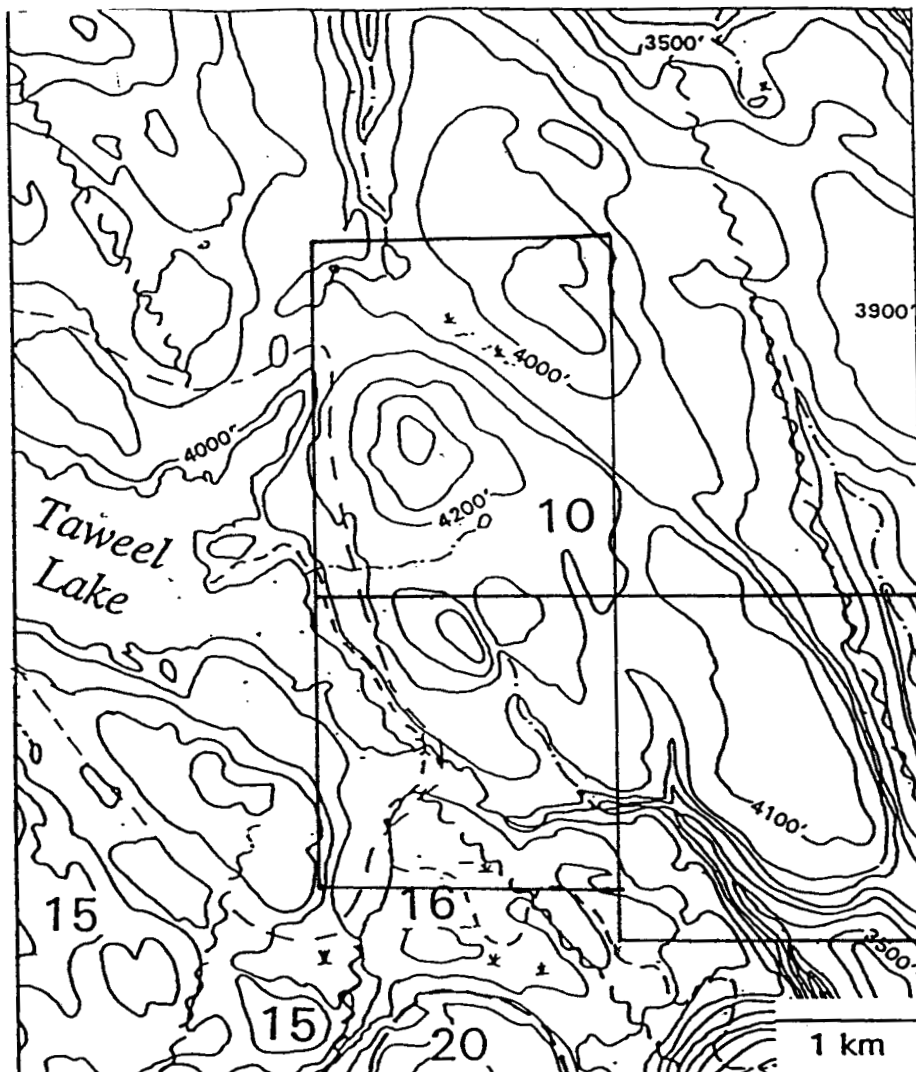
Poorly documented exploration activity within the claim area dates back to at least 1925. A short adit driven into a gold-bearing massive sulphide zone near the headwaters of Lemieux Creek likely originates some 50-75 years ago. A series of trenches and test pits one kilometre to the northeast in similar material was probably dug during the same time period.

A previous claim owner during the 1980's, Sim Jutras, had a portion of the claim area gridded, soil sampled and surveyed by ground magnetics. Several promising indicated anomalies were never followed up.

Peppa Resources/P.Lieberman drilled three short diamond drillholes in the Lemieux Creek area during 1988, with encouraging results. At least two other holes drilled into the same area prior to Peppa's programme are undocumented, their date of completion uncertain.

Rock samples taken by previous workers from the Lemieux Creek showing and from the trench areas to the northeast have indicated gold values ranging up to 1.237 ounces per ton with zinc grades to 13.7% and silver to 12,225 opt.

Anaconda carried out a geochemical survey during the 1960's on a massive sulphide zone near Friendly Lake thirteen kilometres to the west while Falconbridge Nickel explored for molybdenum in pegmatites and quartz veins slightly east of the Lem claims.



- UNIT 20 Leuco-quartz monzonites with fine-grained biotite scattered throughout the rock. Scattered veinlets of smoky grey quartz carry molybdenite.
- UNIT 16 Porphyritic augite andesite breccia and conglomerate with minor arenite, tuff, argillite, and flows.
- UNIT 15 Grey to brown weathering, medium to dark grey and greenish grey clastic volcanic rocks including andesitic arenites, siltstones, grits and brecciated tuffs.
- UNIT 10 Silicious argillaceous rock including black shales and argillites variably metamorphosed to phyllites.

Figure 4

GEOLOGICAL MAP
(After Campbell & Tipper, 1971)

Taweel Lake Area, B.C.

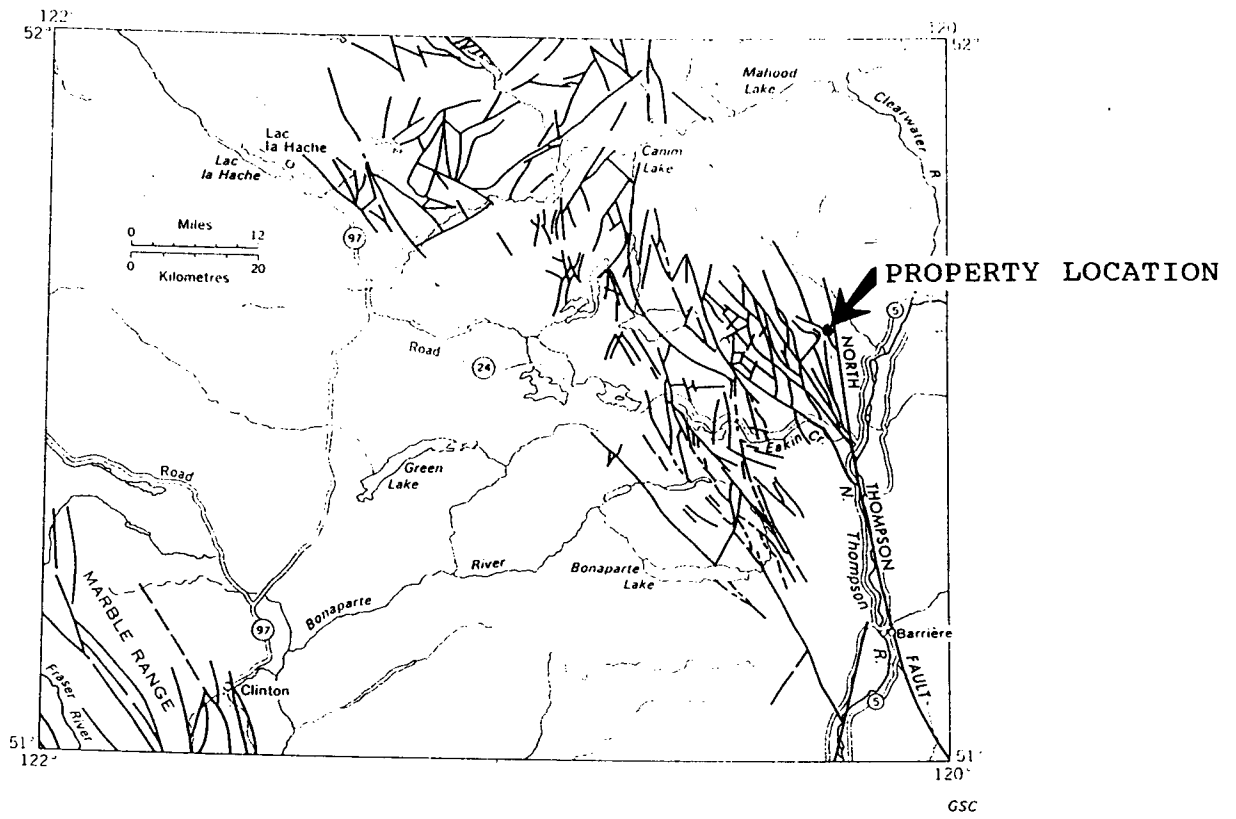


Figure 5
 STRUCTURAL MAP SHOWING BLOCK FAULTS
 (After Campbell & Tipper, 1971)
 Taweel Lake Area, B.C.

Immediately south of the Lem 2 claim Amax conducted an extensive programme directed towards molybdenum in and around a small granitic stock which culminated in diamond drilling during 1980. A zinc soil anomaly delineated during the programme projects onto the Lem claim area.

Assessment work carried out by the author for the previous owner, Forefront Ventures during 1994, included rock sampling and reconnaissance soil sampling. High gold and base metal values as indicated by previous workers were verified.

Within the general North Thompson area a number of gold sulphide properties and showings are present. These include the Little Fort, Nehalliston Creek, Lakeview, Diamac, Eakin Creek placer, Silver Lake, Chu Chua, Queen Bess, Windpass and Samatosum properties - the latter three of which have undergone previous production.

2. WORK PROGRAMME - MARCH 1996:

Work on the property was carried out under BCEM approval number KAM 96-1500533-177 from March 6 through March 11, 1996. John Jenks directed the programme, cut some of the gridline and conducted the ground magnetometer survey while grid emplacement/line flagging & blazing was undertaken by Percy Cox.

In total 400 metres of north-south baseline and 3,700 metres of east-west crossline were completed with stations marked at 25 metre intervals.

Some 1300 metres of magnetic survey was completed.

Difficult snow and weather conditions precluded completion of the full survey. Unseasonably warm and rainy weather softened the snow pack to the point where it was no longer capable of supporting a man on snowshoes or snowmobile. Accordingly, access into the property became an exhausting and time-consuming effort as was physical movement on foot over the property itself. One particular day, March 11th, required a full eight hours to travel from Clearwater to the property and back.

3. GEOLOGY:

Regionally the claim area is situated at the eastern margin of the Quesnel Trough near the border with the Shushwap Metamorphic

Complex. Within a swarm of northwesterly and north-northwesterly trending block fault splays the area is underlain by folded and block-faulted late Paleozoic, Mesozoic and early Tertiary volcanic, sedimentary and granitic rocks. Much of the claims are covered by glacial drift and loess, especially around the perimeter of Taweel Lake, and rock exposure is restricted to Lemieux Creek, the banks of ravines and gullies and the tops of ridges and hills.

The predominant rock type is a Triassic-aged argillite commonly with more siliceous horizons, layers and lenses. Northwesterly and north-northwesterly trending fault linears are readily discernable on air photographs and manifest themselves on the ground as narrow ravines and gullies. The probability of small covered intrusive bodies within the claim area is high.

Showings of massive sulphides and gold-bearing arsenopyrite in the Lemieux Creek and the Trench area northeast of Lemieux Creek appear fault associated though they could relate to more distal Besshi or Kuroko type deposits. The presence of pyrrhotite endorses the applicability of ground magnetics.

4. MAGNETOMETER SURVEY:

4a. Instrumentation:

A single hand-held Scintrex MP-2 Proton Precession Magnetometer rented from T. Hasek Associates was employed. The machine has digital readout accurate to within one gamma when used with the sensor detached as was the case during the survey.

The machine is so-named because "it employs the precession of spinning protons or nuclei of the hydrogen atom in a sample of hydrocarbon liquid (contained in the sensor) to measure the total magnetic dipoles which are temporarily aligned or polarized by application of a uniform magnetic field generated by a current in a coil of wire. When the current is removed, the spin of the protons causes them to precess around the direction of the ambient or earth's magnetic field, much as a top precesses about the gravity field. The precessing protons then generate a small signal in the same coil to polarize them, a signal whose frequency is precisely proportional to the total magnetic field intensity and independent of the orientation of the coil, i.e., sensor of the magnetometer. The proportionality constant which relates frequency to field intensity is a well known atomic constant; the gyromagnetic ratio of the proton. The precession frequency, typically 2000 Hz, is measured by digital counters as the absolute value of the total magnetic field intensity with an accuracy of 1 gamma in the earth's field of approximately 50,000 gammas"

(Breiner, 1973)

The instrument measures the total magnetic field intensity or, in actual fact, the magnitude of the earth's field vector independent of its direction.

With no moving parts the instrument produces an absolute and relatively high resolution measurement in the form of a digital readout. Two field conditions may degrade the field signal: the presence of a large magnetic field gradient (larger than 200 gammas per foot) or that of nearby alternating current power sources. Neither of these conditions were evident during the survey.

4b. Survey Procedures:

Readings were taken at 25 metre stations along precut lines spaced 100 metres apart. Care was taken to remove all metallic objects from the operator's person while taking readings. A minimum of five separate readings were taken at each station with either the average or the most frequently occurring reading taken as the value.

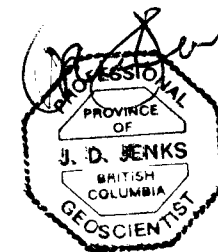
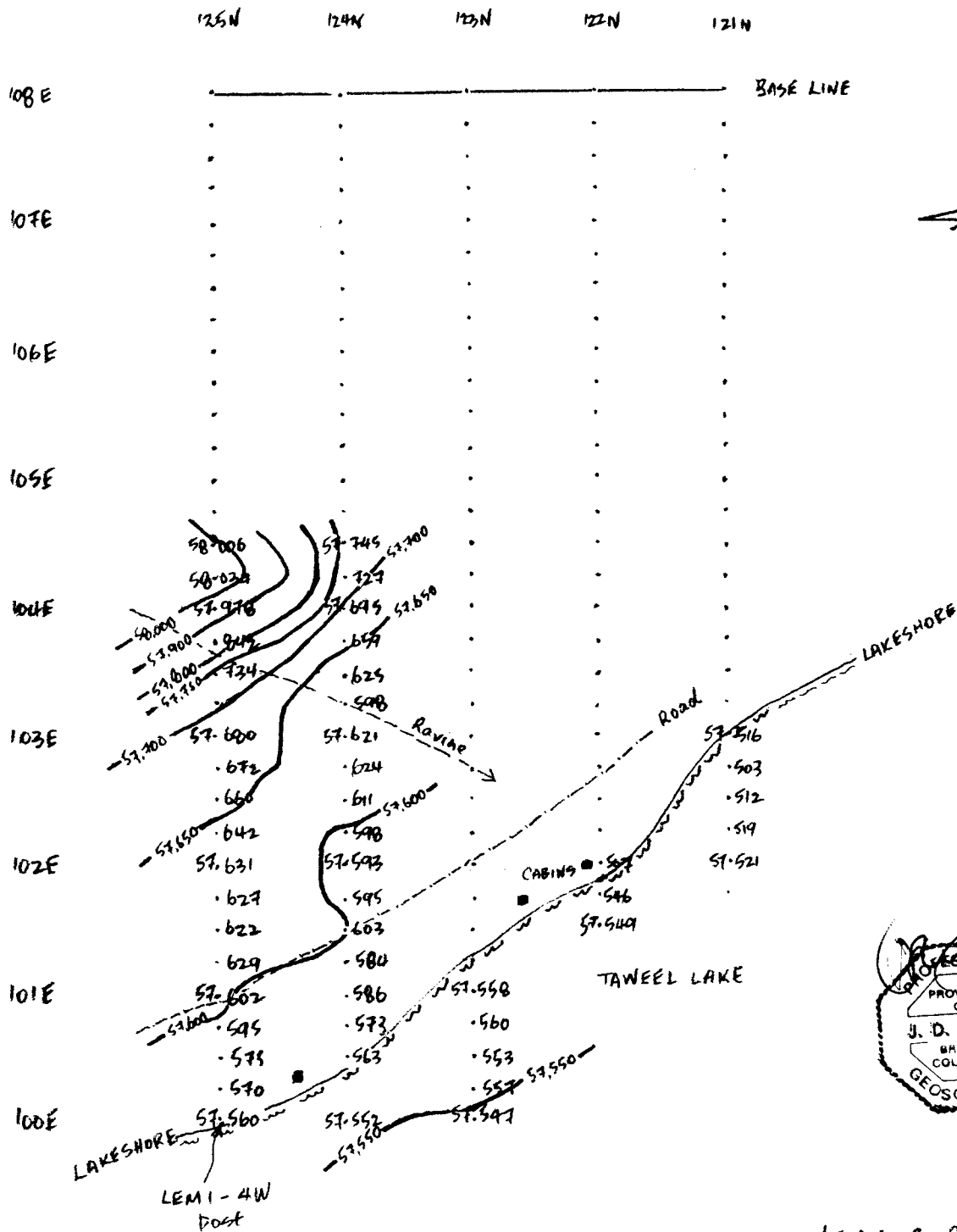
If poor repeatabilities are noted at any time within a short interval the survey is temporarily discontinued due to a magnetic storm.

To correct for diurnal variations the following procedure was used: repeat readings were made along the baseline which were averaged for each station and became the assigned values for the various baseline stations. Crossline readings were started each day from the baseline; the time of the initial reading was recorded as was the time of the final reading, also concluding at the baseline station. Additions or subtractions made to the initial baseline reading to return it to its assigned value were also made to the crossline stations. Further proportional corrections were made to these station values according to the lapsed time of the readings and the difference between the concluding baseline reading and the assigned baseline reading.

4c. Results:

Data was plotted at a suitable scale (Map A) and contoured at 50 and 100 gamma intervals depending upon the gradient. While the limited quantity of magnetic data collected precluded a full interpretation two observations can be made:

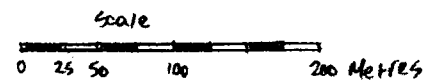
a) The general magnetic trend is in a northwesterly/southeasterly direction which coincides with the grain of the regional topography as well as the azimuth of the vast majority of the fault lineations.



LEM 1-4 CLAIMS
Taweeel Lake Area, Kamloops M.D.
CANADIAN ZEOLITE LTD
GROUND MAGNETIC SURVEY
J Jenks, March 1996 MAP A

LEGEND

- 57,700 — Magnetic contour in gammas
- - - Road
- - -> Ravine
- ~ ~ ~ Lakeshore
- Marked grid stations



1:5000

b) A pronounced high feature is beginning to manifest itself in the northern portion of the grid, particularly around the station 125 N - 104 + 25E. Magnitude in the order of 300 gammas is suggestive of a response to a geological formation. The sharp, pronounced ravine projecting NNeasterly through the same area may bear some relationship to this feature.

5. CONCLUSIONS AND RECOMMENDATIONS:

A general northwesterly magnetic trend is indicated which is coincidental with the general regional, geological and structural trend. A magnetic high in the order of 300 gammas occurring in the northern portion of the grid in the area of station 125N - 104 + 25E likely relates to the underlying formation.

The following is recommended:

- 1) Complete the magnetic survey of at least the portion of the grid which has been already blazed and flagged.
- 2) Extend the grid northerly in order to better define the magnetic anomaly which is manifesting itself in the northern portion in the area of station 125N - 104 + 25E.
- 3) Extend the grid in the southerly direction to cover both the Lemieux Creek and the Trench showings northeast of Lemieux Creek.
- 4) Complete the magnetic survey of the entire gridded areas.
- 5) Conduct a coincidental soil geochemical survey over these same grid areas.

6. ESTIMATED COSTS:

For emplacement of an additional 15,000 metres of grid line, complete magnetic survey and soil geochemical coverage:

Line cutting, grid emplacement (15 MD @ \$200/)	\$ 3000
Magnetic survey (15 MD @ \$300/)	4500
Soil sample collection	1800
Vehicle expense	1600
Accomodation	3150

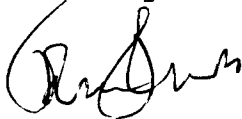
Equipment rental	500
Supplies	450
Gasoline	300
Assays (600 x \$10/)	6000
Compilation, report preparation	<u>2500</u>
Total	\$23,800

7. STATEMENT OF EXPENDITURE:

The following costs were incurred in carrying out the subject programme:

Labour, line-cutting, magnetometer survey, consulting, programme management	\$2400.00
Professional report preparation	800.00
Vehicle expense (5 days, 2 vehicles & km chge.)	582.02
Snowmobile rental (4 days, 2 machines @ \$50/d each)	400.00
Gas	172.12
Accommodation	614.10
Meals	340.26
Magnetometer rental	289.50
Supplies and miscellaneous gear	426.77
Telephone	12.80
Freight costs	<u>29.64</u>
Total	\$6,067.21

Respectfully submitted,



John Jenks - P. Geo. (B.C.)
June 18, 1960



8. BIBLIOGRAPHY:

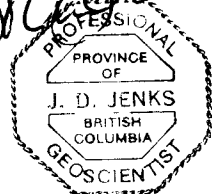
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STATEMENT OF QUALIFICATIONS

I, John Jenks, Consulting Geologist of the City of Salmon Arm, British Columbia, do hereby certify that:

1. I am a graduate of McGill University, Montreal, Canada with a Bachelor of Science (Geology major) degree, 1968.
2. I am a Registered Professional Geologist in good standing since 1970 with the Association of Professional Engineers, Geologists and Geophysicists of Alberta.
3. I am a Registered Professional Geoscientist (#21122) in good standing since 1994 with the Association of Professional Engineers and Geoscientists of British Columbia.
4. I have practiced my profession continuously since graduation in British Columbia and various other parts of Canada, Southern Africa, Indonesia, Western USA, Alaska and Venezuela.
5. I have no interest in the Canadian Zeolite Ltd., nor in any of its affiliates nor do I expect to receive any.
6. I personally performed the fieldwork on the Lem Claims during the dates indicated within this report.
7. I hereby give my consent for inclusion of this report into a statement of material facts or a prospectus.

J. D. Jenks June 10, 1996



The seal is a circular emblem with a double-line border. The outer ring contains the text 'PROFESSIONAL' at the top, 'PROVINCE OF' in the middle, 'BRITISH COLUMBIA' at the bottom, and 'GEOSCIENTIST' at the very bottom. In the center of the seal, the name 'J. D. JENKS' is printed in a larger font, with 'PROVINCE OF' above it and 'BRITISH COLUMBIA' below it.