

CORPORATION FALCONBRIDGE COPPER

MEMORANDUM

DATE: September 17, 1982

A TO: File

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DE FROM: P. W. A. Severin

SUJET SUBJECT: REPORT ON THE TWIN J PROPERTY - J. H. MONTGOMERY July 6, 1981

827504
92B/13

- report based on a visit to the property and a review of the SEREM data.
- total production to date: 305,787 Tons or 305,787 Tons
 - 20,265,763 lb. Cu or 3.31% Cu
 - 45,960,252 lb. Zn or 7.5% Zn
 - 2,629 lb. Cd or 0.0004% Cd
 - 841,276 oz Ag or 2.75oz/T
 - 40,052 oz Au or 0.13oz/T
- most recent work done by SEREM during 1978-1981
 - geological mapping
 - geochemical surveys
 - VLF EM surveys
 - Maxmin EM surveys
 - IP surveys
 - magnetometer surveys
 - some diamond drilling (how much??)
 - they recommended additional exploration which was not done
- summary of recent work
 - Mt. Sicker Mines 1968 VLF, Mag, some stripping
 - 1969 4 DDH's
 - #S-2 intersected 6.5' of 3.10% Cu
 - 10.40% Zn
 - Tr Pb
 - 2.5oz/T Ag
 - 0.19oz/T Au
 - 38.20% BaSO₄
 - 1970 VLF, Mag, 3 X-ray DDH's totalling 250' in NE showings
 - 1971 Soil geochem, trenching
 - Ducanex Optioned 1972 Geological Mapping, CEM survey, 5 DDH's totalling 3000'
 - 1973 I.P. survey over N.E. zone
 - 1974 8 DDH's by Dresser Industries
 - 1978 ESSO tested Maxmin II over the zone
 - 1978 SEREM optioned the property
 - Apparently delineated several exploration targets and recommended additional work-not acted upon.
 - Structurally very little known about the geology in the vicinity of the deposits.
- two deposits are known at present separated by the "Mine Fault". They have been described as irregular cylindricals, up to 10 metres thick, 30 metres high and extending discontinuously over 500 metres in an east-west direction.

- work recommended by SEREM:
 - geophysics including AEM
 - more geological mapping
 - diamond drilling
 - limited rehabilitation of some underground workings (NE Cu zone)
 - target areas 1) Mine area C zone (geophysical target)
 - 2) Herbert area (a geochemical anomaly)
 - 3) NE Cu zone (old tunnel reported to carry widespread copper mineralization).
- work recommended by Montgomery:
 - thorough study of past records
 - rehabilitate as much of the old workings as practicable
 - detailed underground mapping and sampling
 - possible follow-up drilling
- comments by P.W.A.S.
 - 1) Montgomery did not provide details as to the location and amount of drilling that SEREM did. One gets the impression from the text and the diagrams that the amount of drilling was fairly limited and relatively shallow??
 - 2) I do not feel that the quality of information that one is liable to obtain from limited underground mapping and sampling would justify the cost. The ±\$320,000 proposed for underground work would likely be better spent on a ±11,000 foot drill program following-up SEREM's targets as well as drilling some deep holes under the old mine workings. This would be preceded by a DEEPEM survey and supplemented by PEM.

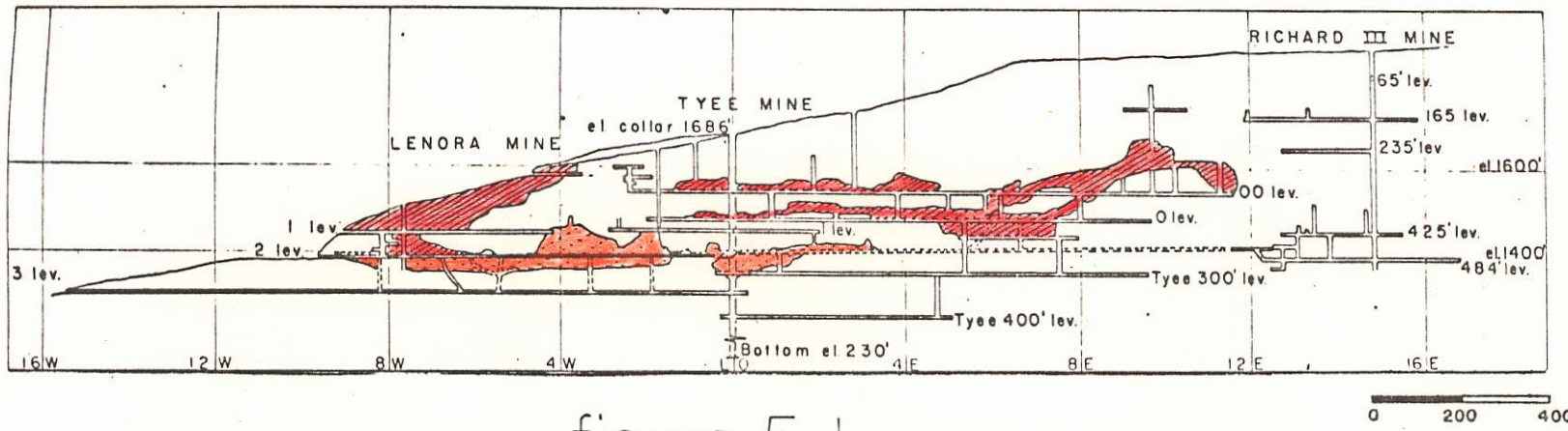




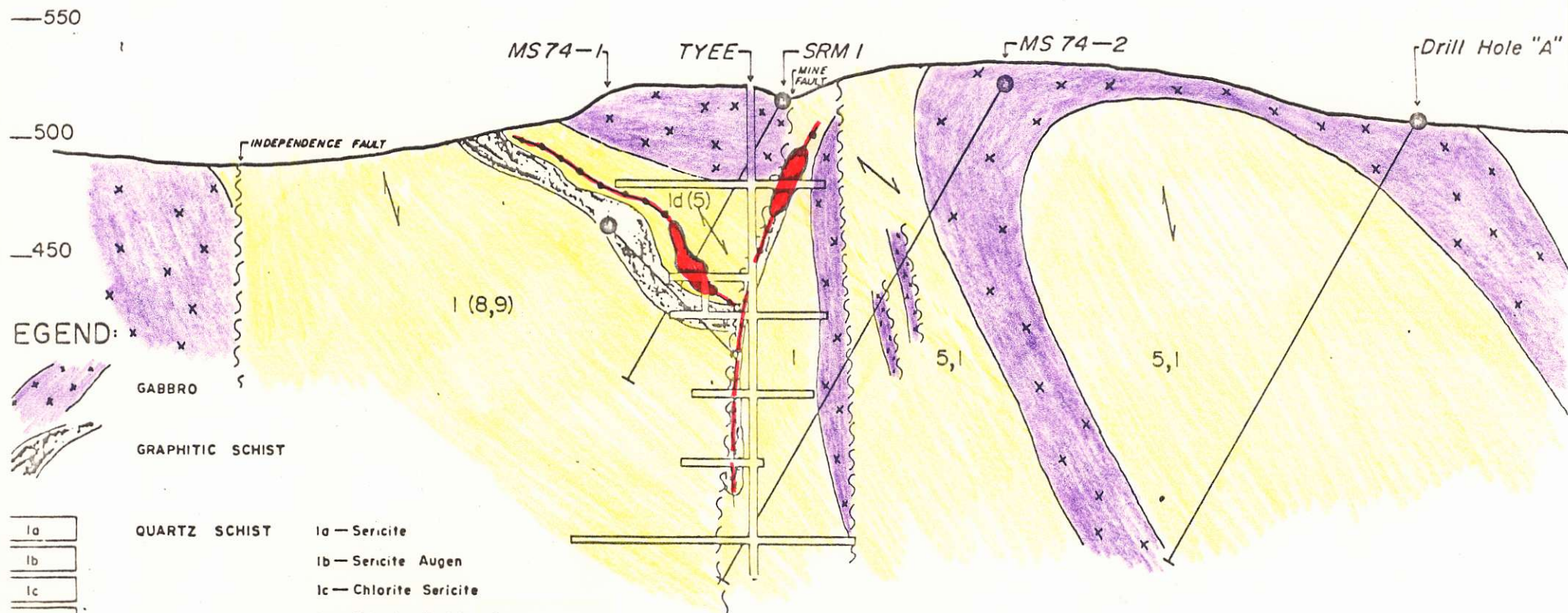
figure 5-1

MINE WORKINGS IN LONGITUDINAL SECTION

PEPPA RESOURCES LTD.



-  Original South Orebody
-  Original North Orebody



- EGEND:
- GABBRO
 - QUARTZ SCHIST
 - SERICITE SCHIST
 - CHLORITE SCHIST
 - TUFF
 - DACITE
 - RHYALITE
 - ORE HORIZON (known)
 - POSSIBLE ORE HORIZON
 - SCHISTOSITY
 - DRILL HOLE
 - DRILL PROPOSAL
 - MINE WORKINGS
- | | |
|----|----------------------------|
| 1a | 1a—Sericite |
| 1b | 1b—Sericite Augen |
| 1c | 1c—Chlorite Sericite |
| 1d | 1d—Chlorite Sericite Augen |
| 2 | SERICITE SCHIST |
| 3 | CHLORITE SCHIST |
| 5a | 5a—Felsic Tuff |
| 5b | 5b—Andesitic Tuff |

figure 6-3

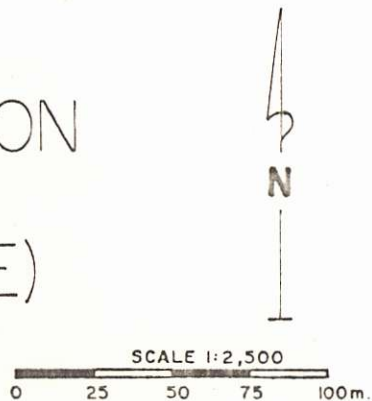
STRUCTURAL INTERPRETATION

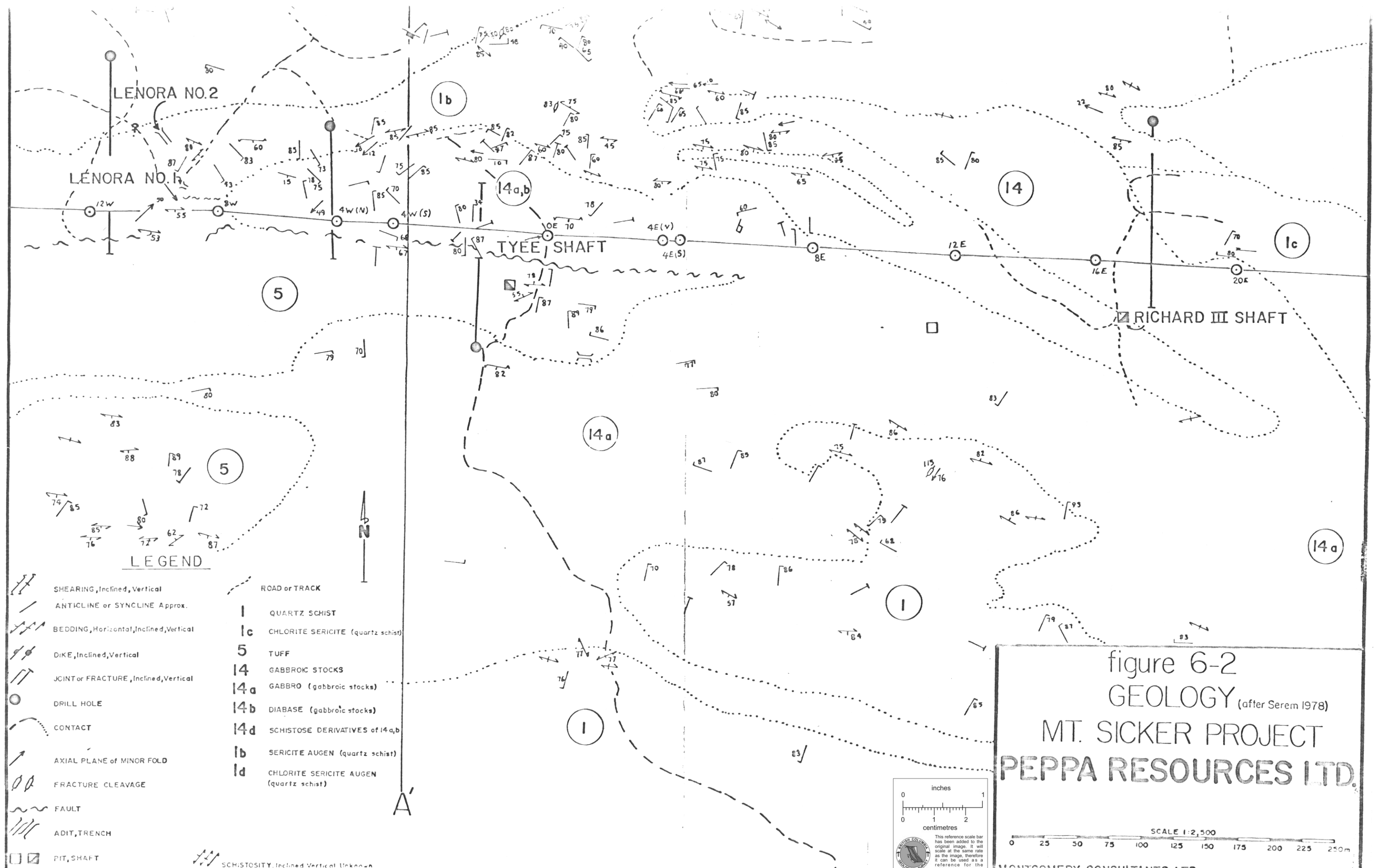
(after Ronning, 1980)

MT. SICKER PROSPECT (TYEE)

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LENORA NO. 2

LENORA NO. 1

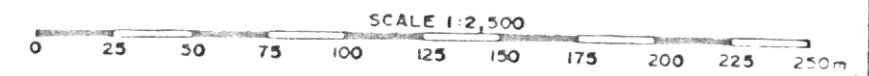
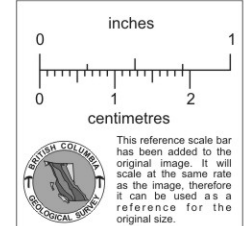
TYEE SHAFT

RICHARD III SHAFT

LEGEND

- SHEARING, Inclined, Vertical
- ANTICLINE or SYNCLINE Approx.
- BEDDING, Horizontal, Inclined, Vertical
- DIKE, Inclined, Vertical
- JOINT or FRACTURE, Inclined, Vertical
- DRILL HOLE
- CONTACT
- AXIAL PLANE of MINOR FOLD
- FRACTURE CLEAVAGE
- FAULT
- ADIT, TRENCH
- PIT, SHAFT
- SCHISTOSITY, Inclined, Vertical, Unknown
- ROAD or TRACK
- 1** QUARTZ SCHIST
- 1c** CHLORITE SERICITE (quartz schist)
- 5** TUFF
- 14** GABBROIC STOCKS
- 14a** GABBRO (gabbroic stocks)
- 14b** DIABASE (gabbroic stocks)
- 14d** SCHISTOSE DERIVATIVES of 14a,b
- 1b** SERICITE AUGEN (quartz schist)
- 1d** CHLORITE SERICITE AUGEN (quartz schist)

figure 6-2
 GEOLOGY (after Serem 1978)
 MT. SICKER PROJECT
 PEPPA RESOURCES LTD.



This reference scale bar has been added to the original image. It will scale at the same rate as the image, therefore it can be used as a reference for the original size.