

02/85

ASSESSMENT REPORT

GEOLOGY, GRAVITY, EM-37 AND GEOCHEMICAL SOIL SURVEY

MEL CLAIM GROUP

CONSISTING OF THE MEL, ERIK, CHARMAINE, EARL AND TOONA CLAIMS

N.T.S. 82G4W

FORT STEELE MINING DIVISION

MOUNT MAHON AREA

COORDINATES: App. 49°08' Longitude

115°55' Latitude

PERIOD: MAY THROUGH AUGUST/1985

OPERATOR: CHEVRON CANADA RESOURCES LIMITED

AUTHORS: L. DEKKER and P. SCHIARIZZA

FILMED

FEBRUARY 1985

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

14,240

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IN POCKETS: A) GEOLOGY MEL CLAIM GROUP, CENTRAL SHEET, Scale 1:5,000
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- I. EXHIBIT "A" EXPENDITURE STATEMENT
- II. AFFIDAVIT
- III. STATEMENTS OF QUALIFICATIONS CHEVRON PERSONNEL:
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- IV. APPLICATION OF ASSESSMENT WORK CREDITS
- V. GEOCHEMICAL SOIL DATA

IN POCKETS

- I. GRAVITY REPORT by Ager, Berretta & Ellis
- II. EM-37 REPORT by Earth Technology Corporation

FIGURE 1

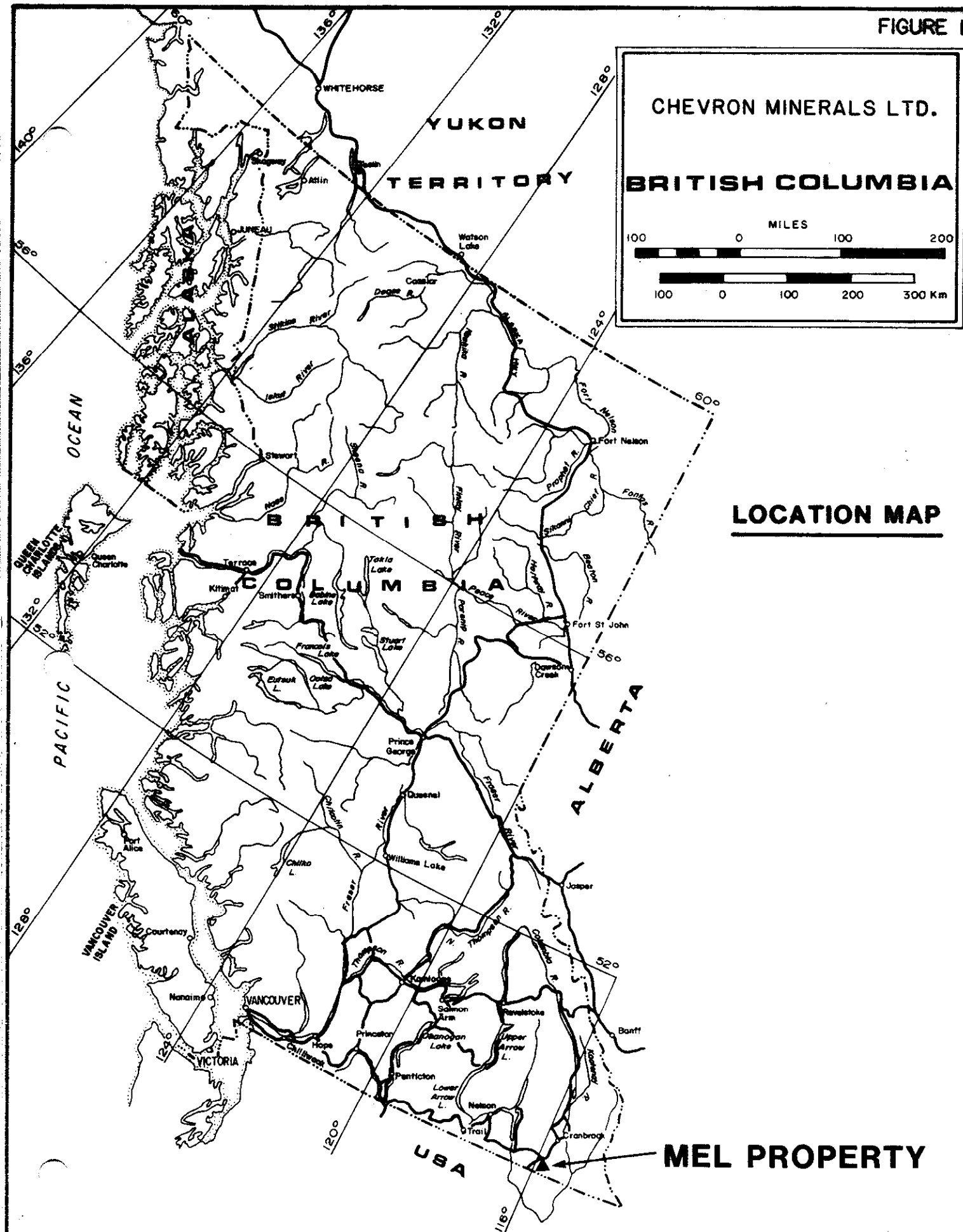
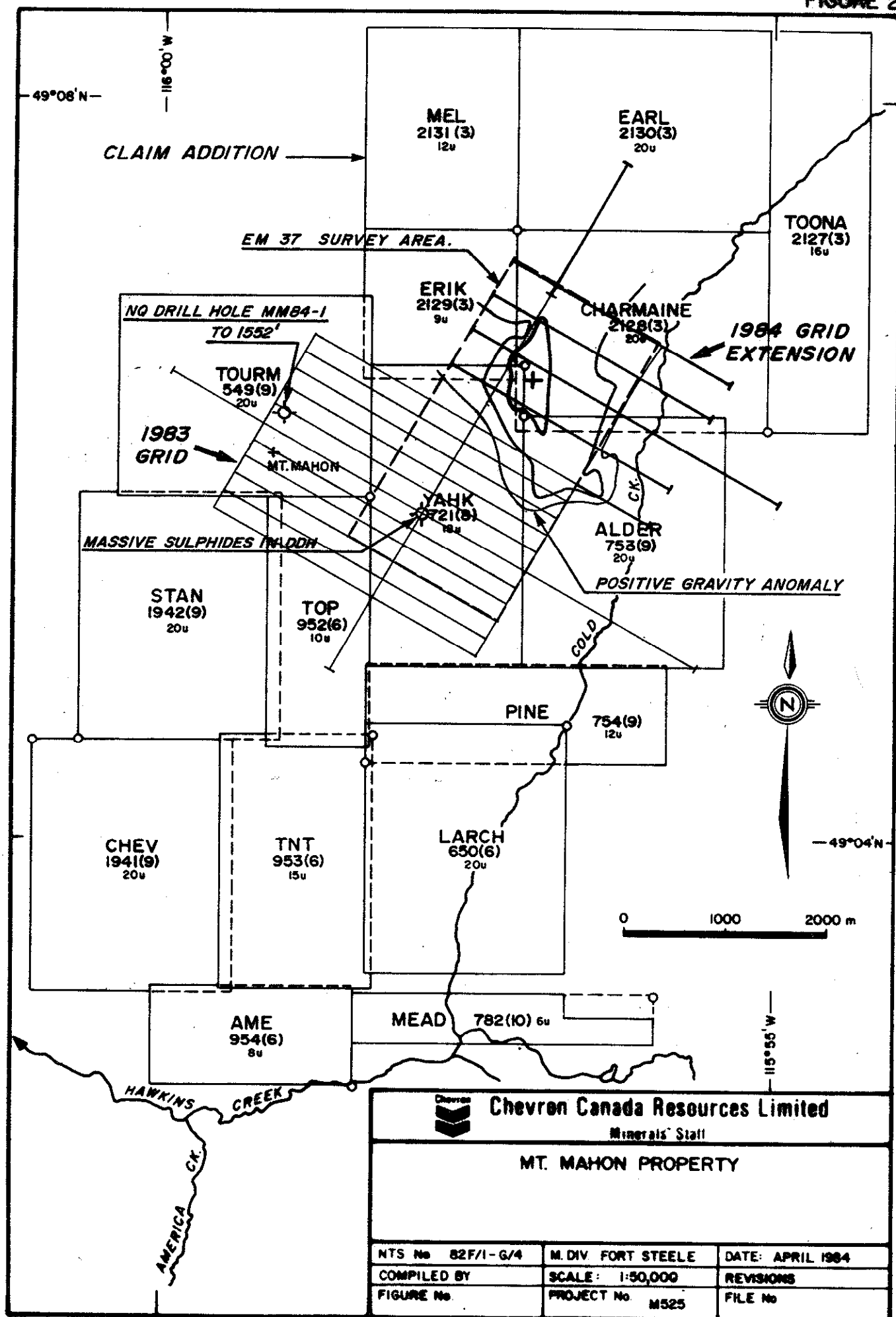


FIGURE 2



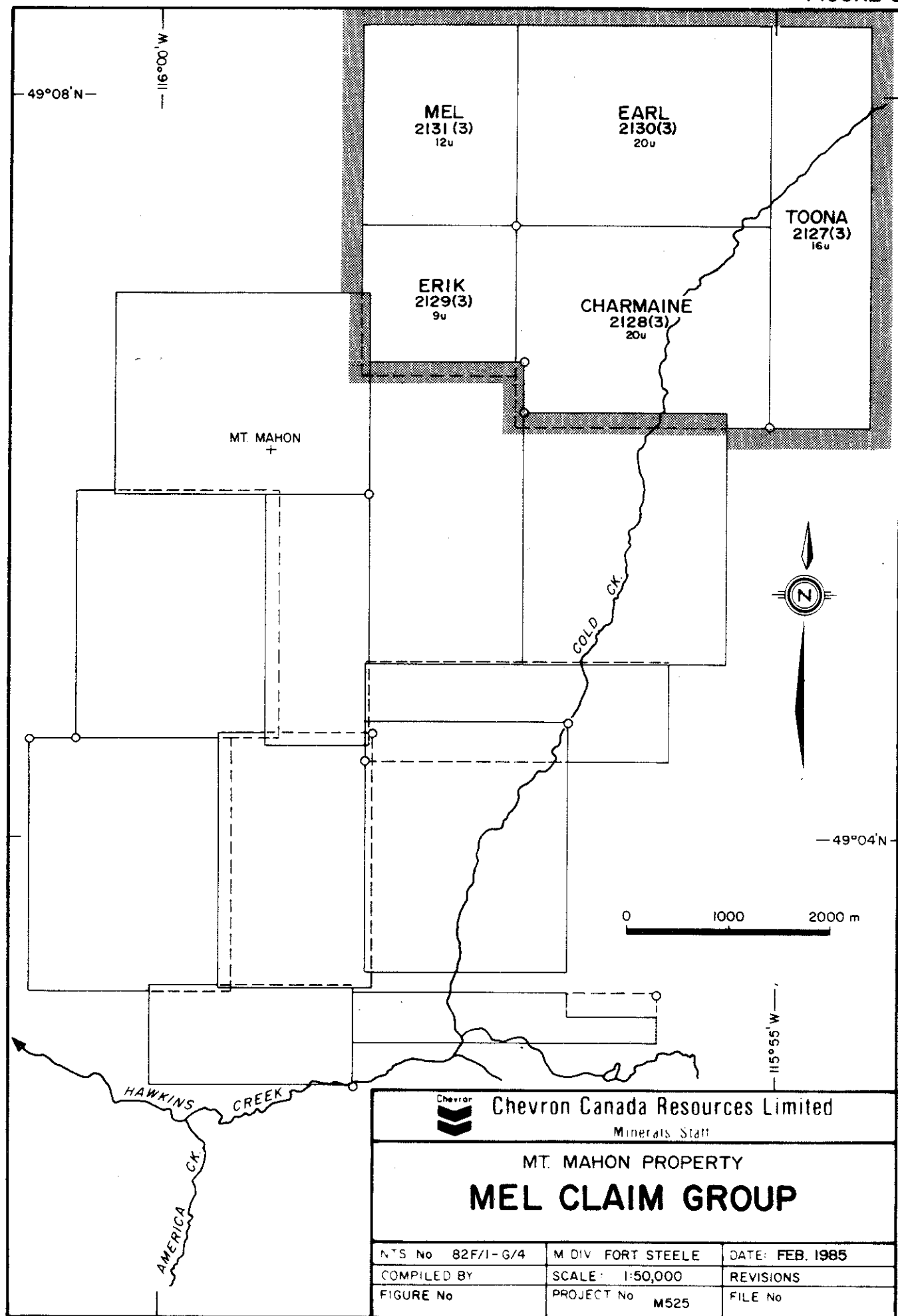
1. INTRODUCTION

The MEL claim group consists of 77 units and is located directly ENE of Mount Mahon summit in the Purcell Mountains in southwestern B.C. (Fig. 1). The small town of Yahk is situated 9 km WSW of the claims. All claims were recorded on March 5, 1984. This claim group forms the northern extension of a group of claims optioned by Chevron in August 1983 from St. Eugene Mining Corporation Ltd. and Falconbridge Corporation. Bounding the MEL group to the south these are, from west to east, the TOURM, the YAHK and ALDER claims.

The optioned claims are underlain by metasediments of the Proterozoic Middle Aldridge Formation and were optioned to explore the possibility for Sullivan-type mineralization. The MEL Group was staked to ensure that a gravity anomaly detected at the NE end of the optioned block was sufficiently protected until its significance could be assessed in the 1984 field season. It was also believed that the Lower/Middle Aldridge contact, the Sullivan Time Horizon, existed at a reasonable depth.

This report will describe the work carried out on the MEL group in the course of the 1984 field season. To obtain an overall, integrated picture of the area, however, the reader should refer to the 1984 Assessment Report on the Mahon Claim Group as well. The locations of the gravity, EM-37 and the 1984 grid with respect to the 1983 work and the claim group are shown on Figure 2. As the surveys fall in part outside the claim group, the exploration expenditures incurred are only partially claimed as assessment work credits.

FIGURE 3



2. LOCATION AND ACCESS

The MEL property can be reached via the town of Yahk situated on paved Highway #3. Access is via Hawkins Creek forestry road, which branches off at the north end of town, and parallels Hawkins Creek which flows in an east-west direction. The Cold Creek logging road turns off to the north at km 12 and follows the N-S trending Cold Creek Valley. This road cuts through the centre of the claim group approximately 6 km from the Hawkins Creek turn off. Various old logging roads branch off from Cold Creek road, some of which are accessible with a 4 x 4.

The topography varies from 4200' in the Cold Creek Valley to 5800' at the western claim boundary, the northern extension of Mount Mahon ridge. The topography is fairly gentle the claims being located on the shallow dipping northeastern slopes of Mount Mahon.

Vegetation is variable: from older logged off areas, swampy in part, to areas of dense buck brush and alder, to slopes covered with immature stands of fir and spruce covering areas logged off in the distant past as evidenced by many, old, slippery logs and a myriad of overgrown logging roads.

3. CLAIMS

The MEL Claim Group (Fig. 3) consists of the following claims:

<u>CLAIM NAME</u>	<u>RECORD NO.</u>	<u>UNITS</u>	<u>DATE RECORDED</u>	<u>HECTARES</u>	<u>EXPIRY DATE</u>
TOONA	2127	16	1984/03/05	400.0	1985/03/05
CHARMAINE	2128	20	1984/03/05	500.0	1985/03/05
ERIK	2129	9	1984/03/05	225.0	1985/03/05
EARL	2130	20	1984/03/05	500.0	1985/03/05
MEL	2131	<u>12</u>	1984/03/05	300.0	1985/03/05
TOTAL		77 units			

These claims were staked and recorded by Chevron Minerals Ltd., 500 - 5th Ave SW, Calgary, Alberta

4. GEOLOGY

The Claim Block is underlain by Helikian metasediments and dioritic intrusive rocks assigned to the Middle Aldridge Formation and Moyie Intrusions respectively. Geological work consisted of geological mapping, at a scale of 1:5,000, and prospecting along the grid and claim lines.

Outcrops within the claim block are scarce; Middle Aldridge metasediments are exposed at the south end of a ridge within the MEL and ERIK claims and in a few small exposures elsewhere, while an underlying diorite sill is represented by a number of small exposures in the southern portion of the ERIK claim (Figs. 5 and 6, in pockets). These rocks dip gently to the northeast and are stratigraphically located above Middle Aldridge metasediments exposed in the vicinity of Mount Mahon summit to the southwest on the Tourm Claim (Fig. 3). A single exposure of east dipping metasediments in the southern portion of the CHARMAINE claim, east of Cold Creek, probably occurs within a separate fault block separated from other rocks in the claim group by a fault within the Cold Creek Valley.

The metasedimentary rocks within the Claim Block are similar to Middle Aldridge rocks exposed elsewhere in the area and consist mainly of sandstone with minor amounts of siltstone and argillite. They have been metamorphosed under upper greenschist facies conditions and are characterized by a quartz-muscovite-biotite $\pm$ garnet assemblage. Their primary sedimentary characteristics are, however, very well preserved. The sandstones are fine to

very fine grained. They are light to medium grey on fresh surface and generally weather light grey; weathered surfaces may, however, be medium to dark grey, brownish grey, or rusty. They are predominantly composed of quartz (70-85%) along with biotite, muscovite and occasionally garnets. Beds range from a few centimeters to 80 cm in thickness. They are generally massive but may have graded tops and pass upwards into 1 to 6 cm thick intervals of medium to dark grey argillite. These argillite tops often display a weakly to moderately well developed slaty cleavage and may contain light grey feldspar porphyroblasts. The graded sandstone/argillite beds probably represent A-E turbidites of the Bouma (1962) turbidite sequence. Dark grey to rusty weathering, medium to dark grey slaty siltstone occurs as thinly bedded and/or laminated intervals within the sandstone at a few localities, and dominates intervals several meters in thickness. One exposure included several centimeters of light grey, cross-laminated siltstone in thin beds alternating with medium greenish-grey slaty argillite.

Tourmalinite, a dark grey, very hard and fine grained "cherty" rock consisting largely of very fine felted tourmaline needles, occurs as float at one locality within the west-central portion of the ERIK claim where it is associated (also as float) with typical Middle Aldridge sandstone and siltstone (Fig. 6). It is not certain if this occurrence is indicative of tourmalinite bedrock at this locality, or whether the tourmalinite was derived from near Mount Mahon summit, 2 km to the south, where it is well exposed.

Dioritic rocks, occurring as several small exposures in the southern part of the ERIK claim, appear to represent a sill, close to 200 m thick, which underlies the metasediments within the claim block. These rocks are medium to dark grey or

greenish-grey, medium to coarse grained, and comprised of approximately equal proportions of equigranular dark greenish-grey, mafic and lighter grey feldspar (with minor quartz) grains. The mafic grains appear to consist mainly of hornblende which is partially altered to chlorite and actinolite.

The rocks within most of the claim block dip at shallow angles to the northeast and are cut by a somewhat steeper, more easterly dipping slaty cleavage. These attitudes are similar to those in exposures to the south near Mount Mahon summit, and probably reflect a structural position close to the hinge zone of the NNE plunging Moyie Anticline. These rocks appear to be separated from persistently east dipping strata to the east of Cold Creek (represented by only a single outcrop within the Claim Group) by a steep NNE trending fault occupying Cold Creek valley. A minor fault with a similar orientation is inferred to mark an abrupt change from NNE to more easterly dips within strata exposed in the western portion of the block, and a steep NNW trending fault appears to cause approximately 200 m of apparent right lateral offset on the metasediment/sill contact in the southern portion of the Claim Block (Fig. 6).

5. GRAVITY SURVEY

The 1984 gravity survey was carried out between July 7 and July 12 by Ager, Berretta and Ellis. Their detailed report is attached to this assessment report. The purpose of the survey was to investigate the potential for stratiform massive sulphides and to further delineate and close off an open gravity anomaly that was found at the NE corner of the 1983 grid. The data of the 1983 and 1984 surveys were interpreted and compiled in a single map sheet (see Map in Gravity Report in pocket). The 1984 station interval was 100 meters on lines 400 meters apart (as opposed to 200 meters in 1983). The gravity "high" was

found to trend across the area from line 8+00N station 800E to line 26+00N station 400W, with the "high" maximizing at line 18+00N. The one milligal anomaly parallels the regional geological trend and corresponds roughly with a few scattered gabbro outcrops. The most likely explanation, therefore, is that the gravity anomaly reflects the presence of a gabbroic sill, rather than mineralization at depth.

6. GEOCHEMICAL SOIL SURVEY

264 soil samples were collected on the 1984 grid extension. These were collected on lines 400 m apart at 50 m station intervals. The gridded area is largely covered by drift and the results must be interpreted in this light. The samples were collected from the "B" horizon which occurs down to a depth of 25 cm. The samples were put in conventional paper bags, dried in the field at room temperatures and subsequently shipped to Chemex Labs Ltd. in North Vancouver for analysis with conventional techniques.

The soil samples were analyzed for Pb, Zn and Cu. The sample population was integrated with the contiguous population to the south consisting of 828 samples collected on the 1983 grid.

Mean values and threshold values did not change significantly and are as follows for the total population of 1092 samples:

	<u>MEAN</u>	<u>MINIMUM</u>	<u>MAXIMUM</u>	<u>S.D.</u>
Pb	12.6 (13)	2.0 (3)	95.0 (85)	7.1 (7)
Zn	91.9 (96)	28.0 (28)	505.0 (505)	41.2 (44.7)
Cu	26.9 (26)	6.0 (9)	146 (100)	12.4 (11)

All numbers are in ppm. 1983 numbers in brackets.

The combined 1983 + 1984 data are plotted on the 1:5,000 scale grid map (Fig. 4, in pocket). For the following reasons the 1984 data were purposely not contoured:

Several spotty small Pb and Zn anomalies of limited extent do exist. Given these small anomalies, the wide (400 m) line spacing precludes reasonable and confident extrapolation from line to line and contouring therefore is unwarranted. The lack of significant Pb and Zn anomalies could be a reflection of the thick overburden cover. The newly gridded area is slightly more anomalous in Cu, possibly reflecting the gabbroic sills outcropping and subcropping near surface.

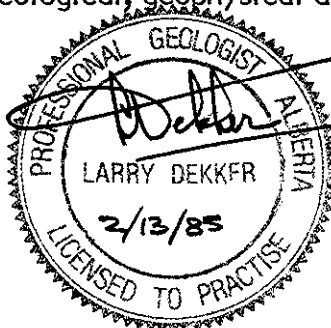
7. EM-37 SURVEY

The EM-37 survey was conducted by Mark Blohm of the Earth Technology Corporation of Golden, Colorado, using EM-37 equipment owned by Geo-physi-con of Calgary. A complete report of the survey is attached and, therefore, the results are only briefly summarized here. The coverage extended north and east from DDH YA-6 over the positive gravity anomaly discussed in Chapter 5. Coverage was obtained over eight lines 1600 metres long and 400 meters apart from three transmitting loops. A theoretical target with dimensions of 600 x 600 meters and a conductivity width parameter of about 30 mhos was postulated. From computer modelling the effective depth of detection for such an ore body is roughly 600 m under the loop and roughly 400 m outside. Data quality is good and the data indicates that practically all of the observed response is non-anomalous half space response. A very shallow response exists

at about 75E on line 2S which could be a reflection of some minor vein-type sulphide mineralization. No drill targets within reasonable depth are apparent from the EM survey.

8. CONCLUSIONS

The results of the gravity and EM-37 surveys show that the existence of near surface Sullivan-type mineralization of reasonable size in the target area is unlikely. This conclusion does not preclude this possibility at greater depth or outside the EM-37 survey area. As the Sullivan Time Horizon is projected to dip off shallow to the north and east, exploration should be directed into these areas. Exploration for this type of "blind" target will require considerable skill and the combined use of geological, geophysical and geochemical exploration methods.



L. Dekker

FMC #274542

February 1985

APPENDIX I

EXHIBIT "A"

EXPENDITURE STATEMENT

The work carried out on the claim group during 1984 consisted of:

PERIOD June 1 - June 19, 1984:

- 1) Line cutting (1984 grid) 13.2 km at \$475/km, hand cut
NE extension of 1983 grid, 400 m line spacing \$ 6,270.00

PERIOD June 20 - 23, 1984:

- 2) Soil Sampling on 1984 grid at \$300/day 1,200.00
Survey Transit Rental 130.00
264 soil samples, analyzed for Cu, Pb, Zn
Results integrated with 1983 survey 1,233.00

PERIOD July 7 - July 12, 1984:

- 3) Gravity survey on 1984 grid
Results integrated with 1983 survey 8,958.00

PERIOD August 24 - August 31, 1984:

- 4) EM-37 Survey 15,804.03

PERIOD JULY/AUGUST 1984

- 5) Geological mapping, prospecting, crew supervision

<u>Name</u>	<u>Position</u>	<u>Period</u>	<u>Days</u>	<u>Amount</u>	
L. Dekker	Sr. Geologist	July/August/84	12	3,000.	
			at \$250/day		
A.P. Schiarizza	Geologist	July/August/84	16	2,480.	
			at \$155.day		5,480.00

OTHER EXPENSES:

Travel (incl. 4 x 4 truck, gas, etc.) 16 days at \$32/day	512.00	
Food and Lodging 28 days at \$60/day	1,680.00	
Equipment	1,385.22	
Report preparation (incl. drafting)	1,250.00	\$ 4,827.22
	TOTAL	<u>\$43,902.25</u>

NOTE: As this work was partially carried out outside the claim block only a portion of the expenditure, i.e. \$23,100. is claimed as assessment work credits.

APPENDIX II

IN THE MATTER OF THE
B. C. MINERAL ACT
AND
THE MINERAL EXPLORATION PROGRAM
ON THE MEL CLAIM GROUP
MOUNT MAHON AREA, S.E. BRITISH COLUMBIA
in the FORT STEELE MINING DIVISION of the
PROVINCE OF BRITISH COLUMBIA
N.T.S 82G4W

AFFIDAVIT

I, Larry Dekker, residing in the City of Vancouver, in the Province of British Columbia, make Oath and say

- a) That I am employed as a Senior Exploration Geologist by Chevron Canada Resources Limited, Mineral Staff and that I have personal knowledge of the facts of which I hereinafter depose.
- b) That the annexed hereto Exhibit marked "A" is a true statement of exploration expenditures incurred on the MEL Mineral Claim Group.
- c) That the said expenditures were incurred between June 1st and August 31, 1984 for the purpose of mineral exploration on the MEL Claim Group.



L. Dekker
Sr. Geologist

APPENDIX III

CHEVRON PERSONNEL EMPLOYED ON THE MEL CLAIM GROUP

Larry Dekker,
Senior Exploration Geologist,
850 Cardero Street,
Vancouver, B. C.
V6G 2G5

Phone: 604-669-2367

A. Paul Schiarizza,
Geologist,
c/o B.C. Ministry of Energy, Mines and Resources,
Geological Branch,
Mineral Resources Division,
Parliament Buildings,
Victoria, B. C.
V8V 1X4

STATEMENT OF QUALIFICATIONS

L. DEKKER

I, Larry Dekker, have worked as a geologist since graduation from the University of Amsterdam, the Netherlands, with a B.Sc. Degree in Geology (1965) and a M.Sc. Degree in Stratigraphy and Sedimentology (1969).

I am a licensee (P.Eng.) of the Association of Professional Engineers, Geologist and Geophysicists of the Province of Alberta, a Fellow of the Geological Association of Canada, a member of the American Association of Petroleum Geologists and a member of the Canadian Society of Petroleum Geologists.

I am currently employed as a senior geologist by Chevron Canada Resources Limited, 1900 - 1055 West Hastings St., Vancouver, B. C. V6E 2E9 and have been with this company for 16 years.

The exploration program on the MEL Claim Group was performed under my direction and supervision.

STATEMENT OF QUALIFICATIONS

A. PAUL SCHIARIZZA

A. Paul Schiarizza holds a B.Sc. (honours) Degree in Geology (1975) from Queen's University, Kingston, Ontario.

He has been employed as a research assistant at Queen's University (1976 and 1977), by Cominco (1978) and as a senior field assistant to Dr. V. A. Preto of the B.C. Ministry of Energy, Mines and Petroleum Resources (1978, 1979 and 1983). During the 1983 and 1984 field seasons he worked as a senior field assistant for Chevron Canada Resources, Minerals Staff, 1900 - 1055 West Hastings Street, Vancouver, B. C., V6E 2E9.

APPENDIX IV

ASSESSMENT WORK CREDITS TO BE APPLIED AS FOLLOWS:

<u>Claim Name</u>	<u>Record No.</u>	<u>Units</u>	<u>Expiry Date</u>	<u>Assessment Cr. Applied</u>	<u>New Expiry Date</u>
MEL	2131	12	1985/03/05	3 yrs/\$3,600.	1988/03/05
ERIK	2129	9	"	3 yrs/\$2,700.	"
CHARMAINE	2128	20	"	3 yrs/\$6,000.	"
EARL	2130	20	"	3 yrs/\$6,000.	"
TOONA	2127	16	"	<u>3 yrs/\$4,800.</u>	"
TOTAL ASSESSMENT WORK CREDITS APPLIED				\$23,100.	

TOTAL EXPENDITURE	\$43,902.25
APPLIED ASSESSMENT WORK CREDITS	<u>\$23,100.00</u>
BALANCE	<u><u>\$20,802.25</u></u>

Sample description	Cu ppm	Pb ppm	Zn ppm	Cu	Pb	Zn
2500N /BL	27	23	100	**	+ 1 std dev.	
2550N /BL	19	15	90			
2600N /BL	22	17	125			** + 1 std dev.
2650N /BL	31	17	80			
2700N /BL	60	28	130	** + 1 std dev.	**** + 2 std dev.	**** + 2 std dev.
2750N /BL	15	12	80			
2800N /BL	19	10	65			
2850N /BL	38	19	105	** + 1 std dev.	** + 1 std dev.	** + 1 std dev.
2900N /BL	13	14	80	** - 1 std dev.		
2950N /BL	16	14	110			** + 1 std dev.
3000N /BL	17	13	80			
3050N /BL	28	17	95			
3100N /BL	25	30	113		**** + 2 std dev.	** + 1 std dev.
3150N /BL	10	12	52	** - 1 std dev.		** - 1 std dev.
3200N /BL	18	12	73			
3250N /BL	15	14	50			
3300N /BL	13	10	85	** - 1 std dev.		
3350N /BL	7	17	78	** - 1 std dev.		
3400N /BL	11	9	88	** - 1 std dev.		
3450N /BL	25	18	65		** + 1 std dev.	
3500N /BL	40	21	70		** + 1 std dev.	
3550N /BL	23	10	75			
3600N /BL	24	15	73			
3650N /BL	20	10	58			
3700N /BL	9	10	47	** - 1 std dev.		** - 1 std dev.
3750N /BL	20	12	83			
3800N /BL	22	10	73			
1000N 1200E	30	10	83			
1000N 1250E	38	12	98			
1000N 1300E	26	8	90			
1000N 1350E	27	10	75			
1000N 1400E	22	5	53			** - 1 std dev.
1000N 1450E	47	10	68	** + 1 std dev.		
1000N 1500E	51	7	70	** + 1 std dev.		
1000N 1550E	112	8	70	***** } + 2 std dev.		
1000N 1600E	60	7	100	** + 1 std dev.		
1000N 1650E	35	9	78			
1000N 1700E	37	13	73			
1000N 1750E	34	13	140			**** + 2 std dev.
1000N 1800E	33	10	69			
1000N 1850E	16	13	98			
1000N 1900E	33	10	84			
1000N 1950E	29	8	75			
1000N 2000E	24	7	44			** - 1 std dev.
1400N 0000E	21	10	100			
1400N 0050E	21	10	74			
1400N 0100E	76	6	74	**** + 2 std dev.		
1400N 0150E	30	12	110			** + 1 std dev.
1400N 0200E	70	11	82	**** + 2 std dev.		
1400N 0250E	28	10	70			
1400N 0300E	17	10	75			

Sample description	Cu ppm	Pb ppm	Zn ppm		Cu	Pb	Zn
1400N 0350E	41	13	98				
1400N 0400E	7	14	93	**	- 1 std dev.		
1400N 0450E	17	10	75				
1400N 0500E	21	10	97				
1400N 0550E	26	10	93				
1400N 0600E	17	11	90				
1400N 0650E	37	10	125				** + 1 std dev.
1400N 0700E	37	14	167				*****)+ 2 std dev.
1400N 0750E	74	25	85	****	+ 2 std dev.	**** + 2 std dev.	
1400N 0800E	18	7	52				** - 1 std dev.
1400N 0850E	27	13	94				
1400N 0900E	13	8	85	**	- 1 std dev.		
1400N 0950E	23	10	153				*****)+ 2 std dev.
1400N 1000E	30	9	133				**** + 2 std dev.
1400N 1050E	13	8	113	**	- 1 std dev.		** + 1 std dev.
1400N 1100E	14	8	97				
1400N 1150E	15	6	78				
1400N 1200E	24	8	98				
1400N 1250E	20	6	53				** - 1 std dev.
1400N 1300E	24	7	84				
1400N 1350E	146	26	100	*****)+ 2 std dev.	**** + 2 std dev.		
1400N 1400E	16	8	80				
1400N 1450E	18	10	58				
1400N 1500E	50	11	78	**	+ 1 std dev.		
1400N 1600E	33	11	67				
1400N 1650E	30	13	82				
1400N 1700E	40	12	64				
1400N 1750E	37	13	90				
1400N 1800E	50	12	78	**	+ 1 std dev.		
1400N 1850E	36	10	70				
1400N 1900E	15	8	52				** - 1 std dev.
1400N 1950E	16	8	74				
1400N 2000E	40	10	70				
1400N 0050W	6	5	28	**	- 1 std dev.		** - 1 std dev.
1400N 0100W	46	16	168	**	+ 1 std dev.		*****)+ 2 std dev.
1400N 0150W	16	6	53				** - 1 std dev.
1400N 0250W	19	10	50				** - 1 std dev.
1400N 0300W	15	10	90				
1400N 0350W	16	6	55				** - 1 std dev.
1400N 0400W	24	7	72				
1400N 0450W	24	11	80				
1400N 0500W	20	11	83				
1800N 0000E	22	7	53				** - 1 std dev.
1800N 0050E	40	15	83				
1800N 0100E	24	11	110				** + 1 std dev.
1800N 0150E	50	12	95	**	+ 1 std dev.		
1800N 0200E	48	17	108	**	+ 1 std dev.		** + 1 std dev.
1800N 0250E	33	15	102				
1800N 0300E	41	15	98				
1800N 0350E	32	15	135				**** + 2 std dev.
1800N 0450E	22	13	98				

Sample description	Cu ppm	Pb ppm	Zn ppm	Cu	Pb	Zn
1800N 0500E	20	9	57			
1800N 0550E	30	10	80			
1800N 0600E	18	9	138			**** + 2 std dev.
1800N 0650E	38	13	102			
1800N 0700E	51	27	122	** + 1 std dev.	**** + 2 std dev.	** + 1 std dev.
1800N 0750E	25	14	105			** + 1 std dev.
1800N 0800E	26	12	57			
1800N 0850E	38	16	148			**** + 2 std dev.
1800N 0900E	33	10	75			
1800N 0950E	52	16	105	** + 1 std dev.		** + 1 std dev.
1800N 1000E	70	18	95	**** + 2 std dev.	** + 1 std dev.	
1800N 1050E	23	7	70			
1800N 1100E	25	8	63			
1800N 1150E	36	10	58			
1800N 1200E	28	8	48			** - 1 std dev.
1800N 1250E	25	10	65			
1800N 1300E	25	8	63			
1800N 1350E	25	9	55			** - 1 std dev.
1800N 1400E	25	9	78			
1800N 1450E	36	13	67			
1800N 1500E	38	11	80			
1800N 1550E	34	10	72			
1800N 1600E	26	13	118			** + 1 std dev.
1800N 1650E	21	12	84			
1800N 1700E	33	11	90			
1800N 1750E	23	10	72			
1800N 1800E	25	10	85			
1800N 1850E	54	17	78	** + 1 std dev.		
1800N 1900E	25	9	45			** - 1 std dev.
1800N 1950E	21	9	52			** - 1 std dev.
1800N 2000E	26	11	74			
1800N 2050E	18	9	80			
1800N 2100E	18	6	54			** - 1 std dev.
1800N 2150E	31	11	80			
1800N 2200E	39	9	78			
1800N 2250E	32	10	100			
1800N 2300E	22	8	72			
1800N 2350E	15	6	52			** - 1 std dev.
1800N 2400E	23	10	98			
1800N 2450E	39	11	73			
1800N 2500E	38	9	77			
1800N 2550E	43	12	65			
1800N 2600E	24	9	62			
1800N 2650E	30	9	78			
1800N 2700E	25	9	88			
1800N 2750E	23	10	75			
1800N 2800E	35	8	88			
1800N 2850E	22	10	85			
1800N 2900E	25	11	90			
1800N 2950E	24	11	82			
1800N 3000E	27	12	82			

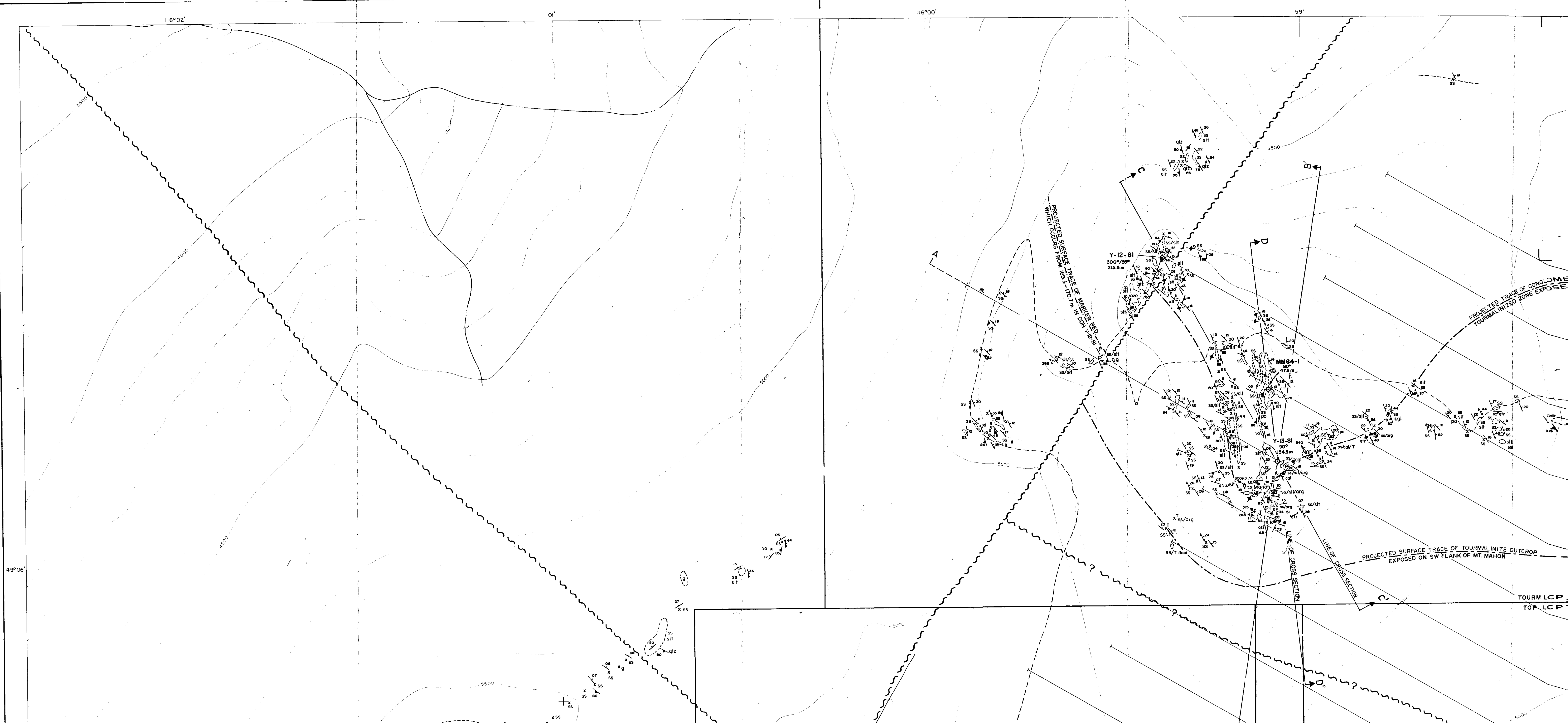
Sample description	Cu ppm	Pb ppm	Zn ppm	Cu	Pb	Zn
1800N 3050E	17	8	45			** - 1 std dev.
1800N 3100E	81	17	82	*****)+ 2 std dev.		
1800N 0050W	24	6	58			
1800N 0100W	76	21	52	**** + 2 std dev.	** + 1 std dev.	** - 1 std dev.
1800N 0150W	26	11	63			
1800N 0200W	24	5	48			** - 1 std dev.
1800N 0250W	18	4	40		** - 1 std dev.	** - 1 std dev.
1800N 0300W	14	6	34			** - 1 std dev.
1800N 0350W	40	13	58			
1800N 0400W	39	8	68			
1800N 0450W	35	9	60			
1800N 0500W	28	7	60			
2200N 0000E	37	13	96			
2200N 0050E	42	18	100	** + 1 std dev.		
2200N 0100E	31	11	85			
2200N 0150E	21	12	85			
2200N 0200E	25	12	93			
2200N 0250E	22	8	63			
2200N 0300E	23	12	55			** - 1 std dev.
2200N 0350E	31	12	80			
2200N 0400E	35	8	55			** - 1 std dev.
2200N 0550E	13	8	37	** - 1 std dev.		** - 1 std dev.
2200N 0600E	28	12	90			
2200N 0650E	17	10	94			
2200N 0700E	25	7	68			
2200N 0750E	28	15	80			
2200N 0800E	39	14	94			
2200N 0850E	16	10	85			
2200N 0900E	33	10	72			
2200N 0950E	14	8	62			
2200N 1000E	17	9	78			
2200N 1050E	20	10	82			
2200N 1100E	20	4	95	** - 1 std dev.		
2200N 1150E	25	10	70			
2200N 1200E	21	8	73			
2200N 1250E	48	15	138	** + 1 std dev.	**** + 2 std dev.	
2200N 1300E	28	9	90			
2200N 1350E	25	9	75			
2200N 1400E	27	10	60			
2200N 1450E	18	10	48		** - 1 std dev.	
2200N 1500E	15	8	60			
2200N 1550E	15	8	58			
2200N 1600E	23	7	55		** - 1 std dev.	
2200N 1650E	20	12	115		** + 1 std dev.	
2200N 1700E	18	8	60			
2200N 1750E	20	9	105		** + 1 std dev.	
2200N 1800E	39	10	80			
2200N 1850E	34	10	68			
2200N 1900E	33	8	73			
2200N 1950E	39	9	58			
2200N 2000E	48	12	105	** + 1 std dev.	** + 1 std dev.	

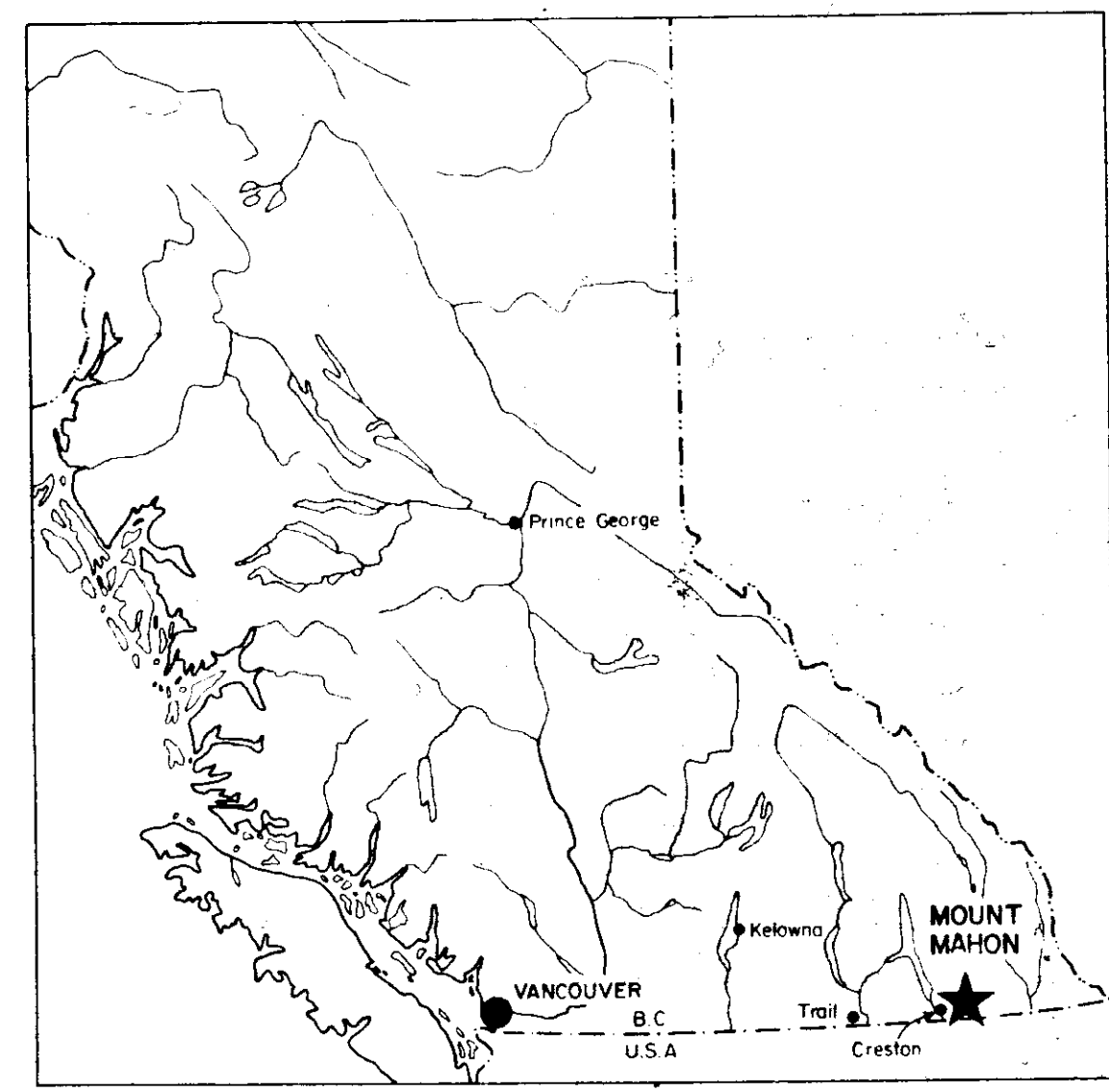
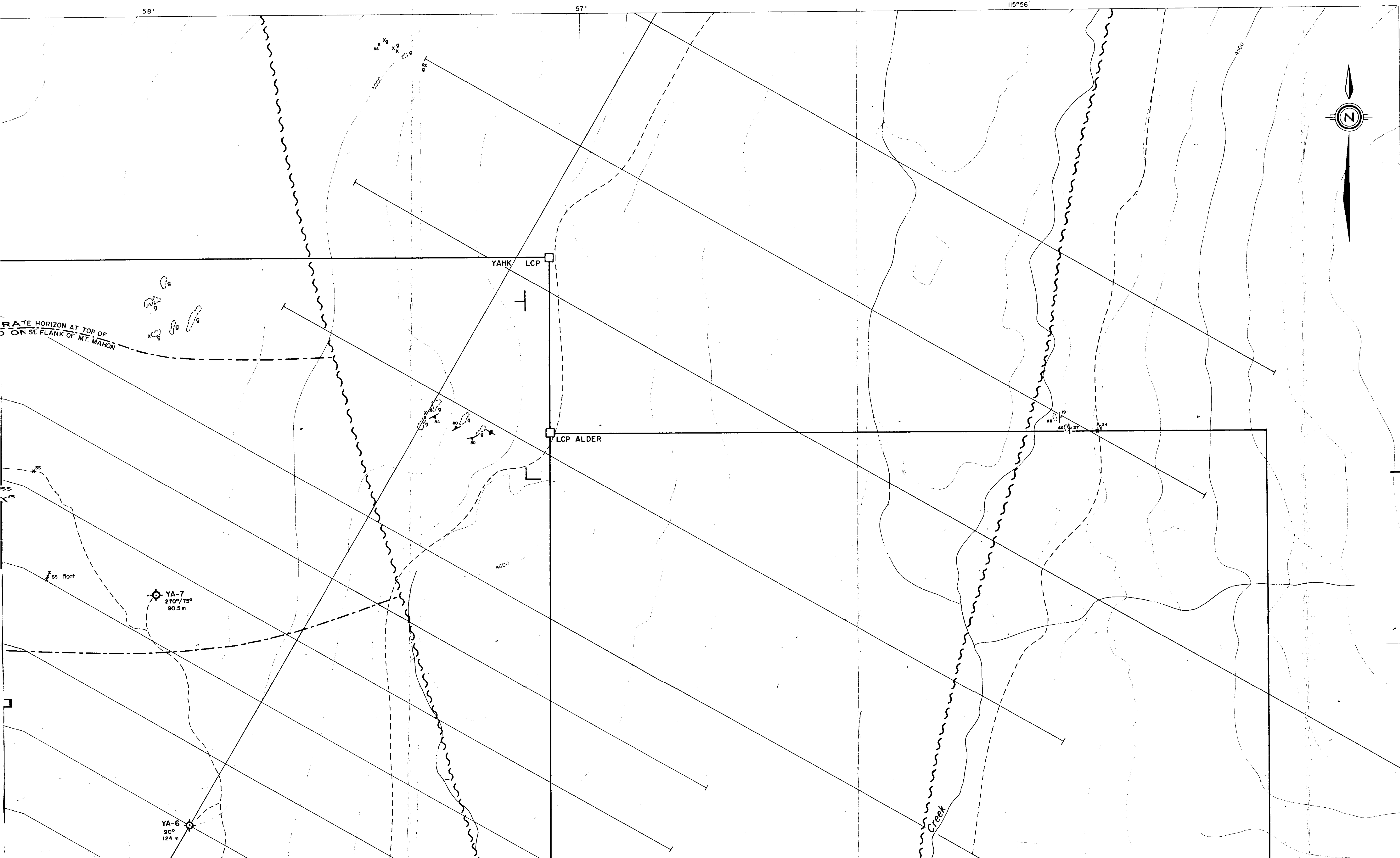
Sample description	Cu ppm	Pb ppm	Zn ppm	Cu	Pb	Zn
2200N 0050W	16	8	78			
2200N 0100W	33	10	83			
2200N 0150W	15	6	48			** - 1 std dev.
2200N 0200W	18	11	48			** - 1 std dev.
2200N 0250W	22	10	55			** - 1 std dev.
2200N 0300W	29	11	140			**** + 2 std dev.
2200N 0345W	20	4	53	** - 1 std dev.		** - 1 std dev.
2200N 0400W	26	9	75			
2200N 0450W	48	10	59	** + 1 std dev.		
2200N 0500W	19	7	100			
2600N 0050E	23	13	78			
2600N 0100E	33	13	90			
2600N 0150E	29	9	73			
2600N 0200E	35	17	84			
2600N 0250E	70	22	83	**** + 2 std dev.	** + 1 std dev.	
2600N 0300E	16	6	76			
2600N 0350E	22	9	60			
2600N 0400E	26	12	68			
2600N 0450E	26	13	103			
2600N 0500E	16	6	66			
2600N 0550E	40	15	120			** + 1 std dev.
2600N 0600E	29	12	80			
2600N 0650E	40	14	67			
2600N 0700E	22	12	80			
2600N 0750E	53	15	80	** + 1 std dev.		
2600N 0800E	20	9	62			
2600N 0850E	25	12	46			** - 1 std dev.
2600N 0900E	23	6	42			** - 1 std dev.
2600N 0950E	17	9	60			
2600N 1000E	40	12	73			
2600N 1050E	33	8	64			
2600N 1100E	18	5	52			** - 1 std dev.
2600N 1150E	25	9	75			
2600N 1200E	25	9	65			
2600N 1250E	47	12	95	** + 1 std dev.		
2600N 1300E	21	10	88			
2600N 1350E	16	12	40			** - 1 std dev.
2600N 1400E	32	11	98			
2600N 1450E	20	8	105			** + 1 std dev.
2600N 1500E	28	10	158			***** + 2 std dev.
2600N 1550E	15	95	93	***** + 2 std dev.		
2600N 1600E	22	10	60			
2600N 1650E	24	9	48			** - 1 std dev.
2600N 1700E	27	9	70			
2600N 1750E	16	8	64			
2600N 1800E	15	8	88			
2600N 1850E	31	6	92			
2600N 1900E	14	7	82			
2600N 1950E	38	6	75			
2600N 2000E	43	11	120			** + 1 std dev.
2600N 0050W	32	16	107			** + 1 std dev.

Sample description	Cu ppm	Pb ppm	Zn ppm		Cu	Pb	Zn
2600N 0100W	12	8	63	**	- 1 std dev.		
2600N 0150W	10	6	57	**	- 1 std dev.		
2600N 0200W	42	20	123			** + 1 std dev.	** + 1 std dev.
2600N 0250W	16	10	110			**	** + 1 std dev.
2600N 0300W	15	10	85				
2600N 0350W	17	9	88				
2600N 0400W	25	8	86				
2600N 0450W	53	16	105	**	+ 1 std dev.	**	** + 1 std dev.
2600N 0500W	43	23	93			** + 1 std dev.	

APPENDIX V

GEOCHEMICAL SOIL DATA





LEGEND

MOYIE INTRUSIONS

GABBRO AND DIORITE
dark grey to green-grey, medium to coarse grained

ALDRIDGE FORMATION

SANDSTONE
light grey weathering, light to medium grey, fine to very fine grained, occasionally argillaceous. Beds generally 10 to 70 cm thick; sedimentary structures include graded bedding; also load casts, flame structures, and rare flute casts at base. Intervals of 1 to 10 cm thick laminated siltstone and/or dark grey argillite at top (AE, AB and ABE turbidites?). Occasional thin-bedded, cross-bedded, very fine grained sandstone alternating with ≤ 1 cm thick beds of dark grey argillite and/or tourmalinized argillite

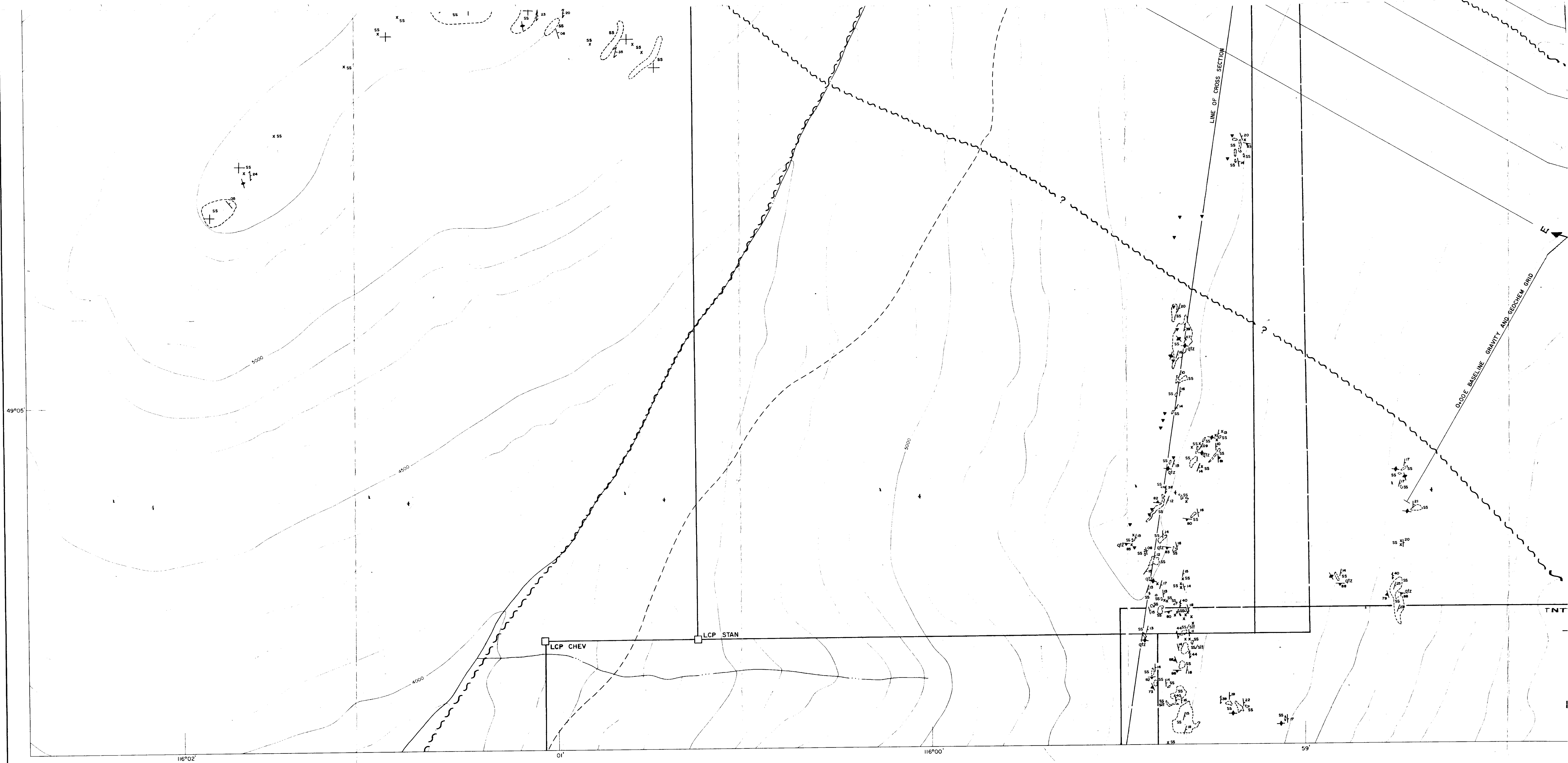
SILTSTONE
rusty weathering, light to medium grey, finely laminated; also dark grey to rusty weathering, laminated; couplets of medium grey siltstone and dark grey carbonaceous and/or argillaceous siltstone

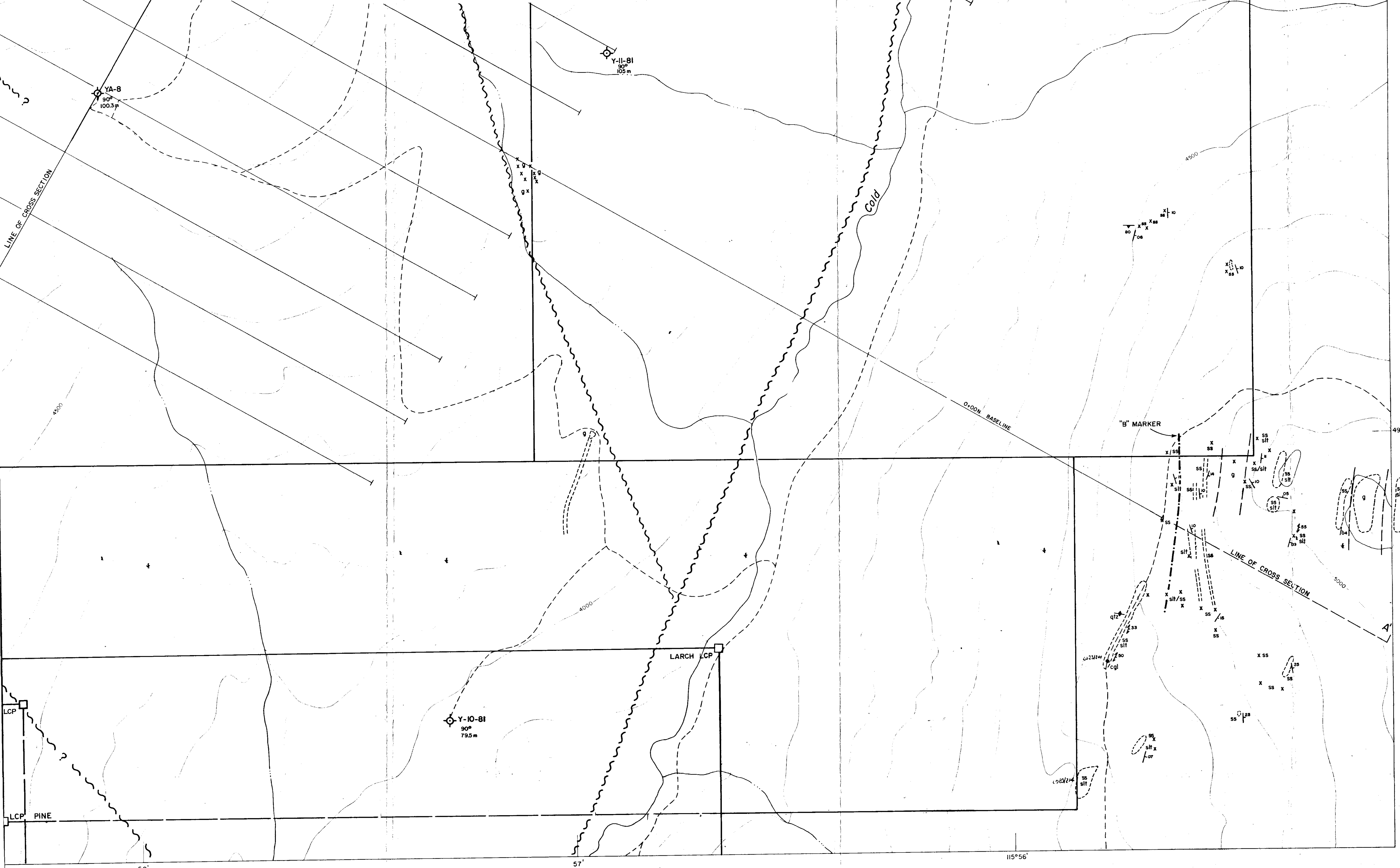
ARGILLITE
medium to dark grey. Typically as thin beds or laminae within argillite/siltstone couplets, or as relatively thin horizons at the tops of graded sandstone beds. Commonly tourmalinized in the vicinity of Mt. Mahon. Porphyroblasts of biotite and/or feldspar often present

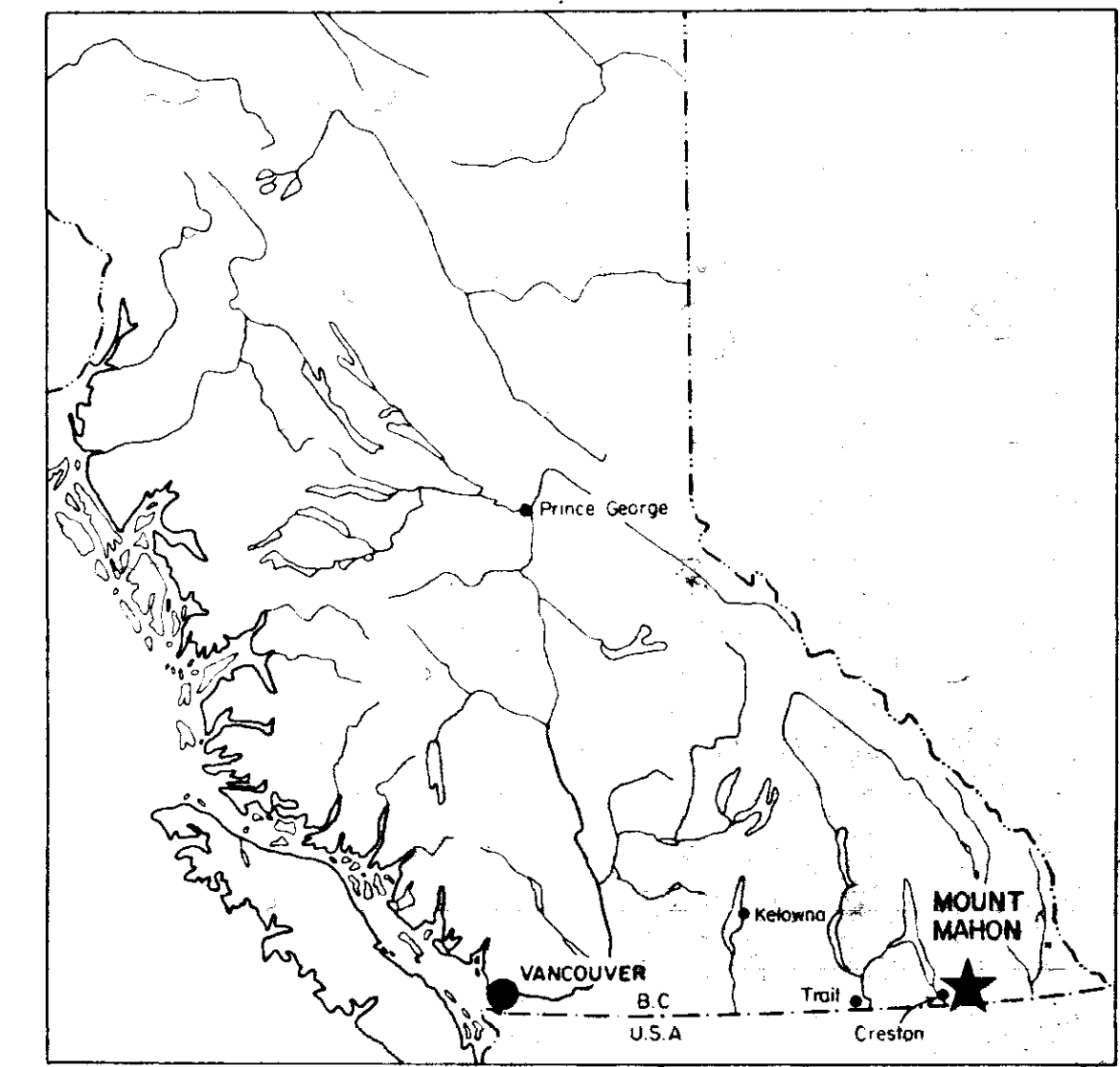
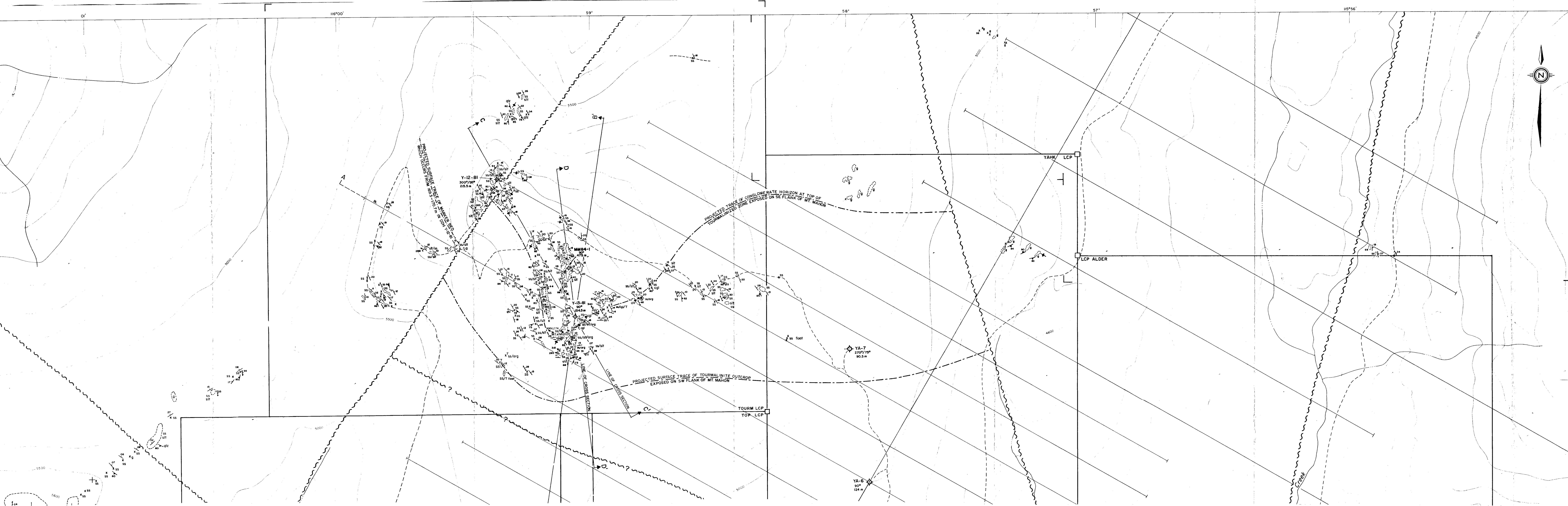
CONGLOMERATE
typically consists of angular to subrounded flat fragments (up to 18 cm long) of dark grey argillite, tourmalinized argillite, and/or laminated siltstone/argillite within a fine to very fine grained sandstone matrix; conglomerate is intraformational

TOURMALINITE
black weathering, dark grey to black tourmalinized rock. Most commonly occurs as ≤ 2 cm thick layers of aphanitic "cherty" rock, comprised of 40 to 60 % very fine, felted tourmaline crystals, which replaces argillite at the tops of graded sandstone beds, or in thinly bedded sandstone/tourmalinized argillite couplets. Similar tourmalinite occurs as fragments within intraformational conglomerate. Less commonly it occurs in thicker sandstone beds as very fine felted tourmaline between sand-sized quartz grains

- ▼ TOURMALINITE, float
- po PYRRHOTITE, disseminated, ≤ 2 %
- + Bedding (inclined, horizontal)
- ~ Cleavage or Schistosity (inclined)
- ~ Joints (inclined, vertical)
- qtz Quartz Vein (parallel to joint set)
- qtz Quartz Vein (inclined, vertical)
- C Current Direction (from cross bedding)
- R Current Trend (from ripple marks)
- S Current Trend (from sole marks)







LEGEND

MOYIE INTRUSIONS

- g dark grey to green-grey, medium to coarse grained

ALDRIDGE FORMATION

- ss light grey weathering, light to medium grey, fine to very fine grained, occasionally argillaceous. Beds generally 10 to 70 cm thick; sedimentary structures include graded bedding; also load casts, flame structures, and rare flute casts at base. Intervals of 1 to 10 cm thick laminated siltstone and/or dark grey argillite at top (A.E. AB and ABE turbidites?). Occasional thin-bedded, cross-bedded, very fine grained sandstone alternating with 1 cm thick beds of dark grey argillite and/or tourmalinized argillite

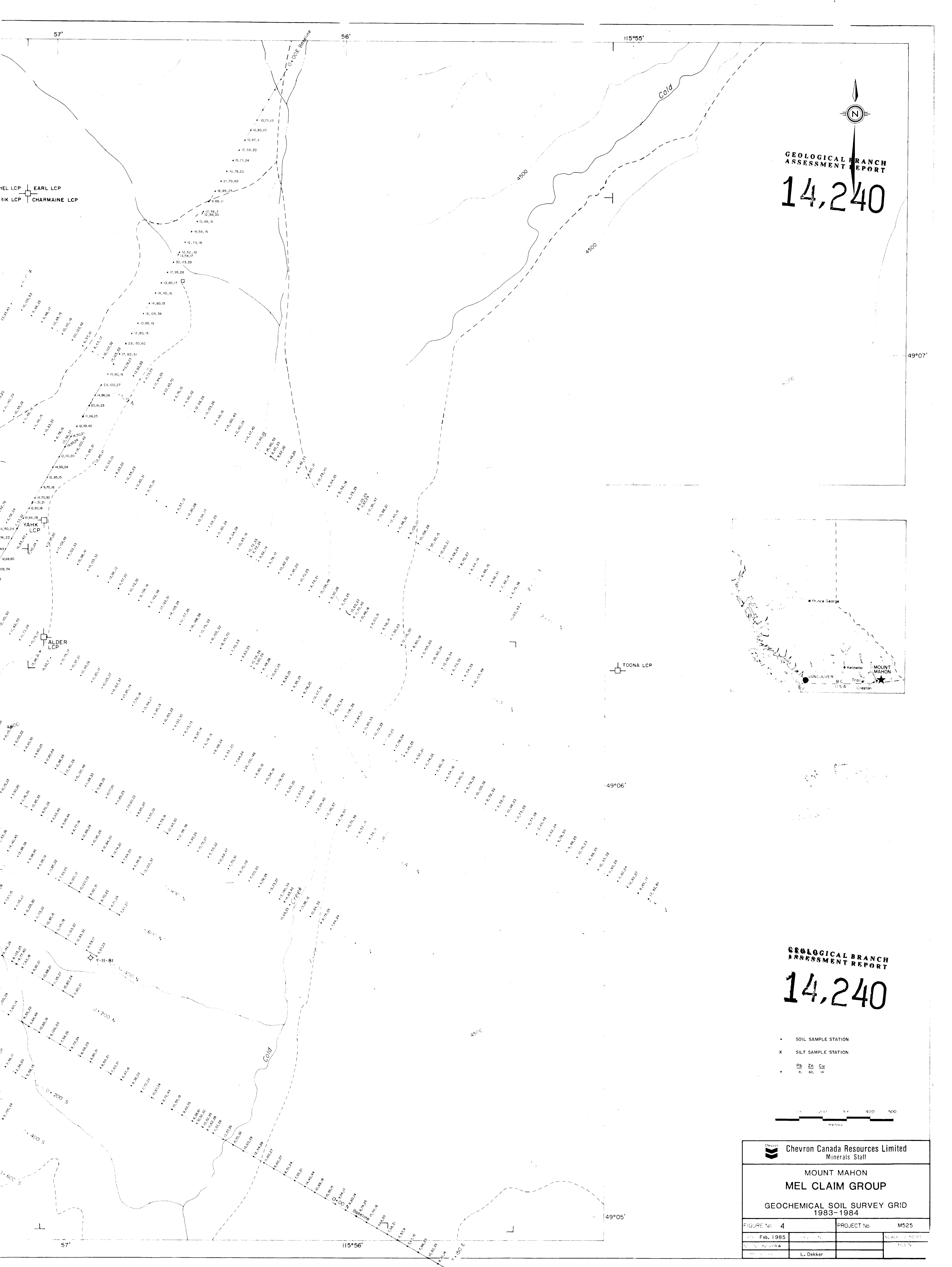
- silt SILTSTONE: rusty weathering, light to medium grey, finely laminated; also dark grey to rusty weathering, laminated; couplets of medium grey siltstone and dark grey carbonaceous and/or argillaceous siltstone

- arg ARGILLITE: medium to dark grey. Typically as thin beds or laminae within argillite/siltstone couplets, or as relatively thin horizons at the tops of graded sandstone beds. Commonly tourmalinized in the vicinity of Mt. Mahon. Porphyroblasts of biotite and/or feldspar often present

- cgl CONGLOMERATE: typically consists of angular to subrounded flat fragments (up to 18 cm long) of dark grey argillite, tourmalinized argillite, and/or laminated siltstone/argillite within a fine to very fine grained sandstone matrix; conglomerate is intraformational

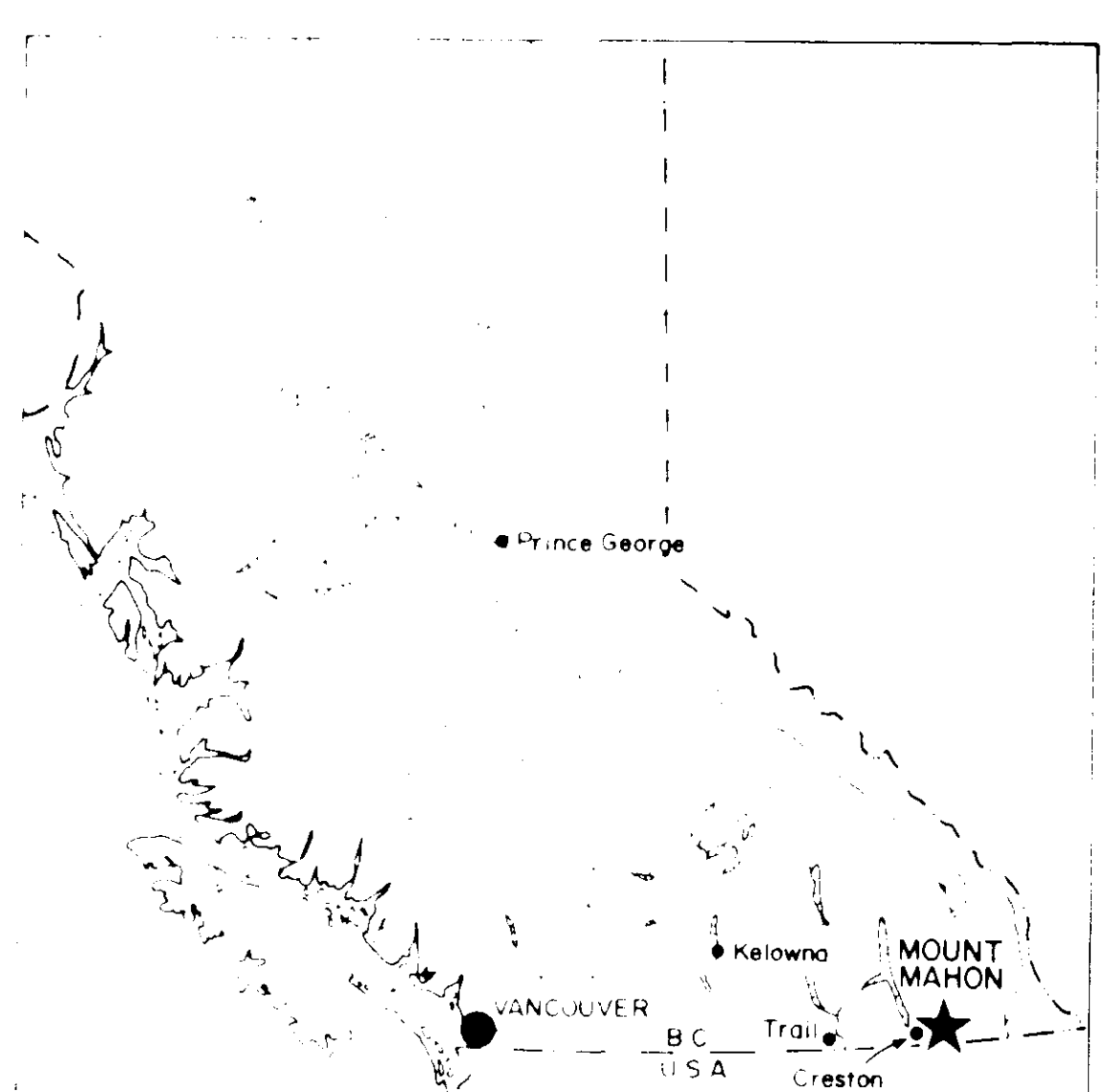
- T TOURMALINITE: black weathering, dark grey to black tourmalinized rock. Most commonly occurs as 2 cm thick layers of aphanitic 'cherty' rock, comprised of 40 to 60% very fine, felted tourmaline crystals, which replaces argillite at the tops of graded sandstone beds, or in thinly bedded sandstone/tourmalinized argillite couplets. Similar tourmalinite occurs as fragments within intraformational conglomerate. Less commonly it occurs in thicker sandstone beds as very fine felted tourmaline between sand-sized quartz grains

- ▼ TOURMALINITE, float
- PYRRHOTITE, disseminated, $\leq 2\%$
- + Bedding (inclined, horizontal)
- + Cleavage or Schistosity (inclined)
- + Joints (inclined, vertical)
- + Quartz Vein (parallel to joint set)
- + Quartz Vein (inclined, vertical)
- + Current Direction (from cross bedding)
- + Current Trend (from ripple marks)
- + Current Trend (from sole marks)



GEOLOGICAL BRANCH
ASSESSMENT REPORT

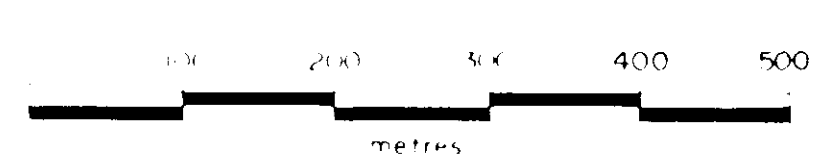
14,240



GEOLOGICAL BRANCH
ASSESSMENT REPORT

14,240

- SOIL SAMPLE STATION
- x SILTY SAMPLE STATION
- Pb Zn Cu
8, 60, 14



Chevron Canada Resources Limited Minerals Staff			
MOUNT MAHON MEL CLAIM GROUP GEOCHEMICAL SOIL SURVEY GRID 1983-1984			
FIGURE No. 4	PROJECT No. M525		
DATE: Feb. 1985	BY: L. Dekker	SCALE: 1:50,000	
DATE: March/Apr 84			FILE No.
BY: L. Dekker			