

COMINCO EXPLORATION

700-409 Granville Street/Vancouver, B.C./Canada V6C 1T2/Tel. (604) 682-0611/Telex 04-507730



**Cominco Exploration**

A Division of Cominco Ltd.

Mr. J. Klovance  
P.O. Box 408  
Salmo, B.C.  
VOG 1Z0

800550  
Marilyn Group  
82F/3W

October 24, 1986

Dear Joe:

Enclosed please find a sketch map of your Marilyn Group of Claims at Erie, B.C. The map of course is only approximate as it was done by chain and compass; plotted on the map are the assay results and sample widths. The results of the mapping and sampling indicate a wide and long zone of fracturing with low grade Ag/Pb/Zn. Localized within the zone are pods or small lenses of much better grade Ag/Pb/Zn but with only traces of gold. This is an interesting property due to the extent of mineralization but due to the average low grade and only traces of gold it is not of economic interest at this time. I wish to thank you for submitting this property for examination and evaluation and for your time in viewing the showings.

Yours truly,

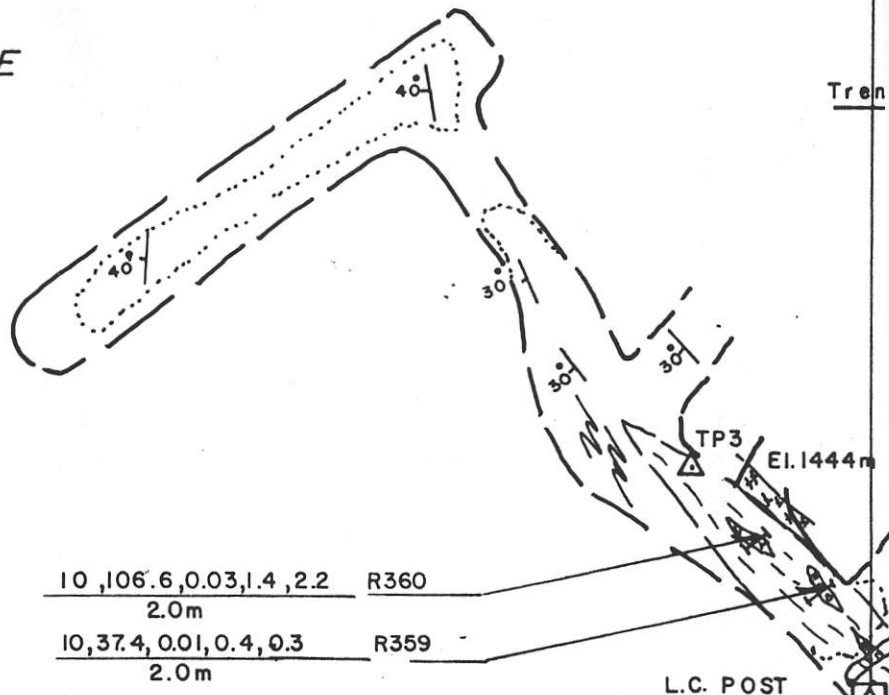
*A.B. Mawer*

A.B. Mawer  
Senior Geologist

ABM/jd

Enclosure

LITTLE JOE



10,106.6,0.03,1.4,2.2 R360  
2.0m

10,37.4,0.01,0.4,0.3 R359  
2.0m

L.C. POST

10,367,0.08,4.0,4.4 R350  
1.2m

TP2  
El. 1440m

10,70.4,0.07,1.3,1.1 R349  
1.2m

160,56.6,0.05,0.7,0.7 R352  
2.0m

10,107.8,0.06,0.7,0.7 R353  
2.0m

10,102.9,0.14,0.8,1.1 R354  
2.0m

10,12.8,0.03,0.2,0.4 R355  
2.0m

10,16.0, tr, 0.1, 0.6 R356  
2.0m

10,15.9, tr, 0.1, 0.1 R357  
2.0m

10,2.3, tr, 0.2, 0.01 R358  
2.0m

CINDY

1320,765.0,0.6,19.2,1.4 R361  
Q 6m

60,33.2,0.02,1.3,0.1 R362  
1.0m

TP6

El. 1411m

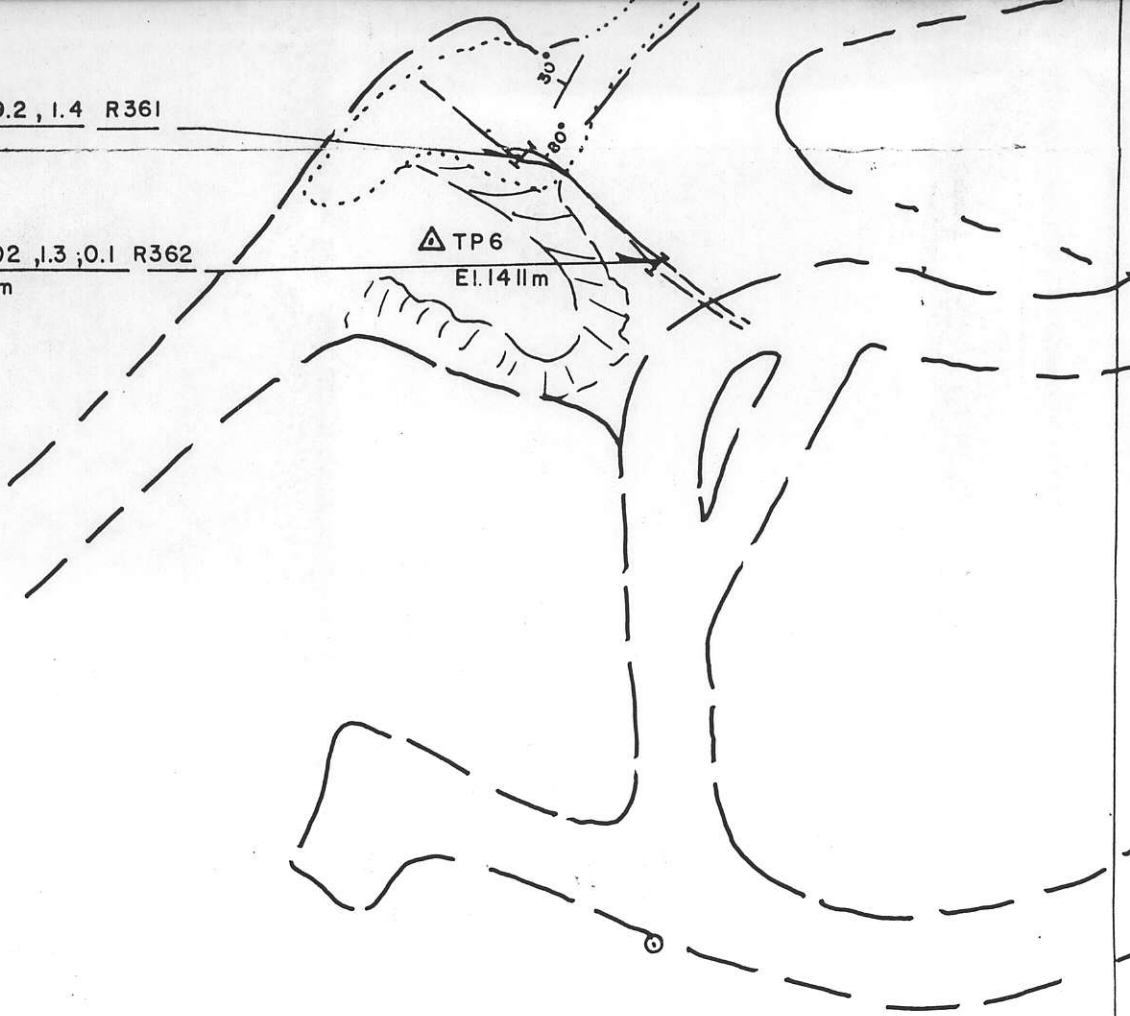
TP5

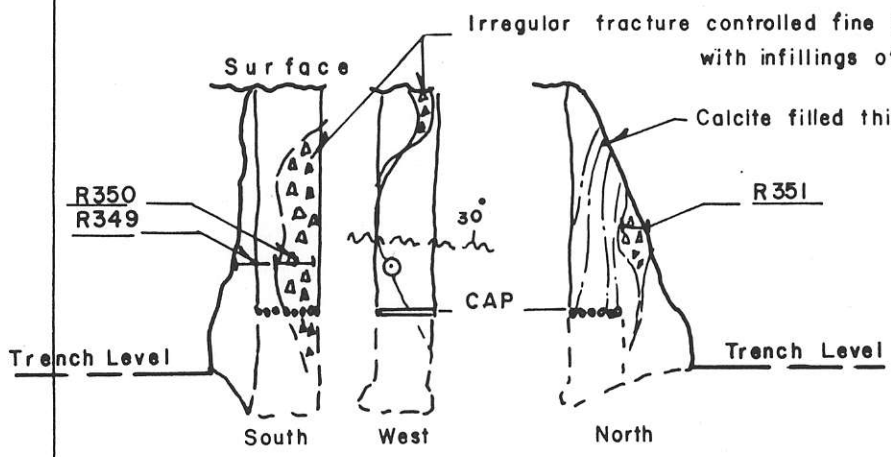
El. 1416m

1320,765.0,0.6,19.2,1.4 R361  
0.6m

60,33.2,0.02,1.3,0.1 R362  
1.0m

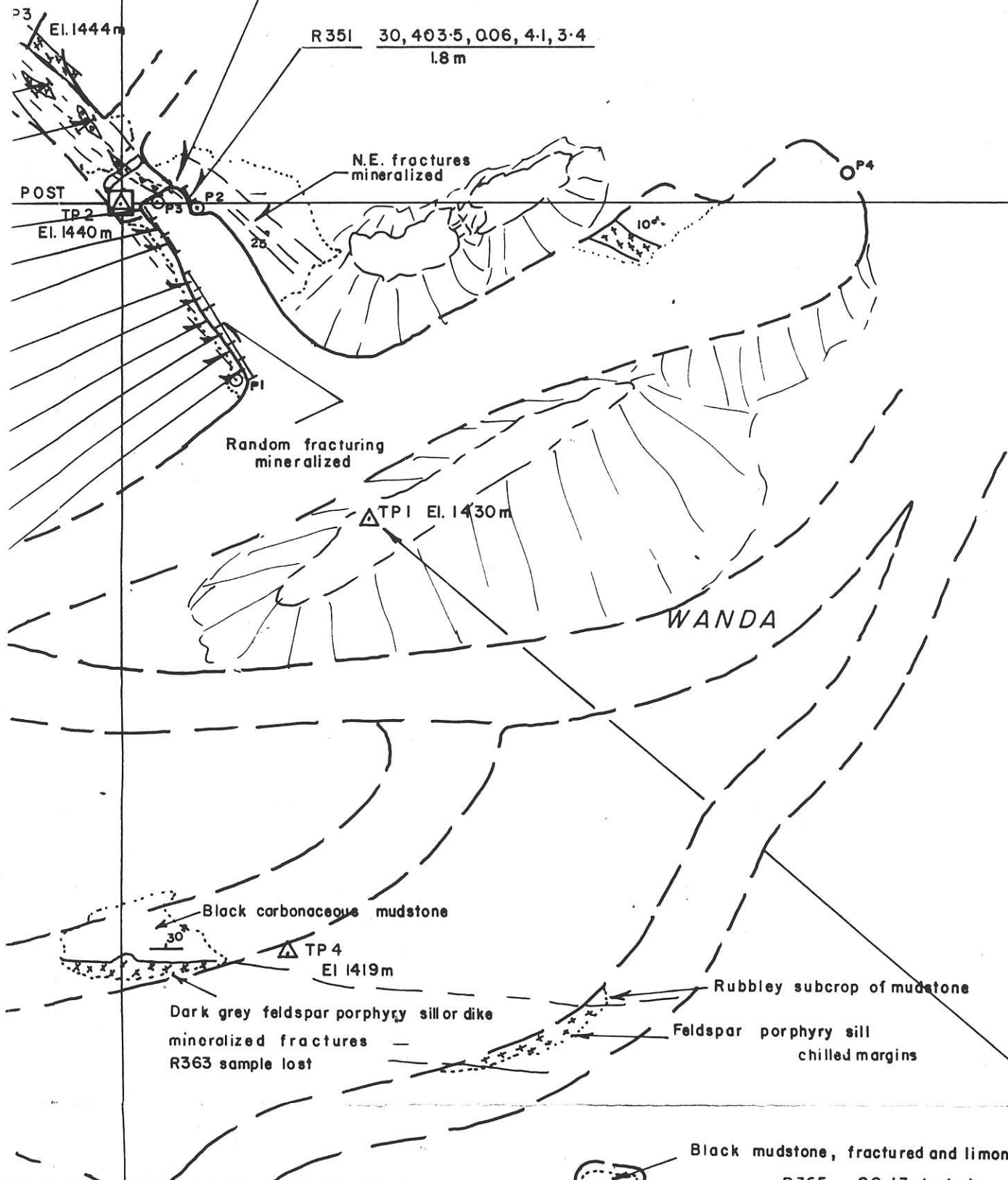
△ TP6  
El. 1411m





DIANE

SHAFT WALLS



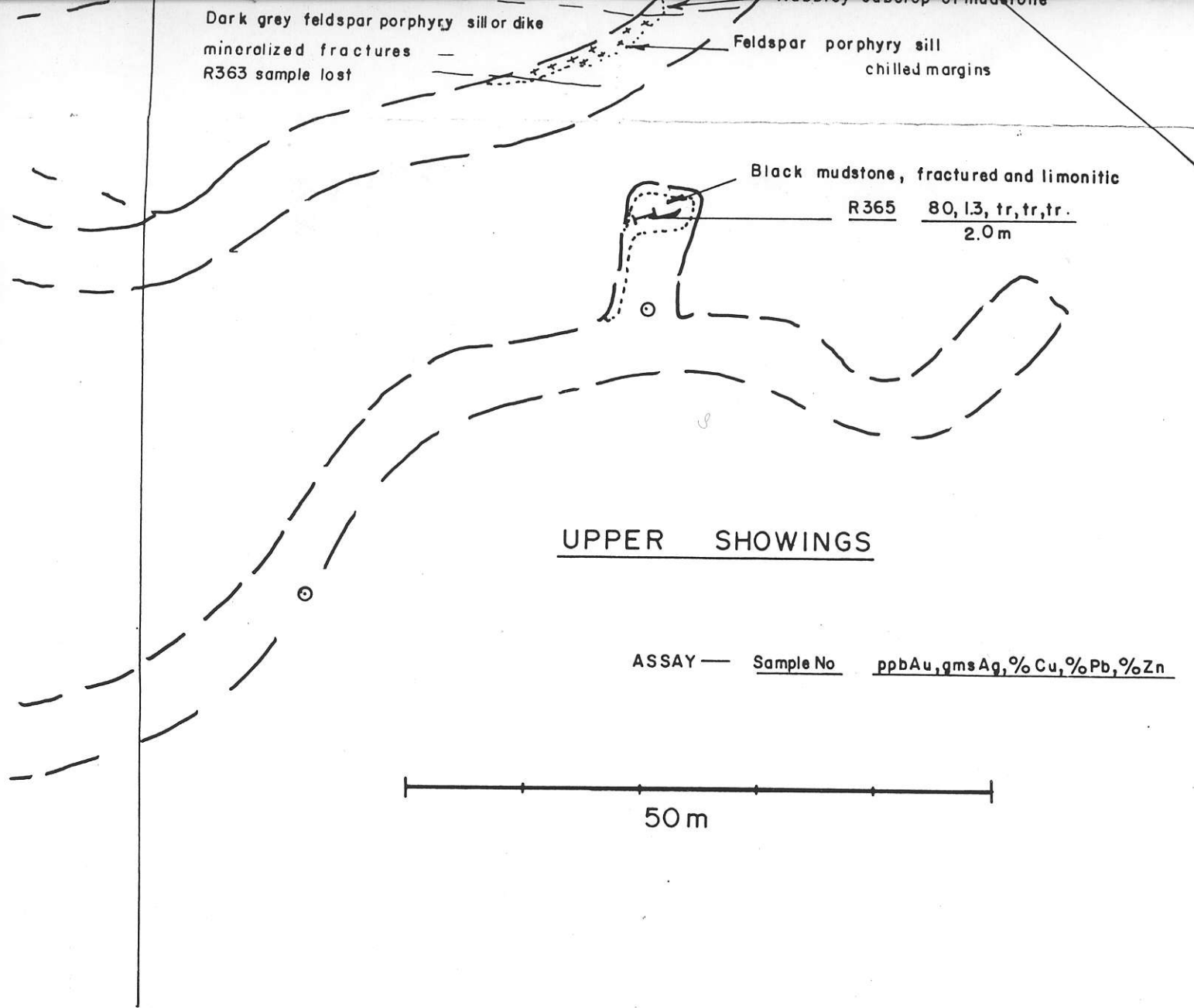
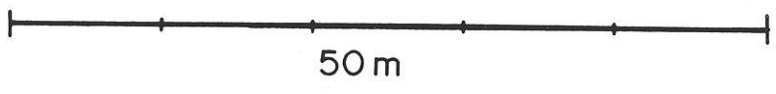
Dark grey feldspar porphyry sill or dike  
mineralized fractures  
R363 sample lost

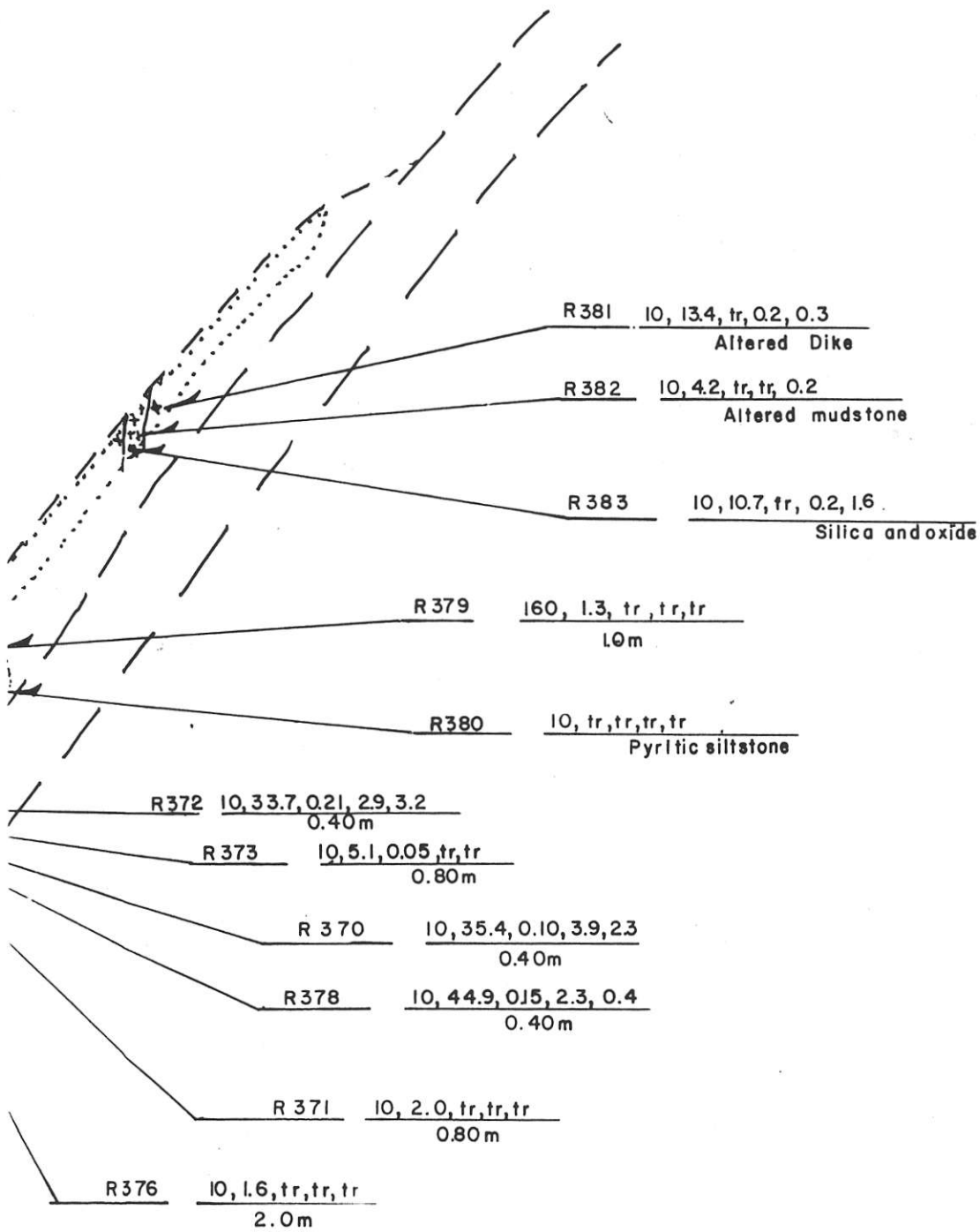
Feldspar porphyry sill  
chilled margins

Black mudstone, fractured and limonitic  
R365 80, 1.3, tr, tr, tr.  
2.0 m

UPPER SHOWINGS

ASSAY — Sample No ppbAu, gms Ag, % Cu, % Pb, % Zn





NTS 82 F/3

MARILYN GROUP



Drawn by: A.B.M.		Traced by: A.B.M.	
Revised by	Date	Revised by	Date

SURFACE PLAN of SHOWINGS  
 Geology and Sampling

Scale: AS SHOWN

Date: OCT/86

Plate:

erite, chalcopyrite

Au tr, trAg, tr Cu, tr Pb, tr Zn R 368

Qtz-eye porphyry

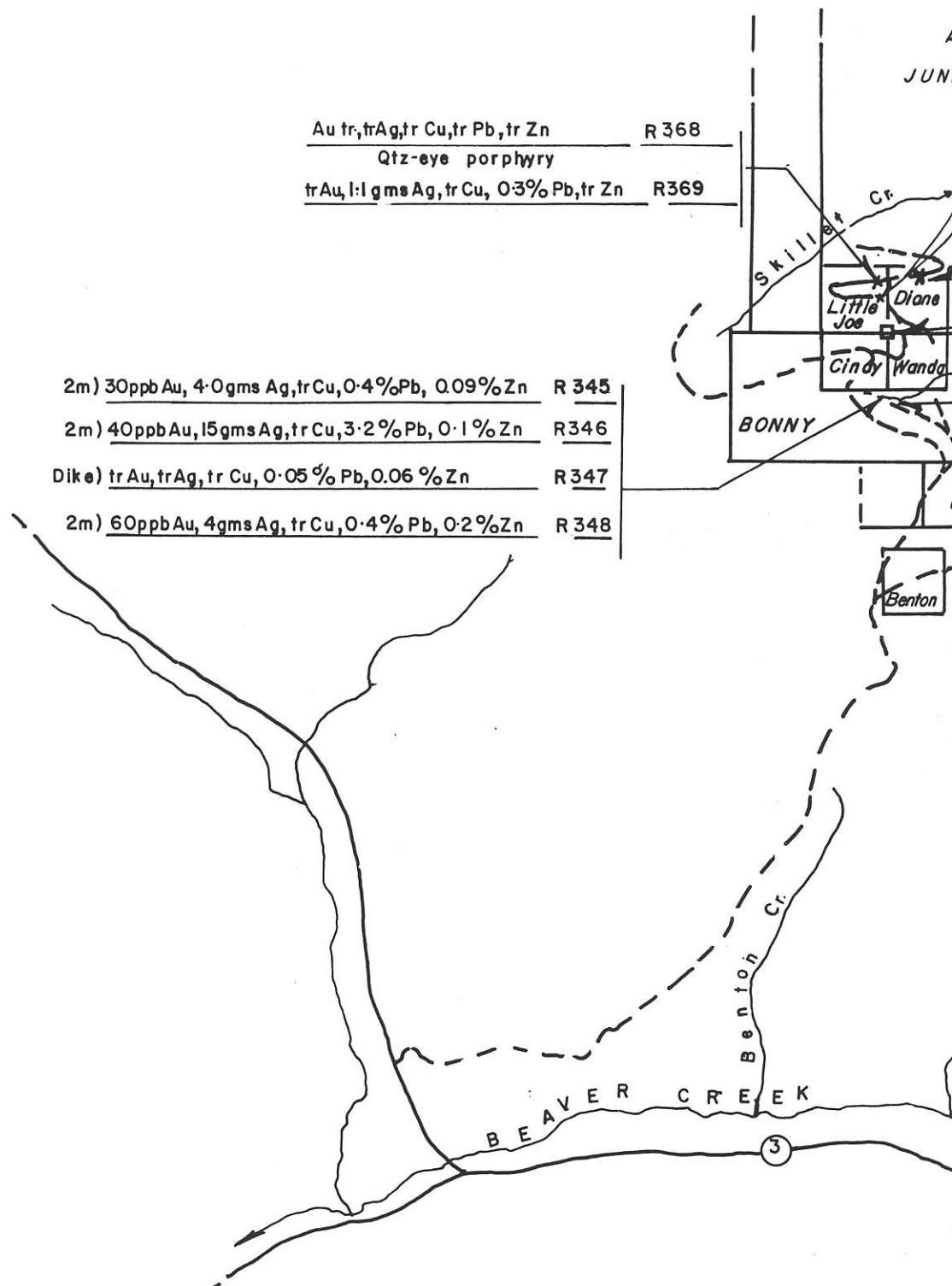
trAu, 1.1 gms Ag, tr Cu, 0.3% Pb, tr Zn R 369

2m) 30ppb Au, 4.0gms Ag, tr Cu, 0.4% Pb, 0.09% Zn R 345

2m) 40ppb Au, 15gms Ag, tr Cu, 3.2% Pb, 0.1% Zn R 346

Dike) trAu, trAg, tr Cu, 0.05% Pb, 0.06% Zn R 347

2m) 60ppb Au, 4gms Ag, tr Cu, 0.4% Pb, 0.2% Zn R 348



5 Km

APPROXIMATE DISTANCE  
FROM UPPER SHOWING - 500m  
Bearing 040°

10, tr, tr, tr, tr R377  
2.0 m

10, 21.4, 0.1, 1.4, 1.3 R374

10, 41.4, 0.3, 0.4, tr R375

TP7  
El. 1250m

LOWER SHOWING

R



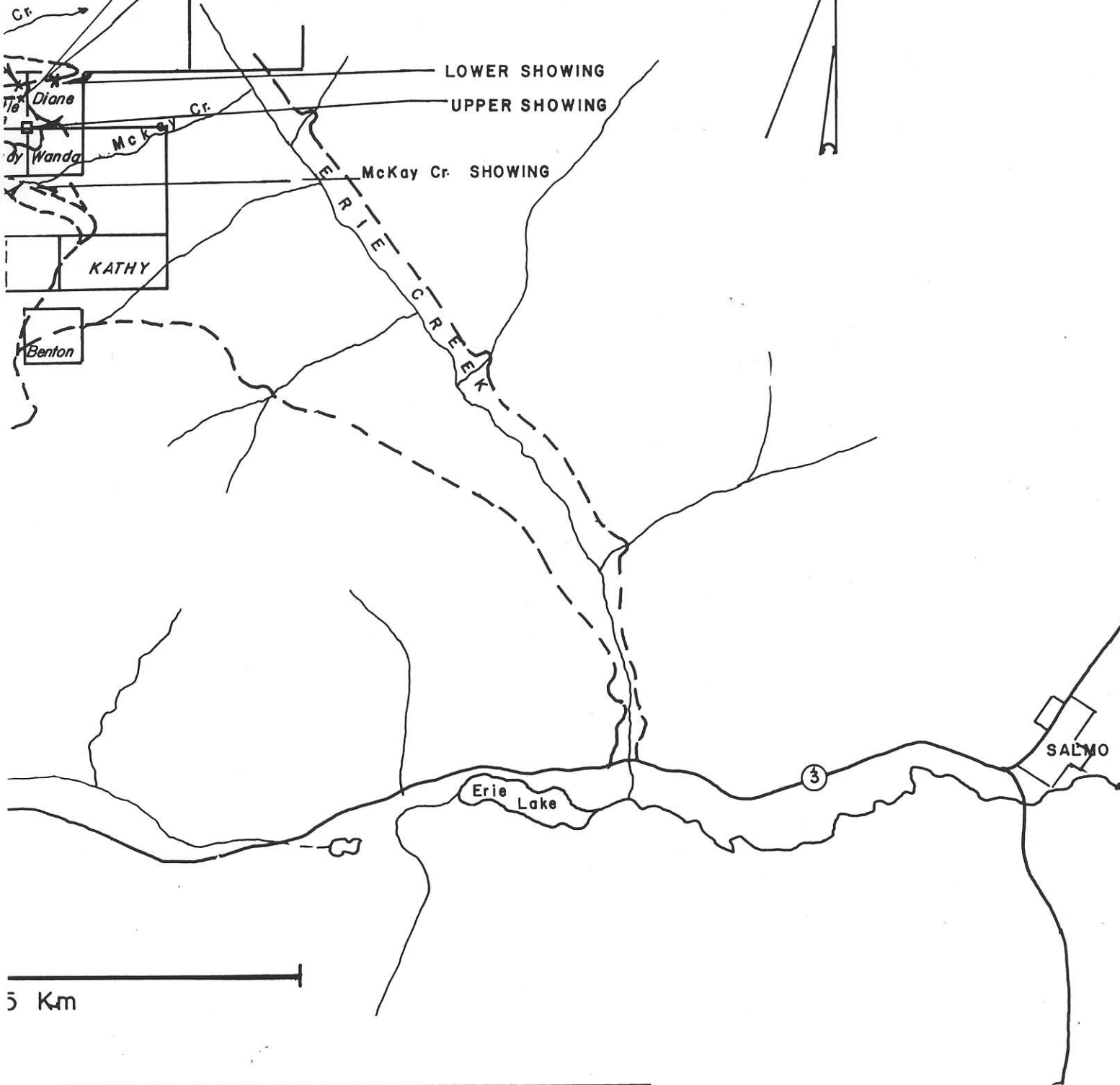
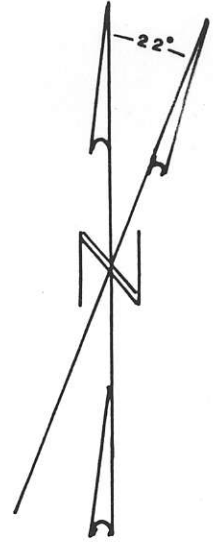
AMAX  
JUNE CLAIM GROUP  
R 367

tr. Au, tr. Ag, tr. Cu, tr. Pb, tr. Zn

Qtz eye porphyry

R366

tr. Au, 1.7 gms Ag, tr. Cu, 0.06% Pb, 0.1% Zn.



5 Km

KLOVANCE - ERIE CREEK Pb,Zn,Ag PROPERTY

NELSON M.D. NTS 82F/3W

LATITUDE 49° 14' 50" LONGITUDE 117° 24'

INTRODUCTION

The Klovance Property was examined on September 24, 1984 by D. Ferguson and R. Allen. The tour was conducted by Joe Klovance of Salmo, B.C..

LOCATION and ACCESS

The property is situated 11 km. northwest of Salmo, B.C. and can be reached by good logging road from the mouth of Erie Creek near Salmo. It is also accessible by 5 kilometres of gravel road from the Salmo-Castlegar Highway.

CLAIMS

The property consists of 14 units:

BONNY	10 units
MARILYN GROUP	4 units
KATHY	2 units

HISTORY

1975- old shaft discovered by J. Klovance

- to east and north are a number of old Crown Grants covering 1- Cu occurrences in hornfelsic sediments
- 2- Ag, Pb veins on McKay Creek

--porphyry molybdenum showing (Amax June claims) borders property to north

1980- Silver Standard examined workings and carried out a small soil survey

1981- David Minerals Ltd.- soil survey, magnetometer survey

- soils collected along 50 metre spaced lines at 25 metre intervals

-confirmed Silver Standard anomaly and located a second Ag, Pb, Zn anomaly

-mag. survey indicated limited mineralization in vicinity of shaft

1981 to 1984-extensive cat work carried out by J. Klovance to remove overburden and follow-up soil geochemical anomalies

#### GEOLOGY

The property is underlain by Lower Jurassic Sinemurian Beds.

The beds are structurally contorted and consist of banded argillite and siltstone, with interbeds of light coloured greywacke, tuffaceous beds and thin flows. These are thought to be equivalent to Milford Group rocks located further north along the Kootenay Arc. Rhyolite is exposed by the road west of the shaft and quartz-feldspar dykes have also been noted.

#### MINERALIZATION

The old shaft was driven on a 1 to 2 metre wide zone of brecciated argillite, containing a significant amount of magnetite, galena, sphalerite, pyrite and pyrrhotite. Lesser amounts of chalcopyrite and bornite are also present. A sample obtained from the zone contained 9.48 oz./ton Ag, .199% Cu, 5.65% Pb, 5.38% Zn. Au values are minimal. Soil geochemistry shows this zone to be of limited lateral extent. Few other showings, uncovered to date, are narrow vein-type structures, but do host reasonable Pb, Ag values. One such vein assayed 46.5% Pb and 27.71 oz./ton Ag.

## CONCLUSIONS

Numerous soil geochemical anomalies remain untested on the property. For the most part, the significant Pb, Zn, Ag mineralization appears to be related to cross-cutting vein structures or semi-conformable pods. The style of mineralization may be related to a late stage mineralizing event associated with the nearby molybdenum porphyry system.

Del W. Ferguson

for Billiton Canada Limited

## ROCK SAMPLES

SAMPLE N°	LOCATION	TYPE	WIDTH	DESCRIPTION	Au	Ag	Cu	Pb	Zn			
KLO-1	Shaft area	grab		- massive sulphide breccia zone from shaft opening	10 ppb	9.48 oz/t	.199 %	5.65 %	5.38 %			
KLO-2	Shaft area	grab		- from mineralized dump	5 ppb	388 ppm	.092 %	3.70 %	4.46 %			
KLO-3	Shaft area	grab		- over 10m outward from east wall of massive sulphide zone - mostly stringer sulphide in argillite and pyrite and pyrrhotite disseminated through bands	5 ppb	8.6 ppm	277 ppm	0.21 %	0.44 %			
KLO-4	approx. 75m east of shaft	grab		- 1 metre zone of silicified, brecciated and sulphide-stringered argillite - disseminated & stringered pyrite, pyrrhotite arsenopyrite, galena and sphalerite	35 ppb	11.4 ppm	115 ppm	0.98 %	0.53 %			
KLO-5	approx. 125m east of shaft	grab		- high grade massive galena-pyrite cuts across argillite breccia - disseminated and stringer py and cpy near surface with galena deeper in structure	.023	27.71 oz/t	.336 %	46.5 %	.76%			
KLO-6	approx. 145m east of shaft	grab		- road below KLO-5 sample 0.5 metre wide graphitic shear zone strikes N/S- bounded on east by crystal tuff	5 ppm	8.1 ppm	58 ppm	3300 ppm	664 ppm			



TERRAMIN RESEARCH LABS LTD.

ANALYTICAL REPORT

Job # 84-216

Date

Client Project MARILYN

Page 5/7

Sample No.	Au ppb	Ag ppm	Pb %	Zn %
<u>Rock</u> MC - 1	28	635	5.30	13.7
2	16	350	5.80	5.00
3	436	1210	6.80	.310
4	608	1240	6.20	.200
5	1350	878	5.00	.950
MC-1	Massive ZNS in Rhyolite bldr above shaft (SW)			
MC-2	High grade PbS, ZNS, Py bldr above shaft (SE)			
MC-3	High grade sample above trench to NE (galena)			
MC-4	High grade sample of galena from trench floor (subcrop)			
MC-5	High grade sample dug out of trench by cat & binches below MC-4 (galena)			



# Kamloops Research & Assay Laboratory Ltd.

WEST TRANS CANADA HIGHWAY - BOX 946 - KAMLOOPS, B.C. V2C 5N4

B.C. LICENSED ASSAYERS  
GEOCHEMICAL ANALYSTS

## CERTIFICATE OF ASSAY

TO Mr. J. Kovance,  
Box 1408,  
Salmo, B. C.

Certificate No. K-747  
Date Sept. 11, 1975.

I hereby certify that the following are the results of assays made by us upon the herein described rock samples

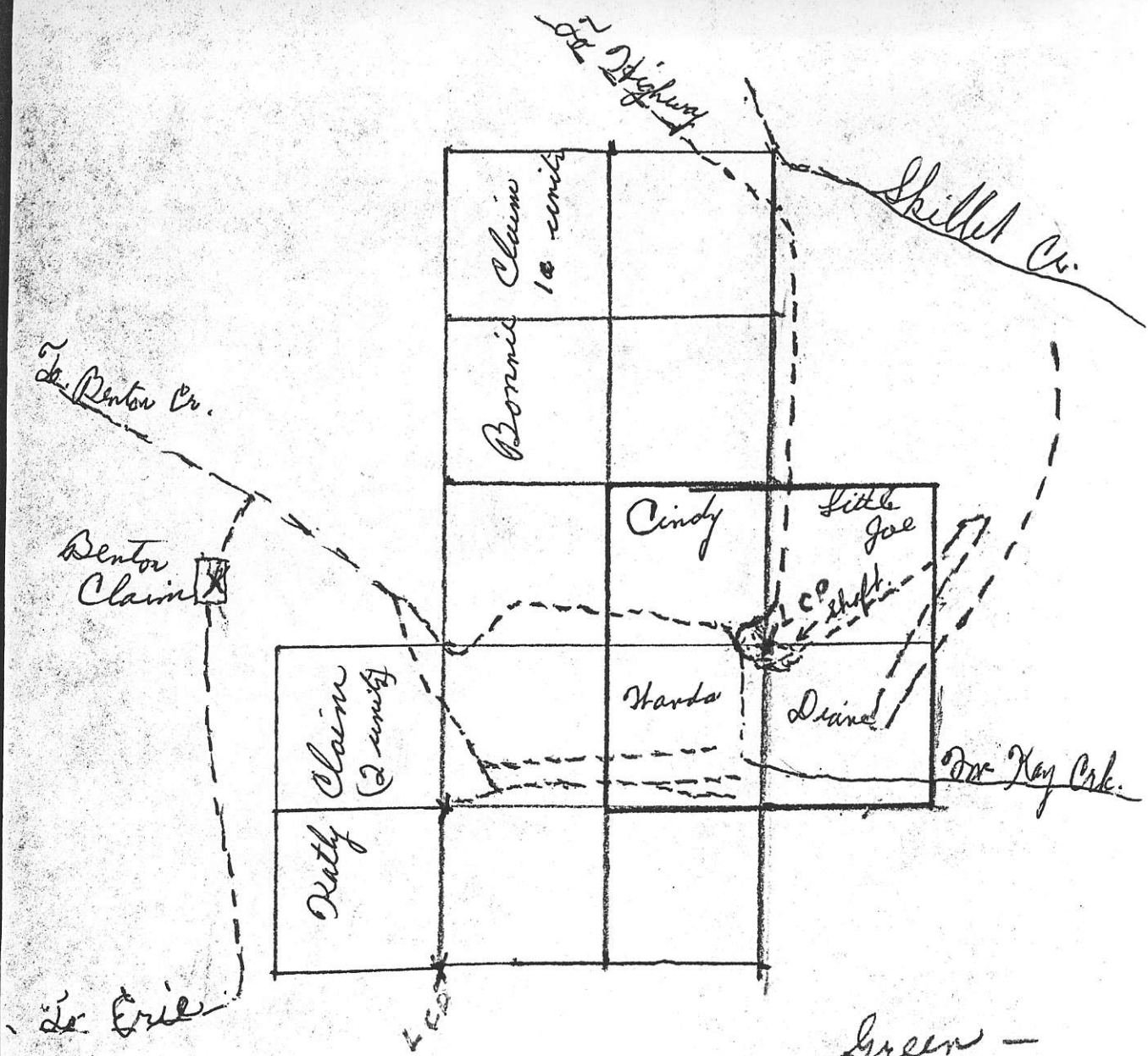
Kral No.	Marked	GOLD	SILVER	Cu	Pb	Zn					
		Ounces Per Ton	Ounces Per Ton	Percent	Percent	Percent	Percent	Percent	Percent	Percent	
K-747-1	#1	.09	18.68	.46	12.60	3.00	<i>Dump by shaft, not on property</i>				
2	#2	.005	.23	-	-	-					

**NOTE:**

Rejects retained three weeks  
Pulps retained three months  
unless otherwise arranged.

*R. S. Blundell*

Registered Assayer, Province of British Columbia



Green -  
Marilyn Group





420 paces @ 2 ft. per pace = 840 ft.

Pyroclite Dike

STAL  
000

Above - 220-70 paces

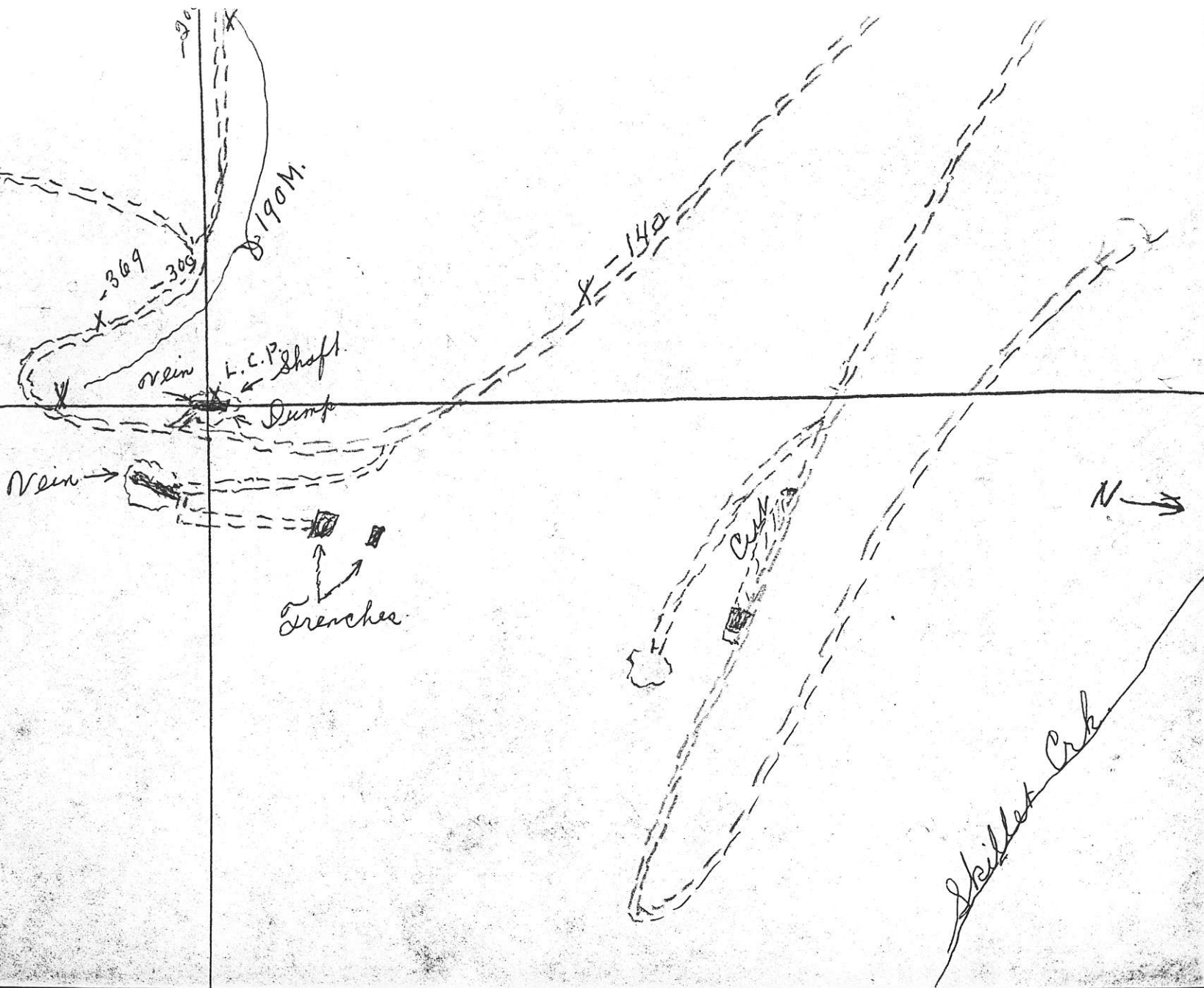
-97 to -311 340 ft. X 170 paces  
-311 to -496 (1140 ft.) X 70 paces  
-248 to -122 (360 ft.) X 180 paces

50 ft above -400

-565 X 80 paces  
-320 to -489 (160 ft.) X 50 paces  
-236 to -144

105 paces = 210 ft.

To Erie





# Kamloops Research & Assay Laboratory Ltd.

2095 WEST TRANS CANADA HIGHWAY-KAMLOOPS, B.C. V1S 1A7  
TELEPHONE 372-2784 . TELEX 048-8320

B.C. LICENSED ASSAYERS  
GEOCHEMICAL ANALYSTS

## CERTIFICATE OF ASSAY

TO Mr. J. R. Klovance,  
P. O. Box 408,  
Salmo, B. C.

Certificate No. K-1759

Date September 7, 1978.

I hereby certify that the following are the results of assays made by us upon the herein described rock samples

Kral No.	Marked	GOLD	SILVER	Pb	Zn					
		Ounces Per Ton	Ounces Per Ton	Percent	Percent	Percent	Percent	Percent	Percent	Percent
1	#1	Tr	13.02	-	-					
2	#2	-	-	3.76	8.72					

Tr denotes "trace"

*Vein on surface  
60 ft. south of shaft.*

**NOTE:**

Rejects retained three weeks  
Pulps retained three months  
unless otherwise arranged.

*DAB for P&B*  
.....  
Registered Assayer, Province of British Columbia



Member  
Canadian Testing  
Association

# KAMLOOPS RESEARCH & ASSAY LABORATORY LTD.

912 - 1 LAVAL CRESCENT — KAMLOOPS, B.C.

V2C 5P5

PHONE: (604) 372-2784 — TELEX: 048-8320

## CERTIFICATE OF ASSAY

B.C. LICENSED ASSAYERS  
GEOCHEMICAL ANALYSTS  
METALLURGISTS

TO Mr. J. Klovance

Box 408

Salmo, B.C. V0G 1Z0

198 PBB  
6-4

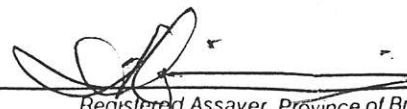
Certificate No. K 5667

Date July 25, 1983

I hereby certify that the following are the results of assays made by us upon the herein described \_\_\_\_\_ samples

Kral No.	Marked	Au	Ag	Pb	Zn				
		ozs/ton	ozs/ton	percent	percent				
1	1	.006	.20	.94	.26	600 M. South 100 M East of shaft. (South of Mc Kay Creek)			
2	2	.001	.09	.04	.05				

NOTE:  
Rejects retained three weeks.  
Pulps retained three months  
unless otherwise arranged.

  
Registered Assayer, Province of British Columbia

## ROCK SAMPLES

SAMPLE N°	LOCATION	TYPE	WIDTH	DESCRIPTION	Au	Ag	Cu	Pb	Zn			
KLO-7	Lowest trench road below shaft	grab		- Fe-stained argillite with yellow oxide - brecciated and surface-weathered	5 ppm	5.7 ppm	50 ppm	1600 ppm	195 ppm			
KLO-8	Road south of shaft & immediately north of McKay Creek	grab		- breccia zone in tuffaceous rocks and porphyritic rocks - disseminated pyrite-minor galena	15 ppm	3.4 ppm	48 ppm	1115 ppm	1280 ppm			
KLO-9	6+00S Trench	chip	20 metre	- block argillaceous material exhibiting strong Fe-stain - strong weathering - trench consists of intercalated argillite, tuff and quartzite (contorted bedding).	.004 oz/t	4.8 ppm	59 ppm	.46 %	.18%			
KLO-10	Anomalous soil geochemical Trench	chip	5 metre	- weathered, Fe-stained argillaceous sediments	5 ppb	1.4 ppm	33 ppm	192 ppm	503 ppm			

REPORT

ON

KLOVANCE OPTION

NELSON MINING DIVISION - 82F3W

FOR

DAVID MINERALS LTD.

BY

J.W. MACLEOD, P.Eng.

VANCOUVER, B.C.

October 30, 1981

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GEOCHEMISTRY .....	4
RECOMMENDATIONS.....	5

## ILLUSTRATIONS

	<u>FOLLOWING PAGE</u>
LOCATION MAP      Scale 1" = 38 miles	1
ACCESS MAP        Scale 1" = 2 miles	2
CLAIM MAP         Scale 1: 50,000	2
MAG SURVEY        Scale 1:2,500	In Pocket
EM & S.P. Test    Scale 1:2,500	In Pocket
Lead in Soils     Scale 1:2,500	In Pocket
Zinc in Soils     Scale 1:2,500	In Pocket
Silver in Soils      Scale 1:2,500	In Pocket

## SUMMARY

An examination of the Klovance property located 7 miles northwest of Salmo was carried out on September 6th, 1981.

A selected sample from an old shaft sunk on a brecciated argillite mineralized with lead, zinc and magnetite assayed 14.6 Ag, 4.27 Pb and 4.62 Zn. Although the surface exposure is of limited extent, a soil survey by Silver Standard suggested an extension to the south that had not been investigated.

The Silver Standard soil area was detailed and the survey expanded to the south. This work combined with magnetometer work strengthened the indications of mineralization to the south of the shaft and located a new geochemical anomaly.

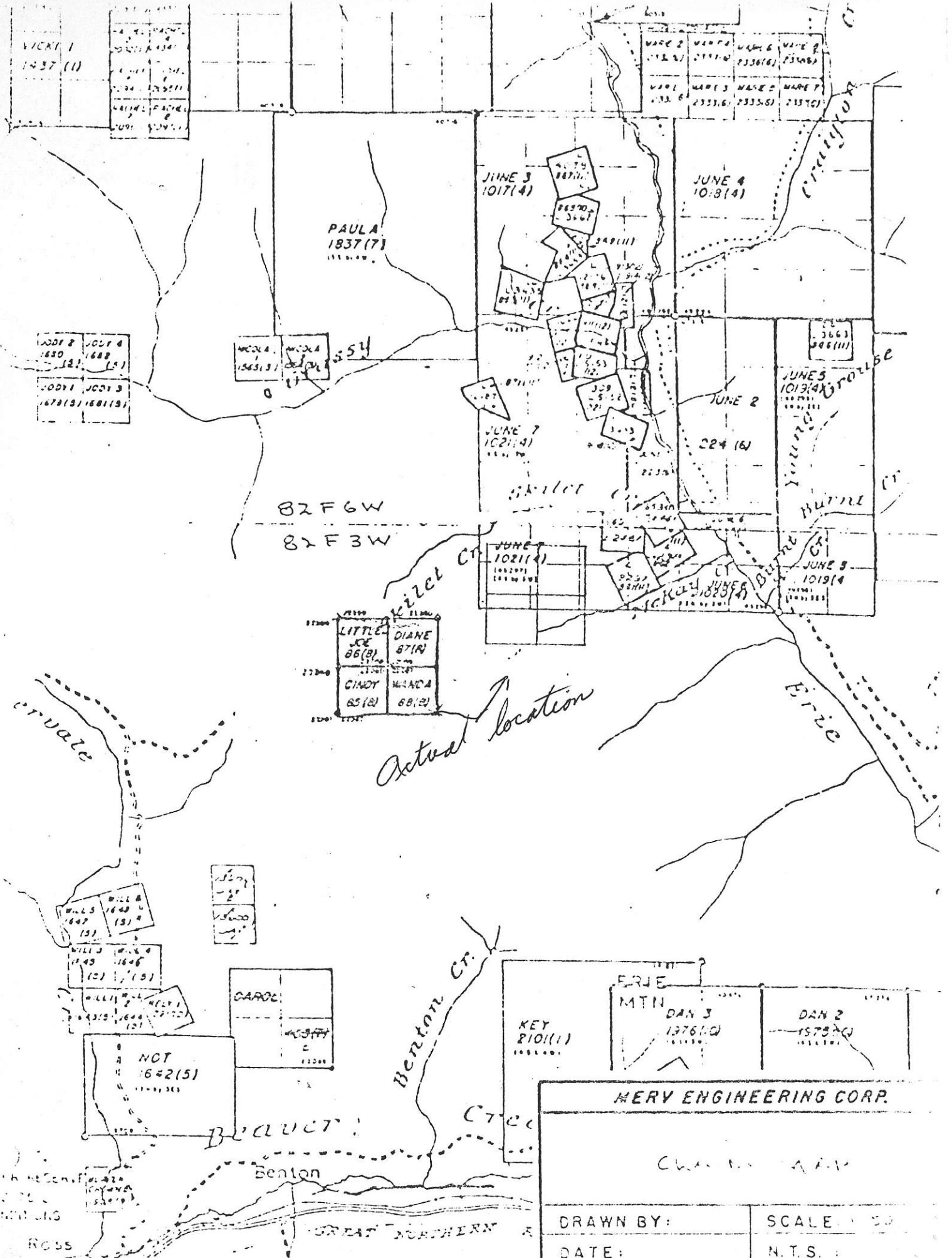
The potential of these indications can be determined by the expenditure of \$ 5,000.00 on cat trenching.

## PROPERTY

The property consists of the following four one-unit claims located from common L.C.P.

<u>CLAIMS</u>	<u>RECORD NO.</u>	<u>ANNIVERSARY DATE</u>
Cindy	85	27 August/82
Little Joe	86	27 August/82
Diane	87	27 August/82
Wanda	88	27 August/82





**MERY ENGINEERING CORP.**

CHARLES M. MERY

DRAWN BY:	SCALE:
DATE:	N.T.S.

The claims are shown on the claim map, 3 unit lengths southwest of their actual location on the ground.

#### LOCATION AND ACCESS

The property is located 7 miles northwest of Salmo, and is accessible by 3 miles of good logging road from the new Salmo-Castlegar highway. From the highway connection it is 17 miles to the H.B. mill.

#### GENERAL

The claims were located by Joe Klovance on August 24, 1975. Mr. Klovance was building a logging road when he came across the old shaft.

To the east and north are a number of old Crown-Grants covering copper occurrences in hornfelsic sediments and silver-lead veins on McKay Creek. The June 1 and 2 claims are owned by Amax and cover a porphyry molybdenum showing.

The L.C.P. for the four claims is located at the southwest corner of the old shaft at elevation 4700 feet on the ridge between Skillet and McKay Creeks.

Klovance opened up the east side of the 30 foot shaft to create an open cut.

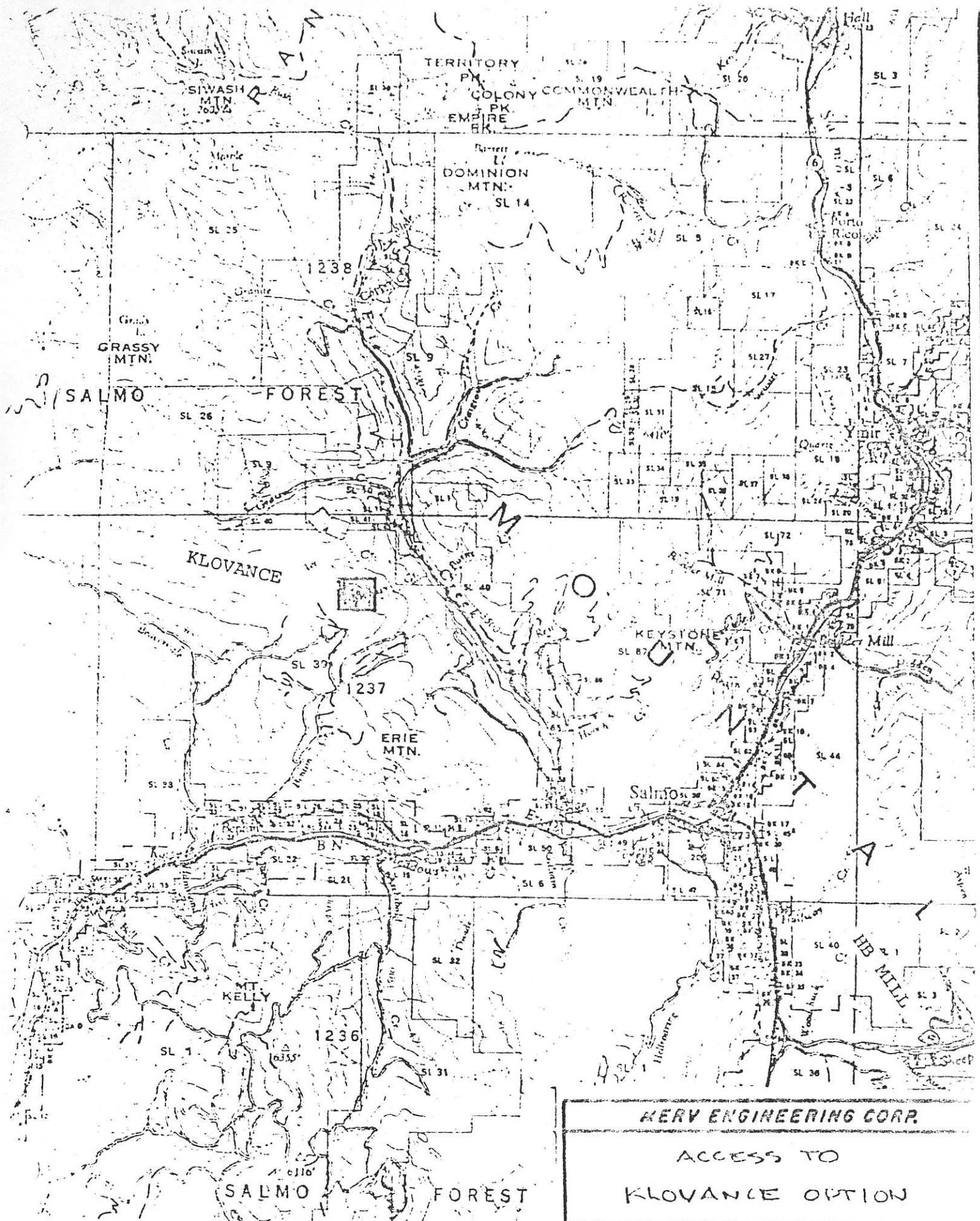
In 1980 Silver Standard examined the workings and carried out a soil survey over a small area.



**MERV ENGINEERING CORP.**

LOCATION OF  
**KLOYANCE OPTION**

DRAWN BY: JUSKI. SCALE: 1" = 20 MILES



**KERV ENGINEERING CORP.**  
 ACCESS TO  
 KLOVANCE OPTION  
 DRAWN BY: JWM    SCALE: 1" = 200'

GEOLOGY

The general geology is available in G.S.C. Memoir 308 by Little.

There is little rock exposure in the area, but overburden does not appear heavy since rock can be seen fairly frequently in road cut.

Stripping in the vicinity of the showing exposes mainly thinly bedded, much contorted argillite. Rhyolite is exposed by the road just west of the shaft and a quartz-feldspar dike is uncovered by the cut trench on Line 1 + 00E.

Little's map suggests that the south part of the claims should be underlain by Rossland Volcanics.

MINERAL OCCURRENCE

The mineral occurrence consists of an old shaft sunk on a brecciated argillite mineralized with galena, sphalerite and magnetite. The breccia is of limited lateral extent and occurs in small patches with no definite attitude. A sample across 1.5 feet of the best mineral in the shaft assayed 14.6 Oz. Ag, 4.27% Pb and 4.62% Zn.

The Silver Standard geochemistry shows anomalous values to the south of the exposed mineralization suggesting either an extension of the known showing or another zone under the overburden in this direction.

GEOPHYSICS

The mag survey indicates that the mineralization in the vicinity of the shaft is very limited.

Anomalous readings are obtained 50 to 100 m. south of the shaft which tends to confirm the interpretation of the Silver Standard geochemistry.

The S.P. and E.M. 16 test gave positive readings but are more likely to be the result of the presence of graphitic argillite than sulphides.

GEOCHEMISTRY

The soil samples taken at 25 m. interval on Lines 50 m. apart, confirmed the Silver Standard anomaly and located another silver-lead-zinc anomalous area with higher values than those obtained in the vicinity of the showing.

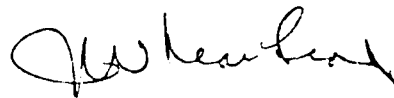
RECOMMENDATIONS

The initial follow-up of the magnetic and geochemical indications obtained should be by cat work.

It is estimated that three days of cat work at a total cost of \$ 5,000 should determine if diamond drilling will be required to further evaluate the anomalies.

If this work is successful in the location of new minerals of interest, consideration should be given to an extensive geochemical program.

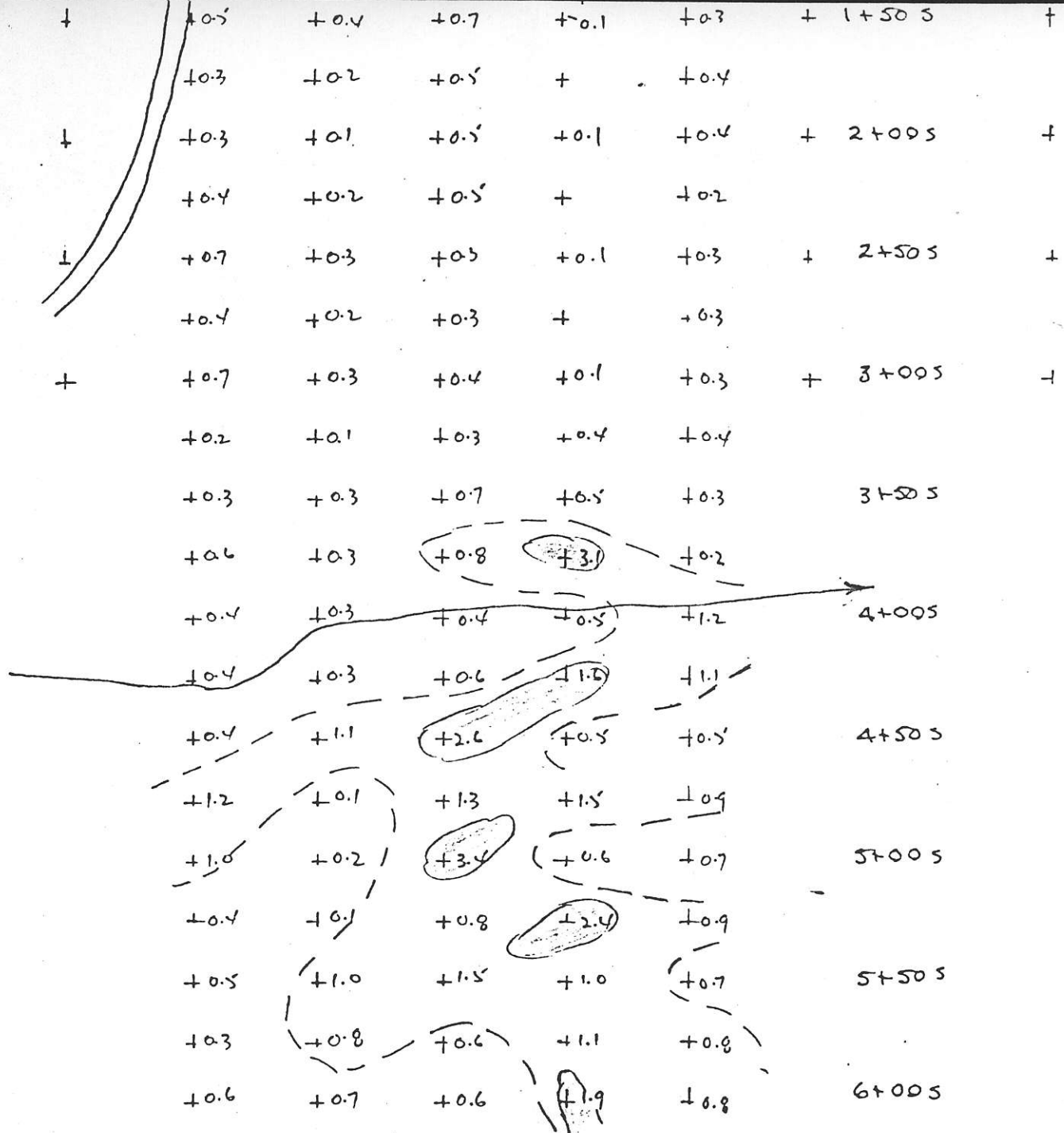
Respectfully submitted,

A handwritten signature in cursive script, appearing to read "J.W. MacLeod".

J.W. MacLeod, P.Eng.

Vancouver, B.C.

30 October 1981

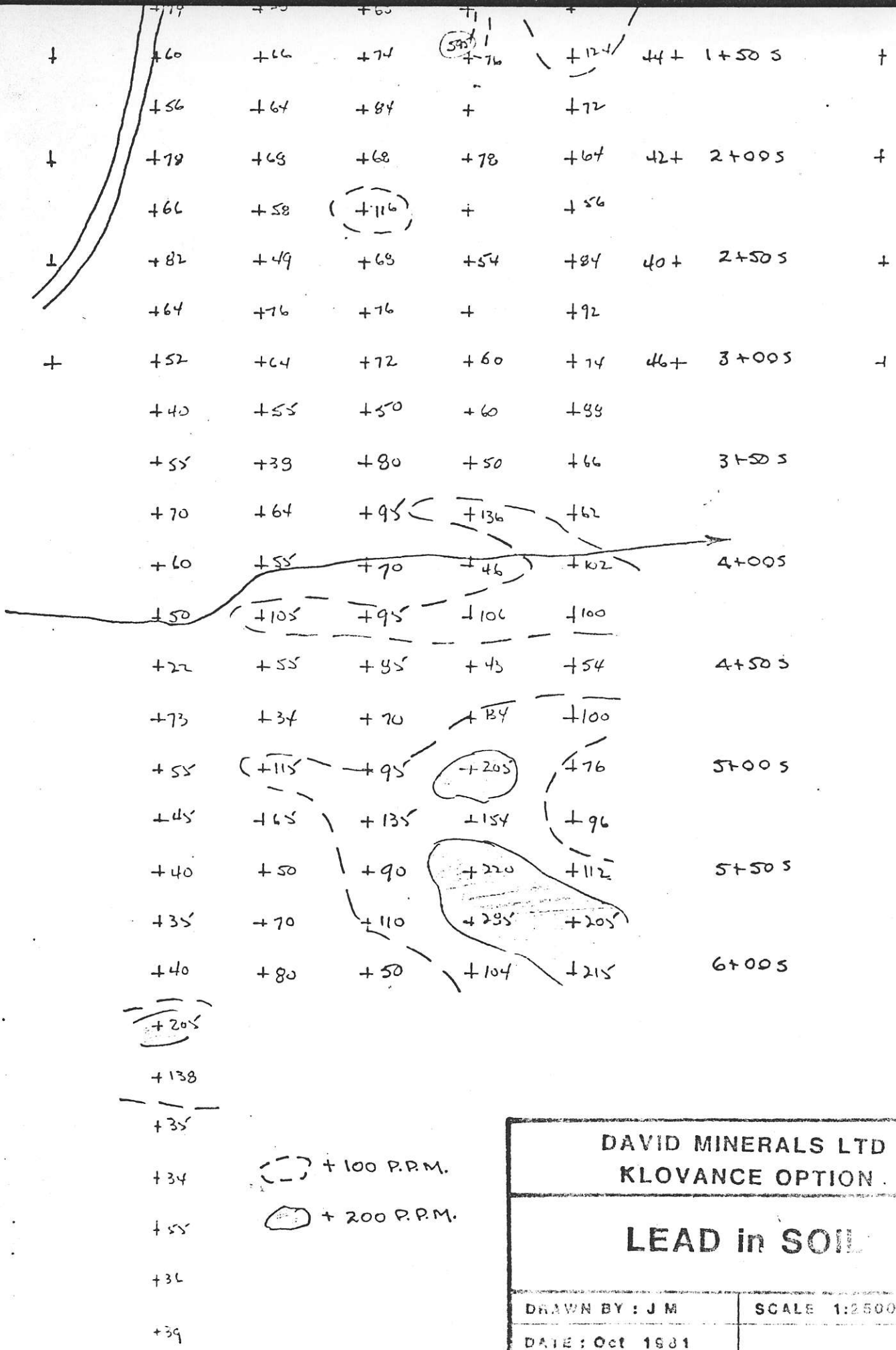


(---) +0.8 P.P.M.  
 (shaded) +1.6 P.P.M.

DAVID MINERALS LTD KLOVANCE OPTION	
<b>SILVER in SOIL</b>	
DRAWN BY : J M	SCALE 1:2500
DATE : Oct 1981	

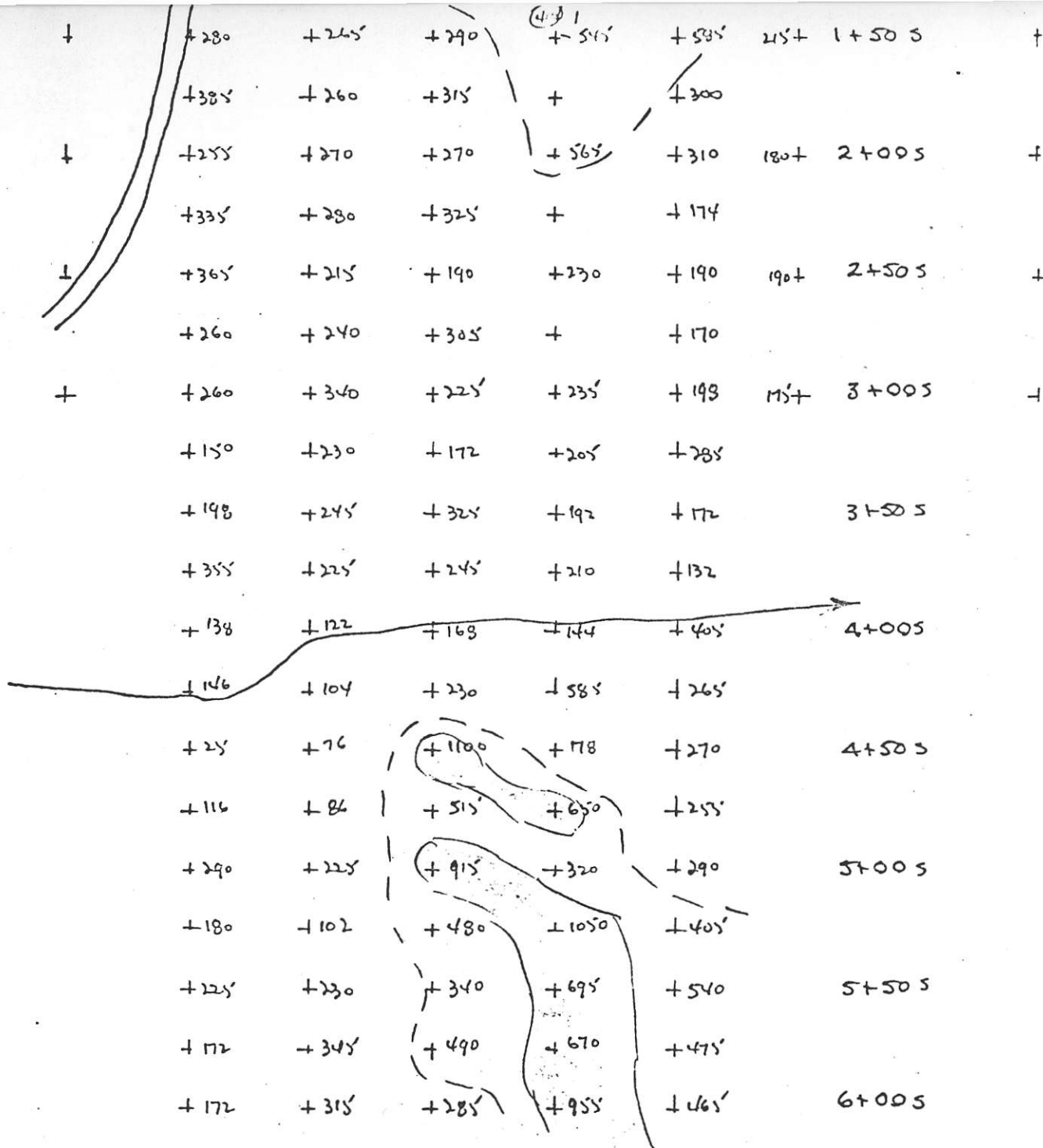






DAVID MINERALS LTD  
 KLOVANCE OPTION  
  
**LEAD in SOIL**  
  
 DRAWN BY : J M      SCALE 1:2500  
 DATE : Oct 1981





( ) + 400 P.P.M.

( ) + 800 P.P.M.

DAVID MINERALS LTD  
KLOVANCE OPTION

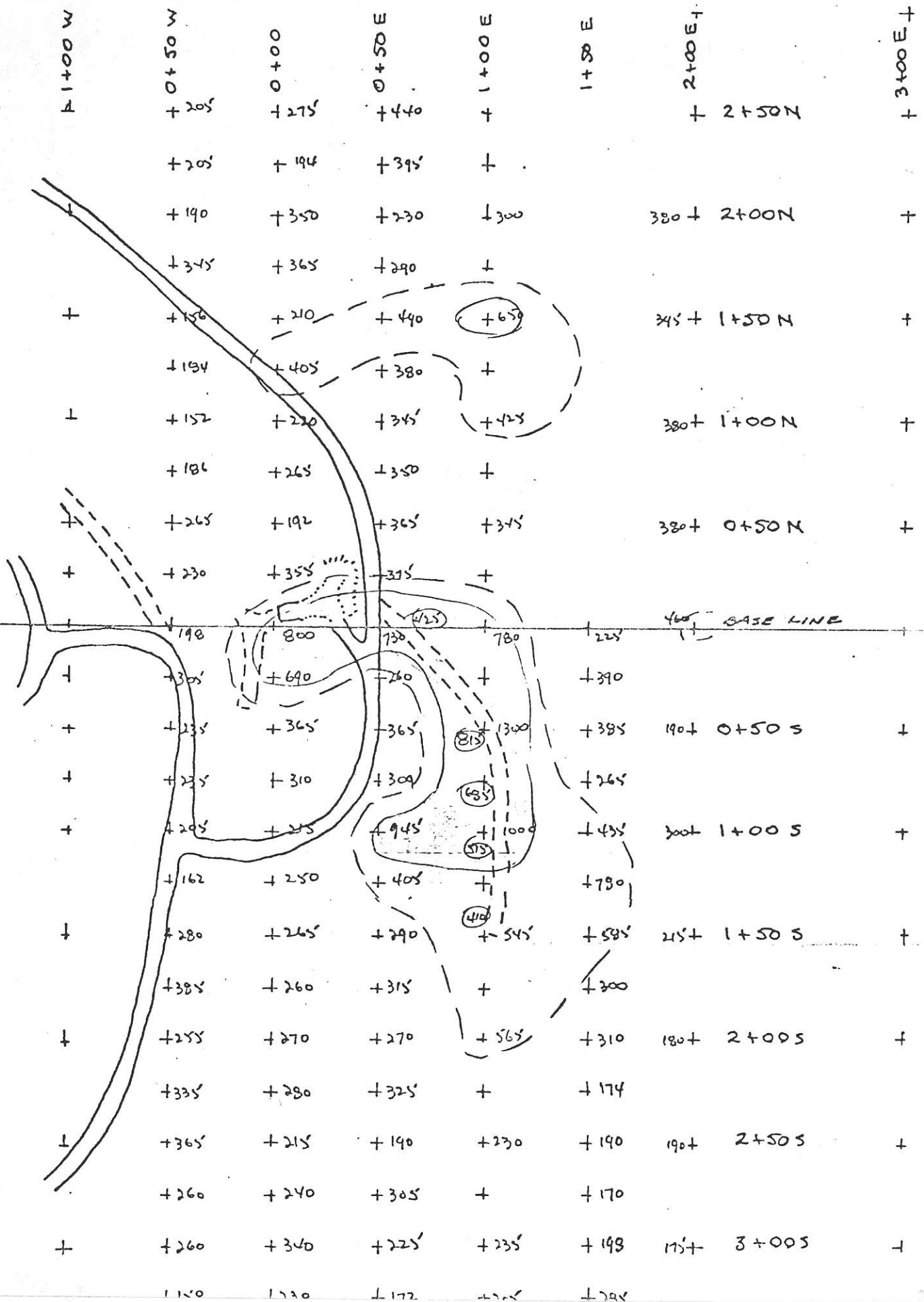
ZINC in SOIL

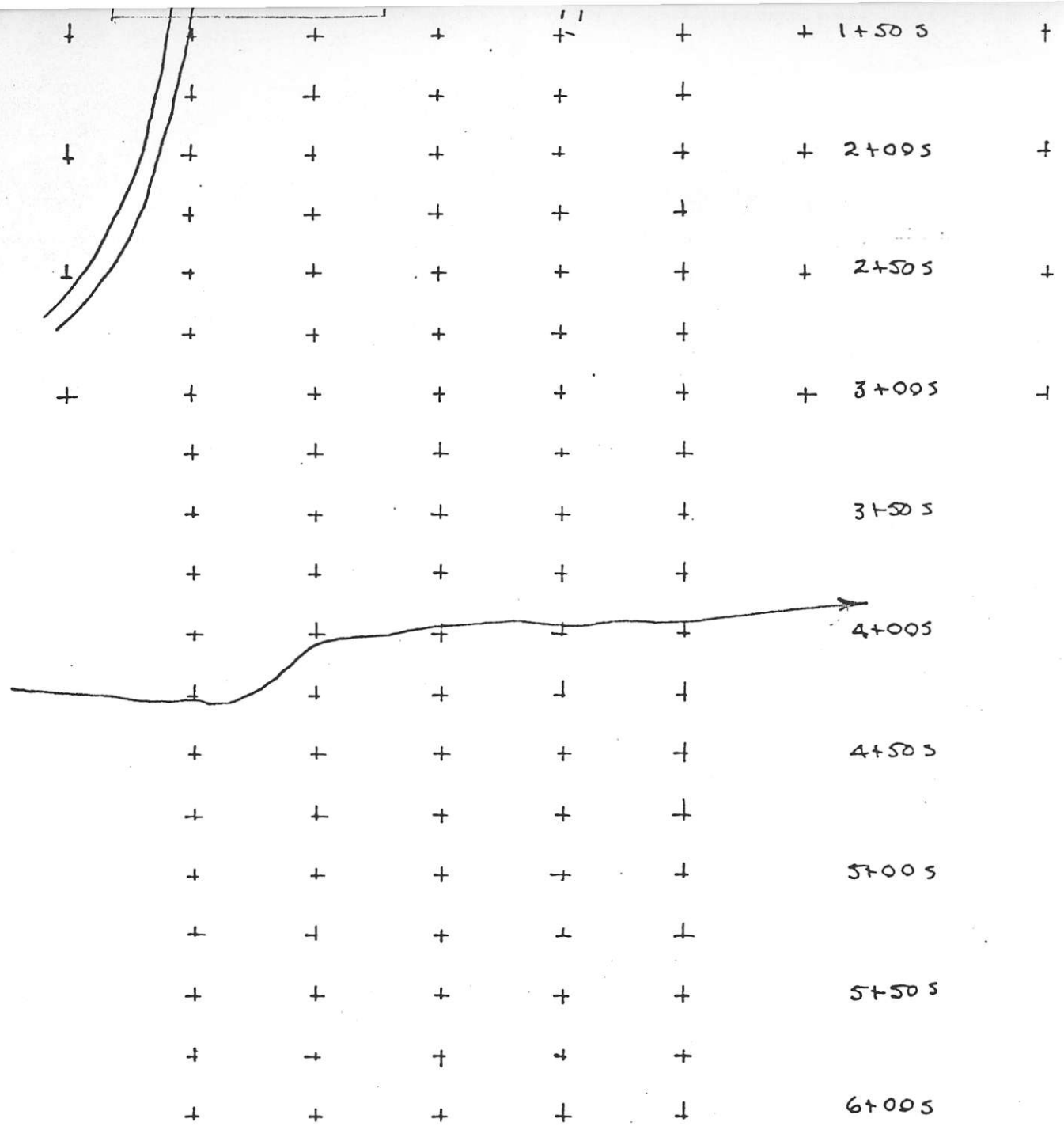
DRAWN BY : J M

SCALE 1:2500

DATE : Oct 1981

# Zinc in Soil

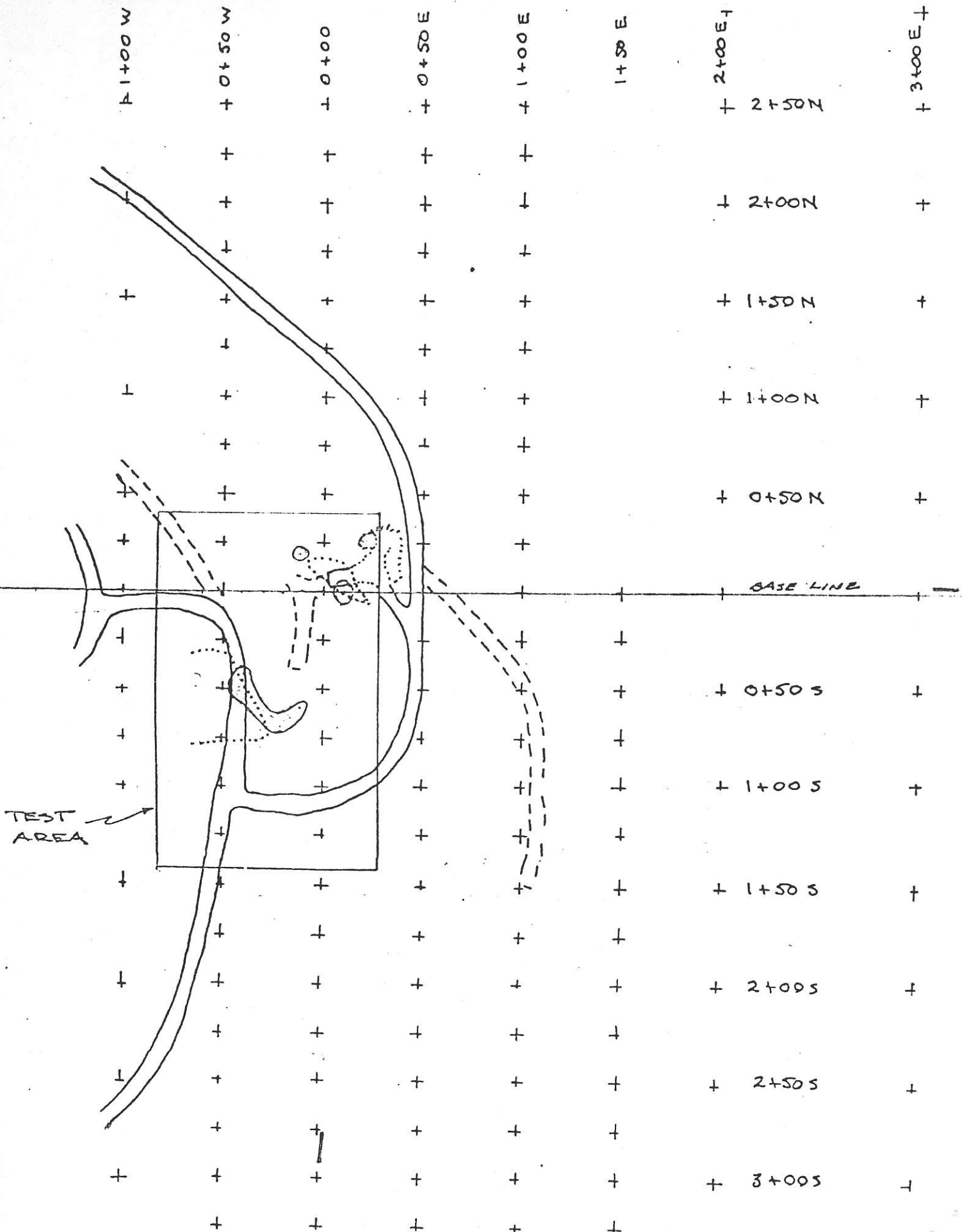




○ EM ANOMALY  
 ⊙ SP ANOMALY

DAVID MINERALS LTD KLOVANCE OPTION	
<b>EM &amp; SP TEST</b>	
DRAWN BY : J M	SCALE 1:2500
DATE : Oct 1981	

# E. M. & S. P. Test.



+	+3240	+2700	+3500	-2600	+2200	+ 1+50 S	+
	+3000	+2600	+3320	-2900	+2900		
+	+2850	+2900	+3660	+3320	+3000	+ 2+00 S	+
	+2980	<u>+2800</u>	+3300	+2900	+3000		
+	+3020	+2800	+3600	+2800	+2850	+ 2+50 S	+
	+3020	+3000	+2600	+3000	+2800		
+	+3260	+3140	+2700	+3000	+3000	+ 3+00 S	+
	+2900	+2910	+2900	+3000	+3000		
	+2700	+2905	+2900	+3000	+3000	3+50 S	
	+2700	+3910	+2900	+3000	+3000		
	+2700	+2900	+2900	+3000	+3000	4+00 S	
	+2700	+2900	+2900	+3150	+3000		
	+2700	+3000	+2900	+3000	+3000	4+50 S	
	+2700	+3020	+2900	+3000	+3000		
	+2700	+2900	+2900	+3000	+3000	5+00 S	
	+2700	+2880	+2900	+3000	+3000		
	+2700	+2900	+2900	+3100	+3000	5+50 S	
	+2800	+2900	+2900	+3100	+3000		
	+2800	+2900	+2900	+3000	+3000	6+00 S	

⊙ +4000

--- CAT TRENCH

DAVID MINERALS LTD KLOVANCE OPTION	
MAG SURVEY	
DRAWN BY : JM	SCALE 1:2500
DATE : Oct 1981	



# Mag Survey

