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**GEOPHYSICAL SURVEY REPORT
ON THE**

**LO CLAIMS
(TCHENTLO PROPERTY)**

Latitude 55° 11' Longitude 125° 14'

OMINECA MINING DIVISION

UTM: 35800E 611800N
NTS: 93N/03

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

19,673

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INTRODUCTION

The following report describes the magnetometer and VLF-EM surveys conducted by Placer Dome Inc. on the Tchentlo Claims (LO 1 to LO 11) during the period of September 8-13, 1989. The property is located on the south shore of Tchentlo Lake, approximately 106 kms northwest of Fort St. James, B.C. The surveys covered 53.09 kms of line along 41 grid lines 100 meters apart.

SUMMARY

The magnetometer survey delineated various magnetic units. VLF-EM conductors were located at contacts between magnetic and non-magnetic rock types as well as in zones of low magnetic relief. These conductors confirm the presence of a north-northwesterly trending shear occurring throughout the grid.

Both surveys proved to be useful mapping aids and should be used to help any further geological mapping.

LOCATION AND ACCESS

The Tchentlo Claims are located in Central British Columbia, approximately 106 kms northwest of the town of Fort St. James. The property is centered at UTM coordinates 35800E 611800N and comprises the south shore of Tchentlo Lake.

Access from Fort St. James is provided by the Tachie, Leo Creek and Leo-Tchentlo logging roads.

PROPERTY STATUS

The Tchentlo Claims are as follows:

NAME	NUMBER	EXPIRY DATE	RECORD NUMBERS
Lo 1-7,9	8	July 29, 1990	9631-9625,9623
Lo 8,10	2	July 29, 1991	9624,9622
Lo 11	1	Sept. 1, 1991	9763

PREVIOUS WORK

There is no record of exploration having been done on the claims prior to 1988.

In 1988, geochemical and geophysical field work was carried out by Placer Dome Inc. The geochemical field work consisted of bulk sediment and heavy mineral sampling along creeks, sampling of rock outcrop and float, and a soil orientation survey. The geophysical field work consisted of a VLF-EM survey along 5.78 kms of lines.

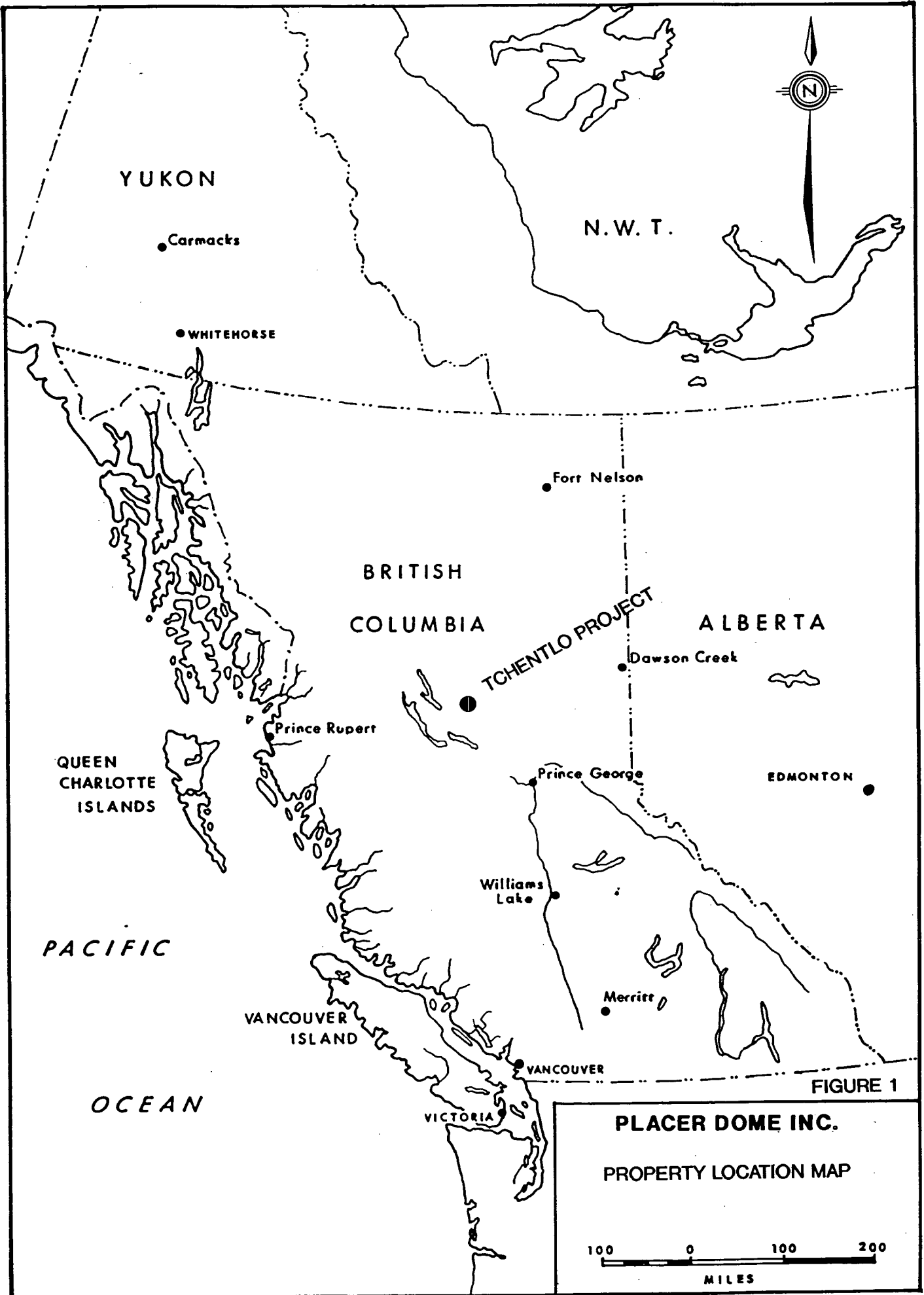
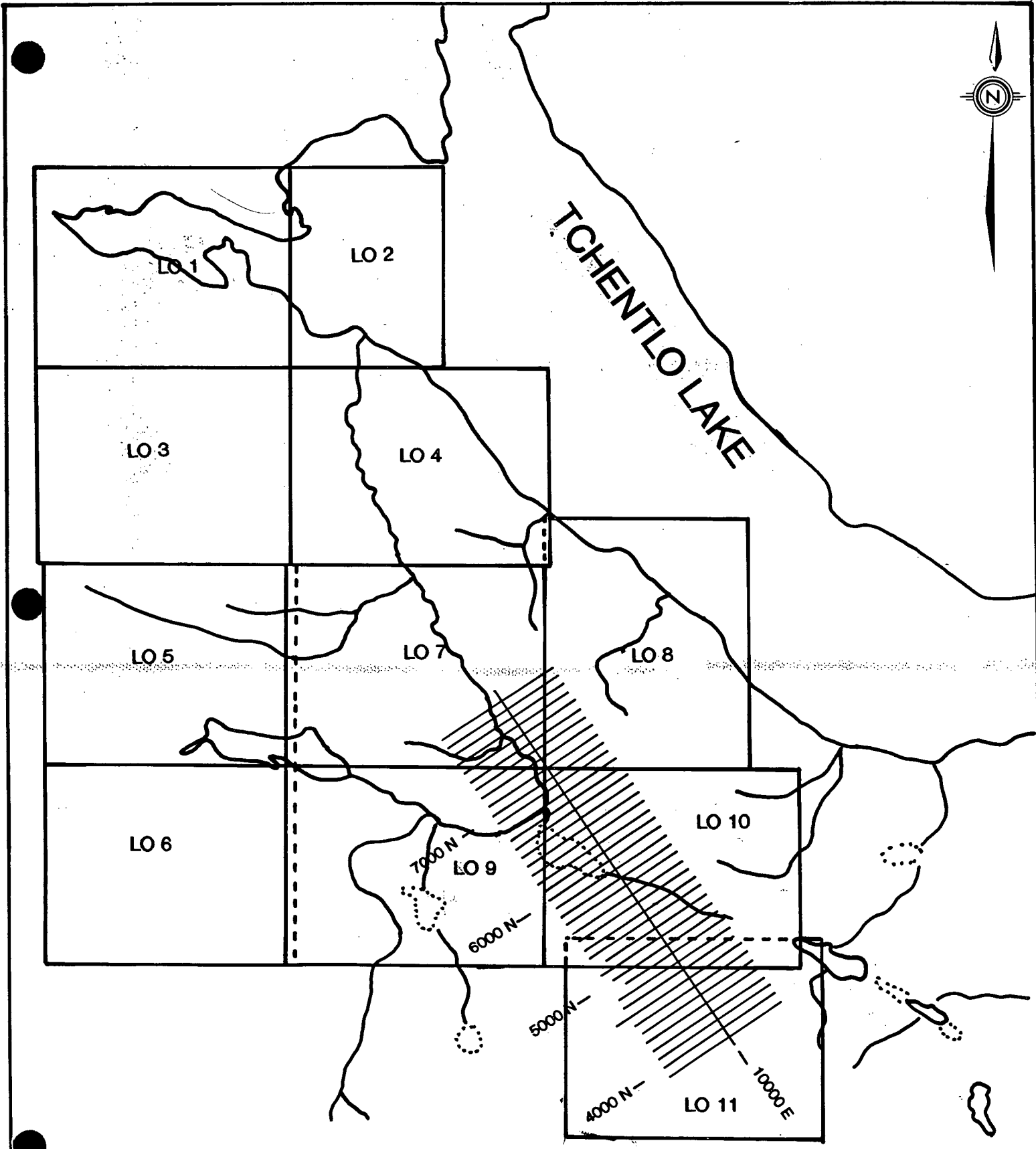


FIGURE 1

PLACER DOME INC.
PROPERTY LOCATION MAP

100 0 100 200
MILES



PLACER DOME INC. FIGURE 2

N.T.S. 93 N/3
 TCHENTLO PROPERTY
 CLAIM AND GRID LOCATION MAP SCALE 1:50000

PHYSIOGRAPHY

The property is situated on the Nechako Plateau which is defined by rolling terrain that has elevations varying from 900 to 1515 meters above sea level. The ridges and lakes generally have a northwesterly grain, and the areas between the ridges can be swamp-filled or thickly covered with overburden. Hence rock exposure in the plateau is usually at a minimum.

Timber in the vicinity is mostly lodgepole pine and spruce. The forest vary from open to heavily underbrushed with alder and devils club.

GEOLOGY

The Tchentlo Property is located near the northern end of the Pinchi Fault which separates the Upper Paleozoic metavolcanic and sedimentary strata of the Cache Creek Group to the west from the Mesozoic volcanic strata of the Takla Group to the east.

The claims are underlain by a north-northwest trending package of Upper Paleozoic Cache Creek rocks consisting of massive limestone with lesser sandstone and chert, which has been intruded by Mesozoic ultramafic rocks (mainly pyroxenite). Local brecciation and shearing occur within both the ultramafic and Cache Creek rocks, and are a result of a moderate to steeply dipping north-northwesterly trending shear that is parallel to the strike of the Pinchi Fault.

GEOPHYSICAL SURVEY

VLF-EM and magnetometer surveys were conducted along 53.09 kms of grid line. The grid baseline trends at 150° Az and is 4 kms long. The grid comprises 41 lines 100 meters apart. Although 5.78 kms of line had already been surveyed for VLF-EM conductors in 1988, the entire grid was surveyed.

The VLF survey was conducted using the Seattle transmitting station NLK (24.8 kHz) with readings being taken at 20 m stations. The direction to the Seattle station was 165° Az and therefore readings were taken facing 075° Az.

Magnetometer readings were taken at 10 m intervals and corrections for drift and diurnal changes were made by use of a base station recording magnetometer.

INSTRUMENTATION AND PROCEDURES

The magnetometer survey was conducted using two Geometrics G-856A portable proton magnetometers (memory-mags). One was used in the field mode while the other was used in a base station mode. The internal clocks were synchronized before commencement of the survey and subsequent daily readings were dumped out to floppy disk in a Zenith portable computer. The data from the two magnetometers was merged and corrected for diurnal drift from an established base station value. The corrected results were plotted as field profiles and also stored on disk for eventual transfer to a Sun Microsystems work station for final processing and plotting.

The VLF-EM survey employed a Geonics EM-16 which used the Seattle transmitting station. VLF readings were also entered onto floppy disk in a Zenith portable computer and field profiles of In-phase, Quadrature and Fraser Filter data were plotted. The stored data was transferred to a Sun Microsystems work station for final processing and plotting.

SURVEY RESULTS

The magnetometer survey results were plotted as plan maps of stacked profiles, contoured data, and posted data at scales of 1:5000 (see plates in folder at back of report).

The VLF-EM survey results were plotted as stacked In-phase, Quadrature and Fraser Filter profiles on a plan map at a scale of 1:5000. Plan maps of contoured Fraser Filter data, posted In-phase values, and Quadrature values were also plotted (see plates in the folder at the back of the report).

The Fraser Filter data was calculated as per the method put forth by D.C. Fraser (1969, Contouring of VLF-EM data: Geophysics, v. 34, p. 958-967).

DISCUSSION OF RESULTS

The magnetic survey revealed a series of magnetic units trending to the northwest. The most prominent unit is parallel to the base line (150° Az) and continuous through the entire grid. This dyke-like unit is most probably associated with a fault. It cuts across another magnetic unit between lines 6500 N and 5800 N then splits into two splays to the south of line 5400 N.

The VLF-EM conductors detected by the geophysical survey have predominant northwest trends. In most part, the conductors are associated with magnetic lows and are therefore most likely faults or shear zones. Also, some conductors delineate contacts between magnetic and non-magnetic rock types.

CONCLUSIONS AND RECOMMENDATIONS

The magnetometer survey showed the extend of various magnetic units on the grid. Most contacts between magnetic and non-magnetic rocks were delineated by VLF conductors as well as magnetic contrasts. The presence of a northwesterly trending shear parallel to the Pinchi Fault was confirmed by the VLF conductors associated with magnetic lows.

The most prominent magnetic unit trending parallel to the base line is most probably a dyke associated with a major fault.

The magnetic and the VLF-EM surveys were proved very useful geological mapping aids on this property and it is recommended that both surveys be used for further mapping in areas of sparse outcrop.

STATEMENT OF EXPENDITURES

The following expenditures were incurred for a geophysical program on the Lo 1-11 claims located north-west of Fort St. James, B.C. between September 5 and September 13, 1989.

1. FIELD DAYS (Salaries and Benefits)

H. Letient - Geophysicist	8 days @ \$225/day	1,800.00
J. Baril - Field Assistant	8 days @ \$225/day	1,800.00

2. EQUIPMENT CHARGES

2 G-856 magnetometer @ \$200 each/wk.	400.00
1 Geonics EM-16 @ \$200/wk.	200.00
1 Zenith portable computer @ \$100/wk.	100.00

3. TRANSPORTATION

Truck rental and gas for 8 days	520.00
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4. CAMP OPERATION

16 person days @ \$40/person day	640.00
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5. DATA INTERPRETATION AND REPORT WRITING

H. Letient - geophysicist	3 days @ \$225/day	675.00
Plotting, drafting, and computer cost		500.00


TOTAL EXPENDITURES: \$6,635.00

STATEMENT OF QUALIFICATIONS

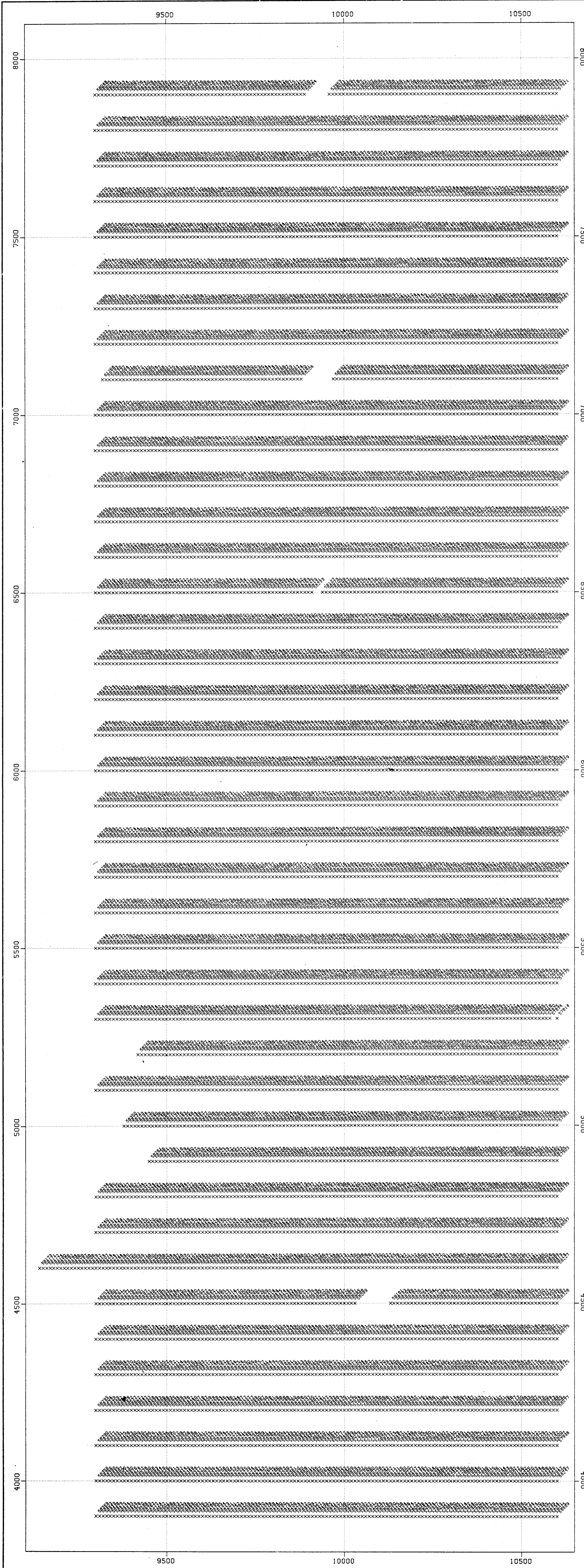
I, Henri F. Letient, of the City of Vancouver, Province of British Columbia, hereby certify as follows:

1. I am a graduate of the University of British Columbia where I received a B. A. Sc. in Geological Engineering (Geophysics Option) in May 1989.
2. I am currently employed by Placer Dome Inc. under the supervision of Richard W. Cannon.
3. I was present for all the geophysical field work conducted on the Tchentlo Property in 1989. I have compiled and reviewed the data and written the submitted report.

Nov 17, 1989
Date



H. F. Letient

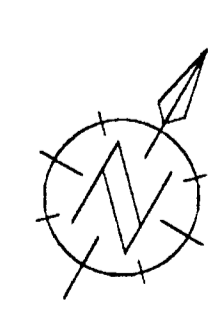


TCHENTLO PROJECT
 POSTED MAGNETIC DATA
 UNIT = NANOTESLAS

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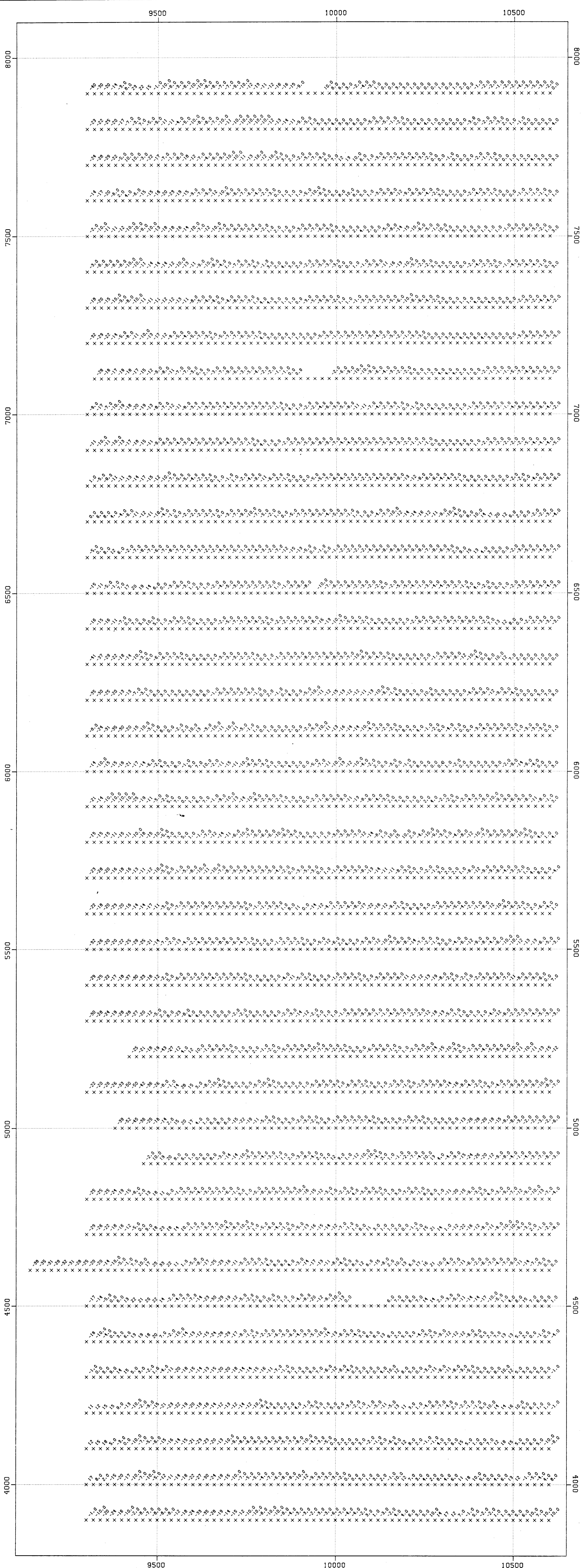
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DATA PLOTTED ON THIS MAP:
 DIRECTORY: /PLACER1_1E/EXPL/TCHENTLO/GP
 FIELD FILE
 X POINTS: MAG V237.MAGS



DRAWN HFL		PLACER DOME INC.	
DATE 89:10:20		TCHENTLO PROJECT	
SCALE 1:5000		POSTED MAGNETIC DATA	
NO.			PLATE 01

TCHENTLO PROJECT
 POSTED IN-PHASE VLF-EM DATA
 UNITS = % OF PRIMARY FIELD



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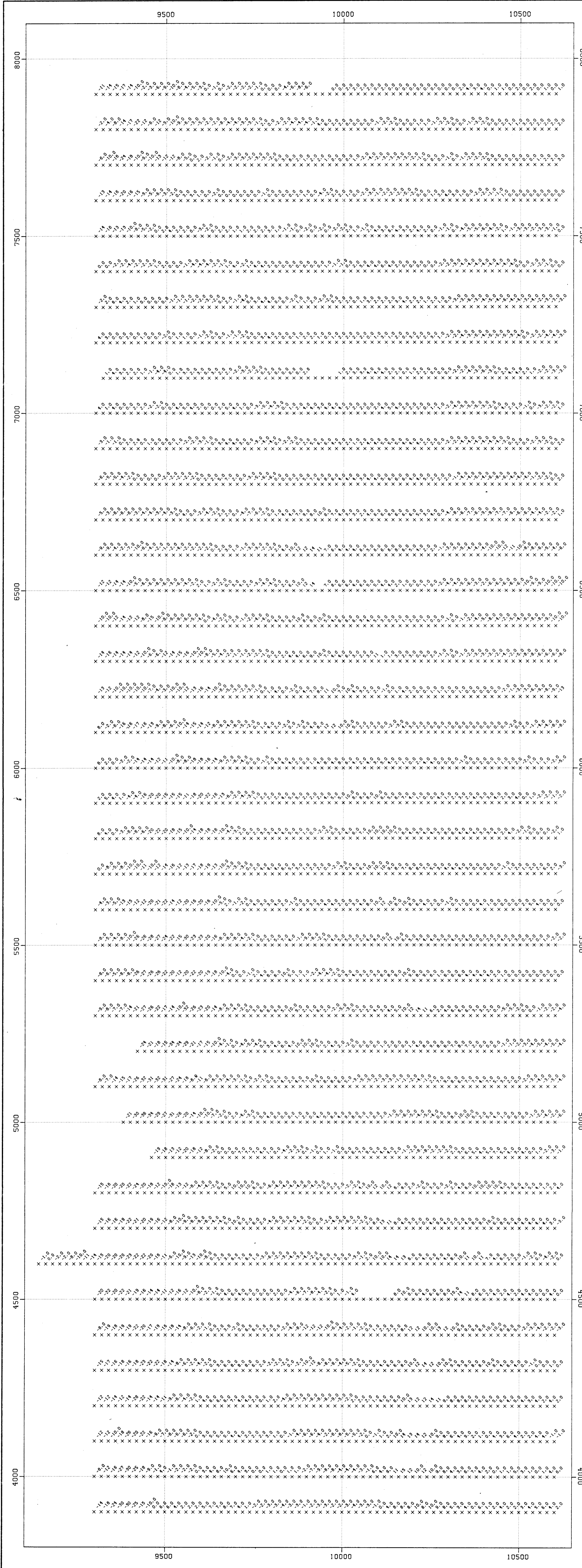
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DATA PLOTTED ON THIS MAP:
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FIELD FILE
 X POINTS: 1P V237.IPS



DRAWN HFL		PLACER DOME INC.	
DATE 89:10:20		TCHENTLO PROJECT	
SCALE 1:5000		POSTED IN-PHASE VLF-EM DATA	
NO.		PLATE 02	



TCHENTLO PROJECT
 POSTED QUADRATURE VLF-EM DATA
 UNITS = % OF PRIMARY FIELD

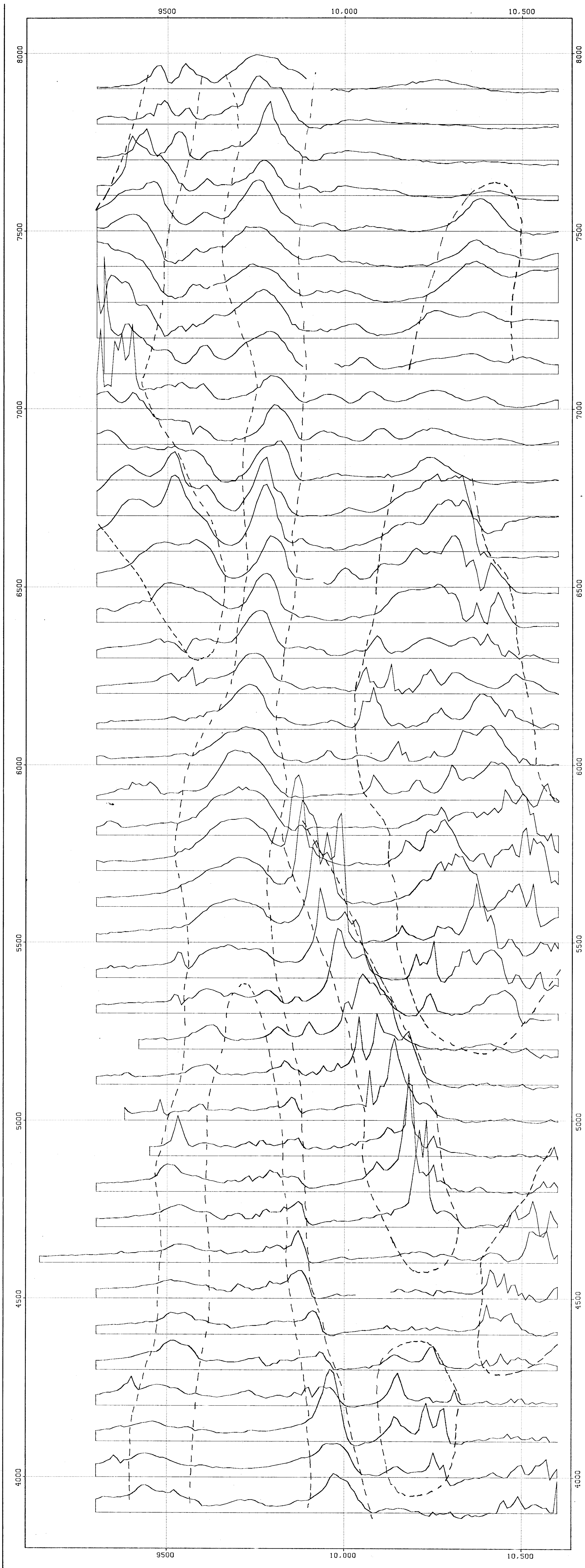
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DATA PLOTTED ON THIS MAP:
 DIRECTORY: /PLACER1_1E/EXPL/TCHENTLO/GP
 FIELD FILE
 x POINTS: 00 V237.005



DRAWN HFL		PLACER DOME INC.	
DATE 89:10:20		TCHENTLO PROJECT	
SCALE 1:5000		POSTED QUADRATURE VLF-EM DATA	
NO.		PLATE 03	



TCHENTLO PROJECT
 STACKED MAGNETIC PROFILES
 UNITS = NANOTESLAS

--- CONTACTS

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 FIELD FILE V237.MAG
 SCALE: 500 UNITS / CM
 BASE LEVEL: 58000

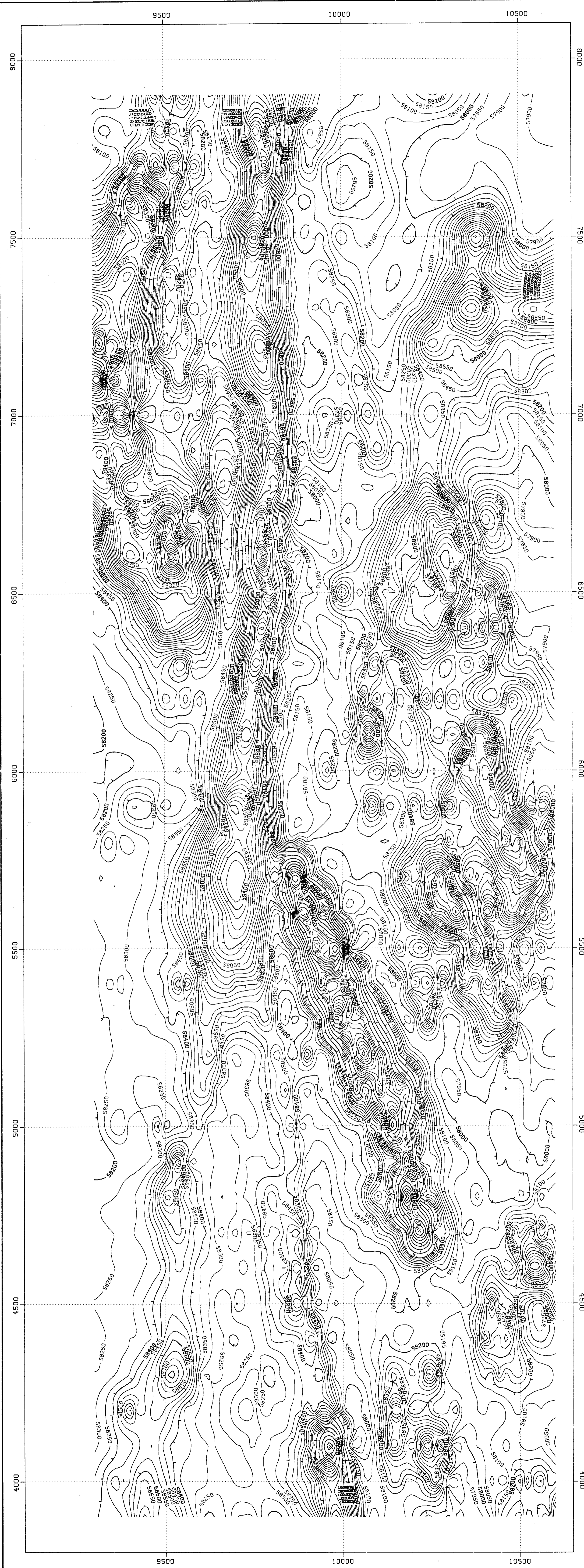


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DRAWN HFL		PLACER DOME INC.	
DATE 89:10:20		TCHENTLO PROJECT	
SCALE 1:5000		STACKED MAGNETIC PROFILES	
NO.		PLATE	04

TCHENTLO PROJECT
 CONTOURED MAGNETICS
 UNITS = NANOTESLAS



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DATA PLOTTED ON THIS MAP:
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 FIELD FILE
 CONTOURS: MAG V237MAG.GRD

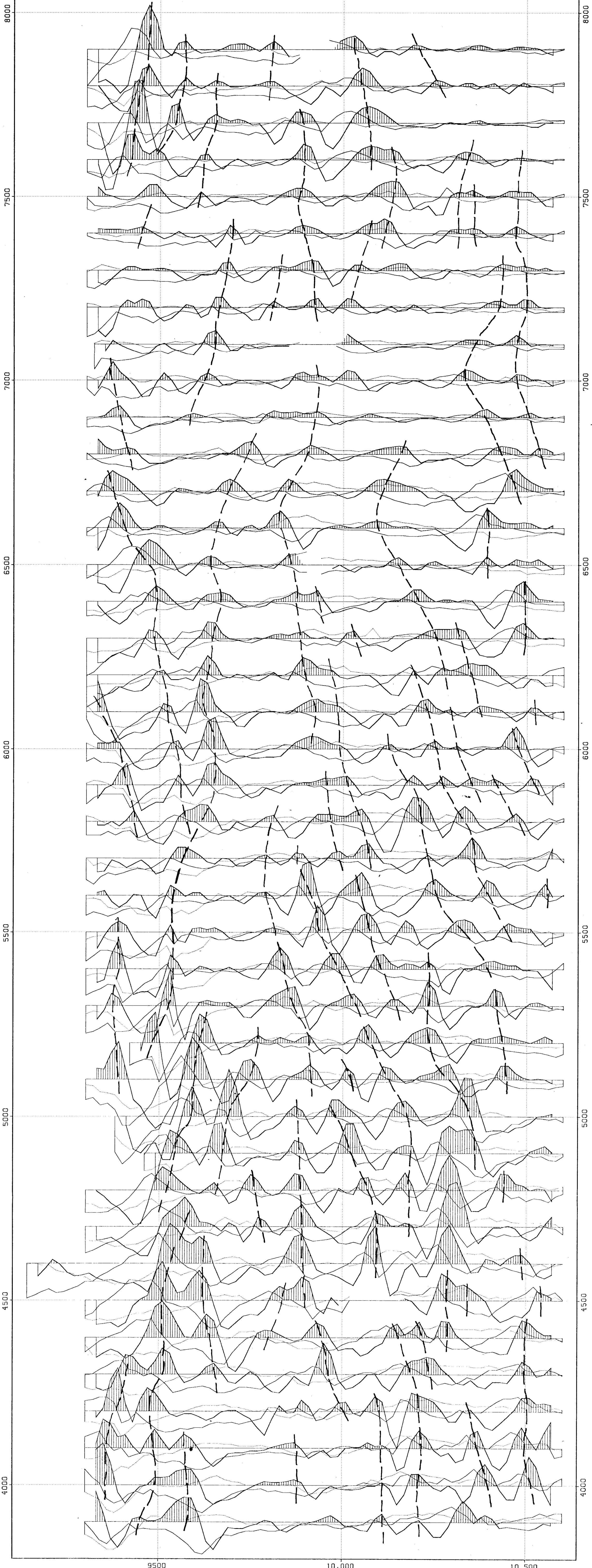


DRAWN HFL		PLACER DOME INC.	
DATE 89:10:20		TCHENTLO PROJECT	
SCALE 1:5000		CONTOURED MAGNETICS	
NO.		PLATE 05	

9500 10.000 10.500

TCHENTLO PROJECT
STAKED VLF-EM PROFILES

DARK LINE : FRASER FILTER
MEDIUM LINE : IN-PHASE
LIGHT LINE : QUADRATURE



--- CONDUCTOR AXES

DATA PLOTTED ON THIS MAP:
DIRECTORY: 8EXPL/TCHENTLO/GP

FIELD	FILE
	V237. IP
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	BASE LEVEL: 0.0
	FRASER FILTER APPLIED
---	PRO V237. IP
	SCALE: 20.0 UNITS / CM
	BASE LEVEL: 0.0
---	PRO V237. 00
	SCALE: 20.0 UNITS / CM
	BASE LEVEL: 0.0

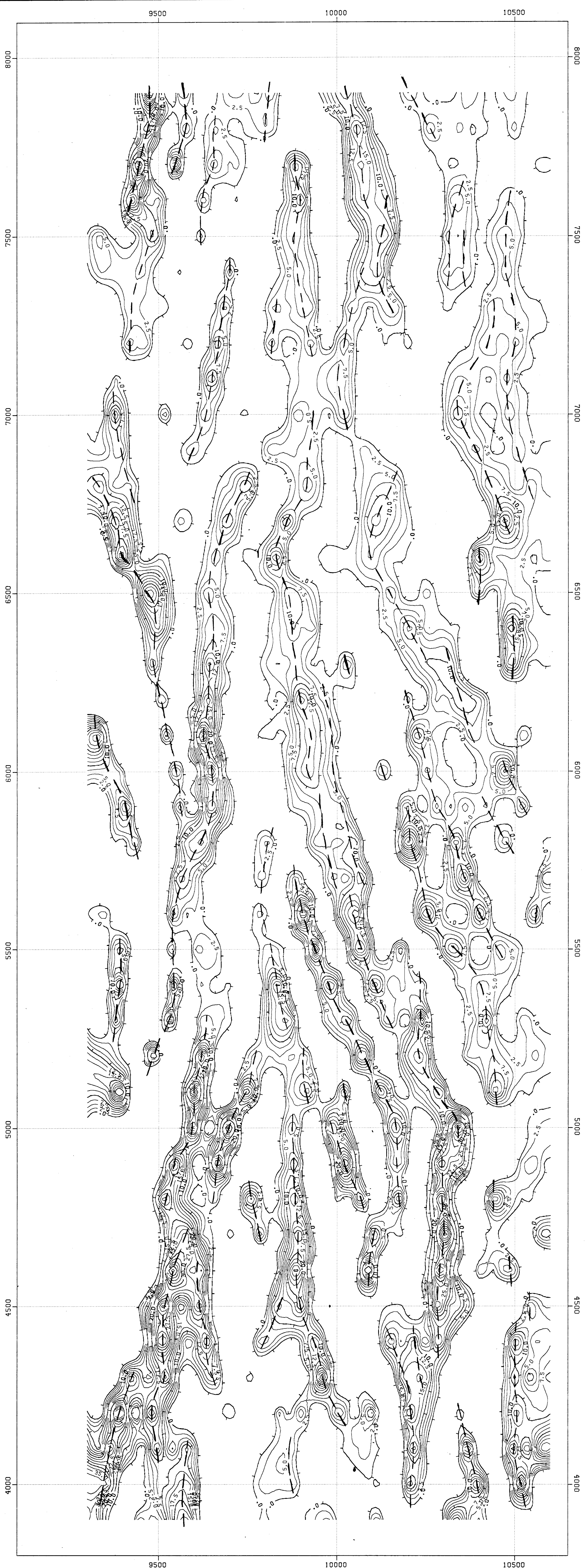


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DRAWN HFL		PLACER DOME INC.	
DATE 89:10:20		TCHENTLO PROJECT	
SCALE 1:5000		STAKED VLF-EM PROFILES	
NO.		PLATE 06	

TCHENTLO PROJECT
 CONTOURED VLF-EM DATA
 FRASER FILTERED DATA

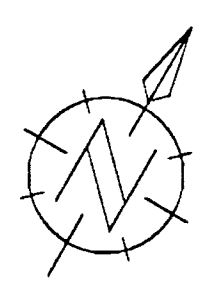


--- CONDUCTOR AXES

GEOLOGICAL BRANCH
 ASSESSMENT REPORT

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DATA PLOTTED ON THIS MAP:
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 FIELD FILE
 CONTOURS: FF V237FF.GRD



DRAWN HFL		PLACER DOME INC.	
DATE 89:10:24		TCHENTLO PROJECT	
SCALE 1:5000		CONTOURED VLF-EM DATA	
NO.		PLATE 07	