

D/CSG

548001

MICROFILMED

ELECTROLYTIC ZINC COMPANY OF AUSTRALASIA LIMITED

West Coast Mines

PART EXPLORATION LICENCE NO. 15/76 MONTEZUMA

Progress Report on Exploration Activities 21st
November, 1982 to 3rd May, 1983.

E.Z. Geol. Dept.
Report No. 166 MD

R.A. Sainty,
May, 1983

TABLE OF CONTENTS

<u>TABLE OF CONTENTS</u>	i
<u>LIST OF PLANS, FIGURE & APPENDIX</u>	ii
<u>1. INTRODUCTION</u>	1
<u>2. PREVIOUS EXPLORATION</u>	1
<u>3. EXPLORATION UNDERTAKEN 21.11.82 - 3.5.83</u>	1
<u>3.1. Work Completed</u>	1
<u>3.2. Results Received</u>	2
<u>3.2.1. Geology</u>	2
<u>3.2.2. GENIE-EM Survey</u>	5
<u>3.3.3. Ground Magnetics Survey</u>	7
<u>3.3.4. Rock Geochemistry</u>	7
<u>3.3.5. New Sn Soil Geochemistry</u>	8
<u>3.3.6. Observations by Aberfoyle</u>	8

LIST OF PLANS

AD-527-0036	1:10,000	Geology Interpretation
-0023	1:5,000	DIGHEM-GENIE EM Anomalies
-0022	"	" "
-0037	"	Ground Magnetics Contours
-0038	"	" " "
-0012	"	Sn Soil Geochemistry
-0024	"	" "
-0012/23	"	Overlain Sn Geochemistry and EM Anomalies

FIGURE:

~~1:50,000 "Work Completed 21.11.82-3.5.83"~~

- APPENDIX 1. "File Note" by J. Sise, Aberfoyle Exploration Pty. Ltd.
2. GENIE - EM Line Profiles
3. Ground Magnetic Line Profiles

1. INTRODUCTION

This report covers exploration from 21st November, 1982 to 3rd May, 1983 on the Montezuma Joint Venture part of E.L. 15/76 by the Electrolytic Zinc Company of Australasia Limited acting as Manager for a Joint Venture consisting of E.Z., Getty Oil Development Co. Ltd., and C.S.R. Limited. This Joint Venture was initiated in February, 1982.

A description of the Montezuma Joint Venture part of E.L. 15/76 can be found in E.Z. Geology Department Report No. 160, December, 1982.

2. PREVIOUS EXPLORATION

The initial phase of exploration by the present Joint Venture was described in E.Z. Geology Department Report No. 160, December, 1982 - "Report on Exploration Activity 22nd February to 20th November, 1982".

3. EXPLORATION UNDERTAKEN 21ST NOVEMBER, 1982 TO 3RD MAY, 1983

3.1. Work Completed (Refer to 1:50,000 scale plan "Work Completed 21.11.82 to 3.5.83")

Grid Line Pegging

The remainder of the recut, but unpegged NCGFA grid lines - 7-8, 9W-10W and 11-13 were pegged at 20m slope corrected intervals by E.Z. personnel.

Geological Mapping

The Montezuma Grid and the Texins Development drill site track were geologically mapped.

Geophysics

The grid was surveyed with Scintrex MP2 ground precession magnetometers by E.Z. personnel and with SE-88 GENIE-E.M. by Scintrex. The coverage with both techniques was reduced over unprospective Concert Schist basement on line 17W-20W.

New Line Cutting/Pegging/Geophysics/Soil Geochemistry

Four new shorter infill lines 16.5-19.5, were cut and pegged to provide GENIE-EM and soil Sn geochemical data on a reduced (100m) line spacing. Two additional lines, 20.5 and 21, were cut and pegged on the southern end of the grid in order to close off the 560 ppm Sn soil geochemical high on line 20W. The old NCGFA lines 1-1A-2 in the north of the grid were recut and pegged to provide coverage over DIGHEM anomalies A1 and A2. All these lines were subsequently soil sampled and surveyed with magnetometer and GENIE-EM. On lines 1-1A-2 GENIE-EM coverage was restricted to east of the lease 62M/75.

Data Compilation

A 1:10,000 scale geological interpretation plan was prepared in mid-March as requested by the Joint Venture Technical Meeting of 16th December, 1982. 1:5,000 scale plans showing contoured ground magnetics, GENIE/DIGHEM anomalies, (revised) Sn soil geochemistry and selected 1:5,000 scale line profile sheets have been compiled. Previous company data from both the northern and southern ends of the grid has been reviewed and assessed.

3.2. Results Received

3.2.1. Geology (Refer to 1:10,000 scale Geology Interpretation plan AQ-527-0036

1:5,000 scale DIGHEM-GENIE EM Anomaly plan AQ-527-0023, -0022)

The essential components of the grid geology are:

1. The northern and eastern flanks of a domal structure which has a core of Concert Group schists with successive units of Maestries Dolomitic Conglomerate, Oonah Formation black slates and quartzites, and Crimson Creek sediments. Dundas Group sediments occur to the north of the ?fault-bounded Oonah block.
2. The Montezuma Fault, which is expressed solely by the persistent linear +30 ppm Sn soil geochemistry first detected by NCGFA and extended south of line 13 by the present Joint Venture. The fault trace transects Oonah Formation on lines 11-13, Crimson Creek sediments on lines 13-15 and Oonah Formation

again south of line 15. The fault is expected to intersect the recrystallised dolomite unit down-dip on the northeastern flank of the domal structure .

The 1972 Texins Development track provides good exposure through the southern part of the Montezuma grid west of the 5,000E baseline. Within 300m of the eastern end of the track, the contact between fine-grained phyllitic to schistose siltstone of the Concert Group and black slates with micaceous quartzites of the Donah Formation is marked by the Maestries Dolomitic Conglomerate. This rock consists of rounded chert and quartz pebbles in a recrystallised dolomitic matrix. The unit was included by Elliston (1954) within the base of the Donah Formation (his Carbine Group). The gossan zone partly delineated by Texins is exposed immediately east of the unweathered dolomitic conglomerate and outcrops again at a trackside drill site 150m downslope. While Texins believed this gossan to be fault-located, it has now been identified as oxidised Maestries Dolomitic Conglomerate. (At the upslope track exposure, gossanous dolomitic conglomerate with thin coarsely recrystallised galena veinlets occurs at the western edge of the exposure of fresh dolomite rock, and on line 16W slabs of gossan-encrusted dolomite conglomerate were found. Adjacent to line 17W the road cutting exposes the western edge of the gossan dipping east at 30° over Concert Group schist that here is weakly pyritic. Boulders of fresh dolomitic conglomerate occur within the track surface below this cutting.) A maximum true thickness is 30m given a maximum surface width of 60m and a 30° dip. The anomalous Pb and Zn of the gossan zone appear to derive from variable amounts of fine sulphide on fracture surfaces of the conglomerate which is sometimes also highly charged with very fine pyrite. At the trackside drill site south of line 17W, coarsely recrystallised pyrite aggregates commonly 10cm across occur within the cellular gossan; here also small boulders of semi-massive specular haematite are abundant.

The Texins drill site track does not extend to the contact with Crimson Creek Formation. These rocks, dominantly pale grey quartz arenites (with minor grey siltstone beds) and lesser interbedded purple arenites and siltstones, have been mapped on lines 14E-20E. The Donah-Crimson Creek Formation contact appears conformable in two creeks near lines 17.5 and 19.5.

DIGHEM/GENIE EM anomalies and Fe/Zn soil geochemistry have combined with line mapping in providing an outline of the geology of the grid. Zn soil geochemistry partly defines the Maestries Dolomitic Conglomerate. The eastern contact of the Donah Formation with the Crimson Creek Formation has been identified with a break in the Fe soil geochemical pattern (refer to E.Z. Geol. Dpt. Report No. 160, pp 10) and the line of DIGHEM conductors F1-F6 to K1-K2. DIGHEM anomaly D is interpreted as the western contact of the ?fault-bounded block of Donah Formation, the northern contact of which is approximated by the join D1-3-E1-F1. North of F1 the break in the Fe soil geochemistry continues as an extension of the trend of conductors F4-F1 and indicates the contact with Crimson Creek Formation in an area virtually devoid of exposure. In the north of the Joint Venture area, DIGHEM trend A is correlated with a previously mapped faulted contact between Brewery Junction and Razorback Conglomerate Formations of the Dundas Group.

There is almost no outcrop on grid lines over a wide area south and east of Godkin Ridge. Donah slate and quartzite bedrock is expressed by loose quartzite rubble along tracks and on slopes. North of this block of Donah metasediments there is abundant outcrop of chert pebble conglomerate and quartz arenites on the western side of Godkin Ridge with poorly-outcropping tuffaceous sediments and black shales on the eastern side. The Curtin Davis Consols and No. 1 Curtin Davis mines occur in the black shale units at the western foot of Godkin Ridge and are marked by GENIE anomalies on lines 9E and 10E corresponding to DIGHEM trend B. The Evenden prospect adit occurs within black slates at the northwest contact of Donah Formation with Dundas Group siltstones.

On line 7 at 5,430E boulder rubble of grey limestone was found on the steep western slope of Godkin Ridge but the outcrop has not yet been located. This location is 140m east of the GENIE anomaly.

Sparsely outcrop and float of Dundas Group rocks on lines 1-1A-2 consists of laminated black siltstones with minor quartz arenite, feldspathic wacke and a reddish-brown-weathering coarse lithic greywacke. The finer sediments have been correlated by NCGFA with Brewery Junction Formation; the coarse lithic greywacke, or grit, with the Razorback Conglomerate. The laminated black siltstones have minor pyrite films on fractures and some minor fine disseminated pyrite.

Dolomite units were recorded in both outcrop and two drill holes within ML 62M/75 to the west by Longreach Metals (1971) and Minops (1974).

3.2.2. GENIE-EM Survey (Refer to 1:5,000 scale DIGHEM-GENIE EM Anomaly Plans AD-527-0023, -0022)

The GENIE-EM survey has produced anomalies that generally correlate well with the DIGHEM conductor position, although there is some disparity of anomaly grade as registered by the two techniques. The GENIE survey has also produced some anomalies not represented by DIGHEM. The results from the on-ground GENIE are considered more independent of terrain effects.

In the north, a strong response over lines 1-1A-2 corresponds well with DIGHEM conductors A1 and A2, although the response was unexpectedly strongest on line 2. The anomaly is correlated with a faulted contact between Brewery Junction and Razorback Conglomerate Formations of the Dundas Group. The black siltstones have minor pyrite films and minor disseminated pyrite but appear incapable of producing a strong EM anomaly. One outcrop having abundant fine pyrite was found (5,830E on 1A); however this is located well to the west of the GENIE-EM response. A

resistivity measurement made over a 25m interval at this area of rock outcrop (1.8 ohms) is lower than two made within the GENIE anomaly (30 ohm and 33.5 ohms). This, and the limited surface outcrop data infer that the GENIE response is not a near-surface feature.

In the centre of the grid, the following anomalies are coincident with the Montezuma Fault as defined by the linear +30 ppm soil Sn geochemistry:

<u>GENIE Anomaly</u>	<u>Corresponding DIGHEM Anomaly</u>	<u>Interpreted stratigraphic position</u>
Line 9; 5,375E	B4	Dundas Group
Line 10; 5,250E	B4	Dundas Group
Line 11; 5,200E	E1	Upper Donah Fm.
Line 13; 5,000E	F4-J1	Donah-Crimson Creek Fm. contact
Line 14; 5,050E	F5	Basal Crimson Creek Fm.

All but the line 14 anomaly occur in areas where Donah Formation black slates or Dundas Group black shales have been observed or may be inferred.

The anomaly within Dundas Group Sediments on line 7 centred at 5,300E was not represented by DIGHEM. It is coincident with the trace of the Montezuma Fault although only a single 20 ppm Sn values was recorded on line 7 (and again on line 6) in Goldfields 1969 sampling.

In the south, the strong to extreme GENIE response over lines 16-18 near the Maestries Dolomite Conglomerate-Donah Formation contact corresponds to (and is restricted to) the DIGHEM conductor trends Z and L. The GENIE response marking this contact away to the north and south of lines 16-18 is much weaker, even though the black shales continue along strike with similar appearance. This matching of anomalies is encouraging in highlighting the already favourable geological situation for cassiterite-in-pyrite replacement of the recrystallised dolomite unit down dip in its expected intersection with the Montezuma Fault.

3.2.3. Ground Magnetism Survey (Refer to 1:5,000 scale Ground Magnetism Contours plans A0-527-0037, -0038)

The ground magnetism survey has confirmed the subdued pattern of the DIGHEM aeromagnetism survey and revealed no anomalies not already detected. The one significant response was recorded on lines 1-1A-2 and on the baseline in the vicinity of the lease 12M/42. This is part of the aeromagnetic ridge loosely associated with DIGHEM conductor trend A (E.Z. Geol. Dept. Report 160, Appendix 1: DIGHEM LTD Report 355 pp 26). This ridge is part of a larger aeromagnetic linear (on the 1981 1:50,000 Geox aeromagnetism survey) including the serpentinites at Colebrook Hill and those at Mt. Razorback. The Zeehan 1 mile sheet 50 shows small areas of serpentinite outcrop outside the E.L.'s northern and western boundaries. GDK-3 by Comstaff within ML 62M/75 intersected gabbro at 172m beneath ?Razorback Conglomerate. The EM responses on lines 1-1A-2 thus have another interesting possible association, i.e. for Razorback mine-style replacement of serpentinite-derived dolomite, but it is problematical as to whether either DIGHEM or GENIE could penetrate to that depth.

3.2.4. Rock Geochemistry

Geochemical assays of 8 rock specimens collected during the initial line mapping phase were received. 30 ppm Sn and 2650 ppm Cu was recorded for thin pyrite veinlets in limonitic rock within the Crimson Creek sediments (line 15E, 5090E) along the trace of the Montezuma Fault as defined by the +30 ppm soil Sn geochemistry. A massive pinkish dolomite within the Crimson Creek previously reported (L18E, 5374E) returned 8 ppm Sn. The two widely spaced gossan samples analysed (16W and 18W) assayed widely varying Pb-Zn contents: 10 ppm Sn, 65 ppm Pb, 160 ppm Zn vs 7 ppm Sn, 0.52% Pb, 0.54% Zn respectively. Fresh dolomitic conglomerate exposed in the Texins drill site track assayed 3 ppm Sn, 135 ppm Pb, 170 ppm Zn.

3.2.5. New Sn Soil Geochemistry (Refer 1:5,000 scale Sn Soil Geochemistry plans AO-527-0012, -0024)

Infill soil geochemistry on the south of the grid has better defined and enhanced the Sn anomaly centred near line 18. The +30 ppm anomaly is now 500m long and 100-130m wide over lines 17.5-18.5 and 50m wide on lines 19 and 19.5. The anomaly is particularly sharply truncated on its most northern line, line 17.5. Maximum values are 458 ppm on line 19.5, 500 and 530 ppm on line 18 and 1360 ppm on line 18.5. 76% of the +30 ppm values are +100 ppm. A 1260 ppm Sn value occurs 60m outside the western edge of the anomaly on line 17.5 and appears to derive from near the contact of gossanous dolomitic conglomerate with Onah Formation.

Sampling on the two extension lines 20.5 and 21 has succeeded in closing off the Sn geochemistry trend for 200m south of line 20. No anomalous values were recorded on these two lines.

On the northern lines 1-1A-2, the resampling east of the lease ML 62M/75 has duplicated NCGFA's single point +30 ppm soil Sn anomaly at 6100E. This 47 ppm value occurs at the GENIE-EM response mid-point. However, at the western end of geochemical resampling on line 1A three samples recorded 59, 289 and 258 ppm. These are associated with old alluvial cassiterite workings. (Dunn and Archer's) which are coincident with the magnetic ridge peak and a local +400nT 100m-wide circular anomaly. The GENIE-EM anomaly, however is 270m to the east.

3.2.6. Observations by Aberfoyle (Refer to appended "File Note" by John Sise)

John Sise of Aberfoyle Exploration was shown the Texins drill site by a local prospector in December, 1982 and took three bulk samples of pyrite-veined rock which later assayed between 0.26 and 0.29% Sn. These values are typical of those obtained by Aberfoyle adjacent to the Queen Hill, Zeehan pyritic Sn orebody. John has since spoken of as being impressed with the similarity of the rocks and veining with those in the immediate environs of the Queen Hill deposit. There are two phases of pyrite veining at Queen Hill and the C.M.S. report identifies a parallel style of veining at Montezuma.

APPENDIX 1 "File Note" by J. Sise, Aberfoyle Exploration

FILE NOTE:

On December 22, 1982 an area east of the Razorback Mine (see attachments) was visited in company with Nick Moony of CMS.

? The purpose of the trip was to investigate reports of high tin values (up to 2% Sn) in rock samples collected from old workings some years earlier when Razorback was in operation.

The prospect is reached by a steep four-wheel drive track leaving the valley floor at Maestries Mill. Outcrop at the site, which has been exposed by costeaning and road access, consists of heavily sheared and pyrite veined black shale. The prospect, thought to occur near the Precambrian - Cambrian contact, generally resembles the Queen Hill setting.

Three bulk samples were collected: two from road exposures, the other from adit material (see attachment).

Subsequent enquires have established that the area is known as the Montezuma Fault Zone, is held by CSR under EL 15/76, and is being actively explored by EZ/Getty under joint venture. Some diamond drilling is believed to have been undertaken.

Some previous exploration was carried out by Texins Development under EL 7/68. An old ML 17M/74 of 33 ha is shown on the Renison Bell 25 Mineral Chart.

note to all directors re next meeting

[Handwritten signature]

Red
The foundation I promised
Regards
[Handwritten signature]

28.4.83

Aberfoyle Exploration Pty Ltd

DUNDAS TROUGH RUN 13 20 3 181 115 207 ASL A.M.M.
COMINGO 25 31 270 115 57 M.M.



In response to your request in the attached memorandum, the following is a summary of the results achieved.

SUMMARY

Three samples taken by J. Sise and N. E-Moony were assayed, mineralogically examined and briefly tested in the laboratory. These samples assayed between 0.26 and 0.29%Sn (previous samples taken from an area now bulldozed out were 1.5 and 0.7%Sn). The attached mineralogical report shows the tin mineralisation to be very fine and similar to that of Queen Hill. Potential processing difficulties to be expected by fine crystal sizes were confirmed by preliminary heavy liquid tests on each of the samples. One of the three samples (M1) indicates reasonable liberation at the coarse size tested. Further tests at finer sizes are required to determine the extent of any metallurgical problems.

In addition to the tin content the relatively high silver content of one of the samples should be pointed out. No specific tests were performed to investigate the metallurgy of this element.

S. S. Meik

S. S. MEIK

RESULTS1. Head Assays

SAMPLE	%			ppm			
	Sn	Sn(Sol)	S	Cu	Pb	Zn	Ag
M1	0.28	0.04	29.5	2925	31300	700	291
M2	0.26	-	11.5	150	575	275	73
M3	0.29	-	11.5	400	1700	400	31

2. Heavy Liquid Washes

SAMPLE	Size (Microns)	Product	Wt (gm)	% Wt	Assay				Distribution			
					% Sn	% Pb	% Zn	Ag (ppm)	Sn	Pb	Zn	Ag
M1	-3345	2.96 Float		33.5	0.03	0.03	<0.01	<10	18.8	1.0	11.3	1.6
	+45	2.96 Sink		60.5	0.15	3.60	0.04	300	63.6	83.9	80.7	86.2
	+45		1358.1	94.0	0.12	2.34	0.03	197	82.4	84.9	92.0	87.8
	-45		86.2	6.0	0.42	6.5	0.04	430	17.6	15.1	8.0	12.2
	TOTAL		1444.3	100.0	(0.14)	(2.59)	(0.03)	(210)	100.0	100.0	100.0	100.0
M2	-3345	2.96 Float		64.6	0.13	0.01	<0.01	30	43.8	13.2	67.4	29.9
	+45	2.96 Sink		29.9	0.31	0.10	<0.01	130	48.4	60.9	29.7	59.9
	+45		782.2	94.5	0.19	0.04	<0.01	62	92.2	74.1	94.1	89.8
	-45		45.3	5.5	0.27	0.23	0.01	120	7.8	25.9	5.9	10.2
	TOTAL		827.5	100.0	(0.19)	(0.05)	(0.01)	(65)	100.0	100.0	100.0	100.0
M3	-3345	2.96 Float		67.1	0.14	0.02	0.01	<10	43.8	10.6	63.2	27.1
	+45	2.96 Sink		27.5	0.37	0.36	0.01	50	47.4	78.7	26.4	55.5
	+45		1384.9	94.6	0.21	0.12	0.01	22	91.2	89.3	89.6	82.6
	-45		78.3	5.4	0.35	0.25	0.02	80	8.8	10.7	10.4	17.4
	TOTAL		1463.2	100.0	(0.21)	(0.13)	(0.01)	25	100.0	100.0	100.0	100.0

Note: There is poor agreement between the assayed and calculated heads - in view of the type of samples and information required no further checks were made.

MINERALOGICAL SAMPLE LOG-SHEET

Date: 04.03.83

Prepared by: CB

Priority:

Submitted by: CB

Project No. & Title: 7-006 Dundas "Gibbs Reef"

Checked by: JK

Unit Separation Process: Head Samples

CMS No.	SAMPLE IDENTIFICATION	ASSAY (S)
2115 45478	M1 Head	Sn 0.28% Sol. Sn 0.04% Cu 2925 ppm Pb 3.13% Zn 700 ppm Ag 291 ppm
2116	M2 Head	Sn 0.255% Cu 130 ppm Pb 575 ppm Zn 275 ppm Ag 73 ppm
2117 45480	M3 Head	Sn 0.29% Cu 400 ppm Pb 1700 ppm Zn 400 ppm Ag 31 ppm

REMARKS Do these three head samples bear any resemblance to Zeehan Deposits or any known Aberfoyle Deposits?

APPENDIX 2

GENIE - EM Line Profiles

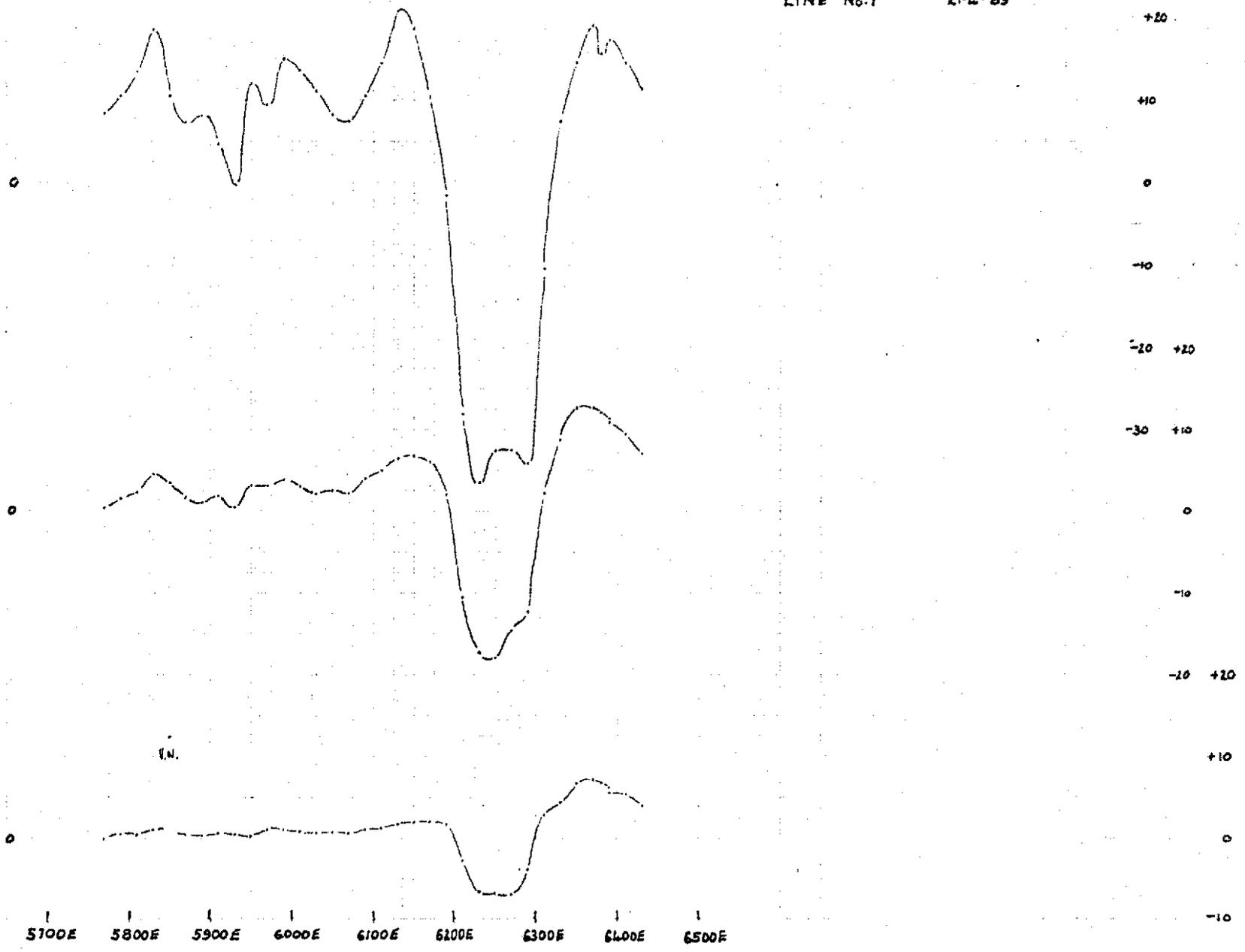
548019

008

GENIE EN PROFIL

MONTEZUMA GRID

LINE No.1 21-6-83

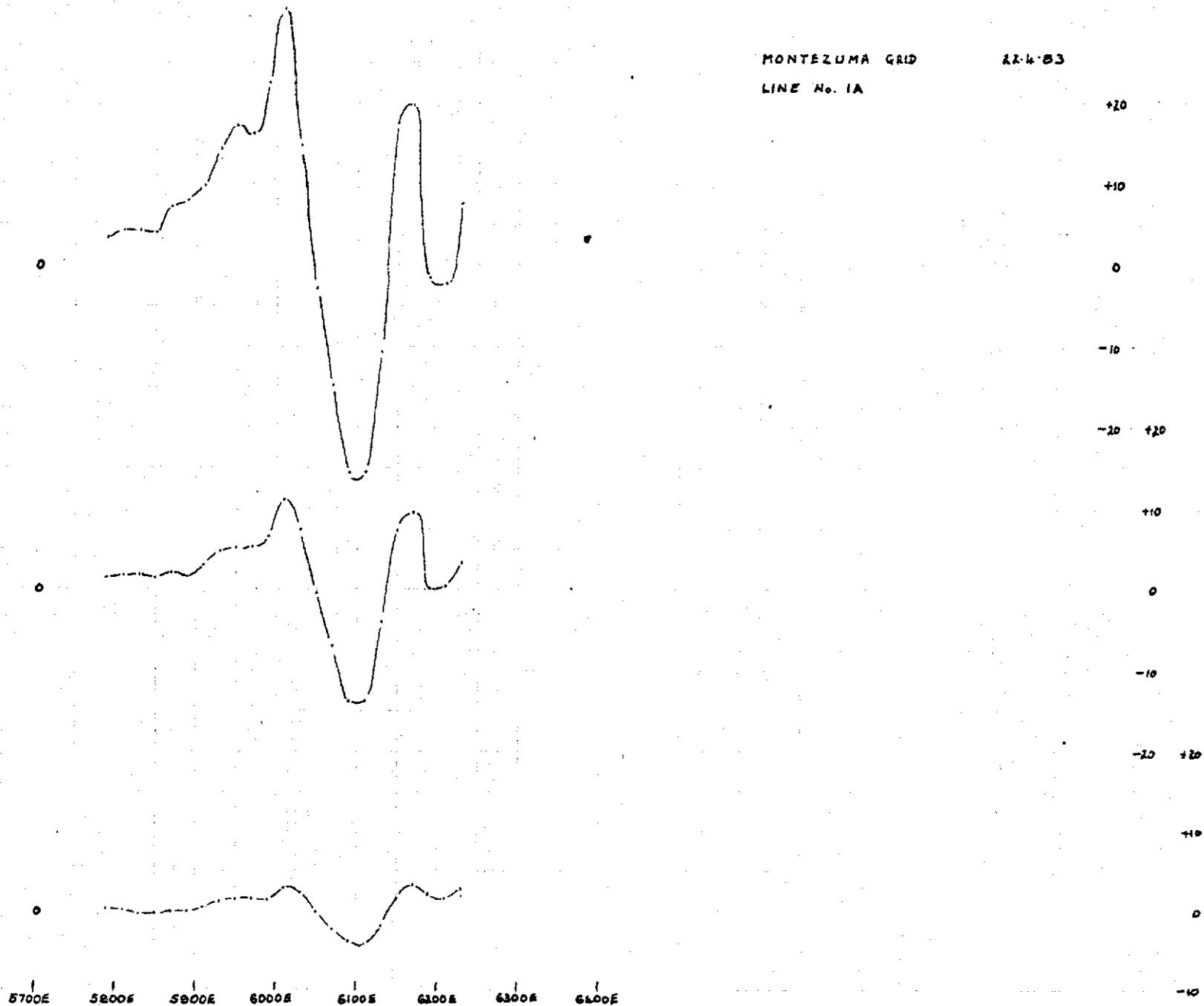


548020 009

GENIE EM PROFILE

MONTEZUMA GRID
LINE No. 1A

12-4-83

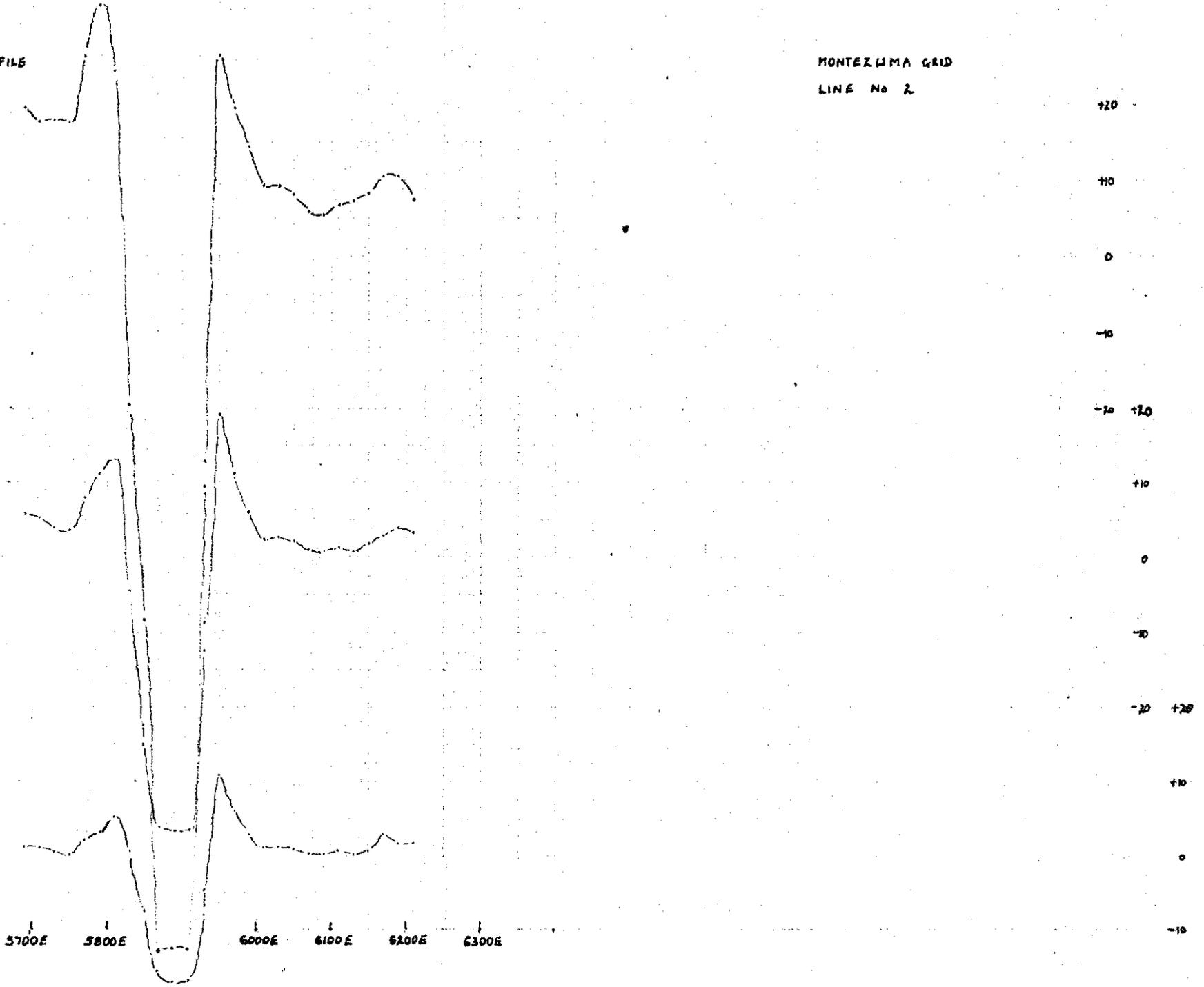


010

548021

GENIE EM PROFILE

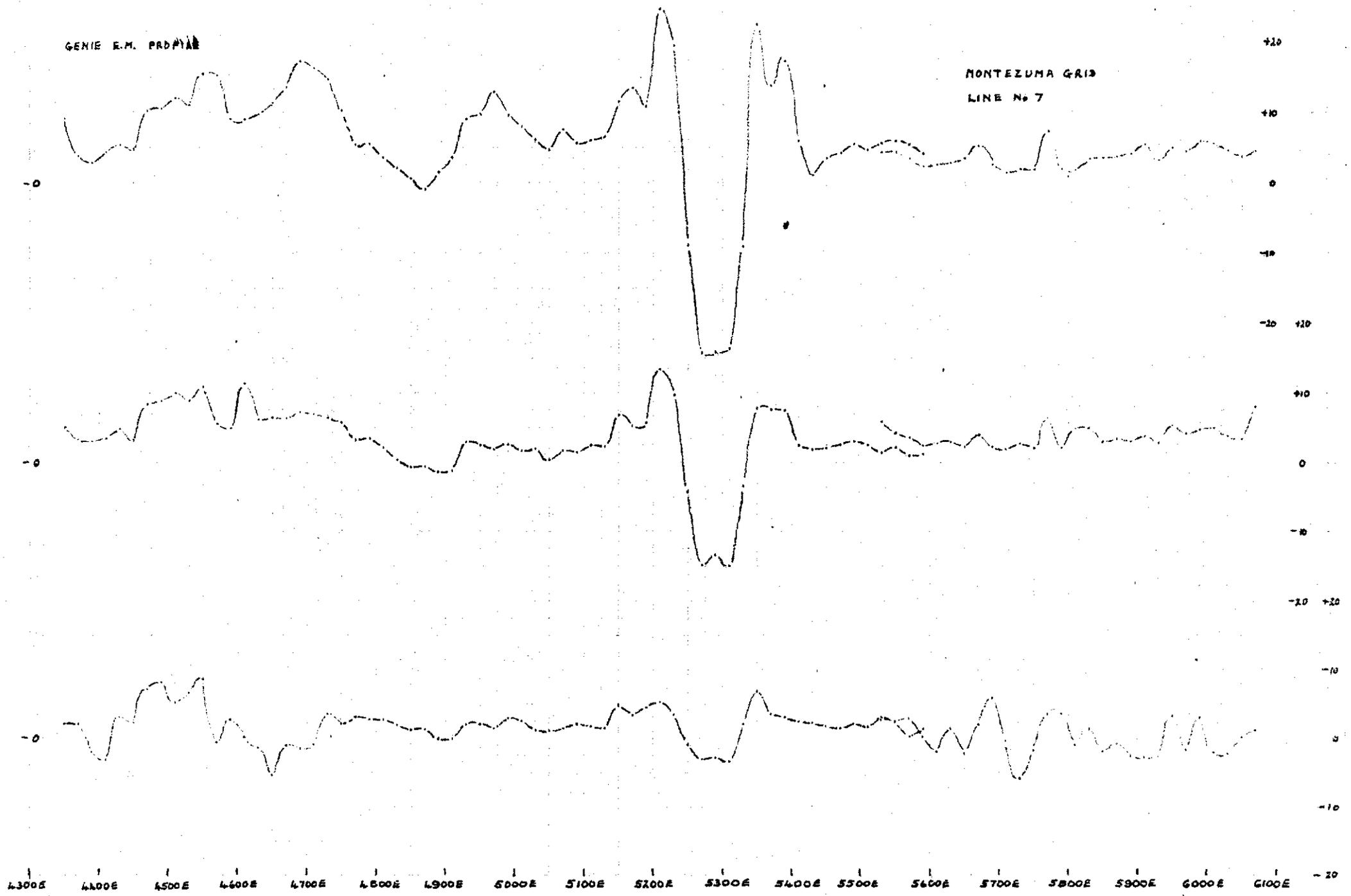
MONTEZUMA GRID
LINE No 2



548022 011

GENIE R.M. PADPAB

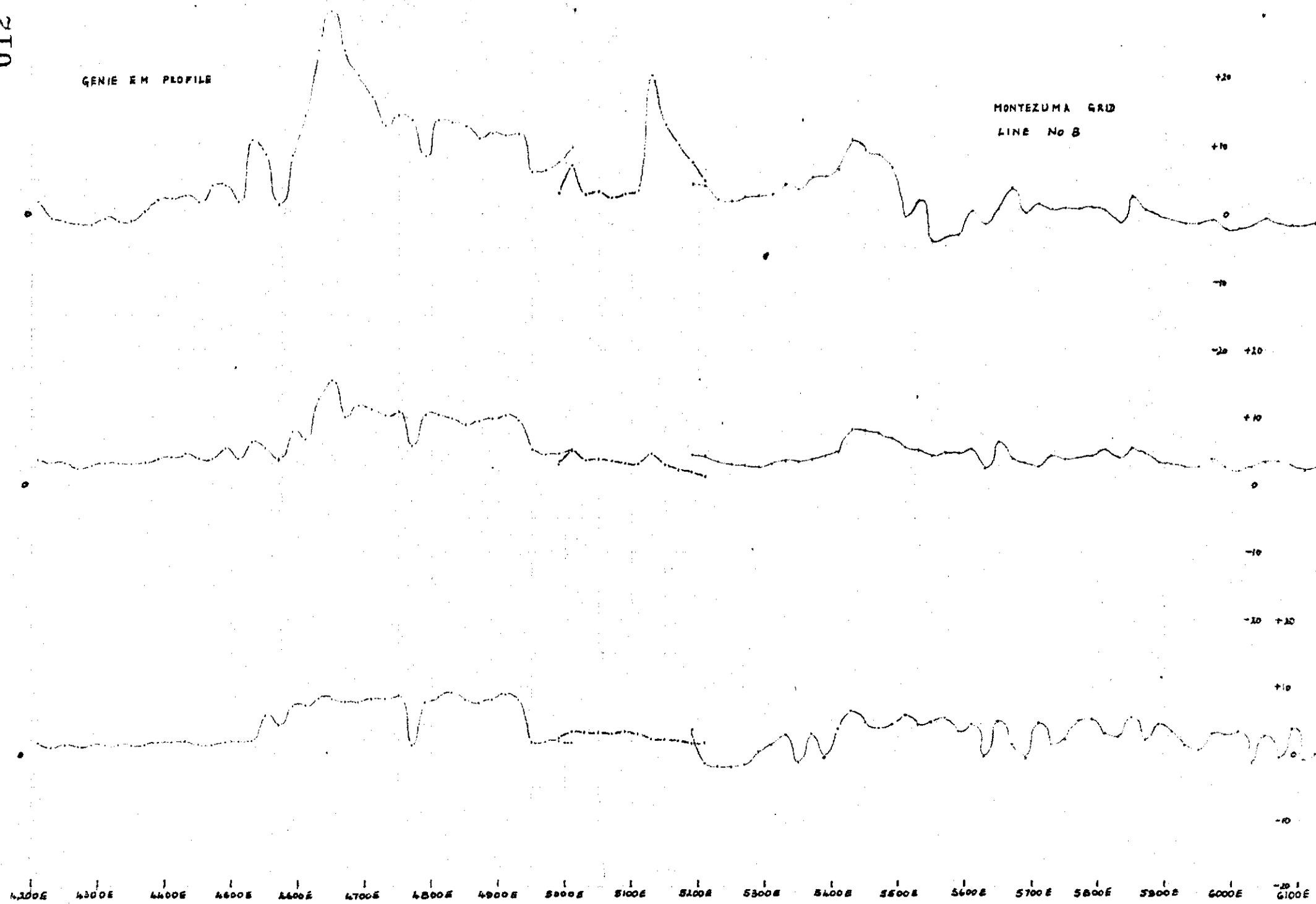
MONTEZUMA GRID
LINE No 7



548023 012

GENIE EM PROFILE

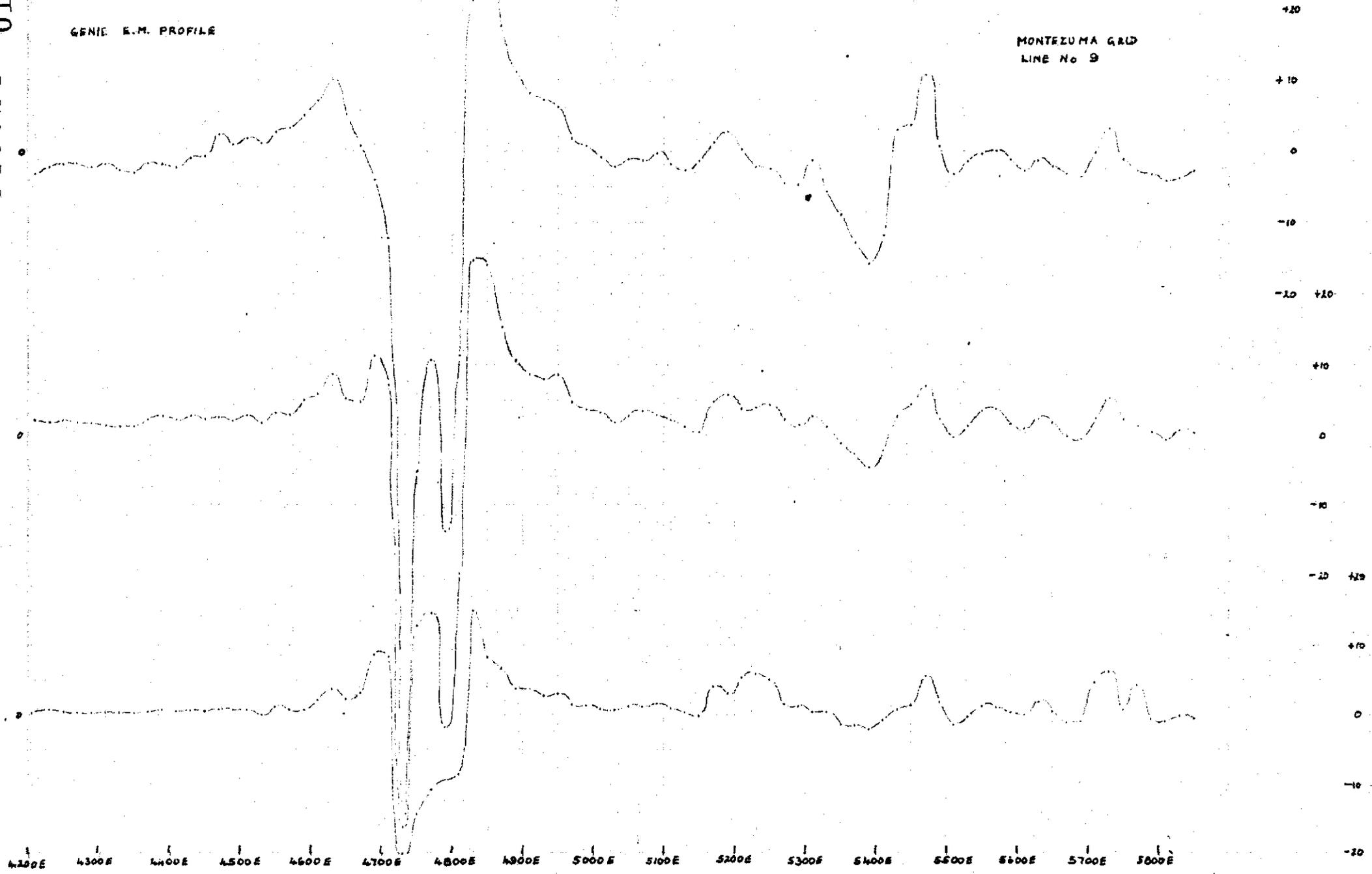
MONTEZUMA GRID
LINE No 8



548024 013

GENIE E.M. PROFILE

MONTEZUMA GRD
LINE No 9

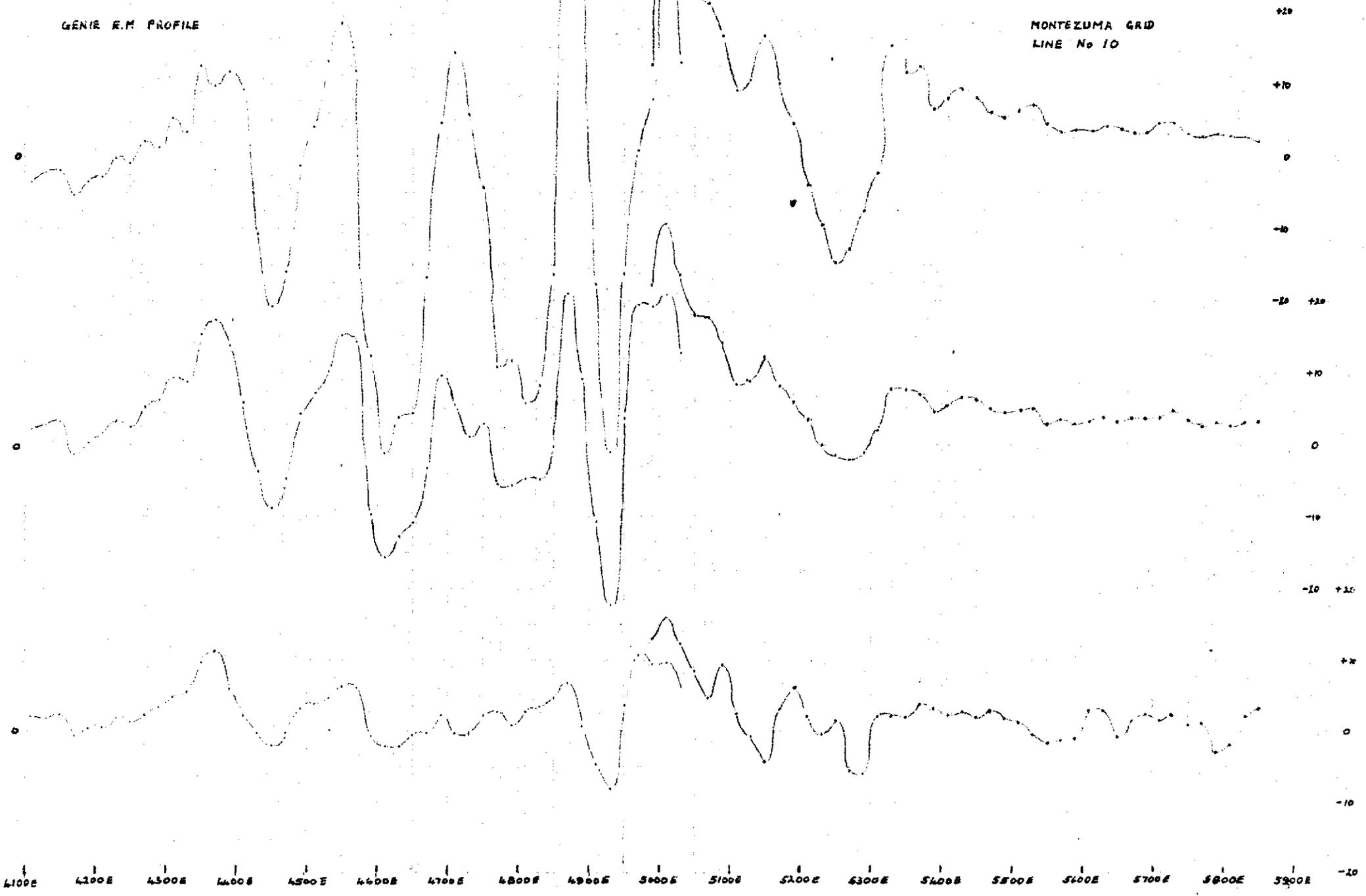


548025 014

GENIE R.M. PROFILE

MONTEZUMA GRID
LINE No 10

42.5
-33.8



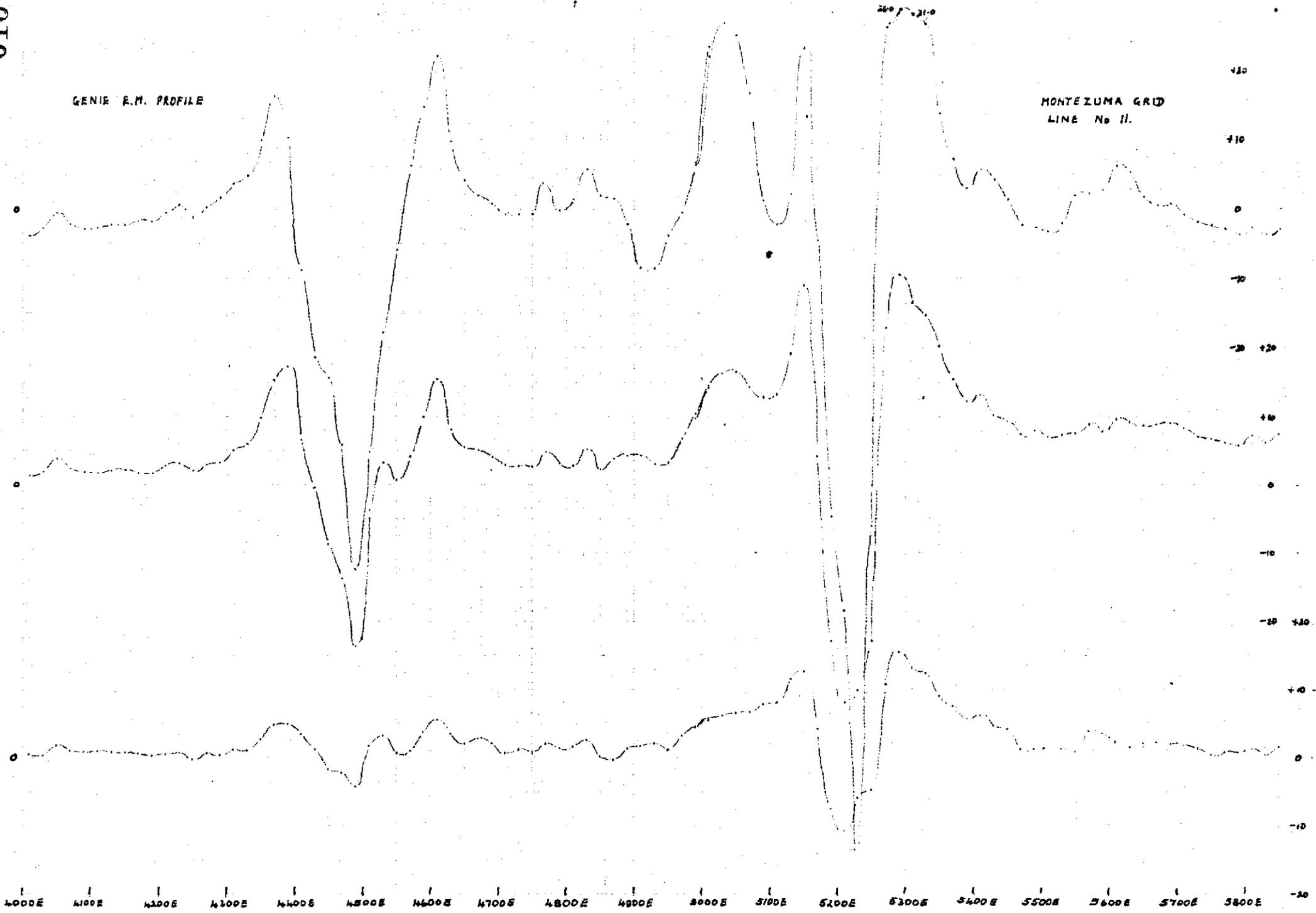
4100E 4200E 4300E 4400E 4500E 4600E 4700E 4800E 4900E 5000E 5100E 5200E 5300E 5400E 5500E 5600E 5700E 5800E 5900E



548026 015

GENIE E.M. PROFILE

MONTEZUMA GRID
LINE No. 11.



4000E 4100E 4200E 4300E 4400E 4500E 4600E 4700E 4800E 4900E 5000E 5100E 5200E 5300E 5400E 5500E 5600E 5700E 5800E



548027 016

GENE EM PROFILE

MONTEZUMA GRID

+20

LINE No 13

+10

0

-10

-20

+10

+20

-10

-20

+10

+20

-10

3000E 4000E 5000E 6000E 7000E 8000E 9000E 10000E 11000E 12000E 13000E 14000E 15000E 16000E 17000E 18000E 19000E 20000E 21000E 22000E 23000E 24000E 25000E 26000E 27000E 28000E 29000E 30000E

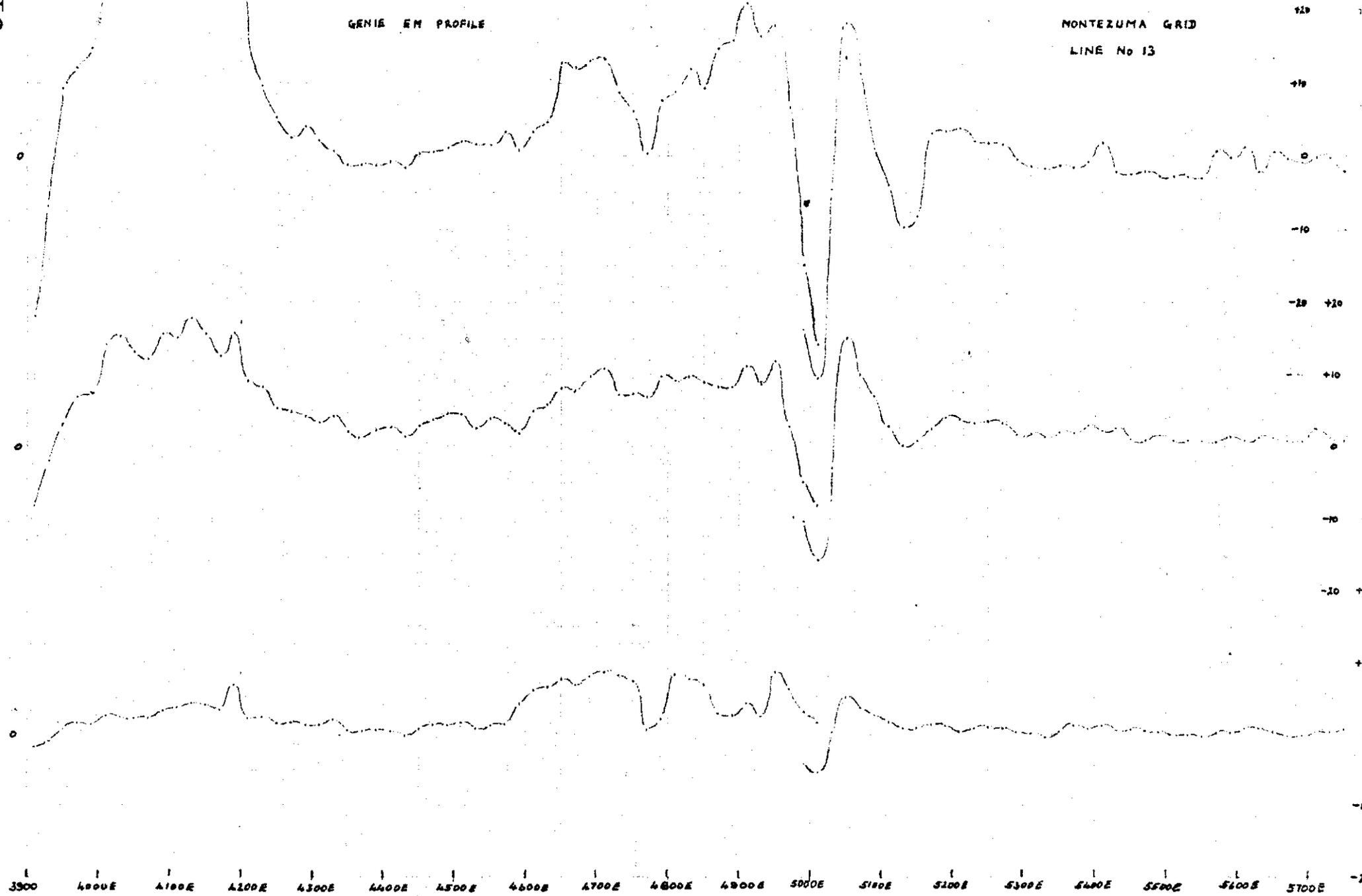


548028 017

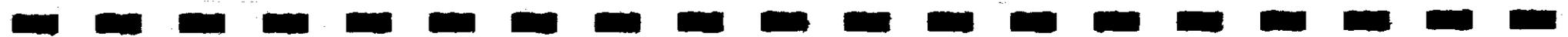
4000
333
250
300
200
350
250
200
300

GENIE EN PROFILE

MONTEZUMA GRID
LINE No 13



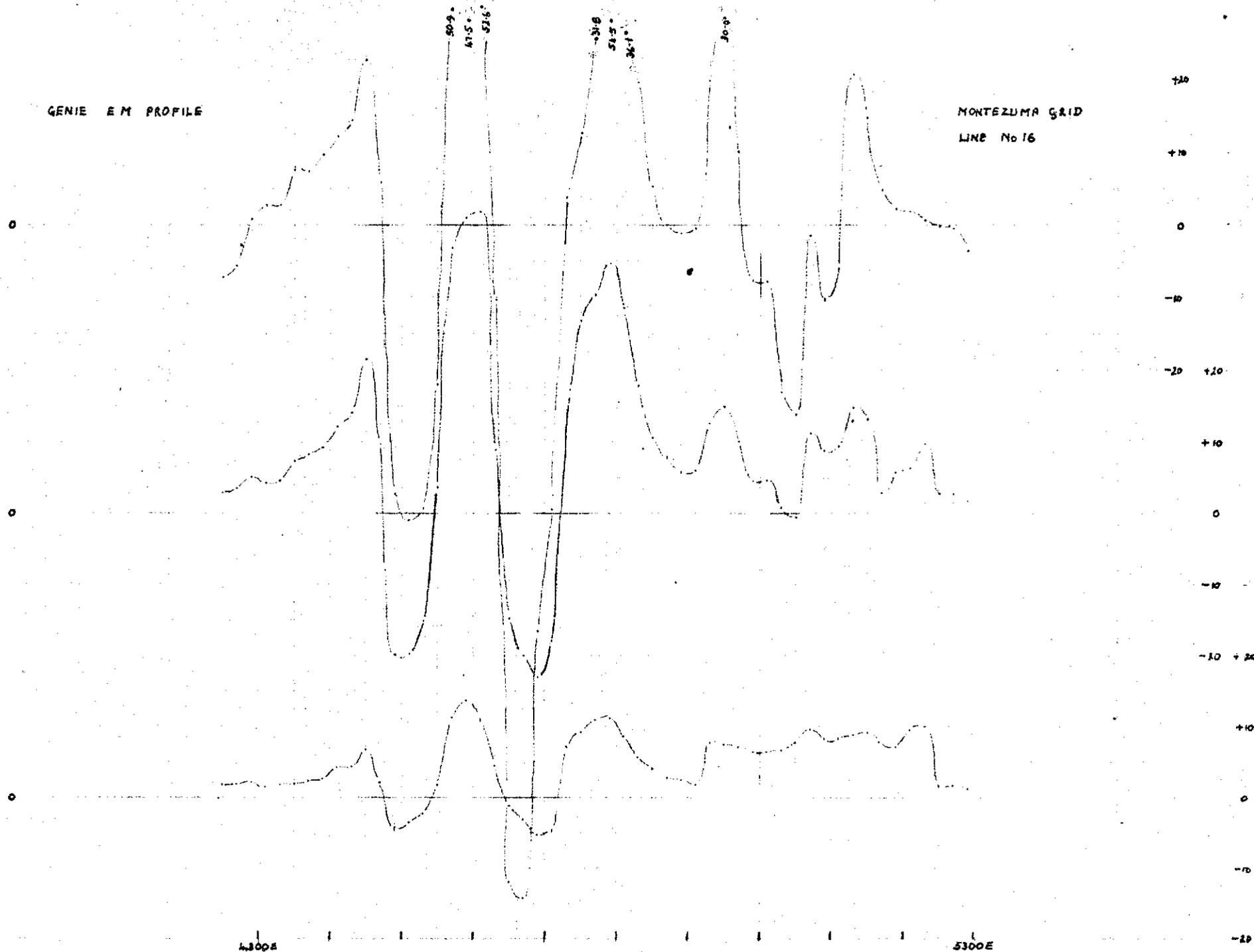
3900 4000E 4100E 4200E 4300E 4400E 4500E 4600E 4700E 4800E 4900E 5000E 5100E 5200E 5300E 5400E 5500E 5600E 5700E -20



548031 020

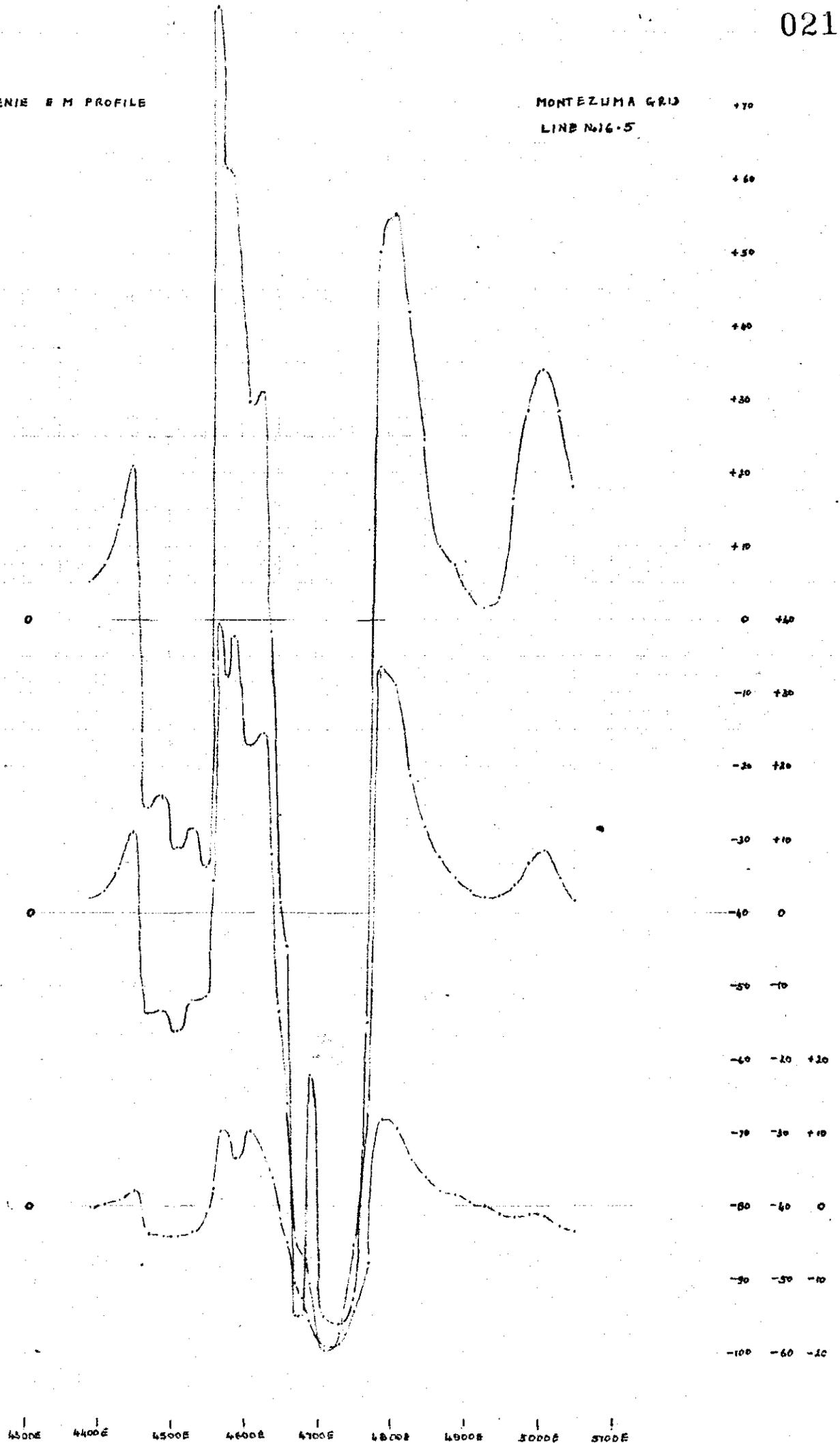
GENIE EM PROFILE

MONTEZUMA GRID
LINE No 16



GENIE B M PROFILE

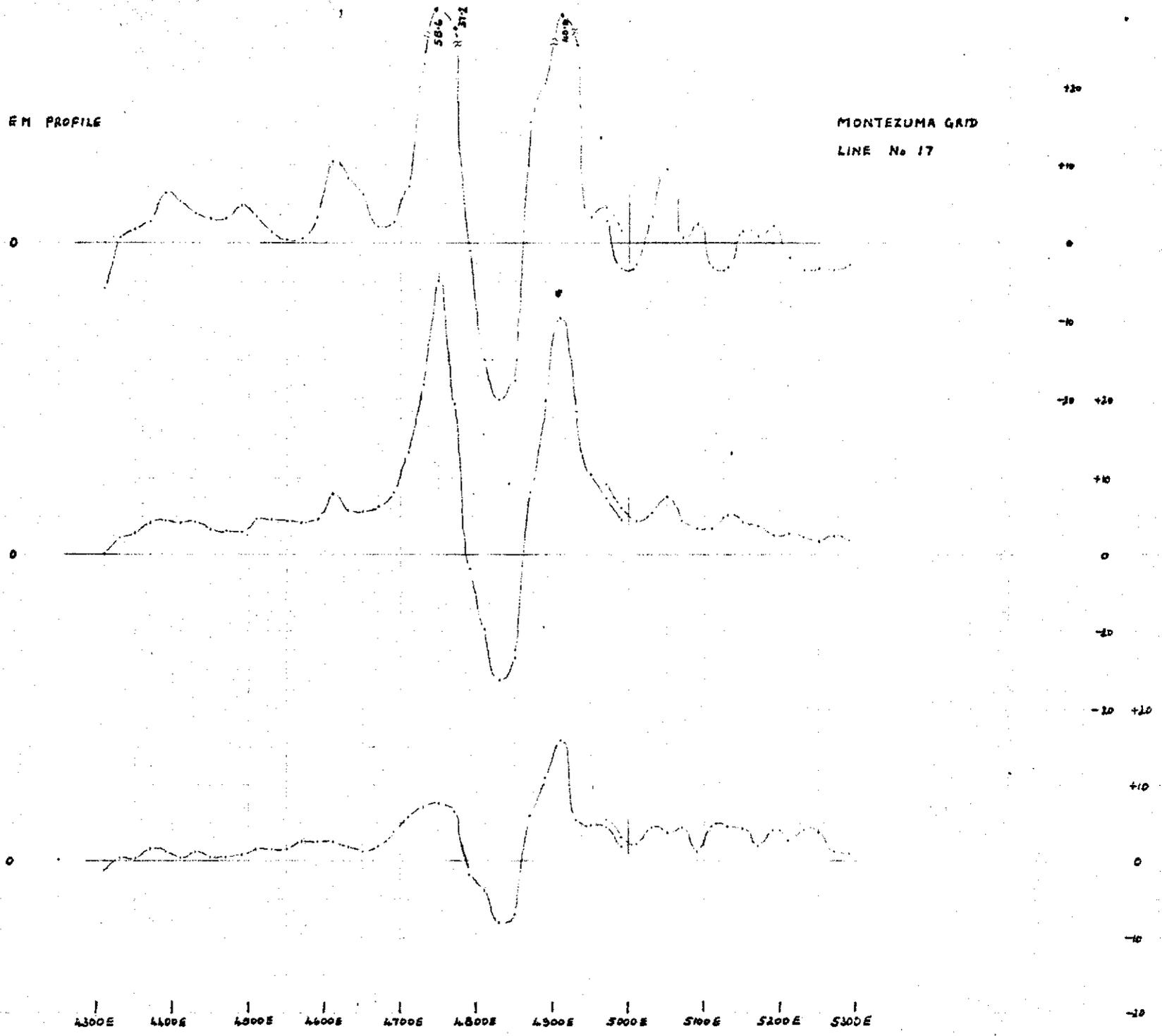
MONTEZUMA GRID
LINE N16.5



548033 022

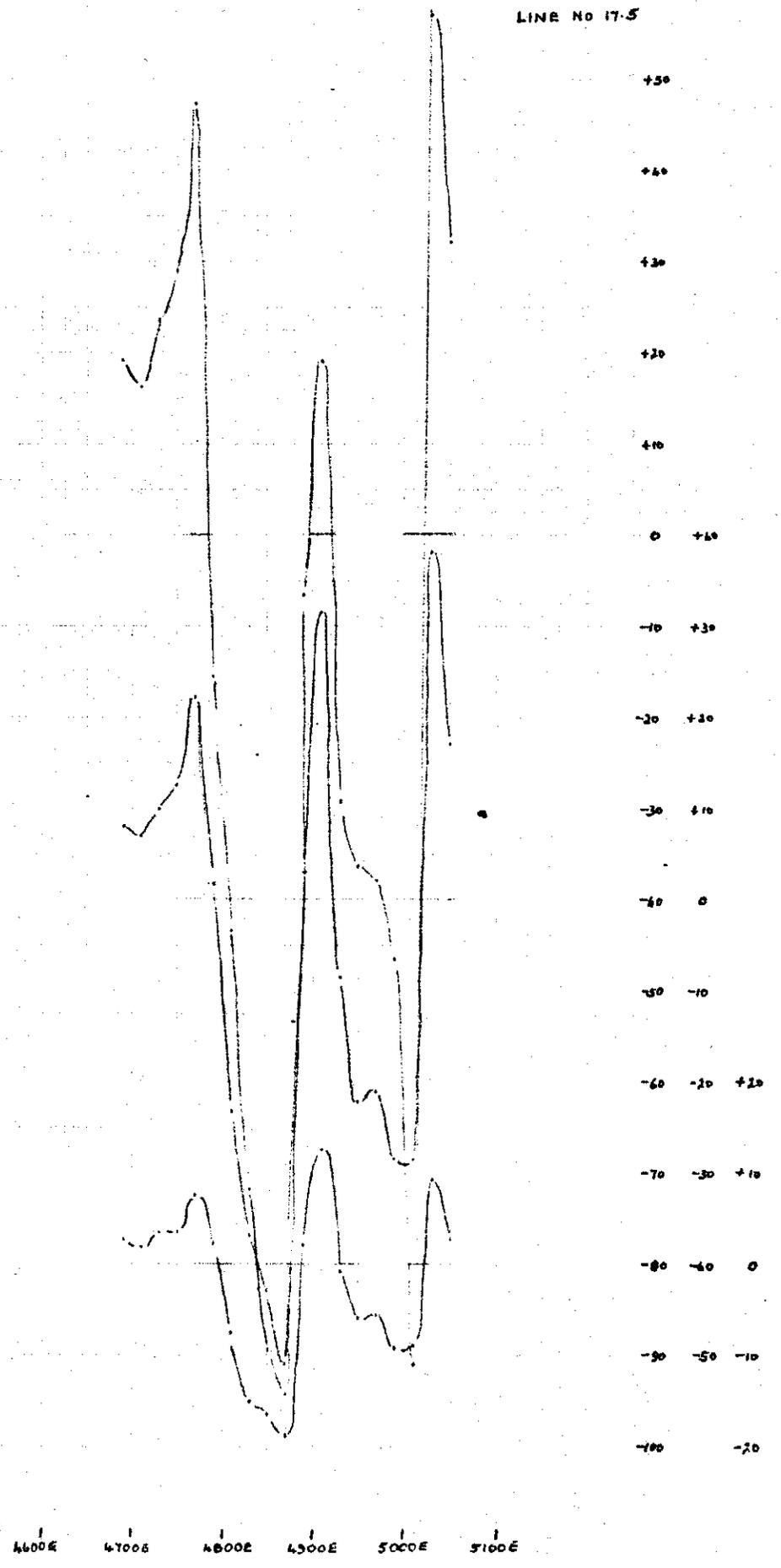
GENIE EM PROFILE

MONTEZUMA GRID
LINE No 17



GENIE E.M. PROFILE

MONTEZUMA GRID
LINE NO 17-5



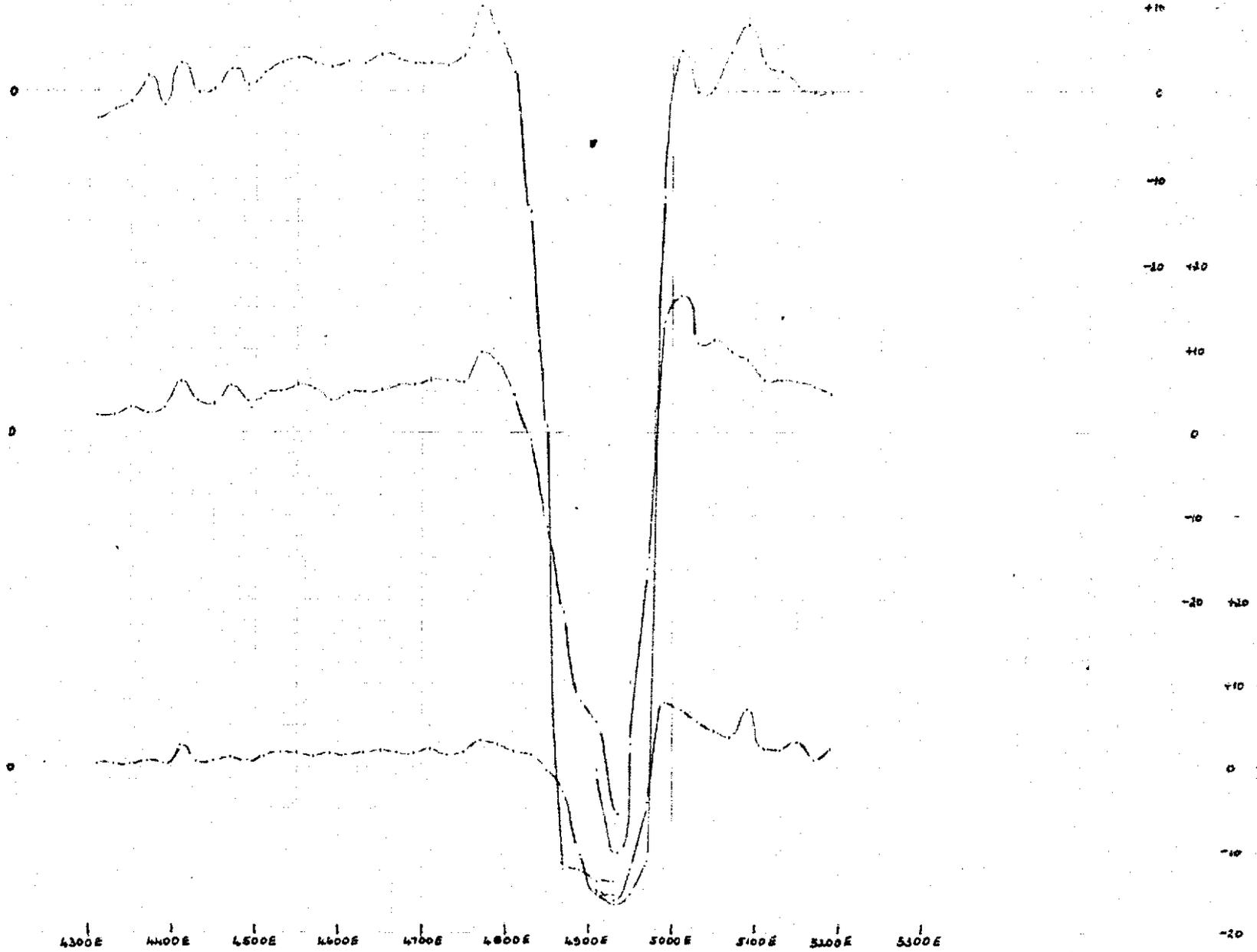
548035

024

GENIE S.M. PROFILE

MONTEZUMA GRID

LINE No 12



47 1917

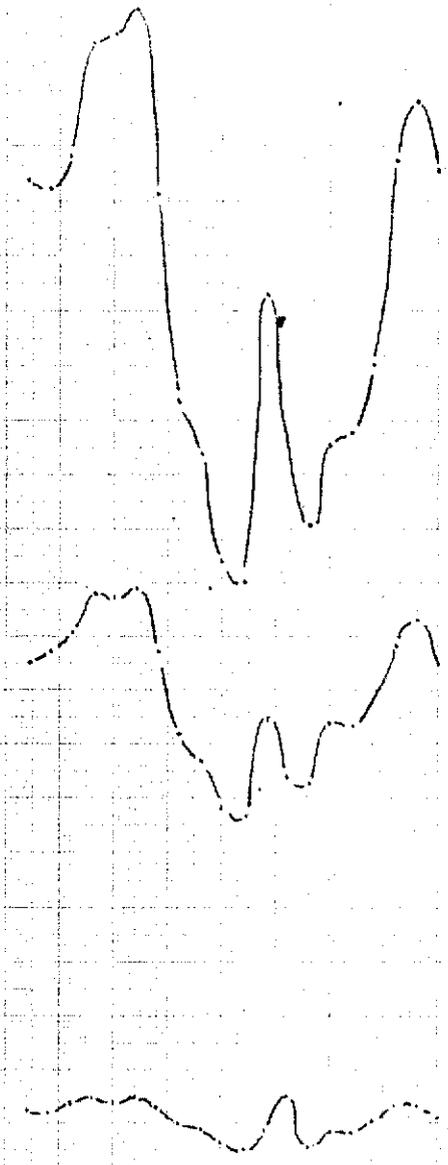
548036 025

GENIE EN PROFIL

MONTEZUMA GAID
LINE No 18-5

4600E 4700E 4800E 4900E 5000E 5100E

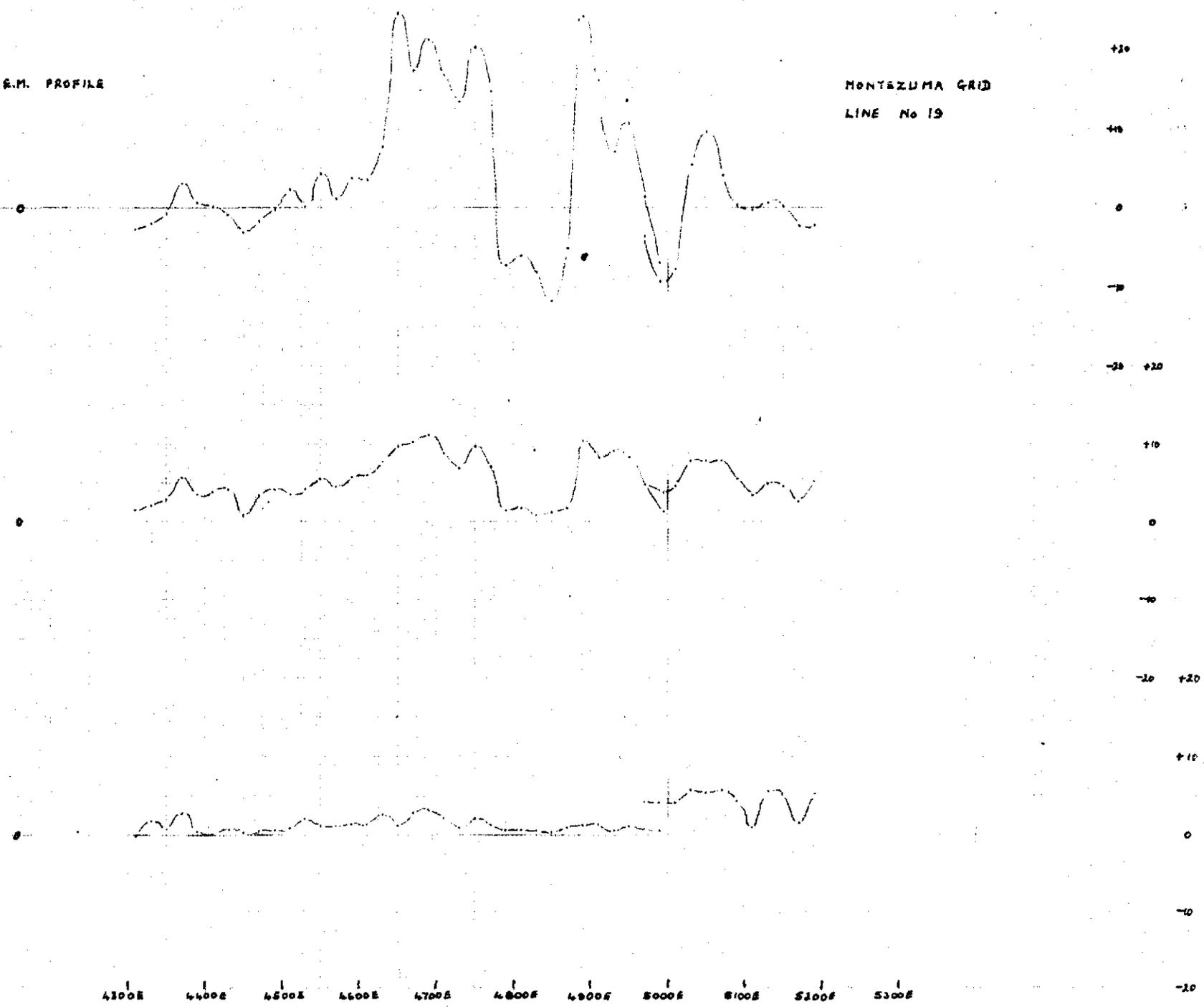
+10
+10
-10
+10
-10
+10
-10
+10
-10



548037 026

GENIE S.M. PROFILE

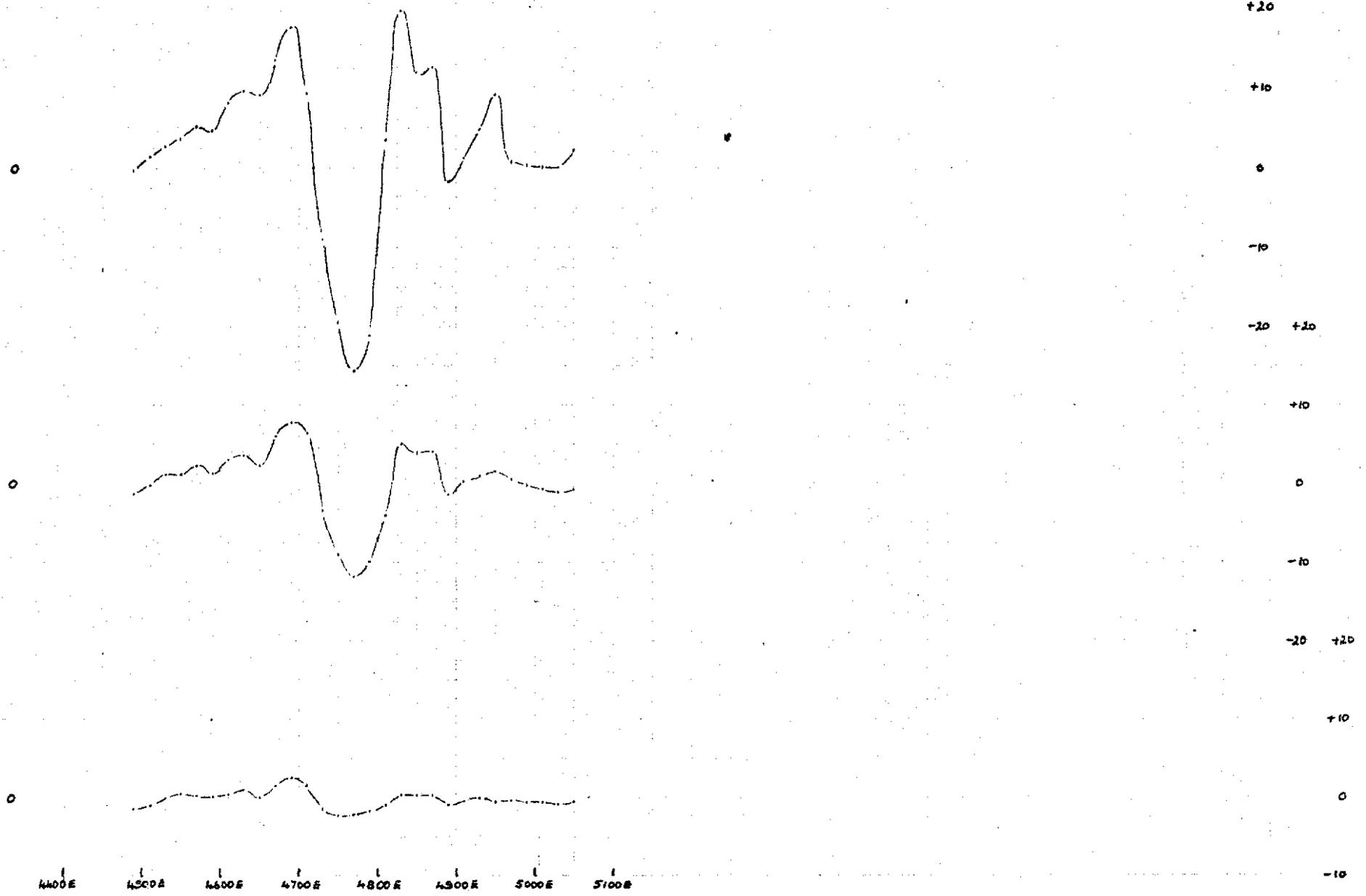
MONTAZUMA GRID
LINE No 19



54803S 027

GENIE E-M PROFILE

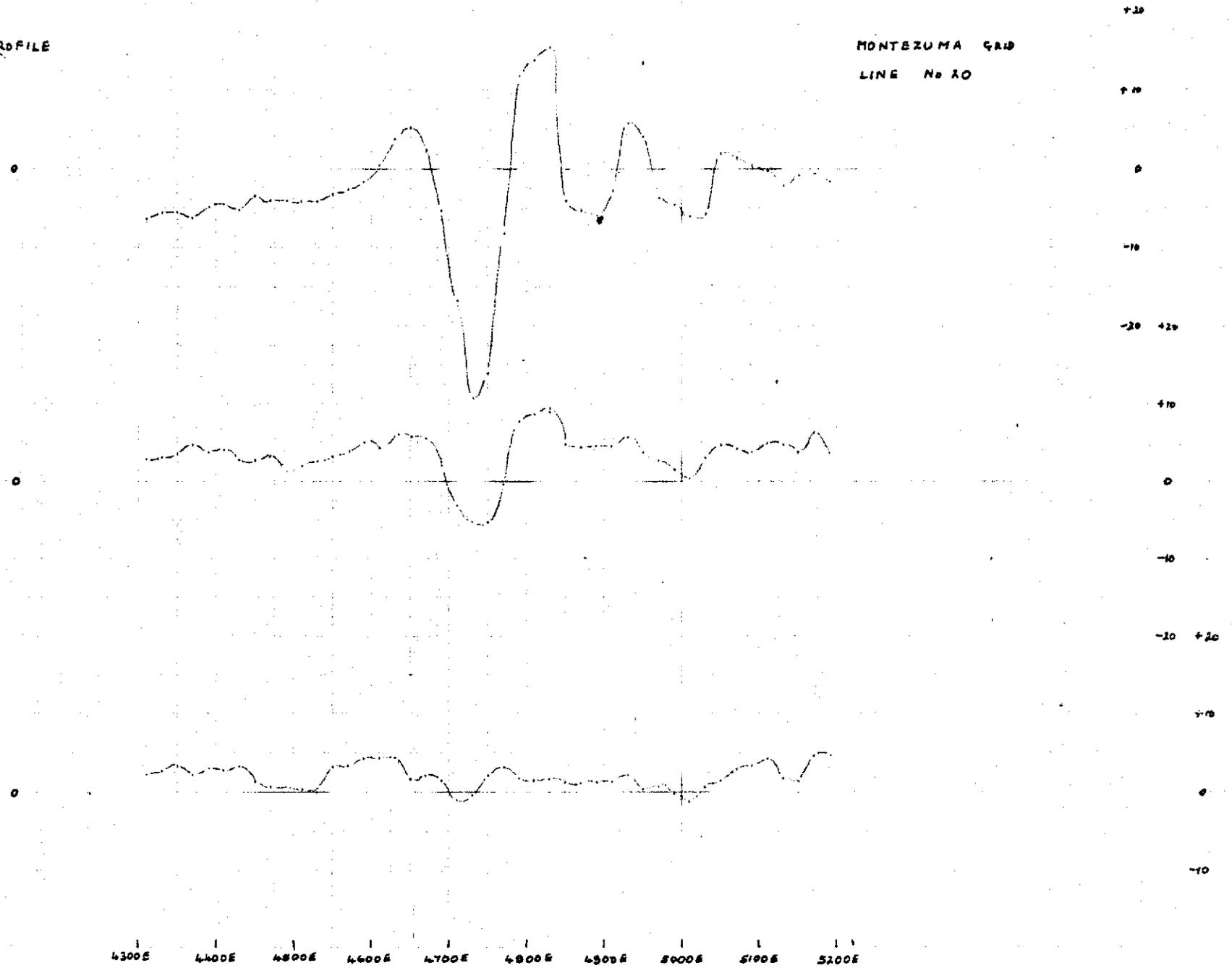
MONTEZUMA GAP
LINE No 19.5



548039 028

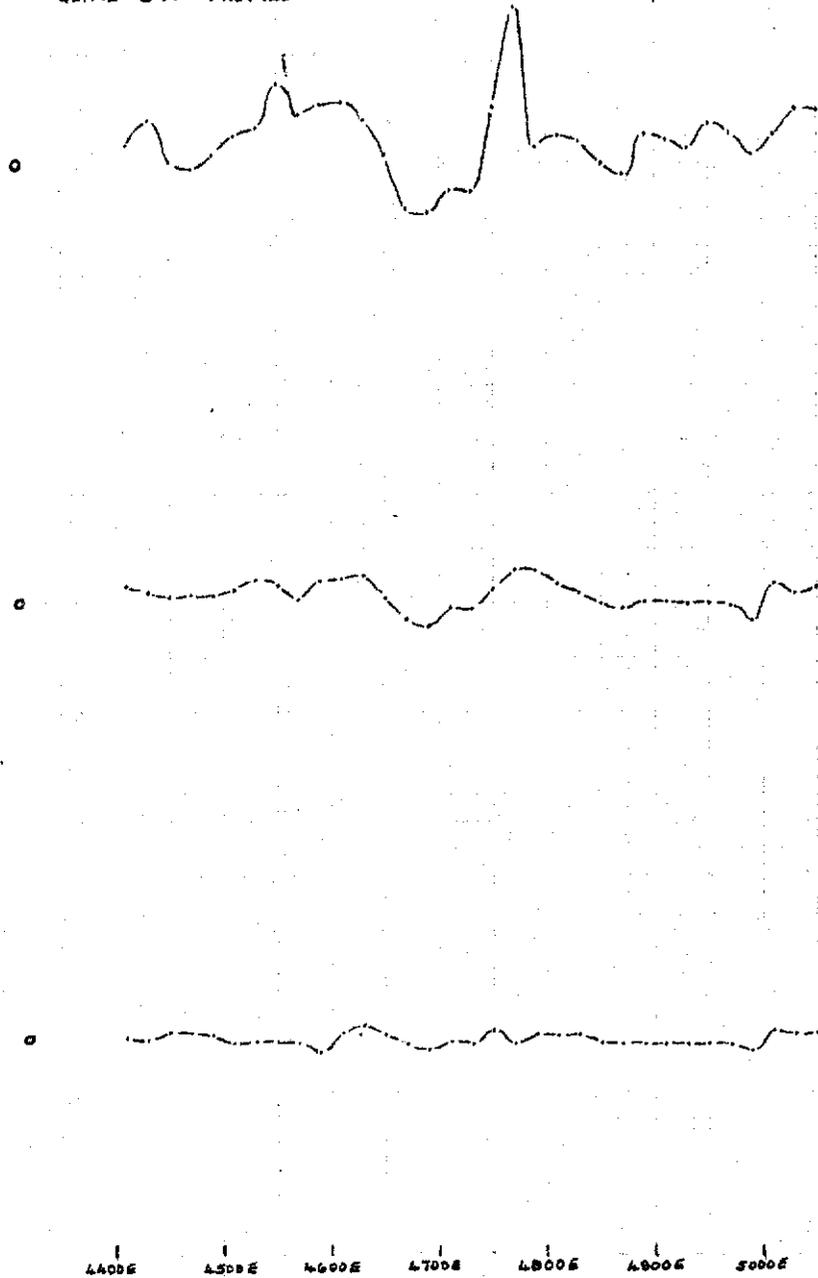
GENIE E.M. PROFILE

MONTEZUMA GAS
LINE No 10

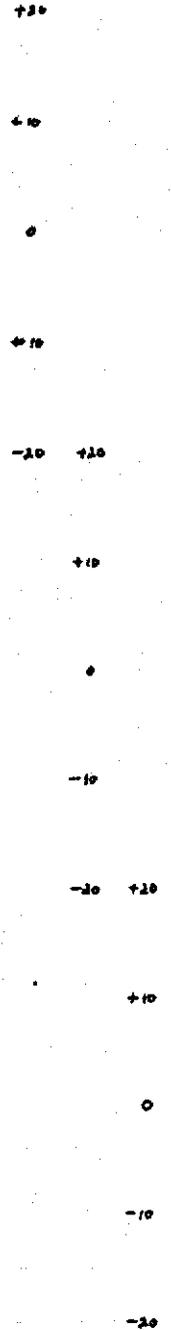


548040 029

GENIE E M PROFILE



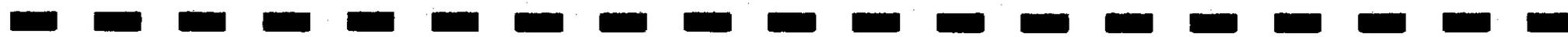
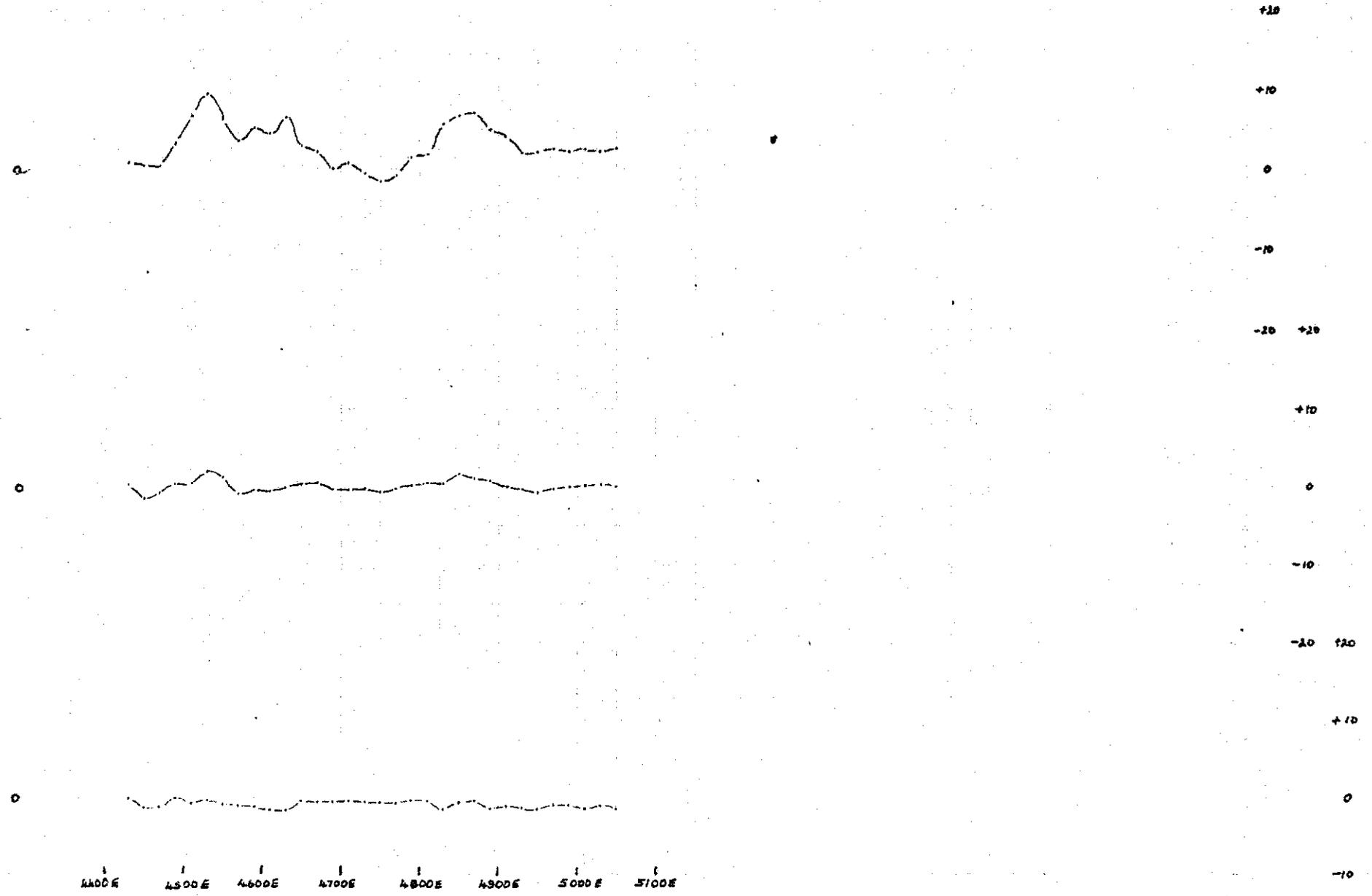
MONTEZUMA GRID
LINE No 10-5



548041 030

GENIE EM PROFILE

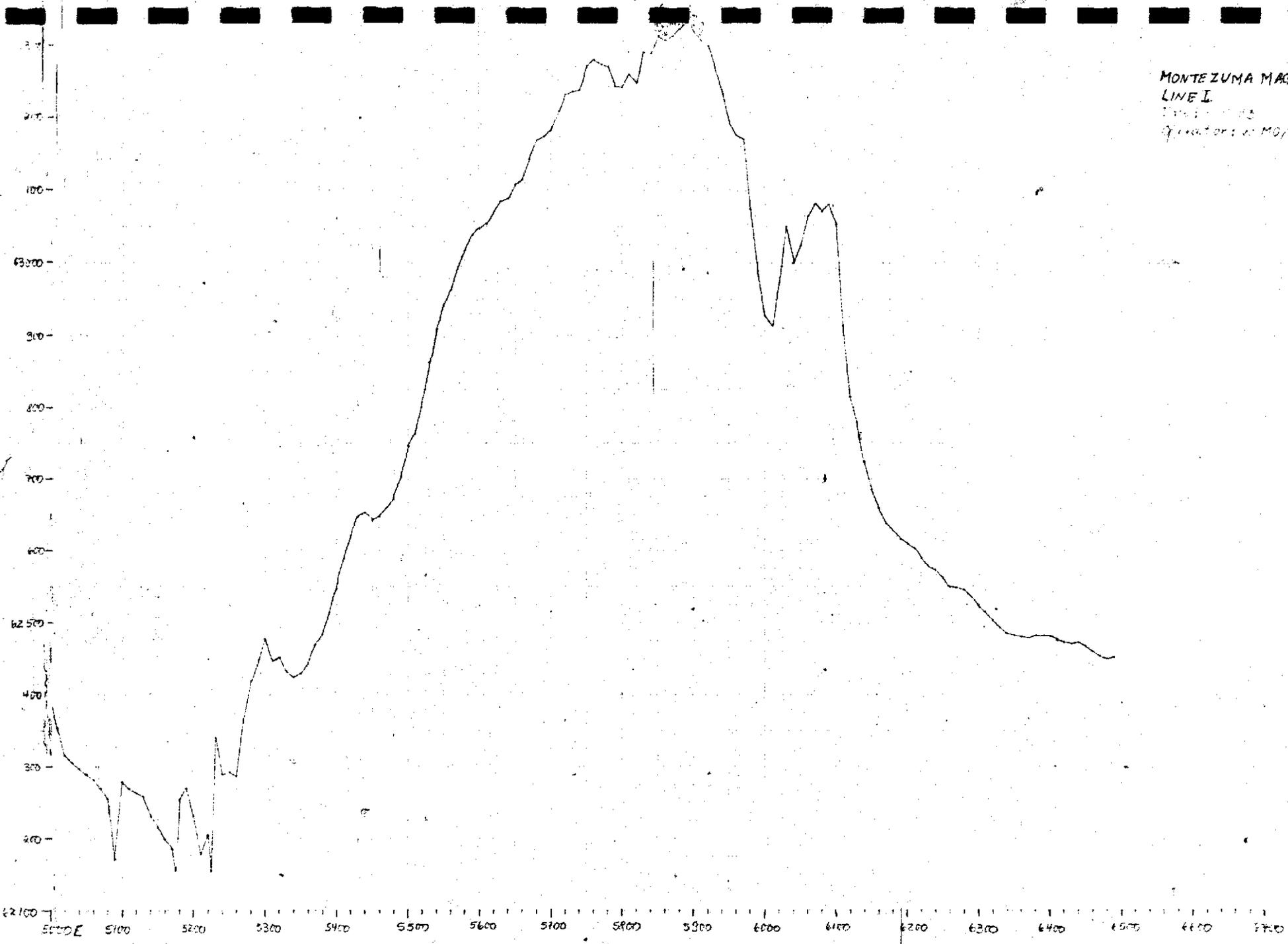
MONTEZUMA GRID
LINE No. 21



APPENDIX 3

Ground Magnetic Line Profiles

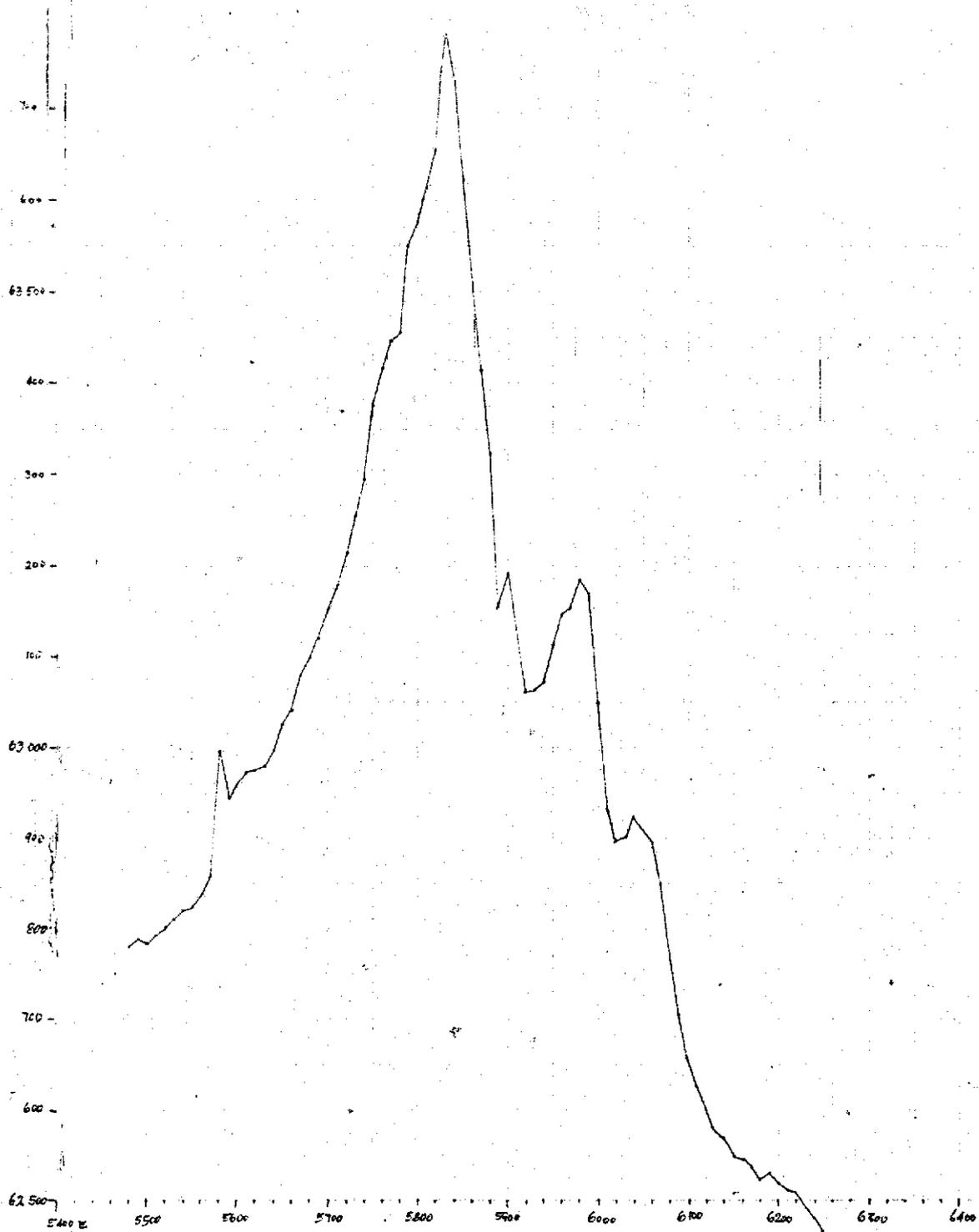
MONTEZUMA MAGNETICS
LINE I
Date: 10/15/53
Operator: W. MOYLE



548043

032

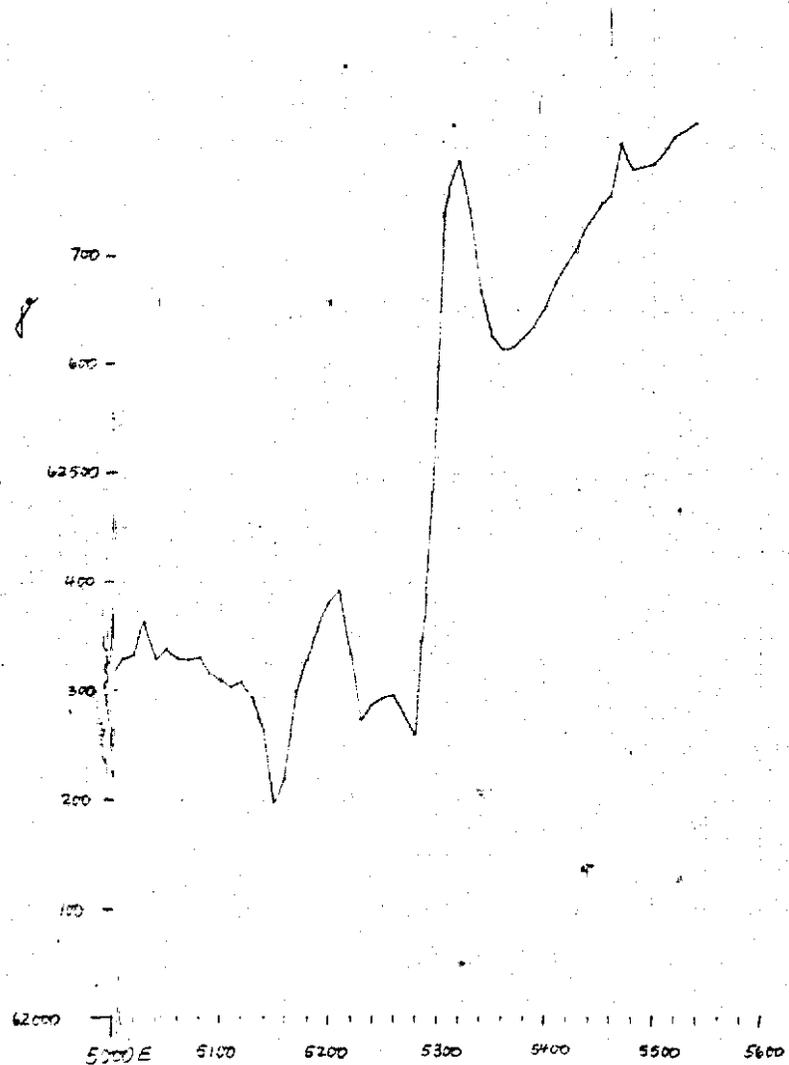
548044 033



MONTANA WIRELESS
LINE 1A
11-13-5-88
Operator: H. MOYR

548045 034

MOREZUMA MAGNETICS
LINE 1A
DATE 4-5-1983
Operator W. MOYLE

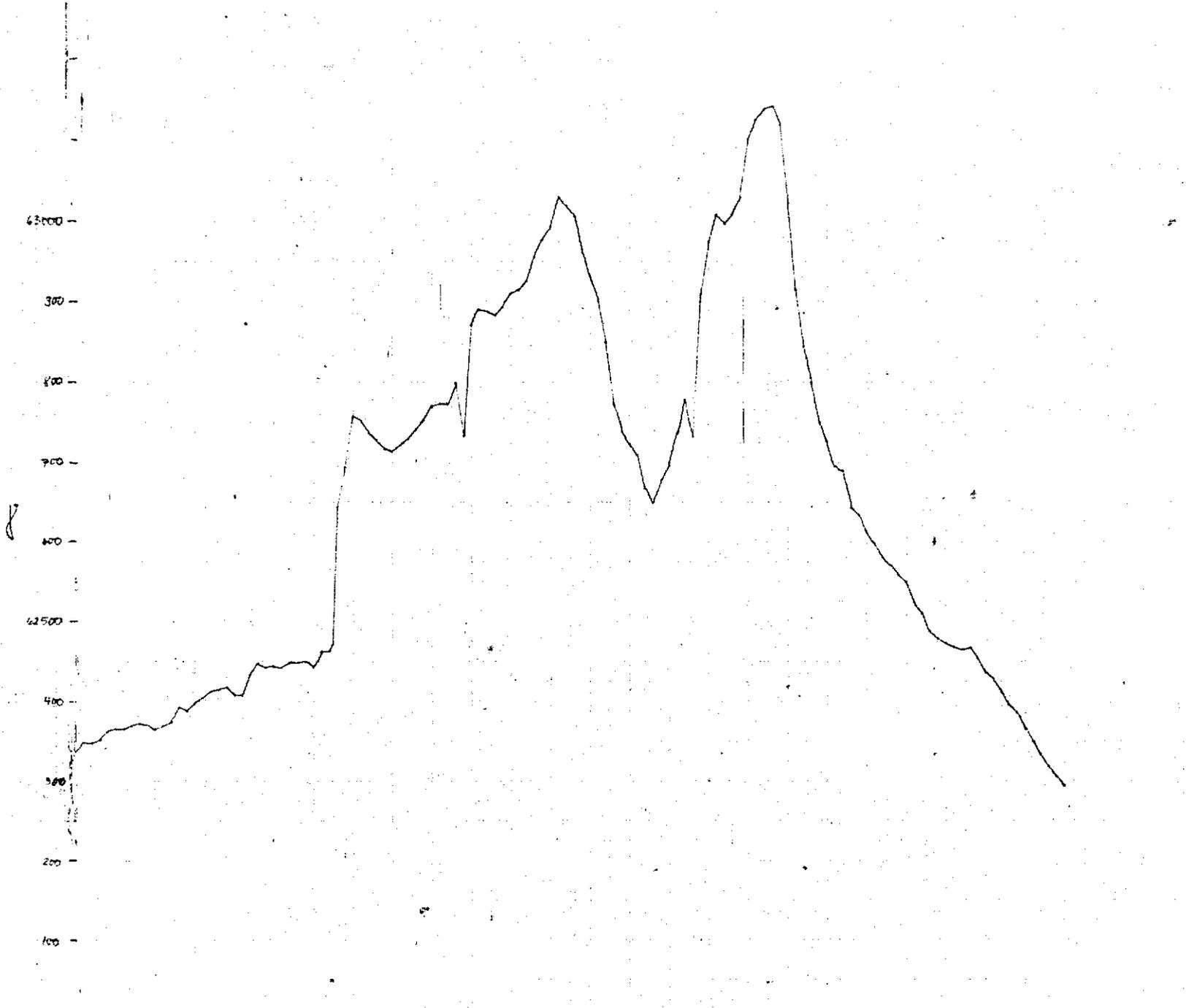


548046 035

MONITORING A MAGNETIC
LINE 2
DATE: 4-5-1983
Operator: W. MOYLE

6300 -
300 -
400 -
700 -
400 -
62500 -
400 -
300 -
200 -
100 -

62000
5000 E 5100 5200 5300 5400 5500 5600 5700 5800 5900 6000 6100 6200 6300



54804S 037

MONTZUMA MAGNETICS
LINE 8
1. 1. 1953
MONTZUMA, ARIZONA

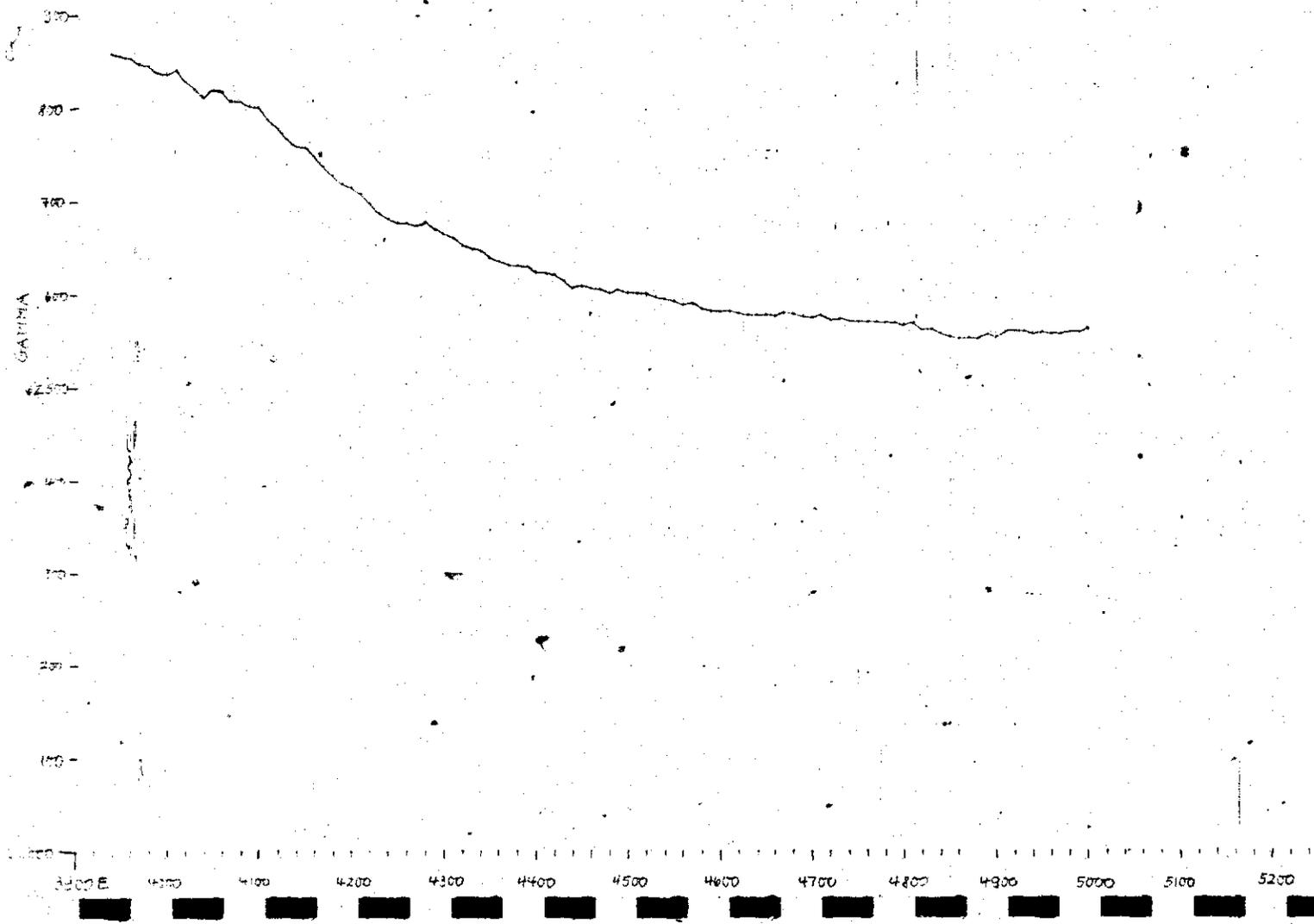
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50

5000 5100 5200 5300 5400 5500 5600 5700 5800 5900 6000 6100 6200 6300



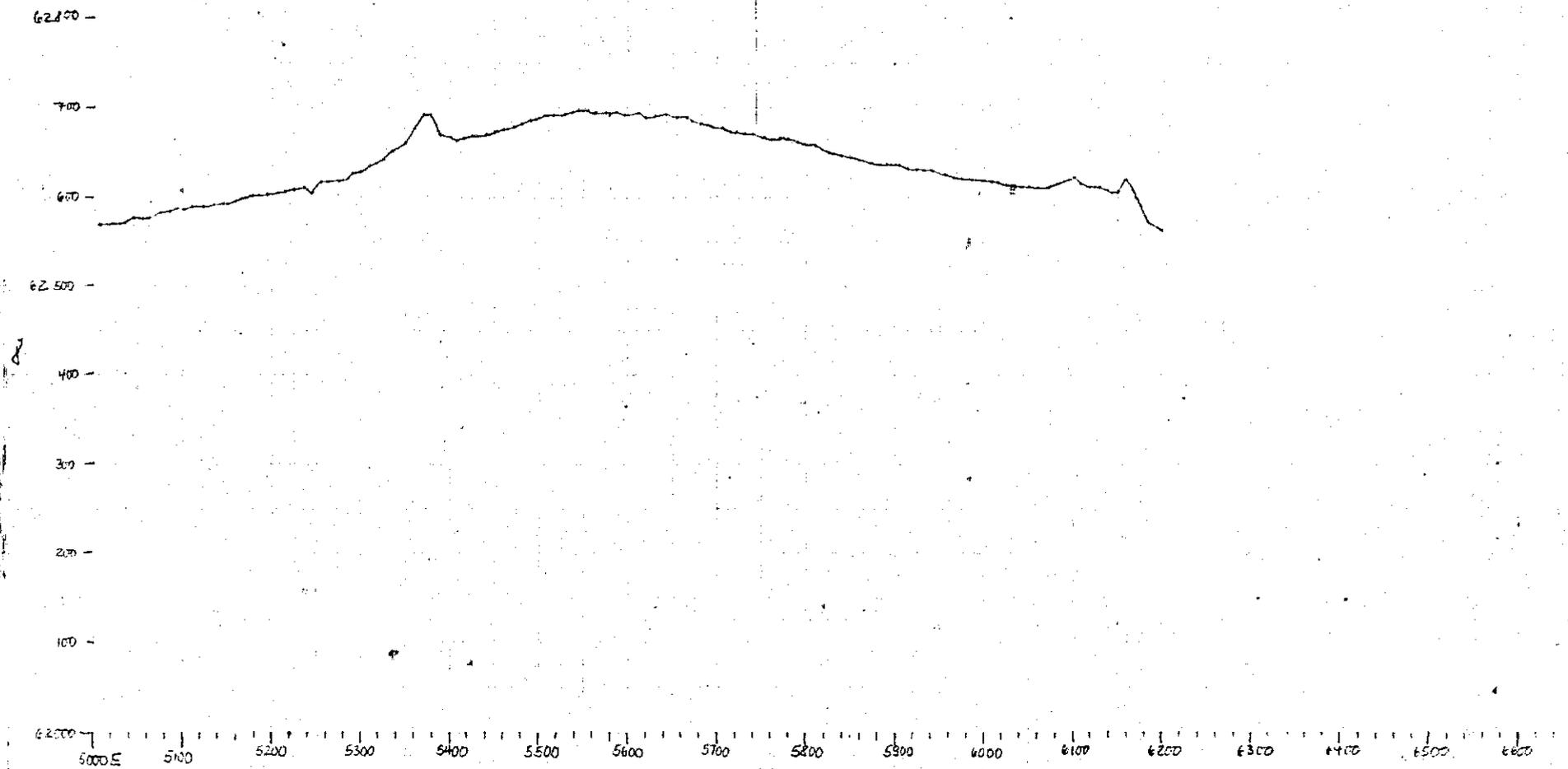
548049 038

MONTEZUMA MAGNETICS
LINE 8
3-11-64
MONTANA STATE UNIVERSITY



548050 039

MONTEZUMA MAGNETICS
LINE 7
17.1.83.

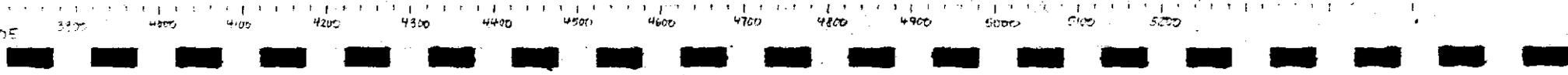


548051 040

LINE 9

180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0

5000 4900 4800 4700 4600 4500 4400 4300 4200 4100 4000 3900

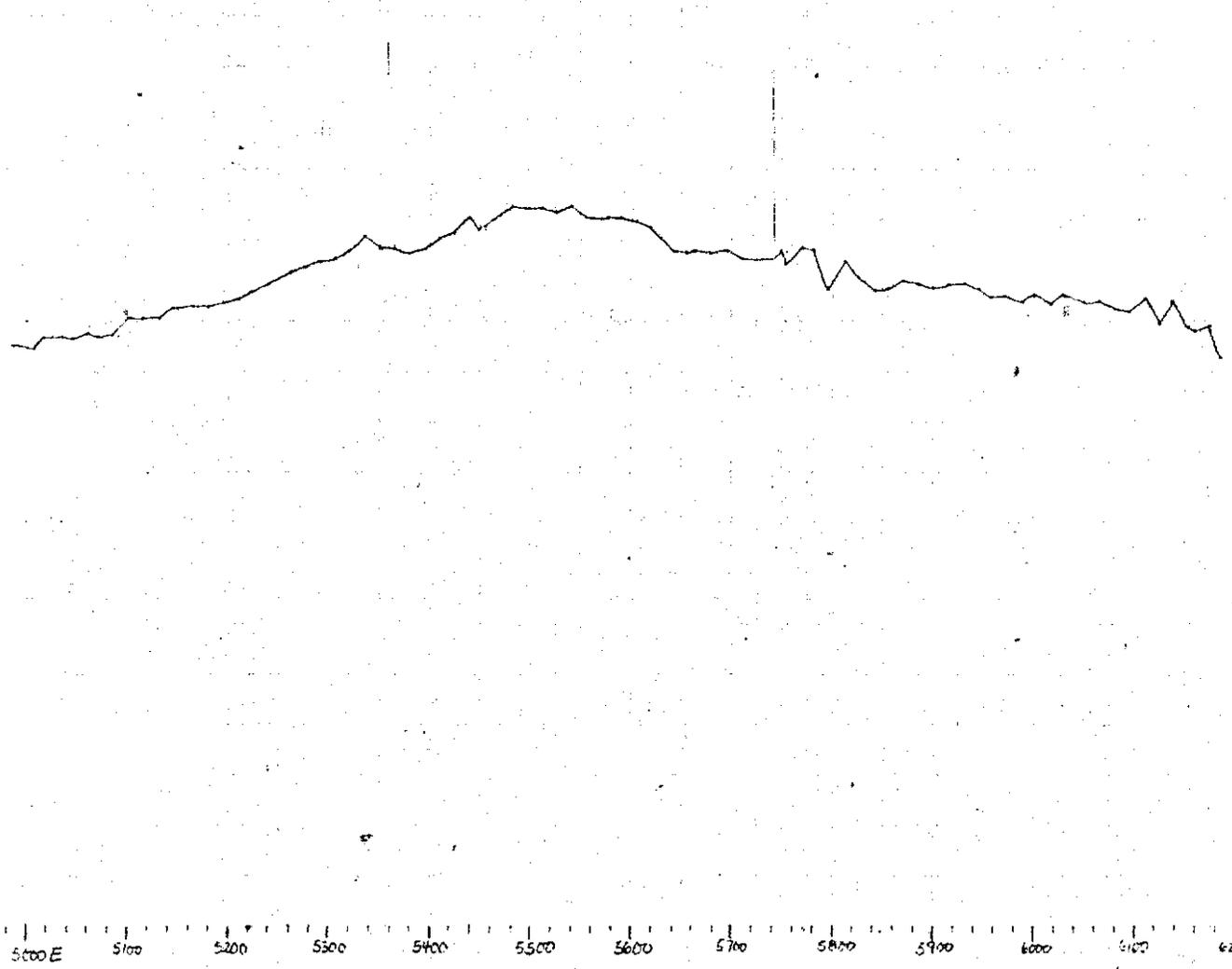


548052 041

MARINE ZUMA MASHETINS
LINE 10
17113
Operator:

62900 -
800 -
700 -
600 -
62500 -
GAMMA
300 -
200 -
100 -

62000 497 E 5000 E 5100 5200 5300 5400 5500 5600 5700 5800 5900 6000 6100 6200 6300 6400



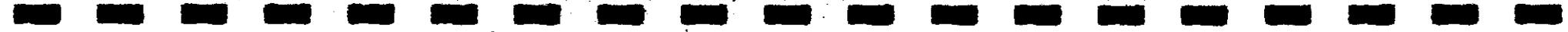
548054 043

MONTEZUMA MAGNETICS
LINE 11
1-1-53
Geophysical Institute

500 -
400 -
300 -
200 -
100 -

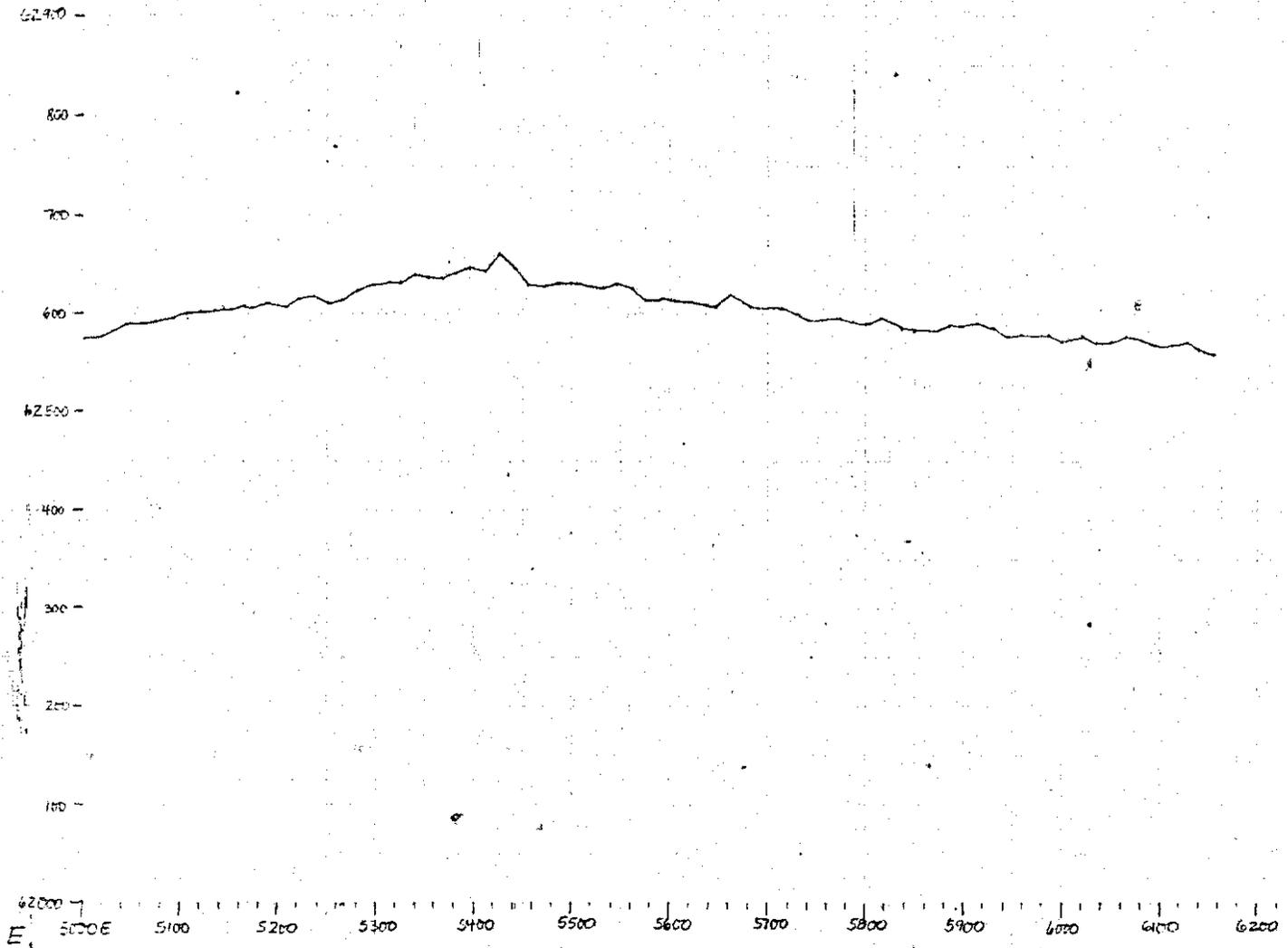
ANIMA

2200 4000 4100 4200 4300 4400 4500 4600 4700 4800 4900 5000 5100 5200 5300 5400 5500



548055 044

MONTICINA MAGNETIC
LINE II
17.1.83



548056 045

MONTEZUMA MAGNETICS
LINE 12
1/7/57
MAGNETIC INTENSITY

900
800
700
600
500
400
300
200
100

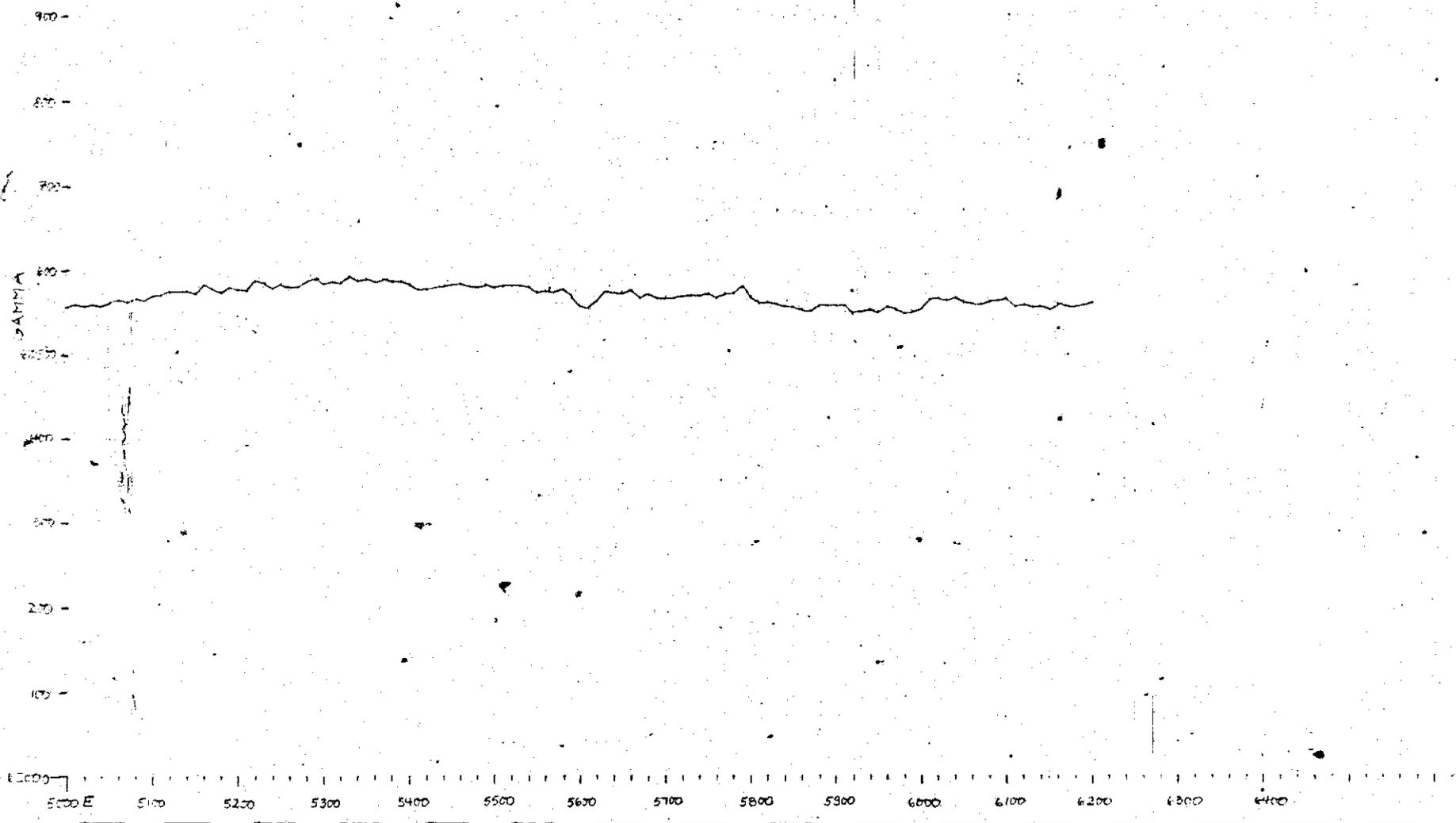


4000 4100 4200 4300 4400 4500 4600 4700 4800 4900 5000 5100 5200



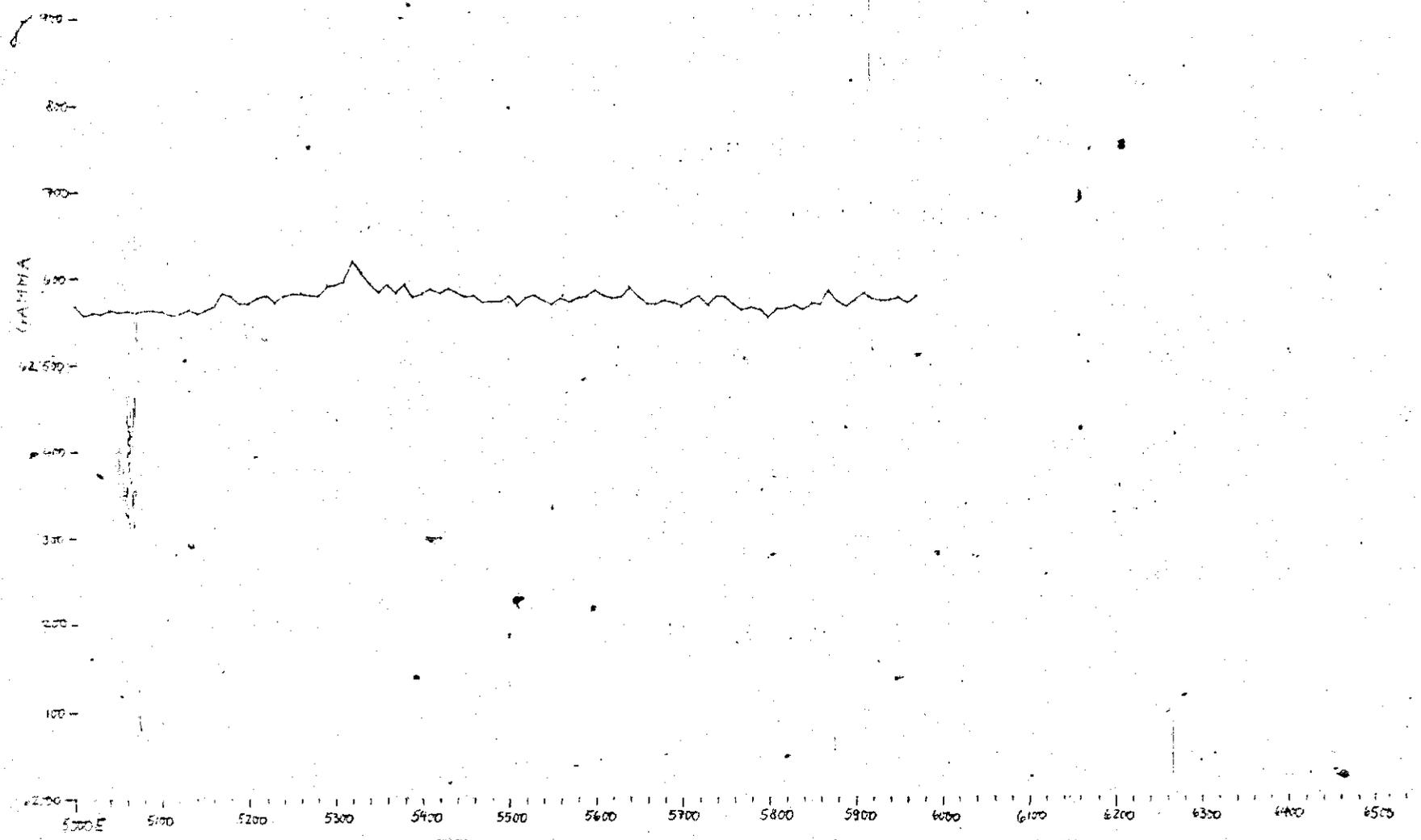
548057 046

MONTEZUMA MAGNETIC
LINE 12 EAST
4. 4. 1961
Geophysical Survey



548058 047

MONTEZUMA MAGNETICS
LINE 13 East

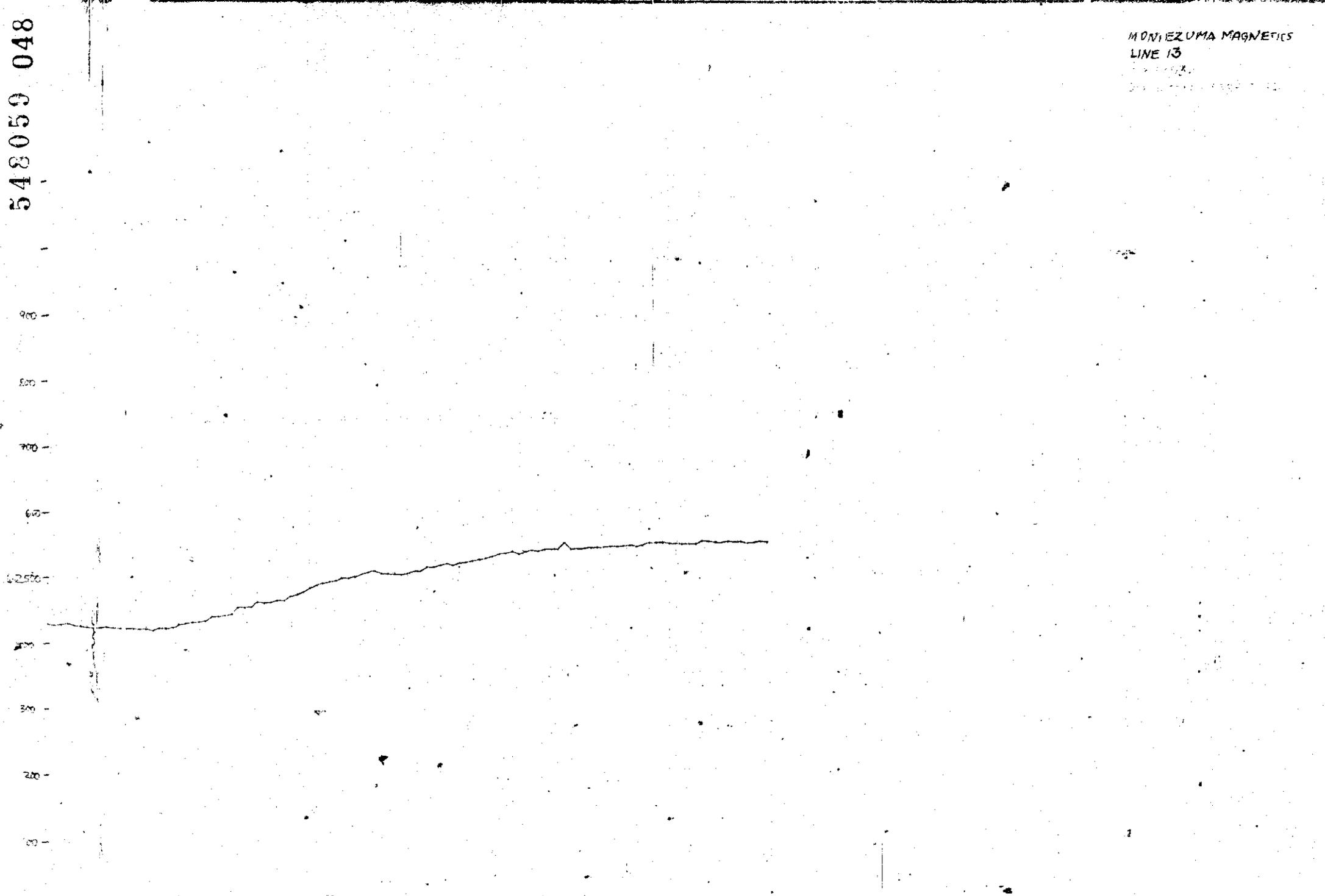


548059 048

MONTEZUMA MAGNETICS
LINE 13
1958

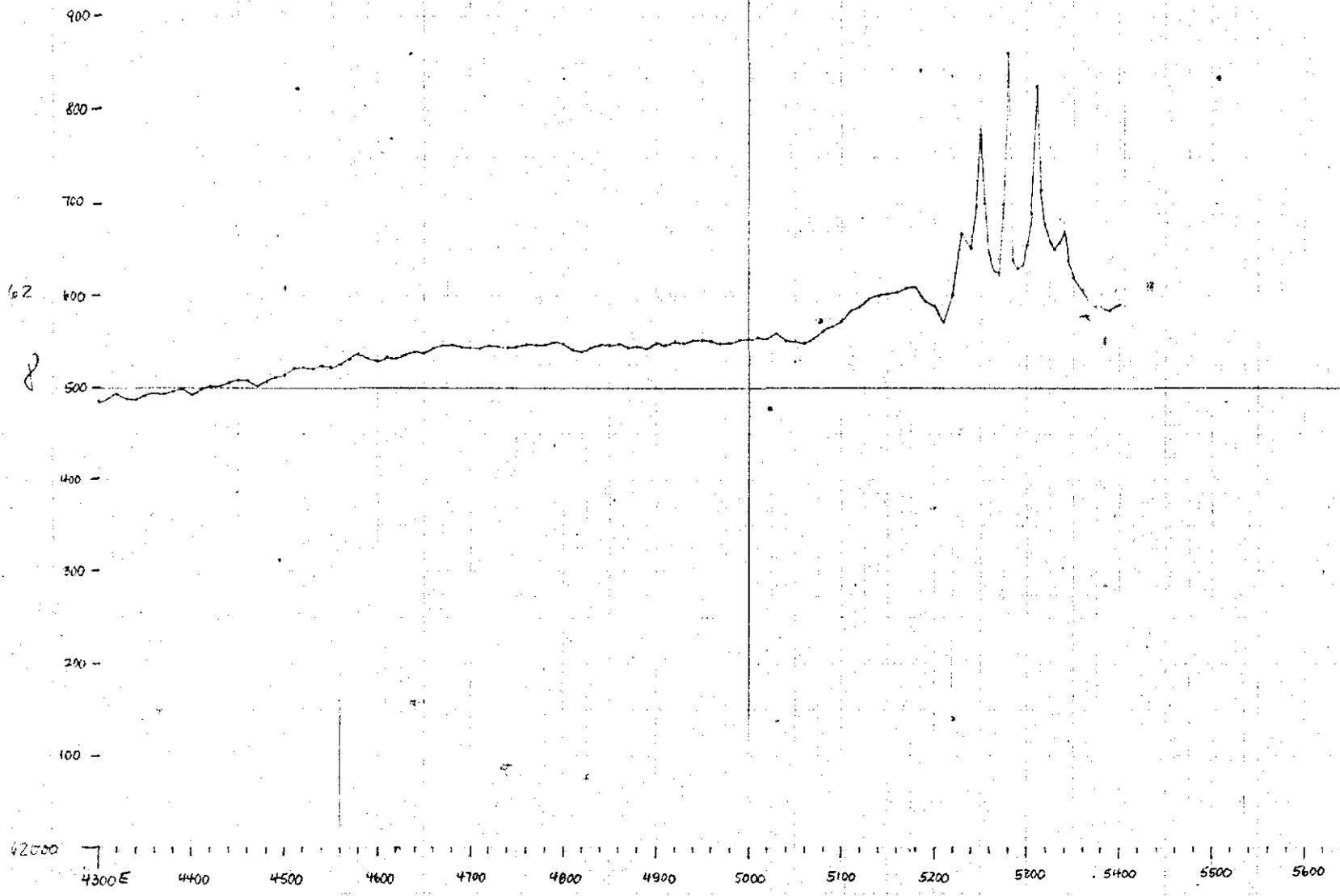
900 -
800 -
700 -
600 -
500 -
400 -
300 -
200 -
100 -

5000 4900 4800 4700 4600 4500 4400 4300 4200 4100 4000 3900 3800 3700 3600 3500 3400 3300 3200 3100



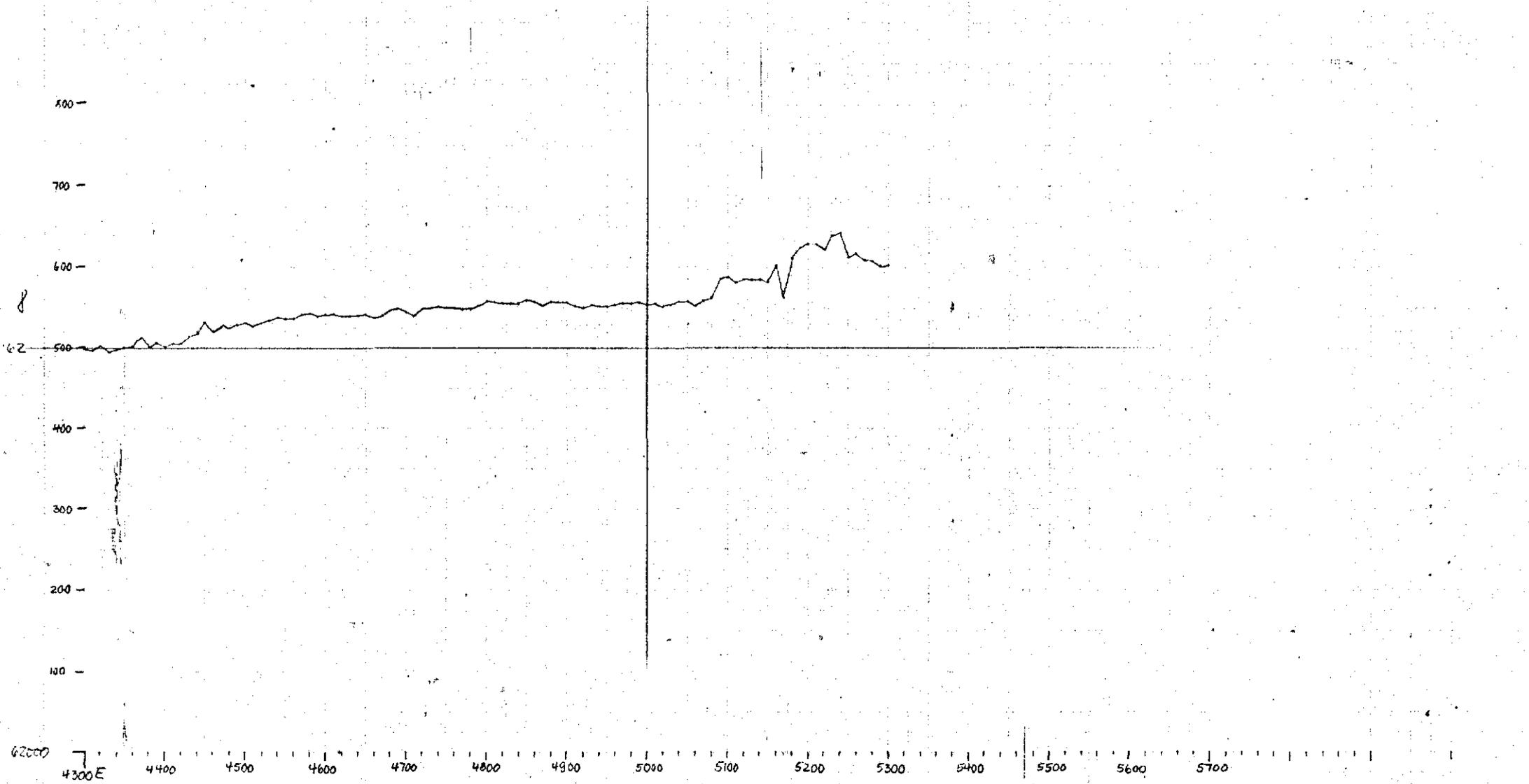
548060 049

MONTEZUMA MAGNETICS
LINE 14
20 1. 83.
Operator: W. MOYLE



548061 050

MONTEZUMA MAGNETICS
LINE 15
18 FEB 62
Operator: W. MOYLE

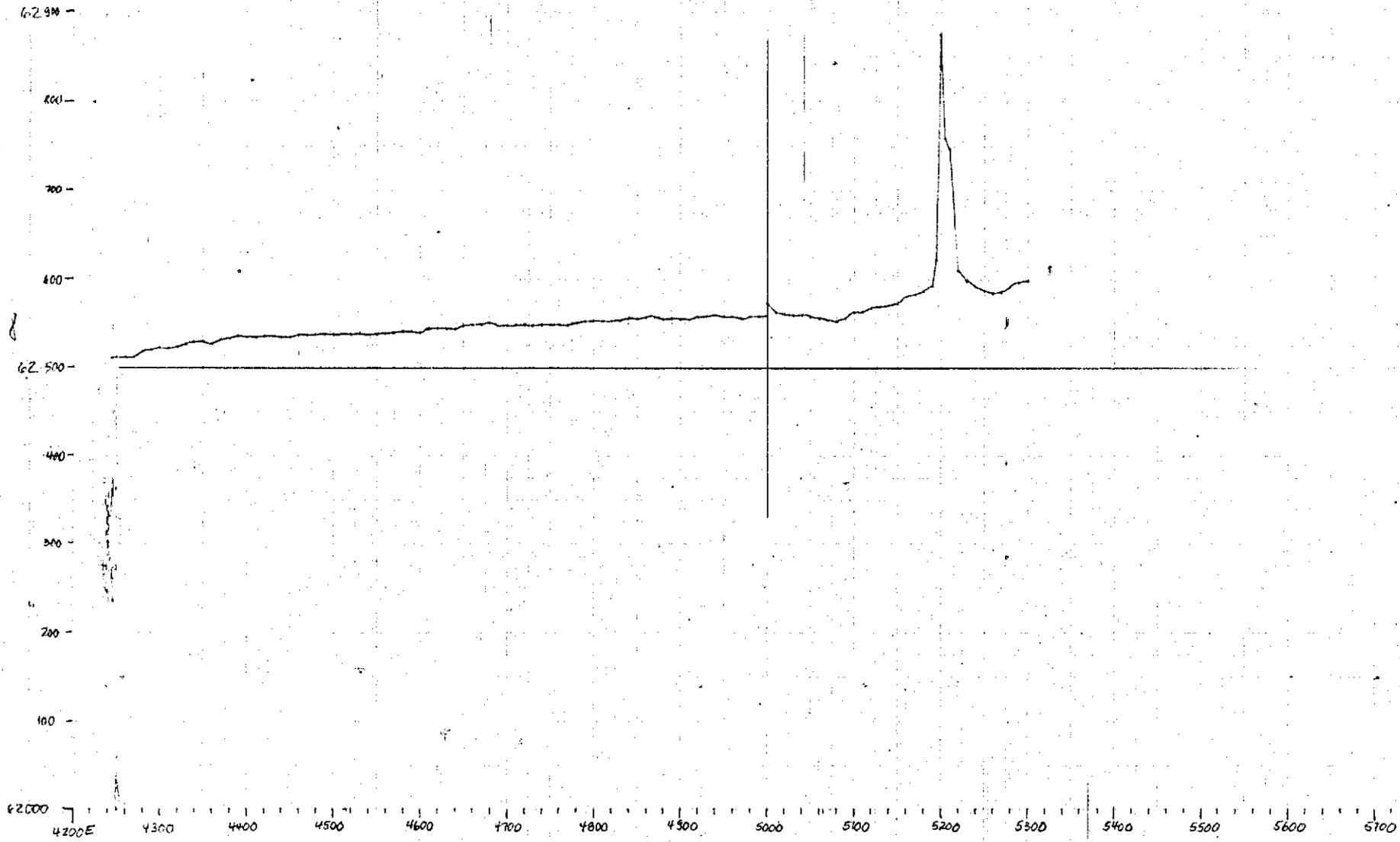


62000 4300E 4400 4500 4600 4700 4800 4900 5000 5100 5200 5300 5400 5500 5600 5700



MONTEZUMA MAGNETICS
LINE 16
18.1.83.
Operator: G. BERESFORD

548062051



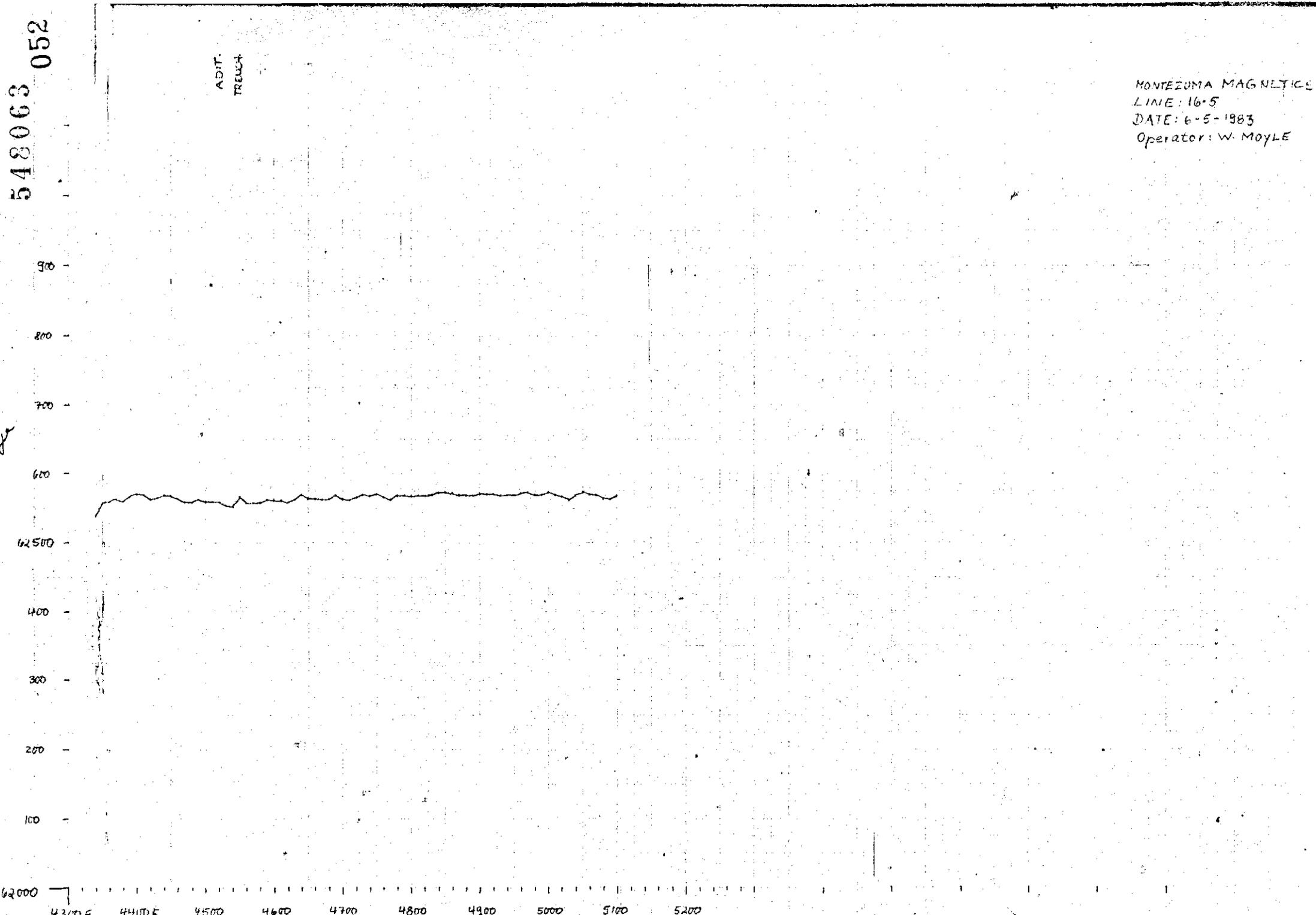
548063 052

ADIT.
TRENCH

MONTZUMA MAGNETICS
LINE: 16-5
DATE: 6-5-1983
Operator: W. MOYLE

900 -
800 -
700 -
600 -
550 -
400 -
300 -
200 -
100 -
02000

4300 E 4400 E 4500 4600 4700 4800 4900 5000 5100 5200

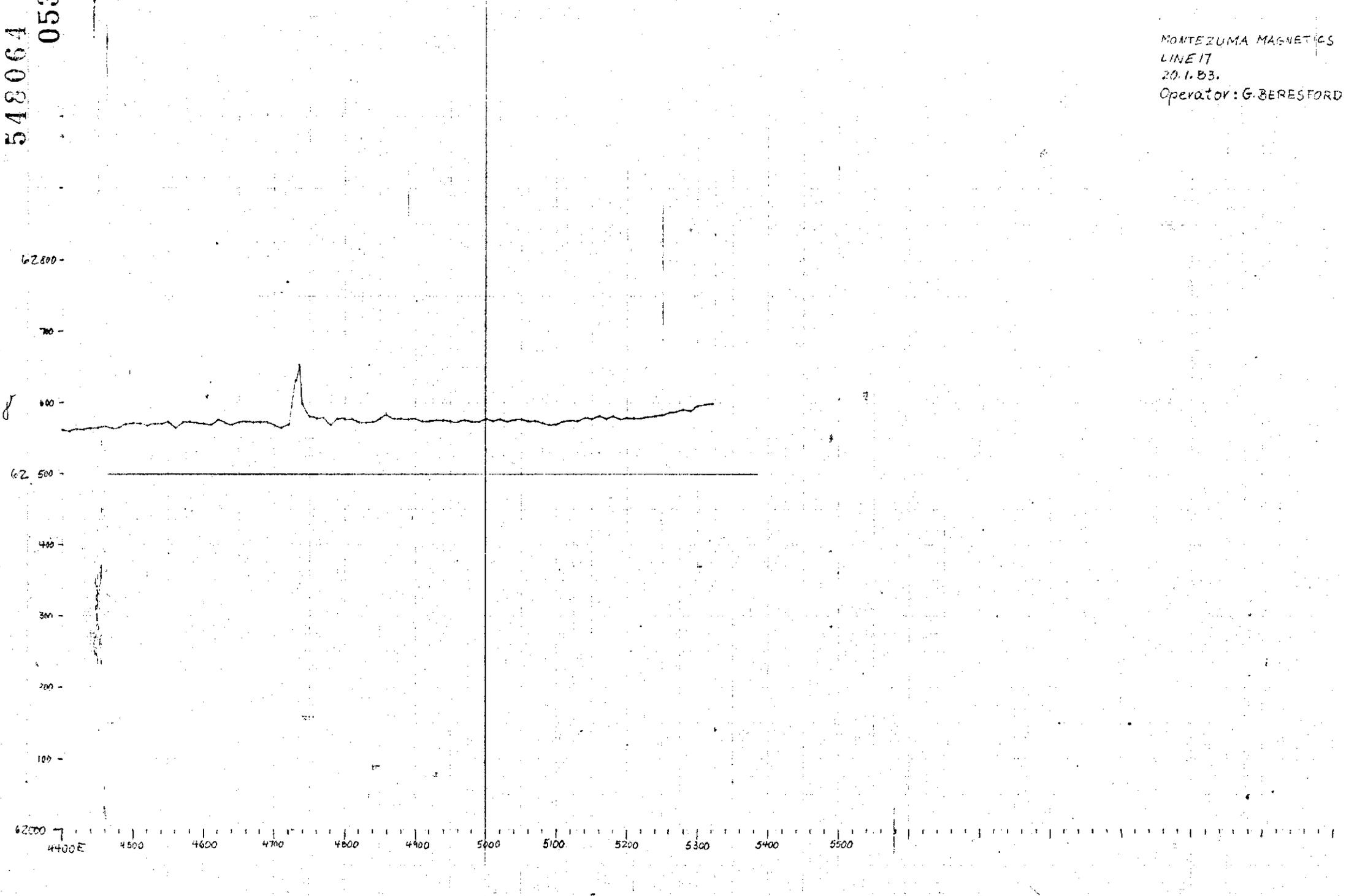


548064 053

MONTEZUMA MAGNETICS
LINE 17
20.1.83.
Operator: G. BERESFORD

62800 -
700 -
600 -
62500 -
500 -
400 -
300 -
200 -
100 -

62000 4400E 4500 4600 4700 4800 4900 5000 5100 5200 5300 5400 5500

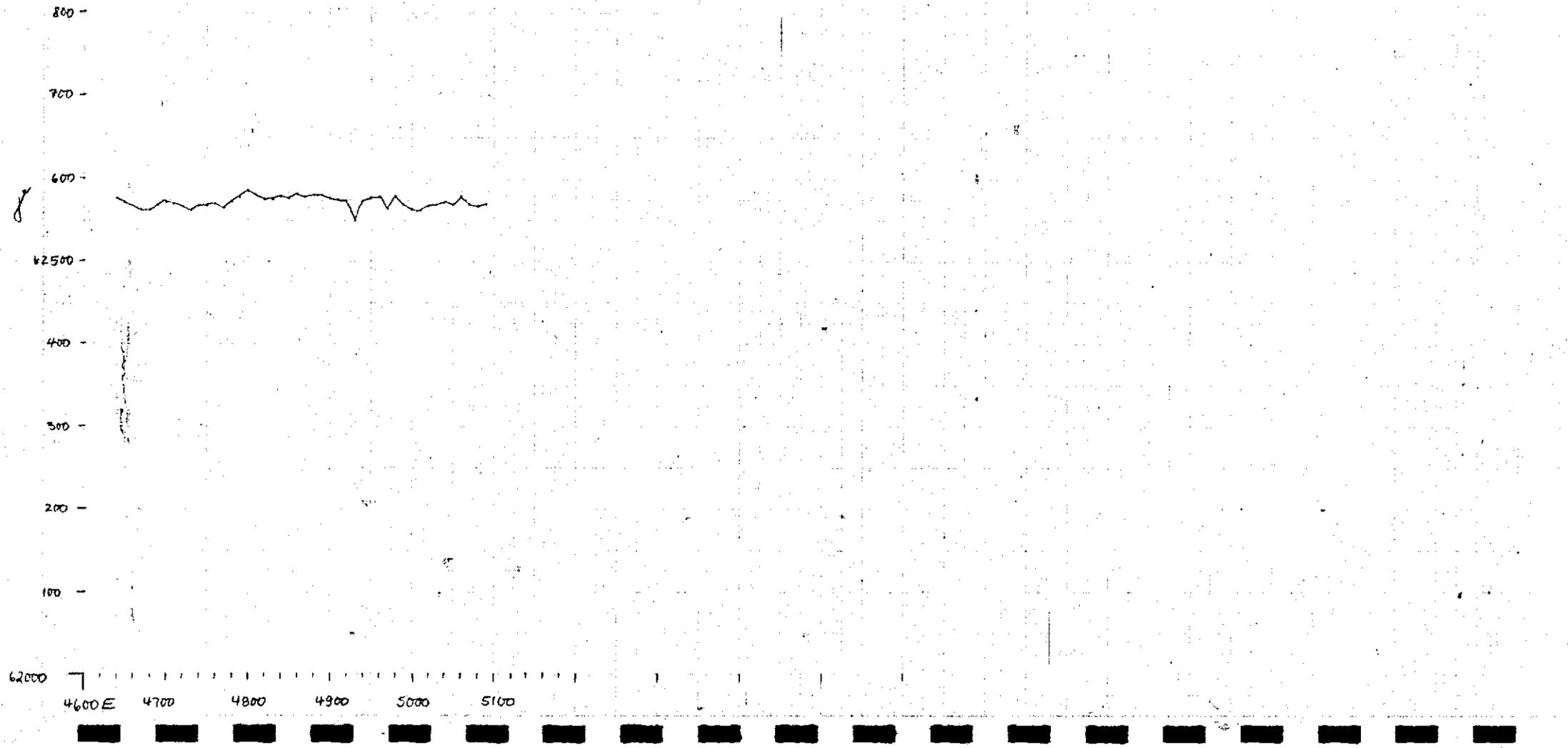


548065 054

ADPT.

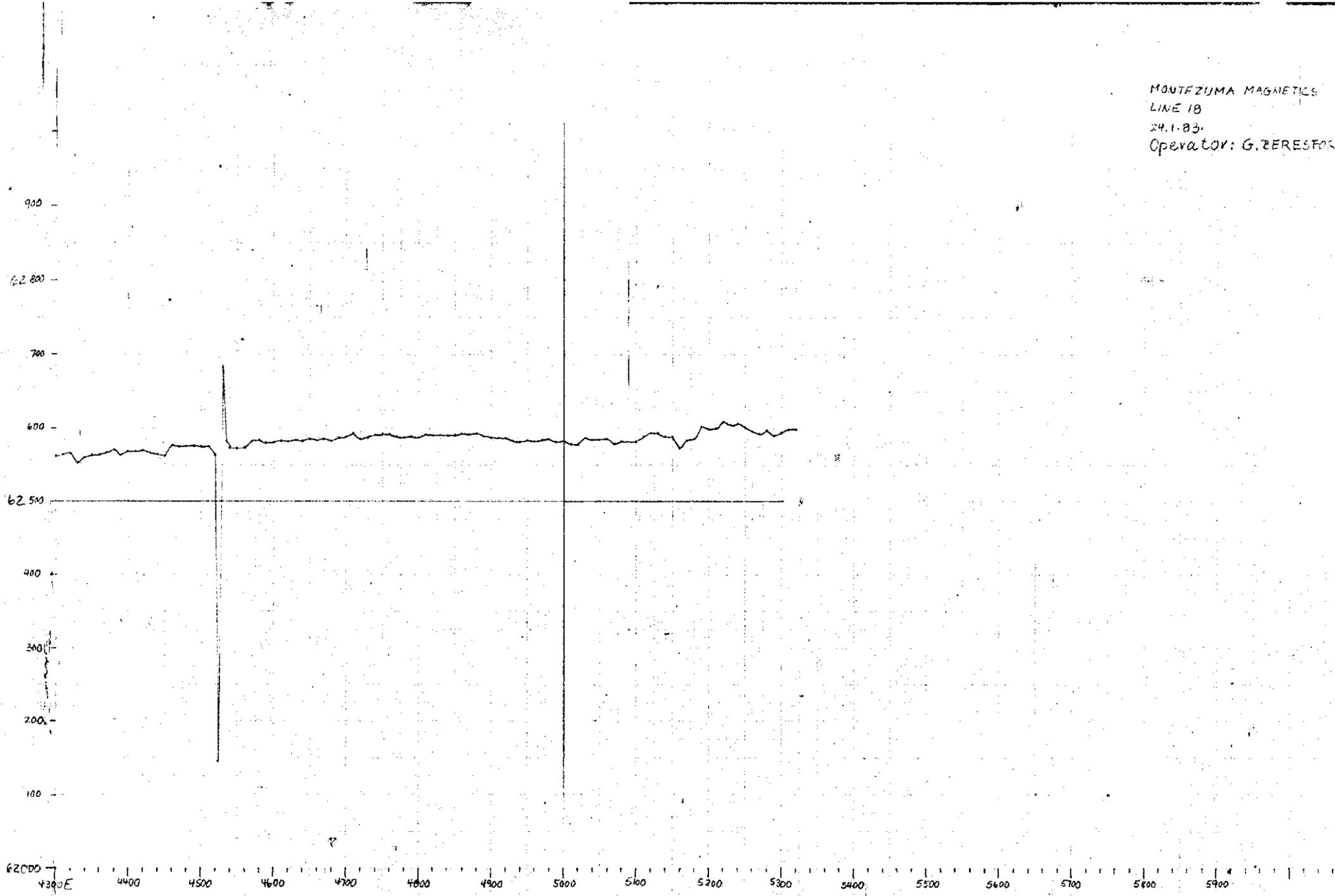
DRILL SITE

MONTEZUMA MAGNETICS
LINE 17.5
DATE: 6-5-1983
Operator: W. MOYLE



548066 055

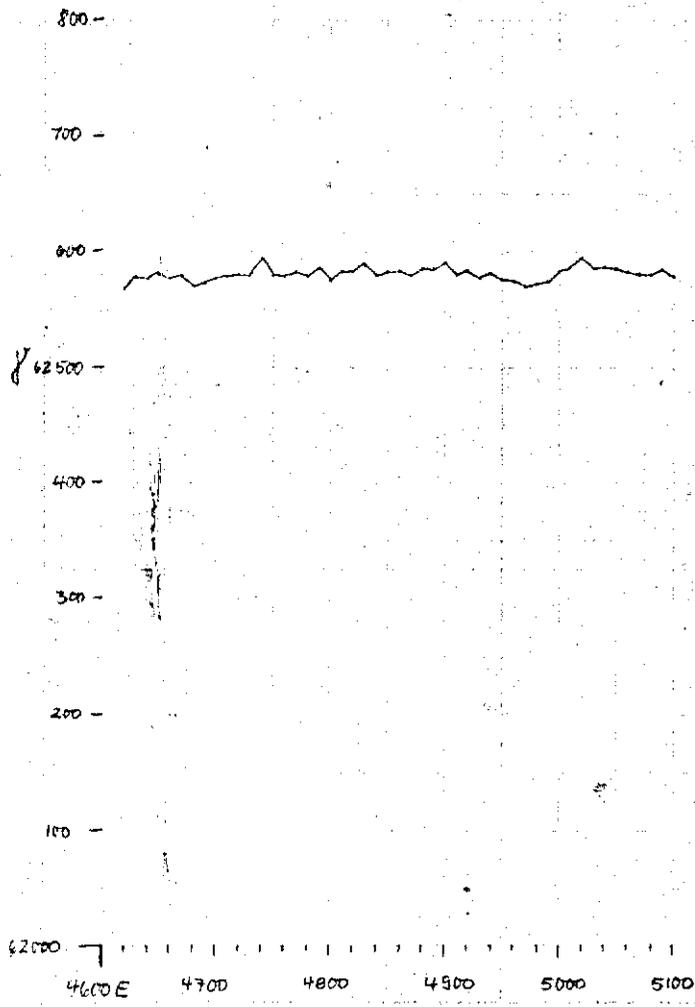
MONTUZUMA MAGNETICS
LINE 18
24.1.83.
Operator: G. ZERESTOS



62000 4300E 4400 4500 4600 4700 4800 4900 5000 5100 5200 5300 5400 5500 5600 5700 5800 5900

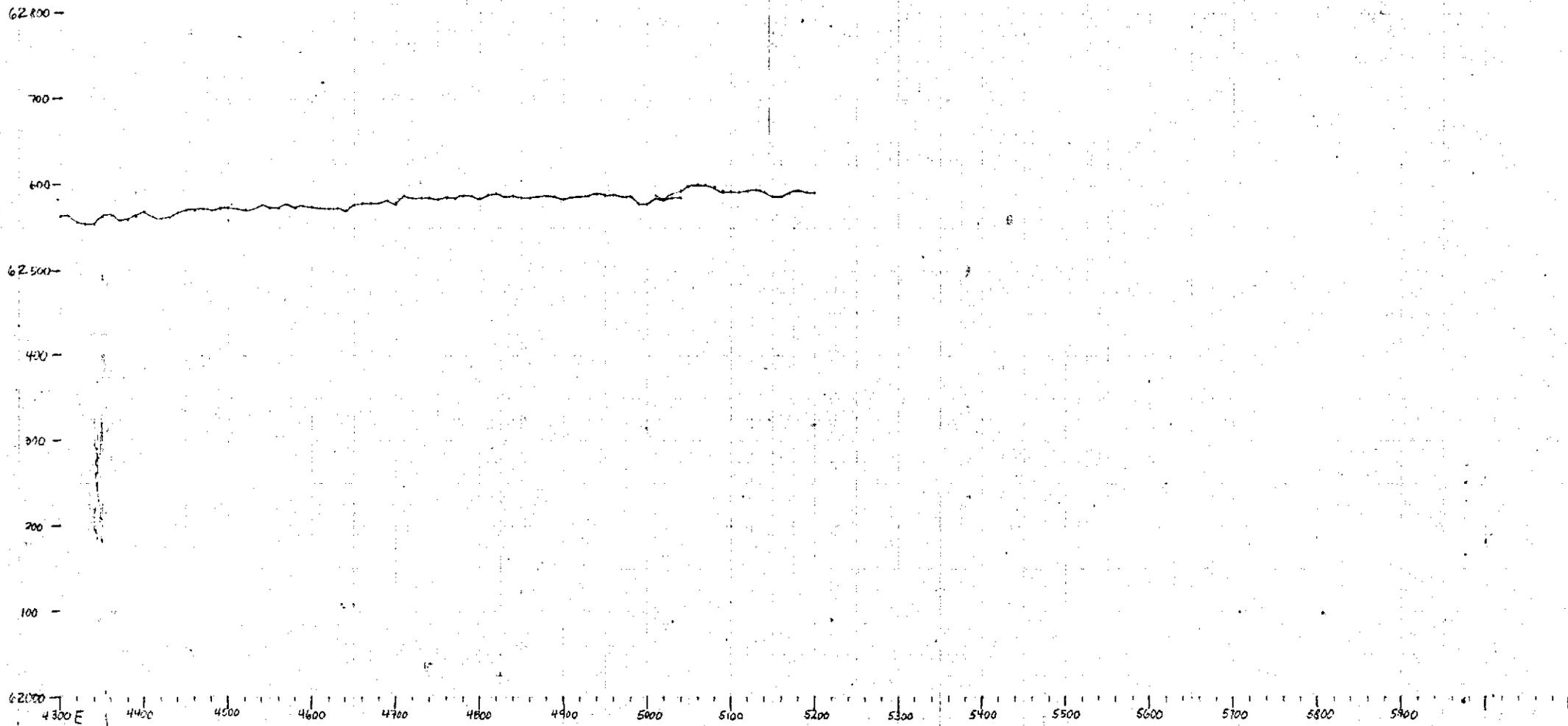
548067 056

MONTUZUMA MAGNET
LINE 18.5
DATE: 5-5-1993
Operator: W. MOYLE



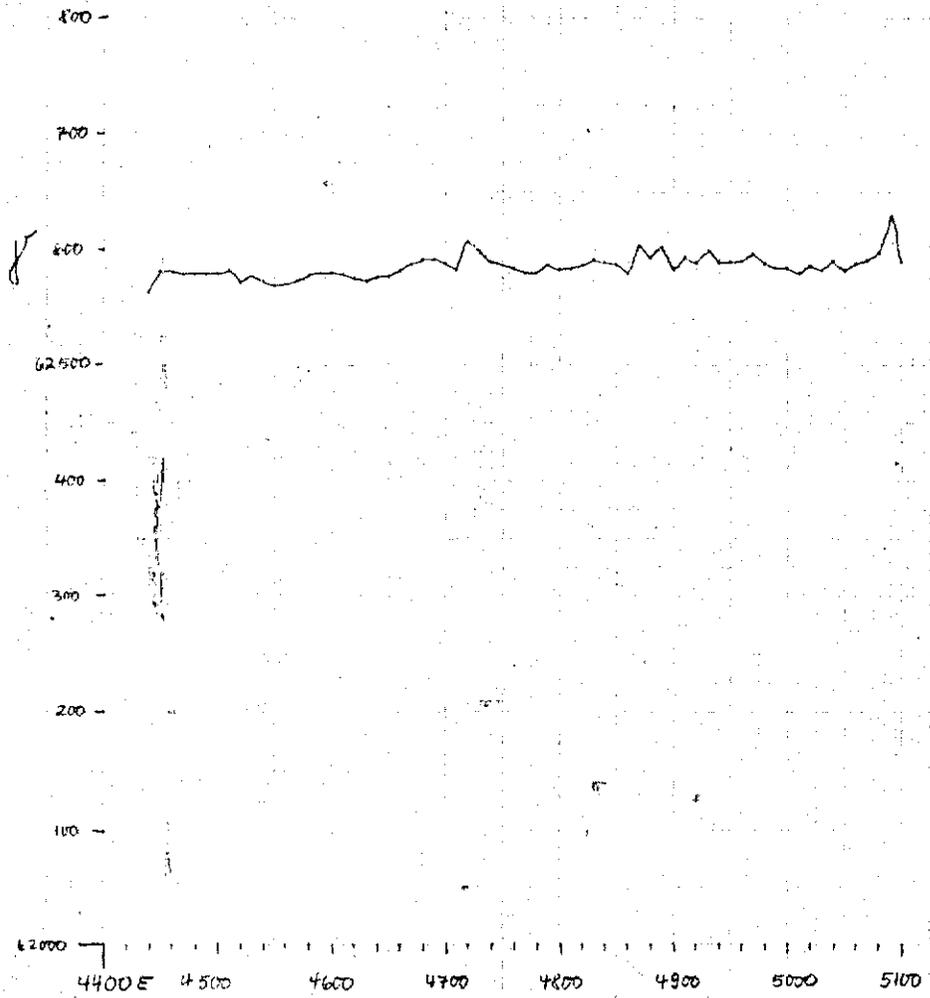
548068 057

MONTEZUMA MAGNETICS
LINE 19
21.1.83.
Operator: R. CLAYDEN



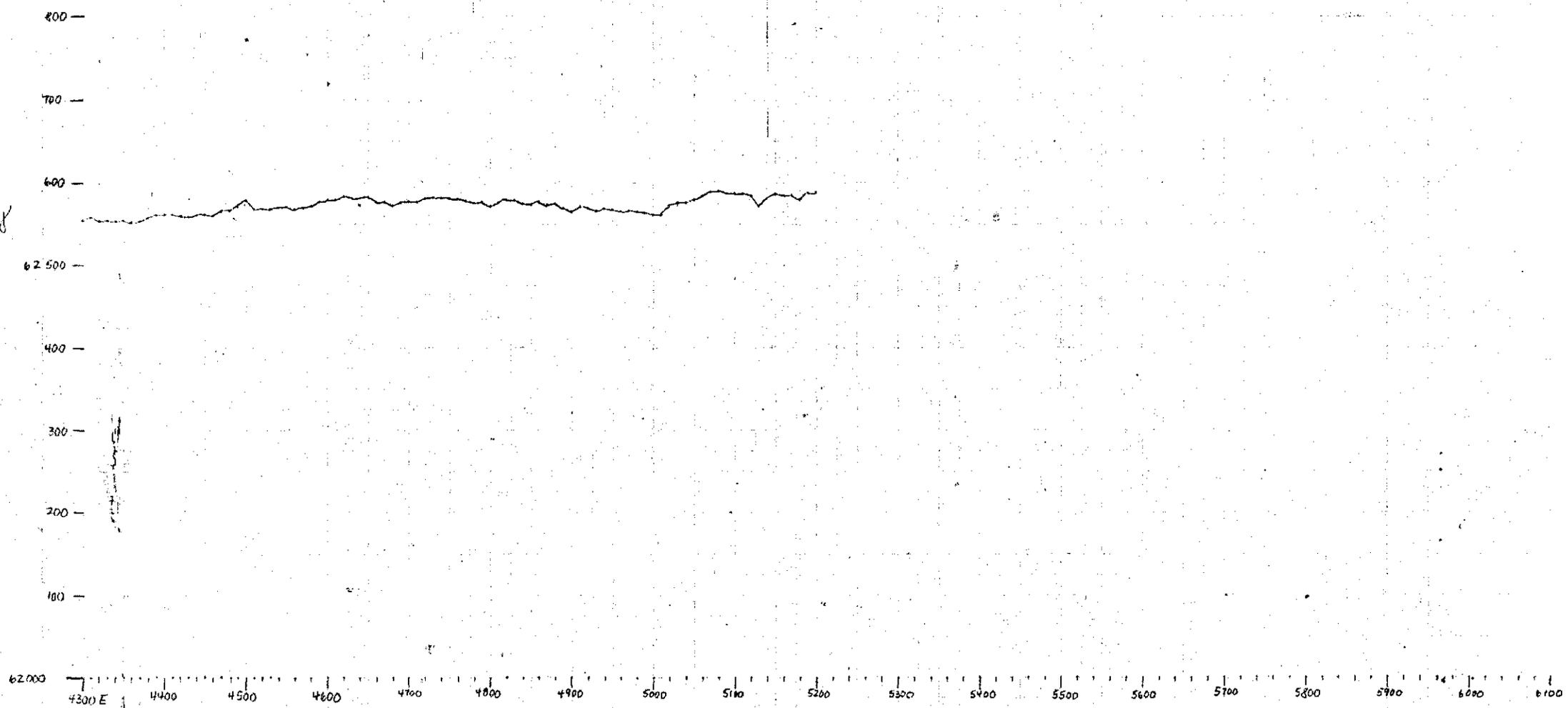
MONTAZOMA MAGNETIC
LINE 19.5
DATE: 5-5-1983
Operator: W. MOYLE

548069 058



548070 059

MONTEZUMA MAGNETICS
LINE 20
21.1.83
Operator: G. BERESFORD



548071 060

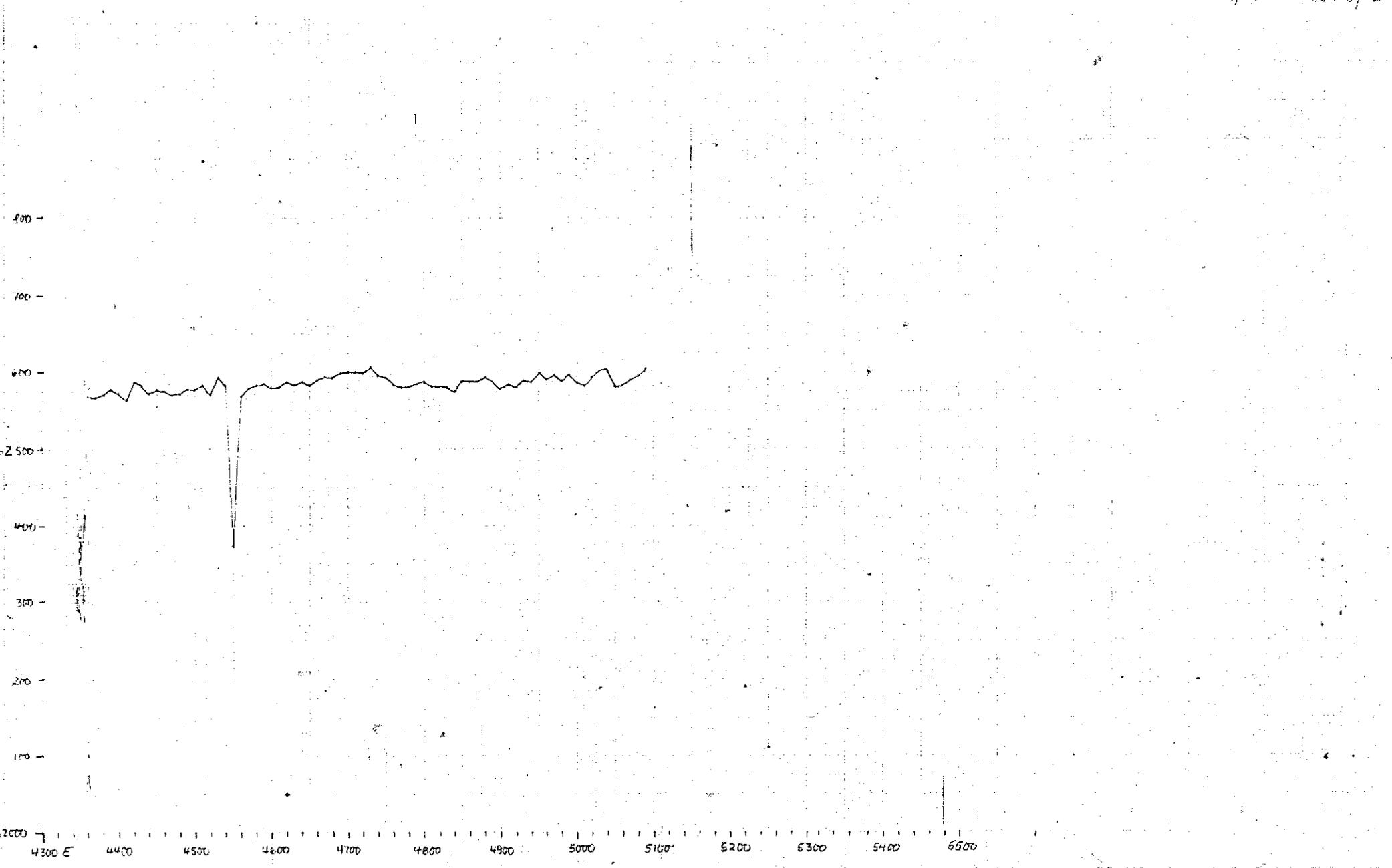
MONTEZUMA MAGNETICS
LINE 20-5
25.11.58
Operator: W. MOYLE

ADIT 1500 ft

800 -
700 -
600 -
500 -
400 -
300 -
200 -
100 -

62000

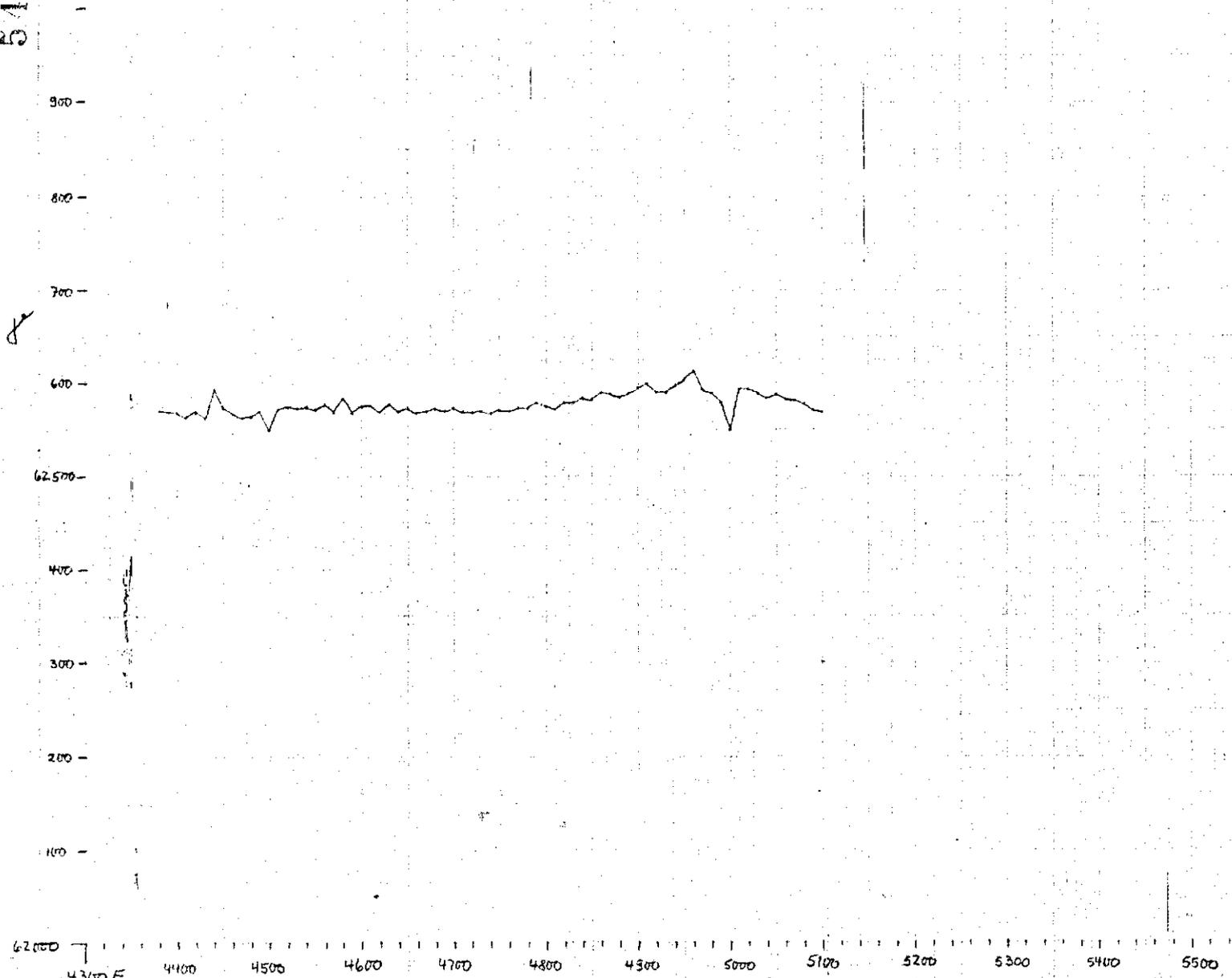
4300 E 4400 4500 4600 4700 4800 4900 5000 5100 5200 5300 5400 5500



548072061

WORKING

MONTECUMA MAGNETICS
LINE 21
2.6.1983
Operator: W. MOYLE



62000
4300 E 4400 4500 4600 4700 4800 4900 5000 5100 5200 5300 5400 5500



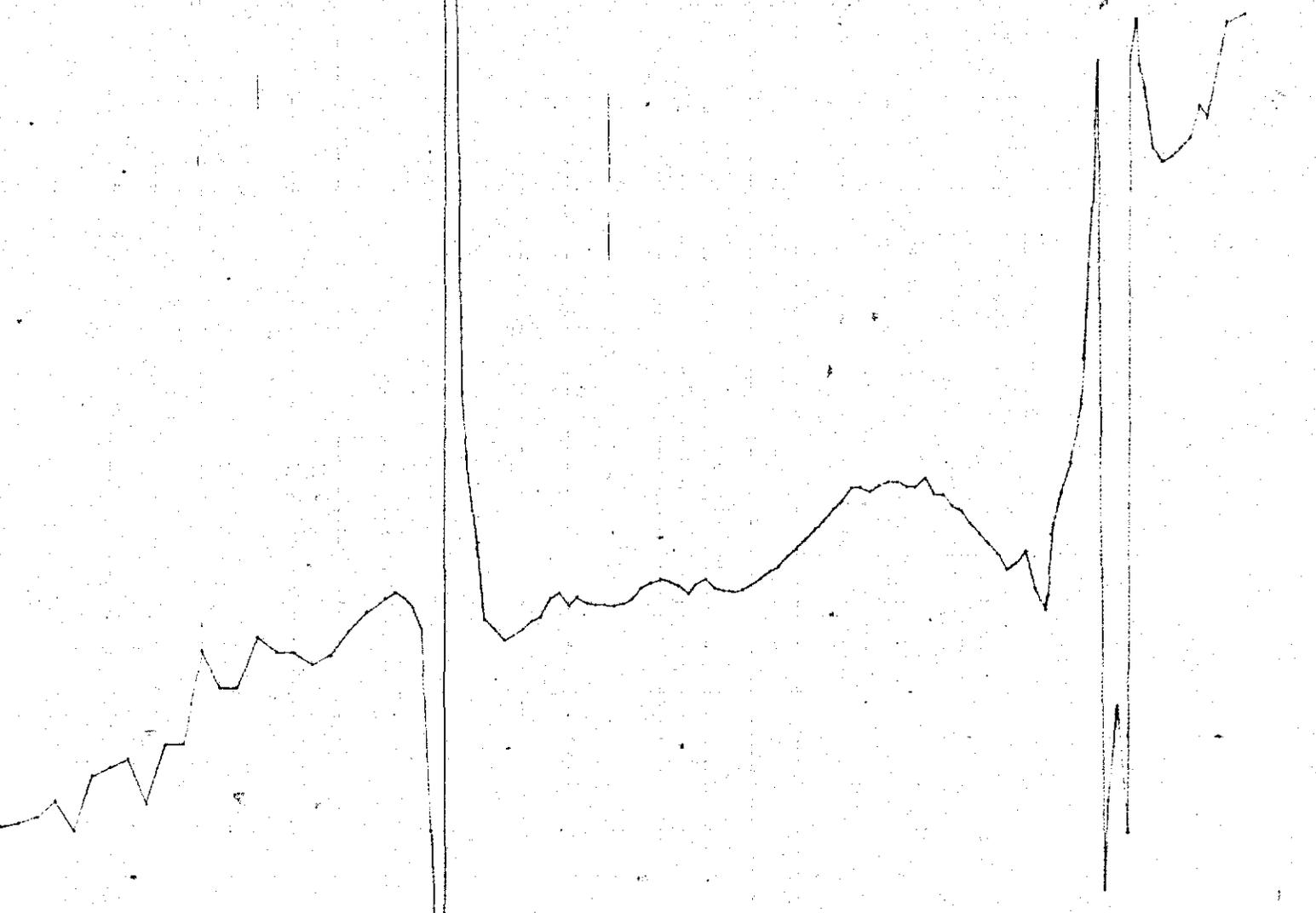
062
548073

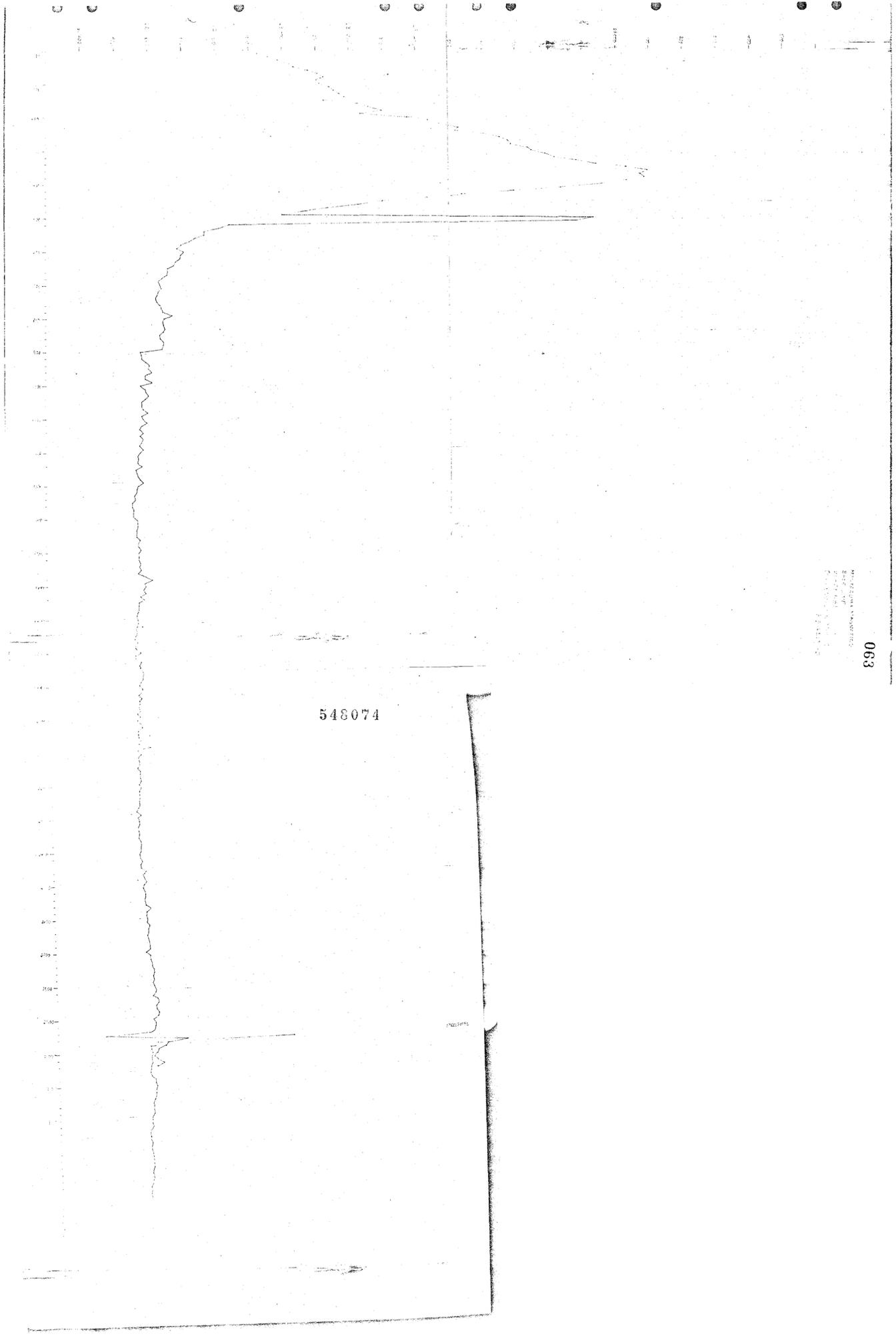
63.00
62.50
62.00
61.50
61.00
60.50
60.00
59.50
59.00
58.50
58.00
57.50
57.00
56.50
56.00
55.50
55.00
54.50
54.00
53.50
53.00
52.50
52.00
51.50
51.00
50.50
50.00
49.50
49.00
48.50
48.00
47.50
47.00
46.50
46.00
45.50
45.00
44.50
44.00
43.50
43.00
42.50
42.00
41.50
41.00
40.50
40.00
39.50
39.00
38.50
38.00
37.50
37.00
36.50
36.00
35.50
35.00
34.50
34.00
33.50
33.00
32.50
32.00
31.50
31.00
30.50
30.00
29.50
29.00
28.50
28.00
27.50
27.00
26.50
26.00
25.50
25.00
24.50
24.00
23.50
23.00
22.50
22.00
21.50
21.00
20.50
20.00
19.50
19.00
18.50
18.00
17.50
17.00
16.50
16.00
15.50
15.00
14.50
14.00
13.50
13.00
12.50
12.00
11.50
11.00
10.50
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
-0.50
-1.00
-1.50
-2.00
-2.50
-3.00
-3.50
-4.00
-4.50
-5.00
-5.50
-6.00
-6.50
-7.00
-7.50
-8.00
-8.50
-9.00
-9.50
-10.00
-10.50
-11.00
-11.50
-12.00
-12.50
-13.00
-13.50
-14.00
-14.50
-15.00
-15.50
-16.00
-16.50
-17.00
-17.50
-18.00
-18.50
-19.00
-19.50
-20.00
-20.50
-21.00
-21.50
-22.00
-22.50
-23.00
-23.50
-24.00
-24.50
-25.00
-25.50
-26.00
-26.50
-27.00
-27.50
-28.00
-28.50
-29.00
-29.50
-30.00
-30.50
-31.00
-31.50
-32.00
-32.50
-33.00
-33.50
-34.00
-34.50
-35.00
-35.50
-36.00
-36.50
-37.00
-37.50
-38.00
-38.50
-39.00
-39.50
-40.00
-40.50
-41.00
-41.50
-42.00
-42.50
-43.00
-43.50
-44.00
-44.50
-45.00
-45.50
-46.00
-46.50
-47.00
-47.50
-48.00
-48.50
-49.00
-49.50
-50.00
-50.50
-51.00
-51.50
-52.00
-52.50
-53.00
-53.50
-54.00
-54.50
-55.00
-55.50
-56.00
-56.50
-57.00
-57.50
-58.00
-58.50
-59.00
-59.50
-60.00
-60.50
-61.00
-61.50
-62.00
-62.50
-63.00
-63.50
-64.00
-64.50
-65.00
-65.50
-66.00
-66.50
-67.00
-67.50
-68.00
-68.50
-69.00
-69.50
-70.00
-70.50
-71.00
-71.50
-72.00
-72.50
-73.00
-73.50
-74.00
-74.50
-75.00
-75.50
-76.00
-76.50
-77.00
-77.50
-78.00
-78.50
-79.00
-79.50
-80.00
-80.50
-81.00
-81.50
-82.00
-82.50
-83.00
-83.50
-84.00
-84.50
-85.00
-85.50
-86.00
-86.50
-87.00
-87.50
-88.00
-88.50
-89.00
-89.50
-90.00
-90.50
-91.00
-91.50
-92.00
-92.50
-93.00
-93.50
-94.00
-94.50
-95.00
-95.50
-96.00
-96.50
-97.00
-97.50
-98.00
-98.50
-99.00
-99.50
-100.00

1300 1200 1100 1000 900 800 700 600 500 400 300 200 100 0
62.745
60.476
62.50
62.00
61.50
61.00
60.50
60.00
59.50
59.00
58.50
58.00
57.50
57.00
56.50
56.00
55.50
55.00
54.50
54.00
53.50
53.00
52.50
52.00
51.50
51.00
50.50
50.00
49.50
49.00
48.50
48.00
47.50
47.00
46.50
46.00
45.50
45.00
44.50
44.00
43.50
43.00
42.50
42.00
41.50
41.00
40.50
40.00
39.50
39.00
38.50
38.00
37.50
37.00
36.50
36.00
35.50
35.00
34.50
34.00
33.50
33.00
32.50
32.00
31.50
31.00
30.50
30.00
29.50
29.00
28.50
28.00
27.50
27.00
26.50
26.00
25.50
25.00
24.50
24.00
23.50
23.00
22.50
22.00
21.50
21.00
20.50
20.00
19.50
19.00
18.50
18.00
17.50
17.00
16.50
16.00
15.50
15.00
14.50
14.00
13.50
13.00
12.50
12.00
11.50
11.00
10.50
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
-0.50
-1.00
-1.50
-2.00
-2.50
-3.00
-3.50
-4.00
-4.50
-5.00
-5.50
-6.00
-6.50
-7.00
-7.50
-8.00
-8.50
-9.00
-9.50
-10.00
-10.50
-11.00
-11.50
-12.00
-12.50
-13.00
-13.50
-14.00
-14.50
-15.00
-15.50
-16.00
-16.50
-17.00
-17.50
-18.00
-18.50
-19.00
-19.50
-20.00
-20.50
-21.00
-21.50
-22.00
-22.50
-23.00
-23.50
-24.00
-24.50
-25.00
-25.50
-26.00
-26.50
-27.00
-27.50
-28.00
-28.50
-29.00
-29.50
-30.00
-30.50
-31.00
-31.50
-32.00
-32.50
-33.00
-33.50
-34.00
-34.50
-35.00
-35.50
-36.00
-36.50
-37.00
-37.50
-38.00
-38.50
-39.00
-39.50
-40.00
-40.50
-41.00
-41.50
-42.00
-42.50
-43.00
-43.50
-44.00
-44.50
-45.00
-45.50
-46.00
-46.50
-47.00
-47.50
-48.00
-48.50
-49.00
-49.50
-50.00
-50.50
-51.00
-51.50
-52.00
-52.50
-53.00
-53.50
-54.00
-54.50
-55.00
-55.50
-56.00
-56.50
-57.00
-57.50
-58.00
-58.50
-59.00
-59.50
-60.00
-60.50
-61.00
-61.50
-62.00
-62.50
-63.00
-63.50
-64.00
-64.50
-65.00
-65.50
-66.00
-66.50
-67.00
-67.50
-68.00
-68.50
-69.00
-69.50
-70.00
-70.50
-71.00
-71.50
-72.00
-72.50
-73.00
-73.50
-74.00
-74.50
-75.00
-75.50
-76.00
-76.50
-77.00
-77.50
-78.00
-78.50
-79.00
-79.50
-80.00
-80.50
-81.00
-81.50
-82.00
-82.50
-83.00
-83.50
-84.00
-84.50
-85.00
-85.50
-86.00
-86.50
-87.00
-87.50
-88.00
-88.50
-89.00
-89.50
-90.00
-90.50
-91.00
-91.50
-92.00
-92.50
-93.00
-93.50
-94.00
-94.50
-95.00
-95.50
-96.00
-96.50
-97.00
-97.50
-98.00
-98.50
-99.00
-99.50
-100.00

LINE NO 1
LINE NO 14
LINE NO 2

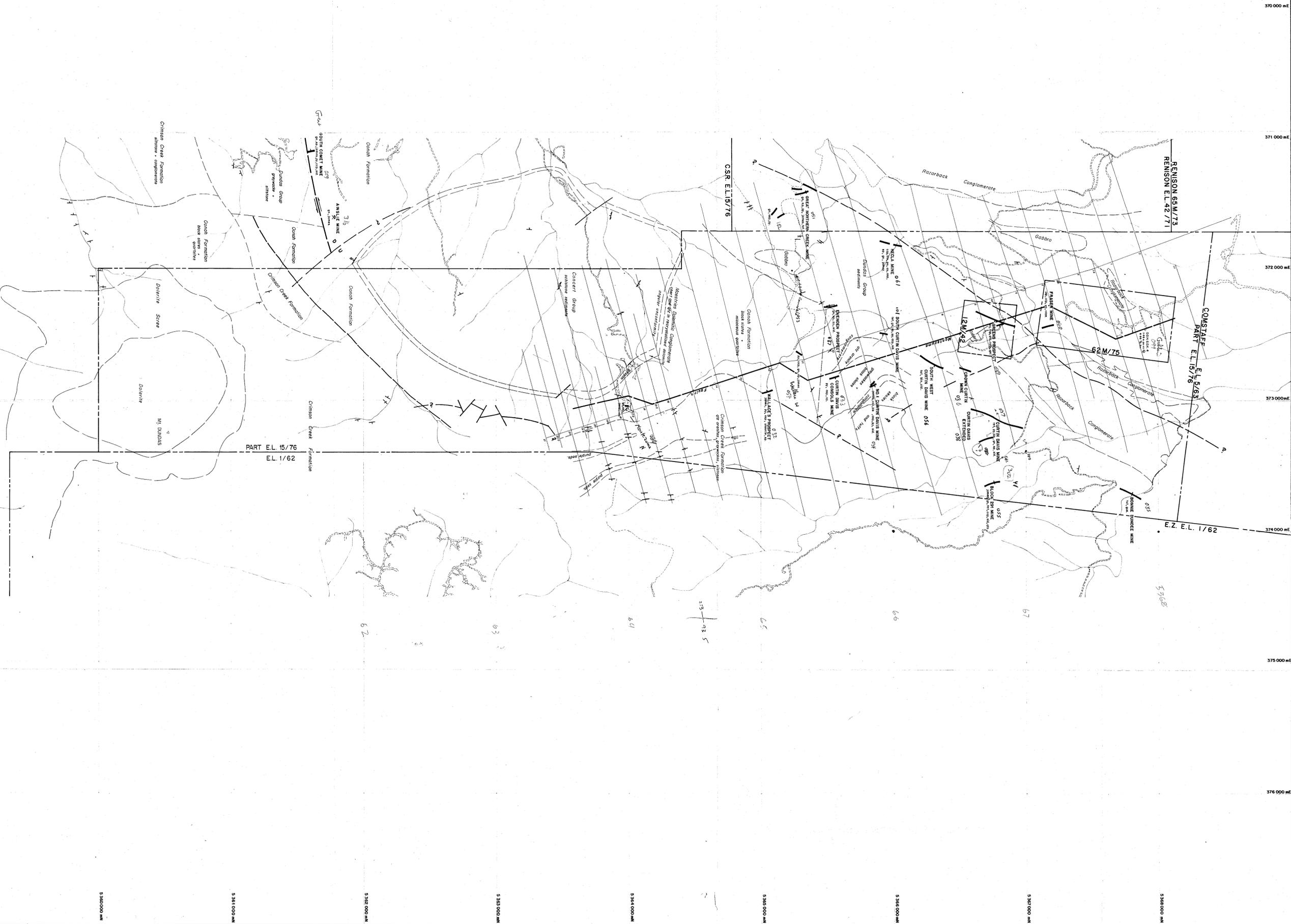
MONTAZUMA MAGNETICS
BASE LINE
DATE: 4-5-1983
Operator: W. MICHE





548074

PROFESSIONAL ENGINEER
STATE OF CALIFORNIA
EXPIRES 12/31/2011
063

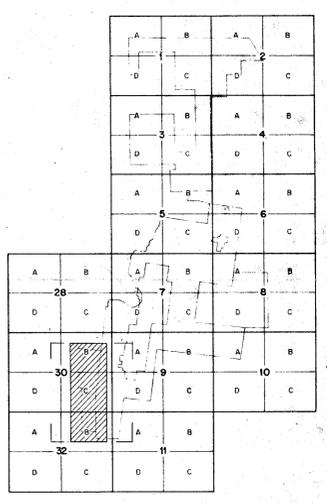


RELIABILITY DIAGRAM

NCGFA Reconnaissance Mapping 1969
Scale 1" = 400'

E.Z. CO. Grid Mapping 1983 Scale 1:5,000
with limited creek reconnaissance

E.Z. CO. Creek Mapping 1962 Scale 1:5,000
(Pollock Bros Contractors)
with Dept. of Mines 1962 Zeehan Imile Series
sheet 50 and limited Texas Development data



ELECTROLYTIC ZINC CO. OF ASIA LTD.
PROJECT: MONTEZUMA J.V., TAS.

548075

5 cm

GEOLOGY
INTERPRETATION

SCALE : 1:10 000	Survey : R.A.S.	Revised:
Reference :	Date : 17. 3. 1983	Ref. No.
Drawn : Nik	Checked :	AO-527-0036

NOTE
 Lines 01 to 03 taken from Reconnaissance Mapping by
 "New Consolidated" Gold Fields (Glad) Pty. Ltd.
 Scale 400 ft to 1 inch, dated 28.4.1969
 Lines 7 to 13 re-cut and partially extended in April 70
 with limited ground control by W. Meyer (+)
 Lines 14 to 20 re-cut in 22-1-62 at 11.00 AM. 2011
 readings and removed 22/01/62



RING RIVER GRID

PART E.L. 15/76

E.L.1/62

A	B	A	B
1		2	
D	C	D	C
A	B	A	B
3		4	
D	C	D	C
A	B	A	B
5		6	
D	C	D	C
A	B	A	B
7		8	
D	C	D	C
A	B	A	B
9		10	
D	C	D	C
A	B	A	B
11			
D	C	D	C

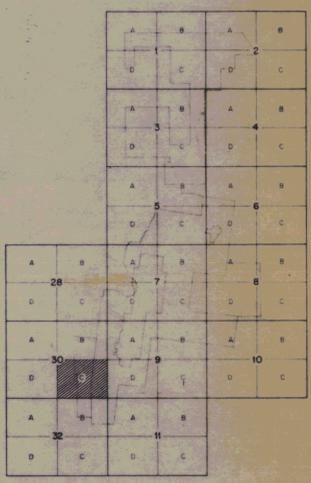
ELECTROLYTIC ZINC CO. OF ASIA LTD.
 PROJECT: MONTEZUMA J.V., TAS.

GROUND MAGNETICS
 CONTOURS
 548079

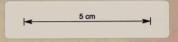
SCALE : 1:5000 Survey : R.A.S. Revised:
 Reference : Date : 29.4.1983 Ref. No.
 Drawn : NIK Checked: AO-527-0038

NOTE
 Lines 01 to 13 taken from Reconnaissance Mapping by New Consolidated Gold Fields (Pty) Ltd. Scale 400 ft to 1 inch, dated 22.4.1969.
 Lines 7 to 13 re-cut and partially extended in April '82, with limited ground control by W. Moyle (*).
 Lines 14 to 20 newly cut in April '82 at nominal 200m spacings and nominal azimuth 75° A.M.G.

Contour Intervals
 30 - 100 ppm
 100 - 500 ppm
 > 500 ppm
 C.G.F.A.'s +30 ppm Sn Soil Anomaly Contour

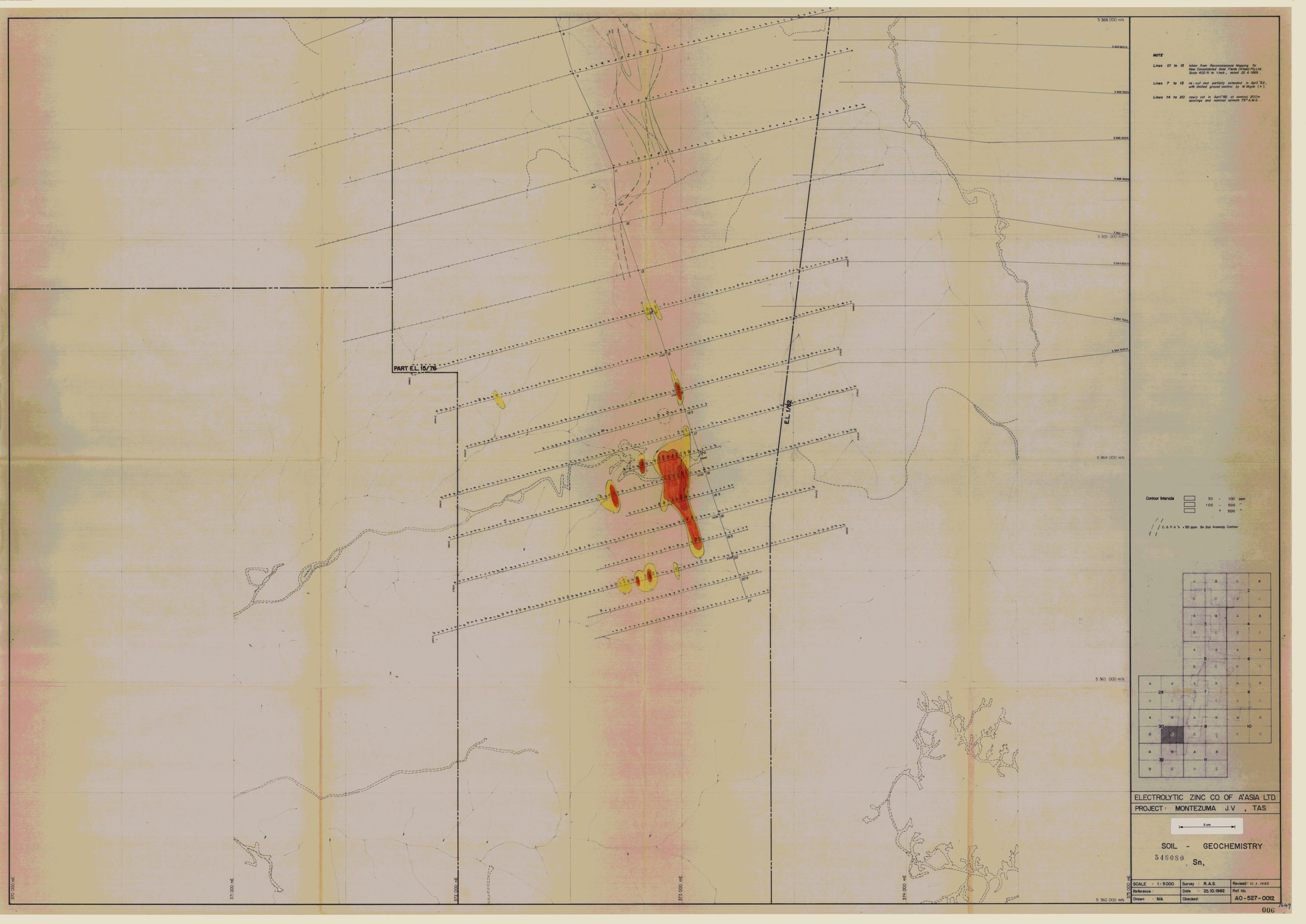


ELECTROLYTIC ZINC CO OF ASIA LTD.
 PROJECT: MONTEZUMA J.V., TAS.

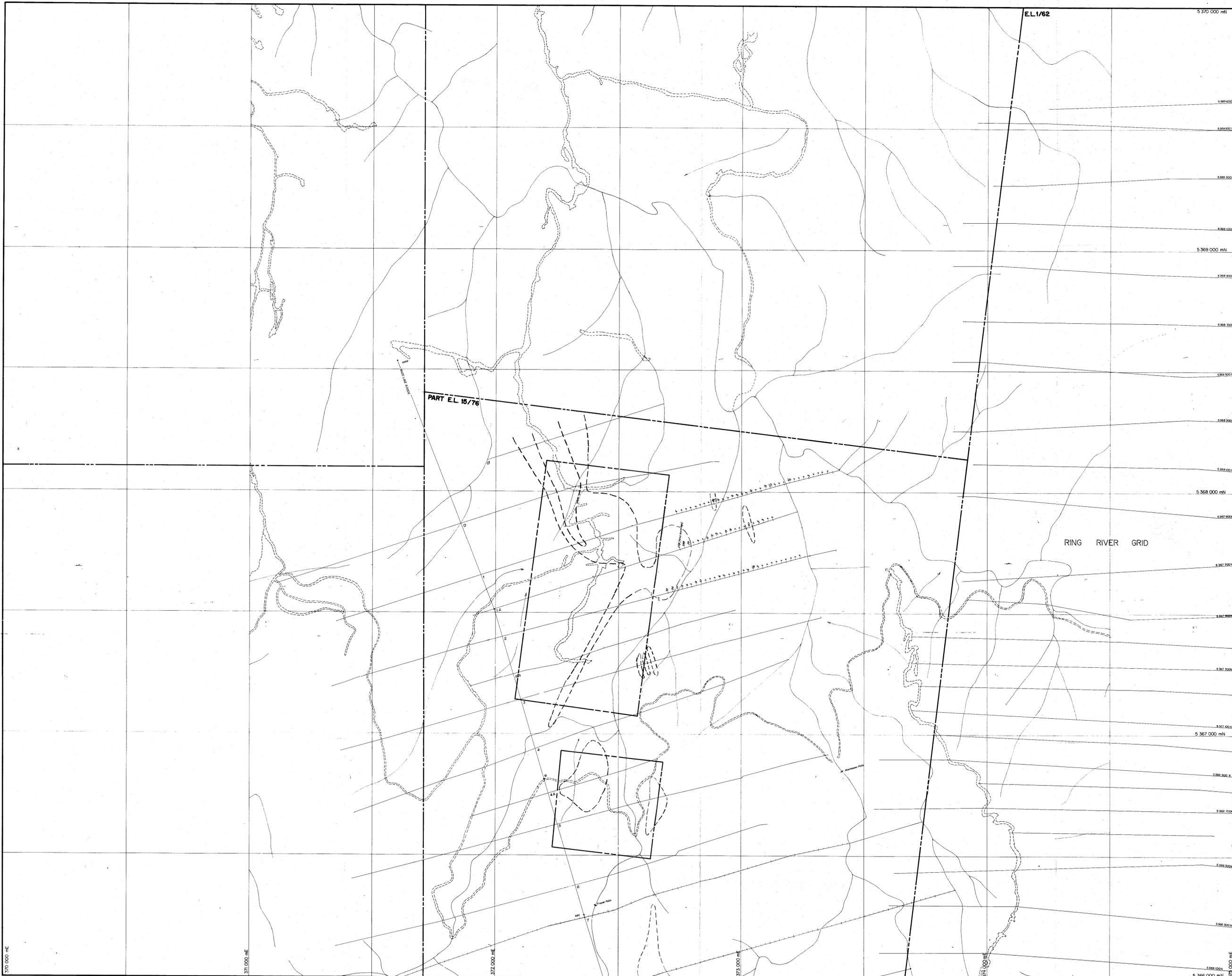


SOIL - GEOCHEMISTRY
 548080 Sn,

SCALE : 1:5000 Survey : R.A.S. Revised : 12.5.1983
 Reference : Date : 25.10.1982 Ref No.
 Drawn : Nik Checked : AO-527-0012

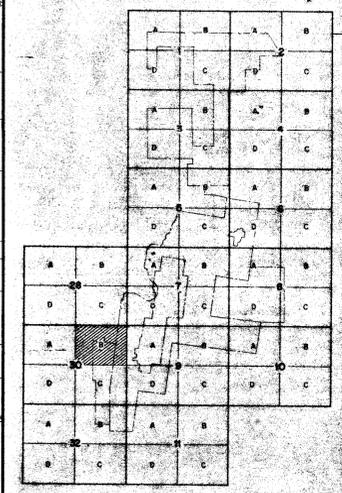


NOTE
 Lines 101 to 113 refer to Reconnaissance Mapping by
 the Geological Survey of Malaysia, dated 1968.
 Lines 114 to 119 refer to Reconnaissance Mapping by
 the Geological Survey of Malaysia, dated 1968.
 Lines 120 to 125 refer to Reconnaissance Mapping by
 the Geological Survey of Malaysia, dated 1968.



C.G.F.A.'s +30ppm Sn Soil Anomaly Contour

RING RIVER GRID



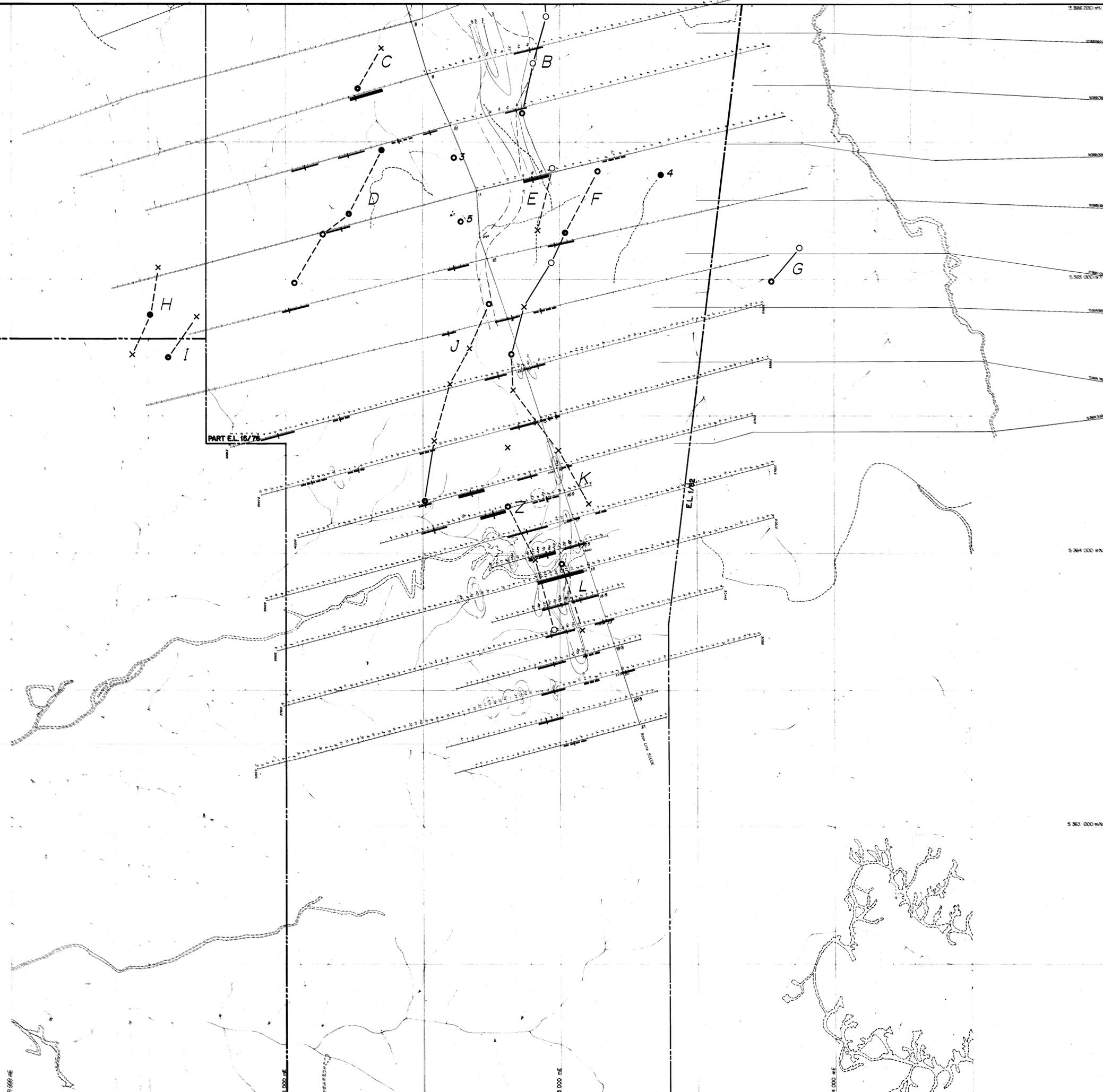
ELECTROLYTIC ZINC CO. OF ASIA LTD.
 PROJECT: MONTEZUMA J. V., TAS.

SOIL - GEOCHEMISTRY
 - Sn - 548081

SCALE: 1:5000 Survey: R.A.S. Revised: 12.5.1982
 Reference: Date: 6.12.1982 Ref. No.
 Drawn: Nik Checked: AO-527-0024

83-2003

007

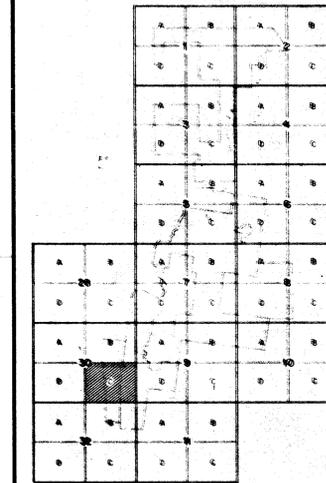


NOTE
 Lines 071 to 103 taken from Reconnaissance Mapping by New Guinea Geology Dept. (1962) (Scale 1:50,000)
 Lines 77 to 103 re-surveyed and corrected in April 1982, with limited ground control by W. M. Bishop (1982)
 Lines 104 to 200 newly set in April 1982 - 191 bearings 200m accuracy and nominal ground 750m accuracy

○ DIGHEM Anomaly
 ——— GEN.I.E. E.M. Anomaly (definite)
 - - - - - GEN.I.E. E.M. Anomaly (possible)
 x indicates centre of anomaly

NOTE
 Z denotes those conductors designated as F_8 to F_{10} by Bishop (1982).
 Anomaly trend K has been joined to F_6 after field mapping interpretation.

Legend
 Contour lines: 100m, 200m, 300m, 400m, 500m, 600m, 700m, 800m, 900m, 1000m
 Symbols: ●, ○, x, —, - - -
 C. & F. A. S. 1:50,000



ELECTROLYTIC ZINC CO. OF ASIA LTD.
PROJECT: MONTEZUMA J.V., TAS.

5 cm

E.M. ANOMALIES
SOIL - GEOCHEMISTRY
DIGHEM, Sn, G. E. N. I. E.

548082

SCALE: 1:5000	Survey: DGH/SM	Revised: 17.5.1983
Reference:	Date: 28.10.1982	Plot No.:
Drawn: Wk	Checked:	AO-527-0082