

FINANCIAL ASSISTANCE FOR MINERAL EXPLORATION (M.E.I.G.A.)

COMPANY: EXPLORATION VENTURES LTD

REF: AE 16

MRD 84/5/11

PROJECT: ALFORD

MRD 144/5/11

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- Extract from application 6.8.71. "Outline of proposed project including geological considerations work programme."
With accompanying plan of area, 1" : 4 miles
- Geological Report 9.8.71 to 31.12.71 with the following 4 enclosures, all 6" : 1 mile, CUSHNIE area, OS map no. Aberdeenshire LX1SE, LXXNE, LX11SW, LXX1NW
 1. Geology and air photographic features December 1972
 2. Apparent chargeability values. August/September 1971 (+ negative)
 3. Apparent resistivity values. August/September 1971 (+ negative)
 4. Vertical magnetic intensity November/December 1971 (+ negative)Technical Report for 1.1.72 to 31.12.72 with 3 enclosures:
 1. Location of HEM anomalies followed up by office or on the ground study. 1 : 63,360, 1972. Part of OS sheet 39.
 2. Tabulation of ground follow-up. 1972
 3. Profiles of EM tranverses over HEM anomalies 1 cm : 100' (Horiz) 1972. 13 sheets
- Technical Report for 1.1.73 to 31.12.73
- Four 6" : 1 mile maps Geochem. results of soil sampling Cu, Ni covering the following areas respectively:
NJ61SW; NJ61NW+NE; NJ51SW+SE; NJ51NW+NE (submitted with letter dated 27.11.73)
- *Part of letter 28.2.75 RE: HEM ground follow-up, enclosing table 16C, Sulphur: Metal ratios, and copper analyses

* Not at Keyworth

MINERAL EXPLORATION INCENTIVE SCHEME

APPLICATION

for assistance

1. Applicant Exploration Ventures Limited
Address 49 Moorgate, London EC2R 6BQ.
Telephone No. 01-606-1020
Contact Mr. R.B. Riley or Mr. M.J. Ly

2. Project title Alford.

3. Applicants' organisation & financial structure
Please see this Company's letter dated 6th August, 1971.

4. Outline of proposed project, including geological considerations (see plan attached)
This area is geologically underlain by a schist/migmatite environment with many small granite bosses which are being prospected for molybdenum, wolfram and tin.
There is also a distinctive aeromagnetic pattern which is higher than that normally associated with granites and migmatites. Basic float found in the area suggests that it is due to basic masses beneath the surface warranting search for Cu and Ni, Already intensive preliminary stream sediment sampling has been undertaken.

5. Work programme and costs of project
In the search for molybdenum reconnaissance stream sediment geochemistry yielded anomalous values which have since been followed up by infill stream sampling and a detailed soil survey. An extremely anomalous trend for Mo has been outlined in the Cushnie area and this will be tested thoroughly by further soil sampling, ground geophysics and geological mapping.
As a high aeromagnetic feature could have economic implications work has been directed towards explaining it. Ground magnetics, induced polarisation, soil geochemistry and geology will all be used.

Application for contributions under the Mineral
Exploration and Investment Grants Act 1972

Geological Report : Alford AE16

During the period 9th August to 31st December, 1971,
geological and geophysical surveys were carried out.

(i) Geology

A photo-geological study followed by float and outcrop mapping further investigated an area of anomalous molybdenum values in stream sediments and soils at Cushnie.

(ii) Geophysics

a) Induced Polarization.

A reconnaissance survey over the area of anomalous molybdenum soil values at Cushnie was carried out with Scintrex 25 watt time domain equipment using dipole-dipole arrays. Generally, low chargeability and high resistivity patterns were defined over the area of interest and no meaningful correlation with the soil anomalies was possible.

b) Ground Magnetometry.

A vertical force magnetic survey was read coincident with the I.P. coverage. This met with little success in defining areas of direct economic potential, but outlined points of structural interest.

Enclosures.

1. Geology and airphotographic features, Cushnie area
(Aberdeenshire LXISE, LXXNE, LXIISW, LXXINW)
2. Apparent chargeability values (milliseconds) Cushnie area.
(Aberdeenshire LXISE, LXXNE, LXIISW, LXXINW)
3. Apparent resistivity values (ohm metres) Cushnie area.
(Aberdeenshire LXISE, LXXNE, LXIISW, LXXINW)
4. Vertical magnetic intensity (gammas) Cushnie area.
(Aberdeenshire, LXISE, LXXNE, LXIISW, LXXINW)

Technical Report for the Period 1st January - 31st December, 1972.

During the period less field activity took place than originally estimated for in the Application for Assistance; most of the work undertaken being in the form of office studies of data already collected.

1. Geophysics

1.1. Ground Follow-up of Helicopter E.M. and Magnetics

Results obtained during a previous heliborne electromagnetic and magnetic survey were assessed and screened during an office study utilizing available air photographic cover and information from local authorities (on underground pipes, cables, etc.). This enabled the early elimination of many anomalies as directly attributable to cultural effects. The remainder were then screened by ground inspection and in several cases by ground electromagnetic traversing (see appended tabulation and profiles). At the end of this programme it was concluded that none of the remaining anomalies were of sufficient attraction to warrant further work by additional geological, geophysical or geochemical techniques.

Assessment of results from previous induced polarization and ground magnetic surveys indicated no targets worthy of detailed follow-up. The work programme outlined in the Application was not, therefore, pursued.

2. Geochemistry

No geochemical sampling was carried out during the period. The sum of [REDACTED] for assays listed below relates to work carried out in 1971, but only invoiced in 1972.

3. Special Projects

3.1. Soils Research Project

The data relating to this project were assessed and correlated prior to the final write-up. The results may be found in the final report submitted in October, 1973, which applies to most E.V.L. areas and time periods, including Alford in 1972.

4. Enclosures

- Fig.1. - Map showing location of H.E.M. anomalies followed up Sheet 39 (part of).
- Fig.2. - Tabulation of ground follow-up of H.E.M. anomalies.
- Fig.3. - Profiles of Ground E.M. Traverses over H.E.M. anomalies.

ALFORD DISTRICT - AE16

Technical Report for the Period 1st January - 31st December 1973

During this period two geochemical investigations were conducted in this district. Both formed part of wider regional assessment programmes.

1 Geochemistry

1.1 Multi-element Analyses (Fig. 1-3 Morven [REDACTED] [REDACTED] [REDACTED])

Sample of -80 mesh stream sediment material were selected on the basis of one sample per square kilometre and analysed spectrographically for fifteen elements:- Bi, Co, Cu, Cr, Pb, Mo, Ni, Ag, Sn, W, V, Zn, Zr, & Mn. Additionally, each sample was analysed for arsenic by atomic absorption methods. This work formed part of a regional investigation throughout most of the western part of E.V.L. aimed at checking for concentrations of hitherto unsuspected elements. Unfortunately, no concentrations of significance were revealed by the survey in this district. The relevant plan of results is included in the submission for Morven (Figs. 1-3). The raw data sheets and sample location plan are included in the [REDACTED]

1.2 Metal Sulphur Ratios (Fig. 1 - West Insch)

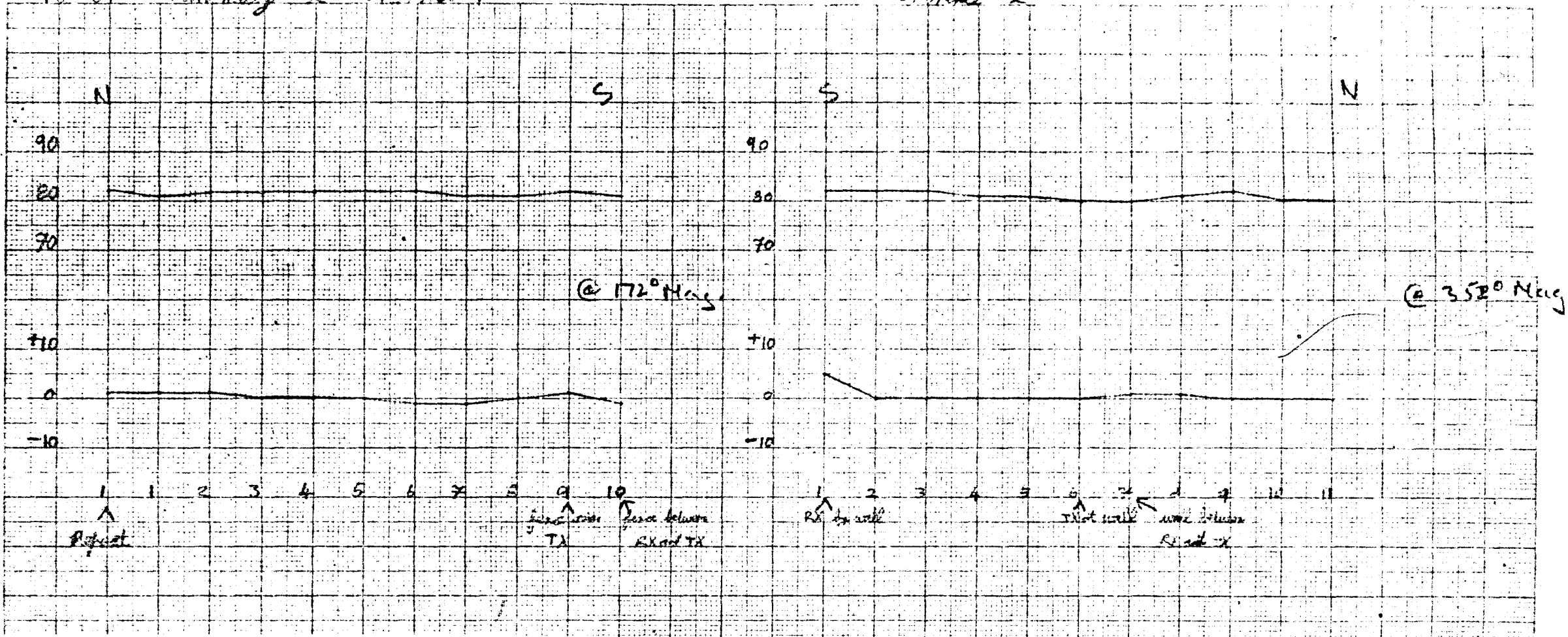
A float sample of sulphide-bearing uraltized gabbro was analysed for total Cu, Ni & S as part of a regional assessment of the Aberdeenshire and Banffshire basic complex. The results, which gave no encouragement for further work in this district, are included in the West Insch submission.

2. Soils Research Project

Statistical studies were conducted on material previously collected: data were collated and then written up. The results can be found in the final report submitted October 1973, which applies to most E.V.L. areas and time periods, including Alford 1973.

NJ 51 Anomaly 2 Traverse 1

Traverse 2

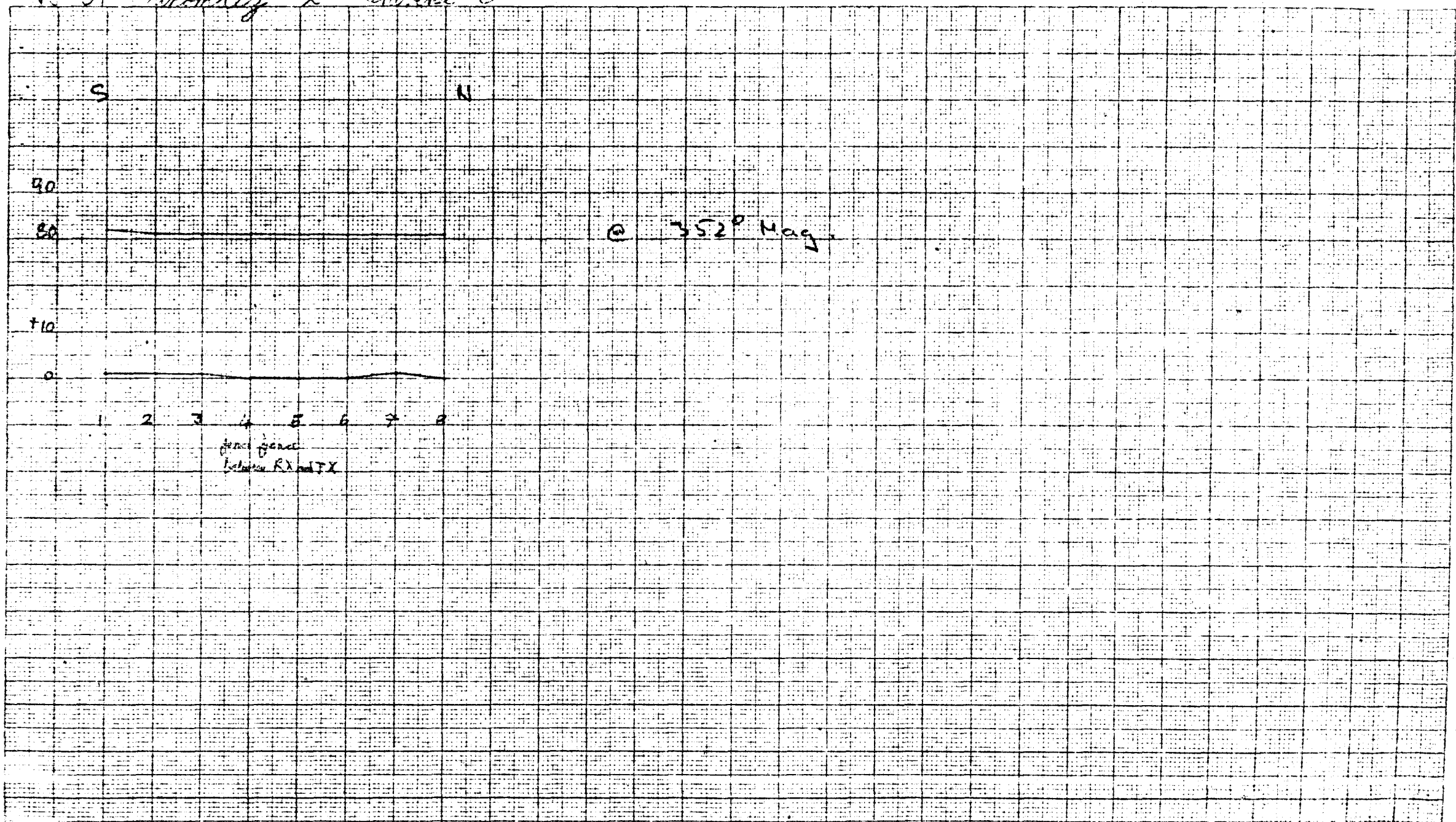


EXPLORATION VENTURES LIMITED	
Area: ALFORD	Drg. No.
Title: Profiles of ground. E.M. traverses over H.E.M. anomalies	
OS. Map No. —	
Scale: 1cm = 100' (Horiz)	Date: 1972
Prepared by: G.M.	Drawn by: G.W.

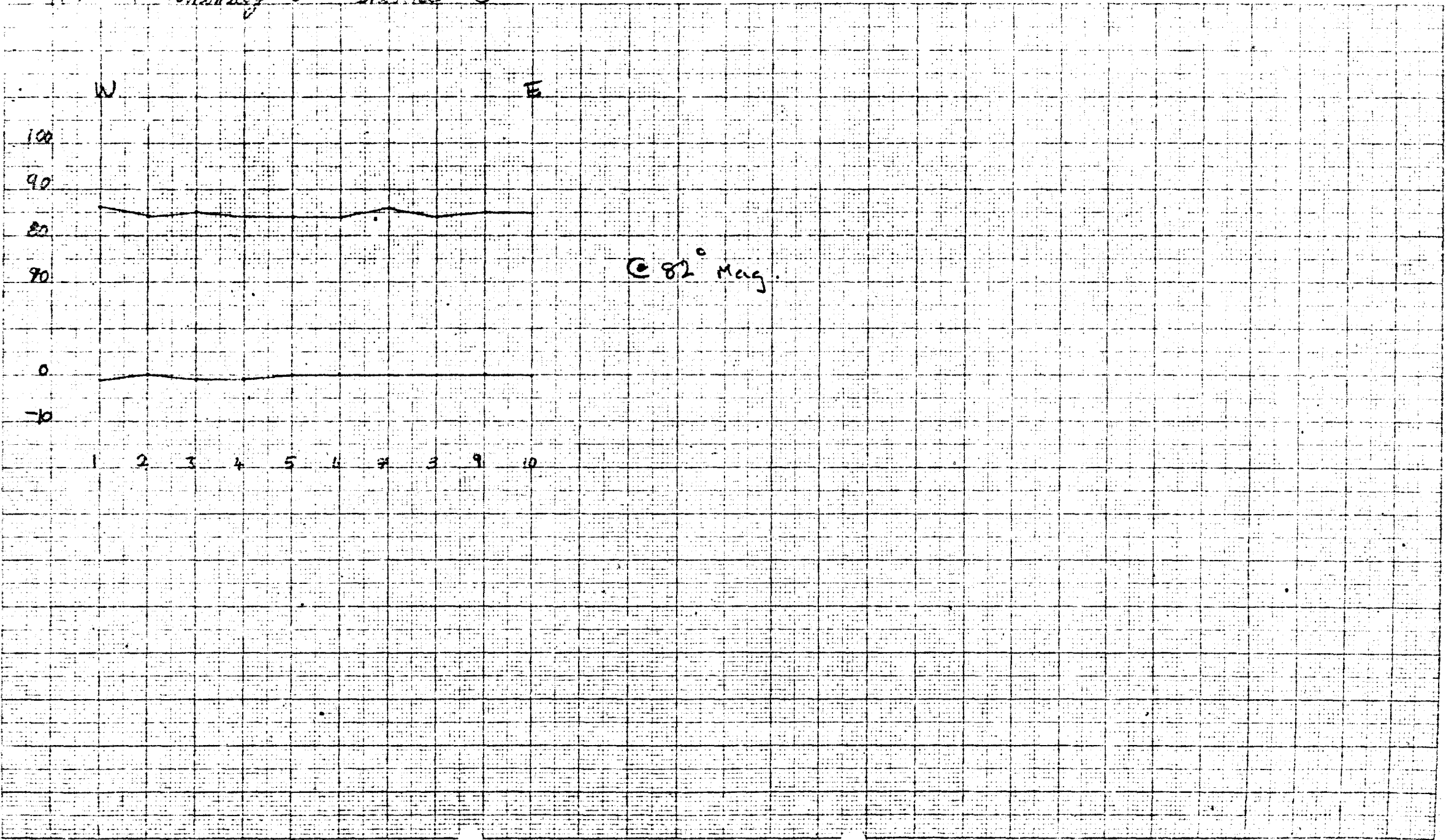
Separation 200'
 Line = 100'
 Traverse spacing 200'

V-51 Anomaly 2 Inverse 3

ANOMALY 365A



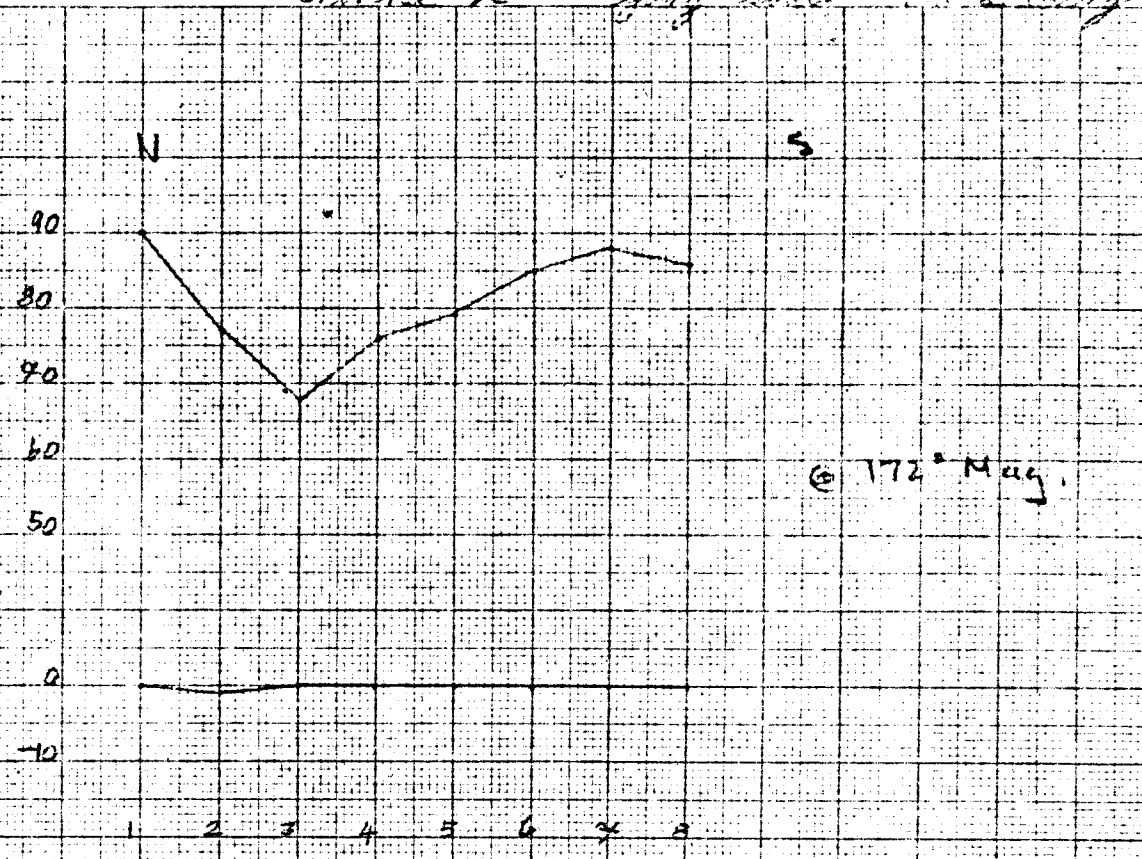
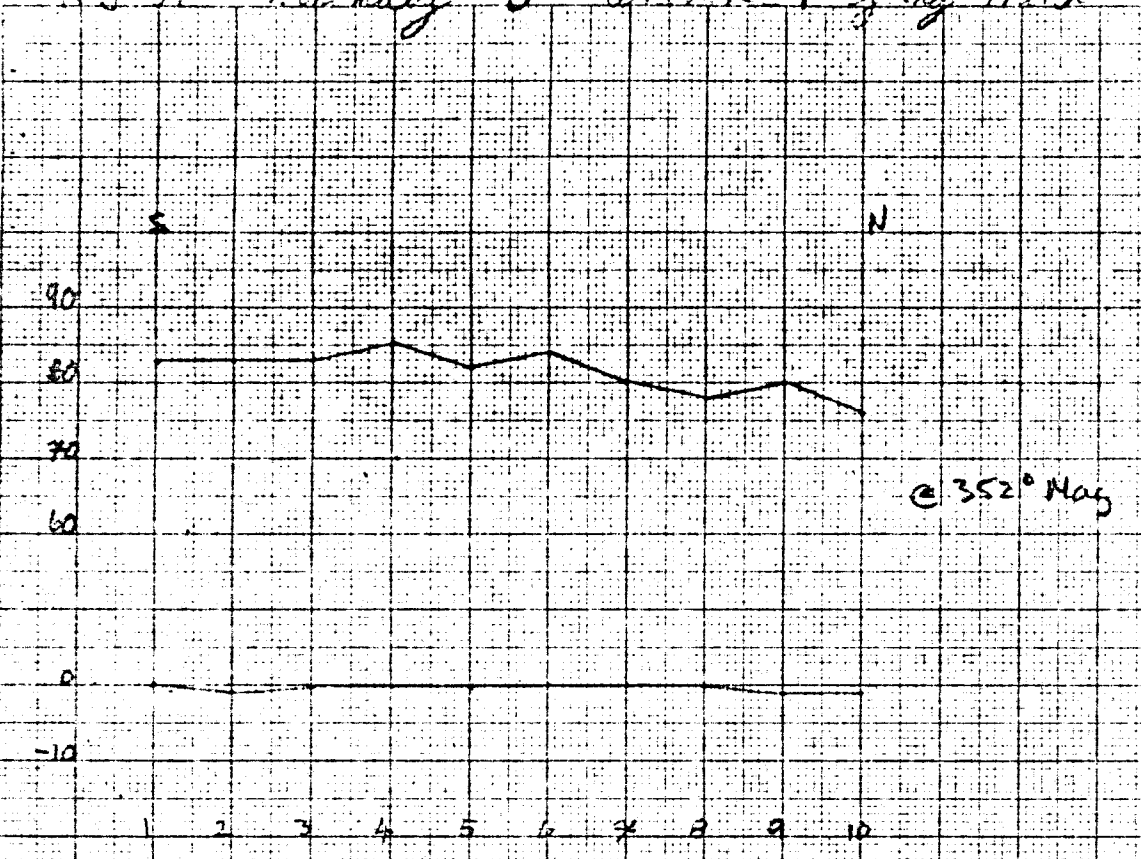
N 51 anomaly's Inverse 3



NJ 51 Anomaly 6 Traverse 1 Spring North

Traverse 2 Spring South E.S. Spring

v/p



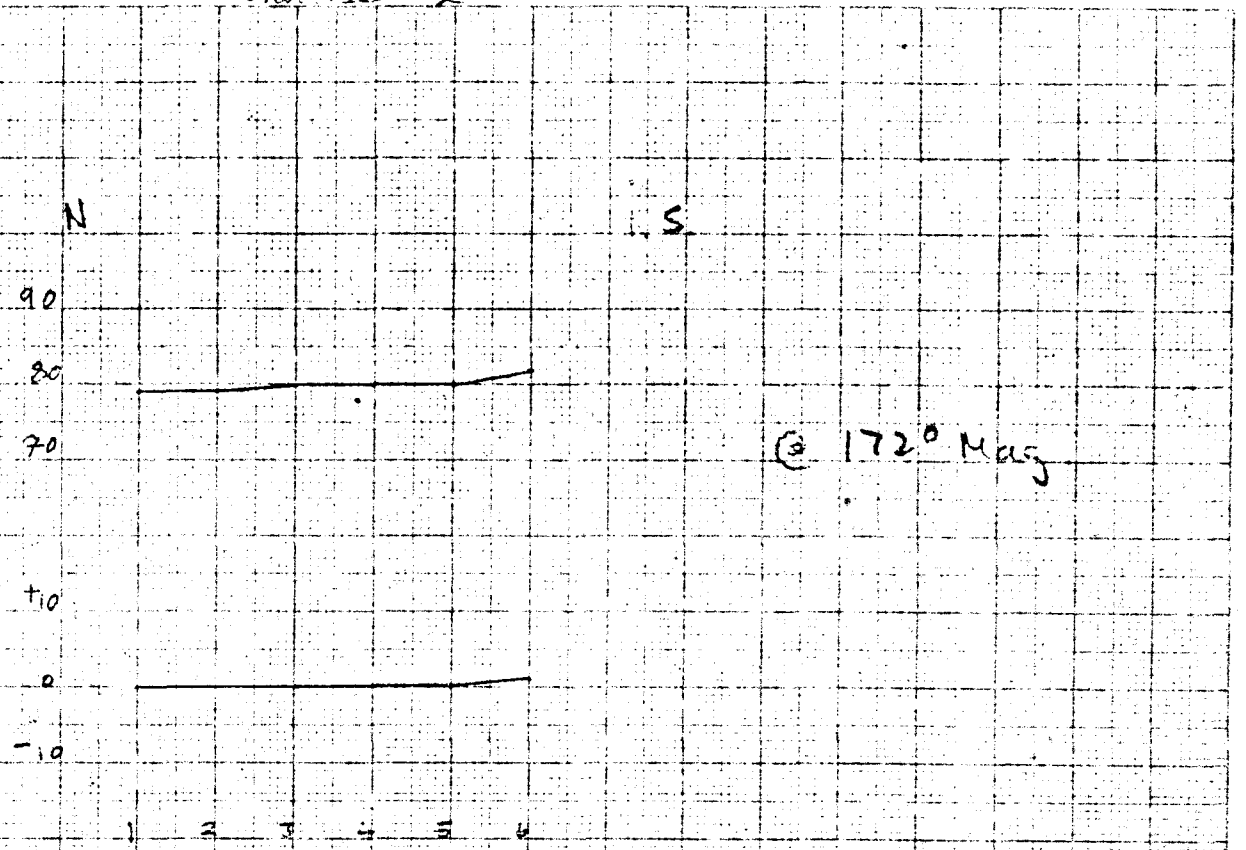
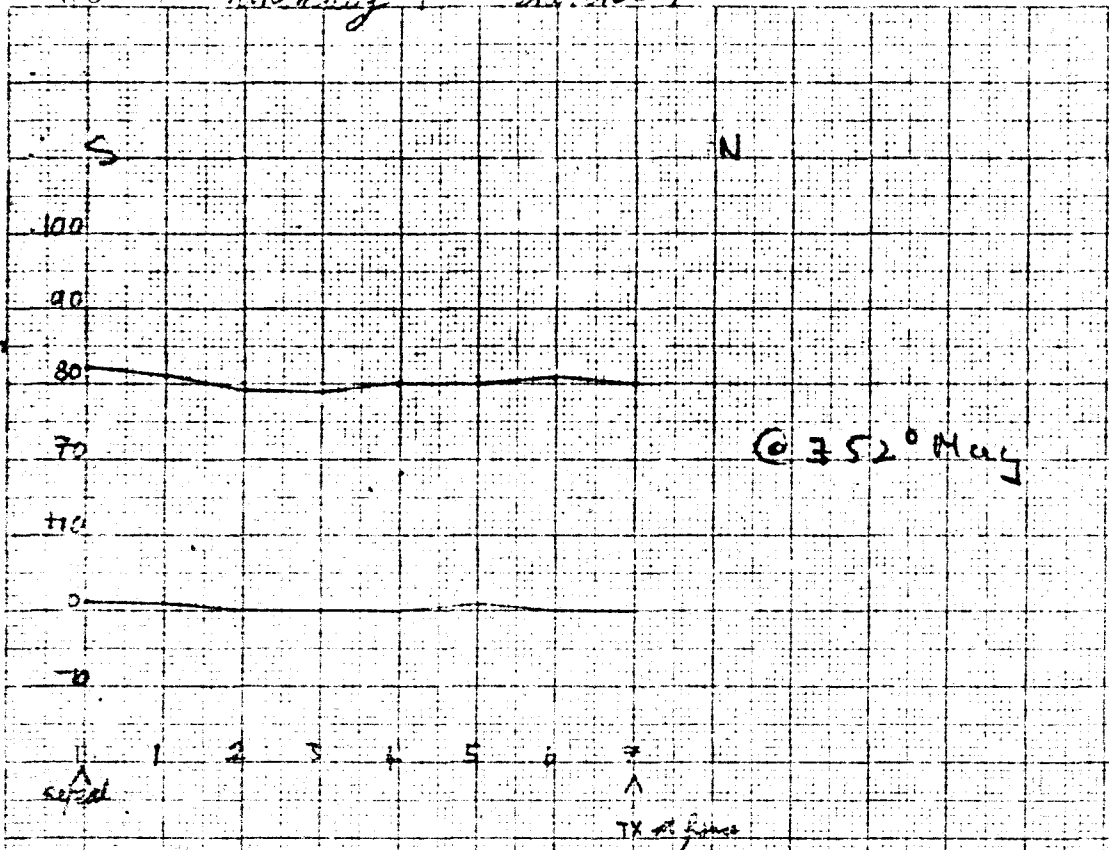
Separation 200'
 Scale 1cm = 700'
 Traverse spacing 200'

115 51 Accuracy 9 Traverse 1

Traverse 2

Accuracy 308 L

W/1

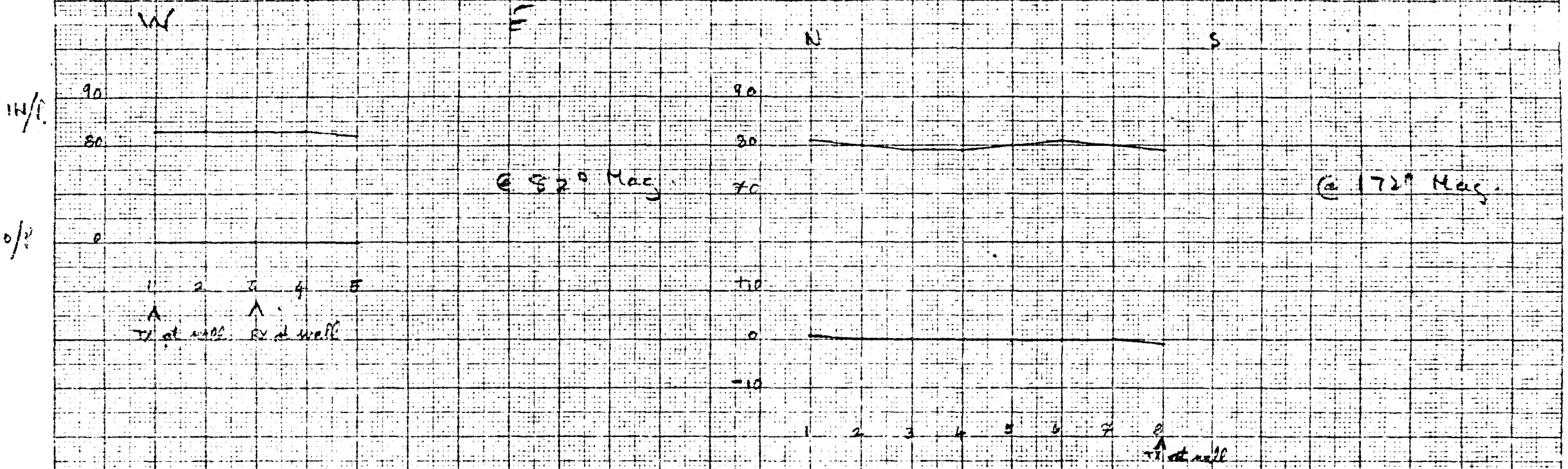


separation 300' (TX/Rx)
 1cm = 100'
 Traverse separation 300'

NJ 01 Gravity 9 Traverse 3

Traverse 4

ANOMALY 368 L

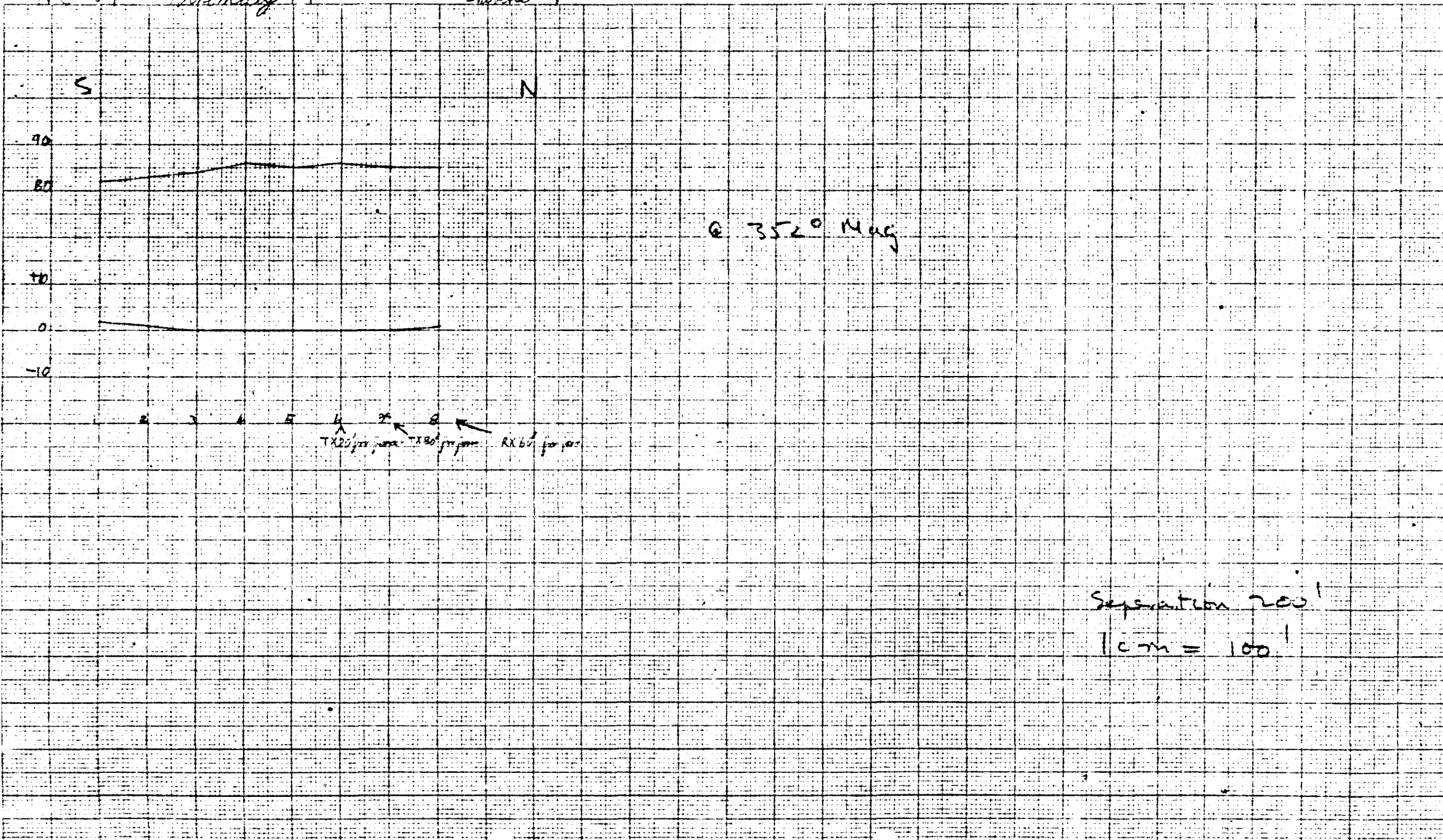


Separation 200' (Tx/Rx)
 Low = 100'
 Traverse separation 200'

NJ 51 Anomaly 19

Trace 1

ANOMALY 3755



E 3520 Mag

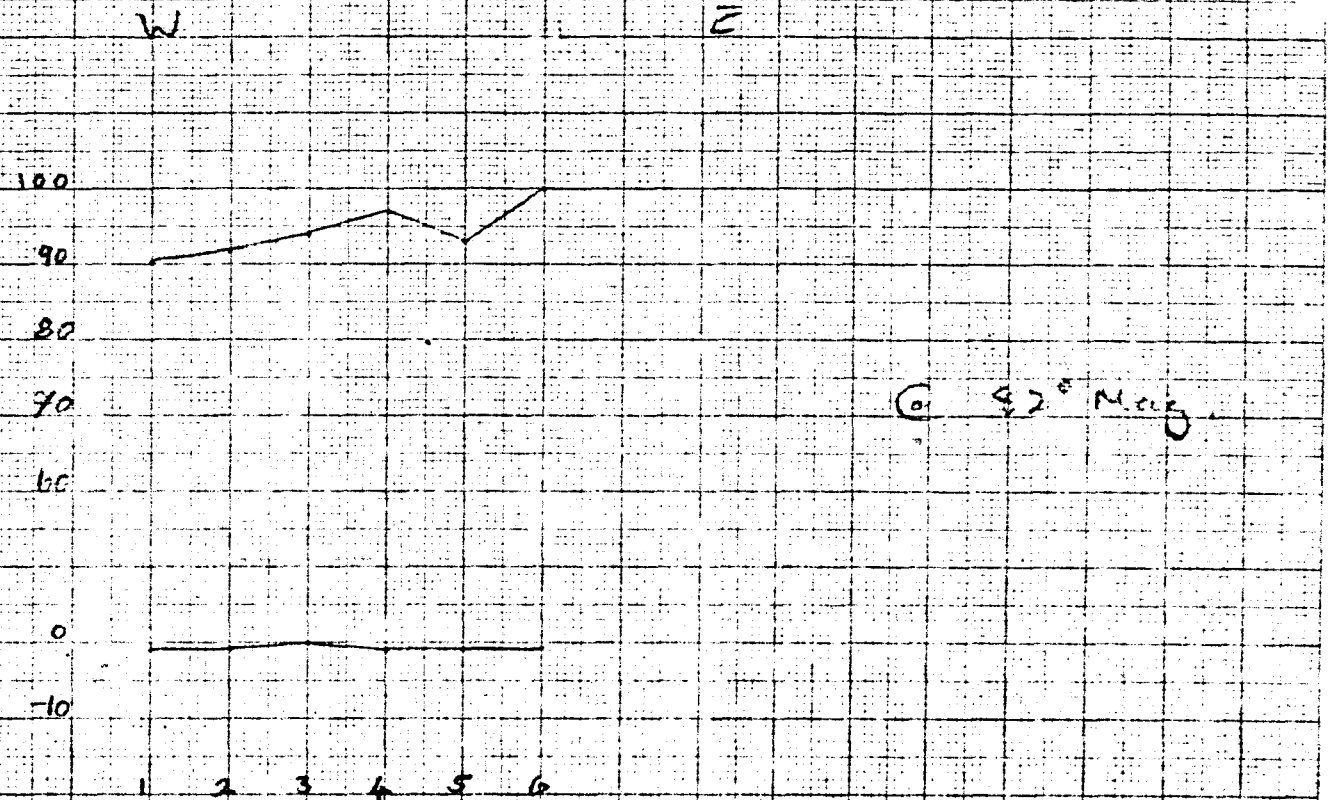
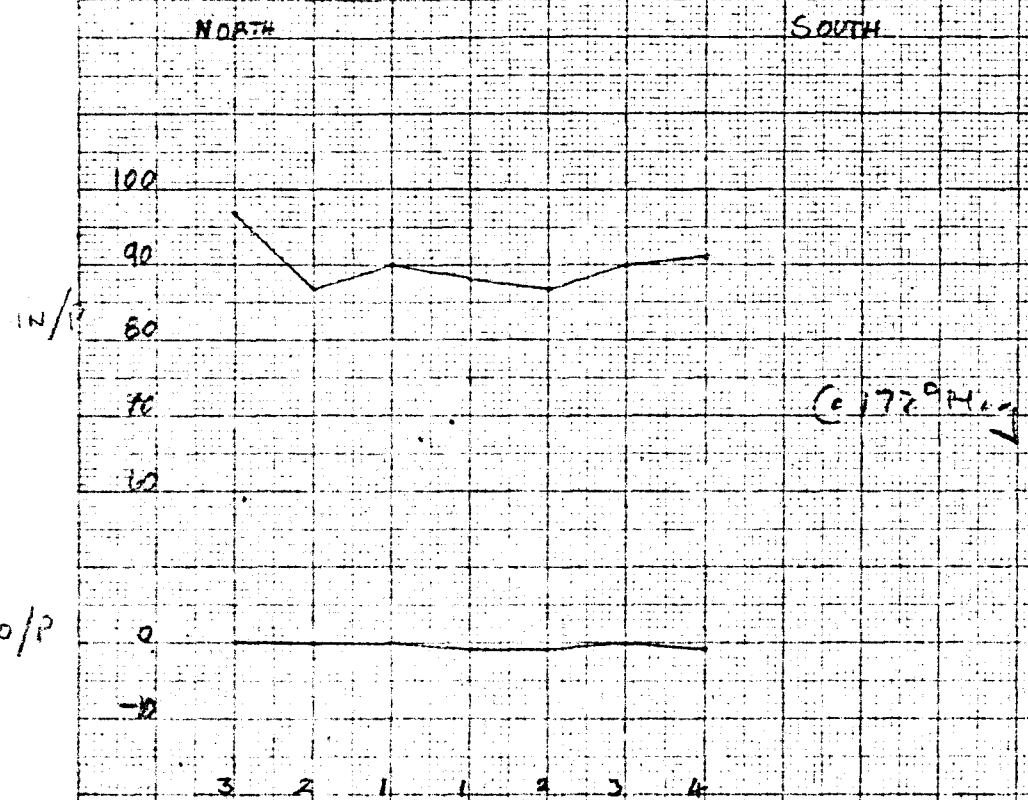
A TX 20
B TX 30
H RX 60

Separation 200'
1 cm = 100'

NI 51 Accuracy 30 Traverse 1

Traverse 2

ANOMALY 385A



Traverse separation 200'

NJ 51 Anomaly 31 Inverse 3

Inverse 4

ANOMALY 385 M

N

S

W

E

100

90

80

70

60

0

-10

1

2

3

4

5

6

100

90

80

70

60

0

-10

1

2

3

@ 262° Mag

@ 82° Mag

Transverse separation 200

N/P

O/P

NJ 51

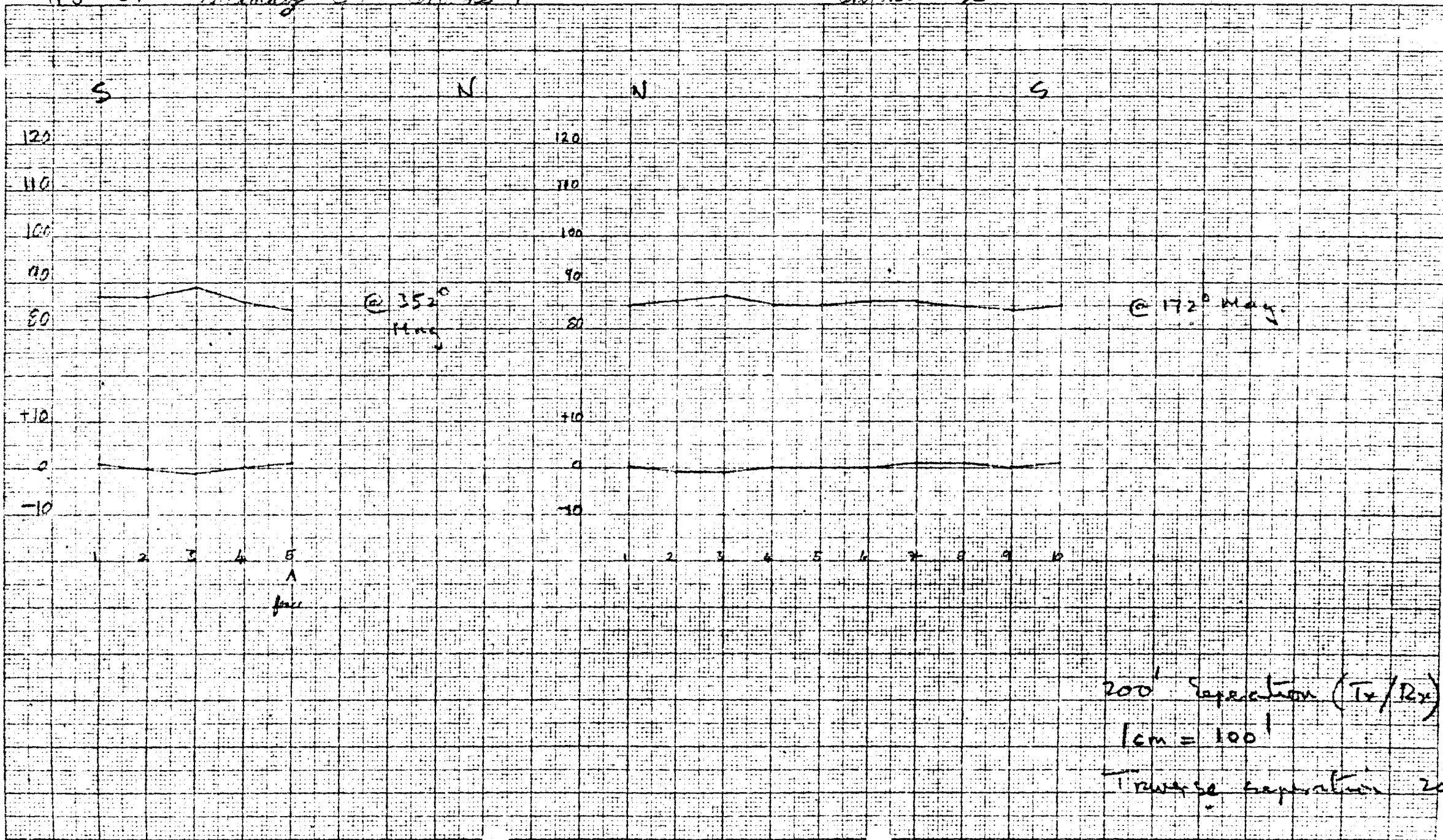
Acrony 37 Yverse 1

Yverse 2

ANCHALY 387 F

W/E

O/E



200' separation (Tx/Rx)

1cm = 100'

Transverse separation 200'

(ABEM GUN)

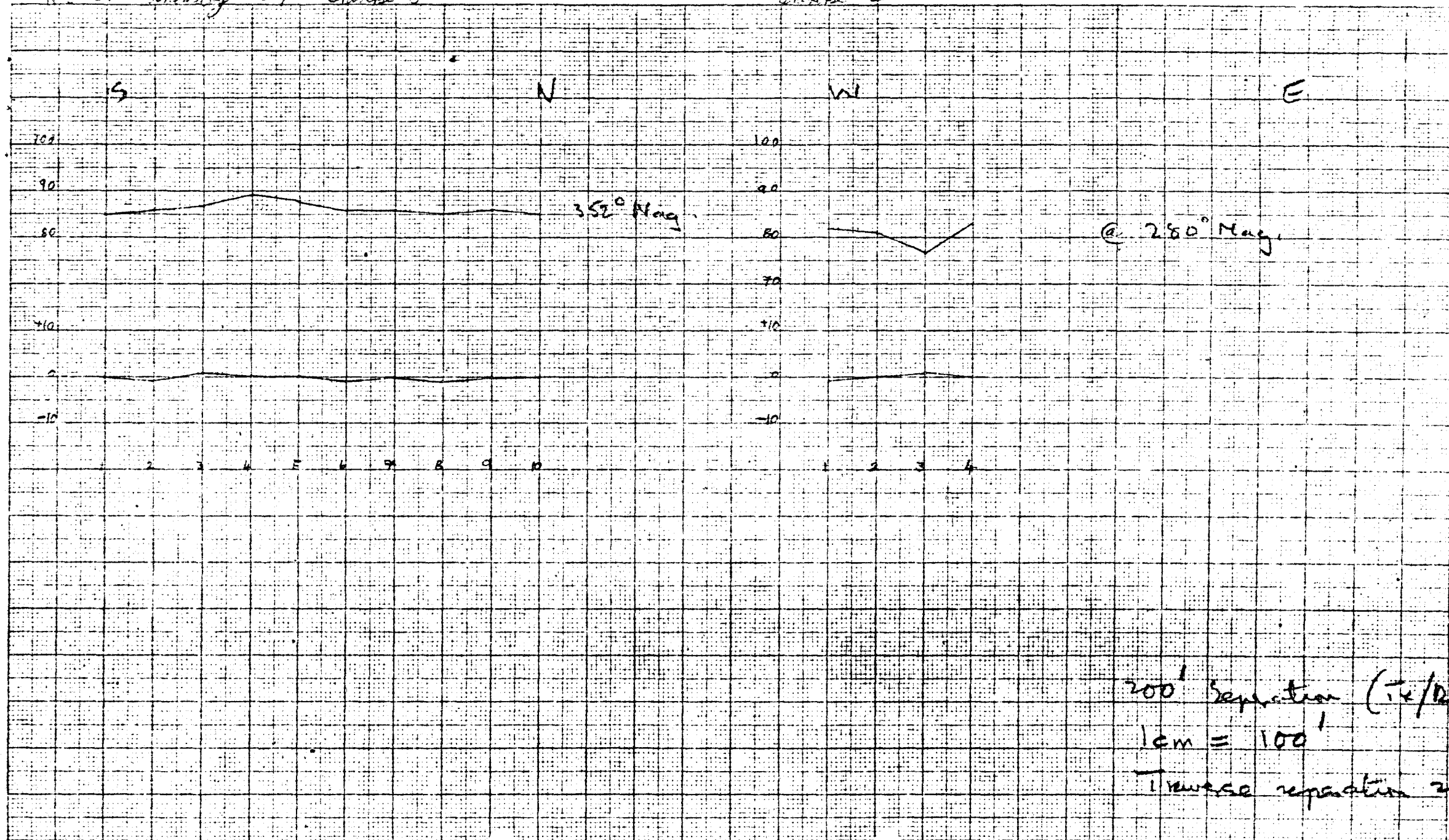
N T 51 Traces 37 ~ Trace 3

Trace 4

ANOMALY 387 F

N/P

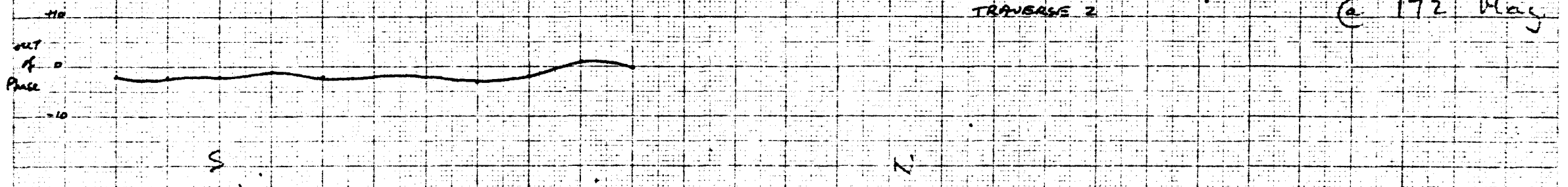
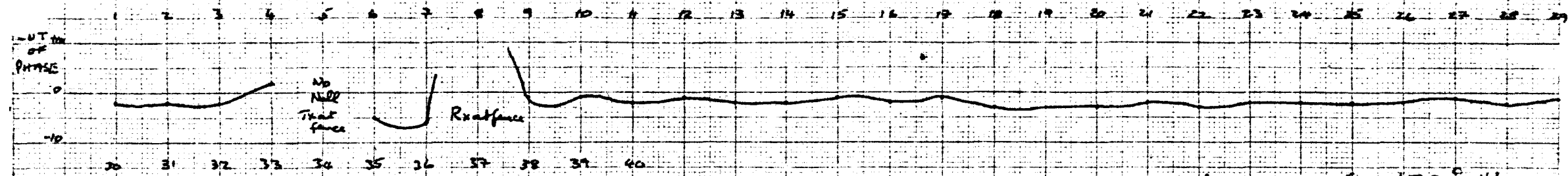
E/P



200' Separation (T_x/D_x)
 1cm = 100'
 Transverse separation 200'

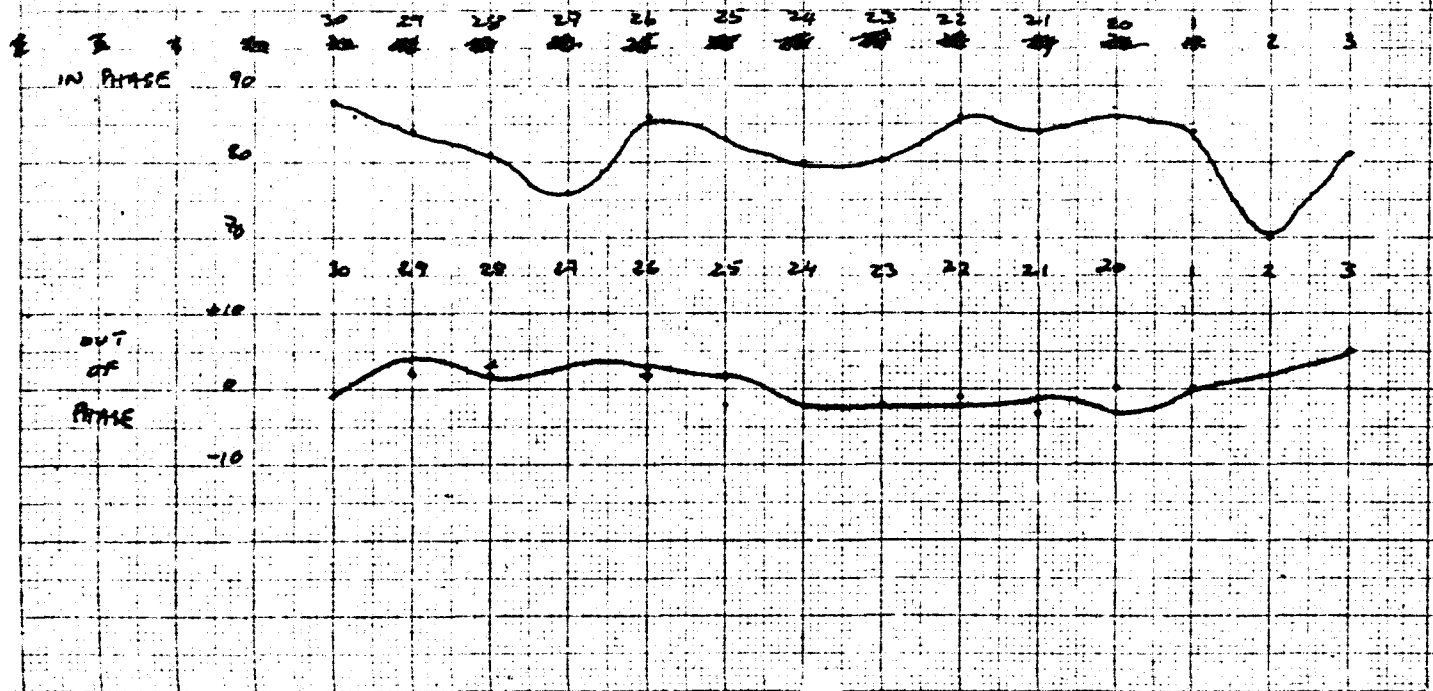
EM GUN

HEET NT 51 ANOMALY 37

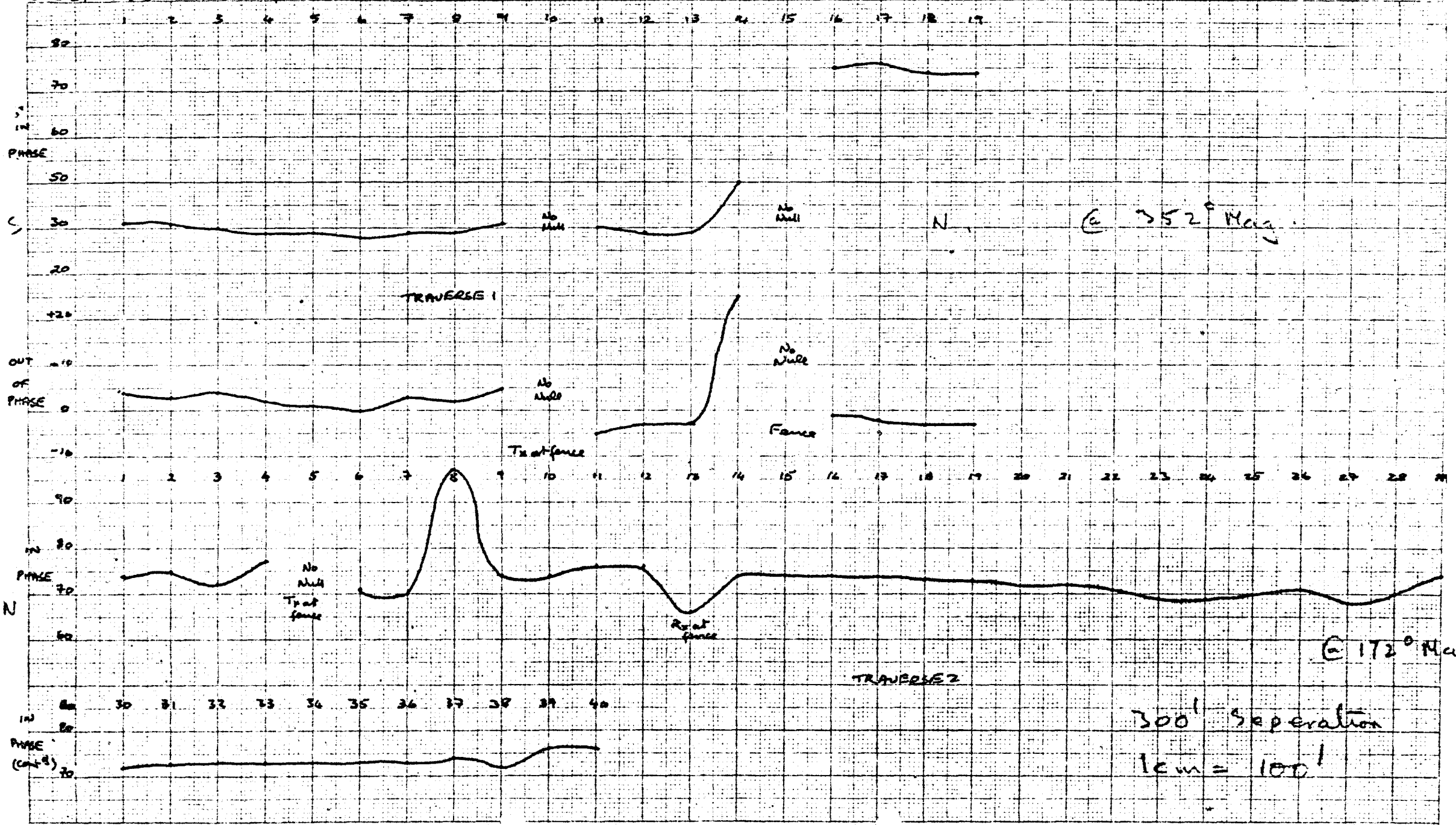


(a) 172° Mag

TRANSVERSE 2 NORTH EXTENSION



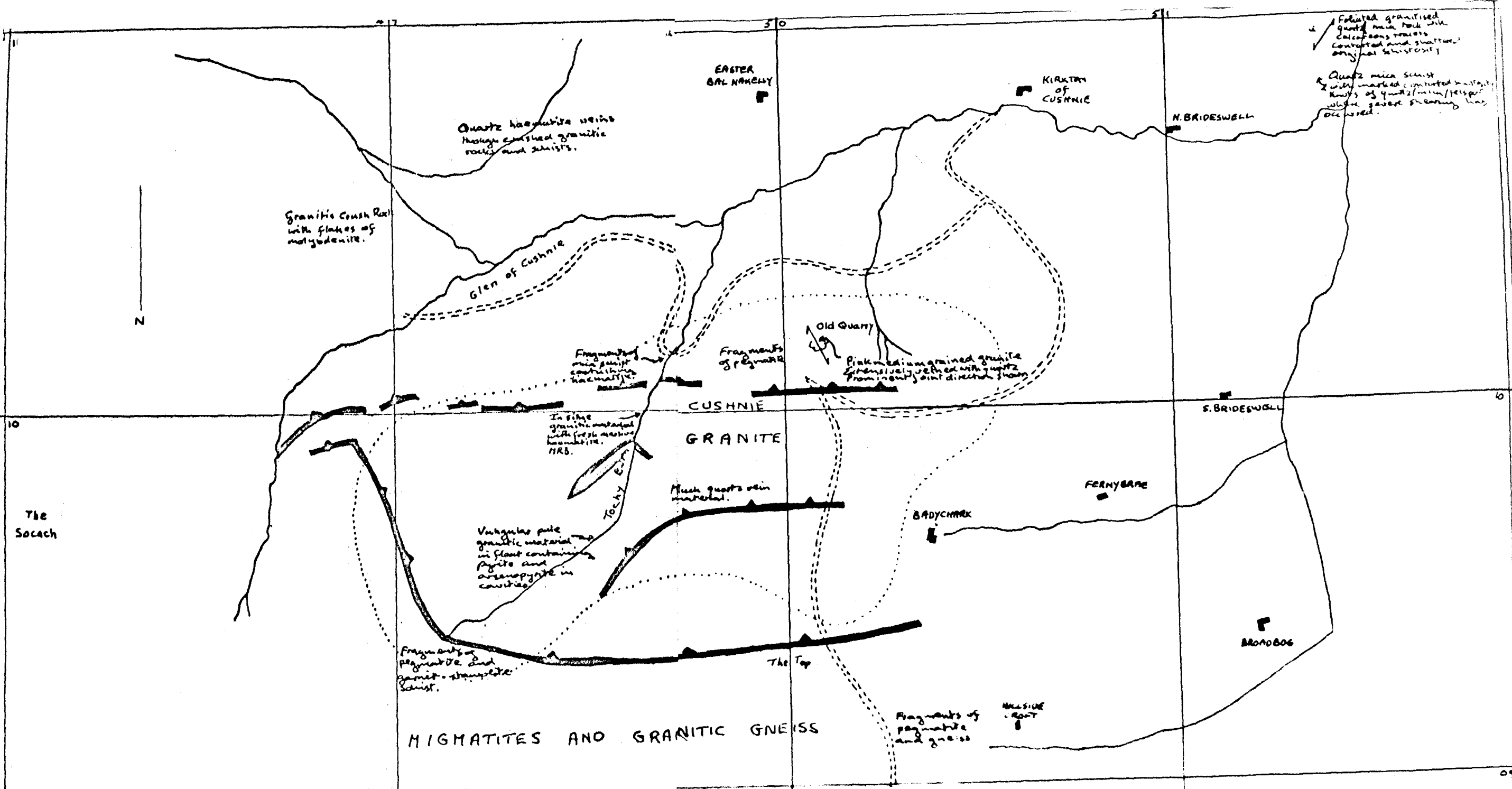
300' Separation
1cm = 100'



300' Separation
1cm = 100'

@ 172° Mag

@ 352° Mag



Foliated granitoid quartz mica rock with calcareous traces, contorted and shattered original schistosity.
 Quartz mica schist with marked contorted schistosity of quartz/mica/feldspar with great shearing lines observed.

Granitic Gneiss Rock with flakes of magnetite.

Quartz haematite veins through crushed granitic rocks and schists.

Glen of Cushnie

EASTER BALNAGULLY

KIRKTON OF CUSHNIE

N. BRIDESWELL

Old Quarry

Fragments of mica schist containing haematite

Fragments of gneiss

Pink medium grained granite irregularly veined with quartz from north-south directed flow

CUSHNIE

S. BRIDESWELL

In situ granitic material with fresh massive haematite. NRS.

GRANITE

Much quartz vein material.

FARNYBANE

The Socach

Various pale granitic material in float containing pyrite and arsenopyrite in cavities.

Tochy Burn

BADYCHMAK

Fragments of pyrite and garnet-staurolite schist.

The Top

MIGMATITES AND GRANITIC GNEISS

Fragments of pyrite and gneiss

MALISIE ROSE

MONOBOG

Presbendye

KEY:
 - - - - Tracks
 - - - - Prominent features on air photographs
 - - - - Geological boundary - based on F.O.S. geological sheet

EXPLORATION VENTURES LIMITED	
AFFORD AREA Area: (CUSHNIE FOREST)	Drg. No. 1
Title: GEOLOGY AND AIR PHOTOGRAPH FEATURES	
O.S. Map No. Aberdeenshire (County Series) Quarter sheets LXI SE; LXX NE; LXII SW; LXXI NW	
Scale: 6 inches to 1 mile	Date: DECEMBER 1972
Prepared by: G.P.R.	Drawn by: G.P.R.

RESULTS OF GROUND FOLLOW-UP OF H.E.M. ANOMALIES - AREA 4 OUTSIDE COVER JULY 72 (2)

Count code correlates with well map.

AE16 1972

FLIGHT LINE No. BENCH MARK ANOMALY No.	SIDING	LAND SITUATION	N.E. 111 PRASE	COUNT		CORRELATION	H.E.M. RESPONSE			50HZ MONITOR	POSSIBLE CAUSE	
				IN	OUT		1	2	3		FROM F.M. MAPS	VISIBLE ON GROUND
✓ 353A	4409		15	0	200'						No obvious source on film or overlay	Possibly a fence
✓ 353C	4213	KEEP OFF	10	0	450'						as above, 353A	
✓ 360A	5948		18	5	360'						No definite source on film or overlay ?? Fenced all over	Grounded wire mesh fence alongside back
✓ 360B	7033		14	6	560'						as 360A above	Probably terrain. On boundary of wood
✓ 365A	2106		16	6	440'	✓	No response				No obvious source on film or overlay	Wire fence. E.H. ground. No response
✓ 365C	2452	KEEP OFF	17	6	400'						as 365A above	
✓ 366A	2449		16	0	500'						ambiguity with veg change, possibly a fence or possible machine on location clear	100' from farm and metal junk
✓ 367A	1721		26	0	540'						as above, but no notable change in terrain	Power line on wire mesh fence
✓ 367B	1813		23	0	420'	✓	No response				as 367A	On slope. RFA active 100' westward from NE of top of
✓ 368G	4316	LITTLEWOOD ESTATE KEEP OFF	10	0	300'						Broad anomaly with no obvious correlation source, possibly to E. of station	
✓ 368L	4738		-14	-8	460'	✓	No response				ambiguity. No mag or RFA work	Grounded wire mesh fence on site. No RFA
✓ 370N	0823	LITTLEWOOD ESTATE KEEP OFF	15	0	600'					50HZ	20' includes work, veg, change on film. No obvious source on film or overlay	
✓ 371B	4994		16	0	400'						45 340V 11KV power line on overlay	10KV power line. Grounded wire
✓ 371E	5345	LITTLEWOOD ESTATE KEEP OFF	15	0	280'					50HZ	50HZ possibly equally exposed at anomaly peak. No obvious source on film or overlay	
✓ 372D	3646		-26	-8	200'						No mag or RFA work. Prominent fence on film	Road & Power line
✓ 373I	1859	LITTLEWOOD ESTATE KEEP OFF	15	0	500'						No obvious source on film or overlay	
✓ 374A	4216		18	10	400'						No obvious source on film or overlay. No source for anomaly of this magnitude visible on film	Outcrop at edge of wood
✓ 375J	3642		18	0	240'	✓					No obvious source on film or overlay. Inconspicuously elevated conductors	Possibly power line
✓ 376C	5444	LITTLEWOOD ESTATE KEEP OFF	29	7	480'					50HZ	Octave, no obvious source on film or overlay	
✓ 376D	5829	LITTLEWOOD	24	0	480'						P/k N/B on overlay, no correlation. Coincides with veg change (possibly plantation)	
✓ 376E	5843	LITTLEWOOD	12	8	280'					50HZ	Octave. No obvious source on film or overlay. 11KV P/k N/B on overlay	
✓ 382D	0352	LITTLEWOOD ESTATE KEEP OFF	-36	-24	280'					100%	Very unusual in that no correlation with mag is simple isolated anomaly	
✓ 384C	3605	LITTLEWOOD ESTATE KEEP OFF	-12	34	360'					50%	Note mag or RFA work. Correlation	
✓ 384F	3007	MAINS OF RHYNIS KEEP OFF	-8	30	900'					Some activity	overburden effect along valley	
✓ 385A	1006		18	0	660'	✓	No response				No obvious source on film or overlay	Top of 200' incline. Terrain anomaly
✓ 385C	2550	ARBUICART	8	25	440'						Looks artificial, but no obvious source on film or overlay	
✓ 387E	2910		-20	-20	200'						Severe edge of 200' anomaly. Correlation 11KV P/k on overlay	Power line
✓ 387F	3103		-14	-8	200'	✓	No response				ambiguity. No obvious source on film or overlay	Terrain anomaly
✓ 387H	3155		12	0	440'						No obvious source on film or overlay	Possibly terrain
✓ 388F	5045	LITTLEWOOD ESTATE KEEP OFF	-36	20	230'					50HZ	ambiguity. No obvious source on film or overlay	
✓ 388G	5106		-16	-8	600'						No obvious source on film or overlay	Terrain anomaly
✓ 389B	3645		-2	5	260'						No obvious source on film or overlay	
✓ 389C	3215		4	5	440'						No obvious source on film or overlay	Fence
✓ 391B	5542		15	-15	120'					300%	Note RFA correlation	Height 60'. Note of terrain anomaly
471B	1106	NO COVER			150'						Minor field boundaries. HEM trace much disturbed	Field boundary

EXPLORATION VENTURES LIMITED

2

Area: ALFORD

Drq. No

Title: Tabulation of Ground Follow-up of H.E.M. anomalies

O.S. Map No.

Scale:

Date: 1972

Prepared by: GPR

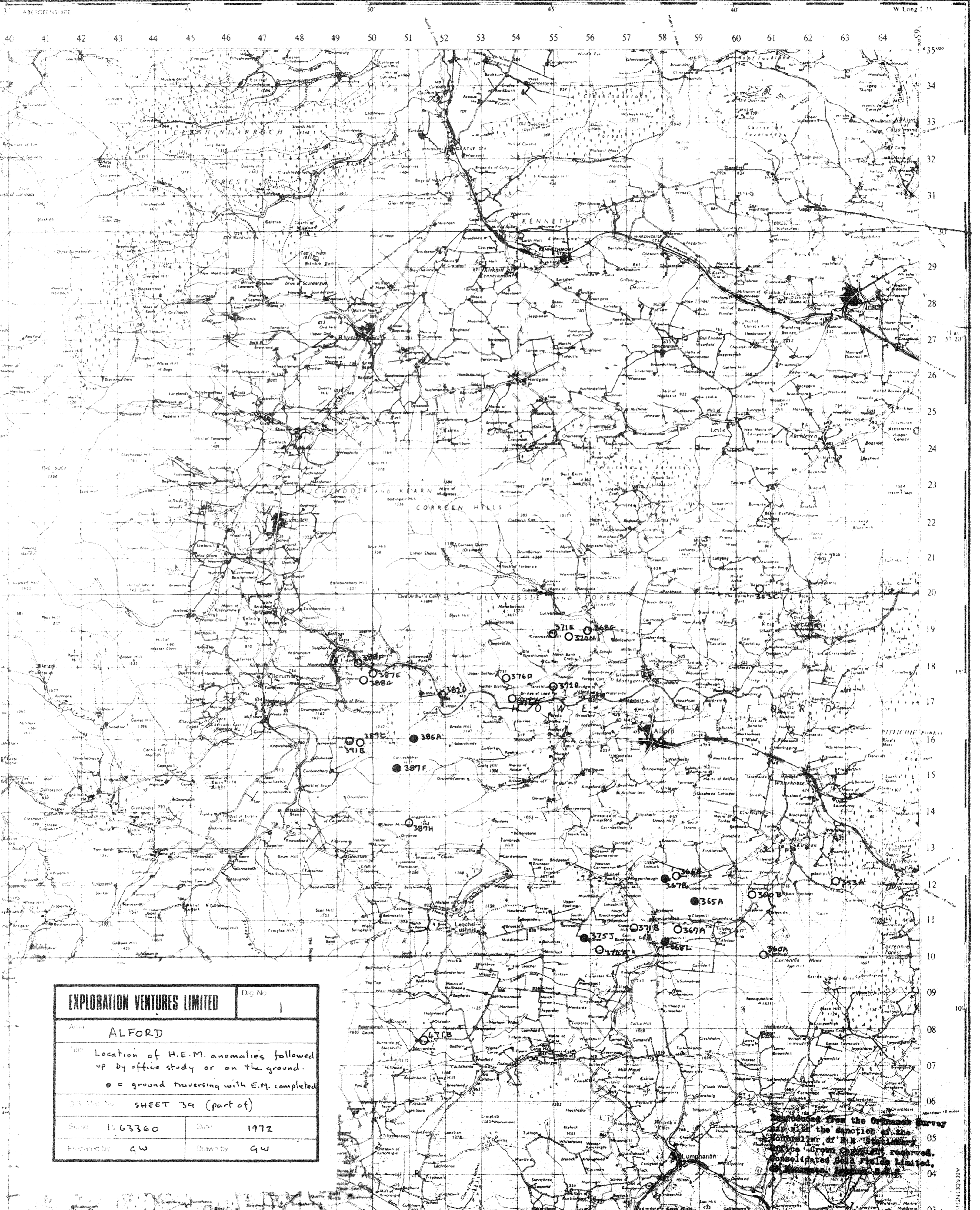
Drawn by: GPR

13

12

760	755	750	745	740	735	730	725	720	715	710	705	700	695	690	685	680	675	670	665	660	655	650	645	640	635	630	625	620	615	610	605	600	595	590	585	580	575	570	565	560	555	550	545	540	535	530	525	520	515	510	505	500	495	490	485	480	475	470	465	460	455	450	445	440	435	430	425	420	415	410	405	400	395	390	385	380	375	370	365	360	355	350	345	340	335	330	325	320	315	310	305	300	295	290	285	280	275	270	265	260	255	250	245	240	235	230	225	220	215	210	205	200	195	190	185	180	175	170	165	160	155	150	145	140	135	130	125	120	115	110	105	100	95	90	85	80	75	70	65	60	55	50	45	40	35	30	25	20	15	10	5	0	-5	-10	-15	-20	-25	-30	-35	-40	-45	-50	-55	-60	-65	-70	-75	-80	-85	-90	-95	-100	-105	-110	-115	-120	-125	-130	-135	-140	-145	-150	-155	-160	-165	-170	-175	-180	-185	-190	-195	-200	-205	-210	-215	-220	-225	-230	-235	-240	-245	-250	-255	-260	-265	-270	-275	-280	-285	-290	-295	-300	-305	-310	-315	-320	-325	-330	-335	-340	-345	-350	-355	-360	-365	-370	-375	-380	-385	-390	-395	-400	-405	-410	-415	-420	-425	-430	-435	-440	-445	-450	-455	-460	-465	-470	-475	-480	-485	-490	-495	-500	-505	-510	-515	-520	-525	-530	-535	-540	-545	-550	-555	-560	-565	-570	-575	-580	-585	-590	-595	-600	-605	-610	-615	-620	-625	-630	-635	-640	-645	-650	-655	-660	-665	-670	-675	-680	-685	-690	-695	-700	-705	-710	-715	-720	-725	-730	-735	-740	-745	-750	-755	-760	-765	-770	-775	-780	-785	-790	-795	-800	-805	-810	-815	-820	-825	-830	-835	-840	-845	-850	-855	-860	-865	-870	-875	-880	-885	-890	-895	-900	-905	-910	-915	-920	-925	-930	-935	-940	-945	-950	-955	-960	-965	-970	-975	-980	-985	-990	-995	-1000
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EXPLORATION VENTURES LIMITED	
Area: ALFORD (Cushwa)	Diag No: 4
Title: VERTICAL MAGNETIC INTENSITY (Gamma)	
O.S. Map No: 10000	
Scale: 6 inches to 1 mile Date: 1974	
Prepared by: G.R.	Drawn by: C.C.



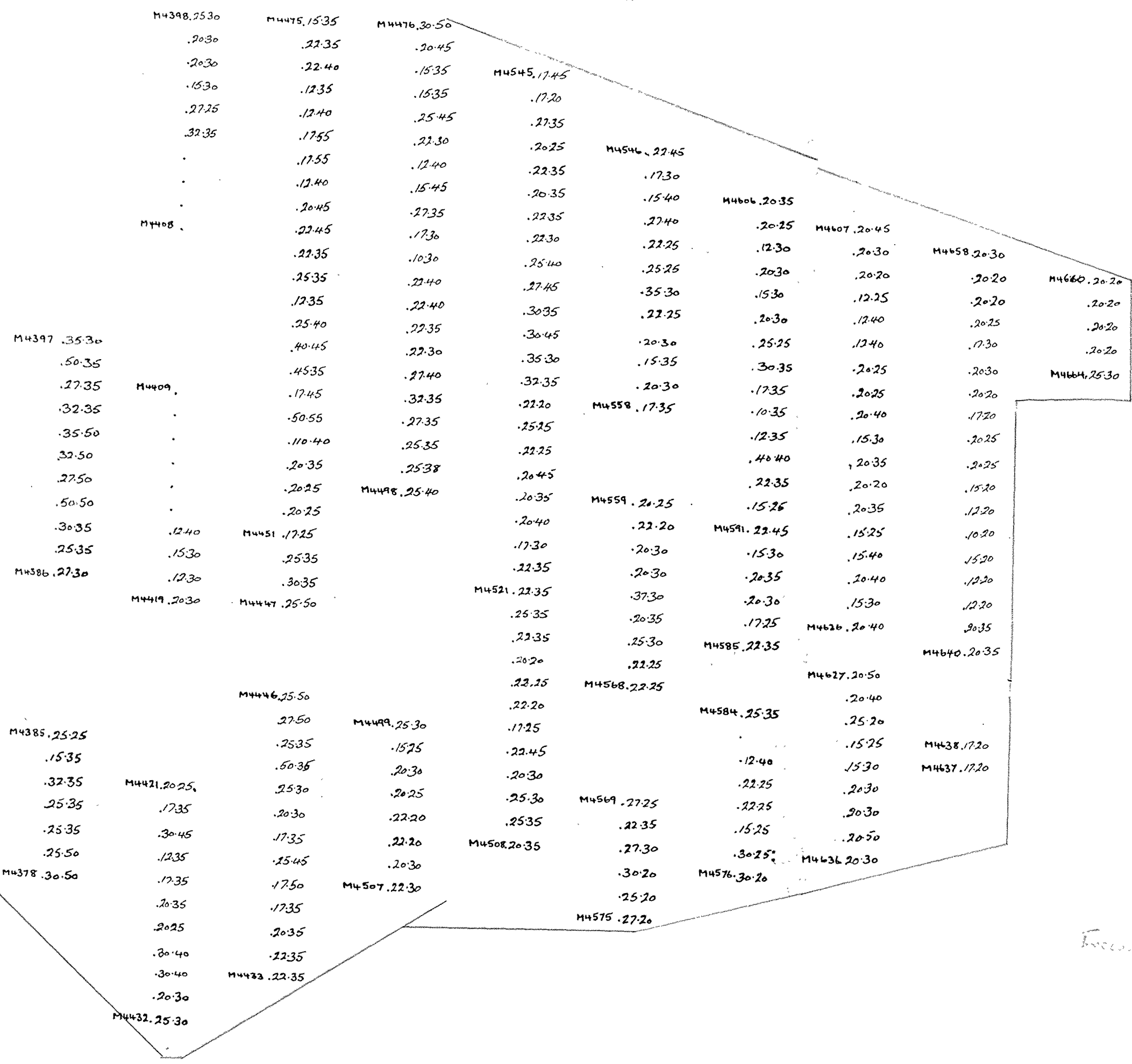
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Area		1
Name		ALFORD
Title		
Location of H.E.M. anomalies followed up by office study or on the ground.		
● = ground traversing with E.M. completed		
OS Map No. SHEET 39 (part of)		
Scale	1:63360	Date
Prepared by	GW	Drawn by
		GW

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 Consolidated Oil Fields Limited,
 25, Abchurch Lane, London, E.C. 4A.

			M4842 .15 ³⁰	
		M4793 .2040	.1730	M4843 .1725
		M4744 .2545	M4840 .1530	.2230
			.2240	.2020
			.2740	.2215
			.1730	M4847 .2530
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			.2030	
			.1730	
		M4795 .1520	M4832 .2040	
		.2025		
		.1220		
		.1220		
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M4705 .2530				

EXPLORATION VENTURES LIMITED		Dr. No.
Area	ALFORD	
Title	Geochemical Soil Values in p.p.m. for Cu, Ni	
OS Map No.	NJ G1 NW NE	
Scale	1:10560	Date 1971
Prepared by	SM	Drawn by SM

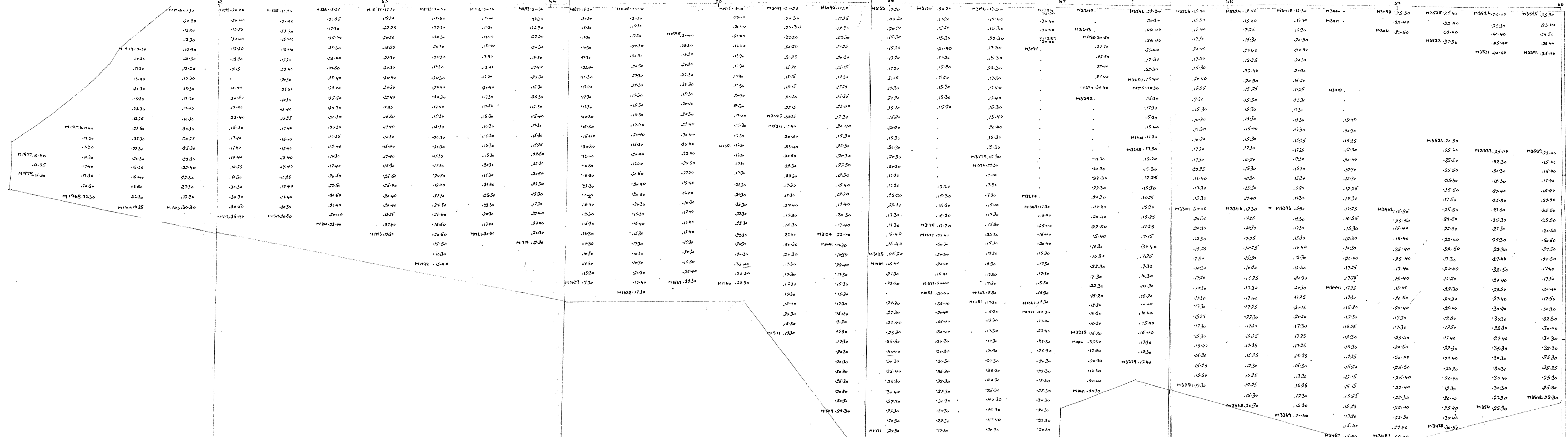
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Excavated by [unclear] 1971

EXPLORATION VENTURES LIMITED		Drg No
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Title: Geochemical Soil Values in p.p.m. for Cu, Ni		
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Prepared by: SM	Drawn by: SM	

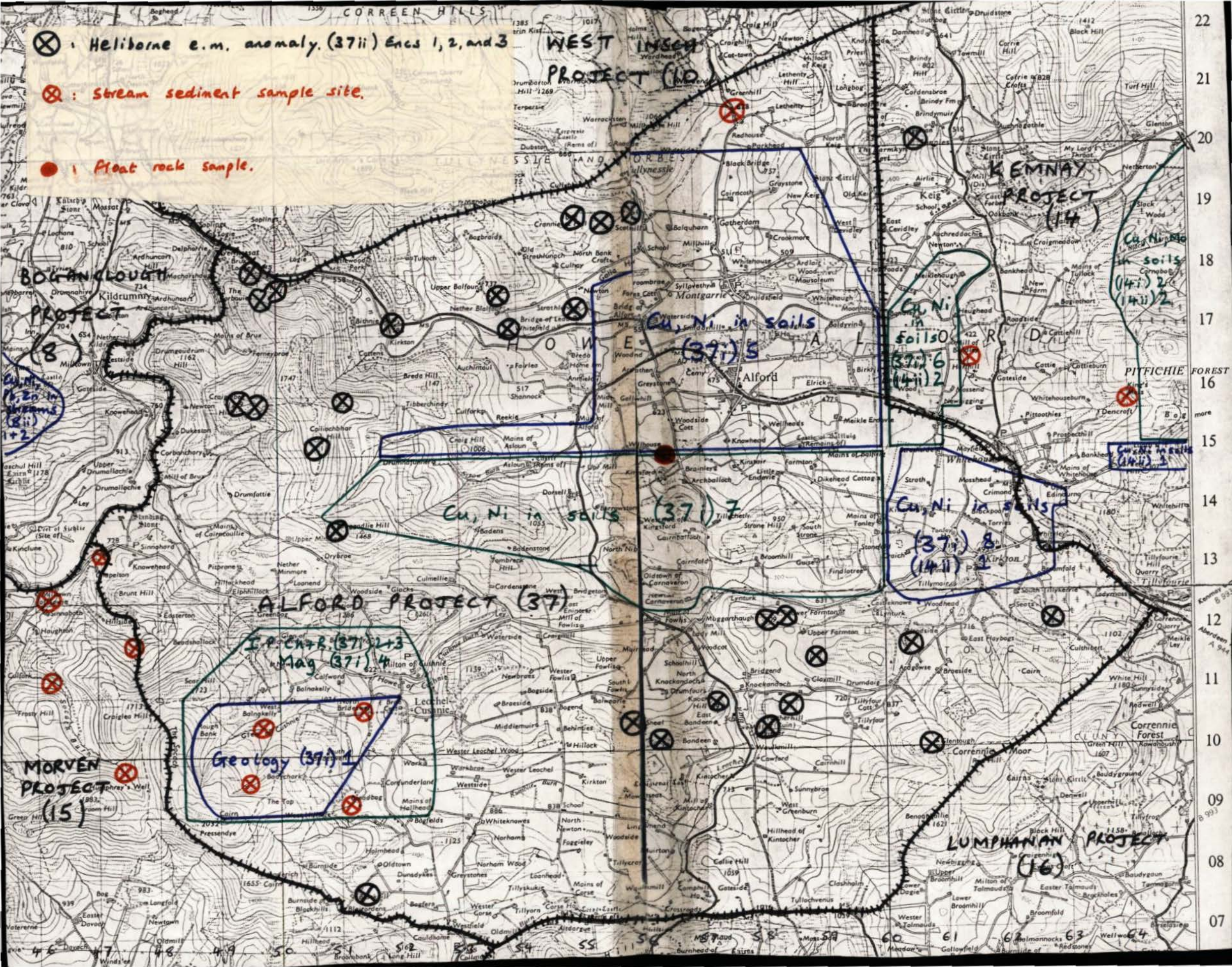
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Title:	Geochemical Soil Values in p.p.m. for Cu, Ni	
O.S. Map No.	NJ 51SW SE	1971
Scale:	1:10560	Date:
Prepared by:	SM	Drawn by:



⊗ : Heliborne e.m. anomaly. (37ii) Encs 1, 2, and 3

⊗ : Stream sediment sample site.

● : Flat rock sample.



WEST INSCOR PROJECT (NO)

BOGAN CLOUGH PROJECT (8)

ALFORD PROJECT (37)

MORVEN PROJECT (15)

LUMPHANAN PROJECT (16)

Geology (37i) 1

I.P. CH + R. (37i) 2+3
Mag (37i) 4

Cu, Ni in soils (37i) 7

Cu, Ni in soils (37i) 5

Cu, Ni in soils (37i) 6
(14ii) 2

Cu, Ni in soils (37i) 8
(14ii) 1

Cu, Ni in soils (14i) 2
(14ii) 2

Cu, Ni in soils (14ii) 3

Cu, Ni in soils (14ii) 4

Cu, Ni in soils (14ii) 5

Cu, Ni in soils (14ii) 6

Cu, Ni in soils (14ii) 7

22
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Dr G R Chapman
Institute of Geological Sciences
Ex. Road
London SW7 2DE

FINANCIAL ASSISTANCE FOR MINERAL EXPLORATION

Ref: MRD 84/5, Northeast Scotland Projects, - Exploration Ventures Limited.

1973 Claims;

Alford
~~Ashtree~~
Boganclough
Cabrach
Glas
Insch East
Insch West
Kneck
Marochy
Norton
South Deeside

With the exception of limited shallow drilling-programmes undertaken in the Boganclough and West Insch area, and some soil-sampling at Western Bleanon (S.Deeside), work on the above eleven projects has been limited to the regional multi-element stream sediment survey, the examination of metal: float ratios in outcrop and float samples, and statistical work on the Soil Research Study. Accordingly, comments, except where stated, refer to all the projects.

1. Geochemistry

The multi-element stream sediment survey is based on a sample density of approximately 0.25 samples per square kilometre and not one per square kilometre as stated in the report. Results from the S.Deeside area show appreciably higher values for Cu and Ni than the Ashlar survey (1972), and reflect the variance between spectrographic and atomic absorption methods of analyses.

The percentage of total copper in float and outcrop samples has been omitted from the results of the metal: sulphur ratio analyses. (fig 18. Ruthven claim).

Comments on the Soils Research Project are contained in our letter dated the 13th November 1974.

With regard to the charges for the geochemical work there appears to be little relationship between the number of samples collected and analysed for each project and the assay charges apportioned to each claim. Whilst the total assay costs are reasonable, £650 for approximately 370 stream sediment samples and 53 rock-samples, the additional projects costs appear excessively high, (c.£6000).

2.. Drilling

No charges are submitted for the shallow bed-rock drilling at Boganclough and West Insch.

3. General

The current batch of claims for work completed in 1973, represents the final submissions for this phase of exploration in north-east Scotland. We think it reasonable to expect final reports to contain more detailed information than that provided. Some form of assessment of the success or otherwise of the exploration methods employed should be included, together with an indication of those areas which the applicants might consider worthy of further study.

The scope of the exploration programmes has been broadened considerably since their inception. The original, primary objective, to locate economic Cu, Ni, sulphides in the 'Hever gabros' has been extended to include the delineation of any other economic mineralisation which might exist in Northeast Scotland.

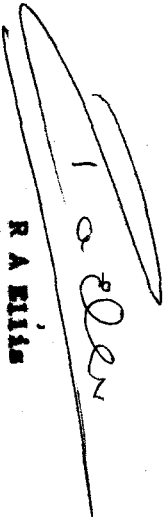
Thus for example, from informal conversation with the EYL field staff, it is known that, on the basis of I.G.S radiometric data, the Bannachie granite was investigated for possible uranium mineralisation. Similarly, the existence of a possible zone of molybdenum mineralisation extending through the Bannachie granite was tested by geochemistry and although the results were largely disappointing, a brecciated 'pipe-rock' containing high molybdenum concentrations was located in the Glen of Quynle (Alford area).

The location of a major gravity 'high' over the O.R.5. faulted outlier at Cabrach is also of interest, especially when considered in relation to V.C Allen's conjecture on the possible existence of a feeder-pipe for the whole of the NE Scotland 'gabro sheet' being present beneath the Morven-Gabrach basal intrusion (Scottish Jnl. Geology Vol. 6. 1970). This has never been alluded to in the EYL summary reports.

Doubtless there are many more interesting aspects of the exploration programme of which we are unaware which, in our opinion, could reasonably have been included in a final report.

In conclusion we can say that, whilst the raw data supplied compares with the requirements of section 1 (3) of the M.E.I.G. Act the written reports are too brief.

18th Nov '74


R A Ellis
(Geochemical Division)

Copper-Nickel-Sulphur Determinations

on Westside Flout & Outcrop Samples

TABLE 16A

SAMPLE NO.	ROCK TYPE	% Cu.	% Ni.	% S	% Cu. IN SULPHIDES	% Ni. IN SULPHIDES	REMARKS
FS 11	SERPENTINITE	0.001	0.20	0.07	0.37	73.99	
FS 12	"	<0.001	0.30	0.09	0.51	65.22	
FS 17	"	0.001	0.18	0.04	0.94	97.19	
FS 20	"	0.005	0.19	0.42	0.43	16.44	
FS 25	"	0.001	0.21	0.05	0.45	93.54	
FS 30	"	0.014	0.10	0.09	5.03	35.92	Morroch
FS 41	"	<0.001	0.22	0.05	0.44	96.02	
FS 42	"	<0.001	0.23	0.05	0.39	88.75	
FS 43	"	<0.001	0.22	0.06	0.39	86.44	
FS 44	"	<0.001	0.20	0.12	0.25	50.30	Norven - Reddy Burn
FS 45	"	<0.001	0.25	0.14	0.21	53.02	Norven - Bear Hill
FS 46	"	<0.001	0.28	0.06	0.35	99.18	
FS 47	"	0.001	0.21	0.07	0.36	76.29	
FS 48	"	<0.001	0.22	0.04	0.49	107.93	
FS 49	"	<0.001	0.22	0.05	0.44	96.02	
FS 50	"	0.001	0.21	0.24	0.14	29.71	Boganclough
FS 51	"	<0.001	0.21	0.04	0.50	105.47	
FS 52	"	0.001	0.21	0.03	0.35	42.20	
FS 54	"	0.007	0.007	0.24	1.14	1.14	
FS 55	"	<0.001	0.19	0.05	0.46	86.28	
FS 59	"	<0.001	0.20	0.05	0.59	113.29	
FS 62	"	0.048	0.052	0.05	29.42	21.87	Craigs of Succoth
FS 63	"	0.003	0.024	0.04	1.41	112.41	
FS 66	"	0.002	0.22	0.07	0.71	78.53	
FS 69	"	0.001	0.18	0.13	0.24	43.51	Tulchan
FS 5	GABBROS	0.14	0.18	1.62	3.31	4.25	
FS 7	"	0.003	0.005	0.03	3.79	6.31	
FS 8	"	0.004	0.001	0.38	0.41	0.10	
FS 9	"	0.002	<0.001	0.03	0.98	0.49	
FS 13	"	0.002	0.003	0.31	0.25	0.38	
FS 14	"	0.003	0.002	0.26	0.45	0.30	
FS 15	"	0.12	0.034	0.34	4.89	3.42	
FS 16	"	0.089	0.084	2.01	1.16	1.09	
FS 18	"	0.12	0.11	2.91	1.61	1.47	
FS 19	"	0.033	0.032	2.31	0.99	0.96	
FS 22	"	0.030	0.031	1.35	0.87	0.90	
FS 23	"	0.025	0.004	1.34	0.73	0.12	
FS 26	"	0.043	0.080	2.64	0.64	0.83	
FS 32	"	0.036	0.050	2.68	0.68	0.94	
FS 33	"	0.007	0.011	0.23	1.18	1.86	
FS 34	"	0.096	0.10	1.72	2.16	2.25	
FS 37	"	0.16	0.10	5.15	1.22	0.76	
FS 40	"	0.004	0.005	0.25	0.63	0.78	
FS 52	"	0.001	0.21	0.09	0.35	42.20	
FS 53	"	0.003	0.016	0.05	2.22	11.84	
FS 57	"	0.039	0.030	0.33	3.85	7.91	
FS 58	"	0.005	0.006	0.28	0.70	0.84	
FS 60	"	0.010	0.010	0.33	1.18	1.18	
FS 65	"	0.019	0.24	0.89	0.83	1.05	
FS 1	OLIVINE GABBRO	0.058	0.073	1.40	1.61	2.03	
FS 6	"	0.073	0.052	0.32	2.83	5.00	
FS 21	"	0.051	0.061	1.37	1.45	1.73	
FS 35	"	0.072	0.021	2.30	1.27	2.12	
FS 56	"	0.030	0.043	0.53	2.16	3.13	
FS 24	AMPHIBOLITE	0.021	0.007	1.61	0.51	0.17	
FS 27	"	0.003	0.001	0.33	0.36	0.12	
FS 28	"	0.005	<0.001	1.20	0.13	0.03	
FS 29	"	0.005	0.005	0.75	1.25	0.31	
FS 61	"	0.010	0.005	0.58	0.63	0.24	
FS 64	"	0.004	0.003	0.41	0.38	0.86	
FS 4	PICRITE	0.073	0.17	1.20	2.32	5.41	
FS 31	"	0.043	0.15	0.33	4.11	14.35	
FS 38	"	0.056	0.20	0.62	3.33	11.90	
FS 39	"	0.005	0.21	0.57	4.16	13.45	
FS 62	AMPHIBOLITE	0.050	0.003	0.03	24.21	3.63	
FS 70	"	0.037	0.009	0.37	0.74	0.95	
FS 64	DIORITE	0.005	0.005	2.04	0.10	0.10	
FS 10	PASIC MERE	0.006	0.005	0.42	0.06	0.47	
FS 53	PASIC VOLCANIC	"	0.016	0.050	-	11.84	