

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

COMPANY: EXPLORATION VENTURES LTD

REF: AE 12

MRD 84/5/7

PROJECT: WEST INSCH

MRD 144/5/7

The following Open File material is held by B.G.S. in London, Keyworth and Edinburgh. Available for public inspection from 16.10.80.

- Extract from application 6.8.71 "... outline of proposed project geological considerations" with accompanying plan, 4 miles : 1", OS sheet 5
- Geological Report, 9th August to 31st December 1971 with 14 enclosures (all 1 : 10560 scale)

1. Geology and float map - Dunnideer (NJ62N)
2. Geochemical soil values for Cu and Ni in ppm (NJ53S)
3. Geochemical soil values for Cu, Ni, Zn in ppm (NJ52S)
4. Geochemical soil values for Cu & Ni in ppm (NJ52NW)
5. Apparent chargeability values in milliseconds (NJ62N & S)
6. Apparent resistivity value in ohm metres (NJ62N & S)
7. Apparent chargeability values in millisecons (NJ52N & S)
8. Apparent resistivity values in ohm metres (NJ52N & S)
9. Apparent chargeability values in milliseconds (NJ53S)
10. Apparent resistivity values in ohm metres (NJ53S)
11. E.M. survey out of phase component (NJ53S)
12. § E.M. survey in phase component (NJ53S)
13. § I.P. anomaly check list (NJ62N)
14. § I.P. anomaly check list (NJ52N)

2 copies
AJ KW

Geological report 1st January to 31st December 1972 (submitted with letter 18.7.73) with 3 enclosures:

- Fig 1 vertical magnetic intensity values NJ63
- § Fig 2 apparent chargeability NJ52/62 (neg)
- Fig 3 apparent resistivity NJ5/2/62 (neg)

2 copies AJ KW

. . . . (continued)

Technical report 1.1.73 to 31.12.73 (submitted with letter 31.7.74) with 5 enclosures. (This report mentions Ruthven)

Fig 1. Nickel: Sulphur ratios, western side (OS sheets 38 and 39) scale 1:63,360 September 1973

2 copies to KW

Fig 2. Bedrock drilling location plan (OS sheet 5). Scale 4 miles : 1", August 1973

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§ Figs 3, 4 and 5 drill log records for bore holes SH12, SH13 and SH15 respectively.

* Not at Keyworth § Not in Edinburgh

WEST INSCH - AELZ

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

During the period geochemical surveys were carried out in the area, and anomalous responses located by previous surveys were further investigated by a programme of shallow hole drilling.

1. Geochemistry

1.1. Multi-Element Analyses [REDACTED]

As part of a regional investigation, samples of atream sediment selected on the basis of one per square kilometre were analysed spectrographically for fifteen elements:- Bi, Co, Cu, Cr, Pb, Mo, Ni, Ag, Sn, V, W, Zn, Zr, Ti & Mn. Analysis for As was also carried out by atomic absorption. No anomalous pattern or groupings of these elements was detected beyond those already established for Cu & Ni. The appropriate plans showing results together with the raw data are enclosed with the [REDACTED] submission.

1.2. Metal:Sulphur Ratios (Fig. 1)

Samples of sulphide-bearing float and outcrop material were collected from the Insch basic complex and analysed for total copper, nickel and sulphur. None of the metal ratios obtained, suggested a favourable environment for economic nickel sulphide ores.

2. Bedrock Drilling

A total of three shallow boreholes were drilled to investigate anomalous geophysical responses outlined by previous surveys.

Boreholes SH12 & 13 were drilled in the Mulsach Burn area of the E. Clashindarroch Forest. The area lies just to the north of the main Insch gabbro contact and is marked by moderate copper geochemical soil values and strong electromagnetic responses. The drill holes suggest that a zone of black graphitic schists are the cause of the low resistivity readings, while sporadic dolerite dykes are the source of the copper anomaly. No further work is planned.

Borehole SH 15 investigated an area of moderate apparent chargeability/high magnetic/low-order copper values to the west of Ledikin farm. The target was disseminated sulphide in gabbro. The shallow borehole revealed no mineralisation, the rock types encountered being highly uraltized gabbro. It is considered that the surface geophysical responses probably derive from a combination of secondary alteration minerals and primary magnetite in the gabbro at this point. No further work appears warranted.

3. Soils Research Project

Data relating to this project were analysed and assessed prior to write-up of results. (These results were presented in the final report submitted in October, 1973, which applies to most E.V.L. areas and time periods, including West Insch, 1973.)

4. Enclosures

Fig. 1 Metal:Sulphur Ratios Westerside E.V.L.
(O.S. Sheet 39)

Fig. 2 Shallow Drill Hole Location Plan (1:250,000 Sheet 9)

Fig. 3 Borehole SH 12 - Drill Log Record

Fig. 4. Borehole SH 13 - Drill Log Record

Fig. 5. Borehole SH 15 - Drill Log Record

MINERAL EXPLORATION INCENTIVE SCHEME

A 12

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. Lynch

2. Project title West Insch

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)

6.
7. The western end of the main body of the Insch Basic Mass is quite different and distinctive from the eastern end. The rock types are considerably more acidic consisting of syenites and diorites. The area is characterized by a lower aeromagnetic pattern and use of the ground magnetometer has confirmed this except over the fringing serpentinites. The area includes the magnetite-bearing envelope rocks around the contact between the Dalradian sediments and the basic mass. Cu, Ni and related metals are sought.

5. Work programme and costs of project

A large amount of reconnaissance work in the form of geophysics and geochemistry has already been completed. The next phase of the programme is detailed follow up work, using ground magnetometry, induced polarisation and geological investigations over favourable locations. 1,000 feet of drilling is planned for two sites with approximately 500 feet for each hole. This will be done under contract by D.P.I. Limited, and core produced will be assayed and possibly subjected to metallurgical investigation.

A detailed soil survey will also be undertaken over the fringing serpentinites on the southern boundary.

The estimated costs until the 31st December, 1971 are:

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

Geological Report : West Inch AE12

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

(i) Geology

Geological mapping of outcrop and float distribution was carried out at Dunnideer. This work constituted field follow-up of anomalous patterns defined by earlier induced polarization and ground magnetic surveys.

(ii) Geochemistry

Systematic soil sampling of the northern contact of the Inch basic mass was completed in the East Clashindarroch Forest area. Samples were analysed for total Cu and Ni content. Magnetically anomalous areas of the Correen Hills were sampled to determine anomalous amounts of Cu Ni Zn in soils.

(iii) Geophysics

a) Induced Polarization

Reconnaissance coverage of the East Clashindarroch area was completed using Scintrex 2.5 kw time domain equipment with dipole-dipole arrays. Very low resistivity values were encountered. Part of the southern contact of the Inch gabbro and the Leslie serpentinites was surveyed using 25 watt equipment. Several conductors were outlined.

b) Electro-magnetics

A Scintrex SE 600 horizontal loop electromagnetic survey was used to define the axis of an anomalous zone in the Glen of Cults.

Enclosures

- ✓ 1. Geology and float map - Dunnideer (NJ62N)
- ✓ 2. Geochemical soil values for Cu & Ni in p.p.m. (NJ53S)
- ✓ 3. Geochemical soil values for Cu, Ni, Zn in p.p.m. (NJ52S)
- ✓ 4. Geochemical soil values for Cu & Ni in p.p.m. (NJ52NW)
- ✓ 5. Apparent chargeability values in milliseconds (NJ62N & S)
- ✓ 6. Apparent resistivity values in ohm metres (NJ62N & S)
- ✓ 7. Apparent chargeability values in milliseconds (NJ52N & S)
- ✓ 8. Apparent resistivity values in ohm metres (NJ52N & S)

Contd.....

West Insch AE12 (Contd.)

- ✓ 9. Apparent chargeability values in milliseconds (NJ53S)
- ✓ 10. Apparent resistivity values in ohm metres (NJ53S)
- ✓ 11. E.M. survey out of phase component (NJ53S)
- ✓ 12. E.M. survey in phase component (NJ53S)
- ✓ 13. I.P. anomaly check list (NJ62N)
- ✓ 14. I.P. anomaly check list (NJ52N)

WEST INSCH DISTRICT - AE12

Geological Report - 1 January to 31 December 1972

During the period geophysical surveys were undertaken in this district as follow up of the reconnaissance coverage initiated during 1971.

1. GEOPHYSICS

1.1. Induced Polarisation

I.P. surveys, using Scintrex 25 watt, time domain equipment with dipole-dipole arrays, were used to assess the areas of basic and ultrabasic rocks along the southern contact of the Inch gabbro mass. Coverage was extended over magnetically anomalous areas of the Correean Hills. Several anomalous chargeability and resistivity zones were outlined.

1.2. Ground Magnetometry

Vertical force magnetic readings were taken along I.P. survey lines, using a Sharpe MFl fluxgate magnetometer. Areas of high magnetic intensity, in part coincident with zones of high apparent chargeability were outlined.

2. GEOCHEMISTRY

No further geochemical sampling was undertaken during the period. (The expenditure of £602 incurred for assays relates to samples collected during 1971, and already reported on).

3. DIAMOND DRILLING

Although geophysical anomalies were defined, further investigation by detailed diamond drilling was deferred, pending the assessment of the drilling of more outstanding anomalies in other regions.

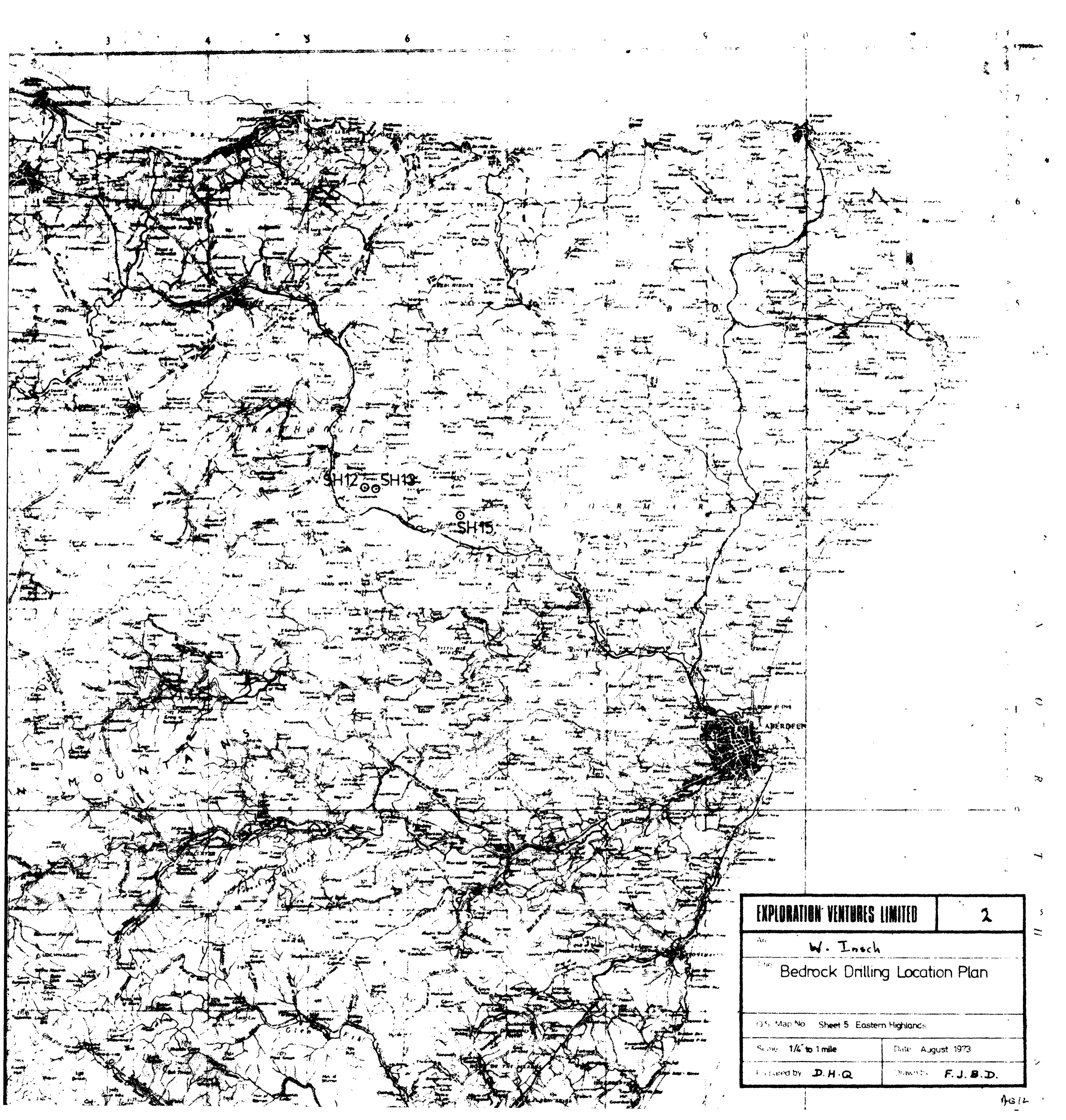
Detailed drilling in this region would now seem unlikely, but some shallow drilling for geological samples is being considered.

4. SOILS RESEARCH PROJECT

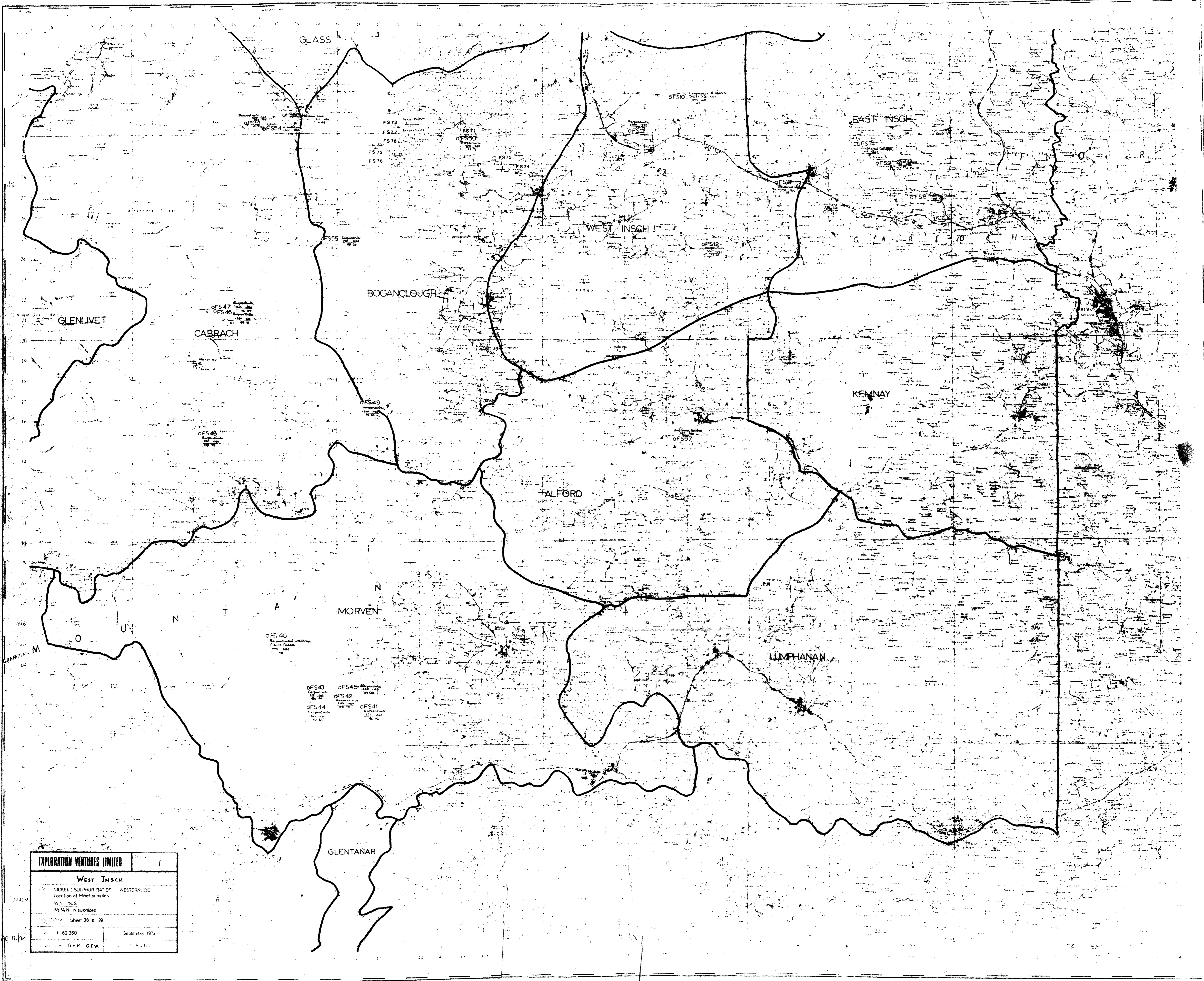
Statistical studies were carried out on materials previously collected and data collated prior to the final write up of this exercise.

5. ENCLOSURES

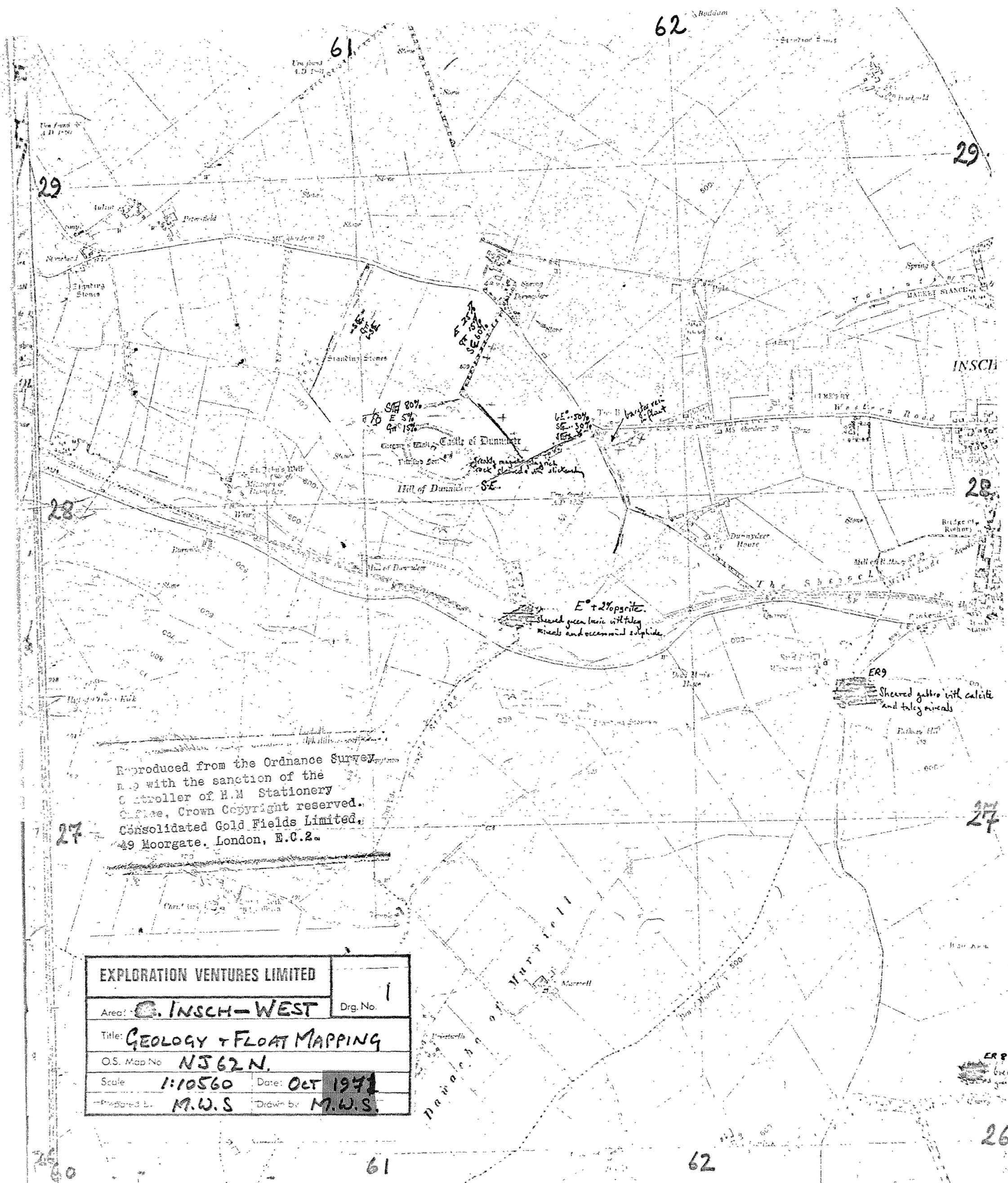
1. Vertical magnetic intensity values in gammas - (HJ50)
2. Apparent chargeability values in milliseconds - (HJ52/52)
3. Apparent resistivity values in ohm metres - (HJ52/52)



EXPLORATION VENTURES LIMITED	2
At W. Inoch	
The Bedrock Drilling Location Plan	
O.S. Map No. Sheet 5 Eastern Highlands	
Scale: 1/4" to 1 mile	Date: August 1973
Prepared by D.H.Q.	Drawn by F.J.B.D.



EXPLORATION VENTURES LIMITED	
West Inshich	
NICKEL - SULPHUR RATIOS - WESTERN SIDE	
Location of float samples	
% Ni, % S	
Wt % Ni in sulphides	
Sheet 38 & 39	
1:63,360	September 1973
G.F.R. G.E.W.	1:50



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 Map with the sanction of the
 Controller of H.M. Stationery
 Office, Crown Copyright reserved.
 Consolidated Gold Fields Limited,
 49 Moorgate, London, E.C.2.

EXPLORATION VENTURES LIMITED	
Area: C. INSCH-WEST	Drg. No. 1
Title: GEOLOGY & FLOAT MAPPING	
O.S. Map No. NS 62 N.	
Scale: 1:10560	Date: OCT 1971
Prepared by: M.W.S.	Drawn by: M.W.S.

INSCH

28

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Code	Value	Code	Value	Code	Value	Code	Value
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013	1300	014	1400	015	1500	016	1600
017	1700	018	1800	019	1900	020	2000
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045	4500	046	4600	047	4700	048	4800
049	4900	050	5000	051	5100	052	5200
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057	5700	058	5800	059	5900	060	6000
061	6100	062	6200	063	6300	064	6400
065	6500	066	6600	067	6700	068	6800
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EXPLORATION VENTURES LIMITED
 W. INCH
 I.P. RESISTIVITY VALUES IN OHM METRES
 NS 52
 1: 10560
 DNR
 DEC 1974
 DNR

