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TALISKER

PROGRESS REPORTS TO LICENCE EXPIRY FOR THE PERIOD 21/4/1969 TO 20/4/1970

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CONTENTS ENVELOPE 1288

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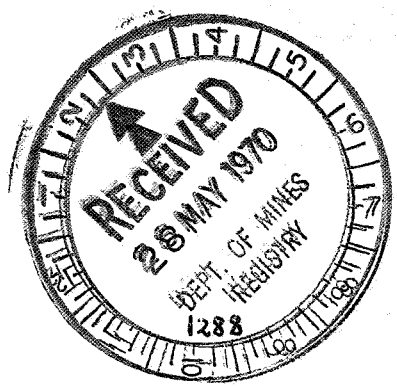
REPORT: Talisker Mine, S.A. (Pgs. 3-34)

PLANS:	Induced Polarization & Resistivity Svys. Drg. No.	5224-1	1288-1
	"	5224-2	1288-2
	"	5224-3	1288-3
	"	5224-4	1288-4
	"	5224-5	1288-5
	"	5224-6	1288-6
	"	5224-7	1288-7
	"	5224-8	1288-8
	"	5224-9	1288-9
	"	5224-10	1288-10
	"	5224-11	1288-11
	"	5224-12	1288-12
	"	5224-13	1288-13
	"	5224-14	1288-14
	"	5224-15	1288-15
	"	5224-16	1288-16
	"	5224-17	1288-17
	"	5224-18	1288-18
	Talisker Mine Locality Map		1288-19
	" " General Geology		1288-20
	" " Geophysical & Geochemical Svy.		1288-21
	" " Geological X-Section		1288-22
	Induced Polarization & Resistivity Svy. Plan Map		1288-23



REPORT ON

STAGE I OF THE EXPLORATION PROGRAMME AT TALISKER MINE, SOUTH AUSTRALIA

CONTENTS

August 1969

Kenneth McMahon & Partners Pty Limited

INTRODUCTION

This report describes Stage I of an exploration programme devised to determine the quality and size of the lead-arsenic deposit at Talisker Mine, Cape Jervis, South Australia. An earlier report, written in March of this year, covered the general background of the mine and summarised the previous exploration work undertaken in the area by the South Australian Department of Mines and by McPhar Geophysics.

The present report deals with the geological mapping, diamond drilling, soil sampling and mine workings exploration undertaken during May 1969.

SUMMARY

1. Stage I of the exploration programme was completed during May, 1969.

2. The geology of the whole area was mapped on a scale of 1" = 200'.

3. The old mine workings were investigated in an attempt to determine:
   (a) the estimated value of the ore derived from the shafts in the three localities of the Main mine area, Campbell Creek mine and Lowry's mine, by classing the dumps grades A - D.

   (b) the presence of any unworked sections of lead or copper

   (c) the location of the mine working crossed by the diamond drill hole at 465'.

4. The diamond drill hole proposed in the previous report (March 1969) was completed to a depth of 477' and the core was assayed by atomic absorption for copper, lead, silver, arsenic and gold.

5. Only narrow zones of weak mineralisation were intersected.

6. Soil samples were taken over a grid crossing the Campbell Creek mine shafts.

CONCLUSIONS ?

1. The diamond drill hole was planned to test the most interesting I.P. anomaly in the area.

2. The hole intersected no significant zones of mineralisation and was terminated at 477' having passed through an old mine working.

3. There is no justification for suggesting any future exploration work to be undertaken in the area.

RECOMMENDATIONS

It is recommended that no further exploration work is justified in the area and that the project should be abandoned.

OLD MINE WORKINGS

The old workings at the Main Mine area, Campbell Creek mine and Lowry's mine were investigated. Where possible the shafts and adits were checked for showings of lead or copper. The dumps surrounding the shafts were classed as follows:

Grade A - excellent evidence of galena
Grade B - good evidence of galena
Grade C - some evidence of galena
Grade D - no evidence of galena

1. Main Mine Area

This includes ten shafts and three adits. Some machinery, a pump and the boiler can still be found at the crushing plant. The condition of the shafts has deteriorated considerably since the report of the South Australian Department of Mines in 1926 (Appendix), most of them and especially the Engine Shaft, now being very dangerous.

The 50' level of the Tapley Shaft was explored for about 15' but no sign was found of the rich galena vein supposed to be here. There is, however, some evidence of galena in the main shaft wall just above the infill.

The dumps are all of Grade A with evidence of high grade galena in the Engine Shaft dump and traces of chalcopyrite at the Price Shaft.

2. Campbell Creek Mine

This is located to the south-east of area 1. It is composed of 5 shafts and 3 adits on the banks of the Campbell Creek and its two eastern tributaries, the Rabbit and Cliff Creeks.

All the shafts are wide and well built at the top. They are all flooded. The dumps are of grades A and B, showing more evidence of chalcopyrite than of galena.

The three adits were all examined in detail. The northern adit on the east side of Campbell's Creek was entered to a distance of 12'. A narrow lead vein, about 9" wide, was traced from the mouth of the adit to the back wall. There was some evidence of a wide copper occurrence but samples could not be taken.

The adit in the north side of the Cliff Creek valley is flooded from the entrance. It seems to turn sharply in a west-north-west direction. There is some evidence of chalcopyrite in the roof.

The adit in the west bank of the Campbell Creek is very shallow but large lumps of chalcopyrite spoil have been taken from it.

There is some evidence that Campbell Creek was dammed both above and below the mouth of Rabbit Creek. Some old iron machinery can be seen in Campbell Creek level with

the mouth of Rabbit Creek.

3. Lowry's Mine

This is composed of 11 shafts lying south and east of the drill site track. The shafts are widely scattered on both sides of the two tributary valleys of the Lowry Creek, in turn a tributary of Campbell Creek. Although the shafts are now mainly collapsed and the dumps of grades C and D, during the 1930's this area was actively mined. (Appendix)

It is now certain that the working encountered by the diamond drill hole at 465' was the north-west 250' level from Stan Lowry's water-filled shaft due south of the drill site.

GEOLOGY

The geology of the area was mapped on the scale 1" - 200'.

The rocks are of Cambro-Ordovician age being composed of the Kanmantoo Group, the flat peneplain areas being capped with laterite.

This group can be divided into three main rock types, each of which is easily distinguishable in the field.

1. Greywackes

These are medium or fine grained feldspathic sandstones including several impurities such as quartzite, slate, shale, limestone, amphibole, chlorite and plagioclase, etc. The grains are irregular in size, the coarser detrital grains of the quartz and feldspar being 0.05 mm in diameter, and angular in shape. The matrix is composed of clay, sericite and very fine grained quartz.

The greywackes are predominantly medium grey in colour but they may vary from light grey or brown to dark shades depending on the amount of biotite present. In places they are mottled by white kaolin derived from feldspar decomposition.

Features relating to the original conditions of deposition include current bedding, localised fine banding due to the presence of biotite in a normally massive rock, rare porphyroclasitc structures caused by occidental slate fragments and arkosic aggregate, where the rock consists almost entirely of round quartz and feldspar. In the more schistose sections a predominance of biotite and muscovite is apparent both in the detritals and in the fine rock base.

Thin beds of siliceous and micaceous phyllites and more massive quartzites are interbedded with the greywackes. The phyllites are similar in colour to the main rock type. The quartzites are tough, dense, highly siliceous and laminated with some relatively massive layers. Their colour varies from pink to white.

The greywackes are commonly cut by quartz stringers.

Samples 1 and 2

Both rocks consist of an aggregate of irregular grains of equiangular quartz and feldspar surrounded by small lath-shaped grains of muscovite and biotite. Accessory grains of apatite, zircon, tourmaline and opaques are also present.

The quartz is 30-210 microns in diameter. It is sub-angular and is embayed in the biotite grains.

The feldspar is 40-180 microns in diameter. It exhibits albite twinning and many of the grains contain tiny laths of muscovite, the result of incipient alteration.

The biotite is 3-60 microns in diameter. It is poorly elongated, especially in the larger grains and usually

irregular in shape, with convex margins towards the quartz grains.

The muscovite is only a minor constituent. It occurs in tiny laths in the feldspar and where the biotite grains are clustered.

The apatite grains are 30-60 microns in diameter and vary from round to sub-angular in shape.

Traces of zircon and tourmaline occur as round grains.

Irregular apatite grains up to 230 microns in length are found interstitially or as inclusions in the biotite.

The Bleached Zone

This occurs between the orebody and the fresh greywackes. It is white to buff in colour and crumbles easily into very fine grains.

Sample 3

This is a highly altered and sheared rock, at present being composed of irregular elongate grains of quartz surrounded by secondary sericite and opal in sympathetic alignment. A few grains of zircon and tourmaline are also present.

Several narrow quartz stringers are infilled by sericite.

Jarosite in the form of fibrous aggregate and irregular sized rhombohedral grains is also present as stringers and grains which cut the quartz and sericite.

Phyllites

These are non-felspathic micaceous rocks. They are finely laminated with well-developed schistosity. On the surface they are rusty brown to mustard in colour but fresh exposures are greyish green. Because of the abundance of mica these rocks are comparatively soft and have a remarkably silky feel and lustre, resembling a soapstone.

Interbedded with the phyllites are fine sandstone and greywacke beds.

Samples 4 and 5

These are quartz mica rocks with accessory apatite and rutile.

The quartz grains are equiangular, irregular and elongate in the same direction as the surrounding micas.

The muscovite and biotite are finer grained than the quartz. They show well-developed schistosity and the biotite is responsible for the grey colour of the rock.

Apatite and rutile occur in small round to sub-angular grains scattered throughout. No feldspar was detected.

Sandstones

These are much coarser than the greywackes and phyllites and much lighter in colour. They are massive, poorly bedded, soft and crumbly and ironstained to a light rusty brown.

Sample 6.

The rock is composed of irregular grains of quartz and feldspar surrounded by biotite and muscovite with accessory zircon and opaques.

The quartz and feldspar are of equal grain size. There is less biotite than is present in the greywackes and phyllites and the proportion of muscovite to biotite is more even.

Structure

The beds have been intensely folded on a regional scale, dipping steeply at angles of 50°-75°.

No major faults were seen. The Department of Mines suggests that the 'slides' shown on the underground plans are probably shear planes which developed at the time of folding and along which movement has continued after the emplacement of the lodes.

Schistosity is well developed in some of the fine grained greywackes. Jointing is present in the medium grained greywackes, sandstone and quartzites where schistosity is absent.

Landforms

From the map it can be seen that the greywackes are the predominant rock types forming the high ground to both the west and east. The greywackes outcrop frequently, especially along the ridge of the south of the Sea Creek and in the upper reaches of the eastern tributaries of Campbell Creek, resulting in very immature cross valley profiles.

The phyllites occur lower down the valley sides and in the north-east and north of the area. Being softer rocks they are more easily eroded and the valleys are often in the form of vertical sided gullies. A good example of this is the Fishery Creek in the north, where the creek sides are formed of 25' high cliffs of phyllite. Once the creek enters the greywackes the change in valley type is spectacular.

The sandstones are less widespread in occurrence. They generally represent sections of comparatively gentle ground. Two quarry faces of ironstained sandstone can be seen in the north-east of the area.

DIAMOND DRILL HOLES

During 1958 the S.A. Department of Mines drilled six holes at Talisker Mine. The results of the drilling are summarised below:

Ddh 1 (T.D. 439' 0")	51' 0"	- 42' 0"	- well-marked but apparently barren bleached zone.
	374'10"	-379' 0"	- bleached and mineralised zone assaying 5.57% As_2O_3.
	380' 7"	-388' 3"	- bleached and mineralised zone assaying 10.56% As_2O_3.
Ddh 2 (T.D. 504' 6")	55' 6"	- 63'8"2"	- galena with lode assaying 27.65% Pb and 26.1 oz Ag.
	348' 6"	-351' 0"	- bleached and mineralised zone assaying 20.4% As_2O_3 and 13 dwt Au.
	370'11"	-373'1"2"	- bleached and mineralised zone assaying 20% As_2O_3.
	381' 4"	-382' 6"	- bleached and mineralised zone assaying 2.2% As_2O_3.
	388' 0"	-390' 0"	- bleached and mineralised zone assaying 17.2% As_2O_3 9.5 dwt Ag.
Ddh 3 (T.D. 201' 0")	41' 0"	- 43' 2"	- narrow mineralised veins with aggregate assay 9.6% As.
	60' 0"	- 60' 9"	- lode assaying 20.8% Pb, 3% Zn and 17 oz 18 dwt Ag.

Ddh 4 (T.D. 52' 0") This was laid out to intersect a geophysical anomaly. It entered bleached greywackes at 46' 0" and was still in this rock type at its total depth not having intersected any lode.

Ddh 5 (T.D. 51' 0") This was laid out to test a bleached greywacke area exposed in a nearby pit but it did not intersect any lode before total depth.

Ddh 6 (T.D. 50' 0") This was laid out to test a bleached area and penetrated bleached greywackes from the surface to 24' 0" without intersecting any lode.

Between May 4 and May 12, 1969 Amad N.L. drilled a hole at 14 N 23 E at an angle of 50° aimed at the small I.P. anomaly located beneath 14 N 22 E. At 465' the drill entered a water-filled level and dropped 7' 0". As a result the hole was abandoned at the depth of 477'.

The core consisted of fine-grained, light to dark grey greywackes with some thin shale interbeds. Quartz veins occur throughout but the first evidence of galena was at 84' 6".

The core was assayed for Cu, Pb, Ag, As and Au. The results are shown in Table I. From this it can be seen that only weak zones of mineralisation were intersected:

84' 6" - 89' 6"	assaying 50 ppm Cu, 160 ppm Pb and 400 ppm As.
131' 4" - 156' 6"	assaying 26 ppm Cu, 127 ppm Pb and 360 ppm As.
160' 6" - 165' 6"	assaying 30 ppm Cu, 190 ppm Pb and 30 ppm As.
203' 4" - 208' 4"	assaying 30 ppm Cu, 950 ppm Pb, 2 ppm Ag and >1000 ppm As.
270' 0" - 275' 0"	assaying 25 ppm Cu, 60 ppm Pb and 300 ppm As.
310' 0" - 320' 0"	assaying 25 ppm Cu, 42 ppm Pb and 307 ppm As.

SOIL SAMPLING

1. Previous Soil Sampling

An extensive programme of soil sampling was undertaken by both McPhar Geophysics in 1968 and Amad N.L. in 1969.

The results are summarised below:

L20N	Pb	77 ppm with 7 high values:	2 of 196 and 1 of 110,111,120,200 and 550.
	As	70 ppm with 6 high values:	2 of 100 and 1 of 160,200,240 and 400.
L18N	Pb	92 ppm with 9 high values:	100,107,109,160, 180,210,220,260 and 430.
	As	120 ppm with 5 high values:	2 of 600 and 1 of 300,400 and 560.
L14N	Pb	91 ppm with 4 high values:	103,120,180 and 258.
	As	147 ppm with 4 high values:	3 of 500 and 1 of 100.
L10N	Pb	213 ppm with 13 high values:	2 of 100, 1 of 120,130,140,200, 280,320,380,470, 960,1,000 and 1,100.
	As	242 ppm with 16 high values:	4 of 100, 2 of 400, 800 and 1 of 240, 360,480,500,540, 600,700 and 1,000.
L6N	Pb	59 ppm with 2 high values:	110 and 130
	As	40 ppm with 0 high values	
L2N	Pb	72 ppm with 5 high values:	2 of 140 and 1 of 120,130 and 150.
	As	52 ppm with 2 high values:	150
L2S	Pb	61 ppm with 2 high values:	110 and 120
	As	48 ppm with 1 high value:	100
L6S	Pb	59 ppm with 2 high values:	110 and 130
	As	39 ppm with 2 high values:	100 and 180
L10S	Pb	60 ppm with 0 high values	
	As	27 ppm with 0 high values	

2. Campbell Creek Mine

A soil sampling grid was run over the Campbell Creek Mine shafts area in an attempt to determine the exact extent and value of the copper evidenced in this area.

The results can be seen in Table 3:

Sample No.	Cu ppm	Pb ppm	Ag ppm
1	30	280	≤ 2
2	30	100	< 2
3	25	65	< 2
4	30	60	< 2
5	15	60	< 2
6	20	70	< 2
7	25	100	< 2
8	20	80	< 2
9	15	60	< 2
10	20	65	< 2
11	25	70	< 2
12	20	100	< 2
13	25	80	< 2
14	30	75	< 2
15	20	50	< 2
16	15	45	< 2
17	20	110	< 2
18	10	140	< 2
19	15	80	≤ 2
20	20	45	< 2
21	20	80	< 2
22	20	40	< 2
23	25	80	< 2
24	30	60	< 2
25	20	70	< 2
26	25	80	< 2
27	20	90	< 2
28	25	70	< 2
29	20	80	< 2
30	25	290	≤ 2
31	20	210	< 2
32	25	80	< 2
33	20	80	< 2
34	20	80	< 2
35	20	50	< 2
36	20	570	< 2
37	25	80	< 2
38	20	180	< 2
39	25	240	< 2
40	30	810	2
41	25	2900	7
42	20	290	< 2

Sample No.	Cu ppm	Pb ppm	Ag ppm
43	25	80	∠ 2
44	40	700	∠ 2
45	15	180	∠ 2
46	20	85	∠ 2
47	20	560	2
48	20	490	∠ 2
49	25	1500	2
50	20	100	∠ 2
51	15	140	∠ 2
52	15	140	∠ 2
53	20	300	∠ 2
54	20	70	∠ 2
55	15	60	∠ 2
56	15	180	∠ 2
57	15	120	∠ 2
58	15	150	∠ 2
59	10	75	∠ 2
60	25	70	∠ 2
61	15	60	∠ 2
62	20	60	∠ 2
63	30	50	∠ 2
64	25	60	∠ 2
65	25	70	∠ 2
66	20	80	∠ 2
67	20	85	∠ 2
68	20	90	∠ 2

The average value for Cu is 21.5 with no high values.

The average value for Pb is 212 ppm with 23 high values:

4 of 100, 3 of 140 and 180 and 1 of 110,120,150,210,280, 290,300,490,560,570,700,1500 and 2900.

There are three high silver values:

2 of 2 ppm and 1 of 7 ppm.

The only conclusions that can be reached are that lead is more important than copper in this area.

APPENDIX

1. SOME HISTORICAL NOTES ON TALISKER MINE

Summary of a letter sent from John Marks in Adelaide to Henry Joyce of Brighton, dated May 16, 1879.

"When compared with our sturdy men of Derbyshire the miners of Australia are a fearful lot". At "Talisque" to the south of here the men threw down their tools in August 1872 and refused to work further because, after a series of minor accidents, a herd of kangaroos, "entered by the spirit of the devil", thundered through the mine area in the middle of the night. It is best to inform the directors in London that no further lead product can be expected from this source.

2. REPORT OF THE SOUTH AUSTRALIAN DEPARTMENT OF MINES 1926.

A thorough survey of the mine was made for the South Australian Department of Mines by R. Lockhart Jack and J.L. Pearson in 1926. They found that the mine had been opened to a depth of 432' with a maximum longitudinal development at the 132' level of 750'.

They summarised the geology of the mine workings as follows:

The country rock is slate and slightly arenaceous beds dipping steeply to the south-east. The lode striking nearly north/south and dipping east, crosses the bedding diagonally. The fractures in which it was formed tend to cross the country rock more at right angles than the average run of the workings and to be deflected along the major bedding planes in the direction of the structural angle for distances up to a few feet before resuming their normal course. There are one or two cross fractures in which the lode throws to the left e.g. Code's winze north face, but the general rule of turning to the structural angle to find the centre of the lode is applicable.

As a result of the fracture of the lode a series of apparently disconnected bodies of lode material have been formed almost en echelon. The lode is very dense greyish to glassy quartz gangue with mineral sparingly distributed in it, slaty gangue and galena and arsenopyrite. Galena occurs in shoots with higher proportions of arsenical pyrite towards their ends. The portions of the lode between the ore shoots consist of dense quartz which appears more abundant in the footwall part of the lode. The portion towards the hanging wall carries more mineral.

In consequence most of the developed openings have been made in the softer footwall country where the lode is wide and not fully exposed in drives and because of this in some sections the value over the full width cannot be estimated.

Description of Workings

The upper levels were for the most part inaccessible as the open stopes shown in the plan were blocked progressively along the drives except in the 132' level. At that depth the only available ground noted was a block of arsenical ore situated near Tapley's shaft.

The bulk of the workings at the three lowest levels were accessible and were examined.

Ore Reserves

The only body of ore exposed in the present workings is that in which the underhand stoping was done round Shephard's winze below the 372' level. This shoot was taken out in the back of the same level for a length of 80' while the bottom was worked for a length of 44'6" to the maximum depth of 25' and average depth of 16'. Samples 12-17 inclusive, taken in this section show an average width of 7'6" with metal contents Pb 11.4%, Ag 7oz. 7 dwts/ton, As 13.5%. In the stope the excess middle portion has the lowest values, while both ends carry high grade ore with assays ranging from 3.1% Pb for the sample taken 8' S of the winze to 24.5% at the northern end of the stope. A grab sample from the ore broken in this stope and laying in the 432' level assayed Pb 6.1%, Ag 3ozs. 7 dwts/ton, As 10.6%.

Assuming the length of the ore corresponds with the stoping overhead, the area is 80' x 7'6" and on the basis of 12 cubic feet to a ton each foot in depth would produce 50 tons of ore. If the 742' level is extended south for the distance mentioned, the quantity available for stoping is 3,000 tons, less 450 tons taken out by underhand stoping, i.e., 2,550 tons. This is the only shoot of lead ore exposed on more than one side, but at a distance of about 50' further south at the 372' level there are lead ore showings in Code's winze which, sampled over a width of 18" assayed 28.9% Pb. From this stoping the ore below the 372' level should be at least 130' long and from other indications may possible be 200' in length.

3. SUMMARY OF REPORT OF S.A. DEPARMENT OF MINES 1926 (SEE APPENDIX SECTION 2.) SENT BY HENRY GEORGE OF ADELAIDE TO ALEX MARKS OF LONDON JUNE 1929.

(a) 300' Level

N of the crosscut this is blocked with waste and could not be examined. At the crosscut there is a winze or sump hole full of water and 6' to the S a rise or short stope is visible overhead. Neither of these is shown on the old mine plans. Poor quartz lode material and country rock is exposed in the drive from the crosscut for 22' S, whence the stope averages 16' in height extending 25' S. The N face is barren. The ore has run out to a feather edge on the east or hanging wall. In the S end there is 18" of ore consisting of quartz, arsenopyrite and galena. Six feet of poor ground is visible in the level and then the stope, 25' long, shows quartz, arsenic and galena. To the. south the stope is approximately 3' wide. For 25' S the drive is in quartz too poor to sample, but arsenical ore in the stope to the south should rise overhead.

From Porter's No.3 winze the stope continued in good arsenical ore.

Sample 18 is representative of the west 6' of the N face and 2' of practically barren quartz (not sampled) is present to the east. This sample is typical of the bottom class of arsenical ore present in the mine. Pb 5.1%, Ag o oz. 15 dwt. As 28.2%.

It is probable that the pitch of the shoot is such that the stope to the north has not yet reached the best of the ore. Stoping extends south to within 8' of Tapley's Shaft, the south portion being known as "Ballroom No.2". The stope is beaten out to the level above with the exception of a pillar of dense barren quartz lode material which has a length of 35'. From south of Tapley's Shaft to Charnocks No.2 winze (about 110') there is very little ore and the lode is poor. From the winze to the base of the lode it is about 2' thick and consists of quartz containing little arsenical pyrites.

The Ballroom and Porter stopes above this level show reversal of normal dip, dipping steeply to the west instead of the east.

Below the level of Davies winze and apparently off the main lode there is a small vein carrying galena.

(b) 372' Level

The N portion of drive beyond Sabine's winze is blocked with waste. Sabine's winze at 31'6" N from the crosscut is 34' deep on the E dip and contains approximately 2' of water. The winze is back in the footwall country and the lode is only exposed at certain points. At 21' the lode was broken into and it was possible to take Sample 5 from the W 18" of the lode. Pb 3.2%, Ag 1oz. 16dwt, As 20.2%. This winze and the indication of ore in the northern end of the bottom level suggests the possibility of an ore shoot that has never been seen elsewhere in the mine.

Between Sabine's winze and the crosscut the siliceous lode material is showing in the eastern side of the drive. For 44' of the cross cut some quartz is visible in the level, but at that distance a cross course striking N70°E and dipping 70° S.S.E. has faulted the lode. The E crosscut on the S side of the cross course enabled a shot put in to break the north wall and this disclosed the foot of the lode assaying 12.5% arsenic lying to the east of the quartz exposed in the level. It is probable that this vein is the N. continuation of the main shoot which is reached in the back 11' to the south; the intervening distance showing poor lode material in the back. The main lead shoot is stoped over the level for a length of 75'. Some distance above the drive the lode in the S face of the stope appears to cut the material in the cross course showing in the N. end of Code's winze. Where the lode is thrown to the East, Sample 11, was taken at the back of the level S from the face of the stope from a vein 2' wide. Pb 54%, Ag 3oz. 0 dwt. and As 22.3%.

From the above point the lode is visible in the east wall of the level for 15' south. At this distance it turns to the west and abuts against the side in Code's winze on the W side of the ore exposed in the face of the underhand stope off the winze. From the crossing of the slide in the level 11' N of Code's winze, the lode shows in the back and the W wall to a point 33' S of the winze. At this point the level makes a sharp turn, and 11' further S the stope is cut off. The N end of Tapley's shaft shows arsenical ore in the back and the wall. Sample 8 is taken of the 3' of the lode and Sample 9 of the W 2'3" of the lode at a point 7' north of Tapley's shaft. The average over 5'3" of the lode is 24.3% As and 3 dwts Ag. These samples are below the cross course which crosses the shaft.

At the S end of the shaft and above the cross course 3'6" of ore was sampled: Sample 7 - Ag 0oz. 6dwt. and As 23.8%.

In the S drive adjacent to the shaft there is 7' of lode material under the cross course, most of it lying west of the drive.

For 29' of Tapley's shaft the lode is present in the east wall and the back.

At this distance the S level turns sharply and the lode crosses over into the west wall and along the back, continuing for 48', where it is displaced by the cross course. In the face beyond the cross course there is a 3" arsenical vein. The sides of the drive would be required to be stripped to determine the width and value of the lode.

(c) 432' Level

The main crosscut is driven on the south. There is a lode exposed in the crosscut east of the level which turns along the footwall and connects with Shephard's winze. The bottom portion of the winze is in arsenical ore containing some galena with better galena ore visible overhead.

Sample 1 was broken 6' above the back of the level from ldde material 2' wide in the east side of the southern end of the winze Pb 0.5%, Ag 0oz. 10 dwt and As 13.2%; while Sample 2 is from the 15" vein in the northern end of the winze 6' above floor level, Ag 9oz. 6 dwt. and As 34.3%. The ore is widening rapidly towards the south and galena is visible at the end of the winze and overhead, so that there is every prospect that the shoot of lead ore exposed around Shephard's winze below the 372' level would be intersected by continuining the drive south.

Good lead values are also exposed in Code's winze and it is probable that the lead ore extends further south.

At the same depth the N drive after crossing country rock for 13', follows the lode which is 6" wide and shows some galena for 23'. This was sampled at the face: Sample 4 Pb 4.2%, Ag 1oz. 17 dwt. and As 25.9%. No ore was developed in this direction excepting that exposed in Sabine's winze below the 372' level. From indications at these points it is probable that there is another shoot of ore north of present workings. This would be tested be extending the drive north and connecting with the winze.

4. NOTES ON LOWRY'S MINE OBTAINED FROM STAN LOWRY HIMSELF AND FROM THE RECORDS OF THE BRITISH MUSEUM.

Stan Lowry of Victor Harbor is the only survivor of the miners who worked this area. According to him some of the miners who had worked the main shafts during the early 1900's, read an article which stated that high prices were being paid for lead in London during the interwar years. They remembered the lead showings to the east of the main mine area and formed a small syndicate to work the shafts. Between 1931-1938 seven men raised a total of 2,875 tons of lead.

From records in the British Museum the production was as follows:

1931-1932	435 tons
1932-1933	487 tons
1933-1934	451 tons
1934-1935	424 tons
1935-1936	398 tons
1936-1937	463 tons
1937-1938	217 tons

The total value of this is unknown to date.

TABLE I

KENNETH McMAHON & PARTNERS PTY LIMITED

HOLE NO. 1

Project No. 5.69 Talisker Mine J.V.
Location Cape Jervis, S.A.
Date Completed May 16, 1969

Hole Description
Total Length
Logged by

Declination -50° BQ
470 ft 143.26
J. Ross

Footage Ft.	ins.	to Ft.	ins	Description	Sample No.	Cu ppm	Pb ppm	Ag ppm	As ppm	Au ppm	Comments
11	0	- 17	0	Ironstained grey-coloured fine-grained greywacke; schistose fracture; some 1/10" quartz veins							
17	0	- 21	6	Grey-coloured fine-grained greywacke; some 1/10" quartz veins							
21	6	- 22	9	Ironstained grey-coloured fine-grained greywacke; some 1/10" quartz veins							
22	9	- 25	0	Grey-coloured fine-grained greywacke; some 1/10" quartz veins							
25	0	- 30	0	Grey-coloured fine-grained greywacke; some 1/10" quartz veins							
30	0	- 40	6	Grey-coloured fine-grained greywacke; some 1/10" quartz veins							
40	6	- 46	0	Grey-coloured fine-grained greywacke; some ironstaining; 44'6" - 3/4" thick quartz vein							

Footage Ft.	ins.	to Ft.	ins	Description	Sample No.	Cu ppm	Pb ppm	Ag ppm	As ppm	Au ppm	Comments
46	0	- 51	0	Grey-coloured fine-grained greywacke with some iron-staining and narrow quartz veins							
51	0	- 56	6	Grey-coloured fine-grained greywacke; some iron-staining; narrow quartz veins; mottled effect							
56	6	- 60	0	Grey-coloured fine-grained greywacke; some ironstaining; very thin quartz veins; schistose fracture							
60	0	- 70	6	Grey-coloured fine-grained greywacke; some ironstaining; few quartz veins 1/10" thick; mottling effect over at least 1'0"							
70	6	- 80	0	Grey-coloured fine-grained greywacke; no quartz veins; no ironstaining; mottling effect over 1'4"	70'0" - 75'0" 1	20	40	<2	25	<0.5	
80	0	- 84	6	Grey-coloured fine-grained greywacke quartz							
84	6	- 94	0	Grey-coloured fine-grained greywacke; veins more pronounced 1/10-1/5" thick with evidence of galena; some ironstaining	84'6" - 89'6" 2	50	160	<2	400	<0.5	Weak zone of mineralisation
94	0	- 98	0	Grey-coloured fine-grained greywacke; quartz veins up to 3/4" thick (95'0"); at 97'0"-4" ironstained rubble	94'0" - 99'0" 3	25	40	<2	50	<0.5	
98	0	- 101	9	Grey-coloured fine-grained greywacke; 98' 6" - 1" quartz vein							

Footage Ft. ins	to Ft. ins	Description	Sample No.	Cu ppm	Pb ppm	Ag ppm	As ppm	Au ppm	Comments
101 9	107 9	Grey-coloured fine-grained greywacke; some isolated thin quartz veins; 106'0" - $\frac{1}{2}$" thick quartz vein							
107 9	122 0	Grey-coloured fine-grained greywacke; very frequent quartz veins; two at least 1" thick but others only 1/10" thick	107'9" - 112'9" 4	20	80	<2	40	<0.5	
122 0	126 4	Grey-coloured fine-grained greywacke; 125'6" - mottled effect; otherwise very few quartz veins							
126 4	131 4	Grey-coloured fine-grained greywacke; very marked mottled effect							
131 4	134 3	Light grey-coloured fine-grained greywacke; no quartz veins; disseminated pyrite	131'4" - 136'4" 5	15	60	<2	500	<0.5	Weak zone of mineralisation
134 3	139 0	Light grey-coloured fine-grained greywacke; mostly with mottled effect; narrow quartz veins	136'4" - 141'6" 6	30	70	<2	300	<0.5	"
139 0	141 6	Light grey-coloured fine-grained greywacke; mostly with mottled effect; quartz vein with evidence of galena							"
141 6	145 6	Light grey-coloured fine-grained greywacke; two quartz veins 1/10" thick	141'6" - 146'6" 7	40	460	<2	500	<0.5	"
145 6	148 9	Grey-coloured fine-grained greywacke; one narrow quartz vein; no mottled effect	146'6" - 151'6" 8	20	25	<2	80	<0.5	"

Footage Ft. ins	to Ft. ins	Description	Sample No.	Cu ppm	Pb ppm	Ag ppm	As ppm	Au ppm	Comments
148 9	- 157 0	Grey-coloured fine-grained greywacke; at first just narrow quartz veins; 151' - 1½" quartz vein	151'6" - 156'6" 9	25	20	<2	300	<0.5	Weak zone of mineralization
157 0	- 159 9	Very broken core; grey-coloured fine-grained greywacke; no evidence of quartz veins; no evidence of mottling							
159 9	- 160 6	Very, very broken core; grey-coloured fine-grained greywacke							
160 6	- 164 3	Grey-coloured fine-grained greywacke; no evidence of quartz veins; no evidence of mottling	160'6" - 165'6" 10	30	190	<2	30	<0.5	"
164 3	- 166 3	Grey-coloured fine-grained greywacke; no evidence of quartz veins; no evidence of mottling							
166 3	- 173 6	Grey-coloured fine-grained greywacke; some narrow quartz veins; ½" thick; others 1/10" - ½" thick	171'6" - 176'6" 11	20	25	<2	20	<0.5	
173 6	- 175 9	Grey-coloured fine-grained greywacke; a few narrow quartz veins							
175 9	- 182 8	Grey-coloured fine-grained greywacke; one quartz vein ¼"thick and another 1" thick; other veins 1/10" thick							
182 8	- 191 0	Grey-coloured fine-grained greywacke; several small quartz veins 1/10" wide; 189'0" - quartz vein 1" wide containing galena	187'8" - 192'8" 12	30	25	<2	50	<0.5	

Footage Ft.	ins	to Ft.	ins	Description	Sample No.	Cu ppm	Pb ppm	Ag ppm	As ppm	Au ppm	Comments
191	0 -	197	4	Grey-coloured fine-grained greywacke; several quartz veins $\frac{1}{4}$" wide; 196'0" - possible gold associated with narrow quartz vein; v. micaceous							
197	4 -	203	4	Grey-coloured fine-grained greywacke; some very thin quartz veins; disseminated pyrite throughout							
203	4 -	209	6	Grey-coloured fine-grained greywacke; mottled effect through core from 204' 6"; 207' - $1\frac{1}{2}$" galena in quartz; disseminated pyrite throughout	203'4" - 208'4" 13	30	950	< 2	1000	<0.5	Weak zone of mineralisation
209	6 -	216	6	Grey-coloured fine-grained greywacke; some very thin quartz veins; 215' - quartz vein 1" wide; no longer any trace of galena; disseminated pyrite throughout							
216	6 -	225	0	Grey-coloured fine-grained greywacke; mottled effect throughout; 220' - quartz vein $\frac{1}{2}$" wide							
225	0 -	226	3	Grey-coloured fine-grained greywacke; core very broken; 222'6" - quartz veins $\frac{1}{4}$" wide; no galena visible; disseminated pyrite throughout							
226	3 -	233	9	Grey-coloured fine-grained greywacke; mottled effect throughout; some narrow quartz veins; 232' 3" - 1" galena in quartz; disseminated pyrite							
233	9 -	239	9	Grey-coloured fine-grained greywacke; some mottling effect; several quartz veins $\frac{1}{4}$" - $\frac{1}{2}$" wide							
239	9 -	245	9	As above, but quartz veins absent.							

Footage Ft. ins to Ft. ins	Description	Sample No.	Cu ppm	Pb ppm	Ag ppm	As ppm	Au ppm	Comments
245 9 - 248 1	Grey-coloured fine-grained greywacke; mottling still present to lesser extent; several very thin quartz veins and one 3" wide, all containing galena	245'9"-250' 0" 14	15	30	<2	75	<0.5	
248 1 - 253 10	Grey-coloured fine-grained greywacke; mottling throughout core; several irregular thin quartz veins all containing galena							
253 10 - 256 0	Grey-coloured fine-grained greywacke; several thin irregular quartz veins; 255'0" shale interbed							
256 0 - 261 9	Shale interbed continued to 258'6". 258' 6" grey-coloured fine-grained greywacke; plenty of mica; rock very shiny; several quartz veins 1/10" - 1/5" wide; no mottling effect; 259'0" - quartz vein 2" wide							
261 9 - 267 3	Grey-coloured fine-grained greywacke; no mottling effect; several narrow quartz veins; marked schistose effect							
267 3 - 270 0	Grey-coloured fine-grained greywacke; very broken core; several 1/5" quartz veins; no mottling effect							
270 0 - 275 10	Grey-coloured fine-grained greywacke; some mottling effect; 273'3" - cavity quartz veins containing galena over interval of 1'6"; disseminated pyrite throughout; 274' - shale interbed 3" wide	270'0"-275'0" 15	25	60	<2	300	<0.5	Weak zone of mineralisation
275 10 - 279 3	Grey-coloured fine-grained greywacke; core very broken; some mottling effect; 279'2" - cavity quartz veins containing galena over interval of 1' 6"; disseminated pyrite throughout							

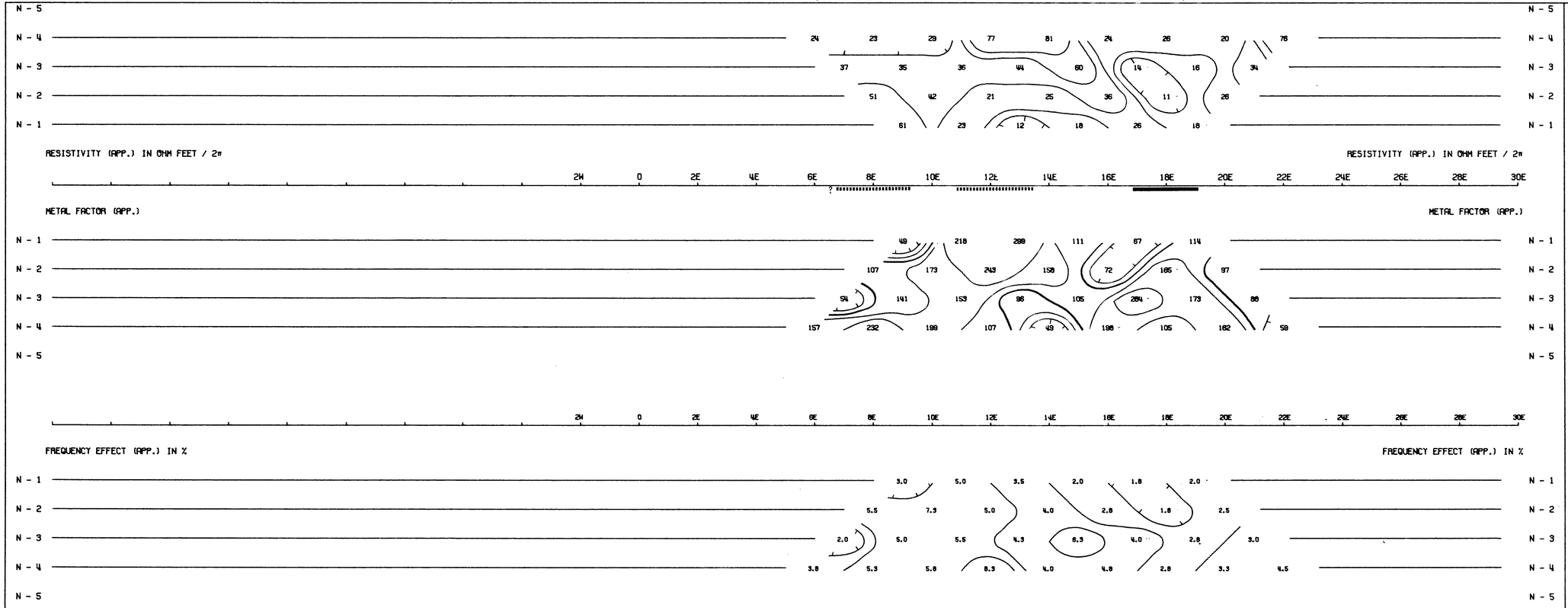
Footage Ft. ins	to Ft. ins	Description	Sample No.	Cu ppm	Pb ppm	Ag ppm	As ppm	Au ppm	Comments
279 3	288 9	Grey-coloured fine-grained greywacke; some mottling effect; several thick quartz veins; no disseminated pyrite; 287'6" - 'marblised' effect over 4"	284'3" - 289'3" 17	25	30	< 2	10	< 0.5	
288 9	292 9	Grey-coloured fine-grained greywacke; core very broken; several irregular thin quartz veins; disseminated pyrite throughout; 291'6" shale interbed	289'3" - 294'3" 18	30	40	< 2	50	< 0.5	
292 9	298 3	Grey-coloured fine-grained greywacke; some mottled effect; several thin quartz veins; 293' 4" - $\frac{1}{4}$" wide quartz vein; disseminated pyrite throughout; mottling effect in patches; some evidence of gold in quartz vein at 297'0"	294'3" - 299'3" 19	40	20	< 2	100	< 0.5	
298 3	300 3	Grey-coloured fine-grained greywacke; rock has become darker; no mica visible							
300 3	305 4	Dark-grey-coloured fine-grained greywacke; some mottled effect; several thin veins of quartz; mica present once more; several thin shale interbeds ($\frac{1}{2}$" less)							
305 4	308 6	Dark grey-coloured fine-grained greywacke; several thin quartz veins; disseminated pyrite throughout	310'0" - 315'0" 20	20	25	< 2	15	< 0.5	Weak zone of mineralisation
308 6	319 0	Dark grey-coloured fine-grained greywacke; several narrow quartz veins; a few quartz veins $\frac{1}{4}$" wide; disseminated pyrite throughout; 316'4" - thick quartz vein over 4" with some galena crystals; 318' - shale interbed	315'0" - 320'0" 21	30	60	< 2	600	< 0.5	"

Footage Ft.	ins	to Ft.	ins	Description	Sample No.	Cu ppm	Pb ppm	Ag ppm	As ppm	Au ppm	Comments
319	0	- 322	3	Dark grey-coloured fine-grained greywacke; several thin quartz veins; disseminated pyrite throughout							
322	3	- 332	3	Dark grey-coloured fine-grained greywacke; a few thin quartz veins; disseminated pyrite throughout; several $\frac{1}{4}$" shale interbeds; mica strongly evident	327'0" - 332'0" 22	45	45	<2	40	<0.5	
332	3	- 335	9	Dark grey-coloured fine-grained greywacke; some good core but rest very broken; several $\frac{1}{4}$" shale interbeds: 334'6" - quartz vein 1" wide with associated galena crystals; disseminated pyrite throughout							
335	9	- 346	3	Dark grey-coloured fine-grained greywacke; several thin irregular quartz veins; where cavity effect present galena crystals evident; some $\frac{1}{4}$" quartz veins appear barren; disseminated pyrite throughout; 342'4" - shale interbed 2" wide.	340'0" - 345'0" 23	20	20	<2	20	<0.5	
346	3	- 353	9	Dark grey-coloured fine-grained greywacke; several $\frac{1}{2}$" quartz veins with evidence of galena; 349'6" - 3" quartz vein with galena; 350'2" - irregular quartz vein containing galena over 1'6"; several shale interbeds 1/5-$\frac{1}{4}$" wide; disseminated pyrite throughout; very interesting section	346'0" - 351'3" 24	30	40	<2	40	<0.5	
353	9	- 358	9	Dark grey-coloured fine-grained greywacke; irregular narrow quartz veins; some with cavity effect containing galena and some evidence of gold and silver; shale interbeds $\frac{1}{2}$"-2" wide; disseminated pyrite throughout							

Footage Ft.	ins	to Ft.	ins	Description	Sample No.	Cu ppm	Pb ppm	Ag ppm	As ppm	Au ppm	Comments
358	9 -	363	8	Dark grey-coloured fine-grained greywacke; very micaceous; evidence of brecciated core over 4" at 362'2"							
363	8 -	370	0	Dark grey-coloured fine-grained greywacke; irregular quartz veins up to $\frac{1}{2}$" wide; 368'6" - quartz vein $1\frac{1}{2}$" wide containing galena; disseminated pyrite throughout; shale interbeds $\frac{1}{4}$" wide; towards end of intersection core very broken	363'8" - 368'8" 25	20	30	<2	50	<0.5	
370	0 -	375	6	Dark grey-coloured fine-grained greywacke; several thin quartz veins; irregular quartz vein over 3" with some evidence of galena; disseminated pyrite throughout							
375	6 -	383	6	Dark grey-coloured fine-grained greywacke; evidence of isolated gold crystals; several narrow quartz veins: 380'0" quartz vein 2" wide with several galena crystals; disseminated pyrite throughout; several shale interbeds up to 4" wide - especially towards end of intersection	375'6" - 380'6"	45	20	<2	25	<0.5	
383	6 -	389	6	Dark grey-coloured fine-grained greywacke; 384'0"-quartz vein over 3" containing pyrite and galena: 386'0" - quartz veins with heavy mineralisation over 2'3"	383'6" - 388'6" 27	25	50	<2	65	<0.5	
389	6 -	396	3	Dark grey-coloured fine-grained greywacke; mineralisation still evident; quartz veins vary from $\frac{1}{2}$" to 4" width throughout; several galena crystals and pyrite	389'6" - 396'3" 28	40	40	<2	60	<0.5	
396	3 -	400	6	Dark grey-coloured fine-grained greywacke; core very broken; 397'0"- quartz vein $1\frac{1}{2}$" wide with obvious galena crystals and suggestion of gold; disseminated pyrite throughout; soft shale interbeds up to 4" wide towards end of intersection	396'3" - 401'3" 29	25	60	< 2	40	<0.5	

Footage Ft.	ins	to Ft.	ins	Description	Sample No	Cu ppm	Pb ppm	Ag ppm	As ppm	Au ppm	Comments
400	6 -	411	0	Dark grey-coloured fine-grained greywacke; several irregular quartz veins containing galena crystals; disseminated pyrite throughout; core tends to be very broken; 407'0"-discontinuous mineralised veins over 9" with suggestion of gold crystals; 410'0" - discontinuous mineralised veins showing galena crystals over 1'0"	405'0" - 410'0" 30	45	20	<2	50	<0.5	
411	0 -	416	9	Dark grey-coloured fine-grained greywacke; core very broken; disseminated pyrite throughout; few narrow quartz veins							
416	9 -	424	9	Dark grey-coloured fine-grained greywacke; several cavity veins; disseminated pyrite throughout; shale interbeds up to 2" wide							
424	9 -	427	6	Dark grey-coloured fine-grained greywacke; very broken core; disseminated pyrite throughout							
427	6 -	436	6	Dark grey-coloured fine-grained greywacke; several quartz veins with evidence of mineralisation ; 432'6") quartz veins with galena crystals 434'8")	427'6" - 432'6" 31	40	25	<2	5	<0.5	
				435'0" - "marblised" effect over 2"; shale interbeds up to 2" wide; core very broken towards end of intersection	432'6" - 437'6" 32	35	20	<2	10	<0.5	
436	6 -	442	6	Dark grey-coloured fine-grained greywacke; core broken over first 1'0" of intersection; several shale interbeds 2" wide							

Footage Ft. ins	to Ft. ins	Description	Sample No.	Cu ppm	Pb ppm	Ag ppm	As ppm	Au ppm	Comments
442 6	- 449 3	Dark grey-coloured fine-grained greywacke; core very broken; "marblised" effect over 4" at 445'0"; several narrow quartz veins	442'6" - 447'6" 33	20	20	<2	5	<0.5	
449 3	- 456 9	Dark grey-coloured fine-grained greywacke; 450'2" - "marblised" effect over 2"; parts of core almost jet black; several shale interbeds up to 2" wide							
456 9	- 463 9	Dark grey-coloured fine-grained greywacke; 457' 6" - "marblised" effect over 2"; disseminated pyrite throughout; 459'3" - 6" of shale; 462'0" - 9" of shale							
463 9	- 467 0	Dark grey-coloured fine-grained greywacke; very broken core; disseminated pyrite throughout	463' 9" - 468'9" 34	45	20	<2	5	<0.4	
467 0	- 477 0	Dark grey-coloured fine-grained greywacke; core very broken; disseminated pyrite throughout	472'9" - 477'0" 35	35	<20	<2	5	<0.5	

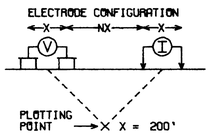


DWG. NO.- I.P.- 5224-I

G. M. CACAS / K. POWELL

TALISKER MINE AREA,
CAPE JERVIS, S.A.

LINE NO.- 20N



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-2.5 CPS

DATE SURVEYED: SEPT '68

APPROVED:

NOTE: CONTOURS AT LOGARITHMIC INTERVALS 1.-1.5-2.-3.-5.-7.5-10

DATE: 23/10/68

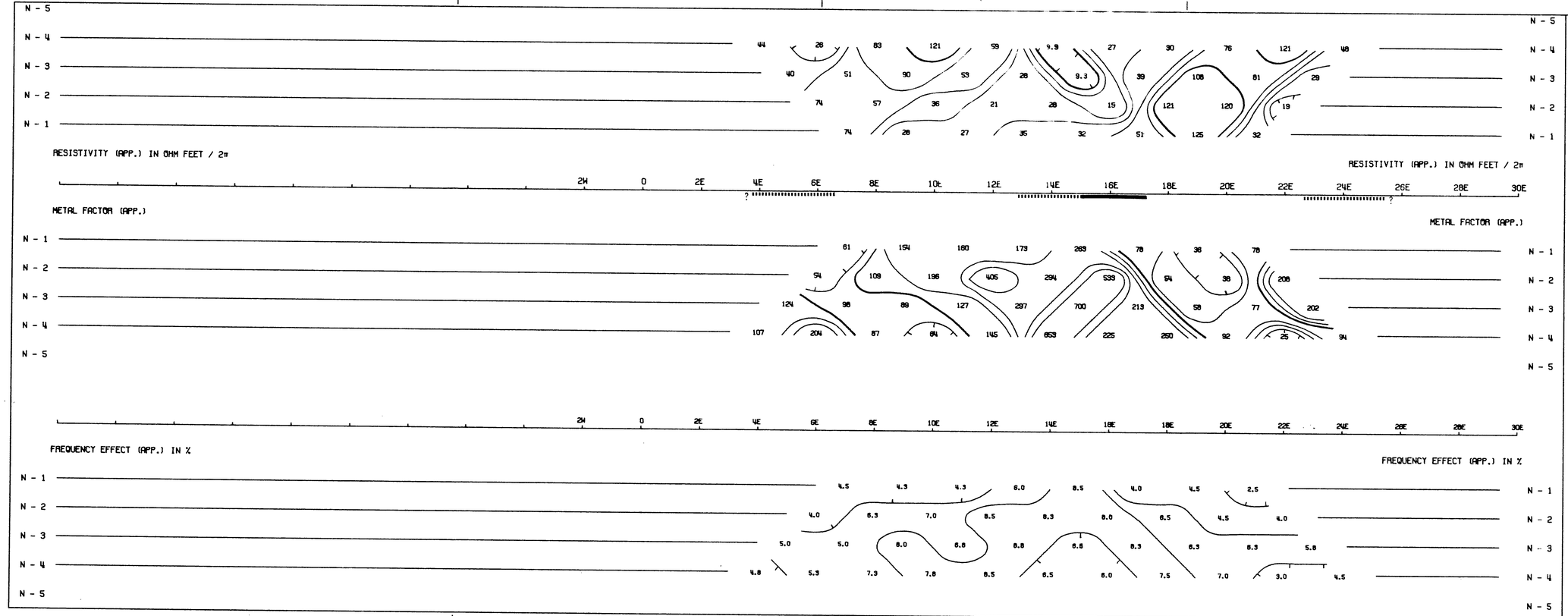
McPHAR GEOPHYSICS (1971) LIMITED

ENV.1288-1

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED WITH AN IBM 360/40 COMPUTER AND A CALCOMP PLOTTER

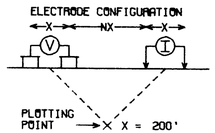


DWG. NO.- I.P.- 5224-2

G. M. CACAS / K. POWELL

TALISKER MINE AREA,
CAPE JERVIS, S.A.

LINE NO.- 18N



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE ——————
PROBABLE ||||||||||||
POSSIBLE / / / / /

FREQUENCIES: 0.31-2.5 CPS

DATE SURVEYED: AUG '68

APPROVED:

DATE: 12/10/68

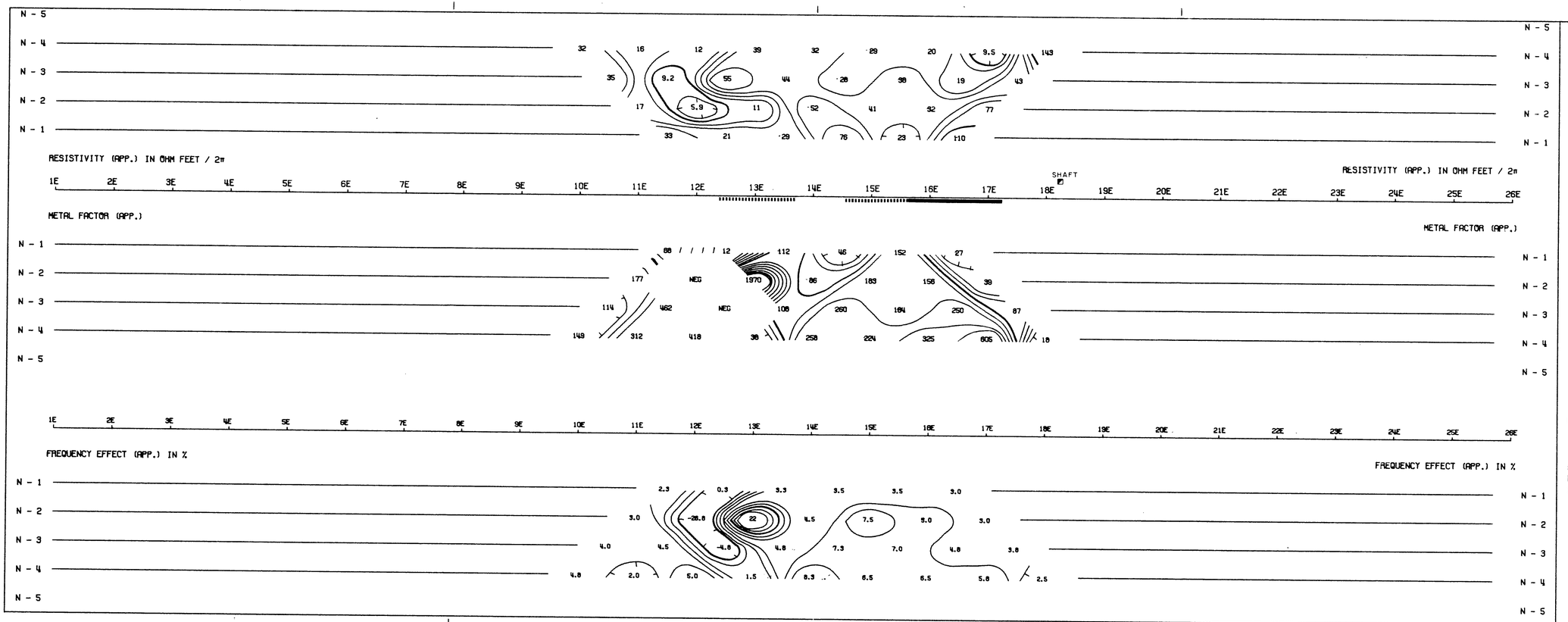
NOTE: CONTOURS AT LOGARITHMIC INTERVALS 1.-1.5-2.-3.-5.-7.5-10

ENV. 1288-2

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED WITH AN IBM 360.40 COMPUTER AND A CALCOMP PLOTTER



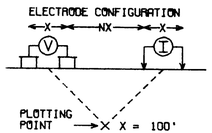
DWG. NO.- I.P.- 5224-3

G. M. CACAS / K. POWELL

TALISKER MINE AREA,
CAPE JERVIS, S.A.

LINE NO.- 18N

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-2.5 CPS

DATE SURVEYED: SEPT '68

APPROVED:

NOTE: CONTOURS AT LOGARITHMIC INTERVALS 1.-1.5-2.-3.-5.-7.5-10

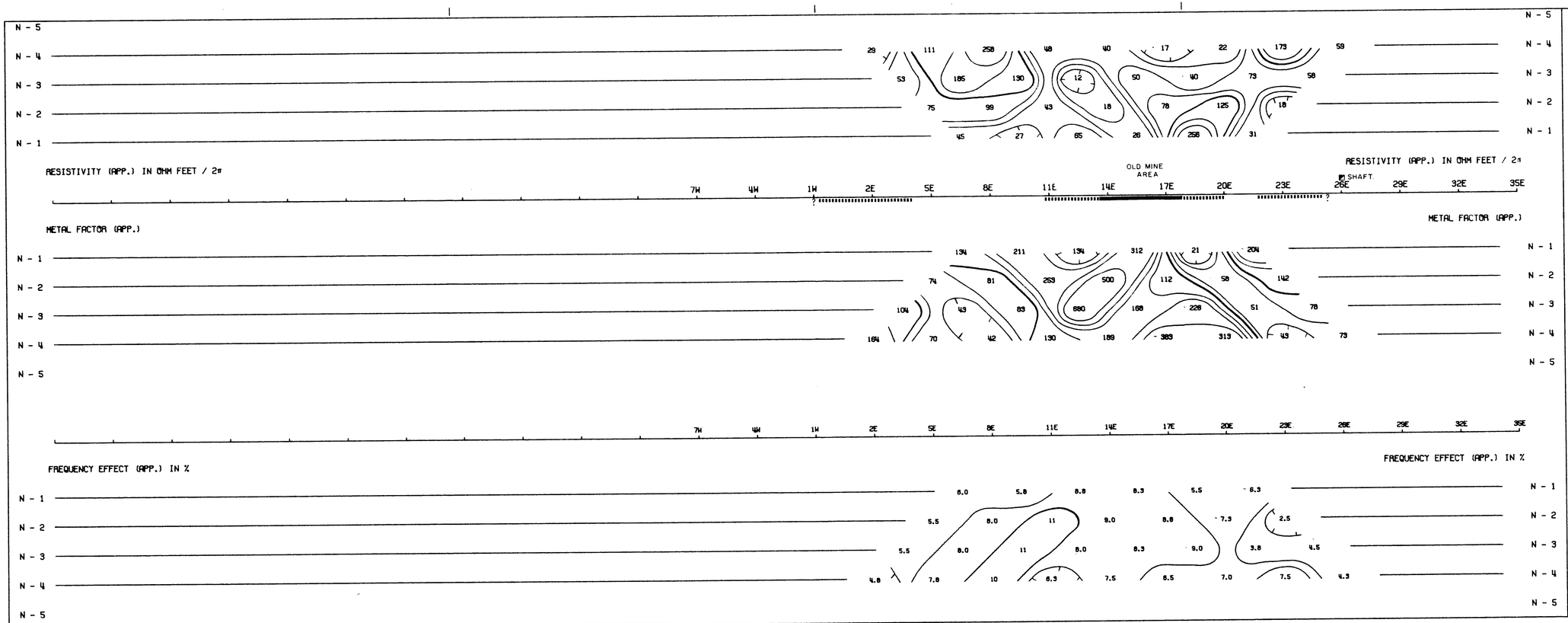
DATE: 22/10/68

ENV. 1288-3

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED WITH AN IBM 360/40 COMPUTER AND A CALCOMP PLOTTER



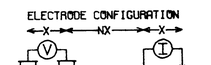
DWG. NO.- I.P.-5224-4

G. M. CACAS / K. PØWELL

TALISKER MINE AREA,
CAPE JERVIS, S.A.

LINE NO.- 14N

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-2.5 CPS

DATE SURVEYED: AUG '68

NOTE: CONTOURS AT LOGARITHMIC INTERVALS 1.-1.5-2.-3.-5.-7.5-10

APPROVED:

DATE: 12/10/68

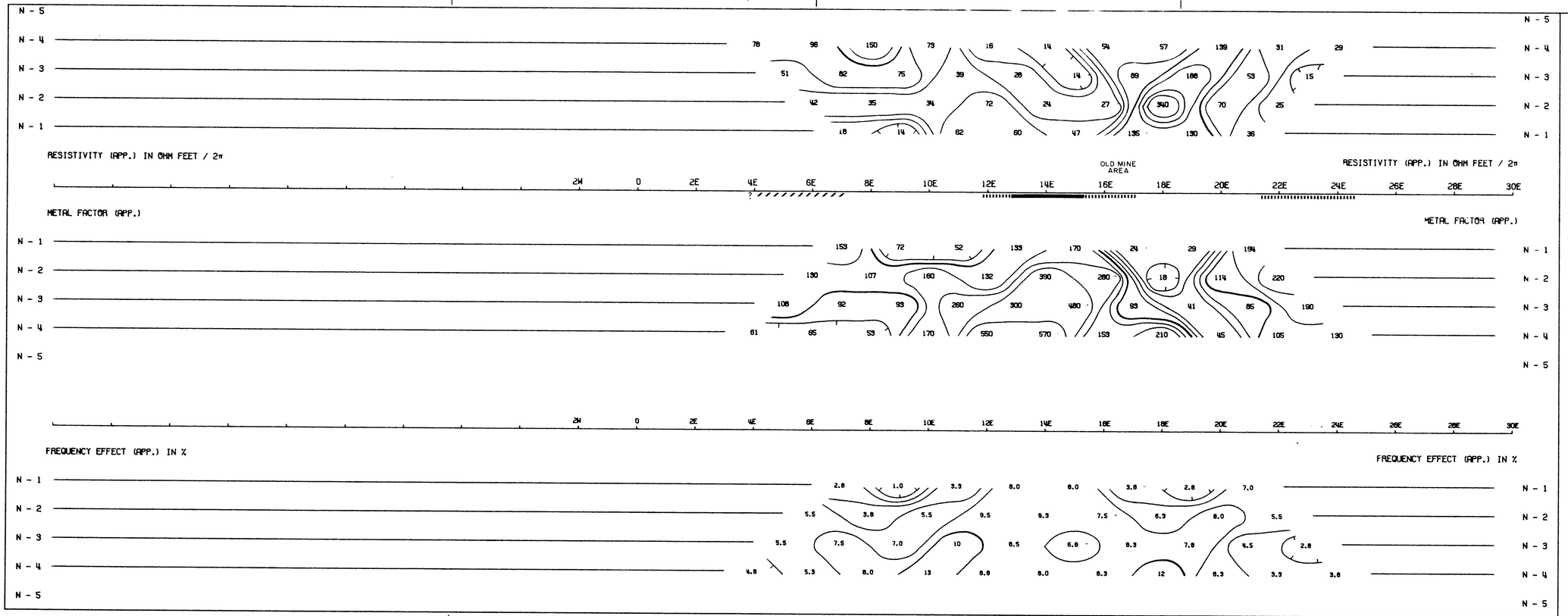
McPHAR GEOPHYSICS LIMITED

ENV. 1288-4

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED WITH AN IBM 360/40 COMPUTER AND A CALCOMP PLOTTER



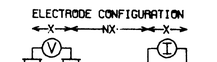
DWG. NO.- I.P.- 5224-5

G. M. CACAS / K. POWELL

TALISKER MINE AREA,
CAPE JERVIS, S.A.

LINE NO.- 14N

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-2.5 CPS

DATE SURVEYED: AUG '68

NOTE: CONTOURS AT LOGARITHMIC INTERVALS 1.-1.5-2.-3.-5.-7.5-10

APPROVED: McPHAR GEOPHYSICS LIMITED

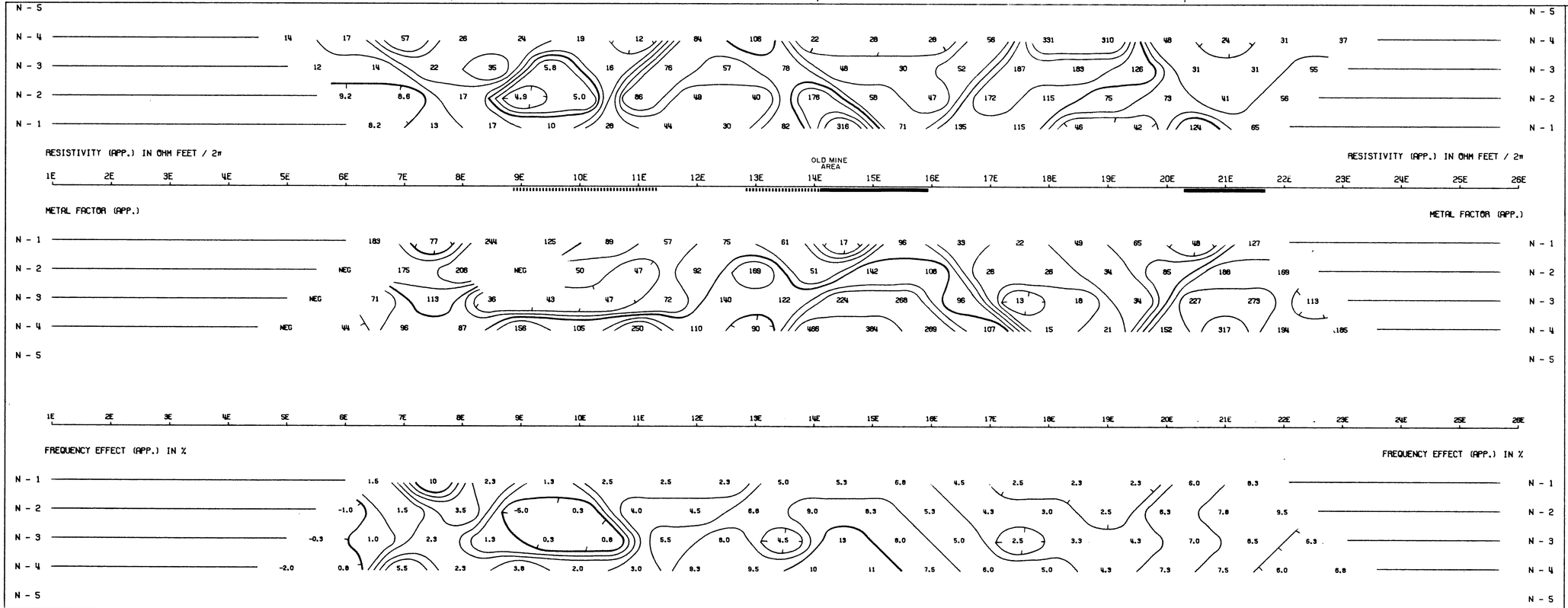
DATE: 30/10/68

ENV. 1288-5

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED WITH AN IBM 360/40 COMPUTER AND A CALCOMP PLOTTER



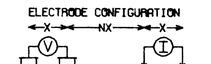
DWG. NO.- I.P.- 5224-6

G. M. CACAS / K. POWELL

TALISKER MINE AREA,
CAPE JERVIS, S.A.

LINE NO.- 14N

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-2.5 CPS

DATE SURVEYED: AUG '68

APPROVED:

McPHAR GEOPHYSICS LIMITED

DATE: 12/10/68

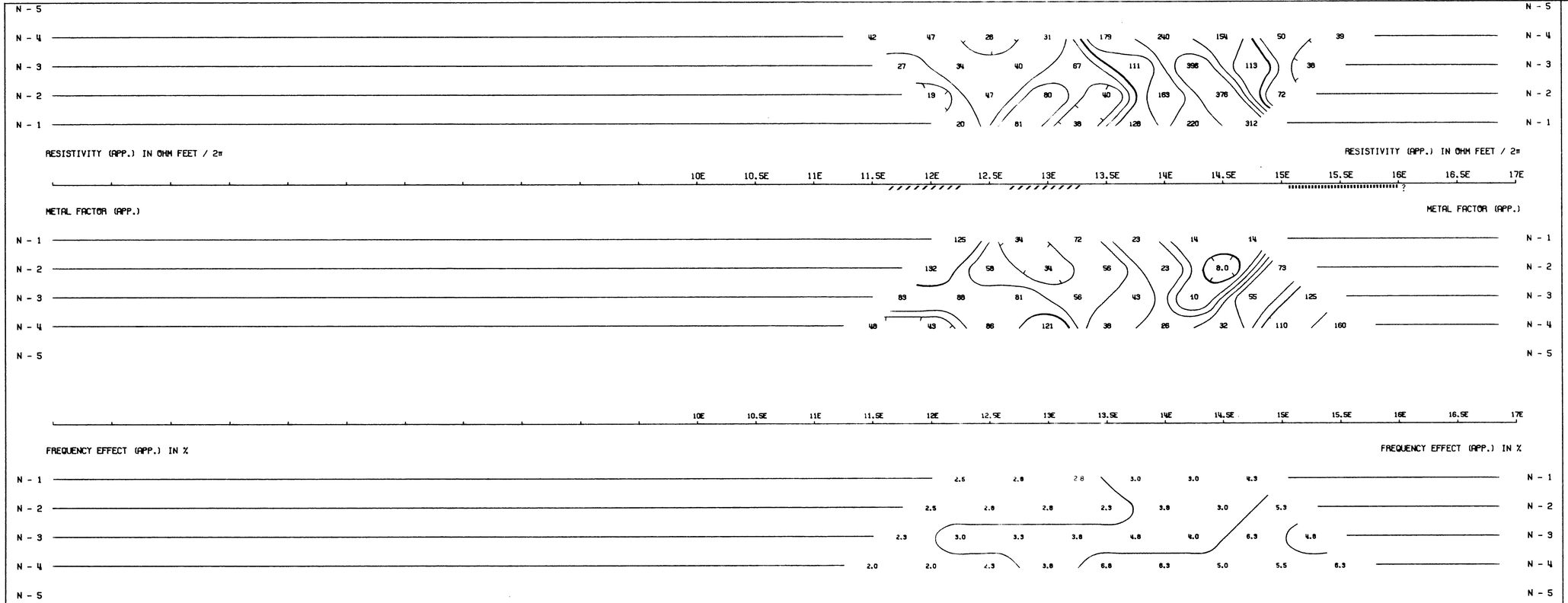
NOTE: CONTOURS AT LOGARITHMIC INTERVALS 1.-1.5-2.-3.-5.-7.5-10

ENV. 1288-6

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED WITH AN IBM 360/40 COMPUTER AND A CALCOMP PLOTTER



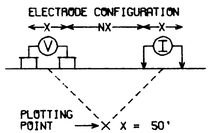
DWG. NO.- I.P.- 5224-7

G. M. CACAS / K. POWELL

TALISKER MINE AREA,
CAPE JERVIS, S.A.

LINE NO.- 14N

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-2.5 CPS

DATE SURVEYED: SEPT '68

APPROVED:

DATE: 14/11/68

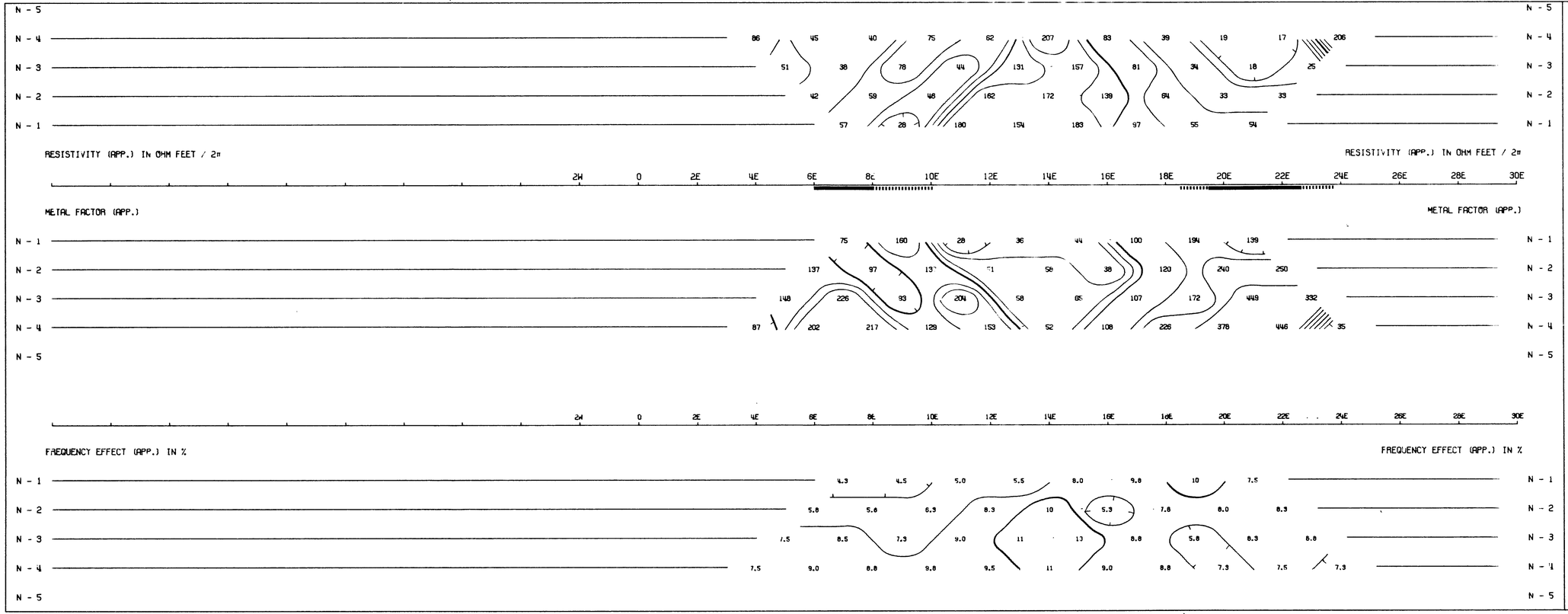
NOTE: CONTOURS AT LOGARITHMIC INTERVALS 1.-1.5-2.-3.-5.-7.5-10

ENV. 1288-7

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED WITH AN IBM 360/40 COMPUTER AND A CALCOMP PLOTTER



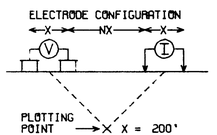
DWG. NO.- I.P.- 5224-8

G. M. CACAS / K. POWELL

TALISKER MINE AREA,
CAPE JERVIS, S.A.

LINE NO.- 10N

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-2.5 CPS

DATE SURVEYED: AUG '68

APPROVED:

DATE: 10/8

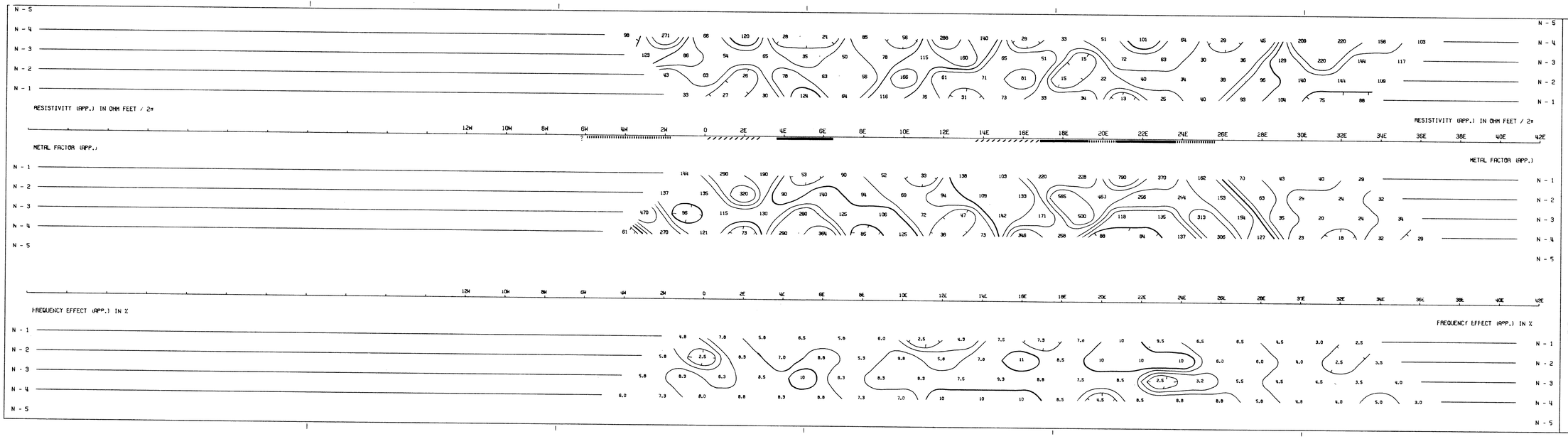
NOTE: CONTOURS AT LOGARITHMIC INTERVALS 1.-1.5-2.-3.-5.-7.5-10

ENV. 1288-8

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED WITH AN IBM 360/40 COMPUTER AND A CALCOMP PLOTTER



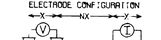
DWG. NO.- I.P.-5224-9

G. M. CACAS / K. POWELL

TALISKER MINE AREA,
CAPE JERVIS, S.A.

LINE NO.- GN

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-2.5 CPS

DATE SURVEYED: AUG '68

APPROVED:

DATE: 28/10/68

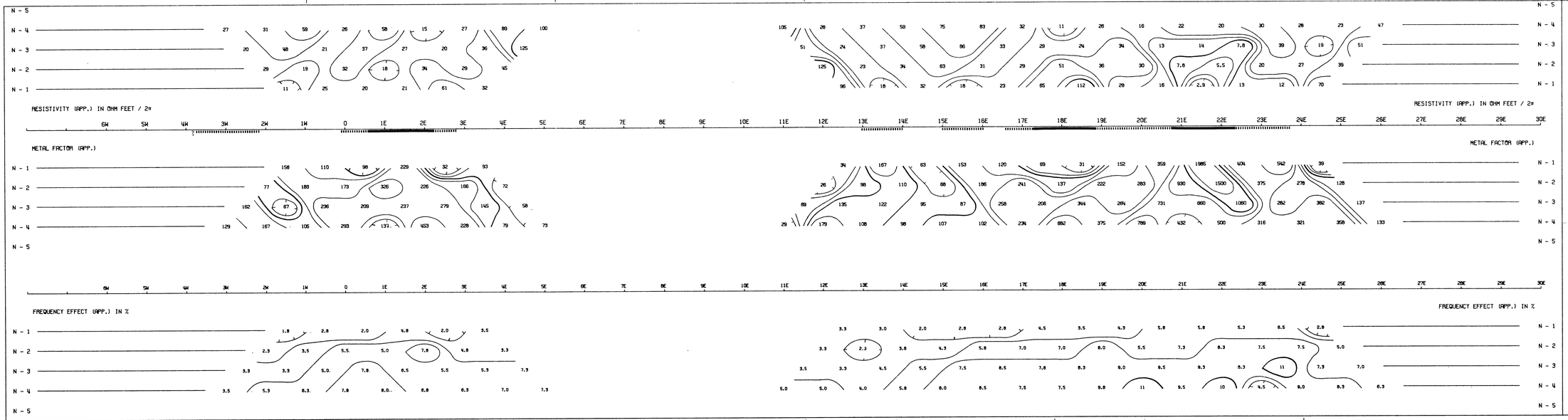
NOTE: CONTOURS AT LOGARITHMIC INTERVALS 1.-1.5-2.-3.-5.-7.5-10

ENV. 1288-9

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED WITH AN IBM 360/40 COMPUTER AND A CALCOMP PLOTTER



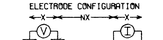
DWG. NO.- I.P.- 5224-10

G. M. CACAS / K. POWELL

TALISKER MINE AREA,
CAPE JERVIS, S.A.

LINE NO.- 6N

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-2.5 CPS

DATE SURVEYED: SEPT '68

APPROVED:

DATE: 23/10/68

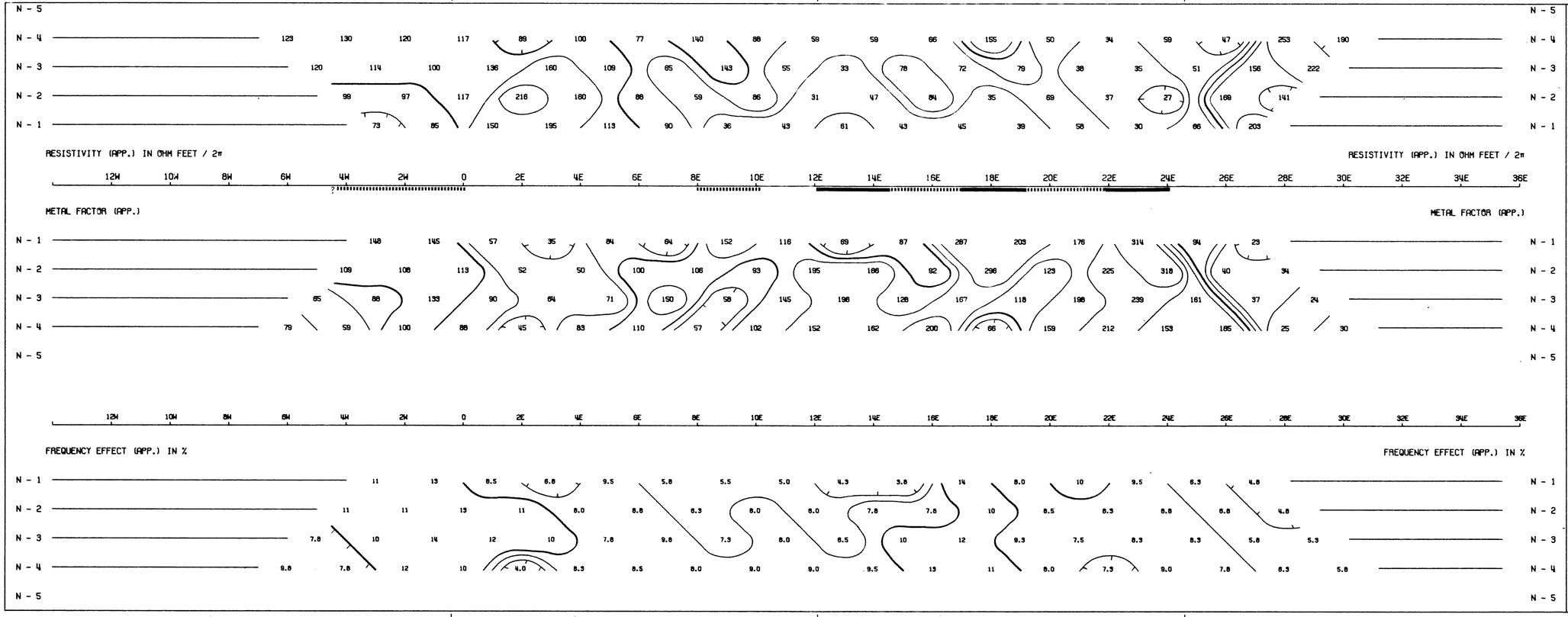
NOTE: CONTOURS AT LOGARITHMIC INTERVALS 1.-1.5-2.-3.-5.-7.5-10

ENV. 1288 -10

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED WITH AN IBM 360/40 COMPUTER AND A CALCOMP PLOTTER



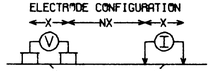
DWG. NO.- I.P.- 5224-11

G. M. CACAS / K. POWELL

TALISKER MINE AREA,
CAPE JERVIS, S.A.

LINE NO.- 2N

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-2.5 CPS

DATE SURVEYED: AUG '68

APPROVED:

DATE:

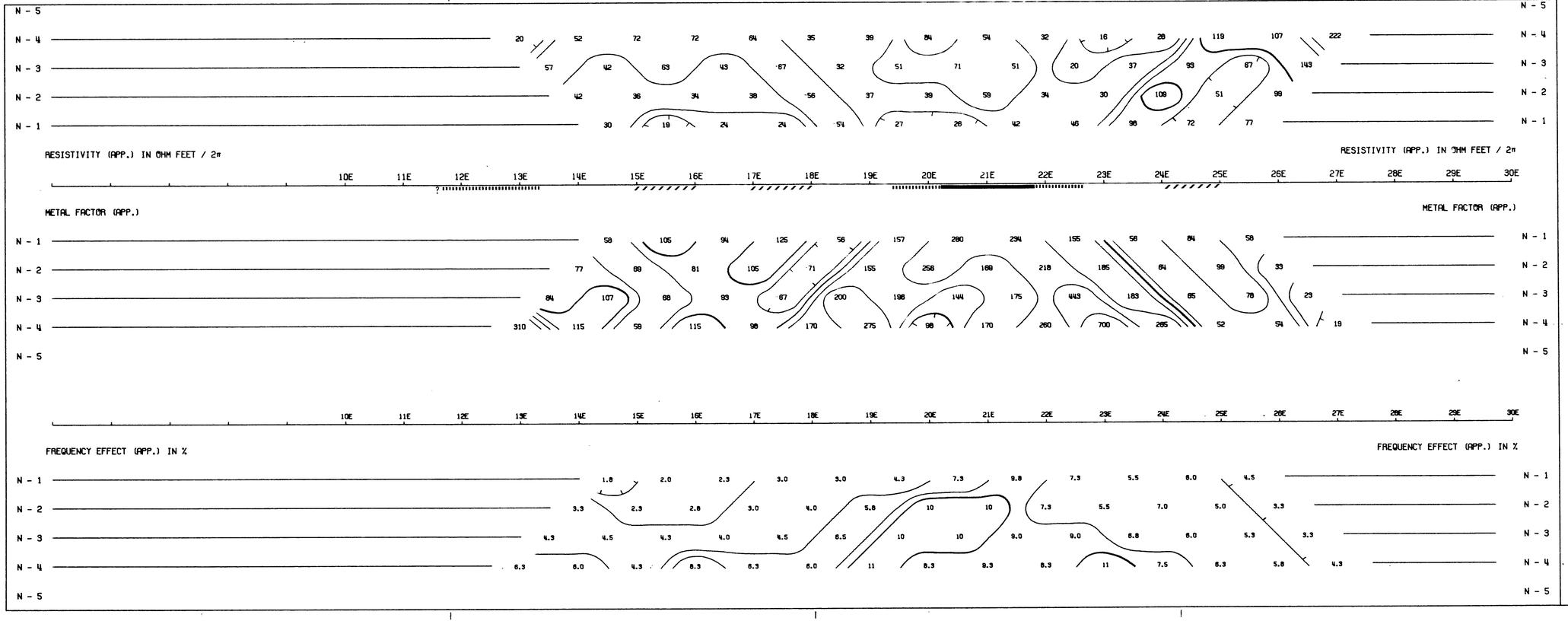
NOTE: CONTOURS AT LOGARITHMIC INTERVALS 1.-1.5-2.-3.-5.-7.5-10

ENV. 1288 - 11

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED WITH AN IBM 360/40 COMPUTER AND A CALCOMP PLOTTER



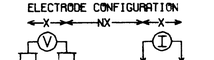
DWG. NO.- I.P.-5224-12

G. M. CACAS / K. POWELL

TALISKER MINE AREA,
CAPE JERVIS, S.A.

LINE NO.- 2N

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-2.5 CPS

DATE SURVEYED: SEPT '68

APPROVED:

DATE: 21/10/68

McPHAR GEOPHYSICS LIMITED

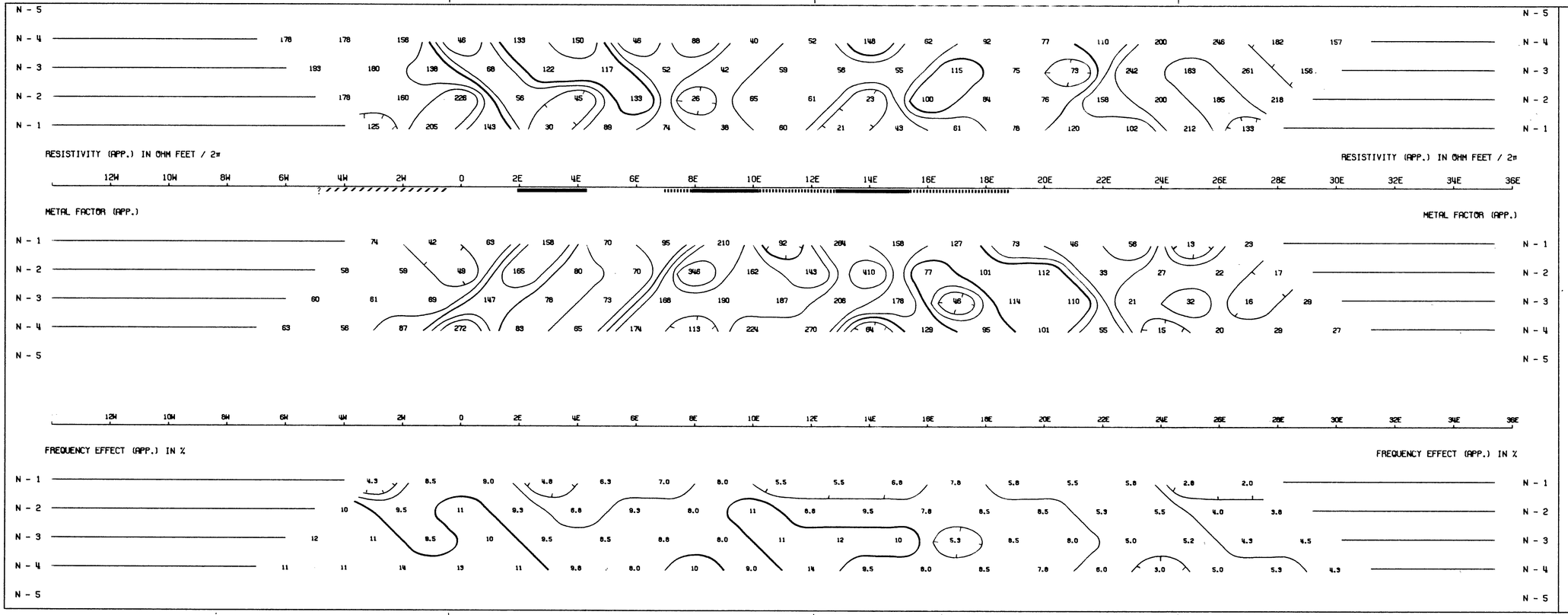
NOTE: CONTOURS AT LOGARITHMIC INTERVALS 1.-1.5-2.-3.-5.-7.5-10

ENV. 1288-12

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED WITH AN IBM 360/40 COMPUTER AND A CALCOMP PLOTTER



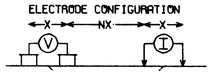
DWG. NO.- I.P.- 5224-13

G. M. CACAS / K. POWELL

TALISKER MINE AREA,
CAPE JERVIS, S.A.

LINE NO.- 2S

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-2.5 CPS

DATE SURVEYED: AUG '68

APPROVED:

DATE: 12/11/68

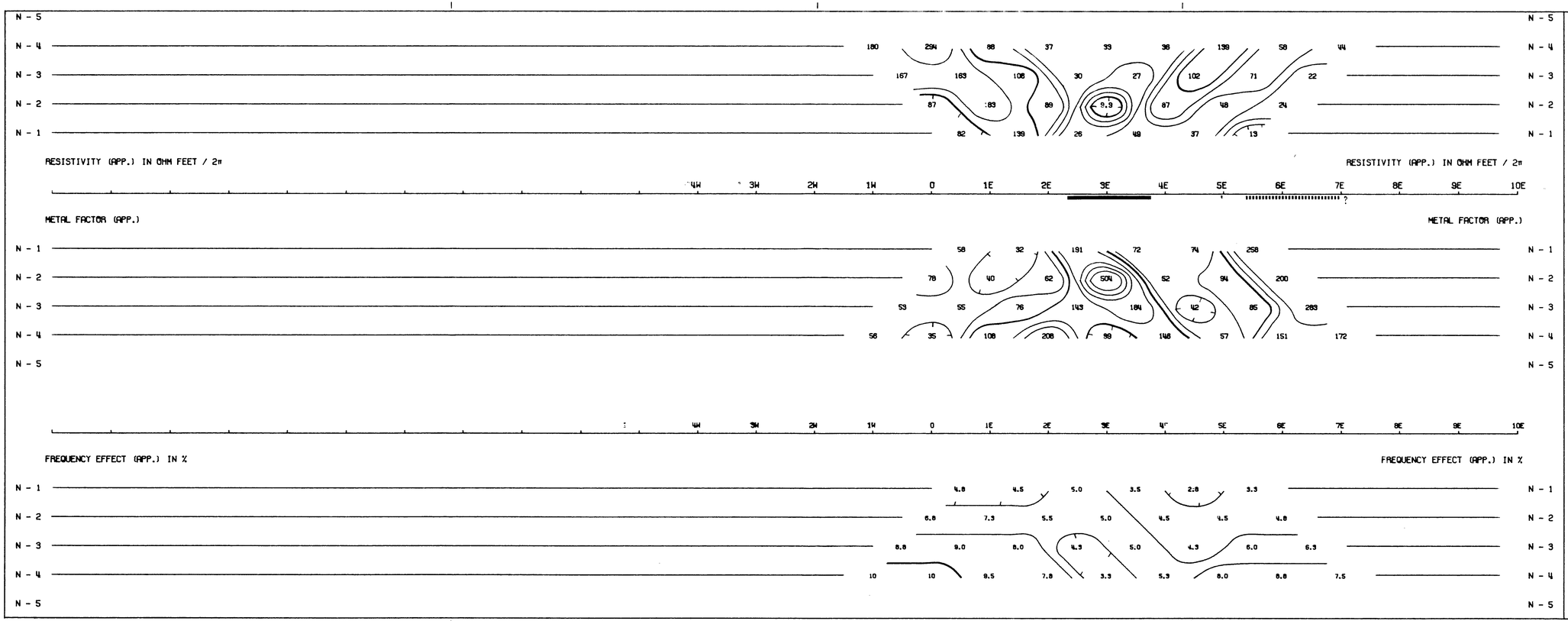
NOTE: CONTOURS AT LOGARITHMIC INTERVALS 1.-1.5-2.-3.-5.-7.5-10

ENV. 1288-13

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED WITH AN IBM 360/40 COMPUTER AND A CALCOMP PLOTTER



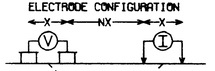
DWG. NO.- I.P.- 5224-14

G. M. CACAS / K. POWELL

TALISKER MINE AREA,
CAPE JERVIS, S.A.

LINE NO.- 2S

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-2.5 CPS

DATE SURVEYED:- SEPT '68

APPROVED:

DATE:

NOTE: CONTOURS AT LOGARITHMIC INTERVALS 1.-1.5-2.-3.-5.-7.5-10

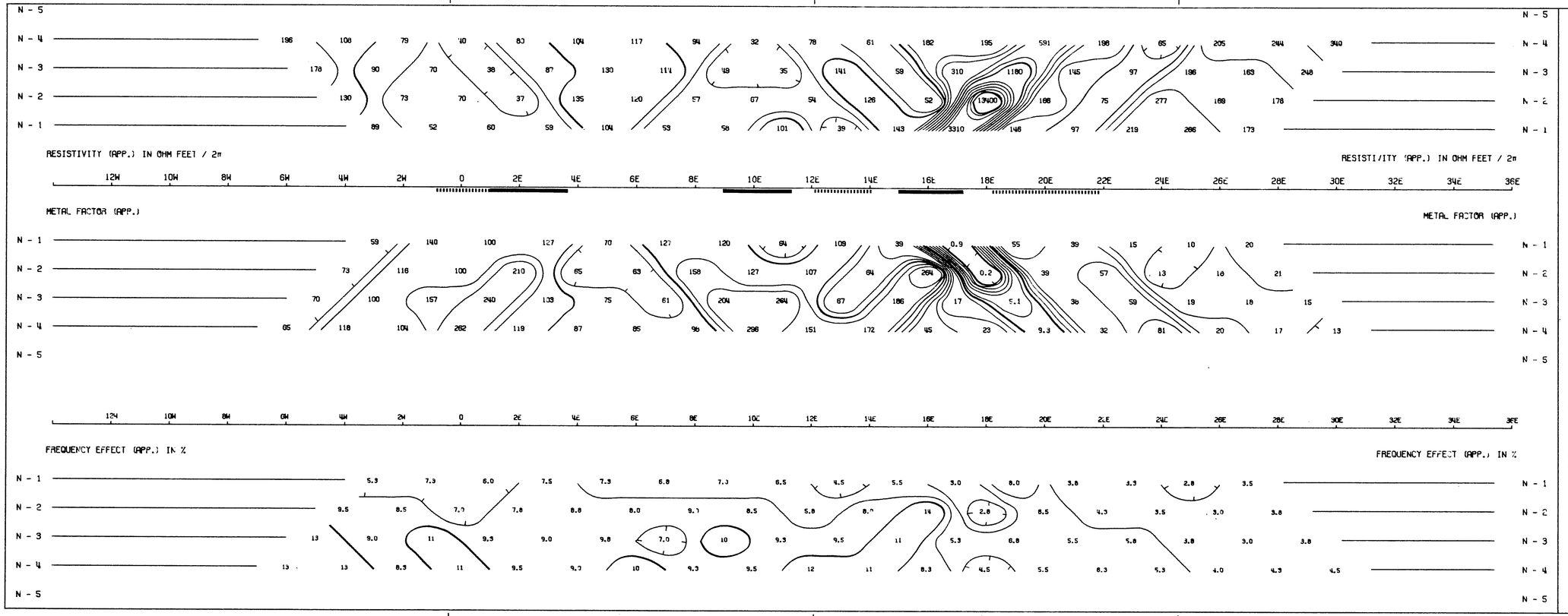
McPHAR GEOPHYSICS LIMITED 12/10/68

ENV. 1288-14

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED WITH AN IBM 360/40 COMPUTER AND A CALCOMP PLOTTER



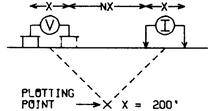
DWG. NO.- I.P.- 5224-15

G. M. CACAS / K. POWELL

TALISKER MINE AREA,
CAPE JERVIS, S.A.

LINE NO.- 6S

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-2.5 CPS

DATE SURVEYED: SEPT '68

APPROVED: PJ

DATE: 12/10/68

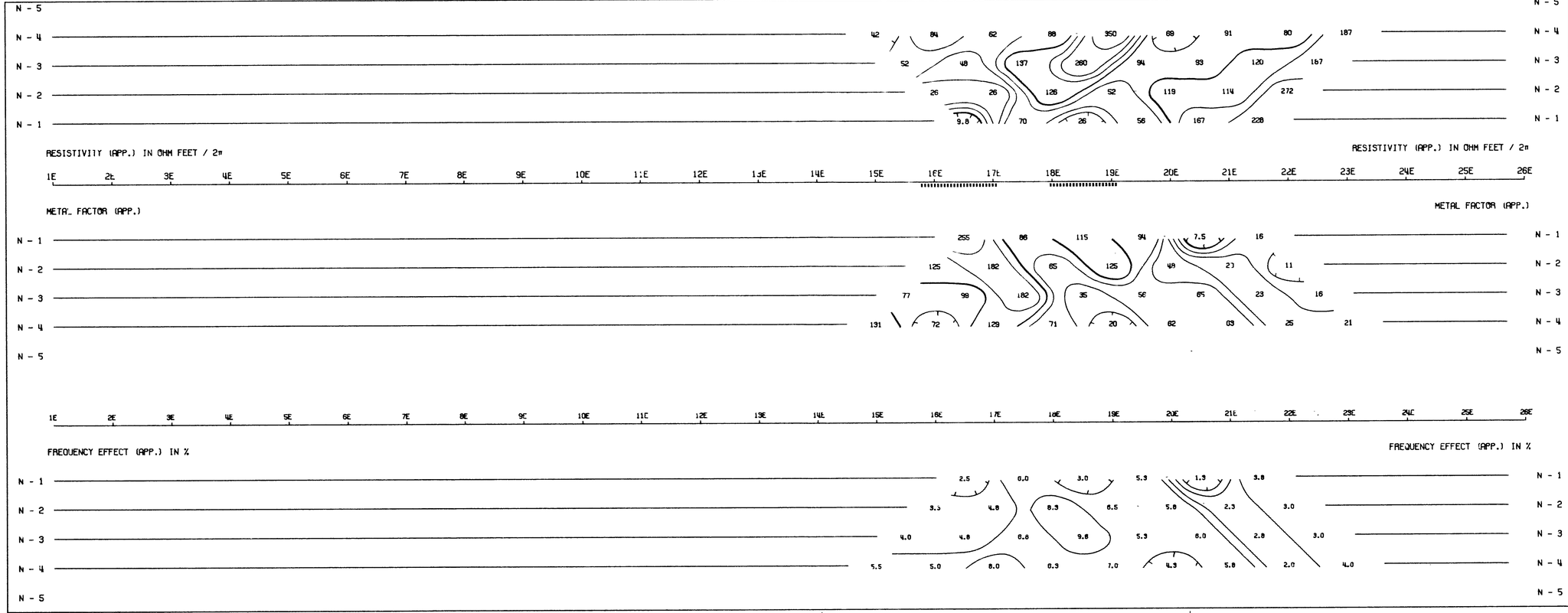
NOTE: CONTOURS AT LOGARITHMIC INTERVALS 1.-1.5-2.-3.-5.-7.5-10

ENV. 1288 - 15

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED WITH AN IBM 360/40 COMPUTER AND A CALCOMP PLOTTER



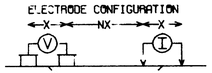
DWG. NO.- I.P.- 5224-16

G. M. CACAS / K. POWELL

TALISKER MINE AREA,
CAPE JERVIS, S.A.

LINE NO.- GS

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-2.5 CPS

DATE SURVEYED: SEPT '68

APPROVED:

DATE: 12/12/68

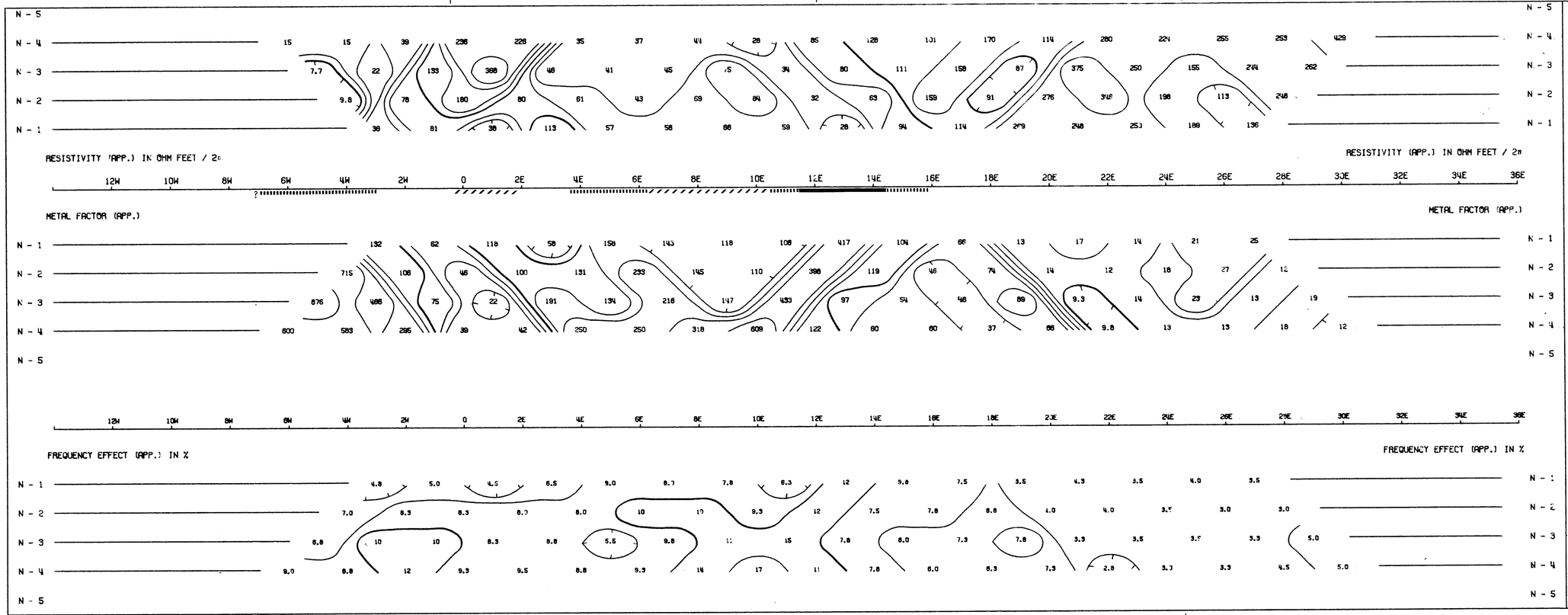
NOTE: CONTOURS AT LOGARITHMIC INTERVALS 1.-1.5-2.-3.-5.-7.5-10

ENV. 1288-16

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED WITH AN IBM 360/40 COMPUTER AND A CALCOMP PLOTTER



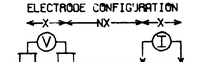
DWG. NO.- I.P.- 5224-17

G. M. CACAS / K. POWELL

TALISKER MINE AREA,
CAPE JERVIS, S.A.

LINE NO.- 10S

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-2.5 CPS

DATE SURVEYED: SEPT '68

APPROVED:

DATE: 29/10/68

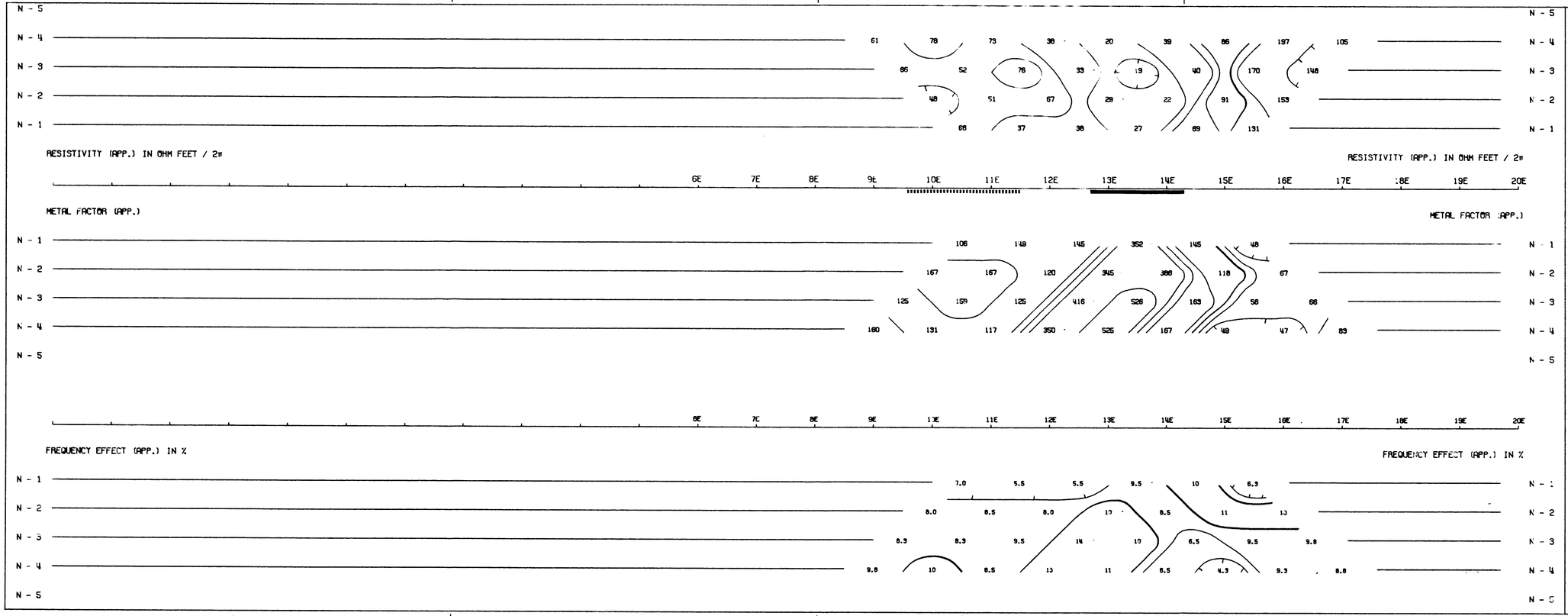
NOTE: CONTOURS AT LOGARITHMIC INTERVALS 1.-1.5-2.-3.-5.-7.5-10

ENV. 1288-17

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED WITH AN IBM 360/40 COMPUTER AND A CALCOMP PLOTTER



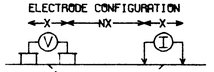
DWG. NO.- I.P.- 5224-18

G. M. CACAS / K. POWELL

TALISKER MINE AREA,
CAPE JERVIS, S.A.

LINE NO.- 10S

ELECTRODE CONFIGURATION



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

FREQUENCIES: 0.31-2.5 CPS

DATE SURVEYED: SEPT '68

APPROVED:

DATE: 2/12/68

McPHAR GEOPHYSICS LIMITED

NOTE: CONTOURS AT LOGARITHMIC INTERVALS 1.-1.5-2.-3.-5.-7.5-10

ENV. 1288-18

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

NOTE: THIS PLOT WAS PRODUCED WITH AN IBM 360/40 COMPUTER AND A CALCOMP PLOTTER

AMAD N.L.	
TALISKER MINE S.A. LOCALITY MAP	Date : July 1969 Scale : 1" = 200' PLATE I.
Kenneth McMahon & Partners Pty Ltd.	

ENV 1288-19

N

REFERENCE

- Shaft
- x Adit
- Creek
- Road
- Area not owned by AMAD N.L.
- 5341 Mineral claim boundary and number

SCALE

0 200 400 600
FEET

5340
5341
5045
5044
5335
5343
5080
5336
5342
5337
5118
5334
5338
5339

Fishery Creek
Creek
Sea Creek
Campbell Creek
Dead Tree Ck
Galah Creek
Lowry's Creek
Rabbit Creek
Arum Lily Creek
Cliff Creek

LOWRY'S MINE
DRILL SITE TRACK
ADITS
CRUSHING PLANT
MAGAZINE
ENGINE SHAFT
OLD CHIMNEY STACK
TAPLEY SHAFT
ADIT
MAIN MINE AREA
STAMPING GROUND
SPARR'S SHAFT
PRICE SHAFT
NO NAME SHAFT
GYLDE SHAFT
MINING CLAIMS OWNED BY J SPARR AND K LOUNER
ADIT x
CAMPBELL CREEK MINE
ADIT x
ADIT x
ROSENWARNE ADIT x
STORMY POINT
KANGAROO HILLSIDE
PARKANG
CAMPBELL HILL

ENV. 1288-20

LEGEND

Sandstone

Greywacke

Phyllite

Laterite

Mining Claim owned by J. Sparr & K. Lounet

Mining Claim owned by J. Sparr & K. Lounet

N

SCALE

0 200 400 600

FEET

AMAD N.L.	
TALISKER MINE S.A.	Date: July 1969
GENERAL GEOLOGY	Scale: 1"=200'
	PLATE II
Kenneth McMahon & Partners Pty. Ltd.	

ENV 1288

ENV. 1288-21

LEGEND

GEOCHEMISTRY

- Geochemical soil sample showing As values plotted over Pb values in ppm.
- Geochemical soil sample showing Cu values plotted over Pb values in ppm
- Stream sediment sample showing As values plotted above Pb values in ppm
- TCR 1 — Geochemical rock sample (March 1969)
- S 1 — Rock sample (May 1969)

GEOPHYSICS

- Surface projection strong I.P Anomalous zone
- Surface projection weak I.P Anomalous zone
- SAMD DDH 1 — Site of S.A Mines Dept diamond drill hole (1958)
- AMAD N.L DDH 1 — Site of Amad N.L's diamond drill hole (1969)

SCALE

AMAD N.L.

TALISKER MINE S.A.

Date : July 1969

Scale : 1" = 200'

GEOPHYSICAL AND GEOCHEMICAL SURVEYS

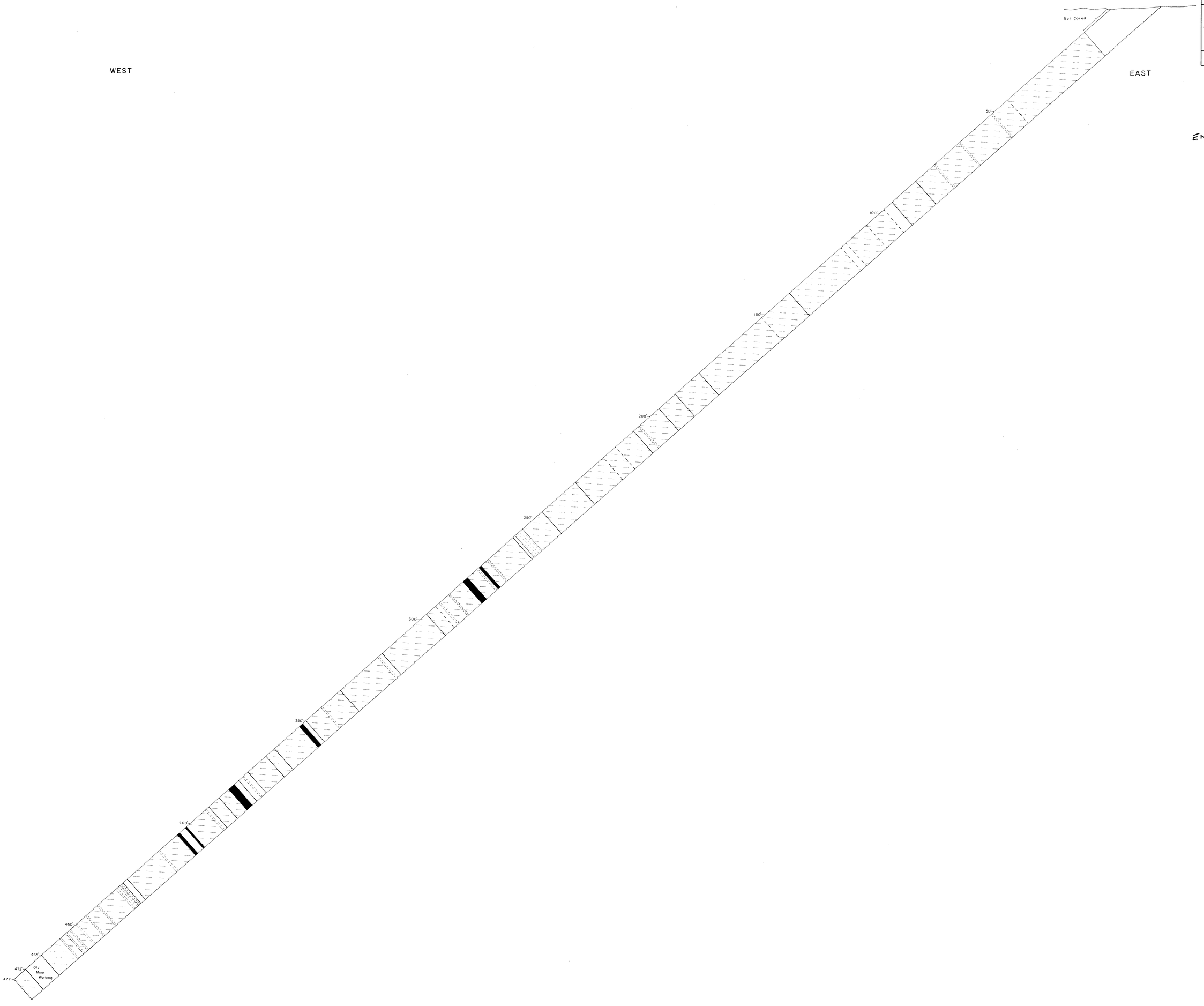
PLATE III

Kenneth McMahon & Partners Pty. Ltd

ENV 1288

WEST

EAST



AMAD N.L.	
TALISKER MINE S.A.	Date: July 1969
GEOLOGICAL CROSS-SECTION	Scale: 1" = 10'
OF AMAD N.L'S DDH I.	PLATE: IX
Kenneth McMahon & Partners Pty. Ltd.	

SCALE

0 10 20 30

FEET

LEGEND

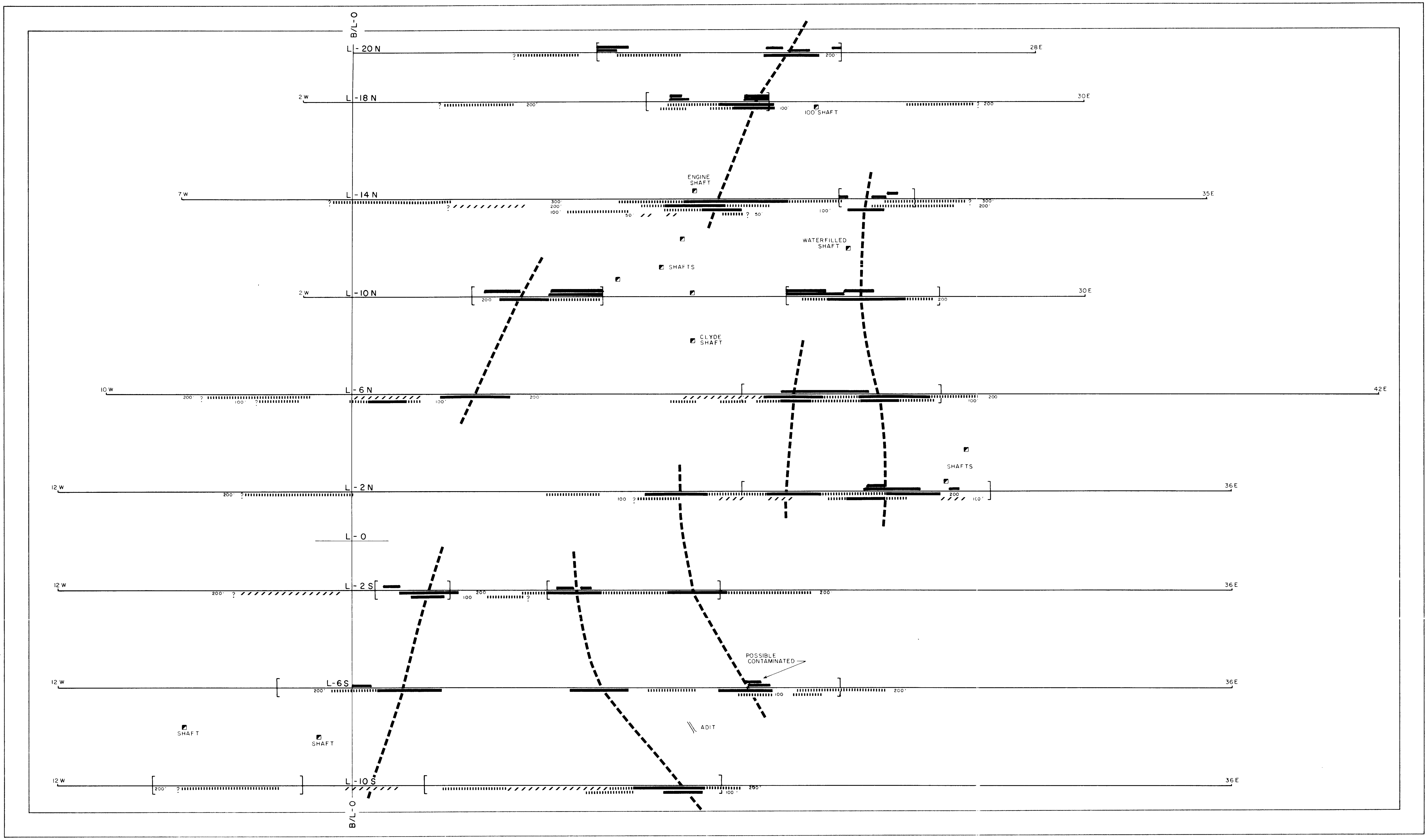
- Greywacke
- Mottling
- Shale
- Barren quartz vein
- Mineralized quartz vein.

DWG. I.P.P. - 3343

McPHAR GEOPHYSICS

INDUCED POLARIZATION AND RESISTIVITY SURVEY

PLAN MAP



SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE

PROBABLE

[illegible]SSIBLE

Number [illegible] indicates [illegible]

G. M. CACAS / K. POWELL

TALISKER MINE AREA, CAPE JERVIS, S. A.

SCALE

ONE INCH EQUALS TWO HUNDRED FEET.

NOTE

ABOVE THRESHOLD As } SEE MEMO. DATED SEPT 30/68 BY Dr P DONOVAN

ABOVE THRESHOLD Pb

[EXTENT OF GEOCHEMICAL SOIL SAMPLES] I.P. TRAVERSE LINE

AXIS OF ANOMALOUS I.P. ZONE

ENV. 1288-23

DRAWN V.T.Y.

DATE DECEMBER 1968

APPROVED

DATE 12/18/68

DWG. I.P.P. - 3343