April 1959.

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379001

GEOPHYSICAL REPORT

TO

ELECTROLYTIC ZINC COMPANY

OF

AUSTRALASIA LTD.

ON

THE AEROGEOPHYSICAL RESULTS

OF

THE FINGAL AREA, TASMANIA.

JOB NO. AH124

MICROFILMED

ADASTRA HUNTING GEOPHYSICS PTY. LTD.
41 - 45 Vickers Avenue,
Mascot, N.S.W.

AMG REFERENCE POINTS ADDED

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379002

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GEOPHYSICAL REPORT TO ELECTROLYTIC ZINC CO. OF AUSTRALASIA LTD. ON AEROGEOPHYSICAL RESULTS OF THE FINGAL AREA, TASMANIA.

JOB. NO. AH 124

1. INTRODUCTION

Adastra Hunting Geophysics Pty. Ltd., were contracted to supply the services of their Senior Geophysicist in order to investigate the aerogeophysical results of the Fingal Area, Tasmania, in collaboration with Dr. B. Scott, Assistant Chief Geologist of E.Z. Company of A'Asia Ltd. The initial discussions took place in Queenstown between 13th and 17th April 1959.

Because of operational difficulties, arising from topographic conditions, only a portion of the area could be flown with the magnetometer and electro-magnetometer. Segments were covered, which were satisfactory from the operational viewpoint so that for most of the sheets discussed below, data is available for only a part of each sheet.

A fluxgate magnetometer and a Puranen Dual Frequency E.M. system, both manufactured by P.S.C., Canada, were employed. With regard to the latter, the physical quantity measured is phase shift at 400 and 2300 c/s.

General comments on the nature and significance of this type of aerogeophysical data were included in a "Geophysical Report to Lyell-E.Z. Explorations on Aerogeophysical Results of an Area in South West Tasmania, Job. No. AH117" - a copy of which was supplied to the E.Z. Co. of Australia and hence will not be reiterated here.

11. DISCUSSION OF RESULTS

SHEET 1

With one marked exception, the portion of this sheet flown is very flat magnetically and similarly rather devoid of large E.M. response.

1/1. This is a fairly broad, fairly sharp E.M. anomaly on one line only, viz. Line 23 Frame 2133 with topographic correlation on altimeter trace. The magnetic record is virtually flat. There is no geological information beyond noting its occurrence in the Mathinna Group.

1/2. This anomaly is selected on the basis of the coincidence of a very small magnitude L.F. peak with a magnetic high on Line 36 Frame 2699 (approx.) The E.M. high is of the order of 0.25 degrees on L.F. and has extremely poor appearance on chart (or tape). The magnitude of the magnetic anomaly is of the order of 70 gammas. The small isolated nature of the

magnetic anomaly is considered.favourable and compares with 3/6 (see below), although it is not as accessible as other similar magnetic highs. Its occurrence is in the Mathinna Group.

SHEET 2

The magnetic pattern of this sheet is dominated by the large magnitude highs of the order of 200 to 300 gammas in the centre of the sheet. This magnetic effect is produced by a Jurassic dolerite body which is 500 ft. thick and possesses olivine and ilmenite as accessory minerals. Most of the magnetic contouring conforms with the known margin of the outcropping sill. In the north eastern portion contours transgress the margin to link with another magnetic peak. Re-contouring could be employed to isolate this high. In view of the sill nature of the dolerite and its known outcrop, it would appear the north eastern magnetic high is arising from a buried dolerite filled plug or its equivalent, which is probably not connected to the outcropping portion.

Most of the rest of the sheet is flat magnetically. One notable exception is the north eastern corner where a slightly uplifted magnetic region occurs, containing a number of minor highs and lows of magnitude of the order of 100 gammas. This suggests a major change in the rock type in this area, probably in the form of granite intrusion to the north and Mathinna Group (Silurian) to the south.

It is possible that the highs are essentially marginal to the main mass which is a feature often associated with granite intrusion suggesting a higher magnetite (or other magnetic mineral) content either in more basic igneous facies or in a contact metamorphic aureole. The broader nature of the effect exhibited here is not characteristic of some other known granite boundaries in south west Tasmania. It is apparent from the known position of granite on Sheet 3 that there could be a continuation of that body as suggested on this Sheet, although there is not a comparable magnetic effect on Sheet 3.

There are a large number of E.M. anomalies of which the following are selected as the most interesting.

2/1. This anomaly occurs south of Principal Point (PP) 83. The E.M. peaks on Line 5 Frame 7701 and Line 6 Frame 895 could be part of a trend continuing north and south. These two peaks appear the most distinctive. The peak on Line 6 is very distinct and sharp on L.F. and small on H.F. It has a very good appearance occurring in a position of upgrading of altimeter trace i.e. aircraft is climbing relative to the ground. On Line 5, there is no distinct H.F. and the L.F. peak is small, broad and poor.

The trend conforms with the general trend indicated by magnetic contours as well as the trend of a Mathinna Group - Tertiary and Recent boundary. The distance from this boundary when considered especially in the light of probable displacement due to flight direction rather discredits this boundary as a probable origin of the E.M. effect. The anomalies fall in the Mathinna Group in the Mathinna Gold Belt on a ridge face and valley side.

2/2. This E.M. anomaly trend occurs on Line 31 Frame 2337 and Line 32 Frame 3907. On both lines the small E.M. peaks possess very poor appearance on charts. It coincides with a very broad, small magnetic high. There are no conforming trends to verify the short strike length direction, the only geological information being that it falls in the Mathinna Group.

2/3. On Line 31 Frame 2443, there is a small E.M. anomaly associated with the True Blue Mine in the Mathinna Gold Belt. It has very poor appearance on chart but could be considered worthy of a ground check as a type anomaly associated with a mine.

2/4. This E.M. anomaly is rather similar to 2/2, occurring on a small, broad, magnetic high with short strike length from Line 34, Frame 7348 to Line 36 Frame 2746. On chart the very small broad H.F. and almost negligible response, "noisy" L.F. traces with obvious alitmeter correlation render this E.M. anomaly unfavourable, although it falls in the Mathinna Group.

2/5. This is another short strike length E.M. anomaly from Line 34 Frame 7377 to Line 36 Frame 2771 in the south western corner (near 2/2 and 2/4). This one does not possess any support from magnetic evidence. Whilst it is slightly more favourable in appearance on chart than 2/4 say, the obvious correlation with the altimeter trace tends to throw this anomaly into the discard category, although it lies in the Mathinna Group.

2/6. This is a very large magnitude E.M. anomaly from Line 35 Frame 1237 to Line 37 Frame 4847, near the southern edge of the sheet. It is a very broad E.M. anomaly trend which appears to be at the commencement on chart of a generally higher background response. On the photomosaic there is an obvious change in appearance of the region associated with this E.M. anomaly so that it is probably an outlier of Permo-Triassic rocks which is producing the effect. There is no correlation with magnetics. A geological ground check only appears warranted.

2/7. On line 3 Frame 4801 and Line 4 Frame 6129 there are two small E.M. anomalies which could constitute a short strike length anomaly trend paralleling the magnetic trend in the vicinity of the increased gradient (positive from west to east) which it has been suggested may be associated with the limits of granitic intrusion. This appears to be a further anomaly to warrant checking by virtue of its being a different "type", even though its appearance is not highly favourable.

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379006

SHEET 3.

The magnetic field is essentially of uniform total intensity throughout this sheet, with the exception of a few relatively minor highs. The E.M. response is generally quite complex, with some tendency toward a more or less, N-S lineation. Below there are some further general comments incorporated with 3/4.

3/1. This E.M. anomaly trend consists of two small peaks on Line 11 Frame 1410 and Line 12 Frame 2601. The former possesses a very noisy L.F. trace with a very small H.F. peak associated with the broadish L.F. peak. The latter has almost negligible L.F. and H.F. increase above the background here. Thus the overall chart appearance is not favourable, although there is no altimeter correlation. The trend coincides with a magnetic high of magnitude about 30 gammas and this is the reason for attention being drawn to the E.M. response. It occurs in Permian rocks which are unfavourable and hence is suspect.

3/2. On Line 16 Frame 8088 and Line 18 Frame 2673 there are two small peaks; neither have favourable appearance on chart, although they occur in the vicinity of known gold mineralisation near a Permian-granite contact. Magnetics fail to provide support evidence.

3/3. Slightly east of PP33, on Line 21 Frame 7055 there is a fairly sharp E.M. anomaly with altimeter trace correlation, although there are greater altitude variations with lesser effect on each side of this peak. The magnetic effect is essentially flat. The rocks here are probably Mathinna Group.

3/4. On Line 21 Frame 7152, there is another fairly sharp E.M. anomaly with larger L.F. response and altimeter correlation.

Line 3/3 and others in this area there is virtually no information from magnetic data and geology to provide a basis for discrimination beyond the fact that they occur in the Mathinna Group within the tin - tungsten belt. It should be remembered that it is doubtful that a large E.M. response would be obtained from this mineral association. Although some sulphides are present their percentage is very small (less than 2%). There are several major faults and lodes in the prospect area on the eastern side of the sheet with few distinct correlations. In view of the improbability of response the number of E.M. anomalies falling within the Mathinna Group in this area selected for possible checking has been strictly limited.

There are several E.M. highs along the eastern margin of the N - S trending, granitic, outcrop, which are probably of structural significance only.

3/5. In the south western corner of the sheet, this E.M. anomaly trend, as defined here, extends from Line 34 Frame 7629 to Line 35 Frame 1410, ending on Line 26 Frame 2994.

On these lines, although there is some altimeter trace correlation, they are large, broad, relatively sharp, distinct anomaly peaks on L.F. & H.F. Their occurrence, in close association with a magnetic high or low with variation of about 50 gammas within the Mathinna Group, warrants checking.

3/6. On Line 28 Frame 1773, there is a 150 gammas magnetic peak which is part of a NW - SE trending, isolated anomaly which also has representation on Lines 27 & 29. This trend faithfully parallels the strike of the lode, of the North Scamander Mine, although displaced slightly to the south west. The mineral content of this copper-lead - zinc mine is described by Twelvetrees (1911) as:-

"Vein minerals are pyrite, zinc- blende, a little galena and chalcopyrite magnetite, pyrrhotite and pyrite with quartz and kaolin.....
.....

Magnetite is massive and wall rock is charged with pyrite."

Replacement of sandstone has taken place the host rock environment being Mathinna Group. There are several minerals in the group listed which could be contributing to the magnetic effect. The most notable and probably the main cause is the massive magnetite. The magnetic effect suggests that the strike length of the lode is slightly greater than originally envisaged.

There is an E.M. anomaly coincident with the magnetic anomaly peak. The E.M. response is very small and broad with some altimeter correlation thus it is such a response as would not have been selected but for the magnetic correlation.

SHEET 4

There is only a small land area covered by this sheet. The central area (i.e. of land) possesses a slightly greater magnetic intensity with highs of the order of 20 & 40 gammas. This suggests that either some portions of the Mathinna Group have a higher magnetic mineral content or else the Tertiary (?) formations. There is a distinct possibility of some dolerite derivatives in the Tertiary (?) deposits.

A copper - lead - zinc lode occurs near the magnetic peak on Line 22 Frame 5316; this could be fortuitous. The tendency is for the magnetic peaks to develop over Tertiary (?) outcrops.

Several broad E.M. highs, both small and large magnitude appear in the vicinity of Lines 11 and 12. These are probably related to lithological boundaries and are unlikely to be of economic importance.

SHEET 6

Jurassic Dolerite is the cause of the large magnitude magnetic effects on this sheet, such as the occurrence just north of PP58 Line 54 etc. Incidentally in this area, the south eastern dolerite cap is actually smaller than the north western one and this accounts for the former's paucity of magnetic expression.

Permo - Triassic outcrops which envelop the dolerite outcrops reflect a higher E.M. response.

North and south of PP920 - 46, on the eastern side of the sheet there is a series of minor magnetic highs forming a more or less N-S magnetic trend coincident with a region of large broad E.M. response. This magnetic trend and the western margin of the higher response E.M. zone are closely associated with a change in appearance on photomosaics, suggesting a lithological boundary. In the north, this boundary has been defined by Mathinna Group on the west and Tertiary formations on the east, the latter being the cause of the higher E.M. response.

Dolerite debris, deposited at the change in grade of the streams is favoured as the origin of the magnetic highs over the Tertiary cover. An alternative explanation could be proposed in terms of the possible presence of basaltic deep leads underlying the Tertiary sediments. On the basis of existing evidence this savours somewhat of special pleading. (cf. comments on basalts, sheet 10).

There are a number of small isolated E.M. anomalies in the favourable geological environment, viz. Mathinna Group, again on this sheet, lacking supporting evidence to provide discrimination. The following are two of the more interesting of these anomalies which could possibly be included for ground checking.

6/1 This E.M. anomaly trend possesses unfavourable appearance on Lines 42 & 44. On Line 43, Frame 3543, the peak is fairly sharp with obvious altimeter correlation, although adjoining portions of the

trace are closer to the ground without a similar effect.

6/2 On Line 69 Frame 3084 another fairly sharp E.M. anomaly occurs.

SHEET 8

In the main, the magnetic effect is flat for the limited portions of this sheet which were flown. An exception is the high associated with Jurassic dolerite, west of PP919-64.

The flight lines are essentially at right angles to the general strike of the country rocks which is NW-SE. Some of the large magnitude E.M. response parallels the flight lines. This can be correlated with the effect of Recent river alluvials. Near the end of Line 91, Frame 5320, there is an E.M. high associated with Permo-Triassic strata; river drainage is a probable influence here.

8/1 Occurring as peaks on Line 91 Frame 5258 and Line 92 Frame 4417 this is another E.M. anomaly trend of the Mathinna Group, with no supporting evidence, variety. On both lines, the chart appearance is rather poor.

TEST LINE A

A single test line was flown over the Aberfoyle Tin-Wolfram Mine at Rossarden. Heiland (1940) quotes the following determinations on Wolframite:-
Magnetic susceptibility 240×10^{-6} cgs units,
Electrical resistivity 10^{3} ohm cm.

When this is coupled with the fact of the presence of sulphides, including some relatively magnetic, the likelihood of both a magnetic effect and E.M. response is raised.

In the vicinity of the mine there is a faint suggestion of a magnetic anomaly of about 3 gammas which could be "Noise". The E.M. profile reveals an L.F. peak of about 1.5 degrees with a corresponding very small peak on H.F. Unfortunately, there is extremely marked correlation of the L.F. profile with the altimeter trace, confirming strong topographic influence. Thus while the zone may be conductive the test is inconclusive.

SHEET 9

Magnetic effects are again flat on the small area covered on this sheet. This is somewhat surprising in view of the presence of basaltic flows. The outcrop of the basalt is not clearly delineated by a small high trend of about 30 gammas. The probable reason for this is that the basalt may underlie the Tertiary sediments and a contribution to the anomalous field is arising from this portion (of basalts sheet 10).

Very large magnitude, E.M. response is again evident over the Tertiary sediments. There is a very pronounced high following the junction between Tertiary basalts and sediments, this junction probably influencing the localisation of the water table.

SHEET 10

MAGNETICS ASSOCIATED WITH BASALTS

The majority of the area flown on this sheet possesses a very flat magnetic pattern. There is a series of minor highs and lows, which provide an exception and these are closely associated with Tertiary basalt at the western end of the sheet near Line 137. The apparent tendency in this area is for the highs to be associated with the Tertiary cover and lows with the basaltic outcrops, with a distinct elongation to the disturbance directed along the valley. The basalts are considered to be probably fresh, of the typical plagioclase-cumaugite (with probably magnetite) variety, with thickness of the order of 40-100 ft. When it is realised that the basalts are probably extending under the Tertiary cover and some of the magnetic data could be re-contoured into more isolated highs and lows of about 100 gammas variation, the magnetic pattern is such as might be expected from basaltic rock types. The extension of the disturbance up the valley limits the extent of the basalt under the Tertiary sediments. It is possible that either this basaltic material is not of very high magnetic susceptibility or a degree of remanent polarization may be present reducing the magnitude of the effect. It appears that the polarization is such that there is certainly no overall increase i.e., say in background level but rather if anything a decrease in background with lows more pronounced than highs.

MAGNETICS IN THE SOUTH EASTERN CORNER

In this region there are some other marked deviations from the flat magnetic pattern. One is a small isolated magnetic high on Line 136, Frame 3277, over a dolerite outcrop. On Lines 144 & 145, a magnetic low trend appears over Permo-Trissic strata. This is probably a low due to the magnetic effect of a dolerite sill outcropping to the south.

E.M. RESULTS

There are several, more or less N-S, E.M. high trends following drainage, in the north western corner of the southern portion covered.

An interesting occurrence is the small peak on Line 90 Frame 4447 in the north western corner of the sheet, where the flight line crosses the railway line. Although the metallic bodies associated with the railway are a possible cause, the presence of the Tertiary-

Mathinna Group junction is more probably the origin of this effect.

10/1 This E.M. anomaly trend has its most distinct peak on Line 130 Frame 446, where it is superimposed on a high background with possible altimeter correlation. Its NW-SE trend aligns with the north westerly extension of tin veins of the Mt. Montgomerey Area. The E.M. response is probably a lithological boundary effect. It is suggested that a ground check is warranted to establish definitely the location of the conductive zone with respect to the Permian strata and granitic intrusion.

10/2 Two E.M. anomaly peaks, on Line 149 Frame 3494 and Line 140 Frame 3058, are defined here as a trend. On chart, the former is unimpressive whilst the latter is a small peak on a limb of increasing gradient. They coincide with the position of the Roy Hill Mine, but could be a litholigical contact effect.

10/3. On Line 141 Frame 2615 and Line 142 Frame 255 two peaks occur over the Royal George veins in granite. They are large and broad with obvious altimeter correlation.

10/4 Two more E.M. anomaly peaks constitute this trend, on Line 142 Frame 205 and Line 143 Frame 644. On chart, the former has an extremely smal L.F. response and no H.F., whilst the latter has a very sharp L.F. peak on a slightly higher background, a less well defined H.F. peak on higher background and no altimeter trace correlation. The occurrence is in the Mathinna Group.

SHEET 12

There is nothing worthy of comment on this sheet.

LIST OF ANOMALIES SELECTED FOR GROUND CHECKING

The following anomalies are listed in numerical order and according to whether geophysical or only geological ground investigation appears warranted.

GEOPHYSICAL	GEOLOGICAL
1/1, 1/2	2/6
2/1, 2/3, 2/7(?)	3/1
3/4, 3/5, 3/6	10/1
6/1, 6/2	
8/1	
10/2, 10/3(?), 10/4	

CONCLUSION

An examination of the aerogeophysical results has led to the selection of the listed anomalies for ground checking, in some cases, at least, initially by geological inspection alone. It is unfortunate that the nature of the rock types, in this area, severely limits the use of aeromagnetics for the delineation of structure. As has been pointed out in the foregoing text, this is a serious handicap to interpretation when geological control is poor. The results should be reviewed subsequent to ground checking being completed, with a consequently, more consummate, assessment of their significance.

REFERENCES

Heiland, C.A. (1940) Geophysical Exploration. Prentice Hall.

Twelvetrees, W.H. (1911) The Scamander Mineral District
Tas. Geol. Surv. Bull. No. 9

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.....

H.S. Hancock, M.Sc.
Senior Geophysicist.

012

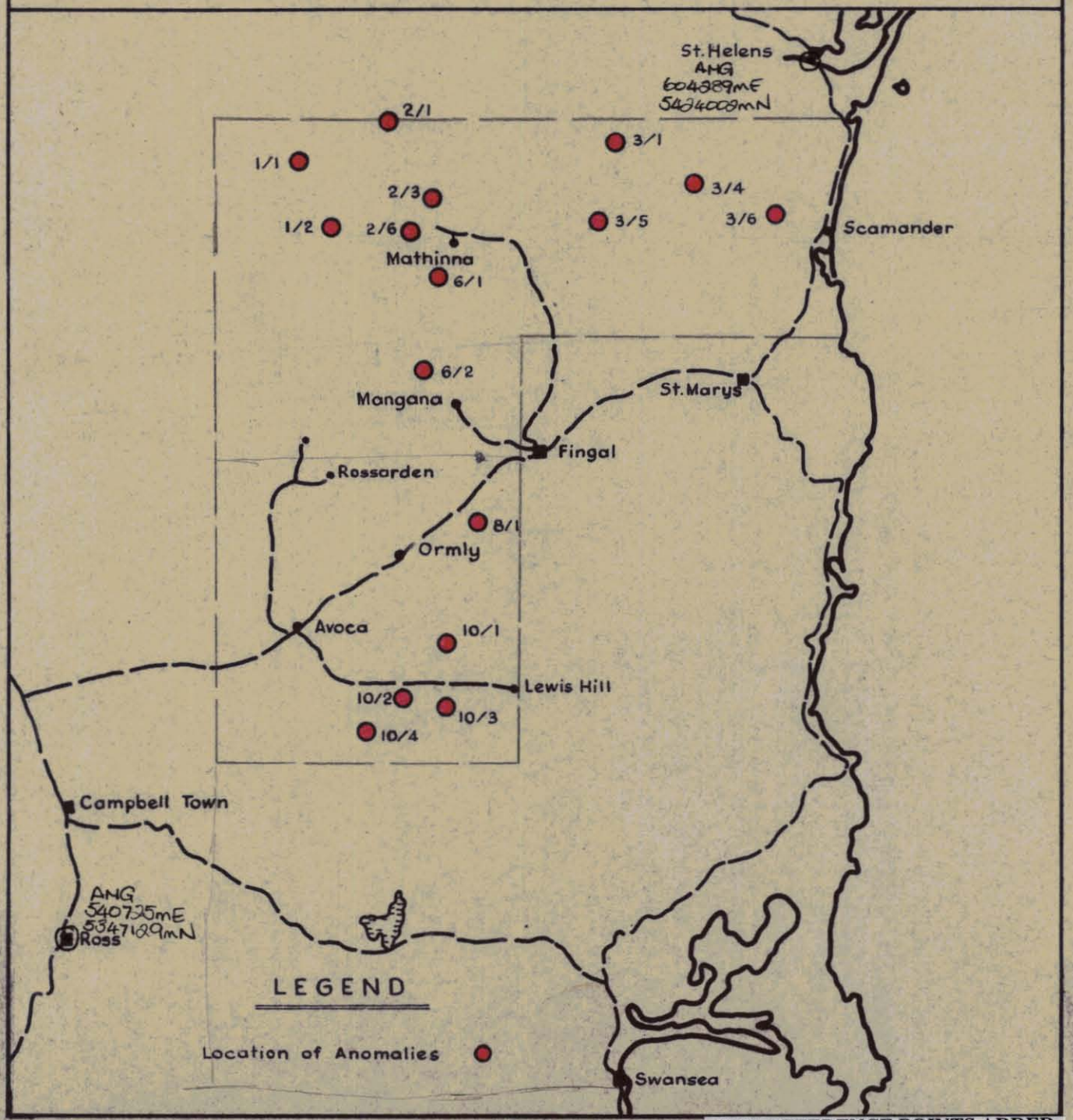
379013

FINGAL PROJECT

SCALE:
8 miles to 1 inch

0 8 16

5 cm



E.Z. Co. W.C.D. GEOL DEPT. ZO. 1013.

AMG REFERENCE POINTS ADDED

R.F. 1:23760

A.H.G. 124 CANSO-FINGAL AREA

379014 SHEET NO. 1

BEN NEVIS

Mt SADDLEBACK

ROCKY TIER

TOTAL MAGNETIC INTENSITY MAP
ELECTROLYTIC ZINC COMPANY OF AUSTRALASIA LTD.

Scale . 30 Chains to 1 Inch

REFERENCE

Mean Height Above Ground Level	500 feet.
Minimum Contour Interval	10 gamma.
Flight Lines	
Mean Flight Line Spacing	¼
High	H
Low	L
Principal Point	87
Roads	
Rivers	

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A HUNTING GROUP ASSOCIATES COMPANY

5 cm

Report Q148/1

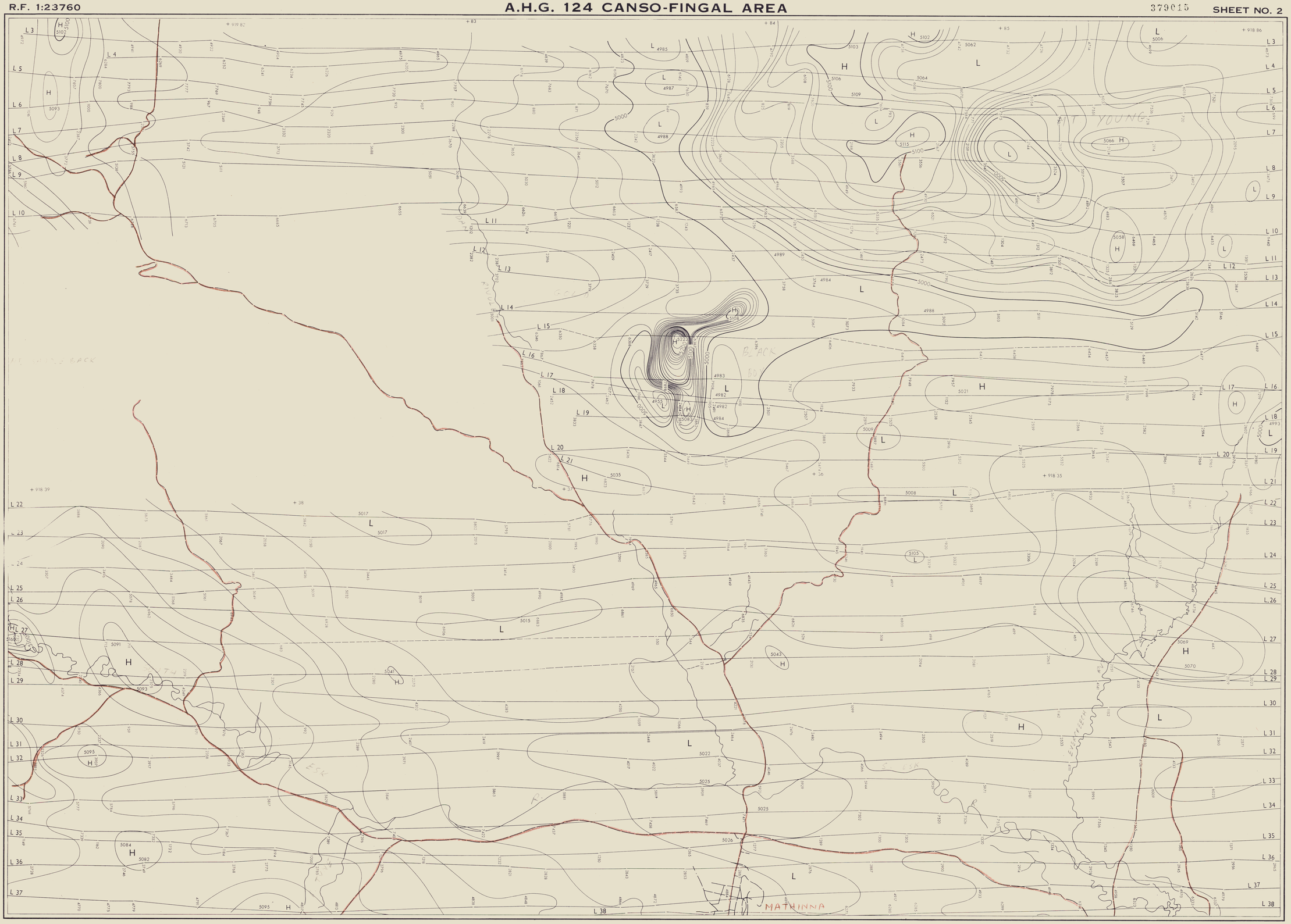
2165

SHEET INDEX 59-263-

R.F. 1:23760

A.H.G. 124 CANSO-FINGAL AREA

379015 SHEET NO. 2



REFERENCE

Mean Height Above Ground Level	500 feet.
Minimum Contour Interval	10 gamma.
Flight Lines	
Mean Flight Line Spacing	¼
High	H
Low	L
Principal Point	⊗87
Roads	
Rivers	

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TOTAL MAGNETIC INTENSITY MAP
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Scale . 30 Chains to 1 Inch

5 cm

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Report GP48/1

2187

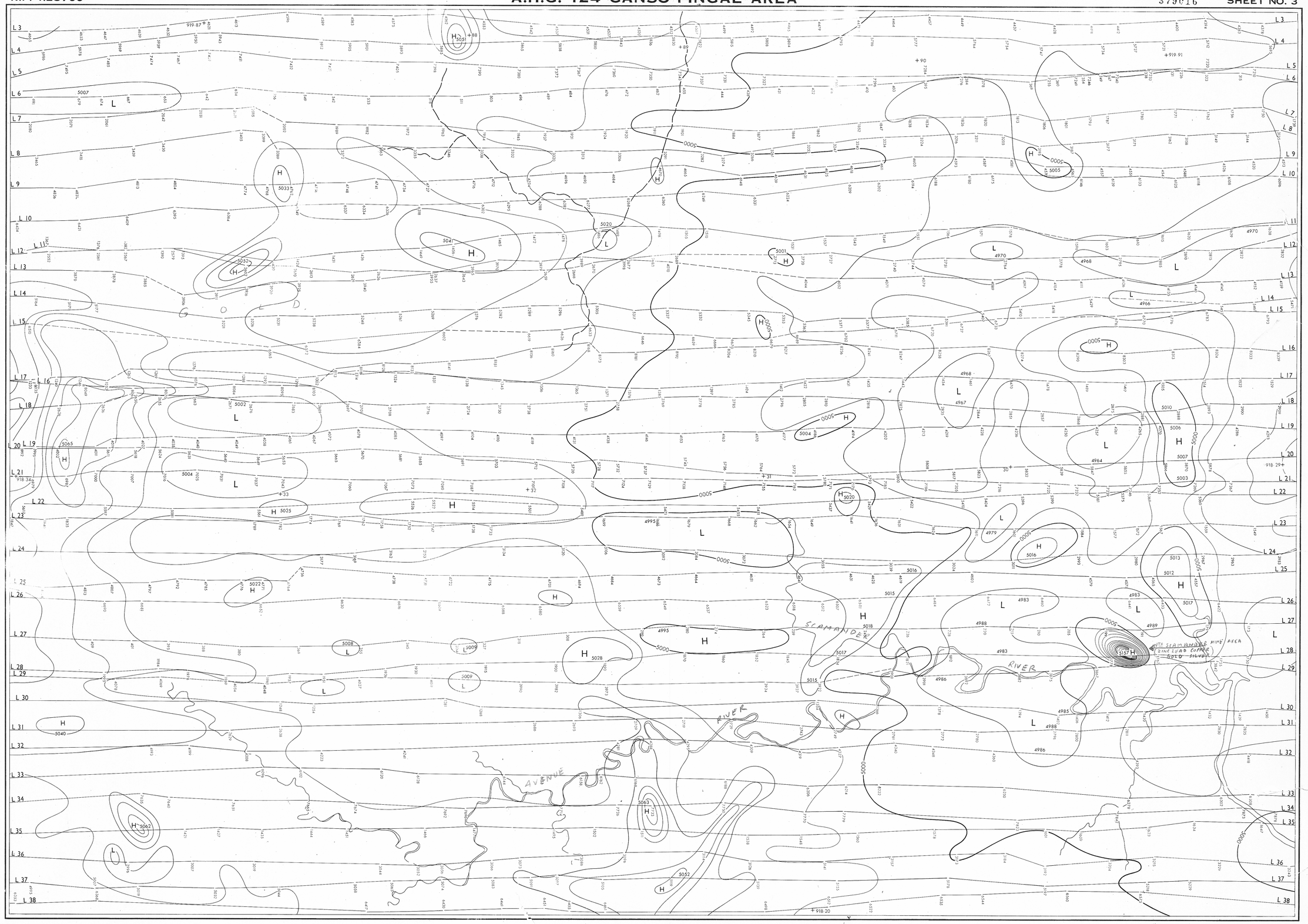
SHEET INDEX 57-263

R.F. 1:23760

A.H.G. 124 CANSO-FINGAL AREA

379016

SHEET NO. 3



REFERENCE

Mean Height Above Ground Level....500 feet.
Minimum Contour Interval.....10 gamma.
Flight Lines.....
Mean Flight Line Spacing.....¼
High.....H
Low.....L
Principal Point.....
Roads.....
Rivers.....

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TOTAL MAGNETIC INTENSITY MAP
ELECTROLYTIC ZINC COMPANY OF AUSTRALASIA LTD.

Scale . 30 Chains to 1 Inch

5 cm

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59-263.

Report GP81

2168

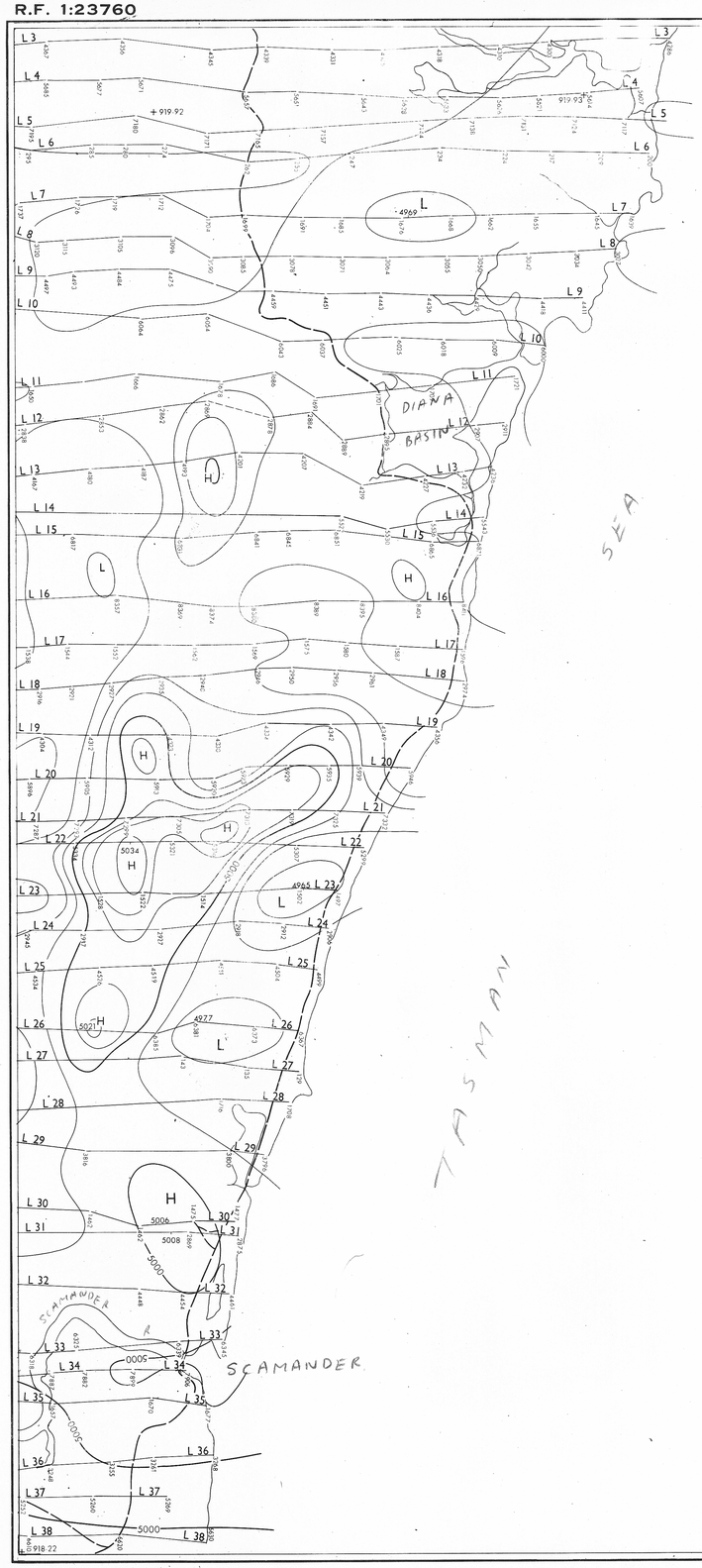
SHEET INDEX

R.F. 1:23760

A.H.G. 124 CANSO-FINGAL AREA

379017

SHEET NO. 4



REFERENCE

Mean Height Above Ground Level	500 feet.
Minimum Contour Interval	10 gamma.
Flight Lines	
Mean Flight Line Spacing	¼
High	H
Low	L
Principal Point	⁺87
Roads	
Rivers	

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TOTAL MAGNETIC INTENSITY MAP
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Scale . 30 Chains to 1 Inch

5 cm

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Report 04/51 57-263-

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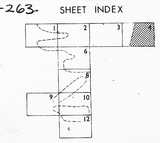
SHEET INDEX

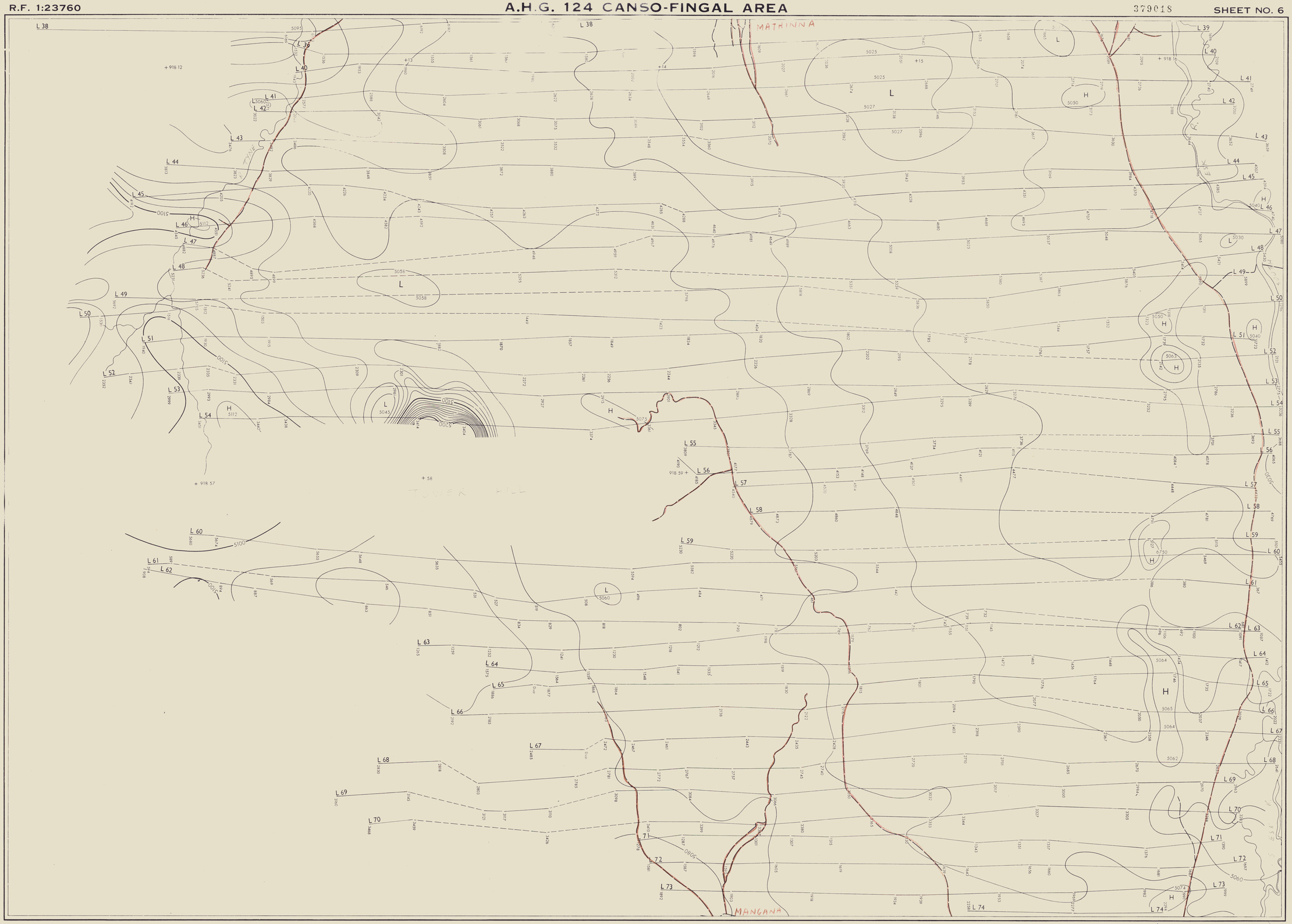


R.F. 1:23760

A.H.G. 124 CANSO-FINGAL AREA

379618

SHEET NO. 6



REFERENCE

Mean Height Above Ground Level....500 feet.
Minimum Contour Interval.....10 gamma.
Flight Lines.....
Mean Flight Line Spacing.....¼
High.....H
Low.....L
Principal Point.....
Roads.....
Rivers.....

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TOTAL MAGNETIC INTENSITY MAP
ELECTROLYTIC ZINC COMPANY OF AUSTRALASIA LTD.

Scale . 30 Chains to 1 Inch

A HUNTING GROUP ASSOCIATE COMPANY

5 cm

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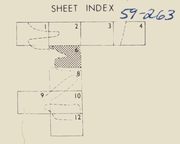
Report 4911

2170

SHEET INDEX 59-263



R.F. 1:23760

A.H.G. 124 CANSO-FINGAL AREA

379619

SHEET NO. 8

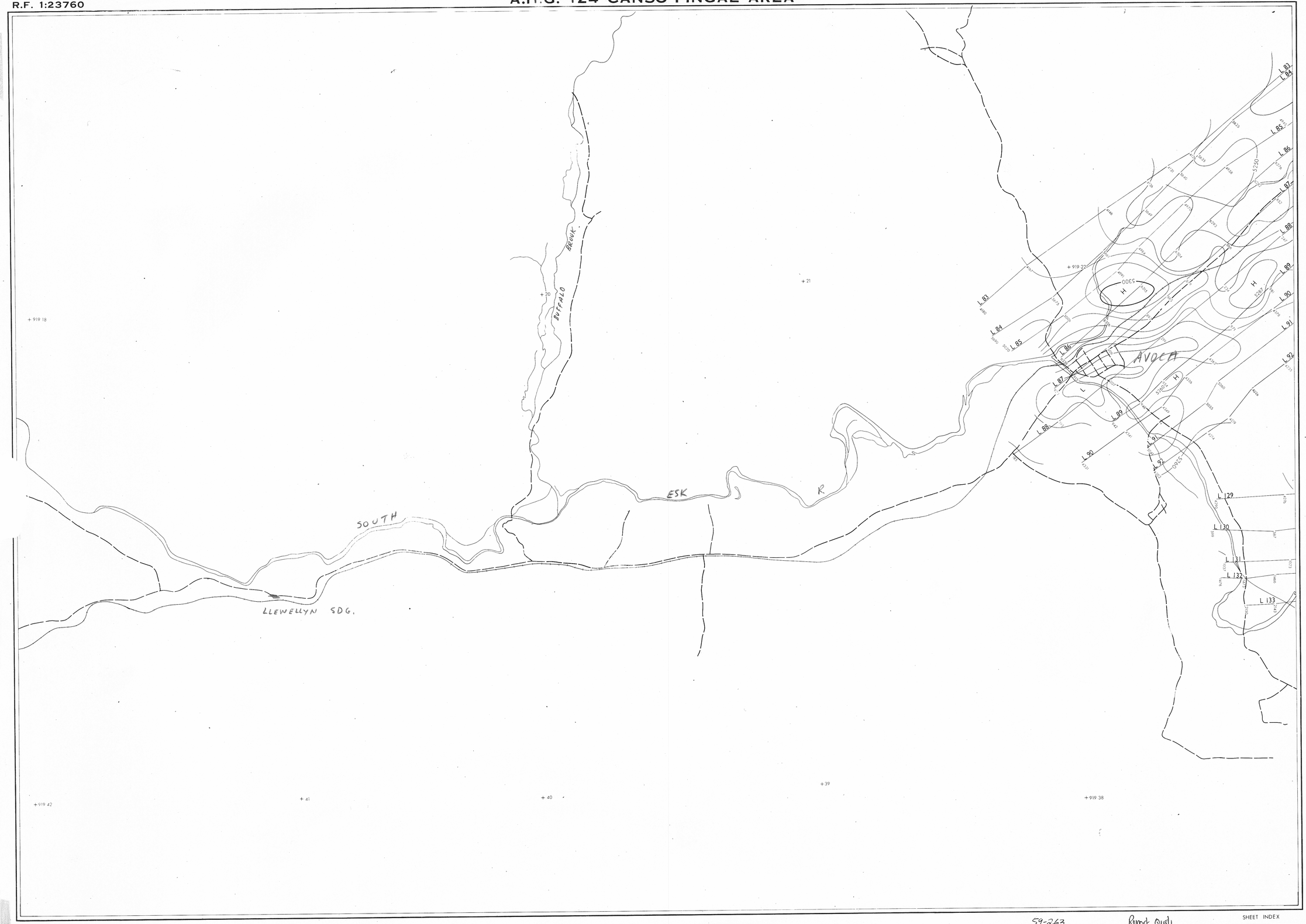


R.F. 1:23760

A.H.G. 124 CANSO-FINGAL AREA

379020

SHEET NO. 9



REFERENCE

Mean Height Above Ground Level ..... 500 feet.
Minimum Contour Interval ..... 10 gamma.
Flight Lines .....
Mean Flight Line Spacing ..... ¼
High ..... H
Low L
Principal Point 87
Roads .....
Rivers .....

Flown and Compiled by
ADASTRA HUNTING GEOPHYSICS PTY. LTD.
41–45 VICKERS AVE.
MASCOT. N.S.W.

TOTAL MAGNETIC INTENSITY MAP
ELECTROLYTIC ZINC COMPANY OF AUSTRALASIA LTD.

Scale . 30 Chains to 1 Inch

5 cm

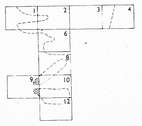
Drawn and Reproduced by
ADASTRA AIRWAYS PTY. LTD.
41–45 VICKERS AVE.
MASCOT. N.S.W.

59-263

Report Q45/1

2172

SHEET INDEX



ST PAULS DOME

ST PAULS RIVER

ROYAL GEORGE

REFERENCE

Mean Height Above Ground Level...500 feet.
Minimum Contour Interval.....10 gamma.
Flight Lines.....
Mean Flight Line Spacing.....½
High.....H
Low.....L
Principal Point.....87
Roads.....
Rivers.....

Flown and Compiled by
ADASTRA HUNTING GEOPHYSICS PTY. LTD.
41-45 VICKERS AVE.
MASCOT. N.S.W.

TOTAL MAGNETIC INTENSITY MAP
ELECTROLYTIC ZINC COMPANY OF AUSTRALASIA LTD.

Scale . 30 Chains to 1 Inch

5 cm

Drawn and Reproduced by
ADASTRA AIRWAYS PTY. LTD.
41-45 VICKERS AVE.
MASCOT. N.S.W.

59-263

Report Q1481

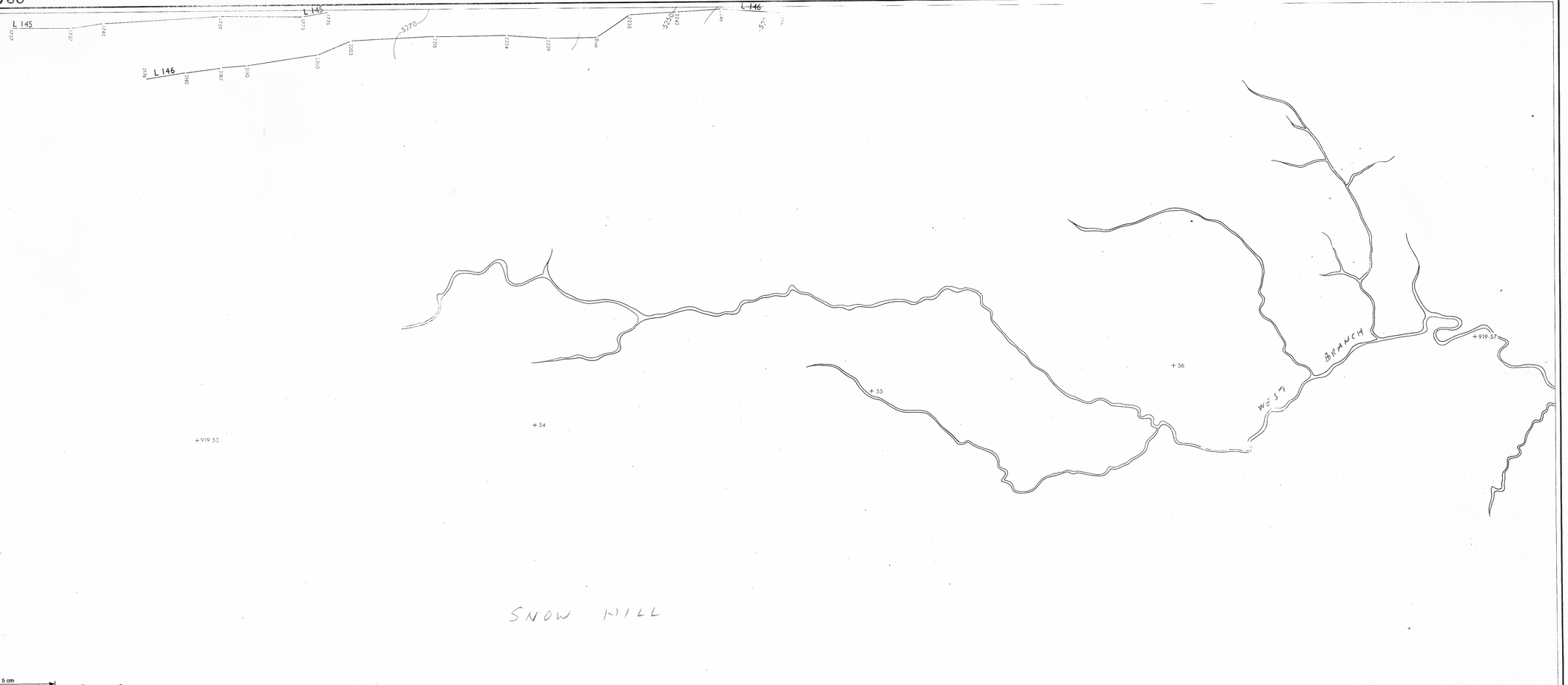
2173

SHEET INDEX

R.F. 1:23760

A.H.G. 124 CANSO-FINGAL AREA

379022 SHEET NO.12



5 cm

SCALE: 30 CHAINS TO 1 INCH.

Report 04811 59-2163.

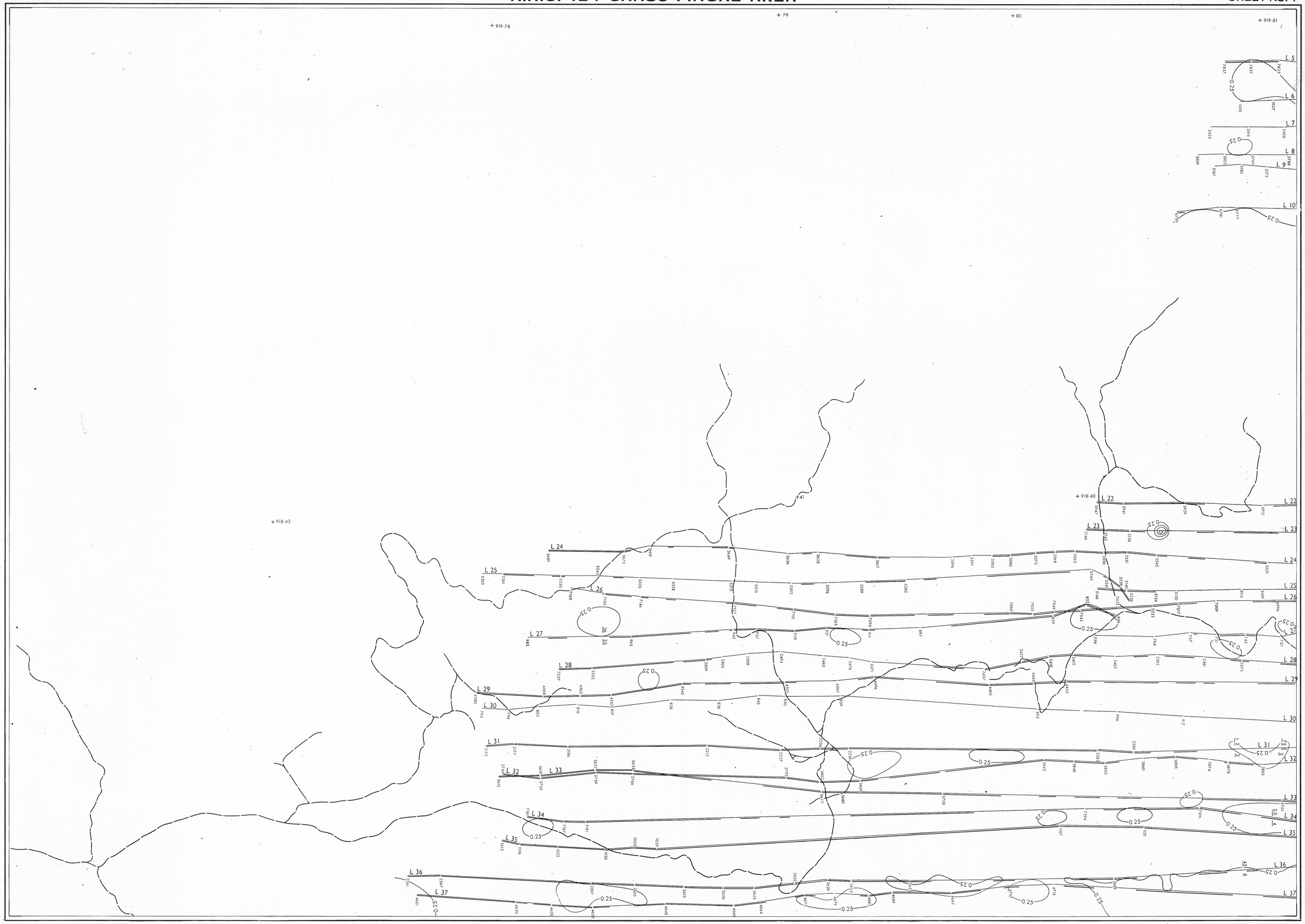
2174

R.F. 1:23760

A.H.G. 124 CANSO-FINGAL AREA

379023

SHEET NO. 1



REFERENCE

Contours indicate out of phase component of the secondary fields induced by a 400 C.P.S. primary field.
Contour Interval ..... 0.3 degrees
The numbers shown thus 1.25
are the ratios of 400 CYCLE RESPONSE / 2300 CYCLE RESPONSE
Spot heights at ratio points ..... 550'

Flown and Compiled by
ADASTRA HUNTING GEOPHYSICS PTY. LTD.
41–45 VICKERS AVE.
MASCOT. N.S.W.

ELECTRO MAGNETIC MAP
ELECTROLYTIC ZINC COMPANY OF AUSTRALASIA LTD.

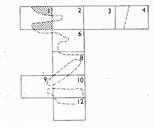
Scale . 30 Chains to 1 Inch

5 cm

Drawn and Reproduced by
ADASTRA AIRWAYS PTY. LTD.
41–45 VICKERS AVE.
MASCOT. N.S.W.

Report Q48/1

SHEET INDEX

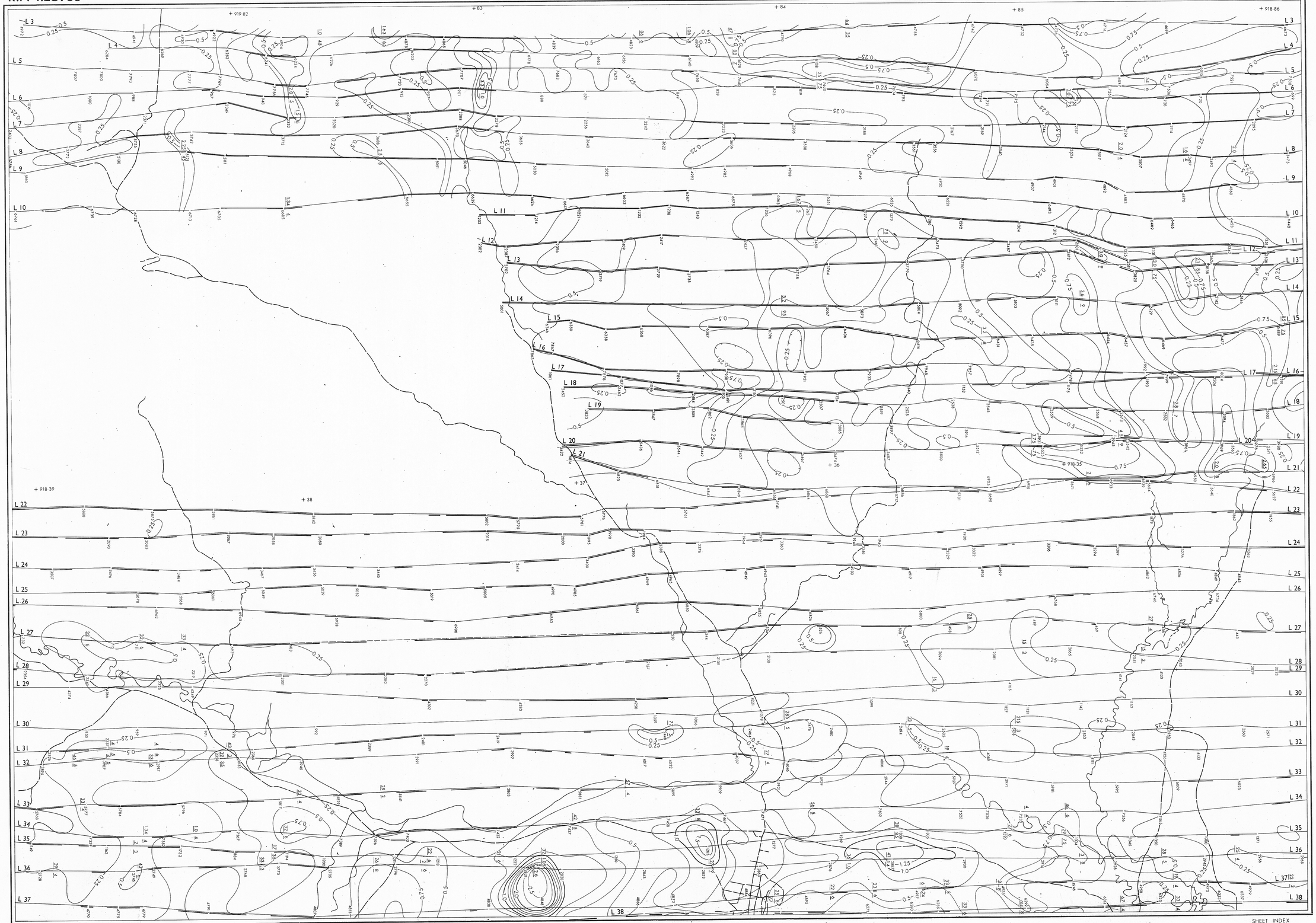


R.F. 1:23760

A.H.G. 124 CANSO-FINGAL AREA

379624

SHEET NO. 2



REFERENCE

Contours indicate out of phase component of the secondary fields induced by a 400 C.P.S. primary field.
Contour Interval ..... 0.3 degrees
The numbers shown thus 1.25
are the ratios of 400 CYCLE RESPONSE
2300 CYCLE RESPONSE
Spot heights at ratio points ..... 550'

Flown and Compiled by
ADASTRA HUNTING GEOPHYSICS PTY. LTD.
41–45 VICKERS AVE.
MASCOT. N.S.W.

ELECTRO MAGNETIC MAP
ELECTROLYTIC ZINC COMPANY OF AUSTRALASIA LTD.

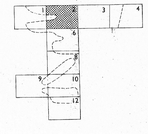
Scale . 30 Chains to 1 Inch

5 cm

Drawn and Reproduced by
ADASTRA AIRWAYS PTY. LTD.
41–45 VICKERS AVE.
MASCOT. N.S.W.

Report Q48/1

SHEET INDEX



R.F. 1:23760

A.H.G. 124 CANSO-FINGAL AREA

379025

SHEET NO.3



REFERENCE

Contours indicate out of phase component of the secondary fields induced by a 400 C.P.S. primary field.
Contour Interval ..... 0.3 degrees
The numbers shown thus 1.25
are the ratios of 400 CYCLE RESPONSE / 2300 CYCLE RESPONSE
Spot heights at ratio points ..... 550'

Flown and Compiled by
ADASTRA HUNTING GEOPHYSICS PTY. LTD.
41–45 VICKERS AVE.
MASCOT. N.S.W.

ELECTRO MAGNETIC MAP
ELECTROLYTIC ZINC COMPANY OF AUSTRALASIA LTD.

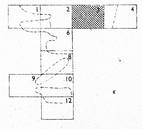
Scale : 30 Chains to 1 Inch

5 cm

Drawn and Reproduced by
ADASTRA AIRWAYS PTY. LTD.
41–45 VICKERS AVE.
MASCOT. N.S.W.

Report QH8/1

SHEET INDEX

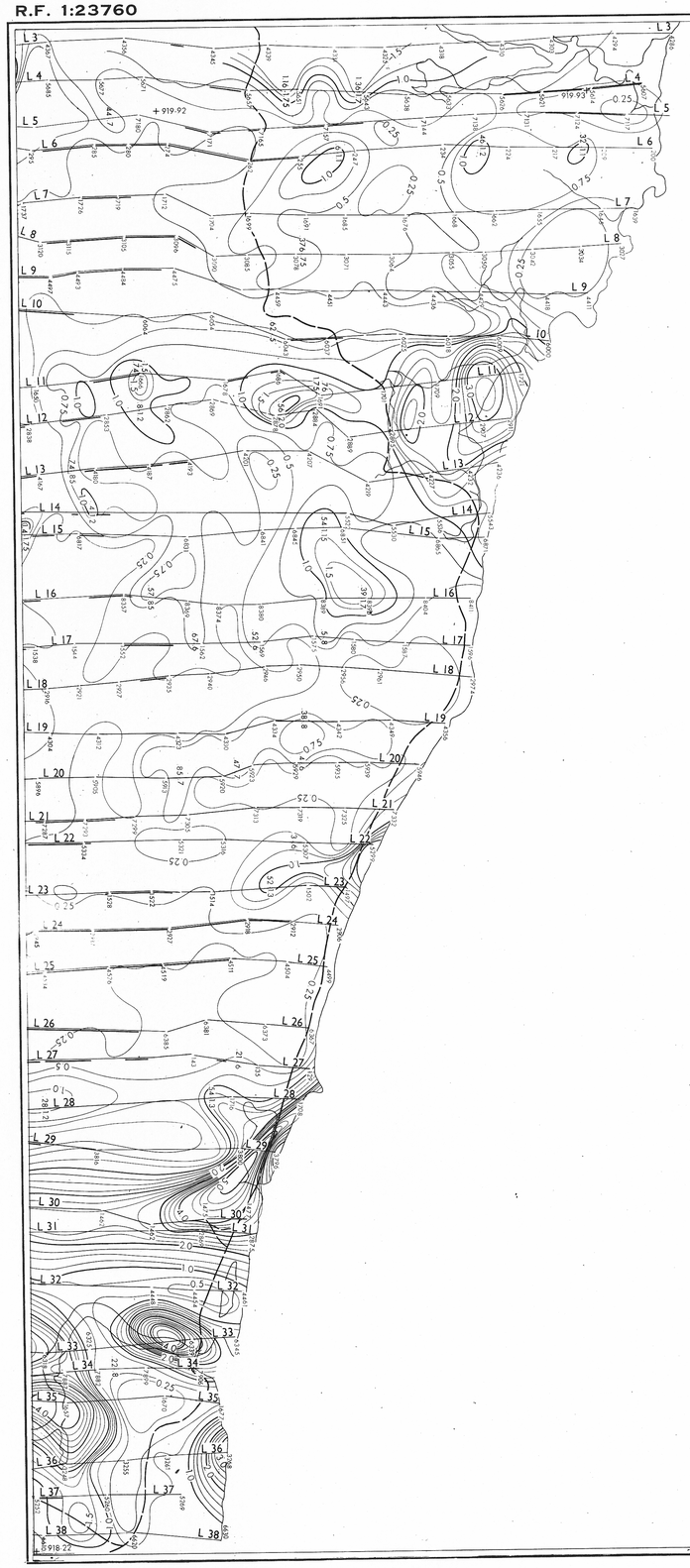


R.F. 1:23760

A.H.G. 124 CANSO-FINGAL AREA

379626

SHEET NO.4



REFERENCE

Contours indicate out of phase component of the secondary fields induced by a 400 C.P.S. primary field.
Contour Interval _____ 0.3 degrees
The numbers shown thus _____ 1.25
are the ratios of 400 CYCLE RESPONSE
2300 CYCLE RESPONSE
Spot heights at ratio*points _____ 550'

Flown and Compiled by
ADASTRA HUNTING GEOPHYSICS PTY. LTD.
41–45 VICKERS AVE.
MASCOT. N.S.W.

ELECTRO MAGNETIC MAP
ELECTROLYTIC ZINC COMPANY OF AUSTRALASIA LTD.

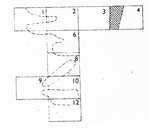
Scale . 30 Chains to 1 Inch

5 cm

Drawn and Reproduced by
ADASTRA AIRWAYS PTY. LTD.
41–45 VICKERS AVE.
MASCOT. N.S.W.

Report QH81

SHEET INDEX

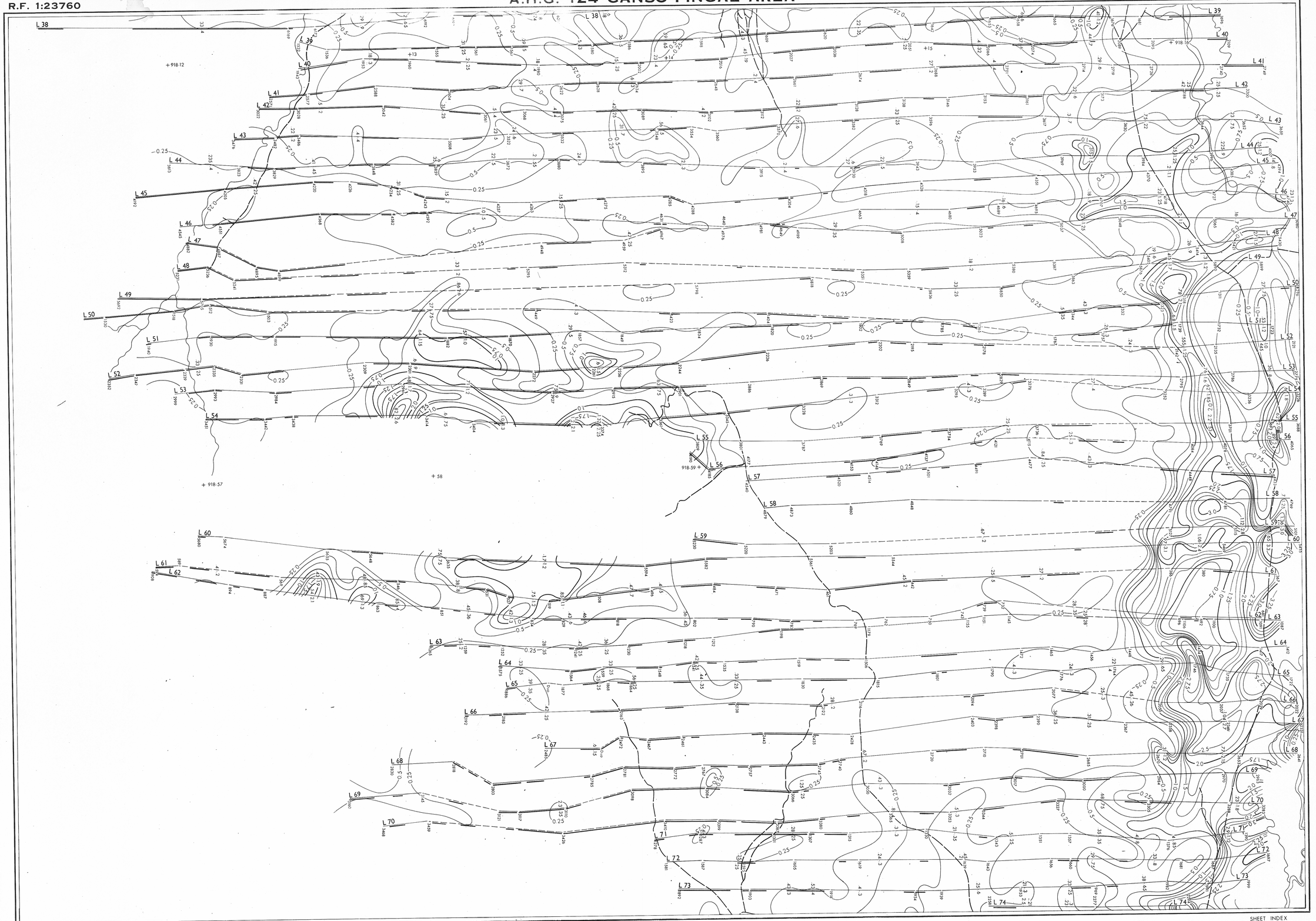


R.F. 1:23760

A.H.G. 124 CANSO-FINGAL AREA

379627

SHEET NO.6



ELECTRO MAGNETIC MAP
ELECTROLYTIC ZINC COMPANY OF AUSTRALASIA LTD.

Scale . 30 Chains to 1 Inch

5 cm

REFERENCE

Contours indicate out of phase component of the secondary fields induced by a 400 C.P.S. primary field.
Contour Interval..... 0.3 degrees
The numbers shown thus..... 1.25
are the ratios of 400 CYCLE RESPONSE / 2300 CYCLE RESPONSE
Spot heights at ratio points..... 550'

Flown and Compiled by
ADASTRA HUNTING GEOPHYSICS PTY. LTD.
41–45 VICKERS AVE.
MASCOT. N.S.W.

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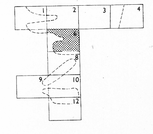
ADASTRA AIRWAYS PTY. LTD.
41–45 VICKERS AVE.
MASCOT. N.S.W.

Report Q48/1

SHEET INDEX

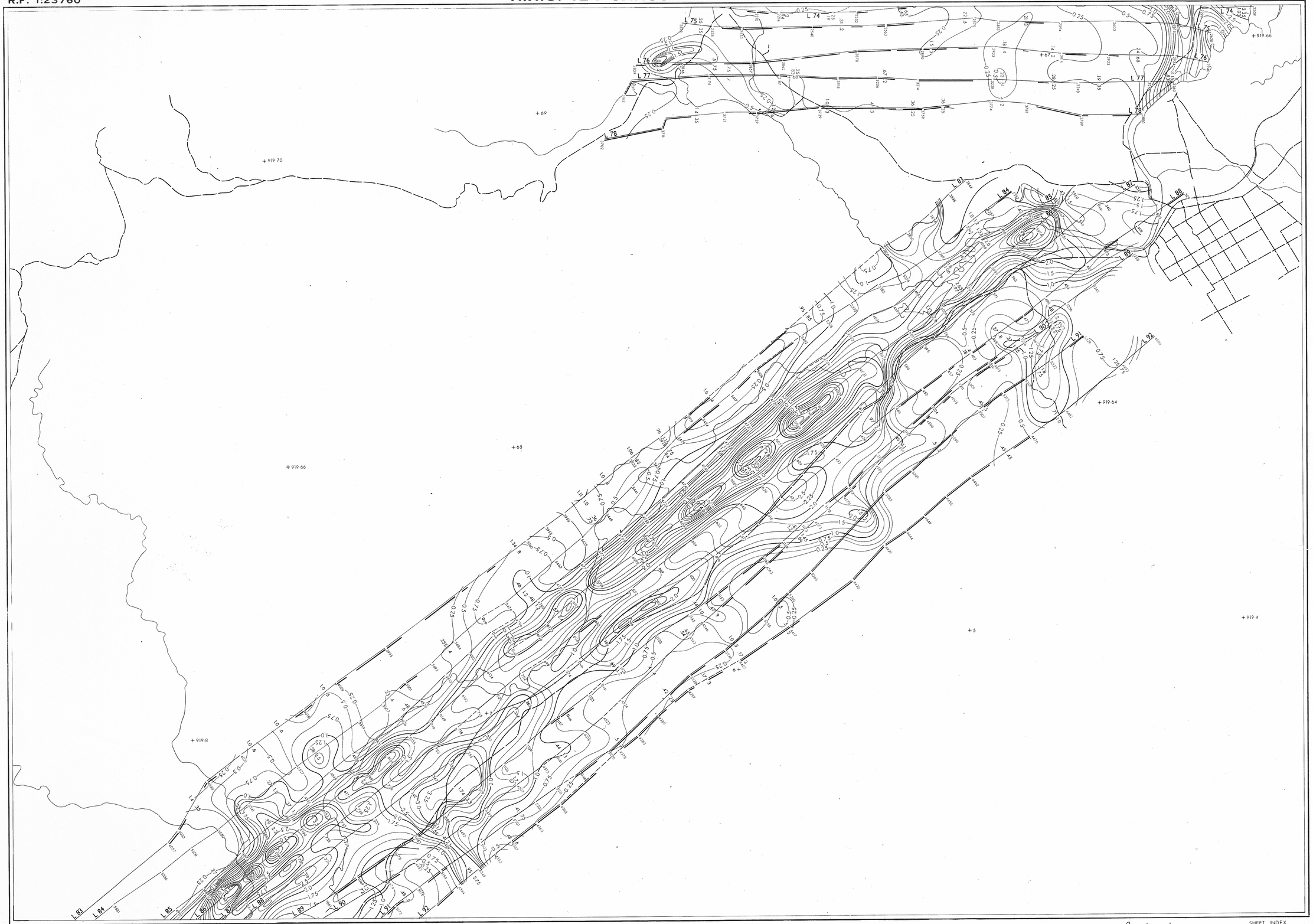


R.F. 1:23760

A.H.G. 124 CANSO-FINGAL AREA

379028

SHEET NO. 8



REFERENCE

Contours indicate out of phase component of the secondary fields induced by a 400 C.P.S. primary field.
Contour Interval ..... 0.3 degrees
The numbers shown thus 1.25
are the ratios of 400 CYCLE RESPONSE / 2300 CYCLE RESPONSE
Spot heights at ratio points ..... 550'

Flown and Compiled by
ADASTRA HUNTING GEOPHYSICS PTY. LTD.
41–45 VICKERS AVE.
MASCOT. N.S.W.

ELECTRO MAGNETIC MAP
ELECTROLYTIC ZINC COMPANY OF AUSTRALASIA LTD.

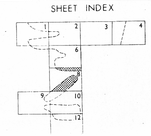
Scale . 30 Chains to 1 Inch

5 cm

Drawn and Reproduced by
ADASTRA AIRWAYS PTY. LTD.
41–45 VICKERS AVE.
MASCOT. N.S.W.

Report QH81

SHEET INDEX



R.F. 1:23760

A.H.G. 124 CANSO-FINGAL AREA

379029

SHEET NO. 9



REFERENCE

Contours indicate out of phase component of the secondary fields induced by a 400 C.P.S. primary field.
Contour Interval ..... 0.3 degrees
The numbers shown thus 1.25
are the ratios of 400 CYCLE RESPONSE
2300 CYCLE RESPONSE
Spot heights at ratio points ..... 550'

Flown and Compiled by
ADASTRA HUNTING GEOPHYSICS PTY. LTD.
41–45 VICKERS AVE.
MASCOT. N.S.W.

ELECTRO MAGNETIC MAP
ELECTROLYTIC ZINC COMPANY OF AUSTRALASIA LTD.

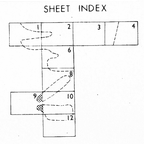
Scale . 30 Chains to 1 Inch

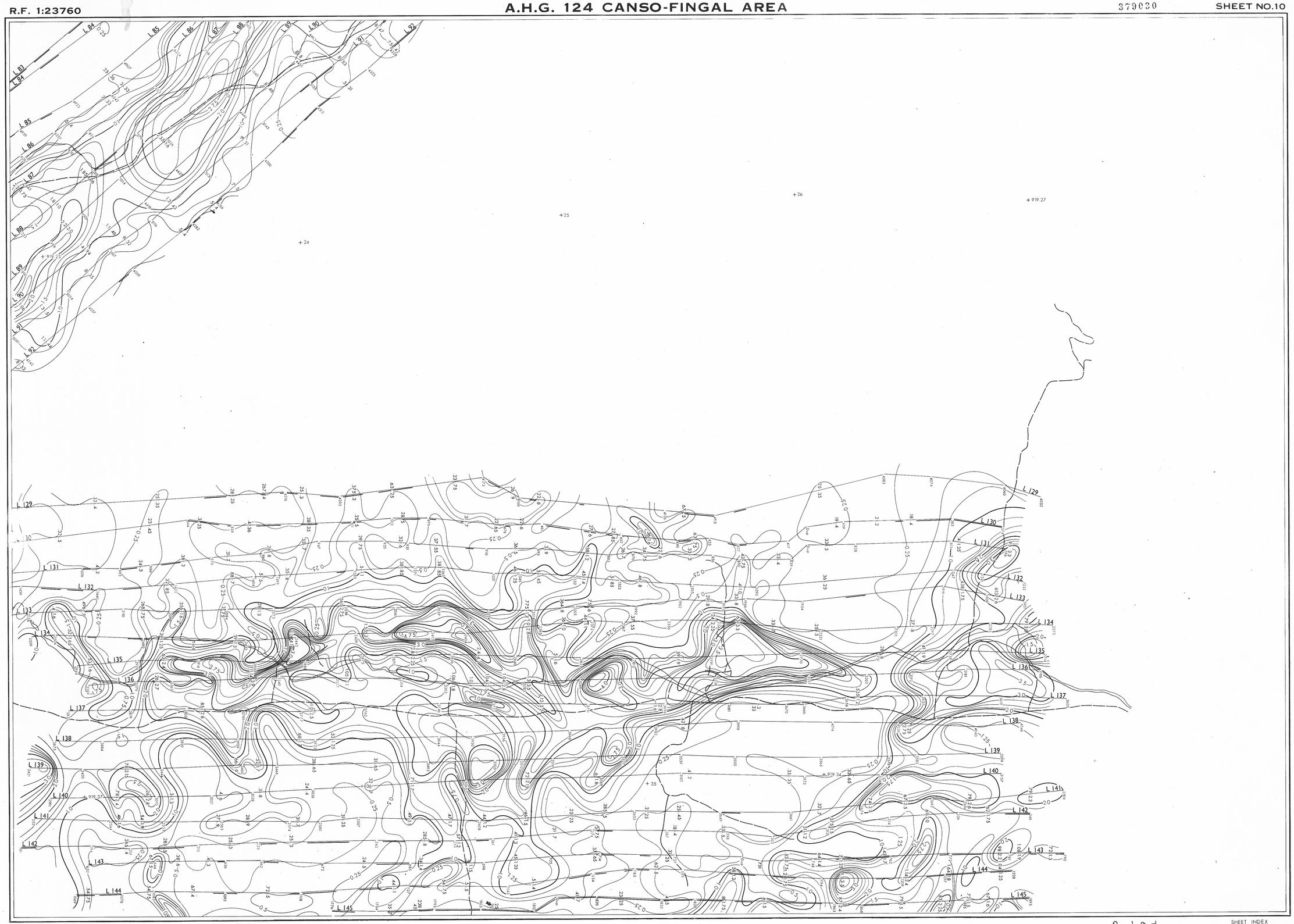
5 cm

Drawn and Reproduced by
ADASTRA AIRWAYS PTY. LTD.
41–45 VICKERS AVE.
MASCOT. N.S.W.

Report Q48/1

SHEET INDEX





REFERENCE

Contours indicate out of phase component of the secondary fields induced by a 400 C.P.S. primary field.
Contour Interval ..... 0.3 degrees
The numbers shown thus 1.25
are the ratios of 400 CYCLE RESPONSE
2300 CYCLE RESPONSE
Spot heights at ratio points ..... 550'

Flown and Compiled by
ADASTRA HUNTING GEOPHYSICS PTY. LTD.
41–45 VICKERS AVE.
MASCOT. N.S.W.

ELECTRO MAGNETIC MAP
ELECTROLYTIC ZINC COMPANY OF AUSTRALASIA LTD.

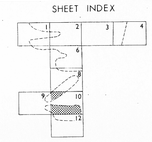
Scale . 30 Chains to 1 Inch

5 cm

Drawn and Reproduced by
ADASTRA AIRWAYS PTY. LTD.
41–45 VICKERS AVE.
MASCOT. N.S.W.

Report 0481

SHEET INDEX

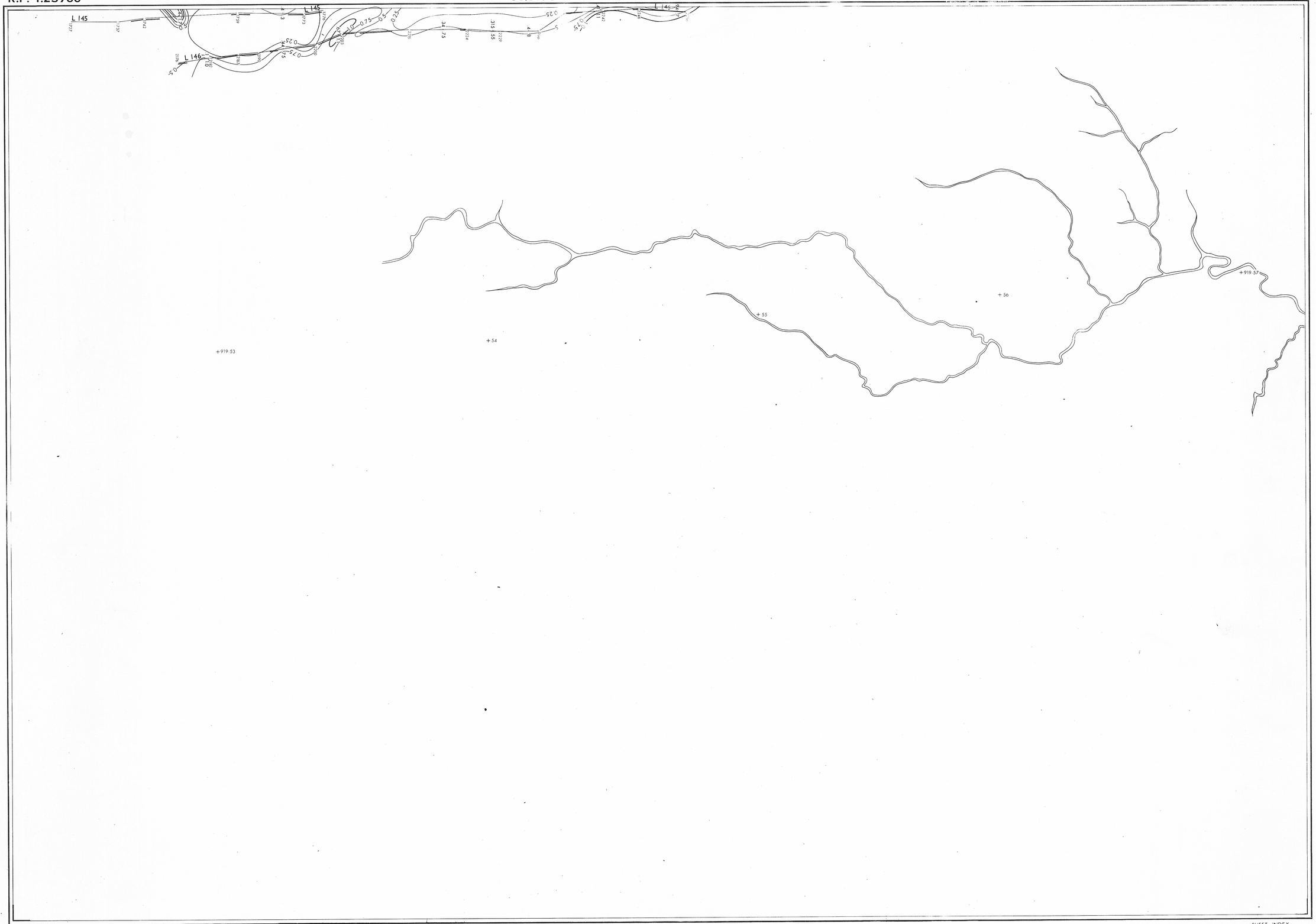


R.F. 1:23760

A.H.G. 124 CANSO-FINGAL AREA

379031

SHEET NO. 12



REFERENCE

Contours indicate out of phase component of the secondary fields induced by a 400 C.P.S. primary field.
Contour Interval ..... 0.3 degrees
The numbers shown thus 1.25
are the ratios of 400 CYCLE RESPONSE
2300 CYCLE RESPONSE
Spot heights at ratio points ..... 550'

Flown and Compiled by
ADASTRA HUNTING GEOPHYSICS PTY. LTD.
41–45 VICKERS AVE.
MASCOT. N.S.W.

ELECTRO MAGNETIC MAP
ELECTROLYTIC ZINC COMPANY OF AUSTRALASIA LTD.

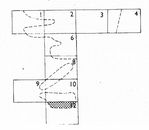
Scale . 30 Chains to 1 Inch

5 cm

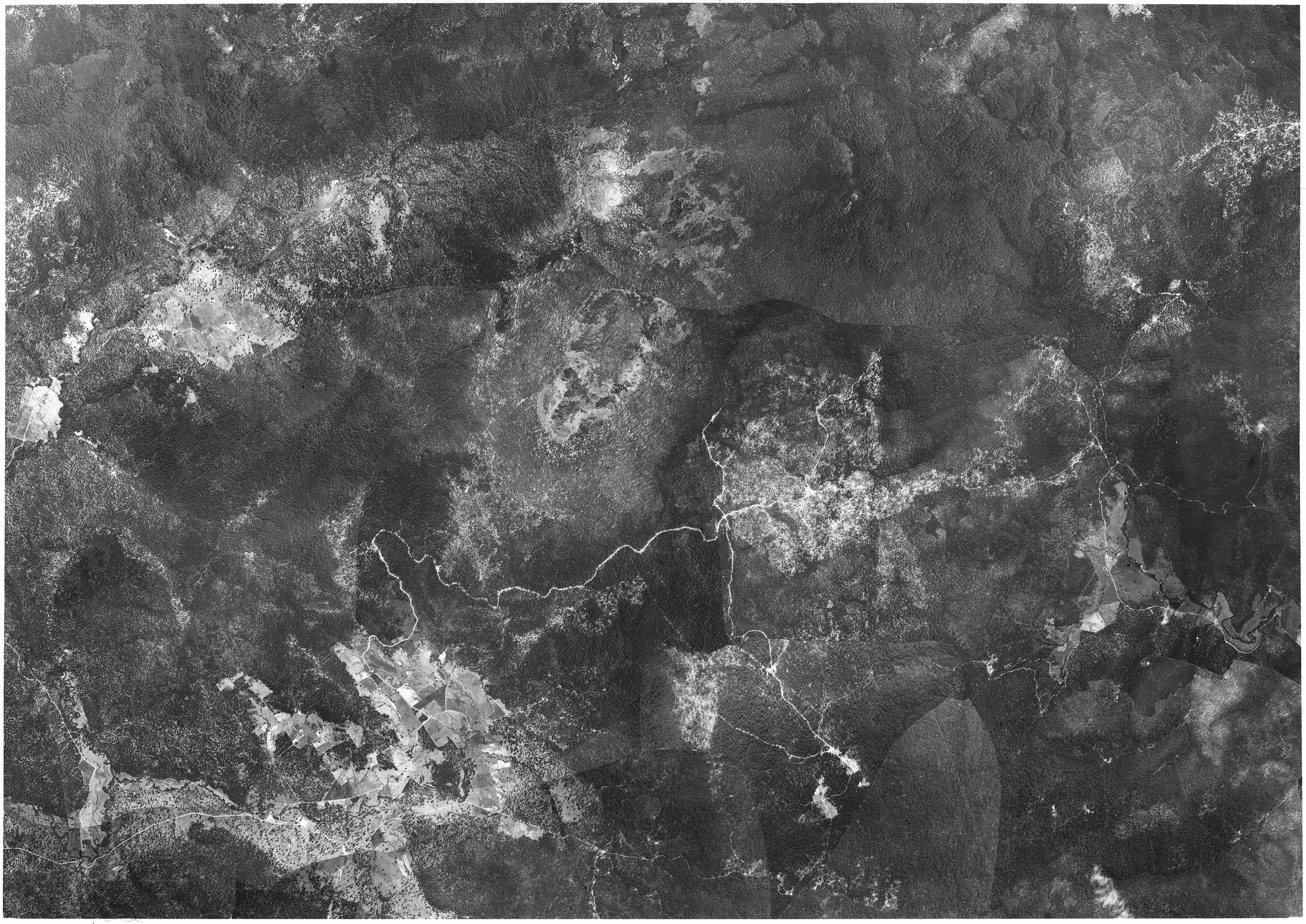
Drawn and Reproduced by
ADASTRA AIRWAYS PTY. LTD.
41–45 VICKERS AVE.
MASCOT. N.S.W.

Report QH8/1

SHEET INDEX



FINGAL AH 124 ELECTROLYTIC ZINC COMPANY OF AUSTRALIA LTD 379032 SHEET NO.1



THIS MOSAIC IS UNCONTROLLED

Scale 30 Chains to 1 Inch

Flown and Compiled by
ADASTRA AIRWAYS PTY. LTD.
41-45 VICKERS AVENUE,
MASCOT

5 cm

Report Q48/1

SHEET INDEX

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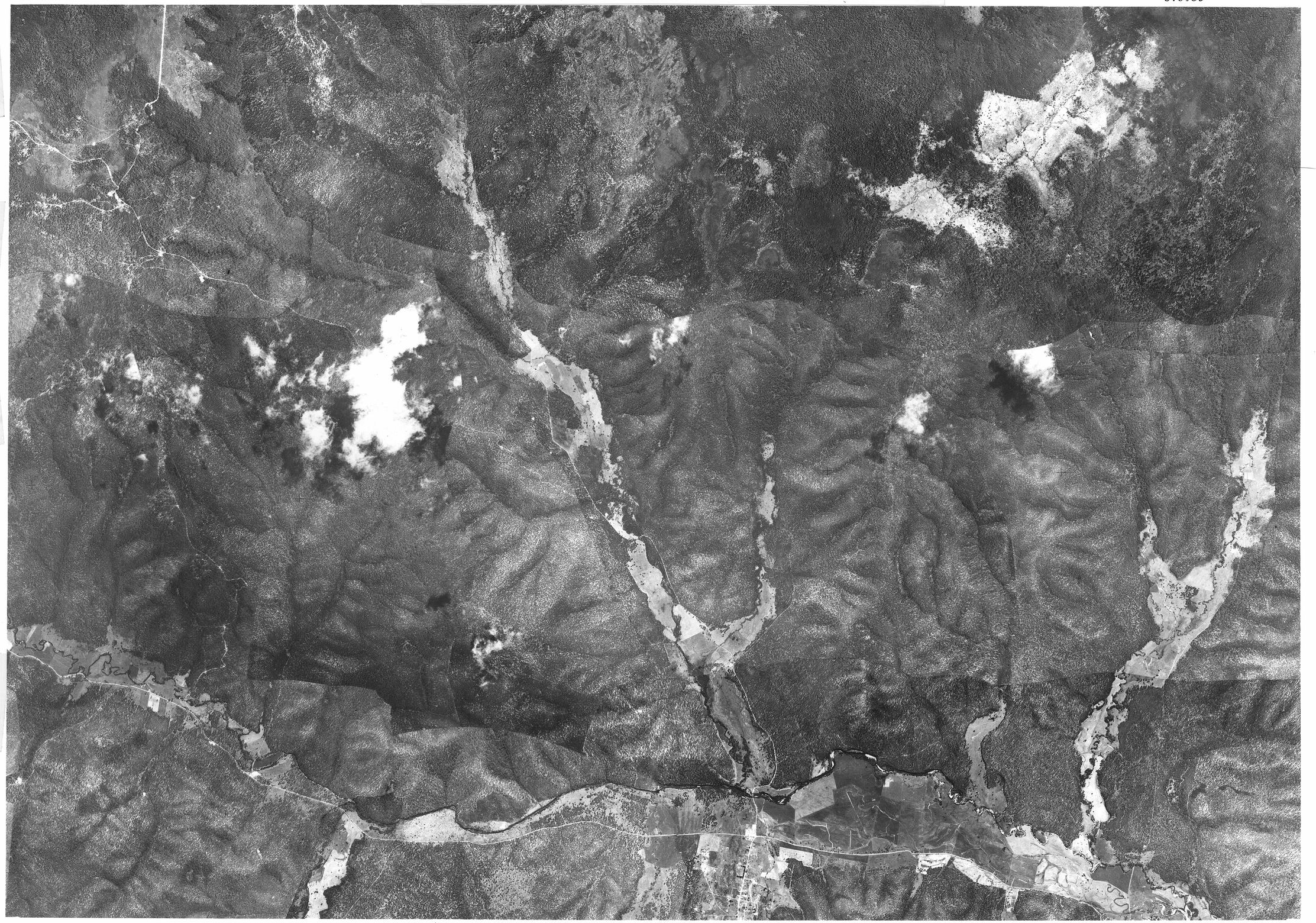
FINGAL AH 124

ELECTROLYTIC ZINC COMPANY OF AUSTRALASIA LTD.

379033

SHEET NO. 2



THIS MOSAIC IS UNCONTROLLED

Scale 30 Chains to 1 Inch

Flown and Compiled by
ADASTRA AIRWAYS PTY. LTD.
41-45 VICKERS AVENUE,
MASCOT

5 cm

Report Q148/1

SHEET INDEX

1	2	3	4
5	6		
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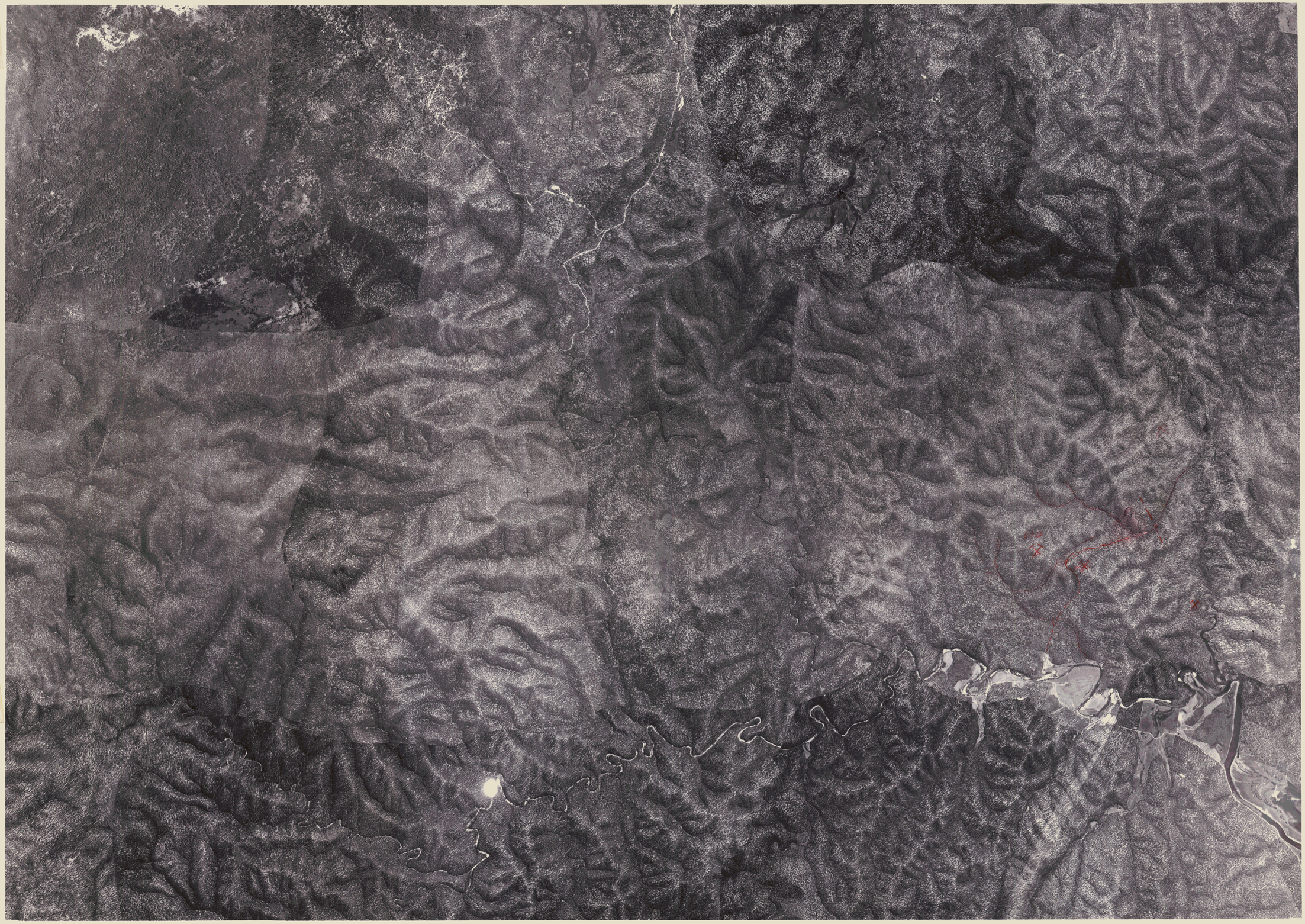

THIS MOSAIC IS UNCONTROLLED

Scale 30 Chains to 1 Inch

Flown and Compiled by
ADASTRA AIRWAYS PTY. LTD.
41-45 VICKERS AVENUE.
MASCOT

5 cm

Report GH81

SHEET INDEX

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5	6		
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FINGAL AH 124 ELECTROLYTIC ZINC COMPANY OF AUSTRALIA LTD. SHEET NO. 4

379035



THIS MOSAIC IS UNCONTROLLED

Scale 30 Chains to 1 Inch

Flown and Compiled by
ADASTRA AIRWAYS PTY. LTD.
41-45 VICKERS AVENUE,
MASCOT

5 cm

SHEET INDEX

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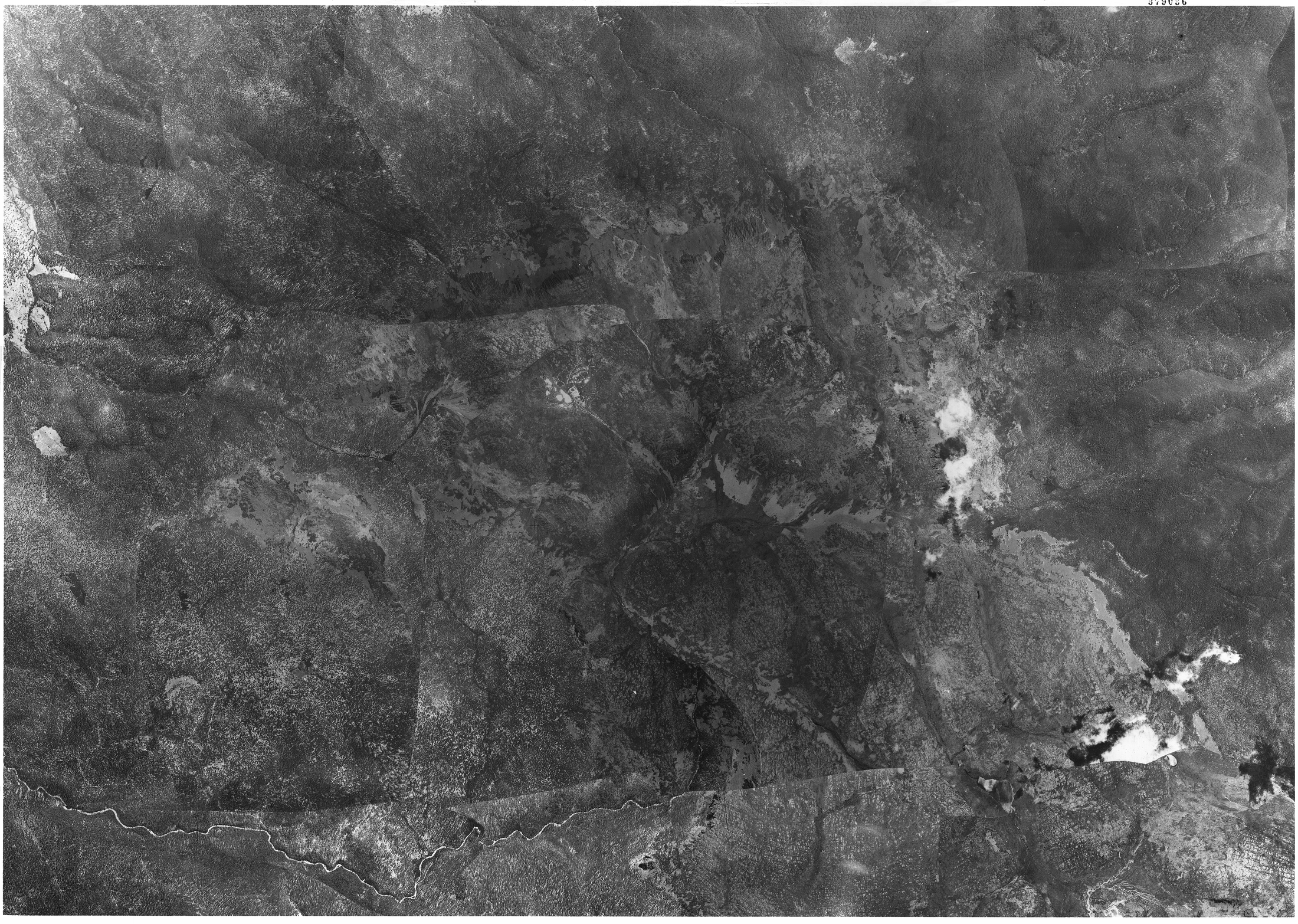
Report Draft

FINGAL AH 124

ELECTROLYTIC ZINC COMPANY OF AUSTRALIA LTD.

379036

SHEET NO. 5



THIS MOSAIC IS UNCONTROLLED

Scale 30 Chains to 1 Inch

Flown and Compiled by
ADASTRA AIRWAYS PTY. LTD.
41-45 VICKERS AVENUE,
MASCOT

5 cm

Report 9148/1

SHEET INDEX

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5	6		
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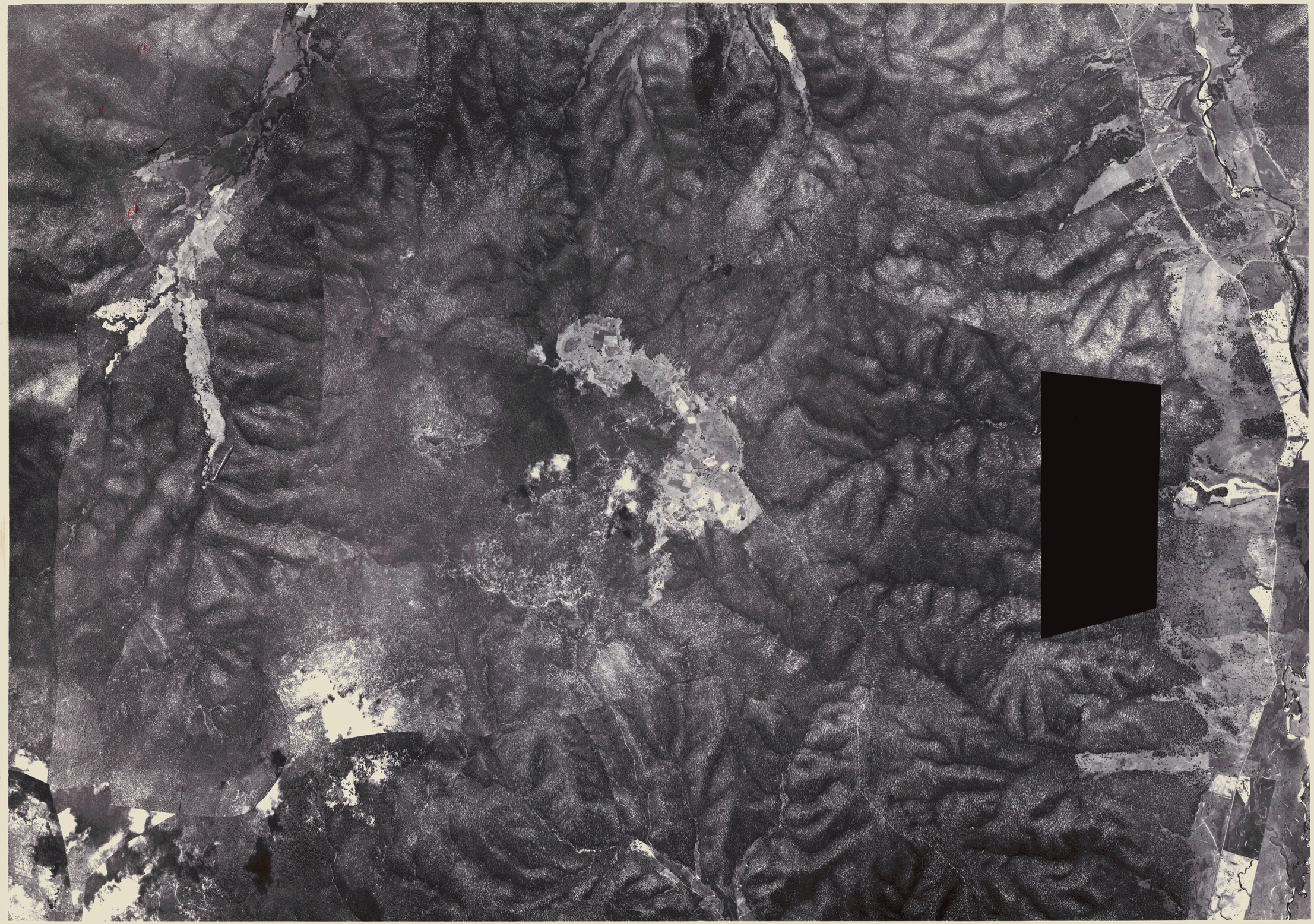
9	10		
11	12		

FINGAL AH 124

ELECTROLYTIC ZINC COMPANY OF AUSTRALIA LTD.

379637

SHEET NO. 6



THIS MOSAIC IS UNCONTROLLED

Scale 30 Chains to 1 Inch

Flown and Compiled by
ADASTRA AIRWAYS PTY. LTD.
41-45 VICKERS AVENUE,
MASCOT

5 cm

Report 148/1

SHEET INDEX

1	2	3	4
5	6		
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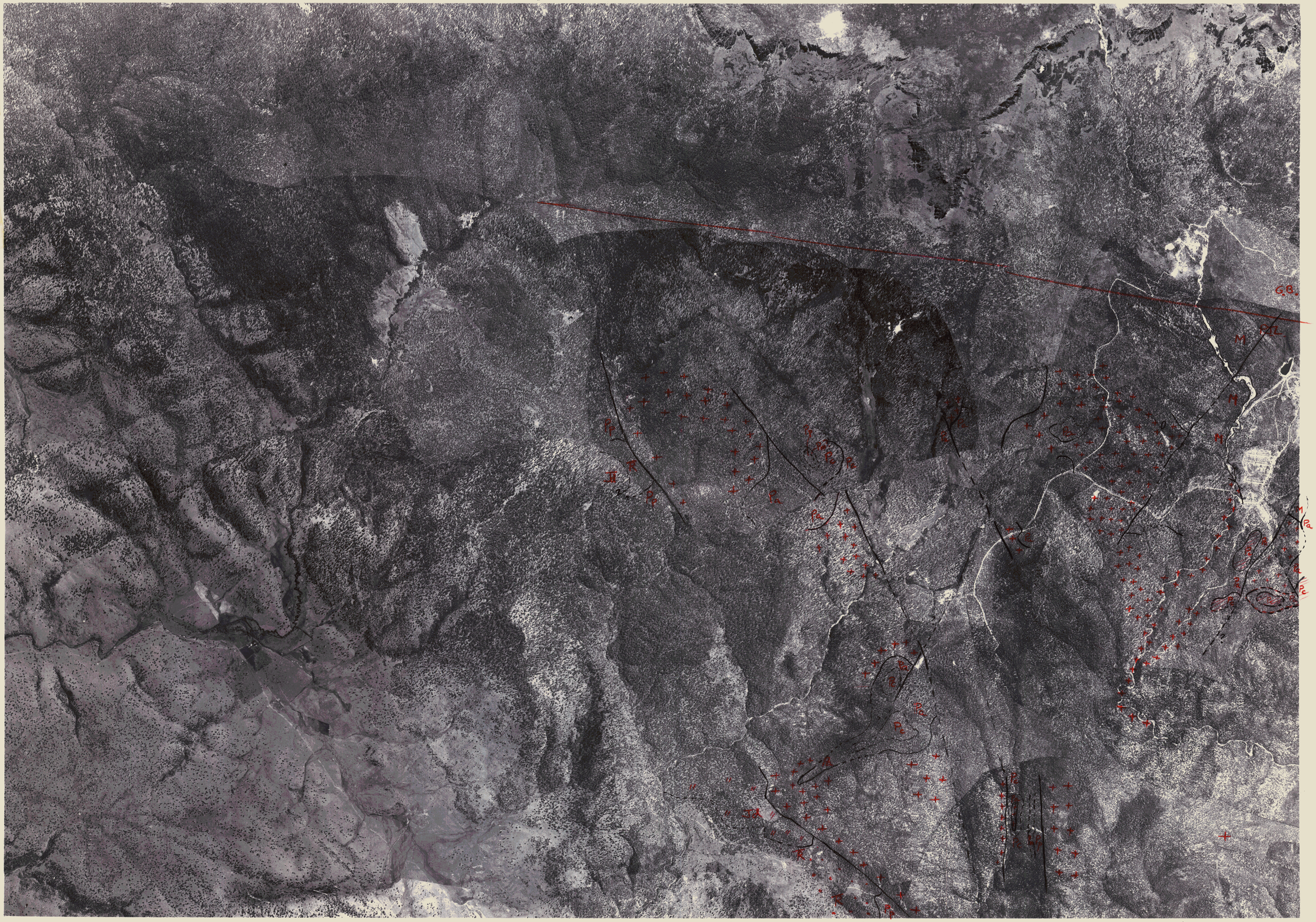
FINGAL AH 124

ELECTROLYTIC ZINC COMPANY OF AUSTRALIA LTD.

379638

SHEET NO.7



THIS MOSAIC IS UNCONTROLLED

Scale 30 Chains to 1 Inch

Flown and Compiled by
ADASTRA AIRWAYS PTY. LTD.
41-45 VICKERS AVENUE.
MASCOT

5 cm

Report 48/11

SHEET INDEX

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5	6		
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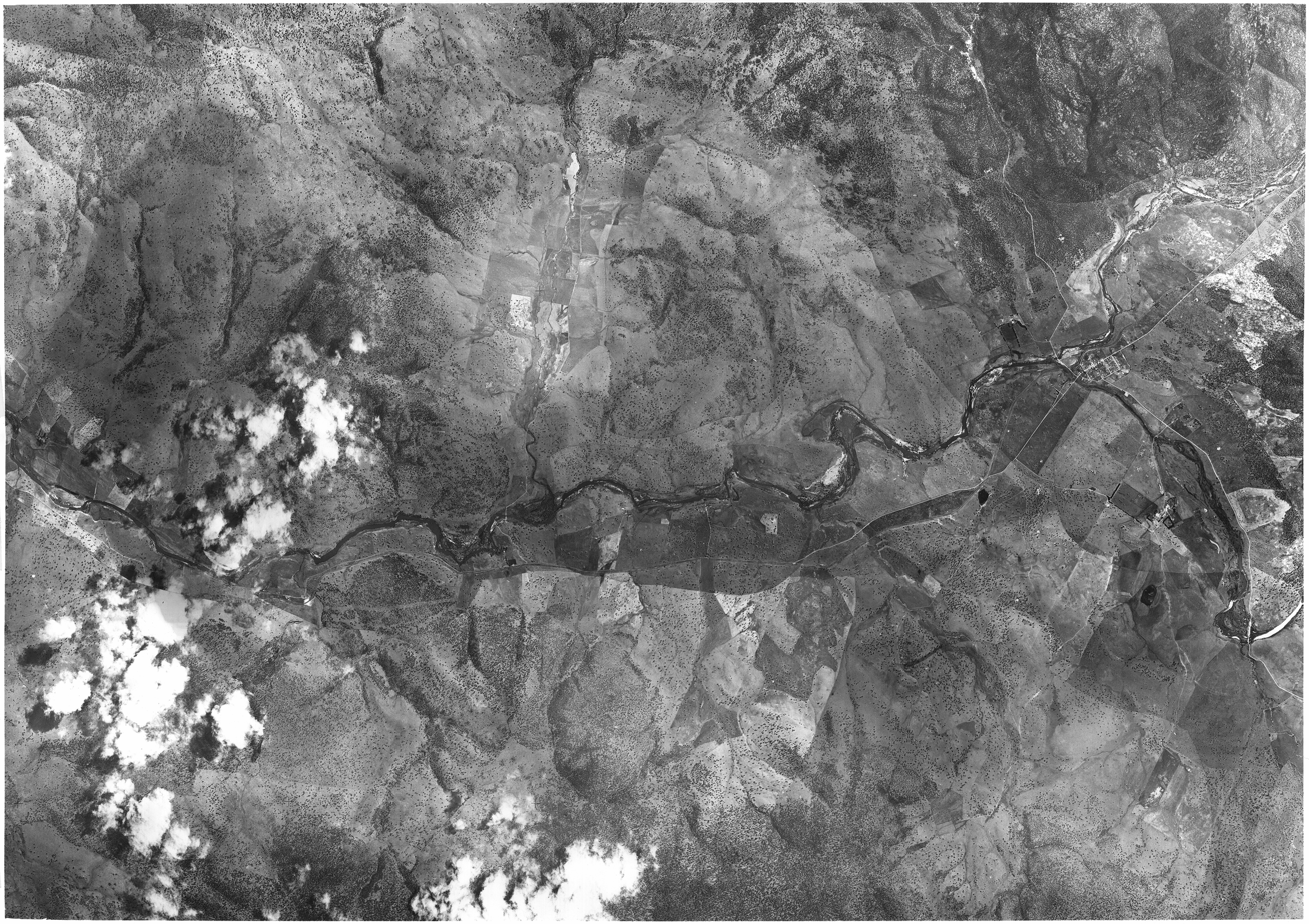
9	10		
11	12		

FINGAL AH 124 ELECTROLYTIC ZINC COMPANY OF AUSTRALIA LTD. 379038 SHEET NO. 9



THIS MOSAIC IS UNCONTROLLED

Scale 30 Chains to 1 Inch

Flown and Compiled by
ADASTRA AIRWAYS PTY. LTD.
41-45 VICKERS AVENUE,
MASCOT

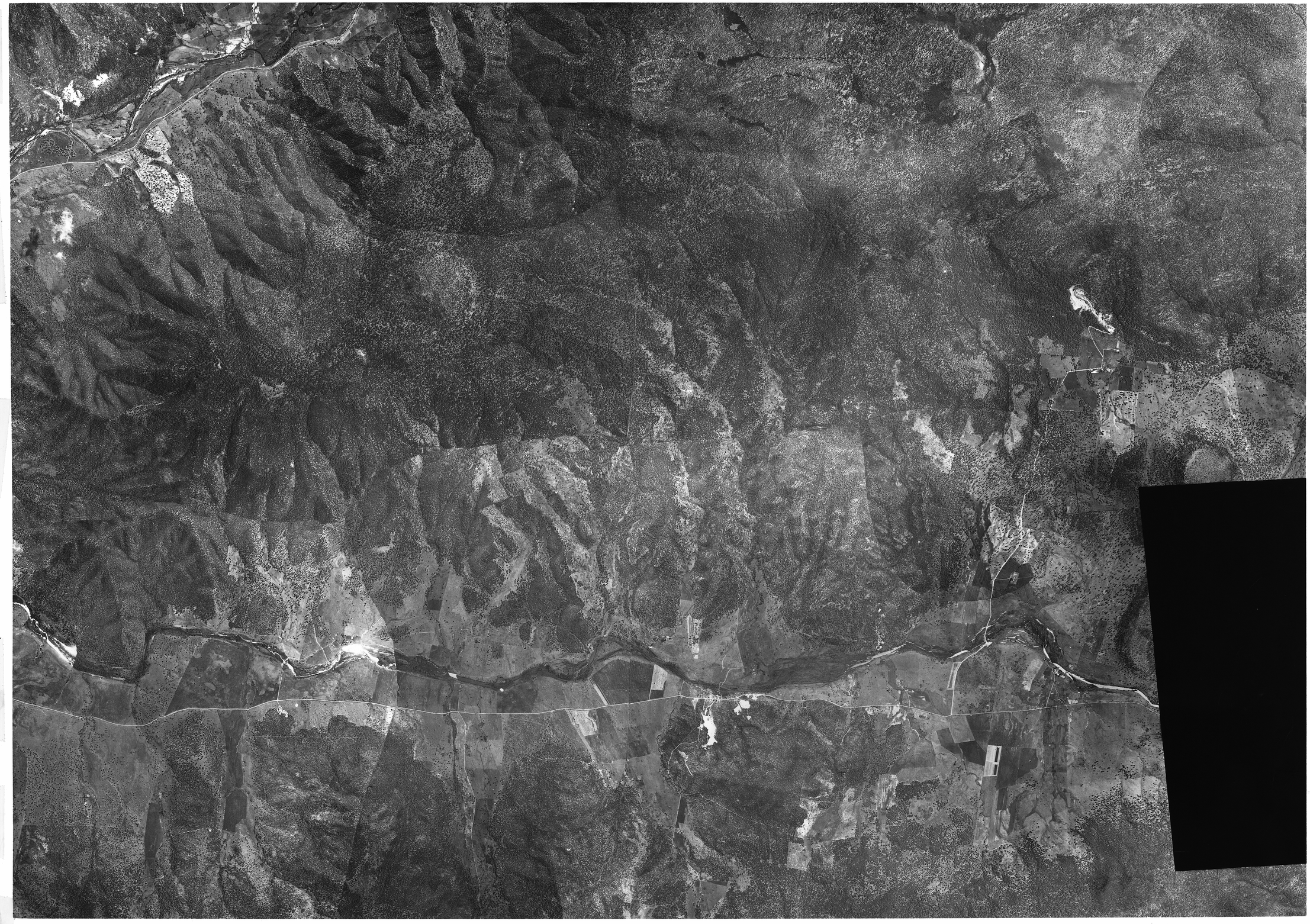
5 cm

Report Q251

SHEET INDEX

1	2	3	4
5	6		
7	8		
9	10		
11	12		

FINGAL AH 124 ELECTROLYTIC ZINC COMPANY OF AUSTRALASIA LTD. 379040 SHEET NO. 10



THIS MOSAIC IS UNCONTROLLED

Scale 30 Chains to 1 Inch

Flown and Compiled by
ADASTRA AIRWAYS PTY. LTD.
41-45 VICKERS AVENUE,
MASCOT

5 cm

Report 948/1

SHEET INDEX

1	2	3	4
5	6		
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FINGAL AH 124

ELECTROLYTIC ZINC COMPANY OF AUSTRALIA LTD.

379041

SHEET NO. 11



THIS MOSAIC IS UNCONTROLLED

Scale 30 Chains to 1 Inch

Flown and Compiled by
ADASTRA AIRWAYS PTY. LTD.
41-45 VICKERS AVENUE,
MASCOT

5 cm

Report 9481

SHEET INDEX

1	2	3	4
5	6		
7	8		
9	10		
11	12		

FINGAL AH 124

ELECTROLYTIC ZINC COMPANY OF AUSTRALASIA LTD.

379642

SHEET NO.12



THIS MOSAIC IS UNCONTROLLED

Scale 30 Chains to 1 Inch

Flown and Compiled by
ADASTRA AIRWAYS PTY. LTD.
41-45 VICKERS AVENUE.
MASCOT

5 cm

SHEET INDEX

1	2	3	4
5	6		
7	8		
9	10		
11	12		

Report 9481.