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COMINCO EXPLORATION PTY LTD

Progress Report

on

E.L. 2/70

Mackintosh River

Tasmania

Que River Prospect

by

CEPL Staff

3rd December 1974

SUMMARY:

During the last six months, activity has been concentrated on the Que River Prospect.

The continuing programme was designed to drill test geochemical anomalies having anomalous geophysical responses, and to improve definition of ore lenses by continued drilling. Surface exploration over an expanding grid is testing along and across strike, by soil geochemistry and I.P.

Two significant lenses of base metal mineralisation have been identified, within altered and to immediate pyroclastics.

Three untested lead/zinc/copper soil anomalies are known, one open ended at present.

Polished section examination of ore material suggests that grinding to 0.02mm would achieve virtual complete liberation of sulphides.

INTRODUCTION:A. Location

E.L. 2/70 is defined in two parts, the western being to the east of the Murchison Highway, the eastern to the immediate north of Cradle Mountain - Lake St Clair National Park. The Que River Prospect is situated 3km east of the Murchison Highway and immediately south of the Que River, (Plate DT32).

B. Exploration History

1971/2: Paringa stream sediment survey, activity concentrated in the eastern part of the licence.

1972(Feb): Airborne e.m. programme by McPhar for Paringa on CEPL initiative.

1972/3: Ground reconnaissance VHEM by CEPL.

1973/4: Detailed ground programmes throughout E.L. 2/70 as reported previously.

Interest in Anomaly 8 (Que River) promoted by stream sediment anomalies located by Paringa and Comstaff and by presence of old workings 1km to the north of the EM conductor. There are no old workings in the vicinity of the ore lenses.

GEOLOGICAL SETTING:

Two major base metal deposits, Mt Lyell and Rosebery, plus other lesser deposits occur in the Mt Read Volcanic Belt. This suite of andesites, dacites and rhyolites occupies the eastern margin of the Dundas Trough which extends from Deloraine 200km west and south to Elliot Bay. The western side of the trough is characterised by Proterozoic to L.Cambrian unfossiliferous sediments and M-U Cambrian fossiliferous sediments.

In the Mt Charter - Que River area, a broad sequence of andesitic volcanics is overlain by fossiliferous black shales, (Que River Beds), (Plate QR35).

WORK DONE 1973/4 PROGRAMMEA. Survey

2600 metres baseline, 15850m crosslines all surveyed by stadia, with all stations now located with respect to

State Grid and Datum. A precise level traverse has been carried along the access road from HEC stations on the Murchison Highway.

B. Roads

Approximately 3km of rock formation (with a timber bridge) are complete.

C. Geochemistry

a) Soils. 2269 A and C horizon soil samples were analysed for copper, lead, zinc and including 1559 also for iron.

b) Streams. 36 sediment samples were analysed for copper, lead, zinc. Water samples were analysed for mercury, selenium, cadmium, zinc, copper, lead and sulphate.

Soil sampling is in progress.

D. Geophysics

a) Induced Polarisation. 2500m at 25m and 50m spreads.

b) Self Potential. 8000m.

c) Ground Magnetics (GP70 proton-precession magnetometer) approx. 17000m at 25m station intervals.

d) VHEM. 3500m HEM, 8000mVEM.

e) Misé-a-la-masse. Electrodes in QR1, 2, 7.

E. Drilling (Holes QR1 to QR10)

2398m diamond coring in NQ and BQ sizes is complete. Drilling continues. Primary assaying by ACS Laboratories, Adelaide (registered NATA) uses AAS to scan copper, lead, zinc and to define silver, gold, then XRF to check copper, lead, zinc. Iron is analysed by titration. High gold is checked by fire assay. Check assaying by Supervise - Sheen (Sydney) (registered NATA) uses iodometric titration for copper, gravimetry for lead and titration for zinc.

443 samples have been assayed from holes QR1 to QR10 with sample intervals in the range 0.25m to 1.25m.

F. Metallurgy

Preliminary polished section studies and ore type identification have been conducted by CEPL and Amdel staff.

G. Geology

Grid mapping is part complete. Regional traversing is in progress.

RESULTS

- A. Geochemistry (Plates QR31A-C, QR32A-C, QR33A-C, QR34B
1:1000; Plates QR25A-E, QR29A-E, QR30A-E
1:2500; Plate QR36 1:10,000)

Soil sampling was conducted at 10 metre intervals on lines 50m or 100m apart.

Six major lead "C" horizon soil anomalies are defined or indicated with values in excess of 1000ppm and attaining 5000ppm. Associated copper, zinc and (where analysed) iron anomalies occur. Three of these anomalies have been

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tested by diamond drilling. All are related to base metal sulphides, two of ore grades and widths. Detailed correlation of anomalies and mineralisation are considered to be complicated by dispersion related to sulphides mobilised into faults and to groundwater movement. The subcrop of the eastern ore lens as extrapolated from drilling does not correlate with the lead geochemical anomaly on 7400N defined by 10m sampling (but with the EM conductor axis) (Plate QR31B). Detailed 1 metre spaced sampling along 7400N however demonstrated the presence of a narrow anomaly at the subcrop position, 5280E (Plates QR48 and QR49). One metre spaced sampling is not a reasonable exploratory method. 10m sampling is viable but the data achieved may not be regarded as always definitive of ore location.

'A' horizon samples are restricted in coverage; where data are available, lower order, broader, anomalies occur.

Stream sediments show a dispersion train with lead peaking nearest the metal source; copper and zinc peak 300 to 700 metres downstream of the source, (Plates QR6, QR7, also Plate QR36). Best individual values are 70ppm copper, 700ppm lead, 440ppm zinc. Several size fractions were analysed. The anomalous responses are clear in all sizes, (from minus 40 to minus 200 mesh).

Water samples were collected without acidifying and were immediately despatched for analysis by Amdel. Highest values are listed: 52ppb copper, 30ppb lead, 54ppb zinc, 14ppb cadmium, 0.05ppb mercury, 2ppb selenium, 5ppm sulphates. pH values were in the range 4.65 to 7.35 increasing downstream.

Plates QR9 and QR10 recording soil profile sampling data show a general tendency for deeper samples to be higher in value for copper, lead, zinc and iron.

Pitting was on the basis of soil anomalies and as indicated above, these (in part) are not coincident with the subcrop of the mineralisation as inferred from EM data or geological projection. Pitting of the ore lenses is hence yet to be undertaken.

B. Geophysics

For background and future reference purposes, comments on the airborne programme are included prior to descriptions of surface activity.

a) Airborne Survey

The two portions of E.L. 2/70 (totalling 160 sq. miles) were flown with a 1/5 mile line separation, by McPhar Geophysics Pty Ltd, using the magnetic and electromagnetic methods. The total magnetic field was measured by a Barringer proton-precession magnetometer with a noise envelope of 5 gammas. The electromagnetic unit was a McPhar H400, two frequency (340 hz and 1070 hz) quadrature system utilising large transmitter (horizontal dipole) to receiver (vertical dipole) separation of approximately 400 feet.

The data are recorded as shown in figure 1, with two channels of EM data (upper trace is high frequency response, lower trace is low frequency response), two channels of magnetic data (coarse setting of 1000 gammas full scale deflection, fine setting of 100 gammas full scale deflection) and one channel of altimeter data.

(The example in figure 1 illustrates the responses obtained over a flat sheet of Tertiary basalt. The magnetic

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response is typically, (southern hemisphere) magnetic high over northern edge and magnetic low over the southern edge. The electromagnetic data show a strong response with both frequencies (ratio of 0.4) and sharp edges which are coincident with the magnetic anomalies mentioned above).

A lag of up to two fiducials in the EM response is to be expected due to the "bird" trailing the magnetic sensor by 200 feet.

Standard interpretation procedure is to assess anomaly patterns by shape, amplitude of the low frequency response and the ratio of low to high frequency response. A chart for quantitative analysis of conductivity-thickness and source depth parameters for the McPhar H400 system is shown in figure 2, together with evaluation of data recorded over the Whistle mine (Canada)(figure 3). These data are illustrated for comparison with the Mackintosh data.

The airborne EM data for anomaly number 8 are illustrated in figure 4 together with data for flanking lines. It is readily observed that the (number 8) anomaly on line 43A, is not recorded on flanking lines, possibly due to flight line divergence in this vicinity, and poor line recovery.

Quantitative analysis of the anomaly at fiducial 1622 on line 43A indicates a conductivity-thickness parameter of 2.3 mhos, not allowing for the effects of finite length and depth extent.

b) Ground Magnetics (Plate QR43C)

Using a McPhar GP70 proton-precession magnetometer, readings have been taken at 25m intervals on all cut lines between 7000N and 7600N.

The variations are considered to represent rock type changes with most relief present in an area of andesitic agglomerate to the south east of 5300E 7200N. Drilling data suggest that the positive anomaly on 7500N is due to magnetite dust in an intermediate to basic volcanic.

Subtle magnetic anomalies are considered of value in defining the stratigraphy.

The Plate QR43 is of raw data. The survey has been repeated to permit appropriate correction for diurnal variation but data are not yet plotted.

c) Surface VHEM (Plates QR37, QR38, QR39)

i) Qualitative Assessment

The horizontal loop electromagnetic (HEM) traverses with a McPhar VHEM unit (600/2400 Hz) at 300 feet separation (Plate QR37) showed the presence of a definite conductor from lines 7250N to 7500N, with strongest response on lines 7450N and 7400N in the vicinity of 5250N and 5300E. The HEM responses detected on lines 7250N and 7350N were indicative of a poor conductor.

As priority required that the HEM equipment be used in other areas, a contract geophysical crew, with long range VEM equipment (McPhar SS15 unit), was employed to accurately locate the conductor axis. The grid was surveyed from two transmitter locations 7150N, 5271E and 7400N, 5275E (Plate QR38) using the set-up method, thus covering the area of interest within the most effective range of the equipment. For ease of presentation these

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data have been transformed by the procedure of Fraser (1969) and plotted in contour form in Plate QR39. (This procedure results in anomaly axes being located along contour highs, instead of at crossover points).

The VEM data show the presence of a conductor between lines 7250N and 7500N in close proximity to the baseline, i.e. 5300E. The presence of a weak second conductor is readily observed at 5250E on lines 7350N and 7300N. The main conductor can be classified "strong" from 7350N to 7450N whilst the western flanking conductor can be classified as "poor". The close proximity of this second "poor" conductor probably explains the only "Fair" overall HEM response on line 7350N. The two conductors are observed to merge on line 7400N.

Drilling on line 7300N revealed the presence of two massive pyrite lenses correlatable with the EM conductor axes.

ii) Quantitative Assessment

The HEM data have been analysed to determine conductivity-thickness (σs) parameters and source depths for classification purposes. (These parameters are only approximate, as readings were taken every 50 metres along traverses).

Table 1 lists the results of this analysis, plus classification of the conductivity-thickness parameters according to the system listed by Hamilton of Cominco Ltd in 1973. Each anomaly gave an apparent depth to source value of less than 10 metres, i.e. 0.1 times the coil separation, the limit of resolution for the technique. The interpretation curves used in this analysis were those computed for a vertically dipping source, which was assumed appropriate from geological and magnetic considerations as the dip cannot be estimated from the HEM profiles. Ambiguities in the HEM curve shapes are probably due to the multiple sources indicated on several lines by the VEM data. These assumptions are not expected to be a source of major error.

d) Misé-a-la-masse (Plates QR40, QR41)

As intersections of conductive mineralisation were anticipated in the drilling programme, provisions were made to survey the prospect with the misé-a-la-masse technique. The aim of this work was to ascertain the strike length of the eastern mineralisation and its electrical continuity. Later, the technique was used to determine the electrical parameter of the western mineralisation and its continuity if conductive.

An electrode was placed at 118m in DH QR1 adjacent to the massive mineralisation. The surface potential pattern, due to energising this electrode, indicated electrical continuity from 7200N to 7550N. However, strong potential gradients from the infinite current electrode produced curve asymmetry which prevented detailed analysis.

The surface current electrode was moved farther away (to 7500N, 4300E, which is 100m west of the baseline) to lessen its influence within the survey area. The potential measurements due to the electrode in QR1 were repeated when electrodes were also available in QR2 and QR7. The latter electrodes were planned to energise the western mineralisation; however, QR2 was cased to considerable depth and because the casing could not be removed, contact with the mineralisation was attempted through the casing. Also QR7 exhibited considerable caving due

to faulting, and the electrode was unintentionally left in this fault zone.

The surface potentials due to energising these electrodes are displayed in contour format in plates QR40, 41. As can readily be seen by the gradients in the western portion of the survey area, the effects of the infinite current electrode were not entirely removed.

The potential pattern due to the current electrode in QR1 indicates a response from the eastern mineralisation that mirrors the response measured by the EM and S.P. techniques. Good continuity is indicated from 7350N to 7550N with weaker continuity to 7200N. This is supported by drilling results, though the mineralisation is variable along strike.

The potential patterns due to the current source in QR7 and QR2 show a distinctly different response to that above. In each case a sharp anomaly, up to 60 millivolts is observed over the electrode, but superimposed on a broader response, of 80mv to 100mv, which is centred to the east of the electrode. Qualitative interpretation suggests that the broad anomaly is the response of the sericitised rock unit which contains disseminated pyrite mineralisation, as indicated in QR1. This rock unit is thus inferred to be a weak conductor which is being energised by the electrodes in QR2 and QR7. Its effect is probably not observed in the earlier case due to the dominant influence of the eastern mineralisation.

The sharp anomaly centred on QR2 and QR7 electrodes would be the potential pattern generated by a point source, with pattern asymmetry (ellipses rather than circular contours) due to a lower conductivity across strike than along strike. These sharp anomalies indicate that the fault zone and western mineralisation are either poor conductors or of limited strike length.

Data are not commented upon quantitatively in this report, as analysis is not yet complete.

e) Induced Polarisation

The geophysical techniques described above, successfully defined a massive sulphide body. Drilling, however, revealed the presence of an ore lens which had responded only to geochemistry.

Orientation IP and SP surveys were thus designed to examine this ore lens, which at the time was represented by only one intersection, (Hole QR2).

The IP survey comprised 5 lines 50 metres apart (7300N to 7500N inclusive) surveyed with 25 metre dipoles (n = 1 to 6) and three lines (7300N, 7400N and 7500N) with 50 metre dipoles. It was designed to resolve the responses of the two massive mineralised zones, i.e. whether or not the western zone could be detected. Line 7400N was surveyed with Cominco IP equipment, to establish the above criteria, and later a contract crew was employed to complete the orientation survey.

The western mineralisation was detected on all lines; indeed, its frequency effect anomalies were generally stronger than those recorded over the eastern mineralisation. As anticipated, the resistivity anomaly pattern of the eastern zone was extremely strong, first separation resistivity values equal to or less than 3 ohm m., with pattern asymmetry due to either dip or terrain.

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Subsequent drilling demonstrated the presence of ore grade mineralisation on lines 7300N and 7500N only relatively poorly represented by geochemical anomalies.

f) Self Potential (Plate QR42C)

The S.P. data were obtained from 5050E to 5450E on lines 7000N to 7600N inclusive.

The contoured plan of the S.P. data, Plate QR42C, illustrates that this technique also strongly reflects the eastern mineralised zone, with anomalies in excess of -300 millivolts. The zone of strong response, i.e. anomalies in excess of -60mv, correlates with the zone of anomalous EM response, especially the Fraser transformed VEM data.

The strongly anomalous S.P. zone is superimposed on a broader (up to 250m wide) S.P. anomaly which trends grid 030° from 7200N to at least 7550N. This broad S.P. low probably reflects the pyritic rock unit encountered in drilling. The oxidising pyrite and possible overall low resistivity of this unit could explain this -40 to -50 millivolt anomalous zone.

The anomalous S.P. zone is flanked on the southeast by an area of positive (+24 to +36mv) S.P. response which correlates with a zone of magnetic disturbance and probably indicates a different geological rock type. Similar magnetic and S.P. correlation occurs to the northwest of the broad S.P. low mentioned above, and should indicate another rock type change.

Other local S.P. anomalies of low amplitude are observed within the survey area, but their significance has not been established. The lack of a significant response over the western mineralisation does not allow this technique to be a definitive aid to exploration, but it should be of assistance in geological mapping.

C. Drilling (Plate QR1)

Reference is made to Table II, showing summary assay results (detailed data are also appended) and to Plates QR46/72, 73, 74, 75; QR27, QR28 (1:2500 Summary Cross Sections, Long Projections). It is emphasized that intersections quoted represent preliminary assessment only, of ore and sub-ore.

Two subvertical lenses have been identified subparallel and approximately 100m apart, striking 010° magnetic. The eastern lens has apparently been encompassed by drilling. The western lens is open in strike and (partly) in depth. Several other minor intersections and zones of disseminated and stringer mineralisation occur between these lenses and to the east of the eastern lens.

D. Detailed Geology

Rock Types

Mapping and logging of core indicates an east to west sequence (about 150m true thickness) as follows, dipping vertically to 85°E striking approximately 030 m:

- a) andesitic(?) lithic tuffs, crystal tuffs
- b) vitric tuffs, pumice tuffs, autobreccias, - with stringer pyrite-chalcopyrite or pyrite-sphalerite mineralisation

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- c) eastern ore lens - pyrite-chalcopyrite-galena-sphalerite
- d) lithic tuffs, tuff agglomerates, with minor pyrite lenses, and one 'major' lens on 7300N, (causing the weaker VEM anomaly)
- e) vesicular lavas, tuff-lavas, pumice tuffs and tuff-agglomerates
- f) western ore lens - massive sphalerite-galena pyrite, matrix contains sericite and graphite(?)
- g) pumice tuff, agglomerate
- h) andesitic tuffs, lavas(?), agglomerates
- i) andesitic feldspar crystal tuffs.

Alteration

Sericite is abundant throughout units (b) to (e) and (g) above. Chlorite is patchily developed with short irregular massive sections most common in (d). The andesitic suite (h) is heavily carbonated, forming a dense fine grained unit. Units (d) and (e) also show strong carbonation. Rock colour is dominantly grey in the pumice tuffs (g), tuffs and lavas (e), and part of the lithic tuffs (d), before becoming yellow to yellow green, part (d), and (b).

The original composition of the volcanics is not definable, but except as specified above, is interpreted to have been dacitic to rhyodacitic.

Structure

Dips as defined by the ore lenses are subvertical. Correlation from hole to hole is difficult in the volcanics due to the probable wedge like deposition of the coarse pyroclastics and the masking of original characteristics by alteration.

Several major faults occur and are currently interpreted to dip steeply eastwards, with a strike of approximately 030° magnetic. The ore lenses strike 010° magnetic. The effect of faulting on the continuity of mineralisation is not yet known.

Mineralisation

The two main ore lenses are macroscopically distinguishable in general.

East Lens:

- i) relatively coarsely crystalline pyrite-galena-sphalerite-chalcopyrite (individual crystals commonly distinguishable by eye). Crudely banded with slump(?) structures, recrystallised and locally remobilised. Sulphide content is 50% plus, circa 10% copper-lead-zinc combined.
- ii) massive (90%) pyrite (plus pyrrhotite?) with splashes up to 5mm of chalcopyrite.

West Lens:

- i) finely (< 1mm to 2cms) bedded fine grained sphalerite-galena-pyrite-(chalcopyrite) with variable graphite(?). Galena crystal faces barely distinguishable by eye. Sphalerite and pyrite are typically cryptocrystalline. The former is normally orange brown in colour but some is

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yellow.

ii) Sulphide content of this lens is 70% plus, containing up to 40% combined lead-zinc.

Assay results are appended.

Metallurgy

The most significant statement made by Amdel is: "Most of the coarser grained sulphide would be liberated at 0.1mm (150 mesh) and much of the finer grained sulphide at 0.05mm (300mesh). The sulphides would be virtually completely liberated at 0.02mm except for minute inclusions of chalcopyrite in sphalerite and some fine grained intergrowths of galena and pyrite".

Iron analyses of sphalerite show values below 2% iron. Silver is largely associated with the galena, whilst free gold has been observed in polished section.

FINANCE

Expenditure for the six months subsequent to the last progress report.

Geology	14,926
Survey	10,345
Geophysics	13,074
Geochemistry	9,593
Drilling	136,802
Road Works	31,799
Metallurgy	2,601
Legal	<u>2,247</u>
Total	<u>\$221,387</u>

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CONCLUSIONS

Two significant ore lenses have been identified by drilling and other untested targets are known. The attractive west lens (lead-zinc-silver) is open at both ends and (partly) in depth.

Soil geochemistry has successfully located base metal mineralisation, but geophysical techniques, particularly I.P., are essential to accurate definition of drill targets.

No serious metallurgical problems have yet been fore-shadowed.

The prospective ground is untested to the north and interpreted faults may be responsible for westward displacement of the southern strike extensions.

The mineralisation occurs within a dominantly andesitic suite, with local acid pyroclastics. Only very minor clastic sediment (or reworked tuff) has been noted. Coarse pyroclastics are common. This setting is in contrast with the Rosebery situation where the ore is hosted by shales.

ATTACHMENTS

- Figure 1 - Airborne Geophysics Data Profiles - Mackintosh Licence.
- 2 - Chart for Quantitative Analysis of H400 System EM Data.

Figure 3 - H400 EM Data. Whistle Mine.

4 - Airborne Geophysics - Data Profiles - Que River Prospect.

- Plate DT32 *MA* 1:50,000 Fact Geology, Mackintosh Hatfield River.
- QR1 *MA* 1:1000 Fact Geology and Location of Drill Holes.
- QR6 *MA* 1:1000 Stream Geochemical Orientation. Streams A-C.
- QR7 *MA* 1:1000 Stream Geochemical Orientation. Stream X.
- QR9 *MA* Pit Soil Geochemical Profiles.
- QR10 *MA* Repeat soil sampling Line 7350N.
- QR25A-E 1:2500 Que River "C" Horizon Lead Geochemistry.
- QR27 1:2500 Long Projection Western Mineralisation.
- QR28 1:2500 Long Projection Eastern Mineralisation.
- QR29A-E 1:2500 Que River "C" Horizon Copper Geochemistry.
- QR30A-E 1:2500 Que River "C" Horizon Zinc Geochemistry.
- QR31A-C *MA* 1:1000 Que River "C" Horizon Lead Geochemistry.
- QR32A-C *MA* 1:1000 Que River "C" Horizon Zinc Geochemistry.
- QR33A-C *MA* 1:1000 Que River "C" Horizon Copper Geochemistry.
- QR34B *MA* 1:1000 Que River "C" Horizon Iron Geochemistry.
- QR35 *MA* 1:10,000 Surface Outcrop Geology.
- QR36 *MA* 1:10,000 Summary Geochemistry
- QR37 1:2500 HEM Profiles.
- QR38 1:2500 VEM Profiles.
- QR39 1:2500 Contours of Filtered VEM Data.
- QR40 1:2500 Misé-a-la-masse electrodes in QR1 and QR7
- QR41 1:2500 Misé-a-la-masse electrodes in QR2.
- QR42C 1:2500 Contours of Self Potential Data.
- QR43C 1:2500 Contours of Ground Magnetic Data.

Plate QR46/72, '73, '74, '75 .
1:2500 Cross Sections, Lines 7200N,
7300N, 7400N, 7500N, showing drill
holes and intersections.

QR48 . 1:1000 "C" Horizon Soil Profiles for
Copper-Lead, Line 7400N.

QR49 . 1:1000 "C" Horizon Soil Profiles for
Zinc-Iron, Line 7400N.

QR58 Que River Prospect. Summary Plan.
Table I Summary of HEM Interpretation.
II Summary of Drill Hole Assays.

I.P. Profiles Lines 7300N to 7500N.

Sheets 1-9

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Project Geologist

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TABLE 1

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SUMMARY OF H.E.M. INTERPRETATION

Line Anomaly	σ_s	Cominco Classification	σ_s	Cominco Classification	Remarks
	(mhos) High Frequency		(mhos) Low Frequency		
7500N 5310E	0.72	Poor	—		
7450N 5290E	7.2	Good	7.2	Good	
7400N 5285E	7.2	Good	5.7	Good/Fair	
7350N 5285E 5250E	1.8	Fair	2.4	Fair	Double Conductor
7300N 5285E 5250E	1.8	Fair	—		Double Conductor
7250N 5270E	0.6	Poor	—		
7200N 5240E	N.D.	Probably Poor			

N.B. Cominco Classification (Hamilton, 1973)

<u>Classification</u>	<u>σ_s mhos</u>
Excellent	15.0
Good	6.00 - 15.0
Fair	1.5 - 6.0
Poor	1.5

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MACKINTOSH - QUE RIVER DRILLING RESULTS
Exploration Licence 2/70

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4 weeks ending 15 Nov 75
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Hole No.	Commence-ment date	Comple-tion date	Metres N	Metres E	Declin-ation	Bearing (Magnetic)	Length Metres	Metres Intersection	IW	% Cu	% Pb	% Zn	Ag g/mt	Au g/mt
QR 1	23.4.74	29.4.74	7400.0	5225.0	50°	101°	163.35	107.88 to 112.57 112.37 to 121.20 121.20 to 123.81 123.81 to 135.93 150.92 to 155.92	4.49 8.83 2.61 12.11 5.00	0.21 2.63 0.31 0.09 0.04	0.24 6.07 1.71 0.80 0.61	1.34 7.39 7.34 2.42 2.36	14.9 122.94 17.5 12.8 18.0	- 0.1 - - -
QR 2	2.5.74	21.5.74	7401.5	5123.0	52°	101°	309.20	78.38 to 82.19 93.23 to 97.12 97.12 to 100.69 282.44 to 284.75	3.81 3.89 3.57 2.31	0.36 0.05 0.08 0.11	13.20 1.18 2.84 1.90	22.03 1.60 5.54 5.83	371.5 13.3 21.1 11.2	3.8 - - -
QR 3	27.5.74	3.6.74	7500.3	5248.1	50°	106°	160.1	91.94 to 96.94	5.00	0.53	2.57	7.36	28.20	-
QR 4	5.6.74	11.6.74	7301.2	5198.8	49.5°	104°	184.8	131.20 to 139.50	8.30	3.32	0.09	0.26	27.98	-
QR 5	12.6.74	18.6.74	7204.0	5252.0	50°	285.5°	203.6	31.45 to 33.55 35.75 to 36.85 175.22 to 179.52	2.10 1.10 3.37	0.07 0.10 0.10	0.58 2.26 3.45	1.46 2.47 5.94	12.95 27.00 51.1	- - 2.6
QR 6	19.6.74	25.6.74	7196.8	5326.7	50°	286°	150.95	No significant base metal mineralisation intersected						
QR 7	26.6.74	9.7.74	7396.8	5301.2	60°	284°	259.85	205.91 to 217.12 9.75 to 17.22	11.21 7.47	0.44 1.81	12.98 2.16	19.73 3.95	346.6 71.6	6.36 -
QR 8	4.10.74	23.10.74	7303.5	5100.4	51°	101°	360.8	71.30 to 72.40 72.40 to 83.08 236.60 to 238.00 287.00 to 288.25	1.10 10.68 1.40 1.25	0.25 0.57 0.14 1.77	0.23 12.91 3.61 0.01	0.47 29.5 8.47 0.01	82.27 351.96 19.0 13.0	21.05 8.10 - -
QR 9	23.10.74	4.11.74	7299.0	5323.6	50°	279°	310.8	8.80 to 10.86 50.17 to 51.40 55.15 to 56.95 237.88 to 238.59	2.06 1.23 1.80 0.74	0.06 1.03 0.29 1.74	0.76 0.06 0.46 1.74	1.25 0.07 1.99 2.15	9.46 22.29 13.5 58.0	- - - 1.3
QR 10	6.11.74	23.11.74	7501.8	5129.8	52°	104°	346.8	87.90 to 88.80 91.95 to 94.99 97.21 to 98.15 Av91.95 to 98.15 239.99 to 247.02	0.90 3.04 0.94 6.20 7.03	0.19 0.13 0.17 0.09 0.15	2.36 6.03 8.39 4.27 0.70	6.17 11.38 9.37 7.03 2.62	42.0 175.0 115.0 104.0 14.0	1.0 1.9 3.95 2.0 0.8
QR 11	24.11.74	7.12.74	7502.9	5018.6	50°	105°	319.8	222.96 to 225.02 243.27 to 261.45	2.06 18.18	0.39 0.27	3.05 4.59	6.10 8.61	25.0 38.9	0.7 3.2
QR 12	9.12.74	15.12.74	7603.9	5100.5	50°	103°	200.0	171.61 to 177.98 177.98 to 181.73 171.61 to 181.73	6.37 3.75 10.12	0.23 0.09 0.18	9.43 1.94 6.65	13.8 2.73 9.70	169.8 33.6 119.0	2.1 0.6 1.3
QR 13	6.1.75	20.1.75	7595.4	4957.7	50°	95°	383.0	339.55 to 345.98	6.43	0.14	2.35	4.15	17.7	0.37
QR 14	21.1.75	31.1.75	7701.7	5076.9	52°	95°	303.95	*54.04 to 59.14 65.56 to 69.22 131.41 to 147.49 Including 132.51 to 137.32 237.26 to 253.54 Including 237.26 to 241.80	5.10 3.66 16.08 4.81 16.28 4.54	0.16 0.45 0.29 0.66 0.19 0.39	1.72 3.04 2.51 4.00 4.21 9.06	6.50 10.97 4.93 7.01 5.80 12.16	41.9 60.7 48.7 98.0 73.2 184.0	- 0.5 0.1 0.2 2.1 4.1
QR 15	26.1.75	2.2.75	7800.7	5080.7	52°	98°	293.5	38.55 to 40.35 98.77 to 104.06 209.92 to 210.38 264.43 to 267.26	1.80 5.29 0.46 2.83	0.24 0.27 0.82 0.26	2.34 5.76 10.80 4.93	4.17 9.13 18.9 8.89	64.9 114.2 230.0 112.1	0.8 1.7 2.0 2.4
QR 16	2.2.75	6.2.75	7702.5	6150.4	48°	96°	203.4	52.33 to 68.46 Including 64.37 to 68.46	16.13 4.09	0.13 0.57	5.02 15.46	8.69 25.57	71.3 170.0	1.0 3.0
QR 17	4.2.75	10.2.75	8301.1	5077.1	50°	98°	223.0	No significant base metal mineralisation intersected						
QR 18	8.2.75	12.2.75	7800.6	5140.2	47°	97°	233.8	21.41 to 23.43 96.52 to 103.36 204.26 to 205.73	2.02 6.84 1.47	0.06 0.05 0.15	1.33 1.38 3.05	2.29 2.02 3.99	20.4 29.5 32.1	0.5 0.6 0.1
QR 19	12.2.75	16.2.75	8300.4	4976.8	52°	97°	253.0	No significant base metal mineralisation intersected						
QR 20	14.2.75	19.2.75	7804.1	5274.6	51°	97°	209.0	" " " " " "						
QR 21	18.2.75	21.2.75	8397.7	4975.4	49.5°	102°	184.6	155.68 to 156.28	0.6	0.13	1.99	5.4	9.0	-
QR 22	21.2.75	2.3.75	7801.1	5019.7	66°	97.5°	384.66	258.64 to 259.11 265.29 to 267.39	0.47 2.10	0.14 0.33	5.16 5.02	8.68 7.85	50.0 94.4	- -
QR 23	24.2.75	1.3.75	6800.2	4828.4	48°	101°	210.9	66.80 to 67.49 146.62 to 147.20	0.69 0.58	0.08 0.92	0.73 1.32	8.83 4.67	6.0 20.0	- -

QR 14 Insert* 59.14 to 65.56 6.42 0.03 0.76 2.21 17.0 -

014

TABLE II

MACKINTOSH & QUE RIVER DRILLING RESULTS

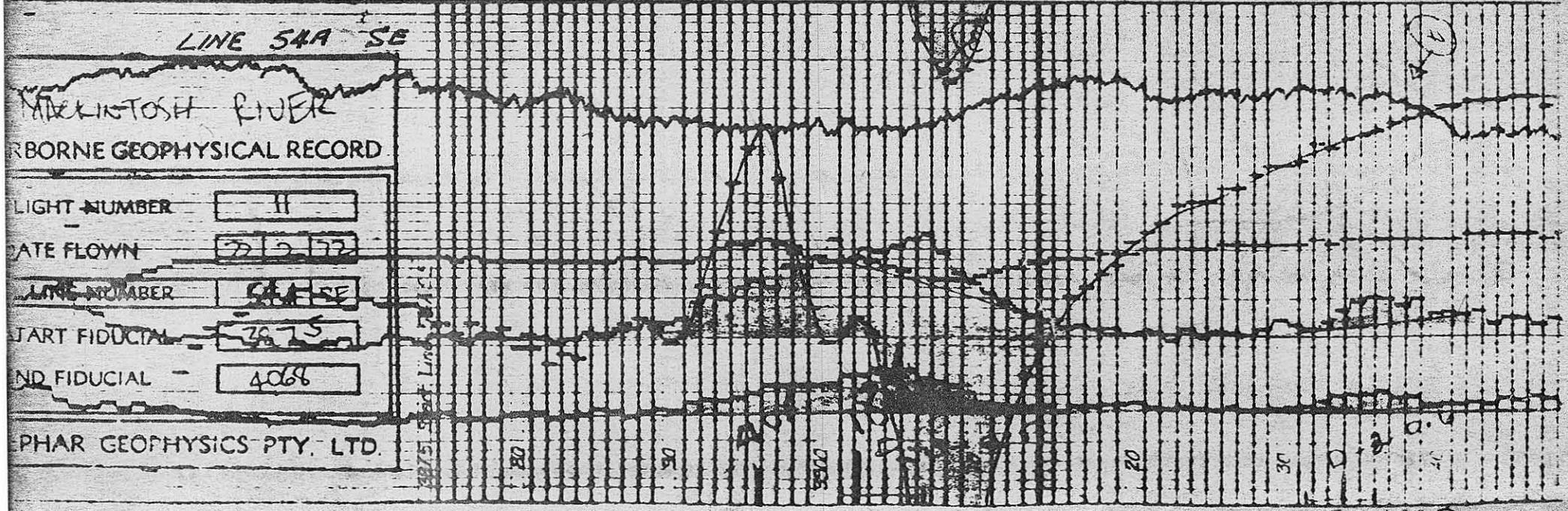
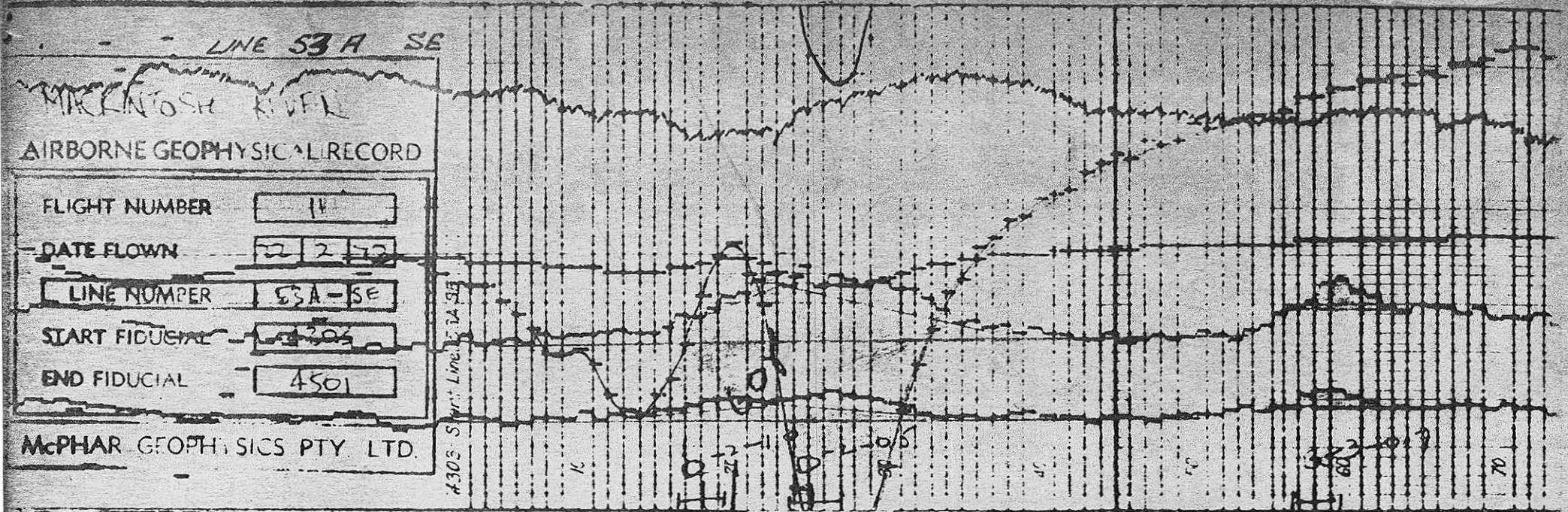
TABLE III

74-1058

552015

Hole No.	Commence-ment date	Comple-tion	Metres N	Metres E	Declin-ation	Bearing	Length	Metres		IW	% Cu	% Pb	% Zn	Ag g/mT	Au g/mT
								Intersection							
QR 1	23.4.74	29.4.74	7400.0	5225.0	50°	Grid E	163.0	107.88 to 112.57	112.57 to 112.57	4.49	0.21	0.24	1.34	-	-
								112.37 to 121.20	112.57 to 121.20	8.83	2.63	6.07	7.39	122.94	0.073
								121.20 to 123.81	121.20 to 123.81	2.61	0.31	1.71	7.34	-	-
								123.81 to 135.92	123.81 to 135.92	12.11	0.09	0.80	2.42	-	-
								150.92 to 155.92	150.92 to 155.92	5.00	0.04	0.61	2.36	-	-
QR 2	2.5.74	21.5.74	7401.5	5123.0	50°	Grid E	309.8	78.38 to 82.19	82.19 to 82.19	3.81	0.36	13.20	22.03	371.5	3.8
								93.23 to 99.12	82.19 to 99.12	5.89	0.04	1.32	2.40	-	-
								99.12 to 100.69	99.12 to 100.69	1.57	0.14	4.41	7.55	-	-
								282.44 to 284.75	282.44 to 284.75	2.31	0.11	1.90	5.83	-	-
QR 3	27.5.74	3.6.74	7500.3	5248.1	50°	Grid E	160.1	91.94 to 96.94	96.94 to 96.94	5.00	0.53	2.57	7.36	28.20	-
QR 4	5.6.74	11.6.74	7301.2	5198.8	50°	Grid E	184.5	131.20 to 139.50	139.50 to 139.50	8.30	3.32	0.09	0.26	27.98	-
QR 5	12.6.74	18.6.74	7204.0	5252.0	50°	Grid W 285.5°	150.95	31.45 to 33.55	33.55 to 33.55	2.10	0.07	0.58	1.46	12.95	-
								35.75 to 36.85	33.55 to 36.85	1.10	0.10	2.26	2.47	27.00	-
QR 6	19.6.74	25.6.74	7196.8	5326.7	50°	Grid W 286°	150.95	No significant base metal mineralisation intersected							
QR 7	26.6.74	9.7.74	7396.8	5301.2	60°	Grid W	259.85	205.91 to 217.12	217.12 to 217.12	11.21	0.44	12.98	19.73	346.60	6.36
								9.75 to 17.22	217.12 to 17.22	7.47	1.81	2.16	3.95	71.60	-
QR 8	4.10.74	23.10.74	7303.5	5100.4	50°	Grid E	360.8	71.30 to 72.40	72.40 to 72.40	1.10	0.25	0.23	0.47	82.27	21.05
								72.40 to 83.08	72.40 to 83.08	10.68	0.57	12.91	29.25	351.96	8.10
								236.60 to 238.00	236.60 to 238.00	1.40	0.14	3.61	8.47	-	-
								287.00 to 288.25	287.00 to 288.25	1.25	1.77	<0.01	0.012	-	-
QR 9	23.10.74	4.11.74	7299.0	5323.6	50°	Grid W 279°	310.8	8.80 to 10.86	10.86 to 10.86	2.06	0.061	0.76	1.25	9.46	-
								50.17 to 51.40	50.17 to 51.40	1.23	1.03	0.062	0.074	22.29	-
								55.15 to 56.95	55.15 to 56.95	1.80	0.29	0.46	1.99	13.50	-
								237.88 to 238.59	237.88 to 238.59	0.71	1.74	1.74	2.15	58.00	1.5
QR 10	6.11.74	23.11.74	7501.8	5129.8	52°	Grid E 104°	346.8	87.90 to 88.80	88.80 to 88.80	0.90	0.19	2.36	6.17	42	-
								91.95 to 94.99	91.95 to 94.99	3.04	0.13	6.03	11.38	175	-
								97.21 to 98.15	97.21 to 98.15	0.94	0.17	8.39	9.37	115	-
								Av91.95 to 98.15	91.95 to 98.15	6.20	0.09	4.27	7.03	105	-
							239.99 to 247.02	247.02 to 247.02	7.03	0.15	0.78	2.62	14	-	

74-10801-7L
015



552016

Figure 1.

74-10358
90.

016

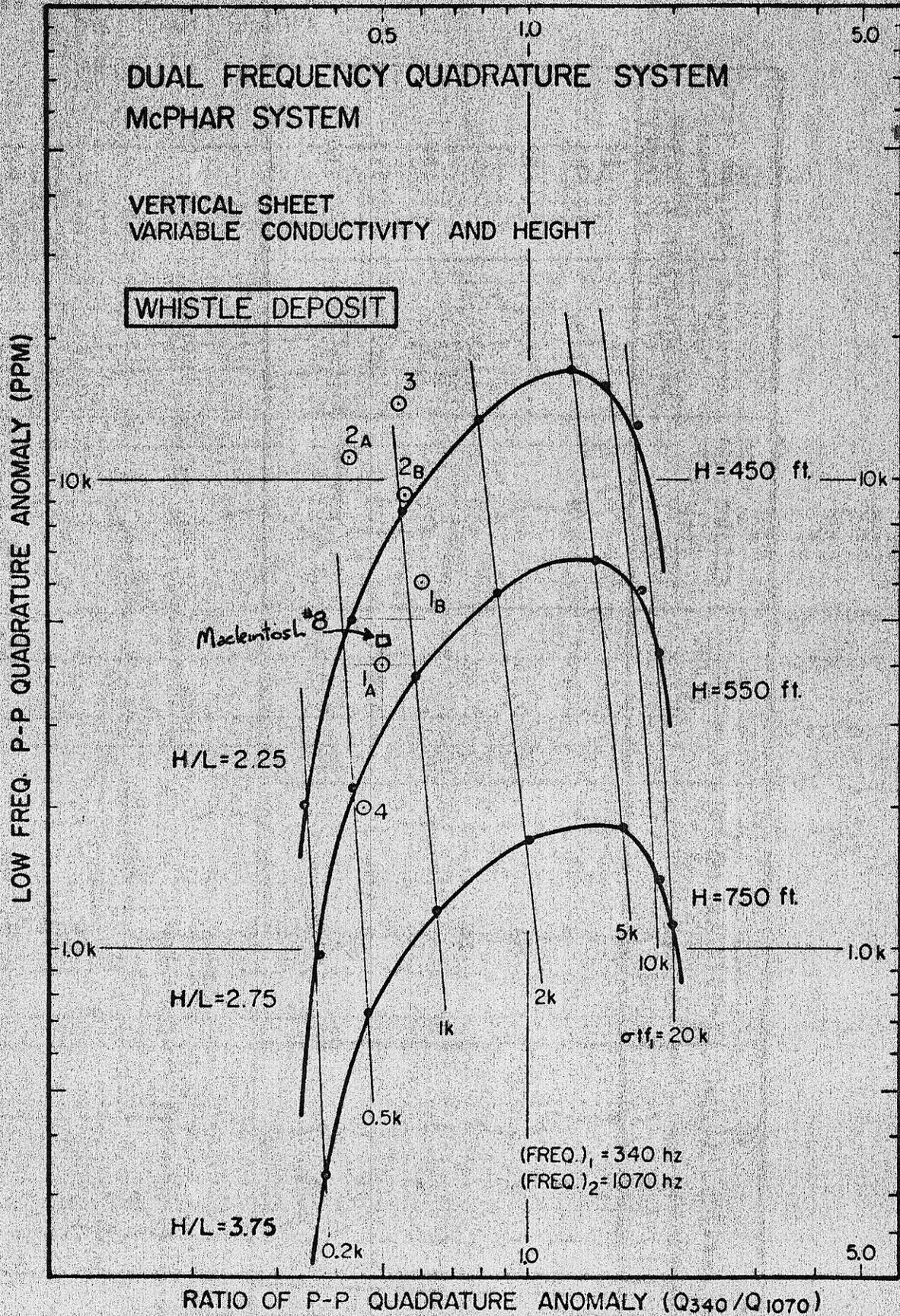


Fig. 3.6.1.8:- The magnitudes of anomalies of the McPhar quadrature system show that the apparent 'ot' of conductors lie between the limit 1.8-3.2 mhos which is much smaller than those of the helicopter and whale-tail systems.

Figure 2.

017

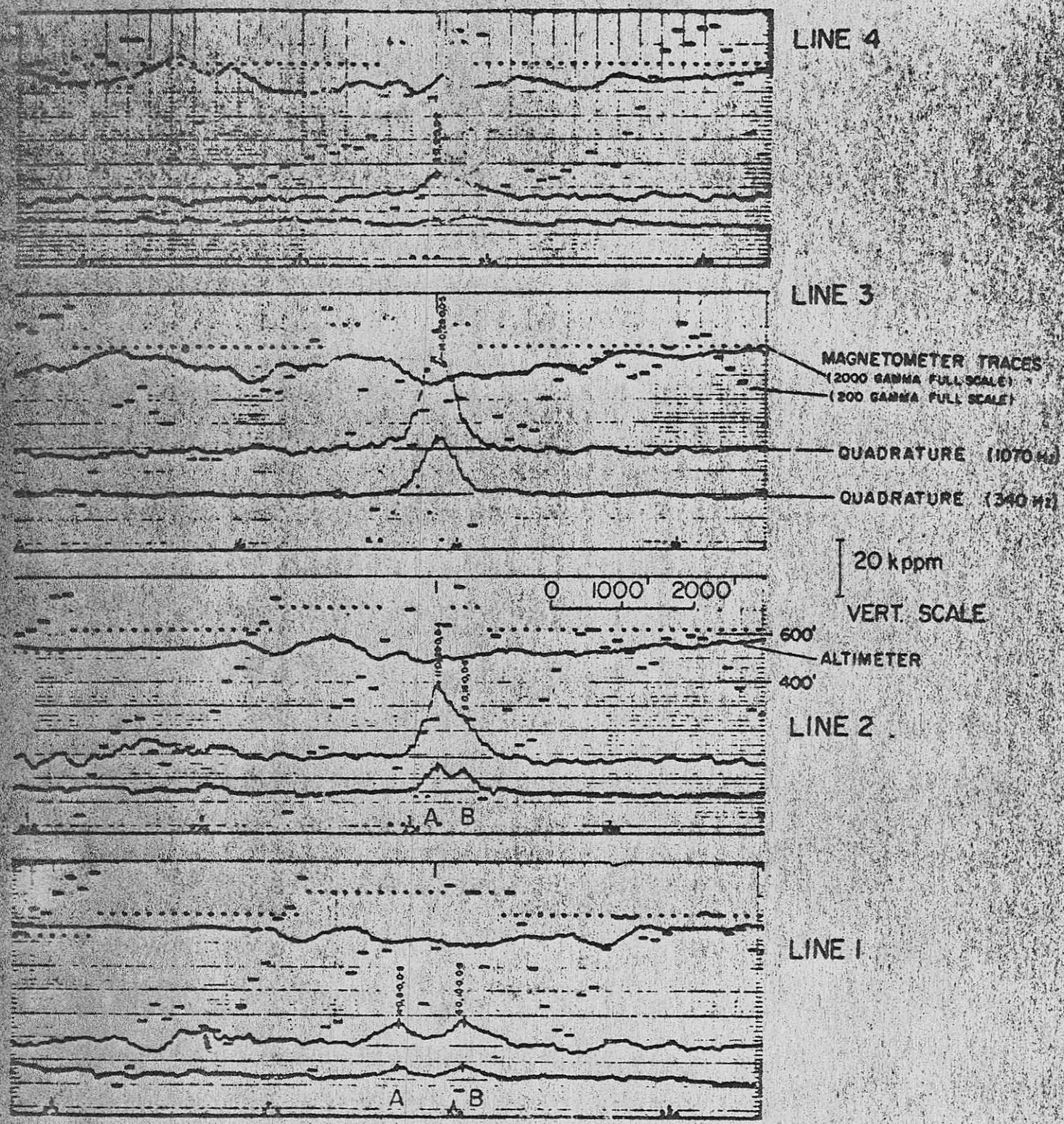


Fig. 3.6.1.7

Flight records of the McPhar quadrature system over the Whistle body. Double peaks are obtained on lines 1 and 2.

Figure 3.

14-10158

018

4.1A

AIRBORNE GEOPHYSICAL RECORD
 FLIGHT NUMBER: []
 DATE FLOWN: [] [] [] []
 LINE NUMBER: 4.1A
 START FIDUCIAL: [] [] [] []
 END FIDUCIAL: [] [] [] []
 ALPHAR GEOPHYSICS PTY. LTD.

4.2A
NW

AIRBORNE GEOPHYSICAL RECORD
 FLIGHT NUMBER: []
 DATE FLOWN: [] [] [] []
 LINE NUMBER: 4.2A
 START FIDUCIAL: [] [] [] []
 END FIDUCIAL: [] [] [] []
 ALPHAR GEOPHYSICS PTY. LTD.

4.3A
SE

AIRBORNE GEOPHYSICAL RECORD
 FLIGHT NUMBER: []
 DATE FLOWN: [] [] [] []
 LINE NUMBER: 4.3A
 START FIDUCIAL: [] [] [] []
 END FIDUCIAL: [] [] [] []
 ALPHAR GEOPHYSICS PTY. LTD.

4.4A
NW

AIRBORNE GEOPHYSICAL RECORD
 FLIGHT NUMBER: []
 DATE FLOWN: [] [] [] []
 LINE NUMBER: 4.4A
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 ALPHAR GEOPHYSICS PTY. LTD.

4.5A
SE

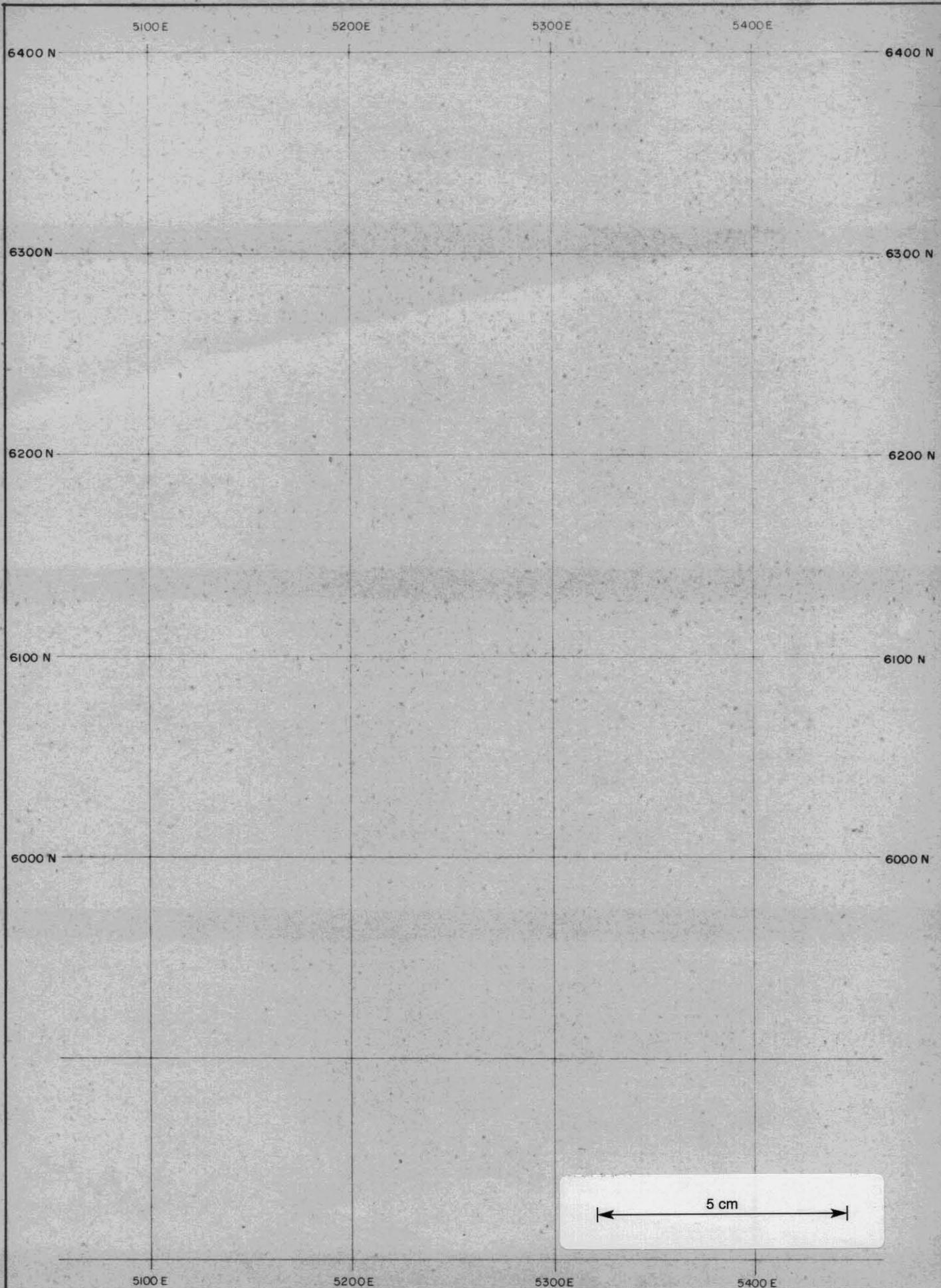
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 ALPHAR GEOPHYSICS PTY. LTD.

Figure 4.

552019

019

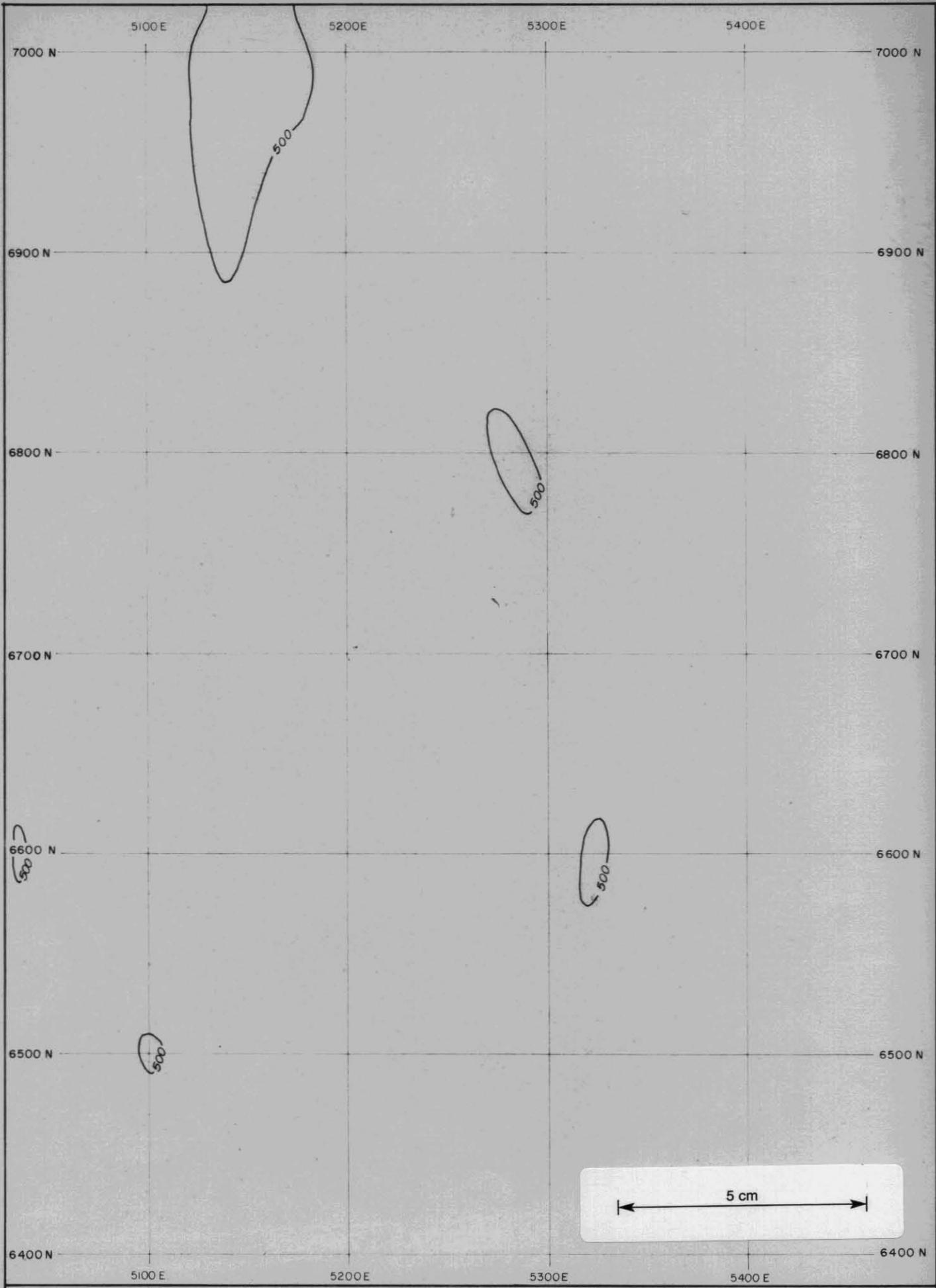
552030



COMINCO EXPLORATION PTY. LTD.

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Traced: JJB		Scale: 1:2,500
Checked:		Date: November 1974
Revised: _____ Date: _____		Plate N ^o QR 25A

020
552021.

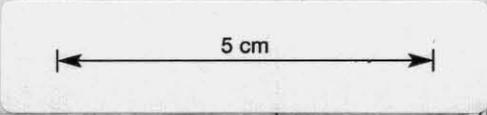
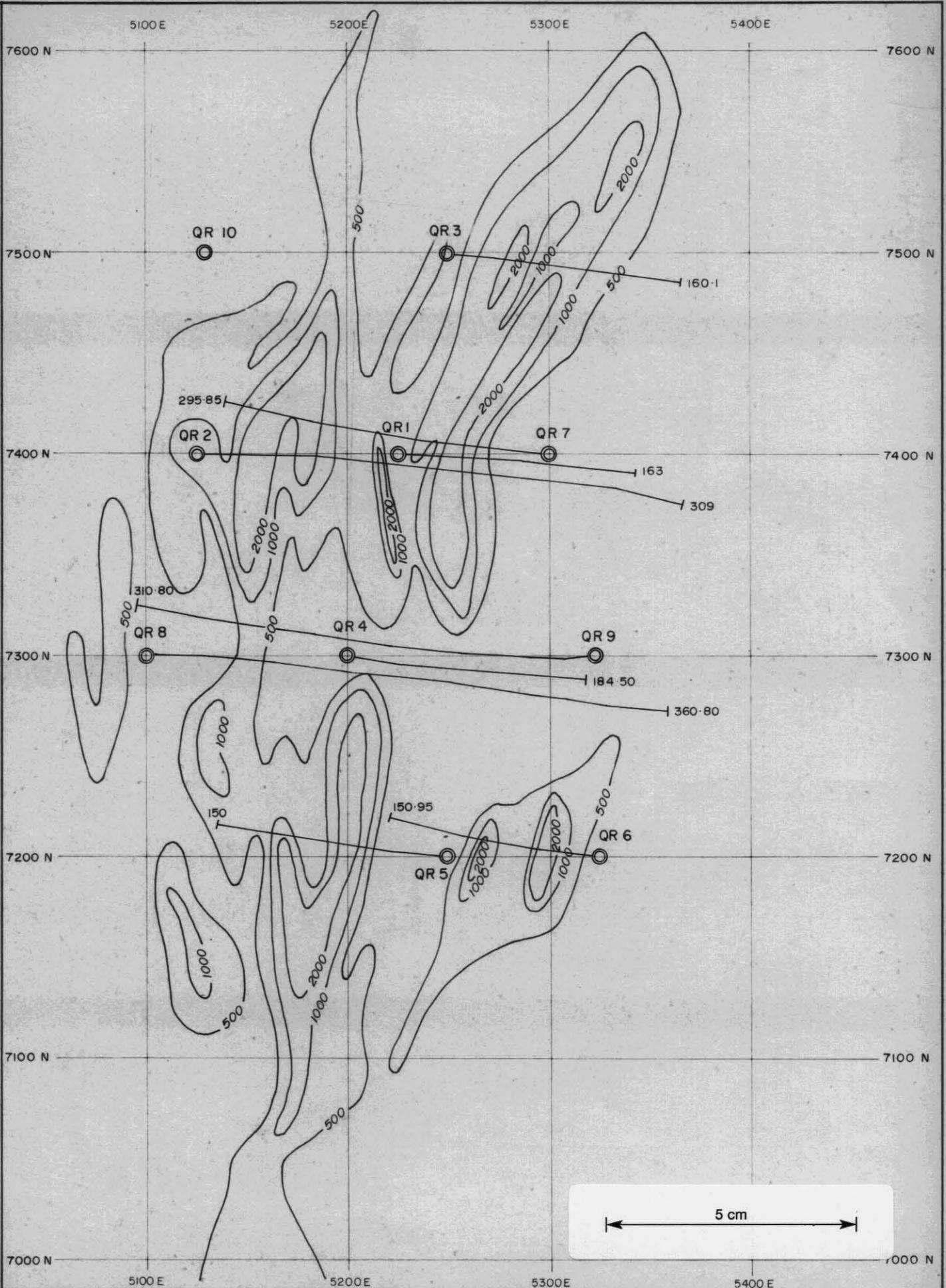


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Checked:		Date: November 1974
Revised: _____ Date: _____		Plate N ^o QR 25B

021

552022

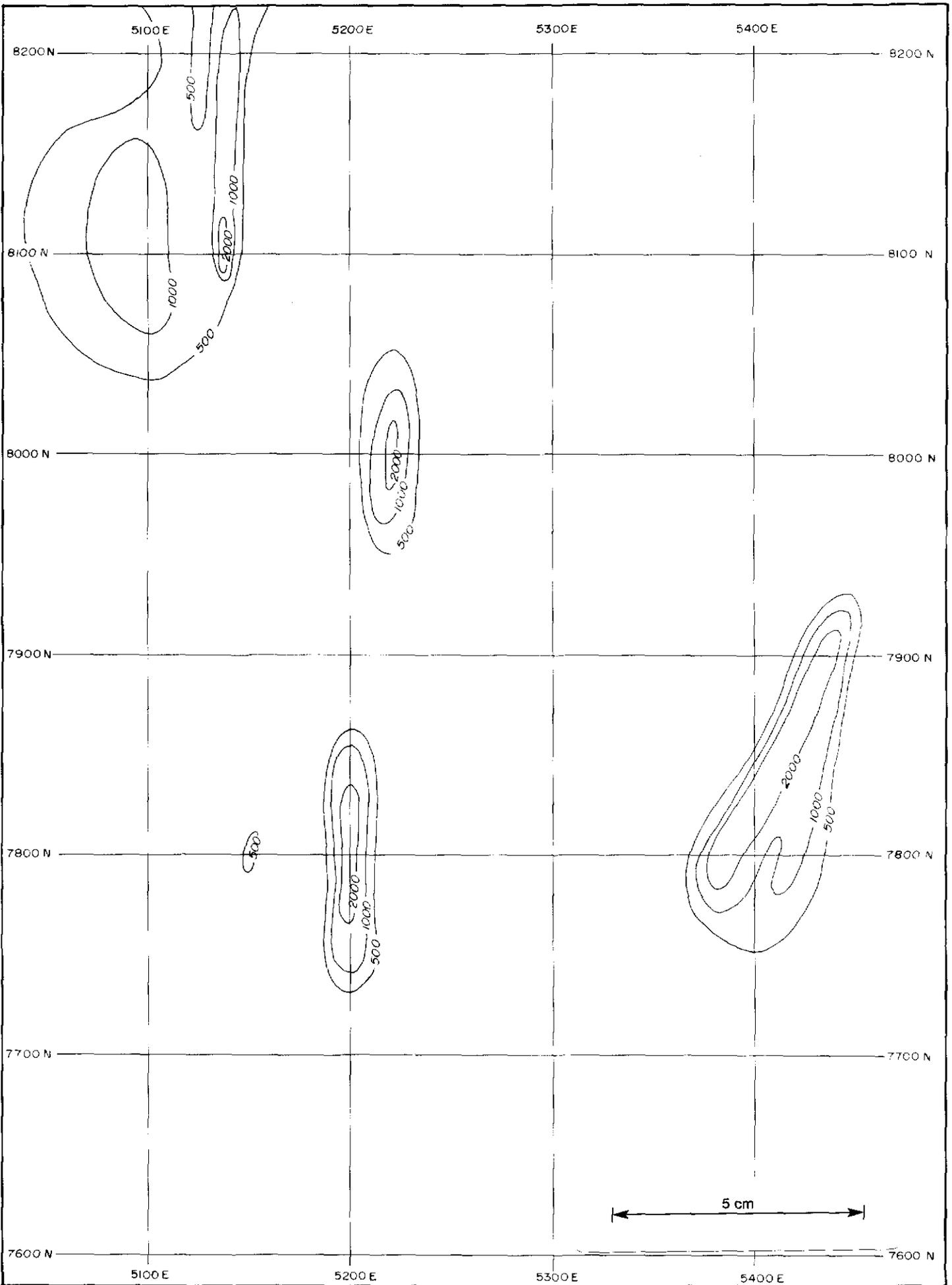


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Traced: JJB		Scale: 1:2,500
Checked:		Date: November 1974
Revised: _____ Date: _____		Plate N ^o QR 25C

U22

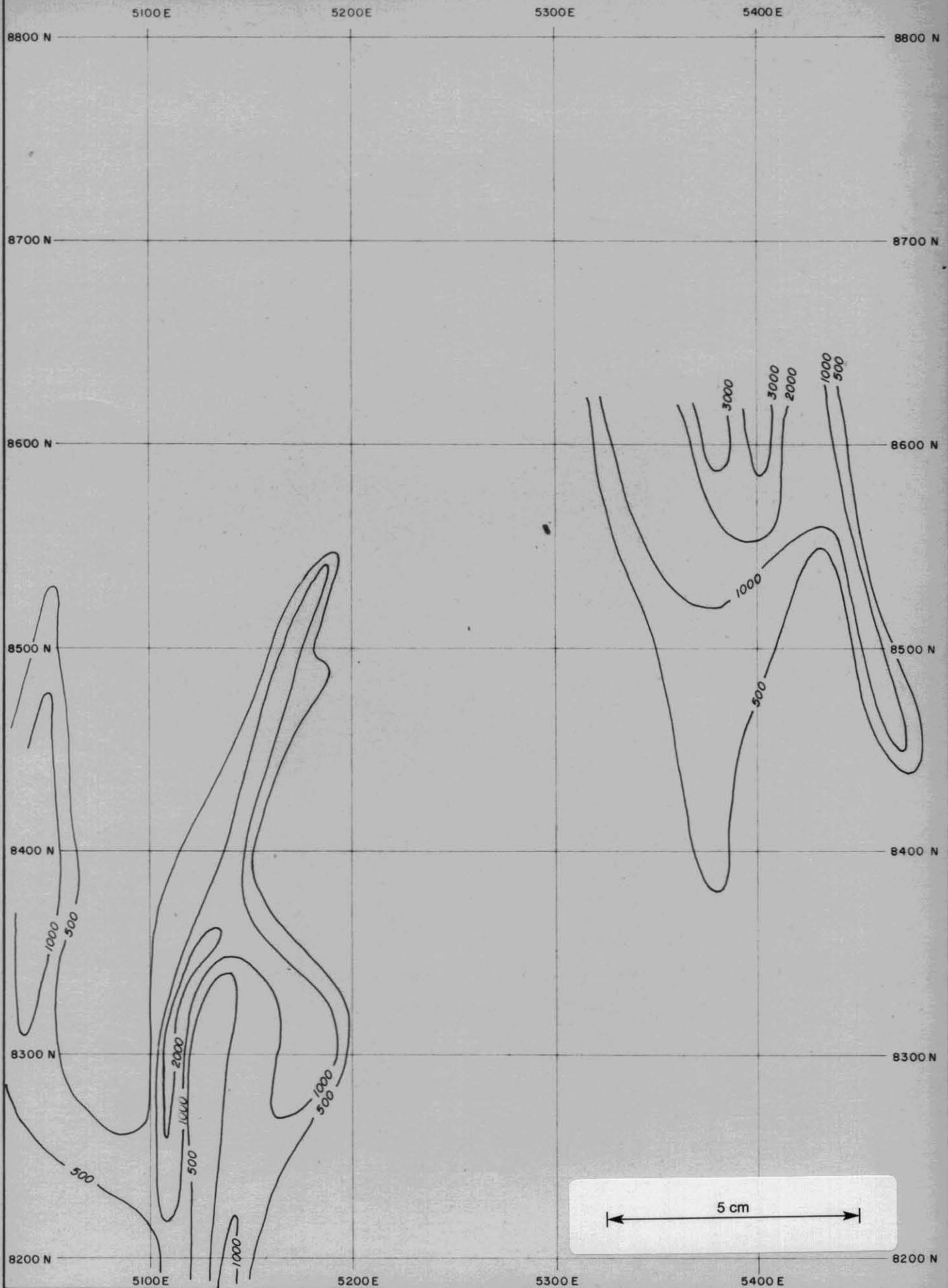
552023



COMINCO EXPLORATION PTY. LTD.

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Checked:		Date: November 1974
Revised: _____ Date: _____		Plate N ^o QR 250

023
552024



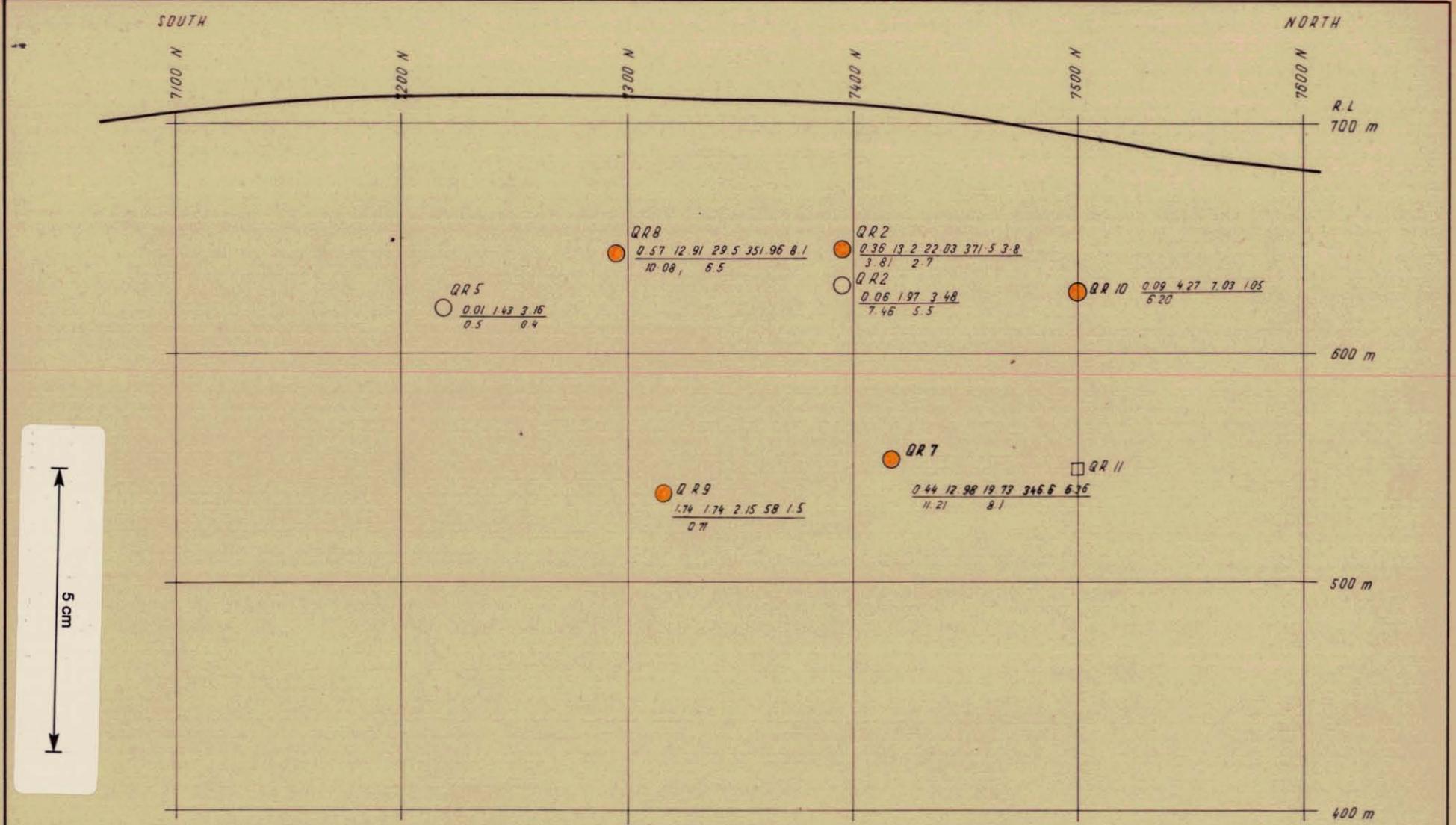
COMINCO EXPLORATION PTY. LTD.

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Traced: JJB		Scale: 1:2,500
Checked:		Date: November 1974
Revised: _____ Date: _____		Plate N ^o QR 25 E

Drawn: E.H.S.
 Traced: F.D.
 Checked:
 Revised:
 Date:

COMINCO EXPLORATION PTY LTD
 NORTH WEST TASMANIA
 QUE RIVER PROSPECT
 LONGITUDINAL PROJECTION
 WESTERN MINERALIZATION

Location code:
 Scale: 1:2500
 Date: 1-11-1974
 Plate No. QR 27

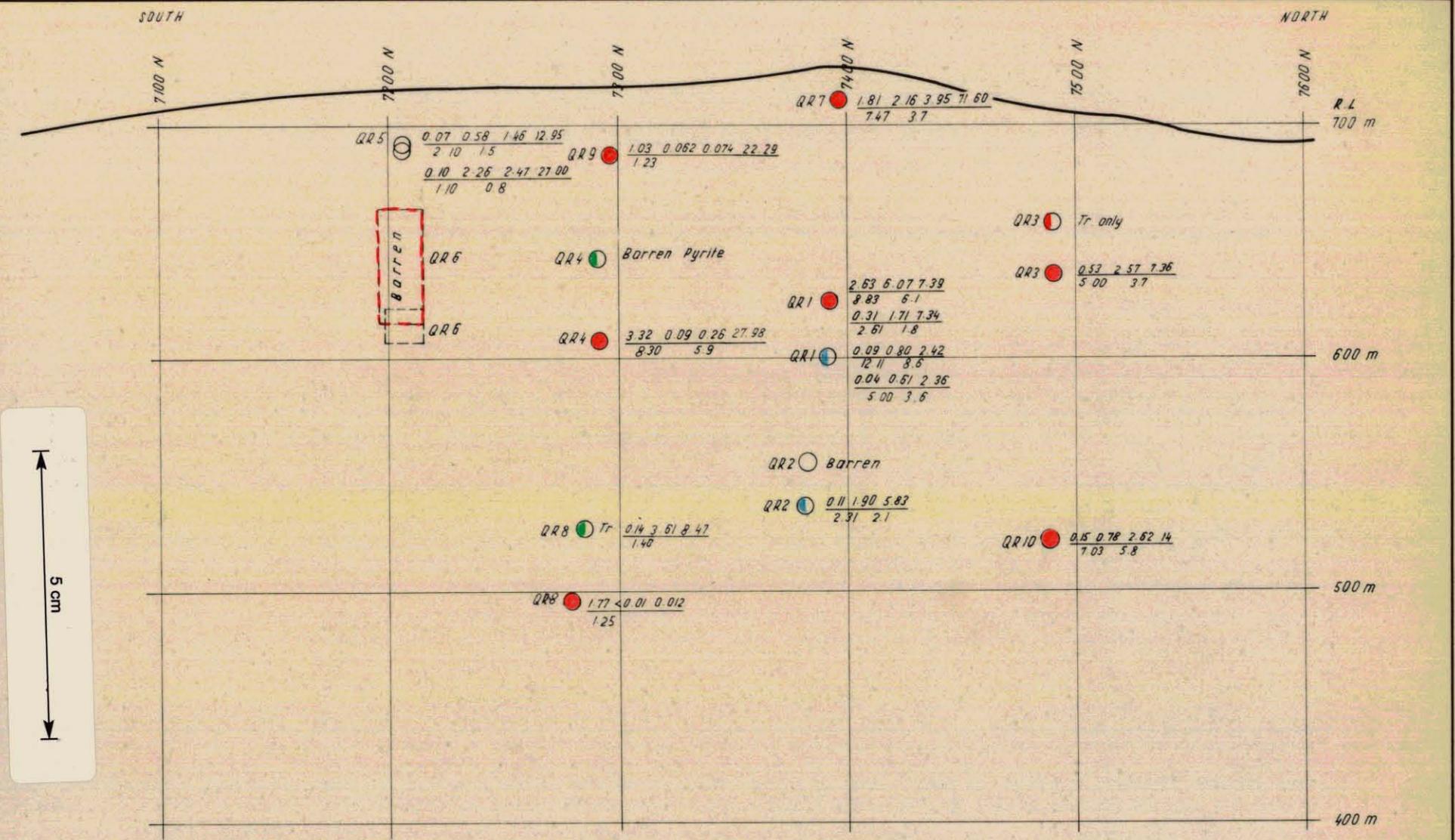


- PROPOSED HOLES
- $\frac{Cu\% \ Pb\% \ Zn\% \ Ag \ g/mT \ Au \ g/mT}{Intersected \ width \ True \ width}$ — Cu Pb Zn % Ag Au g/mT
- MAIN WEST LENS
- UNCORRELATED INTERSECTIONS

Drawn E.R.S.
 Traced E.D.
 Checked
 Revised
 Date

COMINCO EXPLORATION PTY LTD
 NORTH WEST TASMANIA
 QUE RIVER PROJECT
 LONGITUDINAL PROJECTION
 EASTERN MINERALIZATION

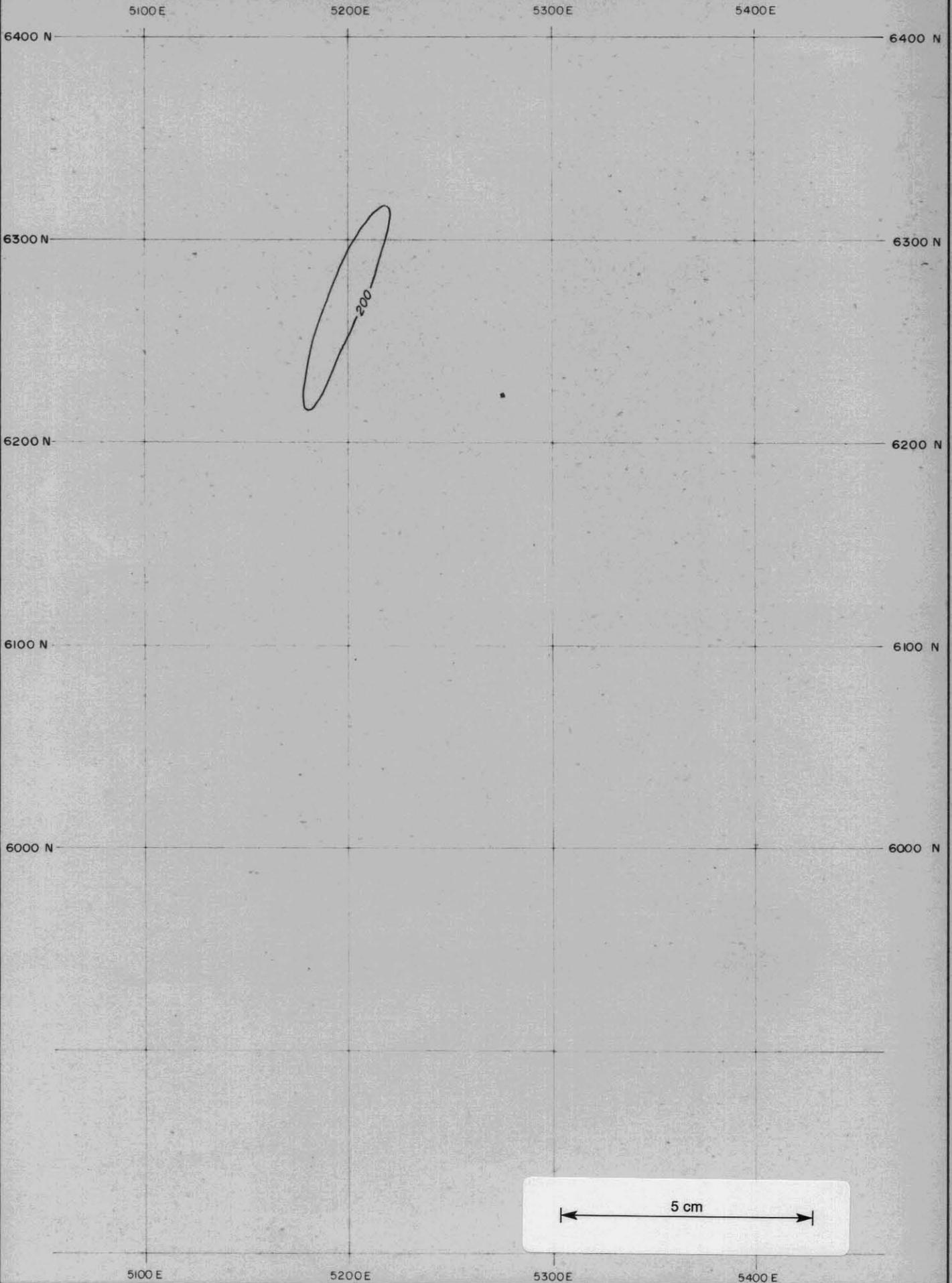
Location code
 Scale 1:2500
 Date 1-11-1974
 Plate No. QR 28



- "MAIN" EAST LENS
- "UPPER" PYRITE LENS
- "FOOTWALL" MINERALISATION
- UNCORRELATED INTERSECTIONS
- PROPOSED HOLES
- $\frac{Cu\%, Pb\%, Zn\%, Ag\ g/mT}{Intersected\ width, True\ width} \frac{Au\ g/mT}{g/mT}$ - Cu Pb Zn% Ag Au g/mT

026

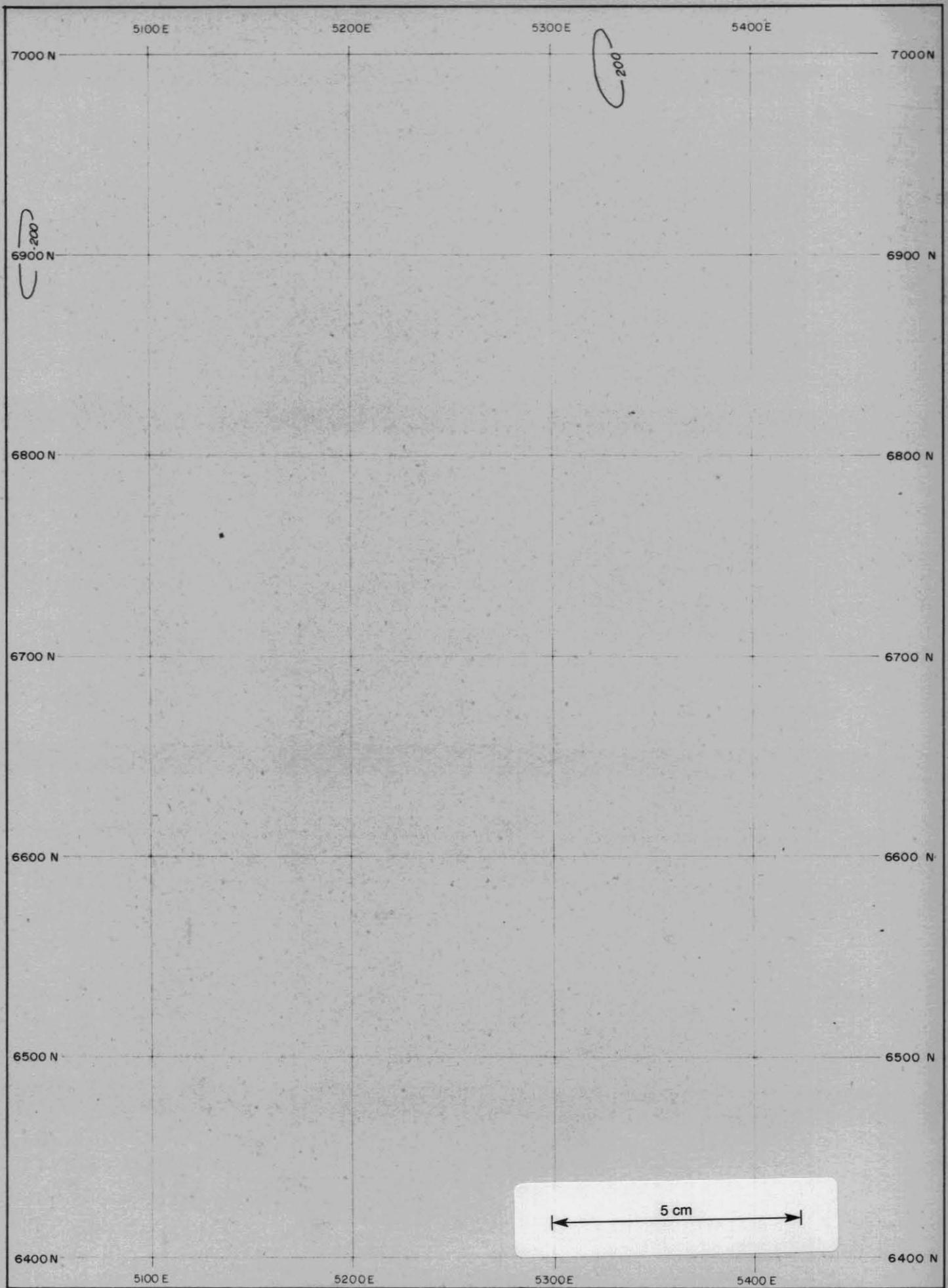
552027



COMINCO EXPLORATION PTY. LTD.

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Checked:		Date: November 1974
Revised: _____ Date: _____		Plate N ^o QR 29A

027

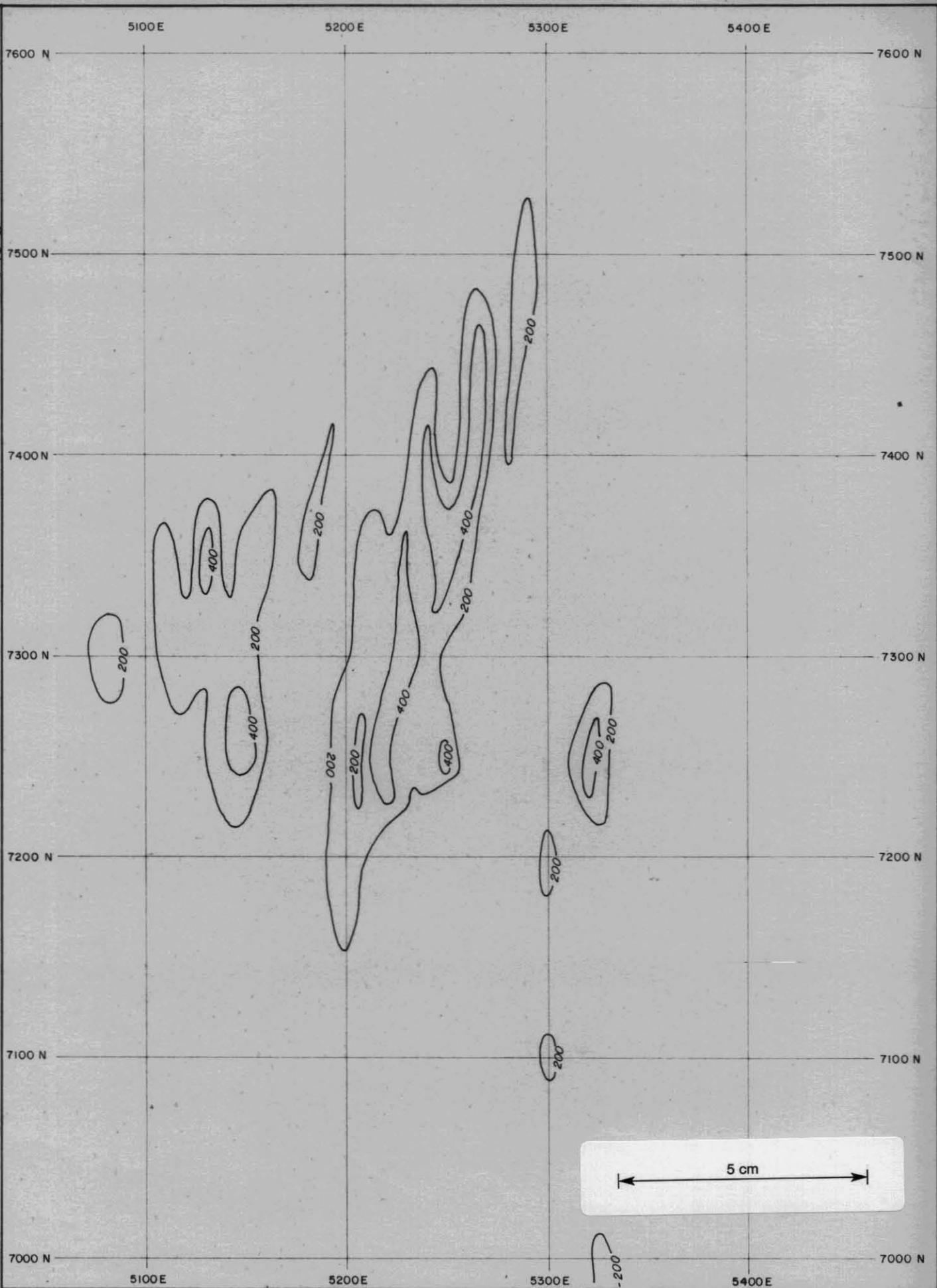


COMINCO EXPLORATION PTY. LTD.

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Traced: JJB		Scale: 1:2,500
Checked:		Date: November 1974
Revised: _____ Date: _____		Plate N ^o QR 29B

028

552028



COMINCO EXPLORATION PTY. LTD.

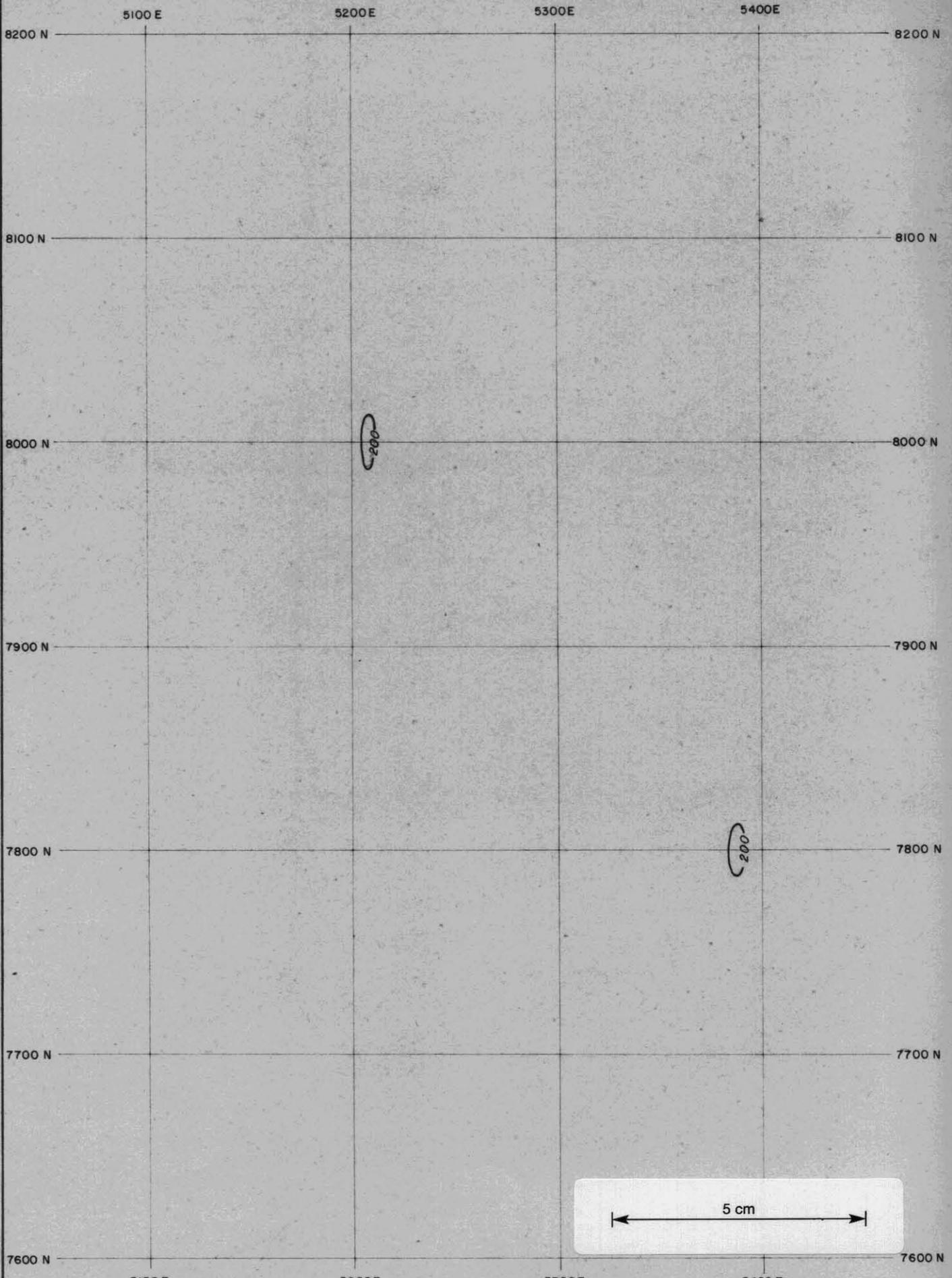
Drawn:	EHS
Traced:	JJB
Checked:	
Revised:	Date: _____

NORTH WEST TASMANIA
 QUE RIVER PROSPECT
 'C' Horizon geochemistry - COPPER (ppm)

Location code:	K55/6/44
Scale:	1:2,500
Date:	November 1974
Plate N ^o :	QR 29C

029

552029

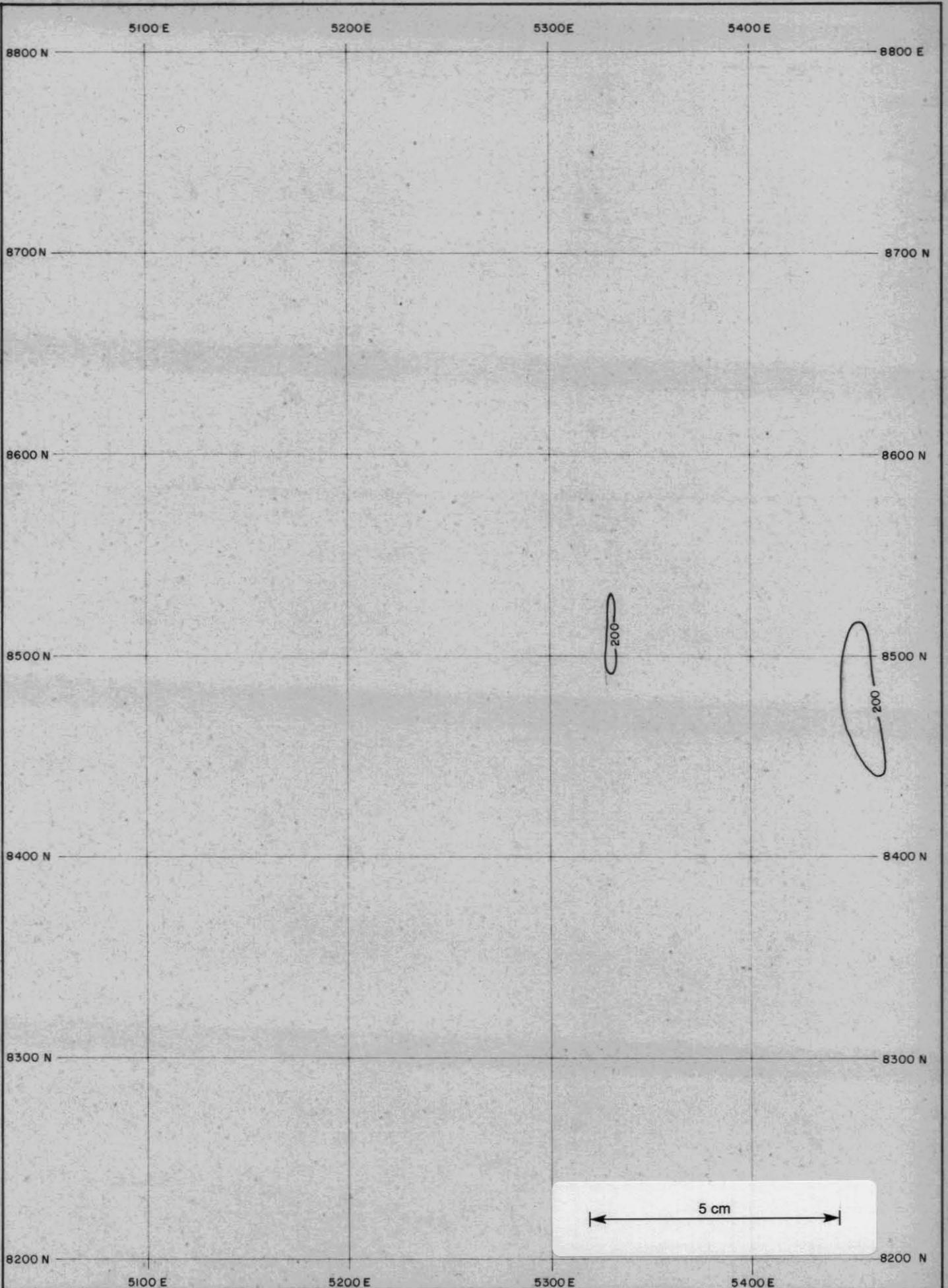


COMINCO EXPLORATION PTY. LTD.

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Traced: JJB		Scale: 1:2,500
Checked:		Date: November 1974
Revised: _____ Date: _____		Plate N° QR 29D

030

552030



COMINCO EXPLORATION PTY. LTD.

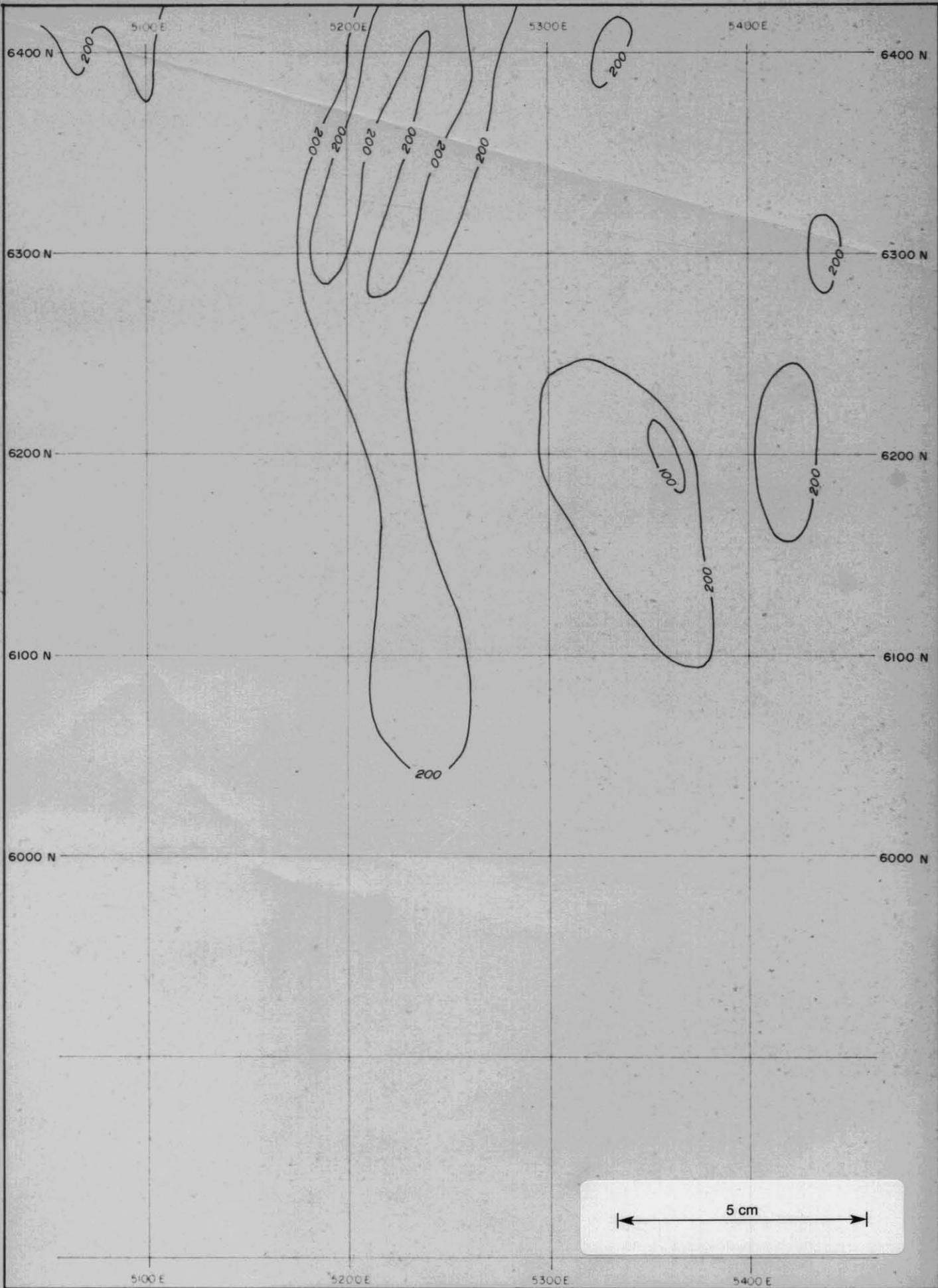
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 Revised: _____ Date: _____

NORTH WEST TASMANIA
 QUE RIVER PROSPECT
 'C' Horizon geochemistry - COPPER (ppm)

Location code: K55/6/44
 Scale: 1:2,500
 Date: November 1974
 Plate N° QR 29E

031

552031



COMINCO EXPLORATION PTY. LTD.

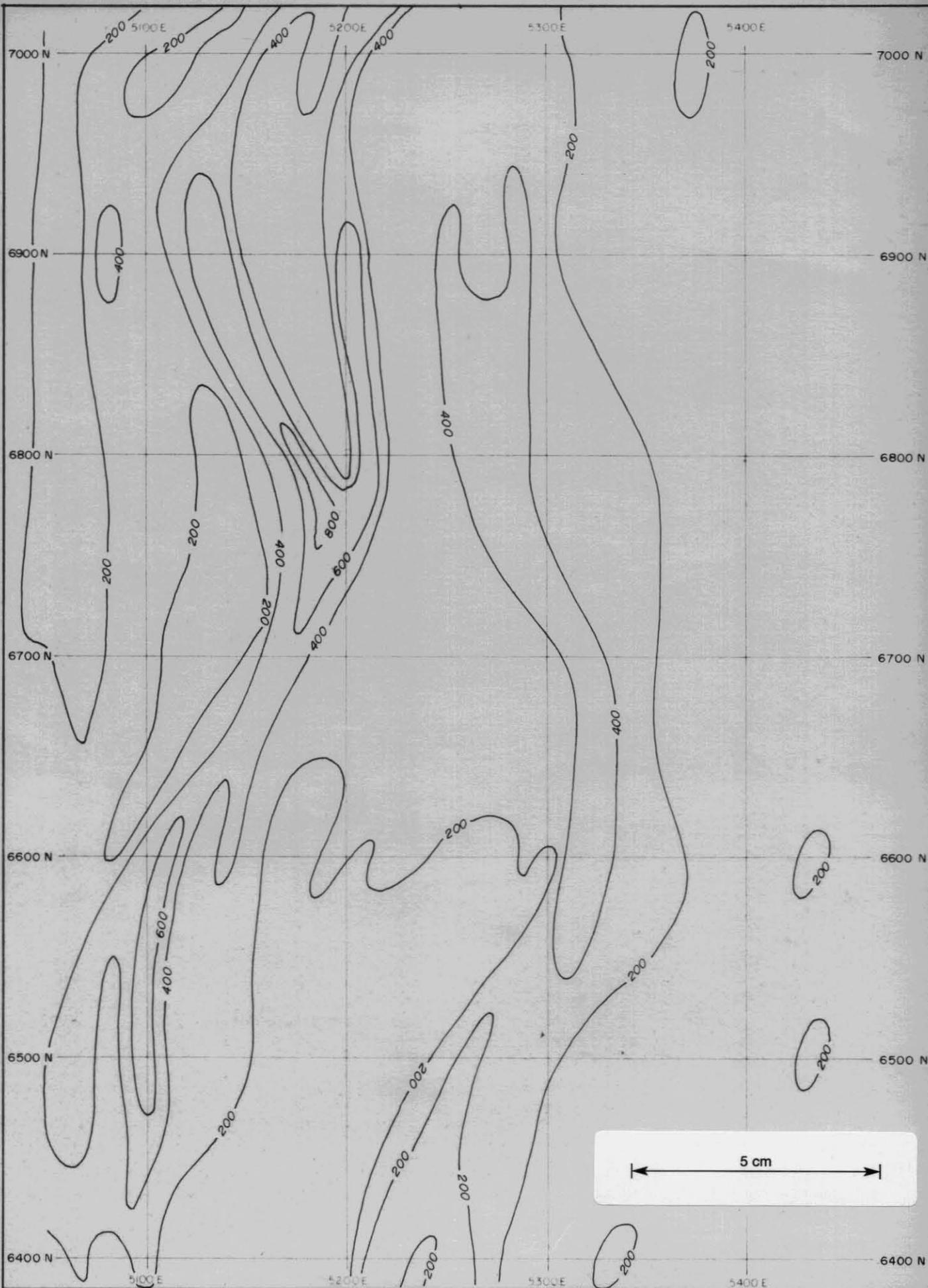
Drawn	EHS
Traced	JJB
Checked	
Revised	— Date —

NORTH WEST TASMANIA
 QUE RIVER PROSPECT
 'C' Horizon geochemistry - ZINC (ppm)

Location code	K55/6/44
Scale	1:2,500
Date	November 1974
Plate No	QR 30 A

032

552032



COMINCO EXPLORATION PTY. LTD.

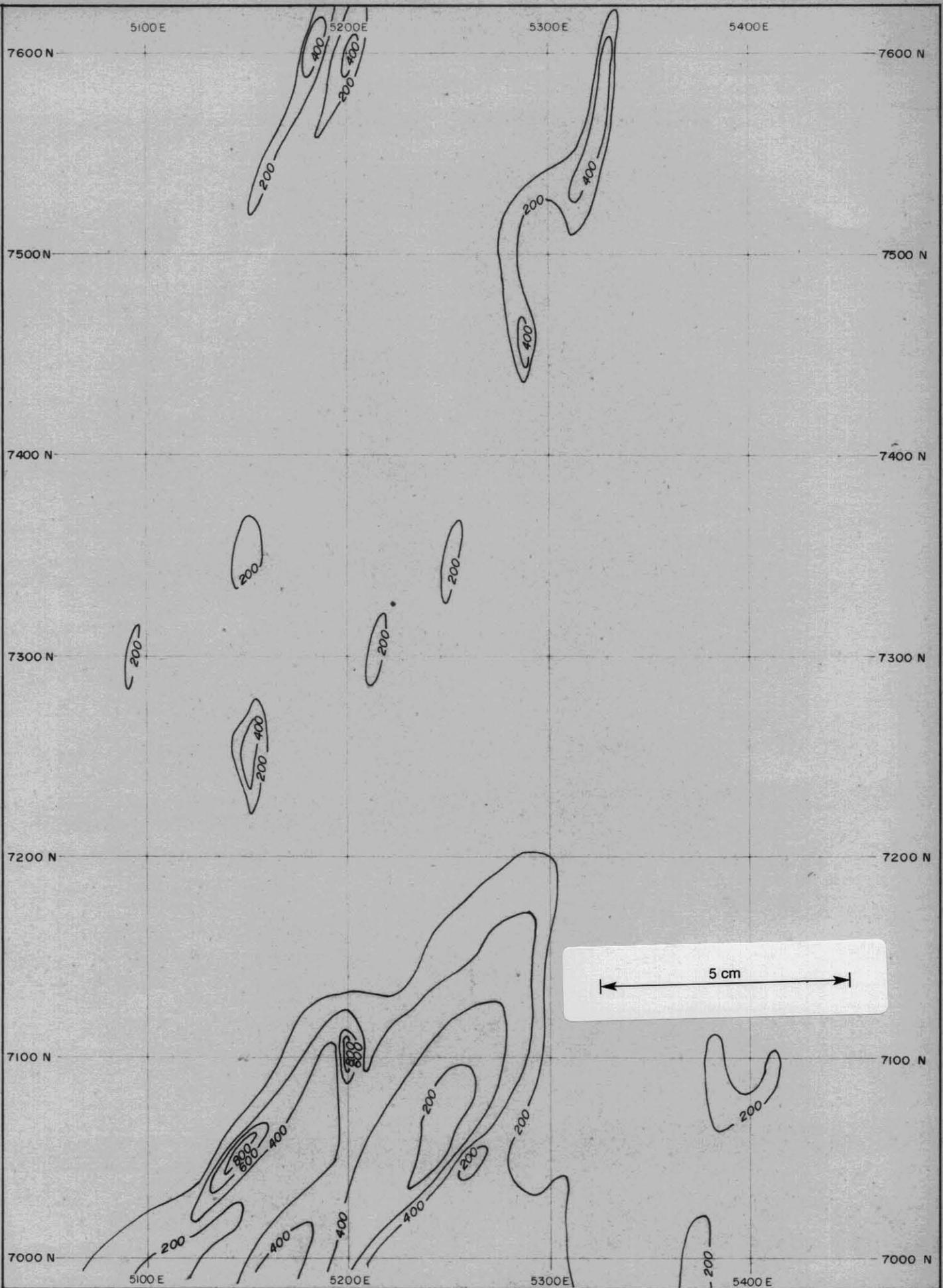
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Traced	JJB
Checked	
Revised	_____ Date _____

NORTH WEST TASMANIA
 QUE RIVER PROSPECT
 'C' Horizon geochemistry - ZINC (ppm)

Location code	K55/6/44
Scale	1:2,500
Date	November 1974
Plate No	QR 30 B

033

552033

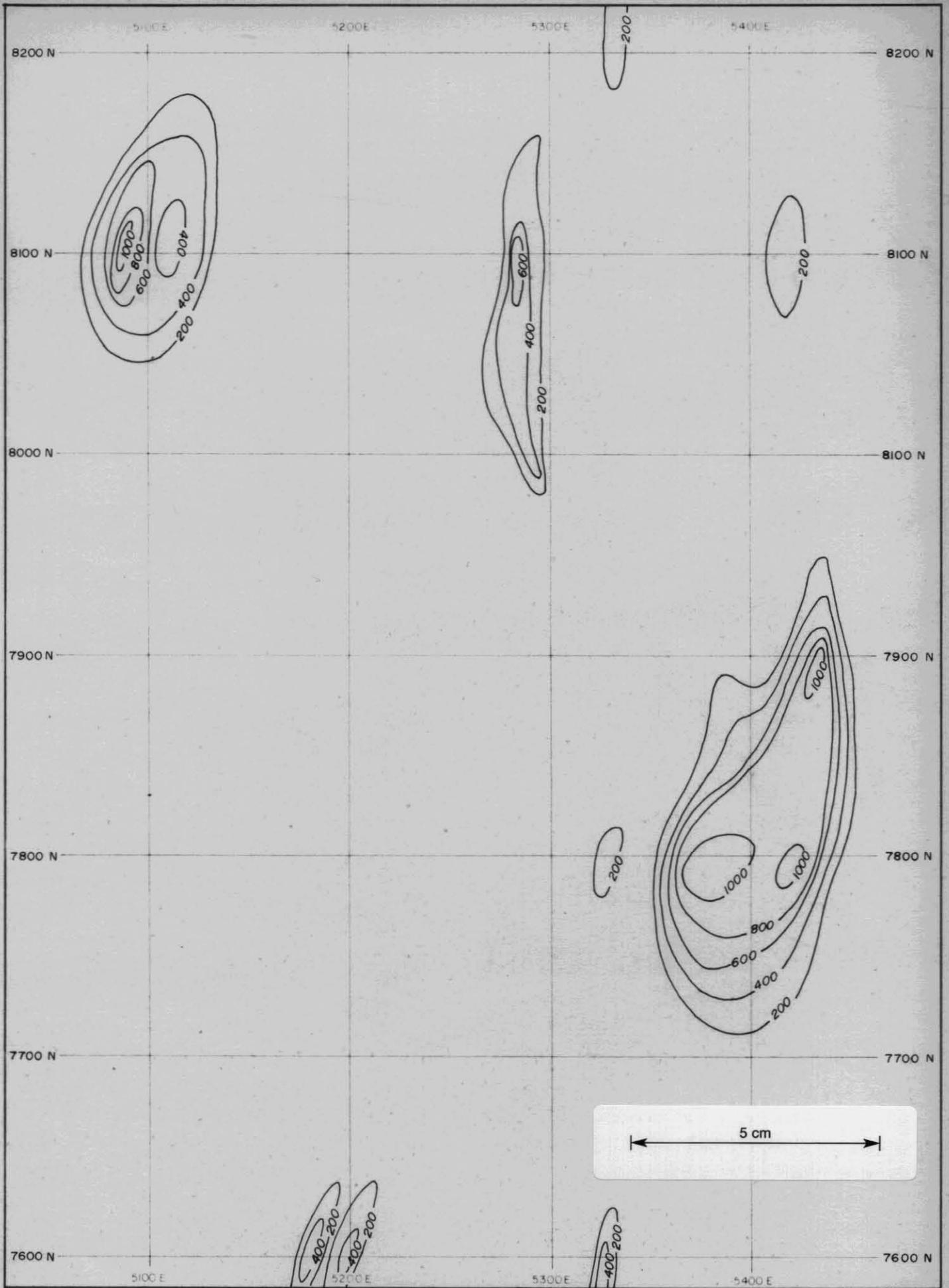


COMINCO EXPLORATION PTY. LTD.

Drawn: EHS	NORTH WEST TASMANIA QUE RIVER PROSPECT 'C' Horizon geochemistry - ZINC (ppm)	Location code: K55/6/44
Traced: JJB		Scale: 1:2,500
Checked:		Date: November 1974
Revised: _____ Date: _____		Plate N ^o QR 30C

034

552034



5 cm

COMINCO EXPLORATION PTY. LTD.

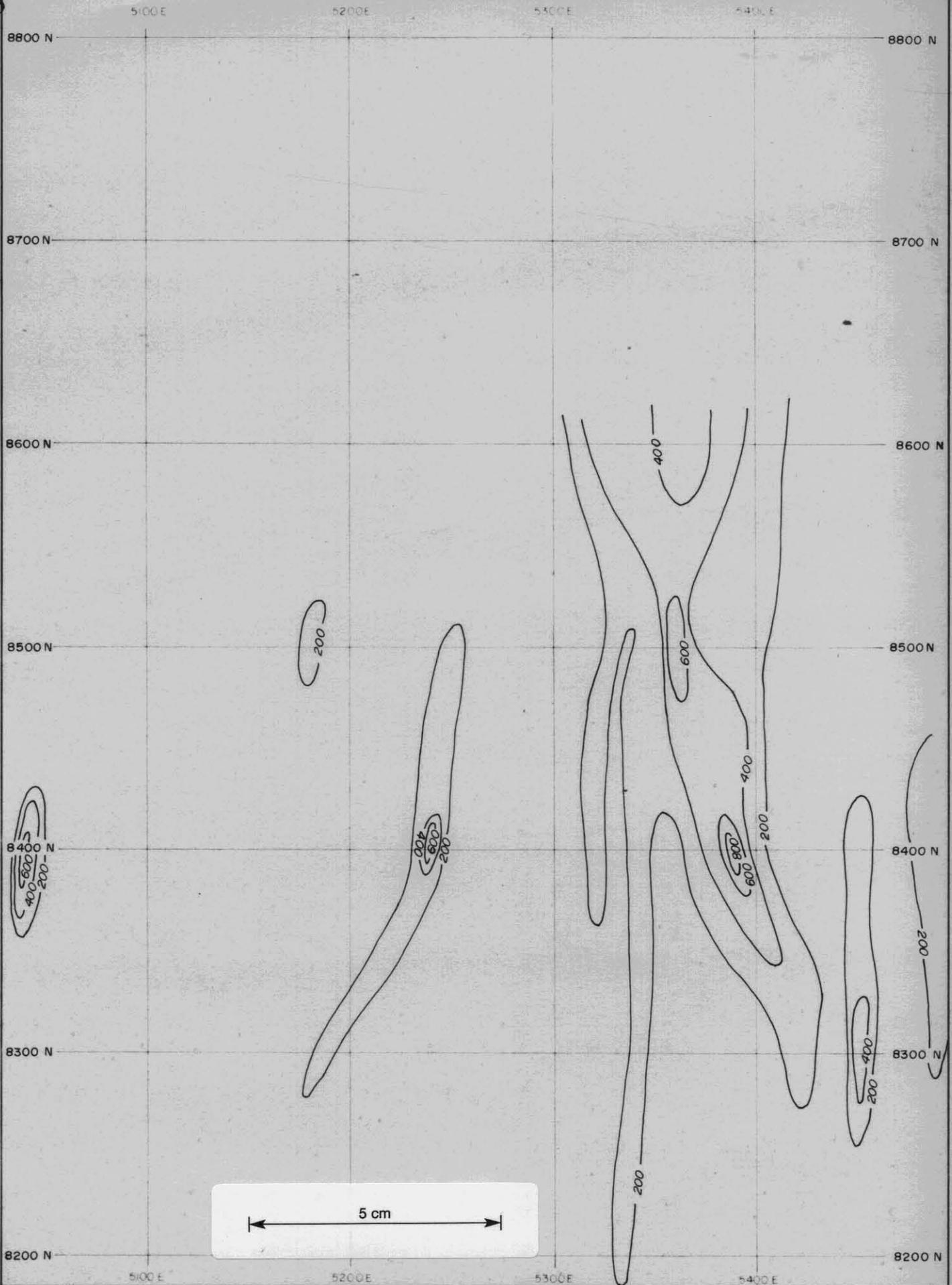
Drawn	EHS
Traced	JJB
Checked	
Revised	Date

NORTH WEST TASMANIA
 QUE RIVER PROSPECT
 'C' Horizon geochemistry - ZINC (ppm)

Location code	K 55/6/44
Scale	1:2,500
Date	November 1974
Plate No	QR 30 D

035

552035



COMINCO EXPLORATION PTY. LTD.

Drawn	EHS
Traced	JJB
Checked	
Revised	— Date —

NORTH WEST TASMANIA
QUE RIVER PROSPECT

'C' Horizon geochemistry — ZINC (ppm)

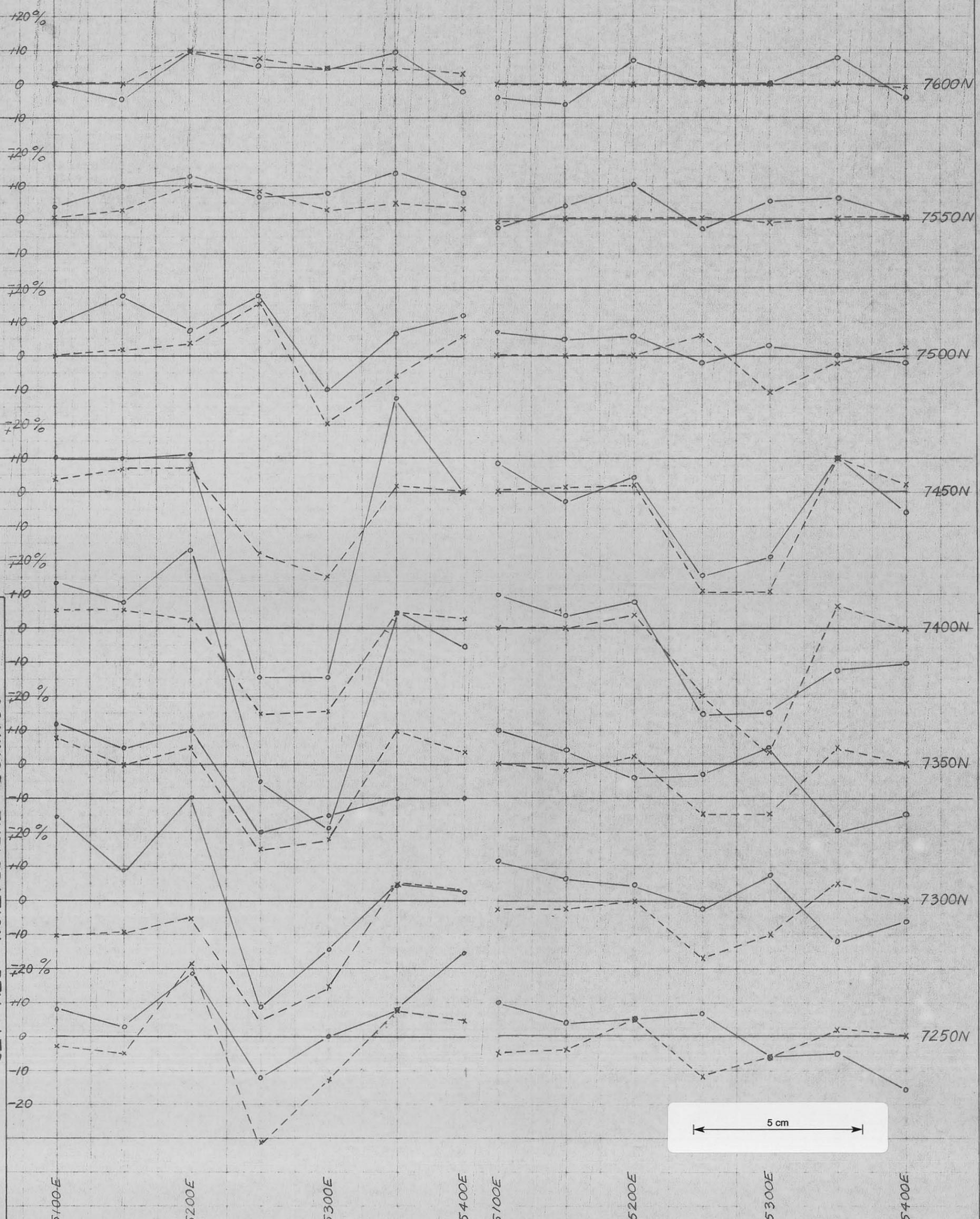
Location code	K55/6/44
Scale	1:2,500
Date	November 1974
Plate No	QR 30 E

High Frequency (2400hz)

Low Frequency (600hz)

○ In Phase
x Out-of-Phase

300 ft
92 m } Cable



COMNCO EXPLORATION PTY LTD

DRAWN BY: SSW
TRACED BY: NJS

REVISED BY: DATE

MACKINTOSH EL 2/70
ANOMALY # 8 (Que River Prospect)

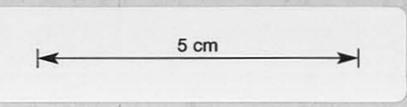
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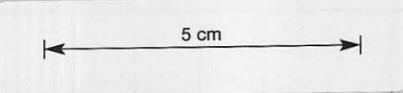
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Date: 7.12.74

Plate: QR37

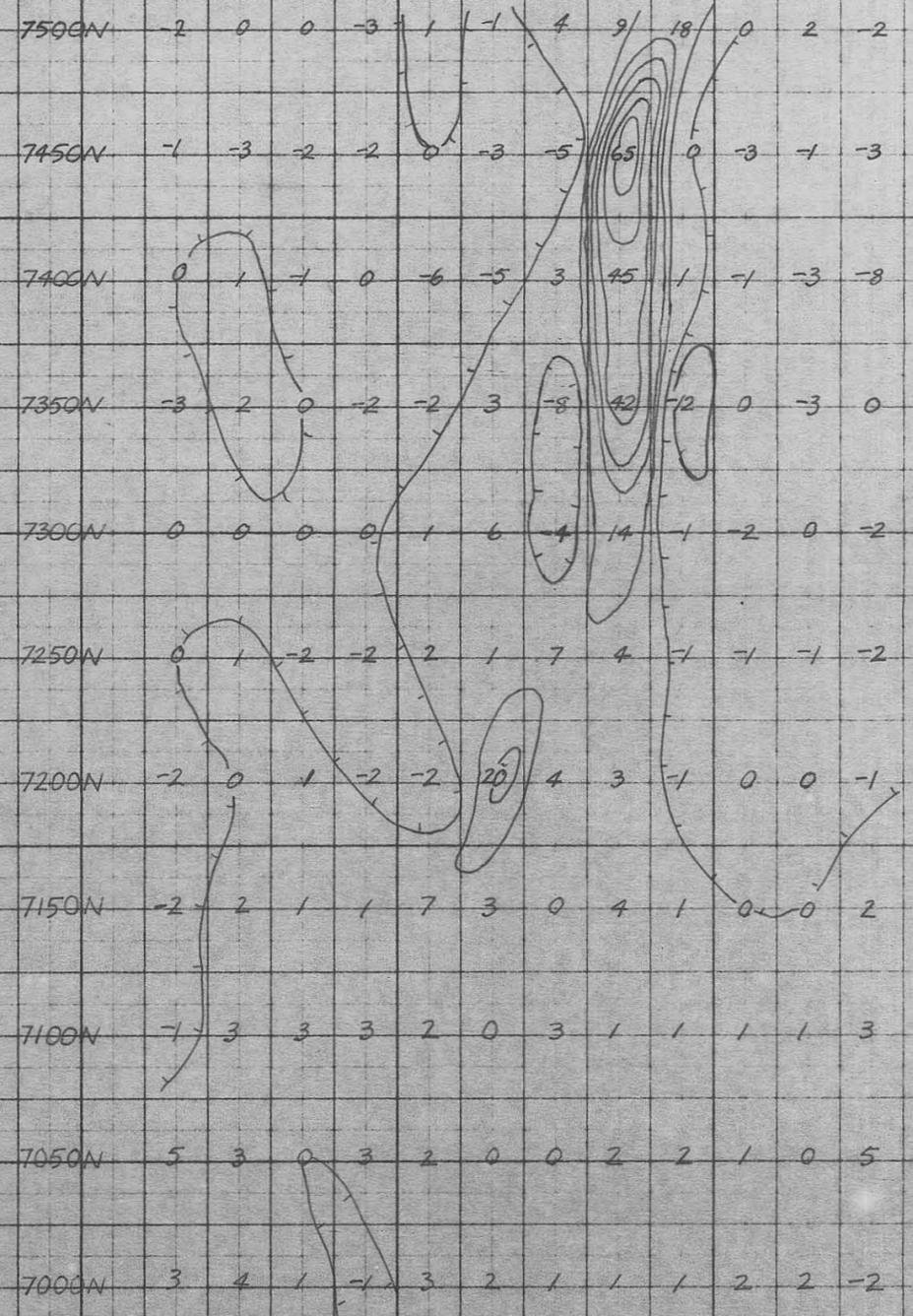
001





HIGH FREQUENCY (5000hz)

LOW FREQUENCY (1000hz)



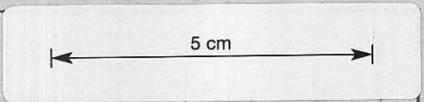
Tx: 7150N
5271E
for this data

Data averaged
on lines 7250N
& 7300N

Tx: 7400N
5275E
for this data

Contour interval 10°/25m

COMINCO EXPLORATION PTY LTD		552038
DRAWN BY: SSW	TRACED BY: NJS	MACKINTOSH EL 2/70 ANOMALY # 8 (Que River Prospect) Contours of Filtered V.E.M. Data (transformed after Fraser) 003
REVISOR BY DATE	REVISOR BY DATE	
Scale: 1:2500		Date: 6.12.74
		Plate: QR39



Current at Shear Zone

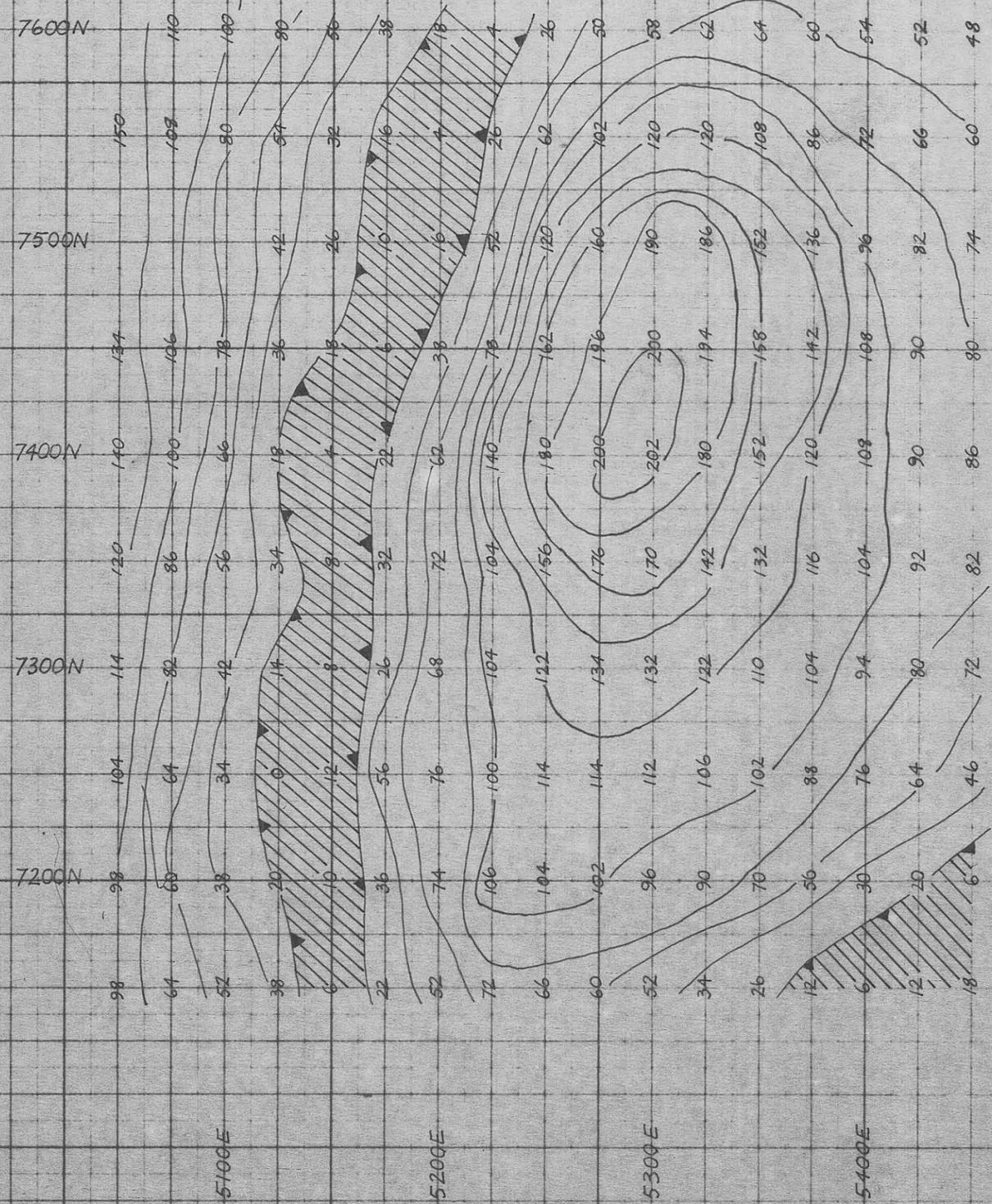
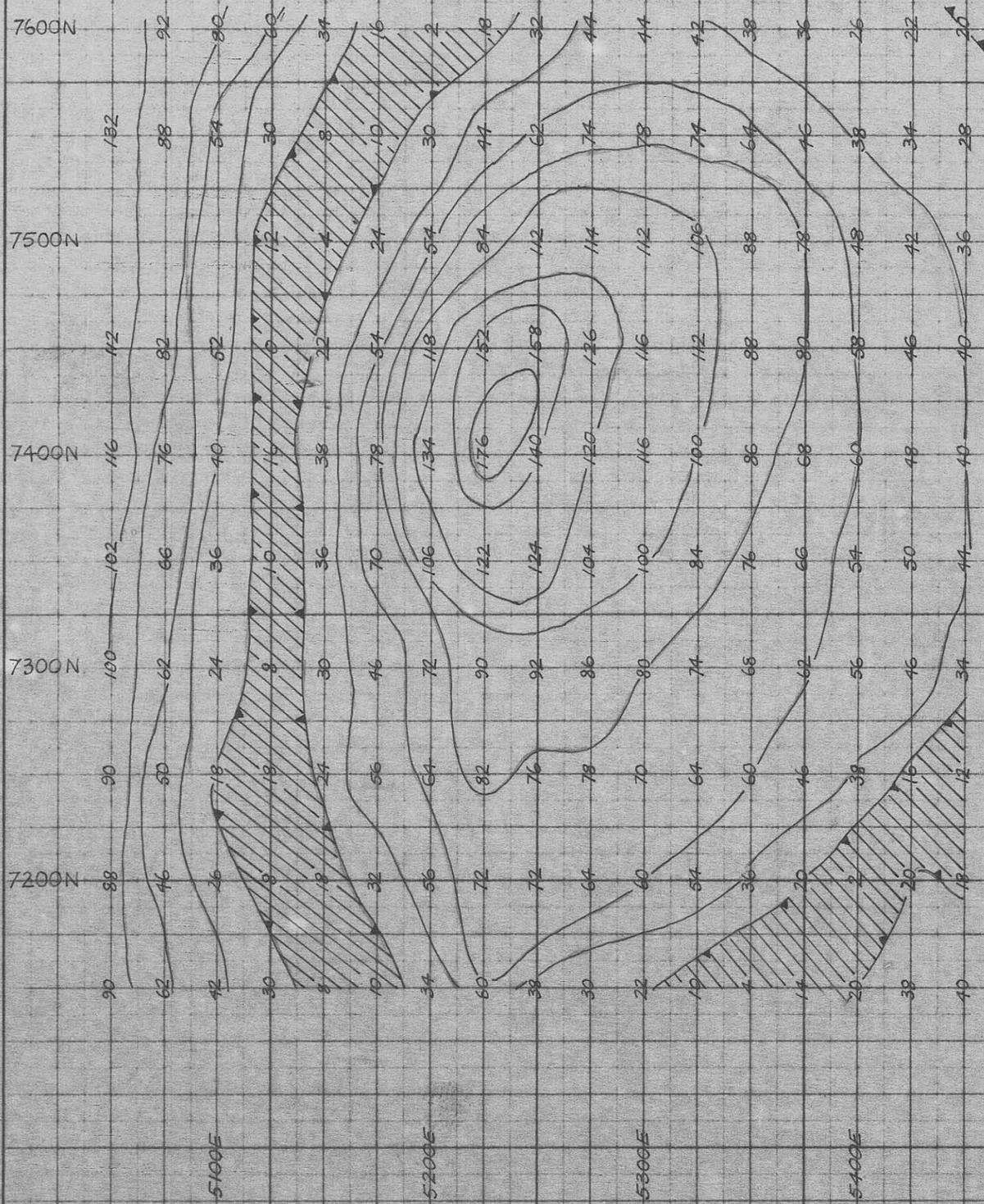
via Drill Hole QR 7

Contour Interval: 20mv/amp

Current in Eastern Mineralisation

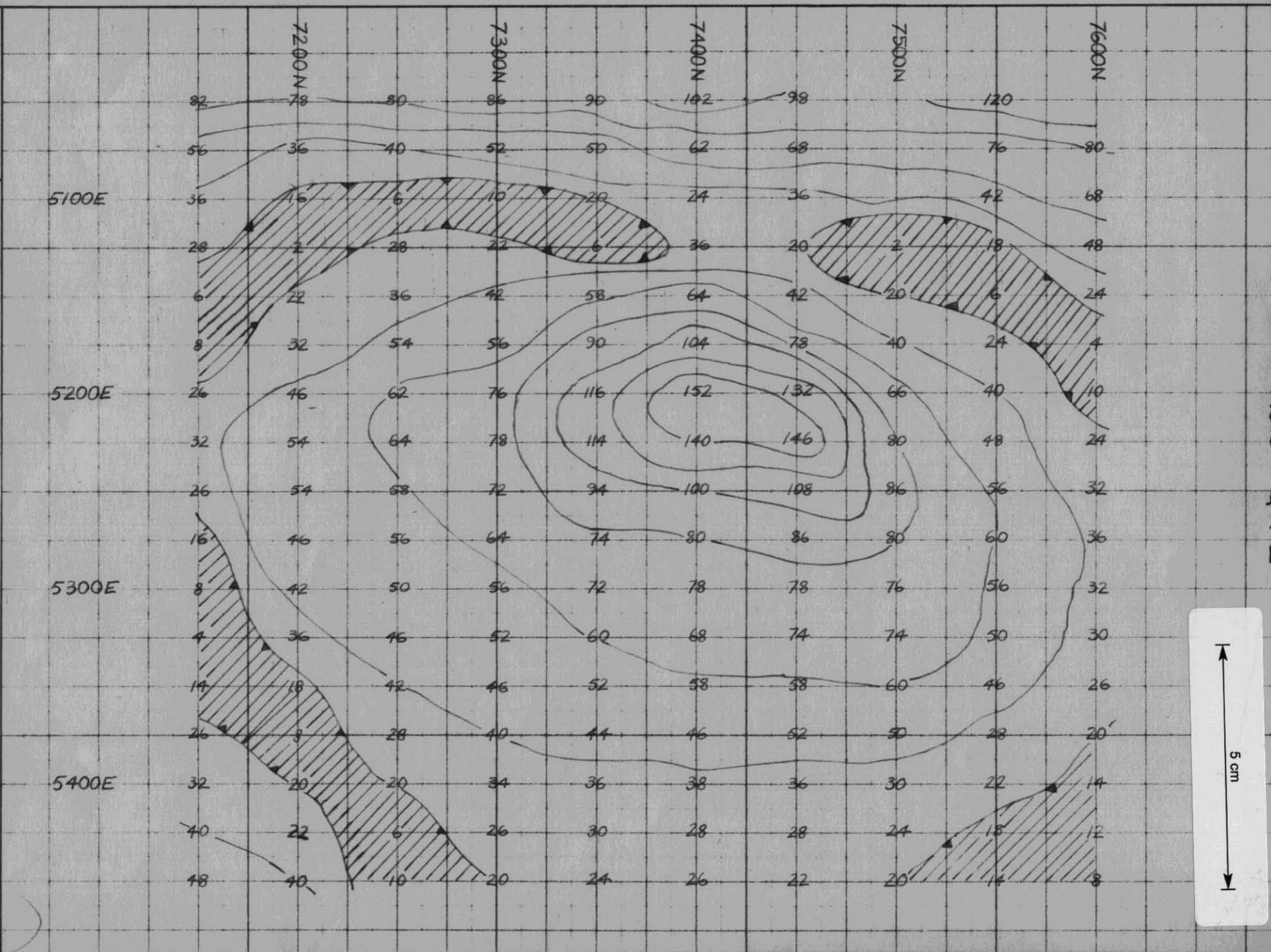
via Drill Hole QR 1

Contour Interval: 20mv/amp



DRAWN BY: SSW		TRACED BY: NJS		COMINCO EXPLORATION PTY LTD 552039	
REVISOR BY: DATE		REVISOR BY: DATE			
REVISOR BY: DATE		REVISOR BY: DATE		ANOMALY # 8	
REVISOR BY: DATE		REVISOR BY: DATE		Misé - a - la - masse	
REVISOR BY: DATE		REVISOR BY: DATE		004	
REVISOR BY: DATE		REVISOR BY: DATE		Scale: 1: 2500	
REVISOR BY: DATE		REVISOR BY: DATE		Date: 8. 12. 74	
REVISOR BY: DATE		REVISOR BY: DATE		Plate: QR 40	

Current in Western Mineralisation
via Drill Hole QR 2



COMINCO EXPLORATION PTY LTD

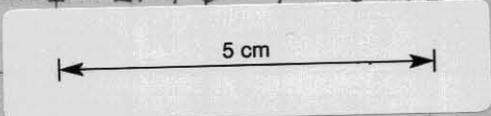
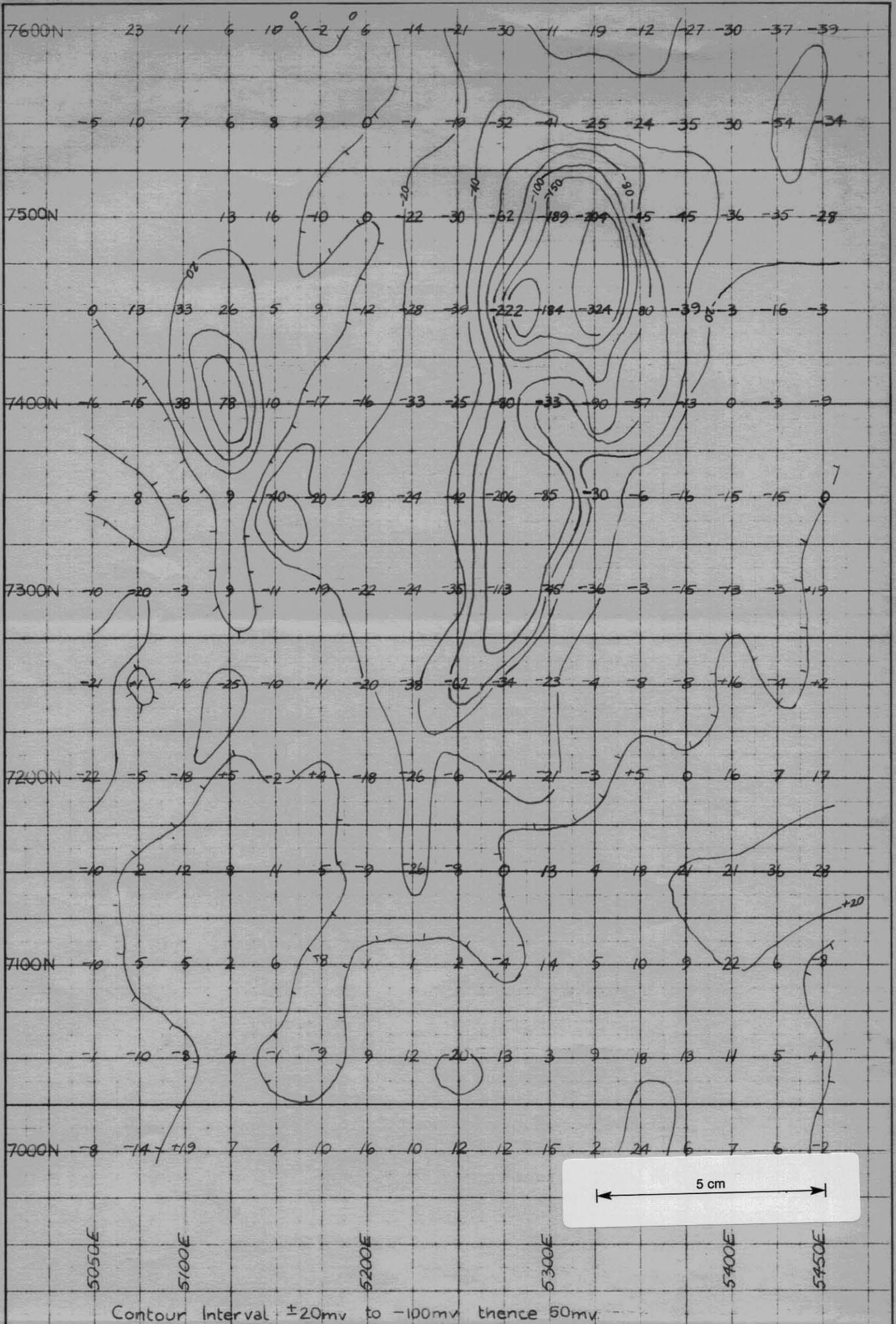
DRAWN BY: SSW
TRACED BY: NJS

REVISED BY: []
DATE: []

MACKINTOSH EL 2/70
ANOMALY # 8 (Que River Prospect)
Misé - a - la - masse

Scale: 1 : 2500
Date: 8. 12. 74
Plate: QR41

037



COMINCO EXPLORATION PTY LTD

DRAWN BY: SSW		TRACED BY: NJS	
		REVISED BY	DATE
REVISED BY	DATE		

MACKINTOSH EL 2/70
ANOMALY # 8 (Que River Prospect)

SELF - POTENTIAL CONTOURS

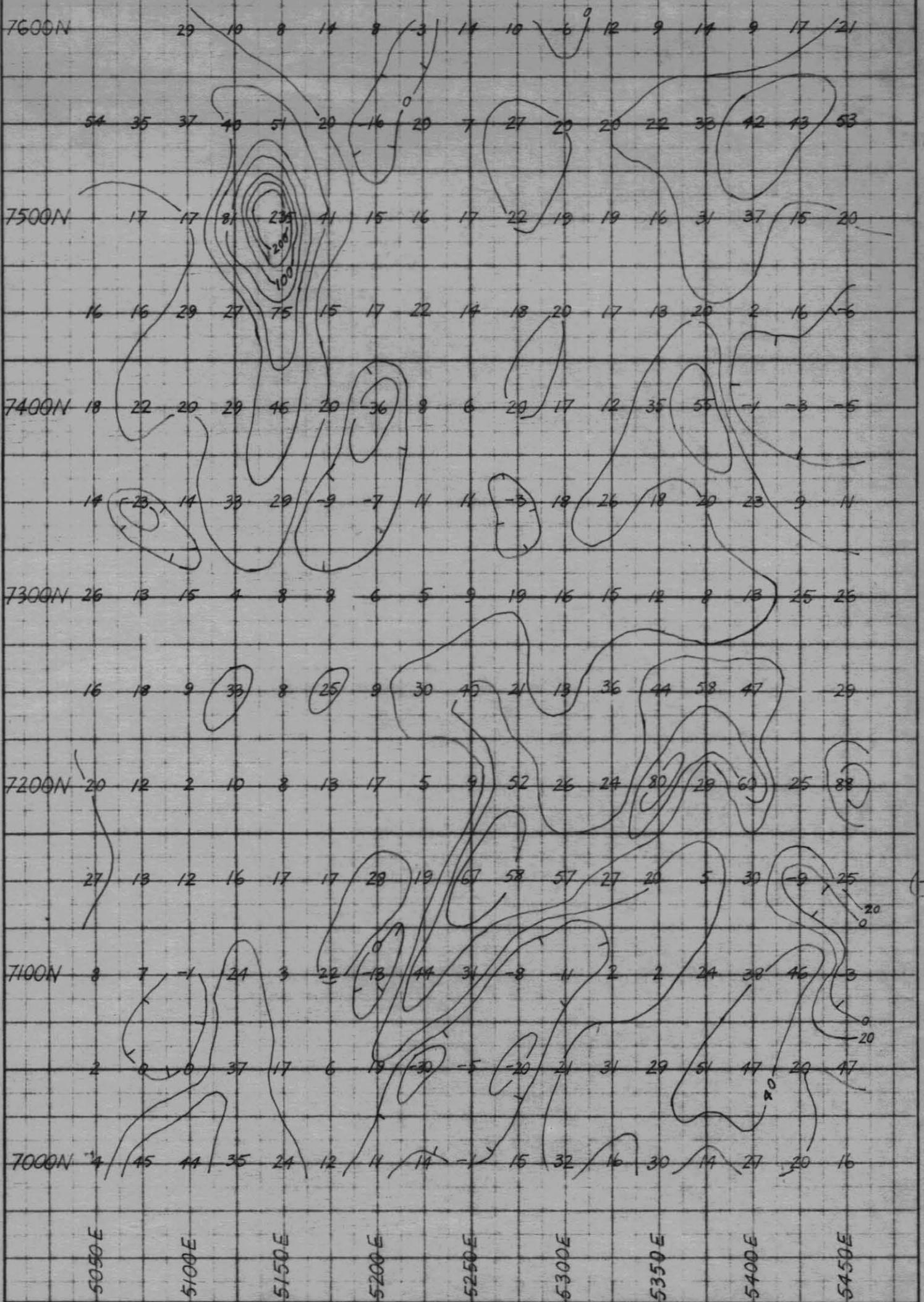
Scale: 1:2500

Date: 7.12.74

Plate: QR42C

033

Contour interval $\pm 20\gamma$ to 100γ thence 50γ



COMINCO EXPLORATION PTY LTD

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REVISED BY	DATE	REVISED BY	DATE

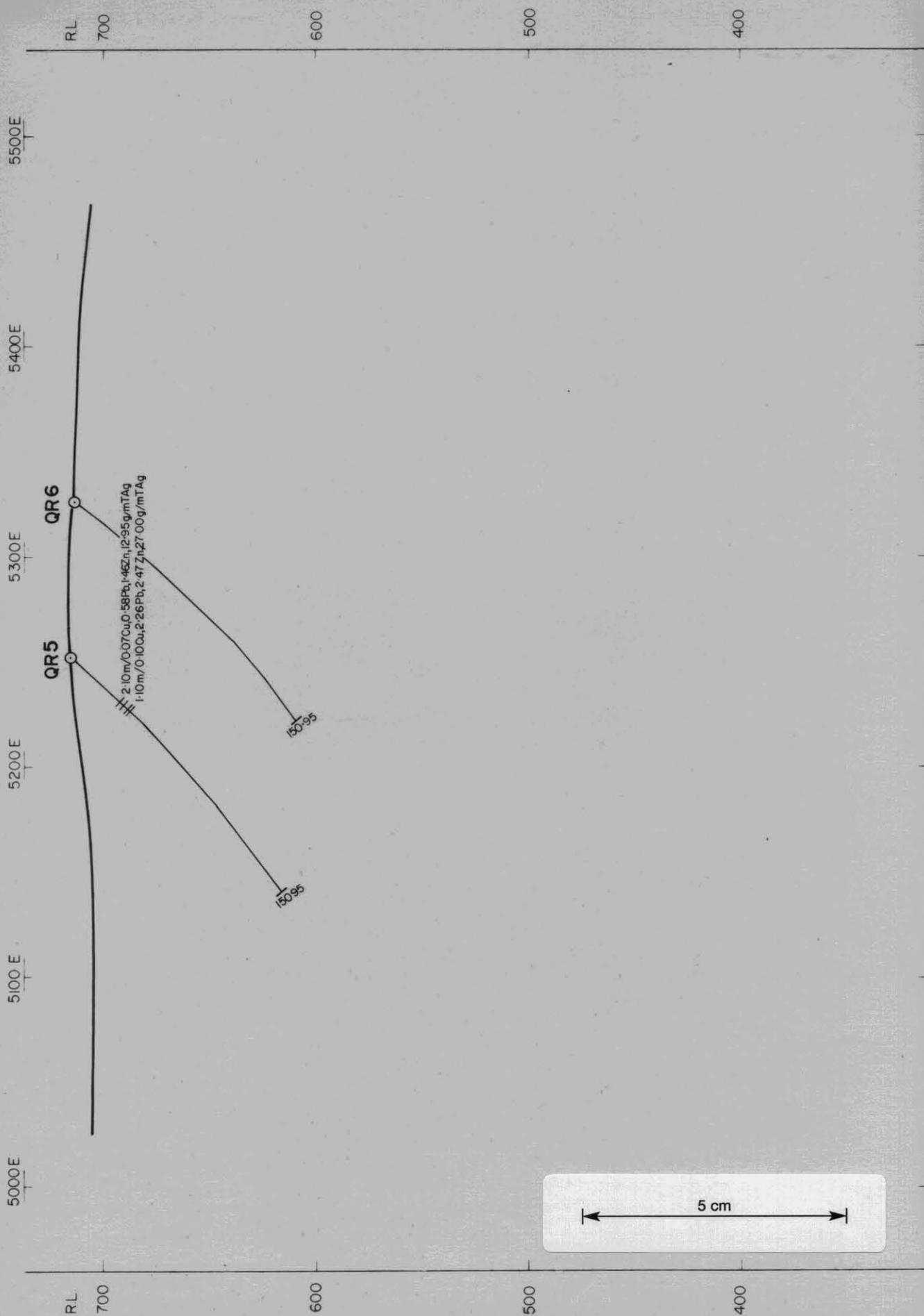
MACKINTOSH EL 2/70
 ANOMALY # 8 (Que River Prospect)
 Contours of (relative) Total Magnetic Intensity

Scale: 1: 2500

Date: 7. 12. 74

Plate: QR43C

552043 040

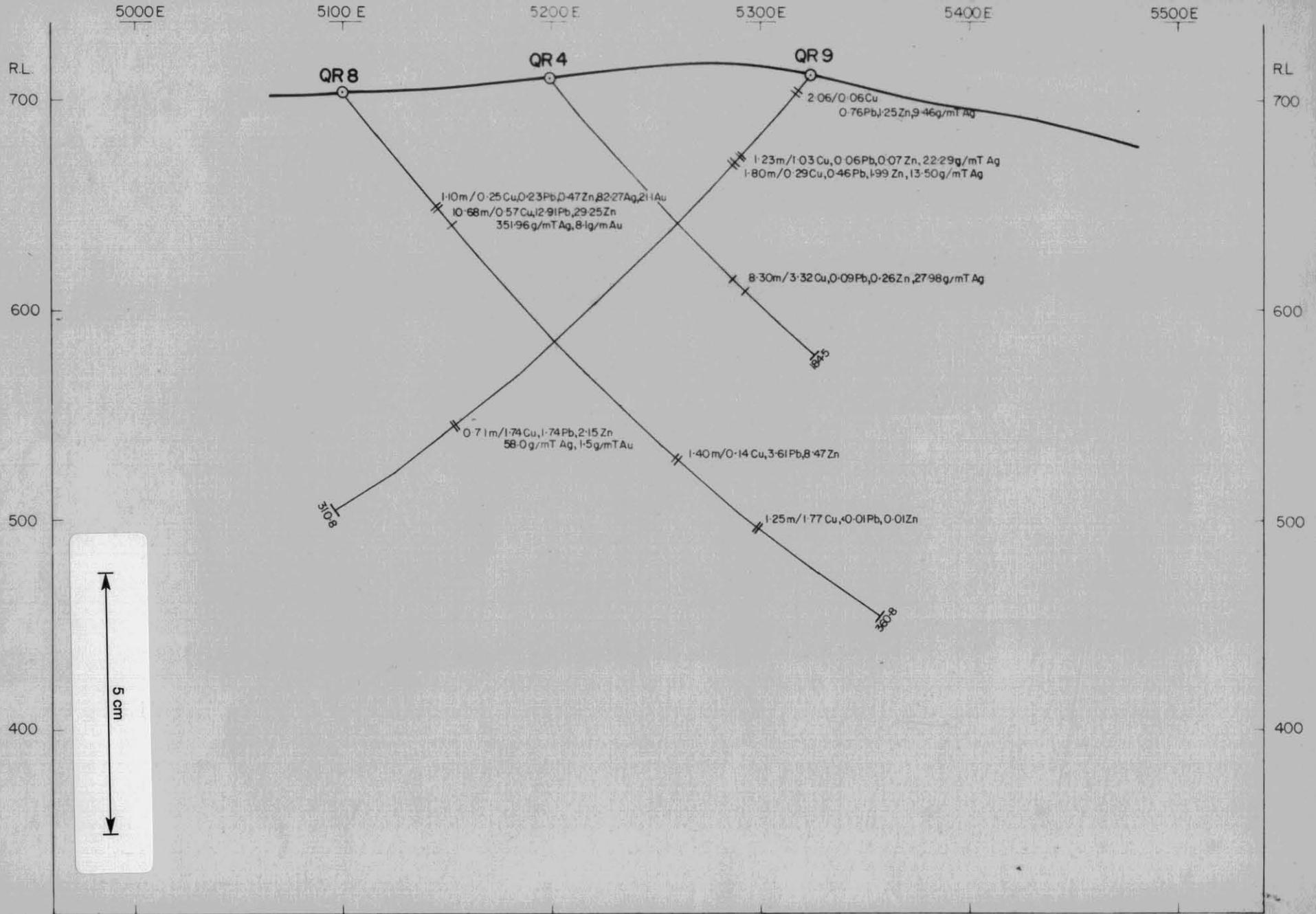


COMINCO EXPLORATION PTY. LTD.

Drawn	RKY
Traced	RKY
Checked	
Revised	Date

NORTH WEST TASMANIA
 MACKINTOSH WEST E.L.2/70
 QUE RIVER PROSPECT
 SECTION 7,200N

Location code	K55/6/44
Scale	1:2,500
Date	December 1974
Plate N°	QR 46 /72



COMINCO EXPLORATION PTY. LTD.

NORTH WEST TASMANIA
 MACKINTOSH WEST E.L. 2/70
 QUE RIVER PROSPECT
 SECTION 7,300 N

Drawn RKY
 Traced RKY
 Checked
 Revised
 Date

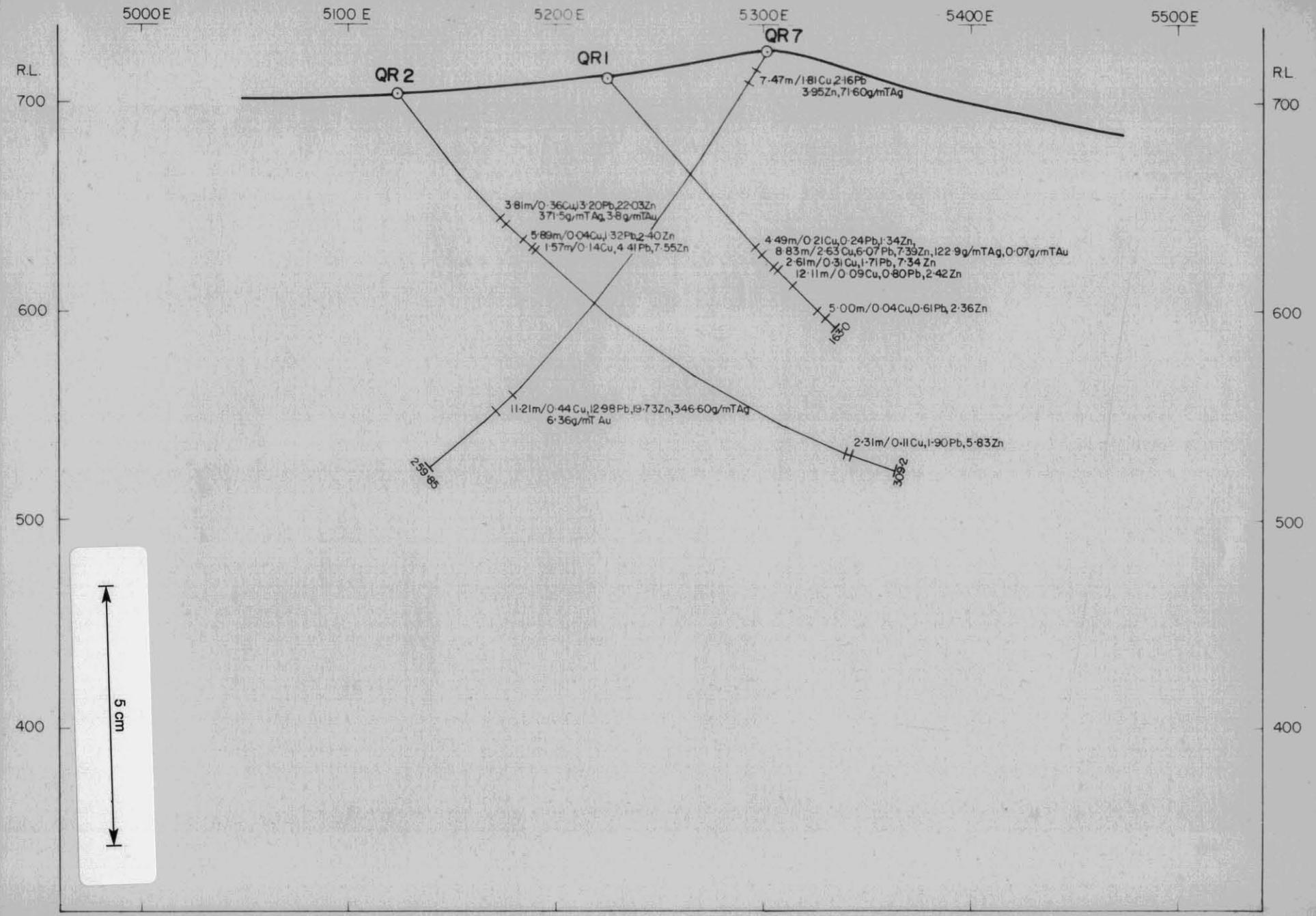
Location code K55/6/44
 Scale 1:2,500
 Date December 1974
 Plate No QR 46/73

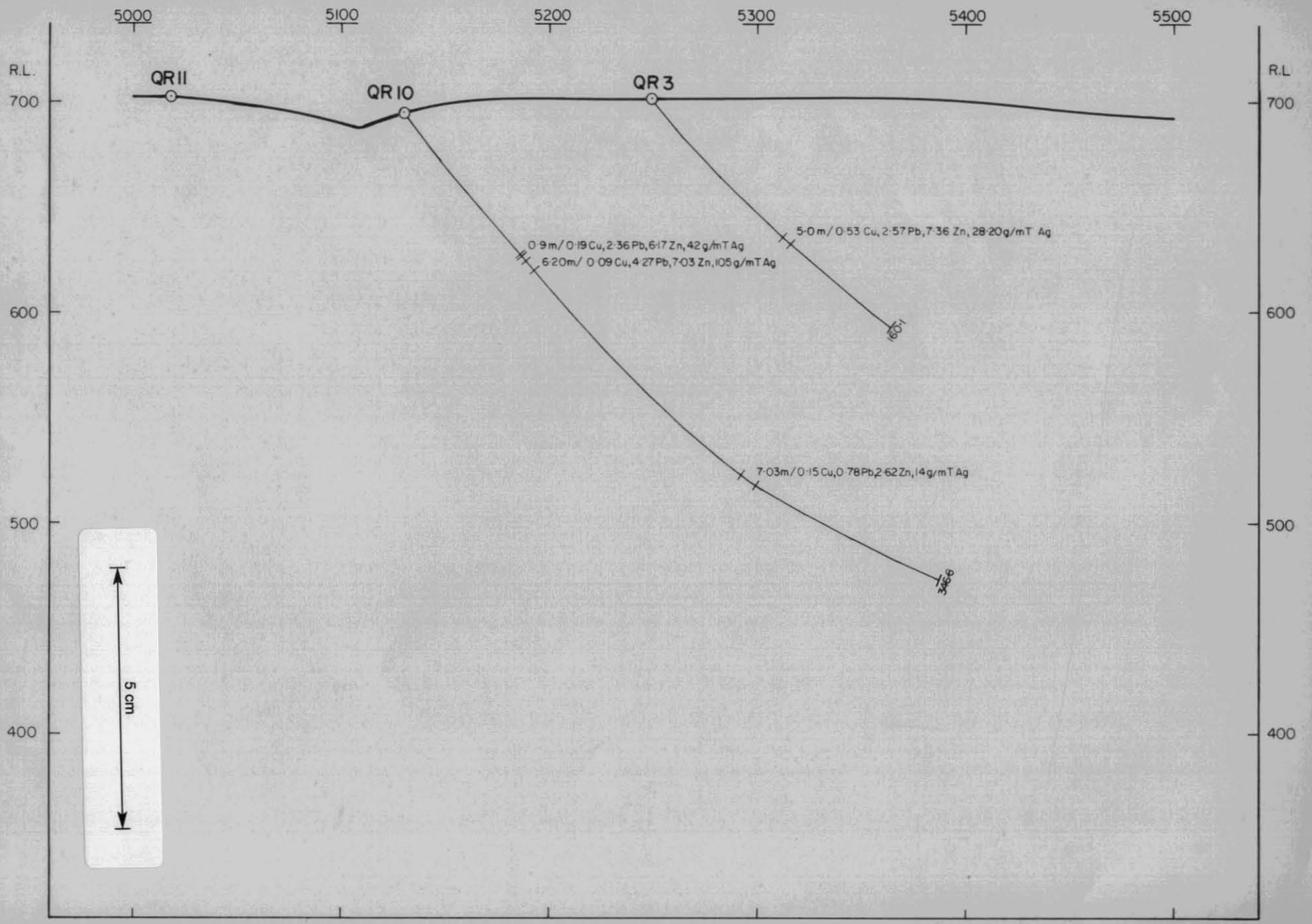
Drawn	RKY
Traced	RKY
Checked	
Revised	
Date	

COMINCO EXPLORATION PTY. LTD.

NORTH WEST TASMANIA
MACKINTOSH WEST E.L.2/70
QUE RIVER PROSPECT
SECTION 7,400N

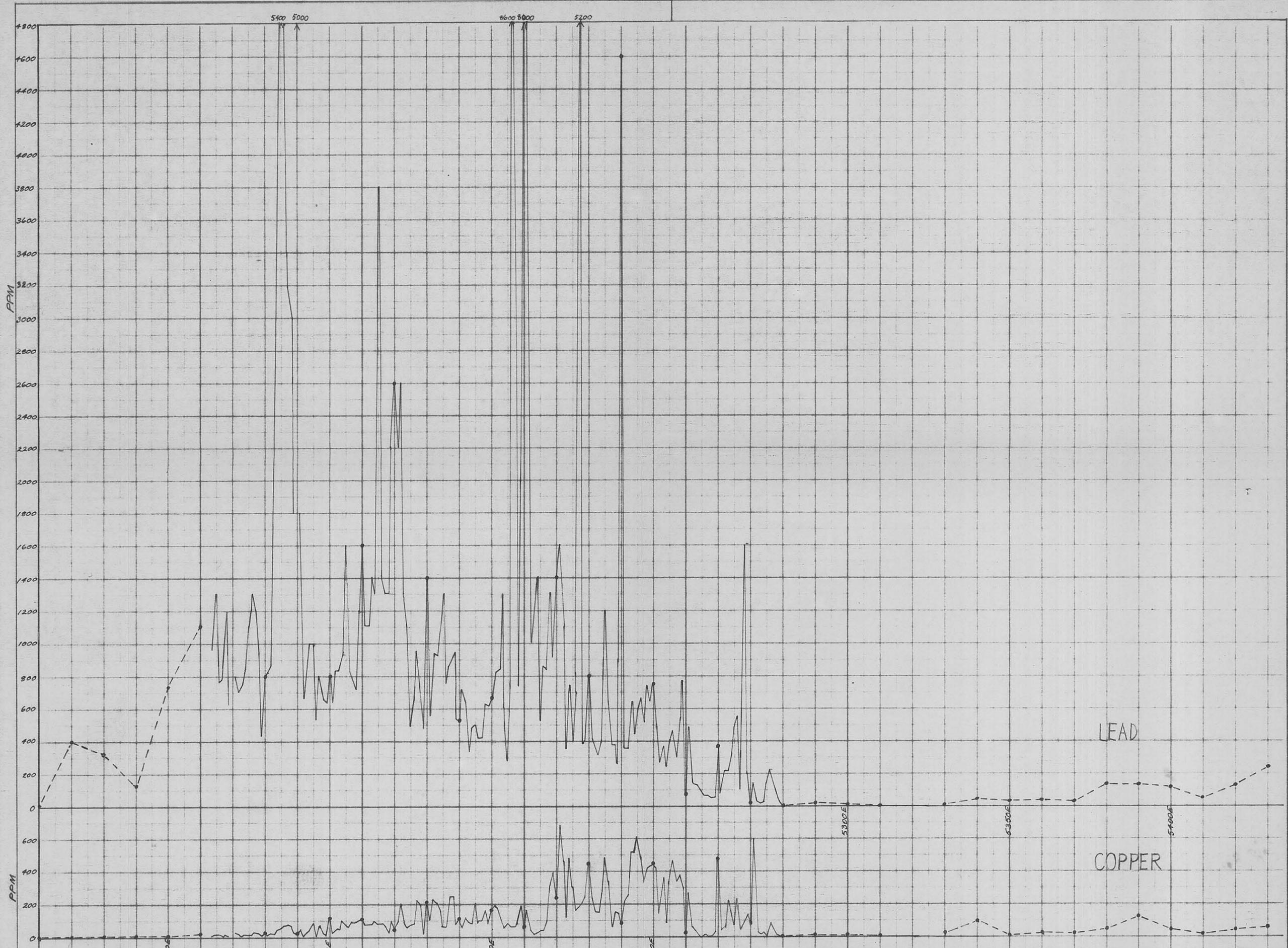
Location code	K55/6/44
Scale	1:2500
Date	December 1974
Plate No	QR46/74





COMINCO EXPLORATION PTY. LTD.	
Drawn R.K.Y.	Location code K 55/6/44
Traced R.K.Y.	Scale 1:2,500
Checked	Date December 1974
Revised	Plate No QR 46/75
Date	

NORTH WEST TASMANIA
 MACKINTOSH WEST E.L.2/70
 QUE RIVER PROSPECT
 SECTION 7500N

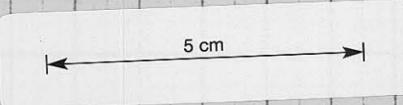


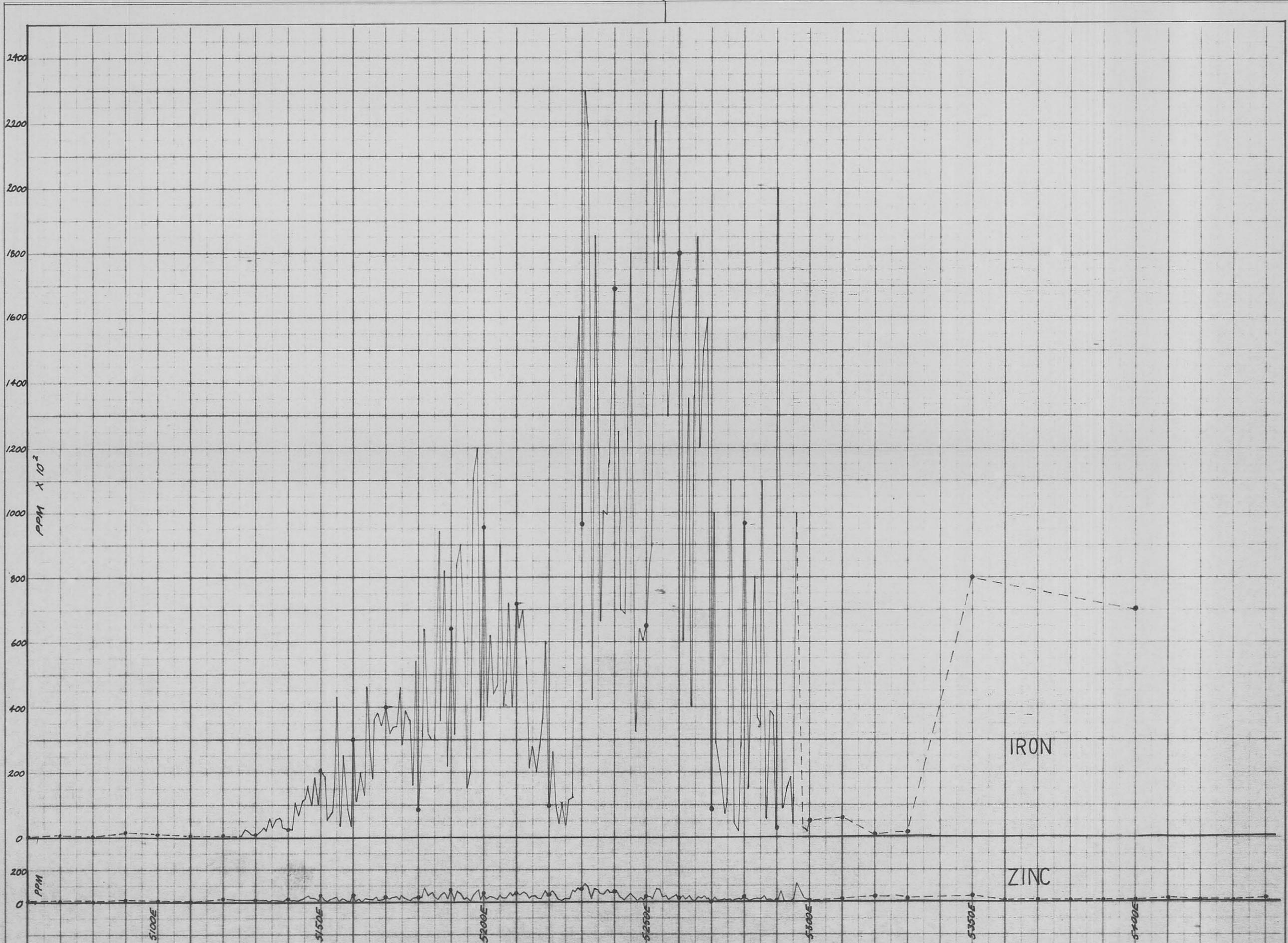
COMINCO EXPLORATION PTY LTD. 552047

DRAWN BY: NJS		TRACED BY: NJS	
REVISED BY	DATE	REVISED BY	DATE

MACKINTOSH EL 2/70
 ANOMALY # 8 (Que River Prospect)
 'C' Horizon Soil Profiles for Copper - Lead Line 7400N.
 005

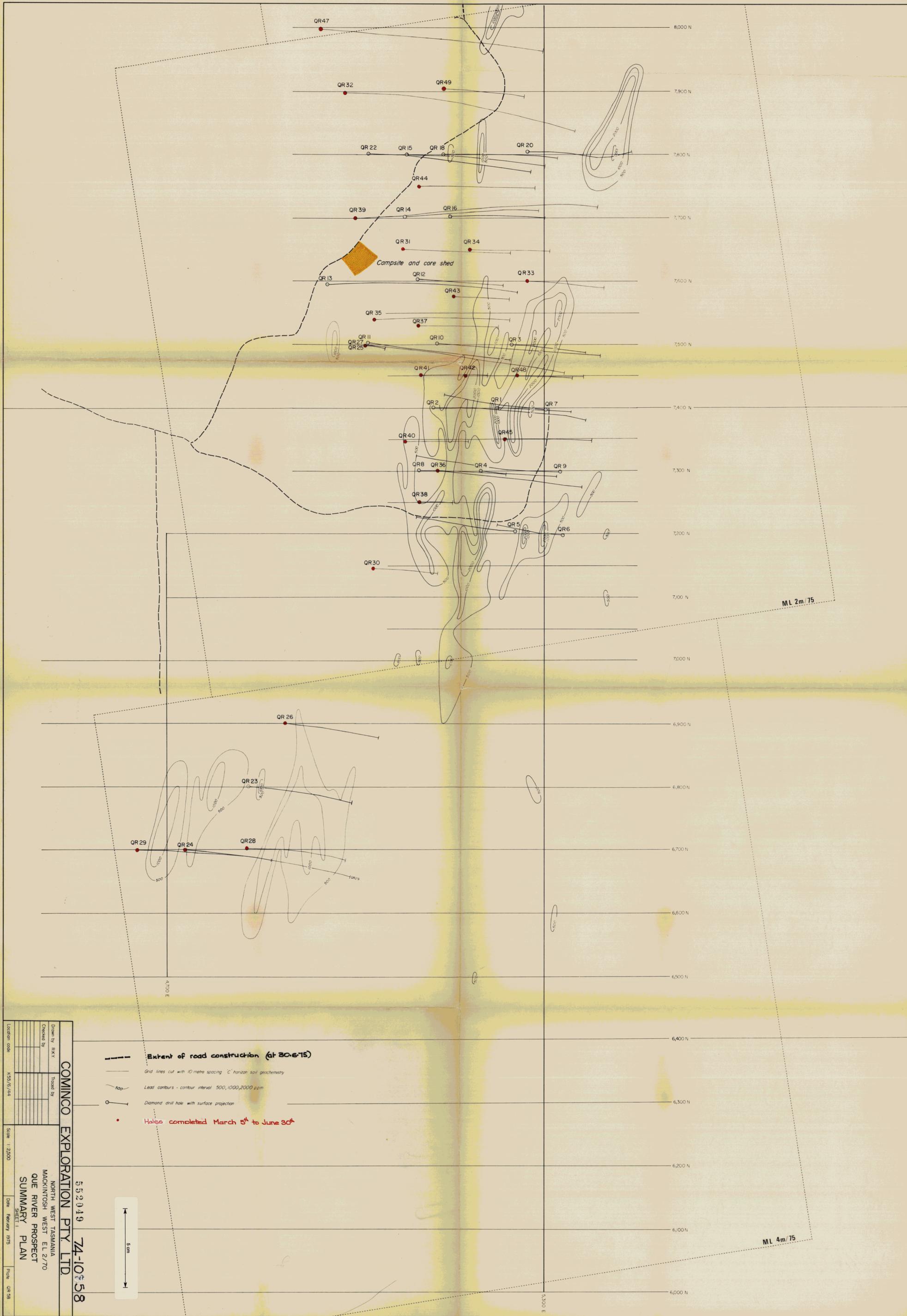
Scale: 1:1000 Date: 11. 12. 74 Plate: QR 48





5 cm

COMINCO EXPLORATION PTY LTD		MACKINTOSH EL 2/70 552048	
DRAWN BY: NJS	TRACED BY: NJS	ANOMALY # 8 (Que River Prospect)	
	REVISED BY DATE	"C" Horizon Soil Profiles for Zinc-Iron Line 7400N	
REVISED BY DATE		006	
		Scale: 1:1000	Date: 11.12.74
			Plate: QR 49

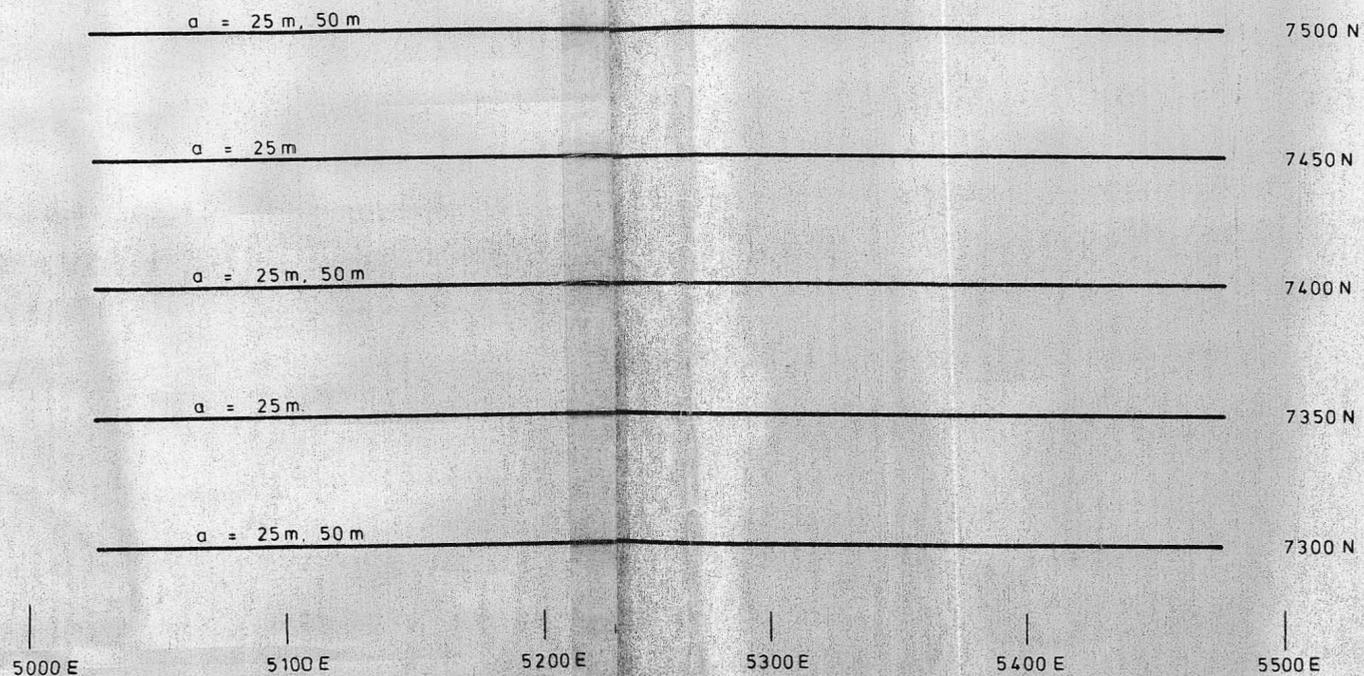
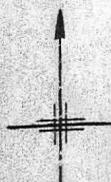


552049 74-10558
 COMINCO EXPLORATION PTY LTD
 NORTH WEST TASMANIA
 MACKINTOSH WEST EL 2/70
 QUE RIVER PROSPECT
 SUMMARY PLAN
 SHEET 1
 Scale 1:2500
 Date February 1975
 File QR 58

- Extent of road construction (at 30.6-75)
- Grid lines cut with 10 metre spacing "C" horizon soil geochemistry
- ~ Lead contours - contour interval 500,1000,2000 ppm
- | Diamond drill hole with surface projection
- Holes completed March 5th to June 30th



GRID NORTH

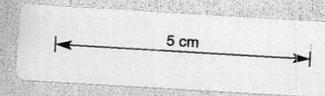


RESISTIVITY AND INDUCED POLARISATION SURVEY

MACKINTOSH #8 PROSPECT TASMANIA

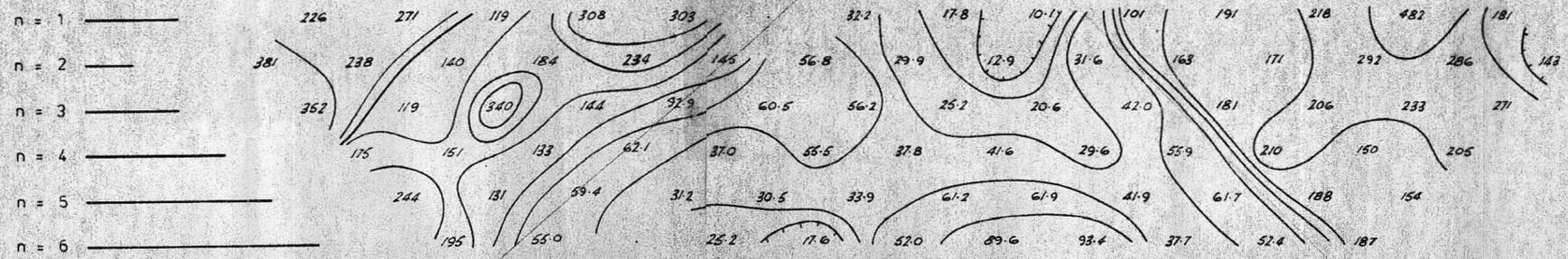
GEOPHYSICAL GRID LAYOUT

7300 N @ 25 m
 7300 N @ 50 m
 7350 N @ 25 m
 7400 N @ 25 m
 7400 N @ 50 m
 7450 N @ 50 m
 7500 N @ 25 m
 7500 N @ 50 m



by GEOQUEST PTY LIMITED

5025 E 5050 E 5075 E 5100 E 5125 E 5150 E 5175 E 5200 E 5225 E 5250 E 5275 E 5300 E 5325 E 5350 E 5375 E 5400 E 5425 E 5450 E 5475 E



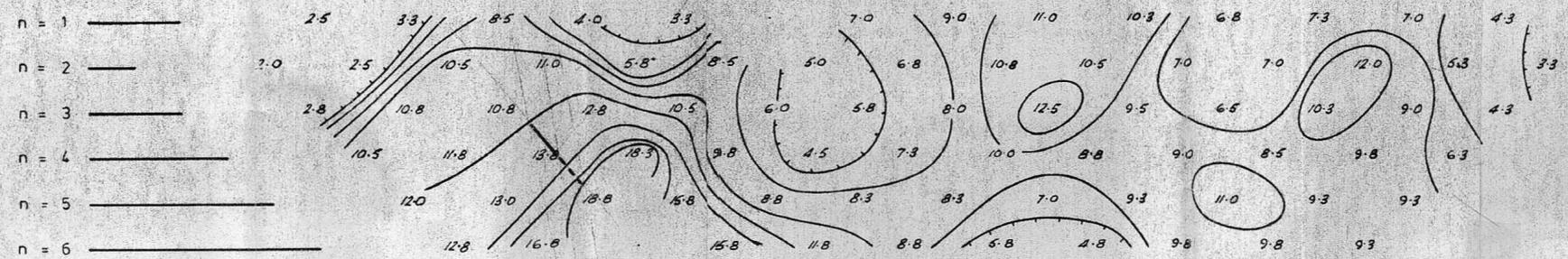
APPARENT RESISTIVITY
OHM METRES
LOGARITHMIC CONTOURING

RESISTIVITY AND
INDUCED POLARISATION SURVEY

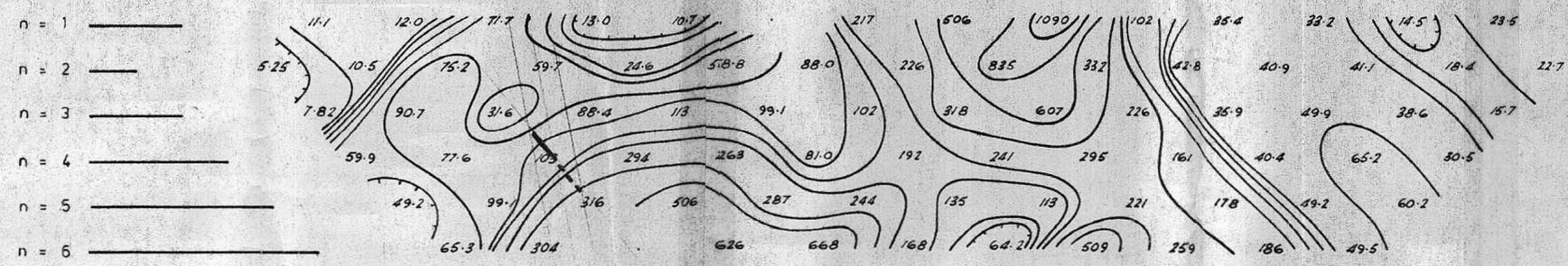
MACKINTOSH #8 PROSPECT
TASMANIA

TRAVERSE: 7300 N

a = 25 METRES
FREQUENCIES 2.5 - 0.3 Hz
SURVEYED: 26 AUG. 1974

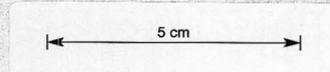


PERCENTAGE FREQUENCY EFFECT
LINEAR CONTOURING



METALLIC CONDUCTION FACTOR
LOGARITHMIC CONTOURING

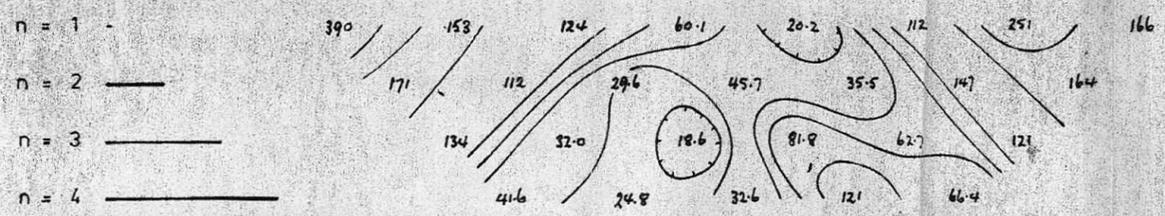
GEOQUEST PTY LTD
CHECKED



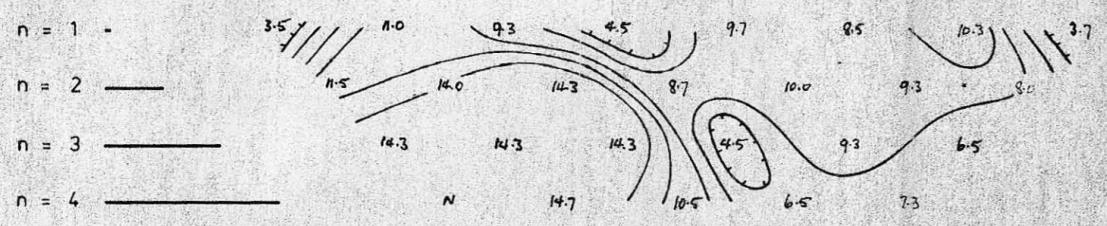
by
GEOQUEST PTY LIMITED

COMINCO EXPLORATION PTY. LIMITED

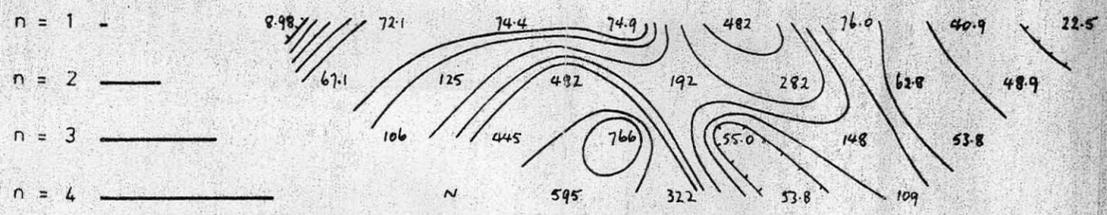
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APPARENT RESISTIVITY
OHM METRES
LOGARITHMIC CONTOURING



PERCENTAGE FREQUENCY EFFECT
LINEAR CONTOURING



METALLIC CONDUCTION FACTOR
LOGARITHMIC CONTOURING

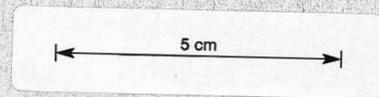
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RESISTIVITY AND
INDUCED POLARISATION SURVEY

MACKINTOSH #8 PROSPECT
TASMANIA

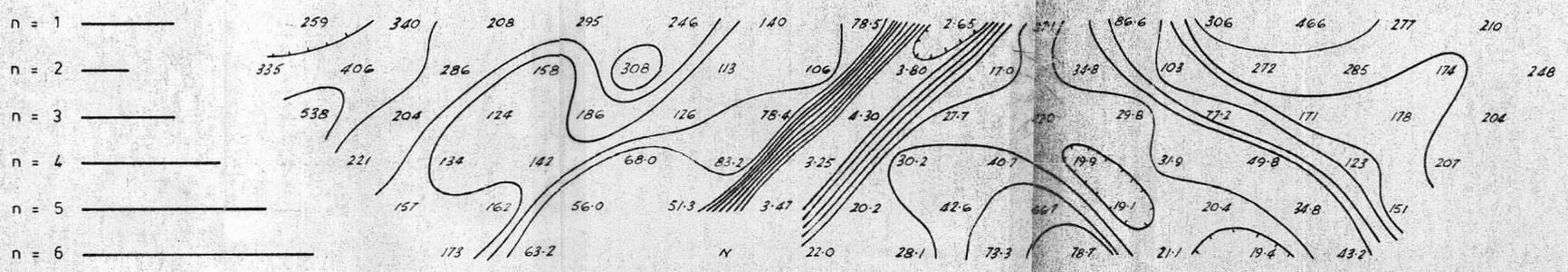
TRAVERSE: 7300 N

a = 50 METRES
FREQUENCIES 2.5 - 0.3 Hz
SURVEYED: 29 AUG. 1974



by
GEOQUEST PTY LIMITED

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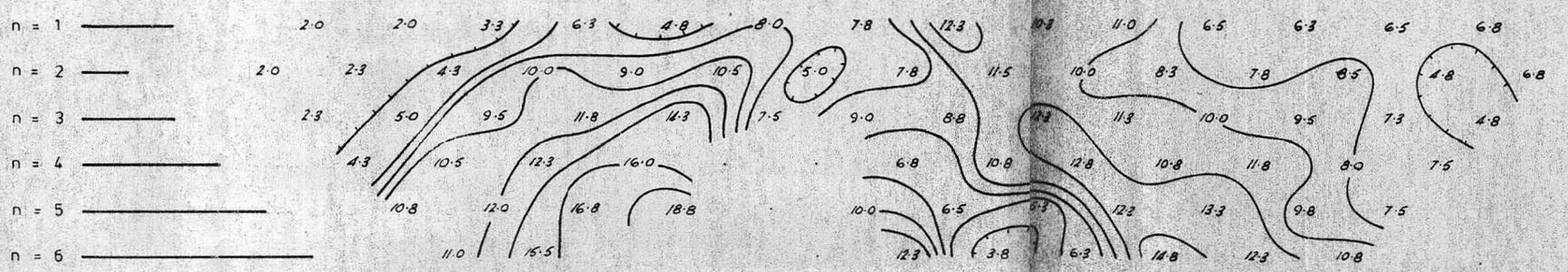
APPARENT RESISTIVITY
OHM METRES
LOGARITHMIC CONTOURING

RESISTIVITY AND
INDUCED POLARISATION SURVEY

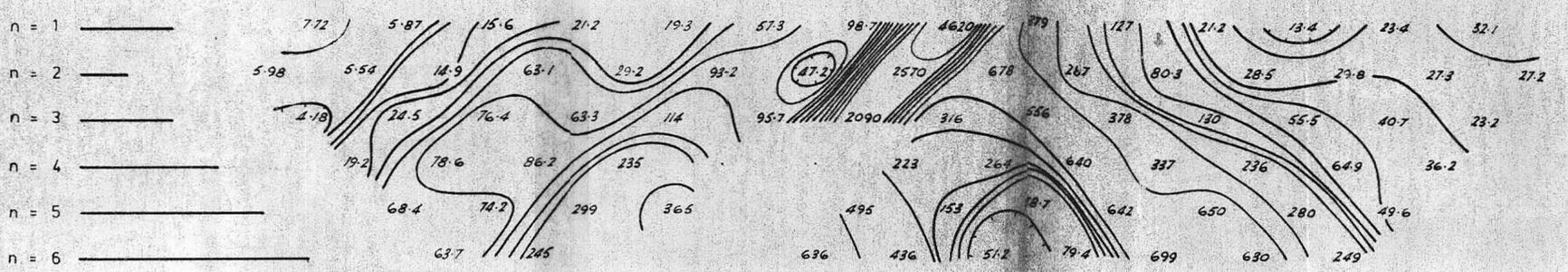
MACKINTOSH #8 PROSPECT
TASMANIA

TRAVERSE: 7350 N

a = 25 METRES
FREQUENCIES 2.5 - 0.3 Hz
SURVEYED:

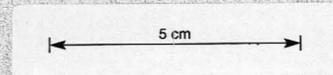


PERCENTAGE FREQUENCY EFFECT
LINEAR CONTOURING



METALLIC CONDUCTION FACTOR
LOGARITHMIC CONTOURING

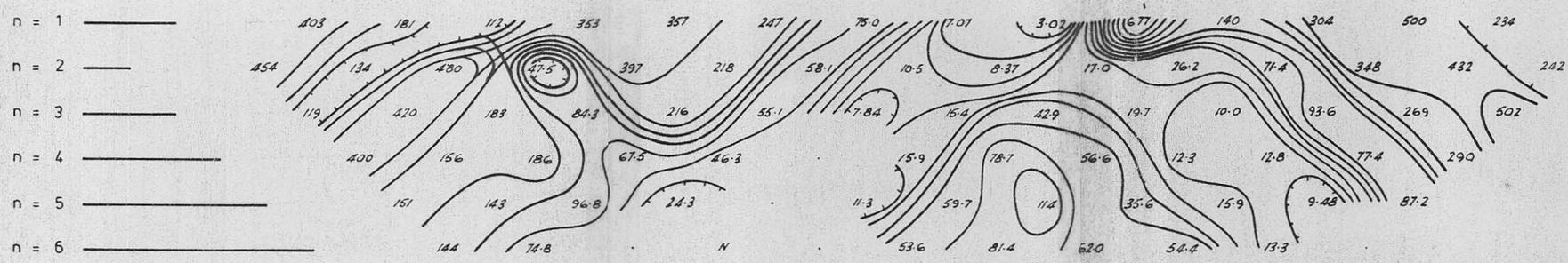
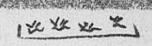
COMINCO PTY LTD
CHECKED



by
GEOQUEST PTY LIMITED

5025 E 5050 E 5075 E 5100 E 5125 E 5150 E 5175 E 5200 E 5225 E 5250 E 5275 E 5300 E 5325 E 5350 E 5375 E 5400 E 5425 E 5450 E 5475 E

Drill site
QR2

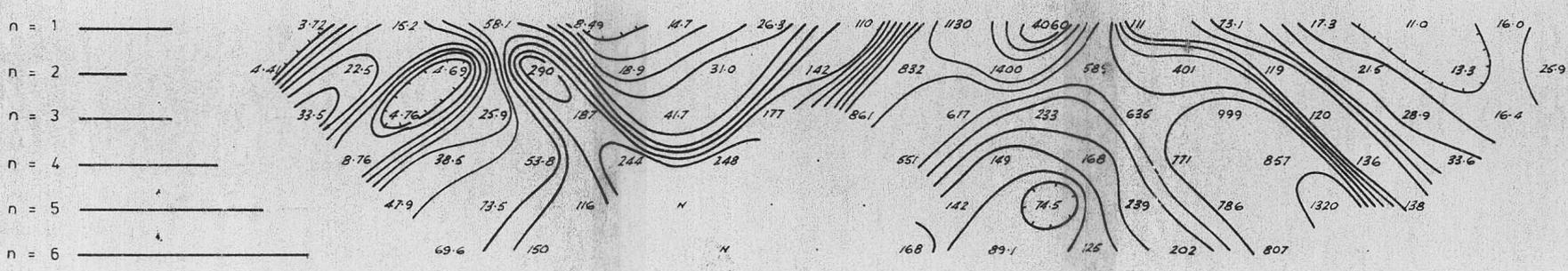
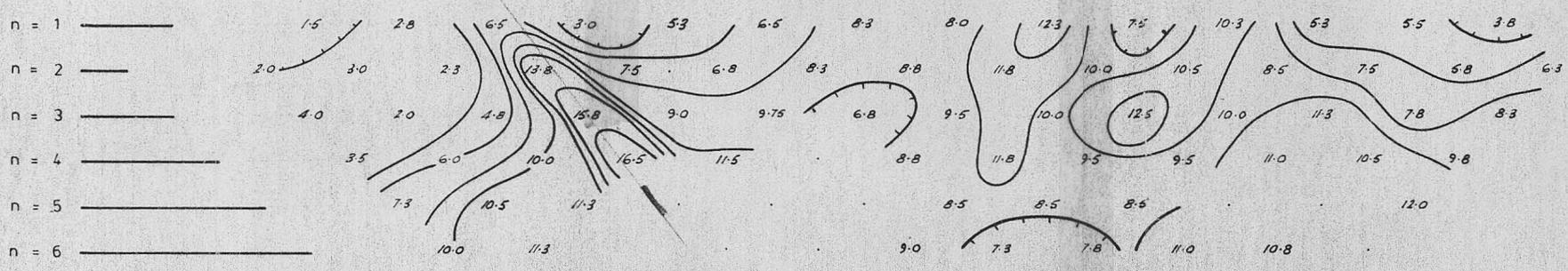


RESISTIVITY AND
INDUCED POLARISATION SURVEY

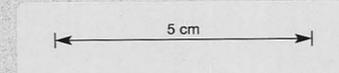
MACKINTOSH #8 PROSPECT
TASMANIA

TRAVERSE: 7400 N

a = 25 METRES
 FREQUENCIES 2.5 - 0.3 Hz
 SURVEYED: 24 AUG. 1974

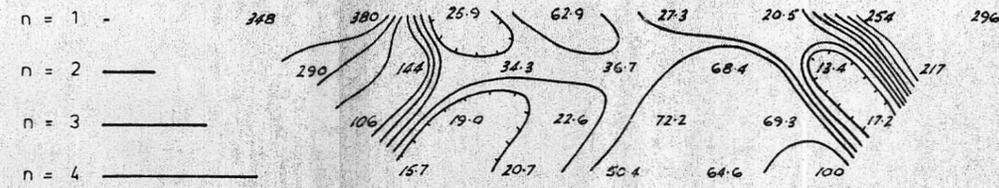


SEQUEST PTY. LTD.
 CHECKED



by
 GEOQUEST PTY LIMITED

5000 E 5050 E 5100 E 5150 E 5200 E 5250 E 5300 E 5350 E 5400 E 5450 E 5500 E



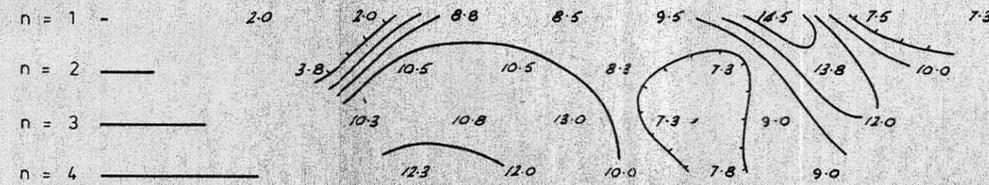
APPARENT RESISTIVITY
OHM METRES
LOGARITHMIC CONTOURING

RESISTIVITY AND
INDUCED POLARISATION SURVEY

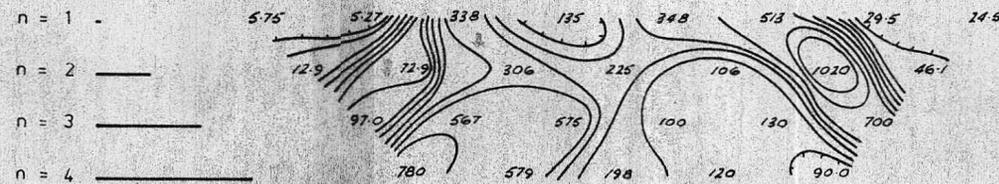
MACKINTOSH #8 PROSPECT
TASMANIA

TRAVERSE: 7400 N

a = 50 METRES
FREQUENCIES 2.5 - 0.3 Hz
SURVEYED: 29 AUG. 1974

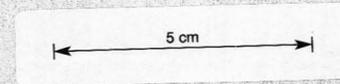


PERCENTAGE FREQUENCY EFFECT
LINEAR CONTOURING



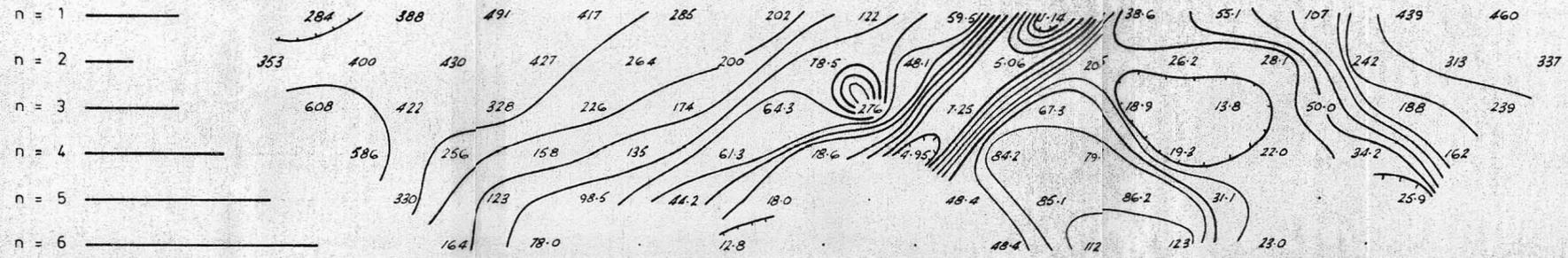
METALLIC CONDUCTION FACTOR
LOGARITHMIC CONTOURING

REQUESTED BY: TO
CHECKED
DATE: 10/1/74



by
GEOQUEST PTY LIMITED

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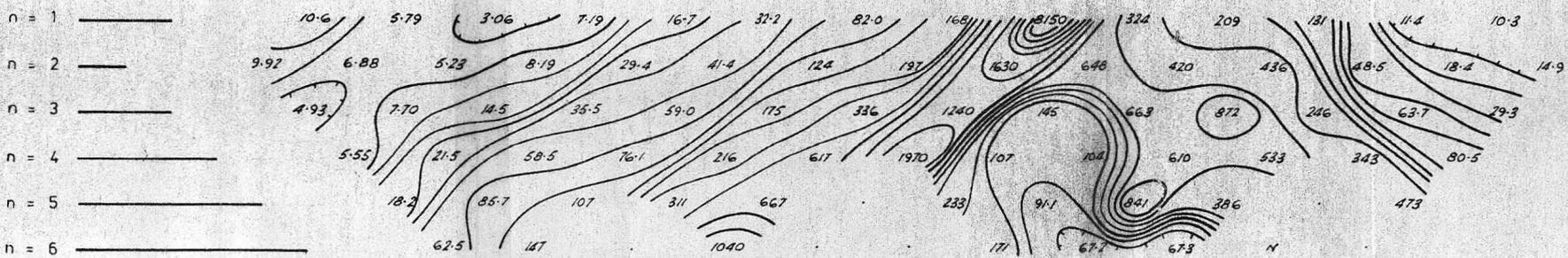
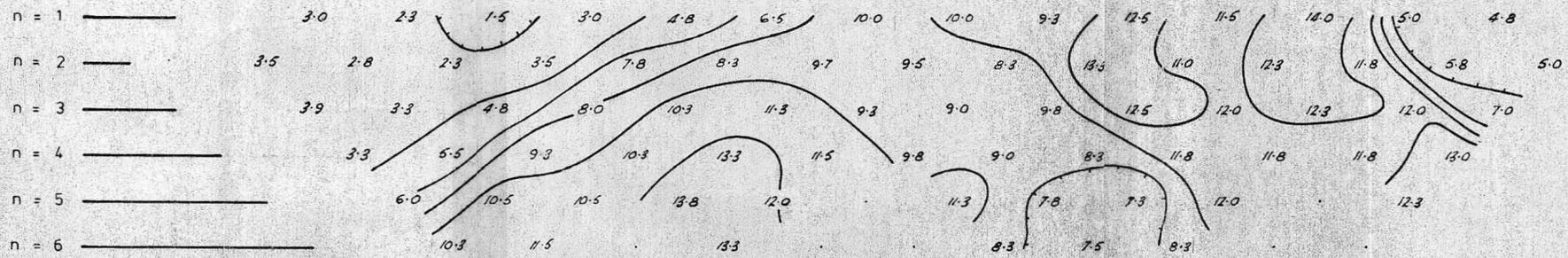


RESISTIVITY AND
INDUCED POLARISATION SURVEY

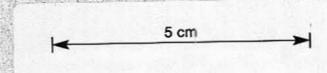
MACKINTOSH #8 PROSPECT
TASMANIA

TRAVERSE: 7450 N

a = 25 METRES
FREQUENCIES 2.5 - 0.3 Hz
SURVEYED: 28 AUG. 1974



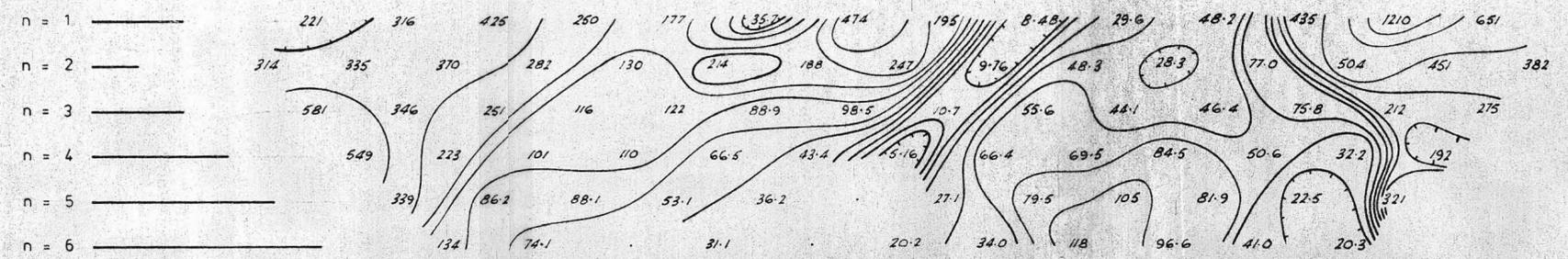
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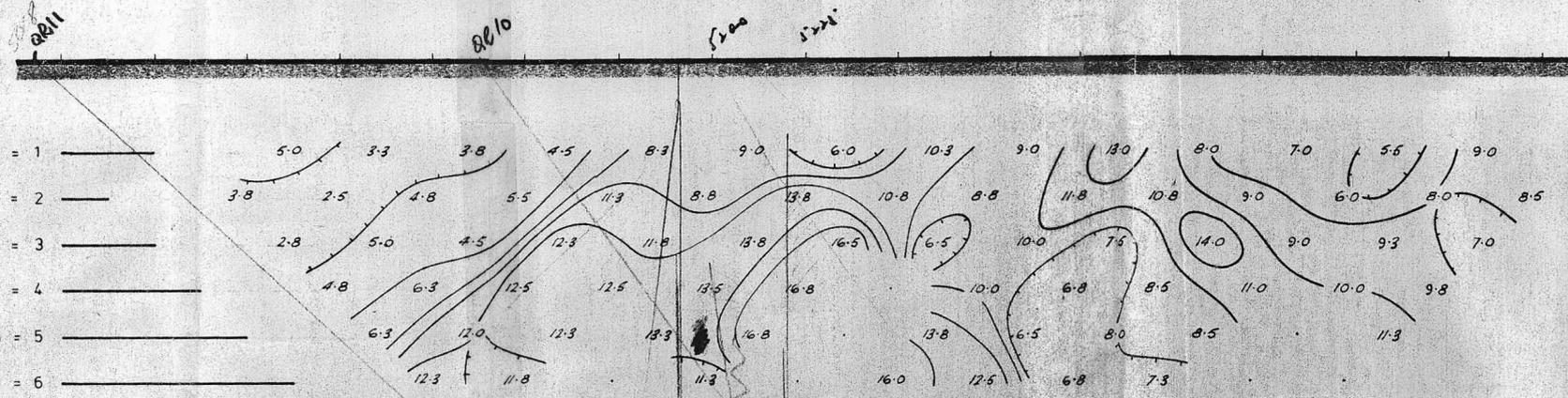
by
GEOQUEST PTY LIMITED

012

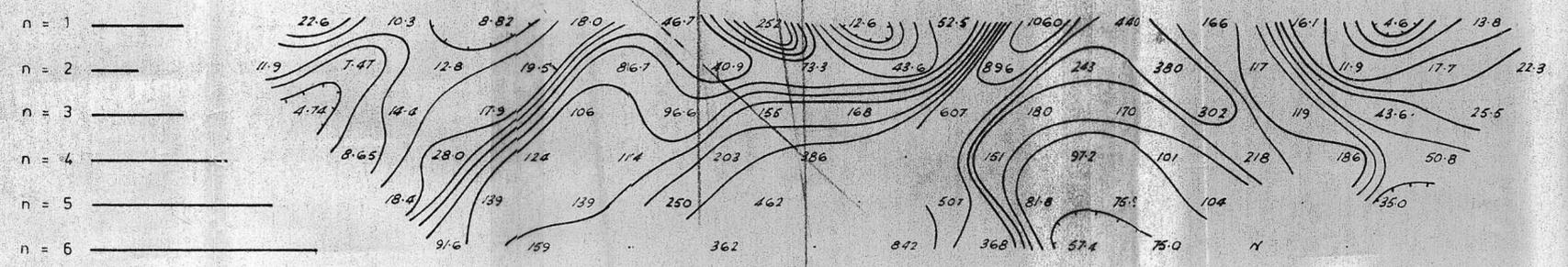
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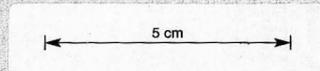
APPARENT RESISTIVITY
OHM METRES
LOGARITHMIC CONTOURING



PERCENTAGE FREQUENCY EFFECT
LINEAR CONTOURING



METALLIC CONDUCTION FACTOR
LOGARITHMIC CONTOURING



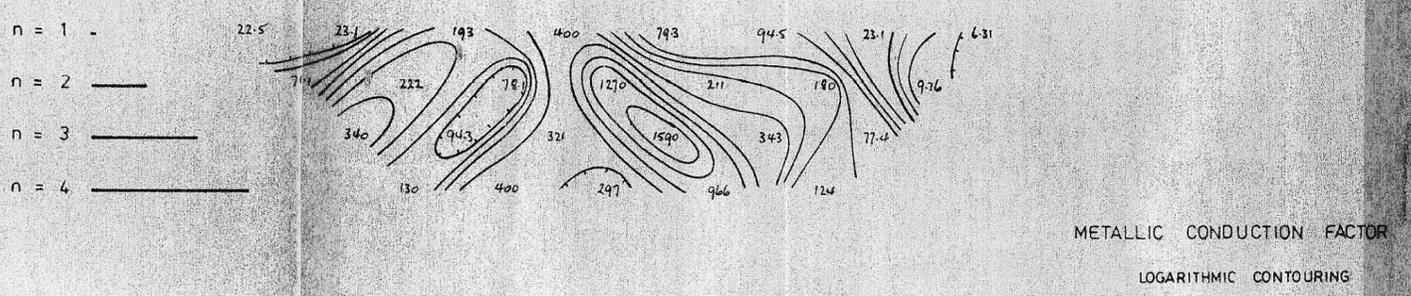
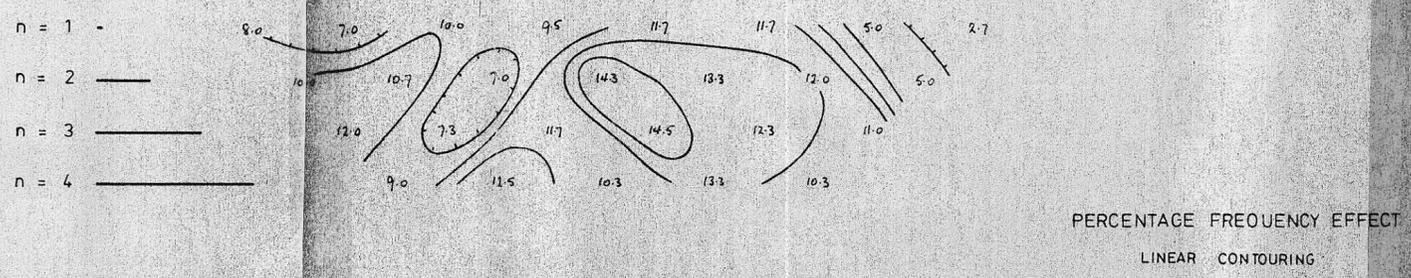
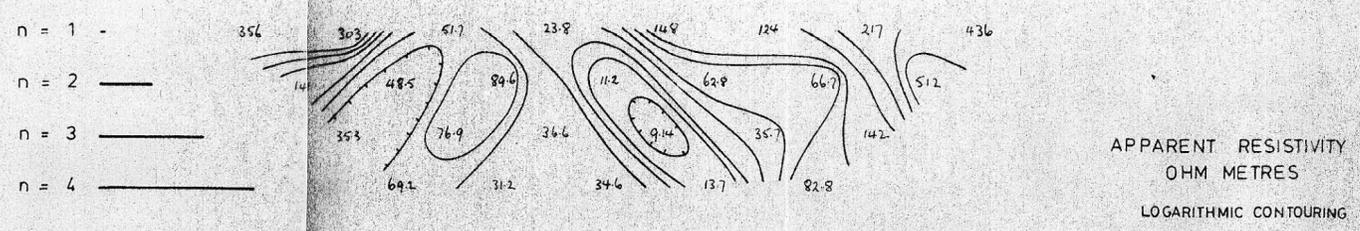
by
GEOQUEST PTY LIMITED

RESISTIVITY AND
INDUCED POLARISATION SURVEY
MACKINTOSH #8 PROSPECT
TASMANIA

TRAVERSE: 7500 N

a = 25 METRES
FREQUENCIES 2.5 - 0.3 Hz
SURVEYED: 28 AUG 1974

5000 E 5050 E 5100 E 5150 E 5200 E 5250 E 5300 E 5350 E 5400 E 5450 E 5500 E

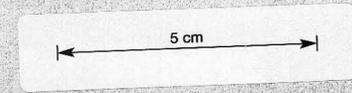


RESISTIVITY AND INDUCED POLARISATION SURVEY

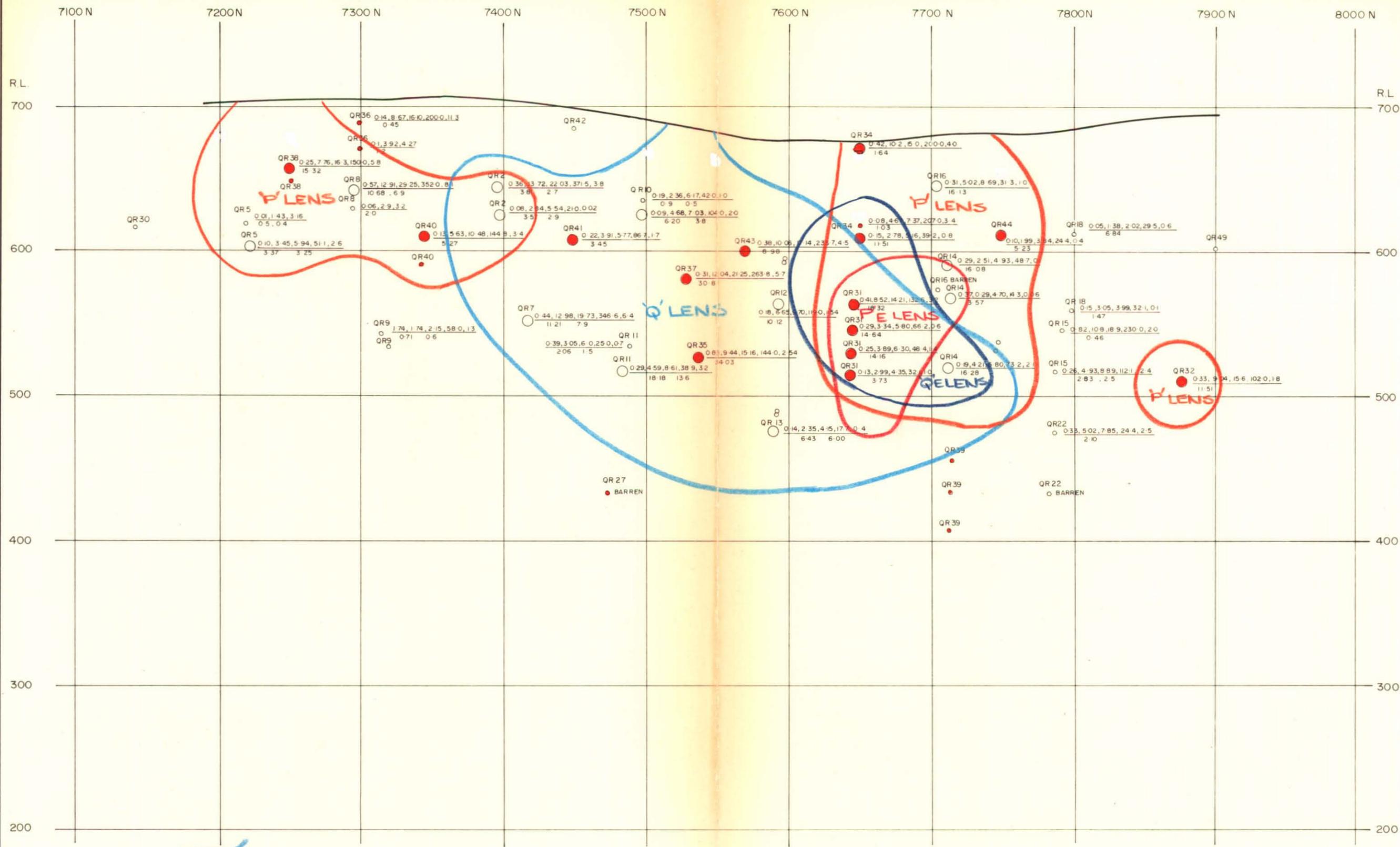
MACKINTOSH #8 PROSPECT TASMANIA

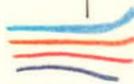
TRAVERSE: 7500 N

a = 50 METRES
 FREQUENCIES 2.5 - 0.3 Hz
 SURVEYED: 28 AUG 1974



by GEOQUEST PTY LIMITED



 **Ore outlines**

○ Ore intersection

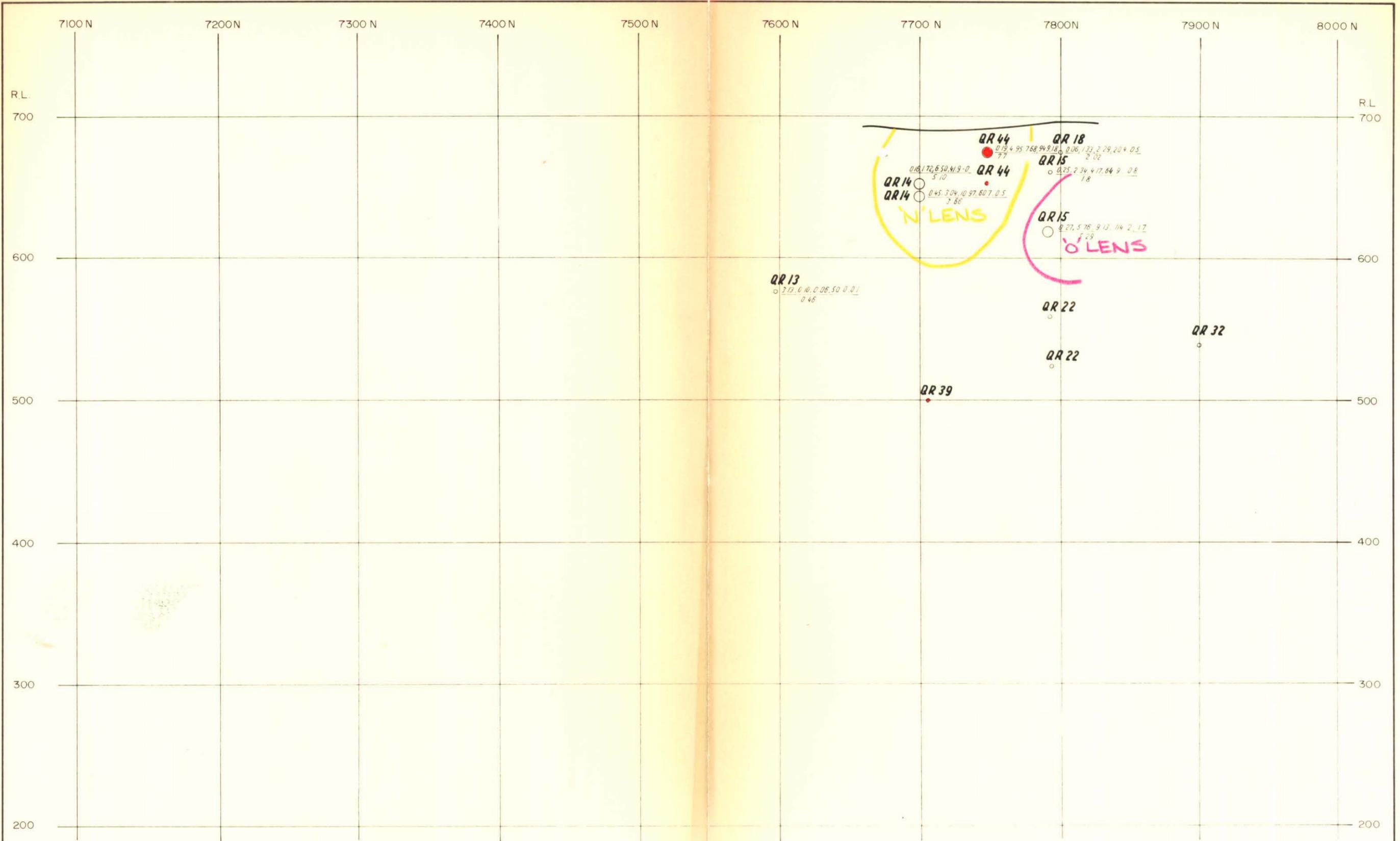
◦ Sub-ore intersection

●● Intersections completed March 5th to June 30th



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COMINCO EXPLORATION PTY. LTD.		
Drawn: L.V.G.	NORTH WEST TASMANIA MACKINTOSH WEST E.L.2/70 QUE RIVER PROSPECT LONG PROJECTION P AND Q LENS	Location code:
Traced: R.J.E.		Scale: 1:2,500
Checked:		Date: 25, JUNE, 1975
Revised: _____ Date: _____		Plate N°: QRTBa

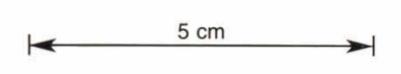


Ore outline

Ore intersection

Sub-ore intersection

Intersections completed March 5th to June 30th



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COMINCO EXPLORATION PTY. LTD.		
Drawn: LVG	NORTH WEST TASMANIA MACKINTOSH WEST E.L.2/70 QUE RIVER PROSPECT LONG PROJECTION N AND O LENS	Location code
Traced: ED		Scale: 1:2,500
Checked:		Date: 25 JUNE 1975
Revised: _____ Date: _____		Plate N° QR78c



ML 2m/75

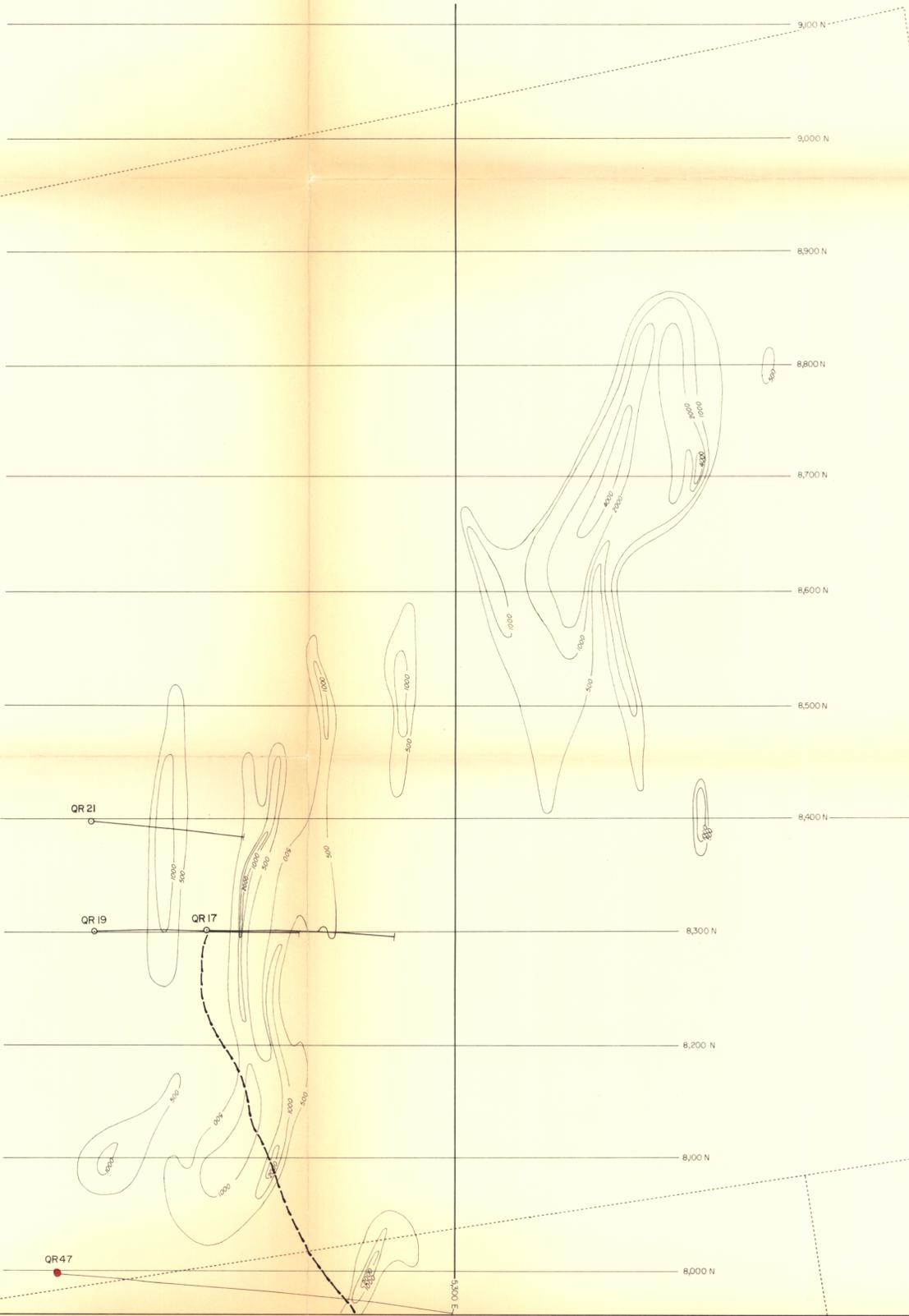
ML 4m/75

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- Extent of road construction (at 30.6.75)
- Grid lines cut with 10 metre spacing 'C' horizon soil geochemistry
- Lead contours - contour interval 500, 1000, 2000 ppm
- Diamond drill hole with surface projection
- Holes completed March 5th to June 30th

5 cm

Location code	K55/6/14	Scale	1:2500	Date	February 1975	Page	QR 58A
Drawn by	RKY	COMINCO EXPLORATION PTY LTD NORTH WEST TASMANIA MACKINTOSH WEST EL 2/70 QUE RIVER PROSPECT SUMMARY PLAN SHEET 1					
Checked by							
Titled by							
Traced by							
74-1058							



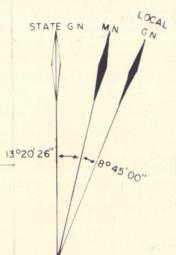
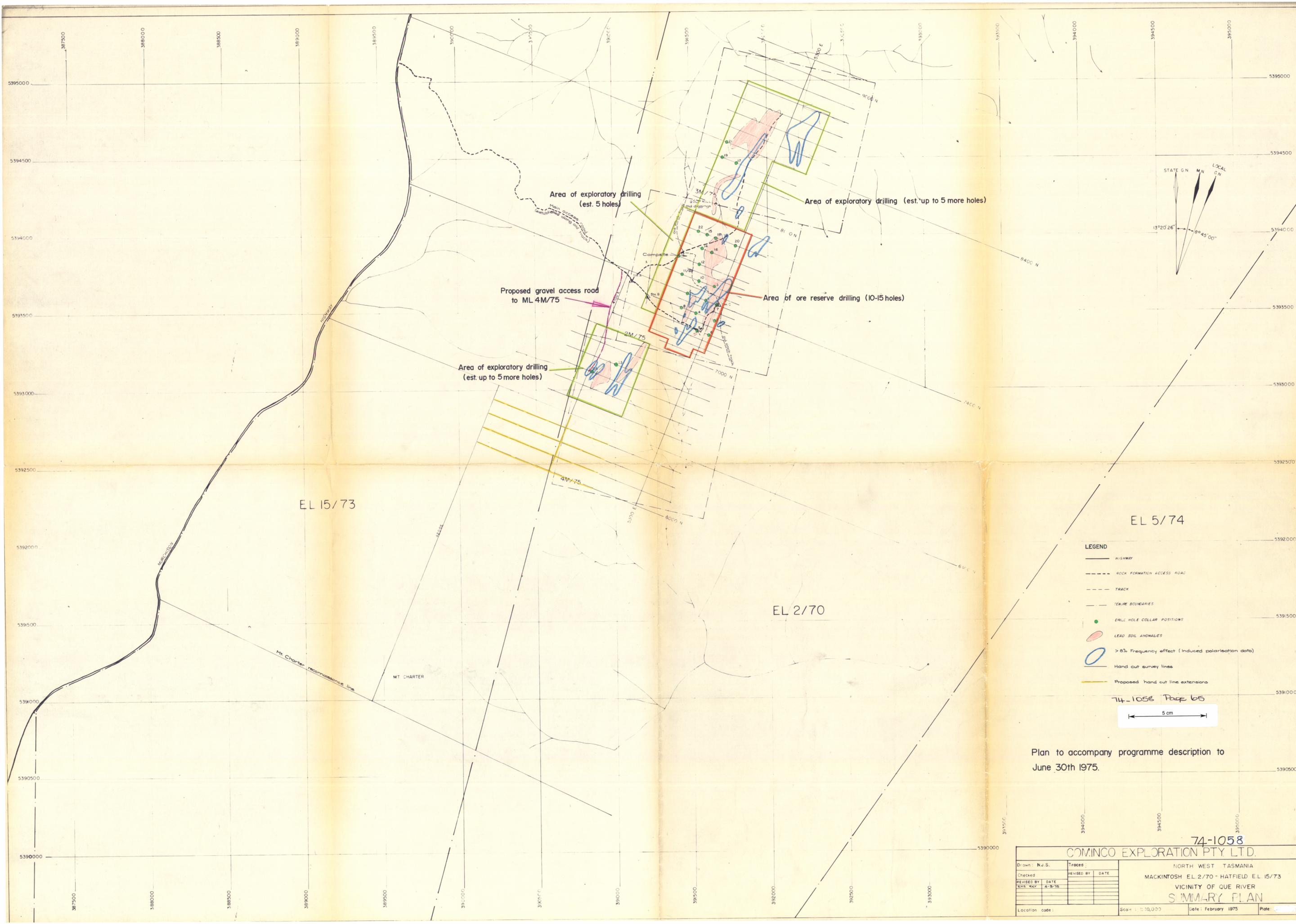
ML 3m/75

74-1058
Page 6/4



Location code	K 55/6/44	Scale	1:2500	Date	February 1975	Page	QR 58b
Drawn by		Traced by		COMINCO EXPLORATION PTY. LTD. NORTH WEST TASMANIA MACKINTOSH WEST E.L. 2/70 QUE RIVER PROSPECT SUMMARY PLAN SHEET 2			
Checked by							

74-1058



LEGEND

- HIGHWAY
- - - ROCK FORMATION ACCESS ROAD
- - - TRACK
- - - TENURE BOUNDARIES
- DRILL HOLE COLLAR POSITIONS
- LEAD SOIL ANOMALIES
- > 8% Frequency effect (induced polarisation data)
- Hand cut survey lines
- Proposed hand cut line extensions

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5 cm

Plan to accompany programme description to June 30th 1975.

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COMINCO EXPLORATION PTY LTD.

NORTH WEST TASMANIA
MACKINTOSH EL 2/70 - HATFIELD EL 15/73
VICINITY OF QUE RIVER
SUMMARY PLAN

Drawn: Nu.S.	Traced:	Checked:	REVISOR BY DATE
REVISOR BY DATE	REVISOR BY DATE	REVISOR BY DATE	REVISOR BY DATE
REVISOR BY DATE	REVISOR BY DATE	REVISOR BY DATE	REVISOR BY DATE
REVISOR BY DATE	REVISOR BY DATE	REVISOR BY DATE	REVISOR BY DATE

Location code: Scale: 1:10,000 Date: February 1975 Plate: