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DEPT. OF MINES
REF. No. 6087/84

PROJECT NAME: COMSTAFF PROPRIETARY LIMITED

TITLE: INTERIM REPORT ON THE WEST RAMSAY GRIDS
CAI, CAM, L30, L80, L211, L250 AND CKC
EL 5/63 AREA 2: MAY 1984

VOLUME 1 OF 3

AREA NAME/S, STATE 1:250,000 SHEET NO/S & COORDINATES: BURNIE SHEET SK 55/3
Metric Co-ordinates 371877mE 5392204mN
372905mE 5390144mN

COMMODITY/IES: Sn

TEXT PAGES NO: 9

PLAN NOS: See list of plans

TABLE NOS: nil

APPENDICES: 8

AUTHOR/S: J A Levings

DATE: 26/05/1984

OPEN FILE

AUSTRALIAN ANGLO AMERICAN LIMITED

Incorporated in the State of Victoria

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L I S T O F O T H E R D O C U M E N T S

Detailed Drill Logs for holes CAI 1, CAI 2 and CAM 1

Detailed Profiles for Ramsay Aeromagnetic Survey

COMSTAFF PROPRIETARY LIMITED

INTERIM REPORT ON THE WEST RAMSAY GRIDS

CAI, CAM, L30, L80, L211, L250 AND CKC

EL 5/63 AREA 2 MAY 1984

1. INTRODUCTION

This report ties together work done and results received from the West Ramsay area of the Northern Tin Search between January 1983 and May 1984 (TAS/2/1586, 1799). The work involved drilling and geological investigations at CAI and CAM; soil geochemical surveys at CAI, CKC, L30, L80, L211 and L250; ground magnetics and GENIE EM surveys at L30, L80, L211 and L250.

2. PREVIOUS WORK

Accounts of earlier work at CAI and CAM are to be found in two reports by Green (1982,1983). The recommendations made in these reports formed the basis of the 1983/1984 work programme reported here. Green also provided a comprehensive statement on the regional geological setting of West Ramsay which need not be reiterated (TAS/2/3062, 3064).

3. GRID CAI

3.1 Drilling

During January 1984 two holes, CAI 1 and CAI 2 were drilled by Overland Drilling Co. employing a Bombadier mounted Warman Scout, which has both percussion and diamond drilling capabilities. Descriptions of the holes are presented below:

Drillhole CAI 1 (Drill log: Appendix 1) (TAS/2/2878, 2837, 3827)

CAI 1 was designed to test the source of a 480 metre long Pulse-Electromagnetic response. On the section selected for drilling, the PEM effect is strong, dips steeply east and lies 50 metres below the surface. The conductor axis is coincident with a lead soil anomaly on four grid lines (TAS/2/2878, 2837).

The drillhole intersected two zones of moderate to strong pyrrhotite and weak chalcopyrite mineralisation. The sulphides mainly replace calcareous pelites, impure limestones and calcite veins.

Two strong fault zones are evident. Other lithologies are typical of the Crimson Creek Formation; shales, siltstones and basic tuffaceous sandstones. The bedding dips (and probably faces) steeply west (TAS/2/3827).

No economic tin nor base metal mineralisation accompanies the pyrrhotite.

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Calc-silicate alteration of the host rocks is common. Actinolite, quartz, calcite and pyrrhotite are conspicuous in the altered assemblage but a detailed petrological investigation of the rocks has not been attempted.

Drillhole CAI 2 (Drill log: Appendix 2)(TAS/2/2837, 3827)

DDH CAI 2 was designed to test for tin mineralisation on section 5240N of the CAI Grid. The surface expression of the target is a distinct, linear topographic depression and a moderately strong Sn-As soil geochemical anomaly (peak Sn = 140 ppm: As = 270 ppm) (TAS/2/2837). Hydrothermally altered basic rocks occur as float over the target zone and assay up to 158 ppm Sn and 500 ppm As. Pyrrhotite is observed in some specimens. A polymict breccia with an intensely manganiferous matrix lies within the topographic depression on line 5480N. Although this breccia is not strongly mineralised, it represents a potential strike expression of mineralisation. The tin-arsenic target anomaly is surrounded by a broad zone of enhanced tin and arsenic background values.

The hole intersected disseminated and vein replacement style pyrrhotite and minor chalcopyrite mineralisation (TAS/2/3827). The host rocks are variably altered calc-pelites and marls. The mineralised zone is bounded by two large faults. Enhanced tin (up to 66ppm) and arsenic (up to 580 ppm) values were obtained throughout the hole but there is no correlation with the intensity of sulphide mineralisation.

3.2 Geology (TAS/2/2442)

Prior to drilling, geological mapping was carried out on grid lines CAI 5240N and CAI 5480N and along South Huskisson Road between line CKC 5300N and CAI 5240N. Other lines had been mapped previously.

Outcrop is poor on the grid lines and most geological information must be otained from weathered float. Exposures along the roads are comparatively good.

On CAI 5480 from 4740 to 5000E, the dominant rocktypes are tuffaceous sandstones, shale and siltstone. Hornfelsing sporadically occurs. At 4840E in an unusual topographical depression are blocks of 'gossanous' manganese-limonite breccia. From 5000E to 5340E, basalts and dolerites are the major lithotypes.

On CAI 5240N from 4860E to 5100E, shales, siltstones and basic tuffaceous sandstones are dominant. Some specimens appear hydrothermally altered although it is not always clear due to the effects of weathering. The most intensely altered rocks are again to be found near a topographic depression at 4840E. From 5100E to 5340E the dark coloured soil indicates probable mafic bedrock lithologies.

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South Huskisson Road exposes a sequence of sandstones, siltstones, basic tuffaceous sandstones and very minor basalts. Only rarely is hornfelsing observed.

Two samples of 'gossanous' rock were sent for petrological description. The report can be found in Appendix 3.

3.3 Geochemistry

Soil

Grid lines CAI 5480N, CAI 5240N and a section of the South Huskisson Road between line CKC 5300N and CAI 5240N were soil sampled using a hand auger. The samples were taken of the C soil horizon and the minus 80 mesh fraction was analysed for Cu, Pb, Zn, Ag, Ni, Mo, As, Sn and W. Other lines had been sampled in 1982.

The sampling had two main objectives. Firstly the resampling of CAI 5240N was to corroborate the Pb and Sn-As anomalies already located in 1982. Secondly the samples taken from line 5480 and South Huskisson Road were to close off or extend the Sn-As anomaly. Both objectives were achieved as the Pb and Sn-As anomalies were confirmed on CAI 5240N and no anomalies were detected on CAI 5480N or South Huskisson Road.

Rock

In conjunction with geological mapping, 35 rock chip samples of float and outcrop were collected for Cu, Pb, Zn, Ag, Ni, As, Mo, Sn and W analysis.

The results are fully tabulated in Appendix 4.

Anomalous tin and arsenic values are obtained from hydrothermally altered rocks on line CAI 5240N. The location of these rocks equates with the Sn-As soil anomaly.

Down-hole

All drillcore was sampled and analysed for Cu, Pb, Zn, Ag, Ni, As, Sn and W. Percussion samples were also analysed.

Contamination from the tungsten carbide matrix of the diamond core grinding wheel produced elevated W values (10-106 ppm) when compared with the percussion samples (all <10 ppm). Accordingly, the pattern of W data on core samples must be disregarded.

Down-hole Sn and W results correlate well with the surface soil anomaly and the values are comparable in amplitude. There appears to be no down-hole equivalent to the surface Pb anomaly.

3.4 Geophysics

Core conductivity measurements were made on CAI 1 and CAI 2 drill core. Readings were taken at a nominal one metre interval. Two main conductors were defined in CAI 1. Conductor #1, from 60-66m, has an average conductivity of 285 mhos/m. Conductor #2, from 111-122m, has an average conductivity of 261 mhos/m (TAS/2/3827).

The two conductors adequately explain the ground PEM anomaly. They are too closely spaced to be resolved into two separate bodies by PEM but their combination has the effect of producing an anomaly shape suggestive of a single conductor dipping to the east. In fact, both conductors dip to the west.

3.5 Discussion

The recent phase of work at CAI which culminated in the drilling of holes CAI 1 and CAI 2 has not located any economic mineralisation. However the drillholes did intersect massive to semi-massive replacement style pyrrhotite (+ chalcopyrite) mineralisation within carbonate beds.

It is clear that CAI is in a favourable geological setting for the development of Sn mineralisation. The main features of this setting are -

a) It is near but not too near the Meredith Granite.

b) Carbonate (calc-pelites) occur within the sequence.

c) Major faults occur.

d) Weak Sn-As mineralisation and hydrothermal alteration is known to be associated with the faults.

e) Pyrrhotite replacement style mineralisation occurs.

f) There are mafic units within the sequence.

There is a potential source (the granite), a plumbing system (the faults), receptive host rocks (the calc-pelites) and evidence of mineralisation (massive pyrrhotite and weak Sn-As unassociated with the pyrrhotite.)

Although most of the elements needed to make an ore deposit are present at CAI there is no guarantee that one exists. At CAI it appears that the hydrothermal system was not well developed. The geochemistry certainly suggests that the tin bearing phase was weak and therefore the chance of an economic accumulation of mineralisation is ranked low.

Geologically, CAI has strong similarities to the Cleveland setting and at best one could hope for another Cleveland type deposit at depth.

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3.6 Recommendations

On consideration of all data, it is concluded that economic mineralisation at CAI is unlikely and therefore no further work is recommended. It must be noted that parallels can be drawn between the geological setting of CAI and that of the Cleveland deposit. It appears that CAI may represent a "failed" Cleveland type system. It is not possible to conclusively discount the possibility of better mineralisation at depth.

4. GRID CAM

4.1 Drilling - Drillhole CAM 1 (Drill log: Appendix 5) (TAS/2/2451, 2434, 3833)

The drillhole was designed to test a PEM anomaly on section CAM 5120. A weak to moderate As/Cu/Pb anomaly is roughly coincident with the EM response.

A sequence typical of the Crimson Creek Formation is intersected in CAM 1, i.e. tuffaceous sandstone, black shales and siltstone. A rather unusual banded pelitic hornfels was recovered from two horizons.

Pyrrhotite (+ pyrite and chalcopyrite) veinlets are commonly associated with the black shales and the banded pelitic hornfels.

Four main conductors are identified and correspond to the zones of pyrrhotite mineralisation:

Conductor No	Interval	Conductivity
#1	45 - 47m	101 mhos/m
#2	91 -103m	130 mhos/m
#3	116 -123m	115 mhos/m
#4	131 -140m	45 mhos/m

No economic concentration of metals occurs.

Alteration is mainly contact hornfelsing due to the nearby Meredith granite. The hornfelsing also has the effect of altering the original pyrite in the black shales to pyrrhotite and redistributing it into veinlets and bedding planes.

4.2 Geology

A suite of rock samples collected from Crankshaft Road (the drill access track) were thin sectioned and petrologically described by Fander of Central Mineralogical Services. The petrological report is located in Appendix 6. The sulphide bearing rocks are described as metasomatised and hornfelsed pelitic and psammo-pelitic sediments. No carbonates are described.

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4.3 Geochemistry

Rock

Twenty two rock chip samples from Crankshaft Road and the CAM drillpad were analysed for Cu, Pb, Zn, Ag, Bi, As, Ni, Co, Sb, Au, Sn and W. The results are tabulated in Appendix 7. The anomalous copper values (to 690 ppm) are explained by the minor chalcopyrite mineralisation observed in the pyrrhotite bearing samples. The high back ground Sn values (to 65 ppm) are attributed to weak silicate phase metasomatism from the nearby Meredith granite. All other elements are not anomalous.

Downhole

Ground core samples from drillhole CAM 1 were analysed for Cu, Pb, Zn, Ag, Ni, As, Sn and W. Assays were all within background levels for these elements. Contamination from the core grinding wheel resulted in falsely anomalous W values.

4.4 Geophysics

Core conductivity readings were made on CAM 1 drillcore at one metre intervals. The four conductive zones from the drillhole reconcile well with the surface PEM response. As with CAI, the PEM was unable to resolve the closely spaced conductors but instead produced a broad response.

4.5 Discussion

The EM and geochemical anomalies at CAM are now adequately explained by data acquired from drillhole CAM 1 and from exposures along Crankshaft Road. The copper soil anomaly is due to weak chalcopyrite mineralisation associated with pyrrhotite in metasediments. The broad PEM anomaly is well explained by closely spaced, sub parallel beds of conductive pyrrhotite bearing black shales and banded pelitic hornfels.

4.6 Recommendations

Interpretation of the geological, geophysical and geochemical data at CAM does not suggest the presence of economic mineralisation.

No additional work is recommended.

5. AEROMAGNETIC FOLLOW-UP GRIDS: L30, L80, L211 and L250.

5.1 General

In 1982 Geoex carried out a detailed airborne magnetic survey over the entire Ramsay area. Five discrete anomalies were selected for further examination. The most easterly anomaly was considered by Comstaff to be too far from a suitable geologic environment for tin mineralisation. Therefore no work was done on this target.

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In early 1983 a grid consisting of three lines spaced 100m apart was placed over each of the above mentioned anomalies. All lines were traversed with a proton magnetometer and the GENIE EM system. A coil spacing of 100m and a station interval of 20m was used for the latter. The line number of the airborne anomaly was used as the grid name for each of the four ground follow up grids. Appendix 8 carries the full geophysical report.

Auger soil sampling was carried out over the four grids. Samples were analysed for Cu, Pb, Zn, Ag, Ni, As, Sn and W.

5.2 Grid L 30

The ground magnetics is in agreement with the aeromagnetics.

No GENIE EM response occurs on the grid.

A single point tin anomaly of 70 ppm is located on line 4900N at 5220E. It is associated with a narrow, linear Pb, Zn, Ni, As anomaly appearing on all three lines and trending in a NNW direction. There is a possible weak magnetic response correlating with the above base metal anomaly.

No detailed geological mapping has been carried out. On a regional scale, the grid stradles the Cambrian-pre Cambrian contact and an area of Quaternary alluvium occurs near the centre of the grid.

The origin of the 70 ppm tin soil anomaly needs to be substantiated by geological field investigations. If no encouragement is obtained then the area would be of no further interest: this check work has been deferred because of other priorities.

5.3 Grid L 80 (TAS/2/3500-3507)

The ground magnetic data from Grid L 80 has little resemblance to the aeromagnetic data, therefore there is some doubt as to whether the grid is correctly located.

A GENIE EM anomaly occurs on each line of the grid. The conductivity of the source is interpreted to be quite low.

A prominent but low tenor tin anomaly occurs on the western portion of all three lines. It is in no way related to the EM conductor or any significant magnetic disturbance. The tin anomaly does not correlate with trends or anomalies in any of the other elements within the analytical suite. There also appears to be no correlation between the geochemistry and the EM reponse.

No detailed geological traverses have been carried out at Grid L80. Regionally, the grid traverses the Ordovician/Cambrian contact and the western parts of the lines overlie Quaternary alluvium.

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It is considered probable that the low conductivity GENIE EM anomaly is caused by a shear zone or surficial effects and the Sn anomaly is high background attributable to recent alluvium. No additional work is recommended.

5.4 Grid L 211

The ground magnetic data are in agreement with the aeromagnetic data.

No GENIE EM anomalies occur within the grid.

No geochemical anomalies occur.

The regional geology indicates that the L211 grid falls wholly within the Crimson Creek Formation.

No further work is recommended.

5.5 Grid L250 (TAS/2/3474-3481)

The ground magnetic data from L250 are in agreement with the aeromagnetics.

There is a weak GENIE EM response at 4900N 5000E.

A low order tin anomaly occurs on the westernmost portions of all three lines. The peak value for tin is 75 ppm. There is a moderate spatial correlation between tin, arsenic and lead. The EM response is not associated with any anomalous geochemical trends.

No detailed geological mapping has been carried out over Grid L250. The regional geological map shows the grid straddling the contact between the Crimson Creek Formation and the Meredith Granite.

The weakly anomalous geochemistry is attributable to the Meredith granite and the EM anomaly is likely due to surficial effects. No further work is recommended.

6. GRID CKC

The CKC grid consists of three, 350 metre spaced lines situated to the east and north of the CAI grid. The grid was cut to test, through the use of soil geochemistry, the potentially favourable Cambrian-Precambrian contact. A tin stream sediment anomaly also originates from areas covered by CKC.

Soil samples were collected from the lines at 20m intervals and were analysed for Cu, Pb, Zn, Ag, Ni, As, Sn and W. The results were statistically analysed to assist in the selection of contouring thresholds.

Of the 220 soil samples, only three were anomalous in tin (>=15 ppm). They were all single point anomalies and do not form any recognisable pattern.

The nickel and copper values fall distinctly into two lognormal populations. The higher population corresponds to the Cambrian, mafic rich sequence and the lower population reflects the sandstone-siltstone beds of the Ramsay Group. No geochemical anomalies of economic potential occur and no follow-up work is recommended.

7. SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS

Little encouragement results from the recent work on tin targets at West Ramsay. The most promising system is at CAI where there are geological parallels with the Cleveland deposit although no near surface mineralisation is likely. The approach at CAI to explore for a buried deposit would be to probe the fault/carbonate system at considerable depth. The extremely tenuous nature of this "deep" target gives it a low priority and no work is recommended for CAI at this stage.

Drilling at CAM has indicated that little potential exists for economic mineralisation and no further work is recommended.

Geochemical and geophysical data from L30, L80, L211, L250 and CKC indicate that the potential for mineralisation of economic scale is minimal for these grids. No further work is recommended, except for L30 where a geological examination of a tin response is warranted.

8. REFERENCES

GREEN, N.P., Stage Report on the Ramsay Grids CAI and CAG in EL 5/63 Part 2: Unpublished report, Comstaff Pty. Ltd. 1982.

GREEN, N.P., Interim Report on Ramsay Grid CAM, EL 5/63 Part 2: Unpublished report, Comstaff Pty. Ltd. 1983

for J A LEVINGS
MAY 1984.

APPENDIX 1

016

DRILLHOLE LOG

Summary Sheet

398017

PROJECT West Ramsay CAI	AREA EL 5/63 Area 2	DRILLHOLE TYPE Hammer/Diamond
CO-ORDS Approx 371965/5392447	DEC^{LN} −45° AZIMUTH 258° MAG RL	Approx 353m DH No. CAI 1
DATE COMMENCED 5/1/84	DATE COMPLETED 13/1/84	DRILLED BY Overland DRILL RIG Scout
Non Coring to: 20m	HQ Core to:	NQ Core to: BQ Core to: EOH 149.50

SURVEY DATA

Instrument:

DEPTH	DECLINATION Uncorr	DECLINATION Corr	AZIMUTH	DEPTH	DECLINATION Uncorr	DECLINATION Corr	AZIMUTH
134.5		45.5	262				

LOG SUMMARY

	ROCK TYPE	MINERALIZATION Style	Grade	Intersection width (Corr)
0-20	Percussion: Basic Lithologies	1% disseminated Py± Po		
20-54	Basic tuffaceous sandstones and siltstones: 10 cm Aplite dyke at 36.2	Aplite 10% Py, 5% Cp, tr Sp 43.9m 2cm Syngenetic Py band	50% Py / 2cm	
54-58.4	Fault Zone			
58.4-76.5	Altered Pelitic Sediments Calc pelites, shales, metasomatised Semi massive mineralised zones Conductor #1 60-66m	63.2-63.8 Semi Massive Po+Cp replacement style 71.3: .3m Py replacement Average over Zone: 5% Py	50%/.6m 40%/.3m	
76.5-79.2	Fault Zone: oxidised			
79.2-98.2	Tuffaceous Sandstones and minor siltstones, patchy low temp calc-sil metamorphism	minor Po	1-3%	
98.2-120.5	Calc Pelites, well bedded with common single bands Conductor #2 111-122m	trace Po increasing down hole, dissem. and vein	up to 4%	
120.5-123.8	Dark shales with minor calc pelite bands and clasts	Abundant Po. 122-123.4 10-20% Po replacement	up to 20%	
123.8-149.5	Dark siltstones, shales and minor tuffaceous sandstone weak alteration EOH	1% Po average	1%	

APPENDIX 2

018

AUSTRALIAN ANGLO AMERICAN [illegible]

DRILLHOLE LOG

Summary Sheet

398019

Page 1 of

PROJECT WEST RAMSAY, CAI AREA EL 5/63 AREA 2 DRILLHOLE TYPE Diamond

CO-ORDS E 371833.1 N 392455.3 DEC LN -44 AZIMUTH 258 RL 355.5 DH No. CAI 2.

DATE COMMENCED 14/1/84 DATE COMPLETED 19/1/84 DRILLED BY Overland DRILL RIG Scout.

Non Coring to: 6m HQ Core to: 18.5m NQ Core to: 116.0m BQ Core to: EOH 116.0m

SURVEY DATA

Instrument:

DEPTH	DECLINATION Uncorr	DECLINATION Corr	AZIMUTH	DEPTH	DECLINATION Uncorr	DECLINATION Corr	AZIMUTH
107m		-47.5	255				

LOG SUMMARY

ROCK TYPE	MINERALIZATION Style	Grade	Intersection width (Corr)
0-30.4 Basaltic Tuffaceous Sandstones and siltstones, variably weathered			
30.4-47.0 Interbedded calc pelites + argillites, mod. alteration			
47.0-72.3 Fault Zone: oxidised fault breccia			
72.3-109.0 Calc Pelites / Marls; variably altered + pyritic bearing, porcellanitic.	Replacement of Calc. beds and veinlets. Main po zones 72.5-77.0m and 87.0-89.0m.	No significant Tin values: peak 62 ppm Sn 920 ppm As	
109.0-116m Fault Zone: oxidised, EOH clay filled.			

APPENDIX 3

REPORT CMS 84/1/8

Twenty-one rock and drill core samples, in four groups, were received for petrological examination. Representative thin-sections were prepared and examined microscopically together with their respective offcuts. Individual groups exhibit a limited range of features and thus brief petrological descriptions were prepared in tabulated form. These incorporate the microscopic data, supplemented by results of staining tests, where warranted, and include interpretative comments.

Group 1 CAI Limonitic Rocks

These two rocks may be classified as ferruginised sediments. Limonite appears essentially entirely secondary in origin, with no strictly gossanous features or clearly sulphide-derived textures. Primary lithologies are low-grade regional metapelites, with intercalated impure limestone reflected in 2886Z.

021

CENTRAL MINERALOGICAL SERVICES

Sample No.	Classification - Composition	Fabric	Accessories	Comments
Group 1				
2885Z (T.S. 48589)	Ferruginised Pelite. Microcrystalline quartz and variably ferruginised semi-sericitic mica with fracture-related zones of semi- to near-massive secondary limonite. Minor clots, films of vein-type stressed quartz.	Relict laminate (shale-parted) pelitic. Weakly sheared and subsequently fractured to brecciated.	Minor ill-defined limonite pseudomorphs after fine-grained carbonate.	Weathered/extensively ferruginised ?dolomitic pelite. Reflects incipient (low-greenschist facies) regional metamorphism; subsequent fracturing. No definite sulphide-derived features.
2886Z	Ferruginised ?Impure Limestone. Featureless limonite with sporadic lenses, bands of ferruginised pelite (slate), exotic colloform-banded limonite and ferruginised fine-grained carbonate rock.	Banded on a sub- to millimetric scale, with lenticular leached cavernous zones (after ?carbonate).	Spongy films of secondary cherty microcrystalline quartz.	Thoroughly ferruginised low-grade metasediment with affinities to 2885Z. General features consistent with a "calc-pelite" or shale-parted impure limestone.

22086

APPENDIX 4

GRID CAI LITHOGEOCHEMICAL ANALYSES

Name	Basalt	Siltstone	Breccia	Mn Wad	Gossan	Basalt[2]	Hornfels	Sandston
Sample No	2828Z	2829Z	2830Z	3831Z	2832Z	2833Z	2834Z	2835Z
North	5480	5840	5840	5840	5840	5840	5840	5840
East	4740	4800	4840	4840	4840	5840	4875	4875
Type	Float	Float	Float	Float	Float	Float	Float	Float
Cu[1]	110	105	225	155	190	50	15	110
Pb[1]	10	10	85	55	70	10	5	5
Zn[1]	120	185	255	120	195	45	30	250
Ag[1]	x	x	x	x	x	x	x	x
Ni[1]	100	160	170	100	20	90	50	190
As[1]	3	4	11	18	12	20	20	12
Mo[1]	2.0	2.0	2.0	2.0	1.0	2.5	2.5	x
Sn[1]	x	x	x	x	3	19	4	7
W[1]	x	x	x	7	9	x	5	9
Au[1]	-	-	-	-	-	-	-	-

1 All values in ppm
2 Altered, pyrrhotite bearing (3%)
x = below level of detection
- = not analysed

GRID CAI LITHOGEOCHEMICAL ANALYSES (CONT.)

Name	Sandst	Shale	Siltst	Baslt	Dolerte	Breccia[2]	Siltst	Basalt
Sample No	2836Z	2837Z	2838Z	3839Z	2840Z	2841Z	2842Z	2843Z
North	5480	5840	5840	5840	5840	5840	5840	5840
East	4920	4920	4960	4990	5010	5105	5190	5262
Type	Float	Float	Float	Float	O/C[1]	Float	Float	Float
Cu[1]	15	90	135	15	25	75	15	200
Pb[1]	x	15	5	15	60	105	5	10
Zn[1]	40	240	300	95	125	485	155	60
Ag[1]	x	x	x	x	x	x	x	x
Ni[1]	70	215	120	45	35	45	80	55
As[1]	23	4	6	5	10	8	2	5
Mo[1]	1.5	1.0	1.5	x	2.0	x	x	x
Sn[1]	x	x	x	x	6	x	x	x
W[1]	3	8	x	3	12	7	x	8
Au[1]	-	-	-	-	-	-	-	-

1 O/C = outcrop
2 Float from large creek

GRID CAI LITHOGEOCHEMICAL ANALYSES (CONT)

Name	Basalt	Sandstone	Siltstn	Sanst[1]	Sanst[2]	Sanst[3]	Basalt	Basalt
Sample No	2844Z	2845Z	2846Z	2847Z	2848Z	2849Z	2850Z	2851Z
North	5480	SH Rd	SH Rd	SH Rd	CR Rd	SH Rd	SH Rd	SH Rd
East	5340	17255	1730	17340	10	4720	4660	4540
Type	Float	O/C	O/C	O/C	O/C	O/C	O/C	O/C
Cu	85	95	135	25	75	25	10	110
Pb	5	50	5	5	15	x	x	x
Zn	95	170	210	250	140	210	80	120
Ag	x	x	x	x	x	x	x	x
Ni	50	80	210	210	100	185	95	105
As	6	6	2	2	5	2	13	24
Mo	3.0	x	x	1.0	0.5	x	x	x
Sn	x	x	x	x	x	x	x	x
W	8	4	x	x	x	14	13	x
Au	-	-	-	-	-	-	-	-

1 Mafic composition
2 Intermediate composition
3 Feldspathic

GRID CAI LITHOGEOCHEMICAL ANALYSES (Cont)

Name	Siltst	Sandst 1	Siltst 1	Dolrte 2	Basalt 1	Basalt 1	Basalt 1	Sandst 4
Sample No	2852Z	2853Z	2854Z	2855Z	2856Z	2857Z	2858Z	2859Z
North	5240	5240	5240	Creek[3]	5240	5240	5240	5240
East	4790	4820	4840		4860	4880	4900	5100
Type	Float	Float	Float	Float[3]	Float	Float	Float	Float
Cu	95	95	215	35	30	55	85	60
Pb	5	20	10	5	x	5	x	10
Zn	165	25	30	125	35	55	85	150
Ag	x	x	x	x	x	x	x	x
Ni	185	50	45	40	80	90	185	100
As	4	20	500	13	220	24	97	7
Mo	x	1.0	0.5	1.0	0.5	x	x	1.0
Sn	x	x	98	x	57	63	158	x
W	x	x	x	8	x	x	x	8
Au	-	-	-	-	-	-	-	-

1 Hydrothermally Altered
2 Xenolithic
3 Small creek north of Line 5480N; projection north of distinct topographic depression on grid lines
4 Very weathered.

GRID CAI LITHOGEOCHEMICAL ANALYSES (Cont)

Name	Basalt	Siltst[1]	Dolrite	Pelite[2]	Lmst[3]	Detect Limits	Analytic Method
Sample No	2860Z	2861Z	2862Z	2885Z	2886Z		
North	5240	5240	5240	View Rd	View Rd		
East	5060	4970	4950	355m	255m		
Type	Float	Float	Float	O/C	O/C		
Cu	50	25	25	120	140	5	101
Pb	x	10	15	395	50	5	101
Zn	100	130	145	2300	375	5	101
Ag	x	x	x	0.5	0.5	0.5	101
Ni	115	220	70	90	45	5	101
As	41	60	18	29	10	1	114
Mo	x	x	x	-	-	0.5	121
Sn	x	150	x	x	x	3	402
W	x	x	x	19	x	10	401
Au	-	-	-	x	x	0.005	309

1. Hydrothermally Altered
2. Ferruginised pelite - Petrographic Determination
3. Ferruginised Impure Limestone - Petrographic Determination
4. Laboratory: ANALABS PTY LTD

APPENDIX 5

029

AUSTRALIAN ANGLO AMERICAN LIMITED

DRILLHOLE LOG

Summary Sheet

398030

Page 1 of

PROJECT WEST RAMSAY, CAM1 AREA EL5/83 AREA 2 — DRILLHOLE TYPE Hammer / Diamond

CO-ORDS E 370,698.6 N 5,392,469.1 — DEC^LN −45° — AZIMUTH 078° — RL 270.4 — DH No. CAM1

DATE COMMENCED 21/1/84 — DATE COMPLETED 28/1/84 — DRILLED BY Overland. — DRILL RIG SCOUT.

Non Coring to: 45m Hammer — HQ Core to: — NQ Core to: — BQ Core to: — EOH 143m

SURVEY DATA

Instrument:

DEPTH	DECLINATION Uncorr	DECLINATION Corr	AZIMUTH	DEPTH	DECLINATION Uncorr	DECLINATION Corr	AZIMUTH
143		44	092·5				

LOG SUMMARY

ROCK TYPE	MINERALIZATION Style	Grade	Intersection width (Corr)
0-45 Percussion Drilled.			
45-48·5 Black Siltstones - sideritic bands	common po veinlets: Conductor #1		45-47m.
48·5-90·0 Tuffaceous Sandstone/Siltstone			
90·0-103·0 Black Shales: minor sandy horizons	Common po veinlets: Conductor #2		91-103m
103·0-115·7 Tuffaceous Sandstone and siltstone			
115·7-125m Black Shales and Pyrrhotite bearing banded Pelitic Hornfels	bedded py/po bands, po veinlets: Conductor #3		116-123m
125·0-131·0 Tuffaceous Sandstones. coarsely bedded.			
131·0-140·8 Black Shales + pyrrhotite banded Pelitic hornfels.	moderate po/py Conductor #4		131-140m
140·8-143·0 Grey Tuffaceous EOH Sandstone.			

APPENDIX 6

031

REPORT CMS 84/1/8

Twenty-one rock and drill core samples, in four groups, were received for petrological examination. Representative thin-sections were prepared and examined microscopically together with their respective offcuts. Individual groups exhibit a limited range of features and thus brief petrological descriptions were prepared in tabulated form. These incorporate the microscopic data, supplemented by results of staining tests, where warranted, and include interpretative comments.

Group 3

This group comprises entirely contact-altered sediments. Samples 2863Z, 2867Z, 2873Z and 2875Z are hornfelsed and metasomatised labile psammopelites, characterised by diopsidic or actinolitic calc-silicate assemblages. Detail is obscured by alteration, but relict features are comparable with contact-altered labile greywackes of the Crimson Creek Formation. These rocks include disseminations of pyrrhotite, partly "bedded" and apparently secondary after "syngenetic" pyrite.

Samples 2872Z, 2879Z, 2880Z and 2881Z represent spotted pelitic hornfelses and similarly carry accessory altered syngenetic Fe-sulphides. These rocks exhibit a post-hornfelsic micaceous or greisening alteration phase characterised by veinlets and replacive clots of phlogopite and muscovite.

Sample No.	Classification - Composition	Fabric	Accessories	Comments
2872Z	Metapelite. Kaolin-illite with pervasive carbonaceous matter, minor microcrystalline quartz. Frequent partly degraded cordierite porphyroblasts. Disseminated clots of metasomatic phlogopite.	Strongly spotted slate. Weakly laminated.	Minor relict detrital silt-sized quartz. Evenly disseminated ultrafine pyrite.	Marginal spotted pelitic hornfels developed in weakly (burial-) metamorphosed, slightly silty, strongly carbonaceous shale. Weak phlogopitic alteration postdates hornfelsing.
2873Z	Metasomatised Labile Psammopelite. Fine-grained tremolite-actinolite, microcrystalline quartzofeldspathic material; actinolite-stained relict clastic lithic (lava) clasts, minor quartz grains. Sporadic actinolite-quartz veins, veinlets.	Fine-grained, hornfelsic; relict medium sandy to silty clastic with displacive veins, veinlets.	Actinolite-stained clastic plagioclase, conspicuous fine silt-sized opaques. Disseminated pyrrhotite in veins.	"Amphibolitic" metasomatised labile lithic sandstone/siltstone intercalation ("tuffaceous greywacke"). Vein-related pyrrhotite is weakly pyritised.
2875Z	Metasomatised Psammopelite. Actinolitised silty fine to medium sandstone with zones, interbeds of weakly actinolite-stained, slightly fine sandy quartz siltstone. Minor actinolite-quartz veinlets.	Fine-grained hornfelsic. Relict slump breccia-like to lenticular interbedded siltstone; turbiditic sandstone.	Fine silt-sized clastic opaques/leucoxenic semi-opaques. Traces pyrrhotite in veinlets.	Slumped intercalation of labile sandstone, quartz siltstone, hornfelsed/actinolitised, with the sandstone preferentially metasomatised.
2879Z	Metapelite. Cordierite-spotted carbonaceous slate, similar to 2872Z, but more or less pervasively phlogopite-stained. Frequent phlogopite veinlets with films of degraded/ferruginised chlorite, carbonate.	Analogous to 2872Z, but with frequent intersecting/weakly displacive phlogopitic veinlets.	Patchy secondary limonite stainings, films. Traces ultrafine pyrite.	Close affinities with 2872Z, but reflecting relatively marked post-hornfels phlogopitic alteration/veining.
2880Z	Pelitic Hornfels. Strongly poikilitic, cordierite-spotted hornfels with semi-sericitic white mica, pervasive ultrafine pale schorl. Frequent metasomatic clots, discontinuous veinlets of muscovite, pyritised pyrrhotite, quartz.	Strongly spotted hornfelsic with weak relict bedding laminations.	Minor traces carbonaceous matter. Traces phlogopite in muscovite aggregates.	Cordierite-hornfelsic metapelite with late clots, films, impregnations of muscovite and quartz, partly replacive after shaly partings with associated "bedded" pyritised pyrrhotite.
2881Z	Pelitic Hornfels. Cordierite-spotted, fine-grained quartz-mica hornfels (sim. 2880Z) with minor ultrafine pale schorl. Frequent conformable lenses, films of muscovite, quartz, phlogopite, pyritised pyrrhotite.	Analogous to 2880Z, with relatively marked relict laminations enhanced by sedondary mica impregnations.	Minor traces carbonaceous matter. Patchy limonite stainings in micaceous aggregates.	Close affinities with 2880Z, with similarly post-hornfelsic "greisening" of shaly partings.
Group 3 2863Z	Metasomatised Labile Siltstone. Diopside and microcrystalline quartzofeldspathic material with conspicuous fine cloudy sphene, sporadic patches of poikilitic quartz. Disseminated partly pyritised pyrrhotite, chalcopyrite.	Fine-grained hornfelsic with semi-poikilitic diopside. Vague relict weakly laminated silty clastic.	Traces of prehnite in quartz aggregates.	"Skarnised" labile siltstone with semi-bedded pyrrhotite apparently metasomatic after "syngenetic" pyrite. Reflects patchy late silicification with accessory prehnite.
2867Z	Metasomatised Labile Siltstone. Fine to microcrystalline diopside, subordinate to minor microcrystalline quartzofeldspathic material; disseminated cloudy sphene, pyrrhotite. Minor clinozoisite.	Analogous to 2863Z, finer-grained and with minor vugs of diopside, pyrrhotite, clinozoisite.	Disseminated poikilitic quartz, traces of pyrrhotite-replacive pyrite.	Close affinities with 2863Z. Zoisitic vugs possibly secondary after carbonate clots. Sphene is pseudomorphous after clastic opaques (similarly 2863Z).

APPENDIX 7

GRID CAM LITHOGEOCHEMICAL ANALYSES

Name	Metasltst[3]	MS	MS	MS	MS	MS	Breccia
Sample No	2863Z	2864Z	2865Z	2866Z	2867Z	2868Z	2869Z
Location[4]	Crankshaft Road	CS Rd	CS Rd	CS Rd	CS RD	CS Rd	CS Rd
Type[5]	Rubble	Rubble	Rubble	Rubble	Rubble	Rubble	Rubble
Cu[1]	600	570	535	540	270	690	565
Pb[1]	x	x	x	x	5	x	x
Zn[1]	25	25	25	15	30	15	15
Ag[1]	x	x	x	x	x	x	x
Bi[1]	x	x	x	x	x	x	x
As[1]	6	24	17	x	9	x	6
Ni[1]	85	75	55	70	45	85	70
Co[1]	65	65	45	55	30	65	55
Sb[1]	x	x	x	x	x	x	x
Au[2]	8	8	x	x	8	8	8
Sn[1]	45	60	60	55	55	55	65
W[1]	x	x	x	x	x	x	x

1 Values in ppm
2 Values in ppb
3 Petrographic description available
4 = see Tas/2/2450A
5 = exposed by bulldozer
x = below level of detection
MS = Metasiltstone

035

398036

GRID CAM LITHOGEOCHEMICAL ANALYSES

Name	Shale	MP	Metapelite	Metasast.	MP	Metasast.	Shale
Sample No	2870Z	2871Z	2872Z	2873Z	2874Z	2875Z	2876Z
Location	CS Rd	CS Rd	CS Rd	CS Rd	CS Rd	CS Rd	CS Rd
Type	Rubble	Rubble	Rubble	Rubble	Rubble	Rubble	Rubble
Cu	140	40	40	85	235	65	190
Pb	x	x	10	x	x	x	10
Zn	20	25	35	35	30	65	215
Ag	x	x	x	x	x	x	x
Bi	x	x	x	x	x	x	x
As	x	x	6	34	6	10	7
Ni	35	15	20	95	35	55	140
Co	30	15	10	30	35	25	40
Sb	x	x	x	x	x	x	x
Au	x	x	x	x	x	x	x
Sn	30	35	20	20	15	25	x
W	x	x	x	x	x	x	x

MP = Metapelite

GRID CAM LITHOGEOCHEMICAL ANALYSES

Name	Shale	Shale	Metapelite	Hornfels	Hrnfls	Hrnfls	Breccia
Sample No	2877Z	2878Z	2879Z	2880Z	2881Z	2882Z	2883Z
Location	CAM Grid	CAM Grid	CAM Grid	CS Rd	CS Rd	CS Rd	Drill Pad
Type	Float	Float	Float	Rubble	Rubble	Rubble	Outctop
Cu	190	85	110	70	135	110	75
Pb	10	x	15	x	x	x	10
Zn	235	240	145	100	105	200	140
Ag	x	x	x	x	x	x	x
Bi	x	x	x	x	x	x	x
As	5	x	5	4	5	13	6
Ni	145	80	90	90	100	100	90
Co	40	30	20	40	60	45	30
Sb	x	x	x	x	x	x	x
Au	x	x	8	8	x	8	17
Sn	x	20	15	20	20	15	55
W	x	x	x	x	x	x	x

037

398038

GRID CAM LITHOGEOCHEMICAL ANALYSES

Name	Shale	Detection	Analytical
Sample No	2884Z	Limits	Method
Location	CS Road		
Type	Outcrop		
Cu	80	5	101
Pb	25	5	101
Zn	75	5	101
Ag	x	5	101
Bi	x	10	101
As	2	1	114
Ni	40	5	101
Co	20	5	101
Sb	x	1	117
Au	8	8	309
Sn	10	3	402
W	x	10	401

APPENDIX 8

039

398040

REPORT A2:

GEOPHYSICAL FOLLOW UP OF

RAMSAY AEROMAGNETIC SURVEY

By: D B Trussell

24.5.83

040

398041

REPORT A2:

GEOPHYSICAL FOLLOW UP OF RAMSAY AEROMAGNETIC SURVEY

INTRODUCTION

In 1982 Geoex carried out a detailed airborne magnetic survey over the entire Ramsay area (see Comstaff plans TAS/2/3000 to TAS/2/3013) Five discrete anomalies were selected for further examination (see plans TAS/2/3160 to TAS/2/3162). The most easterly anomaly was considered by Comstaff to be too far from a suitable geologic environment for tin mineralisation. Therefore no work was done on this target.

WORK DONE

In early 1983 a grid consisting of three lines spaced 100m apart was placed over each anomaly. All lines were traversed with a proton magnetometer and the Genie EM system. A coil spacing of 100m and a station interval of 20m was used for the latter. Profiles of all the geophysical data accompany this report. The line number of the airborne anomaly was used as the grid name for each of the four ground follow up grids.

DISCUSSION

Grid L30

The ground magnetic profiles are in reasonable agreement with the aeromagnetic results. Therefore the grid is in the correct location. The anomaly in the vicinity of 4800E on lines 4900N and 5000N is the selected airborne anomaly. There is no ground EM response on any of the lines. Thus there is not a significant conductor within 60m of the surface on grid L30. The EM data are of very high quality. An anomaly of 2% (peak to peak) would stand out clearly against the background variation.

Grid L80

The ground magnetic profiles bear little resemblence to the aeromagnetic results. There is therefore a reasonable doubt that the grid is located in the correct position. There is one prominent EM anomaly on each line - at 5250E on 5100N, at 5040E on 5000N and at 5030E on 4900N. There is no direct magnetic association with any of these anomalies. The conductivity of all three is quite low. The 315 Hz response is 1% or less. A conductive shear is the most likely explanation for the source of the anomalies. Careful geologic examination should however be carried out.

The background noise level of the 2835 Hz data is quite large - approximately 3% (peak to peak). This is double that encountered on most other grids in this area. The 945 Hz and 315 Hz data are of high quality.

...2

There is some surface conductivity in the area. The 315 Hz background is +4.5%. The 945 Hz background is 7.5%. The 2835 Hz background is about 10%. Variations in surface conductivity may be the reason for the high noise level of the 2835 Hz data.

Grid L211

The ground magnetic profiles are in reasonable agreement with the aeromagnetic results. Therefore the grid is in the correct location. The EM data are of very high quality. No anomalous responses exist on the profiles. There are no conductors within 60m of surface.

Grid L250

The ground magnetic profiles are in reasonable agreement with the aeromagnetic results. Therefore the grid is in the correct location. The only EM anomaly is a very weak response in the vicinity of 5000E on line 4900N. It has near vertical dip. The source may be a conductive shear. There is a very high amplitude (approximately 2,000) near surface magnetic anomaly in the vicinity. It may be related to the EM conductor.

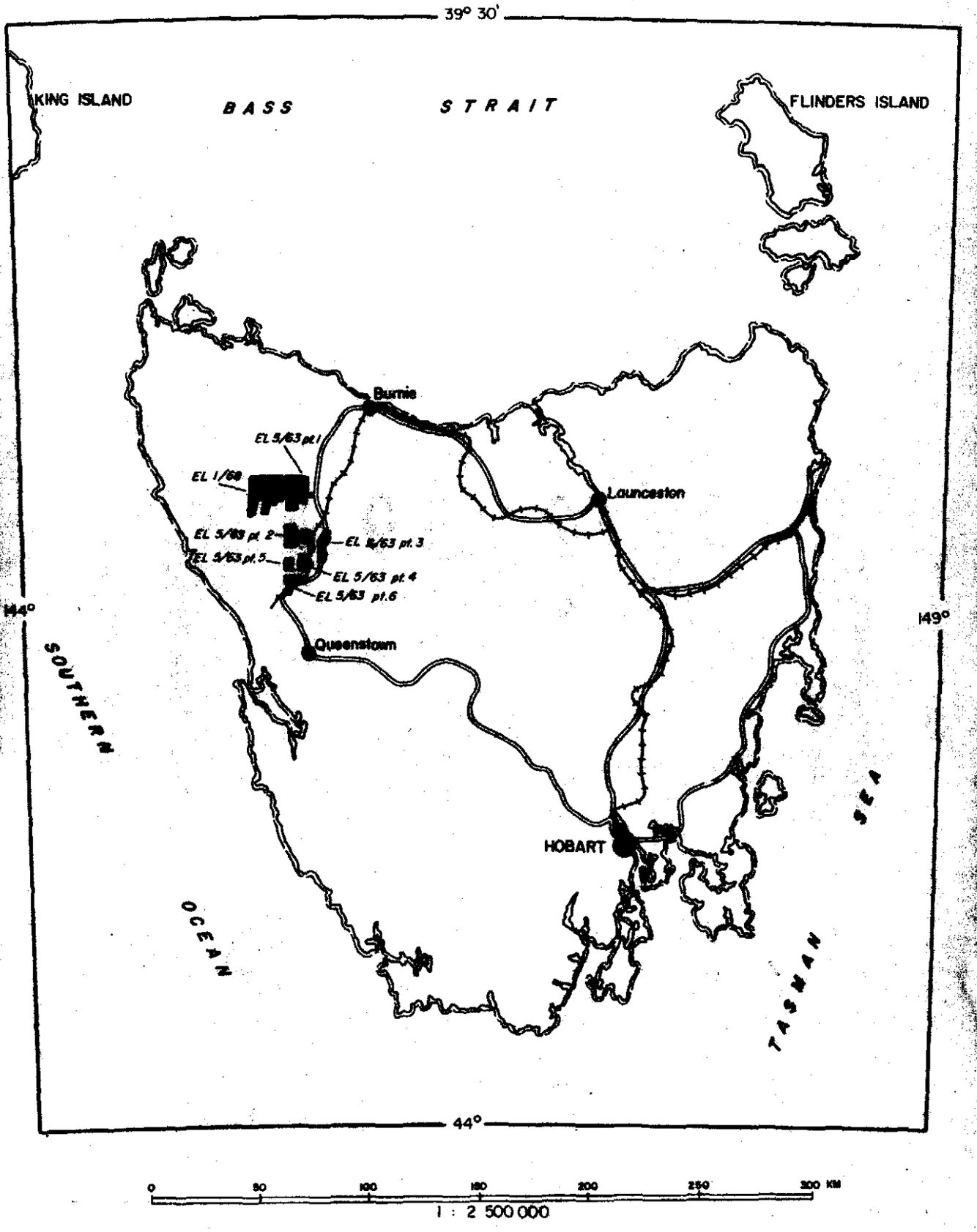
CONCLUSIONS

The airborne magnetic anomalies L30, L80, L211 and L250 have been successfully located by ground magnetic surveys. EM traverses over these anomalies have not resulted in the detection of highly conductive bodies. A tin bearing pyrrhotite is unlikely to be the cause of the selected aeromagnetic anomalies.

On grid L80 a weak conductor was detected. The ground in the vicinity should be carefully inspected geologically. A very weak conductor was also detected on the most southerly line of grid L250. It should also be inspected in the field. Neither response appears to hold much promise.

842

398043



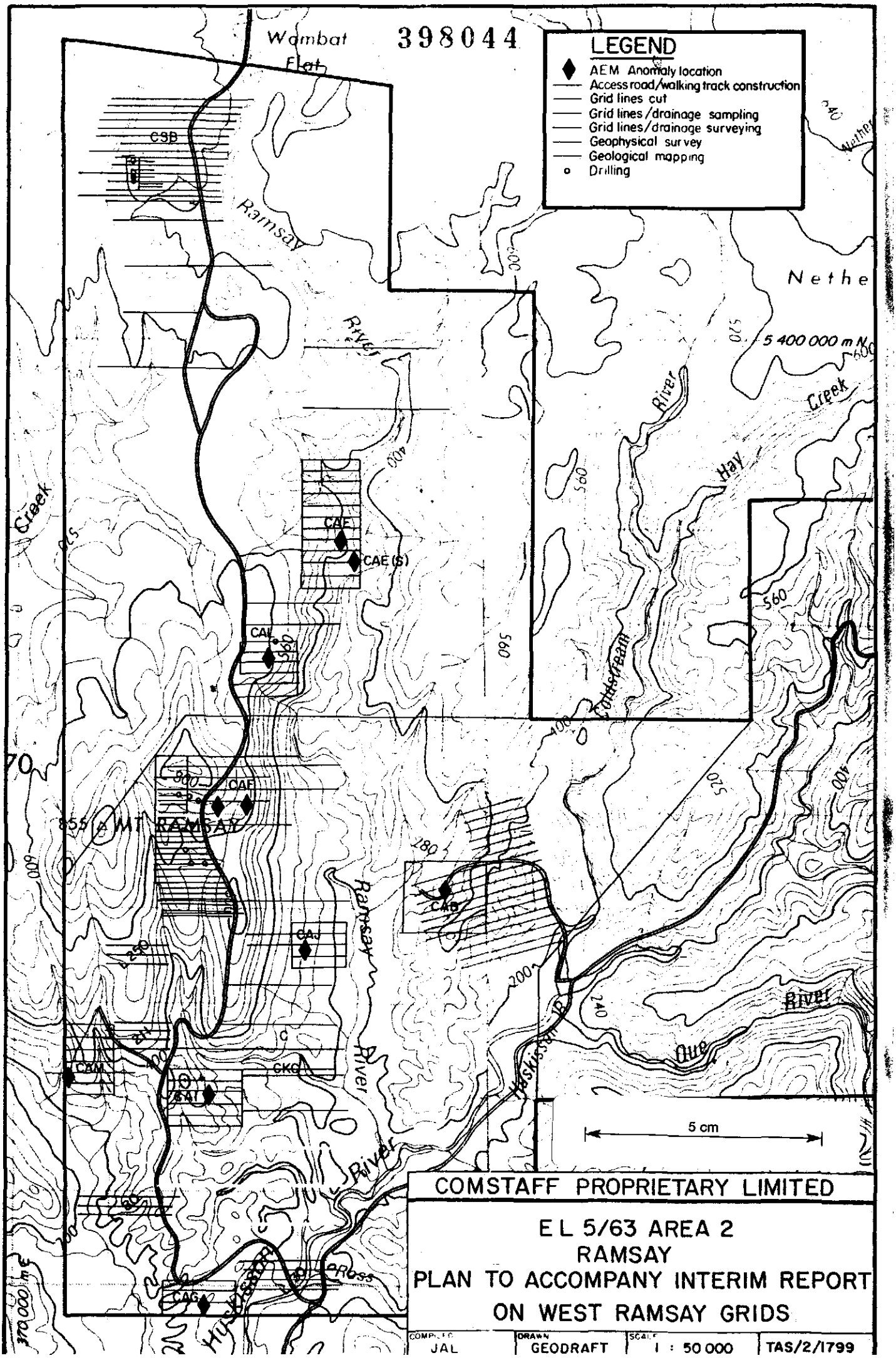
COMSTAFF PROPRIETARY LIMITED

LOCATION OF COMSTAFF LEASES IN TASMANIA

JAS/2/

043

398044



COMSTAFF PROPRIETARY LIMITED

E L 5/63 AREA 2
RAMSAY
PLAN TO ACCOMPANY INTERIM REPORT ON WEST RAMSAY GRIDS

COMPILED	DRAWN	SCALE	
JAL	GEODRAFT	1 : 50 000	TAS/2/1799

5 396 000 m N

GEOLOGICAL LEGEND

SEDIMENTARY AND METAMORPHIC UNITS

CAINOZOIC	Quaternary	Qa	alluvium, fluvial deposits
		Qg	glacial deposits
	Tertiary	Ts	gravels, clays, conglomerate
		~~ angular unconformity ~~~	
DEVONIAN		Db	sandstone, siltstone, mudstone
		Df	quartz sandstone sequence
SILURIAN		Sa	siltstone, mudstone, calcareous siltstone with quartz sandstone and limestone units
		Sc	quartz sandstone with mudstone and conglomerate
ORDOVICIAN		Ol	limestone
		Os	quartz sandstone, siltstone, conglomerate
CAMBRIAN	Dundas Group (equivalent)	€hg/cg	Que river sequence volcaniclastic, feldspathic lithic sandstone, siltstone, shale, mudstone with siliceous quartz conglomerate units (cg)
		€hg	Hatfield greywacke sequence greywacke, siltstone & mudstone, quartz sandstone and micaceous sandstone
		€h/u	Huskisson group graded sandstone, lithic sandstone conglomerate & mudstone calcareous clasts & matrix in coldstream area, becomes more siliceous towards south ? tuff layers (tu)
	Crimson Creek Formation	€cc	basic-intermediate volcaniclastic lithicwacke sandstone (ltc) siltstone (ss), argillite (ar) with turfaceous, feldspathic & quartzo-feldspathic sandstones (tu, sa, fs) includes minor calc-pelite (cs) and minor pelite units (pl) & minor basalt (bs)
EOCAMBRIAN?		?Eat	siliceous sandstone, conglomerate, shale & siltstone of the CAM group equivalent of success creek group ?
		~~ unconformity ~~~	
PRECAMBRIAN	Ramsay Group	Pmt	mudstone, shale predominent with minor quartz arenite
		Pls	limestone, dolomite, calcareous conglomerate
		Psa	quartzite, quartz sandstone, siliceous sediments
		Pu	Ramsay group poly deformed quartzitic sediments, carbonaceous shale, dolomite, conglomerate

IGNEOUS UNITS

TERTIARY		Tb	alkaline tertiary basalt
DEVONIAN		Dpy	porphyritic granite adamellite
		Dbgf	biotite-quartz-feldspar equicrystalline granite
		Dgs/to	altered granite, greisen (gs) tourmalinised (to)
		Dg	undifferentiated granite
CAMBRIAN	Mt Reid Volcanic Sequence	€g	gabbro intrusive
		€dr	basalt, microdiorite flows and shallow intrusives
		€bs	extrusive vesicular or pillowed lavas
		€qfp	quartz-feldspar-porphyry
		€tu/sh	interbedded acid tuff, tuffite, carbonaceous shale
		€cg	Animal creek greywacke sandstone, siltstone, tuff
		€py	rhyolitic-dacitic pyroclastic and lava sequences
		€av	acid pyroclastic sequences with interlayed sediments

skarn assemblage developed

calc-silicate alteration

25° strike and dip of bedding

38° strike and dip of overturned strata

strike and dip of vertical bedding

direction of plunge of minor anticline

fault

f shear zone

synclinal axis

anticlinal axis

72° facing direction known

17° facing direction known

fault - inferred

geological boundary

geological boundary - inferred

-?- -?- geological boundary - highly tentative

E.L. 5/63 AREA 2

BOUNDARY OF

RAMSAY

HUSKISSON

MT RAMSAY

HATFIELD

QUE RIVER

ANIMAL CREEK

MEBBS CREEK

ROSS CREEK

SLIPPERY CREEK

DDH CAF 1

DDH CAF 2

DDH CAF 3

DDH CAF 4

DDH CAF 5

DDH CAF 6

DDH CR 1

DDH CR 2

DDH CR 3

DDH CR 4

DDH CR 5

DDH CR 6

5 391 000 m N

369 000 m E

377 000 m E

5 cm

TAS/2/3058	TAS/2/3059
TAS/2/3060	TAS/2/3061
TAS/2/3062	TAS/2/3063
TAS/2/3064	TAS/2/3065

N

COMSTAFF PROPRIETARY LIMITED

EL 5/63 AREA 2
RAMSAY 001

GEOLOGICAL INTERPRETATION PLAN

COMPILED	G.F.P.
DRAWN	GEODRAFT
DATE	30/8/82
AMENDED	1/6/84
SCALE	1 : 10000
PLAN No.	TAS/2/3062

5 391 000 m N

BOUNDARY OF E.L. 5/63 AREA 2

RIVER

CREEK

ROAD

PULP

'SILVER FALLS'

LYNCH

MARSTERS

ALFRED

WEBBS

Qa Qg Df Db Sa Sc Os Ecc Ehtu Eh Emt Eu

369 000 m E

5 386 000 m N

377 000 m E

5 cm

FOR GEOLOGICAL LEGEND SEE TAS/2/3062

TAS/2/3058	TAS/2/3059
TAS/2/3060	TAS/2/3061
TAS/2/3062	TAS/2/3063
TAS/2/3064	TAS/2/3065

N

COMSTAFF PROPRIETARY LIMITED

EL 5/63 AREA 2
RAMSAY

002

GEOLOGICAL INTERPRETATION PLAN

COMPILED	G. F. P.
DRAWN	GEODRAFT
DATE	30/8/82
AMENDED	
SCALE	1 : 10 000
PLAN No.	TAS/2/3064

GEOLOGICAL LEGEND

- geological boundary
- geological boundary – inferred
- geological boundary – highly tentative
- f fault
- strike of beds

tuf	interbedded tuffaceous sandstone–lithicwacke with siltstone and mudstone
ltw	interbedded predominantly lithicwacke with siltstone–mudstone
bv	extrusive intermediate–basic volcanics
gb	intrusive porphyritic microgabbro–dolerite–lamprophyre?
pe	calc–pelites, black shales, often altered and pyrrhotite mineralised

DDH CAI 2

DDH CAI 1

APPROXIMATE BOUNDARY OF HORNFELSING & METASOMATIC ALTERATION EFFECTS

ROAD

HUSKISSON

SOUTH

Drainage

L 5480 N

L 5360 N

L 5240 N

L 5120 N

L 5000 N

L 4880 N

L 4760 N

L 5320 E

5 392 000 m N

372 000 m E

398047

5 cm

COMSTAFF PROPRIETARY LIMITED			
RAMSAY GRID - CAI 003			
GEOLOGICAL INTERPRETATION PLAN			
DRAWN J.H. 22/5/83	COMPILED J.A. LEVINGS	SCALE 1 : 2500	TAS/2/2442

39804S

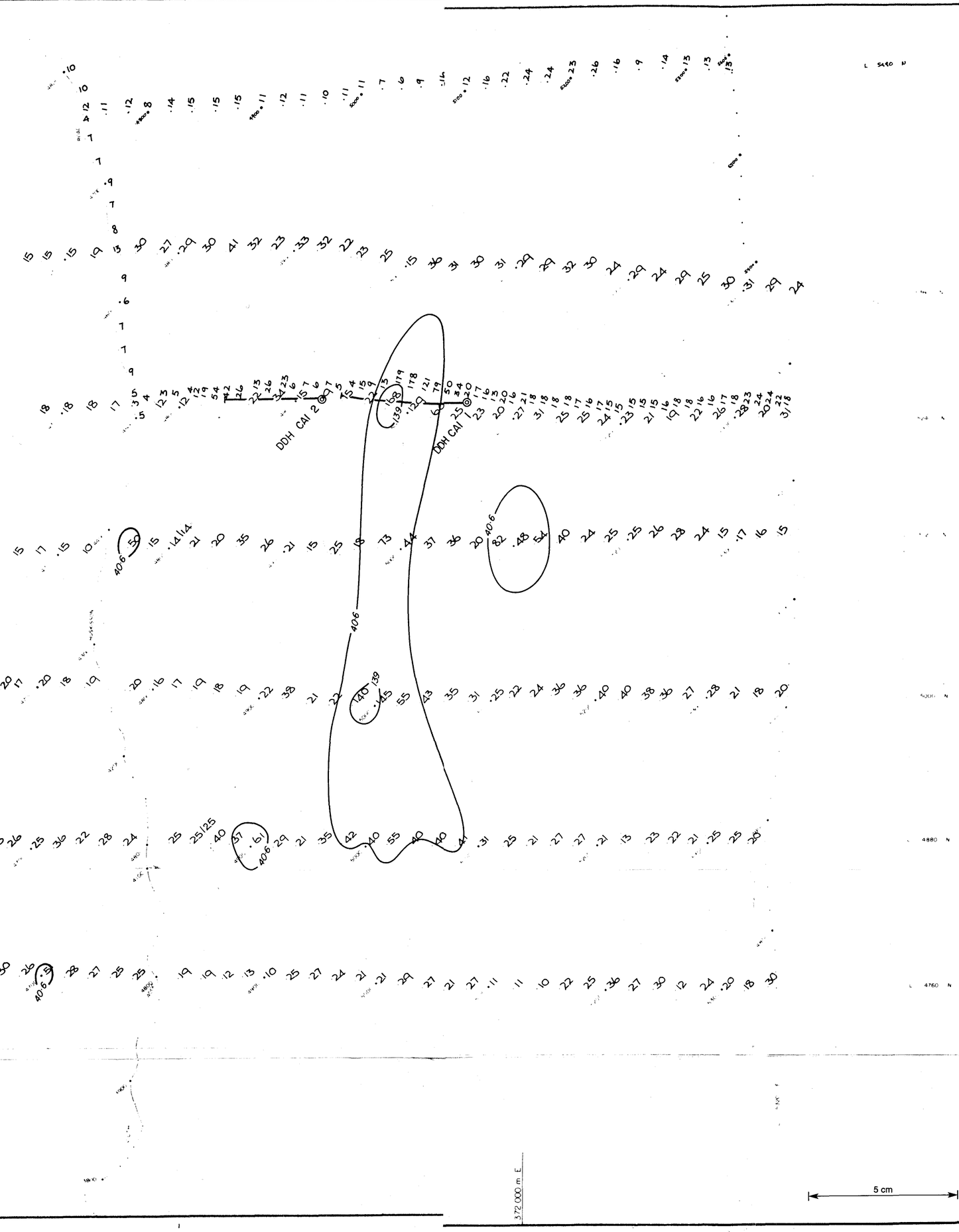
COMSTAFF PROPRIETARY LIMITED

RAMSAY GRID - CAI 004

COMPOSITE SECTION OF LINE 5240 N

TOPO, MAG, PEM, GEOCHEM, GEOLOGY

COMPILED	N.P.G.
DRAWN	GEODRAFT
DATE	5/3/82
AMENDED	1/6/84
SCALE	1 : 2500
PLAN No	TAS/2/2837



COMSTAFF PROPRIETARY LIMITED

RAMSAY GRID - CAI 005

GEOCHEMICAL GRID AUGER SAMPLING

LEAD CONTOURS in ppm

DRAWN	COMPILED	SCALE	
GEODRAFT 3/82	N. P. G.	1 : 2500	TAS/2/2878

398056

350 m

300 m

250 m

200 m

4900

4900

DDH CAI 2 (SECTION)

5000

DDH CAI 1 (SECTION)

5100

L 5240 N

ppm.

σ (mhos/m) *

CONDUCTIVITY

σ (mhos/m) *

700

600

500

400

300

200

100

EOH 116 m

EOH 149.5 m

ox

pe

tuf

Py

sh

LEGEND

tuf	basic tuffaceous sandstone, siltstone, shales
pe	calc. pelites, shale bands, often hydrothermally altered
sh	black shales
ox	fault zones, oxidised, foliated, brecciated
Py	bedded syngenetic Pyrite

5 cm

L 5240 N

4800

4900

5 392 460 m N

DDH CAI 2 (PLAN)

DDH CAI 1 (PLAN)

5000

5100

372 000 m E

5 392 430 m N

371 700 m E

371 800 m E

371 900 m E

* 3 sample moving average

Sample density = 1 metre intervals where possible.

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SECTION OF DRILLHOLES DDH CAI 1, 2

GEOLOGICAL INTERPRETATION

006

COMPILED	DRAWN	DATE	AMENDED
J.A. LEVINGS	J. HARDISTY	3/4/84	
LEASE No. E.L. 5/63	AREA 2	SCALE 1 : 1000	PLAN No. TAS/2/3827

Devonian
porphyritic biotite granite
(meredith granite)

LC

pebbly hornfels

LC

LC

LC

DDH CAM I

sa sh sa sh sa pe sa pe

Quaternary
alluvium

Ordovician
psammites and grits

Quaternary
alluvium

L 5480 N
L 5360 N
L 5240 N
L 5120 N
L 5000 N
L 4880 N
L 4760 N

5 392 000 m N

370 000 m E

L 4760 E

L 5040 E

371 000 m E

C CAMBRIAN porphyritic microdolerite/basalt and rare gabbro

LC LOWER CAMBRIAN crimson creek metasomatised hornfelsed tuffaceous lithic wackes, tuffaceous greywackes, tuffs, cherts, carbonaceous siltstones and rare pebbly hornfels

sh black shale } common pyrrhotite, pyrite, chalcopyrite

pe banded pelitic hornfels, black shales }

sa tuffaceous sandstone and siltstone

LEGEND

- ------- geological boundary
- - - - - geological boundary – inferred
- –?– –?– geological boundary – highly tentative
- ——f—— fault
- 76° strike and dip of bedding, showing facing direction
- 71° strike and dip of overturned strata

398051

5 cm

COMSTAFF PROPRIETARY LIMITED

RAMSAY GRID – CAM 007

GEOLOGICAL INTERPRETATION PLAN

COMPILED	N. P. GREEN
DRAWN	GEODRAFT
DATE	12/5/83
AMENDED	J.A.L. 22/5/84
SCALE	1 : 2500
PLAN No.	TAS/2/2451

GEOCHEMISTRY ppm

200
100
0

Pb
Zn
Cu
Ni
As
Sb
W

PULSE ELECTROMAGNETICS

timebase 20 m/sec, transmitter/receiver separation 100 m

AMPLITUDE SCALE

200
150
100
50
40
30
20
15
10
5
0
5
10
15
20
30
40
50
100
150
200

GROUND MAGNETICS nT

63 000
62 500
62 100

TOPOGRAPHY & GEOLOGY

DDH CAM 1

sh - black shales
ss - bedded pelitic hornfels, black shales } common Pyrrhotite, Pyrite, Chalcopyrite
ss - subgreywacke sandstone + siltstone

4800
4900
5000
5100
5200

GEOLOGICAL LEGEND

- b — Cambrian – basalt/dolente
- s — Crimson Creek Formation – metasediments
- v — Crimson Creek Formation – metavolcanics

398052

5 cm

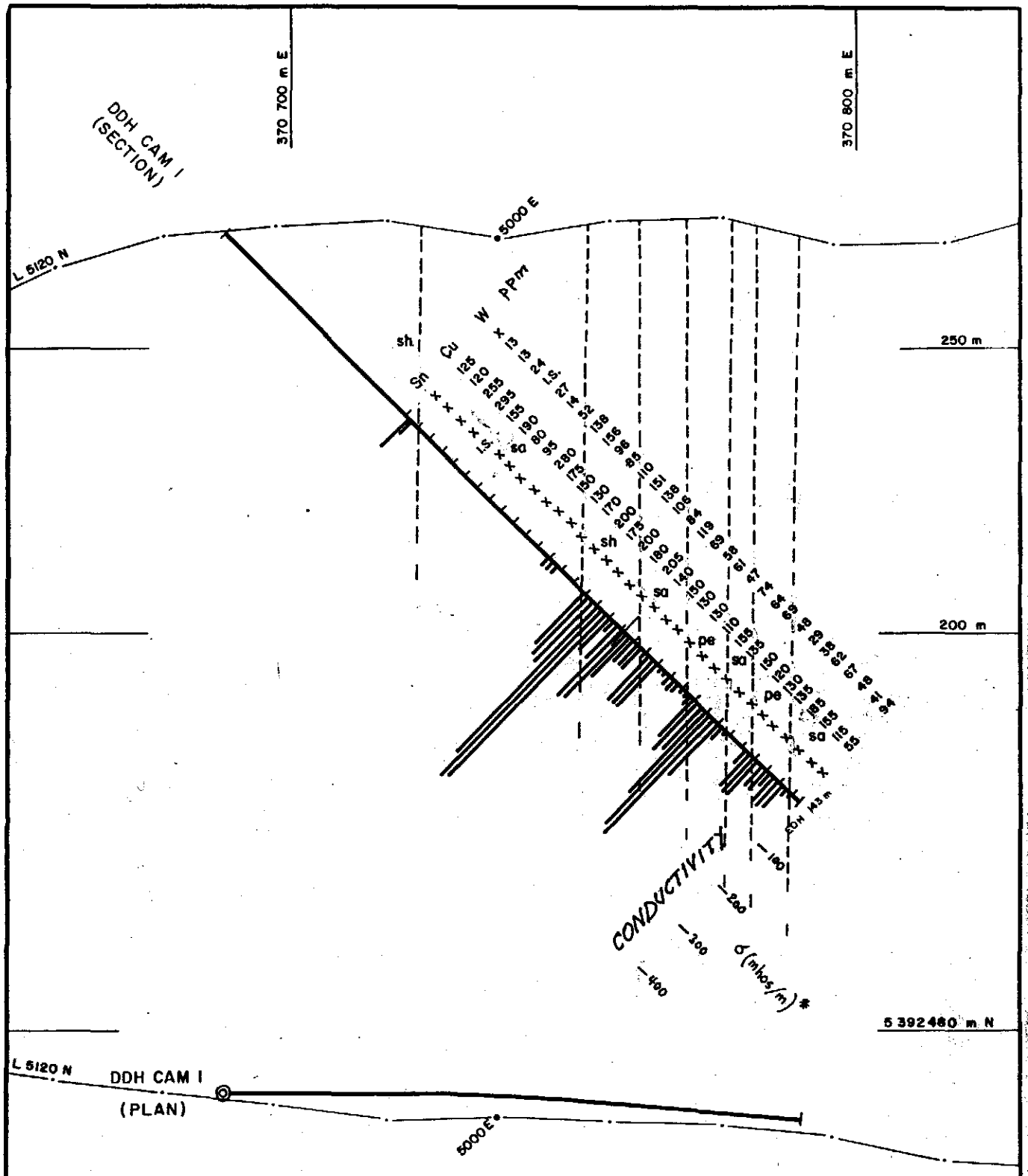
COMSTAFF PROPRIETARY LIMITED

RAMSAY GRID – CAM 008

L 5120 N PROFILES

TOPO, MAG, E.M., GEOCHEMISTRY, GEOLOGY

COMPILED	N.P.G. & GEODRAFT
DRAWN	GEODRAFT
DATE	8/3/81
AMENDED	1/6/84
SCALE	1 : 2500
PLAN No	TAS/2/2434



LEGEND

sh	black shales
pe	banded pelitic hornfels, black shales
sa	tuffaceous sandstone and siltstone

} common Pyrrhotite, Pyrite, Chalcopyrite

* 3 sample moving average, nominal 1 metre sample interval

5 cm

398053

COMSTAFF PROPRIETARY LIMITED

SECTION OF DRILLHOLE DDH CAM I

GEOLOGICAL INTERPRETATION

009

COMPILED	DRAWN	DATE	AMENDED
J.A.LEVINGS	J. HARDISTY	29/3/84	
LEASE No.	AREA	SCALE	PLAN No.

398054

D of M | A.O. | C.G. | E.O. | D.D.
D. DIR. | - 4 JUL 1984 | Registry | E & L
DEPT. OF MINES
REF. No. 6687/84

PROJECT NAME: COMSTAFF PROPRIETARY LIMITED

TITLE: INTERIM REPORT ON THE WEST RAMSAY GRIDS
CAI, CAM, L30, L80, L211, L250 AND CKC
EL 5/63 AREA 2: MAY 1984

VOLUME 2 OF 3

AREA NAME/S, STATE 1:250,000 SHEET NO/S & COORDINATES:

COMMODITY/IES:

TEXT PAGES NO:

PLAN NOS:

TABLE NOS:

APPENDICES:

AUTHOR/S:

DATE:

OPEN FILE

AUSTRALIAN ANGLO AMERICAN LIMITED

Incorporated in the State of Victoria

5 396 000 m N

E.L. 5/63 AREA 2

BOUNDARY OF

MT RAMSAY

RAMSAY CREEK

RAMSAY ROAD

RIVER

HUSKISSON

HATFIELD

QUE RIVER

ROAD

SLIPPERY ROCK CREEK

GRID CAJ

CKC GRID

L 210 GRID

L 250 GRID

369 000 m E

5 391 000 m N

377 000 m N

5 cm

TAS/2/2906	TAS/2/2907
TAS/2/2908	TAS/2/2909
TAS/2/2910	TAS/2/2911
TAS/2/2912	TAS/2/2913

N

COMSTAFF PROPRIETARY LIMITED

EL 5/63 AREA 2
RAMSAY

010

BASE PLAN

COMPILED	GEODRAFT
DRAWN	GEODRAFT
DATE	18/6/82
AMENDED	18 / 8 / 83
SCALE	1 : 10000
PLAN No.	TAS/2/2910

5 391 000 m N

BOUNDARY OF E.L. 5/63 AREA 2

L 5100 N
L 5000 N
L 4900 N
L 4800 E
L 30 GRID
SOUTH
HUSKISSON
GRID
CAG
L 5200 N
L 5100 N
L 5000 N
L 4900 N
ROSS
PULP
ROAD
CREEK
RIVER
ALFRED
WEBBS
HUSKISSON
LYNCH
'SILVER FALLS'
COIN
369 000 m E
377 000 m E
5 386 000 m N

TAS/2/2906	TAS/2/2907
TAS/2/2908	TAS/2/2909
TAS/2/2910	TAS/2/2911
TAS/2/2912	TAS/2/2913

N

COMSTAFF PROPRIETARY LIMITED

EL 5/63 AREA 2
RAMSAY

BASE PLAN

011

COMPILED	GEODRAFT
DRAWN	GEODRAFT
DATE	18/6/82
AMENDED	18 / 8 / 83
SCALE	1 : 10 000
PLAN No.	TAS / 2 / 2912

398057

5 401 000 m E

E.L. 5/63 AREA 2 BOUNDARY

E.L. 5/63 AREA 2 BOUNDARY

RIVER

CREEK

ROAD

RAMSAY

WEST

HOWARD

TRACK

ACCESS

GREEN

GRID CAE

GRID CAL

TRAIL

PRECIPITANT

HOME

JOHNSON

OLD

DIAMOND

L 4480 E

L 5280 E

L 6080 N

L 5760 N

L 5200 N

L 5040 N

L 4800 N

L 4560 N

L 5360 N

L 5240 N

L 5120 N

L 5000 N

L 4880 N

L 4760 N

L 4640 N

L 4520 N

600

500

400

300

200

100

9000

10000

11000

12000

14000

369 000 m E

5 396 000 m N

377 000 m E

5 cm

TAS/2/	TAS/2/
TAS/2/3160	TAS/2/
TAS/2/3161	TAS/2/
TAS/2/3162	TAS/2/

FOR LEGEND SEE TAS/2/3161

N

COMSTAFF PROPRIETARY LIMITED

EL 5/63 AREA 2
RAMSAY
INTERPRETATION PLAN
OF AEROMAGNETIC SURVEY DATA

012

COMPILED	D. B. TRUSSELL
DRAWN	GEODRAFT
DATE	17/12/82
AMENDED	
SCALE	1 : 10 000
PLAN No	TAS/2/3160

5 396 000 m N

369 000 m E

5 391 000 m N

377 000 m N

EL 5/63 AREA 2

BOUNDARY OF EL 5/63

MT RAMSAY

RAMSAY CREEK

SLIPPERY ROCK CREEK

RAMSAY ROAD

HUSKISSON RIVER

HATFIELD CREEK

HUSKISSON ROAD

WEBBS CREEK

ROSS CREEK

PULP MILL ROAD

QUE RIVER

GRID CAF

GRID CAI

GRID CAM

LINE 211

LINE 250

LEGEND

- MAGNETIC ANOMALY
- INPUT ANOMALY
- f——f FAULT
- LINE 80 MAGNETIC ANOMALY RECOMMENDED FOR FOLLOW-UP

TAS/2/	TAS/2/
TAS/2/3160	TAS/2/
TAS/2/3161	TAS/2/
TAS/2/3162	TAS/2/

N

5 cm

COMSTAFF PROPRIETARY LIMITED

EL 5/63 AREA 2
RAMSAY
INTERPRETATION PLAN
OF AEROMAGNETIC SURVEY DATA

013

COMPILED	D. B. TRUSSELL
DRAWN	GEODRAFT
DATE	17/12/82
AMENDED	
SCALE	1 : 10000
PLAN No	TAS/2/3161

5 391 000 m N

LINE 80

LINE 30

LINE 40

BOUNDARY OF EL 5/63 AREA 2

GRID CAG

L 5240 N

L 5120 N

L 5000 N

L 4880 N

SOUTH ROAD

HUSKISSON

ROSS

PULP ROAD

CREEK

RIVER

ALFRED

WEBBS

'SILVER FALLS'

LYNCH

369 000 m E

5 386 000 m N

377 000 m E

5 cm

FOR LEGEND SEE TAS/2/3161

TAS/2/	TAS/2/
TAS/2/3160	TAS/2/
TAS/2/3161	TAS/2/
TAS/2/3162	TAS/2/

N

COMSTAFF PROPRIETARY LIMITED

EL 5/63 AREA 2 014

RAMSAY

INTERPRETATION PLAN

OF AEROMAGNETIC SURVEY DATA

COMPILED	D. B. TRUSSELL
DRAWN	GEODRAFT
DATE	17/12/82
AMENDED	
SCALE	1 : 10 000
PLAN No	TAS/2/3162

398060

Open Beach Forest
rel. flat

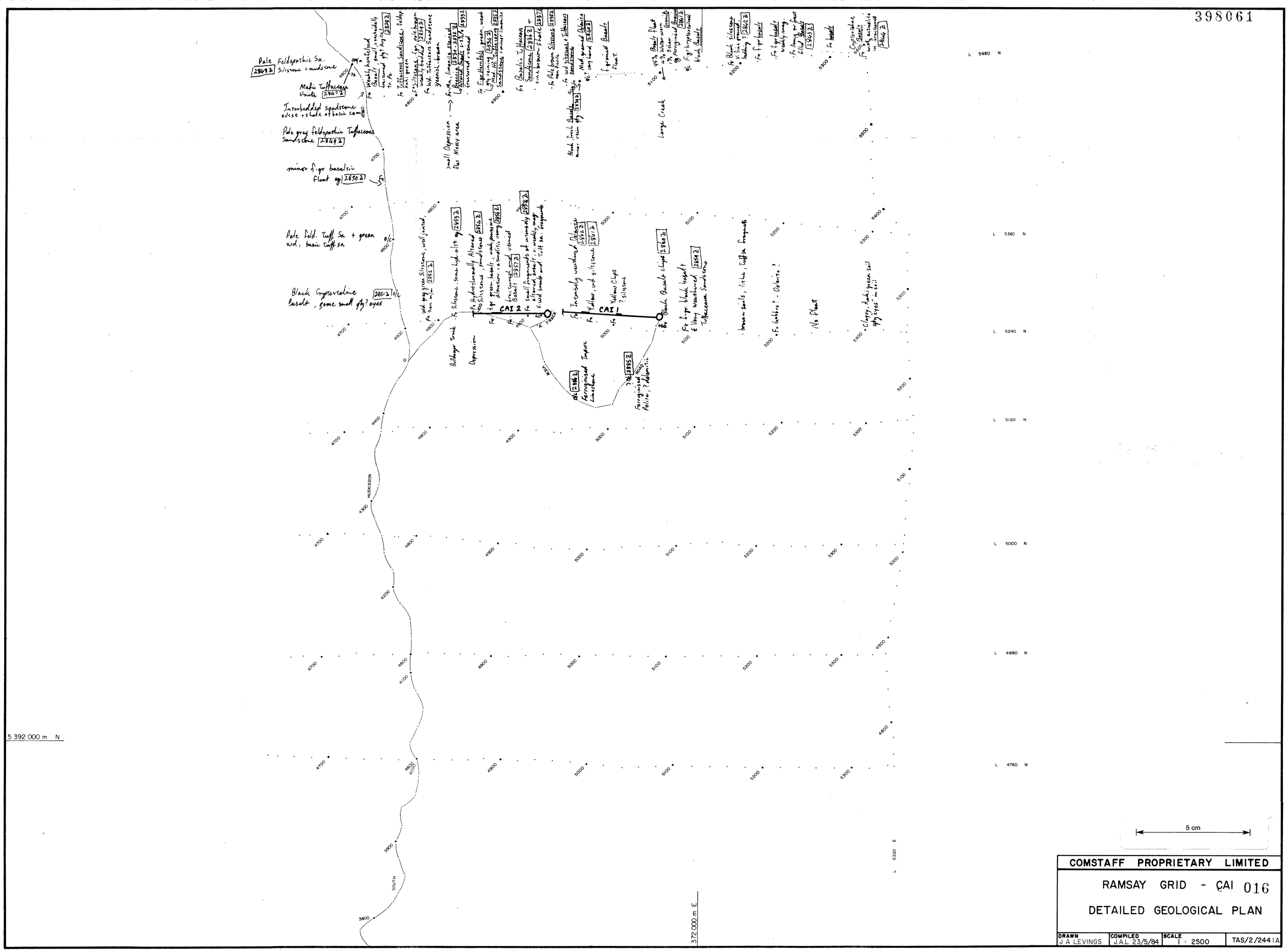
L 5490 N
L 5360 N
L 5240 N
L 5120 N
L 5000 N
L 4760 N
L 5320 E

5 392 000 m N
372 000 m E

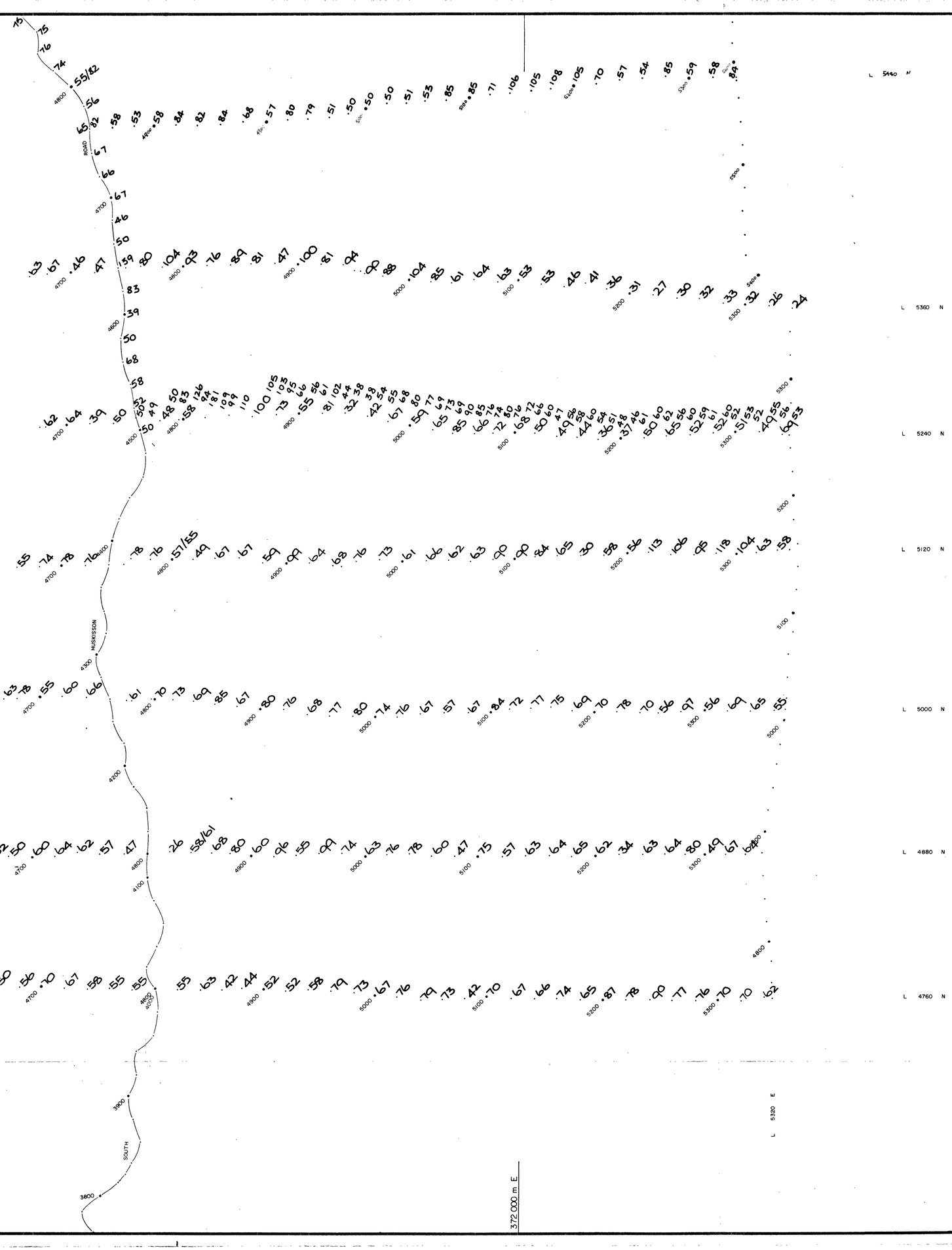
5 cm

COMSTAFF PROPRIETARY LIMITED			
RAMSAY GRID - CAI			
DETAILED GEOLOGICAL PLAN			
015			
DRAWN	COMPILED	SCALE 1 : 2500	TAS/2/2441

398061


Pale Feldspathic Sa. 28492
Siltstone + mudstone
Mafic Tuffaceous Units 28472
Interbedded sandstone siltstone + shale of basic comp.
Pale grey feldspathic Tuffaceous Sandstone 28492
minor f.gr basaltic float ag 28502
Pale fold. Tuff Sa + green wod, basic Tuff sa
Black Cryptocrystalline basalt, some small qtz? eyes 28512
wd grey green Siltstone, well jointed, Fe stain m/w 2852
Bullenger Track
Fe Hydrothermally Altered Tuff Siltstone, sandstone 28562
+fr green basalt, weak pervasive alteration + small irreg veining 2856
fine/med sandy Basalt 2857
Fe small fragments of intensely 2858
altered basalt, v. weakly mag
V. wd basalt and Tuff Sa fragments
CAI 2
Fe
Fe TRACK
Depression
Intensely weathered Dolerite 2861
Fe Yellow, wd siltstone 2860
CAI 1
Fe Yellow Clays ? Siltstone
Black Basalt chips 2863
Fe f-gr black basalt
E Very weathered 2859
Tuffaceous Sandstone
brown soils, little Tuff Sa fragments
Fe Gabbro? - Dolerite?
No float
Clayey, dark green soil qtty eyes in soil
Fe Basaltic Tuffaceous Sandstone 2834
+ fine brown Siltst 2837
Fe Pale brown Siltstones 2839
non basic
Fe wd Siltstone + Tuffaceous Sandstone
Med grained Dolerite 2840
Black Basalt 2843
minor vein qtz 2843
f grained Basalt float
Large Creek
40% Basalt float
+ 20% Pale brown Siltstone
40% Fine grained Basalt 2841
Fe f-gr basalt
blank Basalt
Fe Black Siltstone
V. fine grained 2842
Fe f gr basalt
Fe f gr basalt weakly mag.
Fe strong or pervasive filled Basalt 2843
Fe basalt
Conglomerate Basalt with calcite matrix 2844
Fe
Fe Cryptocrystalline Basalt
Fe Mafic Tuffaceous Sandstone 2845
Fe Basalt
Fe Basalt
Fe Basalt

398062



COMSTAFF PROPRIETARY LIMITED

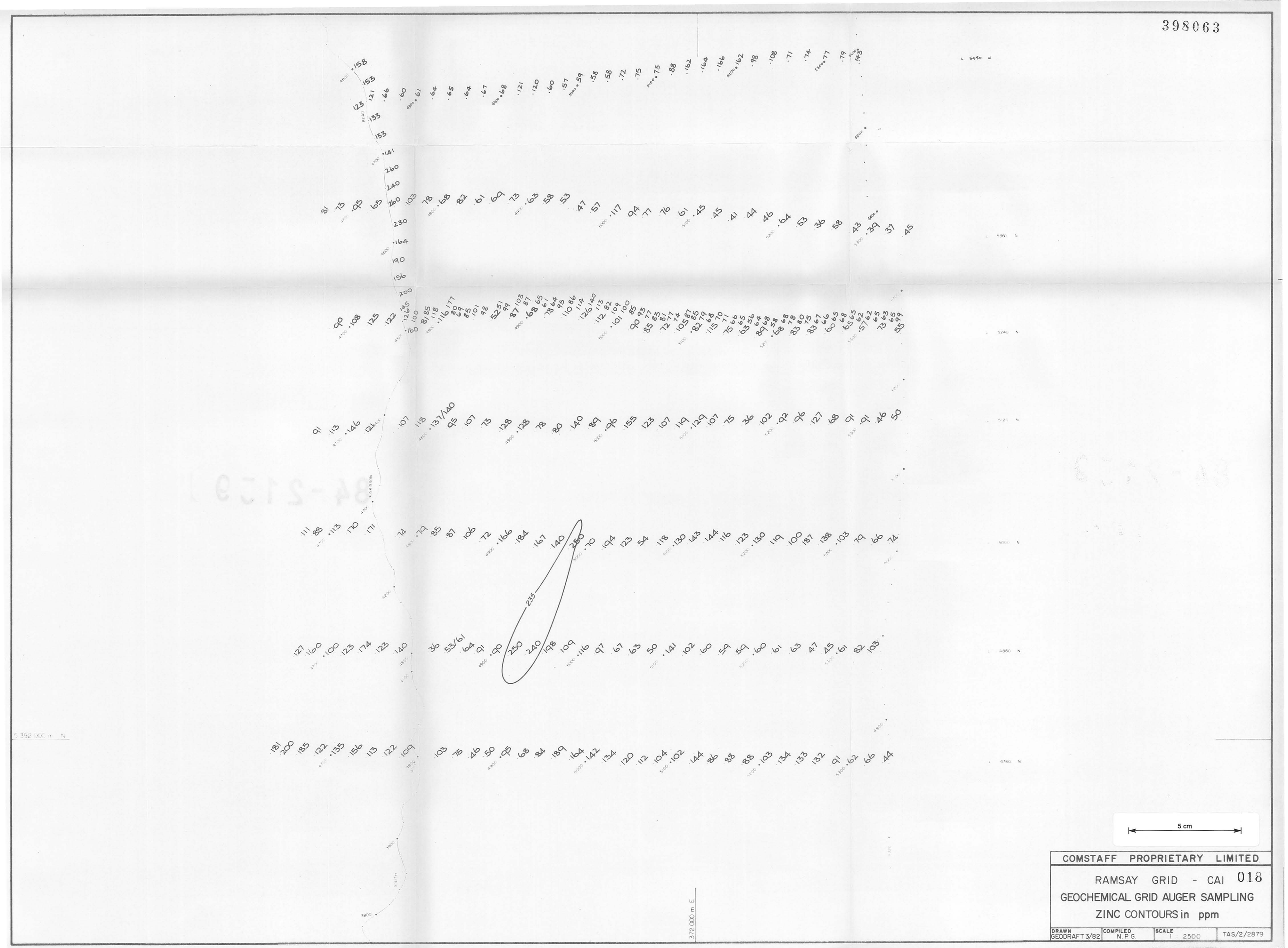
RAMSAY GRID - CAI 017

GEOCHEMICAL GRID AUGER SAMPLING

COPPER RESULTS in ppm

DRAWN	COMPILED	SCALE	
GEODRAFT 4/78	GEODRAFT	1 : 2500	TAS/2/2443

398063



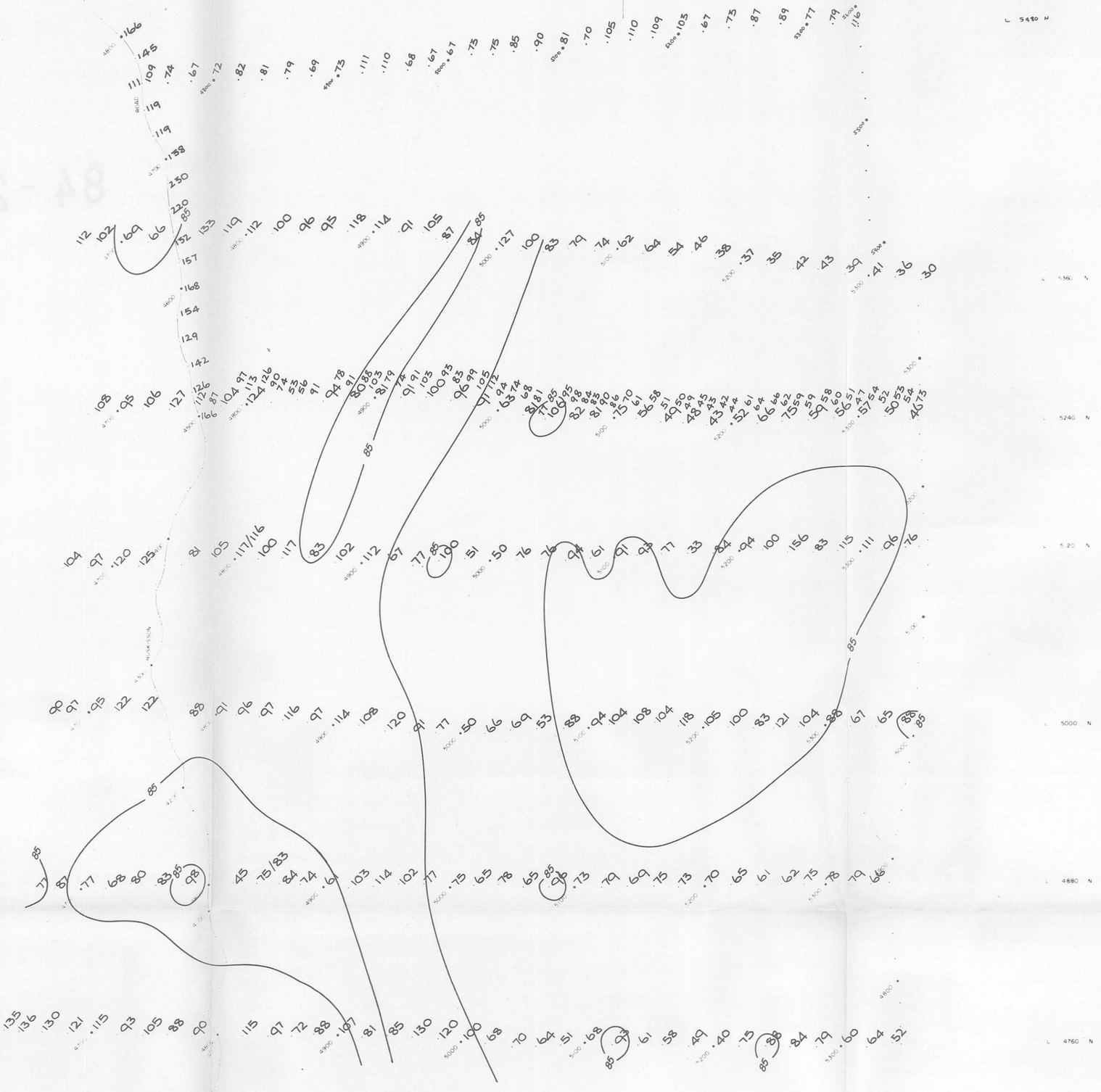
COMSTAFF PROPRIETARY LIMITED

RAMSAY GRID - CAI 018

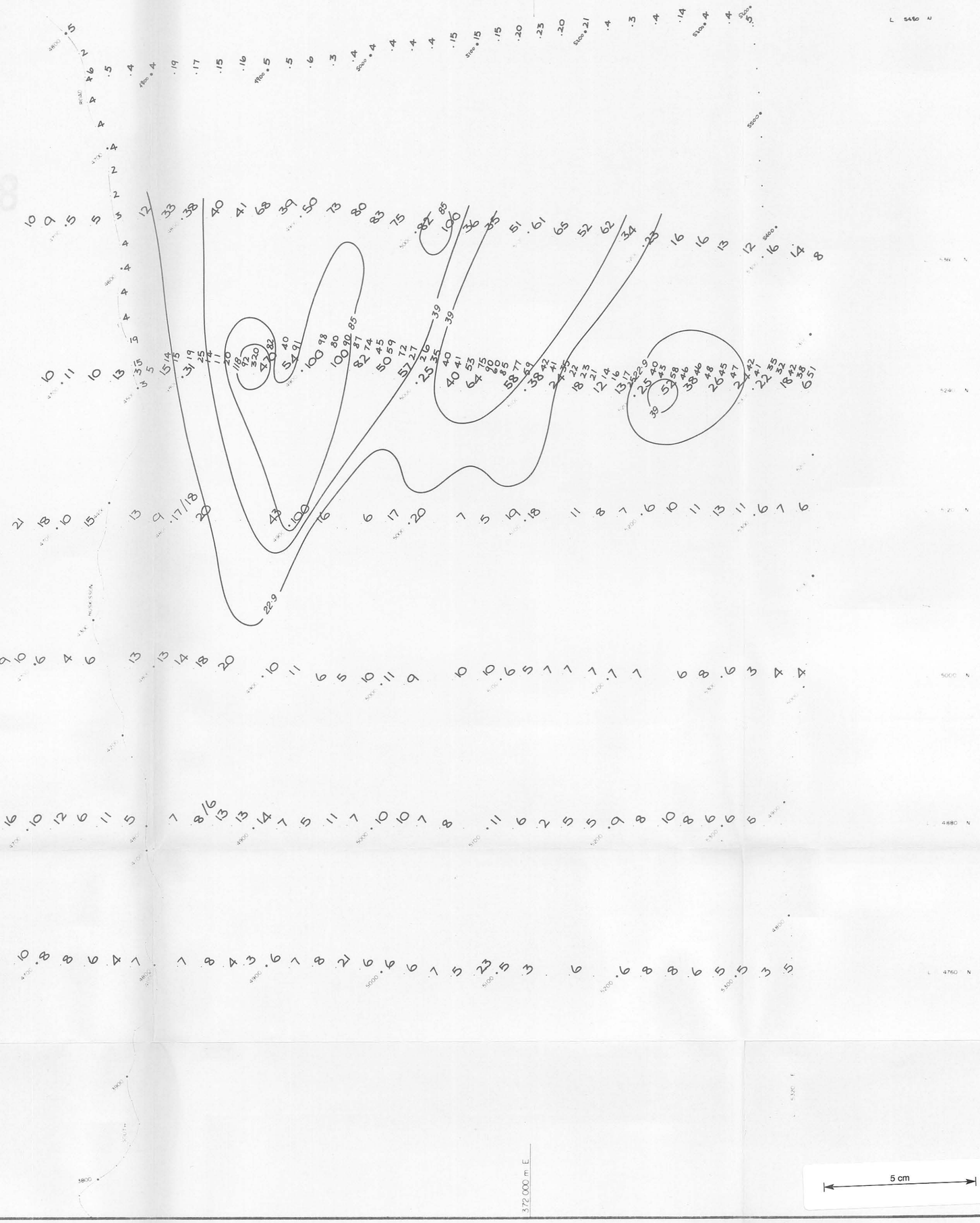
GEOCHEMICAL GRID AUGER SAMPLING

ZINC CONTOURS in ppm

DRAWN	COMPILED	SCALE	
GEODRAFT 3/82	N.P.G.	1 : 2500	TAS/2/2879



COMSTAFF PROPRIETARY LIMITED			
RAMSAY GRID - CAI 021			
GEOCHEMICAL GRID AUGER SAMPLING			
NICKEL CONTOURS in ppm			
DRAWN GEODRAFT 3/82	COMPILED N.P.G.	SCALE 1 : 2500	TAS/2/2880



COMSTAFF PROPRIETARY LIMITED

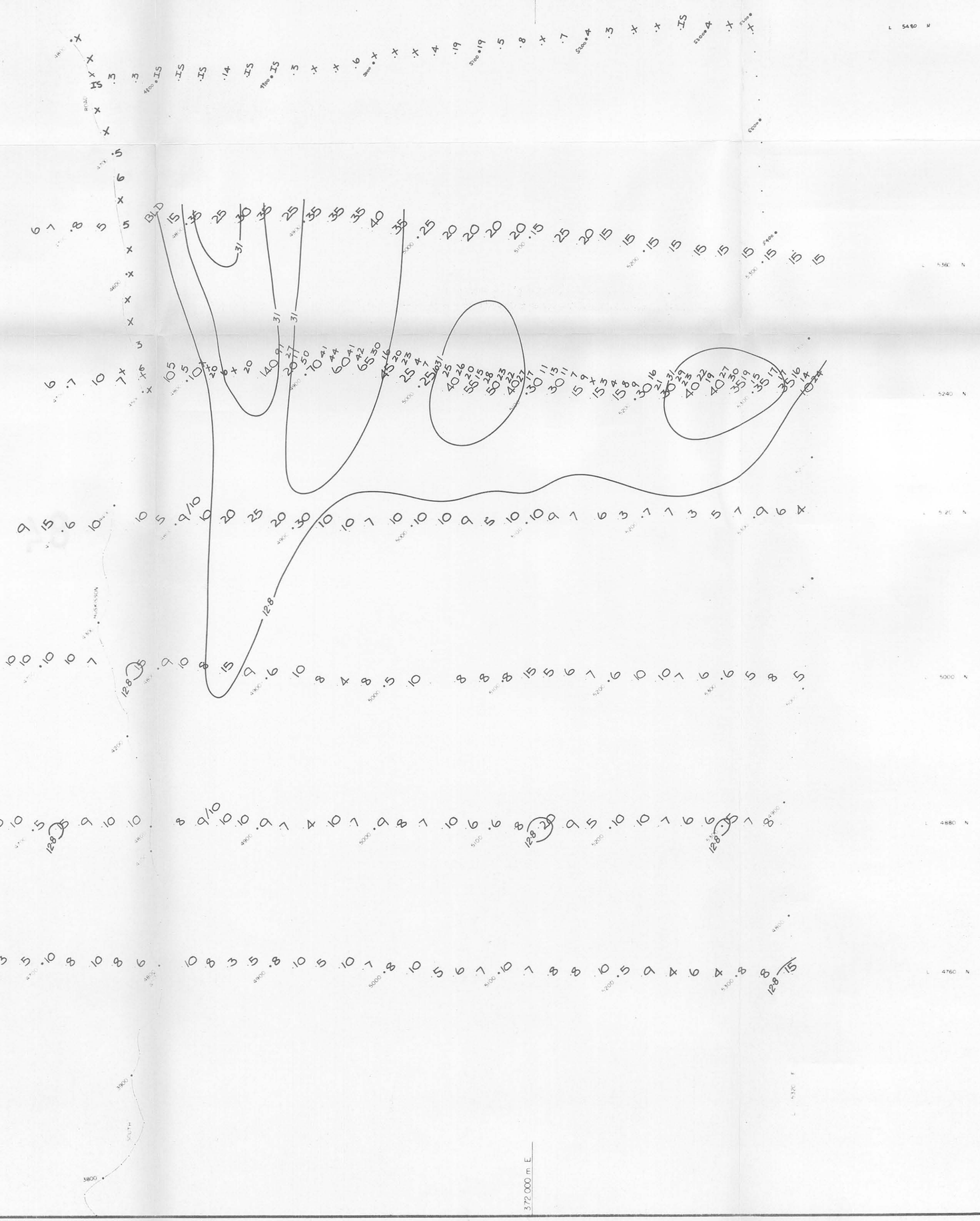
RAMSAY GRID - CAI 020

GEOCHEMICAL GRID AUGER SAMPLING

ARSENIC CONTOURS in ppm

DRAWN	COMPILED	SCALE	
GEODRAFT 3/82	N.P.G.	1 : 2500	TAS/2/2881

398066



COMSTAFF PROPRIETARY LIMITED

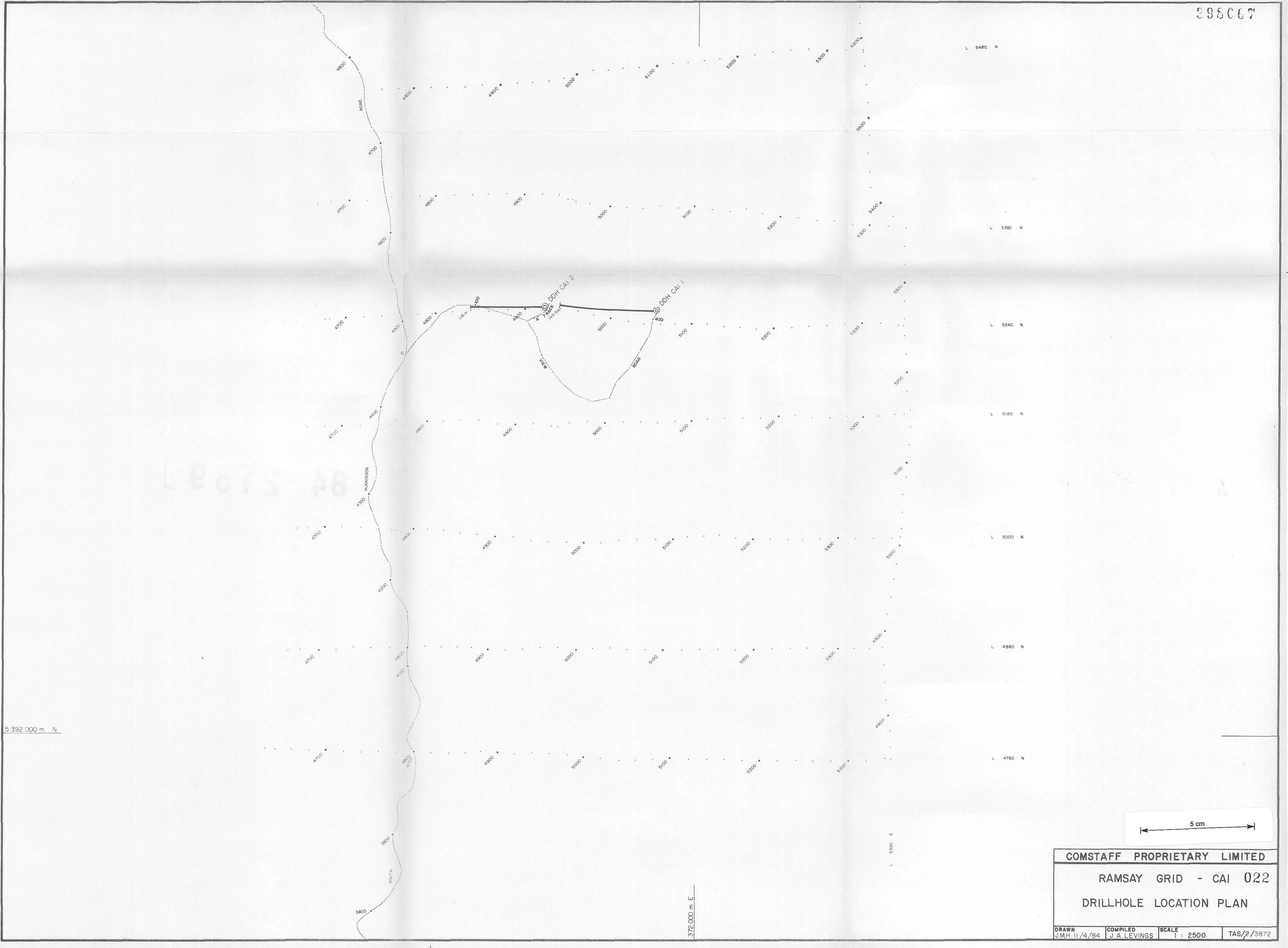
RAMSAY GRID - CAI

GEOCHEMICAL GRID AUGER SAMPLING

TIN CONTOURS in ppm 019

DRAWN	COMPILED	SCALE	
GEODRAFT 3/82	N. P. G.	1 : 2500	TAS/2/2882

398067



COMSTAFF PROPRIETARY LIMITED

RAMSAY GRID - CAI 022

DRILLHOLE LOCATION PLAN

DRAWN	COMPILED	SCALE	
J.M.H. 11/4/84	J.A. LEVINGS	1 : 2500	TAS/2/3872

398068

350 m

300 m

250 m

200 m

4800

4900

DDH CAI 2 (SECTION)

5000

DDH CAI 1 (SECTION)

5100

L 5240 N

σ (mhos/m) *

-001

EOH 116 m

-001

Q (mhos/m) *

-001

-010

-030

-040

-047

-055

-069

-080

EOH 149.5 m

L 5240 N

4800

5 392 460 m N

4900

DDH CAI 2 (PLAN)

DDH CAI 1 (PLAN)

5000

5100

372 000 m E

5 392 430 m N

* 3 sample moving average.
Sample density = 1 metre intervals where possible

5 cm

371 700 m E

371 800 m E

371 900 m E

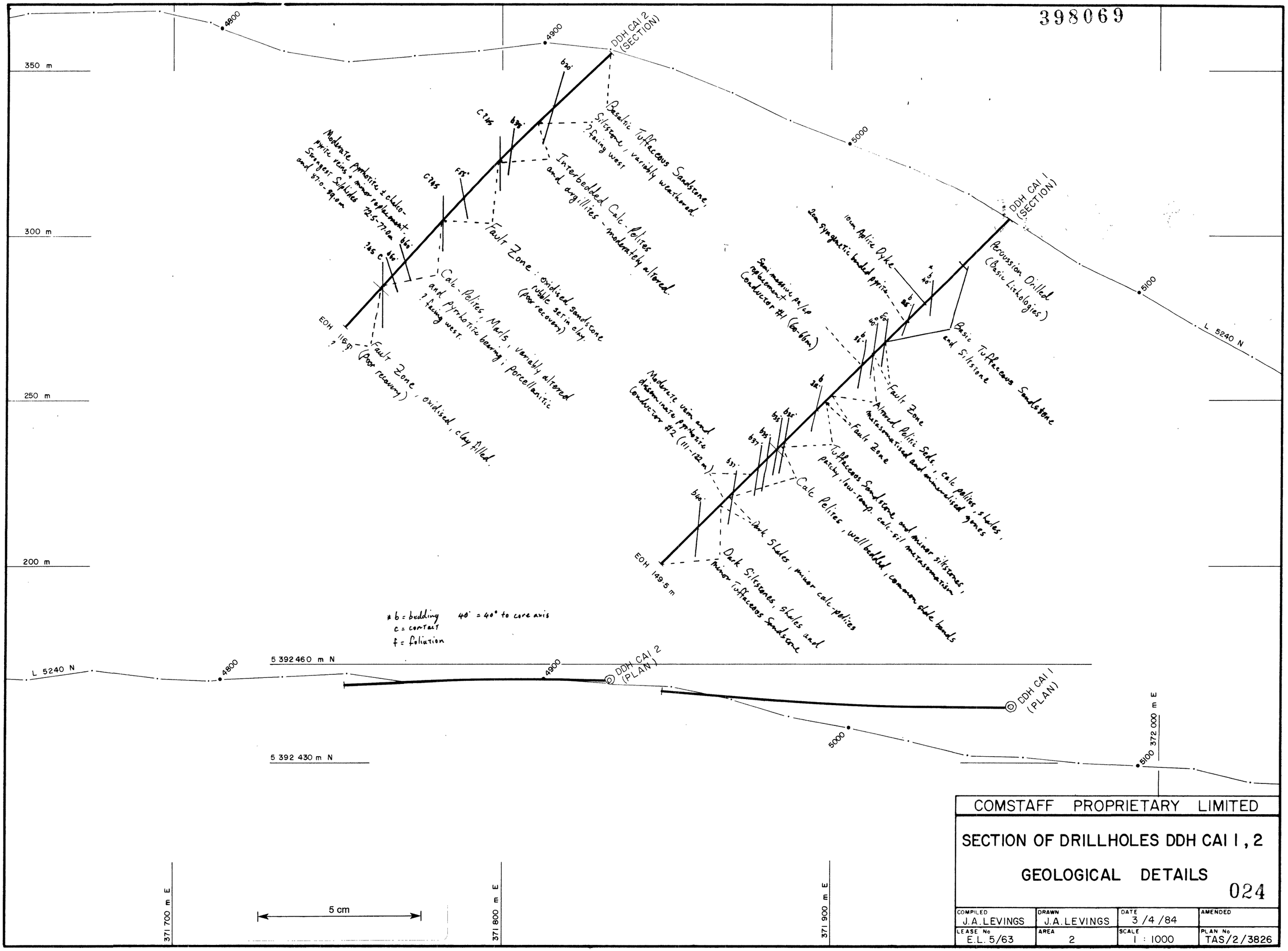
COMSTAFF PROPRIETARY LIMITED

SECTION OF DRILLHOLES DDH CAI 1, 2 PROFILES OF CONDUCTIVITY AND MAGNETIC SUSCEPTIBILITY OF CORE

023

COMPILED	DRAWN	DATE	AMENDED
J A. LEVINGS		3 /4 /84	
LEASE No	AREA	SCALE	PLAN No
E.L. 5/63	2	1 : 1000	TAS/2/3885

398069



COMSTAFF PROPRIETARY LIMITED

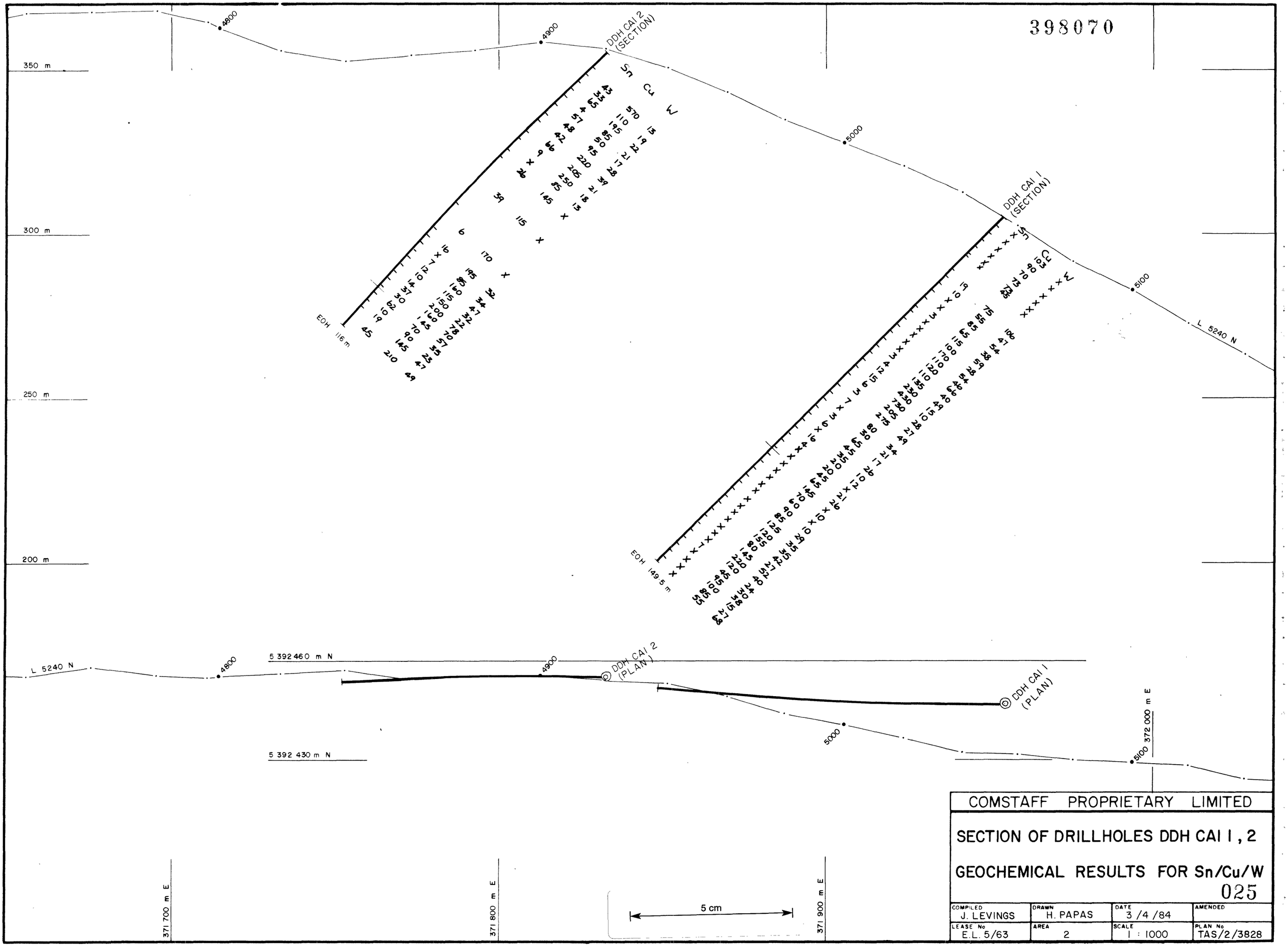
SECTION OF DRILLHOLES DDH CAI 1, 2

GEOLOGICAL DETAILS

024

COMPILED	DRAWN	DATE	AMENDED
J.A. LEVINGS	J.A. LEVINGS	3/4/84	
LEASE No. E.L. 5/63	AREA 2	SCALE 1 : 1000	PLAN No. TAS/2/3826

398070



COMSTAFF PROPRIETARY LIMITED

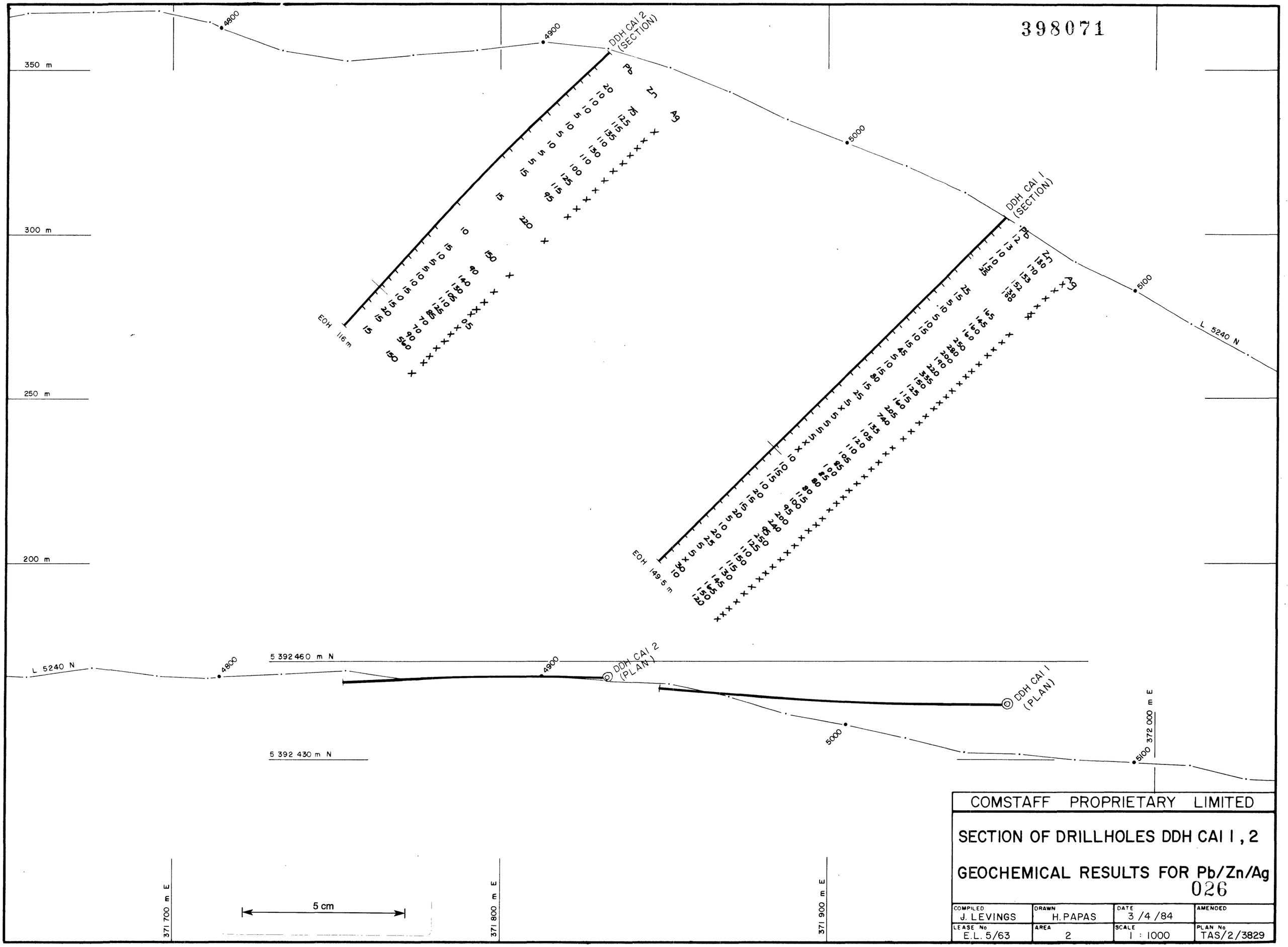
SECTION OF DRILLHOLES DDH CAI 1, 2

GEOCHEMICAL RESULTS FOR Sn/Cu/W

025

COMPILED	DRAWN	DATE	AMENDED
J. LEVINGS	H. PAPAS	3/4/84	
LEASE No.	AREA	SCALE	PLAN No.
E.L. 5/63	2	1 : 1000	TAS/2/3828

398071



COMSTAFF PROPRIETARY LIMITED

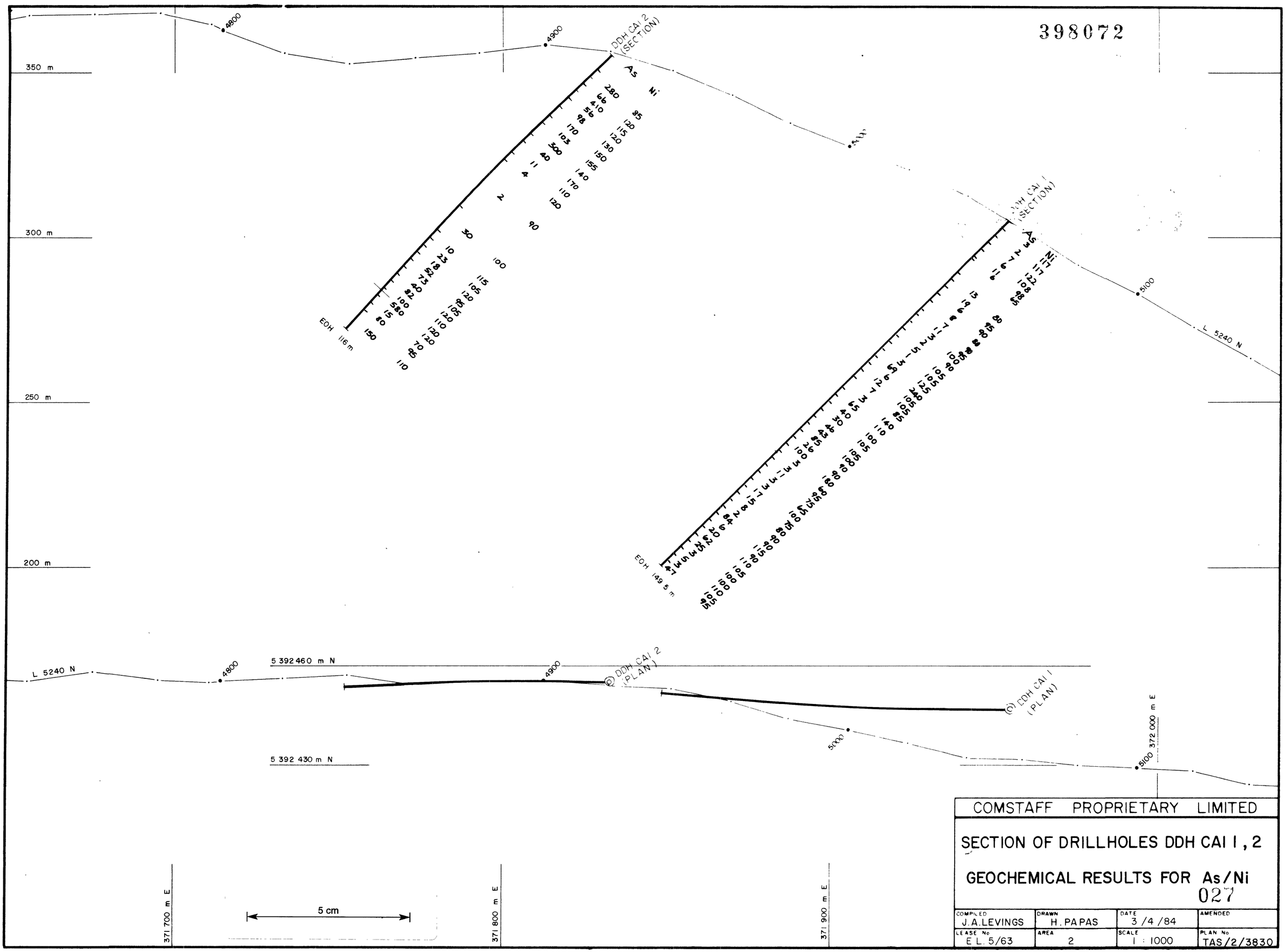
SECTION OF DRILLHOLES DDH CAI 1, 2

GEOCHEMICAL RESULTS FOR Pb/Zn/Ag

026

COMPILED	DRAWN	DATE	AMENDED
J. LEVINGS	H. PAPAS	3/4/84	
LEASE No.	AREA	SCALE	PLAN No.
E.L. 5/63	2	1 : 1000	TAS/2/3829

398072



COMSTAFF PROPRIETARY LIMITED

SECTION OF DRILLHOLES DDH CAI 1, 2

GEOCHEMICAL RESULTS FOR As/Ni

027

COMPILED	DRAWN	DATE	AMENDED
J.A.LEVINGS	H. PAPAS	3/4/84	
LEASE No.	AREA	SCALE	PLAN No.
E.L. 5/63	2	1 : 1000	TAS/2/3830

398073

L 5240 N

L 5120 N

L 5000 N

L 4880 N

L 4760 N

5 392 000 m N

370 000 m E

L 4760 E

371 000 m E

L 5140 E

Ramsay Road

CAI L 5360 N

CAI L 5240 N

CAI L 5120 N

CAI L 5000 N

CAI L 4880 N

5 cm

COMSTAFF PROPRIETARY LIMITED

RAMSAY GRID - CAM

DETAILED GEOLOGICAL PLAN

028

COMPILED	N P G
DRAWN	N. P. G.
DATE	16/3/81
AMENDED	
SCALE	1 : 2500
PLAN No.	TAS/2/2450

L 5480 N
L 5360 N
L 5240 N
L 5120 N
L 5000 N
L 4880 N
L 4760 N

5 392 000 m N

370 000 m E

371 000 m E

L 4760 E

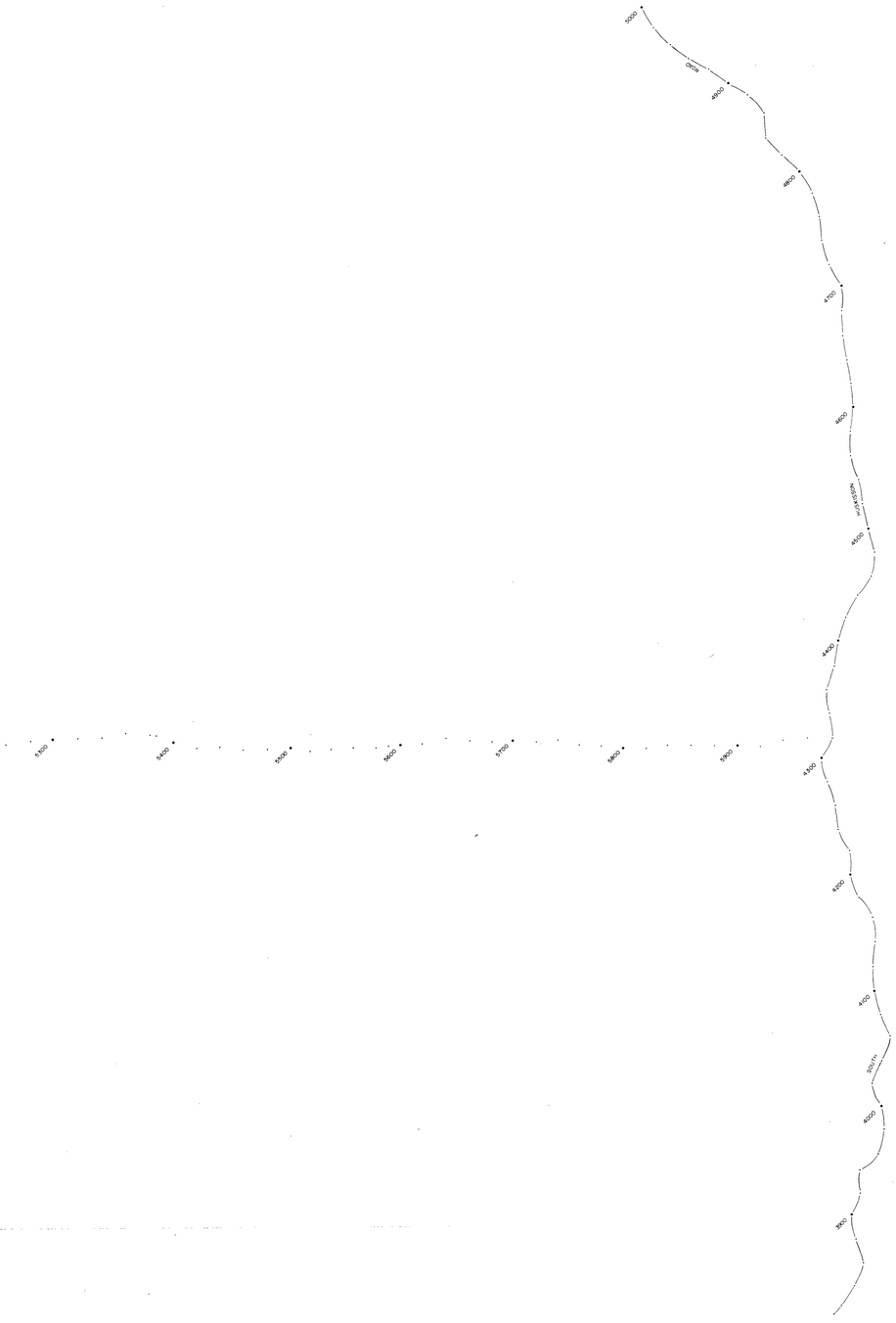
L 5240 E

5 cm

COMSTAFF PROPRIETARY LIMITED	
RAMSAY GRID - CAM	COMPILED: N. P. GREEN
	DRAWN: GEODRAFT — DATE: 4/4/83
	AMENDED:
DETAILED GEOLOGICAL PLAN	SCALE: 1 : 2500
029	PLAN No: TAS/2/2450(A)

398075

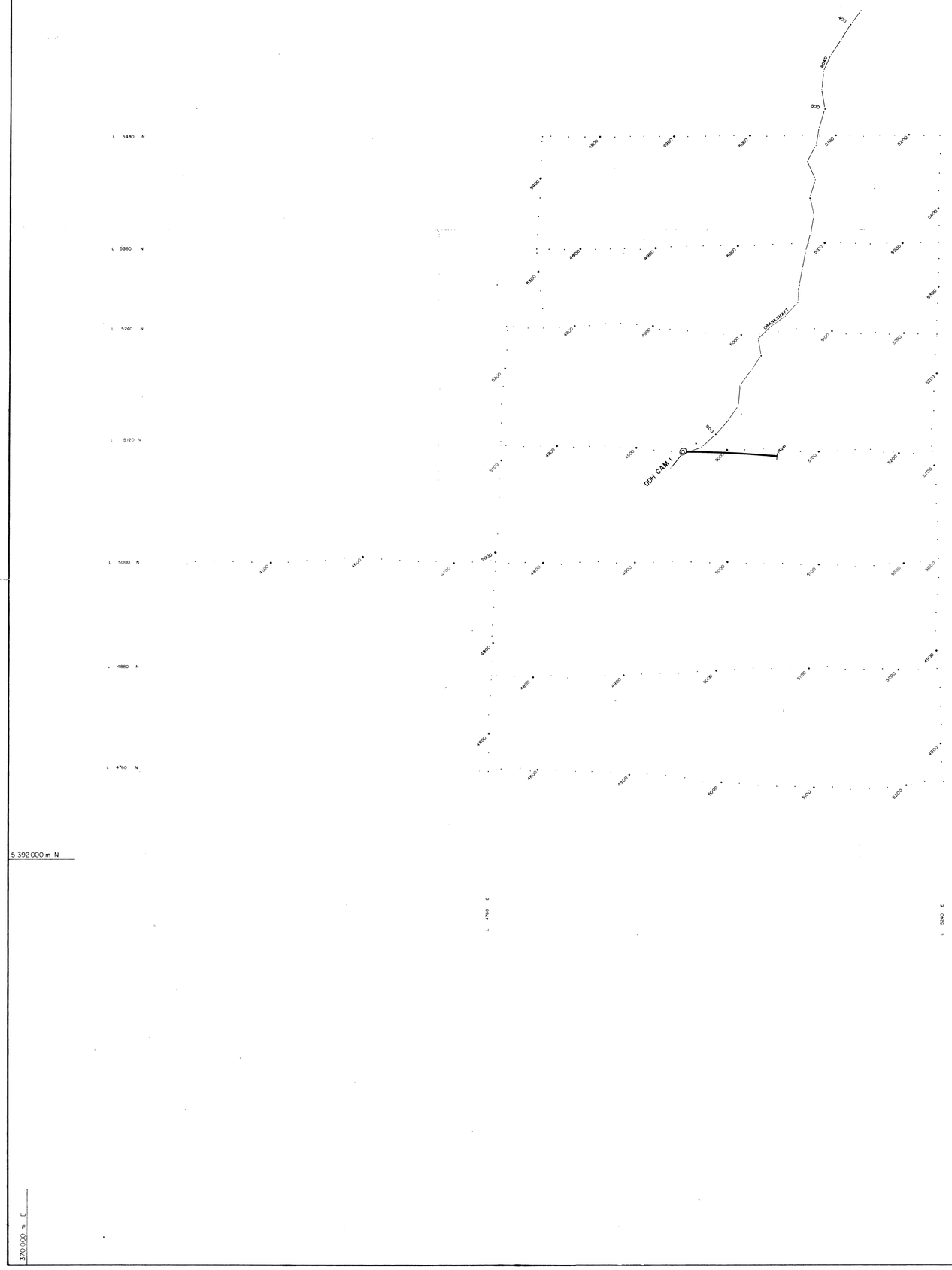




5 cm

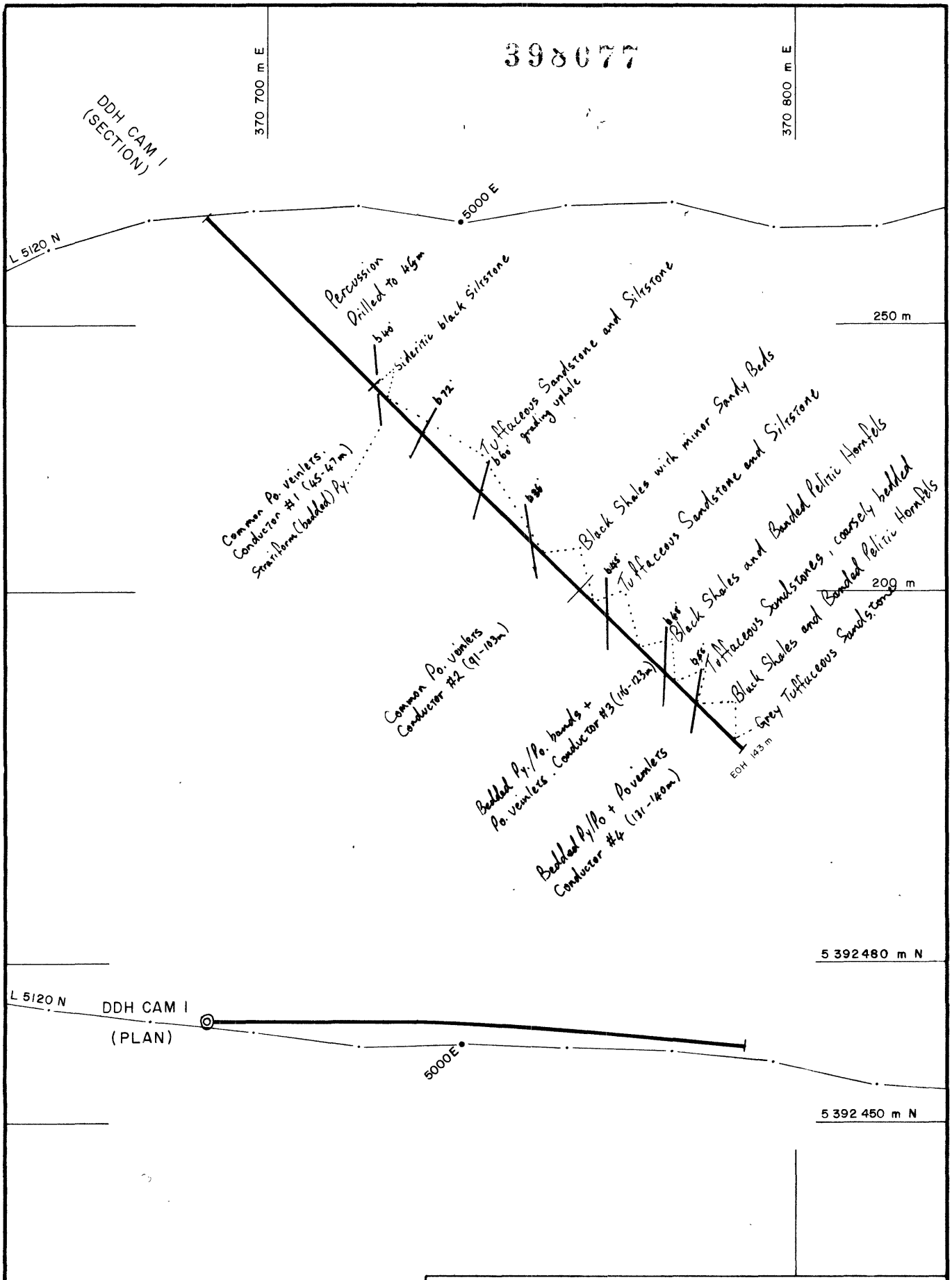
COMSTAFF PROPRIETARY LIMITED	
RAMSAY GRID - CAM CRANKSHAFT ROAD GEOLOGICAL DETAILS 030	COMPILED J.A. LEVINGS DRAWN J.A LEVINGS — DATE 22/5/84 AMENDED SCALE 1 : 2500 PLAN No TAS/2/3939

398076


L 5480 N
L 5360 N
L 5240 N
L 5120 N
L 5000 N
L 4880 N
L 4760 N
5 392 000 m N
370 000 m E
371 000 m E
L 4760 E
L 5240 E
DDH CAM I
RAMSAY GRID - CAM
031
DRILLHOLE LOCATION PLAN
5 cm
COMSTAFF PROPRIETARY LIMITED
COMPILED J.A. LEVINGS
DRAWN J. HARDISTY
DATE 11/4/84
AMENDED
SCALE 1 : 2500
PLAN No TAS/2/3873

044

398077



COMSTAFF PROPRIETARY LIMITED

SECTION OF DRILLHOLE DDH CAM I

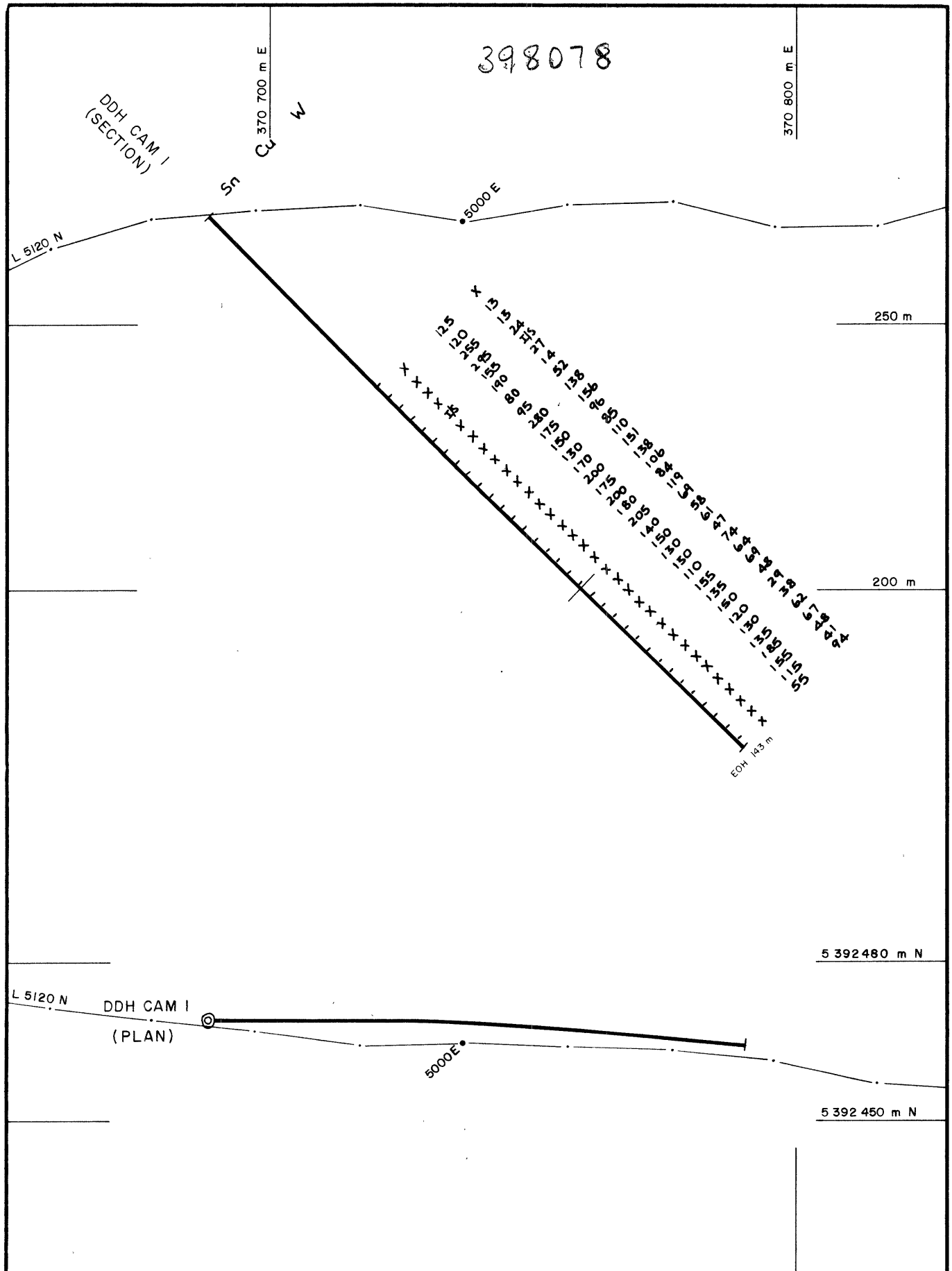
GEOLOGICAL DETAILS

5 cm

COMPILED	DRAWN	DATE	AMENDED
J.A.LEVINGS	J.A.LEVINGS	29/3/84	
LEASE No.	AREA	SCALE	PLAN No.
EL 5/63	2	1 : 1000	TAS/2/3832

045

398078



COMSTAFF PROPRIETARY LIMITED

SECTION OF DRILLHOLE DDH CAM I

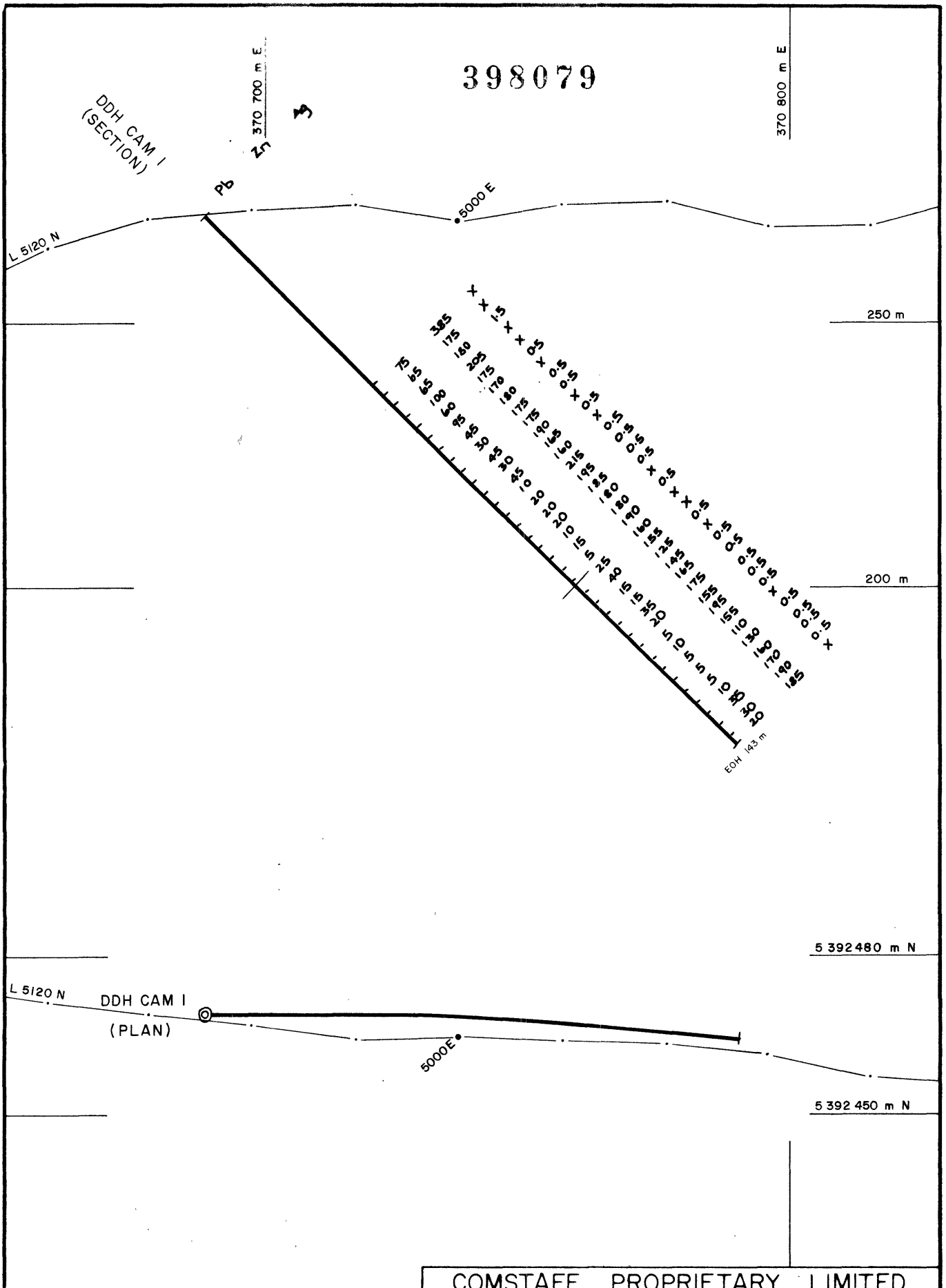
GEOCHEMICAL RESULTS FOR Sn/Cu/W

5 cm

COMPILED	DRAWN	DATE	AMENDED
J.A. LEVINGS	H. PAPAS	29/3/84	
LEASE No.	AREA	SCALE	PLAN No.
EL 5/63	2	1 : 1000	TAS/2/3834

046

398079



5 cm

COMSTAFF PROPRIETARY LIMITED

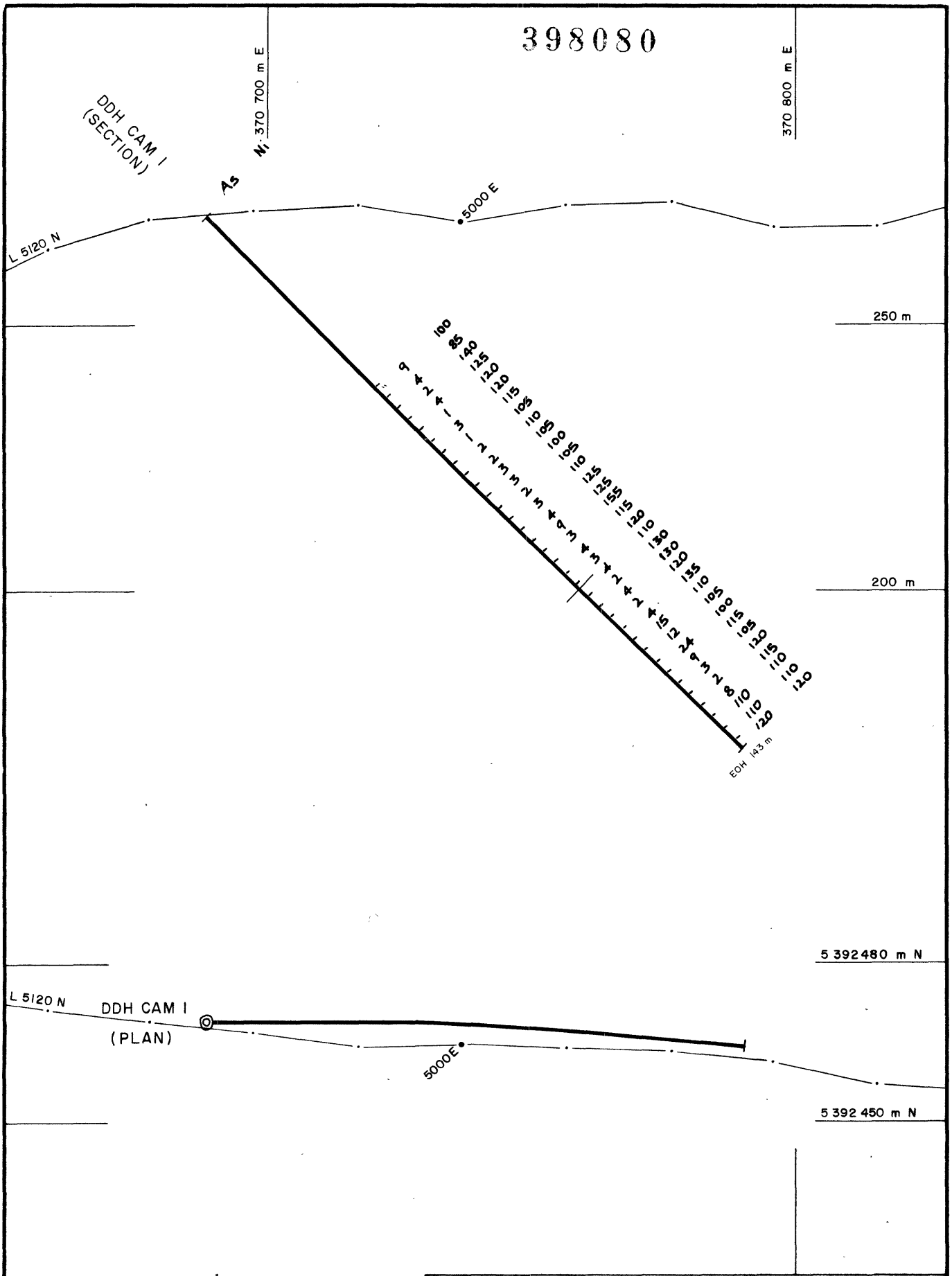
SECTION OF DRILLHOLE DDH CAM I

GEOCHEMICAL RESULTS FOR Pb/Zn/Ag

COMPILED	DRAWN	DATE	AMENDED
J.A.LEVINGS	H. PAPAS	29/3/84	
LEASE No.	AREA	SCALE	PLAN No.
EL 5/63	2	1 : 1000	TAS/2/3835

047

398080



5 cm

COMSTAFF PROPRIETARY LIMITED

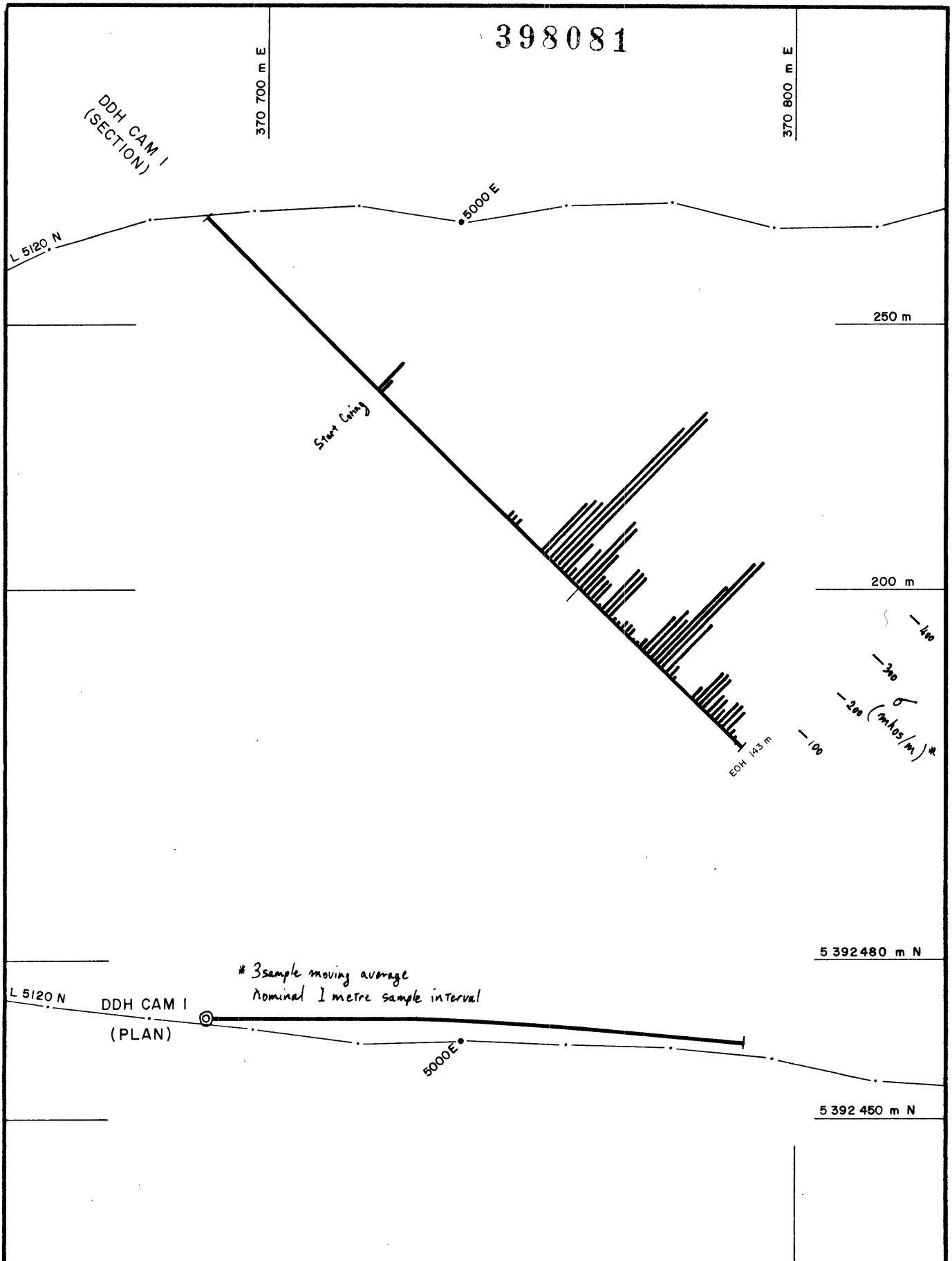
SECTION OF DRILLHOLE DDH CAM I

GEOCHEMICAL RESULTS FOR As/Ni

COMPILED	DRAWN	DATE	AMENDED
J.A. LEVINGS	H.PAPAS	29/3/84	
LEASE No.	AREA	SCALE	PLAN No.
EL 5/63	2	1 : 1000	TAS/2/3836

043

398081



5 cm

COMSTAFF PROPRIETARY LIMITED

SECTION OF DRILLHOLE DDH CAM I PROFILES OF CONDUCTIVITY AND MAGNETIC SUSCEPTIBILITY OF CORE

COMPILED	DRAWN	DATE	AMENDED
J. A. LEVINGS		29/3/84	
LEASE No.	AREA	SCALE	PLAN No.
EL 5/63	2	1 : 1000	TAS/2/3886

398082

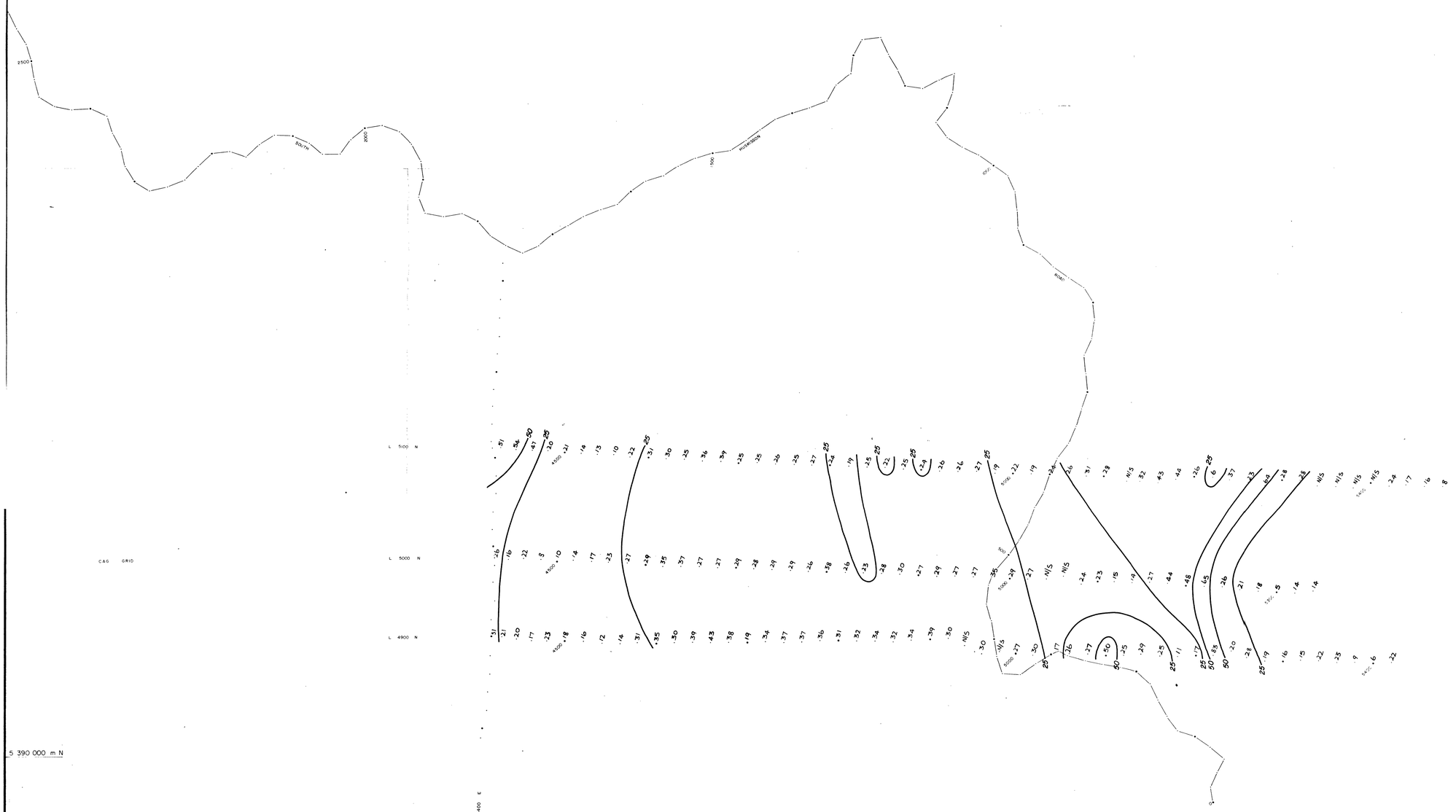


5 cm

COMSTAFF PROPRIETARY LIMITED

LEASE No. EL 5/63	RAMSAY L 30 GRID 032	COMPILED H. PAPAS
AREA 2	GEOCHEMICAL GRID AUGER SAMPLING	DRAWN GEODRAFT
AMENDMENTS 1 2 3 4 5 6 7 8 9 10 11 12 13 14	COPPER RESULTS in ppm	DATE
		SCALE 1 : 2500
		REF No. TAS/2/3513

398083

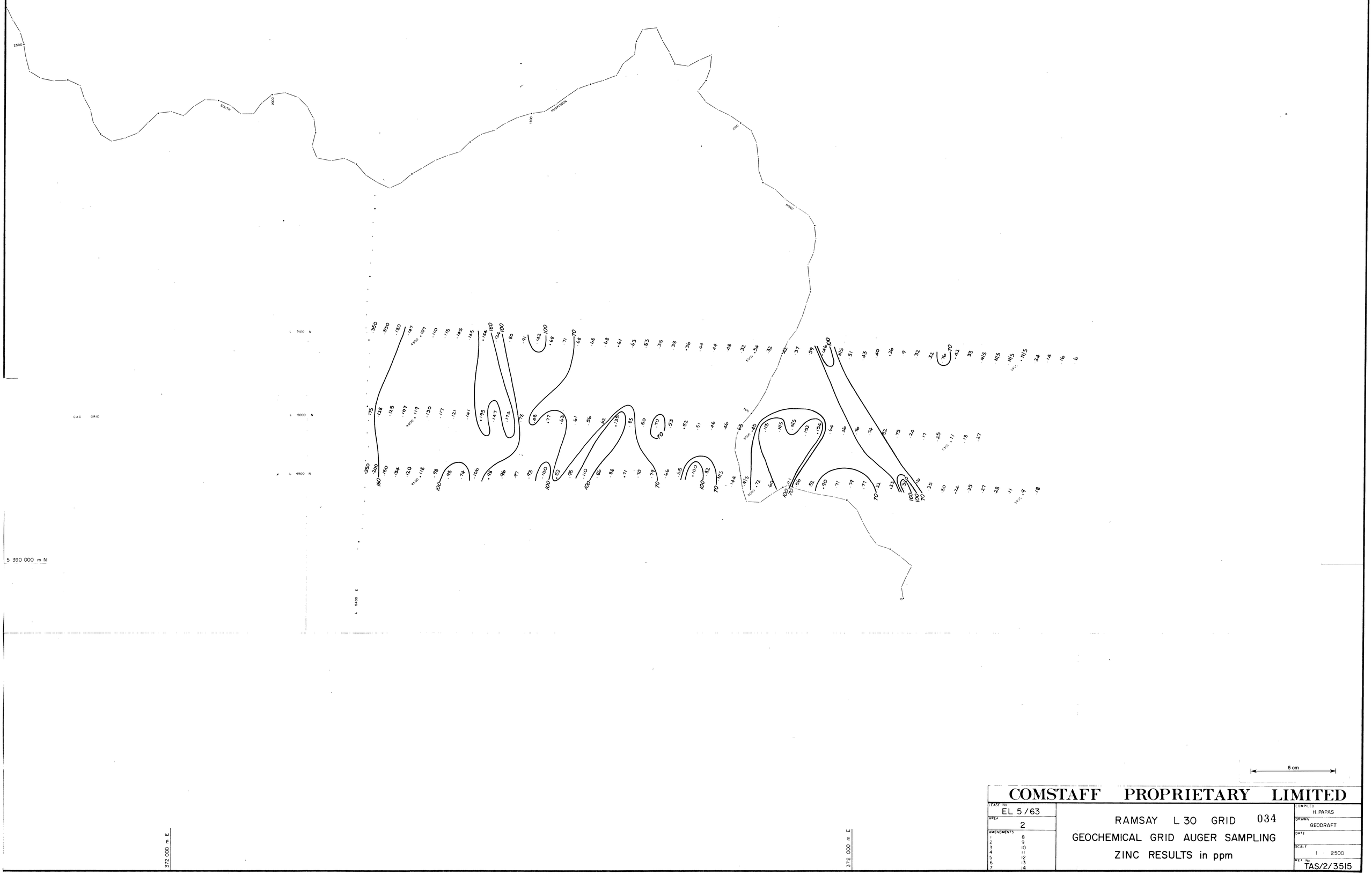


5 cm

COMSTAFF PROPRIETARY LIMITED

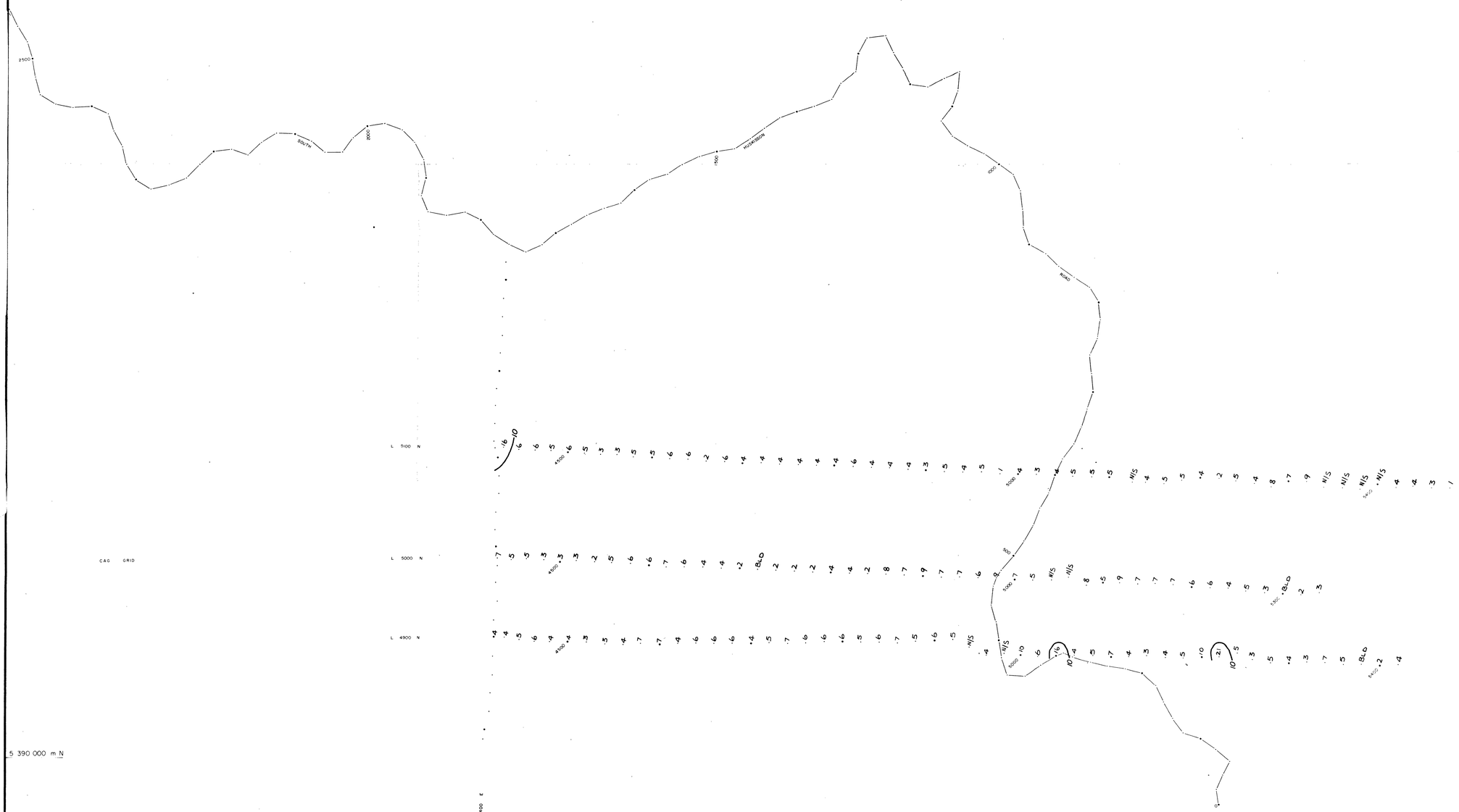
LEASE No. EL 5/63	RAMSAY L 30 GRID 033	COMPILED H. PAPAS
AREA 2	GEOCHEMICAL GRID AUGER SAMPLING	DRAWN GEODRAFT
AMENDMENTS 1 8, 2 9, 3 10, 4 11, 5 12, 6 13, 7 14	LEAD RESULTS in ppm	DATE
		SCALE 1 : 2500
		REF. No. TAS/2/3514

398084



COMSTAFF PROPRIETARY LIMITED		
LEASE No: EL 5/63	RAMSAY L 30 GRID 034	COMPILED: H. PAPAS
AREA: 2	GEOCHEMICAL GRID AUGER SAMPLING	DRAWN: GEODRAFT
AMENDMENTS: 1 8, 2 9, 3 10, 4 11, 5 12, 6 13, 7 14	ZINC RESULTS in ppm	DATE:
		SCALE: 1 : 2500
		REF No: TAS/2/3515

398085



5 cm

COMSTAFF PROPRIETARY LIMITED

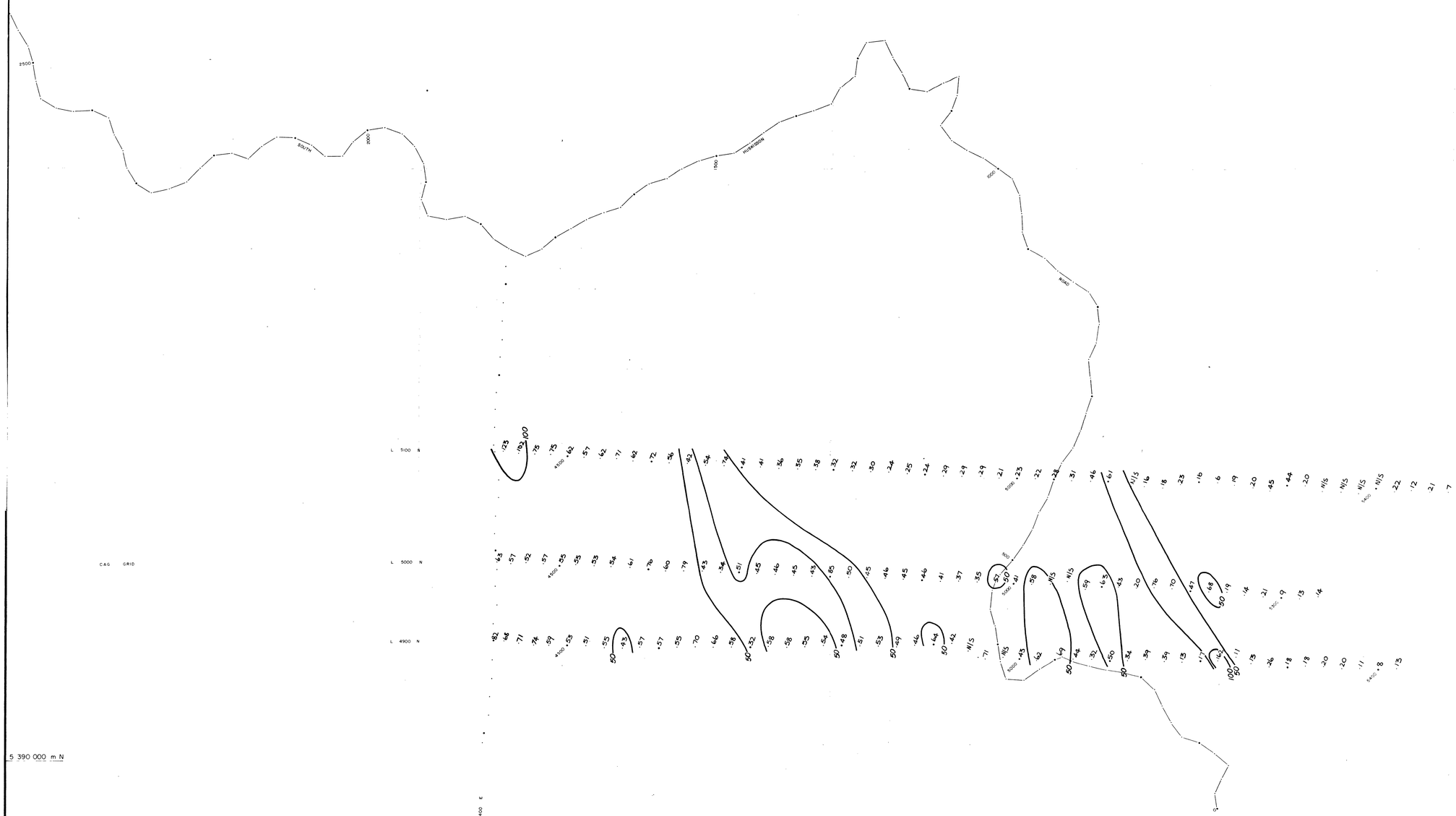
LEASE No: EL 5/63	RAMSAY L 30 GRID 035	COMPILED: H.PAPAS
AREA: 2	GEOCHEMICAL GRID AUGER SAMPLING	DRAWN: GEODRAFT
AMENDMENTS: 1 8, 2 9, 3 10, 4 11, 5 12, 6 13, 7 14	ARSENIC RESULTS in ppm	DATE:
		SCALE: 1 2500
		REF. No: TAS/2/3516

398086



COMSTAFF PROPRIETARY LIMITED			
LEASE No: EL 5/63	RAMSAY L 30 GRID 036	COMPILED: H.PAPAS	
AREA: 2	GEOCHEMICAL GRID AUGER SAMPLING	DRAWN: GEODRAFT	
AMENDMENTS: 1 8, 2 9, 3 10, 4 11, 5 12, 6 13, 7 14	SILVER RESULTS in ppm	DATE:	
		SCALE: 1 : 2500	
		REF No: TAS/2/3517	

398087



5 cm

COMSTAFF PROPRIETARY LIMITED

LEASE No: EL 5/63	RAMSAY L 30 GRID 037	COMPILED: H.PAPAS
AREA: 2	GEOCHEMICAL GRID AUGER SAMPLING	DRAWN: GEODRAFT
AMENDMENTS: 1 8, 2 9, 3 10, 4 11, 5 12, 6 13, 7 14	NICKEL RESULTS in ppm	DATE
		SCALE: 1 : 2500
		REF. No: TAS/2/3518

398088



5 cm

COMSTAFF PROPRIETARY LIMITED

LEASE No. EL 5/63	COMPILED: H. PAPAS
AREA: 2	DRAWN: GEODRAFT
AMENDMENTS: 1 8, 2 9, 3 10, 4 11, 5 12, 6 13, 7 14	DATE:
RAMSAY L 30 GRID 038 GEOCHEMICAL GRID AUGER SAMPLING TIN RESULTS in ppm	SCALE: 1 : 2500
	REF No. TAS/2/3519

398089



5 cm

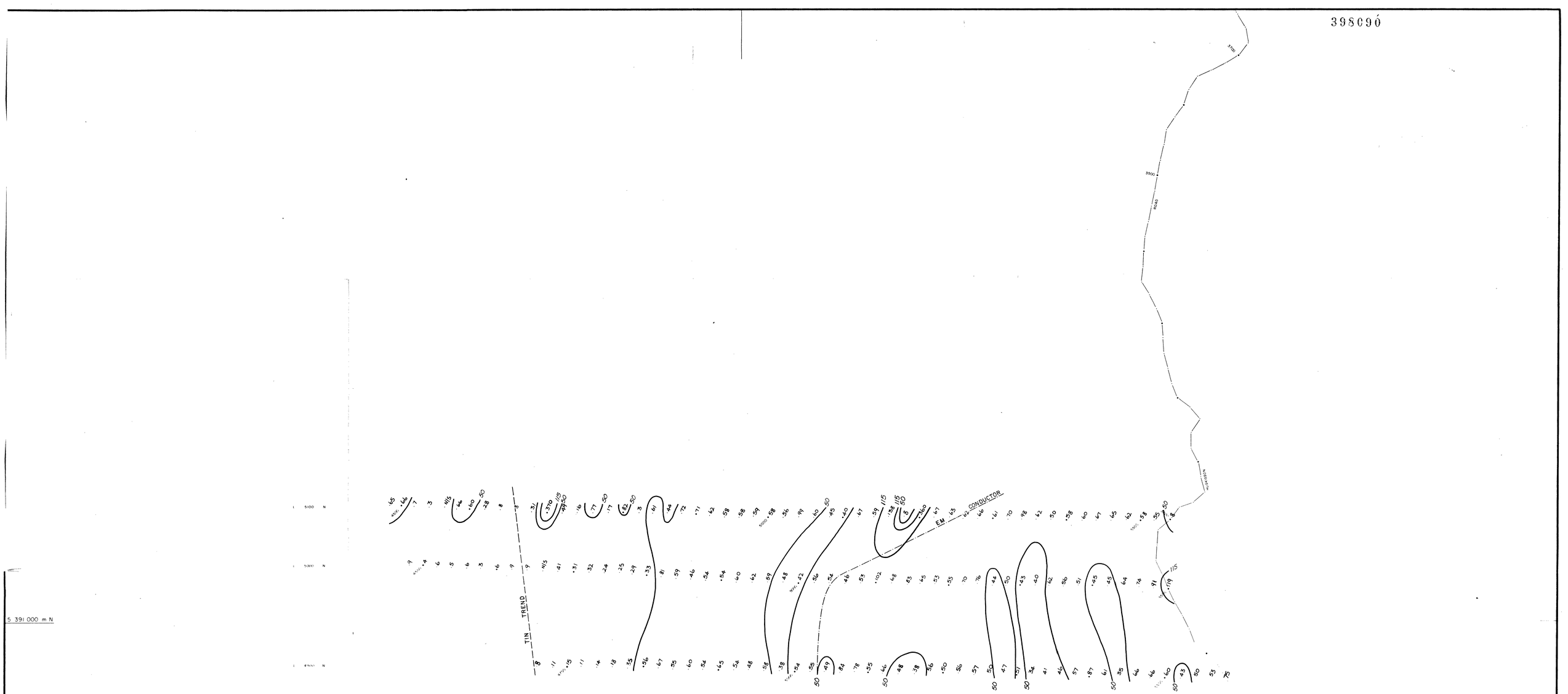
COMSTAFF PROPRIETARY LIMITED

LEASE No. EL 5/63	RAMSAY L 30 GRID 039	COMPILED	H. PAPAS
AREA 2	GEOCHEMICAL GRID AUGER SAMPLING	DRAWN	GEODRAFT
AMENDMENTS 1 8, 2 9, 3 10, 4 11, 5 12, 6 13, 7 14	TUNGSTEN RESULTS in ppm	DATE	
		SCALE	1 : 2500
		REF No.	TAS/2/3520

372 000 m E

372 000 m E

398090



5 cm

COMSTAFF PROPRIETARY LIMITED

EASP No. EL 5/63	RAMSAY L80 GRID 040	COMPILED: H. PAPAS
AREA: 2	GEOCHEMICAL GRID AUGER SAMPLING	DRAWN: GEODRAFT
AMENDMENTS: 1 8, 2 9, 3 10, 4 11, 5 12, 6 13, 7 14	COPPER RESULTS in ppm	DATE
		SCALE: 1 2500
		REF. No. TAS/2/3500

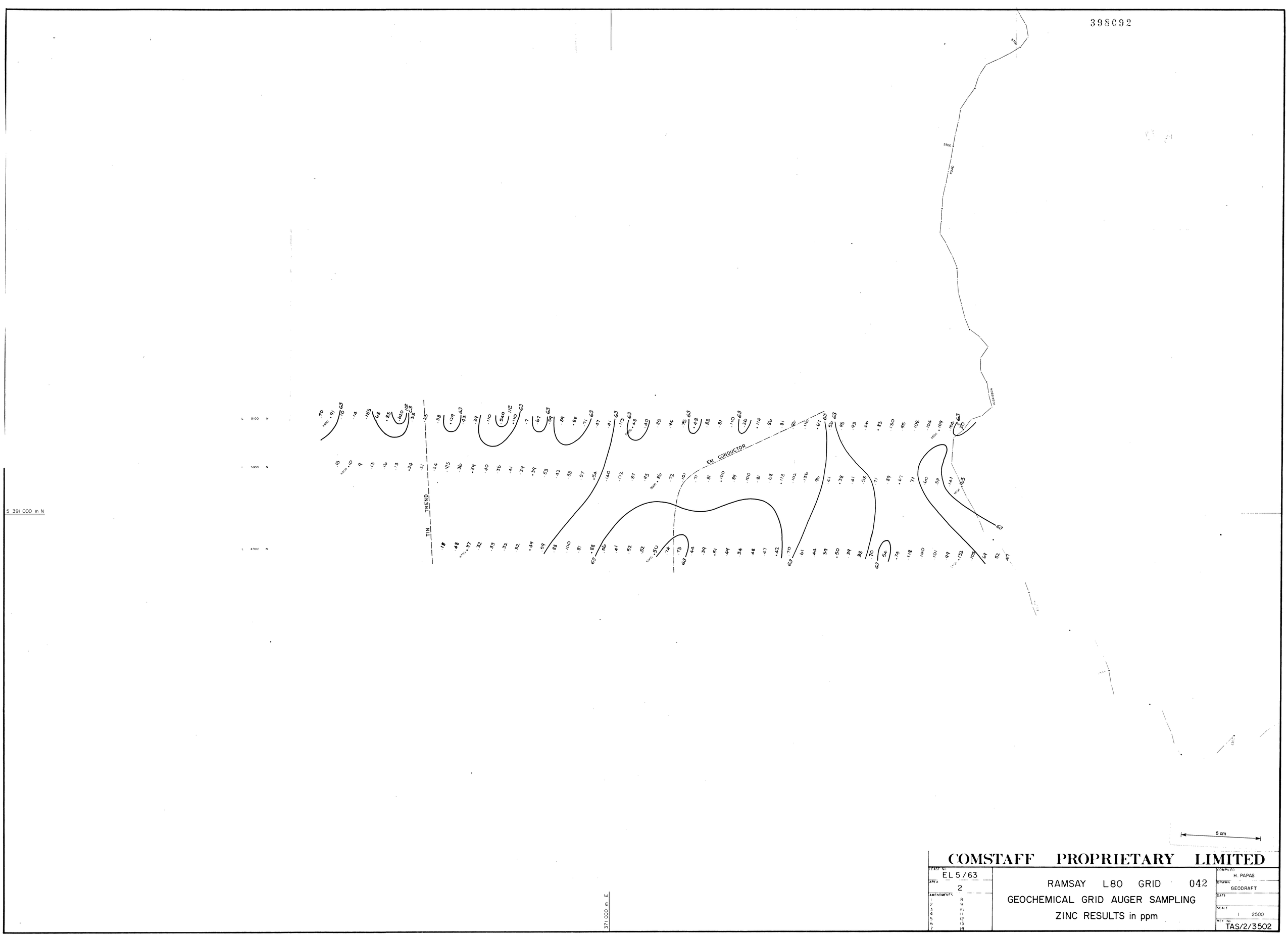
398091



COMSTAFF PROPRIETARY LIMITED

TASF No: EL 5/63	RAMSAY L80 GRID 041	COMPILED: H. PAPAS
AREA: 2	GEOCHEMICAL GRID AUGER SAMPLING	DRAWN: GEODRAFT
AMENDMENTS: 1 8, 2 9, 3 10, 4 11, 5 12, 6 13, 7 14	LEAD RESULTS in ppm	DATE
		SCALE: 1 : 2500
		REF No: TAS/2/3501

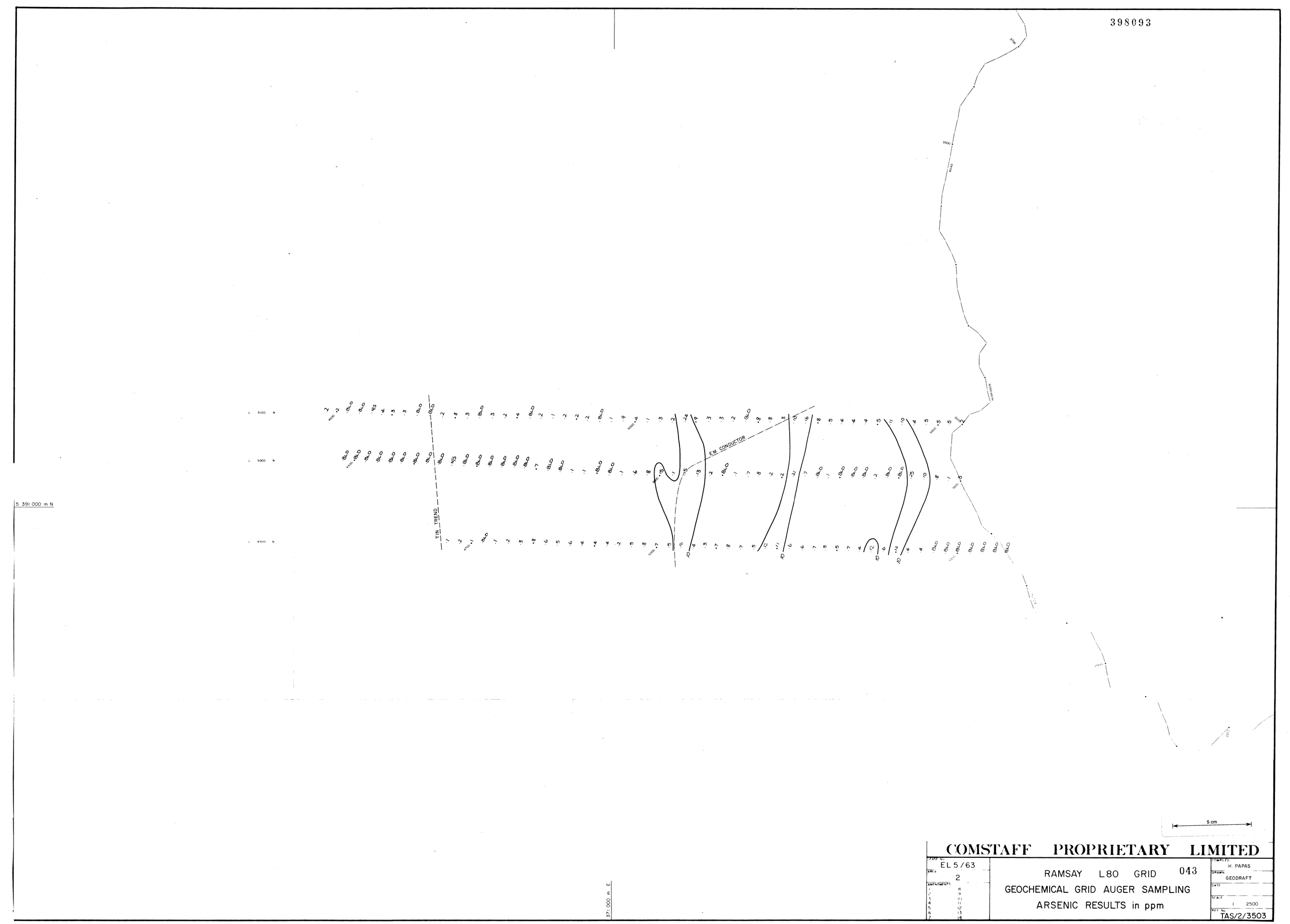
398092



COMSTAFF PROPRIETARY LIMITED

TASP No. EL 5/63	RAMSAY L80 GRID 042	COMPILED H. PAPAS
AREA 2	GEOCHEMICAL GRID AUGER SAMPLING	DRAWN GEODRAFT
AMENDMENTS 1 8, 2 9, 3 10, 4 11, 5 12, 6 13, 7 14	ZINC RESULTS in ppm	DATE
		SCALE 1 2500
		REF No. TAS/2/3502

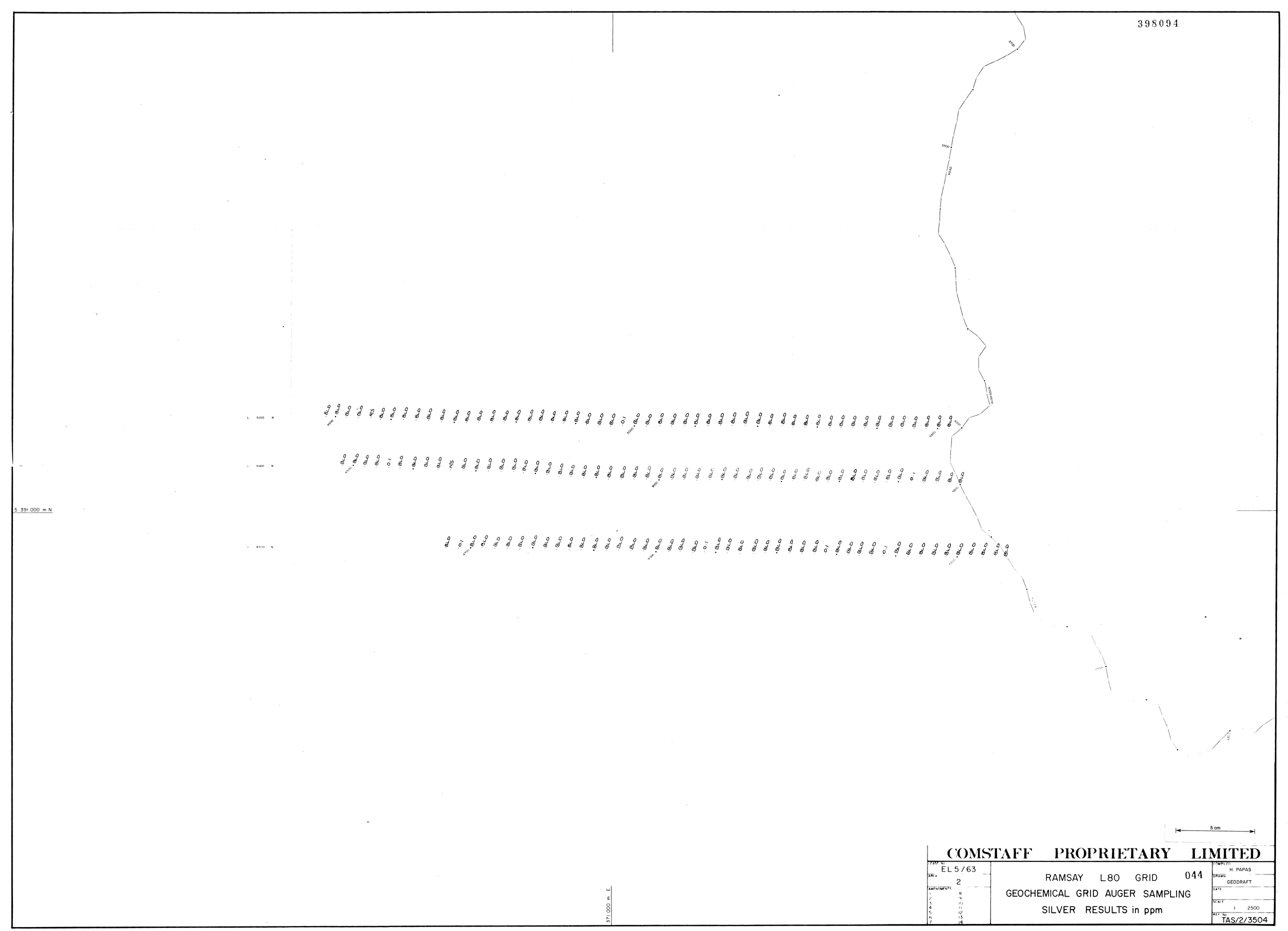
398093



COMSTAFF PROPRIETARY LIMITED

TASP No. EL 5/63	RAMSAY L80 GRID 043	COMPILED H. PAPAS
AREA 2	GEOCHEMICAL GRID AUGER SAMPLING	DRAWN GEODRAFT
AMENDMENTS 1 2 3 4 5 6 7	ARSENIC RESULTS in ppm	DATE
		SCALE 1 : 2500
		REF No. TAS/2/3503

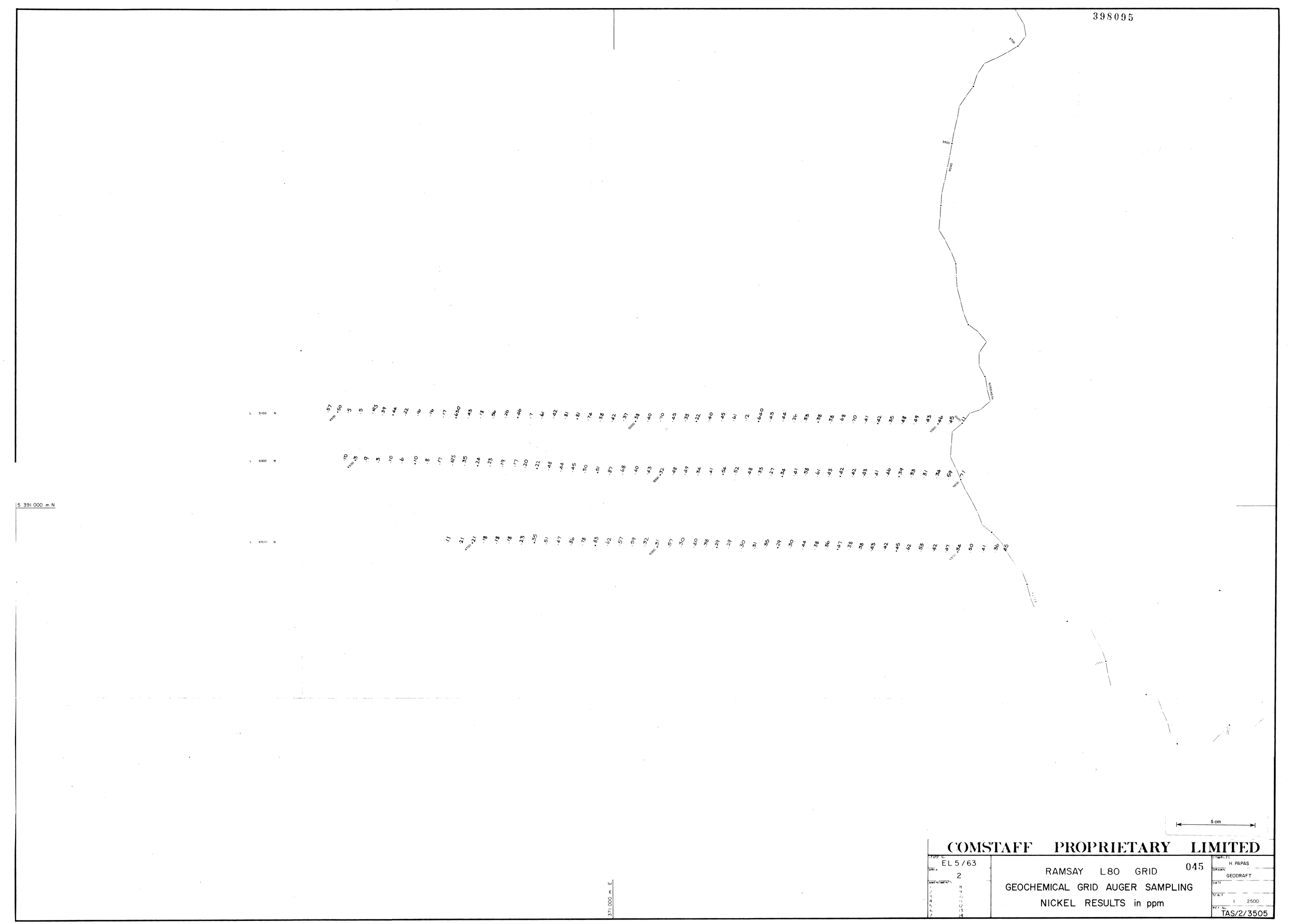
398094



COMSTAFF PROPRIETARY LIMITED

LEASE No. EL 5/63	RAMSAY L80 GRID 044	COMPILED H. PAPAS
AREA 2	GEOCHEMICAL GRID AUGER SAMPLING	DRAWN GEODRAFT
AMENDMENTS 1 8 2 9 3 10 4 11 5 12 6 13 7 14	SILVER RESULTS in ppm	DATE
		SCALE 1 2500
		REF No TAS/2/3504

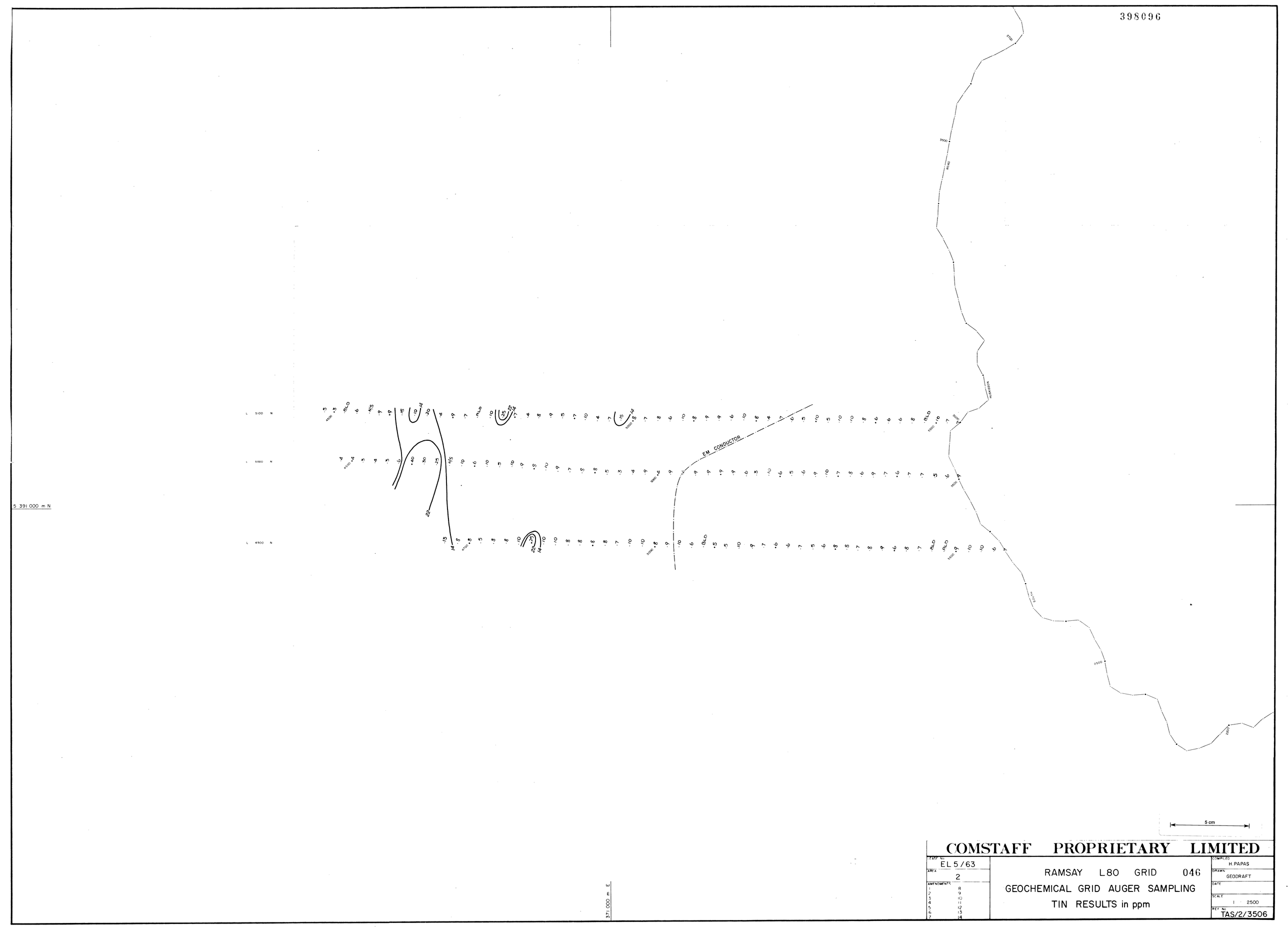
398095



COMSTAFF PROPRIETARY LIMITED

PARA No. EL 5/63 AREA 2 AMENDMENTS: 1 … 7	RAMSAY L80 GRID 045 GEOCHEMICAL GRID AUGER SAMPLING NICKEL RESULTS in ppm	COMPILED H. PAPAS DRAWN GEODRAFT DATE SCALE 1 2500 REF No. TAS/2/3505

398096



COMSTAFF PROPRIETARY LIMITED

LEASE No. EL 5/63	RAMSAY L80 GRID 046	COMPILED H.PAPAS
AREA 2	GEOCHEMICAL GRID AUGER SAMPLING	DRAWN GEODRAFT
AMENDMENTS 1 8, 2 9, 3 10, 4 11, 5 12, 6 13, 7 14	TIN RESULTS in ppm	DATE
		SCALE 1 : 2500
		REF. No. TAS/2/3506

398097



COMSTAFF PROPRIETARY LIMITED

EAST No. EL 5/63	RAMSAY L80 GRID 047	COMPILED	H. PAPAS
AREA 2	GEOCHEMICAL GRID AUGER SAMPLING	DRAWN	GEODRAFT
AMENDMENTS 1 8, 2 9, 3 10, 4 11, 5 12, 6 13, 7 14	TUNGSTEN RESULTS in ppm	DATE	
		SCALE	1 2500
		REF No.	TAS/2/3507

398098

5 393 000 m N

L 5100 N

L 5000 N

L 4900 N

370 000 m E

371 000 m E

RAMSAY

ROAD

5 cm

COMSTAFF PROPRIETARY LIMITED		
LEASE No. EL 5/63	RAMSAY L211 GRID 048	COMPILED H. PAPAS
AREA 2	GEOCHEMICAL GRID AUGER SAMPLING	DRAWN GEODRAFT
AMENDMENTS 1 8 2 9 3 10 4 11 5 12 6 13 7 14	COPPER RESULTS in ppm	DATE
		SCALE 1 : 2500
		REF. No. TAS/2/3487

398099

5 393 000 m N

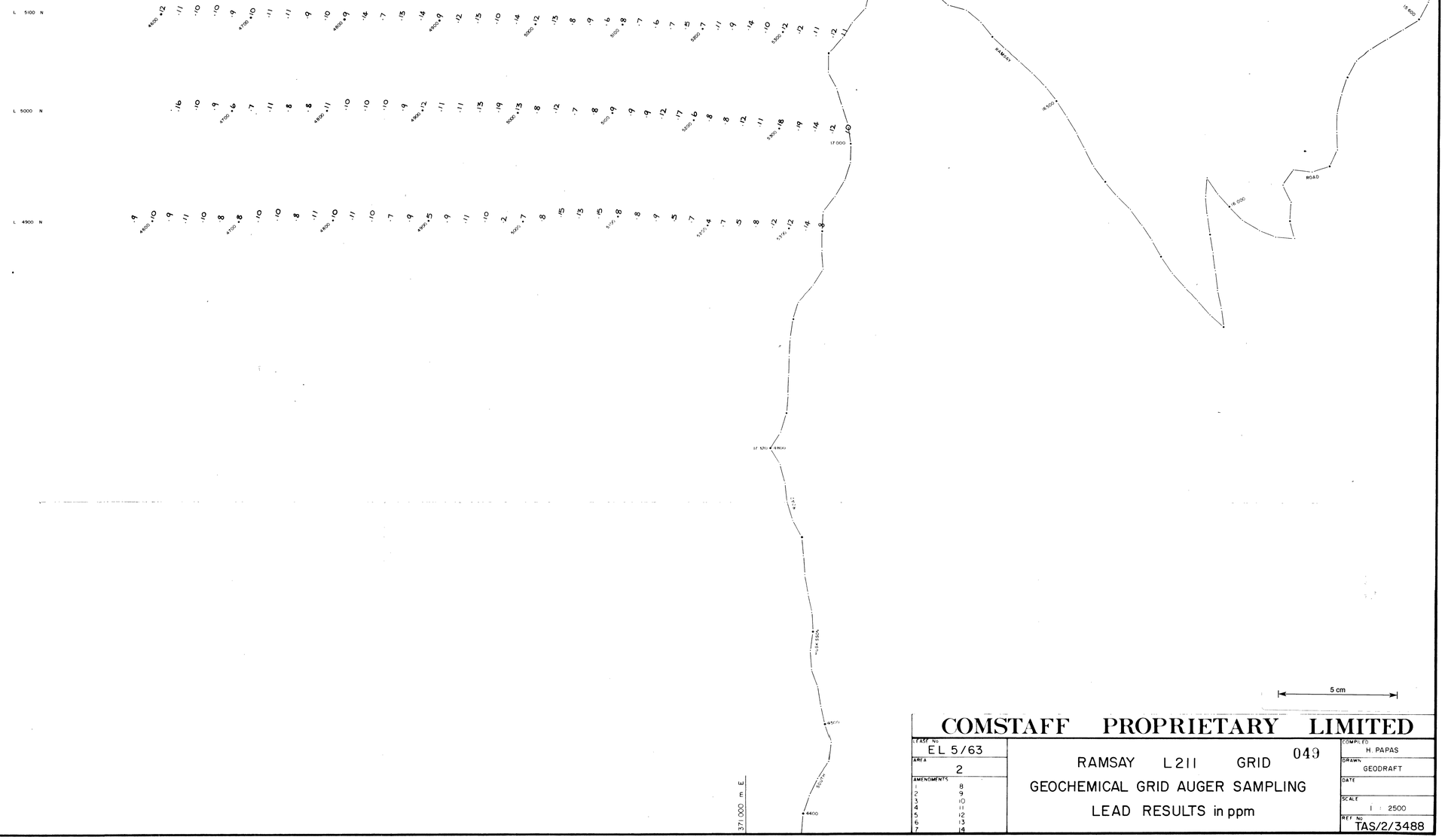
L 5100 N

L 5000 N

L 4900 N

370 000 m E

371 000 m E



5 cm

COMSTAFF PROPRIETARY LIMITED

LEASE No: EL 5/63	RAMSAY L211 GRID 049	COMPILED: H. PAPAS
AREA: 2	GEOCHEMICAL GRID AUGER SAMPLING	DRAWN: GEODRAFT
AMENDMENTS: 1 8, 2 9, 3 10, 4 11, 5 12, 6 13, 7 14	LEAD RESULTS in ppm	DATE:
		SCALE: 1 : 2500
		REF No: TAS/2/3488

398100

5 393 000 m N

L 5100 N

L 5000 N

L 4900 N

370 000 m E

371 000 m E

RAMSAY

ROAD

5 cm

COMSTAFF PROPRIETARY LIMITED

LEASE No: EL 5/63	RAMSAY L211 GRID 050	COMPILED: H. PAPAS
AREA: 2	GEOCHEMICAL GRID AUGER SAMPLING	DRAWN: GEODRAFT
AMENDMENTS: 1 8, 2 9, 3 10, 4 11, 5 12, 6 13, 7 14	ZINC RESULTS in ppm	DATE:
		SCALE: 1 : 2500
		REF. No: TAS/2/3489

398101

5 393 000 m N

L 5100 N

L 5000 N

L 4900 N

370 000 m E

371 000 m E

RAMSAY

ROAD

17 000

17 500

18 000

18 500

5 cm

COMSTAFF PROPRIETARY LIMITED

LEASE No. EL 5/63	RAMSAY L211 GRID 051	COMPILED H. PAPAS
AREA 2	GEOCHEMICAL GRID AUGER SAMPLING	DRAWN GEODRAFT
AMENDMENTS 1 8, 2 9, 3 10, 4 11, 5 12, 6 13, 7 14	ARSENIC RESULTS in ppm	DATE
		SCALE 1 : 2500
		REF No. TAS/2/3490

398102

5 393 000 m N

L 5100 N

L 5000 N

L 4900 N

370 000 m E

371 000 m E

RAMSAY

ROAD

5 cm

COMSTAFF PROPRIETARY LIMITED

LEASE No. EL 5/63	RAMSAY L211 GRID 052	COMPILED: H. PAPAS
AREA 2	GEOCHEMICAL GRID AUGER SAMPLING	DRAWN: GEODRAFT
AMENDMENTS 1 8, 2 9, 3 10, 4 11, 5 12, 6 13, 7 14	SILVER RESULTS in ppm	DATE
		SCALE 1 : 2500
		REF. No. TAS/2/3491

398103

5 393 000 m N

L 5100 N

L 5000 N

L 4900 N

370 000 m E

371 000 m E

5 cm

COMSTAFF PROPRIETARY LIMITED

LEASE No. EL 5/63	053
AREA 2	RAMSAY L211 GRID
AMENDMENTS 1 8, 2 9, 3 10, 4 11, 5 12, 6 13, 7 14	GEOCHEMICAL GRID AUGER SAMPLING
	NICKEL RESULTS in ppm
COMPILED: H. PAPAS	
DRAWN: GEODRAFT	
DATE:	
SCALE: 1 : 2500	
REF No. TAS/2/3492	

398104

5 393 000 m N

L 5100 N

L 5000 N

L 4900 N

370 000 m E

371 000 m E.

RAMSAY

#OAR

5 cm

COMSTAFF PROPRIETARY LIMITED

LEASE No. EL 5/63	RAMSAY L211 GRID 054
AREA 2	GEOCHEMICAL GRID AUGER SAMPLING
AMENDMENTS 1 8, 2 9, 3 10, 4 11, 5 12, 6 13, 7 14	TIN RESULTS in ppm
COMPILED H. PAPAS	
DRAWN GEODRAFT	
DATE	
SCALE 1 : 2500	
REF No. TAS/2/3493	

398105

5 393 000 m N

L 5100 N

L 5000 N

L 4900 N

370 000 m E

371 000 m E

17 000

17 320 4800

4500

4400

RAMSAY

ROAD

SOUTH

HUMPHRIS

5 cm

COMSTAFF PROPRIETARY LIMITED

LEASE No. EL 5/63	RAMSAY L211 GRID 055	COMPILED	H. PAPAS
AREA 2	GEOCHEMICAL GRID AUGER SAMPLING	DRAWN	GEODRAFT
AMENDMENTS 1 8 2 9 3 10 4 11 5 12 6 13 7 14	TUNGSTEN RESULTS in ppm	DATE	
		SCALE	1 : 2500
		REF No.	TAS/2/3494

398106

5 394 000 m N

5 393 000 m N

370 000 m E

371 000 m E

L 5100 N

L 5000 N

L 4900 N

CREEK

KINLOCH

5 cm

COMSTAFF PROPRIETARY LIMITED

TEASE No. EL 5/63	RAMSAY L 250 GRID 056	COMPILED H PAPAS
AREA 2	GEOCHEMICAL GRID AUGER SAMPLING	DRAWN GEODRAFT
AMENDMENTS 1 8, 2 9, 3 10, 4 11, 5 12, 6 13, 7 14	COPPER RESULTS in ppm	DATE
		SCALE 1 : 2500
		REF. No. TAS/2/3474

398107

5 394 000 m N

L 5100 N

L 5000 N

L 4900 N

5 393 000 m N

370 000 m E

371 000 m E

1500 1200 1100 CREEK 1000 900 800 700 600 5400 500 400 300 200 KIMLOCH 100 0

EM

5 cm

COMSTAFF PROPRIETARY LIMITED

LEASE No: EL 5/63	RAMSAY L 250 GRID 057
AREA 2	GEOCHEMICAL GRID AUGER SAMPLING
AMENDMENTS: 1 8, 2 9, 3 10, 4 11, 5 12, 6 13, 7 14	LEAD RESULTS in ppm
COMPILED: H. PAPAS	
DRAWN: GEODRAFT	
DATE:	
SCALE: 1 : 2500	
REF. No: TAS/2/3475	

398108

5 394 000 m N

5 393 000 m N

370 000 m E

371 000 m E

L 5100 N

L 5000 N

L 4900 N

CREEK

KINLOCH

5 cm

COMSTAFF PROPRIETARY LIMITED

LEASE No. EL 5/63	RAMSAY L 250 GRID 058	COMPILED H PAPAS
AREA 2	GEOCHEMICAL GRID AUGER SAMPLING	DRAWN GEODRAFT
AMENDMENTS 1 8, 2 9, 3 10, 4 11, 5 12, 6 13, 7 14	ZINC RESULTS in ppm	DATE
		SCALE 1 : 2500
		REF. No. TAS/2/3476

398109

5 394 000 m N

L 5100 N

L 5000 N

L 4900 N

5 393 000 m N

370 000 m E

371 000 m E

CREEK

KNOLL

5 cm

COMSTAFF PROPRIETARY LIMITED

LEASE No. EL 5/63	RAMSAY L 250 GRID 059	COMPILED	H. PAPAS
AREA 2	GEOCHEMICAL GRID AUGER SAMPLING	DRAWN	GEODRAFT
AMENDMENTS 1 2 3 4 5 6 7 8 9 10 11 12 13 14	ARSENIC RESULTS in ppm	DATE	
		SCALE	1 : 2500
		REF. No.	TAS/2/3477

398110

5 394 000 m N

5 393 000 m N

370 000 m E

371 000 m E

L 5100 N

L 5000 N

L 4900 N

CREEK

KINGLEY

5 cm

COMSTAFF PROPRIETARY LIMITED

TASK No. EL 5/63	RAMSAY L 250 GRID 060	COMPILED H. PAPAS
AREA 2	GEOCHEMICAL GRID AUGER SAMPLING	DRAWN GEODRAFT
AMENDMENTS A, 1, 4, 5, 7 / 1, 2, 3, 4	SILVER RESULTS in ppm	DATE
		SCALE 1 : 2500
		REF No. TAS/2/3478

398111

5 394 000 m N

5 393 000 m N

370 000 m E

371 000 m E

L 5100 N

L 5000 N

L 4900 N

CREEK

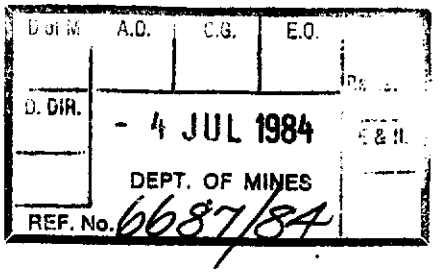
KINLOCH

5 cm

COMSTAFF PROPRIETARY LIMITED

LEASE No. EL 5/63	RAMSAY L 250 GRID 061	COMPILED	H PAPAS
AREA 2	GEOCHEMICAL GRID AUGER SAMPLING	DRAWN	GEODRAFT
AMENDMENTS 1 8, 2 9, 3 10, 4 11, 5 12, 6 13, 7 14	NICKEL RESULTS in ppm	DATE	
		SCALE	1 : 2500
		REF. No.	TAS/2/3479

398112



PROJECT NAME: COMSTAFF PROPRIETARY LIMITED

TITLE: INTERIM REPORT ON THE WEST RAMSAY GRIDS
CAI, CAM, L30, L80, L211, L250 AND CKC
EL 5/63 AREA 2: MAY 1984

VOLUME 3 OF 3

AREA NAME/S, STATE 1:250,000 SHEET NO/S & COORDINATES:

COMMODITY/IES:

TEXT PAGES NO:

PLAN NOS:

TABLE NOS:

APPENDICES:

AUTHOR/S:

DATE:



AUSTRALIAN ANGLO AMERICAN LIMITED

Incorporated in the State of Victoria

398113

5 394 000 m N

5 393 000 m N

370 000 m E

371 000 m E

L 5100 N

L 5000 N

L 4900 N

CREEK

KANOSH

EM

5 cm

COMSTAFF PROPRIETARY LIMITED

TASK No. EL 5/63	RAMSAY L 250 GRID 062	COMPILED	H PAPAS
AREA 2	GEOCHEMICAL GRID AUGER SAMPLING	DRAWN	GEODRAFT
AMENDMENTS 1 8, 2 9, 3 10, 4 11, 5 12, 6 13, 7 14	TIN RESULTS in ppm	DATE	
		SCALE	1 : 2500
		REF No.	TAS/2/3480

398114

5 394 000 m N

5 393 000 m N

370 000 m E

371 000 m E

L 5100 N

L 5000 N

L 4900 N

CREEK

KINLOCH

5 cm

COMSTAFF PROPRIETARY LIMITED

EL 5/63	RAMSAY L 250 GRID 063	COMPILED	H. PAPAS
AREA 2	GEOCHEMICAL GRID AUGER SAMPLING	DRAWN	GEODRAFT
AMENDMENTS	TUNGSTEN RESULTS in ppm	DATE	
		SCALE	1 : 2500
		REF. No.	TAS/2/3481

398115

5 393 000 m N

5 392 000 m N

371 000 m E

372 000 m E

373 000 m E

L 5300 N

L 4600 N

5 cm

COMSTAFF PROPRIETARY LIMITED

LEASE No. EL 5/63	PLAN OF RAMSAY GRID - CKC 064 GEOCHEMICAL GRID AUGER SAMPLING COPPER RESULTS in ppm	COMPILED H. PAPAS DRAWN H. PAPAS DATE JUNE 1983 SCALE 1 : 5000 REF No TAS/2/3566
AREA 2		
AMENDMENTS 1 2 3 4 5 6 7 8 9 10 11 12 13 14		

398116

5 393 000 m N

5 392 000 m N

371 000 m E

372 000 m E

373 000 m E

L 5300 N

L 5000 N

L 4600 N

5 cm

COMSTAFF PROPRIETARY LIMITED

LEASE No: EL 5/63

AREA: 2

AMENDMENTS: 1 8, 2 9, 3 10, 4 11, 5 12, 6 13, 7 14

065

PLAN OF RAMSAY GRID - CKC

GEOCHEMICAL GRID AUGER SAMPLING

LEAD RESULTS in ppm

COMPILED: H. PAPAS

DRAWN: H. PAPAS

DATE: JUNE 1983

SCALE: 1 : 5000

REF No: TAS/2/3567

398117

5 393 000 m N

5 392 000 m N

371 000 m E

372 000 m E

373 000 m E



5 cm

COMSTAFF PROPRIETARY LIMITED

LEASE No: EL 5/63	PLAN OF RAMSAY GRID - CKC	066	COMPILED: H. PAPAS
AREA: 2	GEOCHEMICAL GRID AUGER SAMPLING		DRAWN: H. PAPAS
AMENDMENTS: 1 8, 2 9, 3 10, 4 11, 5 12, 6 13, 7 14	ZINC RESULTS in ppm		DATE: JUNE 1983
			SCALE: 1 : 5000
			REF No: TAS/2/3568

398118

5 393 000 m N

5 392 000 m N

371 000 m E

372 000 m E

373 000 m E

5 cm

COMSTAFF PROPRIETARY LIMITED

LEASE No.	EL 5/63
AREA	2
AMENDMENTS	1 8 2 9 3 10 4 11 5 12 6 13 7 14

PLAN OF RAMSAY GRID - CKC 067

GEOCHEMICAL GRID AUGER SAMPLING

ARSENIC RESULTS in ppm

COMPILED	H. PAPAS
DRAWN	H. PAPAS
DATE	JUNE 1983
SCALE	1 5000
REF. No.	TAS/2/3569

398119

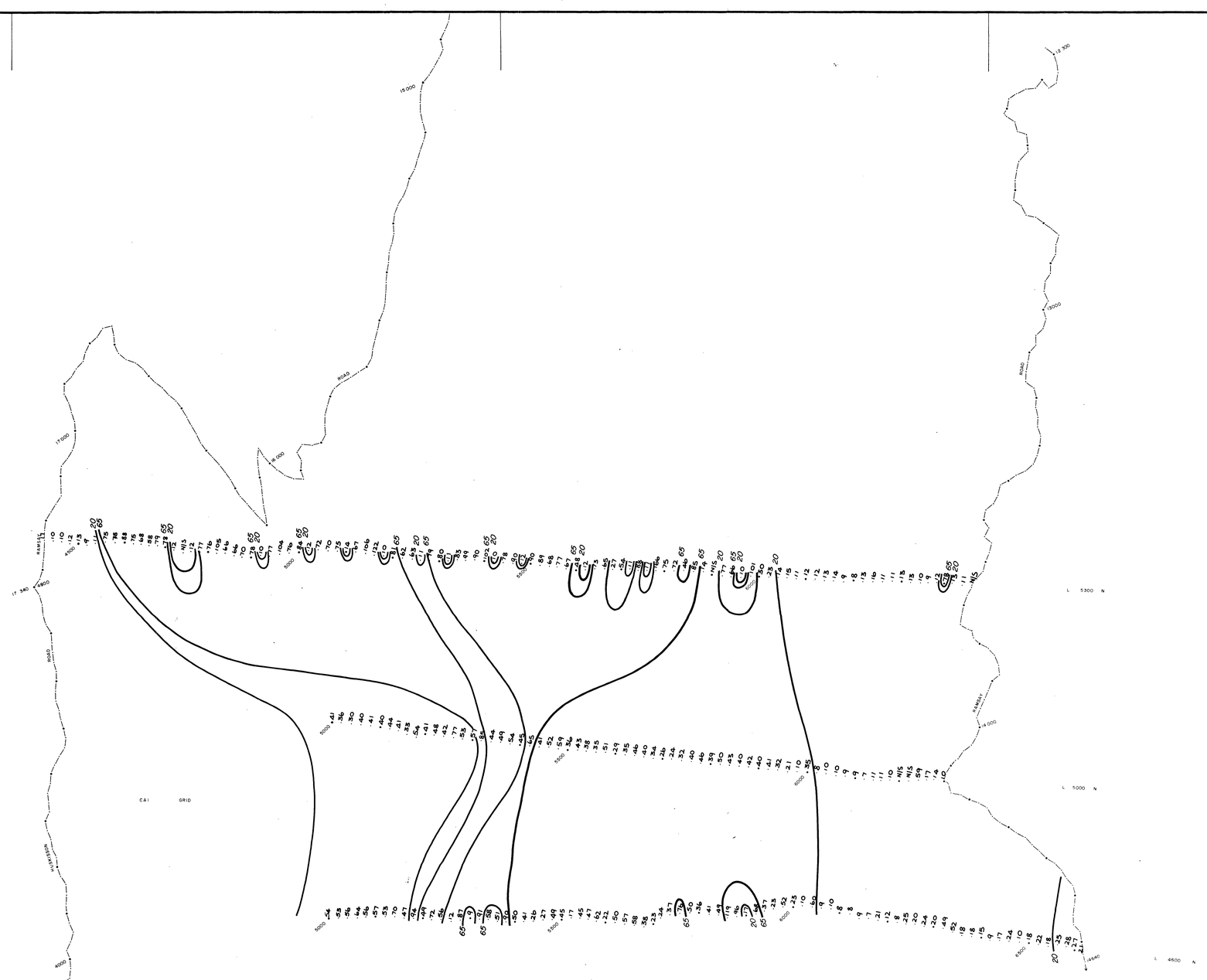
5 393 000 m N

5 392 000 m N

371 000 m E

372 000 m E

373 000 m E



5 cm

COMSTAFF PROPRIETARY LIMITED

LEASE No. EL 5/63	PLAN OF RAMSAY GRID - CKC 068	COMPILED H. PAPAS
AREA 2	GEOCHEMICAL GRID AUGER SAMPLING	DRAWN H. PAPAS
AMENDMENTS 1 8 2 9 3 10 4 11 5 12 6 13 7 14	NICKEL RESULTS in ppm	DATE JUNE 1983
		SCALE 1 : 5000
		REF. No. TAS/2/3570

398120

5 393 000 m N

5 392 000 m N

371 000 m E

372 000 m E

373 000 m E

L 5300 N

L 5000 N

L 4600 N

ROAD

RAMSAY

GRID

HIGHWAY

SOUTH

15 000

16 000

17 000

17 540

16 300

15 300

14 000

13 000

12 000

4000

3350

4640

5000 0.1 0.2 0.1 0.1 0.1

398121

5 393 000 m N

5 392 000 m N

371 000 m E

372 000 m E

373 000 m E

L 5300 N

L 5000 N

L 4600 N

RAMSAY GRID

NORTH

SOUTH

ROAD

5 cm

COMSTAFF PROPRIETARY LIMITED

LEASE No: EL 5/63	PLAN OF RAMSAY GRID - CKC 070	COMPILED: H. PAPAS
AREA: 2	GEOCHEMICAL GRID AUGER SAMPLING	DRAWN: H. PAPAS
AMENDMENTS: 1 2 3 4 5 6 7 / 8 9 10 11 12 13 14	TIN RESULTS in ppm	DATE: JUNE 1983
		SCALE: 1 : 5000
		REF No: TAS/2/3572

398122

5 393 000 m N

5 392 000 m N

371 000 m E

372 000 m E

373 000 m E

L 5300 N

L 5000 N

L 4600 N

RAMSAY

ROAD

CAI GRID

5 cm

COMSTAFF PROPRIETARY LIMITED

LEASE No EL 5/63	PLAN OF RAMSAY GRID - CKC 071 GEOCHEMICAL GRID AUGER SAMPLING TUNGSTEN RESULTS in ppm	COMPILED	H. PAPAS
AREA 2		DRAWN	H. PAPAS
AMENDMENTS 1 8 2 9 3 10 4 11 5 12 6 13 7 14		DATE	JUNE 1983
		SCALE	1 : 5000
		REF No.	TAS/2/3573

398123

000

DRILL ADVANCE

LITHOLOGY

5 cm

CORE	DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISL PERCENT MINERALISATI

2
4
6
8
10
12
14

SCALE 1:100 (1cm = 1 m)

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH CAI)

LOGGED BY JAL FROM 0 TO 15 DATE 10/1/84 PAGE 1 OF 10

001

398124

DRILL ADVANCE

LITHOLOGY

5 cm

DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
17										
19										
21										
21.20	0.20	0.20	100%	HQ	Start of Coring.					
21.40	0.40	0.57	142		Basic volcanics - mostly chips and fragments. Core is greasy: difficult to examine. probably f gr basalt ± small feldspar phenos	limonite on fractures		very broken	minor py disem + lim after py in veinlets	1%
22.20	0.20	0.20	100							
23.00	0.40	0.40	100			kaolin in shear planes		Shearing sub parallel to core Axis		
23.40	1.00	1.00	100					strong shearing		
24.40	0.30	0.52	173							
24.70	0.30	0.60	120							
25										
25.30	0.60	0.35	58							
25.90	0.10	0.10	0.10					Shearing sub ll CIA Slickensides		
26										
26.40	0.50	0.50	100							
27.30	0.60	0.42	70							
27.90	0.50	0.54	108					shearing lessens		
28.40	1.20	1.16	96							
29					Core less oily. Feldspar rich tuffaceous sandstone & siltstones. contacts clear but irregular. dark grey - black	Quite fresh		Marked 30-40° jointing Coarse bedding impossible to measure	Disem po (in clast) <1mm py veins	1%
29.60	0.20	0.20	100							
29.80	1.20	1.20	100							

SCALE 1:100 (1cm = 1 m)

COMSTAFF PROPRIETARY LIMITED DRILLHOLE LOG FOR DDH CAI 1

LOGGED BY JAL FROM 15 TO 30m DATE 10/1/84 PAGE 2 OF 10

002

DRILL ADVANCE

398125

LITHOLOGY

5 cm

DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
31.00	0.75	0.64	91 %	31m (NQ)	Fine → med grained tuffaceous sandstone or siltstone of basic derivation. Abund. euhedral felspars. large soft seed clasts breccia clusts common.	V narrow qtz-py veinlets common – minor selvedge kaolinisation			disem py + veinlets	1%
31.75	1.20	0.95	79 % 32							
32.95	0.80	0.74	92 % 33							
33.75	1.40	0.95	68 % 34	33½ – 10 cm pale green siltstone 33⅝ – 5 cm grit band				55 CIA 40° (contact ms slump) grit CIA 40° (" slump)		
35.10	1.40	0.80	57 % 36					minor shearing ~ <20° CIA		
36.50	3.20	2.10	65 % 38	36½ – dyke Aplite 10cm (max) one contact	75° CIA + one < 20° CIA. Med. grained. Qtz/felds/py. silicified. grains indistinct	Matrix silicified felds prob. kaolinised	++	75°+20° contact	Aplite 10% py (v.dis) + 5% cp tr sp	10% 10cm
				38½ – 1cm mauve clayey mudstone	but mostly basic tuff ss/ss			25° contact. Core very broken		
39.70	2.10	1.30	61 % 40							
41.80	0.45	0.12	30 % 42							
42.25	0.00	0.60	100 %							
43.00	0.65	0.35	58 %	43½ – 2cm zone banded syngenetic pyrite	Scoured by coarser tuff ss. py is interbedded ± siltstone (dark grey)	minor x cutting veins contain py.		25° contacts + bedding small scale dislocations	fine gr py, banded trace cp	50% 2cm
43.65	0.90	0.70	77 % 44							
44.50	0.50	0.50	100 %		? gradational to f gr basalt					
45.00	0.95	1.50	100.0 %							

SCALE 1:100 (1cm = 1 m)

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH CAJ 1

LOGGED BY JAL FROM 30 TO 45m DATE 10/1/84 PAGE 3 OF 10

398126

DRILL ADVANCE

LITHOLOGY

5 cm

DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISU. PERCENTA. MINERALISATI
					f.gr black basalt. even grained faintly magnetic	weak selvedg chl/carb on fracts.		mod fracturing	trace py in fracts	
45.90	1.50	1.20	80 %	47		v. minor q/v. in shear zone.		Strong fracturing + mod shearing		
47.25	0.25	0.25	100 %							
47.60	1.50	1.35	90 %		minor brecciation	48.0 10cm chl/py/actin selvedge alt'n			48.4 2% py	
47.10	0.60	0.47	78 %	47						
49.70	0.50	0.26	52 %			Alteration strengthens down hole.		Core well broken	disseminated py aggregates	
50.20	0.80	0.90	112 %						trace po after 51m	
51.00	1.70	1.55	91 %	51						
52.70	1.30	1.55	119 %	52	1st appearance of calcite	53:1 2cm qtz/calcite veinlet @ 10 cm selvedg zone (chl/act/py)		vein @ 35°	disem py + in veins	
54.00	1.50	1.00	66 %	53					2% py/po in veins + disem	
55.50	0.75	0.50	71 %	54	Fault Zone, sheared, broken + altered lithologies. some clay gouge, common calcite veins some kaolin 'bags'					
56.20	1.50	0.70	55 %					limited fault 30°-45°		
57.50	0.40	0.30	75 %	55						
57.90	0.80	0.65	81 %	55½	Altered felsic Sediments ✓ hydrothermally altered + metasomatised semi calcareous sediments	Replacement of calc beds by qtz, act, po, py.		Bedding contorted, common veining + shattering	up to 10% po + some py. variable	
58.70	3.10	2.56	82 %	57						

SCALE 1:100 (1cm = 1m)

003

COMSTAFF PROPRIETARY LIMITED — DRILLHOLE LOG FOR DDH CAI 1

LOGGED BY SAL FROM 45 TO 60m DATE 12/1/84 PAGE 4 OF 10

398127

DRILL ADVANCE

DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY
61·80	2·30	2·30	100 %
64·10	1·40	1·00	71 %
65·50	1·20	1·15	94 %
66·70	1·20	1·10	91 %
67·90	3·10	0·25	8 %
71·00	0·80	0·70	87 %
71·80	1·00	0·22	22 %
72·80	0·90	0·85	94 %
73·70	0·70	0·57	81 %
74·40	0·50	0·46	92 %
74·90	0·20	0·28	140 %

LITHOLOGY

5 cm

INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
	Metasomatised calcareous sediments, interbedded siliceous rocks. pale olive green, f. grained, contorted	Metasomatism incomplete Calcite → Po, act, + qtz + ct. - 2-5 cm calcite veins ± sil dol xenols + py		bedding (sil/calc pelites) @ 50° CIA bedding? foliation @ 30° CIA	Average 10% Po + py + cp	10
63·4 63·8	Some Massive Po + Cp mineralisation - replacement style + x cutting veins (bottom contact is a classic Po replacement front)	Po ± act replacement of calc beds.		bedding @ 36° CIA (replaced beds)	50% Po 1% Cp	50
	Altered sil/calc pelitic seds. calc beds are partially metasom. as are some (early ct veins)	green act. + Po alt. of calc beds. some white ct veins. baking of sil seds.			5-10% Po + py ± cp	5-10
	dk grey shales - mud pellets elongated. - 2.6m ground away	ct → act, Po, Py + later ct veins		contorted bedding @ 60°	Po in veins after calcite	1-5
71·3	~30 cm Pyrite replacement of calc beds	Py/act rep of calc pelites - shales sil + baked on veins + fractures.		indistinct, grad. contacts	py ~40 to 50%	50
	dark grey shales + fine gr tuffaceous sandstone				disseminated py blebs and in veinlets	1%

SCALE 1:100 (1cm = 1 m)

COMSTAFF PROPRIETARY LIMITED — DRILLHOLE LOG FOR DDH CAI 1

LOGGED BY JAL FROM 60 TO 75 DATE 12/1/84 PAGE 5 OF 10

004

398128

DRILL ADVANCE

DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY
76			
76.20	1.40	0.97	69 %
77			
77.60	1.50	0.90	60 %
79			
79.10	2.80	2.40	85 %
81			
81.90	0.60	0.85	141 %
82.50	1.10	0.70	63 %
83			
83.60	3.10	2.95	95 %
85			
87			
89			
89.50	3.00	2.83	94 %

LITHOLOGY

5 cm

INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
	Dark grey shale + f. grained Tuffaceous Sandstones (basaltic)	minor cT + repl cT veins (act, py).		fractured core, very few bedding surfaces	minor py diss + V.	1%
78						
78	Severe slickensiding : Shear Zone.	- deuteric alteration: limonitic, oxidised, leached				
	Fault Zone, sheared bx ends.					
79						
79.2	Kaki green Siltstones	hydraulic fracturing & calcite healing, mod. hornfelsing		bedding mostly disturbed + brecciated.		
	Selvedge bleaching + ct. veins,					
	Severe hydraulic brecciation in places					
81						
	Interlaced brown - purple brown tuffaceous sandstone.					
				82.5 b @ 32°	trace	
83				82.9 b @ 32°		
				minor hydraulic brecciation	occassional py blebs	
85						
	↓ mostly brown - brown green feldspathic tuffaceous sandstone.	Some selvedge alt'n + patchy hornfelsing		bedding lightly distorted	+ po restricted to veins	<1%
87						
89						

SCALE 1:100 (1cm = 1 m)

005

COMSTAFF PROPRIETARY LIMITED — DRILLHOLE LOG FOR DDH GAI)

LOGGED BY JAC. FROM 75 TO 90 DATE 12/1/82 PAGE 6 OF 10

398129

DRILL ADVANCE

LOST CORE	DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY
				92
	92.50	3.00	3.05	101 %
				94
	95.50	3.00	2.93	97 %
				96
				98
	98.50	3.00	3.00	100 %
				100
	101.50	3.00	2.95	98 %
				102
				104
	104.50	3.00	2.90	96 %

LITHOLOGY

5 cm

INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENT MINERALISATION
	Tuffaceous Sandstones + Siltstones	Weak Amphibole, Common Veining Qtz, chl		Common, Lyth. bx zones bedding too disturbed to measure.	Po in veins	1%
		Calc-sil Alter				
	Mostly Sst grade rocks				Po ± Py mostly in veins	3.
				96 bedding @ 35°		
98.2	Dark grey Calcareous Pelites, bedded, fizzes ∅ HCl. probably unalt version of above, some dark argillic bands	Calc Sil 98.2 Alteration dies out only moderate calcite veining			trace	
				99 b @ 31-35°		
				103 b @ 25°		
				105 b @ 35°		

SCALE 1:100 (1cm = 1 m)

COMSTAFF PROPRIETARY LIMITED — DRILLHOLE LOG FOR DDH CAI 1

LOGGED BY JAL FROM 90 TO 105 DATE 13/1/84 PAGE 7 OF 10

900

398130

DRILL ADVANCE

LITHOLOGY

5 cm

DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
				107	Calc Pelites : dark grey, common shale bands + some sandy beds, reacts to HCl	Common, random calcite veins		bedding highly disturbed in plastic matrix	Trace sulphides mostly in veinlets	
107.50	3.00	2.62	87 %					108.6 bd @ about 30° narrow pelitic bands in ss.		
				109				109.6 contact ss, calpel @ ~30°		
110.50	2.80	3.00	107 %							
				111		111.2 increase in CT veins ↓			111.2 Some po replacement of CT veins + finely disem po	2% ↓
				113						
113.30	3.10	3.05	98 %							3%
				115				114.2 bd @ 37°	Mineralisation increasing downhole (po)	
116.40	3.10	2.50	80 %							
				117						
				119				118.9 bd @ 37°	(Po)	4%
119.50	2.20	2.74	124 %							

SCALE 1:100 (1cm = 1 m)

CORE

COMSTAFF PROPRIETARY LIMITED — DRILLHOLE LOG FOR DDH CAI1

LOGGED BY JAL FROM 105 TO 120 DATE 13/1/84 PAGE 8 OF 10

L100

398131

DRILL ADVANCE

DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY
121.70	2.20	2.10	95%
123.90	2.90	2.65	91%
126.80	2.50	2.48	99%
129.30	3.00	0.90	30%
132.30	4.20	4.10	97%

LITHOLOGY

5 cm

INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
120	Dark grey - black shales & minor calc pelite bands + clasts	abundant po replacing qt veins + some calc beds		120.7 bQ @ 28°	Abundant po	3
122						10
123.4	40cm calc. sil hornfels, brown fine sand grade.	moderate calc sil alter. + po		122.7 bQ	10-20% po replacement calp, pelite + veins	20
124	Mostly black - grey shales & minor sandy beds	mod. hornfelsing			123.8 trace po	1
126					Some py, blebs + po in veinlets	10
128				127.3 bQ @ 43° 128.0 bQ @ 67°	po up to 20%	2
130						
132				133.2 bQ @ 40 133.4 bQ @ 40	po in bedding planes	3
134						

SCALE 1:100 (1cm = 1 m)

COMSTAFF PROPRIETARY LIMITED — DRILLHOLE LOG FOR DDH CAI1

LOGGED BY ..... FROM 120 TO 135 DATE 1/1 PAGE 9 OF 10

008

398132

DRILL ADVANCE

LITHOLOGY

5 cm

DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
				136	Dark grey to black shales + dark grey-green tuffaceous sandstones minor calc horizons.	weak hornfelsing, Some calc-sil (low temp) alts of rare calc horizons		not bedded well.	Minor po in veins + disem.	1%
136.50	3.10	2.48	80%	137						
				139	to end of hole					
139.60	3.10	3.64	117%					140.2 bq @ 40°		
				141		minor patch of lighter grey low temp calc sil alteration			141.8 10% po over 20cm	1% / 20c
142.70	3.10	2.90	93%							
				145						
145.80	3.10	2.95	95%							
				147						
146.90	0.60	0.62	103%	EOH 149.5						

SCALE 1:100 (1cm = 1 m)

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH CA11

LOGGED BY JAC FROM 135 TO 149.5 DATE 20/1/84 PAGE 10 OF 10

009

398133

Metres	Cu	Pb	Zn	Ag	Ni	As	Sn	W	SAMPLE NUMBER
0	120	15	175	BLD	120	6	BLD	BLD	
1m	105	10	185	BLD	120	2	BLD	BLD	
2 m	85	10	180	BLD	110	2	BLD	BLD	
3 m	100	15	190	BLD	125	1	BLD	BLD	
4 m	85	10	165	BLD	120	2	BLD	BLD	
5 m	85	15	155	BLD	105	3	BLD	BLD	
6 m	60	10	145	BLD	125	6	BLD	BLD	
7 m	60	5	150	BLD	130	3	BLD	BLD	
8 m	90	15	165	BLD	110	11	BLD	BLD	
9 m	70	5	170	BLD	110	3	BLD	BLD	
10 m	90	10	150	BLD	110	10	BLD	BLD	
11 m	60	15	135	BLD	105	5	BLD	BLD	
12 m	60	15	120	BLD	90	6	BLD	BLD	
13 m	60	10	125	BLD	100	12	BLD	BLD	
14 m	100	20	145	BLD	105	14	BLD	BLD	
15m									

COMSTAFF PROPRIETARY LIMITED ASSAY RESULT SHEET FOR DDH CAI 1

ASSAYED BY ANALABS FROM 0 TO 15 DATE 1/1/84 PAGE 1 OF

010

398134

Metres	Cu	Pb	Zn	Ag	Ni	As	Sn	W								SAMPLE NUMBER
15m	45	25	100	BLD	65	6	BLD	BLD								
16m																
22m	75	25	165	BLD	80	13	19	106								
25m	55	15	145	BLD	95	19	10	47								
28m	85	5	160	BLD	90	6	BLD	54								

15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

COMSTAFF PROPRIETARY LIMITED ASSAY RESULT SHEET FOR DDH CAI 1

ASSAYED BY ANALABS FROM 15 TO 30 DATE 1/1/84 PAGE 2 OF

011

398135

Metres	Cu	Pb	Zn	Ag	Ni	As	Sn	W								SAMPLE NUMBER
31 m	65	10	160	BLD	80	8	BLD	38								
34 m	115	5	250	BLD	90	7	3	59								
38 m	100	10	280	BLD	95	11	BLD	28								
40 m	170	15	200	BLD	100	3	BLD	54								
43 m	110	10	190	BLD	90	2	BLD	46								

COMSTAFF PROPRIETARY LIMITED ASSAY RESULT SHEET FOR DDH CAI 1

ASSAYED BY ANALABS FROM 30 TO 45 DATE /1/84 PAGE 3 OF

012

398136

Metres	Cu	Pb	Zn	Ag	Ni	As	Sn	W	SAMPLE NUMBER
46m	120	15	220	BLD	105	5	BLD	66	
49m	110	45	335	BLD	105	1	BLD	40	
52m	135	5	150	BLD	125	3	3	49	
55m	230	10	125	BLD	240	69	4	15	
58m	430	15	115	BLD	105	6	12	10	

COMSTAFF PROPRIETARY LIMITED ASSAY RESULT SHEET FOR DDH CAI 1

ASSAYED BY ANALABS FROM 45 TO 60 DATE 25/1/84 PAGE 4 OF

013

398137

Metres	Cu	Pb	Zn	Ag	Ni	As	Sn	W	SAMPLE NUMBER
60									
61									
61m									
62									
	730	80	160	BLD	105	12	15	28	
63									
64									
64m									
65									
	205	15	205	BLD	85	7	6	27	
66									
67									
67m									
68									
69									
	275	25	740	BLD	140	3	3	49	
70									
71									
72									
72m									
73									
	80	5	135	BLD	110	65	7	34	
74									
75									
75m									

014

COMSTAFF PROPRIETARY LIMITED ASSAY RESULT SHEET FOR DDH CAI 1

ASSAYED BY ANALABS FROM 60 TO 75 DATE 1/1/84 PAGE 5 OF

398138

Metres	Cu	Pb	Zn	Ag	Ni	As	Sn	W	SAMPLE NUMBER
75m									
	30	BLD	105	BLD	100	40	BLD	21	
78m									
	65	5	120	BLD	105	30	3	17	
81m									
	45	5	110	BLD	105	46	6	26	
84m									
	35	5	105	BLD	100	43	BLD	10	
87m									
	20	5	85	BLD	90	85	16	12	
90m									

COMSTAFF PROPRIETARY LIMITED ASSAY RESULT SHEET FOR DDH CAI 1

ASSAYED BY ANALABS FROM 75 TO 90 DATE 1/1/84 PAGE 6 OF

015

398139

Metres	Cu	Pb	Zn	Ag	Ni	As	Sn	W	SAMPLE NUMBER
90 m									
	20	BLD	100	BLD	90	26	4	BLD	
93 m									
	45	BLD	85	BLD	180	100	BLD	21	
96 m									
	65	10	80	BLD	60	3	BLD	26	
99 m									
	145	10	80	BLD	95	3	BLD	BLD	
102 m									
	70	15	115	BLD	75	11	BLD	10	
105 m									

COMSTAFF PROPRIETARY LIMITED ASSAY RESULT SHEET FOR DDH CAT 1

ASSAYED BY ANALABS FROM ..... TO ..... DATE 1/1/84 PAGE 7 OF .....

016

398140

Metres	Cu	Pb	Zn	Ag	Ni	As	Sn	W	SAMPLE NUMBER
105 m									
	60	15	100	BLD	65	3	BLD	BLD	
108 m									
	90	10	95	BLD	100	3	BLD	10	
111 m									
	85	20	200	BLD	75	17	BLD	29	
114 m									
	125	15	240	BLD	80	15	BLD	35	
117 m									
	120	15	95	BLD	90	8	BLD	35	
120 m									

COMSTAFF PROPRIETARY LIMITED ASSAY RESULT SHEET FOR DDH CAI 1

ASSAYED BY ANALABS FROM 105 TO 120 DATE 1/1/84 PAGE 8 OF

017

398141

Metres	Cu	Pb	Zn	Ag	Ni	As	Sn	W	SAMPLE NUMBER
120 m	155	20	250	BLD	90	2	BLD	42	
123 m	80	5	125	BLD	115	84	BLD	27	
126 m	145	10	110	BLD	90	6	BLD	52	
129 m	220	20	150	BLD	110	20	BLD	40	
132 m	120	25	115	BLD	105	62	BLD	24	
135 m									

COMSTAFF PROPRIETARY LIMITED ASSAY RESULT SHEET FOR DDH CAI 1

ASSAYED BY ANALABS FROM 120 TO 135 DATE 1/1/84 PAGE 9 OF

013

398142

Metres	Cu	Pb	Zn	Ag	Ni	As	Sn	W	SAMPLE NUMBER
135 m	45	5	130	BLD	100	25	7	30	
138 m	95	5	145	BLD	100	3	BLD	38	
141 m	100	BLD	165	BLD	110	5	BLD	15	
144 m	85	30	150	BLD	105	3	BLD	27	
147 m	55	10	120	BLD	95	47	BLD	68	
149.5	EOH								

COMSTAFF PROPRIETARY LIMITED ASSAY RESULT SHEET FOR DDH CAI 1

ASSAYED BY ANALABS FROM 135 TO 149.5 DATE /1/84 PAGE 10 OF

013

DRILL ADVANCE

398143

LITHOLOGY

5 cm

DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISU PERCENTAGE MINERALISATION
					Open hole to 6m. Percussion Samples collected.					
6.00	0.50	0.63	126	HQ						
6.50	1.80	1.28	71		Weathered, basaltic tuffaceous Sandstone-siltstone, red-yellow	Supergene Oxidation - strong		Very broken ground.		
8.30	1.20	0.80	66							
9.50	1.50	1.05	70							
11.00	3.10	2.35	75		Basaltic tuffaceous sandstone - siltstone	Intermittent + patchy oxidation possible weak, sporadic hydrothermal effects.		Extremely broken		
13.10	0.70	0.90	128							
13.80	0.90	0.75	83 1/4							
14.70	0.50	0.35	70							

SCALE 1:100 (1cm = 1 m)

020

COMSTAFF PROPRIETARY LIMITED — DRILLHOLE LOG FOR DDH CAI 2

LOGGED BY JAL FROM 0 TO 15 DATE 23/1/84 PAGE 1 OF 8

DRILL ADVANCE

398144

LITHOLOGY

5 cm

DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISU PERCENTA MINERALISATI
					Very broken black to dk grey basaltic tuffaceous sa + Gs	patchy, fract controlled oxidation		Very broken: rare 10 cm long pieces		
15.90	0.30	0.20	66							
16.20	0.40	0.36	90							
16.60	0.90	1.25	138							
17.50	0.50	0.20	40							
18.00	0.50	0.35	70							
18.50	1.50	0.15	15	N3						
19.50	0.90	0.60	66							
20.40	2.30	1.00	43							
22.70	0.60	0.05	8							
23.30	1.10	0.52	47					b @ 30° black/grey siltstone + fine sandstone		
24.40	0.30	0.13	43							
24.70	0.20	0.15	75							
24.90	0.30	0.18	60							
25.10	0.90	0.57	63							
26.00	0.15	0.15	100		25° pebble [illegible] lithic common: intercalated sulphides	calc-siliceous chloritic altered - green + sulphides		broken	pyrite disseminated bands: up to 50% @ 26.6m	
26.15	0.20	0.20	100							
26.40	0.40	0.18	45					b @ 17° cyl hole ie wash		
26.80	0.20	0.14	70							
27.00	1.20	0.66	55							
28.20	0.30	0.10	33							
28.50	0.30	0.40	133						26.5 10 cm @ 50°	
28.80	0.50	0.56	112							
29.30	0.30	0.20	66					b @ about 30°		
29.60	0.30	0.30	100							
29.90	0.30	0.30	100							

SCALE 1:100 (1cm = 1 m)

COMSTAFF PROPRIETARY LIMITED — DRILLHOLE LOG FOR DDH CA12

LOGGED BY AL FROM 15 TO 30 DATE 23/1/84 PAGE 2 OF 8

021

DRILL ADVANCE

398145

LITHOLOGY

5 cm

DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY
30.00	0.30	0.17	56
30.30	0.90	0.75	83
31.20	2.80	0.37	13
34.00	0.50	0.30	60
34.50	0.50	0.40	80
35.00	0.50	0.34	68
35.50	1.20	1.13	94
36.70	1.80	1.25	69
38.50	4.60	4.20	91
43.10	1.20	0.70	58
44.30	1.20	1.20	100

INTERVAL	DESCRIPTION	ALTERATION	STRUCTURE	MINERALISATION
30.4	Altered + py mineralised calc. Lonjan: minor arg. units. Pervasive sil. closes. Olive green.	30.4 Strong low temp calc-sil-sulphide alteration to 34 m. also hyd Kaolin + bleaching Oxidised near base	30.9 oxidised veins @ 40°	py in veins + pathy but strong disseminations
34	Black siltstone - massive minor pale green calc. beds.		Very broken	
36	Altered Calc Lonjan - sulphide rich	Pale green calc-sil-py alteration	broken	30-40% py in veins + dissem.
38	Grey + black siltstone + tuffaceous sa (minor)		38.0 b@40°	38.7 small pod (1cm) of galena.
40	Grey brown siltstone - fine sandstone	Orange-brn Fe-Mn Staining	broken	
42	[illegible] + siltstone + intercalated argillites	pale greenish calc-sil alteration	b@30° b@40°	5-10% py. in calc bands
43	Argillites dominant		Very broken	
44				

SCALE 1:100 (1cm = 1m)

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH CAI2

LOGGED BY JAL FROM 30 TO 45 DATE 23/1/84 PAGE 3 OF 8

022

398146

DRILL ADVANCE

LITHOLOGY

5 cm

DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
45.50	1.50	0.30	20	46	Hydrothermally altered marls + argillites	Calc-sil alt'n + overprinted oxidation		broken	trace py	
47.00	3.00	0.40	13	47	Major Fault Zone.					
				48	Oxidised fine sandstone rubble. Rubbly fragments set in clay (drillers comment).	clay alt'n fault zone				
				49	No water return					
50.00	15.00	0.80	5	51	Very poor core recovery.					
				53						
				55						
				57						
				59						

SCALE 1:100 (1cm = 1 m)

023

COMSTAFF PROPRIETARY LIMITED DRILLHOLE LOG FOR DDH CAI 2

LOGGED BY JAL FROM 45 TO 60 DATE 23/1/84 PAGE 4 OF 8

DRILL ADVANCE

398147 LITHOLOGY

5 cm

DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION
				62	Fault Zone.	Oxidised			
				64				Foliation @ 55°	
65.00	3.00	0.06	2	65	Very Poor Recovery.				
				66					
68.00	4.30	0.20	4	68					
				70					
				72					
72.30	3.10	3.06	98	73	[illegible] + limb with precipitate bands	Calc-sil alt + thread mins		Strong fracturing — related	Pyrite common
				74					

SCALE 1:100 (1cm = 1m)

COMSTAFF PROPRIETARY LIMITED DRILLHOLE LOG FOR DDH CAI2

LOGGED BY JAL FROM 60 TO 75 DATE 23/1/84 PAGE 5 OF 84

024

398148

DRILL ADVANCE

DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY
75.40	3.10	3.00	96
78.50	2.60	2.70	105
81.10	1.90	1.87	98
83.00	1.80	1.20	66
84.80	1.20	1.25	100
86.00	3.00	3.05	98
89.00	3.00	3.12	104

LITHOLOGY

5 cm

INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VIS. PERCENTI MINERALISAT
76	Altered calc-pelitic calcareous fine sandstone ± some brownish non calc. units	76.1 Porcellanite hard ± web-like veinlets		Soft sed contortion of bedding	1-5% Po	
77					~1% Po veins strong	
78		78.0 Minor calcite veining; brown (bio calc?) in argillaceous units; calc-sil (green) alter. interleaved				
79					Po average 5% up to 10% in veins	
81	Some porcellanite beds + patches	81.5 Strong calc-sil-pore + po alter.		no reliable measurements can be made		
83		87				
84						
85						
86					Po disseminated in sandy calc beds	
87						
89	Rhythmically bedded calcareous and non calcareous sandstone + shale	calc ⇒ oxygen saturation alteration? non-calc ⇒ bronze bleaching alter?		88.9 b@ 60° sa/sh		

SCALE 1:100 (1cm = 1m)

025

COMSTAFF PROPRIETARY LIMITED — DRILLHOLE LOG FOR DDH CAI2

LOGGED BY JAL FROM 75 TO 90 DATE 13/1/84 PAGE 6 OF 8

DRILL ADVANCE

398149

LITHOLOGY

5 cm

DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISU PERCENTAGE MINERALISATION
					Rhythmic siltstones / sandstones, calc + non calc. occasional porcellanite bands	Calc units are actinolitic altered + limonitic po occasional qtz-calcite veins		1° b @ 55-60°	Po in calc beds	up to 1%
92.00	3.00	2.75	91	92					93.2 - quartz vein	
				94					95	
95.00	3.00	3.00	100							
				96	Facing (grading) down hole?			95.9 b @ 60° 96.5 b @ 53° 97.3 b @ 64°	Sulphides po <5%	
98.00	3.00	3.00	100	98						
				100						
101.00	3.00	2.25	75		Thinly bedded siltstones			101.0 b @ 60° 101.5 b @ 65°		
				102		becoming more bleached, 104m oxid on fractures			Po in veinlets <5%	
104.00	3.00	2.25	75	104						

SCALE 1:100 (1cm = 1m)

CORE

026

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH CAI 2

LOGGED BY JAL FROM 90 TO 105 DATE 27/1/84 PAGE 1 OF 8

DRILL ADVANCE

398150 LITHOLOGY

5 cm

DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION
107.00	3.00	2.00	66	107	Thinly bedded s/st & cmst & sandstone variably calcareous 106.5 1 cm qtz sulphide vein ⊥ bedding (ie 45°)	Cale units more bleached than before - less mose of green-actinolite. Some oxidation on fracture surfaces.		105.3 b @ 45° (p° bearing beds) 106.6 b @ 45° 108 b @ 37°	Common, narrow beds & discon p° 10%
				109	108.2 - 108.8 Porcellanitic material & pods of sulphides (1cm) 109.0 Fault Zone				
110.00	3.00	0.08	2.6	111	Oxidised, clay bearing Poor recovery				
113.00	3.00	0.05	1.6	113					
				115	EOH Comstaff Fault				

SCALE 1:100 (1cm = 1 m)

027

COMSTAFF PROPRIETARY LIMITED DRILLHOLE LOG FOR DDH CAI2

LOGGED BY JAL FROM 105 TO 116 EOH DATE 23/1/84 PAGE 8 OF 8

398151

Metres	Cu	Pb	Zn	Ag	Ni	As	Sn	W	SAMPLE NUMBER
6 m	570	20	75	BLD	85	280	43	15	
9 m	110	10	125	BLD	120	66	33	19	
12 m	195	10	115	BLD	115	410	65	22	
15 m									

028

COMSTAFF PROPRIETARY LIMITED ASSAY RESULT SHEET FOR DDH CAI 2

ASSAYED BY ANALABS FROM 6m TO 9m DATE /2/84 PAGE 1 OF 8

398152

Metres	Cu	Pb	Zn	Ag	Ni	As	Sn	W	SAMPLE NUMBER
15m									
	85	10	135	BLD	120	56	4	21	
18m									
	50	5	110	BLD	130	98	57	17	
22m									
	95	10	130	BLD	150	170	48	28	
26m									
	220	5	110	BLD	155	103	42	39	
29m									

029

COMSTAFF PROPRIETARY LIMITED ASSAY RESULT SHEET FOR DDH CAI 2

ASSAYED BY ANALABS FROM 15 TO 30 DATE 12/84 PAGE 2 OF 8

398153

Metres	Cu	Pb	Zn	Ag	Ni	As	Sn	W	SAMPLE NUMBER
30									
31									
32	205	10	100	BLD	140	300	66	21	
33									
34									
34 m									
35	250	5	125	BLD	170	40	9	18	
36									
37									
37 m									
38									
39	85	5	115	BLD	110	11	BLD	13	
40									
41									
42									
42 m									
43	145	15	95	BLD	120	4	26	BLD	
44									
45									
45 m									

030

COMSTAFF PROPRIETARY LIMITED ASSAY RESULT SHEET FOR DDH CAI 2

ASSAYED BY ANALABS FROM 30 TO 45 DATE 1/2/84 PAGE 3 OF 8

398154

Metres	Cu	Pb	Zn	Ag	Ni	As	Sn	W	SAMPLE NUMBER
45 m – 65 m									
45									
46									
47									
48									
49									
50									
51	115	15	220	BLD	90	2	39	BLD	
52									
53									
54									
55									
56									
57									
58									
59									
60									

COMSTAFF PROPRIETARY LIMITED ASSAY RESULT SHEET FOR DDH CAI 2

ASSAYED BY ANALABS FROM 45 TO 60 DATE 12/64 PAGE 4 OF 8

031

398155

Metres	Cu	Pb	Zn	Ag	Ni	As	Sn	W								SAMPLE NUMBER
60																
61																
62																
63					See Previous Page											
64																
65																
65 m																
66																
67																
68																
69	170	10	150	BLD	100	30	6	BLD								
70																
71																
72																
73																
74																
75																
75 m																

COMSTAFF PROPRIETARY LIMITED ASSAY RESULT SHEET FOR DDH CAI 2

ASSAYED BY ANALABS FROM 60 TO 75 DATE 12/84 PAGE 5 OF 8

032

398156

Metres	Cu	Pb	Zn	Ag	Ni	As	Sn	W	SAMPLE NUMBER
75 m									
	195	15	90	BLD	115	10	16	32	
78 m									
	85	10	140	BLD	105	23	BLD	34	
81 m									
	160	5	130	0.5	120	18	7	47	
84 m									
	115	5	105	BLD	95	52	12	32	
87 m									
	150	10	110	0.5	105	73	10	22	
90 m									

COMSTAFF PROPRIETARY LIMITED ASSAY RESULT SHEET FOR DDH CAI 2

ASSAYED BY ANALABS FROM 75 TO 90 DATE 12/84 PAGE 6 OF 8

033

398157

Metres	Cu	Pb	Zn	Ag	Ni	As	Sn	W	SAMPLE NUMBER
90 m									
	200	10	125	BLD	120	40	14	78	
95 m									
	160	15	85	BLD	110	82	37	70	
96 m									
	145	10	70	BLD	120	100	30	57	
99 m									
	70	15	70	BLD	120	580	62	35	
102 m									
	90	20	90	BLD	70	15	10	23	
105 m									

034

COMSTAFF PROPRIETARY LIMITED ASSAY RESULT SHEET FOR DDH CAT 2

ASSAYED BY ANALABS FROM 90 TO 105 DATE 12/84 PAGE 7 OF 8

398158

Metres	Cu	Pb	Zn	Ag	Ni	As	Sn	W								SAMPLE NUMBER
105																
105 m																
106																
107	145	15	560	BLD	95	80	19	47								
108																
108 m																
109																
110																
111																
112	210	15	150	BLD	110	150	45	49								
113																
114																
115																
116																
						EOH	116 m									

035

COMSTAFF PROPRIETARY LIMITED ASSAY RESULT SHEET FOR DDH CAI 2

ASSAYED BY ANALABS FROM 105 TO 116 m DATE 12/84 PAGE 8 OF 8

398159

DRILL ADVANCE

LITHOLOGY

5 cm

DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION

Percussion Drilled

SCALE 1:100 (1cm = 1 m)

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH CAM 1

LOGGED BY JAC FROM 0 TO 15 DATE 3/2/84 PAGE 1 OF 10

398160

DRILL ADVANCE

LITHOLOGY

5 cm

DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION

17
19
Percussion
Drilled
21
23
25
27
29

SCALE 1:100 (1cm = 1 m)

COMSTAFF PROPRIETARY LIMITED DRILLHOLE LOG FOR DDH CRM1

LOGGED BY JDL FROM 15 TO 30 DATE 3/2/84 PAGE 2 OF 10

398161

DRILL ADVANCE

LITHOLOGY

5 cm

DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISU. PERCENTA MINERALISATI

32
34
36
38
40
42
44

SCALE 1:100 (1cm = 1 m)

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH CAM 1

LOGGED BY JAL FROM 30 TO 45 DATE 3/2/89 PAGE 3 OF 10

038

398162

DRILL ADVANCE

DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY
45.00	3.10	2.44	78 %
48.10	1.40	1.05	75 %
49.80	1.50	2.05	136 %
51.30	3.10	2.30	74 %
54.40	1.60	1.60	100 %
56.00	1.80	1.62	90 %
57.80	3.10	3.10	100 %

LITHOLOGY

5 cm

INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
	Shale⇒ siltstone, black - dk grey, probably calc horizons now altered to pink iron carbonate	weak hornfelsing ± possible sideritic alter of calc bands, patchy veinlets		po veins 50-80°	common po veinlets + disseminated po.	10
47	Pink sideritic? sediments ± strong fabric emphasised by pyritic bands + blebs (sandstone protolith)	greyish - pink (siderite)? or biotite		stratiform py bands about 40°	py in disseminated blebs, bands	15
49	Grey-green sandstone (tuffaceous) fine grained, some weakly brecciated bands	weak hornfelsing + occasional calcite/py veinlets		Crude banding subparallel to core.	Occasional py bearing veins	3
51		↓ decreasing			↓ decreasing	
53						
				Strong fracture // to core.		
55						
57	Tuffaceous bedded sandstone					
				58 good bedding @ 172°		
59						

SCALE 1:100 (1cm = 1 m)

039

COMSTAFF PROPRIETARY LIMITED — DRILLHOLE LOG FOR DDH CAM 1

LOGGED BY JAL FROM 45 TO 60 DATE 2/12/84 PAGE 4 OF 10

398163

DRILL ADVANCE

LITHOLOGY

5 cm

DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISU. PERCENTAGE MINERALISATION
60·90	3·10	3·00	96 %	60	Grey Tuffaceous Sandstone fine - med grained	weak hornfelsing pos biotite patches rivulets of actinolite + pale fibrous amphibole + sulphide			minor py ± po in veinlets, tr cp	1%
64·00	3·10	3·05	98 %	62						
				64						
				66	grading to silt/ss					
67·10	1·40	1·50	107 %	68						
68·50	2·40	2·30	95 %	70						
70·90	2·20	2·30	104 %	72		71·7 10cm pseudotachylite breccia + py + po + trcp		72·5 b@ 52° grading upHole		
73·10	1·90	1·90	100 %	74	Banded grey ss + ss			74·5 b@ 62°		
75·00	3·10	3·10	100 %	75						

SCALE 1:100 (1cm = 1 m)

0410

COMSTAFF PROPRIETARY LIMITED — DRILLHOLE LOG FOR DDH CAM 1

LOGGED BY JAL FROM 60 TO 75 DATE 2/7/84 PAGE 5 OF 10

DRILL ADVANCE

398164

LITHOLOGY

5 cm

DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
				77	Grey Tuffaceous Sandstone with intercalated siltstone	weak-mod hornfelsing			trace po	1%
78.10	3.10	3.00	97 %	79						
						-80.5 Sam cc vein		80.5 vein @ 55°		
81.20	3.10	2.90	93 %	83						
84.30	3.10	3.00	96 %	85						
						-86.2 Sam cr vein		86.2 v @ ~70°	86.6-86.8 10% po veining + disseminations	10%
87.40	2.95	2.90	100 %	87	Sam black shale bands			88.0 b @ 35° 88.5 b @ 35°		
				89						

SCALE 1:100 (1cm = 1 m)

COMSTAFF PROPRIETARY LIMITED DRILLHOLE LOG FOR DDH CAM 1

LOGGED BY SAC FROM 75 TO 90m DATE 2/2/84 PAGE 6 OF 10

U171

398165

DRILL ADVANCE

LITHOLOGY

5 cm

DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
90.30	3.00	2.90	96 %		Black Shales becoming dominant ± minor brown sandy horizons. Mostly no selvedge alts to (a few) veinlets except where mentioned →	90-? Selvedge calc-sil alts to vein —		90-? Vein @ 60°	90-? Sum Po vein + qtz + cc + cp Common Po veinlets in black shales (general 1-2 mm)	
93.00	2.70	1.95	72 %			93.5 10 cm Po/acc qtz vein + minor cc		does not consistent		
95.00	2.30	2.20	95 %			95-? 10 cm Po/acc/ qtz/cc veining		95-? V @ 60°		
97.30	3.10	3.05	96 %		Sandy beds becoming			Po veinlets common in shale beds.		
101.20	2.80	2.93	104 %							
104.00	3.00	3.00	100 %		Sandy beds dominate over shale.	104-? 10 cm qtz/ cc/Po vein ± selvedge alts		104-? V @ 62°	Po — qtz/cc vein 30°	

SCALE 1:100 (1cm = 1 m)

042

COMSTAFF PROPRIETARY LIMITED

DRILLHOLE LOG FOR DDH CRM1

LOGGED BY JAL FROM 90 TO 105 DATE 2/2/84 PAGE 7 OF 16

DRILL ADVANCE

398166 LITHOLOGY

5 cm

DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
107.00	3.00	3.00	100 %		Tuffaceous sandstone + siltstone: grey-green coarsely bedded.	v. weak hornfelsing		105.3 b @ 40°	Dissem po (patchy) po veinlets in shale	2%
			104		30cm beds of black shale appearing			107 b @ 54°	10% po replacing py cubes	
110.00	3.00	3.05	101 %							
			111			111.5 silic + actin 111.7 altd sdst to small 112.0 vein			po in 3 small (10cm) Veins	5-10 Vn
113.00	3.00	3.00	100 %			113.3				
			115	115.7	black shale					
116.00	1.00	0.90	90 %		minor sandy beds+ clasts			veinlets parallel to/at bedding direction but not strictly.	massive (1 cm) po veinlets common	15
117.00	2.40	2.40	100 %	117				117.3 b @ 45°		
			119	118.15	Banded Sulphide Bearing Hornfels: pale pinkish brown, v. fine grained Sulphides in bedding planes	Cordierite hornfelsed Pelitic Sediment		banding contorted contorted shale @ 53°	po + py bands	20
119.40	2.60	2.50	96 %							

SCALE 1:100 (1cm = 1 m)

043

COMSTAFF PROPRIETARY LIMITED DRILLHOLE LOG - FOR DDH CRM 1

LOGGED BY SAL FROM 105 TO 120 DATE 2/2/86 PAGE 8 OF 10

398167

DRILL ADVANCE

DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY
122.00	2.50	2.25	90 %
124.50	3.00	3.20	106 %
127.50	3.10	3.05	98 %
130.60	0.40	0.40	100 %
131.00	3.00	3.00	100 %
134.00	1.70	1.55	91 %

LITHOLOGY

5 cm

INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
120	Block po bearing shale.			120.7 contact ? shale @ 50	po veinlets	
122	Sulphide bearing banded Hornfels. thinly bedded.	Altered siltstone? shale?		123 bedding @ 52° contorted	po+py bands 11 to 1cm. Sulphide decreasing ↓	
124	↓ grades into grey fine grained tuffaceous sandstone by 125 m coarsely bedded clear alteration fronts visible (at least 3 pulses)	124.6 porcellanite alteration bands up to 10 cm wide & some po (10% of core)		Vein dips 45°, 57°, 70°	minor po in altered bands	
126					veins bearing 10% po	
128						
130						
131	Rocks more thinly bedded & finer grained	30% porcellanite 10% calc sil (actinolite-sulphide-calcite) alter. ↓ decreasing		b @ 59° b @ 50°	5-10% po in veins + disem	
132						
134	Black shale; some sandy beds. indistinct, contorted bedding	rare calcite veins				

SCALE 1:100 (1cm = 1 m)

044

COMSTAFF PROPRIETARY LIMITED — DRILLHOLE LOG FOR DDH CAM1

LOGGED BY JAC FROM 120 TO 135 DATE 3/2/84 PAGE 9 OF 10

DRILL ADVANCE

LITHOLOGY

398168

5 cm

DEPTH	DRILL ADVANCE INTERVAL	CORE RECOVERY	PERCENT RECOVERY	INTERVAL	DESCRIPTION	ALTERATION	GRAPHIC LOG	STRUCTURE	MINERALISATION	VISUAL PERCENTAGE MINERALISATION
			→		Black Slate; sandy bands				minor po veinlets	3%
135.70	1.40	1.40	100 %							
				132						
137.10	2.30	2.10	91 %							
					~137.6 Intensely contorted banded sulphide bearing bands.	??		137 bb=3 contorted	po ⊥ bedding planes	
				139						
137.40	2.50	2.25	90 %							
					~140.8 Tuffaceous Sandstone/ siltstone, dk grey/brown	v. weak banding				
				141						
141.70	1.50	1.50	100 %							
				143 EOH						

SCALE 1:100 (1cm = 1 m)

045

COMSTAFF PROPRIETARY LIMITED DRILLHOLE LOG FOR DDH CAM1

LOGGED BY JAL FROM 135 TO 143 EOH DATE 3/2/84 PAGE 10 OF 10

398169

Metres	Cu	Pb	Zn	Ag	Ni	As	Sn	W	SAMPLE NUMBER
45.60									
	125	75	385	BLD	100	9	BLD	BLD	
48.60									
	120	65	175	BLD	85	4	BLD	13	
51.60									
	255	65	180	1.5	140	2	BLD	13	
54.60									
	295	100	205	BLD	125	4	BLD	24	
57.60 - 60.60									
	155	60	175	BLD	120	1	I/S	I/S	

COMSTAFF PROPRIETARY LIMITED ASSAY RESULT SHEET FOR DDH CAM 1

ASSAYED BY ANALABS FROM 45 TO 60 m DATE 12/84 PAGE 1 OF 7

046

398170

Metres	Cu	Pb	Zn	Ag	Ni	As	Sn	W	SAMPLE NUMBER
60.60	190	95	170	0.5	120	3	BLD	27	
63.60	80	45	180	BLD	115	1	BLD	14	
66.60	95	30	175	0.5	105	2	BLD	52	
69.60	280	45	175	0.5	110	2	BLD	138	
72.60 – 75.60	175	30	190	BLD	105	3	BLD	156	

COMSTAFF PROPRIETARY LIMITED ASSAY RESULT SHEET FOR DDH CAM 1

ASSAYED BY ANALABS FROM 60m TO 75m DATE /2/84 PAGE 2 OF 7

047

398171

Metres	Cu	Pb	Zn	Ag	Ni	As	Sn	W	SAMPLE NUMBER
75.60									
	150	45	165	0.5	100	3	BLD	96	
78.60									
	130	10	160	BLD	105	2	BLD	85	
81.60									
	170	20	215	0.5	110	3	BLD	110	
84.60									
	200	20	195	0.5	125	4	BLD	151	
87.60 – 90.60									
	175	20	185	0.5	125	9	BLD	138	

048

COMSTAFF PROPRIETARY LIMITED ASSAY RESULT SHEET FOR DDH CAM 1

ASSAYED BY ANALABS FROM 75m TO 90m DATE 12/84 PAGE 3 OF 7

398172

Metres	Cu	Pb	Zn	Ag	Ni	As	Sn	W	SAMPLE NUMBER
90.60	200	10	180	0.5	155	3	BLD	106	
93.60	180	15	180	BLD	115	4	BLD	84	
96.60	205	5	190	0.5	120	3	BLD	119	
99.60	140	25	160	BLD	110	4	BLD	69	
102.60 - 105.60	150	40	155	BLD	130	2	BLD	58	

COMSTAFF PROPRIETARY LIMITED ASSAY RESULT SHEET FOR DDH CAM 1

ASSAYED BY ANALABS FROM 90m TO 105m DATE 12/84 PAGE 4 OF 7

049

398173

Metres	Cu	Pb	Zn	Ag	Ni	As	Sn	W	SAMPLE NUMBER
105.60	130	15	125	0.5	130	4	BLD	61	
108.60	130	15	145	BLD	120	2	BLD	47	
111.60	110	35	165	0.5	135	4	BLD	74	
114.60	155	20	175	0.5	110	15	BLD	64	
117.60–120.60	135	5	155	0.5	105	12	BLD	69	

105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120

050

COMSTAFF PROPRIETARY LIMITED ASSAY RESULT SHEET FOR DDH CAM 1

ASSAYED BY ANALABS FROM 105m TO 120m DATE 12/84 PAGE 5 OF 7

398174

Metres	Cu	Pb	Zn	Ag	Ni	As	Sb	W								SAMPLE NUMBER
120																
120.60																
121																
122	150	10	195	0.5	100	24	BLD	48								
123																
123.60																
124																
125	120	5	155	0.5	115	9	BLD	29								
126																
126.60																
127																
128	130	5	110	BLD	105	3	BLD	38								
129																
129.60																
130																
131	135	5	130	0.5	120	2	BLD	62								
132																
132.60-135.60																
133																
134	185	10	160	0.5	115	8	BLD	67								
135																

051

COMSTAFF PROPRIETARY LIMITED ASSAY RESULT SHEET FOR DDH CAM 1

ASSAYED BY ANALABS FROM 120 TO 135 m DATE 12/84 PAGE 6 OF 7

398175

Metres	Cu	Pb	Zn	Ag	Ni	As	Sn	W							SAMPLE NUMBER
135.60															
	155	35	170	0.5	110	13	BLD	48							
138.60															
	115	30	190	0.5	110	19	BLD	41							
141.60															
	55	20	185	BLD	120	40	BLD	94							
143.60	EOH														

COMSTAFF PROPRIETARY LIMITED ASSAY RESULT SHEET FOR DDH CAM 1

ASSAYED BY ..... FROM ..... TO ..... DATE 1/2/84 PAGE 7 OF 7

052

MAGNETIC S

1cm = 100 nT

5 cm

ANOMALY L30
corrected data

5100N

5000N

4900N

ANOMALY L80
corrected data

5100N

4900N

4600E 4700 4800 4900 5000 5100 5200 5300 5400

398177 054

MAGNETICS

1cm = 100 nT

5 cm

ANOMALY L30
corrected data

5100N

5000N

4900N

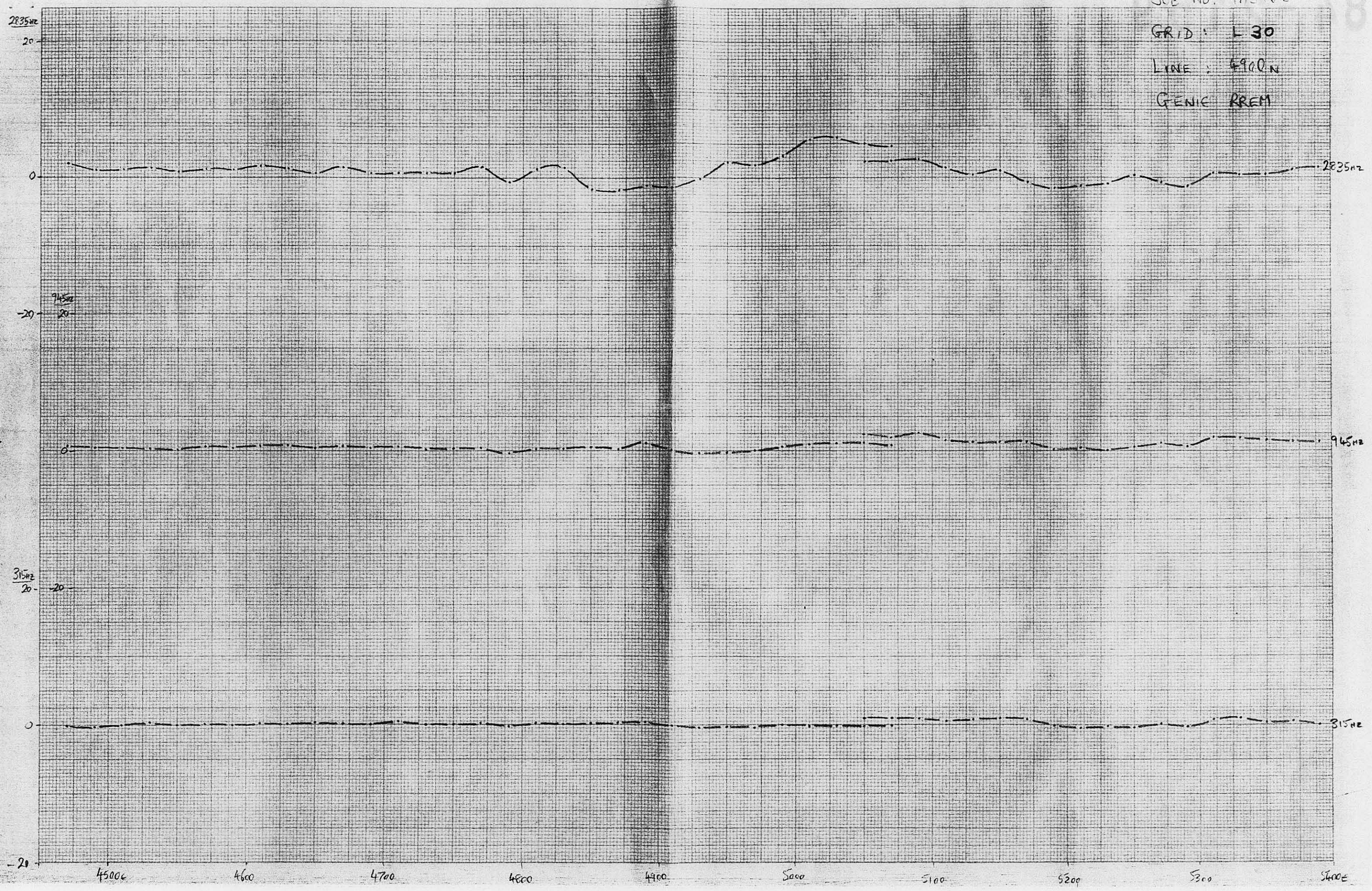
ANOMALY L80
corrected data.

5100N

4900N

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JOB No: TAS108
GRID: L 30
LINE: 4900N
GENIE RREM



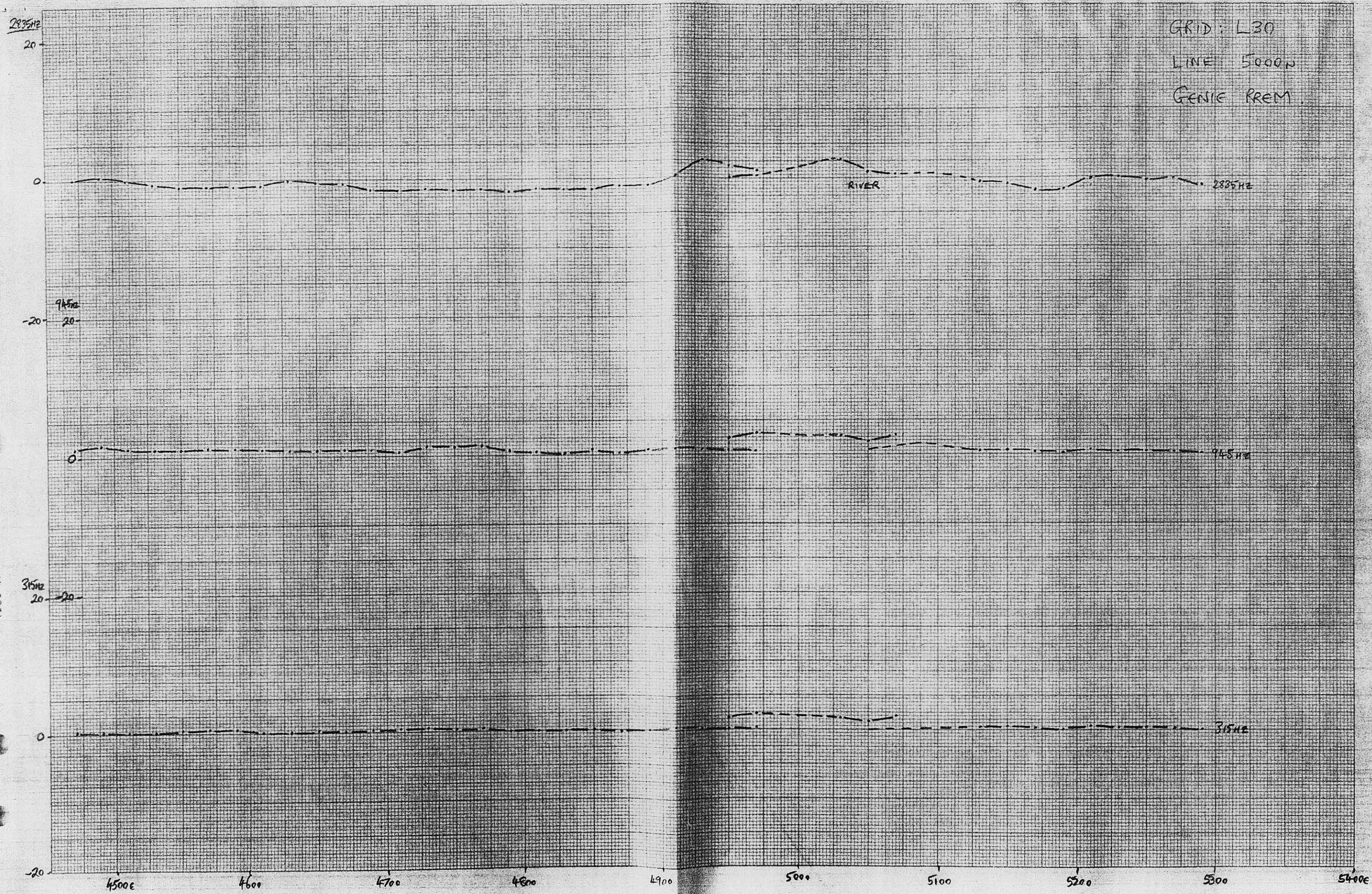
K+E KEUFFEL & ESSER CO. MADE IN U.S.A.
10 X 10 TO THE CENTIMETER 25 X 25 CM

JOB No: TAS 108

GRID: L30

LINE 5000N

GENIE PREM.



398180 057

JOB No. TAS 108

GRID: L30

LINE 5100N

GENIE PREM

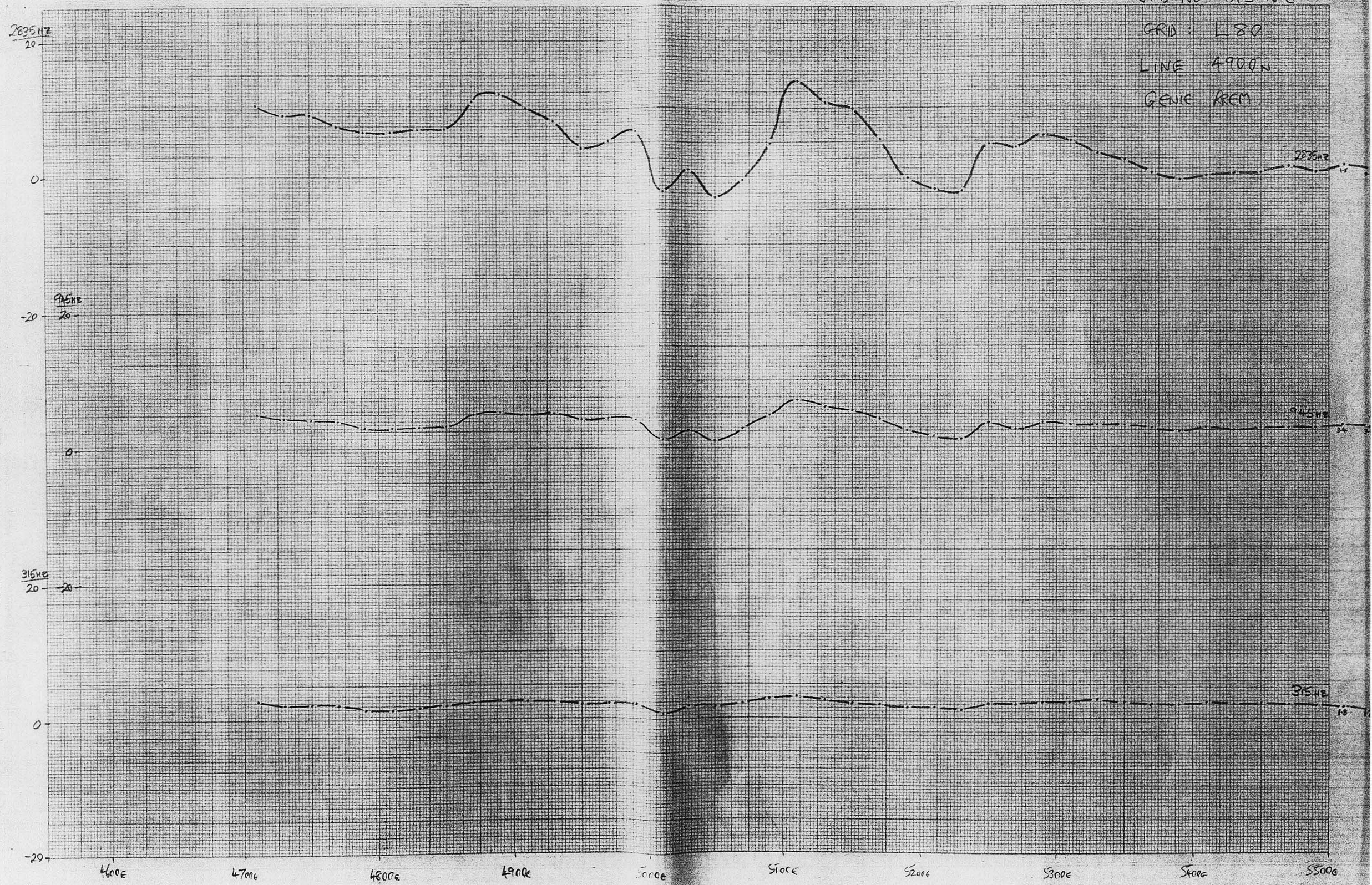


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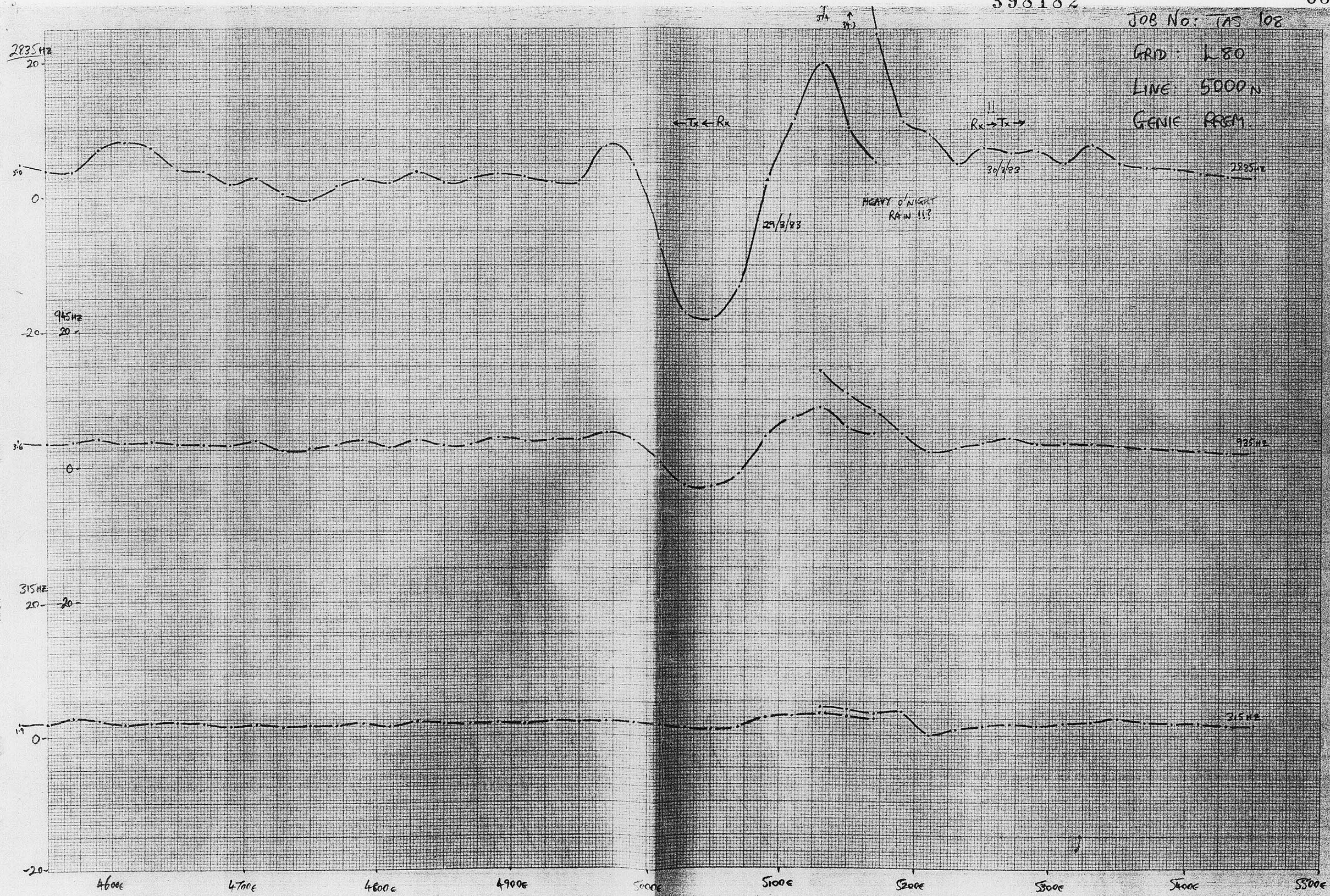
GRID: L80

LINE 4900N

GENIE REM



JOB No: TAS 108
GRID: L80
LINE: 5000N
GENIE RESM.



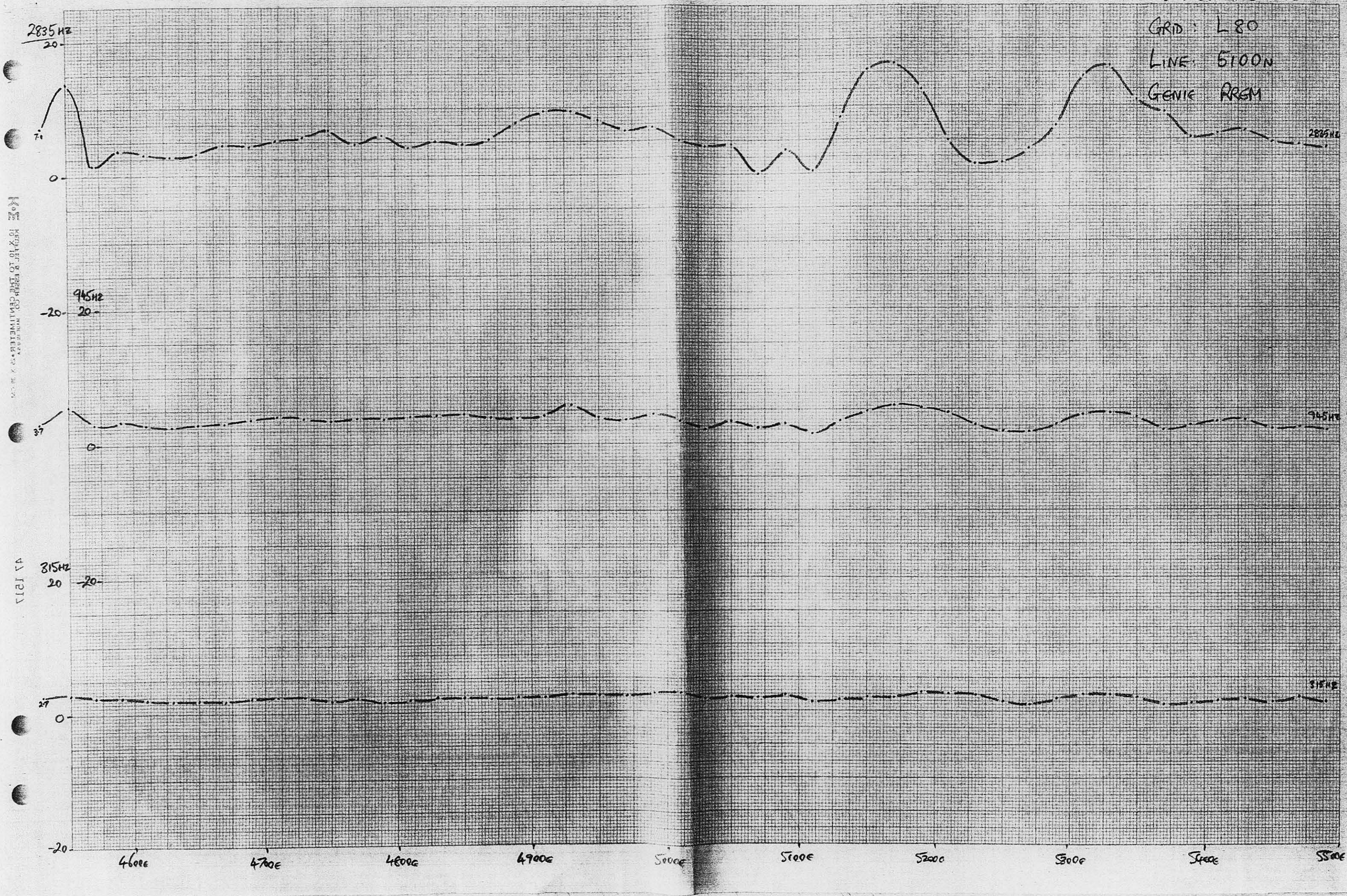
398183

JOB No: TAS 108

GRID: L80

LINE: 5100N

GENIE ARGM



MAGNETICS

ANOMALY L211

corrected data

L211

5100N

4600E 4700 4800 4900

5000N

4900N

5000 5100 5200 5300 5400E

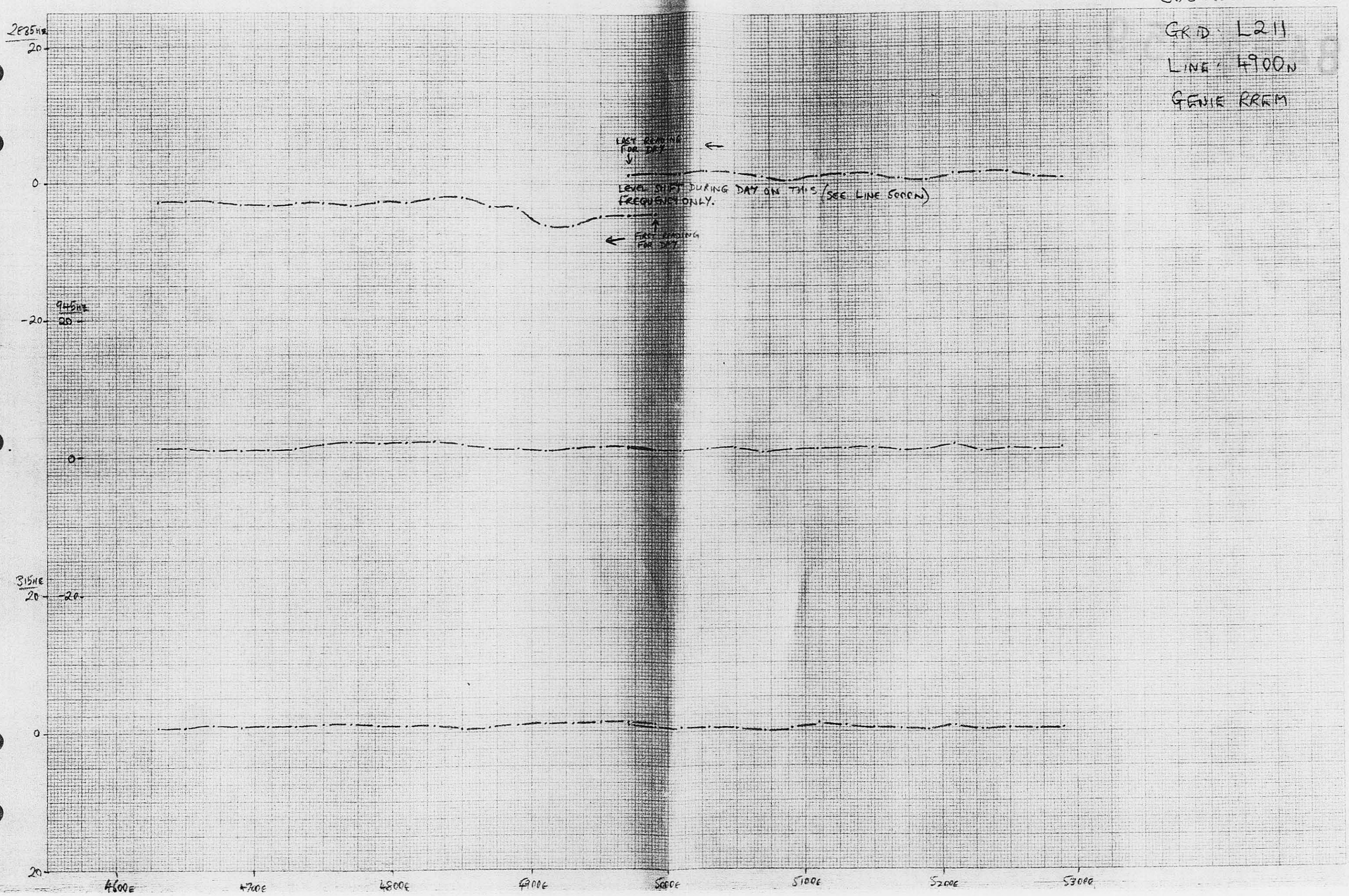
5100N

5000N

4900N

GORMACK GRAPH PAPERS CHRISTCHURCH N.Z.

JOB No: TAS 108
GRID: L211
LINE: 4900N
GENIE RREM



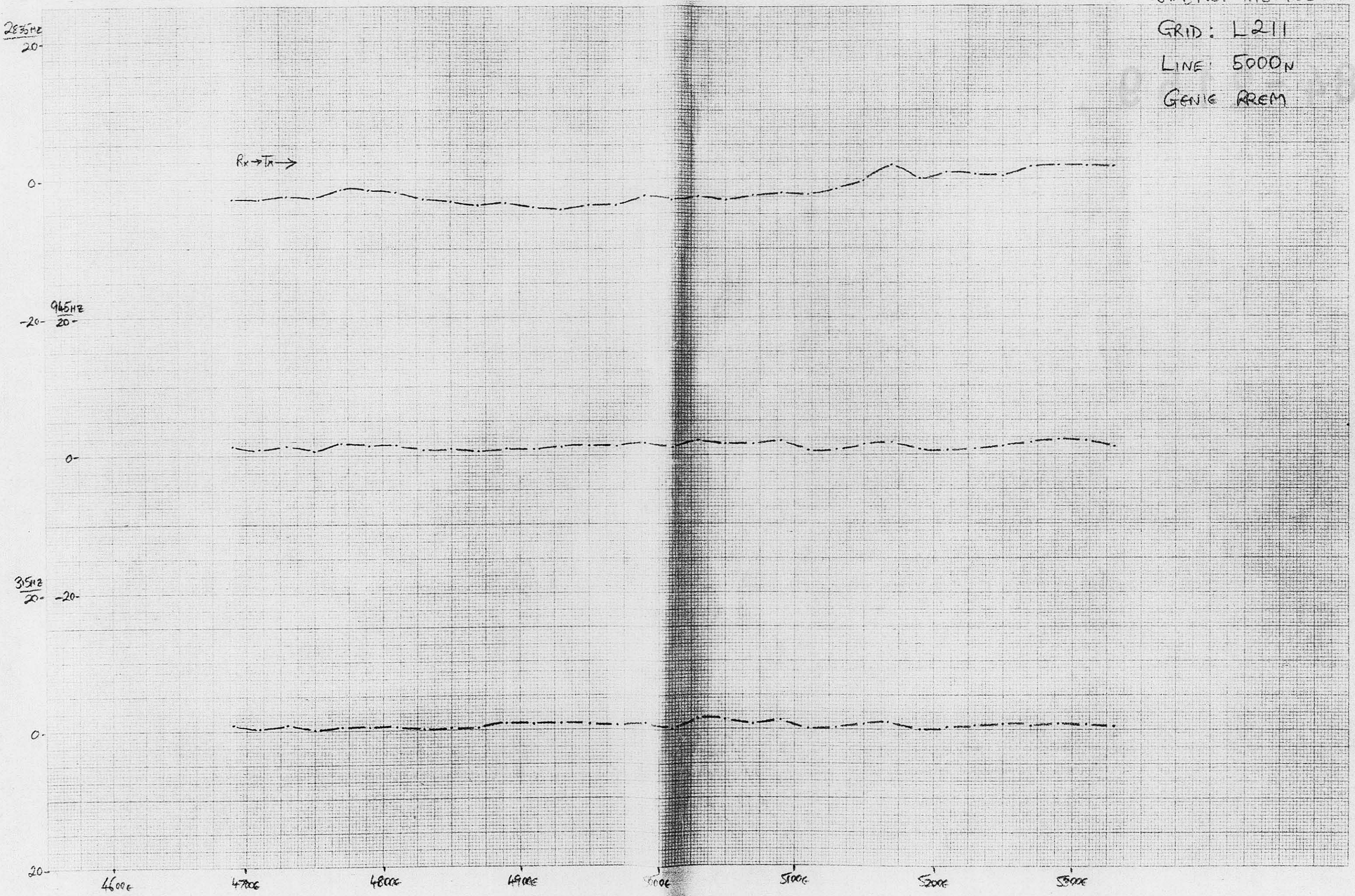
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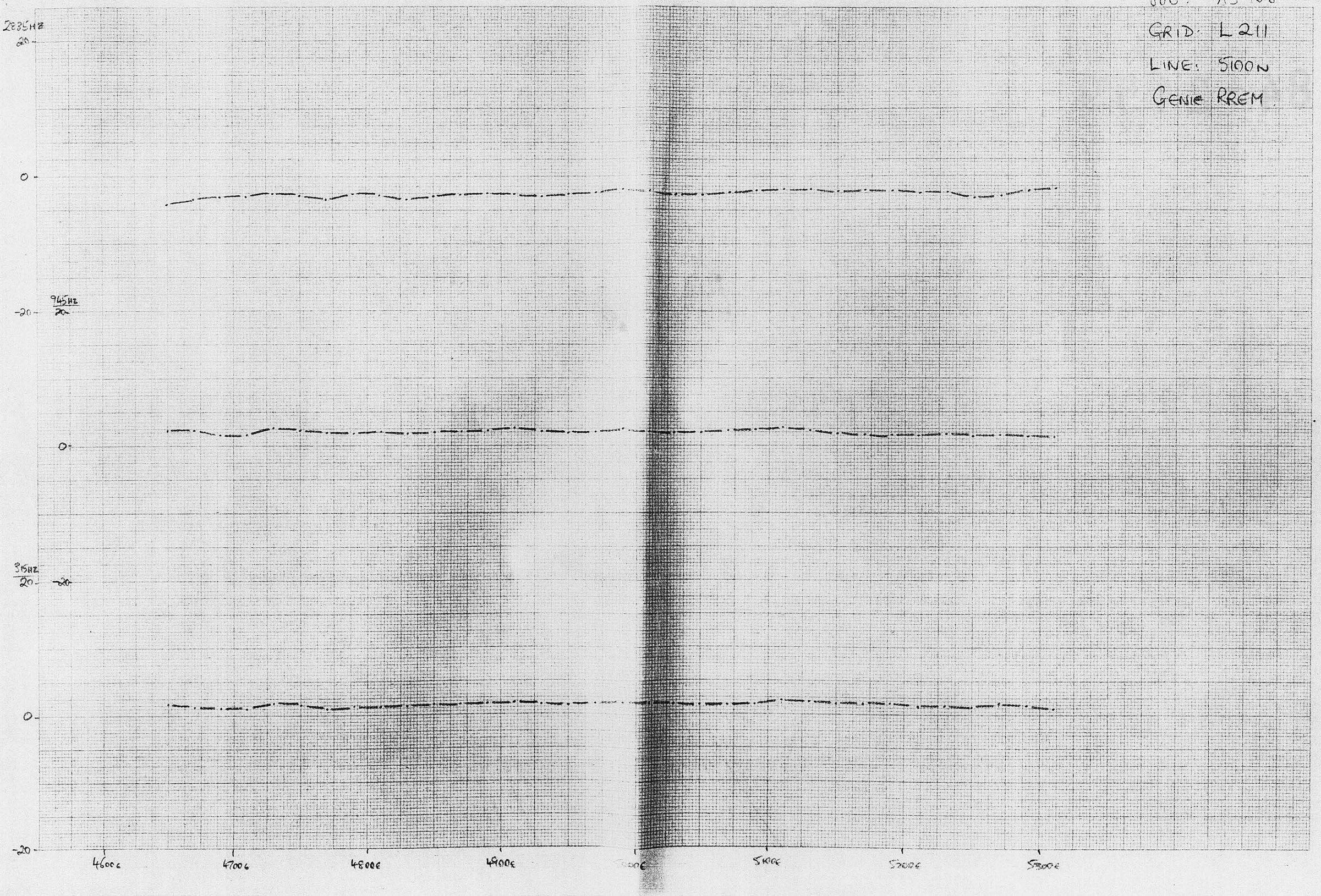
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LINE: 5000N

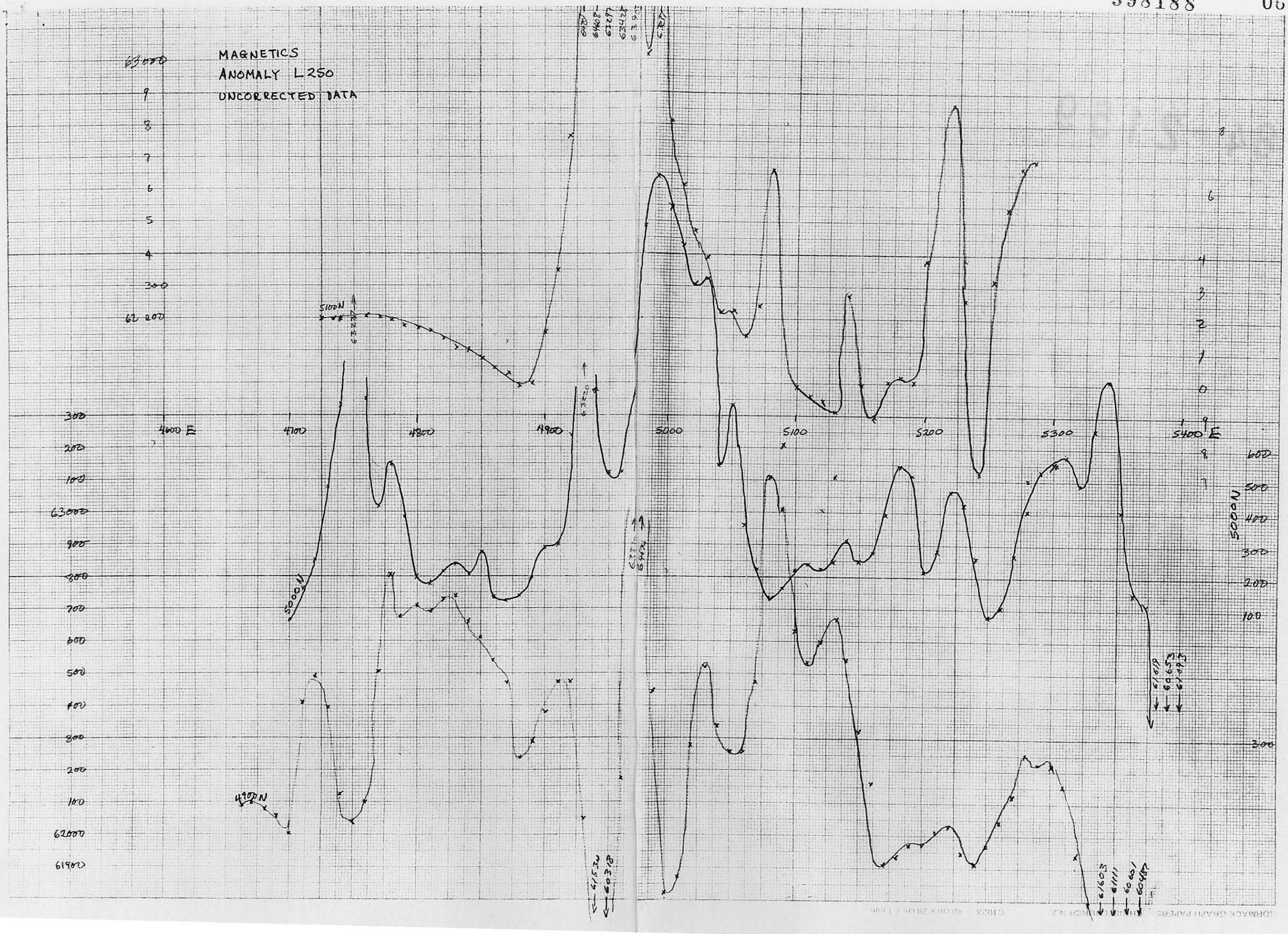
GENIE RREM



JOB: TAS 108
GRID: L211
LINE: 5100N
GENIE RREM



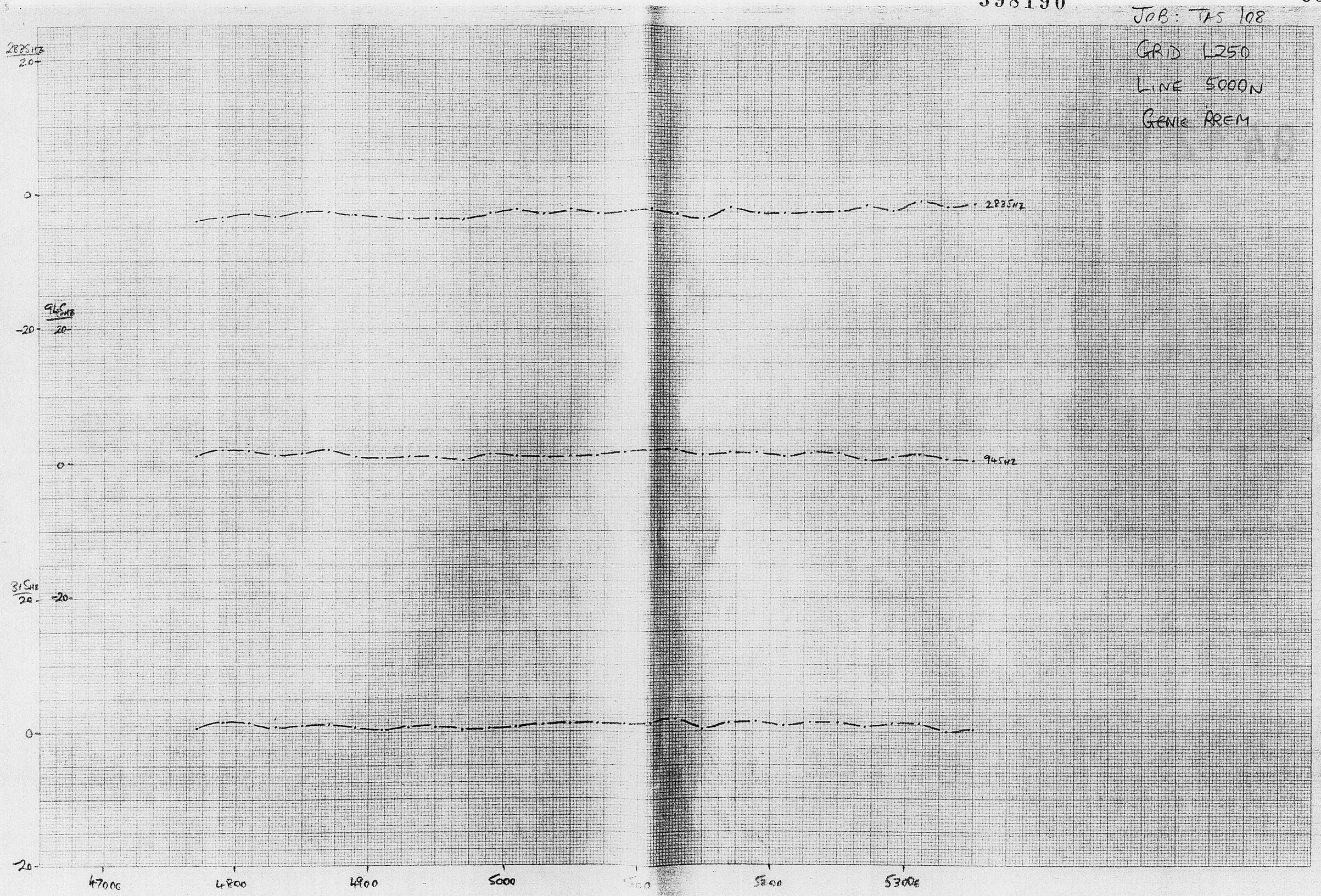
MAGNETICS
ANOMALY L250
UNCORRECTED DATA



Job: TAS 108
GRID: L250
LINE: 4900N
GENIE RREM



JOB: TAS 108
GRID L250
LINE 5000N
GENIE AREM



JOB: TAS 108
GRID: L250
LINE 5100N
GENIE REEM

