98-4137

PASMINCO EXPLORATION

LUINA EL 17/93

FINAL REPORT
~~APRIL 1997 - NOVEMBER 1997~~

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98-4137

CONTENTS

LIST OF FIGURES

1. SUMMARY

The only work completed since March 1997 has been a Prospectivity Review. The recognition of an aeromagnetic anomaly in the Magnet Mine area has some potential but this has not been followed up, and remains untested.

In accordance with Governmental Guidelines rehabilitation work was undertaken along the Belts Track.

The Prospectivity Review did not highlight any immediate zones of interest although there is a paucity of data to evaluate. It was concluded that the area did not contain any base metal targets for Pasminco and the JV is relinquished in favour of MPI Gold Pty Ltd.

2. INTRODUCTION

This report details exploration undertaken on the Luina EL 17/93 between April 1997 and November 1997. This area formed portion of a continuous set of licence areas covering the northern margin of the Meredith Granite in the north west sector of the Dundas Trough which contains a sequence of metasediments, metavolcanics and mafic/ultramafic complexes.

This licence area has experienced a long history of small scale mining associated with both metasedimentary and mafic/ultramafic complexes. The licence area contains two of the three larger mines in this area, the Magnet Mine (Pb-Zn-Ag), and the Cleveland Mines (Sn). All ore bodies appear to be vein-style mineralisation.

Much of the EL area is Crown Land, covered by patches of rainforest and forestry, titree shrub and button grass plains. Access is provided by the Waratah Road and numerous logging and HEC access tracks and walking tracks. Much of the southern area is only accessible by foot.

3. LAND TENURE

Luina EL 17/93 covers an area of $70km^2$ and was first granted to MPI Gold Pty Ltd in April 1993.

The licence area is centred on the Cleveland Mine stretching to the north east. The majority of the licence area is Multiple Use State Forest with much of the rest being Deferred Forest. The Cleveland Mine has a moderately large Mine Lease over it and several other small leases also occur. The Savage River RAP and Mount Ramsay RAP also impinge on the licence area. These areas can be seen on Figure 2.

4. PREVIOUS EXPLORATION AND MINING

A comprehensive bibliography of reports on previous exploration in the Waratah-Luina area is included in McGunnigle (1995). Previous exploration conducted in the area is summarised in Table 1.

The Magnet Mine is thought to have been first discovered in 1877 by W.R. Bell, but was not investigated until 1890 when Bell was able to relocate his find. The Magnet Silver Mining Co. was formed in 1895 and worked the mine with various success until 1933. From 1933 to 1940 the mine was controlled by four separate organisations, none of whom found it a successful venture. Production from the mine totalled approximately 630,000t @ 6% Pb, 7% Zn and 394 g/t Ag up to 1940 when operations ceased (Cottle, 1951).

Modern exploration in the area commenced in the early 1970's and has been undertaken within several exploration licences since then (Table 1). The work has included extensive stream sediment sampling and geological mapping, a range of geophysical surveys and several drill holes. Numerous Sn and base metal anomalies have been discovered in the area, although much of the anomalism is thought to be related to contamination from the Magnet and Mt Bischoff Mines.

In the Magnet Mine area modern exploration began during 1970 with stream sediment sampling undertaken by Comstaff. All results however were discarded due to cultural contamination. A Sn stream sediment anomaly thought not to be related to the mine was located in 1972, and meaningful exploration began in 1975 with the establishment of a grid from Magnet to Mt Bischoff. Mapping, soil sampling, ground magnetics and EM surveys resulted in one diamond drill hole (BAB1) targeted at an EM anomaly, and two holes (MAG1, MAG2) drilled to test the southern extension of the Magnet Mine Pb-Ag-Zn vein. BAB1 failed to intersect any evidence of mineralisation, whilst MAG1 and MAG2 intersected moderate patchy mineralisation plus extensive zones of stoping. No further activity was undertaken by Comstaff, and much of the area was surrendered from EL 5/63 during 1985.

During the 1980's the Tasmanian Mines Department carried out exploration on the Luina and Wombat Flat exempt areas (Collins, 1983; Brown 1986). This work included magnetic and DIGHEM surveys and soil geochemistry. The programme culminated in the drilling of two holes at Arthur Dam which targeted coincident magnetic and soil geochemical anomalies. The holes intersected sheet-like pyrrhotite-chalcopyrite bearing veins (AD1) and sphalerite-galena quartz stockwork veining (AD2) in Eocambrian andesites and volcaniclastics.

RGC held ground in the area from 1990-1993 primarily focussing on potential Renison-style Sn mineralisation, specifically carbonate replacement Sn deposits such as those mined at Mt Bischoff and Cleveland.

5. GEOLOGY

5.1 Regional Geology

The regional geology of the Waratah-Luina area consists of Precambrian to Ordovician rocks of the Dundas Trough (Figure 4). Lithologies which are well described in Brown (1986) include carbonates, intermediate to mafic volcanics and ultramafics. The Devonian Meredith Granite outcrops in the southern and eastern extent of EL 17/93. Observations from field mapping are included in the summaries of outcropping lithologies below, and sample numbers quoted are consistent with descriptions included in Appendix 2.

5.2 Oonah Formation

A block of Oonah Formation of approximately 17km^2 in size surrounds the Mt Bischoff Mine and extends below Tertiary basalt to the east. The Proterozoic Oonah Formation is composed of pale grey quartz rich sandstones, pale grey siltstones, dark grey shales, dolomites and minor mafic lavas and volcaniclastics. A high degree of deformation often allows distinction from younger rocks.

The Oonah Formation has been divided into upper and lower successions on the basis of lithology. The lower sequence is dominated by micaceous quartz sandstones and siltstone with minor interbedded phyllitic mudstone. The upper Oonah has a greater abundance of mudstone and shale with dolomite and occasional intercalated mafic volcanics.

The Oonah Formation in the Mt Bischoff area is comprised of a shale and siltstone succession with thick units of dolomite that correlates to the upper sequence. It is inferred that the Oonah/Crimson Creek Formation contacts north east and east of Magnet Mine are faulted, possibly involving significant over thrusting of Precambrian over the Eocambrian sequences.

Correlates of the Success Creek Group underlie the Crimson Creek Formation north of the Meredith Granite to the west of EL 17/93, and mapping from Brown (1986) indicates a conglomerate and sandstone dominated sequence.

5.3 Crimson Creek Formation/Cleveland-Waratah Association

The Crimson Creek Formation interpreted by Brown (1986) to occur to the north and east of the Meredith Granite is now doubted to be a correlate of the Formation, but rather it is thought to belong to a different association termed the Cleveland-Waratah Association (J Everard, pers. comm.). The unit will be referred to as the Crimson Creek Formation in this report however.

The formation is comprised largely of basalt lavas (78013), basaltic volcaniclastics, and finely bedded siltstone and mudstone (78017). Brown (1986) notes that it becomes more basaltic to the north of the Meredith Granite. Thin carbonate horizons occur in the formation but rarely outcrop.

Contact metamorphism of the unit by the Meredith Granite has resulted in hornfelsing of the sediments about the granite. It is likely that this magnetic signature will add to the complexity of responses when using magnetics as an exploration tool in the area.

5.4 Eocambrian Pyroxenite and Basalt Lava Sequences

Mixed intermediate to mafic volcanics dominate an area to the west of Arthur Dam and are mapped also in an area between Magnet and Mt Bischoff mines. The volcanics are referred to as high-magnesian andesites and low-titanium tholeiite basalts by Brown (1986). They most commonly range in textures from interstratified volcaniclastics to lava and lava breccia and are believed to be mostly subaqueously emplaced.

Lava and lava breccia ranges from vesicular, fine to coarse grained porphyritic to basaltic pyroxenite intercalated with volcaniclastic sandstone and siltstone. Outcrop is green to grey-brown in colour, slightly to highly chlorotic with goethite weathered surfaces. Andesite is feldspar-pyroxene phyric, with pyroxene phenocrysts up to 10mm in size (and up to 20% abundance), and commonly contain amygdales infilled with chlorite, carbonate and/or silica (78007). Spilitic basalt is characterised by classic spherulitic-spray spilite textures, and fine grained feldspar ± pyroxene (78011).

Within a basin approximately 5km SW along Betts track, a variety of volcaniclastic and conglomeritic textures are observed in boulder outcrops. The variety of textures which range from fine grained tuff and coarse sandstone to conglomerate are interpreted to be comprised of pumiceous and tuffaceous beds and mass flow deposits (78009). Weathering has exposed relict shapes of eroded feldspar and pyroxene crystals within vesicular and tubular pumice clasts.

The pyroclastic genesis of the agglomerates and bedded volcaniclastics is so far unique to the basin area in EL 17/93. The mineralogy of pumice clasts in the units infers an intermediate mineralogical composition (ie. andesite to dacite) and although it is possible that they may be related to the high magnesian andesites in the area, these units may be unrelated to formations previously identified and analysed in the region.

5.5 Serpentinite

A serpentinised NNE striking wedge of ultramafic rock outcrops to the east of the mafic volcanic units, clearly exposed approximately 1.5km down Betts track. In fresh outcrop it is observed as a complex of dark to light grey and green-black swirly, fractured and sheared mafic unit (36803). In places an apparent clastic texture is created by the presence of fragments within a grey, fine-grained, vein-like netted matrix. The serpentinite is interpreted to have been tectonically emplaced.

The serpentinite unit is highly magnetic and is distinctive in both the ground and aeromagnetic data sets.

5.6 Ordovician to Devonian Sediments

A sequence of Ordovician to Devonian sediments overlie the Crimson Creek Formation and associated ultramafic rocks within a small syncline to the north of the Meredith Granite in the Mt Stewart-Heazlewood area. These sediments belong to the conformable Gordon Limestone-Eldon Group sequence, and the Gordon Limestone at the base of the sequence may have a stratigraphic thickness of up to 500m. It is overlain by the Crotty Sandstone, a white, friable, quartz rich unit up to 400m in thickness, which forms a prominent ridge around the edge of the syncline. Much of the sequence is poorly exposed and covered by alluvium.

5.7 Meredith Granite

The Meredith Granite has been radiometrically dated at 356 Ma, using both K-Ar and Rb-Sr methods (Brown, 1986). Around the north-eastern tip and eastern margin, the granite is porphyritic close to the contact, containing feldspar (up to 25mm) and biotite phenocrysts (up to 15mm) (78006). The granite becomes increasingly equigranular towards the core, and contains biotite throughout. Zones of greisenization and concentrations of tourmaline veining are common and conspicuous close to the granite margins. Quartz feldspar porphyry dykes related to the Meredith Granite occur at Mt Bischoff and at Deep Gully Creek.

5.8 Tertiary Basalt

Tertiary Basalt overlies Crimson Creek Formation in the north of Luina EL 17/93. In the area, the basalt cover may be up to 300m in thickness, and consists of flows ranging from less than 1m to greater than 10m thick. Fluvial and lacustrine sediments occur between basalt flows, ranging from mud to gravel grain size.

Magnetic character and variation in thickness of the basalt severely hinders interpretation of sub-basalt magnetic features.

5.9 Known Mineralisation

The Waratah-Luina area is well known for large replacement-style Sn deposits (Cleveland, Mt Bischoff), but lesser known for Pb-Zn mineralisation.

The largest base metal orebody discovered and mined to date is Magnet, from which approximately 630,000t @ 6% Pb, 7% Zn and 394 g/t Ag were extracted. Magnet lies in the northern part of EL 17/93. The orebody has a strike length of 90m, a true width averaging 5.5m, and was worked to 365m vertical depth. The orebody is described as occupying a steep W-NW dipping fracture system within an early Cambrian mafic/ultramafic body known as the Magnet dyke, close to its discordant footwall contact with early Cambrian sedimentary rocks.

The ore at Magnet consists of sphalerite and argentiferous galena with lesser amounts of arsenopyrite, pyrite, boulangerite, pyrargyrite, tetrahedrite and chalcopyrite in a gangue of manganosiderite.

Other base metal prospect sites are discussed in Nye (1923), however all are small vein style galena dominated accumulations that were worked to a shallow depth only.

The Cleveland Sn-Cu deposit located just within the western boundary of EL 17/93 comprises several stratabound lenses of pyrrhotite-cassiterite-stannite-chalcopyrite mineralisation formed by metasomatic replacement of limestone beds. The limestone belongs to the Crimson Creek Formation and forms part of a transitional sequence between mafic volcanics and overlying turbidites. The tabular sulphide lenses range up to 30m in thickness, and are disrupted by a series of sub-parallel reverse faults that are thought to have been conduits for the mineralisation.

At Mt Bischoff, massive pyrrhotite has partially replaced a 40-60m thick dolomite bed within a sequence of turbiditic sandstone, siltstone and shale of the Oonah Formation. Quartz-feldspar porphyry dykes intrude this sequence. Other mineralisation styles include topazised porphyry dykes and late stage quartz-carbonate-fluorite veins.

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6. WEST MAGNET ANOMALY

6.1 Aeromagnetic Review

In the appraisal of Luina EL 17/93, it was noted that a small but distinct aeromagnetic anomaly occurs some 700 metres south west of the Magnet Mine (Fig 3). This is termed the West Magnet Anomaly.

This magnetic anomaly appears to be associated with a structurally interesting area and it is hypothesised that this anomaly may reflect pyrrhotite mineralisation associated with the Oonah Formation. This is regarded as representing a tin target and as such is not an exploration target for Pasminco Exploration.

The aeromagnetic anomaly is shown on Fig 3 and the following points are made concerning its prospectivity:

- The anomaly lies on the junction between the Oonah Formation and a mapped mafic volcanic unit and the strike of these units is north east, placing this aeromagnetic anomaly along strike from the Cleveland Tin Mine. The Oonah Formation hosts the world class Mt Bischoff Mine 6,500m east north-east of this magnetic anomaly.
- It is hypothesised that a similar but deeper ridge of granite, similar to the Bischoff trend, lies under the West Magnet Anomaly, although it is not visible on the regional aeromagnetic plan (refer McGunnigle and Basford 1997).
- The mafic unit is recognisable as a weak trend of magnetic blips to the north east which are much less anomalous than the West Magnet Anomaly thus giving credence that this anomaly is due to some other cause.
- The upper portions of the Oonah Formation are carbonate-rich (hosting the world class tin anomaly at Mt Bischoff). The upper Oonah Formation also contains mafic volcanic units and it is hypothesised that the mapped mafic unit as mapped maybe portion of the upper Oonah Formation. These units, carbonates associated with the Oonah Formation and the mafic unit may provide carbonate-rich zones capable of metasomatic replacement.
- The magnetic anomaly is associated with a distinct structural dislocation in the mapped outcrop of the mafic unit as it appears to be offset west at this point with the magnetic anomaly occurring in the jog position.
- A brief review of prior exploration at the Magnet Mine shows only two drill holes have been completed, both of which appear to plot south of the mine so the area is untested.
- The Magnet Mine mineralisation is only 90m long and lies 700m north east of the West Magnet Anomaly. There is little likelihood of it being an extension of this mineralisation.

Several points have been made against this anomaly being prospective, these include:

- The anomaly is shallow and stream sediments results in this area, although anomalous, are also anomalous upstream of the magnetic anomaly and thus do not highlight the zone.
- The magnetic anomaly may be caused by the mafic volcanic unit.
- The Magnet Mine Pb-Zn-Ag mineralisation is non-magnetic and therefore the West Magnet Anomaly is not likely to be base metal-rich unless of a skarn variety. The mineralisation is more likely to be tin and this not an exploration priority to Pasminco Exploration.

Because of the negative aspects of the West Magnet Anomaly the area was not followed up.

7. PROSPECTIVITY REVIEW

7.1 Background

Pasminco Exploration undertook a prospectivity assessment of its ground holding in Western Tasmania during the past 12 months (Murphy 1997). The review employed a GIS (Mapinfo) analysis of exploration data which, for the Luina EL, was sourced from open file data and an existing Pasminco database held in Access. Both data sets required substantial effort to validate and were then combined with the open file compilation. The integration of the various data sets formed the basis for largely geochemically-orientated metallogenic modelling and target area definition. Analysis was performed on Cu, Pb and Zn distributions as these elements provide the most coherent regional coverage to date on the Luina tenement. Layers incorporated in the GIS are:

- Modified 1:250,000 geology and mineral occurrences (Fig 4). The geology was coded according to lithotypes eg. DGE = Dundas Group Equivalent, CVC = Central Volcanic Sequence.
- Stream sediment sampling and drainage (Fig 5).
- Extant grids and access (Fig 6).
- Soil sampling and grids (Fig 7).
- Rock chip sampling and drill collars (Fig 8).

7.2 Point Data Analysis

- The stream sediment sample points invariably plot off stream lines (Fig 5) so catchment analysis was not deemed appropriate. In any case, where there is a high sample density the points approximate to small catchment areas. The data points were standardised and leveled accordingly to the underlying 1:25,000 geology polygon that contains them. Analysis was then made of the lithotype populations (eg. All CVC hosted samples) with statistical analysis performed on the log distributions and z-scores (x-mean (x)/st dev (x)) calculated for each point. The data was subsequently images using a search radius of 500m and grid cell size of 50m.
- The soil samples were standardised and leveled according to soil profile (A, B, C and 'unknown') and to major lithotype code of the underlying geology polygon, using the same statistical manipulations as with the stream data. The data was then imaged using a search radius of 100m and a grid cell size of 50m.
- The rock chip data was gridded in the same way as the soil data.

- Each of the 'surface' data sets (stream, soil and rock ship) were imaged for each of the three elements and displayed as percentile RGB images. The images are 'hot to cold' colour coded according to the 99th, 98th, 95th, 90th, 80th, 60th and 40th percentile of the z-score distribution.
- The high z-scores values for each element were threshold as a composite RGB image to show levels of coincident anomalies. These colour coded according to Red=Pb, Green=Cu, Blue=Zn, Yellow=Pb+Cu, Cyan=Zn+Cu, Magneta=Pb+Zn, White=Cu+Pb+Zn.

7.3 Multi-element Distributions

Preliminary observations can only be made at this stage, ie. qualitative statements that require quantitative analysis of the nature and robustness of the anomalies. They provide pointers for future work programs. The following observations are drawn from the data:

Stream Sediment Images (Figs 9, 10, 11, 12)

- In the Luina title the stream sediment coverage is mainly confined to the north east sector along the Magnet Creek.
- The Magnet Creek is highly anomalous in Pb-Zn-Cu including the area upstream from the Mine.
- The Arthur Dam area occurs as a Cu-Zn anomaly.
- A Cu anomaly is associated with the mapped mafic volcanic unit 1,500m east of the Arthur Dam Prospect.
- A Zn-Pb anomaly is associated with this unit approximately 1,000m north east of the Cu anomaly.

Soil Images (Figs 13, 14, 15, 16)

- Only two grid surveys have been plotted. This does not include the Magnet Mine Grid.
- The Arthur Dam Grid shows some Pb-Zn-Cu anomalous zones which have been followed up and reported in McGunnigle and Basford (1997).
- The second grid is situated over a zone of low titanium basalts north of the Nine Mile Creek but does not show any anomalism.

Rock Chip Images (Figs 17, 18, 19, 20)

- Some anomalous Pb-Zn-Cu are associated with the Arthur Dam Grid.
- A single point sample probably taken just north west of the West Magnet Anomaly is anomalous in Pb and Cu.
- No other results are considered anomalous.

Metallogenic Modelling (Fig 21)

- There is little to see on the Metallogenic Model apart from what appears to be a strong north east structural and sediment/volcanic trends with north west cross structures.
- The Arthur Dam Prospect is associated with a north west trending structure, just east of a north north-east trend.
- The Magnet Mine is associated with a north west structure.

8. RECOMMENDATIONS & CONCLUSIONS

The West Magnet Magnetic Anomaly appears to be shallow and exploration to date does not indicate a strong base metal association therefore it is concluded that it is of no direct interest to Pasminco Exploration.

The GIS study has shown there is little prior exploration data over this licence area and has been unable to delineate any prospective trends.

Because of the change of focus in exploration in Western Tasmania by Pasminco, it is recommended that this area is surrendered back to the JV partner.

9. ENVIRONMENTAL DISTURBANCE AND REHABILITATION

Betts track was rehabilitated in accordance with departmental guidelines.

10. EXPENDITURE

Total expenditure for all work undertaken by Pasminco Exploration within Luina EL 17/93 for the twelve month period to the end of November 1997 was $38,572. A detailed expenditure statement is given below.

Personnel	7,951
Travel and Accommodation	
Geological Consultants	225
Geochemical Consultants & Assays	
Geophysical Surveys & Consultants	
Other Consultants	147
Drilling	
Stores & Supplies	
Vehicles Plant & Equipment	
Land	6,484
Computing	
Office	20,259
Administration Fee 10%	3,506
Total Tenement Expenditure	**38,572**

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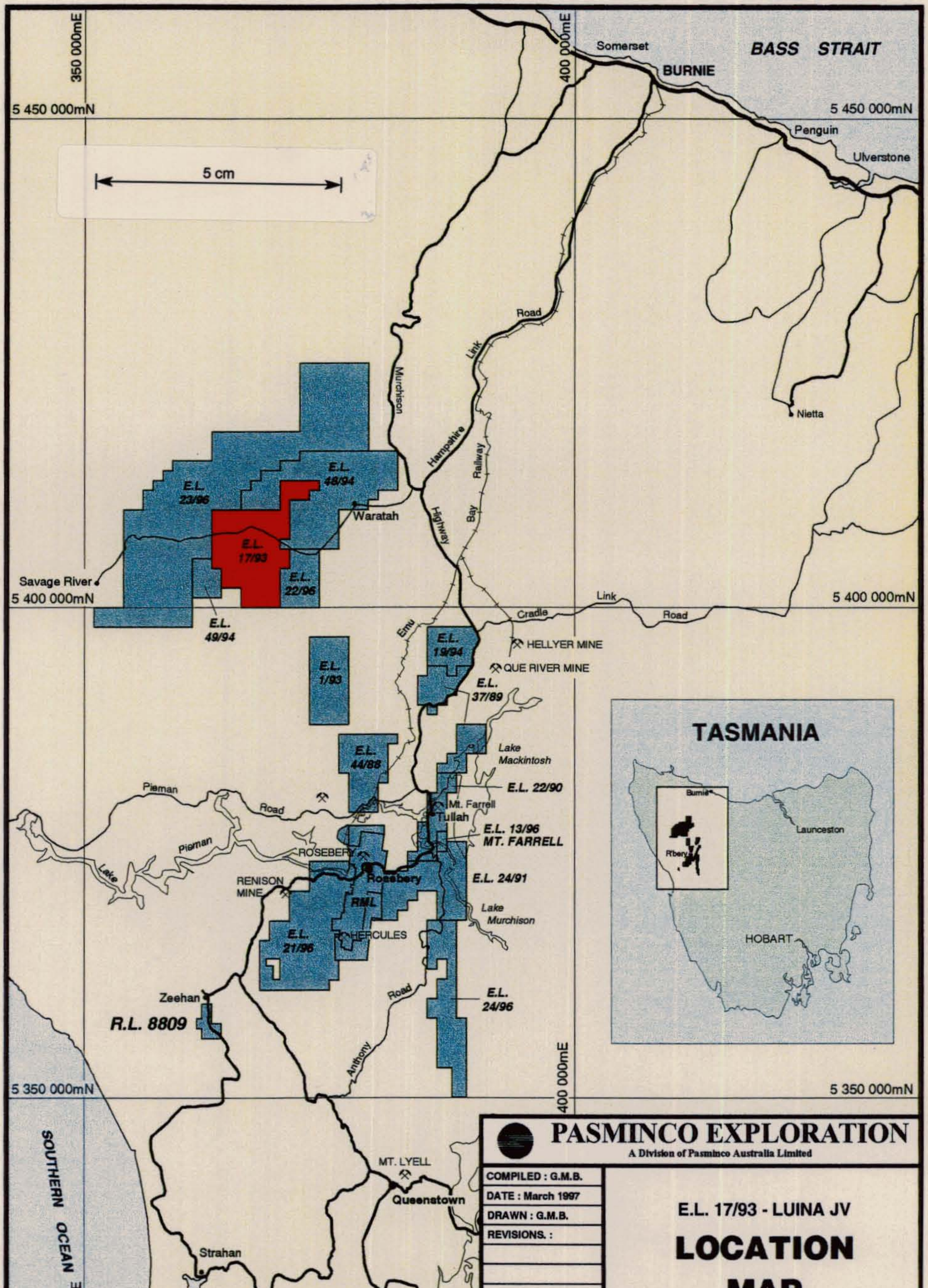

BASS STRAIT
Somerset
BURNIE
Penguin
Ulverstone
Nietta
350 000mE
400 000mE
5 450 000mN
5 400 000mN
5 350 000mN
5 cm
Road
Link
Murchison
Hampshire
Highway
Railway
Bay
Emu
Cradle
Link
Road
E.L. 48/94
E.L. 23/96
E.L. 17/93
E.L. 22/96
E.L. 49/94
Waratah
Savage River
E.L. 19/94
HELLYER MINE
QUE RIVER MINE
E.L. 37/89
E.L. 1/93
E.L. 44/88
Lake Mackintosh
E.L. 22/90
Pieman
Road
Pieman
Lake
Mt. Farrell
Tullah
E.L. 13/96
MT. FARRELL
ROSEBERY
Rosebery
RENISON MINE
E.L. 24/91
RML
Lake Murchison
E.L. 21/96
HERCULES
Zeehan
R.L. 8809
Road
Anthony
E.L. 24/96
TASMANIA
Burnie
Launceston
R'bery
HOBART
SOUTHERN OCEAN
MT. LYELL
Queenstown
Strahan
Macquarie Harbour
PASMINCO EXPLORATION
A Division of Pasminco Australia Limited
COMPILED : G.M.B.
DATE : March 1997
DRAWN : G.M.B.
REVISIONS. :
FILE : LUINALOC
DRAWING No.
E.L. 17/93 - LUINA JV
LOCATION MAP
SCALE 1:500,000
0 5 10 km
FIG. No. 1

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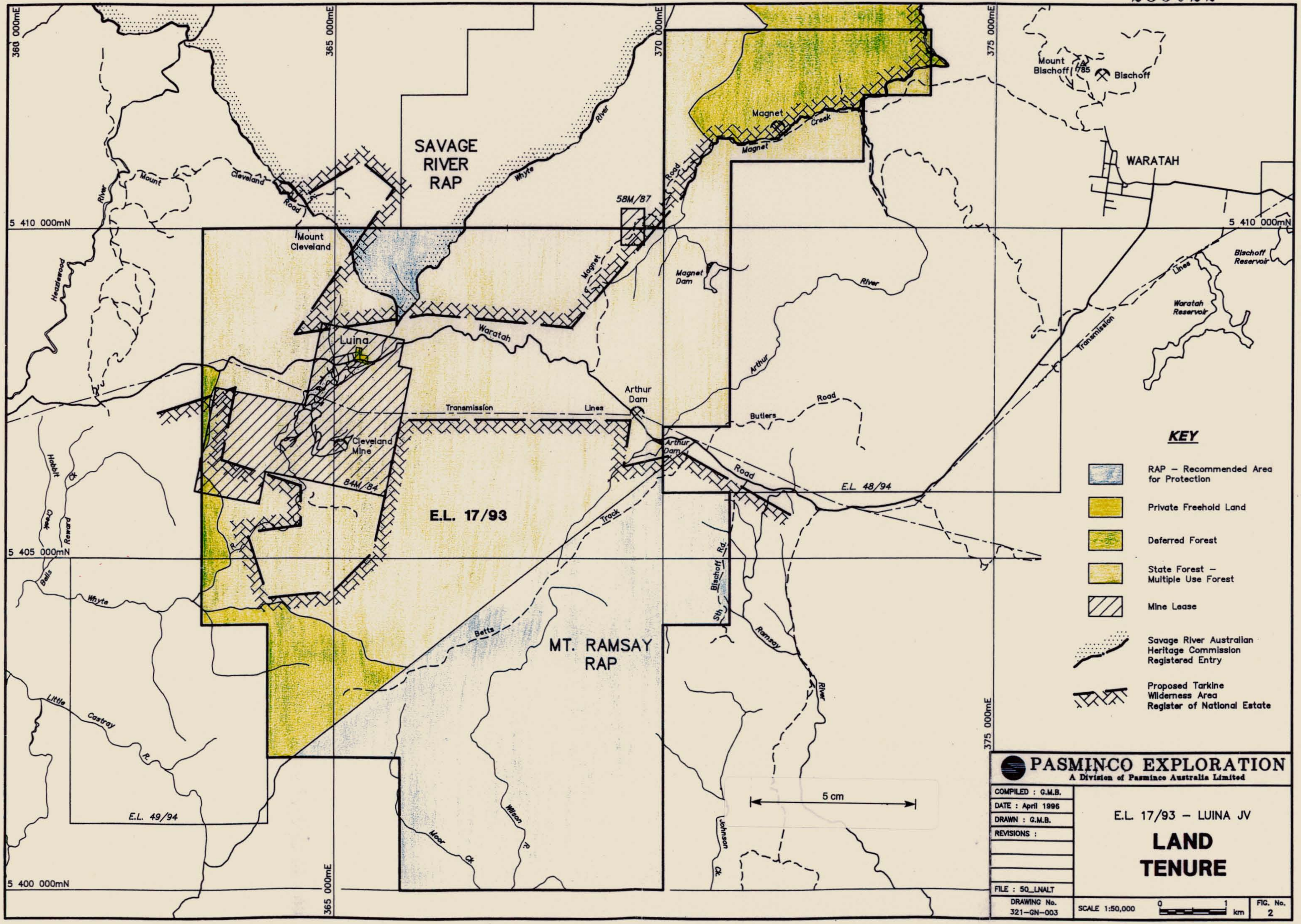
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365 000mE
370 000mE
375 000mE
5 410 000mN
5 405 000mN
5 400 000mN
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MT. RAMSAY RAP
E.L. 17/93
E.L. 48/94
E.L. 49/94
58M/87
84M/84
Mount Cleveland
Luina
Cleveland Mine
Arthur Dam
Magnet
Magnet Dam
Mount Bischoff 785
Bischoff
WARATAH
Bischoff Reservoir
Waratah Reservoir
Mount Cleveland Road
Whyte River
Magnet Creek
Waratah Road
Transmission Lines
Butlers Road
Arthur River
Arthur Road
Track
Bischoff Sth. Rd.
Ramsay River
Betts
Wilson R.
Moor Ck
Johnson Ck.
Heazlewood River
Hobbit Ck
Creek Reward
Bells
Whyte
Little Castray R.
5 cm
KEY
RAP – Recommended Area for Protection
Private Freehold Land
Deferred Forest
State Forest – Multiple Use Forest
Mine Lease
Savage River Australian Heritage Commission Registered Entry
Proposed Tarkine Wilderness Area Register of National Estate
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A Division of Pasminco Australia Limited
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E.L. 17/93 – LUINA JV
LAND TENURE
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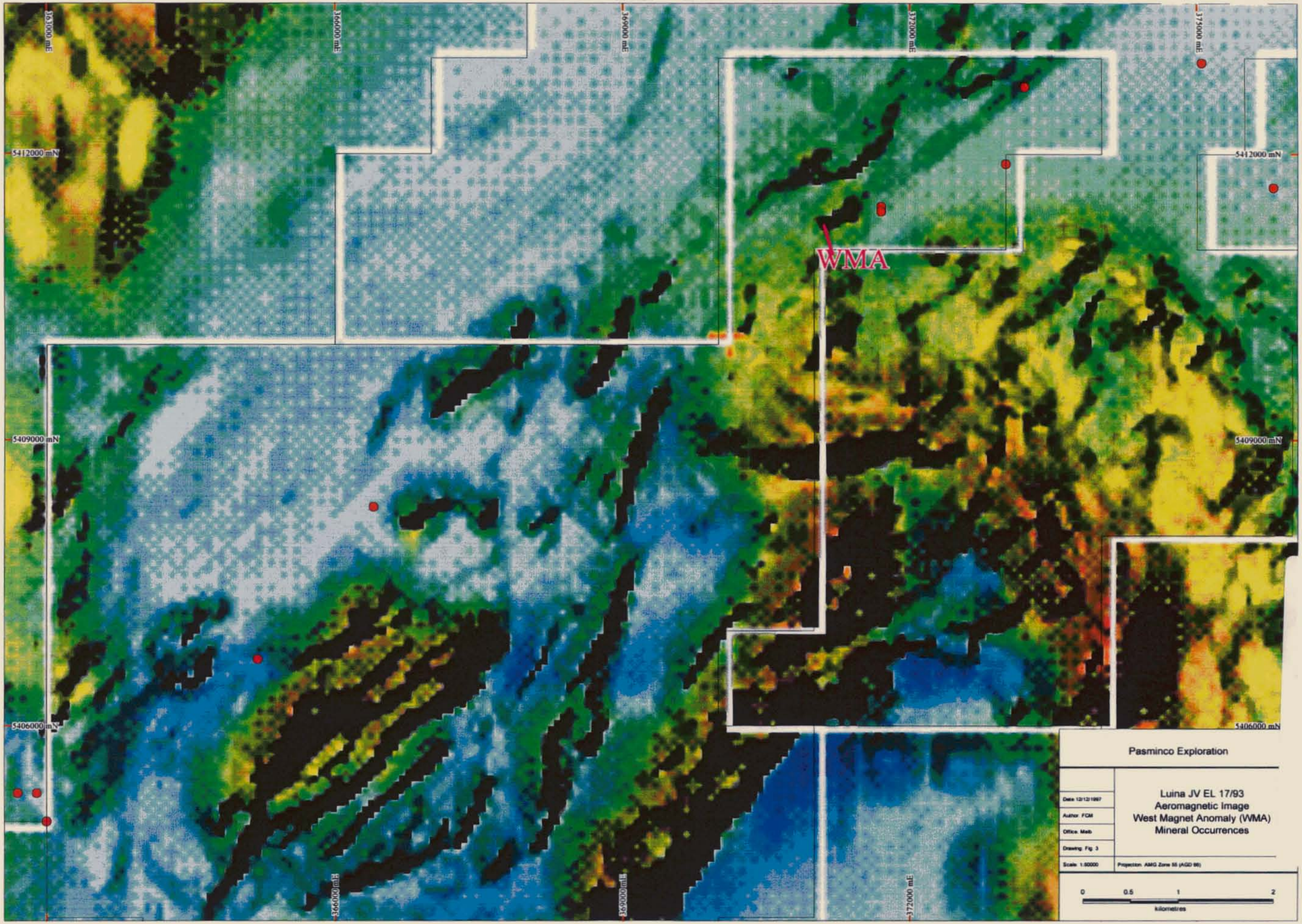

363000 mE
366000 mE
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Drawing Fig 3
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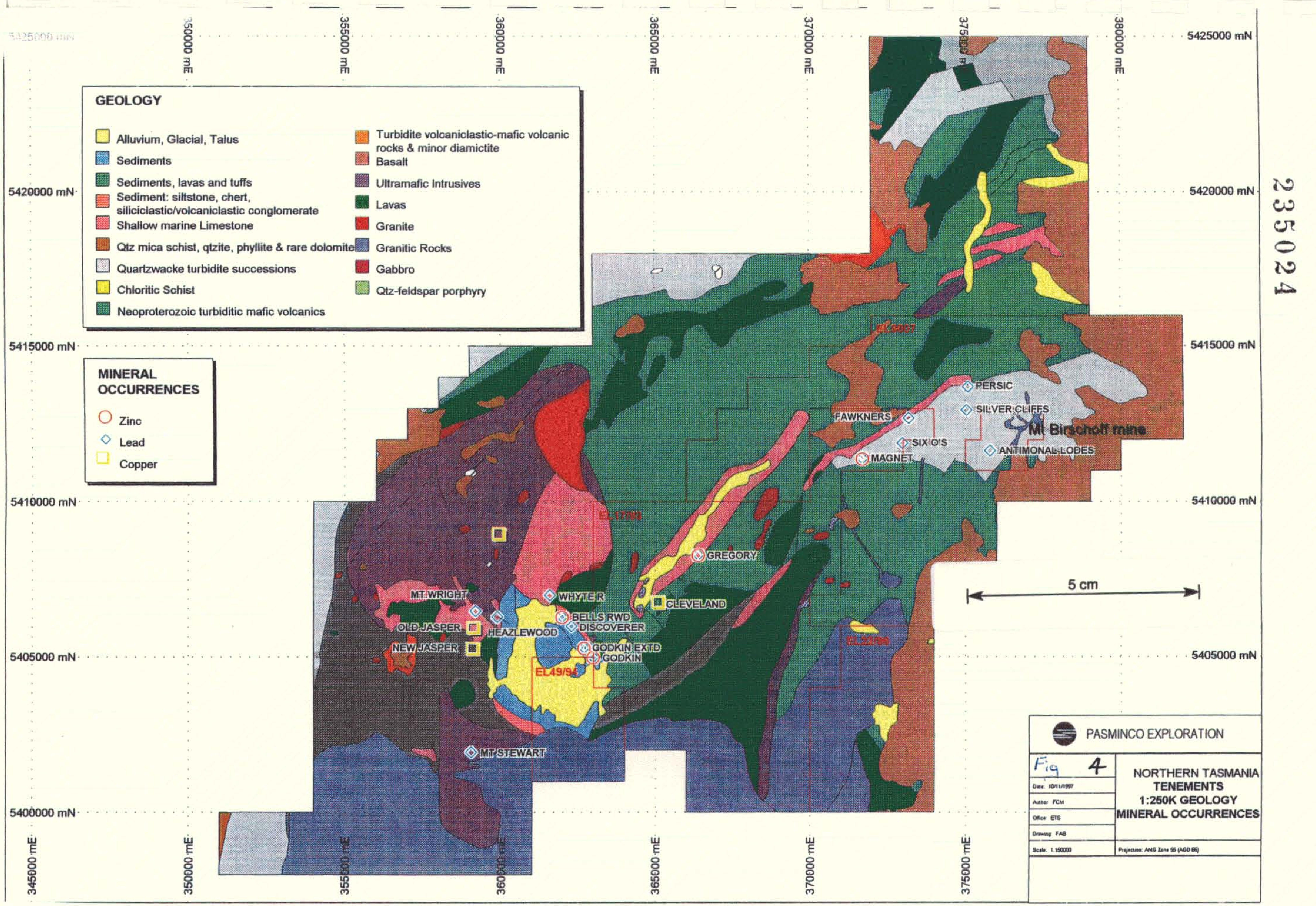
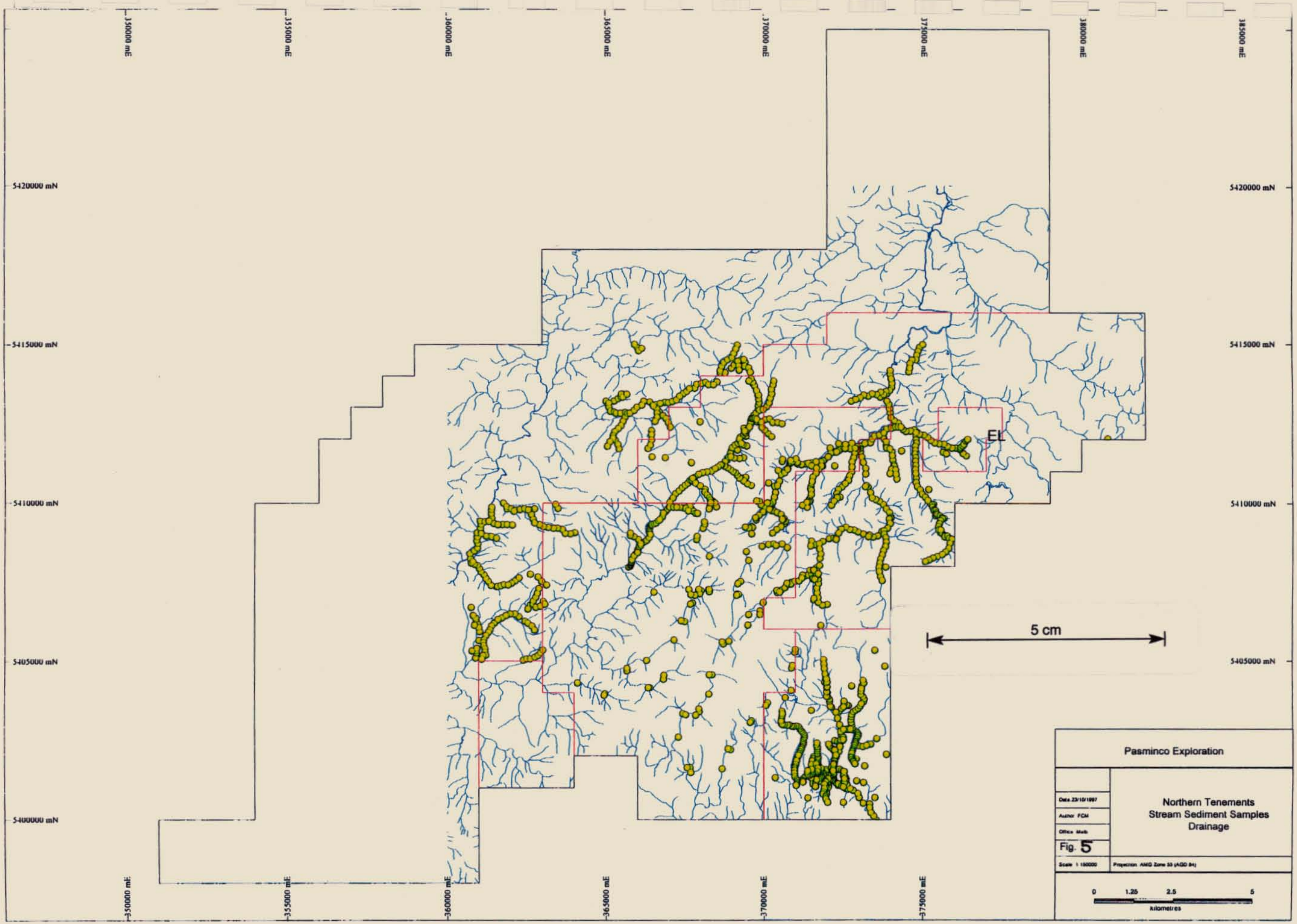
Luina JV EL 17/93
Aeromagnetic Image
West Magnet Anomaly (WMA)
Mineral Occurrences
Projection AMG Zone 55 (AGD 66)
0
0.5
1
2
kilometres

5 cm

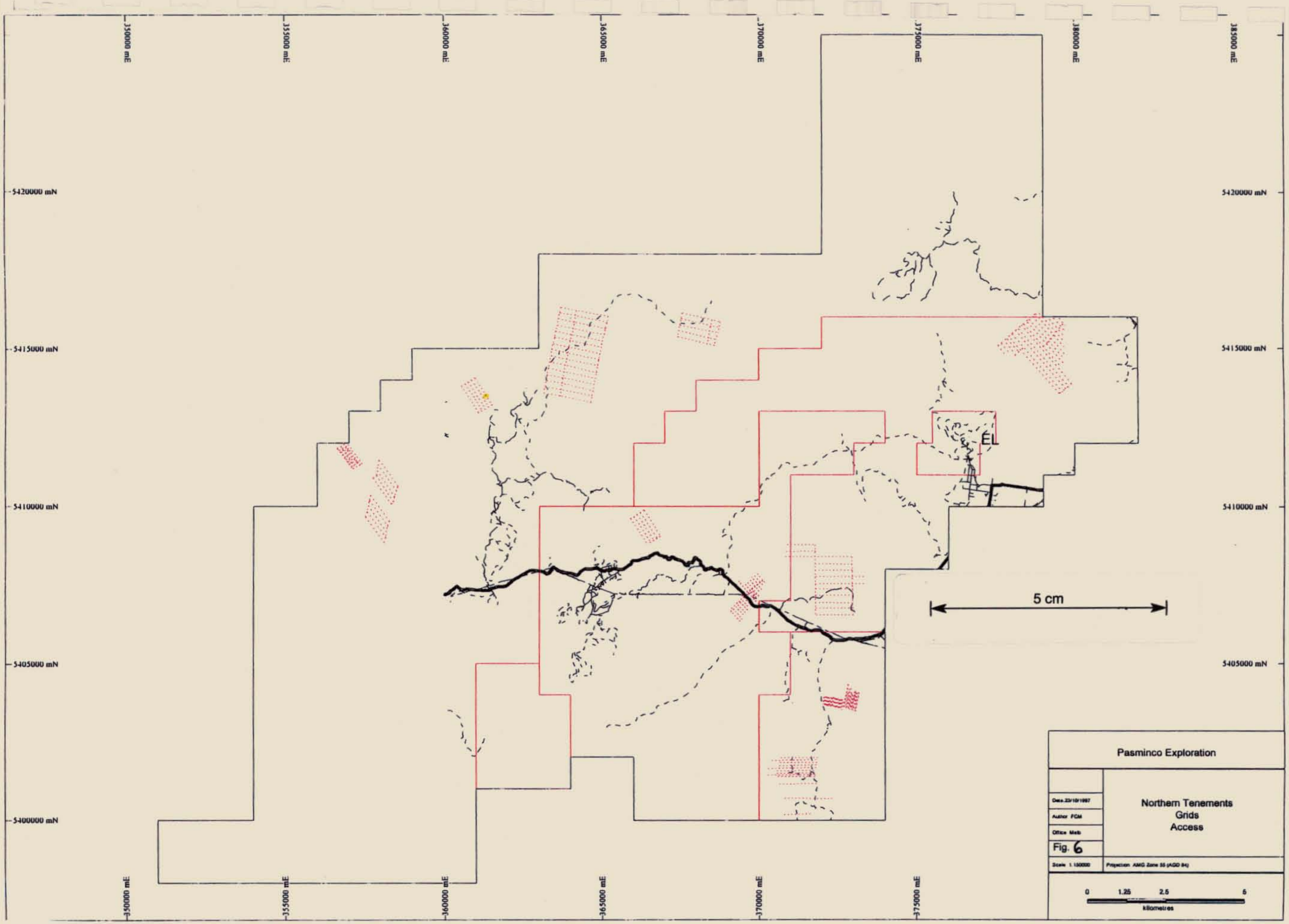
235023

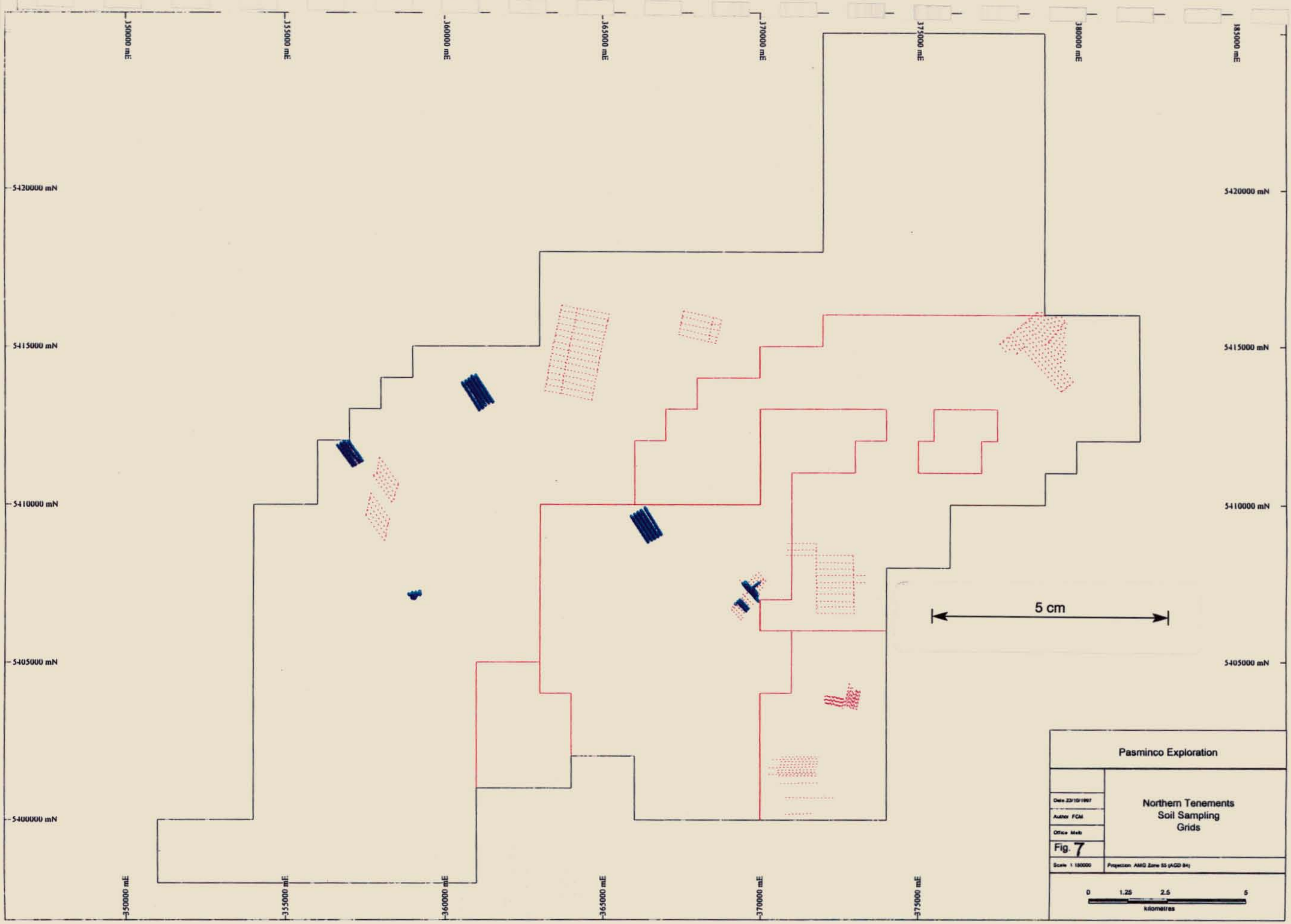

GEOLOGY
Alluvium, Glacial, Talus
Sediments
Sediments, lavas and tuffs
Sediment: siltstone, chert, siliciclastic/volcaniclastic conglomerate
Shallow marine Limestone
Qtz mica schist, qtzite, phyllite & rare dolomite
Quartzwacke turbidite successions
Chloritic Schist
Neoproterozoic turbiditic mafic volcanics
Turbidite volcaniclastic-mafic volcanic rocks & minor diamictite
Basalt
Ultramafic Intrusives
Lavas
Granite
Granitic Rocks
Gabbro
Qtz-feldspar porphyry
MINERAL OCCURRENCES
Zinc
Lead
Copper
350000 mE
355000 mE
360000 mE
365000 mE
370000 mE
375000 mE
380000 mE
345000 mE
5425000 mN
5420000 mN
5415000 mN
5410000 mN
5405000 mN
5400000 mN
PERSIC
SILVER CLIFFS
FAWKNERS
Mt Bischoff mine
SIX O'S
ANTIMONAL LODES
MAGNET
EL17/93
GREGORY
5 cm
MT WRIGHT
WHYTE R
CLEVELAND
BELLS RWD
DISCOVERER
OLD JASPER
HEAZLEWOOD
NEW JASPER
GODKIN EXTD
GODKIN
EL49/94
EL23/94
MT STEWART
PASMINCO EXPLORATION
Fig 4
Date: 10/11/1997
Author: FCM
Office: ETS
Drawing: FAB
Scale: 1:150000
NORTHERN TASMANIA TENEMENTS
1:250K GEOLOGY
MINERAL OCCURRENCES
Projection: AMG Zone 55 (AGD 66)
235024



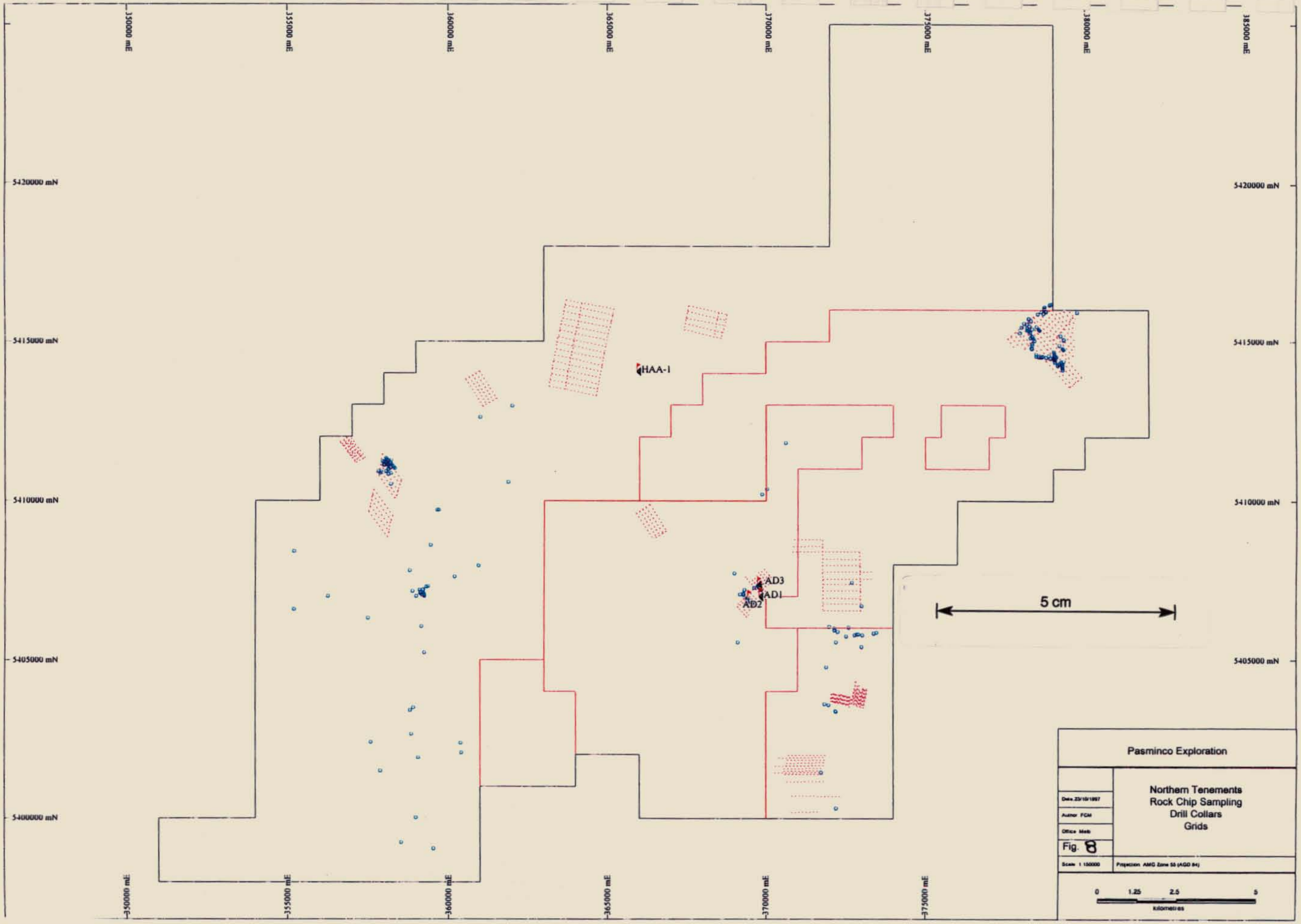
Pasminco Exploration
Date 23/10/1997
Author FCM
Office Melb
Fig. 5
Northern Tenements
Stream Sediment Samples
Drainage
Scale 1:150000
Projection AMG Zone 53 (AGD 84)
0 1.25 2.5 5
kilometres
5 cm
EL
350000 mE
355000 mE
360000 mE
365000 mE
370000 mE
375000 mE
380000 mE
385000 mE
5420000 mN
5415000 mN
5410000 mN
5405000 mN
5400000 mN

235025


350000 mE
355000 mE
360000 mE
365000 mE
370000 mE
375000 mE
380000 mE
385000 mE
5420000 mN
5415000 mN
5410000 mN
5405000 mN
5400000 mN
EL
5 cm
Pasminco Exploration
Date 23/10/1997
Author FCM
Office Melb
Fig. 6
Scale 1:150000
Northern Tenements
Grids
Access
Projection AMG Zone 55 (AGD 84)
0 1.25 2.5 5
kilometres


350000 mE
355000 mE
360000 mE
365000 mE
370000 mE
375000 mE
380000 mE
385000 mE
5420000 mN
5415000 mN
5410000 mN
5405000 mN
5400000 mN
5 cm
Pasminco Exploration
Author FCM
Office Melb
Fig. 7
Northern Tenements
Soil Sampling
Grids
Projection AMG Zone 55 (AGD 84)
0
1.25
2.5
5
kilometres

235027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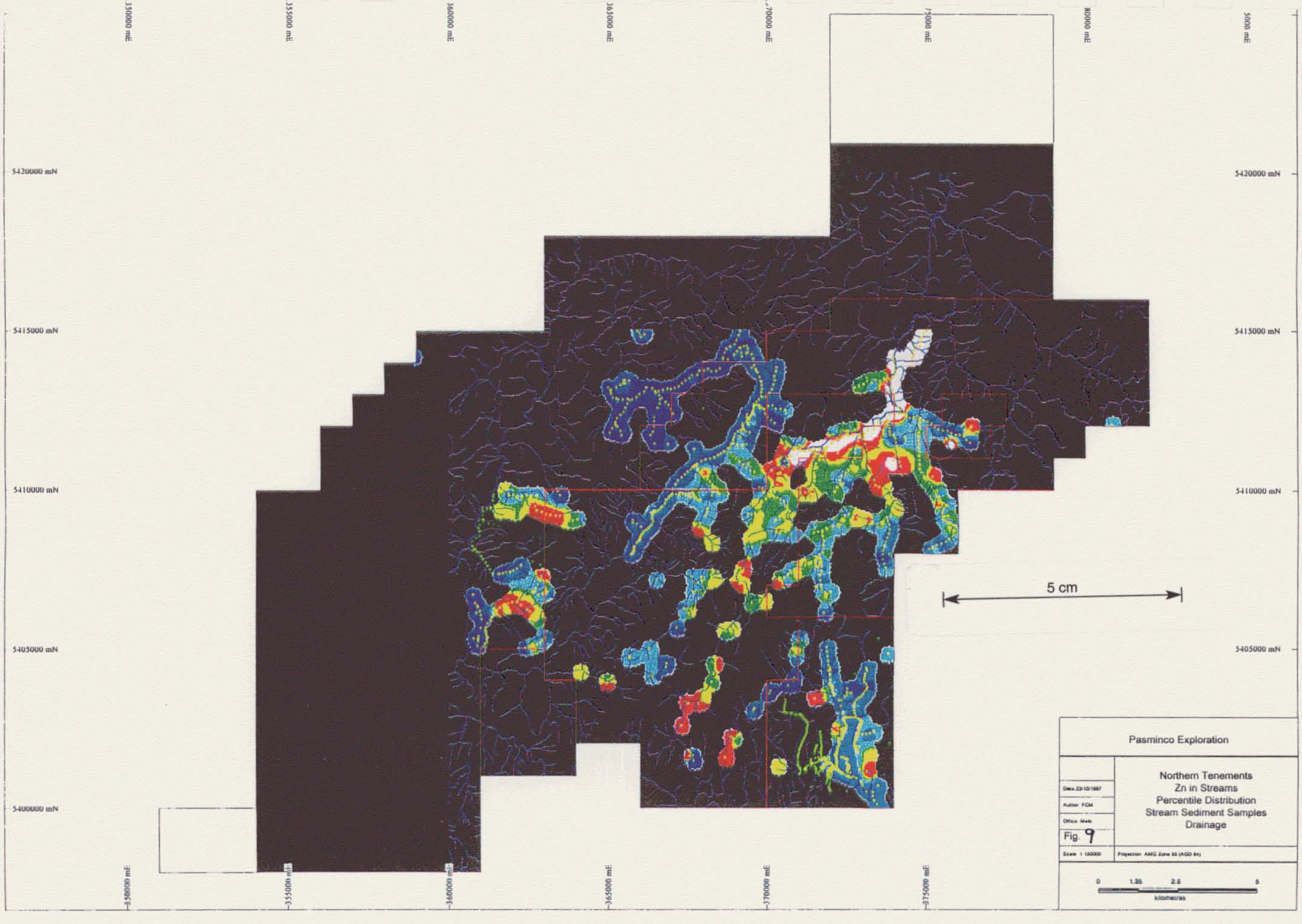
355000 mE
360000 mE
365000 mE
370000 mE
375000 mE
380000 mE
385000 mE
5420000 mN
5415000 mN
5410000 mN
5405000 mN
5400000 mN
HAA-1
AD3
AD1
AD2
5 cm
Pasminco Exploration
Northern Tenements
Rock Chip Sampling
Drill Collars
Grids
Date 23/10/1997
Author FCM
Office Melb
Fig. 8
Scale 1:150000
Projection AMG Zone 55 (AGD 84)
0 1.25 2.5 5
kilometres

235028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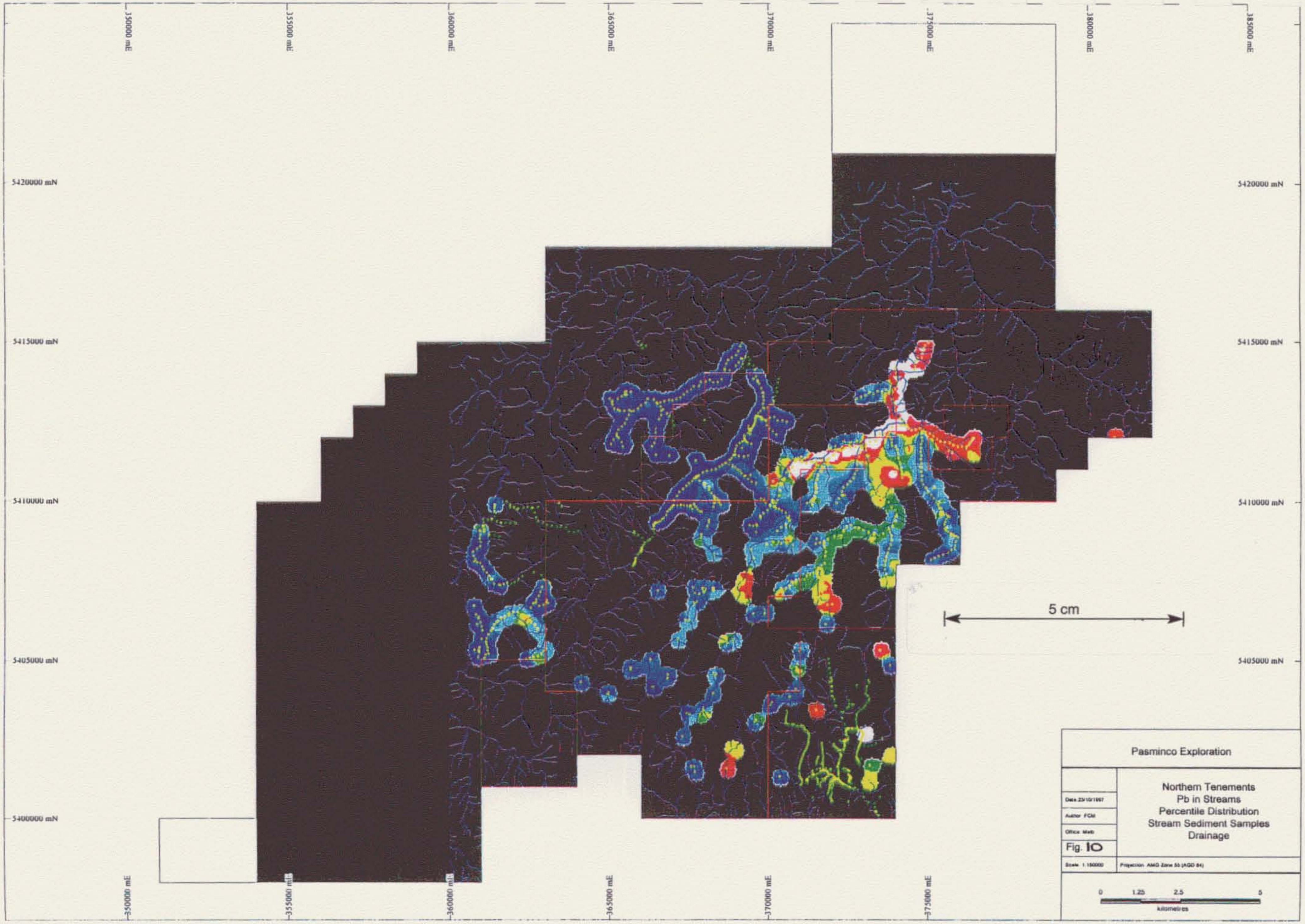
355000 mE
360000 mE
365000 mE
370000 mE
375000 mE
380000 mE
5420000 mN
5415000 mN
5410000 mN
5405000 mN
5400000 mN
5 cm
Pasminco Exploration
Northern Tenements
Zn in Streams
Percentile Distribution
Stream Sediment Samples
Drainage
Fig. 9
0
1.25
2.5
5

235029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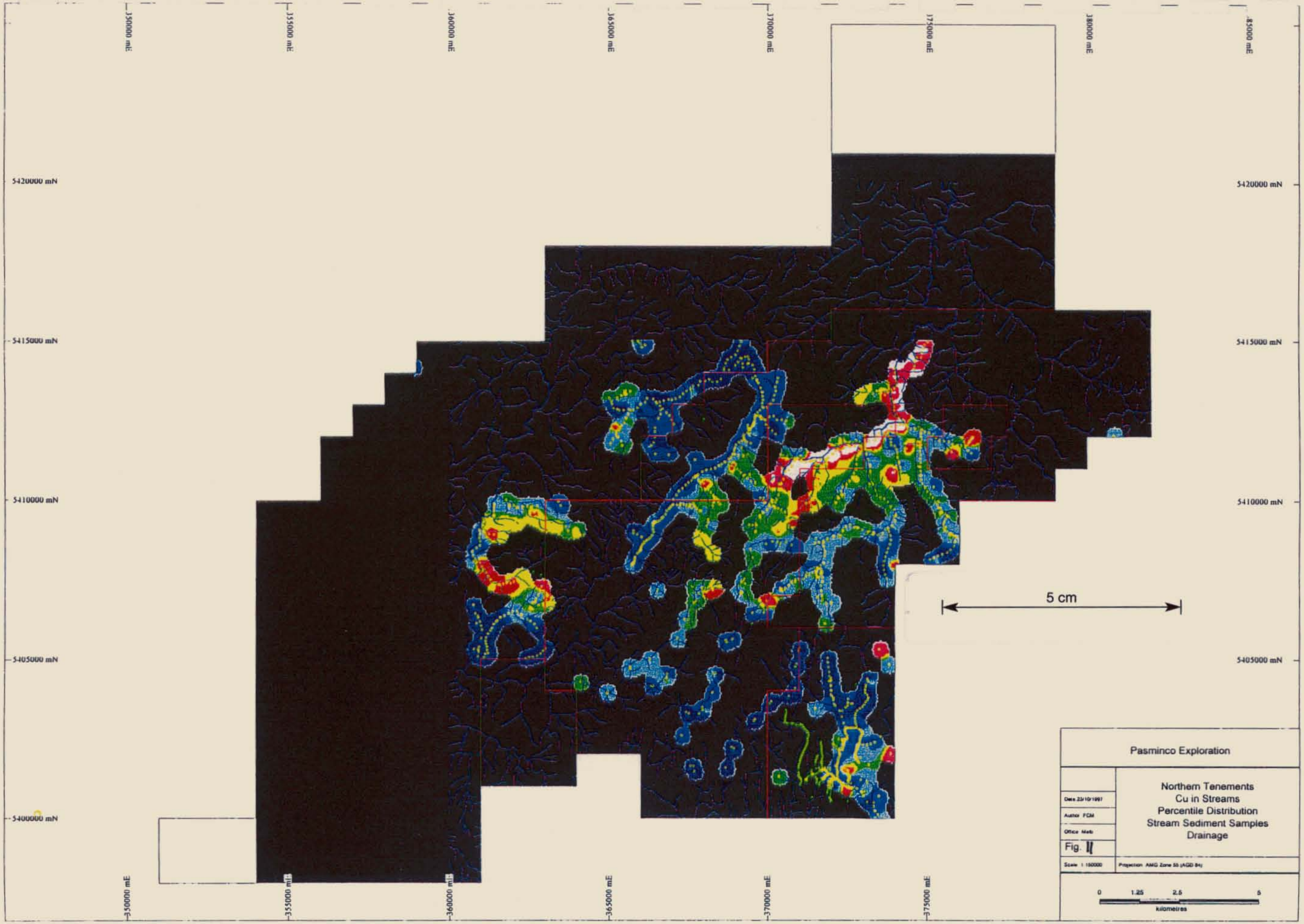
360000 mE
365000 mE
370000 mE
375000 mE
380000 mE
385000 mE
5420000 mN
5415000 mN
5410000 mN
5405000 mN
5400000 mN
5 cm
Pasminco Exploration
Northern Tenements
Pb in Streams
Percentile Distribution
Stream Sediment Samples
Drainage
Date 23/10/1997
Author FCM
Office Melb
Fig. 10
Scale 1:150000
Projection AMG Zone 55 (AGD 84)
0
1.25
2.5
5
kilometres

235030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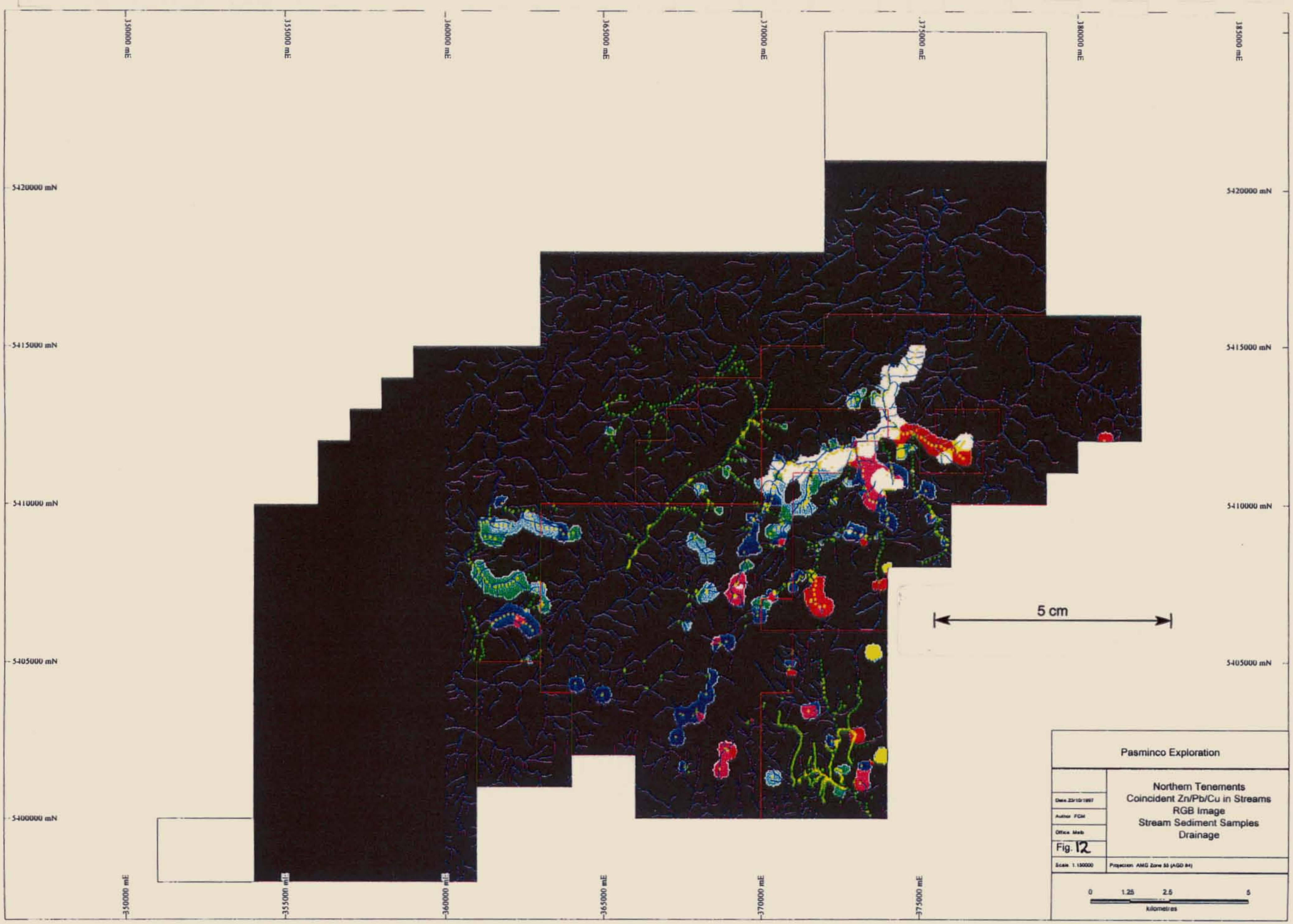
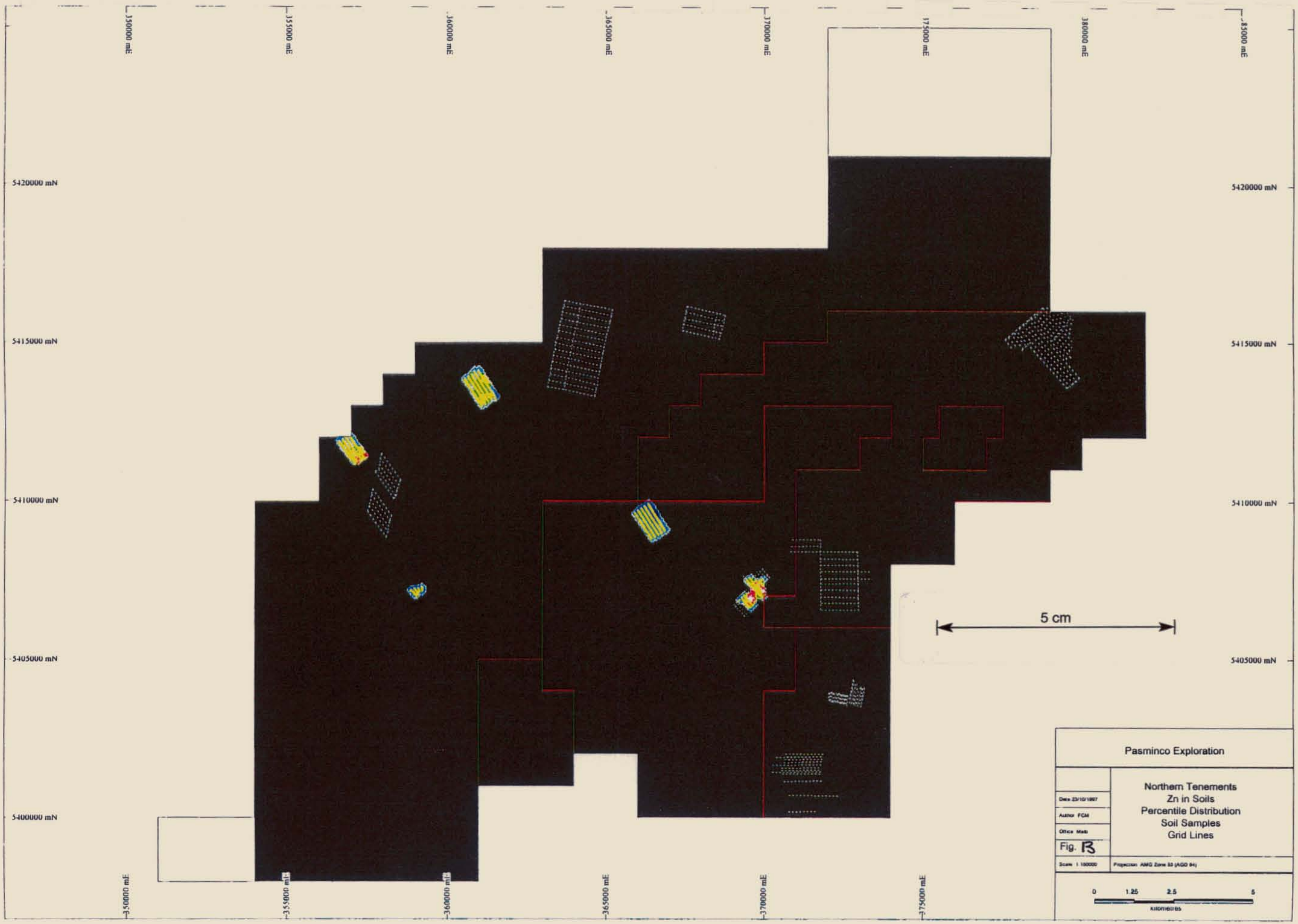
360000 mE
365000 mE
370000 mE
375000 mE
380000 mE
385000 mE
5420000 mN
5415000 mN
5410000 mN
5405000 mN
5400000 mN
5 cm
Pasminco Exploration
Northern Tenements
Cu in Streams
Percentile Distribution
Stream Sediment Samples
Drainage
Date 23/10/1997
Author FCM
Office Melb
Fig. 11
Scale 1:100000
Projection AMG Zone 55 (AGD 84)
0
1.25
2.5
5
kilometres

235031



350000 mE
355000 mE
360000 mE
365000 mE
370000 mE
375000 mE
380000 mE
385000 mE
5420000 mN
5415000 mN
5410000 mN
5405000 mN
5400000 mN
5 cm
Pasminco Exploration
Northern Tenements
Coincident Zn/Pb/Cu in Streams
RGB Image
Stream Sediment Samples
Drainage
Date 23/10/1997
Author FCM
Office Melb
Fig. 12
Scale 1:150000
Projection AMG Zone 55 (AGD 84)
0
1.25
2.5
5
kilometres

235032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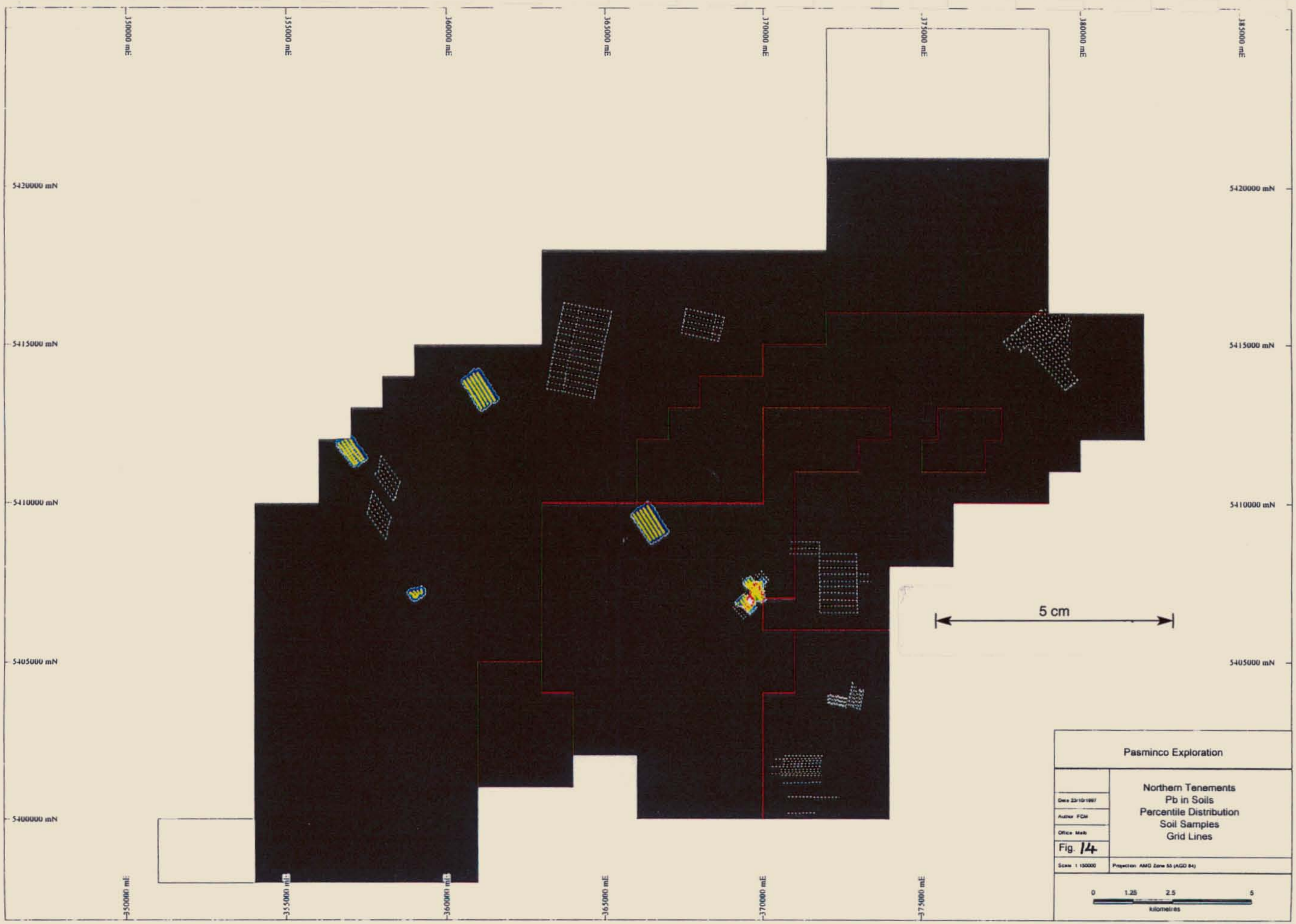
360000 mE
365000 mE
370000 mE
375000 mE
380000 mE
385000 mE
5420000 mN
5415000 mN
5410000 mN
5405000 mN
5400000 mN
5 cm
Pasminco Exploration
Northern Tenements
Zn in Soils
Percentile Distribution
Soil Samples
Grid Lines
Fig. B
Scale 1:100000
0
1.25
2.5
5

235033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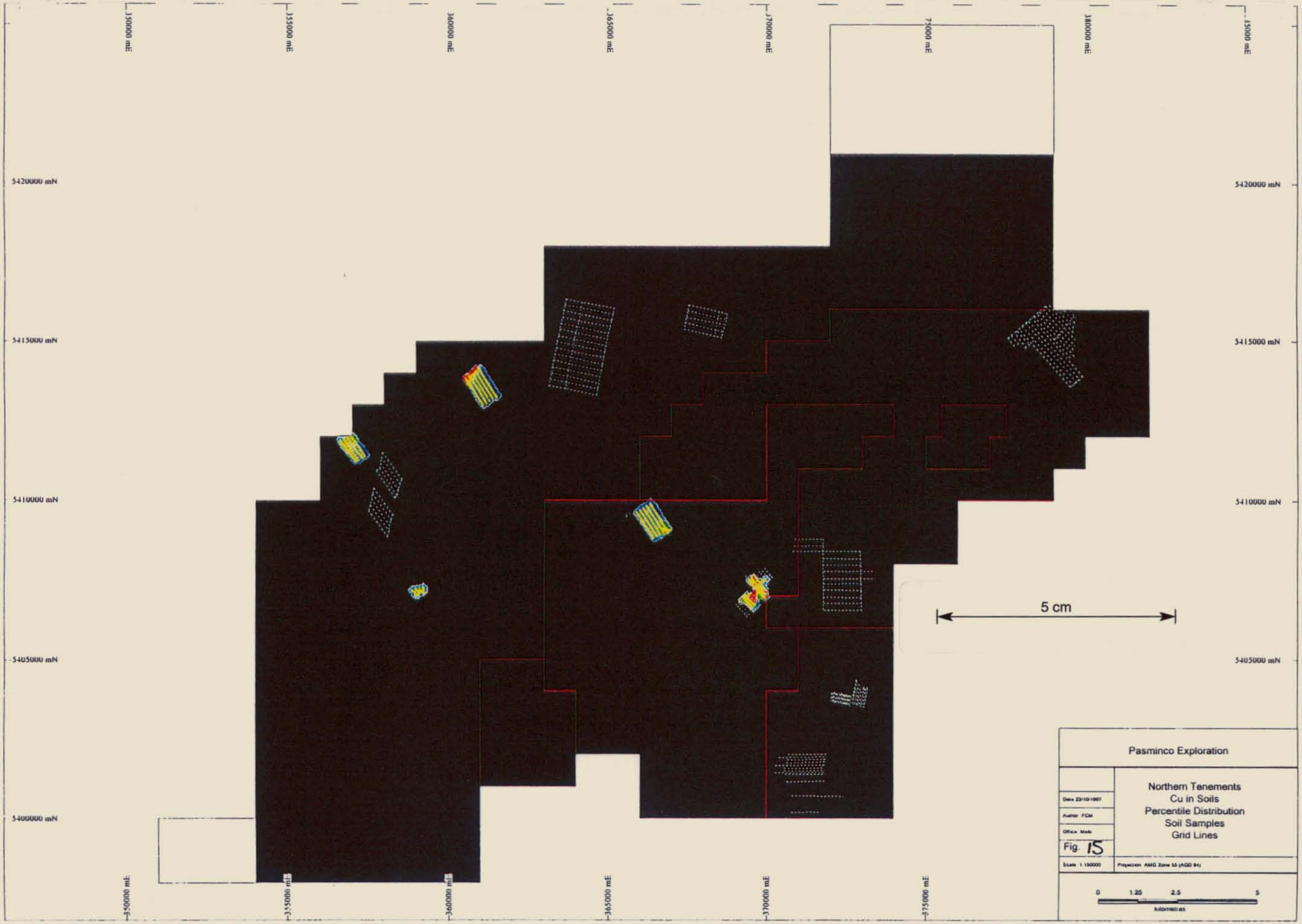
355000 mE
360000 mE
365000 mE
370000 mE
375000 mE
380000 mE
385000 mE
5420000 mN
5415000 mN
5410000 mN
5405000 mN
5400000 mN
5 cm
Pasminco Exploration
Northern Tenements
Pb in Soils
Percentile Distribution
Soil Samples
Grid Lines
Fig. 14
Scale 1:150000
Projection AMG Zone 55 (AGD 84)
0
1.25
2.5
5
kilometres



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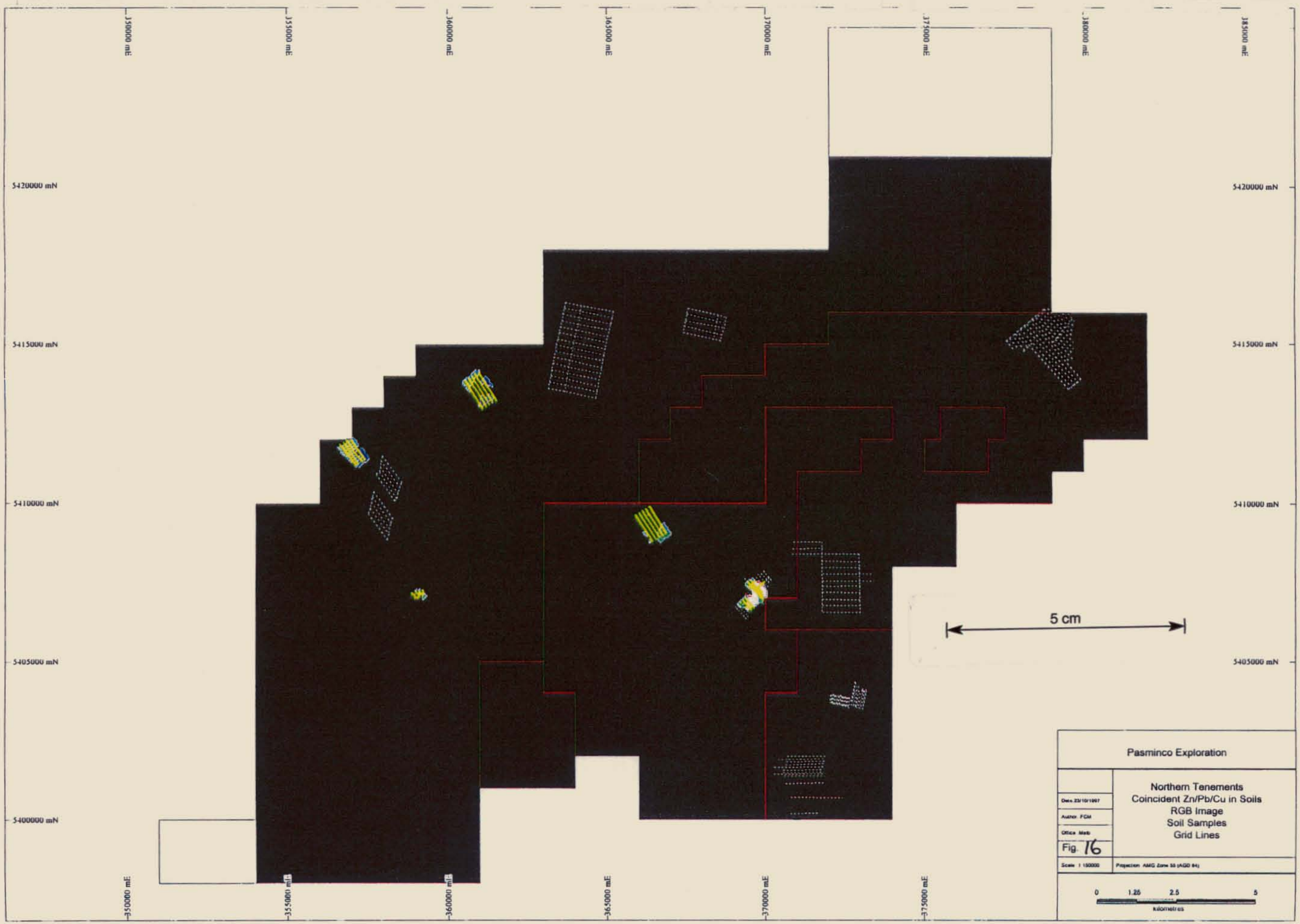
360000 mE
365000 mE
370000 mE
375000 mE
380000 mE
5420000 mN
5415000 mN
5410000 mN
5405000 mN
5400000 mN
5 cm
Pasminco Exploration
Northern Tenements
Cu in Soils
Percentile Distribution
Soil Samples
Grid Lines
Fig. 15
0
1.25
2.5
5

235035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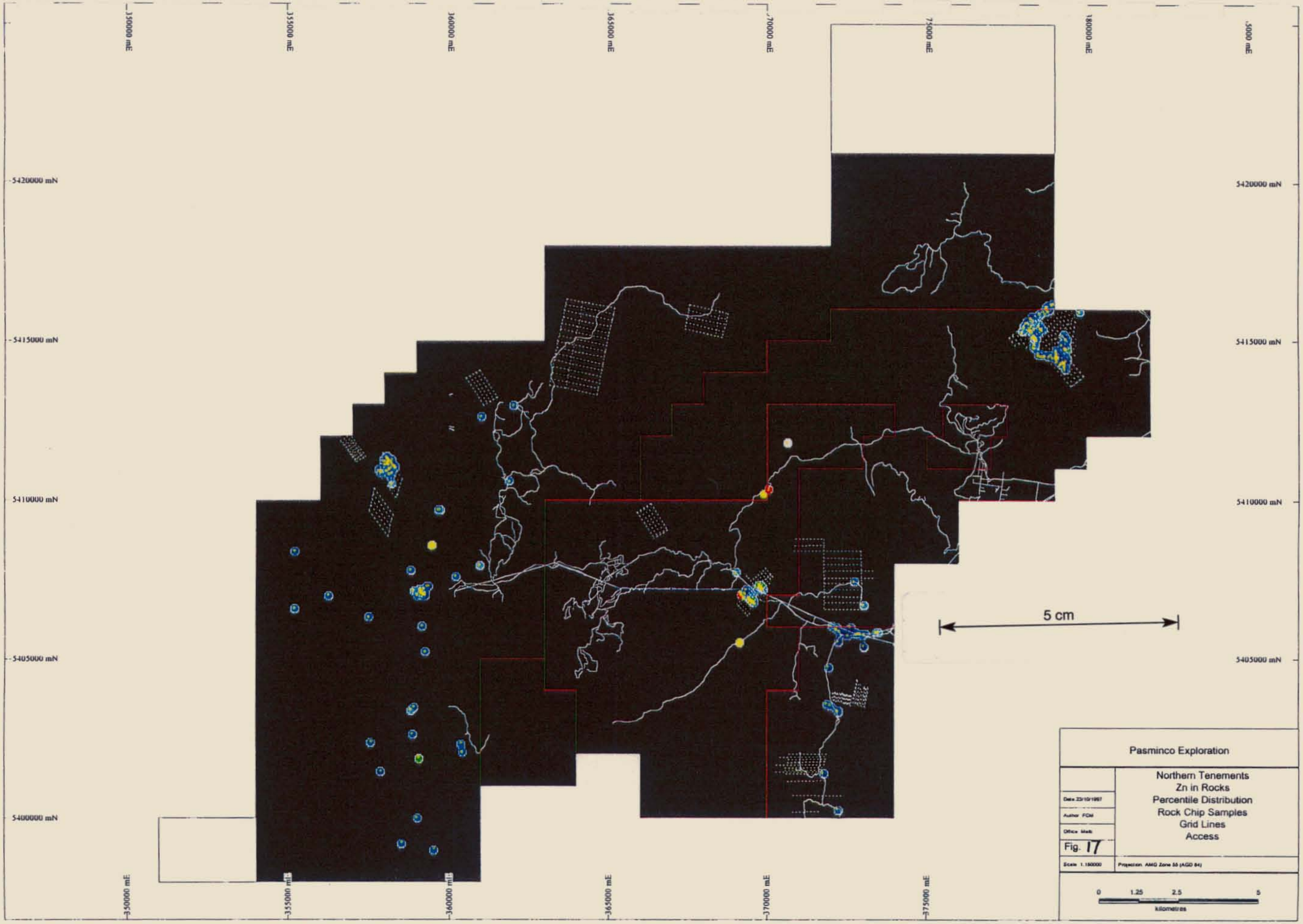
370000 mE
375000 mE
380000 mE
385000 mE
5420000 mN
5415000 mN
5410000 mN
5405000 mN
5400000 mN
5 cm
Pasminco Exploration
Northern Tenements
Coincident Zn/Pb/Cu in Soils
RGB Image
Soil Samples
Grid Lines
Author FCM
Fig. 16
0
1.25
2.5
5
kilometres

235036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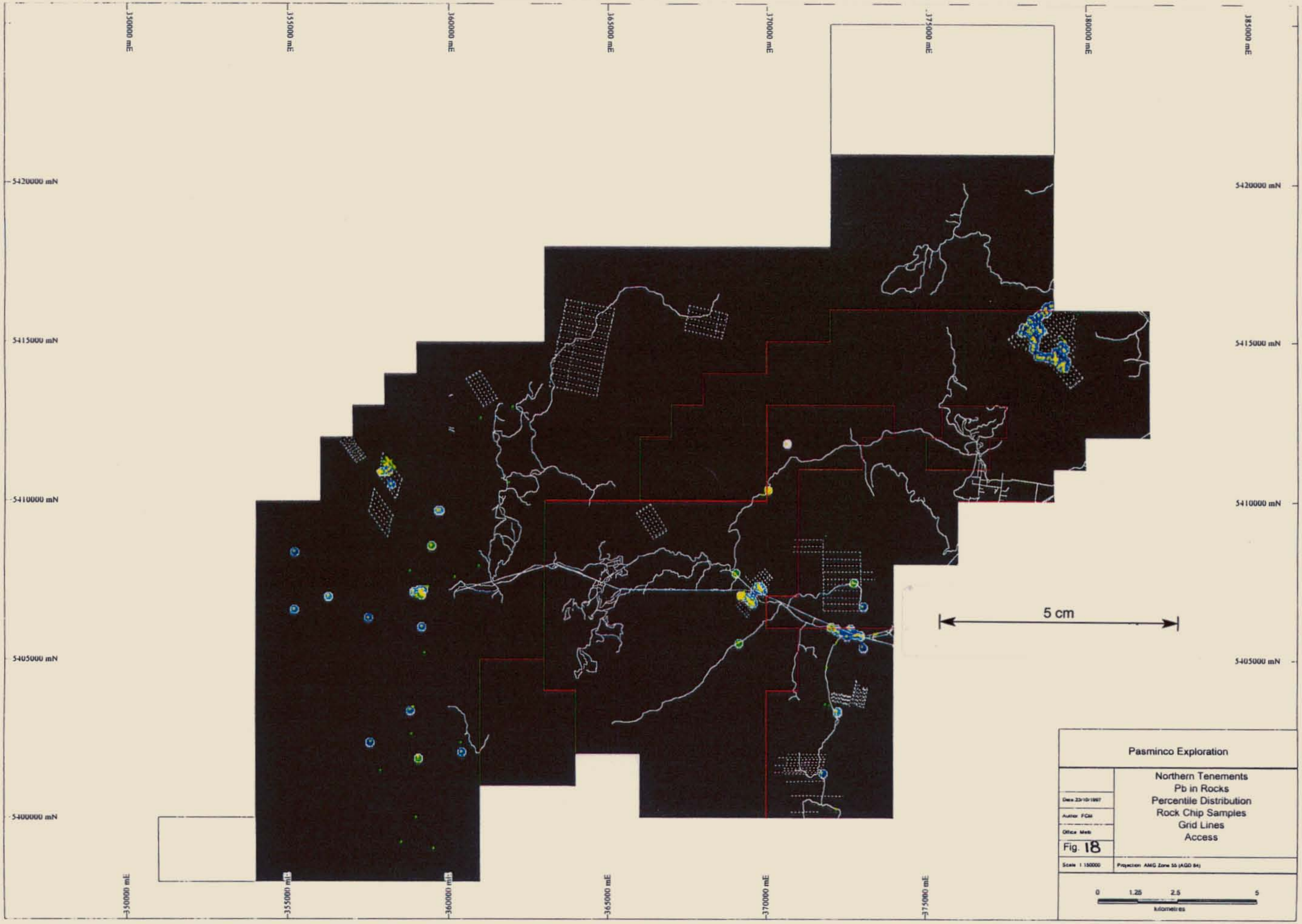
370000 mE
375000 mE
380000 mE
5420000 mN
5415000 mN
5410000 mN
5405000 mN
5400000 mN
5 cm
Pasminco Exploration
Northern Tenements
Zn in Rocks
Percentile Distribution
Rock Chip Samples
Grid Lines
Access
Date 23/10/1997
Office Melb
Fig. 17
Projection AMG Zone 55 (AGD 84)
0
1.25
2.5
5
kilometres

235037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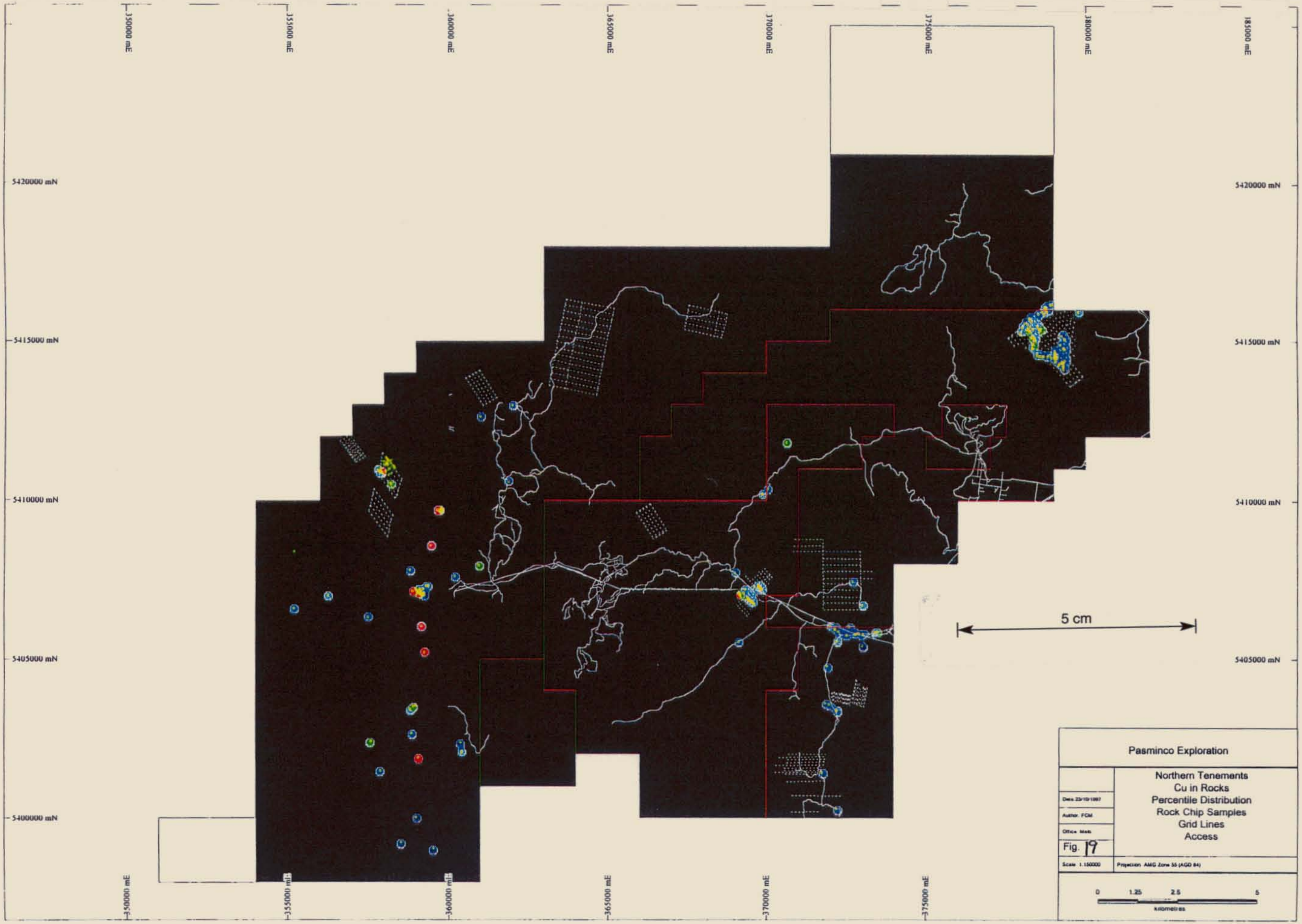
355000 mE
360000 mE
365000 mE
370000 mE
375000 mE
380000 mE
385000 mE
5420000 mN
5415000 mN
5410000 mN
5405000 mN
5400000 mN
5 cm
Pasminco Exploration
Northern Tenements
Pb in Rocks
Percentile Distribution
Rock Chip Samples
Grid Lines
Access
Author FCM
Office Melb
Fig. 18
Scale 1:150000
Projection AMG Zone 55 (AGD 84)
0
1.25
2.5
5
kilometres

235038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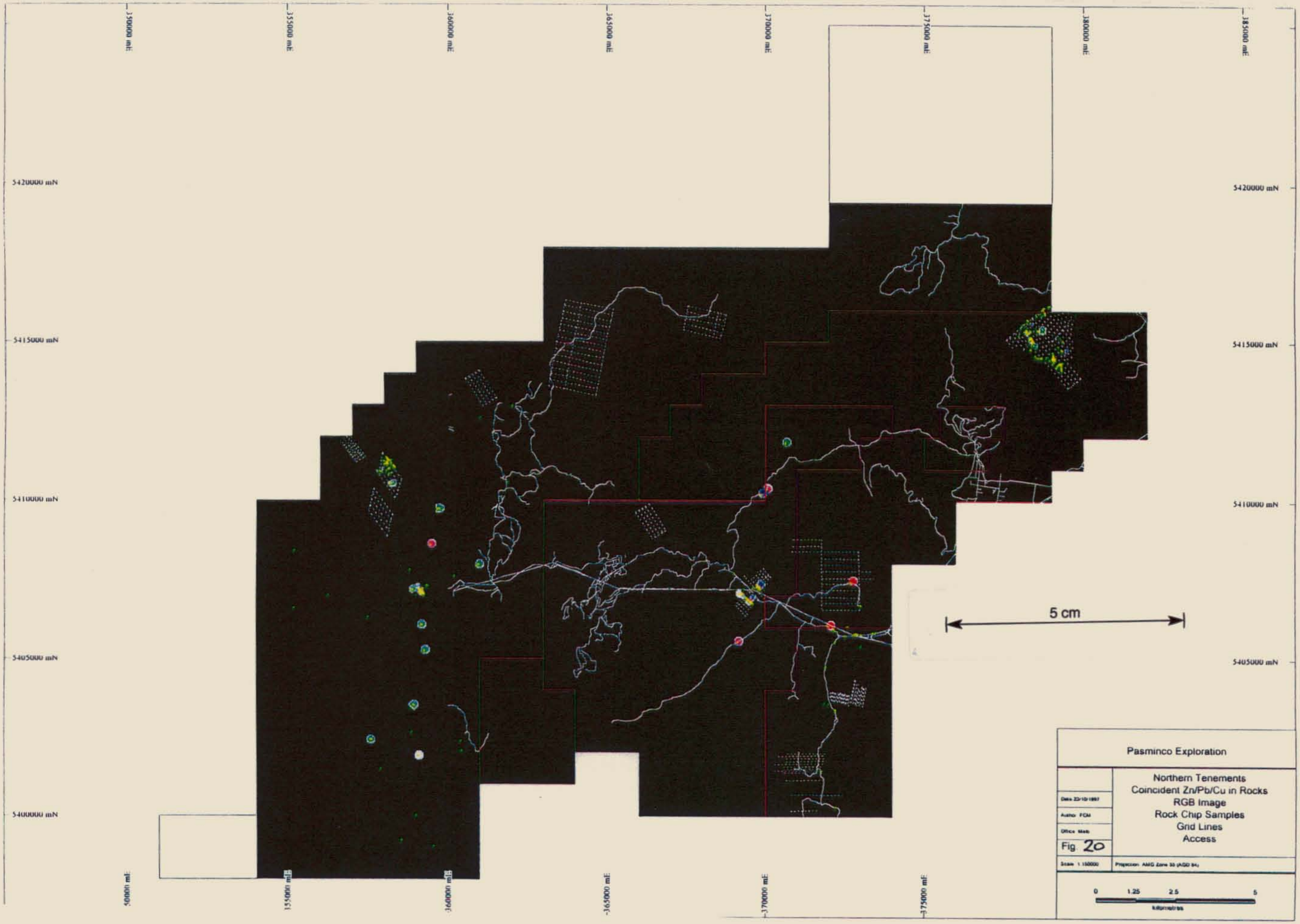
355000 mE
360000 mE
365000 mE
370000 mE
375000 mE
380000 mE
385000 mE
5420000 mN
5415000 mN
5410000 mN
5405000 mN
5400000 mN
5 cm
Pasminco Exploration
Northern Tenements
Cu in Rocks
Percentile Distribution
Rock Chip Samples
Grid Lines
Access
Author: FCM
Fig. 19
Scale 1:150000
Projection AMG Zone 55 (AGD 84)
0
1.25
2.5
5
kilometres

235039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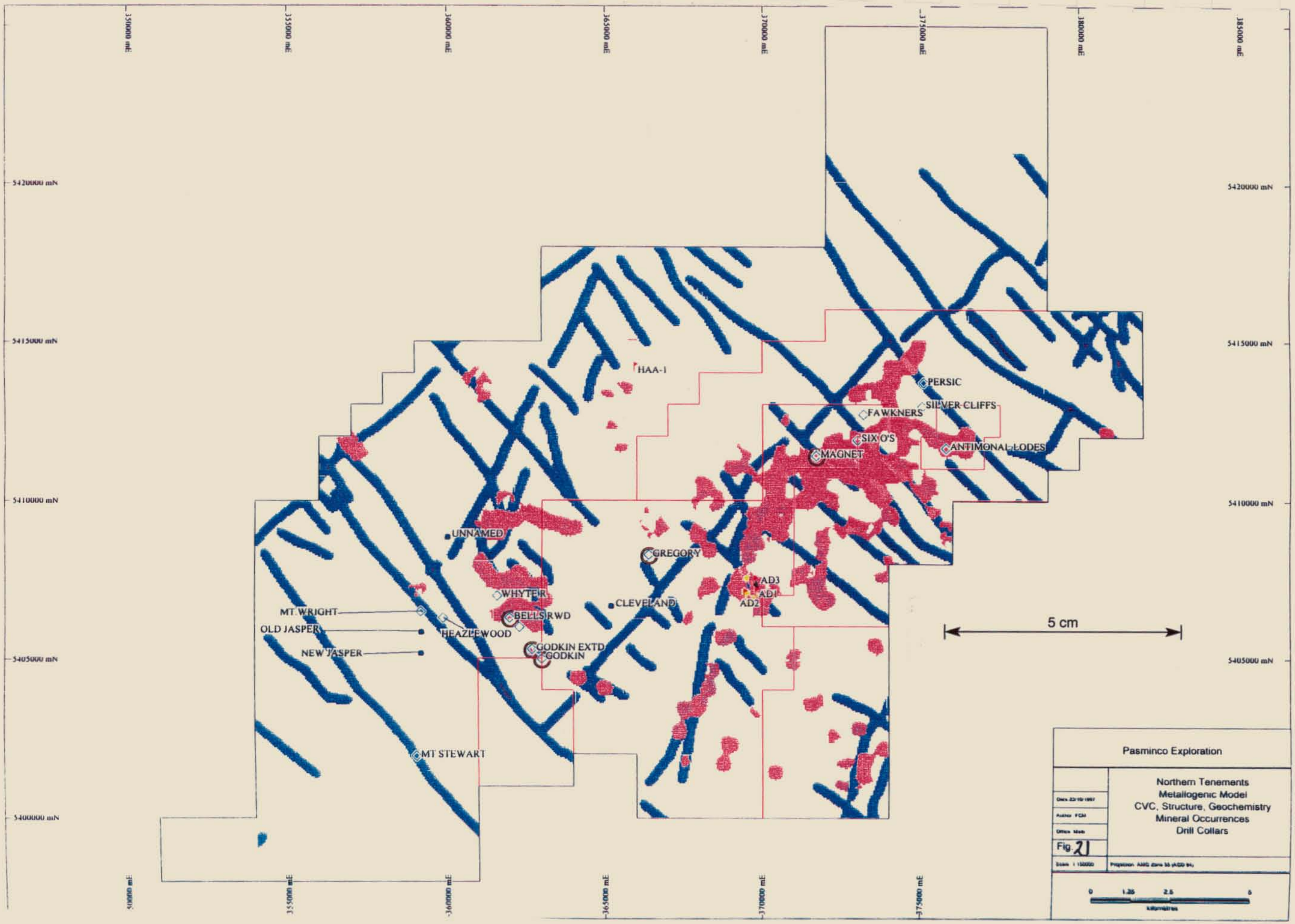
365000 mE
370000 mE
375000 mE
380000 mE
385000 mE
5420000 mN
5415000 mN
5410000 mN
5405000 mN
5400000 mN
5 cm
Pasminco Exploration
Northern Tenements
Coincident Zn/Pb/Cu in Rocks
RGB Image
Rock Chip Samples
Grid Lines
Access
Fig. 20
0
1.25
2.5
5
kilometres

235040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370000 mE
375000 mE
380000 mE
385000 mE
5420000 mN
5415000 mN
5410000 mN
5405000 mN
5400000 mN
HAA-1
PERSIC
SILVER CLIFFS
FAWKNERS
SIX O'S
MAGNET
ANTIMONAL LODES
UNNAMED
GREGORY
AD3
AD1
AD2
WHYTE R
CLEVELAND
MT WRIGHT
BELLS RWD
OLD JASPER
HEAZLEWOOD
NEW JASPER
GODKIN EXTD
GODKIN
MT STEWART
5 cm
Pasminco Exploration
Northern Tenements
Metallogenic Model
CVC, Structure, Geochemistry
Mineral Occurrences
Drill Collars
Fig. 21
0
1.25
2.5
5

235041