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**PASMINCO EXPLORATION**

**HUSKISSON RIVER EL 1/93**

**RELINQUISHMENT REPORT**

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## 1. SUMMARY

Exploration on EL 1/93 (Huskisson River) has focussed on two distinct target styles: an eastern Mt Read Volcanic VHMS play (Cambrian) and a western shale/carbonate-hosted massive sulphide play within the Proterozoic Oonah Formation.

Work undertaken during the reporting period has formed part of Pasmaenco Exploration's Western Tasmania Prospectivity Review (Murphy, 1997). This review highlighted the Silver Falls prospect (eastern Mt Read Volcanics) as a significant geochemical anomaly and also identified two low level Zn-dominated stream sediment anomalies which occur at the boundary of the Mt Read Volcanics and the Oonah Formation in the north eastern and southern areas of the tenement.

Follow up work on the potential of the Silver Falls prospect involved an assessment of HRD1 drill core plus a review of existing IP data over the area. The interpretation of HRD1 by Poltock and Saxon (1994) was reaffirmed, with no indication that the intervals of low grade mineralisation represent the fringes of a larger scale system. The review of IP data concluded that of the three IP surveys conducted over the area, no significant responses were detected.

No follow up work was conducted on the low level stream sediment anomalies as they have little potential and are peripheral to the VHMS target style sought by Pasmaenco Exploration within the Mt Read Belt.

This review of prospectivity indicates that exploration within EL1/93 has adequately tested areas of base metal anomalism and that there are no remaining areas worthy of follow up. The tenement is situated outside of the strategic zone of Pasmaenco Exploration's focus within the Mt Read Belt and is being relinquished.

## 2. INTRODUCTION

This report provides a summary of all exploration work undertaken on the Pasmaenco Exploration Huskisson River EL 1/93 since inception in May 1993 to February 1998.

The summary of exploration is divided into two sections, as the tenement straddles two distinct rock sequences which have required independent exploration. The Cambrian Mt Read Volcanics occur within the eastern section of the tenement, while the western section is covered by the Proterozoic Oonah Formation, with the boundary between the two sequences striking approximately north /south.

Exploration on the Huskisson River EL is managed by Pasmaenco Exploration, a division of Pasmaenco Australia Ltd. The Huskisson River EL covers 36 sq. km and lies 19 km north-north west of Rosebery. It includes the Silver Falls workings, hosted by the Cambrian Dundas Group, the North Ross Creek anomaly, the Will O'Wisp and Just In Time prospects, all three of which are hosted by the Proterozoic Oonah Formation (Figure 1). The western section of the tenement is approached via the Forestry track known as Huskisson Drive, while the eastern section is accessed by a rough track that heads north from Boco Road.

Work during the ten month period from March 1997 to February 1998 has focussed primarily on a prospectivity review of the tenement, including the compilation and review of geochemical data in a GIS framework, from across the tenement, and a review of IP data over the Silver Falls prospect.

### 3. LAND TENURE

The Huskisson River EL 1/93, covering 36 sq. km, was granted to Pasminco Australia Ltd. (Pasminco) on 21<sup>st</sup> May, 1993 (Figure 2).

The EL is subject to a number of land classifications. The tenure includes Deferred Forest Land, Multiple Use Forest Land and a small section of Mt Ramsay Recommended Area for Protection (Figure 2).

#### 4. REGIONAL GEOLOGY

The regional geology of the exploration area is comprehensively detailed in Poltock and Saxon (1994), Saxon and Basford (1995), Basford (1996) and Basford (1997). In brief, EL 1/93 straddles the western flank of the Dundas trough in Western Tasmania and encompasses two sequences prospective for base metals to occur, the Proterozoic shales and carbonates of the Oonah Formation and the mid to late Cambrian Mt Read Volcanics (Figure 3).

The Mt Read Volcanics (MRV) form a 200km long by 20km wide north-south trending belt along the eastern side of the Dundas Trough. The volcanics include intermediate to felsic lavas, subvolcanic porphyries and granites, volcanoclastics and basement-derived sedimentary rocks. The MRV host five economically significant volcanic hosted massive sulphide (VHMS) deposits. Within EL 1/93 equivalents of the MRV are restricted to a narrow strip between the Rosebery Fault and the eastern licence boundary (Figure 4). The MRV comprise pumiceous volcanics, quartz feldspar crystal sandstone and shales.

Regional structures associated with the MRV are the Rosebery Fault, splays of which extend into the Silver Falls area, and the Henty Fault which is located 15km east of the licence.

## 5. SUMMARY OF EXPLORATION

### 5.1 Mt Read Volcanic Exploration

#### 5.1.1 Previous Exploration

Previous exploration of the Cambrian Mt Read Volcanics within and surrounding the licence area is fully detailed in Poltock and Saxon (1994), Saxon and Basford (1995), Basford (1996) and Basford (1997) and is summarised in Table 1.

**Table 1: Previous Exploration - Mt Read Volcanics**

Company	Year	Licence	Work Completed
EZ	1949		Silver Falls mineralisation tested by four 18mm DDH.
Aberfoyle	1979	EL 22/74	Work included gridding, soil geochemistry, IP and geological mapping.
EZ	1980-84	EL 12/72	Explored northern strike extent of Silver Falls host sequence. Work included gridding, soil and rock geochemistry, IP, mapping and costeaning.

#### 5.1.2 Summary of Work Completed by Pasminco 1993-96

The exploration work conducted by Pasminco Exploration since 1993 has focussed on the Silver Falls prospect and is fully detailed in Poltock and Saxon (1994), Saxon and Basford (1995), Basford (1996) and Basford (1997). A brief summary is provided below:

##### May 1993 - April 1994 (Poltock and Saxon)

- Acquisition of regional (423 line km) airborne magnetic and radiometric survey.
- Review of previous exploration.
- Compilation of existing soil geochemistry.
- Infill grid soil sampling.
- Rock chip sampling.
- Geological mapping.

- Drilling HRD1 (293m) to test Pb-Zn soil anomalies. The mineralisation intersected in HRD1 includes disseminated and veinlet style galena and sphalerite with a carbonate-quartz gangue. Best assay intervals in HRD1 are as follows:

178-180m 2m@ 0.19% Pb 0.70% Zn

199-203m 4m@ 1.14% Pb

213-219m 6m@ 1.12% Pb

243-251m 8m@ 0.65 Pb

All gold assays were below the 0.008ppm detection level. No further work was considered warranted at the Silver Falls prospect and subsequently no further exploration was undertaken within the Mt Read Volcanics play within the tenement area.

## 5.2 Oonah Formation Exploration

### 5.2.1 *Previous Exploration*

Previous exploration undertaken within the Oonah Formation has been outlined in Poltock and Saxon (1994), Saxon and Basford (1995), Basford (1996) and Basford (1997) and is summarised in Table 2.

Table 2: Previous Exploration - Oonah Formation

Company	Year	Licence	Targets	Work Completed
Comstaff	1969	EL5/63, Part 2	Coldstream- Huskisson-Ramsay area for asbestos, Ni, Sn & Au/base metals	Stream sediment sampling & recon. mapping
	1969- 72			Drainage sampling defining Will O'Wisp
	1972		Pb anomalism	Geol. mapping, gossans outlined, CMT & WOW grids est.
	1972- 73		Pb anomalism - WOW grid	Self Potential, ground mag & CRONE Electromagnetic surveys
	1973		WOW grid	DDH CR1-6, results being dolostone - black shale sequence
	1975			INPUT EM survey, highlighting CAB anomaly. CAB grid est., soil sampling, ground mag & ground EM.
	1983		WOW prospect	Resampling/logging of CR1- 6, anomalous Pb-Zn in shales
	1983- 84			Restoration of CAB grid, extension to SW & auger sampling. GENIE EM over grid. CAB anomaly correlated with outcropping shales.
	1985		Just In Time prospect	1915 workings cleared, new costeaming/chip sampling. Qtz-Ba-Pb veins revealed. Grid est. & auger sampled
	1985		CAB grid	Repeat GENIE EM survey/IP & auger sampling. Minor stream sed survey
	1985			Partial relinquishment of EL, WOW & JIT retained
Comstaff/ BHP JV	1985			Review of work, no active field work
	1988			Licence dropped
RGC	1990	EL12/90 EL 15/90	Sn associated with Meredith granite	Minimal work, relinquished in 1992

### 5.2.2 Summary of Work Completed by Pasmaenco 1993-96

Work conducted by Pasmaenco since 1993 within the Proterozoic Oonah Formation is described in detail in Poltock and Saxon (1994), Saxon and Basford (1995), Basford (1996) and Basford (1997). A brief summary of exploration is given below:

#### May 1993 - April 1994 (Poltock and Saxon, 1994)

- Review of previous exploration.
- Identification of two untested stream sediment anomalies.
- Surface mapping of Will O'Wisp prospect.
- Compilation of existing grid soil geochemical data.
- Grid auger soil sampling of Just In Time prospect.

#### April 1994 - April 1995 (Saxon and Basford, 1995)

- Identification of North Ross Creek anomaly through interpretation of regional aeromagnetic and radiometric data.
- Follow up modelling and mapping of North Ross Creek anomaly.
- Rock chip sampling of creeks in North Ross Creek area
- Geological mapping of Will O'Wisp prospect.

#### April 1995 - April 1996 (Basford, 1996)

- Establishment of grid over North Ross Creek anomaly.
- Ground magnetometer survey to follow up aeromagnetic anomaly.
- Identification of drill target on North Ross Creek anomaly.
- Geological reconnaissance over North Ross Creek anomaly.
- Geological reconnaissance along existing tracks over Just In Time prospect.

April 1996 - March 1997 (Basford, 1997)

- Fixed loop EM survey to determine source of North Ross Creek anomaly.
- Minor soil sampling program over anomaly (two samples).
- Drilling of NRC1 (142.1m), close to the faulted contact between the Cambrian Dundas Group and the Oonah Formation, to test magnetic anomaly.
- Results of drilling revealed a magnetite-rich basaltic unit, lying within the Cambrian Crimson Creek Formation, with no associated anomalous metals. Assay results were negligible and no further work was considered warranted.

## 6. WORK COMPLETED

### 6.1 Data Compilation and Review

During the ten month period between March 1997 and January 1998 Pasmaenco Exploration undertook a data review of the Huskisson River EL 1/93, as part of a regional GIS based assessment of the Mt Read Belt (Murphy, 1997). Both Pasmaenco Exploration proprietary and open-file data were used in the review.

#### 6.1.1 Geochemistry

The most significant component of the data review involved the analysis of stream sediment, soil and rock chip geochemistry. Figure 5 shows the sampling density (stream sediments, soils, rock chips and drill holes) across the licence area. The distribution and patterns in metal geochemistry were analysed through statistical analysis. This analysis was carried out on the entire Mt Read data base, with the results relating to the Huskisson River EL 1/93 presented here. The lack of wide spread soil, rock chip and drill hole sampling across the tenement has resulted in a potentially non-representative analysis of this data.

Geochemical data sets from the same sampling media can not be directly compared, as the background values relating to geology, sampling media and type of analysis varies, controlling the assay values returned. Therefore all data had to be standardised to allow for a regional, statistically valid, analysis.

The stream sediment, soil and rock chip data were assessed separately using standardisation procedures. The analysis has been performed for Zn, Pb and Cu as these provide the only regional coverage of element abundances.

#### *Soil Samples*

Standardisation of soil samples is performed on the basis of the soil profile and the geological unit. The standardisation was conducted on the entire Pasmaenco Exploration data set (proprietary and open file information) as part of the Mt Read Belt Review.

Standardisation of soil profiles was necessary to allow the data to be analysed on a regional basis. Four different categories of soil profiles were determined, A, B, C and "unknown". The statistics used to 'combine' the data sets is through analysis of the mean and standard deviation of each data category, then 'levelling' each individual data set to a common mean. The standardisation procedure, run on 'SPSS' statistical software and Statview 4.5, calculates the standardised values based on the equation  $x - \frac{\text{mean}(x)}{\text{st dev}(x)}$  for each distribution, making corrections and producing the 'levelled' distributions. Standardisation according to geology codes utilised the same statistical procedure, where the soil profile was replaced by the

lithostratigraphic codes (Outlined in Table 3). The samples were geocoded with the primary Group code only. The procedure involves selecting soil samples that fall within the respective group polygons and undertaking statistical analysis according to each group. The unlevelled data gives an appreciation of the relative abundance of these elements in the various groups.

Some general observations generated from the statistical analysis are:

- Cu distribution in terms of 'background' geochemistry is relatively elevated in the CVC and Owen Conglomerate (EO) relative to the ECC (Crimson Creek Formation) although the ECC has quite a few extreme values.
- Pb distribution is higher in DGE (Dundas Group and lithotype equivalents, see Table 3) and TB (Tertiary Basalt), closely followed by the CVC.
- Zn distribution is elevated in the CVC and to a lesser extent in the DGE and TB.

#### *Stream Sediment Samples*

These were levelled according to the geocoded geology polygon that each sample plots within. The data analysis does not take account of catchment areas but, given the density of samples, the analysis is a reasonable approximation for small catchment sizes. Catchment analysis was deemed too hard as the majority of samples do not plot precisely on the digital stream outlines and would involve subjective moving of each data point to lie on the stream.

Initial levelling and geocoding was done according to the original MRT codes (Table 3) which proved unwieldy given the large number of polygon codes. The statistical analysis provides an indication of the metal abundance of different rock units, for example high mean Zn in streams is associated with "fiame tuffs", "tuffs", "lithicwacke", "siltstone" and "alluvium" geology polygons. This suggests a high Zn content of the CVC and DGE related rocks. Pb and Cu show broadly similar associations, with Cu also associated with conglomeratic rocks (Owen Conglomerate). Serpentinites and pyroxenites have elevated means for all three elements.

The second and probably more meaningful levelling for regional analysis of the stream data was performed according to the geology Group codes (Table 3). Concentrations of Cu, Pb and Zn are clearly quite different for each of the major lithological groups. The standardised data display no systematic differences, thus minimising any regional geochemical variations due to geology. Interestingly, the Crimson Creek Formation (ECC) and Dundas Group (DGE) have higher mean Zn values than the CVC. Pb and Cu abundances are all high in the Dundas Group (DGE) and Siluro-Devonian (SD) polygons, with an elevated Cu response in the Crimson Creek Formation (ECC).

# 1:25 K LITHOSTRATIGRAPHIC CODES

DGE - Modified Lithology codes

EDQ - Original Rock codes from 1:25K sheets

DGE	[ ED EHF EQ ET ]	DGEQW (EDQ, Eq)
		DGESM (EDS, ETS, EFS)
		DGESD (GDD)
		DGELW (EF, Edg, Edw, Ehtg, Edgm, Edgl, Edwt)
		DGECG (Edc)
		DGEM (Eia, Edba, Ehfab)
		DGEB (Edbr, Ehfb, Edb)
		DGEA (Eda, Ehta)
		DGEF (Edif, Etf, Etp, Etpi, Etpf)
		DGET (Edt, Eht, Etf, Etc, Etlc, Eft)
DGEVC (Etc)		
DGEVT (Edtv, Etv)		

CVCT	[ EMVT ECVT EWST EKVR ]	[ ECVI ECVIB ECVAG ECVXT ECVVT ECVAT ]
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CVC	[ EMV ECV EWS ]	[ EKM ECVS EWSS ]	[ ECVSC ]
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CVCL	[ EUVP EMVC ECVL ]	[ ECVA ECVLM ECVQ ECVG ]
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# 1:25 K LITHOSTRATIGRAPHIC CODES

GROUP NAME	GROUP CODE	LITHOCODE 1	LITHOCODE 2	LITHOCODE 3
Alteration	Alt	MS (Massive sulphide)		
		BA (Barite)		
		ALSI (Argillic)		
		FeSI (Silice)		
		FeRED (Pyritic)		
		FeOx (Hematitic)		
INTRUSIVES	I	MI	JDC XL	
		DI	DQP (Porphyry)	
			DOL (Dolerite)	
			DG (Granite)	
			DL (Lamprophyre)	
			OP (Porphyry)	
			Ep (Porphyry)	
			Eps (Felsic Intrusive)	
			Eg (Gabbro)	
			Eb (Basalt)	
Quaternary	Qu	Qc (Cultural)		
		Qi (Talus)		
		Qa (Alluvium)		
		Qg (Glacial)		
Tertiary Basalt	Tb	Tb (Basalt)		
Upper Palaeozoic	Pu	Pu (Sediments)		
Siluro-Devonian	S-D	Sd (Sediments)		
Ordovician Limestone	OGL	Ogl (Limestone)		
Owen Conglomerate & Equivalents	EO	EOo (Sediments)	EOoM (Siltstone)	
			EOoC (Chert)	
			EOoS (Siliclastic cong.)	
			EOoVC (Volcaniclastic cong.)	
Jungas Group & Equivalents	DGE	DGES (Sediments)	DGEQW (Quartzwacke)	DGECG (Conglomerate)
			DGESI (Siltstone)	DGESM (Alveolatus Siltstone)
			DGELW (Litic Wacke)	DGESD (Dolomitic Siltstone)
		DGEL (Lavas)	DGEM (Mafic Lavas)	DGEB (Basaltic)
			DGEF (Felsic Lavas)	DGEA (Andesitic)
		DGET (Tuffs)	DGEVT (Mitic Tuffs)	
	DGEVC (Conglomeratic Tuffs)			
Central Volcanic Sequence	CVC	CVCT (Tuffs)	CVCA (Felsic)	
		CVCL (Lavas)	CVCB (Basic)	
		CVCS (Sediments)		
Siach Range Beds	ESRB	ESRB (Sandstone Cong.)		
		ESRV (Conglomerate)		
		ESRV (Volcaniclastic)		
Climson Creek Fm	ECC	ECC (Siltstone/Sandstone)		
Proterozoic	P	Pp		
		Phs		
		Phq		

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Table 3

### *Rock Chip and Drill Holes*

These data were used as “stand alone” samples, not levelled against background geology polygons, but log distributions were derived and values calculated for each population (Cu, Pb, Zn). The drill hole data was simply used in the same way as point located rock chips, with the best intercepts (thickness, grade, depth of Cu, Pb, Zn, Au) attributed to collar locations.

### **6.1.2 Geochemical Imaging**

The standardised soil, stream sediment and rock chip data were gridded and image processed to highlight geochemical anomalism and trends in the data. For the soils, the statistically derived value of each sample point was given a search radius of 100m and the data was gridded at a 50m cell size. For the streams, the search radius was increased to 500m and then gridded at 50m. Percentile images were then produced for each element. These plots are “hot to cold” colour coded according to the 99<sup>th</sup>, 98<sup>th</sup>, 95<sup>th</sup>, 90<sup>th</sup>, 80<sup>th</sup>, 60<sup>th</sup> and 40<sup>th</sup> percentiles.

#### *Zn Distribution*

The Zn in streams (Figure 6) shows three “anomalous hot-spots” within the licence area. These anomalies are located in the north east corner and along the western and southern boundaries of the tenement.

The anomaly occurring along the western licence boundary is quite broad and extends approximately 1.5 km to the west of EL 1/93. It lies along the north west trending faulted contact of the Proterozoic Oonah Formation and the Cambrian Crimson Creek Formation. The anomaly occurring along the southern boundary lies on the faulted contact of the Oonah Formation and the Dundas Group. The anomaly identified in the north east corner lies along the northern extent of this contact. The Silver Falls prospect area is also highlighted by anomalous Zn in streams.

Zn in soils (Figure 7), rock chips and drill holes (Figure 8) further highlight the Silver Falls prospect area. Two very minor spot soil anomalies, encompassed by a broad low level dispersion of Zn occur to the north of the licence area. This area is also highlighted by dispersed Zn in rock chips.

#### *Pb Distribution*

The Pb distribution in streams (Figure 9) contains three anomalous regions, two of which are coincident with the Zn anomalies. The Silver Falls prospect anomaly is again highlighted, as is the anomaly located on the southern licence boundary. A small anomaly is located approximately 2km to the west-north west of the Silver Falls prospect, occurring along the

faulted contact of the Proterozoic Oonah Formation and the Cambrian Dundas Group and coincident with the North Ross Creek magnetic anomaly (Figure 10).

The Pb distribution in soils (Figure 11) again highlights the Silver Falls prospect, as does Pb in rock chips and drill holes (Figure 12). Drill hole HRD1 returned a best intercept of 16,200 ppm Pb. When HRD1 drill core was reassessed as part of the prospectivity review, the original interpretation by Poltock and Saxon (1994) was reaffirmed, with no indication that the intervals of low grade mineralisation represent the fringes of a larger scale system. A minor soil anomaly in the northern part of the tenement correlates with a slightly more dispersed rock chip anomaly and is coincident with, and of a similar nature to, the broad Zn anomaly as described.

#### *Cu Distribution*

There are five areas of Cu anomalism in stream sediments within the tenement (Figure 13). Three of these are coincident with the three major Zn "anomalous hot spots" as described previously. Unlike Zn and Pb, Cu in streams does not highlight the Silver Falls prospect. One minor anomaly occurs on the north west boundary of the licence, roughly coincident with the faulted contact of the Oonah Formation and the Crimson Creek Formation. Another minor anomaly is present in the north west corner of the tenement.

The Cu distribution in soils (Figure 14) is quite dispersed, with a small anomaly highlighted in the south of the tenement, correlating with a rock chip anomaly and also coincident with both the boundary of the Oonah Formation and the Dundas Group, and the North Ross Creek magnetic anomaly. A slightly weaker rock chip anomaly is present in the northern part of the tenement (Figure 15) which is coincident with the stream sediment anomaly and an area of dispersed Cu in soils. This anomaly also correlates with a magnetic feature associated with the Tertiary basalt unconformably overlying the Proterozoic Oonah Formation (refer Figure 10). Neither soils, rock chips or drill holes highlight the Silver Falls prospect as anomalous in Cu.

The geochemical anomalies highlighted as a result of this data review are dominantly associated with permeable faulted contacts.

#### **6.1.3 Metallogenic Modelling**

Integrated analysis of the geochemistry, geology and structural framework was performed as part of the prospectivity assessment of the Huskisson River tenement. The undifferentiated CVC was used as the underlying polygon on which the combined structure, ie: 1:25k mapped faults and 1:250k interpreted aeromagnetic linears have been superimposed (Figure 16).

The structures were buffered to 50m to highlight proximal anomalism. Areas of coincident anomalism are shown as bright spots. Interpretation of the resulting metallogenic model revealed the following:

- The Silver Falls prospect lies on the intersection of the Rosebery Fault and a north east trending structure.
- The southern anomaly is located on the intersection of this north east trending structure and a north-south trending structure.

## 6.2 IP Review

As part of an Electrical Geophysical Review (Basford, 1998), the Induced Polarization data over the Silver Falls prospect was revisited (Basford, 1998). Three surveys have been conducted over the area, each on a different grid (Figure 17).

The first survey was conducted in February 1979, on behalf of Aberfoyle, over the Marionoak River licence (EL 22/74). The next survey was conducted for EZ in late 1979 over their Bulgobac licence (EL 12/72), with the third survey being conducted in 1993 for Pasminco over the Huskisson River and Boco licences (EL 1/93 and EL 2/90). The survey parameters for each data set are detailed in Table 4.

**Table 4. IP Survey Parameters**

Survey Parameters	Aberfoyle	EZ	Pasminco
Date of Survey	Feb 1979	Oct-Dec 1979	Feb 1993
Array used	Dipole-dipole	Dipole-dipole	Pole-dipole
Array spacing	50m	100m	100m
n level	6	4	6
Number of lines	9	9	8
Nominal line spacing	200m	500m	400m
Grid Orientation	100 deg magnetic	AMG E-W	N45W
Contractor	Solo	Scintrex	Scintrex
Receiver	McPhar P660	IPR-8	IPR-11
IP Measurement	PFE	Chargeability	Chargeability
Data Integrity	Moderate	Good	Good

The Aberfoyle data highlights a lithological contact, identified by the (in general) elevation in IP readings to the east of 5000E. Several non-significant anomalies are located along this contact. The largest feature lies on line 4100E with PFE values of 4. The lithological contact passes through the Silver Falls mineralisation. A second trend was interpreted east of the baseline, on the three northern most lines.

The EZ data was collected north of the Aberfoyle data. Although several weak to moderate responses were recorded, no significant anomalism was indicated. Most anomalism was related to shallow (outcropping) features which should be compared to geochemical results. The more important anomalies of note are on lines 5390100 (377050E) and 5390300 (377230E), and line 5391500 (378750E).

Three anomalous zones were outlined by the 1993 Pasminco data. Two of these were not closed off, however, no significant anomalism was indicated. Several anomalies highlighted by this data can be related to anomalous features indicated in the 1979 EZ data set.

Only the Aberfoyle and part of the Pasminco data cover the current Huskisson River tenement. There are no outstanding IP features in the area covered by the Huskisson River licence. Anomalism around the Silver Falls mineralisation is weak with no obvious targets for follow up in the Huskisson River licence.

**7. ENVIRONMENTAL DISTURBANCE AND REHABILITATION**

Minimal environmental disturbance has occurred within EL 1/93 during the tenure period May 1993 to present (Poltock and Saxon, 1994; Basford, 1996; Basford, 1997). No new disturbance of vegetation has occurred during the reporting period.

## 8. CONCLUSIONS AND RECOMMENDATIONS

- Drilling results from both holes drilled within the tenement returned minor to insignificant assays.
- Review of IP data failed to highlight any obvious targets for follow up in the licence area.
- Compilation and review of geochemical data also failed to highlight any major anomalies or target areas.
- The review data, when examined as part of the regional Western Tasmania Prospectivity Review, indicates that the Huskisson River EL 1/93 has low prospectivity for base metals, and consequently low potential for new targets.
- The tenement lies outside Pasminco Exploration's strategic zone of exploration focus within the Mt Read Belt and is therefore being relinquished.

## 9. EXPENDITURE

Total expenditure for all work undertaken by Pasminco Exploration within Huskisson River EL 1/93 for the ten month period to the end of February 1998 was \$7,167. A detailed expenditure statement is given below.

Personnel	1,349
Travel and Accommodation	
Geological Consultants	1,058
Geochemical Consultants & Assays	
Geophysical Surveys & Consultants	
Other Consultants	
Drilling	
Stores & Supplies	
Vehicles Plant & Equipment	
Land	2,444
Computing	
Office	1,761
Administration Fee 10%	555
<b>Total Tenement Expenditure</b>	<b>7,167</b>

**10. KEYWORDS & LOCALITY**

HUSKISSON, SILVER FALLS, WILL O'WISP, JUST IN TIME, NORTH ROSS CREEK, MT READ VOLCANICS, OONAH FORMATION, VHMS, ROSEBERY FAULT, BLACK SHALE, CARBONATE, GALENA, SPHALERITE, GEOPHYSICS, MAGNETICS, MODELLING, DRILL DIAMOND, GEOCHEMISTRY, DATA REVIEW.

PARSONS & RAMSAY 1:25 000

## 11. REFERENCES

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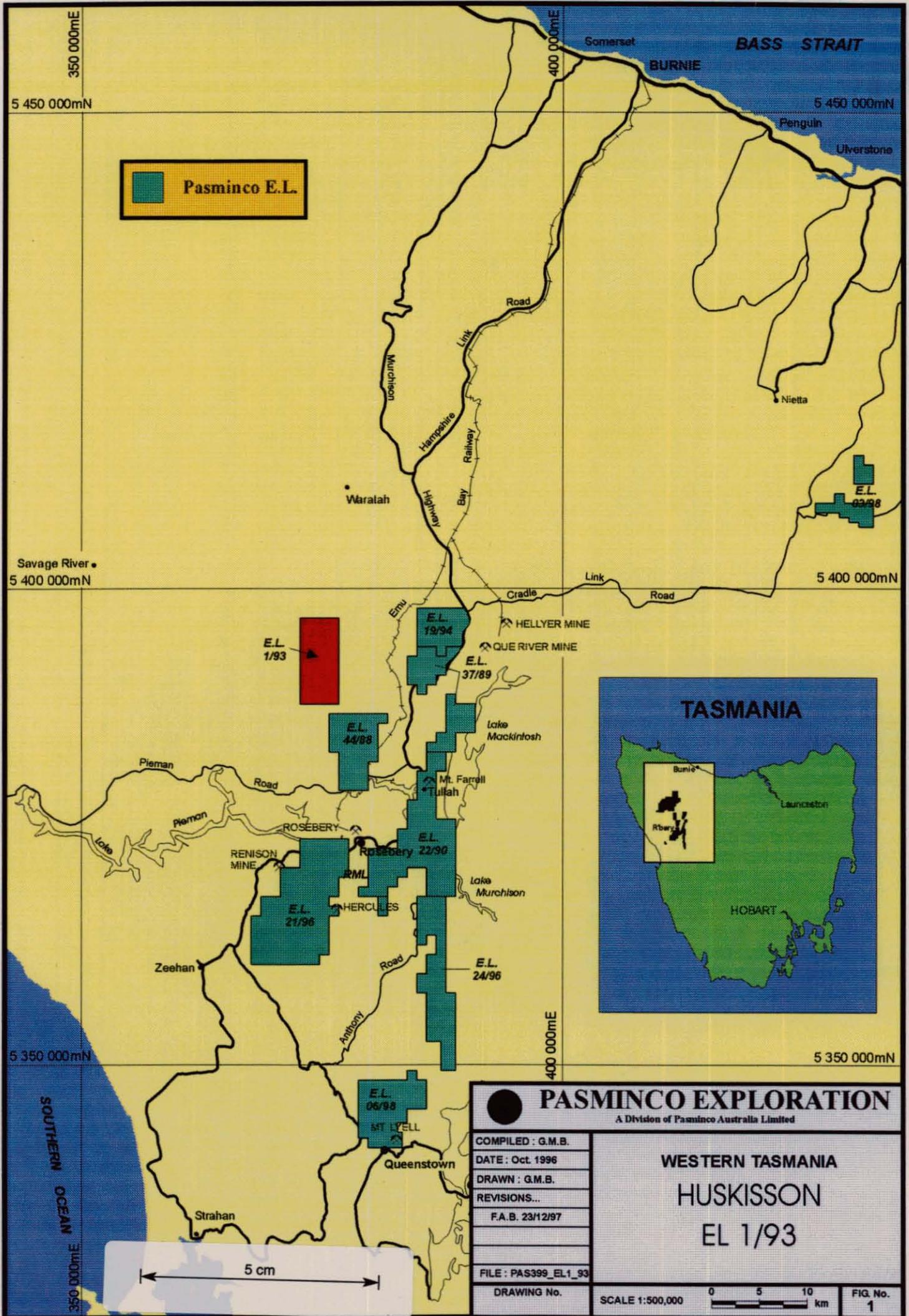
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Pasminco Australia Limited

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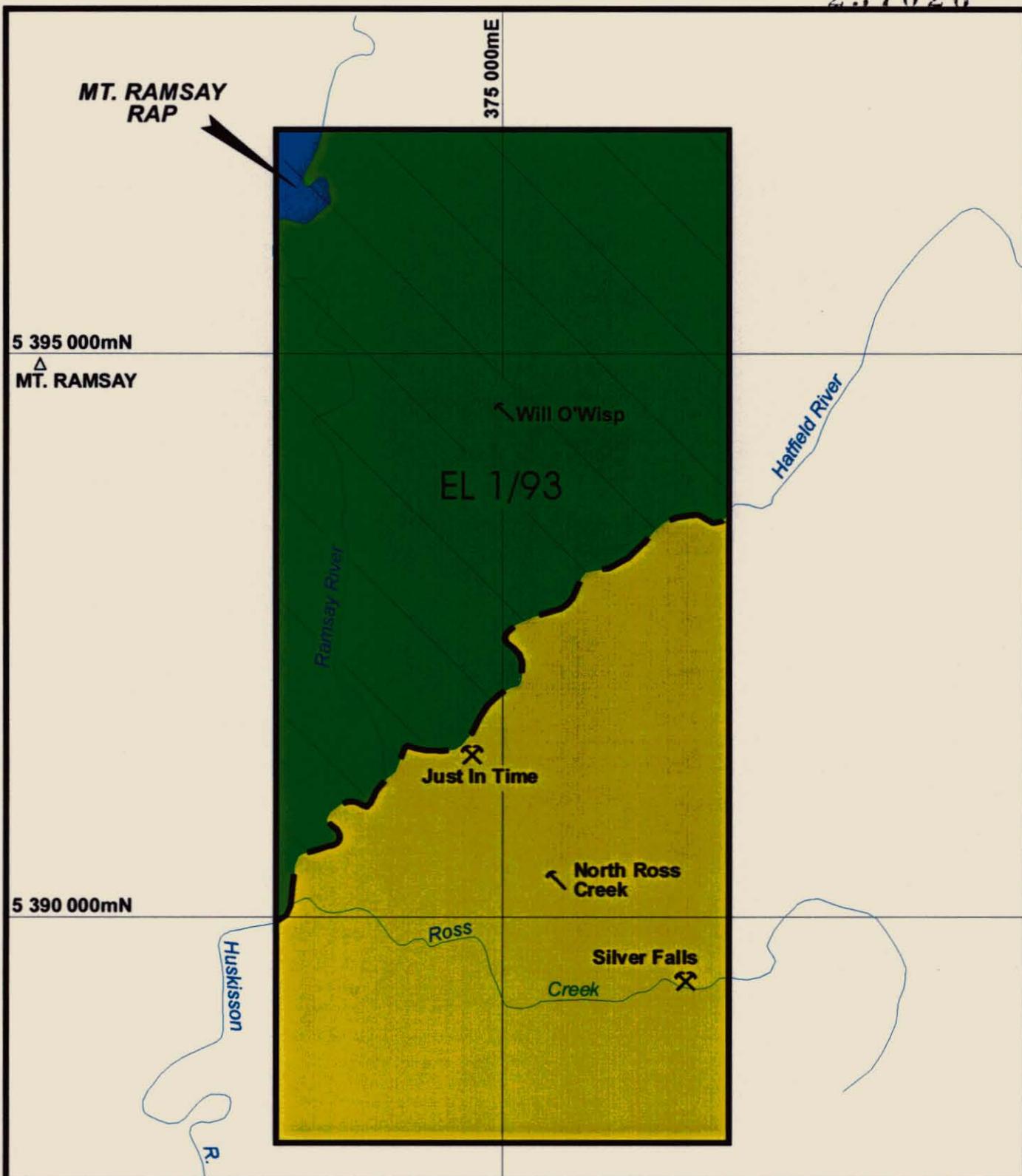
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Saxon, M.S. & Basford, P.W., 1995. Pasminco Exploration EL 1/93, Huskisson River. Exploration report for the period 22 April 1994 - 21 April 1995. Unpubl. Report Pasminco Australia Ltd.

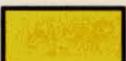


**PASMINCO EXPLORATION**  
 A Division of Pasminco Australia Limited

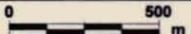
COMPILED : G.M.B.	<b>WESTERN TASMANIA</b> <b>HUSKISSON</b> <b>EL 1/93</b>
DATE : Oct. 1996	
DRAWN : G.M.B.	
REVISIONS...	
F.A.B. 23/12/97	
FILE : PAS399_EL1_93	SCALE 1:500,000 0 5 10 km FIG. No. 1
DRAWING No.	



**LEGEND**

-  RAP - Recommended Area for Protection
-  Deferred Forest
-  Multiple Use Forest
-  Proposed Tarkine Wilderness Area Register of National Estate

5 cm

 <b>PASMINCO EXPLORATION</b> <small>A Division of Pasminco Australia Limited</small>	
COMPILED : G.M.B. DATE : April 1996 DRAWN : G.M.B. REVISIONS :  FILE : HUSGEOL	<b>E.L. 1/93 - HUSKISSON RIVER</b>  <b>LAND TENURE</b>
DRAWING No. 315-GN-004	SCALE 1:50,000 
	FIG. No. 2

COMPILED : P.G.R.  
DATE : April 1997  
DRAWN :  
REVISIONS

E.L. 1/93 - HUSKISSON RIVER  
**REGIONAL GEOLOGY**  
FROM MAP 6 OF THE  
MT. READ VOLCANICS PROJECT

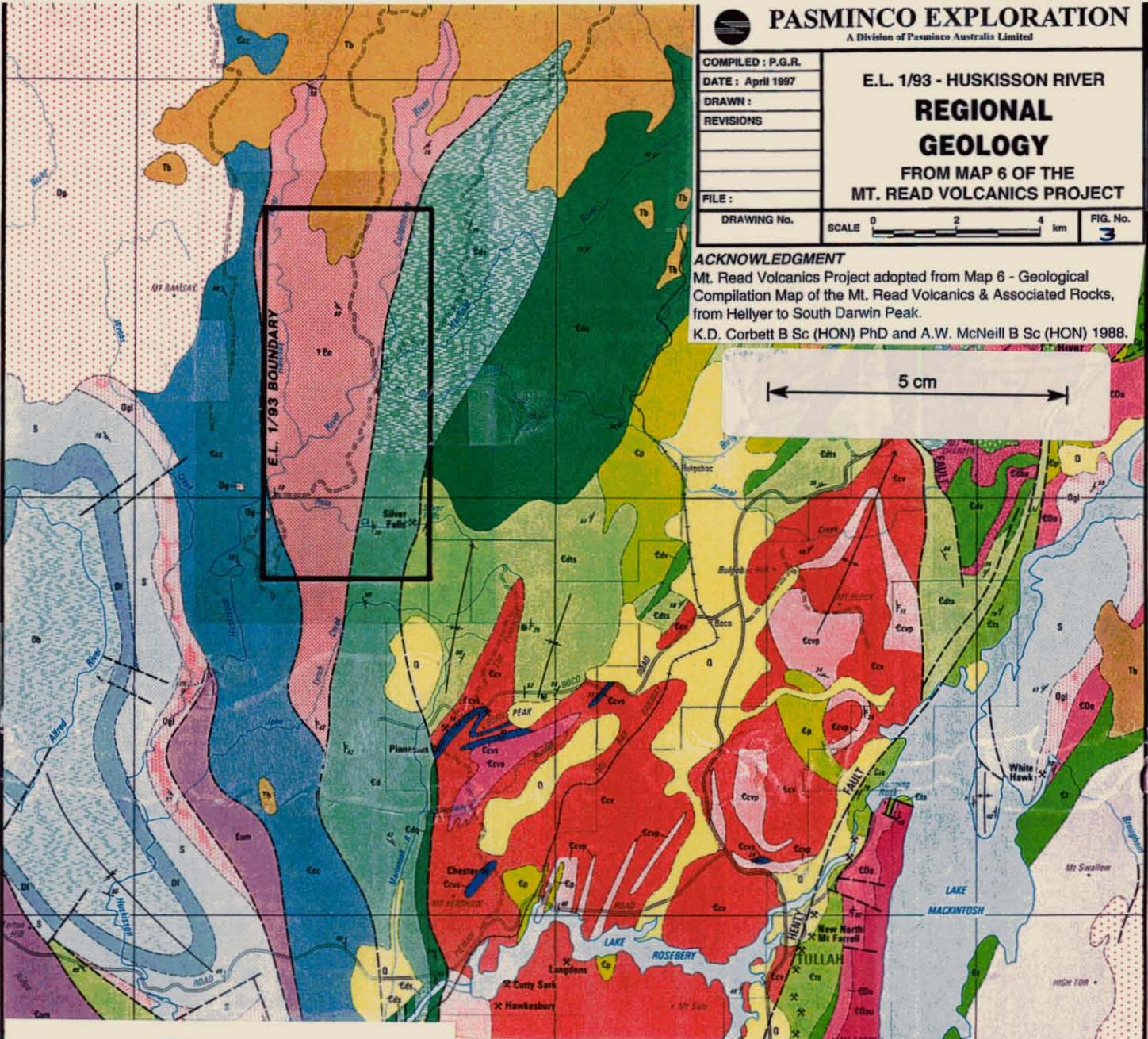
FILE :  
DRAWING No.

SCALE 0 2 4 km

FIG. No. **3**

**ACKNOWLEDGMENT**  
Mt. Read Volcanics Project adopted from Map 6 - Geological Compilation Map of the Mt. Read Volcanics & Associated Rocks, from Hellyer to South Darwin Peak.  
K.D. Corbett B Sc (HON) PhD and A.W. McNeill B Sc (HON) 1988.

5 cm



<b>QUATERNARY</b>	Q	Glacial deposits, alluvium, etc.
<b>TERTIARY</b>	Tb	Basalt
	Ts	Sediments - gravel, sand, clays
<b>JURASSIC</b>	Jd	Dolerite
<b>PERMIAN - CARBONIFEROUS</b>	P	Undifferentiated
<b>DEVONIAN</b>	Dd	Dolerite
	Dg	Granite
<b>DEVONIAN - SILURIAN</b>	Dh	Bell Shale
	S-D	Florence Sandstone
	S	Silurian
<b>ORDOVICIAN</b>	Og	GORDON GROUP limestone
<b>EARLY ORDOVICIAN - LATE CAMBRIAN</b>	COu	Upper sandstone sequence including Pioneer Beds (COu)
	COo	Undifferentiated conglomerate and sandstone (COo)
	COon	Newton Creek Sandstone (COon) - interbedded sandstone siltstone and conglomerate with marine fossils

**MT. READ VOLCANICS**

**NORTH AND WEST OF HENTY FAULT  
DUNDAS GROUP AND CORRELATES**

Cp	Quartz-feldspar porphyry, mostly intrusive
Csk	Mostly sedimentary rocks - greywacke, siltstone, conglomerate
Edts	Interbedded tuffs and sedimentary rocks
Cd	Quartzwacke-slate-siltstone units, e.g. Stitt Quartzite
Cv	Mostly felsic volcanics - mainly tuffs
Cm	Mixed felsic and mafic volcanics and epiclastic breccias, Que-Hellyer area
Cba	Basaltic to andesitic volcanics

**SOUTH AND EAST OF HENTY FAULT  
TYNDALL GROUP AND CORRELATES**

Et	Mainly sed. rocks, incl Farrell Slat
Ct	Mainly quartz-feldspar-phyric volcanic and volcanoclastic rocks (Ct)
Cv	Mainly volcanoclastic congl. and sandstone
Cub	Sticht Range Beds - sandstone, siltstone, siliciclastic conglomerate

**CAMBRIAN INTRUSIVE ROCKS**

Cp	Granite
Cp	Felsic porphyry
Cg	Gabbro
Cum	Ultramafic rocks & serpentinite

**CENTRAL VOLCANIC COMPLEX**

ECv	Mainly feldspar-phyric volcanics - dacite, rhyolite, minor andesite (ECv)
Cp	Felsic porphyry, mainly intrusive
ECvp	Mainly pyroclastic rocks
ECs	Sedimentary rocks, mainly shale and sandstone
ECv	Andesitic volcanics

**PRECAMBRIAN**

Ec	Quartzite-slate sequences - correlates of Oonah Formation
Em	Metamorphosed sequences of Tyennan Regio

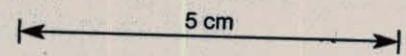
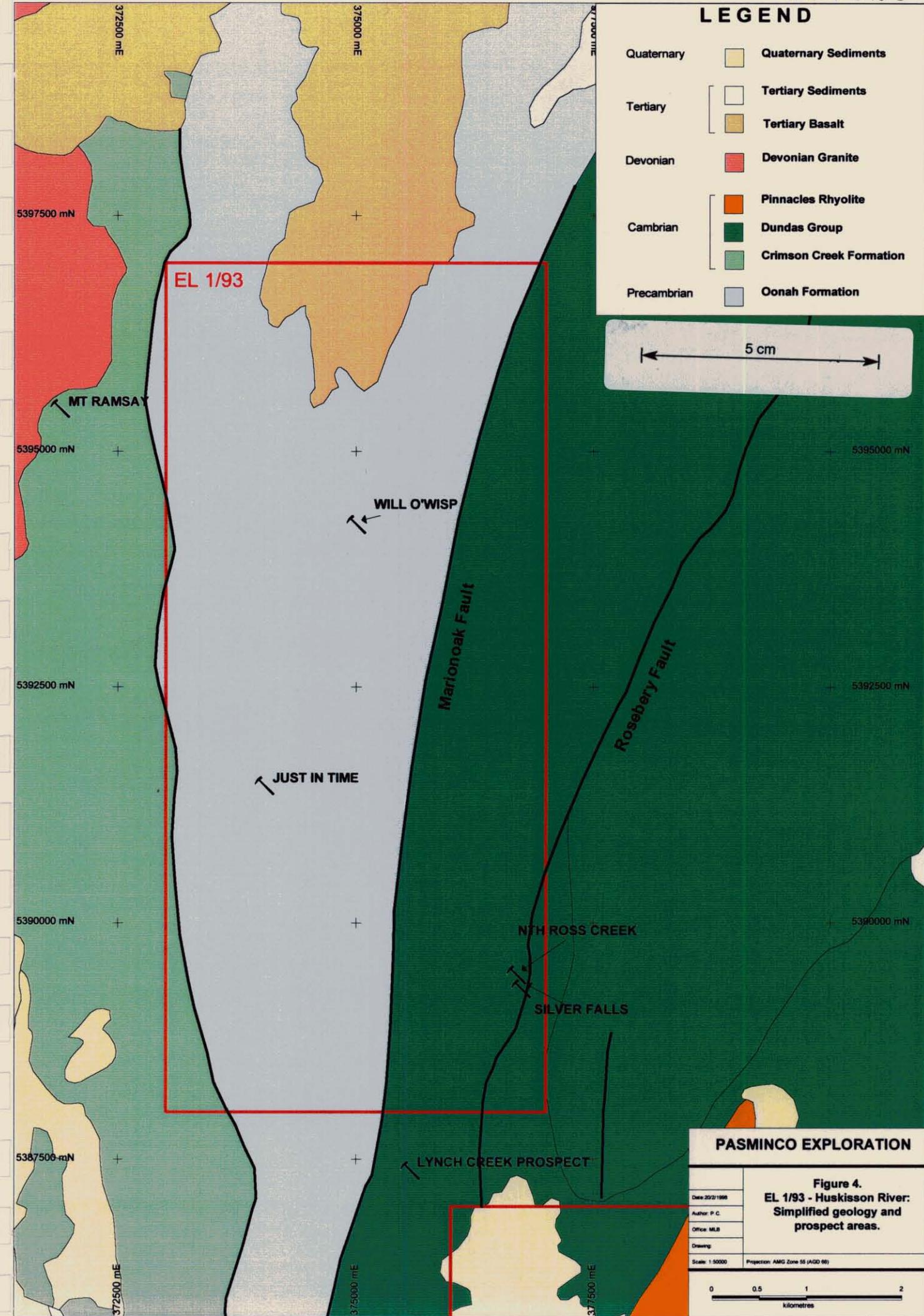
Alpha Peak

Major lithological boundary trends shown

**LEGEND**

- Quaternary  Quaternary Sediments
- Tertiary  Tertiary Sediments
- Tertiary Basalt
- Devonian  Devonian Granite
- Cambrian  Pinnacles Rhyolite
- Dundas Group
- Crimson Creek Formation
- Precambrian  Oonah Formation

5 cm

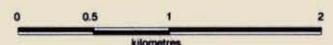



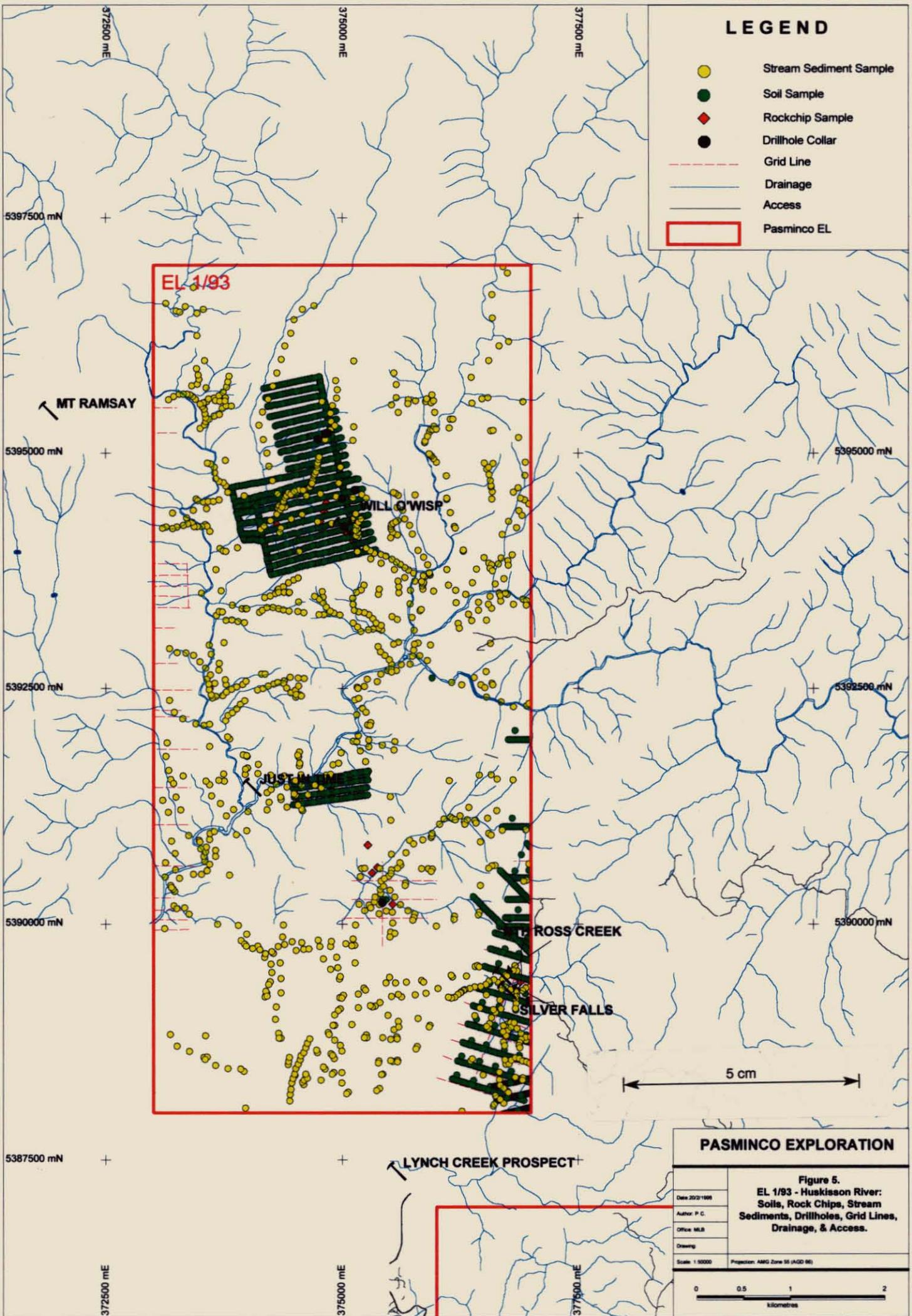
**PASMINCO EXPLORATION**

**Figure 4.**  
**EL 1/93 - Huskisson River:**  
**Simplified geology and**  
**prospect areas.**

Date: 20/2/1998  
 Author: P.C.  
 Office: MLB  
 Drawing:

Scale: 1:50000      Projection: AMG Zone 55 (AGD 66)





**LEGEND**

- Stream Sediment Sample
- Soil Sample
- ◆ Rockchip Sample
- Drillhole Collar
- Grid Line
- Drainage
- Access
- Pasmenco EL

EL 1/93

MT RAMSAY

WILL O'WISP

JUST MOUNTAIN

ROSS CREEK

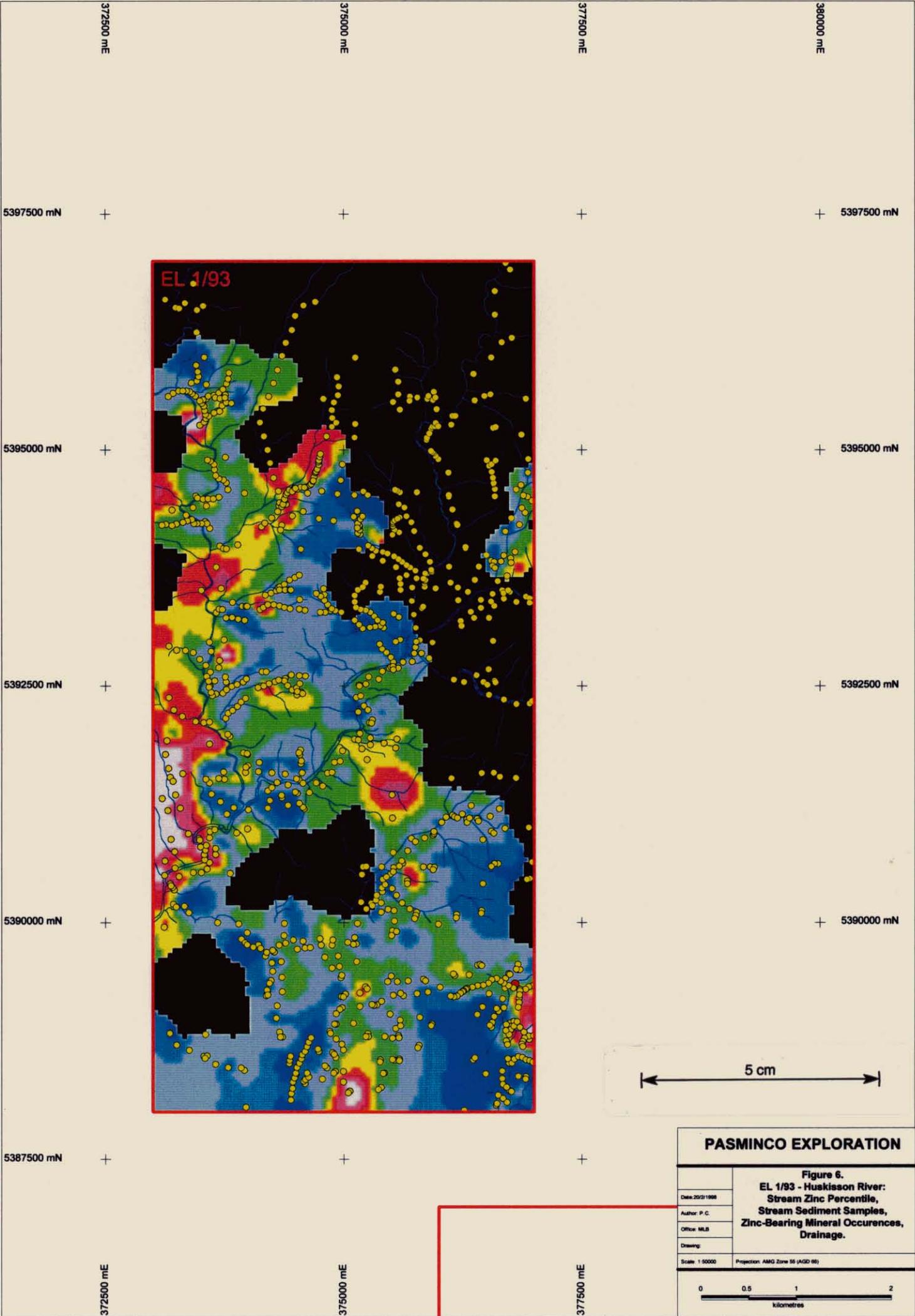
SILVER FALLS

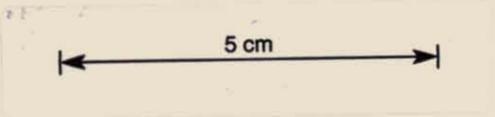
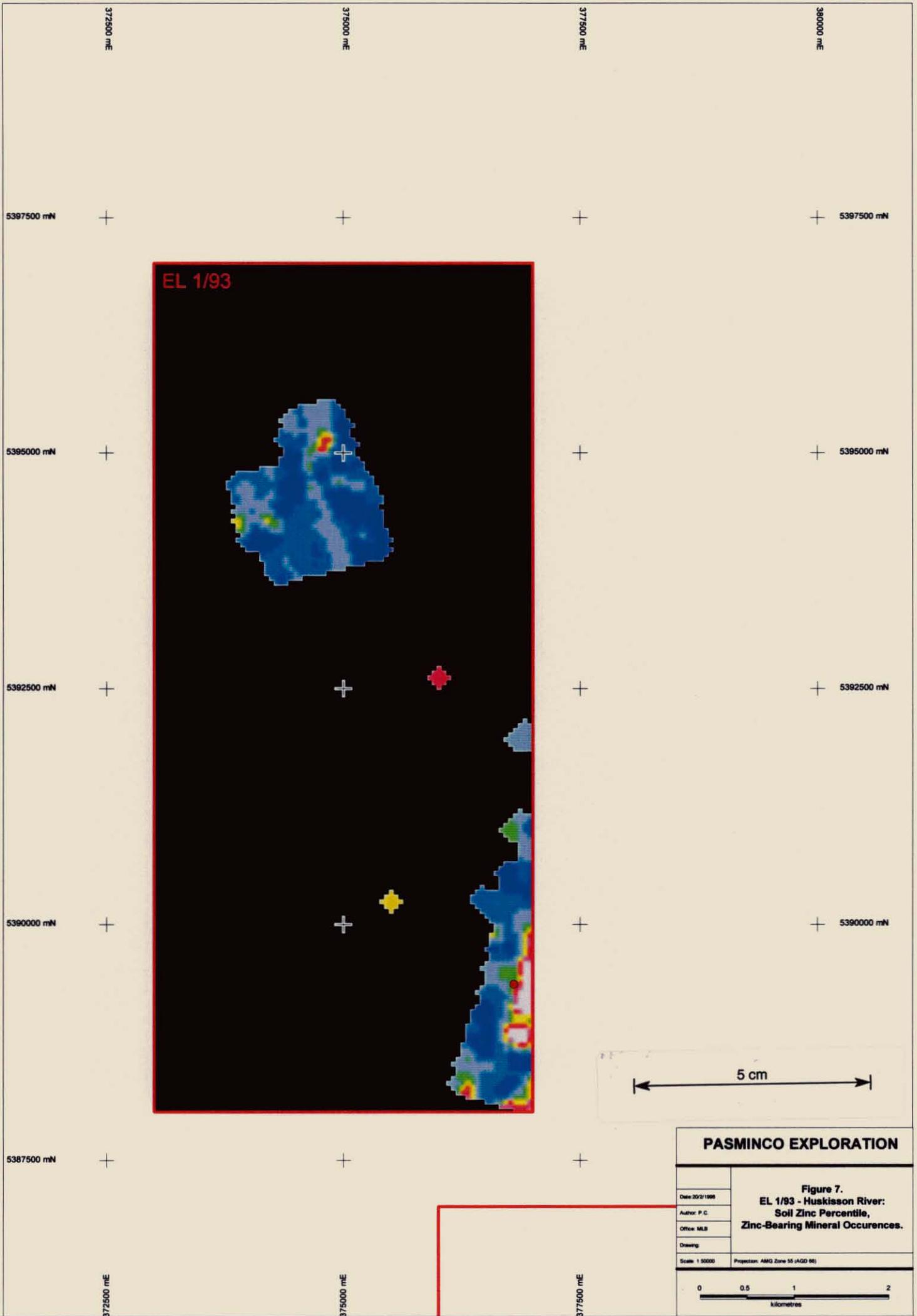
LYNCH CREEK PROSPECT

5 cm

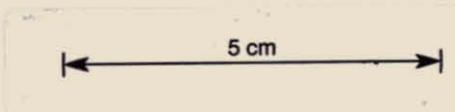
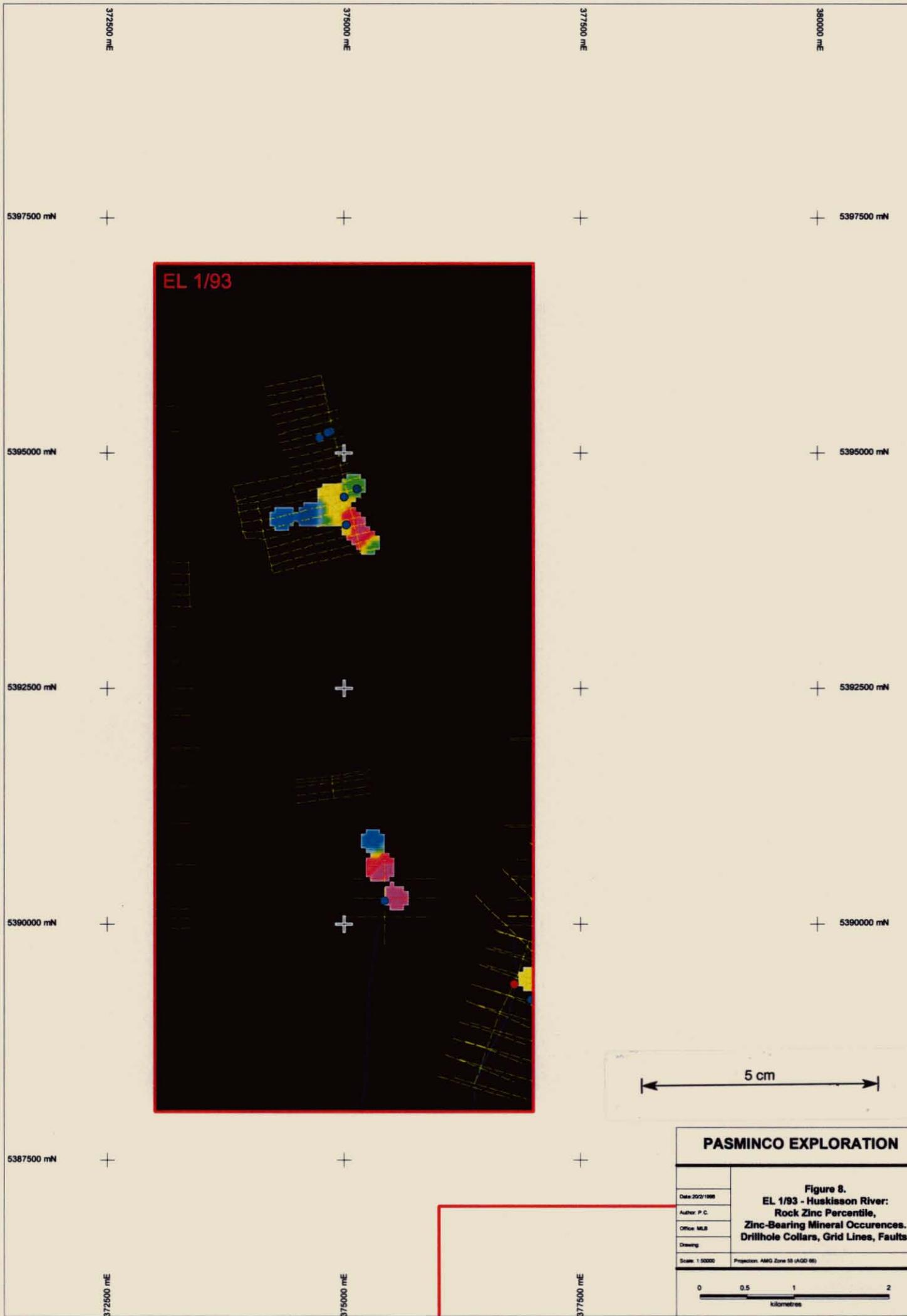
**PASMINCO EXPLORATION**

<p><b>Figure 5.</b>  <b>EL 1/93 - Huskisson River:</b>  <b>Soils, Rock Chips, Stream</b>  <b>Sediments, Drillholes, Grid Lines,</b>  <b>Drainage, &amp; Access.</b></p>	
Date: 2021/10/08	Projector: AMG Zone 55 (AGD 84)
Author: P.C.	
Office: M.L.B.	
Drawing:	
Scale: 1:5000	
<p>0    0.5    1    2              kilometres</p>	

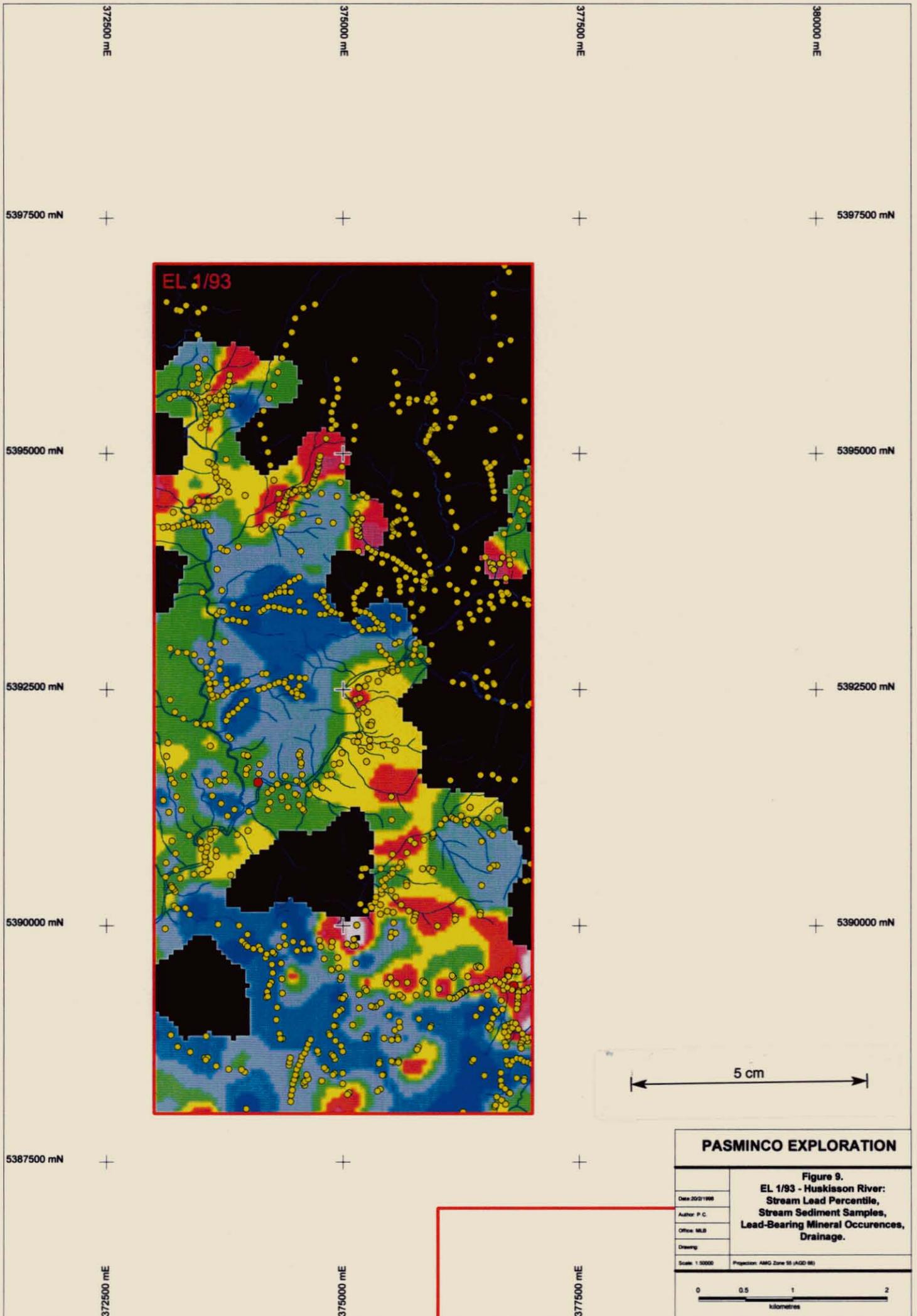


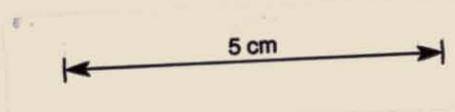
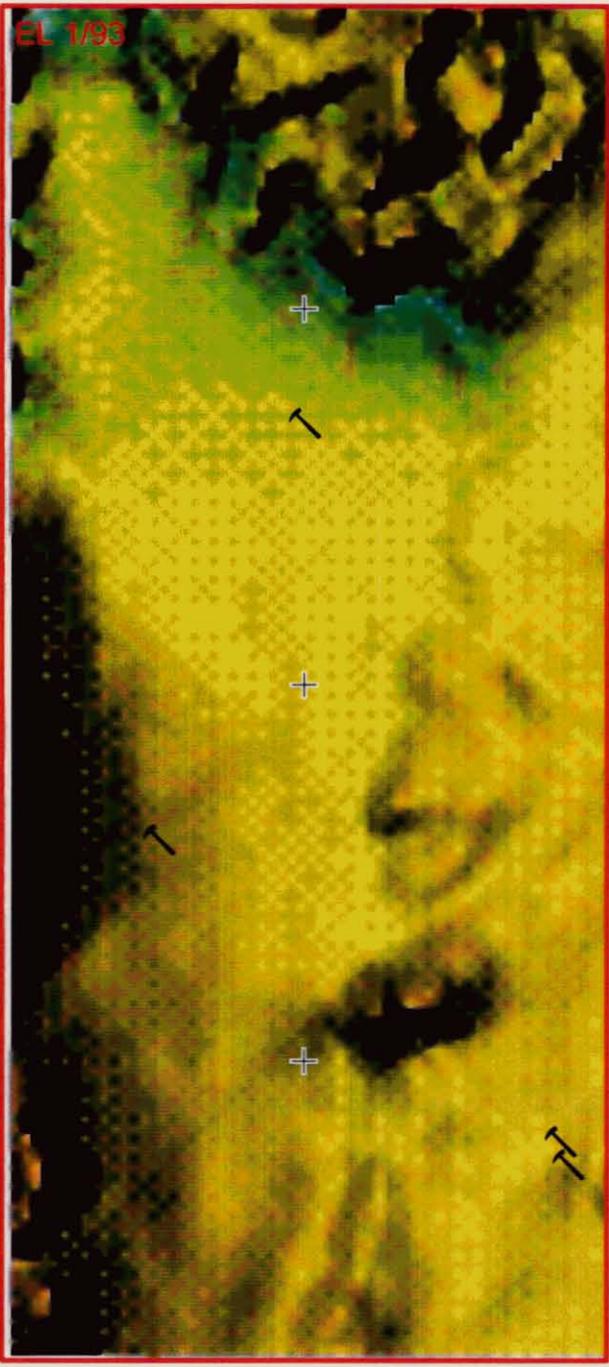
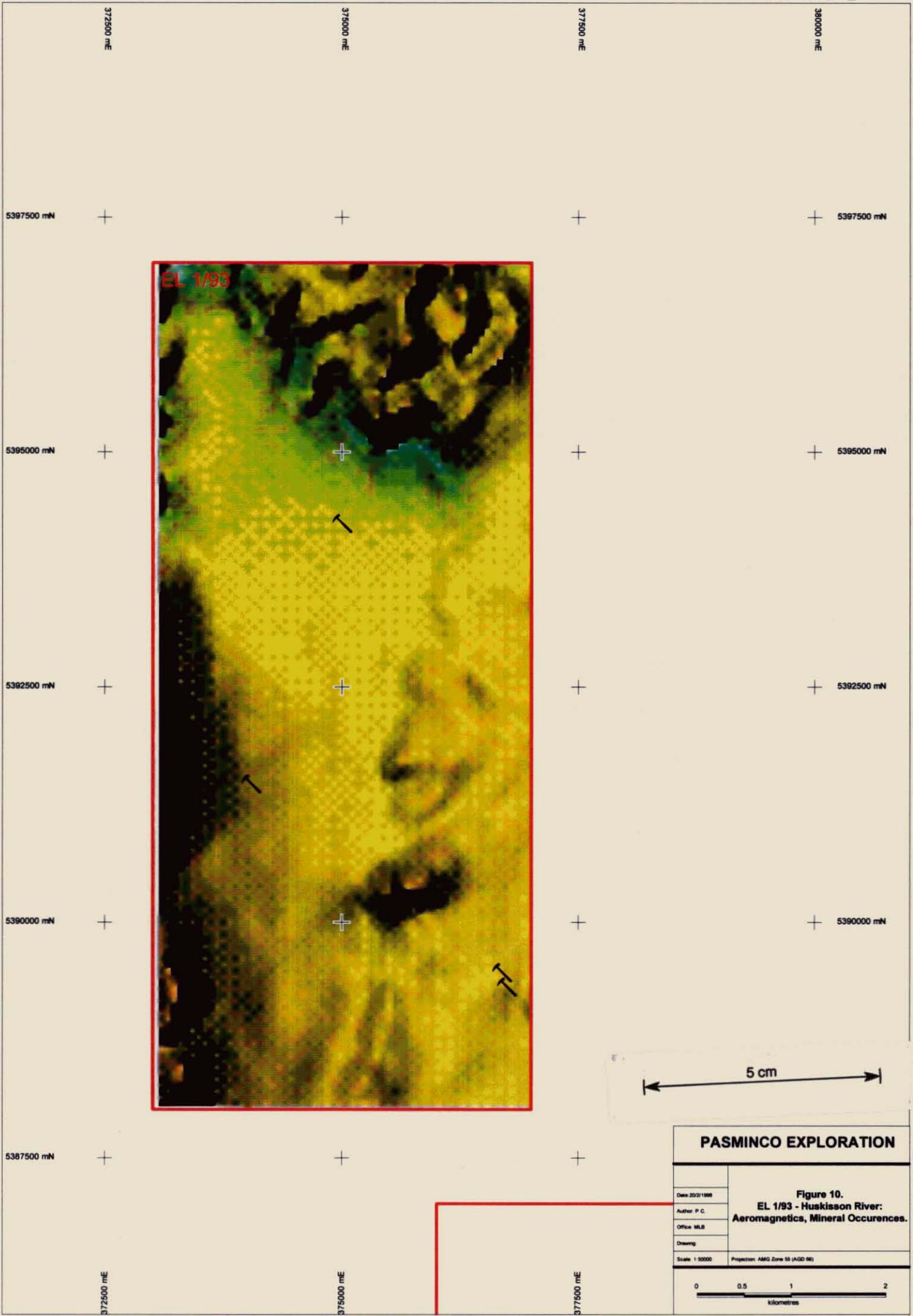


PASMINGO EXPLORATION	
Date: 20/2/1996	<b>Figure 7.</b> <b>EL 1/93 - Huskisson River:</b> <b>Soil Zinc Percentile,</b> <b>Zinc-Bearing Mineral Occurrences.</b>
Author: P.C.	
Office: MLS	
Drawing:	
Scale: 1:5000	Projection: AMG Zone 55 (AGD 86)

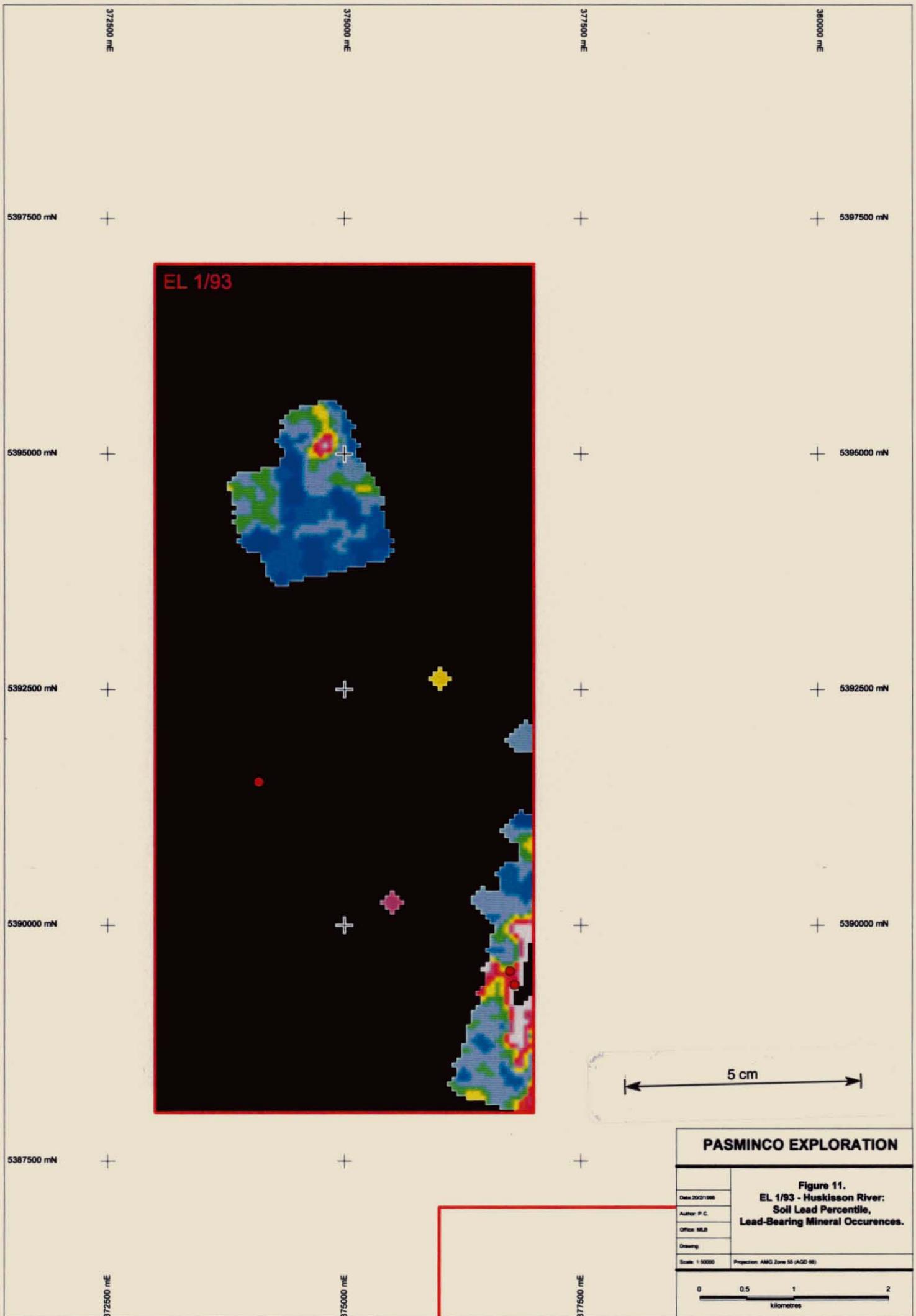


PASMINGO EXPLORATION	
Date: 202/1998	<p><b>Figure 8.</b>  <b>EL 1/93 - Huskisson River:</b>  <b>Rock Zinc Percentile,</b>  <b>Zinc-Bearing Mineral Occurrences,</b>  <b>Drillhole Collars, Grid Lines, Faults.</b></p>
Author: P. C.	
Office: MLS	
Drawing:	
Scale: 1:50000	Projection: AMG Zone 55 (AGD 85)
<p>0      0.5      1      2</p> <p>kilometres</p>	





PASMINGO EXPLORATION	
Date: 20/2/1998	<b>Figure 10.</b> <b>EL 1/93 - Huskisson River:</b> <b>Aeromagnetics, Mineral Occurrences.</b>
Author: P.C.	
Office: MLJ	
Drawing:	
Scale: 1:50000	
Projection: AMG Zone 58 (AGD 86)	

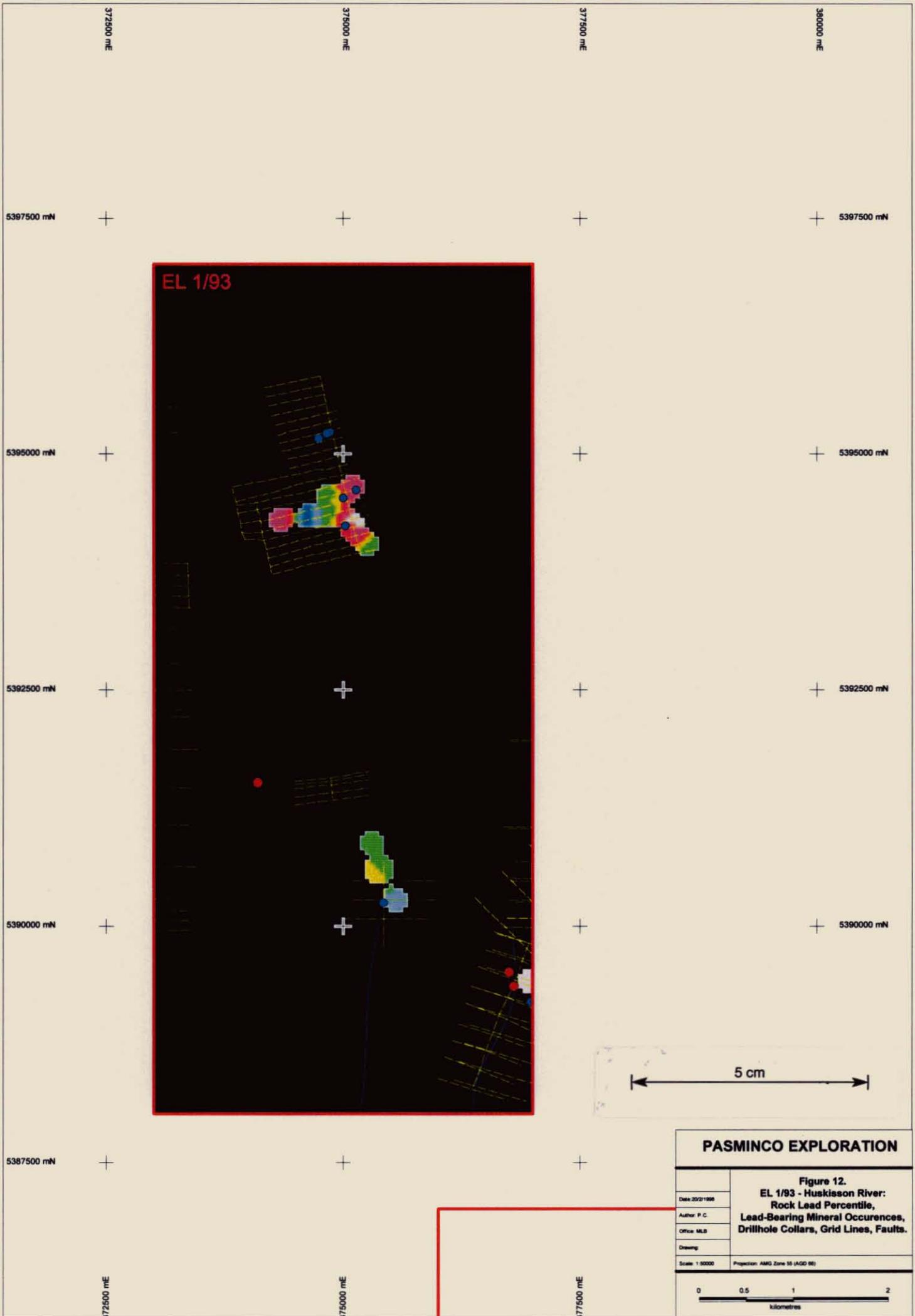


**PASMINCO EXPLORATION**

**Figure 11.**  
**EL 1/93 - Huskisson River:**  
**Soil Lead Percentile,**  
**Lead-Bearing Mineral Occurrences.**

Date: 20/2/1998	Projection: AMG Zone 55 (AGD 85)
Author: P.C.	
Office: MLB	
Drawing:	
Scale: 1:50000	

0 0.5 1 2  
kilometres



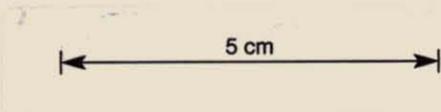
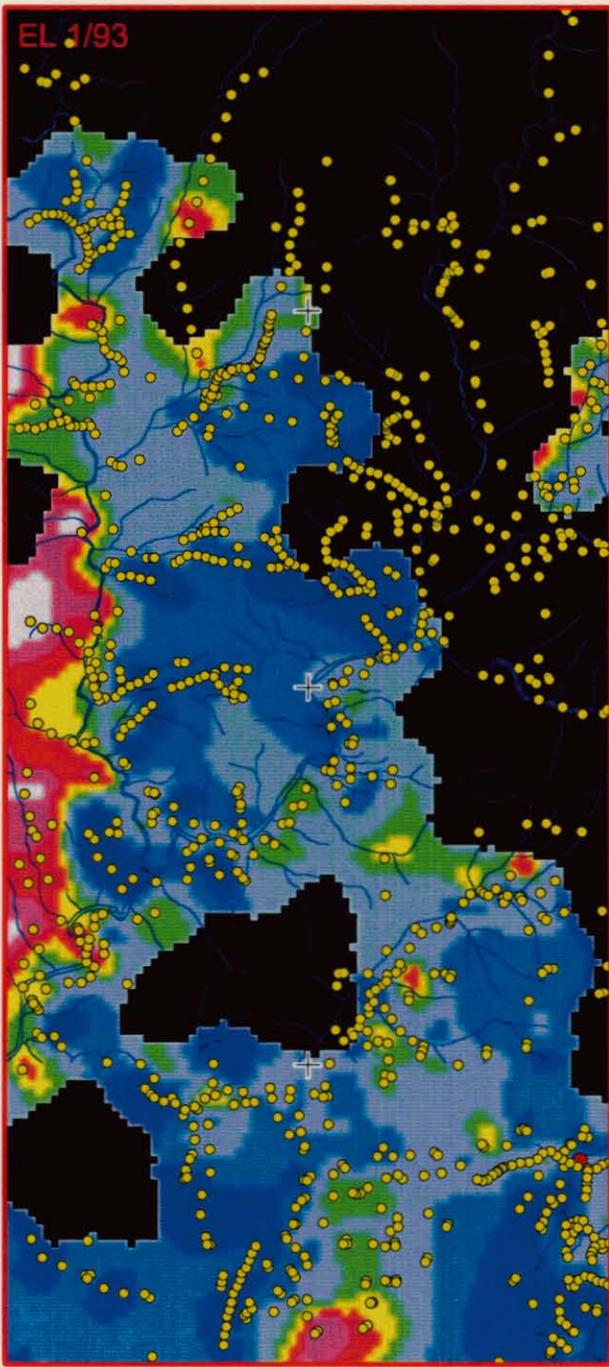
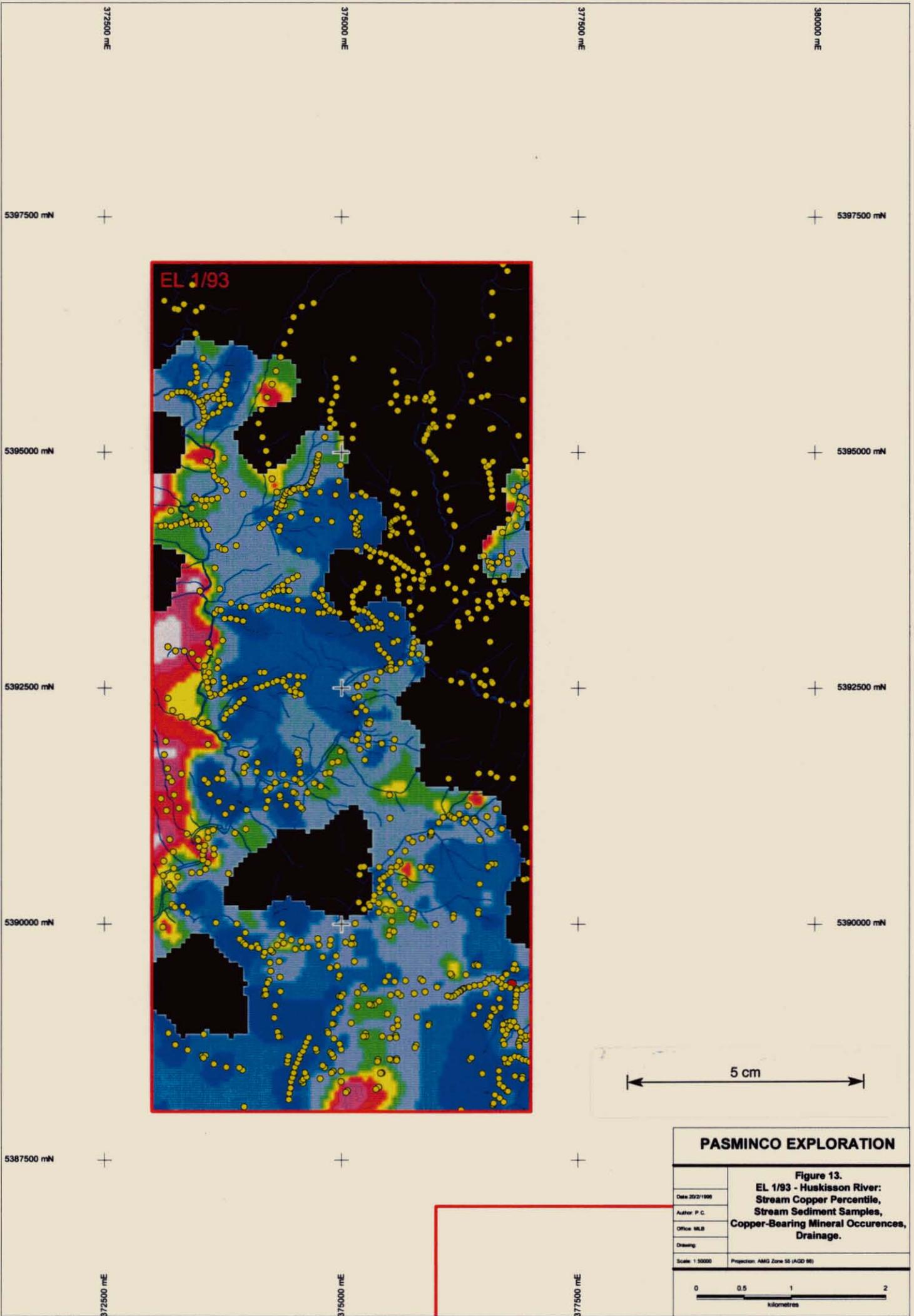
**PASMINCO EXPLORATION**

**Figure 12.**  
**EL 1/93 - Huskisson River:**  
**Rock Lead Percentile,**  
**Lead-Bearing Mineral Occurrences,**  
**Drillhole Collars, Grid Lines, Faults.**

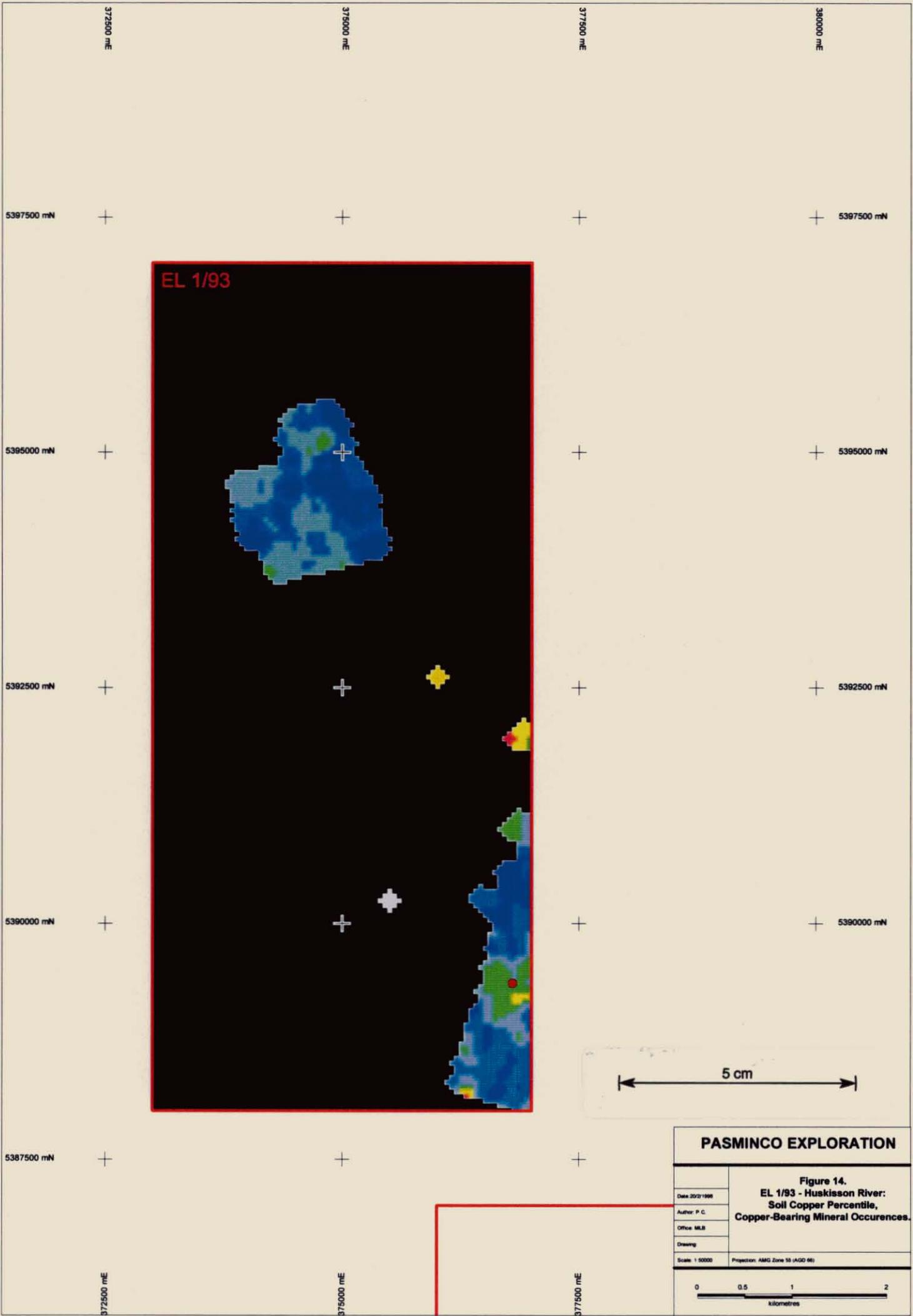
Date: 20/2/1998  
 Author: P.C.  
 Office: M.L.B.  
 Drawing:

Scale: 1:50000 Projection: AMG Zone 55 (AGD 85)





PASMINGO EXPLORATION	
<b>Figure 13. EL 1/93 - Huskisson River: Stream Copper Percentile, Stream Sediment Samples, Copper-Bearing Mineral Occurrences, Drainage.</b>	
Date: 20/2/1998	Projection: AMG Zone 55 (AGD 86)
Author: P. C.	
Office: MLB	
Drawing:	
Scale: 1:50000	

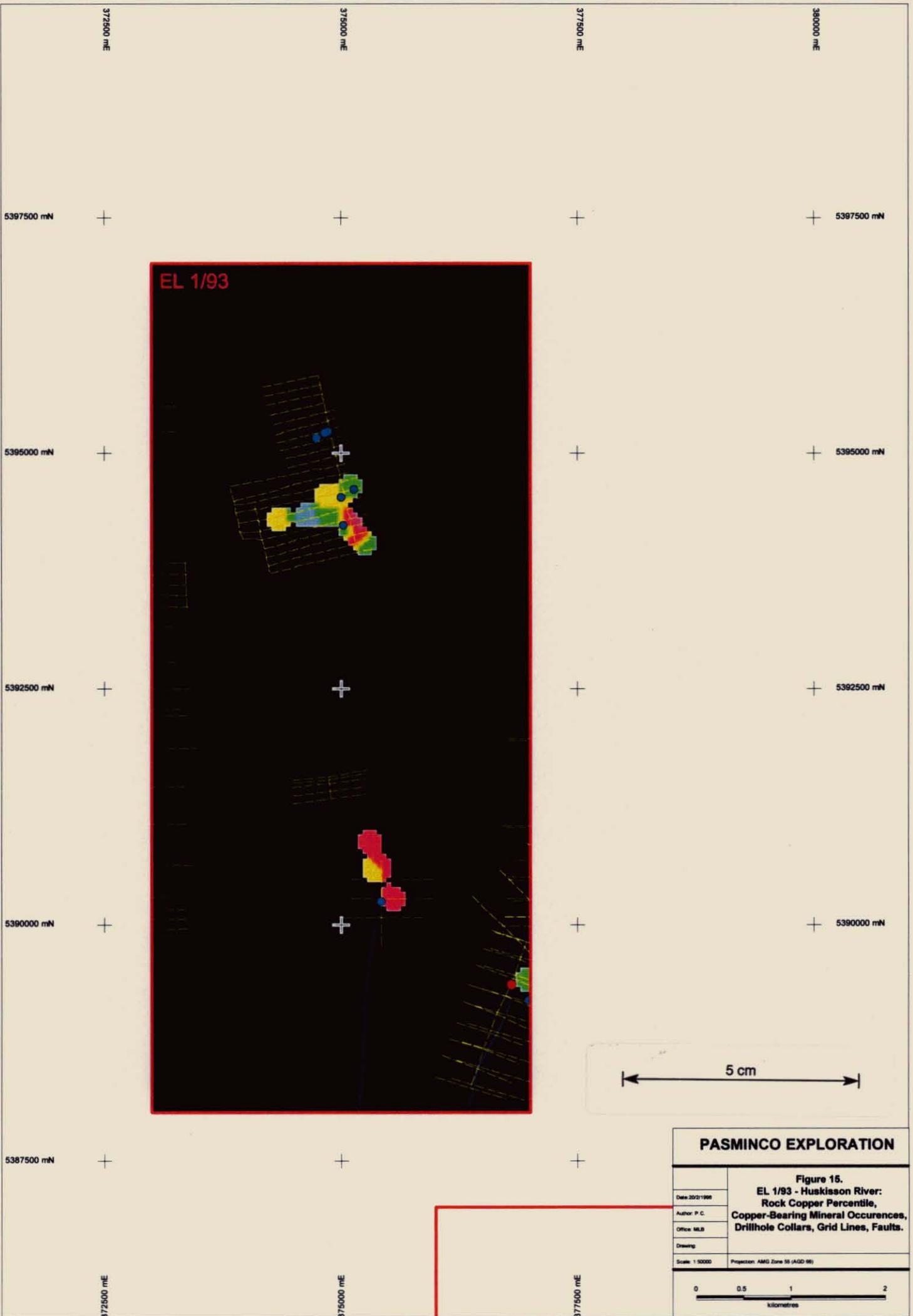


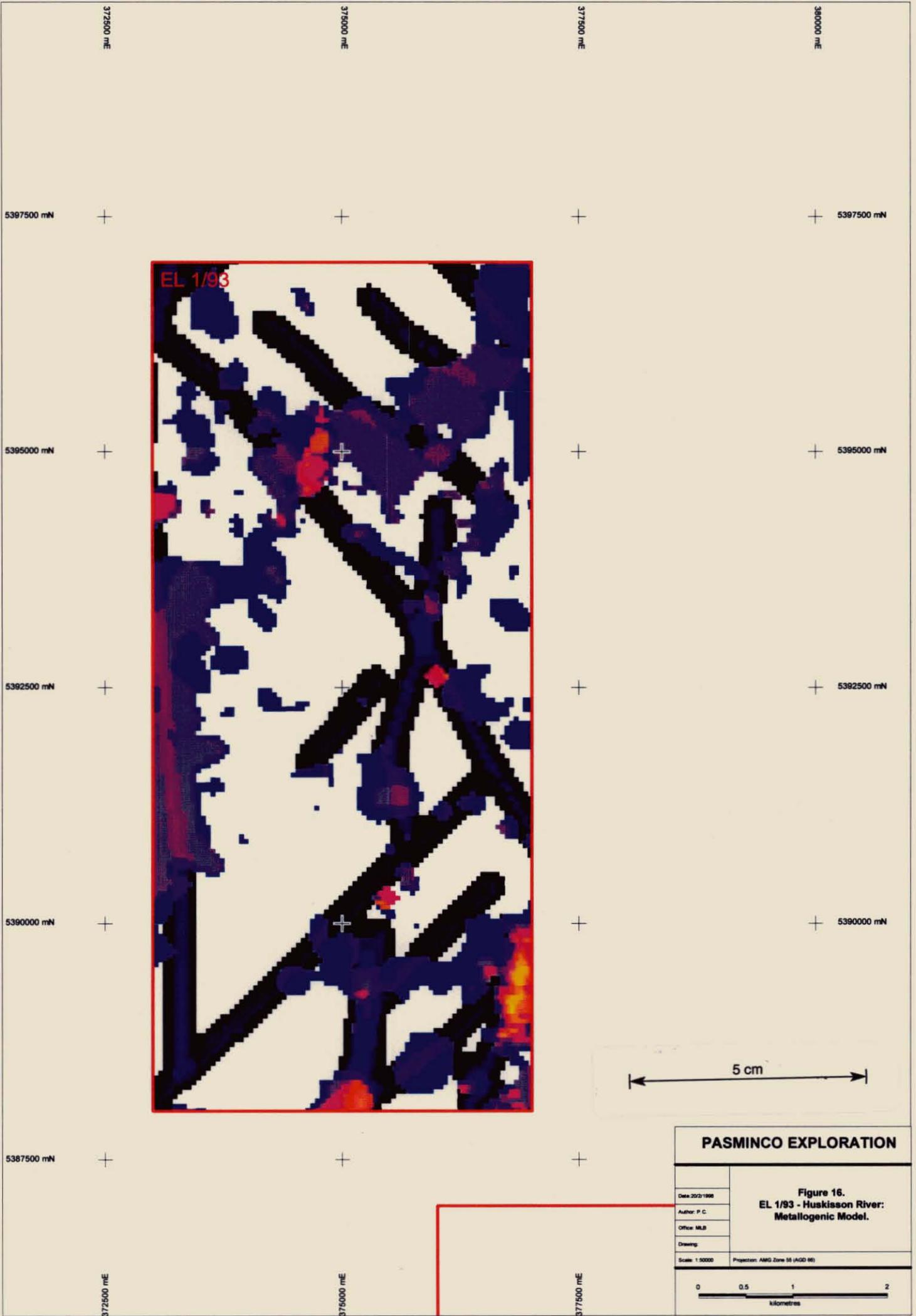
**PASMINCO EXPLORATION**

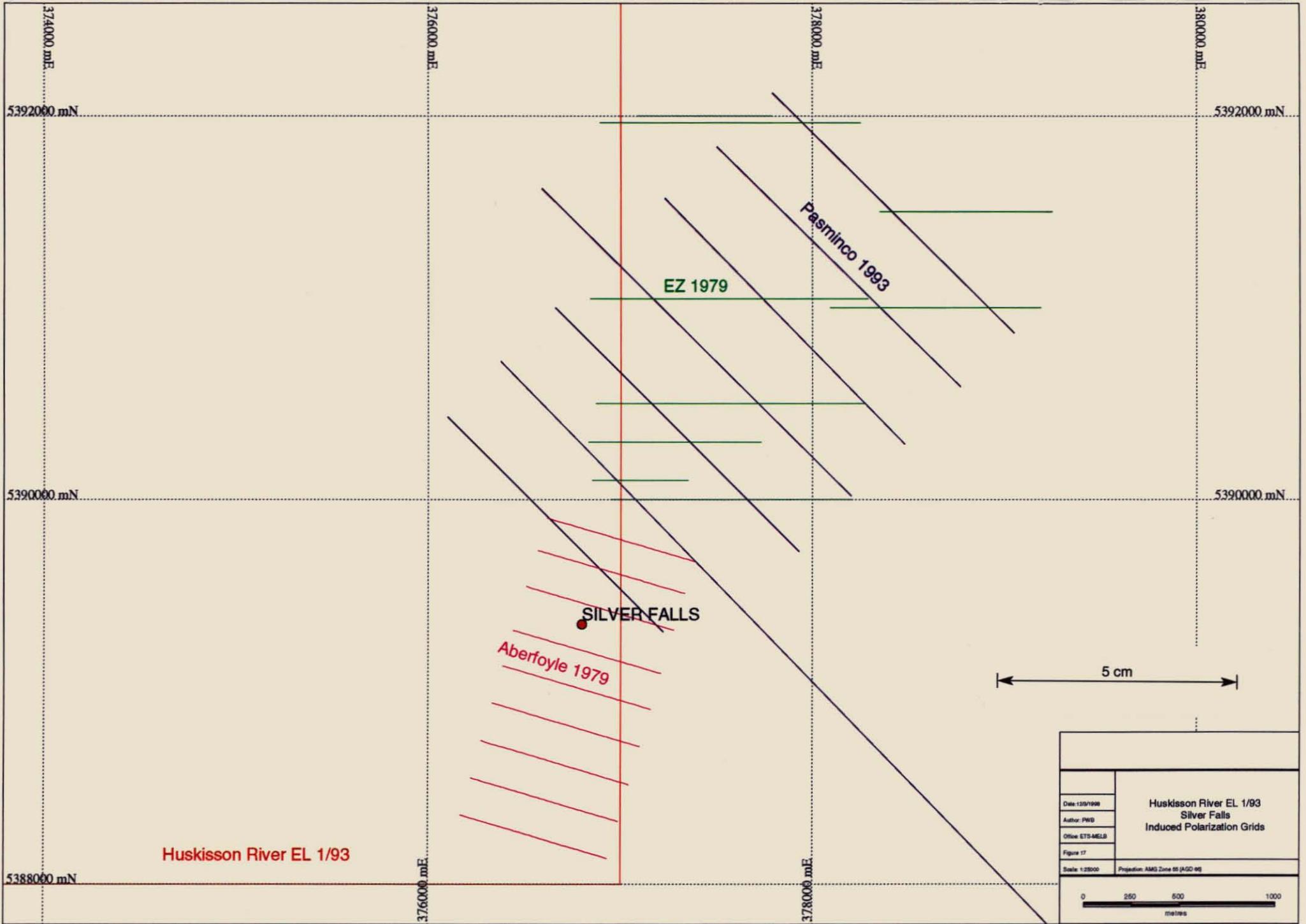
**Figure 14.**  
**EL 1/93 - Huskisson River:**  
**Soil Copper Percentile,**  
**Copper-Bearing Mineral Occurrences.**

Date: 20/2/1998	Projection: AMG Zone 55 (AGD 84)
Author: P.C.	
Office: MLB	
Drawing:	
Scale: 1:50000	

0 0.5 1 2  
kilometres







Huskisson River EL 1/93

SILVER FALLS

EZ 1979

Pasminco 1993

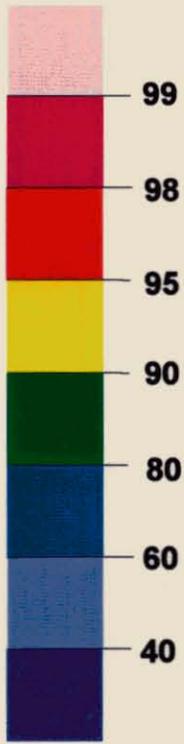
Aberfoyle 1979

5 cm

Date: 12/9/1998	<b>Huskisson River EL 1/93 Silver Falls Induced Polarization Grids</b>
Author: PWB	
Office: ETS-MELB	
Figure 17	
Scale: 1:2500	Projection: AMG Zone 55 (AGO 48)

237041

**Geochemical Imaging  
Percentile Legend**



### Geochemical Imaging Percentile Legend

