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CRA EXPLORATION PTY LIMITED

NO.	NO.	NO.	NO.
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DEPT. OF MINES			
REF. No. 4871/85			

HEEMSKIRK FALLS EL 30/79

PROGRESS REPORT to 15TH MAY 1985

MICROFILMED

Author: T W Dickson

Date: 23 April 1985

Submitted to: *TW Dickson*

Copies: CRAE Canberra
CRAE Hobart
Mines Department, Tasmania

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REPORT NO: 13263

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1. SUMMARY

One diamond drill hole was developed to test an airborne EM target which also returned weakly anomalous gold values from streams draining the area.

The hole traversed carbonaceous micaceous shales and quartz-mica meta sandstones with small quantities of disseminated pyrite ranging from 2-15%. However gold and base metal values were very low and no further work is warranted.

2. INTRODUCTION

Some 18 untested airborne EM anomalies were included in the Heemskirk Falls EL with the incorporation of the old Mines Department Reserve SP 1974 No. 141 in September 1983.

These anomalies were evaluated by a programme of rock chip and stream sediment sampling in May 1984. The results were not encouraging but it was decided to drill one hole to test anomaly 12 where gold values were reported from streams and rock chip samples.

3. CONCLUSIONS

EM anomaly 12 is due to the presence of from 2-15% pyrite in micaceous and carbonaceous sediments of the Oonah Formation. Only trace amounts of gold were detected but this would be sufficient to explain the traces of gold in stream sediment samples.

The results are considered typical of the remaining anomalies all of which returned lower geochemical responses.

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4. RECOMMENDATION

No further testing of the 18 anomalies is required and the Licence should be relinquished.

5. DRILLING

DD85 HF1 was collared at 359250m East and 5363330m North (AMG co-ordinates) and drilled at -60° to 206° AMG (195° magnetic). It was sited to intersect the peak of the EM anomaly at between 60-80 metres hole depth.

The hole traversed a sequence of carbonaceous micaceous shales and minor quartzite bodies with a background of 2-5° pyrite rising to 10-15% over the target zone of 60-80 metres. It is believed the pyrite and carbonaceous material adequately explain the EM anomaly while the trace of gold reported in occasional samples could easily explain the slightly elevated gold in samples from creeks draining the area.

A detailed geological log is appended while the drill hole collar position and section is shown on plans TASH 2041 and TASH 2550 respectively.

6. REFERENCES

Purvis	J G	1984	Heemskirk Falls EL 30/79 Initial Geochemical Evaluation of 19 Aerial EM Anomalies CRAE Unpublished Report No 12647
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7. KEYWORDS

Copper, lead, zinc, gold, black shale - pyritic
Drilling - Diamond

8. LOCATION

Queenstown 1:250 000 Sheet SK55-5

9. LIST OF PLANS

<u>Plan No</u>		<u>Scale</u>
TASh 2041 (In pocket)	Heemskirk Falls EL 30/79 Geological Plan	1:15 840
TASh 2550	Heemskirk Falls EL 30/79 Drill Section PD85 HF1 Looking West	1:1 000

10. LIST OF APPENDICES

Appendix 1 PD85 HF1 Drill Log

APPENDIX 1

PD85 HF1 DRILL LOG

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C.R.A. EXPLORATION PTY. LIMITED
DRILL CORE LOG

SHEET No. 2

TENEMENT NAME..... No.....

PLAN - MAP REFERENCE.....

CO-ORDINATES..... AZIMUTH..... DRILLERS..... COMMENCED..... DEPTH..... HOLE No. DRS.HF.1

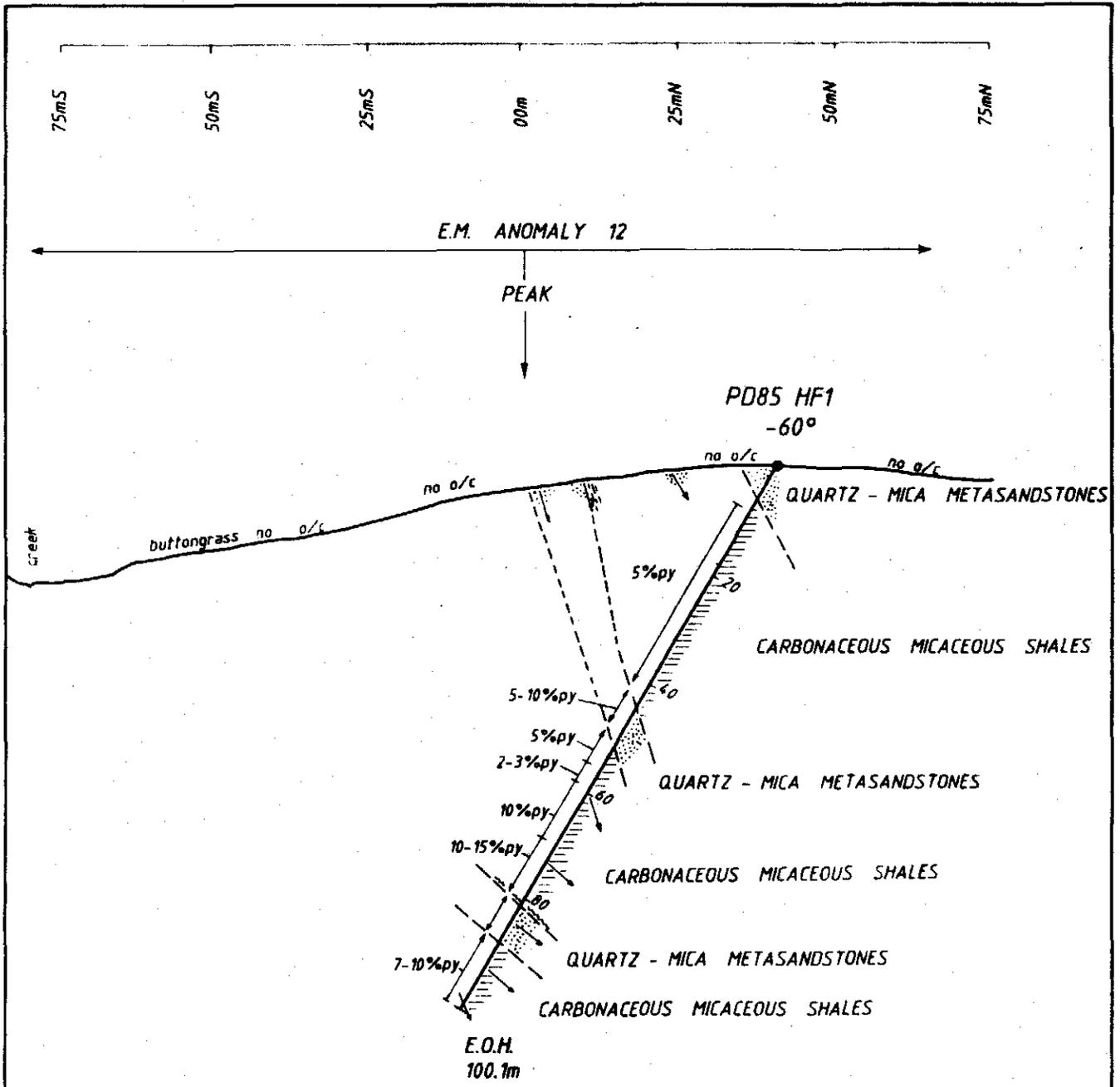
RL COLLAR..... INCLINATION..... DRILL TYPE..... COMPLETED..... CASING LEFT..... DPO No(s) 31929, 9?

DEPTH		Core Rec. (M)	Core Size	Graphic Log	CORE DESCRIPTION	SPECIAL FEATURES Weath, Alteration, Fracturing, Veining, Mineralization	Sample No.	From (M)	To (M)	Rec (M)	ASSAY VALUES (Analysed by <u>ANALABS</u>)										
From (M)	To (M)										Cu	Pb	Zn	Ag	Au	Ba					
51.75	59.80				MICACEOUS METASILTSTONES AND SHALES. 52-56m: 5% dissesem py DK grey to black. 56-59.8m: 2-3% dissesem py Mod gtrse, fi gr, partly carbonaceous conc in gtrse beds. Minor dk grey to black gtrse metassst. Some py in gtr veins, but most 5-10% vein gtr, av < 3mm. Some veins generally barren. vuggy (leached carbonate?) gtr veins to 15mm in metasandstone.		1154680	58	59.80		60	80	25	<.5	0.02	170					
CORING																					
59.80	81.00	17.65	NQ		CARBONACEOUS (GRAPHITIC) MICACEOUS 10% py, inc to 10-15% below 70m SHALES Generally dissesem, often ultra fi gr. Leader gtrse metasiltstones and Much in rounded grains - biogenic? metasandstones Some bedded dissesem - locally semi- Black to dk grey, fi gr. massive beds to 10mm. Below 69m Finely bedded (48°/LCA @ 60m; 77°/LCA @ 73m) massive py beds to 3mm. Mod metamorphosed - phyllitic, micaceous, 68.65-69m deformed clasts of with carbonaceous material in place massive py to 15mm x 5mm. converted to graphite. Some py in small sweat-outs: veins Badly broken throughout with numerous patches, gen // bedding. shears esp in graphitic zones. Minor py in some gtr veins. Shear 80.25-81m. Minor irreg gtr carb veins av < 5mm.		1154801*	59.8	62		60	65	90	<.5							
							802	62	64		50	75	60	<.5	X	185					
							803	64	66		60	80	45	<.5							
							804	66	68		95	25	100	<.5	X	210					
							805	68	70		60	35	55	0.5							
							806	70	72		55	55	50	<.5	X	190					
							807	72	74		70	70	35	<.5							
							808	74	76		50	45	35	<.5	X	155					
							809	76	78		60	55	30	<.5							
							1154810	78	80		45	45	30	<.5	X	175					
							811	80	82		55	30	65	0.5							
							812	82	84		60	50	140	0.5	X	175					
							813	84	86		55	40	100	0.5							
							814	86	88		60	50	45	<.5	X	145					
81.00	88.00	6.40	NQ		QTZ-MICA METASANDSTONES AND 10-15% py. Mostly as ultra fi gr dissesem METASILTSTONES - often bedded. Much in rounded grains DK grey, partly carbonaceous. - biogenic? Leader black carbonaceous micaceous Some beds of massive py (<1mm) and shales and metasiltstone. semi-massive py (to 12mm). Mod metamorphosed - phyllitic, some graphite. Some py in veinlets <1mm. Mod broken. Finely bedded - some folding V minor py in gtr veins. (bedding 80°/LCA @ 83.8m).		815	88	90		60	35	55	0.5							
							816	90	92		40	90	30	<.5	X	150					
							817	92	94		45	85	40	0.5							
							818	94	96		50	80	30	<.5	X	140					
							819	96	98		70	90	70	1.0							
							1154820	98	100.10		55	80	30	<.5	X	120					

* NB: 1154801-820 are grind samples.

* X = Below DL of 0.008

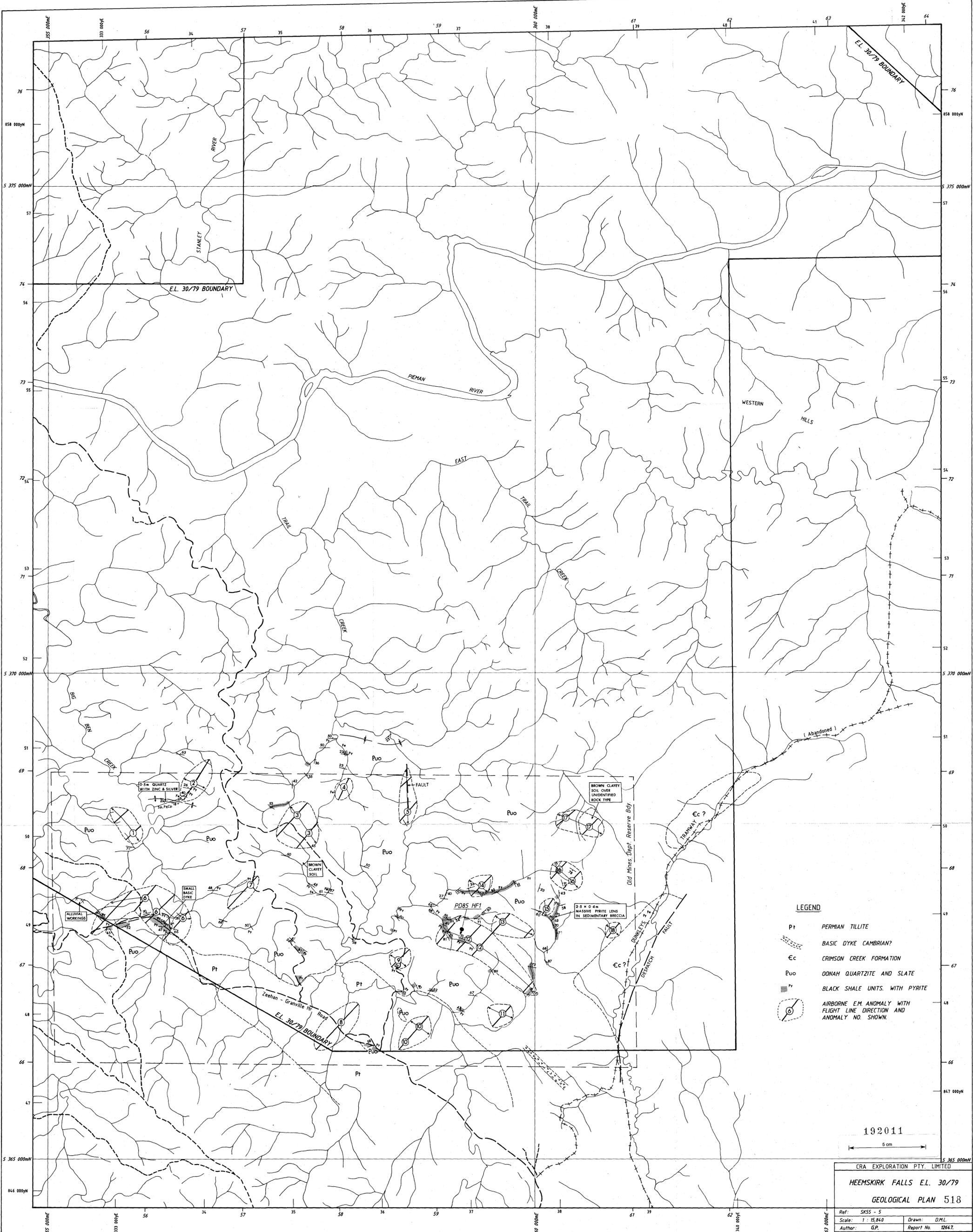
192010



LEGEND

- QUARTZOSE METASILTSTONE AND METASANDSTONES
- BLACK SHALES
- BEDDING
- GEOLOGICAL CONTACT
- SHEAR

CRA EXPLORATION PTY. LIMITED			
HEEMSKIRK FALLS E.L. 30/79 DRILL SECTION PD85 HF1 LOOKING WEST			
REF.	SK55 - 5		
SCALE	1 : 1000	DRAWN	R.T.
AUTHOR	G.P.	REPORT No.	
DATE	14 3 1985	PLAN No TASH 2550	



LEGEND

Pt	PERMIAN TILLITE
	BASIC DYKE CAMBRIAN?
Cc	CRIMSON CREEK FORMATION
Puo	OONAH QUARTZITE AND SLATE
Ps	BLACK SHALE UNITS WITH PYRITE
	AIRBORNE EM ANOMALY WITH FLIGHT LINE DIRECTION AND ANOMALY NO. SHOWN.

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 5 cm

CRA EXPLORATION PTY. LIMITED	
HEEMSKIRK FALLS E.L. 30/79	
GEOLOGICAL PLAN 518	
Ref: SK55 - 5	Drawn: D.M.L.
Scale: 1 : 15,840	Report No. 12647
Author: G.P.	Date: 27 - 9 - 1984
Plan No. TASH 2041	