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#### **SML 571 AND SML 640**

#### **SUNDOWN**

## PROGRESS AND FINAL REPORTS FOR THE PERIOD 29/4/71 TO 27/10/72

Submitted by R.M.C. Minerals Pty Ltd 1972

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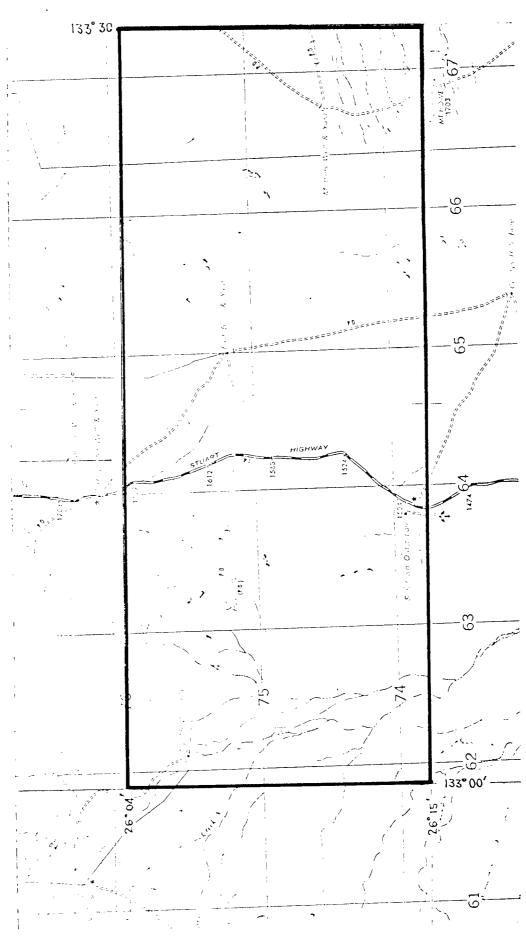
TENEMENT: S.M.L. 571

TENEMENT HOLDER: R.M.C. Minerals Pty. Ltd.

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1648(III)-3

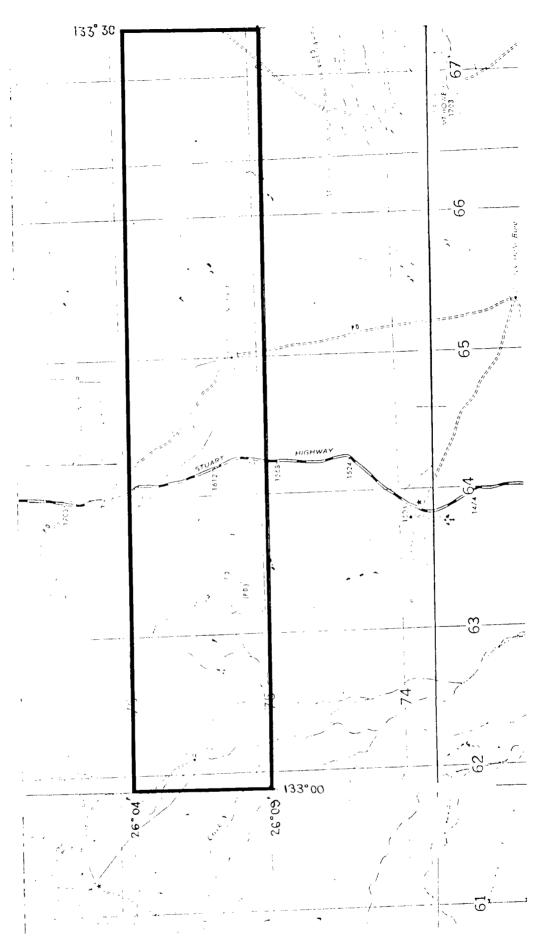


SCALE 1:250,000

RMC MINERALS PTY LTD.

DOCUMED DM. 491/71 AREA 393 SQ MILES
ALBERGA .

-17/



SCALE 1:250,000

RMC MINERALS PTV LTD.

DM. 1074/71 178

ALBERGA

640

6.

27.10.72

R.M.C. MINERALS PTY. LTD.

S.M.L. 571

PROGRESS REPORT TO

29th JULY, 1971



Report By:
B. Param

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III - Ground Magnetics

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#### Introduction

Special Mining Lease 571 covering some 393 square miles was granted on 29th April, 1971. It is in an area adjoining the Kenmore Park area where the Department of Mines have reported presence of ultrabasic (serpentinite) rocks with encouraging nickel values.

Our exploration so far has been directed towards geological mapping, geochemistry and ground magnetics. Work is continuing in this direction and no conclusions will be made until the first phase of work is completed.

#### Topography

For the most part the prospect consists of a sandy plain, locally broken by abrupt protrusions of mafic rocks. These latter form small ranges that have an almost east-west trend. The country is drained by the Alcurra Creek which runs through the South Western portion of the prospect. Minor streams are located elsewhere in the prospect which run only after a torrential rainfall. All the creeks are seasonal.

The region is subjected to a dry arid climate. The rainfall which is about 5-6" annually mainly during summer is very unreliable and diurnal temperature variations support only scant vegitation.

#### Geology

The basement rocks in the area is believed to be of Pre Cambrian age belonging to the Musgrave Metamorphics. This is part of the Musgrave Block that extends into the Northern Territory and Western Australia. In the south the Block deepens into the Adelaidean system and in the north east extend under the Great Artesian Basin.

The basement complex, which has been subjected to numerous tectonic events, is made up of granulites, gneiness and granites. However, the major shear system in the Musgrave Block appears to be responsible for a series of basic and ultrabasic intrusions which is now referred to as the Giles Intrusive Complex.

These intrusives occur as dykes and is represented as small ridges and make prominent features in an otherwise monotonously flat surrounding.

It appear that these dykes are associated with the Adelaidean Tectonics. The regional trend appears to be east-west with dips steeply to the west. The rock types are broadly classified as Amphibolites and Pyroxene granulites.

No detailed petrographic work has been done on these rock types but to postulate a theory, it is believed that some of these dykes could have been ultramafic in origin.

Subsequent metamorphisum have now rendered these as Amphibolites and pyroxene granulites. There is however no evidence available to support this view but it is hoped that some of the rocks collected would throw some light on this subject.

#### Geochem Soil Sampling

The magnetic intensity map being prepared by the Department of Mines shows some trend on the Alcurra sheet. Using this as a guide four lines were superimposed over an area approximately 8 miles by 2 miles. Auger samples were collected along these lines every 500 feet apart. These samples are bedrock samples and have been assayed for copper, nickel and cobalt. A total of 240 samples were collected in the area. The results are shown on the accompanying map. A few of the results are still to hand.

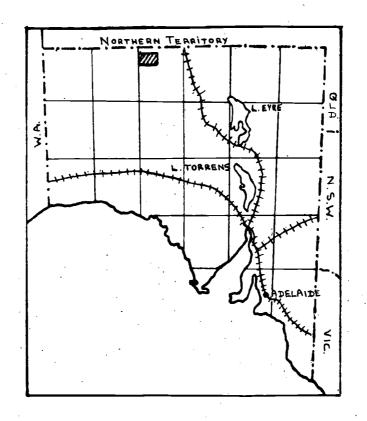
#### Ground Magnetics

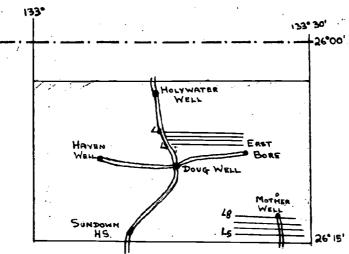
A Jalander Magnetometer was used to obtain ground values over the above sample locations. The values obtained range from 4000 gammas to over 6000 gammas. The significance of these values is still unknown although when plotted up there is very little local relief apparent. However for comparison, an area to the south where known Serpentinites occur the magnetic values are of comparable degree. Interpretation of the magnetic readings, it is hoped, would be easier when more geochem and the geology of the area is known.

The plotted values are shown on the accompanying map.

Although a total of 240 samples were collected only 200 have been analysed so far and hence charged only for 200.

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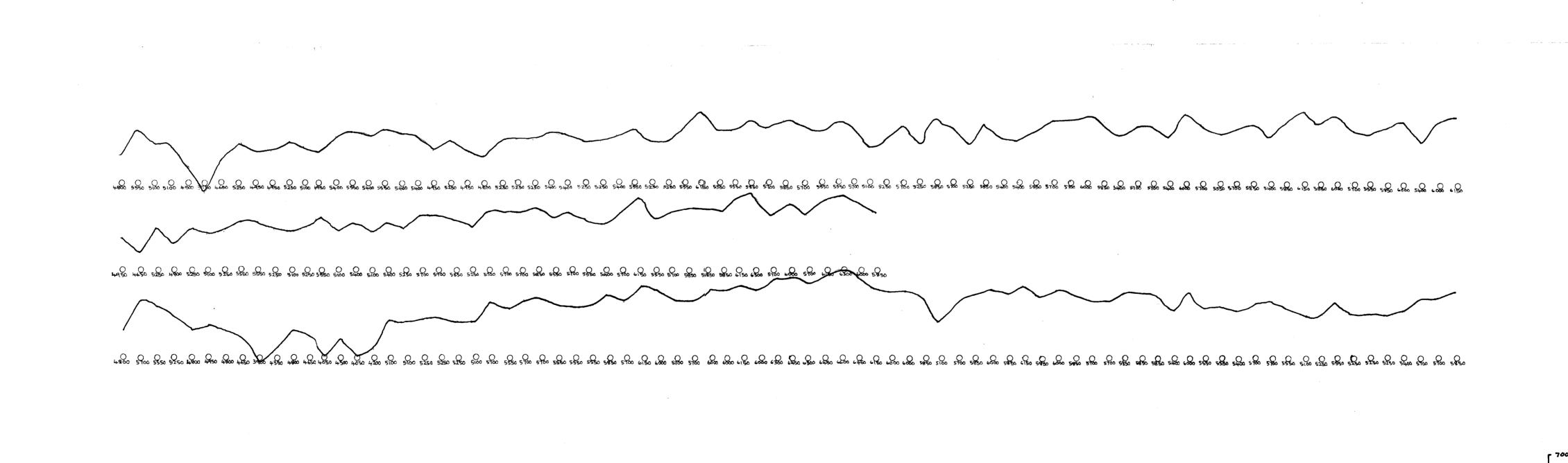


APPENDIX I

## RMC MINERALS PTY LTD

## Sundown Nickel Prospect Location Map

Date: 4-8-71	Geology B.C.Param
Scale:	Drawn by: L. D. S.
Revisions:	File No : 1053



ENV 1648(I)-

RMC MINERALS PTY LTD SUNDOWN GROUND DEPT. OF MINES
SECURITY
1648

revisions:

MAGNETICS geologist: B.C. Param drawn by: L.D.5 file no.:1043.

ENV 1648(I) - 2

RMC MINERALS PTY LTD

RECEIVED
6 AUG 1971
DEPT. OF MINES
SECURITY
1648

SUNDOWN GEOCHEM

RESULTS
Showing Copper P.P.M.

geologist: B.C. Param.
drawn by: 4.D.\$
file no::1044 date 16-7-71 scale 1" = 2000' revisions

ENV 1648(I)-3

APPENDIX II

RMC MINERALS PTY LTD

RECEIVED

6 AUG 1971

DEPT. OF MINES

SECURITY

16 48

SUNDOWN GEOCHEM

RESULTS showing Nickel p.p.m.

date: 27-7-71 geologist: B.C. Param scale 1" = 2000' drawn by: L.D.S revisions file no.:1048.

ENV 1648(I)-4

RMC MINERALS PTY LTD

RECEIVED

6 AUG 1971

DEPT. OF MINES

SUNDOWN GEOCHEM

RESULTS
Showing Cobalt P.P.W.

geologist: B.C. Param drawn by: L.D.5 | date: אר-דב | scale: אי בססס'

revisions file no 1049.

Application Dated:	'/7/71		Submitting Officer	Mr. B.	Param	
Project: Sundown	Job No	J111	Authorised:			
Sample Description:		Soi	l Samples			
Work Required:						
Your Ref.:	,				<u>.</u>	
Report Sent to:	Mr.	B. Param				
Analytical Report No.:			Date: 14/7/71			·
Analytical Technique			R.M. Std. Method I	No		
Chemist in Charge	Klay		Analyst No	1 & 2 & 3		

<u>,                                      </u>	t in Charge.	·····			Analyst	No.: 1 & 2 & 3	1				
Sample	Analytical	•		Required	<u> </u>	, _		Estimate			
Mark	Reference Number	Cu. ppm	Ni. ppm	Co. ppm		Description					
Ine 1 OE 1E 2E 3E 5E 6E 7E 8E 90E 11E 15E 15E 15E 20E 21E 25E 27E 28E 29E 33E 33E 33E 33E 33E 33E 33E 33E 33E 3		130 90 135 135 135 135 135 135 135 135 135 135	310050005505500000550000050000000000000	35550 3550 3550 3550 3550 3550 3550 355							

Application Dated:	7/7/71 •	Submitting Officer:	Mr. B. Param
		Authorised:	
		L Samples	
Work Required:	Copper, Nicke	L & Cobalt geochem deter	mination
Your Ref.:	Sundown - Jlll	Number of Samples:	81
Report Sent to:	Mr. B. Param		
Analytical Report No.:.	:	Date: 14/7/71	•
Analytical Technique E	mployed: A.A.S.	R.M. Std. Method No	
Chemist in Charge	play	Analyst No.:	1 & 2 & 3

Sample Analytic		Analyses F	Required		1		E:	stimate	١.
Sample Analytic Referenc Number	Cu	Ni.	Co.	• .	Description	- :			
ine 1 42E 43E 44E 45E 46E 47E 48E 49E 50E 52E 53E 54E 55E 56E 57E 58E 56E 66E 67E 68E 67E 76E 77E 78E 79E 80E	25 20 45 35 30 35 45 20 35 45 30 30 40 40 40 40 40 40 120 120 120 120 120 120 120 120 120 12	45,45,55,50,50,50,55,55,50,50,50,50,50,50,50	15 20 20 20 20 20 20 20 20 20 20 20 20 20						

## READYMIX CHEMICAL TESTING LABORATORIES INTERNAL ANALYTICAL REQUEST AND REPORT

Application Dated:	7/7/71		Submittir	ng Offic	er: Mr.	B. Pa	ram	
Project: Sundown	Job No	J113	Authorise	ed:				
Sample Description:		Soil	Samples					
Work Required:	Copper	, Cobalt & 1	Nickel det	ermina	tion			
Your Ref.:	Sund	own - J113	Number	of Samp	les:l	17		
Report Sent to:		Mr. B. Pa	aram					
Analytical Report No.:								
Analytical Technique Er	nployed:	A.A.S.	R.M. Std.	Method	l No		<del>-</del>	
Chemist in Charge								

Sample	Analytical	Analytical Analyses					lo.: 1 & 2 & 3		Estimate		
Mark	Reference Number	Cu. ppm	Co. ppm	Ni. ppm		Descr	iption				
e 2 <b>6</b> E 1E 2E 3E		160 45 45 25	30 25 20 20	120 115 45 35							
це 5е 6е 7е 8е		280 20 435 100 20	20 25 20 20 10	35 35 35 45 35 20		:	· •				
9E 10E 11E 12E		55 10 15	5 5 5 5	25 25 20		·	•				
13E 14E 15E 16E 17E 18E		5 15 15 25 20 50	20 5 15 20 10 15	15 35 25 20 45 20 25	•					,	
19E 20E 21E 22E 23E		20 15 20 35 100	15 10 10 10 10	30 . 30 30 20 20	, ** 47E8*	* .		5.0			
24E 25E 26E 27E 28E		20 15 5 25 15	15 15 15 20 15	30 20 15 35 20		,					
29E 30E 31E 32E 33E 31E		20 20 20 40 30	15 20 20 20 20 20	30 35 30 35 35 35	,						
33E 34E 35E 36E 37E 38E 39(a)		30 15 15 15 30 15	20 15 15 15 20 25	35 30 35 35 30 35 35 35 35 35						ja)	

Application Dated:	7/7/71	Sub	mitting Office	r: <u>M</u> 1	r. B.	Param
Project: Sundown	Job No	J113 Aut	horised:			
Sample Description:		Soil Sample	98			
Work Required:	Copper, C	Cobalt & Ni	ckel Determi	nation		
Your Ref.: Si					<u>.</u>	
Report Sent to:	Mr	. B. Param			<u> </u>	
Analytical Report No.:		Dat	e: 23/	7/71		
Analytical Technique Em	nployed: A.A.	S. R.A	1. Std. Method	No	<u>.</u>	
Chemist in Charge	ffl? dy-	Ana	lyst No.:	1 & 3 &	2	

Chemi	st in Charge		Mi dy		Analyst	No.: 1 & 3 & 2	 			
Sample	Analytical	•	Analyses Required				Estimate			
¶Sample Mark	Analytical Reference Number	Cu. ppm	Co. ppm	Ni. ppm		Description				
40E 41E 42E 43E 44E 45E		25 20 65 25 10 25	20 15 20 20 10 20	35 30 65 35 25 35				·		
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»• >					Anderson (	The transfer of the second of				
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g <sup>l</sup> .						i				

## SUNDOWN MAGNETOMETER READINGS

	Location	Gammas
Line l	Location  O-E 1-E 2-E 3-E 4-E 5-E 6-E 7-E 8-E 9-E	4800 5700 5550 5250 4800 4950 4800 4650 3900 4350
	10-E 11-E 12-E 13-E 14-E 15-E 16-E 17-E 18-E 19-E 20-E 21-E 22-E 23-E 24-E	4800 4650 4050 4500 4050 4200 5100 5100 5250 5250 5250 5700 5550
	25-E 26-E 27-E 28-E 29-E 30-E 31-E 32-E 33-E 34-E 35-E 36-E 37-E 38-E 39-E 40-E	5700 5550 5550 5550 5550 5700 6150 6000 5700 5700 6000 6150 6000 6300 6450

	Location	·	Gammas
<b>.</b>	la m		6300
Line 1 cont.	11-E		6450
	42 <b>-</b> Е 43 <b>-</b> Е		6600
	45 <b>-</b> E 44 <b>-</b> E		6450
	44 <b>-</b> E 45 <b>-</b> E		6150
			6000
	46-E		6000
	47-E		5850
	48-E		5100
	49 <b>-</b> Е 50 <b>-</b> Е		5700
	50 <del>-</del> E		5850
	52 <b>-</b> E		6000
•	53 <b>-</b> E		5850
	54 <b>-</b> E		6150
•	55 <b>-</b> E		5850
	56 <b>-</b> E	,	6000
	57 <b>-</b> E		5850
	58 <b>-</b> E	-	5700
	59 <b>-</b> E		5700
	60-E		5850
	61 <b>-</b> E		5850
	62 <b>-</b> E		5850
	63 <b>-</b> E	•	5400
	64 <b>-</b> Е		6000
	65 <b>-</b> E		5550
	66 <b>-</b> E		5550
	67 <b>-</b> E		5400
	68 <b>-</b> E		5700
•	69 <b>-</b> E		5700
	70 <b>–</b> E		5550
	71- <u>E</u>		5100
	72 <b>-</b> E		5250
	73-E		5550 5350
	74-E		5250
_	75 <b>-</b> E		5250 5250
	76 <b>-</b> E		5400
	77-E		5700
	78 <b>-</b> E		5700
	79-E 80-E		5850
	OO-E		

	Location		Gammas
Line 2	0-EEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEE		4950 4950 4950 4950 4950 4950 4950 4950
	41-E 42-E 43-E 44-E	. •	5700 6150 6300 6000

	Location		Gammas
Line 3	0-E 1-E 2-E 3-E 4-E 5-E		4800 5550 5100 5100 4500 3750
	6-E 7-E 8-E 9-E 10-E 11-E		4650 5250 4950 4950 5250 5100
	12-E 13-E 14-E 15-E 16-E		4950 5400 5550 5400 5550
	17-E 18-E 19-E 20-E 21-E 22-E 23-E 24-E 25-E		5400 5400 4950 5250 4950 4800 5250 5250
	26-E 27-E 28-E 29-E 30-E 31-E 32-E	,	5400 5400 5250 5250 5400 5550 5250
	33-E 34-E 35-E 36-E 37-E 38-E 39-E 40-E		5250 5550 6150 5550 5550 5850 5700 5850

	Location	Gammas
Line 3 cont.	1-E 1-E 1-E 1-E 1-E 1-E 1-E 1-E	5700 5550 5700 5700 5700 5250 5700 52500 5700 57

R.M.C. MINERALS PTY. LIMITED



S.M.L. 571

PROGRESS REPORT TO

29.10.71



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#### APPENDIX

I.	Regiona	al Geochemis	try	A	
II.	11	11		В	
III.	Detaile	ed Geochemis	try.	Area	1
īv.	11	11		Area	2
٧.	Ground	Magnetics	Area	1	
VΤ	11	11	Area	2	

#### 1. Introduction

This quarterly report is intended to cover the period 29.7.71 to 29.10.71. The S.M.L. was granted to us initially for a period of six months commencing 29th April 1971. During this period we carried out geochemical and rock chip sampling of the area on a reconnaissance scale and have outlined two somewhat anomalous areas for copper.

On 29th September 1971 we applied to the Director of Mines for an extension of time on the S.M.L. and in so doing reduced our original area to half its size. It is believed that our application has been recommended for approval.

#### 2. Our Company Investigation

In our previous report we had stated that the area was initially outlined as a possible nickel bearing area in view of the work carried out at Kenmore Park by the Dept. of Mines. However during our investigations we have found that the geochem values for Nickel and Cobalt are very low indicating the total absence of any ultrabasic rock types in the area.

However, the dyke like intrusion of mafic rocks (Metagabbros & Amphibolites) have shown some trace of copper and our investigations have therefore been directed towards this.

Our original sampling was carried out with an Auger over an area approximately 4 miles long and 1 mile wide.

Four lines 1/2 mile apart were run in an east-west direction. Samples were collected every 500 ft. along these lines.

- 2 -

We obtained two definite anomalous zones for Copper. One rock sample assayed reported 1.2% Copper.

The two zones designated Area 1 and 2 were then gridded on a line interval/sample interval ratio of 4:2 These samples were assayed for Cu. Pb. & Zn. Results are shown in Appendix II.

A few rock samples collected from the same area were also assayed for Cu. Pb. Zn. The results are shown in Appendix II.

#### Area 1

A total of 137 samples were obtained. These were assayed for Cu. Pb. & Zn. Six samples were chosen at random for Molybdenum determination. We chose only three as an initial check.

The background values for Copper, Lead and Zinc were calculated as 90, 80 and 55 respectively.

One of the most significant features of the area is the general north west - south east trend of the anomalies. This is especially seen in the Pb & Copper overlays while in the more mobile Zn overlay it is somewhat less obvious.

Another interesting feature is that several samples have significantly high Cu. Pb. & Zn. values. These are listed below.

12s - OE 6E 10E

20s - 26E 28E

Only sample No. 20s - 28E was a rock sample, all others being soil bedrock samples.

The lead values are significantly higher than the average for mafic rocks (12 - 15 ppm)

Similarly the Molybdenum content of mafic rocks average about 1.7 ppm, while our samples have reported significantly higher values.

#### Area 2

. .

As in Area 1 above, the general NW/SE trend appears to continue here. The Pb. and Cu. values are again higher than the more mobile zinc values.

However, the copper background for this area is 135 ppm which is much higher than that for Area one. The background for Pb & Zn are 50 ppm each.

The coincident high Cu. Pb. & Zn values were noted on line 4s 16E. High Cu. & Pb values are reported in the following samples.

4s - 16E

8s - 14E

12s - 10E

All the above samples are rock samples.

### Conclusion

Detailed Geochemistry has revealed NW/SE trending anomalies. The anomalies are supported by values more than twice the background value for the area. Hence these anomalies need to be studied in detail. It is hoped that initially a few test holes down to 150 feet can be inserted. These would enable us to know more about bedrock geology in the area. A programme for this work would be commenced shortly.

Application Dated:	26/7/71	Submitting Officer: Mr. B. Param	
Project: 20	Job No. J 11/4	Authorised:	
Sample Description:	Sundown -	geochem soil samples	
		Cobalt determination	
Your Ref.:	J11¼/1-81	Number of Samples: 81	
Report Sent to:	Mr. B. Para	m	.,
Analytical Report No.:	<b>qu</b>	Date: 5/8/71	
		R.M. Std. Method No.	
Chemist in Charge	May	Analyst No.: 1 & 2 & 3	

		Analyses		 No.: 1 & 2 & 3	1	 stima		
Sample Analytical Reference Number	Cu.	N1. ppm	Co. ppm	Description		 Stima	le	
OE 1E 3E 5E 7E 9E 10E 11E 15E 16E 17E 20E 21E 25E 27E 29E 30E 31E 20E 21E 21E 21E 21E 21E 21E 21E 21E 21E 21	530 5 10 10 2 30 7 20 5 80 22 5 5 5 10 10 2 30 7 20 5 80 20 5 5 10 10 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 5 20 20 20 20 20 20 20 20 20 20 20 20 20	35 35 35 35 36 36 36 36 36 36 36 36 36 36 36 36 36	10 10 20 5 10 30 10 15 15 15 15 15 15 15 15 15 15 15 15 15	Pebbles from 15-	19*			

## INTERNAL ANALYTICAL REQUEST AND REPORT

	Applicat	ion Dated:		26/7/7	1	Submitti	ng Officer:	Mr. B.	Param		 .;	
ે <b>ક</b> ે. કે ડ્ર	Project	. 20	Joh N	Jo. J	114	Authoris	ed:	· · · · · · · · · · · · · · · · · · ·			············	,
	Cample	Description:	.*		Sundo	wn - geo	chem soil sampl	es	•••••			.11
	Work R	eauired:		Copper,	Nickel &	c Cobalt	determination				······.	
	Your Re	f.	J114/1-	81		Number	of Samples:	81			<u></u>	. 1.
				Mr	B. Para	am						
	A 1 .4!-	Da	<u> </u>			Date		<b></b>	. <b>,,,</b>			
	Analytic	ai Keport in	o Employee	. A.	A.S.	R M. Sto	d. Method No	<b></b>				,
	Chamist	in Charge	e cilipioyed	La.		Analvst	No.: 1 & 2 & `	3.	·			•
	Chemist				Required		: .		E	stimate	 }	
	mple lark	Analytical Reference	Cu.	N1.	Co.		Description			1		
	idik	Number	ppm	ppm	ppm		1			·		
	<u> </u>		0.0	20	15			,			į	
Line	42E	1	25	20 '	15	,				9.5		, ,
	141E 145E		20 20	25 25	15 20							
	46E		20	15	15		*		***		,	
	47E 48E		20 25	20 20	25							
•	49E 50E	<b>\</b>	15 20	25 25	25	la 5			•		<i>.</i> .	٠,٠
	51E		15	30	20					,		
۲ .	<b>52</b> E 53E		10 15	60	30		e de la companya de l					·
٠.,	5LE 🖛		20	25	25		1					
	55E 56E		100 45	37 40	30 30	,			1 .			
	58E 59E		20 30	55 65	35 40	2						
(					10 20				` <u> </u>	1		
	-60E -∂1E 62E		95 20 40 50 50 50 50 50 50 50 50 50 50 50 50 50	70 30 15 445 30 15	10		1 5 4 5		. :			1
,	63E 6LE 65E 66E		710	7772	75						i 1	4
	65E		15	15	75 15 15 25 20							
	66E 67E		10 50	20 35	15 25						ľ	
	67E 68E	,	15	35 35 35 25 55	20	7.					1	
	69E 70E		20	25	15							
:	71E 72E	:	20 85 60	55 30 ,	25 15 25 15 15	y #					:	
	73E 74E	4.5	50 40	25 ,	15							
•	7UE . 7SE		35	40 40	20 30				ľ			1
6° 1	75E 76E		20 10	15 20	30 30 15 25 25			;			,	;
	77E 78E		60 .	30	25				, , , , , , , , , , , , , , , , , , ,			
• ;	79E 80E		10 10	30 35 15	25 15			.				
								;	1 4	•		
١	<b>₩</b>		1					1				

Application Dated	ı: 2/8/71		Submitting Officer:	Mr. B. Param
Project: 20	Job No	J 116	Authorised:	
-				
•		1		
•				46
Report Sent to:		Mr. B. Pa	ram	
Analytical Report	No.:		Date: 9/8/71	
Analytical Techni	que Employed:	A.A.S.	R.M. Std. Method No.	_
Chemist in Charg	e jether		Analyst No.:1	& 2 & 3

Chemis	t in Charge.	joi			Anaiyst	No.: 1 & 2 & 3	·····	 	•••••	
Sample Mark	Analytical Reference Number	Cu.	Analyses Ni. ppm	Required Co. ppm		Description		Estimat	te	
Line 4 OE 1E 2E 3E 4E 5E 6E 7E 8E 9E 10E 11E 15E 16E 17E 18E 19E 20E 21E 22E 24E 25E 26E 27E 28E 29E 30E 31E 32E 33E 35E 36E 37E 43E 43E 43E		60 70 300 160 170 15 80 75 60 150 150 150 150 150 150 150 150 150 15	40 25 25 20 30 30 30 30 30 30 30 30 30 30 30 30 30	15 15 10 0 0 0 5 0 0 0 15 5 0 5 0 5 0 5						

Applicat	, tion Dated:.		2/8/71		Submitt	ing Officer:	Mr. B.	Param	·.	
Project:	20	Job	No. J 1	16 cont.	Authori	sed::				
Sample	Description	•	10	Sundown -	geochem	Line 4				
Work R	equired:	, ,	Copper,	Nickel &	Cobalt	Determination				
Your Re	ef	Sundow	n - J116		Number	of Samples:	46			<u></u>
Report S	Sent to:		Mr,	B. Para	ım					<del></del>
Analytic	al Report N	lo.:			Date:	9/8/71		;		, , , , , , , , , , , , , , , , , , ,
•	•		•	•		J. Method No				
Sample	Analytical		Analyses	Required					Estimato	е
Mark		Cu. ppm	N1. ppm	Co. ppm	,	Description				
14E 45E	, 3	50 35	20 25	15 20						

ê	Applica	ation Dated:	: 16	6/8/71					Subm	itting	Off	icer:	P	lr. I	3. Pa	ram				•
•	Project	20	Jc	b No		J	116		Autho	orisec	1:									
•. <b>\</b>	Sample	Description	n:				I	ine	ΉИ	os.:	17E	, 18	E, 1	9E,	& 31	E				
ī,	Work i	Required:	/1717 19	Gol	d As	ssays	•		••••••							• • • • • • • • • • • • • • • • • • • •	· ·····			
		ef.: J116								er of	Sam	ples:		4		<u> </u>			 =	
		Sent to:																		
	Analyti	cal Report N	Vo.:	-					Pate:	•••••	18/	8/71		•••••						
	Analyti	cal Techniq	ue Employ	/ed:	Α.	A.S.		F	t.M. \$	Std. A	Metho	od No	) <b>.</b>							
	Chemis	t in Charge.						<i>F</i>	naly:	st No	) <b>.:</b>	1	& 2	&c 3			•••••			
San	nple ark	Analytical Reference		Anal		Requ	ired	T	_	_							Esti	mate		
	#IN	Number		ppn								escrip	otion							
•			1																	
· 17E		J116/18		<1						1										
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18E	•	J116/19		<1																
١-٠		·																		
	1						:													
<b>1</b> 9E		<b>J116/</b> 20		<1						1										
31E		J116/32		<1	•															
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Application Dated:	9/8/71	Submitting Officer: Mr. B. Param	
Project: 20	Job No. J 118	Authorised:	
Sample Description:	Sun	down Lines 5 & 6 as marked	
Work Required:	Copper, Nickel &	Cobalt determination	
Your Ref.:	J118/1-47	Number of Samples: 47	
Report Sent to:	Mr. B. Pa	ram	- 1
·		Date: 12/8/71	
Analytical Technique En	nployed: A.A.S.	R.M. Std. Method No	
Chemist in Charge	May	Analyst No.: 1 & 2 & 3	

Chemis	t in Charge.	- PN	ay .		Analyst	No.: 1 & 2 & 3	}			
Sample	Analytical			Required	1			Estimat	te	
Mark	Reference Number	Cu. ppm	Ni. ppm	Co. ppm		Description				
Line 5 OW 1W 2W 3W 1W 5W 6W 7W 8W 1OW 11W 15W 15W 16W 17W 18W 19W 2OW 21W 22W 25W 25W		50 25 20 140 40 50 40 50 50 50 50 50 50 50 50 50 50 50 50 50	15 15 15 15 15 15 15 15 15 15 15 15 15 1	15 20 25 25 20 25 20 25 20 25 20 25 20 25 20 25 20 25 20 25 20 25 20 25 20 25 20 25 20 25 20 25 20 20 20 20 20 20 20 20 20 20 20 20 20						
Line 6 OW  1W 2W 3W- LW 5W 6W 7W 8W 1OW		40 30 15 10 10 10 10 10	5 10 10 5 5 5 10 10 15 5	20 15 10 10 10 10 10 5 10 15						

## INTERNAL ANALYTICAL REQUEST AND REPORT

3	Applicat	ion Dated:	9/	/8/71		Submitti	ing Officer: M	• В.	Para	ım		
. Š	Project:	20	Job	No. J	118	Authoris	sed:					
• .	Sample	Description	•		Sundo	wn Lines	5% 6 as marked					,
							termination				•	•
	Your Re	f.:	<b>J11</b> 8/	<b>/1-</b> 47	······	Number	of Samples: 47			· · · · · · · · · · · · · · · · · · ·	······································	
, i	Report S	ent to		<del>-</del>	Mr. B.	• Param						
. •	Analytic	al Report N	lo :	-		Date:	12/8/71	;				ι,
	Analytic	al Techniqu	ue Employe	ن	.A.S.	R.M. Sto	d. Method No	•	.1	,		1
	Chemist	in Charge	jll	ay_		Analyst	No.: 1 & 2 & 1	3				
		Analytical		<u>V</u>	Required					Estima		
Sai <i>N</i>	mple Nark	Reference Number	Cu. ppm	Ni. ppm	Co. ppm	,	Description					
Line	6 cont.				;							
•	11W		10	5	5							
	12W 13W		10	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	5 5 10							
ŧ	ıцw		15 5	5	5		1					
	15W 16W		10 55 55 55 55 55 55 55 55 55 5	5 < <b>5</b>	5 55 55						. 1	
•.	17W		<b>&lt;</b> 5	< \f	5	·					1	
•	18W 19W		<b>&lt;</b> 5	10	10							!
· <b>v</b> is	20W		5,	< 5	5							
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Application Dated:	20/10/71	Submitting Officer:	Mr. B. Param
4		1 0 Time determination	
			. 137
Report Sent to:	Mr.	B. Param	
Analytical Report No.:	##	Date:	22/10/71
			O
Chemist in Charge	Klhay	Analyst No.:1	& 2 & 3

Chemist	in Charge.	ju	hay		Analyst	No.: 1 & 2 & 3	 		1
Camala	Analytical			Required			Estima	te	
Sample Mark	Reference Number	Cu. ppm	Pb. ppm	Zn. ppm		Description			1
8N-OE(outcrop 8N-2E 3' 8N-4E 5' 8N-6E 2' 8N-8E 3' 8N-10E 8' 8N-10E 5' 8N-16E 5' 8N-16E 5' 8N-20E 5' 4S-2E 10' 8N-24E 7' 4S-0E 3' 4S-6E 5' 4S-6E 5' 4S-16E(outcrop 4S-12E 4' 4S-14E 9' 4S-16E(outcrop 4S-12E 4' 4S-16E 6' B/L-1E 5' 4S-2E 8' B/L-1E 5' B/L-6E(outcrop 4S-2E 8' B/L-1E 5' B/L-1E 5' B/L-1E 5' B/L-1E 5' B/L-1E 5' B/L-1E 6' B/L-1E 4' B/L-1E 6' B/L-1E 5' B/L-1E 5'	p)	450505555555005505550055005500050005000	35 5 0 5 5 0 0 0 0 0 5 0 0 5 5 0 5 5 5 5	40505050055555005500550055000555000050555050					The second second section of the second section of the second second second section of the second section of the second section of the second section of the second section of the second section of the second section of the second section of the second section of the second section of the second section of the second section of the second section of the second section of the second section of the second section of the second section of the second section of the second section of the second section of the section of the second section of the second section of the second section of the second section of the second section of the second section of the second section of the second section of the second section of the second section of the second section of the second section of the second section of the second section of the section of the second section of the second section of the section of the second section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section

Application Dated:	20/10/71	Submitting Officer:	Mr. B. Param
·			
Sample Description:	Soil Sam	oles as marked	
Work Required:	Cu., Pb., &	2 Zn. Determination	,
Your Ref.: J 14	4/1-137	Number of Samples:	137
Report Sent to:	$M_{r}$	B. Param	
Analytical Report No.:	_	Date:22/1	0/71
Analytical Technique En	nployed: A.A.S.	R.M. Std. Method No.	<b>—</b> 1
•	. 711		2 & 3

Sample Analytical		Analyses	Required			Estimate		
Sample Reference Number	Cu. ppm	Pb. ppm	Zn. ppm	ı	Description			
LIN-OE 2:  LIN-2E LI  LIN-4E LI  LIN-6E 7:  LIN-8E 8:  LIN-10E 2:  LIN-10E 2:  LIN-10E 9:  LIN-16E 9:  LIN-16E 9:  LIN-20E 6:  LIN-20E 6:  LIN-20E 6:  LIN-20E 6:  LIN-20E 7:  2LS-2E 3:  2LS-4E 8:  2LS-6E 9:  2LS-10E 10:  2LS-12E 1LI  2LS-14E 9:  2LS-16E 10:  2LS-2E 5:  2LS-2E 5:  2LS-2E 6:  2LS-3E 6:  2LS-3E 6:  2LS-3E 6:  16S-3E 6:  16S-6E 8:  16S-8E 5:  16S-10E 5:  16S-12E	75 55 50 90 20 40 40 40 40 40 40 40 40 40 40 40 40 40	80 70 70 70 70 70 70 70 70 70 70 80 70 70 80 70 70 80 70 80 80 80 80 80 80 80 80 80 80 80 80 80	20 25 20 75 30 20 15 20 25 40 25 40 31 25 40 31 31 40 40 51 51 51 51 51 51 51 51 51 51 51 51 51					

Application Dated:	20/10/71	Submitting Officer:	Mr. B. Param
Project: 20 Area 1	Job No. J 144	Authorised:	
Sample Description:	Soil	samples as marked	
Work Required:	Cu., Pb. & Zn. dete	ermination	
		Number of Samples: 137	
Report Sent to:	Mr. B. Pa	ram	
-		Date: 22/10/71	
Analytical Technique Emp	oloyed: A.A.S.	R.M. Std. Method No	1
Chemist in Charge	May	R.M. Std. Method No	& 3

Chemist	t in Charge	····/.	May	_ 	Analyst	No.: 1 & 2	& 3			•
Sample	Analytical		-	Required			Ì	Estir	nate	
Mark	Reference Number	Cu. ppm	Pb. , ppm	zn.		Descriptio <b>n</b>				
16S-14E 7' 16S-16E 7' 16S-16E 7' 16S-20E(outc) 16S-20E(outc) 16S-24E 7' 16S-26E 8' 16S-26E 8' 16S-30E 7' 16S-34E 5' 16S-36E 8' 20S-0E 4' 20S-2E 5' 20S-4E 7' 20S-6E 9' 20S-16E 9' 20S-16E 9' 20S-16E 9' 20S-20E 7' 20S-20E 7' 20S-20E 7' 20S-20E 7' 20S-26E 4' 20S-26E 4' 20S-36E 10' 20S-36E 10' 12S-36E 10' 12S-6E 1' 12S-16E 7' 12S-12E 7' 12S-14E 7'	rop 1')	50 51 55 50 00 55 55 55 55 50 00 55 55 55 50 50	6505502350055500555500667880000016550505005550 21607550505550500000000000000000000000000	3550555005555000050505005050550550550000505						

Application Dated:	20/10/71		Submitting Officer:	Mr. B. Param
Project: 20 Area ]	Job No	.ī <b>J1</b> ĻĻ	Authorised:	
			•	
•				1
				137
Report Sent to:		Mr. B. Pa	ram	
· ·				
Analytical Technique Er	nployed:	A.A.S.	R.M. Std. Method No	<del>-</del>
	7//			3

	t in Charge.			Required	1	·	1	Estima	te	
Sample Mark	Reference Number	Cu. ppm	Pb. ppm	Zn. ppm		Description				
12S-16E 10' 12S-18E 7' 12S-20E 4' 12S-22E 7' 12S-24E 5' 12S-26E 15' 12S-28E 10' 8S-4E 8' 8S-6E 3' 8S-12E(outere 8S-14E 7' 8S-16E 5' 8S-20E 10' 8S-22E 5' 8S-24E 5' 8S-26E 7' 8S-28E 10'	<b>(</b>	50 80 40 240 30 200 50 75 120 195 155 60 45 30 50 100	60 650 60 650 60 60 60 60 60 60 60 60 60 60 60 60 60	45 50 15 15 15 20 40 40 40 40 40 40						
					ŀ				<b>18</b> 0 +	

Applica	ation Dațed:	28	/10//1		Submittir	g Officer:	tift.● Ti	e rar	C.111		
Project	. 20	Job	No	0 THH W	Authorise	ed:					******
Sample	Description	•		Selected	Geochem	Samples					
Work !	Required:		Molybo	lenum			••••				
Your R	Ref.:			······	Number (	of Samples:				·	<del></del>
Report	Sent to:			Mr.	B. Parar	n		.,			
Analyt	ical Report N	lo.;			Date:	3/11/	71				
Analyt	ical Techniqu	ie Employe	d:Col. ex	ctraction	R.M. Std.	Method No					••
Chemis	st in Charge	jh	Rej		Analyst N	٠.:	1 & 4		••••••		
	Analytical			Required	1					stimate	
Sample Mark	Reference Number	Mo. ppm				Descript	ion	-			
	-	F 12-12					t	<b> </b>			-
		,									
8n 18E	-	12.6									
US LE		8.4			İ						
12S 6E		6.2									
20S 6E		3.2		.							
20S 8E		2.3		,							
20S 28E		4.8									
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Application Dated:	26/10/71	Submitting Officer: Mr. B. Param
Project: 20 Area 2	Job No. J 145	Authorised:
		es as marked
		, determination
Your Ref.	J145/1 <b>-</b> 100	Number of Samples: 100
		am '
Analytical Report No.:	••	Date: 28/10/71
Analytical Technique En	nployed: A.A.S.	R.M. Std. Method No
Chemist in Charge	Shay	Analyst No.: 1 & 2 & 3

Analytic	t in Charge	ue Employ	ed: <sup>A</sup>	.A.S.	R.M. Sto	d. Method No No.:1 & 2 &		 		
	Analytical	J. C.		Required	Analyst	No.: 1 & 2 &	<u>د</u> ——	 Estima	to	
Sample Mark	Reference Number	Cu.	Pb.	Zn.		Description		LStilla		
45-0E   15-2E   15-6E   0/c   15-8E   15-10E   0/c   15-14E   0/c   15-14E   0/c   15-14E   0/c   15-14E   0/c   15-14E   0/c   15-14E   125-16E   125-12E   125-16E   125-12E   8 9 10 11 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32	125 125 120 135 120 135 120 135 140 150 150 150 150 150 150 150 150 150 15	45 30 50 50 50 50 50 50 50 50 50 50 50 50 50	10 35 40 35 40 35 40 35 30 40 30 40 30 40 30 40 30 40 30 40 30 30 40 30 30 30 30 30 30 30 30 30 30 30 30 30							

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Application Dated:	26/10/71	Submitting Officer:	Mr. B. I	aram.	
Project: 20 Area 2	Job No. J 145 cont.	Authorised:			
Sample Description:					
Work Required:					
Your Ref.:				,	
Report Sent to:	Mr. B. Par	am .			
Analytical Report No.:	*				
Analytical Technique Emp					
Chemist in Charge	May	Analyst No.:	1 & 2 & 3	}	

Chemis	t in Charge	jils	ey		Analyst	No.: 1 &	2 & 3			:
Sample	Analytical		Analyses	Required	•			Estima	ate	
Mark	Reference Number	Cu. ppm	Pb. ppm	Zn. ppm		Description				
16S-6E 16S-8E 16S-10E 16S-12E 16S-14E 16S-16E 16S-16E 16S-20E 20S-0E 20S-0E 20S-1E 20S-1E 20S-1E 20S-1E 20S-1E 20S-1E 20S-1E 20S-1E 20S-1E 20S-1E 20S-1E 20S-1E 20S-1E 20S-1E 20S-1E 21S-0E 24S-2E 24S-0E 24S-8E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E 24S-1E	J145/38 39 40 41 42 43 44 45 47 49 55 55 55 55 55 57 58 59 60 60 60 60 60 60 60 70 70 70 70 70 70 70 70 70 70 70 70 70	50 60 77 65 50 60 60 60 60 60 60 60 60 60 60 60 60 60	50 45 40 54 45 40 54 55 50 60 54 54 54 54 54 54 54 54 54 54 54 54 54	40 35 40 35 30 35 30 35 30 30 50 40 50 50 50 50 50 50 50 50 50 50 50 50 50						
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Application Dated:	26/10/71	Submitting Officer:	Mr. B.	Param
Project: 20 Area 2 J	ob No. J145 cont.	Authorised:		
Sample Description:	Soil samples	as marked		
Work Required:				
Your Ref: J145/1-				
Report Sent to:				
Analytical Report No.:		Date: 28/10/71	· · · · · · · · · · · · · · · · · · ·	
Analytical Technique Emplo	yed: A.A.S.	R.M. Std. Method No		
Chemist in Charge #	hay	Analyst No.: 1 &	2 & 3	

Sample Mark B/L-8E B/L-10E B/L-12E	Analytical Reference Number	Cu.	Analyses Pb.					Estimat	e	
Mark  B/L-8E  B/L-10E  B/L-12E	Reference Number		Pb.	D 1						
B/L-10E B/L-12E	J11/5/73		ppm	Zn. ppm		Description	:			
B/L-14E B/L-16E B/L-16E B/L-20E 4N-0E 4N-4E 4N-4E 4N-6E 4N-10E 4N-12E 4N-16E 4N-16E 4N-16E 4N-20E 8N-0E 8N-2E 8N-4E 8N-6E 8N-10E 8N-14E 8N-14E 8N-14E 8N-14E 8N-14E 8N-14E 8N-14E 8N-14E	74 77 76 77 78 79 81 82 83 84 85 87 88 99 99 99 99 99 99	70 90 1250 1250 1250 1250 1250 1250 1250 125	25 25 25 36 25 36 36 36 36 36 36 36 36 36 36 36 36 36	35 20 40 40 40 30 40 30 45 40 40 40 40 40 40 40 40 40 40 40 40 40						
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#### SUNDOWN MAGNETOMETER READINGS

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	•	
57Æ	61,50	
·22E	61,50	
20E	61,50	
18E	6000	
16E	7050	
1ĻE	6300	
12E	4350	
10E	6000	
$8\mathbb{E}$	6300	
6E	5550	
11E	6300	
2E	6300	
OE	4350	
OM		
OE	6450	
OE 2E	6450 6300	
OE 2E l <sub>i</sub> e	6450 6300 6300	
ОЕ 2Е ЦЕ 6Е	6450 6300 6300 4500	
ОЕ 2Е 4Е 6Е 8Е	6450 6300 6300 4500 6900	
ОЕ 2Е 4Е 6Е 8Е 10Е	6450 6300 6300 4500 6900 6600	
OE 2E 4E 6E 8E 10E	6450 6300 6300 4500 6900 6600	
OE 2E 4E 6E 8E 1OE 12E	6450 6300 6300 4500 6900 6600 6000	
OE 2E 4E 6E 8E 1OE 12E 14E 16E	6450 6300 6300 4500 6900 6600 6000 7500	
OE 2E 4E 6E 8E 1OE 12E 14E 16E 18E	6450 6300 6300 4500 6900 6600 7500 7050 6900	
OE 2E 4E 6E 8E 1OE 12E 14E 16E 18E 2OE	6450 6300 6300 4500 6900 6600 7500 7050 6900 61450	
OE 2E 4E 6E 8E 1OE 12E 14E 16E 18E	6450 6300 6300 4500 6900 6600 7500 7050 6900 61450	

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OE	6150	
2E	4800	
ĻЕ	1,4800	
6E	5850	
8E	6300	
10E	6900	
12E	6300	
14E	5850	
16E	6450	
18E	6300	
20E	6000	
22E	5850	
24E	6300	ı
26E	: 6300	ı
28E	6150	ı
88	ı	
28E	5700	)
26E	5850	)
2l <sub>E</sub>	6300	)
22E	5100	)
20E	5850	)
18E	5700	)
16E	5850	)
14E	6000	)
12E	5700	)
10E	6300	)
8E	6000	)
6E	6750	)
ĻЕ	5100	)
2E	6750	)
OE	6600	)

125		
OE		6000
2E		7200
4E	• .	5850
4E	•	6300
8E		6300
10E		6300
12E		6450
14E		6600
16E		6600
18E		7050
20E		6600
22E		6450
21Æ		5250
26E		6450
28E		5850
	•	
168		
36E	• • • • • • • • • • • • • • • • • • •	6900
3LE	·	33000
32E		6150
30E		5100
28E		6900
26E	$\mathcal{L}_{ij}$	6150
27E	, 1	5700
22E		6150
20E		7050
18E	•	6000
16E		6300
14E		5850
12E		6300
10E		5100
8E		6600
6E		6450
ЦE		6450
2E		6000
OE		6150

20S	•	
ΟE	•	6300
2E		6300
ĻЕ		6450
ЬE.		<b>555</b> 0
, 8E		5400
10E	· · · · · · · · · · · · · · · · · · ·	5700
1.2E	.•	5850
14E		5250
16E	· · · · · · · · · · · · · · · · · · ·	5850
18E		6150
20E		5700
22E		6000
2ЦЕ	ř	6000
26E	t e	6300
28E		5700
30E	•	6150
32E		6150
31Æ	T.	5850
36E		5250
21 <sub>4</sub> S		
36E		6150
34E		6150
32E		6150
30E		7350
28E		10500
26E		6000
24E		5850
22E		6150
20E		5700
18E		6150
16E		6150
THE		6450
12 <b>E</b>	,	5850
loe	<u> </u>	6150
8E		5700
6E		,6600
ЦE	grand grand to	6300
2E		6000
OE	· · · · · · · · · · · · · · · · · · ·	6300

## anea II - 5

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	2E		.5700
	ĻЕ		5550
	6E	1	5550
	8E		5250
	loe		4950
	12E		5250
	<b>1</b> 4E		4500
	<b>1</b> 6E		4800
	18E		6150
μи	:	<b>.</b>	
	ŌΕ	!	4950
	2E		5100
	ĻЕ		5100
	6E	1	4200
	8E		5250
•	10E		5550
	12E		5250
	14E		5400
	<b>1</b> 6E	1	5850
	<b>1</b> 8E		5850
	20E		5550
8n		ł .	
	<b>1</b> 8E	1 1	5700
	16E		6000
	14E		5550
	<b>1</b> 2E		6000
	<b>1</b> 0E	•	5700
	8E	1	4950
	6E		4950
	ĻЕ	1	5250
	2E		5250
	OE		5700

ON			
	20E		3600
	18E		5400
	<b>1</b> 6E		5250
	14E		5100
	<b>1</b> 2E	•	4950
	lŒ		5700
	8E		6750
	6E	· · · · · · · · · · · · · · · · · · ·	5700
	ĻЕ		4650
	2E		5550
	OE		2700
LS	OΈ		5550 <sup>°</sup>
	2E	4	5850
	ЦE		5700
	6E		5400
	8E		5400
	10E	•	5400
	<b>1</b> 2E		5250
	<b>1</b> 4E		5550
	16E		6000
	18E		2700
	20E		4050
88	OE	a de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya del companya de la companya de la companya del companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la companya de la co	5850
	2E		5850
	ЦE		6300
	6E		6300
	8 <b>E</b>		6150
	loe		6150
	12E	•.	6000
	14E		5850
	16E		5400
	18E		6000
	. 20E		4200
	22E		5850
	24E		5850

#### HAVEN WELL MAGNETOMETER READINGS

	Location		٠			Gammas
Line 1	1-N 2-N 3-N 4-N 5-N 6-N 7-N 8-N 9-N 10-N 11-N 12-N 13-N 14-N 15-N 16-N 17-N 18-N 19-N 20-N 21-N 23-N			į	1	5400 5700 5100 5100 14500 14500 5400 5100 5100
Line 2	1-N 2-N 3-N 4-N 5-N 6-N 7-N 8-N 10-N 11-N 12-N 13-N 14-N 15-N 16-N 17-N 18-N 20-N 21-N 22-N 23-N 21-N					5550 5100 5100 5100 5100 5100 5100 5100

1	Location	Gammas
Line 3	1-N 2-N 3-N 4-N 5-N 6-N 7-N	5700 5850 5250 6150 5700 5550 5550
	8-N 9-N 10-N 11-N 12-N 13-N 14-N	5550 5400 5550 5700 4950 4950 5100 5700
	16-N 17-N 18-N 19-N 20-M 21-N 22-N 23-N 24-N	5400 5550 5850 5700 6000 5400 5850
Line 4	25-N 1-N 2-N 3-N 4-N 5-N	5100 5550 6000 5400 5100 5400 5550
	6-N 7-N 8-N 9-N 10-N 11-N 12-N	5550 5850 5700 5700 5250 5100 5100
	13-N 14-N 15-N 16-N 17-N 18-N 19-N	4650 4050 4650 5400 5550 5700
	20-N 21-N 22-N 23-N 24-N 25-N 26-N 27-N 28-N	5250 5250 5550 5550 5100 5100 5100 5100

	Location	Gammas
Line 5	1-N 2-N 3-N 4-N 5-N 6-N 7-N 8-N 10-N 11-N 12-N 13-N 14-N 15-N 16-N 17-N 18-N 19-N 20-N 21-N	5850 5850 5850 6000 6000 5700 5700 5700 5700 5750 575
Line 6	1-N 2-N 3-N 4-N 5-N 6-N 7-N 8-N 10-N 11-N 12-N 13-N 14-N 15-N 16-N 17-N 18-N	6000 5550 5100 5550 5850 5850 5850 5850 5

	Location	Gammas
Line 7	1-N 2-N 3-N 14-N 5-N 6-N 7-N 8-N 10-N 11-N 12-N 13-N 14-N 15-N 16-N 17-N 18-N 19-N 20-N 21-N 21-N	550 5400 5250 5100 5550 5550 5550 5550 5550 55
	25-N 26-N 27-N 28-N 29-N 30-N 31-N	5250 5250 5550 5550 5400 5400 5250

,	Location		Gammas
Line 8	1-N 2-N 3-N 4-N 5-N 6-N 7-N 8-N 9-N		5400 5250 5250 5550 5700 5400 5550 5400
,	11-N 12-N 13-N 14-N 15-N 16-N 17-N 18-N 19-N		5550 5700 5550 5550 5700 6000 5250 5700 5250 6900
	21-N 22-N 23-N 24-N 25-N 26-N 27-N 28-N 29-N 30-N 31-N	1	5850 5250 5100 5100 5100 5100 5100 5550 5100 5550

	Location		Gammas
Line 9	1-N 2-N 3-N		5400 5700 5700
	4-N 5-N		5400 5850
	6-N 7-N 8-N		5700 5550 5550
ı	9-N 10-N 11-N		5700 5550 5550
•	12-N 13-N		4950 4950
	14-N 15-N 16-N		5250 5250 5250
	17-N 18-N 19-N	•	5250 5250 5700
·	20-N 21-N 22-N		5700 5550 5550
Å.	23 <b>-</b> N 24 <b>-</b> N		5550 5550
<u>.</u> '	25-N 26-N		5700 5550
Line 10	1-N 2-N 3-N		5700 5700 5850
	4-n 5-n 6-n		5550 5550 5700
	7-N 8-N 9-N		5400 5700 5250
	10-N 11-N		5400 5400 5400
	12-N 13-N 114-N	1 - F	5250 5400
	15-N 16-N 17-N		5400 4800 4950
	18-N 19-N 20-N		4950 5400 5400
	21-N 22-N		5550 5400

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KEX

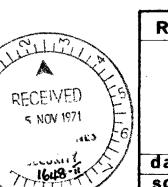
4181

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>240

ENV 1648(II) -



RMC MINERALS PTY LTD

SUNDOWN GEOCHEM

RESULTS

Showing Copper p.p.m.

date 16-7-71 geologist: B.C. Param.
scale 1" = 2000' drawn by: 4.0.5
revisions file no: 1044

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KEY

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ENV 1648 II - 3.

RMC MINERALS PTY LTD

RECEIVED
5 NOV 1971
DEPT. OF MINES

SUNDOWN GEOCHEM

RESULTS showing Nickel p.p.m.

| date: 27-7-7| | scale | | = 2000' | revisions geologist: B.C. Param drawn by: L.D.5 file no: 1048.

KEY

0-35

**36-7** 

**9** 71 - 105

ENV 1648(II)-3

RECEIVED S NOV 1971 LG
SECURITY
SECURITY
1648-11

RMC MINERALS PTY LTD

SUNDOWN GEOCHEM

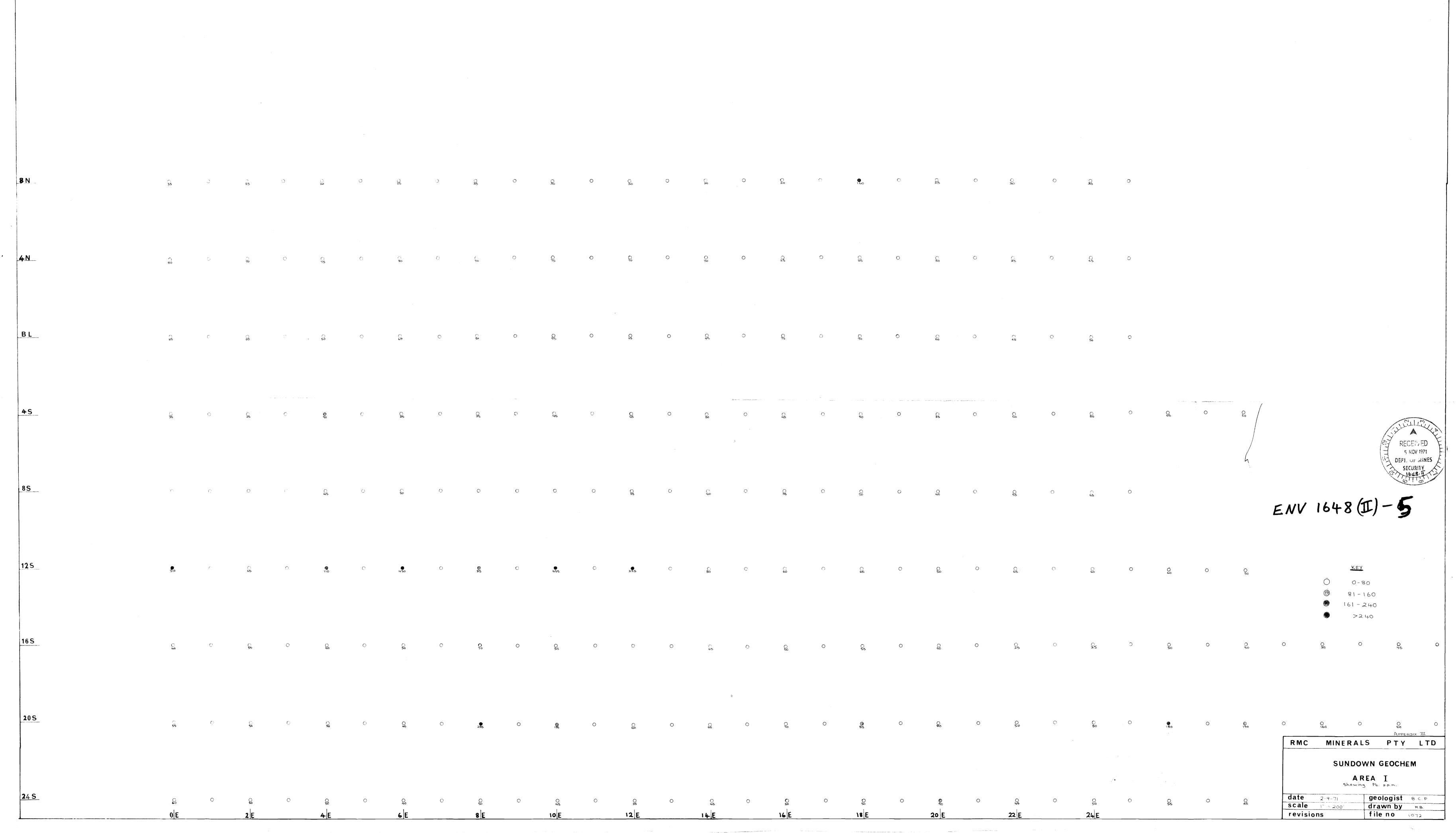
RESULTS

Showing Cobalt P.P.M.

date: 27-7-71 geologist: B.C. Param scale: 1" = 2000' drawn by: 4.0.5 revisions: file no:1049.

<b>8</b> N	G 45	· ()	35	30	O 55	265	O O S5	O :	o O	<b>€</b> 30	€50	0	<u>0</u>	125	0	Ç. O			
4 N	75	, () 55	(· 55	230	90	Ç	) 230	C	) <u> </u>	() 20	0 4.	0	O 45	200	0	Çs O			
BL	tto O	25	Ϋ́o O	to C	<b>₹</b> 70	Ç <sub>o</sub>	) <u>(</u>	0	) 75	S	O Ç 40	0	Ç: O		0	() 55			
<b>4</b> S			1300															O O 60	
85		0 .:	75	( 45	0 0	0	O (\$20)	C	<b>Q</b> 5	is s	0 05	O	<u>C</u> ()	Ç.			O 55	O @	ENV 1648(II)-4
125	230	G 7	C SS	(300)	Ç. C	<b>2</b> 90	C) (30) (130)		<b>(</b> 5	; · · 50		0	O O	2140	0	<u>O</u> O	<b>₽</b> 200	O O 50	○ 0-90 ○ 91-180 ○ 181-270 ○ 271-360 ○ > 360
16 S	G 30	Ç. O	Ç C	<u>{</u>	<b>№</b> O	So	0 0	C	ç, o	3/5	O 55	0	<b>●</b> O 375	Ç.	O	90	Q qo	O O 70	0 0 0 5 5
205	25	C T)	) 25	Q C	2220	185	०	0	<u>О</u>	Ç;	O Ç5	0	O Sec	O 45		<b>0</b> ()	205	CECEIVED S NOV 1971  SECURITY  1648-14	RMC MINERALS PTY LTD  SUNDOWN GEOCHEM  AREA I Showing CV. P.P.M.
<b>2</b> 4 S	0 E	2 E	45 ° <b>4 E</b>	6 E	\$ E	Q, IOE	O 95	0	S 0	% 16 E	0 0 E	0	20 E	22 E	0	Q 0	O 30	1648-14 1648-14	date 2-9-71 geologist BCP scale 1" = 200" drawn by M.B. revisions file no (072

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4N	à		25	0	<b>2</b> 0	0	95	()	65	0	O <sub>30</sub>	•	C <sub>Z5</sub>	•	Q'o	0	Ç	0	Pe	0	O <sub>IS</sub>	0	<u>Ç</u> ₀	•	Q.	0				*			
<b>B L</b>	()	C				C	Žo	0	50	0	O 15	0	Ç.	0		5		0	Ç <sub>s</sub>		Ç <sub>IS</sub>		Q <b>4</b> 9	0	် 25					ENV 16	,48(II)	-6	
45	ွဲ့	Ċ.	15	C	<b>∞</b>	C	^ 25	C	∩ 35	0	30	0	() 25	0	<b>○</b> 5∞	0	26	Ç	() 25.	0	<b>9</b> 5	O	<u>Q</u> .	0	20	0	O 25	0	O 25			S NOV 1971 DEP1 MINES SECURITY 1648-14	
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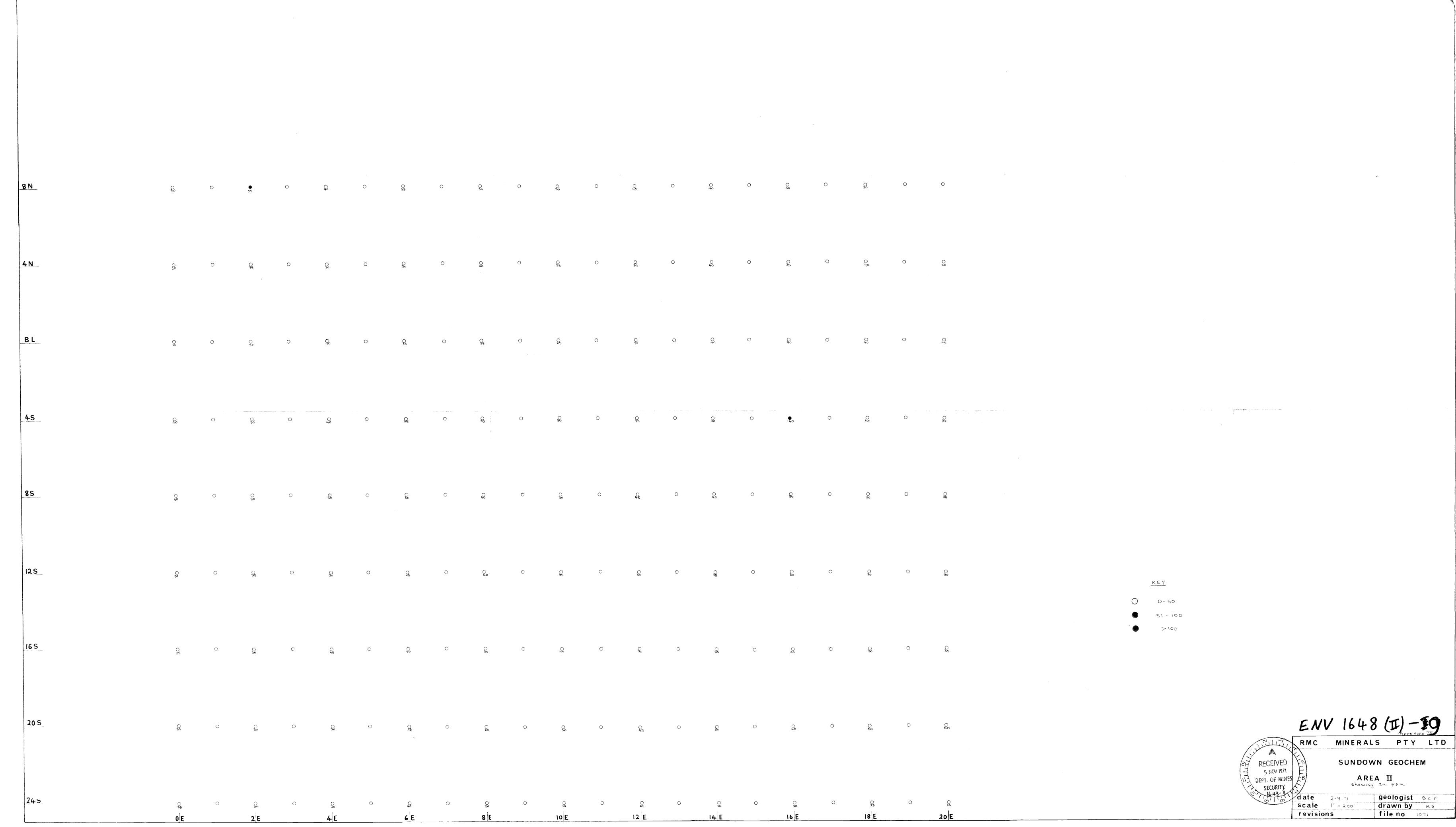
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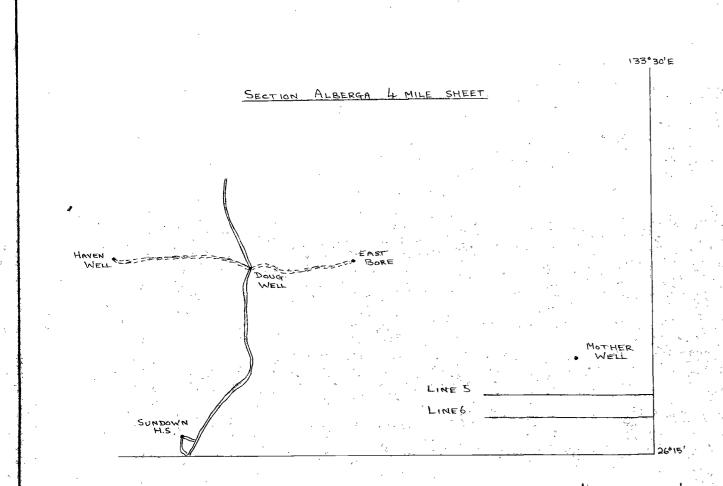
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RMC MINERALS PTY LTD SUNDOWN GEOCHEM

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drawn by M.B.
file no 1071 date 2-9-71 scale 1' = 2001





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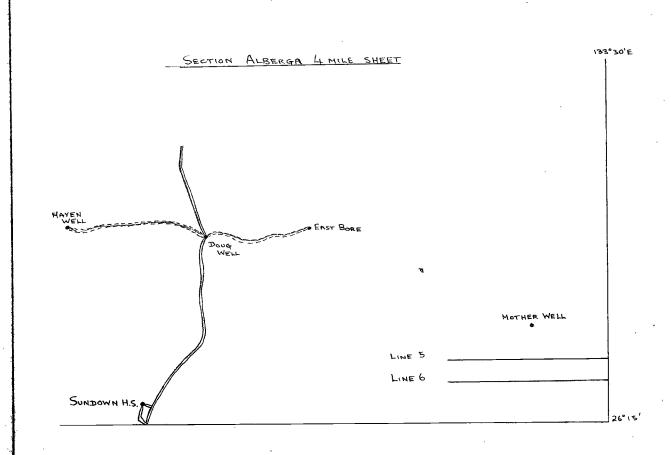
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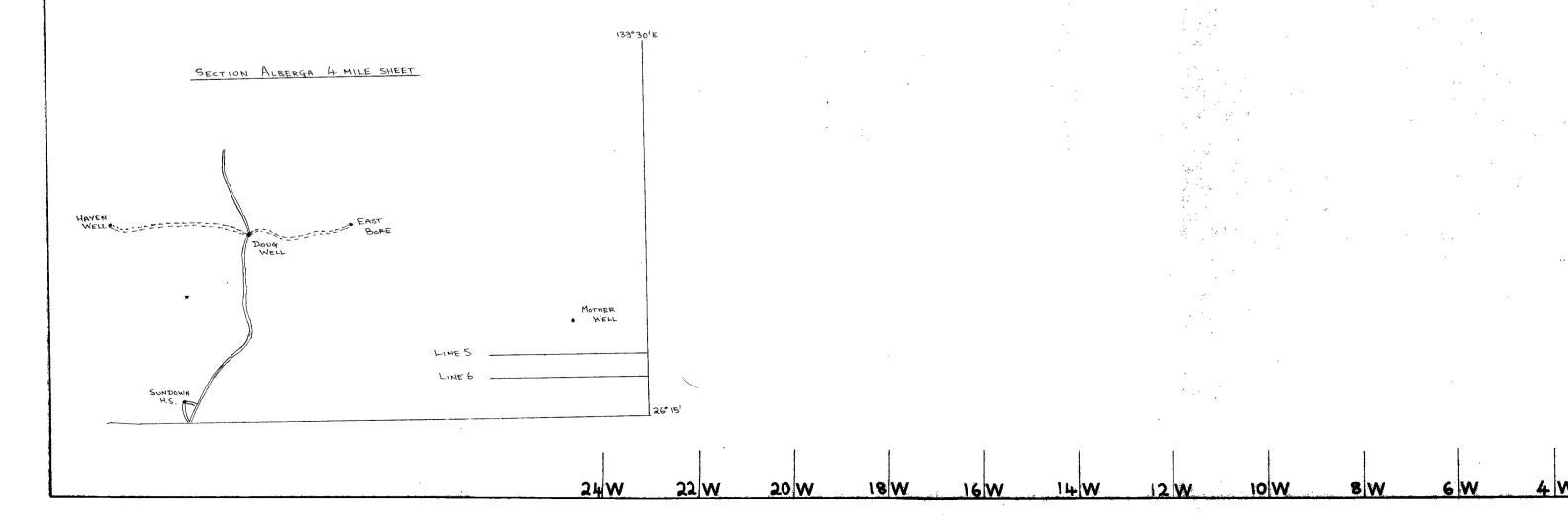
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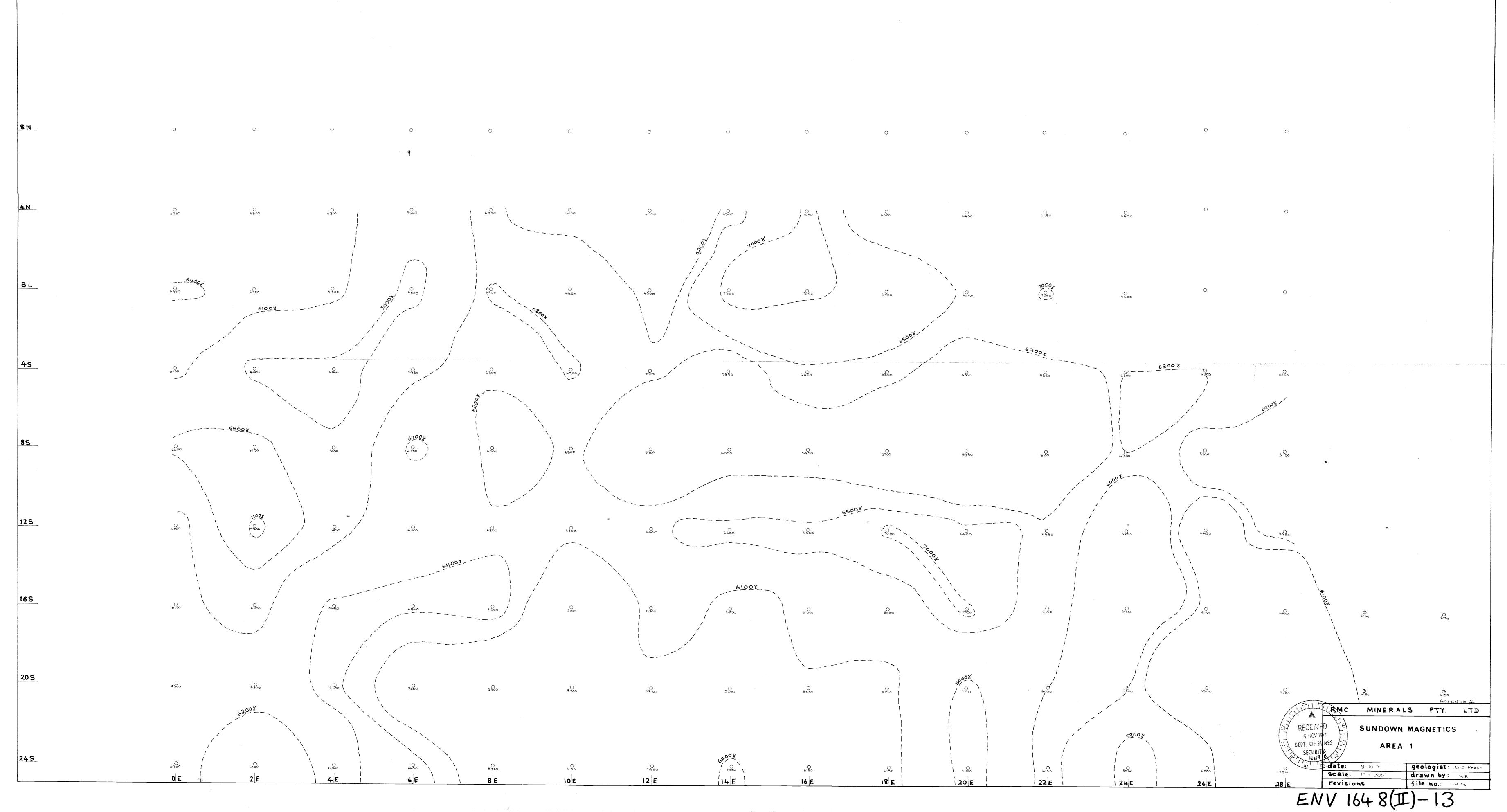
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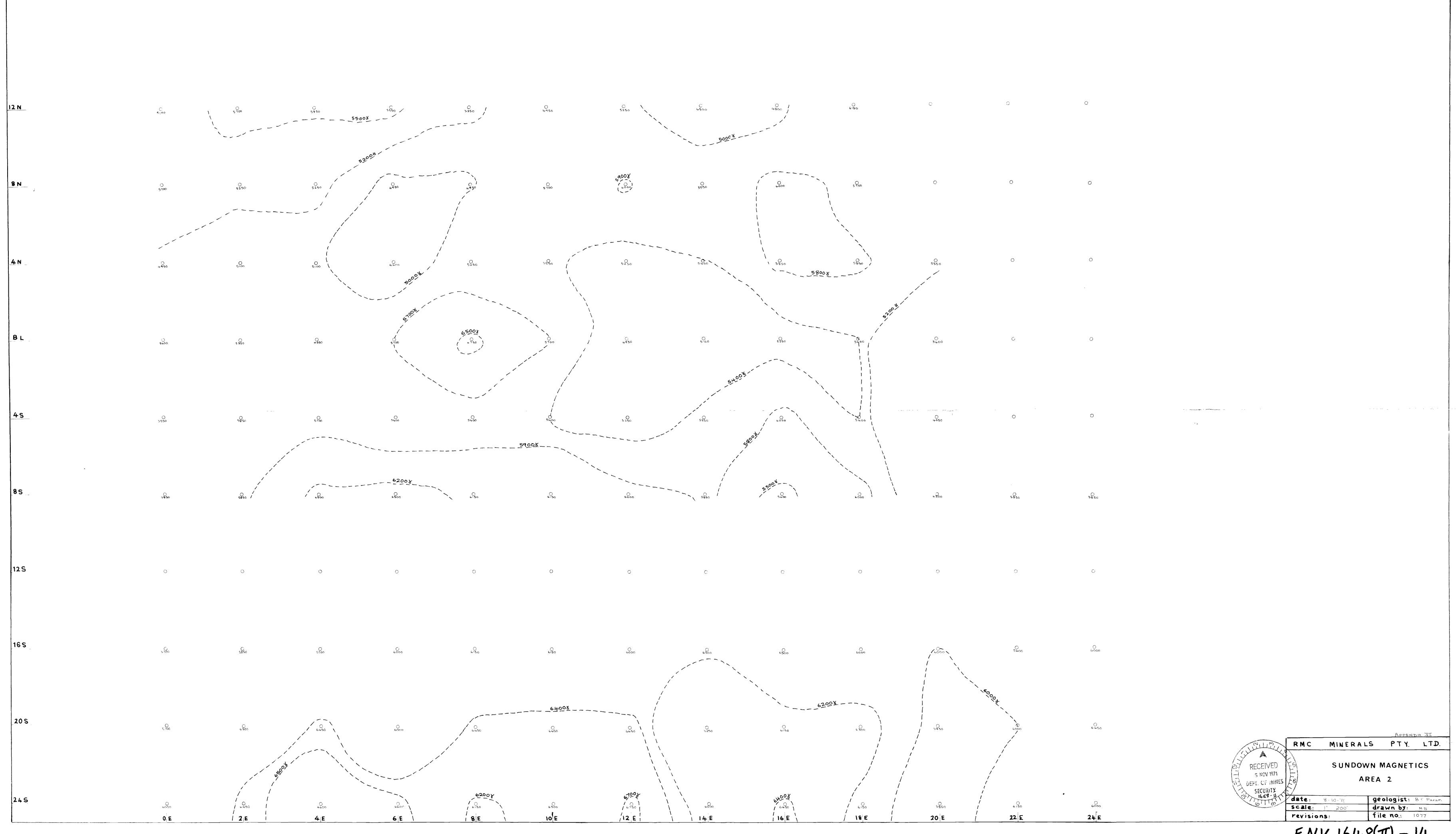
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S.M.L. 640

FINAL REPORT - AUGUST 1972



By: B.C. Param

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3	Detailed Geochemistry - Area 1
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#### Introduction

Earlier exploration in the area revealed what appeared to be geochemically anomalous areas showing above average copper values. A few of these samples when tested for Molybdenum also gave somewhat high readings. It was therefore decided to carry out more work in the area to try and explain some of the anomalous features.

Detailed geology and some geochemistry together with some shallow drilling was undertaken. The drilling was carried out using a Holman down-the-hole hammer drill. This drill was found unsuitable in the area. The overlying soil (up to 15-20 feet) posed problems for the drill.

In all some 550 feet were drilled. The samples were assayed for copper and selected ones for Molybdenum. No significant values were obtained and hence the area was recommended to be relinquished.

#### Geology

The greater part of the S.M.L. is barren of any outcrops. The area is heavily covered by sandy soil (both eluvial and alluvial) often to depths up to 20 feet or more. At these depths, it was found by Auger drilling, a calcrete layer often mantles the underlying bedrock. Effective geochemical sampling is often costly as penetration of this calcrete layer is necessary to obtain meaningful bedrock samples.

#### Precambrian

The ages of the Precambrian rocks have not been determined with sufficient accuracy to place them in other than broad subdivisions. These basement rocks of the Musgrave Block along the southern margin of the Amadeus Basin, show evidence of a complex history, but the details are unknown.

The oldest rocks were regionally metamorphosed to schists and gneisses and were later intruded by granites. The last igneous activity was the injection of a swarm of olivine rich dolerite dykes and sills.

#### Gneisses

Precambrian gneisses crop out in two areas, one north of the S.M.L. near Mt. Cavenagh homestead and the other north west along the border. The gneiss at Mt. Cavenagh was examined and is regarded as a primary intrusive igneous osthogneiss, as it has the texture and composition of a banded biotite granite. It contains xenoliths of schists in places.

The outcrop along the border was regarded more of a granite. It contains a few phenocrysts of potash felspars and subordinate plagioclase and some orientated xenoliths. They vary from coarse grained porphyritic hornblende-biotite granite/gneiss to a fine grained leucogranite.

#### Dolerite Dykes

A swarm of olivine rich dolerite dykes and sills intrudes basement gneisses, and represents the last phase of the igneous activity. The rocks are dark grey, very tough, fine to medium grained and are composed of labradorite, pyroxene, olivine and magnetite. In places the dolerites have metamorphosed and infiltrated the granite, giving rise to such varieties are amphibolites and pyroxene granulites.

These dykes within the S.M.L. are somewhat smaller in size but they attain greater dimensions to the north. They trend north west/south east and dip at shallow angles (20°-30°) to the south. Some of the thicker dykes exhibit columnar structures.

During Quaternary the drainage system of the area became internally directed. The climate became more arid and shifting sand dunes covered large areas of the landscape and the dunes are now fixed by vegetation. Continued erosion yielded sheets and valley fills of alluvium which now covers about 90% of the area.

#### Geochemistry

In our earlier reports we have detailed our geochemical soil sampling of the area. The results show distinct areas wherein the copper values are somewhat higher than background.

Detailed sampling on a 200 ft. grid system was carried out and this failed to show up any significant trend in the copper values. However, it was felt some of the samples were collected before the silcrete layer was penetrated.

Further, some of the samples with high copper values were analysed for Molybdenum. The values obtained again appeared to be higher than average.

#### Shallow Drilling

A Holman down-the-hole hammer drill was used. It was intended to drill several holes to 150 feet. The penetration was restricted to the following reasons.

a) The amount of loose overburden sand and soil clogged up holes. There was insufficient casing on site to cope with the problem.

- b) The dolerite rock was too hard that two lots of bits and one hammer was broken within the first 200 feet.
- c) The dolerites were no more than 20-30 feet thick and the gneissic/granitic rock into which the former intrudes often weathers into a sandy component and poses problems.

A total of 585 feet were drilled.

#### Discussion

Residual soils in area one were sampled every 200 feet intervals.

Where no soil was developed over outcrop, samples were taken of the outcrop.

All samples were dried, pulverised and determined colorimetrically using hot acid extracts.

The results and geology are shown on the accompanying maps.

Visual inspection of the detailed area one shows that the grade of copper mineralisation is of the background order. The molybdenite mineralisation is also low and sporadic.

On the average molybdenum content of a rock increases with the SiO<sub>2</sub>. Averages for felsic, mafic and ultramafic rocks may be taken as 1.6p.p.m., 2.2p.p.m. and 0.23p.p.m. respectively.

In our analysis we obtained 39.5p.p.m. as the highest value and 1.5p.p.m. as the lowest value. The higher values were rather interesting in that the average value of Molybdemum over barren rock is of the order of 5p.p.m. It was thought that these may lead to a blind orebody.

However subsequent work established that the high molybdenum values are probably due to minor concentrations under alkaline environments.

In the presence of iron in acid conditions, the molybdenum tends to be caught up as ferri molybdite. The acid molybdate ion remains virtually insoluble.

The copper values on the other hand tend to be of background order.

The copper is reasonably mobile in acid environment and presence of any concentration should have been noticed in the sampling.

Due to the thick alluvium cover (up to 30 feet) the possible contamination in sampling was considered and some of the areas with initial high geochem values were tested by shallow drilling. It was decided to drill into the bedrock.

The results again confirmed the previous soil results with quite low copper values. The molybdenum values were even lower.

#### Conclusion

The granitic gneiss rocks have been intruded by doleritic dykes and sills.

It was thought that the latter could have been derivatives from an initial ultramafic magma or rock type. Earlier work for nickel mineralisation proved that these intrusions are mafic with no traces of nickel content at all.

However, one or two samples yielded very high copper values and it was thought the area might hold potential for a copper deposit.

Subsequent work in this direction showed that the area is devoid of any form of mineralisation. The area was recommended to be dropped.

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15/12/71 Submitting Officer: Mr. B. Param

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Submitting Officer: Mr. B. Param

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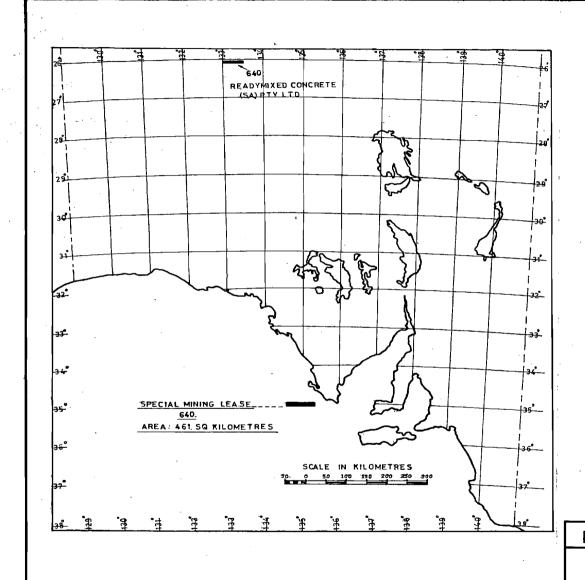
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Hole)	1 E	6.	100 80 40 30 45	140 230 50 20 25	<5 <5							
Ho <b>2∂</b> \.]	50-60' 60-70' 70-80' 80-90'	10 11 12 13	45 60 110 80	20 25 65 40	<5							
20.5E	B/L	14	60	220	<5				-			
Hole 20.5E- Hole 20.5E	B/L 0-3' B/L	15	80	60-								
Area 1	0-101	16	30	5,0	•							
	B/L 0-10' 10-15' /L 0-10' 10-20' 20-30' 30-40' 40-50' 50-60'	17 18 19 20 21 22 23 24	10 60 115 105 80 55 90	35 110- 100 115- 35- 30- 20- 30-	<5 <5							

	Project:	Sundown	Job	No. Jl	79	Authoris	ng Officer: Mr. B. ed: & 2 as marked				
	Work Re	Description: equired:		Сорре	r, Nickel	L & Moly	bdenum				
							of Samples: 40				
	Report Se	ent to:			Mr. B. Pa	aram	31/7/72				
	Analytica	al Report N	O.:	. A.A	S	Date:	I. Method No				
		in Charge	/ 5/	1	bole	Analvst	No.: 1		•••••	********	,
-		Analytical		Analyses	Required				Estimat	е.	
	nple ark	Reference Number	Cu. ppm	Ni. ppm	Mo. ppm	,	Description	.			
Area ]	<u>L</u> )										N-Paris spins
rz <b>k</b> ę	10-20' 20-30' 30-40'	J179/25 26 27 28	15 40 20 30	25 25 25 25 - 25 -							
Hole.	40-45	/ 29	20	25 -							
8N 181 8N 161	10-20° 10-20° 20-30° 30-40° 40-50° 50-60°	32 33 34 35	55 65 50 40 75 60	20 30 70 30 25 20 25							•
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Tole	1∫ E 0-10'	28	45	35′							
Hole	2 \ CE \ 0-10	39	30	40′			٠.				
Hold Ned0	<u>1</u> E 0-10	. 40		25/							
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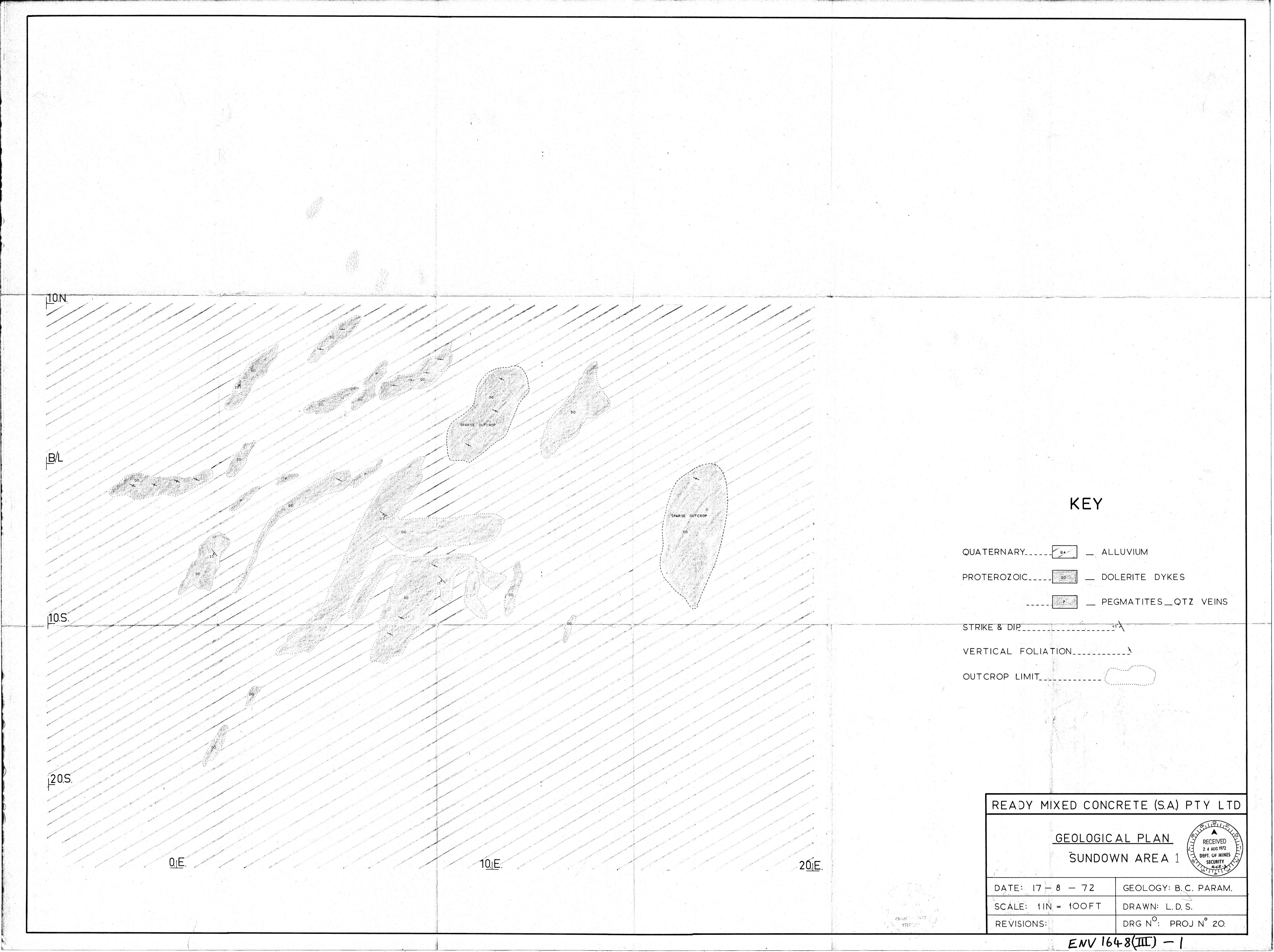


## S.M.L. 640 461 SQ KILOMETRES

READYMIXED CONCRETE S.A. PTY LTD

SUNDOWN AREA KULGERA SPECIAL MINING LEASE

DATE: 22-8-72	GEOLOGIST: D.C. PARAM
SCALE: 2 CM = 150KILOMETRES	DRAWN BY: L.D.S.
REVISIONS:	DRAWING N° PROJECT 20



																									- · · · · · · · · · · · · · · · · · · ·			KEY TO ELEMENT	<u>S</u>		COPPER DENUM. O NICKE  (COPPER)* COPPER* DENUM. O NICKE	(GEOCHEMICAL SOI SAMPLES) (DRILL HOLE LE SAMPLES).	łL.
<b>8</b> N	45. 5•0 O	50. 2 <b>6•</b> 5. <i>⊕</i> <b>2</b>	25. 🔾	35 3⁴4.⊖	0	30. 3•9. 🔾	•	55. 1•5, O	0	1 5 •7. ⊖4 0.	:	55. ·25•1 ©	0	45. 3-0 O	, O ,	30. 91 O	0	<b>(2850)*</b> 75. 12•6 ⇔ 70	0	50 2•9 💍	0	125. 5•7 O	0	70. 1•9 🔿	Φ								
4N	75. O	55. O	0	5.5 ()	0	(230) <b>*</b> 60. ⊖25.	<b>O</b>	9 Q. (*:	0	60. O	0	230. O	0	4.5. O	0	<b>20</b> . O	•	40 O	0	<b>4</b> 5. O	0	20 <b>0</b> .	0	75. O	0								
BL	40. O	25. O	0	70. O	0	<b>40</b> . O	0	170	· O	60 O	0	50. O	•	<b>75</b> . O	○	(55) <b>*</b> 115. ⊕115.	0	90	0	50. O	0	65. O	0	55. O	Φ								
<b>4</b> 5	55. 1·9 O:·	35 7-5 O	ō. O	8•4 C	0	(65) <b>¥</b> 40 1•0 ⊕25	O	25 7-5O	0	220. 3·2 ()	•	50. 3·4 O	0	9 0. 4•0. O	O U	25. 4·6. ()	• <u></u>	40 8•5. ()	0	150. 6•7 O	0	265. 10·2 O	O	40. 1•6 O	0	50. O	<b>⊙</b>	60. ⊙		•		and an entire section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section of the section	
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