

CARPENTARIA EXPLORATION COMPANY PTY. LTD.

DRILL HOLE ASSAY LOG

PAGE 1

NAME/PROSPECT : BULBURRA McARTHUR															NAME BULBURRA 6 ND										core/shut-in/rotary/cut																		
NAME					LEVEL		NORTHING					EASTING					COLLAR R.L.					SRG. M/ T/G			INCLINE		RECOV. Y		MINE		HOLE CODE				PREPARED BY		CHECK.D						
																	ground/ pipe					degrees			min.		degrees		min.		% / kg		CODE						assay: JBT				
B U L B U R R A					6 N D		S U R					1 8 2 1 7 9 6					5 0 5 7 5 3					1 0 0 4 6 2					0 1 1 0 0			- 5 0 0 0		6 7								logged: J. Janecek			
4					15 16 18		19					25					26					31 32					37 38 40 41 42 43			45 46 47 48		50		108 110 111		116							
LENGTH					STARTED			FINISHED			HOLE/CORE		ELEMENT SYMBOLS										SAMPLE STORED					SAMPLE		punch in all cards										contractor: A.D.D.			
					day month year			day month year			SIZE																	No prefix		108 to 116										date: 8.3.76 method:			
8 4 4					1 9 0 2 7 6			0 5 0 3 7 6			N O / B O		A G P B Z N C U										M C A					Q X		collar survey by: J. Janecek										date: 5.3.76 method: Tropari			
51					56 57 58 59 60 61			62 63 64 65 66 67 68 69			73 74 75 76 77 78 79 80 81		82 83 84 85 86										91																				
INTERVAL										RECOV. Y		SAMPLE N°		ASSAY RESULTS										PROGRESSIVE TOTALS																			
from		to		length		m / kg						Ag g/t		Pb %		Zn %		Cu %																									
5		8		10		13		15		17		19		21		47		51		22		25 26		29 30		33 34		37 38		41 42		45											
		0.0				1.3		1.3		0.0								0.0 0																No Core Recovery									
		1.3				3.4		2.1		1.3		1 8 6 1 9		6		0.0 1		1.2 8		0.0 0														Cu = < 10 ppm									
		3.4				4.6		1.2		0.8		1 8 6 2 0		6		0.0 1		1.4 2		0.0 0														Cu = < 10 ppm									
		4.6				6.1		1.5		0.6		1 8 6 2 1		4		0.0 3		1.5 6		0.0 0														Cu = 10 ppm									
		6.1				9.9		3.8		1.5		1 8 6 2 2		4		0.0 7		7.2 0		0.0 0														Cu = 30 ppm									
		9.9		1 1.8		1.9		1.4		1 8 6 2 3		4		0.0 3		1 8.4 0		0.0 0		0.0 0														Cu = < 10 ppm									
1		1.8		1 4.3		2.5		1.5		1 8 6 2 4		8		0.0 4		6.8 0		0.0 0		0.0 0														Cu = < 10 ppm									
1		4.3		1 5.8		1.5		1.3		1 8 6 2 5		4		0.0 2		3.0 2		0.0 0		0.0 0														Cu = < 10 ppm									
1		5.8		1 6.7		0.9		0.9		1 8 6 2 6		6		0.0 1		1.3 2		0.0 0		0.0 0														Cu = < 10 ppm									
1		6.7		1 8.4		1.7		1.5		1 8 6 2 7		6		0.0 1		3.3 6		0.0 0		0.0 0														Cu = < 10 ppm									
1		8.4		1 9.8		1.4		1.4		1 8 6 2 8		8		0.0 1		0.8 2		0.0 0		0.0 0														Cu = < 10 ppm									
1		9.8		2 0.3		0.5		0.5		1 8 6 2 9		6		0.0 2		0.5 6		0.0 0		0.0 0														Cu = < 10 ppm									
2		0.3		2 1.0		0.7		0.7		1 8 6 3 0		6		0.0 4		4.0 0		0.0 0		0.0 0														Cu = 20 ppm									
2		1.0		2 2.4		1.4		1.4		1 8 6 3 1		6		0.0 1		0.1 2		0.0 0		0.0 0														Cu = < 10 ppm									
2		2.4		2 3.6		1.2		1.2		1 8 6 3 2		6		0.0 1		2.6 2		0.0 0		0.0 0														Cu = 10 ppm									
2		3.6		2 5.1		1.5		1.5		1 8 6 3 3		4		0.0 2		1.6 4		0.0 1		0.0 0														Cu = 50 ppm									
2		5.1		2 5.7		0.6		0.6		1 8 6 3 4		8		0.0 1		0.3 2		0.0 0		0.0 0														Cu = < 10 ppm									
2		5.7		2 6.6		0.9		0.9		1 8 6 3 5		6		0.0 1		2.0 0		0.0 0		0.0 0														Cu = < 10 ppm									
2		6.6		2 7.2		0.6		0.6		1 8 6 3 6		6		0.0 2		0.4 0		0.0 0		0.0 0														Cu = < 10 ppm									
2		7.2		2 7.8		0.6		0.6		1 8 6 3 7		6		0.0 1		3.0 4		0.0 0		0.0 0														Cu = 10 ppm									
2		7.8		2 9.2		1.4		1.4		1 8 6 3 8		8		0.0 1		0.4 4		0.0 0		0.0 0														Cu = < 10 ppm									
2		9.2		3 0.4		1.2		1.2		1 8 6 3 9		4		0.0 1		0.0 6		0.0 0		0.0 0														Cu = < 10 ppm									
3		0.4		3 1.8		1.4		1.4		1 8 6 4 0		6		0.0 1		1.6 0		0.0 0		0.0 0														Cu = < 10 ppm									
3		1.8		3 3.2		1.4		1.4		1 8 6 4 1		6		0.0 1		0.6 4		0.0 0		0.0 0														Cu = 10 ppm									
3		3.2		3 4.2		1.0		1.0		1 8 6 4 2		6		0.0 1		0.7 4		0.0 0		0.0 0														Cu = 10 ppm									
3		4.2		3 5.7		1.5		1.5		1 8 6 4 3		4		0.0 2		1.1 6		0.0 0		0.0 0														Cu = < 10 ppm									

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core /~~pl~~~~ice~~~~cutting~~~~chips~~

[illegible]

CARPENTARIA EXPLORATION COMPANY PTY. LTD.

GEOLOGICAL LOG					MINE CODE	MS CODE	PAGE 1
MINE/PROSPECT: BULBURRA 1				NAME: BULBURRA NO.7		core/sludge/cutting/chip/	
LEVEL: SURFACE		NORTHING:		EASTING:		COLLAR R.L. ground/pipe:	
BEARING M/T/G: -		INCLINE: -90°		LENGTH: 89.6 m		STARTED: 26/4/76	FINISHED: 7/5/76
HOLE/CORE SIZE: 0 m to 6.1 m HQ; 6.1 m to 89.6 m NQ					INTERVALS ASSAYED:		
INTERVAL		RECOV.Y	DOWN HOLE SURVEY-Method: -		date: -	by: -	LOGGED BY: J.JANECEK
from	to	length	m/kg	DESCRIPTION			
0.0	2.4	2.4	0	No core - overburden.			
2.4	6.5	4.1	2.9	Weathered Dolomite. Yellow pitted gritty rock, vughs with calcite, some limonitic veins, minor silicification. Deep brown patches at bottom of section.			
6.5	14.1	7.6	4.4	Weathered Dolomite. Yellow pitted gritty rock, limonitic veining and calcite blebs. Large cavities in ground (hence loss of core). Patches of limonite and some cavities with limonite.			
14.1	23.1	9.0	6.8	Moderately Weathered Dolomite. White, slightly altered dolomite, speckled with limonitic spots with occasional patches completely weathered. Some sections silicified.			
				15.4 m to 16.2 m - white silt with limonitic blebs.			
				16.4 m - banding at 10° to core.			
				16.8 m - welded, silicified dolomite fragments up to 1 cm diameter.			
23.1	34.8	11.7	9.4	Dolomite Breccia. White dolomite fragments up to 1 m thickness in a black dolomitic mud matrix. In this section the mud is oxidized to a reddish silt. Occasional patches of core completely weathered. Some sections contain very little matrix.			
				33.0 m to 33.7 m - very weathered section.			
34.8	50.5	15.7		Dolomite Breccia. As above but less weathered. Mudstone matrix weathered.			
				38.2 m - Grains of galena over 2 cm .			
				41.3 m to 42.0 m - Unweathered dolomitic mud.			
50.5	69.5	19.0	17.1	Dolomite Breccia. Unweathered white dolomite breccia fragments in a black dolomitic mud. In some places mud very abundant. Occasional weathered patches. Fragments in all breccia white dolomite. At 56.8 m banded fragments appear in the breccia; pyrite and calcite healing common.			
				52.3 m to 54.0 m - Weathered and sheared section.			

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GEOLOGICAL LOG				MINE CODE	MS CODE	PAGE 1
MINE/PROSPECT: BULBURRA			NAME: BULBURRA NO. 8		core / ledge / cutting / chip /	
LEVEL: SURFACE		NORTHING:		EASTING:		COLLAR R.L. ground/pipe:
BEARING M/T/G: 0° M		INCLINE: -60°		LENGTH: 73.9	STARTED: 10.5.76	FINISHED: 2.6.76
HOLE/CORE SIZE: 1.5-11.6 HQ 11.6-73.9 NQ				INTERVALS ASSAYED:		
INTERVAL		RECOV.Y	DOWN HOLE SURVEY-Method:		date:	by:
from	to	length	m/kg	DESCRIPTION		
0	1.5	1.5	0	No core overburden.		
1.5	13.9	12.4	9.0	<u>Dolomite Breccia</u> Grey massive to well bedded (algal mat) dolomite fragments in a dolomite matrix. Veins of white clay material causing core to fracture, some cavities developed (Mara Dolomite) 5.9-6.1 well developed algal mat fragments.		
13.9	17.5	3.6	0.6	<u>Dolomite Breccia</u> The fragments in this section are much smaller up to 1 cm diameter of white, grey and black dolomite. The matrix is a pale green shaly material (Mara Basal Breccia).		
17.5	20.5	3.0	1.1	<u>Myrtle Shale</u> Pale green massive shale, with a crushed appearance.		
20.5	23.5	3.0	2.2	<u>Myrtle Shale</u> Well banded green shaly rock with more dolomite bands. The latter have been fractured and contorted, pale grey colour. 21.6 Core to bedding angle 0°.		
23.5	29.9	6.4	3.9	<u>Myrtle Shale</u> Well banded fractured dolomites with minor shaly bands, orangy pink spots of cherty fragments in core. Some sections finely brecciated. 26.2 Core to bedding angle 0°.		
29.9	35.3	5.4	5.4	<u>Myrtle Shale</u> Green shaly material with dolomitic bands pale grey to slightly pink. Occasional veins of calcite lime . Dolomitic beds contorted and fractured. Orangy pink cherty fragments through core. Some sections very shaley and fractured. 31.0 Core to bedding angle 0-5° 34.6 Core to bedding angle 20°		

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GEOLOGICAL LOG				MINE CODE WFD	MS CODE 000031	PAGE 1
MINER/PROSPECT: W-FOLD		NAME: W-FOLD 15 SD		core/sledge/cutting/chip/		
LEVEL: SURFACE	NORTHING: 182090.9	EASTING: 150986.5	COLLAR R.L. 10043.004 pipe: 10043.004			
BEARING M/T/G:	INCLINE: -58°	LENGTH: 197.8 m	STARTED: 22. 3.76	FINISHED: 1.4.76		
HOLE/CORE SIZE: 0m - 6.1m HQ, 6.1m - 42.7m NQ, 42.7m - 197.8m INTERVALS ASSAYED:						
INTERVAL		RECOV.Y	DOWN HOLE SURVEY-Method: Tropari ^{BQ} date: 1. 4.76 by: J. Janecek LOGGED BY: J. Janecek			
from	to	length	m/kg	DESCRIPTION		
0	4.9	4.9	0.0	No core. Overburden		
4.9	5.9	1.0	1.0	<u>Lower Dolomitic Shales.</u> Weathered, coarsly bedded greenish grey siltstone, not pyritic. Some borwnish colouration along joints and fractures. A barren zone.		
5.9	8.0	2.1	0.9	<u>Lower Dolomitic Shales.</u> Well bedded, weathered dolomitic shales with pyritic beds now weathered.		
				6.1 m Core to bedding angle, wavy 15°		
				7.3 m Core to bedding angle 80°		
8.0	10.2	2.2	1.3	<u>Lower Dolomitic Shales.</u> White fractured siltstone, probably tuffaceous. Weathered along fractures. Strongly fractured in parts.		
10.2	11.9	1.7	1.6	<u>Lower Dolomitic Shales.</u> Weathered, well bedded pyritic dolomitic shales.		
				10.3 m Core to bedding angle, wavy 65°		
				10.4 m - 10.6 m Deep brown - weathered silt, very low density.		
11.9	16.5	4.6	4.6	<u>Lower Dolomitic Shales.</u> Inter-bedded black shales and coarser grained dolomitic shaly siltstones. The shales form thin bands. The shaly dolomite has been recrystallized and has a nobly appearance. Sphalerite occurs mainly with the shaly dolomite and is concentrated along the rims and edges of joints. Discontinuous chert bands, fragments of chert rimmed with sphalerite. Some large 3 mm blebs of pyrite. Galena is fine grained. Some of the sphalerite still in the fine grained strata in the shales. Occasional barren tuffaceous(?) bands up to 2 cm thick.		
				13.0 m CBA 70°		
				14.3 m CBA 70°		
				16.4 m CBA 90°		

CARPENTARIA EXPLORATION COMPANY PTY. LTD.

GEOLOGICAL LOG					MINE CODE	WFD	MS CODE 000031	PAGE 2
XXXX PROSPECT: W-FOLD					NAME: W-FOLD 15 SD		LEVEL: SURFACE	
from	to	length	m/kg	DESCRIPTION				
16.5	17.5	1.0	1.0	<u>Lower Dolomitic Shales.</u> Massive shaly dolomite bed, upper contact crushed possibly a small fault. Rock is dark grey and in lower part of section is streaked with white specks, giving the impression of graded bedding.				
17.5	18.0	0.5	0.5	<u>Lower Dolomitic Shales.</u> Recrystallized dolomitic shales, sphalerite mineralization				
18.0	19.7	1.7	1.7	<u>Breccia.</u> Section starts with a weathered part about 0.1 m long. Rock of lower dolomitic shales, shaly sections brecciated with calcite matrix, some calcite veining. Some galena and sphalerite in matrix and host rock. This probably represents a small fault zone.				
19.7	21.5	1.8	1.8	<u>Lower Dolomitic Shales.</u> Recrystallized dolomitic shales, with barren zones being more abundant, moderately mineralized. Abundant calcite veining, carry over from preceeding section. Minor brecciation. CBA 60° at 20.5 m.				
21.5	25.8	4.3	4.3	<u>Lower Dolomitic Shales.</u> Massive greenish grey rock with thin interbeds of shale and shaly dolomite. Barren zone, very weak mineralization. Beds exhibit graded bedding. Some shale beds with sphalerite.				
				24.1 m - 25.1 m Very tuffaceous section, streaky and mottled appearance.				
				25.1m Puggy band 1 cm thick.				
				25.3 m CBA 85°, birds eye structure.				
25.8	34.7	8.9	8.9	<u>Lower Dolomitic Shales.</u> Well bedded silty dolomites with thin shaly beds containing abundant sphalerite. The silty dolomite make up larger part of the section. Some recrystallization in the shaly sections. Small nodules developed. Sphalerite reasonably coarse grained, clearly visible to eye.				
				26.9 m - 27.0 m graded beds				
				27.8 m CBA 75°				
				29.4 m CBA 90°				
				32.0 m slumping				
				32.6 m CBA 85°				

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GEOLOGICAL LOG					MINE CODE	WFD	MS CODE	000031	PAGE	3
PROSPECT: W-FOLD				NAME: W-FOLD 15 SD			LEVEL: SURFACE			
from	to	length	m/kg	DESCRIPTION						
34.7	36.0	1.3	1.3	Lower Dolomitic Shales. Thick bands of recrystallized dolomite with minor to shaly beds, very poorly mineralized.						
			34.9	m - 35.3 m more normal shaly beds, CBA 75°						
36.0	38.8	2.8	2.8	W-Fold Shales. Greenish grey rock, with abundant nodules of recrystallized dolomite some containing sphalerite and galena. Section is much greener than preceeding sections. 37.5 m CBA 75°						
38.8	42.3	3.5	3.5	W-Fold Shales. Greenish rock, well bedded, occasional nodules and minor sphalerite mineralization. Silty beds often broken (flaked).						
			39.4 m	red silty bands						
			40.9 m	CBA 90°						
42.3	49.9	7.6	7.6	W-Fold Shales. Rock consisting of pale red, green and pale green bands of variable thickness. Section often speckled with carbonaceous shards. Occasional chert bands.						
			43.4 m	CBA 90°						
			43.7 m	thin pale green shaly band.						
			44.5 m - 44.9 m	pale green section, some red interbeds.						
			45.7 m	apple green bands.						
			47.8 m - 47.9 m	pale green shaly bands.						
			48.0 m	CBA 85°						
49.9	50.6	0.7	0.7	W-Fold Shales. Pale grey speckled tuffaceous band, massive, slight red colouration.						
50.6	61.1	10.5	10.5	W-Fold Shales. Interbedded green, dark green, reddish bands. Reddish bands often discontinuous, (concretion) occasional red chert bands. Rock has a cherty appearance in places.						

CARPENTARIA EXPLORATION COMPANY PTY. LTD.

GEOLOGICAL LOG					MINE CODE	WFD	MS CODE 000031	PAGE 4
PROSPECT: W-FOLD					NAME: W-FOLD 15 SD		LEVEL: SURFACE	
from	to	length	m/kg	DESCRIPTION				
				55.0 m - 55.7 m tuffaceous band, pale green shaly material grading into more massive silty chert rock. Red chert bands.				
				57.4 m CBA 86°				
				58.1 m - 58.7 m pale green shaly material				
				60.1 m pale green crumbly shaly material				
61.1	63.3	2.2	2.2	W-Fold Shales. Tuffaceous bed, pale pink speckled with carbonaceous material quite abundant in places, massive rock.				
63.3	67.8	4.5	3.3	W-Fold Shales. Occasional very fine bedded very dark green beds.				
				66.0 m - 66.1 m tuffaceous bed				
				66.8 m - 67.1 m tuffaceous bed				
67.8	70.4	2.6	2.6	W-Fold Shales. Thin bedded very dark green shale, greasy appearance with nodules and bands of pink dolomitic siltstone. Some nodules of a grey dolomitic siltstone				
				68.8 m CBA 90°				
70.4	71.4	1.0	1.0	W-Fold Shales. Thin green bedded shales with abundant red dolomitic siltstone nodules, some have green centre.				
71.4	72.3	0.9	0.9	W-Fold Shales. Thin bedded green shales with occasional red dolomitic siltstone bands and nodules. 72.1 m CBA 80°				
72.3	73.1	0.8	0.8	W-Fold Shales. Tuffaceous bed, similar to 61.1 m - 63.3 m section pale green and pastle green bands of very fissile shale.				
73.1	77.0	3.9	3.9	W-Fold Shales. Thin bedded shales dark green and green with nodules and bands of red dolomitic siltstone.				
				75.5 m - 75.6 m pale green tuffaceous band				
				75.6 m CBA 75°				
				76.4 m - 76.5 m pale green tuffaceous band.				

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GEOLOGICAL LOG					MINE CODE	WFD	MS CODE	000031	PAGE	5
PROSPECT: W-FOLD					NAME: W-FOLD 15 SD			LEVEL: SURFACE		
from	to	length	m/kg	DESCRIPTION						
77.0	79.9	2.9	2.9	W-Fold Shales. Massive tuffaceous bed, with pale green fissile shales.						
				79.6 m CBA 80°						
79.9	93.7	13.8	13.8	W-Fold Shales. Interbedded, green shales, with red dolomitic siltstone bands and nodules. Occasional pale green tuffaceous beds of fissile shales. Some sections made up of predominantly red siltstone.						
				82.5 m - 82.8 m tuffaceous band.						
				84.5 m CBA 80°						
				87.0 m - 87.6 m tuffaceous band						
				89.5 m - 90.2 m tuffaceous band						
				91.2 m CBA 90°						
93.7	97.8	4.1	4.1	W-Fold Shale. Tuffaceous section, massive pink silt beds with fissile green interbeds. Tuffaceous beds up to 20 cm thick. Green nodules 1 cm diam. in green sections.						
				95.2 m CBA 80°						
				97.1 m slump in green tuffaceous rock.						
97.8	99.4	1.6	1.6	W-Fold Shale. Red silty nodules and bands in green shaly matrix, nodules become less abundant towards bottom of section.						
99.4	100.4	1.0	1.0	W-Fold Shale. Green shaly rock with silty nodules. Some massive green beds with carbonaceous shards. 99.9 m CBA 80°						
100.4	101.1	0.7	0.7	W-Fold Shale. Red dolomitic siltstone with wavy bands up to 1 cm thick, thin shaly interbeds (1 mm or less). Occasional patches recrystallized.						
101.1	102.9	1.8	1.8	W-Fold Shale. Green massive tuffaceous rock with occasional silty nodules, minor shaly beds of lighter green shale (1 mm thick) carbonaceous shards in massive beds. 102.0 m CBA 85°						

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GEOLOGICAL LOG					MINE CODE WFD	MS CODE 000031	PAGE 6
XXXX PROSPECT:		W-FOLD		NAME: W-FOLD 15 SD		LEVEL: SURFACE	
from	to	length	m/kg	DESCRIPTION			
102.9	104.0	1.1	1.1	W-Fold Shale. Green shales with red nodules and bands of silty material. 104.0 m red and green interbedded rock - red siltstones about 3 mm thick, green tuffaceous shale? beds. eight red beds. CBA 85°			
104.0	105.9	1.9	1.9	W-Fold Shale. Red dolomitic siltstone as in 100.9 m - 101.1 section 105.7 m CBA 85°			
105.9	107.5	1.6	1.6	W-Fold Shale. Tuffaceous section mainly green tuffaceous shales with faint pink colouration, increasing to pink in places. Some light green bands. 106.6 m - 106.8 m red dolomitic siltstones 107.2 m very thin band of bright green shale, interbedded with thin red siltstones.			
107.5	108.5	1.0	1.0	W-Fold Shale. Red dolomitic silty beds and nodules in green shale matrix, shale content increases to bottom of section. 108.3 m CBA 85°			
108.5	114.2	5.7	5.7	W-Fold Shale. Tuffaceous section, bulk of section made of pale red, massive siltstone with some greenish bands, these grade into pink. At start of section about 30 cm of well bedded green tuffaceous rock. Rock is predominantly pink and massive to 112.1 m, thence it is mainly green with patches of no tuffaceous red dolomitic siltstone nodules and bands. 112.3 m CBA 80° 112.3 m - 112.6 m Red silty bands and nodules. 113.1m - 113.9 m Red silty bands and nodules.			
114.2	116.5	2.3	2.3	W-Fold Shales. Interbedded green and red shales with disrupted and broken bands of red dolomitic siltstone. These siltstones have very irregular shapes, some contain brick red sections, edges appear as if these bands have grown and are not primary sedimentary bands (ie what we see now is not the original band but it has grown on an original band nucleus). 116.4 m CBA 75°			

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GEOLOGICAL LOG				MINE CODE WFD	MS CODE 000031	PAGE 9
PROSPECT: W-FOLD				NAME: W-FOLD 15 SD		LEVEL: SURFACE
from	to	length	m/kg	DESCRIPTION		
152.3	159.6	7.3	7.3	W-Fold Shales. Well banded interbedded red silty shale and dolomitic siltstone. Occasional thin tuffaceous bands. Drill bit has given core and arenaceous texture.		
				154.6 m	CBA 75°	
				156.9 m	red tuffaceous bed 2 cm thick	
				157.7 m	CBA 75°	
				159.2 m	CBA 75°	
159.6	160.6	1.0	1.0	W-Fold Shales. Massive deep pink tuffaceous band.		
160.6	166.6	6.0	6.0	W-Fold Shale. Similar to 152.3 m - 159.6 m section.		
				162.2 m	CBA 75°	
				162.7 m - 163.3 m tuffaceous bands, CBA 90°		
				164.7 m - 165.3 m rocks brecciated		
				166.4 m	CBA 80°	
166.6	167.8	1.2	0.6	W-Fold Shale. Massive tuffaceous rock, core broken.		
167.8	170.1	2.3	2.1	W-Fold Shale. Similar to 152.3 m - 159.6 m section.		
				168.4 m	CBA 90°	
				168.7 m - 169.0 m brecciated with pyrite in joints		
				170.0 m	red cherty tuffaceous bands, 5 cm thick.	
170.1	180.9	10.8	10.8	Teena Dolomite. Well banded, interbedded red ocher like bands (altered red silty beds?), with red and grey dolomite. Towards bottom of section rocks become more grey. Bands are up to 5 mm thick and are sometimes linsoid. Banding contorted in places. Some recrystallization of dolomitic bands. 172.9 m CBA 85°		
				174.4 m	bedding folded	
				175.8 m	bedding folded	
				178.3 m	CBA 80°	

CARPENTARIA EXPLORATION COMPANY PTY. LTD.

GEOLOGICAL LOG

MINE CODE

WFD

MS CODE 000031

PAGE 10

W-FOLD PROSPECT:

W-FOLD

NAME:

W-FOLD 15 SD

LEVEL: SURFACE

from

to

length

m/kg

DESCRIPTION

180.9	184.4	3.5	3.5	Teena Dolomite. Predominantly grey well bedded rock, some well developed stylolites.
				183.0 m CBA 85°
				184.4 m two thin chert bands and pale green clay
184.4	185.8	1.4	1.4	Teena Dolomite. Similar to 180.9 m - 184.4 m section except slightly more pink in rock. 185.7 m CBA 90°, tuffaceous beds
185.8	197.8	12.0	12.0	Teena Dolomite. Similar to 180.9 m - 184.4 section.
				186.8 m pale green clay (tuff?)
				187.4 m CBA 75°
				188.2 m - 188.4 tuffaceous bands. CBA 70°. Fractured at end.
				189.2 m CBA 85°
				190.5 m - 192.2 m rock brecciated (minor fault) some calcite veining, low angle to core.
				193.5 m - 193.7 m CBA disrupted
				194.1 m - 196.8 m Rock brecciated, low angle to core
				197.4 m CBA 75°

END OF HOLE 197.8 m

NOTE: The Teena Dolomite and W-Fold shale boundary is arbitrary. In this case it was based on the number of thick tuffaceous beds present as well as thinner tuff beds.

CARPENTARIA EXPLORATION COMPANY PTY. LTD.

GEOLOGICAL LOG

MINE CODE

MS CODE

PAGE 1

MINE/PROSPECT: REWARD II, McARTHUR NAME: REWARD II No.1 core/surface/cutting/split/
 LEVEL: Surface NORTHING: EASTING: COLLAR R.L. ground/pipe:
 BEARING M/XXX: 180° M INCLINE: -70° LENGTH: 145.4 STARTED: 8.6.76 FINISHED: 16.7.76
 HOLE/CORE SIZE: 0-6.1 HQ, 6.1-63.7 NQ, 63.7-145.4 BQ INTERVALS ASSAYED: -
 DOWN HOLE SURVEY-Method: - date: - by: - LOGGED BY: J. Janecek

INTERVAL			RECOV. Y	DESCRIPTION
from	to	length	m/kg	
0.0	3.1	3.1	0.7	Red clay with dolomite rock fragments.
3.1	5.7	2.6	2.6	Banded Dolomite. Moderately banded dolomite white to pale orange in colour, fractured in places. Flake breccias present. 3.4 m Core to bedding 55°.
5.7	43.9	38.2	38.2	Dolomite Breccia. Very ill-sorted breccia with fragments ranging from millimetres to metres in diameter set in a matrix of dark grey. Dolomite openings between fragments is very variable, from closely packed to matrix occurring without fragments over 0.5 m. In many places sections have been replaced by layered cryptocrystalline quartz giving the core an agaty appearance. Replacement is most pronounced in the upper part and in the matrix. Occasional secondary calcite veins. 36.3-36.7 m. Calcite veins with dolomite fragments caught up in it.
43.9	47.9	4.0	4.0	Dolomite Breccia. Similar to above but fragments here consist of silicified algal dolomite, now white well banded and contorted cryptocrystalline quartz.
47.9	53.7	5.8	5.8	Dolomite Breccia(?). Banded dolomite, slightly silicified and weathered along banding planes. No definite dark dolomite matrix present. Core is very fractured. Possibly a fragment. 49.3 m. Core to banding angle 75°. 50.4-50.7 m. Very porous section - angular cavities. 52.5-52.7 m. Finely brecciated section, matrix dark brown mineral. 52.7 m. Core to banding angle 65°.

CARPENTARIA EXPLORATION COMPANY PTY. LTD.

GEOLOGICAL LOG

MINE CODE

MS CODE

PAGE 2

MINE/PROSPECT: Reward II

NAME: Reward II No.1

LEVEL: Surface

from	to	length	m/kg	DESCRIPTION
53.7	56.7	3.0	3.0	<u>Dolomite Breccia.</u> Massive dolomite with irregular fractures containing white dolomite and also dark dolomite. Occasional banded fragments, core slightly weathered, especially in matrix of breccia.
56.7	67.9	11.2	11.2	<u>Dolomite Breccia.</u> Massive dolomite fragments with dark dolomite matrix. Fragments can be angular or rounded. The angular fragments appear to be more of a parting breccia (i.e. fragments can be filled together again.) Occasional white patches of weathered and silicified dolomite as fragments. 62.9-63.7 m - Matrix running along core secondary dolomite healing on either side of dark dolomite. 64.9-65.2 m - Small rounded and angular fragments. 67.2-67.5 m - Angular fragments.
67.9	72.1	4.2	4.2	<u>Dolomite Breccia.</u> Fragments consists of well banded dolomites and mottled dolomite. Fragment size variable but usually small. Matrix varies from dark dolomite to white banded cryptocrystalline quartz. Appears to be about 2 generations of brecciation. Breccia types variable.
72.1	86.3	14.2	14.2	<u>Dolomite Breccia.</u> Massive dolomite fragments occasional banded section. Some fragments have coarser grained material. 77.8 m - Banding at 65° to core. 78.2-78.5 m - Contorted banding, dolomite (white) vein filling. 78.8-79.2 m - Dark dolomite vein, running along core with white dolomite edges. Zoned vein. 82.6-82.7 m - White alteration to banded section. 84.7-84.9 m - Mottled dolomite matrix(?) bent around massive dolomite fragment.
86.3	89.7	3.4	3.4	<u>Gritty Banded Dolomite.</u> Fine to medium grained grey gritty dolomite upper part of section fragmented and altered to white kaolinitic dolomite. Rock becomes more massive to base of section. 87.8 m - Core to banding angle 75°.

CARPENTARIA EXPLORATION COMPANY PTY. LTD.

GEOLOGICAL LOG				MINE CODE	MS CODE	PAGE 3
MINE/PROSPECT: Reward II				NAME: Reward II No. 1		LEVEL: Surface
from	to	length	m/kg	DESCRIPTION		
89.7	102.6	12.9	12.9	<u>Gritty Banded Dolomite.</u> As in 86.3-89.7 m section towards base, here it is brecciated with a dark dolomite matrix, slight weathering and occasional silicification. Stylolitic joints with matrix in lower part of section. 93.3-96.3 m - Slightly weathered section. 96.3 m - Core to banding angle 85° . 98.7-99.0 m - Half core oncolitic fragments up to 2 mm diam. Other half of core matrix. Stylolitic joint. 104.4 m - Core to banding angle 85° . 101.9-102.2 m - Larger (up to 5 mm) oncolite fragments.		
102.6	105.9	3.3	3.3	<u>Mottled Dolomite.</u> Dark grey dolomite with wavy banding of possible algal origin, in other parts no banding but irregular patches of lighter and dark grey dolomite banding roughly parallel to core. Towards bottom of section mottling less distinct and dolomite more massive. This section appears similar to the mottled sandstones in the Zambian Copperbelt.		
105.9	114.9	9.0	5.8	<u>Banded Dolomite.</u> Section weathered to off-white colour, banding well developed. Banding could be growth bands as at 108.3 m and 112.0 m an oncolite structure is present. Core fractured at base and fractures filled with white clay material. 114.3-114.9 m - Banding wavy and appears to be of an algal origin. 107.9 m - Core to banding angle 75° . 109.6-111.4 m - Cavity.		
114.9	123.8	8.9	0	No core - cavity.		
123.8	127.8	4.0	4.0	<u>Banded Dolomite.</u> Weathered section with well banded dolomite, banding due to thin carbonaceous lamellar. In places very contorted.		

CARPENTARIA EXPLORATION COMPANY
PTY. LTD.

MINING TENEMENT

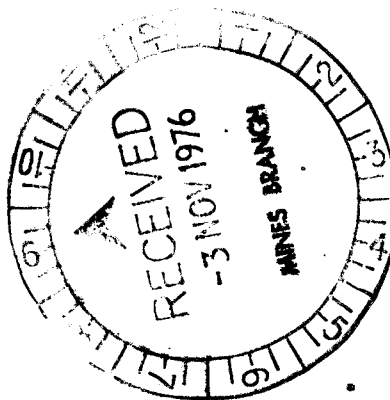
PROGRESS REPORT

OPEN FILE

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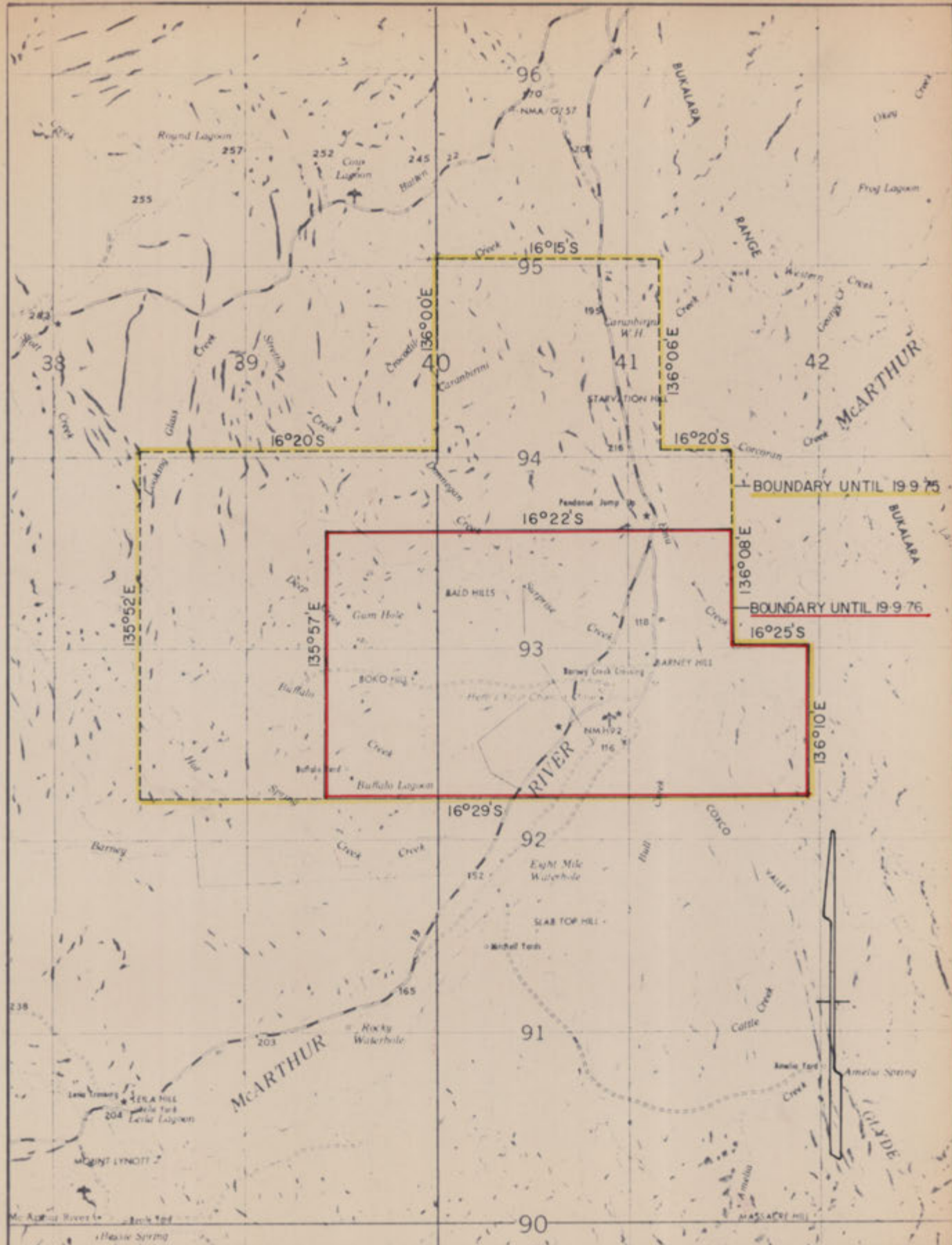
ANNUAL REPORT FOR YEAR ENDED SEPTEMBER 19, 1976.

VOLUME 2 OF 2

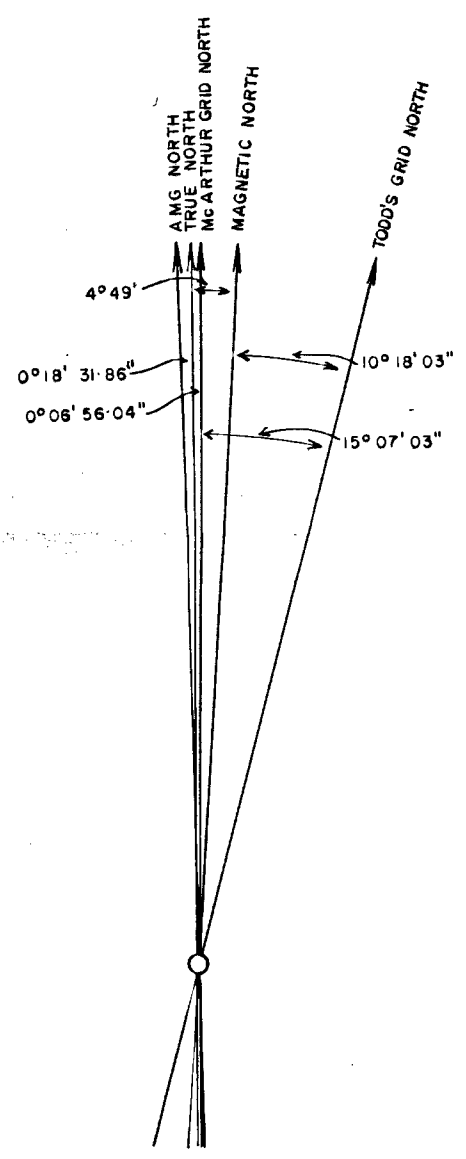
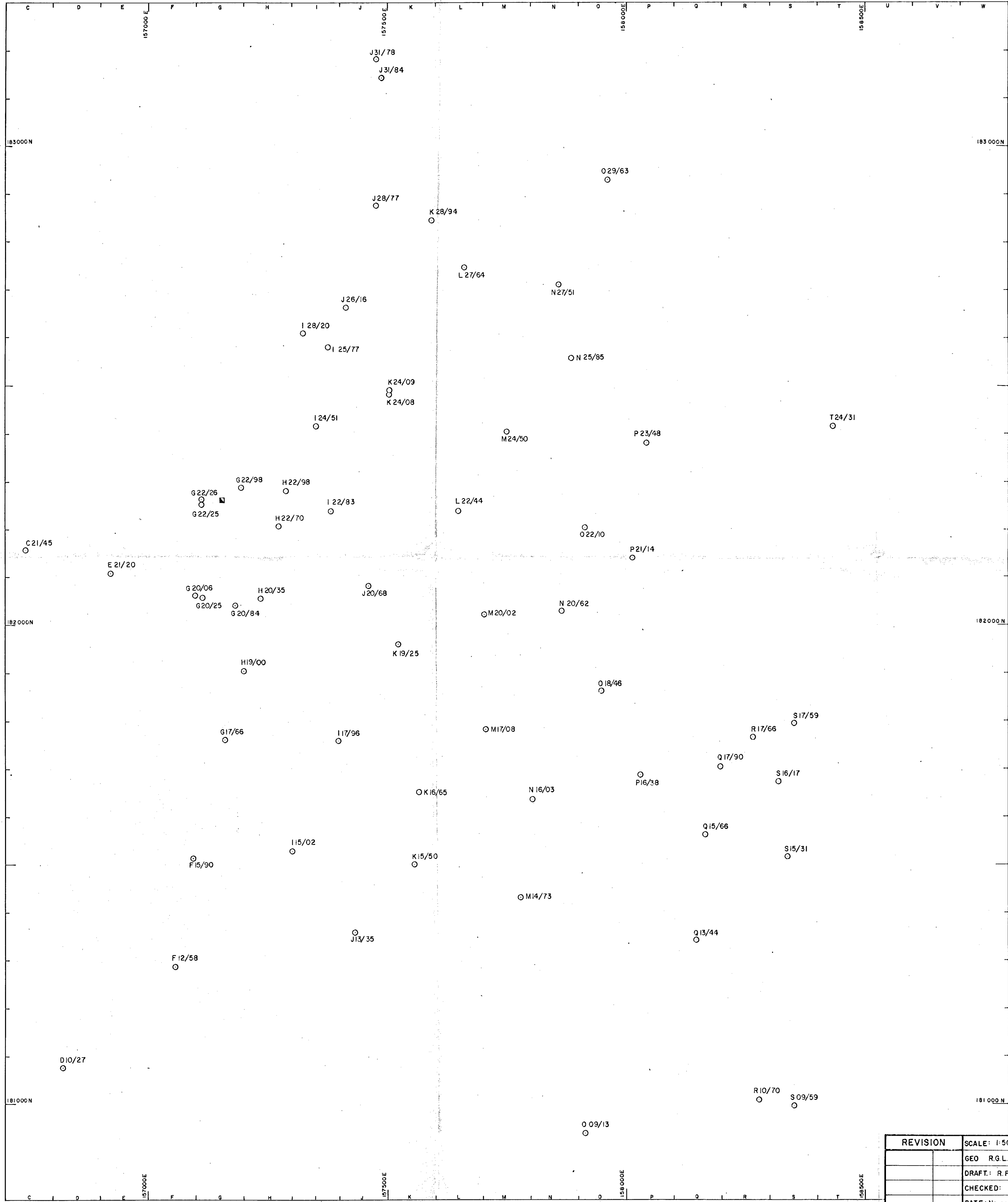


DATE: November 24, 1976

COPY: Assistant Secretary
Mines



REVISION	SCALE: 1:250 000	CARPENTARIA EXPLORATION COMPANY PTY. LTD.
	GEOL.	E.L. 598 'BARNEY HILL' NORTHERN TERRITORY LOCATION MAP
	DRAFT: RCT	
	CHECKED	
	DATE: November 1976	
	MICROFILMED	
	ROLL No.	MINING FIELD OR DISTRICT: Mc ARTHUR
		DRG. No. /



REVISION		SCALE: 1:5000	CARPENTARIA EXPLORATION COMPANY PTY. LTD.	
		GEO. R.G.L.	Mc ARTHUR (NORTHERN TERRITORY) DIAMOND DRILL HOLE LOCATIONS ON A.M.G. 1975 GRID (H.Y.C. and some Ridge holes)	
		DRAFT: R.F.		
		CHECKED:		
		DATE: November 1975		
		MICROFILMED:		
		ROLL No.		
3-12-75	R.F.	MINING FIELD OR DISTRICT: Mc ARTHUR	DRG. No. 14904	

156700mE

156800mE

156900mE

157000mE

157100mE

157200mE

152200mN

RL 2000

RL 1900

LEGEND

- Mineralized shale
- Pyritic shale
- Co. Dolomitic shale (includes tuffaceous dolomite units)
- T Tuffaceous green shale, minor pink tuffaceous dolomite interbeds
- TD Pink tuffaceous dolomite
- M Massive dolomite
- TD Thick bedded dolomite
- Me Medium bedded dolomite
- Mx Micaceous dolomite
- L Laminated dolomite
- Mx Micrystallized dolomite
- Swc Swc, graded beds
- Mudstone
- Geological boundary
- Transitional, geological boundary
- Fault, probable strike only
- Trend of bedding
- Dip/Dip azimuth of bedding
- Quartz, dip/dip azimuth
- Dip of bedding or fault, back plan
- Plunge of mineral axis
- Plunge of structural axis
- MIM survey peg

McArthur River AMG Grid

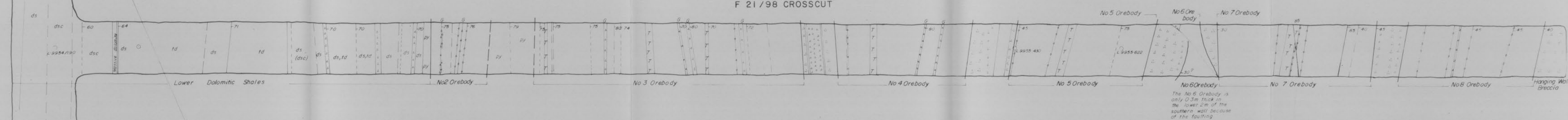
152200mN

156800mE

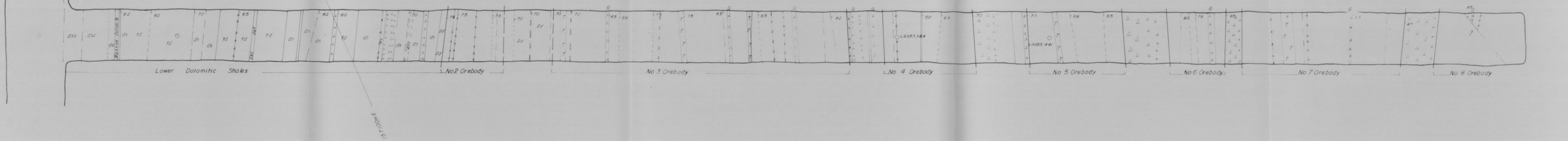


REVISION		SCALE: 1:500	CARPENTARIA EXPLORATION COMPANY PTY LTD
GEO J.N. R.L.			McARTHUR RIVER
DRAWN: L.L.			HYC DEVELOPMENT ADIT
CHECKED:			GEOLOGY
DATE: October 1975			BACK PLAN
MICROFILMED:			NORTHERN WALL OF DECLINE
ROLL N°:			
MINING FIELD or DISTRICT: McArthur River			DWG. N° 11274

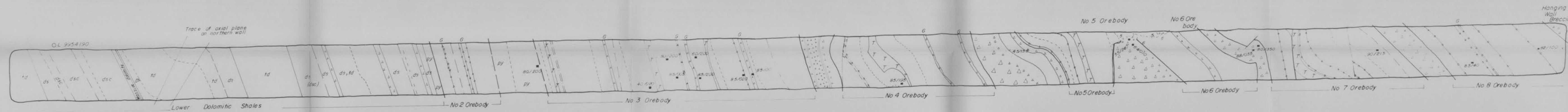
BACK PLAN
F 21/98 CROSSCUT



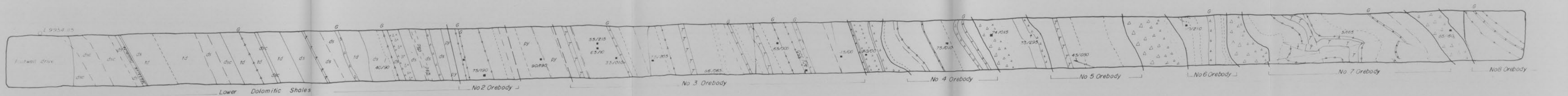
F 21/86 CROSSCUT



NORTHERN WALL F 21/98 CROSSCUT

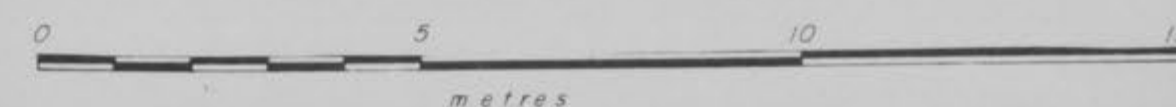


NORTHERN WALL F 21/86 CROSSCUT



LEGEND

- | | |
|--|--|
| □ Mineralized shale | --- Trend of bedding |
| ds Dolomitic shale | --- Fault definite |
| dsc Dolomitic shale with concretions | --- Fault - probable or orientation not accurately known |
| td Tuffaceous dolomite | --- Dip/dip azimuth of bedding |
| py Pyritic shale | --- Dip/dip azimuth of fault |
| T Tuff - generally greenish-grey, cherty with minor mudstone | --- Joint dip/dip azimuth |
| sb Slump breccia | --- Dip of bedding |
| gb Graded breccia | --- Dip of fault |
| gb Graded beds | ○ M/M survey peg |
| md Mudstone | |
| nc Nodular chert-rimmed by spalerite | |
| ob Orebody boundary | |
| ob Transitional orebody boundary | |
| gb Geological boundary | |
| gb Transitional geological boundary | |



REVISION	SCALE 1:100	APPENDIX A EXPLORATION COMPANY PTX LTD
	SED J.N./R.L.	McARTHUR RIVER
	DRAWN L.L.	HYC DEVELOPMENT ADIT
	CHECKED	GEOLOGY
	DATE October 1975	F21/98, F21/86 CROSSCUTS
	MICROFILMED	BACK PLAN, SECTIONS
	ROLL N°	
MINING FIELD or DISTRICT	McArthur River	DISC N° 11275

LEGEND

LOWER CRETACEOUS

LOWER CAMBRIAN ? BUKALARA SANDSTONE

ROPER GROUP
BESSIE CREEK SANDSTONE
CORCORAN FORMATION
ABNER SANDSTONE
CRAWFORD FORMATION
MAINORU FORMATION
LIMMEN SANDSTONE

STOTT FORMATION
SMYTHE SANDSTONE

LOOKING GLASS FORMATION

STRETTON SANDSTONE

YALCO FORMATION

DONNEGAN MEMBER

UPPER LYNOTT FORMATION

LOWER LYNOTT FORMATION

REWARD DOLOMITE

REWARD VOLCANICS

UPPER BRECCIAS

SURPRISE CREEK DOLOMITE

H.Y.C. PYRITIC SHALE

BASAL TUFF BEDS

LAMINATED DOLOMITE

MITCHELL YARD DOLOMITE

MARA TRANSITIONAL SERIES

MARA DOLOMITE

BASAL MARA DOLOMITE BRECCIA

MYRTLE SHALE

SLAB TOP DOLOMITE

CATTLE CREEK BEDS

MALLAPUNYAH FORMATION

MASTERTON FORMATION

WOLLOGORANG FORMATION

GRANITIC INTRUSIONS

SILICIFICATION

CHERT

REFERENCE

GEOLOGICAL BOUNDARIES
ESTABLISHED BOUNDARY - POSITION ACCURATE
- POSITION APPROXIMATE
INFERRED, PROBABLE BOUNDARY CONCEALED

OUTCROP BOUNDARY
SUB-OUTCROP BOUNDARY

BEDDING
STRIKE AND DIP OF STRATA
VERTICAL STRATA
HORIZONTAL STRATA
OVERTURNED STRATA

JOINTS
STRIKE AND DIP OF JOINTS
INCLINED
VERTICAL
HORIZONTAL

FOLDS
ESTABLISHED ANTICLINAL AXIS POSITION ACCURATE
" " " " APPROXIMATE
SYNCLINAL " " ACCURATE
" " " " APPROXIMATE

FAULTS
ESTABLISHED FAULT POSITION ACCURATE
" " " " APPROXIMATE
INFERRED

LEAD MINERALISATION
ZINC
COPPER
MINE OR PROSPECT
DIAMOND DRILL HOLE VERTICAL
" " INCLINED

TRIG STATION
MAIN ROAD
VEHICLE TRACK
LEASE BOUNDARY
FENCE
SHAFT
COSTEAN
PIT
RIVER
STREAM OR GULLY

DONNEGAN	EMU	
REWARD	H.Y.C.	
MITCHELL YD.	COXCO	

INDEX TO ADJOINING SHEETS



BASE MAP COMPILED FROM UNCONTROLLED AERIAL PHOTO MOSAICS
GEOLOGY FROM FIELD DATA

CARPENTARIA EXPLORATION COMPANY PTY. LTD.

GEOLOGICAL MAP OF

H.Y.C.

(McArthur River Series)

GEOLOGICAL	J.A.S.H.A.W.	DATE NOV. 1966
CHECKED	DRAWN D.E.K.	2401

APPROX SCALE.

1600 0 1600 3200 4800 6400 8000

LEGEND	
LOWER CRETACEOUS	KL 72-74
LOWER CAMBRIAN ? BUKALARA SANDSTONE	CLb
BESSIE CREEK SANDSTONE	Pro
CORCORAN FORMATION	Pro
ABNER SANDSTONE	Pro
CRAWFORD FORMATION	Pro
MAINORU FORMATION	Pro
LIMMEN SANDSTONE	Pro
STRETTON SANDSTONE	Pro
YALCO FORMATION	Pro
DONNEGAN MEMBER	Pro
UPPER LYNOTT FORMATION	UL
LOWER LYNOTT FORMATION	LL
REWARD DOLOMITE	Rd
REWARD VOLCANICS	Rdv
UPPER BRECCIAS	ULb
SURPRISE CREEK DOLOMITE	Sc
H.Y.C. PYRITIC SHALE	Py
BASAL TUFF BEDS	Tb
LAMINATED DOLOMITE	Ld
MITCHELL YARD DOLOMITE	My
MARA TRANSITIONAL SERIES	Ms
MARA DOLOMITE	Ma
BASAL MARA DOLOMITE BRECCIA	MB
MYRTLE SHALE	Ms
SLAB TOP DOLOMITE	St
CATTLE CREEK BEDS	Cc
MALLAPUNYAH FORMATION	Em
MASTERTON FORMATION	Ph
WOLLOGORANG FORMATION	Pro
GRANITIC INTRUSIONS	Ps
SILICIFICATION	Si
CHERT	Ch

REFERENCE	
GEOLOGICAL BOUNDARIES	
ESTABLISHED BOUNDARY - POSITION ACCURATE	—
— POSITION APPROXIMATE	- - -
INFERRED, PROBABLE BOUNDARY CONCEALED	- - - ?
BEDDING	
STRIKE AND DIP OF STRATA	25°
VERTICAL STRATA	⊥
HORIZONTAL STRATA	—
OVERTURNED STRATA	72°
JOINTS	
STRIKE AND DIP OF JOINTS	25°
INCLINED	—
VERTICAL	—
HORIZONTAL	—
FOLDS	
ESTABLISHED ANTICLINAL AXIS POSITION ACCURATE	—
— POSITION APPROXIMATE	- - -
SYNCLINAL	—
— POSITION APPROXIMATE	- - -
FAULTS	
ESTABLISHED FAULT POSITION ACCURATE	—
— POSITION APPROXIMATE	- - -
INFERRED	- - - ?
LEAD MINERALISATION	Pb. O
ZINC	Zn. O
COPPER	Cu. O
MINE OR PROSPECT	⊙
DIAMOND DRILL HOLE VERTICAL	⊙
— INCLINED	⊙ 60°
TRIG STATION	△
MAIN ROAD	—
VEHICLE TRACK	- - -
LEASE BOUNDARY	- - -
FENCE	—
SHAFT	—
COSTEAN	—
PIT	—
RIVER	—
STREAM OR GULLY	—



LOOKING GLASS	DONNEGAN	EMU
BUFFALOO LAGOON	REWARD	H.Y.C.
ROCKY YARD	MITCHELL YARD	COXCO

INDEX TO ADJOINING SHEETS

APPROX SCALE.
1600' 0' 1600' 3200' 4800' 6400' 8000'

BASE MAP IS COMPILED FROM UNCONTROLLED AIR PHOTOMOSIACS.
GEOLOGY PLOTTED FROM FIELD DATA.

CARPENTARIA EXPLORATION COMPANY PTY. LTD.		
GEOLOGICAL MAP OF		
REWARD		
(McArthur River Series)		
GEOLOGICAL	JASHAW	DATE MAY 1966
CHECKED	DRAWN D.E.K.	2006

LEGEND

Old C.E.C. and B.M.R. nomenclature

LOWER CRETACEOUS	KL	
LOWER CAMBRIAN? BUKALARA SANDSTONE	C/b	
BESSIE CREEK SANDSTONE	Prs	
CORCORAN FORMATION	Pro	
ABNER SANDSTONE	Pro	
CRAWFORD FORMATION	Pro	
MAINORU FORMATION	Pro	
LIMMEN SANDSTONE	Pl	
BALBIRINI DOLOMITE	Pmb	
STOTT FORMATION	Pms	
SMYTHE SANDSTONE	Pmy	
LOOKING GLASS FORMATION	Pmo	
STRETTON SANDSTONE	Pmr	
YALCO FORMATION	Pmj	
DONNAGAN MEMBER	Pmd	
UPPER LYNOTT FORMATION	UL	
LOWER LYNOTT FORMATION	LL	
REWARD DOLOMITE	Rd	
REWARD VOLCANICS	Rdv	
UPPER BRECCIAS	Ubr	
SURPRISE CREEK DOLOMITE	Sc	
H.Y.C. PYRITIC SHALE	Py	
BASAL TUFF BEDS	BT	
LAMINATED DOLOMITE	Ld	
MITCHELL YARD DOLOMITE	MI	
MARA TRANSITIONAL SERIES	Ms	
MARA DOLOMITE	Ma	
BASAL MARA DOLOMITE BRECCIA	Mo	
MYRTLE SHALE	Ms	
SLAB TOP DOLOMITE	St	
CATTLE CREEK BEDS	Cc	
MALLAPUNYAH FORMATION	Pml	
MASTERTON FORMATION	Ptn	
WOLLOGORANG FORMATION	Pto	
ROSIE CREEK SANDSTONE	Ptr	
SLY CREEK SANDSTONE	Ptl	
PETERS CREEK VOLCANICS	Ptp	
GRANITIC INTRUSIONS	Ps	
SILICIFICATION		
CHERT		

REFERENCE

GEOLOGICAL BOUNDARIES	
ESTABLISHED BOUNDARY - POSITION ACCURATE	---
" " " " POSITION APPROXIMATE	- - -
INFERRED, PROBABLE BOUNDARY CONCEALED	---
BEDDING	
STRIKE AND DIP OF STRATA	20°
VERTICAL STRATA	100°
HORIZONTAL STRATA	100°
OVERTURNED STRATA	100°
JOINTS	
STRIKE AND DIP OF JOINTS	20°
INCLINED	100°
VERTICAL	100°
HORIZONTAL	100°
FOLDS	
ESTABLISHED ANTICLINAL AXIS POSITION ACCURATE	+
" " " " APPROXIMATE	+
" " " " SYNCLINAL	+
" " " " APPROXIMATE	+
FAULTS	
ESTABLISHED FAULT POSITION ACCURATE	---
" " " " APPROXIMATE	---
INFERRED	---
LEAD MINERALISATION	
ZINC	20°
COPPER	20°
MINE OR PROSPECT	20°
DIAMOND DRILL HOLE VERTICAL	20°
" " " " INCLINED	20°
TRIG STATION	20°
MAIN ROAD	20°
VEHICLE TRACK	20°
LEASE BOUNDARY	20°
FENCE	20°
SHAFT	20°
COSTEAN	20°
PIT	20°
RIVER	20°
STREAM OR GULLY	20°

INDEX TO COMPOSITE MAP

HOT SPRINGS	LOOKING GLASS	DONNAGAN	EMU
BARNEY	BUFFALO LAGOON	REWARD	H.Y.C.
LEILA	POCKY YARD	MITCHELL YARD	COXCO
ABNER	KILGOUR	MYRTLE	AMELIA
			MASSACRE HILL

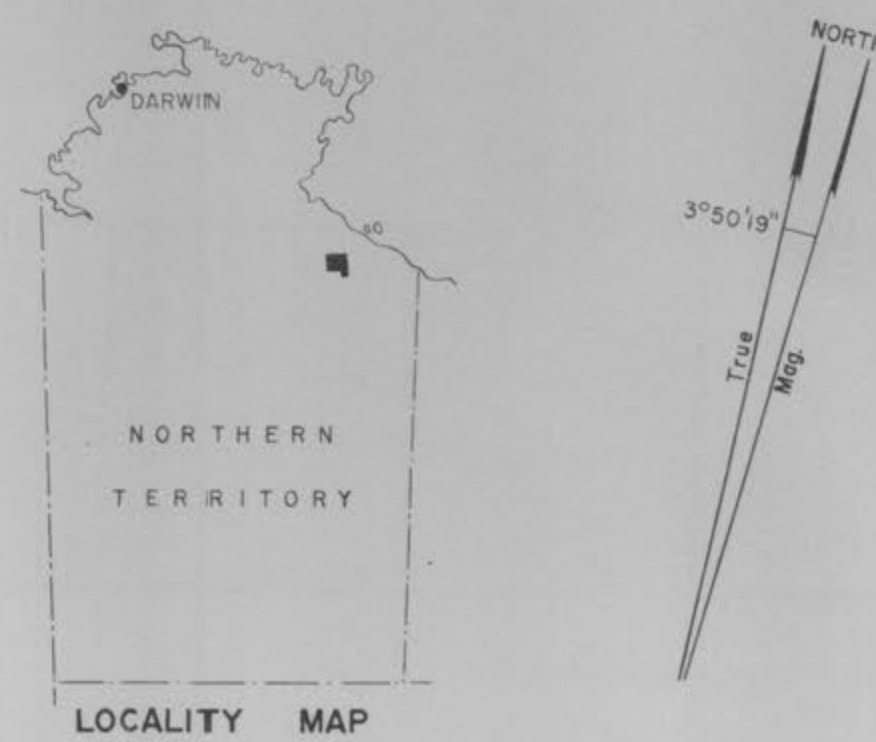
CARPENTARIA EXPLORATION COMPANY PTY. LTD.

COMPOSITE GEOLOGICAL MAP McARTHUR AREA

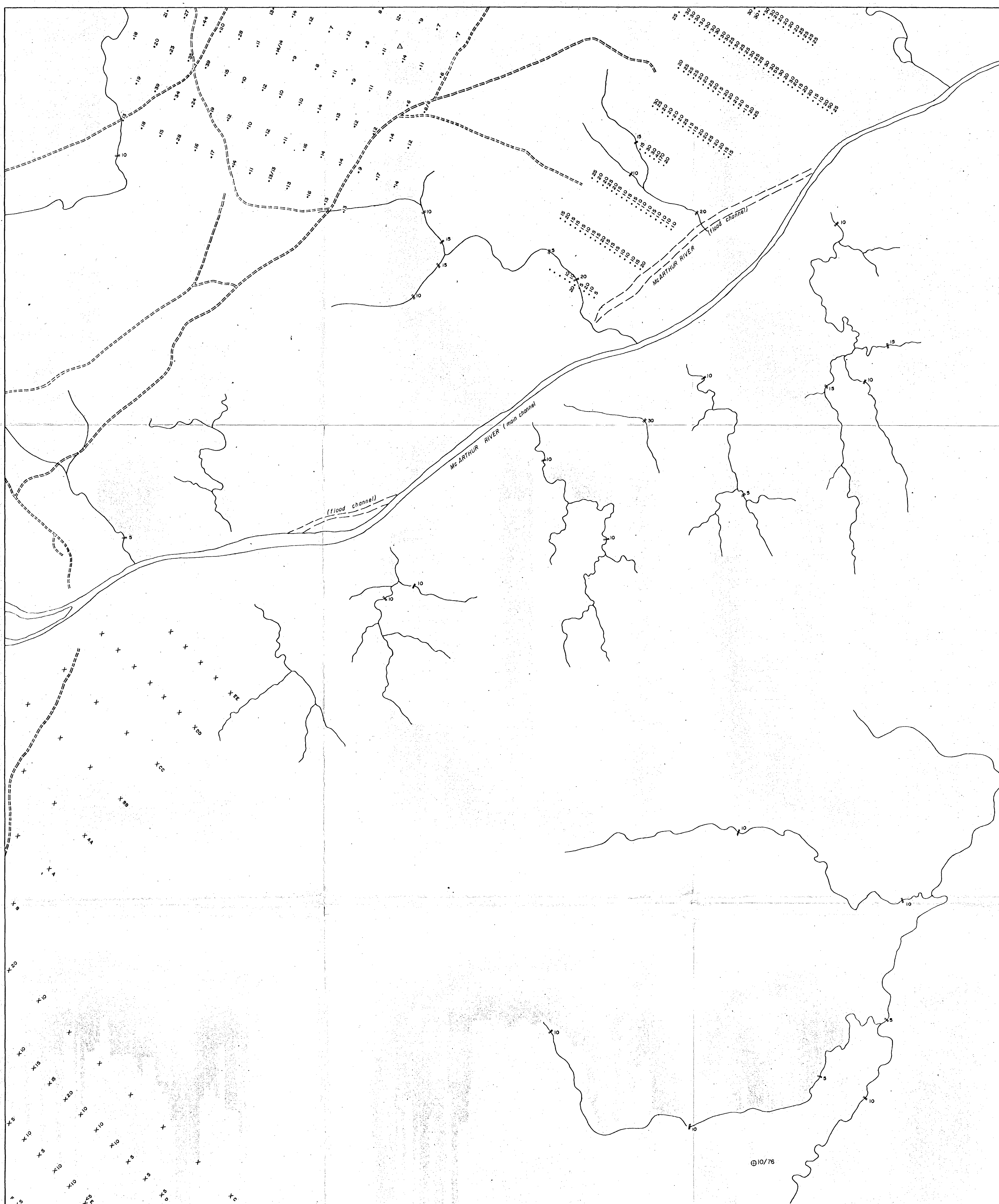
INDEX TO 1:5000 SHEETS McARTHUR DETAILED SERIES

Photographically reduced from 1:16000 McArthur series
Base maps compiled from uncontrolled aerial photographs
Geology from field data

SCALE 1:62 500 ±



REVISION		SCALE: 4:5 000	METRES		CARPENTARIA EXPLORATION COMPANY PTY. LTD. McARTHUR DETAILED SERIES (NORTHERN TERRITORY) BARNEY GEOCHEMICAL SAMPLING LOCATIONS
		GEOLOG: N.R.			
		DRAFT B.W.P.			
		CHECKED			
		DATE July 1976			
		MICROFILMED			
		ROLL N°			
Sept 28-'76	B.W.P.	MINING FIELD OR DISTRICT McArthur Gold and Mineral Field N.T.			DRG. N° 18545



KEY TO SHEETS

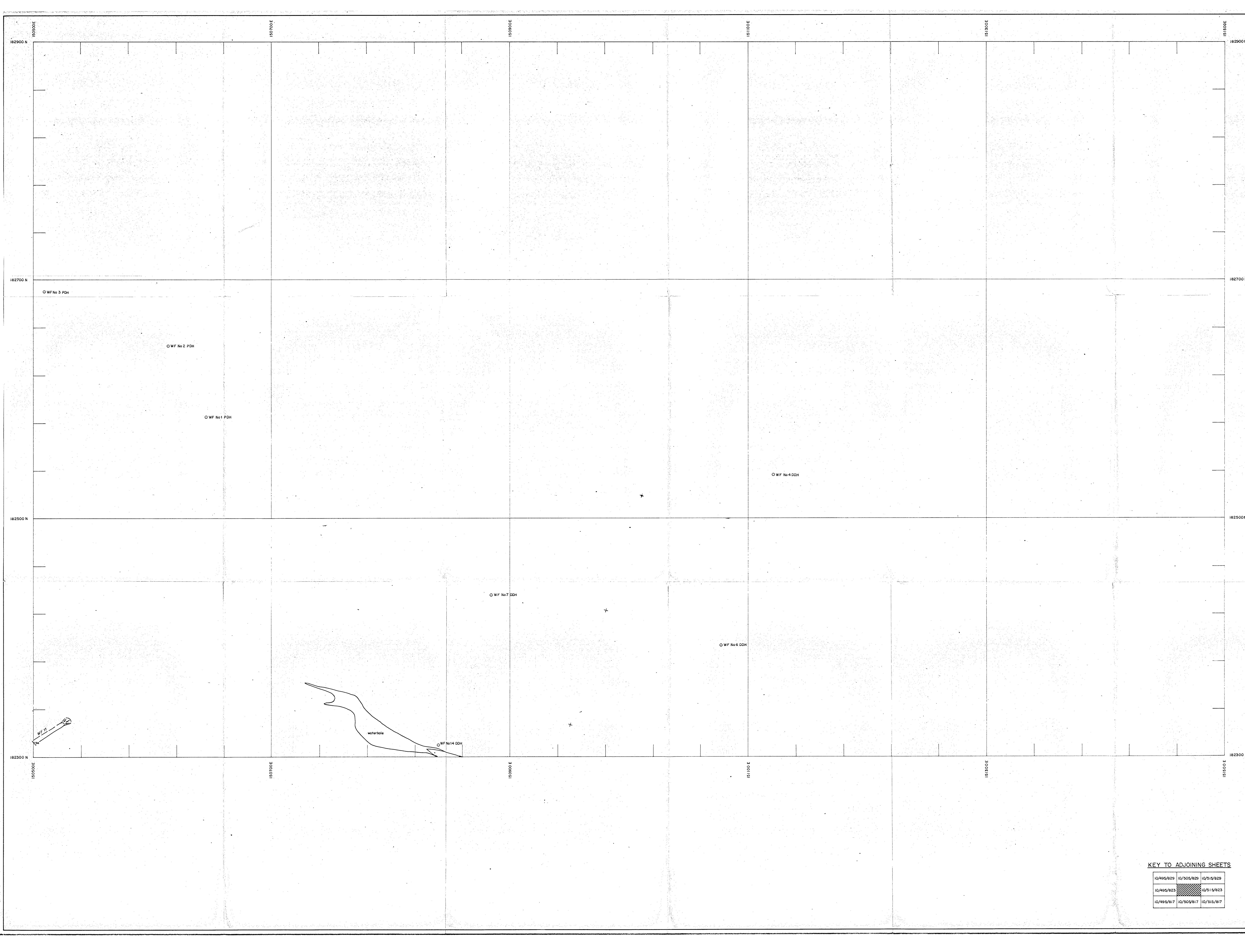
Reward	Teena North	Wickens Hill North	W-Fold North	Surprise Creek	Burney North	FYZ	Emu Creek
Reward South	Teena	Wickens Hill	W-Fold	Barney West	Barney	Emu IDB	Mt. Shubba
Deep Creek	Teena South	Wickens Hill South	W-Fold South	McArthur Homestead	HVC	Coxley	
					Bull Creek	Emu Hill	
					Bull Creek North	Coxco	
					Coxco South	Coxco	
					Coxco West	Coxco	
					Cowdroy	Squib	
						Squib South	
						Amelia Creek North	
						Amelia Creek South	
						Mossac Hill East	

REFERENCE

- REFERENCE**
- | | | | |
|-------|---|-------|---|
| ==== | Road | ----- | BMR auger drilling geochemical contours |
| ===== | Vehicle Track | ----- | CEC soil geochemical contours |
| WH | Waterhole | | |
| ⊕ | Photo centre | | |
| Δ | Trigonometrical Station | | |
| - - | Photo control point | | |
| • | Soil sample location | | |
| — — | Stream sediment sample location | | |
| ○ | Diamond drillhole | | |
| ○ | Percussion drillhole | | |
| ----- | Surveyed baseline | | |
| □ | Steel peg (BMR Electromagnetic survey 1963) | | |
| x | BMR Auger sample | | |
| ====> | Coastline | | |



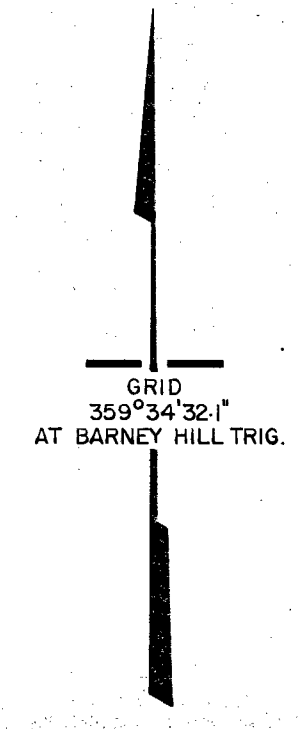
REVISION		SCALE 1:5 000	CARPENTARIA EXPLORATION COMPANY PTY. LTD.	
		GEOL. N.R.	McARTHUR DETAILED SERIES (NORTHERN TERRITORY) H. Y. C. GEOCHEMICAL SAMPLING COPPER	
		DRAFT B.W.P.		
		CHECKED		
		DATE July 1976		
		MICROFILMED		
		ROLL N°		
Sept 28-76	B.W.P.	MINING FIELD OR DISTRICT McArthur Gold and Mineral Field NT.		DRG N° 18550



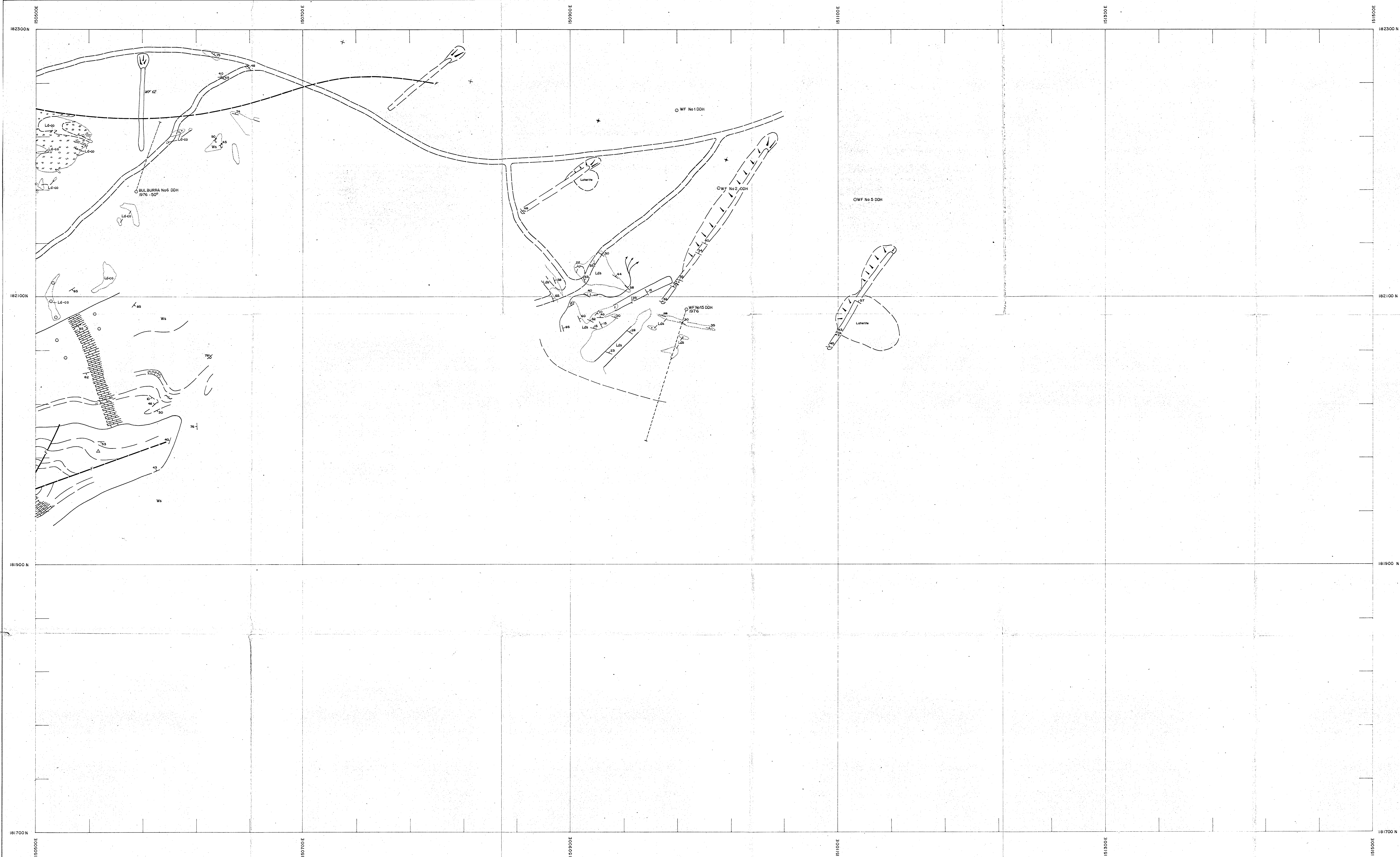
- LEGEND**
- Py H.Y.C. Pyritic Shales
 - Lds Lower Dolomitic Shale
 - Wk W-Fold Shale Member
 - L&G Teana Dolomite - Gask Member
 - Ld Teana Dolomite - gill member
 - Mi Mitchell Yard Dolomites
 - Ma Mara Dolomite
 - Shale
 - Dolomite, massive
 - Dolomite, laminated
 - Dolomite, tufaceous mudstone
 - Dolomite siltstone
 - Dolomite nodules
 - Silicification
 - Triangulation station
 - Road
 - Steel peg cemented
 - Steel peg cemented, surveyed
 - WH3DDH (1973) Diamond Drill Hole - showing horizontal projection
 - WF5DDH (1970) Rotary Drill Hole
 - Crestline
 - Outcrop
 - Contact established
 - Contact inferred
 - Trend line
 - Fault, position approx.
 - Fault, position inferred
 - Strata inclined
 - Strata overturned
 - Anticline
 - Syncline
 - Plunge of minor anticline
 - Plunge of minor syncline

KEY TO ADJOINING SHEETS

10/495/829	10/505/829	10/515/829
10/495/823	10/515/823	10/515/823
10/495/817	10/505/817	10/515/817



REVISION	SCALE: 1:1000	CARPENTARIA EXPLORATION COMPANY PTY. LTD.
	GEO. J.J.	McARTHUR
	DRAFT: B.W.P.	STANDARD METRIC SERIES
	CHECKED:	SURFACE GEOLOGY
	DATE: 8/76	SHEET 10/505/823
	MICROFILMED:	
	ROLL N°	
	MINING FIELD OR DISTRICT: McARTHUR RIVER	DRG. N° 18616

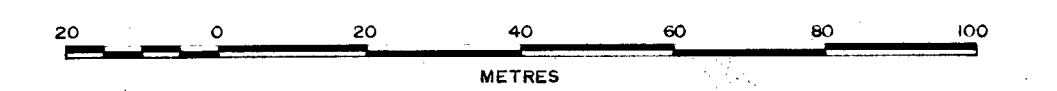


- LEGEND**
- Py H.C. Pyritic Shales
 - Ld6 Lower Dolomitic Shale
 - Ws W-Fold Shale Member
 - Ld-60 Tempe Dolomite - Ganco Member
 - Ld Tempe Dolomite - gnt marker
 - M Mitchell Yard Dolomites
 - Md More Dolomite
 - Shale
 - Dolomite, massive
 - Dolomite, laminated
 - Dolomite, tuffaceous mudstone
 - Dolomite siltstone
 - Dolomite nodules
 - Silicification
 - Trigonometric station
 - Road
 - Steel peg cemented
 - Steel peg cemented, surveyed
 - WH5 DDH (1973) Diamond Drill Hole - showing horizontal projection
 - WF5 DDH (1970) Rotary Drill hole
 - Cartoon
 - Outcrop
 - Contact established
 - Contact inferred
 - Trans line
 - Fault, position approx.
 - Fault, position inferred
 - Strata inclined
 - Strata overturned
 - Anticline
 - Syncline
 - Plunge of minor anticline
 - Plunge of minor syncline

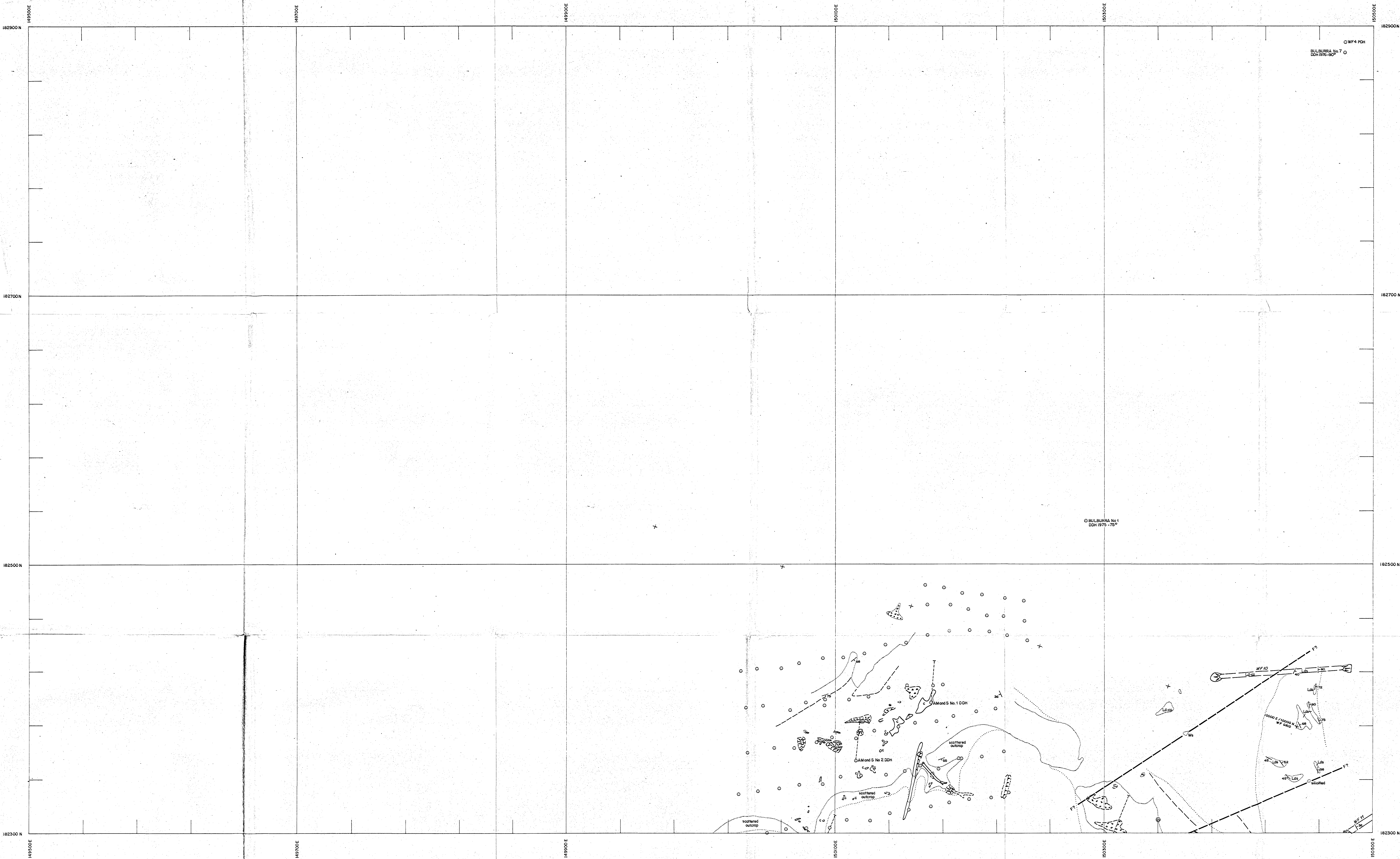
KEY TO ADJOINING SHEETS

10/495/823	10/505/823	10/515/823
10/495/817		10/515/817
10/495/811	10/505/811	10/515/811

GRID
30° 14' 30" S
AT BARNEY HILL TRIG.



REVISION	SCALE: 1:1000	CARPENTARIA EXPLORATION COMPANY PTY. LTD.
	SED. J.L.	McARTHUR
	DRAFT: S.W.P.	STANDARD METRIC SERIES
	CHECKED:	SURFACE GEOLOGY
	DATE: 8/76	SHEET 10/505/817
	MICROFILMED:	
	ROLL N°	
	MINING FIELD OR DISTRICT: MCARTHUR RIVER	DRG. N° 18619

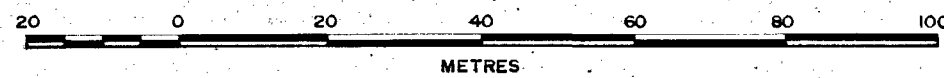


- LEGEND**
- Py H.C. Pyritic Shales
 - Ld Lower Dolomite Shale
 - Ws W-Fold Shale Member
 - Ld-ss Terra Dolomite - Cassio Member
 - Ld Terra Dolomite - "off member"
 - M Mitchell Yard Dolomites
 - Mo Mara Dolomite
 - Shale
 - Dolomite, massive
 - Dolomite, laminated
 - Dolomite, tuffaceous mudstone
 - Dolomite siltstone
 - Dolomite nodules
 - Silicification
 - Trigonometrical station
 - Road
 - Steel peg cemented
 - Steel peg cemented, surveyed
 - WH3 DH (1973) Diamond Drill Hole - showing horizontal projection
 - WFS DH (1970) Rotary Drill Hole
 - Outcrop
 - Contact established
 - Contact inferred
 - Trend line
 - Fault, position approx.
 - Fault, position inferred
 - Strata inclined
 - Strata overturned
 - Anticline
 - Syncline
 - Plunge of minor anticline
 - Plunge of minor syncline

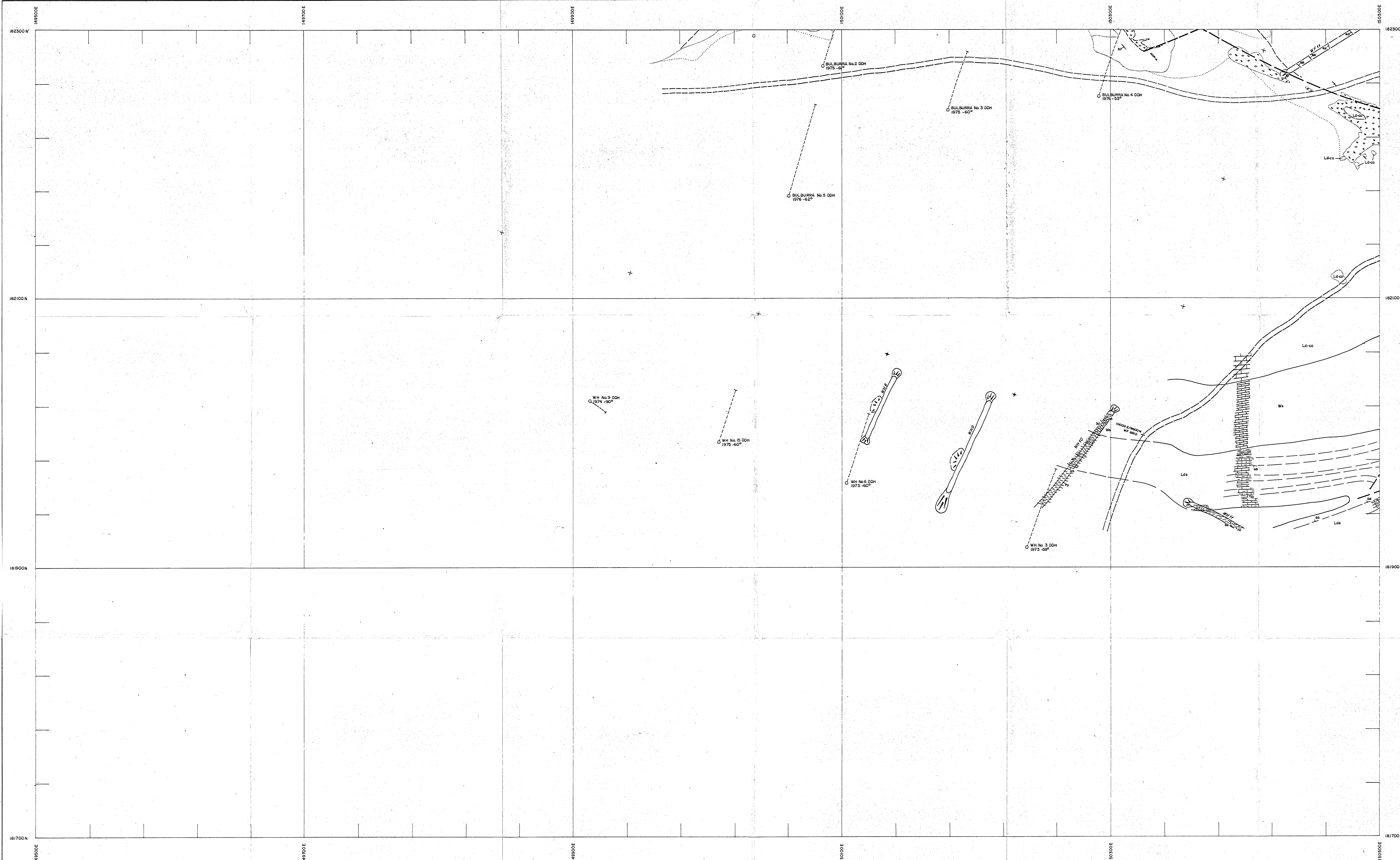
KEY TO ADJOINING SHEETS

10/485/829	10/485/829	10/505/829
10/485/829	10/505/829	10/505/829
10/485/817	10/495/817	10/505/817

GRID
35°54'32" S
AT BARNY HILL TRIG.



REVISION	SCALE: 1:1000	CARPENTARIA EXPLORATION COMPANY PTY. LTD.
1	GEO J.J.	McARTHUR
2	DRAFT B.W.P.	STANDARD METRIC SERIES
3	CHECKED	SURFACE GEOLOGY
4	DATE: 8/75	SHEET 10/495/823
5	MICROFILMED:	ROLL N°
6	MINING FIELD OR DISTRICT: McARTHUR RIVER	DRG. N° 18620



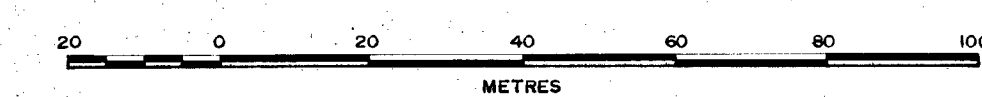
LEGEND

- | | | |
|-----------------------|--|--|
| | | H.V.C. Pyritic Shales |
| | | Lower Dolomitic Shale |
| | | W-Fold Shale Member |
| | | Teens Dolomite - Gacco Member |
| | | Teens Dolomite
grit marker |
| EMMERUGGA
DOLOMITE | | Mitchell Yard Dolomites |
| | | Mara Dolomite |
| | | Shale |
| | | Dolomite, massive |
| | | Dolomite, laminated |
| | | Dolomite tuffaceous sandstone |
| | | Dolomitic siltstone |
| | | Dolomitic nodules |
| | | Silicification |
| | | |
| | | Road |
| | | Steel peg cemented |
| | | Steel peg cemented, surveyed |
| WH320H
(1973) | | Diamond Drill Hole - showing horizontal projection |
| WFS60H
(1970) | | Rotary Drill Hole |
| | | Coastline |
| | | Outcrop |
| | | Contact established |
| | | Contact inferred |
| | | Trend line |
| | | Fault, position approx. |
| | | Fault, position inferred |
| | | Strata inclined |
| | | Strata overturned |
| | | Anticline |
| | | Syncline |
| | | Plunge of minor anticline |
| | | Plunge of minor syncline |

KEY TO ADJOINING SHEETS

10/485/823	10/495/823	10/505/823
10/485/817		10/505/817
10/485/811	10/495/811	10/505/811

GRID
359°34'32.1"
AT BARNEY HILL TRIG



REVISION	SCALE: 1:1000	CARPENTARIA EXPLORATION COMPANY PTY. LTD.
	GEO. J.J.	McARTHUR STANDARD METRIC SERIES SURFACE GEOLOGY SHEET 10/495/817
	DRAFT: B.W.P.	
	CHECKED:	
	DATE: 8/76	
	MICROFILMED:	
	ROLL N°	
MINING FIELD OR DISTRICT: McARTHUR RIVER		DRG. N° 18621

CARPENTARIA EXPLORATION COMPANY PTY. LTD.

MINING TENEMENT

PROGRESS REPORT

OPEN FILE

EXPLORATION LICENCE NO.598 "BARNEY HILL", N.T.

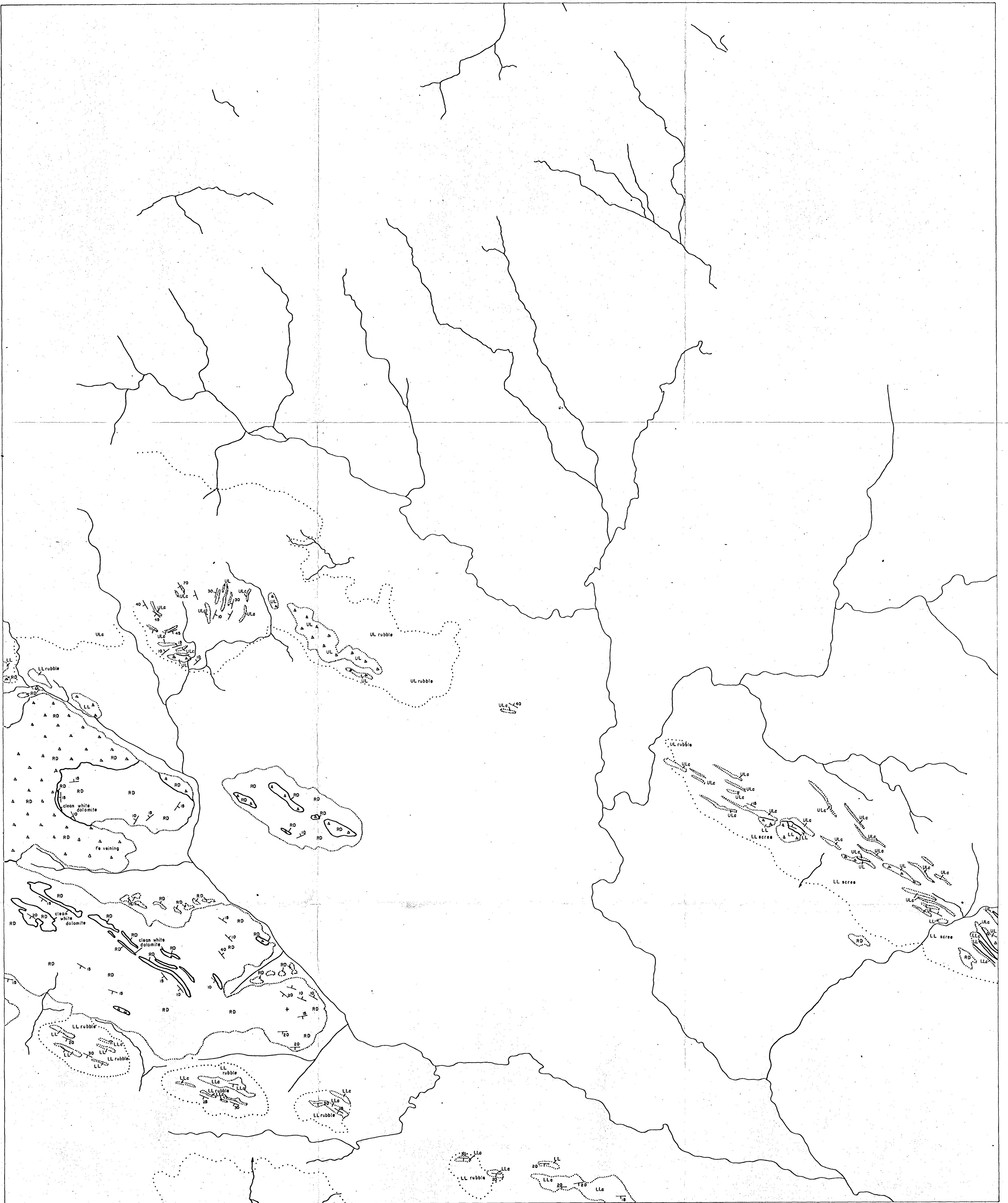
ANNUAL REPORT FOR YEAR ENDED SEPTEMBER 19, 1976.

PLANS TO ACCOMPANY

MINES BRANCH
GEOLOGICAL LIBRARY

DATE: November 24, 1976.

COPY: Department of the
Northern Territory



LEGEND

UL	UPPER LYNOTT
LL	LOWER LYNOTT
RD	REWARD DOLOMITE
Py	HYC PYRITIC SHALE MEMBER
CD	COOLEY DOLOMITE MEMBER
W	W-FOLD SHALE MEMBER
T	TEENA DOLOMITE FORMATION
MI	MITCHELL YARD DOLOMITE MEMBER
Ma	MARA DOLOMITE MEMBER

SUBSCRIPTS

ss	Sandstones
sl	Siltstones
c	Chert

e.g. RDc chert in Reward Dolomite

KEY TO SHEETS

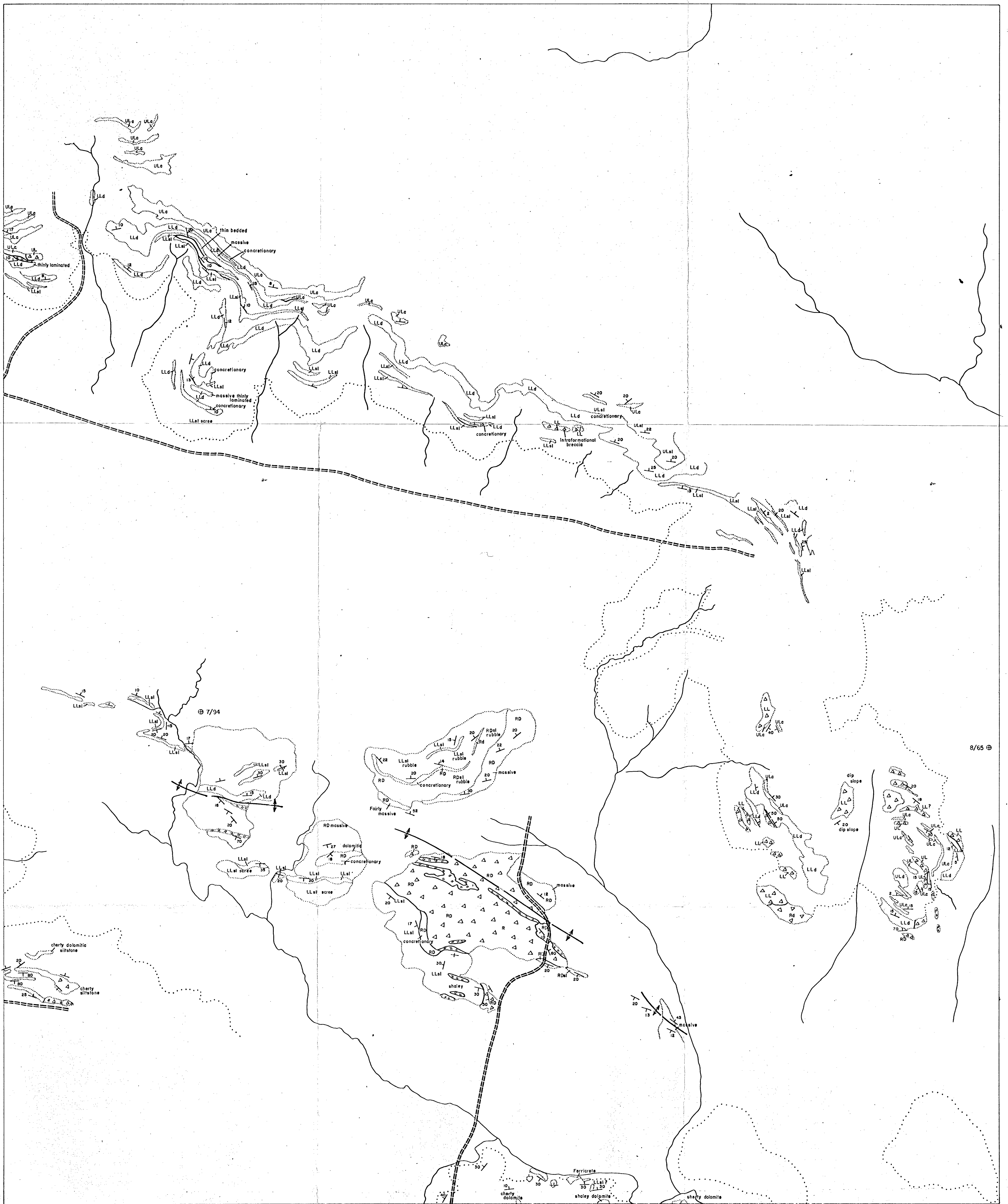
Roward North	Teena North	Wickens Hill North	W-Fold North	Surprise Creek North	Barney North	FYZ	Emu Creek
Roward South	Teena South	Wickens Hill South	W-Fold South	Barney West	Barney East		Emu 100
Deep Creek	Teena South	Wickens Hill South	W-Fold South	McArthur Homestead	H.Y.C.	Cooley	Bull Creek
							Emu Hill
							Coxco North
							Coxco South
							Coxco West
							Coxco East
							Squib
							Squib South
							Amelia Creek North
							Amelia Creek South
							Mossman Hill East

REFERENCE

=====	Road	-----	BMR auger drilling geochemical contours
=====	Vehicle Track	-----	C.E.C. soil geochemical contours
W.H.	Waterhole		
⊕	Photo centre		
Δ	Trigonometrical Station		
+	Photo control point		
•	Soil sample location		
—	Stream sediment sample location		
○	Diamond drillhole		
○	Percussion drillhole		
—	Surveyed baseline		
□	Steel peg (B.M.R. Electromagnetic survey 1963)		
X	B.M.R. Auger sample		
—	Coastline		

100 50 0 100 200 300 400
METRES

REVISION	SCALE 1:5000	CARPENTARIA EXPLORATION COMPANY PTY. LTD.
	GEOL.	McARTHUR DETAILED SERIES
	DRAFT R.C.T./R.F.	(NORTHERN TERRITORY)
	CHECKED	FYZ
	DATE October 1976	GEOLOGY
	MICROFILMED	
	ROLL N°	
	MINING FIELD OR DISTRICT	McArthur Gold and Mineral Field N.T.
		DRG. N° 18699



LEGEND

UL	UPPER LYNOTT
LL	LOWER LYNOTT
RD	REWARD DOLOMITE
Py	HYC PYRITIC SHALE MEMBER
CD	COOLEY DOLOMITE MEMBER
W	W-FOLD SHALE MEMBER
T	TEENA DOLOMITE FORMATION
MI	MITCHELL YARD DOLOMITE MEMBER
Ma	MARA DOLOMITE MEMBER

SUBSCRIPTS

ss Sandstones
sl Siltstones
c Chert
e.g. RDc cherts in Reward Dolomite

KEY TO SHEETS

Reward North	Wickens Hill North	W-Fold North	Surprise Creek North	Barney North	Emu Creek
Reward South	Wickens Hill South	W-Fold South	Barney West	Barney	Emu Creek
Deep Creek	Wickens Hill South	W-Fold South	McArthur Homestead	H.Y.C. Cooley	Emu Creek
				Bull Creek	Emu Creek
				Bull Creek South	Coxco North
				Coxco West	Coxco
				Cowdrey	Squib
					Squib South
					Amelia Creek North
					Amelia Creek South
					Massacre Hill East

REFERENCE

—	Road
=====	Vehicle Track
W.H.	Waterhole
⊕	Photo centre
△	Trigonometrical Station
—	Photo control point
•	Soil sample location
—	Stream sediment sample location
○	Diamond drillhole
○	Percussion drillhole
—	Surveyed baseline
□	Steel peg (B.M.R. Electromagnetic survey 1963)
X	B.M.R. Auger sample
—	Coastline
---	B.M.R. auger drilling: geochemical contours
---	C.E.C. soil geochemical contours

100 50 0 100 200 300 400
METRES

REVISION	SCALE 1:5000	CARPENTARIA EXPLORATION COMPANY PTY. LTD.
	GEOL.	McARTHUR DETAILED SERIES
	DRAFT R.F.	(NORTHERN TERRITORY)
	CHECKED	WICKENS HILL NORTH
	DATE October 1976	GEOLOGY
	MICROFILMED	
	ROLL N°	
	MINING FIELD OR DISTRICT	McArthur Gold and Mineral Field NT.
		DRG. N° 18630



8/64 9

LEGEND

- UL UPPER LYNOTT
- LL LOWER LYNOTT
- RD REWARD DOLOMITE
- Py HYC PYRITIC SHALE MEMBER
- CD COOLEY DOLOMITE MEMBER
- W W-FOLD SHALE MEMBER
- T TEENA DOLOMITE FORMATION
- MI MITCHELL YARD DOLOMITE MEMBER
- Ma MARA DOLOMITE MEMBER

SUBSCRIPTS

- ss Sandstones
- sl Siltstones
- c Chert

e.g. Rdc cherts in Reward Dolomite

KEY TO SHEETS

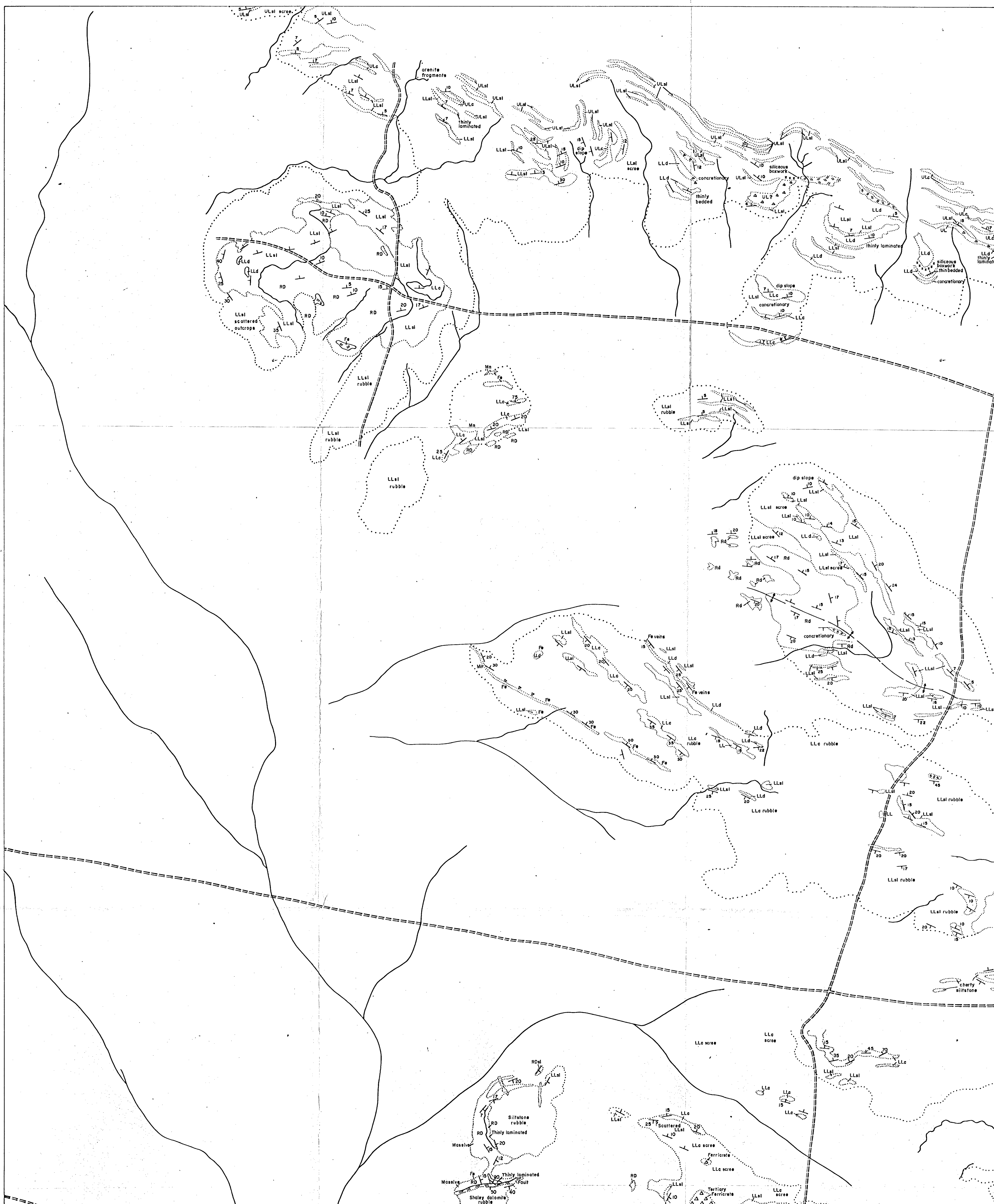
Reward North	Teena North	Wickens Hill North	W-Fold North	Surprise North	Barney North	Emu North
Reward South	Teena South	Wickens Hill South	W-Fold South	Barney West	Barney East	Mt. Shubbs
Deep Creek	Teena South	Wickens Hill South	W-Fold South	McArthur Homestead	H.Y.C. Cooley	Cooley
						Bull Creek
						Emu Hill
						Bull Creek
						Coxco North
						Coxco West
						Coxco East
						Cowdrey
						Squib
						Squib South
						Amelia Creek North
						Amelia Creek South
						Massacre Hill East

REFERENCE

- Road
- Vehicle Track
- W.H. Waterhole
- ⊕ Photo centre
- Δ Trigonometrical Station
- ⊙ Photo control point
- Soil sample location
- Stream sediment sample location
- Diamond drillhole
- Percussion drillhole
- Surveyed baseline
- Steel peg (B.M.R. Electromagnetic survey 1963)
- X B.M.R. Auger sample
- Costean
- B.M.R. auger drilling geochemical contours
- C.E.C. soil geochemical contours

100 0 100 200 300 400 METRES

REVISION	SCALE 1:5 000	CARPENTARIA EXPLORATION COMPANY PTY. LTD.
	GEOL.	McARTHUR DETAILED SERIES
	DRAFT R.F.	(NORTHERN TERRITORY)
	CHECKED	WICKENS HILL
	DATE: October 1975	GEOLOGY
	MICROFILMED	
	ROLL N°	
15-12-76	R.F.	MINING FIELD OR DISTRICT McArthur Gold and Mineral Field N.T.
		DRG N° 18 689



LEGEND

UL	UPPER LYNOTT
LL	LOWER LYNOTT
RD	REWARD DOLOMITE
Py	HYC PYRITIC SHALE MEMBER
CD	COOLEY DOLOMITE MEMBER
W	W-FOLD SHALE MEMBER
T	TEENA DOLOMITE FORMATION
MI	MITCHELL YARD DOLOMITE MEMBER
Ma	MARA DOLOMITE MEMBER

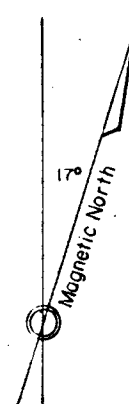
SUBSCRIPTS

ss	Sandstones
sl	Siltstones
c	Chert

eg. RDc cherts in Reward Dolomite

KEY TO SHEETS

Reward North	Teena North	Wickham Hill North	W-Fold North	Surprise Creek North	Barney North	Emu Creek North
Reward South	Teena South	Wickham Hill South	W-Fold South	Barney West	Barney	Mt. Shubbs
Deep Creek	Teena South	Wickham Hill South	W-Fold South	McArthur Homestead	HYC	Cooley
					Bull Creek	Emu Hill
					Bull Creek South	Coxco North
					Coxco West	Coxco
					Cowdrey	Squib
						Squib South
						Amelia Creek North
						Amelia Creek South
						Massacre Hill East

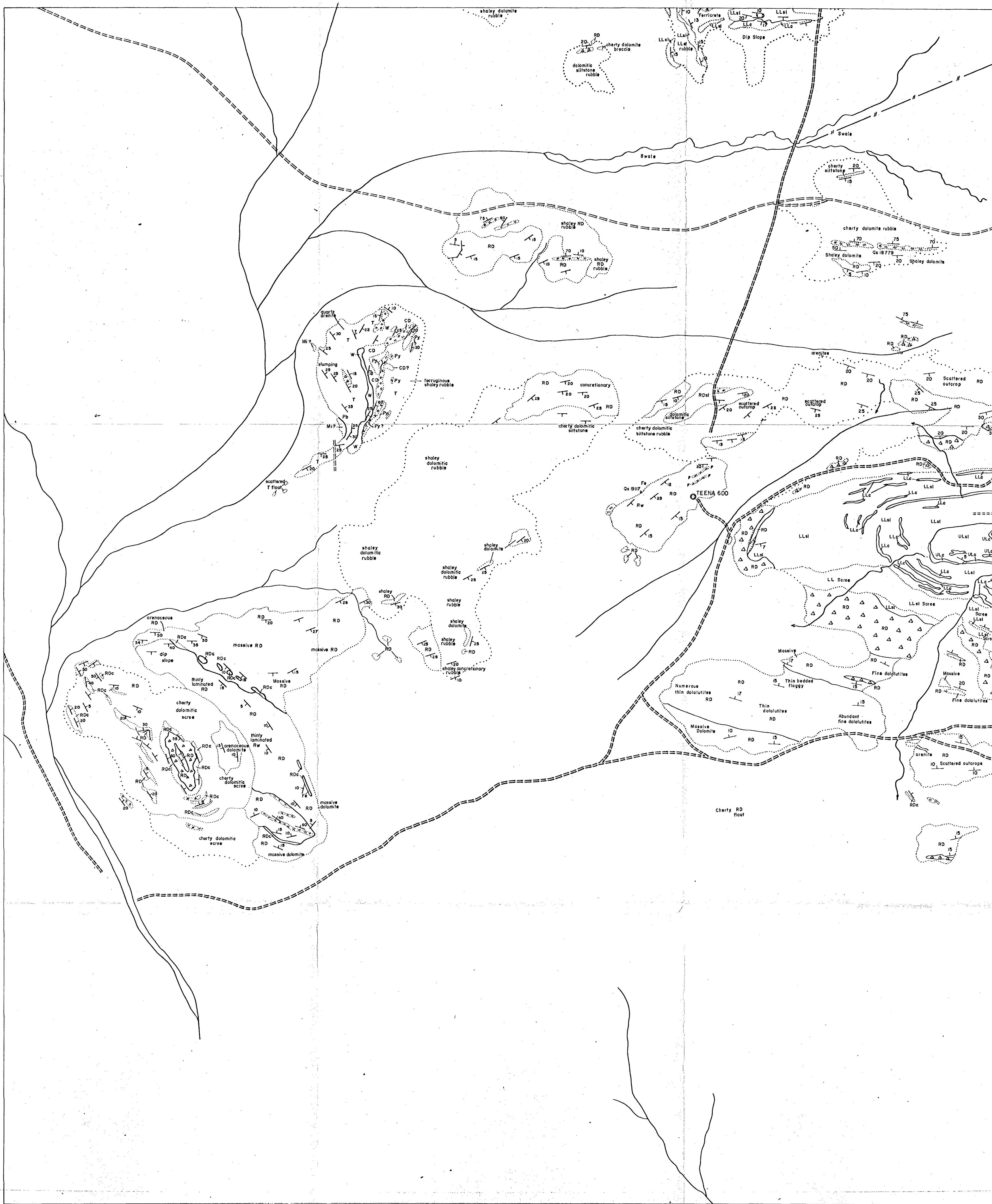


REFERENCE

—	Road
=====	Vehicle Track
W.H.	Waterhole
⊙	Photo centre
Δ	Trigonometrical Station
+	Photo control point
•	Soil sample location
—	Stream sediment sample location
○	Diamond drillhole
○	Percussion drillhole
—	Surveyed baseline
□	Steel peg (B.M.R. Electromagnetic survey 1963)
X	B.M.R. Auger sample
—	Coastline
-----	B.M.R. auger drilling geochemical contours
-----	C.E.C. soil geochemical contours

100 50 0 100 200 300 400
METRES

REVISION	SCALE 4:5000	CARPENTARIA EXPLORATION COMPANY PTY. LTD.
	GEOLOGICAL	McARTHUR DETAILED SERIES
	DRAFT B.P.	(NORTHERN TERRITORY)
	CHECKED	TEENA NORTH
	DATE October 1976	GEOLOGY
	MICROFILMED	
	ROLL N°	
25-10-76	R.F.	MINING FIELD OR DISTRICT McArthur Gold and Mineral Field NT
		DRG N° 18 692



LEGEND

UL	UPPER LYNOTT
LL	LOWER LYNOTT
RD	REWARD DOLOMITE
Py	HYC PYRITIC SHALE MEMBER
CD	COOLEY DOLOMITE MEMBER
W	W-FOLD SHALE MEMBER
T	TEENA DOLOMITE FORMATION
Mi	MITCHELL YARD DOLOMITE MEMBER
Ma	MARA DOLOMITE MEMBER

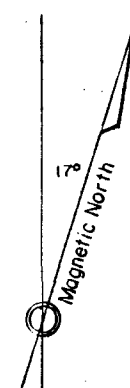
SUBSCRIPTS

ss	Sandstones
sl	Siltstones
c	Chert

e.g. Rdc cherts in Reward Dolomite

KEY TO SHEETS

Reward	Teena	Wickens	W-Fold	Surprise	Barney	Emu
North	North	North	North	North	North	North
Reward	Teena	Wickens	W-Fold	Barney	Barney	Emu
South	South	South	South	West	West	South
Deep	Teena	Wickens	W-Fold	McArthur	H.Y.C.	Cooley
Creek	South	South	South	Honesty		
					Bull	Emu
					Creek	Hill
					Bull	Coxco
					Creek	North
					Coxco	South
					Coxco	West
					Coxco	East
					Cowdrey	Squib



REFERENCE

=====	Road	-----	B.M.R. auger drilling geochemical contours
=====	Vehicle Track	-----	C.E.C. soil geochemical contours
WH	Waterhole		
⊕	Photo centre		
△	Trigonometrical Station		
+	Photo control point		
•	Soil sample location		
•	Stream sediment sample location		
○	Diamond drillhole		
○	Percussion drillhole		
---	Surveyed baseline		
□	Steel peg (B.M.R. Electromagnetic survey 1963)		
X	B.M.R. Auger sample		
---	Coastline		

REVISION	SCALE 1:5 000	CARPENTARIA EXPLORATION COMPANY PTY. LTD.
	GEOL. 1	McARTHUR DETAILED SERIES
	DRAFT: B.P.	(NORTHERN TERRITORY)
	CHECKED	TEENA
	DATE: October 1976	GEOLOGY
	MICROFILMED	
	ROLL N°	
14-12-76	R.F.	MINING FIELD OR DISTRICT McArthur Gold and Mineral Field NT
		DRG. N° 18 631

REVISION		SCALE 4:5 000	CARPENTARIA EXPLORATION COMPANY PTY. LTD.	
		GEOL.:	McARTHUR DETAILED SERIES (NORTHERN TERRITORY) REWARD GEOLOGY	
		DRAFT R.C.T.		
		CHECKED		
		DATE October 1976		
		MICROFILMED		
		ROLL N°		
14-12-76	R.F.	MINING FIELD OR DISTRICT McArthur Gold and Mineral Field N.T.		DRG. N° 18 700