Project Name: Project Code: Agency Name:	Soil Studies in the Lower M EDGEROI Site ID: CSIRO Division of Soils (Q	ed414 O	bservation ID:	1
Site Information	1.E. Heape	Locality:	Bruce Tout, Oakv	ale
Date Desc.:2Map Ref.:SNorthing/Long.:6Easting/Lat.:7	5/03/86 sheet No. : 8837_N 1:50000 666700 AMG zone: 55 77900 Datum: AGD66	Elevation: Rainfall: Runoff: Drainage:	293 metres No Data No Data No Data	
	Indisturbed soil core No Data	Conf. Sub. is Pare Substrate Materia		
Morph. Type: N Elem. Type: T Slope: C Surface Soil Con	No Data No Data Ferrace plain ) % <b>dition (dry):</b> Surface crust, R	Pattern Type: Relief: Slope Category: Aspect: Recently cultivated	No Data No Data Level 80 degrees	
<u>Erosion:</u> Soil Classificatio	<u>n</u>			
Australian Soil Clas N/A ASC Confidence: Confidence level no <u>Site Disturbance</u> Vegetation:	t specified	Princi	ng Unit: pal Profile Form: Soil Group:	N/A Ug5.16 Grey clay
Surface Coarse F				
Profile Morpholo A11p 0 - 0.03 m	Very dark grey (10YR3/1-M	ar; Moderate grade o n crack; Few (<1 per 1	f structure, 20-50 m 100mm2) Very fine	
A12 0.03 - 0.1 n	<ul> <li>Very dark brown (10YR2/2 Angular blocky; Smooth-pe 100mm2) Very fine (0.075- few (0 - 2 %), Calcareous, very fine (0-1mm) roots;</li> </ul>	ed fabric; Rough-ped t 1mm) macropores, M	fabric; Fine, (0 - 5) r loderately moist; Ve	mm crack; Few (<1 per ery firm consistence; Very
A13 0.1 - 0.25 n	Angular blocky; Smooth-pe (0.075-1mm) macropores,	ed fabric; Fine, (0 - 5) Moderately moist; Ve	mm crack; Few (<1 ry firm consistence;	per 100mm2) Very fine
A14 0.25 - 0.7 n	<ul> <li>Very dark brown (10YR2/2 grade of structure, 20-50 m blocky; Smooth-ped fabric; macropores, Moderately m - 2 mm), Nodules; Field pH</li> </ul>	nm, Lenticular; Moder Fine, (0 - 5) mm crac oist; Very firm consis	ate grade of structu ck; Few (<1 per 100 tence; Very few (0 -	re, 10-20 mm, Angular mm2) Fine (1-2mm) 2 %), Calcareous, Fine (0
B21 0.7 - 1 m	grade of structure, 50-100 (<1 per 100mm2) Fine (1-2	) mm, Ángular blocky; 2mm) macropores, Mo	Rough-ped fabric; oderately moist; Ver	nt; Medium heavy clay; Weak Fine, (0 - 5) mm crack; Few y strong consistence; Very oH meter); Few, very fine (0-
B22 1 - 1.9 m	Dark reddish grey (5YR4/2 blocky; Smooth-ped fabric; macropores, Moderately m 6 mm), Nodules; Field pH {	Fine, (0 - 5) mm crac oist; Very firm consis	ck; Few (<1 per 0.01 tence; Few (2 - 10 %	1m2) Medium (2-5mm) %), Calcareous, Medium (2 -

### **Project Name:** Soil Studies in the Lower Namoi Valley **Project Code:** EDGEROI Site ID: Observation ID: 1 ed414 Agency Name: CSIRO Division of Soils (QLD) 1.9 - 2.8 m B23 Reddish brown (5YR4/4-Moist); , 5YR66, 2-10% , 5-15mm, Distinct; Light clay; Weak grade of structure, 10-20 mm, Angular blocky; Smooth-ped fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Fine (1-2mm) macropores, Moderately moist; Firm consistence; Field pH 7.5 (pH meter); Few, very fine (0-1mm) roots; Diffuse, Smooth change to -Reddish brown (5YR4/4-Moist); ; Medium clay; Massive grade of structure; Earthy fabric; Fine, C1 2.8 - 3.3 m (0 - 5) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Firm consistence; 20-50%, coarse gravelly, 20-60mm, rounded, Consolidated rock (unidentified), coarse fragments; Field pH 7.5 (pH meter); Abrupt, Smooth change to -C2 3.3 - 3.89 m Dark reddish grey (5YR4/2-Moist); ; Light medium clay; Moderate grade of structure, 10-20 mm, Angular blocky; Smooth-ped fabric; Fine, (0 - 5) mm crack; Few (<1 per 100mm2) Very fine (0.075-1mm) macropores, Moderately moist; Very firm consistence; 0-2%, medium gravelly, 6-20mm, rounded, Consolidated rock (unidentified), coarse fragments; Field pH 7.5 (pH meter); **Morphological Notes** A11p Carbonate at 5cm. ?MVpH. There is evidence of a discontinuity in the sediments at 330 cm. The 106cm above this discontinuity is composed of fine sand to coarse gravels (up to 5cm in the longest axis). The textures grade over this distance, the basal gravels beginning at 273cm. Evidence of sedimentary lavering is found from A12 305cm. The bottom 20cm of the sampled profile is well structured clay material (5YR4/2) with few manganese stains and (2, 5, ab, pedality and smooth ped fa ces). It appears to be a buried B2 horizon with no carbonate. There is a little evidence of A13 man-made compaction in the top 30cm of the profile. The texture of the C horizon is gravelly. We subsequently located more core including 350-360; t A14 his part is not in the photo. Note that lab numbers for 41408 and 41409 (= 41400) should be reversed, as the samples have now been put in proper depth order.

# **Observation Notes**

Parent Rock: alluvial sediment, mixed texture, with lime, clay parna on third fan

## Site Notes

Surface also has small amount of fine self mulching. Old river bed with deposited clay alluvium on hard sandstone.

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Project Code:	EDGEROI	Site ID:	ed414	Observation ID:
Agency Name:	CSIRO Divisio	n of Soils (C	QLD)	

# Laboratory Test Results:

Depth	рН	1:5 EC	Ex	changeabl	e Cations		Exchangeable	CEC	ECEC	ESP
			Ca	Mg	к	Na	Acidity			
m		dS/m				Cmol	(+)/kg			%
0 - 0.03	8.42A	0.144A	30.08B	6.59	1.3	0.59				
0.03 - 0.1	8.71A	0.136A	29.59B	7.6	0.76	1.24				
0.1 - 0.2	8.72A	0.137A	30.29B	10.15	0.57	2.06				
0.3 - 0.4	8.86A	0.169A	29.01B	13.17	0.53	4.66				
0.7 - 0.8	9.06A	0.264A	21.79B	11.38	0.52	6.9				
1.2 - 1.3	9.2A	0.406A	19.06B	10.46	0.58	6.16				
2.5 - 2.6	9.07A	0.53A	16.55B	7.93	0.38	4.58				
2.8 - 3.3	7.98A	0.207A	18.23B	12.37	0.36	6.71				
3.5 - 3.6										

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Depth	CaCO3	Organic	Avail.	Total	Total	Total	Bulk	P	article	Size	Analys	is
m	%	C %	P mg/kg	P %	N %	K %	Density Mg/m3	GV	CS	FS %	Silt	Clay
0 - 0.03	0.3B	1.53C	19.6J									
0.03 - 0.1	0.3B	1.26C	5.4J									
0.1 - 0.2	0.9B	1.13C	ЗJ									
0.3 - 0.4	1.7B	1.08C	4.7J									
0.7 - 0.8	2.3B	0.65C	14J									
1.2 - 1.3	1.6B	0.24C	14.1J									
2.5 - 2.6	<0.1B	0.13C	10.8J									
2.8 - 3.3	<0.1B	0.11C	8.2J									
3.5 - 3.6												

Depth	COLE	Gravimetric/Volumetric Water Contents						K sat	K unsat	
		Sat.	0.05 Bar	0.1 Bar	0.5 Bar	1 Bar	5 Bar	15 Bar		
m		g/g - m3/m3					mm/h	mm/h		

 $\begin{array}{c} 0 - 0.03 \\ 0.03 - 0.1 \\ 0.1 - 0.2 \\ 0.3 - 0.4 \\ 0.7 - 0.8 \\ 1.2 - 1.3 \\ 2.5 - 2.6 \\ 2.8 - 3.3 \\ 3.5 - 3.6 \end{array}$ 

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Observation ID: 1

# Laboratory Analyses Completed for this profile

15A2_CA	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, pretreatment for
	soluble salts

- 15A2\_K 15A2\_MG Exchangeable bases- 1M ammonium chloride at pH 7.0, pretreatment for soluble salts Exchangeable bases- 1M ammonium chloride at pH 7.0, pretreatment for soluble salts
- 15A2\_NA Exchangeable bases- 1M ammonium chloride at pH 7.0, pretreatment for soluble salts
- 19B1 Carbonates - manometric
- EC of 1:5 soil/water extract 3A1
- 4A1 pH of 1:5 soil/water suspension
- Chloride 1:5 soil/water extract, automated colour 5A2
- Total organic carbon high frequency induction furnace, infrared Water soluble nitrate automated colour 6B3
- 7B1
- 9B1 Bicarbonate-extractable phosphorus - manual colour