

Project Name: Soil Carbon Paired Sites project
Project Code: SC2 **Site ID:** WHL4 **Observation ID:** 1
Agency Name: Agriculture Western Australia

Site Information

Desc. By:	Brendan Nicholas	Locality:	
Date Desc.:	21/02/01	Elevation:	No Data
Map Ref.:		Rainfall:	No Data
Northing/Long.:	6300524 AMG zone: 51	Runoff:	No Data
Easting/Lat.:	411904 Datum: AGD84	Drainage:	Imperfectly drained

Geology

ExposureType:	Soil pit	Conf. Sub. is Parent. Mat.:	No Data
Geol. Ref.:	No Data	Substrate Material:	No Data

Landform

Rel/Slope Class:	Level plain <9m <1%	Pattern Type:	Plain
Morph. Type:	Simple-slope	Relief:	No Data
Elem. Type:	Plain	Slope Category:	No Data
Slope:	1 %	Aspect:	270 degrees

Surface Soil Condition Soft

Erosion (wind); (scald) (sheet) (rill) (gully)

Soil Classification

Australian Soil Classification:		Mapping Unit:	N/A
Hypercalcic Mesonatratic Grey Sodosol		Principal Profile Form:	N/A
ASC Confidence:		Great Soil Group:	N/A

All necessary analytical data are available.

Site Disturbance Cultivation. Rainfed

Vegetation

Surface Coarse Fragments 0-2%, medium gravelly, 6-20mm, subangular, Calcrete; No surface coarse fragments

Profile Morphology

Ap	0 - 0.1 m	Dark grey (10YR4/1-Moist); ; Fine sand; Weak grade of structure, 5-10 mm, Platy; Dry; Weak
		consistence; Many, fine (1-2mm) roots; Abrupt, Smooth change to -
A2	0.1 - 0.2 m	Light yellowish brown (10YR6/4-Moist); ; Fine sandy clay loam; Strong grade of structure, 100-200 mm,
		Columnar; Moderately moist; Very firm consistence; 2-10%, medium gravelly, 6-20mm,
Calcrete, coarse		fragments; Few, fine (1-2mm) roots; Clear, Smooth change to -
B1	0.2 - 0.3 m	Light brownish grey (2.5Y6/2-Moist); , 10YR73; , 5Y56; Fine sandy clay loam; Strong
grade of structure,		5-10 mm, Angular blocky; Moist; Strong consistence; 20-50%, medium gravelly, 6-20mm,
Calcrete,		coarse fragments; Few, fine (1-2mm) roots; Gradual, Smooth change to -
B2	0.3 - 0.7 m	Light brownish grey (2.5Y6/2-Moist); , 5YR56; Light clay; Strong grade of structure, 5-10
mm, Angular		blocky; Moist; Strong consistence; 10-20%, Calcrete, coarse fragments; Few, fine (1-
2mm) roots;		Diffuse change to -
BC	0.7 - 1.3 m	Light brownish grey (2.5Y6/2-Moist); , 5YR56; Light clay; Strong grade of structure, 5-10
mm, Angular		blocky; Moist; Strong consistence;

Morphological Notes

Observation Notes

Site Notes

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Laboratory Test Results:

Depth m	pH	1:5 EC dS/m	Ca	Exchangeable Mg	Cations K	Na Cmol (+)/kg	Exchangeable Acidity	CEC	ECEC	ESP %
0 - 0.1 7.8H	7.2B 7.8H	21B	10.18A	1.49	0.79	0.07			12.53D	
0 - 0.1 7.8H	7.2B 7.8H	21B	10.18A	1.49	0.79	0.07			12.53D	
0 - 0.1 7.8H	7.2B 7.8H	21B	10.18A	1.49	0.79	0.07			12.53D	
0 - 0.1 7.8H	7.2B 7.8H	21B	10.18A	1.49	0.79	0.07			12.53D	
0 - 0.1 7.8H	7.2B 7.8H	21B	10.18A	1.49	0.79	0.07			12.53D	
0 - 0.1 7.8H	7.2B 7.8H	21B	10.18A	1.49	0.79	0.07			12.53D	
0 - 0.1 7.8H	7.2B 7.8H	21B	10.18A	1.49	0.79	0.07			12.53D	
0.1 - 0.2 8.9H	8.1B 8.9H	18B	9.85E	4.28	1.76	0.62		19B	16.51D	3.26
0.1 - 0.2 8.9H	8.1B 8.9H	18B	9.85E	4.28	1.76	0.62		19B	16.51D	3.26
0.1 - 0.2 8.9H	8.1B 8.9H	18B	9.85E	4.28	1.76	0.62		19B	16.51D	3.26
0.1 - 0.2 8.9H	8.1B 8.9H	18B	9.85E	4.28	1.76	0.62		19B	16.51D	3.26
0.1 - 0.2 8.9H	8.1B 8.9H	18B	9.85E	4.28	1.76	0.62		19B	16.51D	3.26
0.1 - 0.2 8.9H	8.1B 8.9H	18B	9.85E	4.28	1.76	0.62		19B	16.51D	3.26
0.1 - 0.2 8.9H	8.1B 8.9H	18B	9.85E	4.28	1.76	0.62		19B	16.51D	3.26
0.1 - 0.2 8.9H	8.1B 8.9H	18B	9.85E	4.28	1.76	0.62		19B	16.51D	3.26
0.2 - 0.3 9.3H	8.4B 9.3H	22B	6.97E	6.9	1.89	1.23		20B	16.99D	6.15
0.2 - 0.3 9.3H	8.4B 9.3H	22B	6.97E	6.9	1.89	1.23		20B	16.99D	6.15
0.2 - 0.3 9.3H	8.4B 9.3H	22B	6.97E	6.9	1.89	1.23		20B	16.99D	6.15
0.2 - 0.3 9.3H	8.4B 9.3H	22B	6.97E	6.9	1.89	1.23		20B	16.99D	6.15
0.2 - 0.3 9.3H	8.4B 9.3H	22B	6.97E	6.9	1.89	1.23		20B	16.99D	6.15
0.2 - 0.3 9.3H	8.4B 9.3H	22B	6.97E	6.9	1.89	1.23		20B	16.99D	6.15
0.2 - 0.3 9.3H	8.4B 9.3H	22B	6.97E	6.9	1.89	1.23		20B	16.99D	6.15
0.2 - 0.3 9.3H	8.4B 9.3H	22B	6.97E	6.9	1.89	1.23		20B	16.99D	6.15
0.2 - 0.3 9.3H	8.4B 9.3H	22B	6.97E	6.9	1.89	1.23		20B	16.99D	6.15
0.3 - 0.7 9.9H	8.8B 9.9H	58B	2.19E	6.63	3.43	6.32		20B	18.57D	31.60
0.3 - 0.7 9.9H	8.8B 9.9H	58B	2.19E	6.63	3.43	6.32		20B	18.57D	31.60
0.3 - 0.7 9.9H	8.8B 9.9H	58B	2.19E	6.63	3.43	6.32		20B	18.57D	31.60
0.3 - 0.7 9.9H	8.8B 9.9H	58B	2.19E	6.63	3.43	6.32		20B	18.57D	31.60
0.3 - 0.7 9.9H	8.8B 9.9H	58B	2.19E	6.63	3.43	6.32		20B	18.57D	31.60
0.5 - 0.6										
0.7 - 1 9.8H	8.9B 9.8H	86B	1.31E	6.54	3.22	9.63		23B	20.7D	41.87
0.7 - 1 9.8H	8.9B 9.8H	86B	1.31E	6.54	3.22	9.63		23B	20.7D	41.87

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0.7 - 1	8.9B	86B	1.31E	6.54	3.22	9.63		23B	20.7D	41.87
0.7 - 1	9.8H									
0.7 - 1	8.9B	86B	1.31E	6.54	3.22	9.63		23B	20.7D	41.87
0.7 - 1	9.8H									
0.7 - 1	8.9B	86B	1.31E	6.54	3.22	9.63		23B	20.7D	41.87
0.8 - 0.9										

Depth m	CaCO3 %	Organic C Clay %	Avail. P mg/kg	Total P %	Total N %	Total K %	Bulk Density Mg/m3	Particle Size Analysis			
								GV	CS	FS	Silt
0 - 0.1 9.2	<2C	1.44D		95F	0.089B	0.34B					3.2
0 - 0.1 9.2	<2C	21.4D		980F	1.06B						3.2
0 - 0.1 9.2	<2C	1.44D		95F	0.089B	0.34B					3.2
0 - 0.1 9.2	<2C	21.4D		980F	1.06B						3.2
0 - 0.1 9.2	<2C	1.44D		95F	0.089B	0.34B					3.2
0 - 0.1 9.2	<2C	21.4D		980F	1.06B						3.2
0 - 0.1 9.2	<2C	1.44D		95F	0.089B	0.34B					3.2
0 - 0.1 9.2	<2C	21.4D		980F	1.06B						3.2
0 - 0.1 9.2	<2C	1.44D		95F	0.089B	0.34B					3.2
0.1 - 0.2 31.3	14C	1.1D		980F	1.06B						8.8
0.1 - 0.2 31.3	14C	0.34D		53F	0.076B	0.78B					8.8
0.1 - 0.2 31.3	14C	1.1D		24F	0.024B	1.08B					8.8
0.1 - 0.2 31.3	14C	0.34D		53F	0.076B	0.78B					8.8
0.1 - 0.2 31.3	14C	1.1D		24F	0.024B	1.08B					8.8
0.1 - 0.2 31.3	14C	0.34D		53F	0.076B	0.78B					8.8
0.1 - 0.2 31.3	14C	1.1D		24F	0.024B	1.08B					8.8
0.1 - 0.2 31.3	14C	0.34D		53F	0.076B	0.78B					8.8
0.1 - 0.2 31.3	14C	1.1D		24F	0.024B	1.08B					8.8
0.2 - 0.3 36.6	23C	0.73D		37F	0.054B	1.07B					9.3
0.2 - 0.3 36.6	23C	0.22D		18F	0.013B	1.05B					9.3
0.2 - 0.3 36.6	23C	0.73D		37F	0.054B	1.07B					9.3
0.2 - 0.3 36.6	23C	0.22D		18F	0.013B	1.05B					9.3
0.2 - 0.3 36.6	23C	0.73D		37F	0.054B	1.07B					9.3
0.2 - 0.3 36.6	23C	0.22D		18F	0.013B	1.05B					9.3
0.2 - 0.3 36.6	23C	0.73D		37F	0.054B	1.07B					9.3
0.2 - 0.3 36.6	23C	0.22D		18F	0.013B	1.05B					9.3
0.2 - 0.3 36.6	23C	0.73D		37F	0.054B	1.07B					9.3
0.2 - 0.3 36.6	23C	0.22D		18F	0.013B	1.05B					9.3
0.2 - 0.3 36.6	23C	0.73D		37F	0.054B	1.07B					9.3
		0.22D		18F	0.013B	1.05B					

0.3 - 0.7 42.7	17C	0.15D	26F	0.016B	1.31B	5.6
0.3 - 0.7 42.7	17C	0.15D	19F	0.011B	1.38B	
0.3 - 0.7 42.7	17C	0.15D	26F	0.016B	1.31B	5.6
0.3 - 0.7 42.7	17C	0.15D	19F	0.011B	1.38B	
0.3 - 0.7 42.7	17C	0.15D	26F	0.016B	1.31B	5.6
0.3 - 0.7 42.7	17C	0.15D	19F	0.011B	1.38B	
		0.16D	26F	0.016B	1.31B	5.6
		0.16D	19F	0.011B	1.38B	

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0.3 - 0.7 42.7	17C	0.15D	26F	0.016B	1.31B			5.6		
0.5 - 0.6 0.7 - 1 57.4		0.16D	19F	0.011B	1.38B			2.8		
0.7 - 1 57.4	3.2C	0.07D	21F	0.009B	1.57B			2.8		
0.7 - 1 57.4		0.1D	21F	0.009B	1.72B			2.8		
0.7 - 1 57.4	3.2C	0.07D	21F	0.009B	1.57B			2.8		
0.7 - 1 57.4		0.1D	21F	0.009B	1.72B			2.8		
0.7 - 1 57.4	3.2C	0.07D	21F	0.009B	1.57B			2.8		
0.7 - 1 57.4		0.1D	21F	0.009B	1.72B			2.8		
0.8 - 0.9		0.1D	21F	0.009B	1.57B			2.8		

Laboratory Analyses Completed for this profile

12_NR_FE	Total element - Fe(%) - Not recorded
14_NR_S	Saturation extract - Sulphur
14B1	Electrical conductivity/SE
14C1	pH/SE
14H1_CA	Soluble bases/SE (Ca,Mg,K,Na)
14H1_K	Soluble bases/SE (Ca,Mg,K,Na)
14H1_MG	Soluble bases/SE (Ca,Mg,K,Na)
14H1_NA	Soluble bases/SE (Ca,Mg,K,Na)
15_NR_BSa	Exchangeable bases (Ca++) - meq per 100g of soil - Auto calculated from available
15_NR_CMR	Exchangeable bases (Ca/Mg ratio) - Not recorded
15A1_CA for soluble	Exchangeable bases (Ca ²⁺ ,Mg ²⁺ ,Na ⁺ ,K ⁺) - 1M ammonium chloride at pH 7.0, no pretreatment salts
15A1_CEC	Exchangeable bases (CEC) - 1M ammonium chloride at pH 7.0, no pretreatment for soluble salts
15A1_K for soluble	Exchangeable bases (Ca ²⁺ ,Mg ²⁺ ,Na ⁺ ,K ⁺) - 1M ammonium chloride at pH 7.0, no pretreatment salts
15A1_MG for soluble	Exchangeable bases (Ca ²⁺ ,Mg ²⁺ ,Na ⁺ ,K ⁺) - 1M ammonium chloride at pH 7.0, no pretreatment salts
15A1_NA for soluble	Exchangeable bases (Ca ²⁺ ,Mg ²⁺ ,Na ⁺ ,K ⁺) - 1M ammonium chloride at pH 7.0, no pretreatment salts
15C1_CA pretreatment for	Exchangeable bases (Ca ²⁺ ,Mg ²⁺ ,Na ⁺ ,K ⁺) - alcoholic 1M ammonium chloride at pH 8.5, soluble salts
15C1_CEC	CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for soluble salts
15C1_K soluble salts	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for soluble salts
15C1_MG soluble salts	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for soluble salts
15C1_NA soluble salts	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for soluble salts
15J_BASES 15L1_a Sum of Cations	Sum of Bases Exchangeable bases Base saturation percentage (BSP) - Auto calculated from available using and measured clay
15N1_a	Exchangeable sodium percentage (ESP) - Auto calculated from available using CEC
15N1_b	Exchangeable sodium percentage (ESP) - Auto calculated from available using Sum of Cations
17A_NR	Total element - K (%) - Not recorded
19B_NR	Calcium Carbonate (CaCO ₃) - Not recorded

2A1	Air-dry moisture content
2D1	Moisture content - approximate saturation paste
3_NR	Electrical conductivity or soluble salts - Not recorded
4_NR	pH of soil - Not recorded
4B1	pH of 1:5 soil/0.01M calcium chloride extract - direct
6A1_UC	Organic carbon (%) - Uncorrected Walkley and Black method
7_NR	Total nitrogen (%) - Not recorded
9A_NR	Total element - P(%) - Not recorded
P10_1m2m	1000 to 2000u particle size analysis, (method not recorded)

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P10_20_75 20 to 75u particle size analysis, (method not recorded)
P10_75_106 75 to 106u particle size analysis, (method not recorded)
P10_gt2MI > 2mm particle size analysis mineral fragments, (method not recorded)
P10_gt2OM > 2mm particle size analysis organic fragments, (method not recorded)
P10_NR_C Clay (%) - Not recorded
P10_NR_Saa Sand (%) - Not recorded arithmetic difference, auto generated
P10_NR_Z Silt (%) - Not recorded
P10106_150 106 to 150u particle size analysis, (method not recorded)
P10150_180 150 to 180u particle size analysis, (method not recorded)
P10180_300 180 to 300u particle size analysis, (method not recorded)
P10300_600 300 to 600u particle size analysis, (method not recorded)
P106001000 600 to 1000u particle size analysis, (method not recorded)
P3A1_C4 Bulk density - core, 100mm by 81mm dia
TE_NR_AL Total Element Al - Not recorded
TE_NR_AL2O Total Element Al₂O₃ - Not recorded
TE_NR_FE2O Total Element Fe₂O - Not recorded