

**Project Name:** Dandaragan land resources survey  
**Project Code:** DAN **Site ID:** 0852 **Observation ID:** 1  
**Agency Name:** Agriculture Western Australia

**Site Information**

<b>Desc. By:</b>	B. Purdie	<b>Locality:</b>	
<b>Date Desc.:</b>	16/05/96	<b>Elevation:</b>	No Data
<b>Map Ref.:</b>		<b>Rainfall:</b>	No Data
<b>Northing/Long.:</b>	6606398 AMG zone: 50	<b>Runoff:</b>	No Data
<b>Easting/Lat.:</b>	378861 Datum: AGD84	<b>Drainage:</b>	Imperfectly drained

**Geology**

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

**Land Form**

**Rel/Slope Class:** Undulating low hills 30-90m 3-10% **Pattern Type:** Low hills

<b>Morph. Type:</b>	Mid-slope	<b>Relief:</b>	No Data
<b>Elem. Type:</b>	Hillslope	<b>Slope Category:</b>	No Data
<b>Slope:</b>	9 %	<b>Aspect:</b>	270 degrees

**Surface Soil Condition** Firm

**Erosion:**

**Soil Classification**

<b>Australian Soil Classification:</b>	<b>Mapping Unit:</b>	N/A
Melanic Mesotrophic Black Chromosol	<b>Principal Profile Form:</b>	N/A
<b>ASC Confidence:</b>	<b>Great Soil Group:</b>	N/A
Analytical data are incomplete but reasonable confidence.		

**Site** Complete clearing. Pasture, native or improved, cultivated at some stage

**Vegetation:**

**Surface Coarse**

**Profile**

A1	0 - 0.1 m	Dark reddish brown (5YR3/2-Moist); Mottles, 5YR58, 2-10% , 0-5mm, Faint; Loam; Weak grade of structure, 50-100 mm, Platy; Rough-ped fabric; Moist; Field pH 6.1 (pH meter); Clear, Wavy change to -
B21w	0.1 - 0.3 m	Dark reddish brown (5YR3/2-Moist); ; Sandy clay loam; Massive grade of structure; Moist; Firm consistence; 2-10%, fine gravelly, 2-6mm, subrounded, Ironstone, coarse fragments; Field pH 6.4 (pH meter); Gradual, Smooth change to -
B22w	0.3 - 0.5 m	Dark reddish brown (5YR2/2-Moist); Mottles, 5YR58, 2-10% , 0-5mm, Faint; Silty loam; Massive grade of structure; Moist; Weak consistence; 2-10%, fine gravelly, 2-6mm, subrounded, Ironstone, coarse fragments; Field pH 6.4 (pH meter); Clear, Smooth change to -
B23wc	0.5 - 0.8 m	Dark brown (7.5YR3/2-Moist); ; Massive grade of structure; Moist; 20-50%, fine gravelly, 2-6mm, subrounded, Ironstone, coarse fragments; 20-50%, medium gravelly, 6-20mm, coarse fragments; Field pH 6.5 (pH meter); Gradual, Smooth change to -
2B24wc	0.8 - 1 m	Very dark grey (7.5YR3/1-Moist); Mottles, 5YR46, 20-50% , 0-5mm, Distinct; Massive grade of structure; Moist; 2-10%, fine gravelly, 2-6mm, subrounded, Ironstone, coarse fragments; 10-20%, medium gravelly, 6-20mm, subrounded, Ironstone, coarse fragments; Field pH 6.7 (pH meter); Gradual, Smooth change to -
2B25w	1 - 1.4 m	Dark reddish brown (5YR3/2-Moist); ; Heavy clay; Massive grade of structure; Moist; Very firm consistence; Field pH 6.6 (pH meter); Diffuse, Irregular change to -
2BC5w	1.4 - 2 m	Dark olive grey (5Y3/2-Moist); ; Heavy clay; Massive grade of structure; Moist; Very few (0 - 2 %), Unidentified, Medium (2 -6 mm), Soft segregations; Field pH 7.4 (pH meter);

2C 10 %),	2 - 2.3 m	Dark olive grey (5Y3/2-Moist); ; Heavy clay; Massive grade of structure; Moist; Few (2 - Unidentified, Medium (2 -6 mm), Soft segregations; Field pH 8.1 (pH meter);
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**Morphological Notes**

B23wc	Weakly clayey fine sand
2B24wc	texture code was C

**Observation Notes**

**Site Notes**

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gravel from all horizons is very dark red--photos also include roll 18; 18-4 possibly Melanic-Vertic Mesotrophic Black Chromosol or a Sodosol

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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	4.6B 5.4H	20B	5.69H	3.29	0.9	1.14	0.39J		11.02D	
0 - 0.1	4.6B 5.4H	20B	5.69H	3.29	0.9	1.14	0.39J		11.02D	
0.01 - 0.05										
0.1 - 0.3	4.9B 6.4H	6B	3.39H	5	0.63	1.35	0.27J		10.37D	
0.1 - 0.3	4.9B 6.4H	6B	3.39H	5	0.63	1.35	0.27J		10.37D	
0.25 - 0.29										
0.3 - 0.5	4.9B 6.4H	5B	2.39A	5.46	1.07	1.26			10.18D	
0.3 - 0.5	4.9B 6.4H	5B	2.39A	5.46	1.07	1.26			10.18D	
0.33 - 0.37										
0.5 - 0.8	5B 6.6H	4B	1.68A	4.31	0.96	1.02			7.97D	
0.5 - 0.8	5B 6.6H	4B	1.68A	4.31	0.96	1.02			7.97D	
0.8 - 1	5.4B 6.6H	13B	3.03A	9.07	1.59	3.43			17.12D	
0.8 - 1	5.4B 6.6H	13B	3.03A	9.07	1.59	3.43			17.12D	
1 - 1.4	5.6B 6.6H	22B	5.04A	14.4	1.84	4.97			26.25D	
1 - 1.4	5.6B 6.6H	22B	5.04A	14.4	1.84	4.97			26.25D	
1.08 - 1.12										
1.4 - 2	6.2B 6.9H	45B	8.32A	22.5	2.86	9.2			42.88D	
1.4 - 2	6.2B 6.9H	45B	8.32A	22.5	2.86	9.2			42.88D	
1.9 - 1.94										
2 - 2.3	7.8B 8.7H	44B	7.43E	19.18	2.18	8.2		39B	36.99D	21.03
2 - 2.3	7.8B 8.7H	44B	7.43E	19.18	2.18	8.2		39B	36.99D	21.03

  

Depth m	CaCO3 %	Organic C Clay %	Avail. P mg/kg	Total P %	Total N %	Total K %	Bulk Density Mg/m3	Particle GV	Size CS	Analysis FS	Silt
0 - 0.1		4.06D		1920B	0.408E						9.3
0 - 0.1		4.06D		1920B	0.408E						9.3
0.01 - 0.05							1.17				
0.1 - 0.3		0.76D		2008B	0.099E						7.8
0.1 - 0.3		0.76D		2008B	0.099E						7.8
0.25 - 0.29							1.45				
0.3 - 0.5		0.53D		2026B	0.084E						7.5
0.3 - 0.5		0.53D		2026B	0.084E						7.5
0.33 - 0.37							1.46				

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0.5 - 0.8 9.2	0.24D	1341B	0.052E	1.9
0.5 - 0.8 9.2	0.24D	1341B	0.052E	1.9
0.8 - 1 45	0.2D	2359B	0.055E	3.4
0.8 - 1 45	0.2D	2359B	0.055E	3.4
1 - 1.4 35.7	0.15D	2037B	0.038E	5.1
1 - 1.4 35.7	0.15D	2037B	0.038E	5.1
1.08 - 1.12 1.4 - 2 46.7	0.1D	2977B	0.025E	1.64 6.6
1.4 - 2 46.7	0.1D	2977B	0.025E	6.6
1.9 - 1.94 2 - 2.3 45.4	7C 0.08D	5946B	0.019E	1.42 5.6
2 - 2.3 45.4	7C 0.08D	5946B	0.019E	5.6

#### **Laboratory Analyses Completed for this profile**

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 (Ca2+,Mg2+,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 (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment salts
15A1_MG for soluble	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment salts
15A1_NA for soluble	Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment salts
15C1_CA pretreatment for	Exchangeable bases (Ca2+,Mg2+,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
15C1_MG soluble salts	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for
15C1_NA soluble salts	Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for
15E1_AL	Exchangeable Al - by compulsive exchange, no pretreatment for soluble salts
15E1_CA salts	Exchangeable bases (Ca2+,Mg2+,Na+,K+) by compulsive exchange, no pretreatment for soluble
15E1_K	Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts
15E1_MG	Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts
15E1_MN	Exchangeable bases (Mn2+) by compulsive exchange, no pretreatment for soluble salts
15E1_NA	Exchangeable bases, CEC and AEC by compulsive exchange, no pretreatment for soluble salts
15J_BASES	Sum of Bases
15L1_a Sum of Cations	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
18A1_NR	Bicarbonate-extractable potassium (not recorded)

19B_NR	Calcium Carbonate (CaCO <sub>3</sub> ) - Not recorded
3_NR	Electrical conductivity or soluble salts - Not recorded
4_NR	pH of soil - Not recorded
4B_AL_NR	Aluminium in 1:5 soil/0.01M calcium chloride extract - method not recorded
4B1	pH of 1:5 soil/0.01M calcium chloride extract - direct
6A1_UC	Organic carbon (%) - Uncorrected Walkley and Black method
7A1	Total nitrogen - semimicro Kjeldahl, steam distillation
9A3	Total Phosphorus (ppm) - semimicro kjeldahl, automated colour
9B_NR	Bicarbonate-extractable phosphorus (not recorded)
9H1	Anion storage capacity
P10_1m2m	1000 to 2000u particle size analysis, (method not recorded)
P10_20_75	20 to 75u particle size analysis, (method not recorded)
P10_75_106	75 to 106u particle size analysis, (method not recorded)

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P10\_gt2m > 2mm particle size analysis, (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)  
 P3A\_NR Bulk density - Not recorded