

**Project Name:** CL      **Site ID:** B562      **Observation ID:** 1  
**Project Code:** CL      **Agency Name:** CSIRO Division of Soils (QLD)

#### Site Information

<b>Desc. By:</b>	C.H. Thompson	<b>Locality:</b>	
<b>Date Desc.:</b>	12/10/66	<b>Elevation:</b>	12 metres
<b>Map Ref.:</b>	Sheet No. : 9544 1:100000	<b>Rainfall:</b>	1632
<b>Northing/Long.:</b>	153.016666666667	<b>Runoff:</b>	Very slow
<b>Easting/Lat.:</b>	-26.85	<b>Drainage:</b>	No Data

**Geology**

<b>Exposure Type:</b>	Soil pit	<b>Conf. Sub. is Parent. Mat.:</b>	No Data
<b>Geol. Ref.:</b>	Qa	<b>Substrate Material:</b>	Auger boring, 2 m deep, Unconsolidated material (unidentified)

#### Land Form

<b>Rel/Slope Class:</b>	No Data	<b>Pattern Type:</b>	Low hills
<b>Morph. Type:</b>	Lower-slope	<b>Relief:</b>	No Data
<b>Elem. Type:</b>	Hillslope	<b>Slope Category:</b>	No Data
<b>Slope:</b>	0 %	<b>Aspect:</b>	No Data

#### Surface Soil Condition (dry):

##### Erosion:

##### Soil Classification

<b>Australian Soil Classification:</b>	Bleached-Magnesian Chemosolic Redoxic Hydrosol	<b>Mapping Unit:</b>	N/A
<b>ASC Confidence:</b>	Analytical data are incomplete but reasonable confidence.	<b>Principal Profile Form:</b>	Dy5.41
		<b>Great Soil Group:</b>	Gleyed podzolic soil

**Site Disturbance:** No effective disturbance other than grazing by hooved animals

**Vegetation:**  
 Low Strata - , , . \*Species includes - Xanthorrhoea media  
 Mid Strata - Shrub, , . \*Species includes - None recorded  
 Tall Strata - Tree, 12.01-20m, Mid-dense. \*Species includes - None Recorded

**Surface Coarse Fragments:** No surface coarse fragments

#### Profile Morphology

A11	0 - 0.05 m	Dark grey (10YR4/1-Moist); ; Sand (Heavy); Massive grade of structure; Moist; Very weak consistence; Field pH 5.6 (pH meter); Common, fine (1-2mm) roots; Clear change to -
A12	0.05 - 0.1 m	Light brownish grey (10YR6/2-Moist); , 7.5YR58, 2-10% , 0-5mm, Distinct; , 2-10% , 0-5mm, Distinct; Sand; Massive grade of structure; Moist; Very weak consistence; Field pH 5.6 (pH meter); Common, fine (1-2mm) roots;
A12	0.1 - 0.2 m	Light brownish grey (10YR6/2-Moist); , 7.5YR58, 2-10% , 0-5mm, Distinct; , 2-10% , 0-5mm, Distinct; Sand; Massive grade of structure; Moist; Very weak consistence; Field pH 5.4 (pH meter); Common, fine (1-2mm) roots; Diffuse change to -
A21	0.2 - 0.3 m	Light grey (10YR7/2-Moist); , 10YR56, 2-10% , 0-5mm, Distinct; , 2-10% , 0-5mm, Distinct; Sand; Massive grade of structure; Moist; Very weak consistence; Field pH 5.2 (pH meter); Few, fine (1-2mm) roots;
A21	0.3 - 0.35 m	Light grey (10YR7/2-Moist); , 10YR56, 2-10% , 0-5mm, Distinct; , 2-10% , 0-5mm, Distinct; Sand; Massive grade of structure; Moist; Very weak consistence; Field pH 5 (pH meter); Diffuse change to -
A22	0.35 - 0.5 m	White (10YR8/1-Moist); ; Sand; Massive grade of structure; Moist; Very weak consistence; Field pH 5.2 (pH meter); Abrupt change to -
B11	0.5 - 0.55 m	Light grey (10YR7/1-Moist); , 10YR58, 10-20% , 15-30mm, Prominent; , 10YR48, 10-20% , 15-30mm, Prominent; Clayey sand; Weak grade of structure, 100-200 mm, Columnar; Moist; Firm consistence; Field pH 4.9 (pH meter); Gradual change to -
B12	0.55 - 0.6 m	Grey (10YR6/1-Moist); , 10YR58, 20-50% , 15-30mm, Prominent; , 10YR66, 20-50% , 15-30mm, Prominent; Sandy clay loam; , Columnar; 20-50 mm, Angular blocky; Moist; Firm consistence; Field pH 4.9 (pH meter);
B12	0.6 - 0.75 m	Grey (10YR6/1-Moist); , 10YR58, 20-50% , 15-30mm, Prominent; , 10YR66, 20-50% , 15-30mm, Prominent; Sandy clay loam; , Columnar; 20-50 mm, Angular blocky; Moist; Firm consistence; Field pH 5.2 (pH meter);

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B12	0.75 - 0.9 m	Grey (10YR6/1-Moist); , 10YR58, 20-50% , 15-30mm, Prominent; , 10YR66, 20-50% , 15-30mm, Prominent; Sandy medium clay; 20-50 mm, Angular blocky; Moist; Firm consistence; Field pH 5 (pH meter); Diffuse change to -
B21	0.9 - 1.2 m	Light grey (2.5Y7/1-Moist); , 7.5YR56, 20-50% , 15-30mm, Prominent; , 2.5YR48, 20-50% , 15-30mm, Prominent; Sandy medium clay (Light); Moderate grade of structure, 20-50 mm, Angular blocky; Moist; Moderately plastic; 0-2%, medium gravelly, 6-20mm, subrounded, Quartz, coarse fragments; Field pH 5.1 (pH meter); Diffuse change to -
B22	1.2 - 1.3 m	(N7/0-Moist); , 10YR58, 20-50% , 15-30mm, Prominent; , 2.5YR36, 20-50% , 15-30mm, Prominent; Medium clay; Moderate grade of structure, 5-10 mm, Angular blocky; Wet; Moderately plastic; 0-2%, medium gravelly, 6-20mm, subrounded, Quartz, coarse fragments; Field pH 5 (pH meter);
B22	1.3 - 1.5 m	(N7/0-Moist); , 10YR58, 20-50% , 15-30mm, Prominent; , 2.5YR36, 20-50% , 15-30mm, Prominent; Medium clay; Moderate grade of structure, 5-10 mm, Angular blocky; Wet; Moderately plastic; 0-2%, medium gravelly, 6-20mm, subrounded, Quartz, coarse fragments; Field pH 4.9 (pH meter);
B22	1.5 - 1.6 m	(N7/0-Moist); , 10YR58, 20-50% , 15-30mm, Prominent; , 2.5YR36, 20-50% , 15-30mm, Prominent; Medium clay; Moderate grade of structure, 5-10 mm, Angular blocky; Wet; Moderately plastic; 0-2%, medium gravelly, 6-20mm, subrounded, Quartz, coarse fragments; Field pH 5 (pH meter); Diffuse change to -
B31	1.6 - 1.8 m	White (5Y8/1-Moist); , 10R32, 20-50% , 15-30mm, Prominent; , 10YR56, 20-50% , 15-30mm, Prominent; Medium heavy clay; Moderate grade of structure, 20-50 mm, Angular blocky; Wet; 0-2%, medium gravelly, 6-20mm, Quartz, coarse fragments; Field pH 5 (pH meter);
B31	1.8 - 2 m	White (5Y8/1-Moist); , 10R32, 20-50% , 15-30mm, Prominent; , 10YR56, 20-50% , 15-30mm, Prominent; Medium heavy clay; Moderate grade of structure, 20-50 mm, Angular blocky; Wet; 0-2%, medium gravelly, 6-20mm, Quartz, coarse fragments; Field pH 4.9 (pH meter); Diffuse change to -
B32	2 - 2.1 m	White (5Y8/1-Moist); , 10R32, 20-50% , 15-30mm, Prominent; , 2.5Y76, 20-50% , 15-30mm, Prominent; Heavy clay; Massive grade of structure; Moist; Very firm consistence; Field pH 4.9 (pH meter);
B32	2.1 - 2.4 m	White (5Y8/1-Moist); , 10R32, 20-50% , 15-30mm, Prominent; , 2.5Y76, 20-50% , 15-30mm, Prominent; Massive grade of structure; Moist; Very firm consistence; Field pH 5 (pH meter);
B32	2.4 - 2.7 m	White (5Y8/1-Moist); , 10R32, 20-50% , 15-30mm, Prominent; , 2.5Y76, 20-50% , 15-30mm, Prominent; Massive grade of structure; Moist; Very firm consistence; Field pH 5 (pH meter);

#### Morphological Notes

#### Observation Notes

#### Site Notes

BEERWAH

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**Laboratory Test Results:**

Depth m	pH	1:5 EC dS/m	Exchangeable Cations			Na Cmol (+)/kg	Exchangeable Acidity	CEC	ECEC	ESP %
			Ca	Mg	K					
0 - 0.05	5.6A	0.027A	0.6B	0.58	0.03	0.04	0.92D			
0.05 - 0.1	5.6A	0.019A	0.2B	0.3	0.02	0.06	0.56D			
0.1 - 0.2	5.4A	0.014A								
0.2 - 0.3	5.2A	0.014A								
0.3 - 0.35	5A	0.019A								
0.35 - 0.5	5.2A	0.014A	0.04B	0.1	0.02	0.04	0.4D			
0.5 - 0.55	4.9A	0.024A	0.1B	0.16	0.02	0.04	0.8D			
0.55 - 0.6	4.9A	0.027A								
0.6 - 0.75	5.2A	0.03A	0.1B	0.67	0.02	0.12	2.1D			
0.75 - 0.9	5A	0.03A	0.05B	0.84	0.02	0.14	2.8D			
0.9 - 1.2	5.1A	0.032A	0.05B	1.3	0.02	0.43	2.3D			
1.2 - 1.3	5A	0.038A								
1.3 - 1.5	4.9A	0.046A	0.05B	2.5	0.03	0.57	7.7D			
1.5 - 1.6	5A	0.043A								
1.6 - 1.8	5A	0.046A	0.06B	2.4	0.02	0.51	6.5D			
1.8 - 2	4.9A	0.038A								
2 - 2.1	4.9A	0.03A								
2.1 - 2.4	5A	0.038A								
2.4 - 2.7	5A	0.035A								

Depth m	CaCO <sub>3</sub> %	Organic C %	Avail. P mg/kg	Total P %	Total N %	Total K %	Bulk Density Mg/m <sup>3</sup>	GV	Particle CS	Size FS %	Analysis Silt	Clay
0 - 0.05		1.1A	2.8A 2.7B	0.002A	0.042B	0.03A	1.35	1	56C	34	6	2
0.05 - 0.1		0.41A	4A 1.7B	0.001A	0.016B	0.03A	1.49	1	57C	34	6	2
0.1 - 0.2		0.23A		0.004A	0.013B	0.04A		1	51C	38	6	3
0.2 - 0.3				0.001A	0.012B	0.03A	1.64	1	53C	39	6	2
0.3 - 0.35												
0.35 - 0.5				<0A	0.007B	0.02A		1	43C	34	14	8
0.5 - 0.55				<0A	0.005B	0.03A	1.87	1	40C	37	13	11
0.55 - 0.6												
0.6 - 0.75				0.002A	0.006B	0.04A		1	39C	34	8	18
0.75 - 0.9				0.002A	0.006B	0.05A		1	39C	30	7	22
0.9 - 1.2				0.001A	0.008B	0.06A	1.67	1	37C	25	8	29
1.2 - 1.3												
1.3 - 1.5				0.003A	0.009B	0.21A		1	26C	14	12	49
1.5 - 1.6												
1.6 - 1.8				0.001A	0.008B	0.22A		1	28C	19	12	42
1.8 - 2												
2 - 2.1												
2.1 - 2.4												
2.4 - 2.7								1	32C	11	13	46

Depth m	COLE	Gravimetric/Volumetric Water Contents							K sat	K unsat
		Sat.	0.05 Bar g/g	0.1 Bar m <sup>3</sup> /m <sup>3</sup>	0.5 Bar g/g	1 Bar m <sup>3</sup> /m <sup>3</sup>	5 Bar g/g	15 Bar m <sup>3</sup> /m <sup>3</sup>		
0 - 0.05			0.15F					0.05H		

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0.05 - 0.1	0.18F	0.04H
0.1 - 0.2		
0.2 - 0.3	0.16F	0.04H
0.3 - 0.35		
0.35 - 0.5		
0.5 - 0.55	0.27F	0.19H
0.55 - 0.6		
0.6 - 0.75		
0.75 - 0.9		
0.9 - 1.2	0.34F	0.27H
1.2 - 1.3		
1.3 - 1.5		
1.5 - 1.6		
1.6 - 1.8		
1.8 - 2		
2 - 2.1		
2.1 - 2.4		
2.4 - 2.7		

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**Laboratory Analyses Completed for this profile**

10A1	Total sulfur - X-ray fluorescence
15_NR_H	Hydrogen Cation - meq per 100g of soil - Not recorded
15A2_CA	Exchangeable bases (Ca <sup>2+</sup> ,Mg <sup>2+</sup> ,Na <sup>+</sup> ,K <sup>+</sup> ) - 1M ammonium chloride at pH 7.0, pretreatment for soluble salts
15A2_K	Exchangeable bases- 1M ammonium chloride at pH 7.0, pretreatment for soluble salts
15A2_MG	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
17A1	Total potassium - X-ray fluorescence
2_LOI	Loss on Ignition (%)
2A1	Air-dry moisture content
3A1	EC of 1:5 soil/water extract
4A1	pH of 1:5 soil/water suspension
5A2	Chloride - 1:5 soil/water extract, automated colour
6A1	Organic carbon - Walkley and Black
7_NR	Total nitrogen (%) - Not recorded
9A1	Total phosphorus - X-ray fluorescence
9B_9C	Available P (mg/kg) - Bicarbonate P - 0.5M NaHCO <sub>3</sub> extractable
9G_BSES	Available P (mg/kg) - Acid P - 0.005M H <sub>2</sub> SO <sub>4</sub> (BSES)
P10_GRAV	Gravel (%)
P10_NR_C	Clay (%) - Not recorded
P10_NR_CS	Coarse sand (%) - Not recorded
P10_NR_FS	Fine sand (%) - Not recorded
P10_NR_Z	Silt (%) - Not recorded
P3A1	Bulk density - g/cm <sup>3</sup>
P3B3VLe004	0.04 BAR Moisture m3/m <sup>3</sup> - Volumetric using undisturbed 60mm diameter and 34mm height core on suction plate
P3B3VLe01	0.1 BAR Moisture m3/m <sup>3</sup> - Volumetric using undisturbed 60mm diameter and 34mm height core on suction plate
P3B3VLe03	0.3 BAR Moisture m3/m <sup>3</sup> - Volumetric using undisturbed 60mm diameter and 34mm height core on suction plate
P3B3VLe06	0.6 BAR Moisture m3/m <sup>3</sup> - Volumetric using undisturbed 60mm diameter and 34mm height core on pressure plate
P3B3VLe15	15 BAR Moisture m3/m <sup>3</sup> - Volumetric using undisturbed 60mm diameter and 34mm height core on pressure plate
P3B3VLe2	2 BAR Moisture m3/m <sup>3</sup> - Volumetric using undisturbed 60mm diameter and 34mm height core on pressure plate
P3B3VLe7	7 BAR Moisture m3/m <sup>3</sup> - Volumetric using undisturbed 60mm diameter and 34mm height core on pressure plate