**Project Name:** **Katanning land resources survey**
**Project Code:** **KLC** **Site ID:** **1578** **Observation ID:** **1**
**Agency Name:** **Agriculture Western Australia**

## Site Information

| | | | |
|---|---|---|---|
| **Desc. By:** | Heather Percy | **Locality:** | |
| **Date Desc.:** | 10/02/94 | **Elevation:** | 340 metres |
| **Map Ref.:** | | **Rainfall:** | No Data |
| **Northing/Long.:** | 6280630 AMG zone: 50 | **Runoff:** | No Data |
| **Easting/Lat.:** | 550880 Datum: AGD84 | **Drainage:** | Well drained |

## Geology

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

## Land Form

| | | | |
|---|---|---|---|
| **Rel/Slope Class:** | Undulating low hills 30-90m 3-10% | **Pattern Type:** | Low hills |
| **Morph. Type:** | Mid-slope | **Relief:** | 30 metres |
| **Elem. Type:** | Hillslope | **Slope Category:** | No Data |
| **Slope:** | 4 % | **Aspect:** | 0 degrees |

**Surface Soil Condition** Loose

**Erosion:** (wind); (sheet) (rill) (gully)

## Soil Classification

**Australian Soil Classification:**
Ferric Mottled-Subnatric Grey Sodosol
**ASC Confidence:**
Confidence level not specified

**Mapping Unit:** N/A
**Principal Profile Form:** Uc2.21
**Great Soil Group:** N/A

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

**Vegetation:**

**Surface Coarse** 20-50%, medium gravelly, 6-20mm, angular, Quartz; No surface coarse fragments

## Profile

A1p 0 - 0.15 m Very dark grey (10YR3/1-Moist); ; Loamy sand; Single grain grade of structure; Dry; 10-20%, fine gravelly, 2-6mm, subangular, Quartz, coarse fragments; Field pH 5.5 (Raupach); Many, very fine (0-1mm) roots; Abrupt, Smooth change to -

A21 0.15 - 0.3 m Greyish brown (10YR5/2-Moist); , 0-0% ; Clayey coarse sand; Massive grade of structure; Dry; 10-20%, medium gravelly, 6-20mm, subangular, Quartz, coarse fragments; 2-10%, medium gravelly, 6-20mm, subrounded, , coarse fragments; Field pH 5.5 (Raupach); Common, very fine (0-1mm) roots; Abrupt, Smooth change to -

A22e 0.3 - 0.6 m Light brownish grey (10YR6/2-Moist); , 0-0% ; Massive grade of structure; Dry; 20-50%, fine gravelly, 2-6mm, subrounded, , coarse fragments; 20-50%, medium gravelly, 6-20mm, subrounded, , coarse fragments; Field pH 6 (Raupach); Common, very fine (0-1mm) roots; Clear, Wavy change to -

A3e 0.6 - 0.75 m Light brownish grey (2.5Y6/3-Moist); Mottles, 5YR56, 2-10% , 5-15mm, Distinct; Clayey coarse sand; Massive grade of structure; Dry; 20-50%, medium gravelly, 6-20mm, subrounded, , coarse fragments; Field pH 6 (Raupach); Few, very fine (0-1mm) roots; Clear, Wavy change to -

B2 0.75 - 1.4 m Very pale brown (10YR7/3-Moist); Mottles, 5YR66, 20-50% , 5-15mm, Distinct; Light clay; Weak grade of structure, 10-20 mm, Polyhedral; Dry; Very firm consistence; Field pH 6 (Raupach);

## Morphological Notes

A1p Hard below 10cm
A22e VWCKS

## Observation Notes

## Site Notes

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**Laboratory Test Results:**

| Depth | pH | 1:5 EC | Exchangeable Cations | | | | Exchangeable | CEC | ECEC | ESP |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Ca | Mg | K | Na | Acidity | | | |
| m | | dS/m | | | | Cmol (+)/kg | | | | % |
| 0 - 0.1 | 4.4B<br>5.1H<br>4.4B<br>5H<br>4.2B | 3B<br>6B | 0.93H | 0.13 | 0.05 | 0.04 | 0.42J | | 1.15D | |
| 0 - 0.1 | 4.4B<br>5.1H<br>4.4B<br>5H<br>4.2B | 3B<br>6B | 0.93H | 0.13 | 0.05 | 0.04 | 0.42J | | 1.15D | |
| 0 - 0.1 | 4.4B<br>5.1H<br>4.4B<br>5H<br>4.2B | 3B<br>6B | 0.93H | 0.13 | 0.05 | 0.04 | 0.42J | | 1.15D | |
| 0 - 0.1 | 4.4B<br>5.1H<br>4.4B<br>5H<br>4.2B | 3B<br>6B | 0.93H | 0.13 | 0.05 | 0.04 | 0.42J | | 1.15D | |
| 0 - 0.1 | 4.4B<br>5.1H<br>4.4B<br>5H<br>4.2B | 3B<br>6B | 0.93H | 0.13 | 0.05 | 0.04 | 0.42J | | 1.15D | |
| 0.1 - 0.15 | 4.3B<br>5.2H | 2B | 0.82H | 0.12 | 0.03 | 0.03 | 0.58J | | 1D | |
| 0.1 - 0.15 | 4.3B<br>5.2H | 2B | 0.82H | 0.12 | 0.03 | 0.03 | 0.58J | | 1D | |
| 0.15 - 0.3 | 4.4B<br>5.3H | 1B | 0.34H | 0.11 | 0.02 | 0.02 | 0.43J | | 0.49D | |
| 0.15 - 0.3 | 4.4B<br>5.3H | 1B | 0.34H | 0.11 | 0.02 | 0.02 | 0.43J | | 0.49D | |
| 0.15 - 0.25 | 4.3B | | | | | | | | | |
| 0.3 - 0.6 | 4.8B<br>6H | 1B | 0.38H | 0.26 | 0.02 | 0.07 | 0.06J | | 0.73D | |
| 0.3 - 0.6 | 4.8B<br>6H | 1B | 0.38H | 0.26 | 0.02 | 0.07 | 0.06J | | 0.73D | |
| 0.4 - 0.5 | 4.7B | | | | | | | | | |
| 0.6 - 0.75 | 5.2B<br>6.4H | 2B | 0.45H | 0.71 | 0.02 | 0.14 | <0.02J | | 1.32D | |
| 0.6 - 0.75 | 5.2B<br>6.4H | 2B | 0.45H | 0.71 | 0.02 | 0.14 | <0.02J | | 1.32D | |
| 0.75 - 0.95 | 5.7B<br>6.2H | 4B | 0.8H | 2.7 | 0.02 | 0.29 | <0.02J | | 3.81D | |
| 0.75 - 0.95 | 5.7B<br>6.2H | 4B | 0.8H | 2.7 | 0.02 | 0.29 | <0.02J | | 3.81D | |
| 0.95 - 1.25 | 5.7B<br>6.2H | 4B | 0.86H | 3.8 | 0.03 | 0.37 | <0.02J | | 5.06D | |
| 0.95 - 1.25 | 5.7B<br>6.2H | 4B | 0.86H | 3.8 | 0.03 | 0.37 | <0.02J | | 5.06D | |

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| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 1.25 - 1.4 | 5.6B<br>6H | 4B | 0.76H | 3.3 | 0.02 | 0.35 | <0.02J | 4.43D |
| 1.25 - 1.4 | 5.6B<br>6H | 4B | 0.76H | 3.3 | 0.02 | 0.35 | <0.02J | 4.43D |

| Depth | CaCO3 | Organic C | Avail. P | Total P | Total N | Total K | Bulk Density | GV | Particle Size Analysis CS | FS | Silt | Clay |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| m | % | % | mg/kg | % | % | % | Mg/m3 | | | % | | |
| 0 - 0.1 | | 1.06D | | 120B | 0.06E | | | | | | 3.6 | 3.8 |
| | | 1.33D | | 160B | 0.097E | | | | | | | |
| 0 - 0.1 | | 1.06D | | 120B | 0.06E | | | | | | 3.6 | 3.8 |
| | | 1.33D | | 160B | 0.097E | | | | | | | |
| 0 - 0.1 | | 1.06D | | 120B | 0.06E | | | | | | 3.6 | 3.8 |
| | | 1.33D | | 160B | 0.097E | | | | | | | |
| 0 - 0.1 | | 1.06D | | 120B | 0.06E | | | | | | 3.6 | 3.8 |
| | | 1.33D | | 160B | 0.097E | | | | | | | |
| 0 - 0.1 | | 1.06D | | 120B | 0.06E | | | | | | 3.6 | 3.8 |
| | | 1.33D | | 160B | 0.097E | | | | | | | |
| 0.1 - 0.15 | | 0.76D | | 84B | 0.039E | | | | | | 3.7 | 4.7 |
| 0.1 - 0.15 | | 0.76D | | 84B | 0.039E | | | | | | 3.7 | 4.7 |
| 0.15 - 0.3 | | 0.3D | | 50B | 0.019E | | | | | | 4 | 6.1 |
| 0.15 - 0.3 | | 0.3D | | 50B | 0.019E | | | | | | 4 | 6.1 |
| 0.15 - 0.25 | | | | | | | | | | | | |
| 0.3 - 0.6 | | 0.12D | | 59B | 0.014E | | | | | | 4.4 | 7.8 |
| 0.3 - 0.6 | | 0.12D | | 59B | 0.014E | | | | | | 4.4 | 7.8 |
| 0.4 - 0.5 | | | | | | | | | | | | |
| 0.6 - 0.75 | | 0.08D | | 72B | 0.011E | | | | | | 5.6 | 15.7 |
| 0.6 - 0.75 | | 0.08D | | 72B | 0.011E | | | | | | 5.6 | 15.7 |
| 0.75 - 0.95 | | 0.08D | | 77B | 0.009E | | | | | | 5.6 | 52.4 |
| 0.75 - 0.95 | | 0.08D | | 77B | 0.009E | | | | | | 5.6 | 52.4 |
| 0.95 - 1.25 | | 0.07D | | 75B | 0.009E | | | | | | 5.4 | 67.3 |
| 0.95 - 1.25 | | 0.07D | | 75B | 0.009E | | | | | | 5.4 | 67.3 |
| 1.25 - 1.4 | | 0.08D | | 71B | 0.007E | | | | | | 5.7 | 59.4 |
| 1.25 - 1.4 | | 0.08D | | 71B | 0.007E | | | | | | 5.7 | 59.4 |

**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 |
| 15E1_AL | Exchangeable Al - by compulsive exchange, no pretreatment for soluble salts |
| 15E1_CA | Exchangeable bases (Ca2+,Mg2+,Na+,K+) by compulsive exchange, no pretreatment for soluble salts |
| 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 |
| 15N1_b | Exchangeable sodium percentage (ESP) - Auto calculated from available using Sum of Cations |
| 18A1_NR | Bicarbonate-extractable potassium (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) |
| 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) |