

Project Name: Katanning land resources survey
Project Code: KLC **Site ID:** 2334 **Observation ID:** 1
Agency Name: Agriculture Western Australia

Site Information

| | |
|---------------------------------------------|------------------------------------------|
| Desc. By: Heather Percy | Locality: |
| Date Desc.: 21/09/95 | Elevation: 280 metres |
| Map Ref.: | Rainfall: No Data |
| Northing/Long.: 6313600 AMG zone: 50 | Runoff: No Data |
| Easting/Lat.: 558010 Datum: AGD84 | Drainage: Moderately well drained |

Geology

| | |
|------------------------------------|--------------------------------------------|
| Exposure Type: Auger boring | Conf. Sub. is Parent. Mat.: No Data |
| Geol. Ref.: No Data | Substrate Material: No Data |

Land Form

| | |
|------------------------------------------------------|--------------------------------|
| Rel/Slope Class: Undulating rises 9-30m 3-10% | Pattern Type: Rises |
| Morph. Type: Mid-slope | Relief: 30 metres |
| Elem. Type: Hillslope | Slope Category: No Data |
| Slope: 5 % | Aspect: 270 degrees |

Surface Soil Condition Hardsetting, Hardsetting

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

Soil Classification

| | |
|-------------------------------------------------------|---------------------------------------|
| Australian Soil Classification: N/A | Mapping Unit: N/A |
| ASC Confidence: Confidence level not specified | Principal Profile Form: Dr2.13 |
| | Great Soil Group: N/A |

Site Cultivation. Rainfed

Vegetation:

Surface Coarse 10-20%, medium gravelly, 6-20mm, subrounded, ; 2-10%, , subangular, Quartz

Profile

| | |
|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ap 0 - 0.15 m | Dark reddish brown (5YR3/4-Moist); , 0-0% ; Clay loam, fine sandy; Moderately moist; Weak consistence; |
| medium gravelly, 6- | 20-50%, medium gravelly, 6-20mm, subangular, Quartz, coarse fragments; 20-50%, 20mm, subangular, , coarse fragments; Field pH 6 (Raupach); Abrupt, Smooth change to - |
| B21 0.15 - 0.3 m | Reddish brown (2.5YR4/4-Moist); , 0-0% ; Sandy medium clay; Strong grade of structure; Rough-ped |
| (Raupach); | fabric; Moderately moist; Firm consistence; Soil matrix is Slightly calcareous; Field pH 8.5 |
| | Clear change to - |
| B22 0.3 - 0.5 m | Red (2.5YR4/6-Moist); , 0-0% ; Medium heavy clay; Strong grade of structure; Rough-ped |
| fabric; Firm | consistence; Soil matrix is Slightly calcareous; Field pH 9 (Raupach); Clear change to - |
| B23k 0.5 - 0.6 m | Red (2.5YR4/6-Moist); , 0-0% ; Medium heavy clay; Weak grade of structure; Rough-ped |
| fabric; Firm | consistence; Common (10 - 20 %), Calcareous, Coarse (6 - 20 mm), Soft segregations; |
| Soil matrix is | Highly calcareous; Field pH 9.5 (Raupach); |

Morphological Notes

Observation Notes

Site Notes

Ros Jettner's Lentil and Chickpea experiment on Terry Ward's property near Lake Dumbleyung. Site has patches of Calcarosols where chickpeas are performing poorly.

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Laboratory Test Results:

| | | | | | | | |
|-------|----|--------|----------------------|--------------|-----|------|-----|
| Depth | pH | 1:5 EC | Exchangeable Cations | Exchangeable | CEC | ECEC | ESP |
|-------|----|--------|----------------------|--------------|-----|------|-----|

| m | dS/m | Ca | Mg | K | Na Cmol (+)/kg | Acidity | | | % |
|-------------|--------------|-----|-------|------|-------------------|---------|-----|--------|-------|
| 0 - 0.15 | 5.6B 6.5H | 8B | 7.9A | 5.15 | 1.9 | 0.47 | | 15.42D | |
| 0 - 0.15 | 5.6B 6.5H | 8B | 7.9A | 5.15 | 1.9 | 0.47 | | 15.42D | |
| 0 - 0.1 | 5.8B | | | | | | | | |
| 0.15 - 0.35 | 7.4B 8.6H | 11B | 5.47E | 6.67 | 1 | 2.07 | 17B | 15.21D | 12.18 |
| 0.15 - 0.35 | 7.4B 8.6H | 11B | 5.47E | 6.67 | 1 | 2.07 | 17B | 15.21D | 12.18 |
| 0.15 - 0.25 | 6.9B | | | | | | | | |
| 0.4 - 0.5 | 8.4B | | | | | | | | |

| Depth | CaCO3 | Organic C Clay | Avail. P | Total P | Total N | Total K | Bulk Density | Particle GV | Size CS | Analysis FS | Silt |
|-------------|-------|----------------------|-------------|------------|------------|------------|-----------------|----------------|------------|----------------|------|
| m | % | % | mg/kg | % | % | % | Mg/m3 | | | % | |
| 0 - 0.15 | | 1.77D | | | | | | | 65.5l | | 13.5 |
| 21 | | | | | | | | | | | |
| 0 - 0.15 | | 1.77D | | | | | | | 65.5l | | 13.5 |
| 21 | | | | | | | | | | | |
| 0 - 0.1 | | | | | | | | | | | |
| 0.15 - 0.35 | <2C | 0.39D | | | | | | | 55.5l | | 9 |
| 35.5 | | | | | | | | | | | |
| 0.15 - 0.35 | <2C | 0.39D | | | | | | | 55.5l | | 9 |
| 35.5 | | | | | | | | | | | |
| 0.15 - 0.25 | | | | | | | | | | | |
| 0.4 - 0.5 | | | | | | | | | | | |

Laboratory Analyses Completed for this profile

| | |
|------------------|----------------------------------------------------------------------------------------------|
| 13C1_AL | Citrate/dithionite-extractable iron, aluminium, Manganese and Silicon |
| 13C1_FE | Citrate/dithionite-extractable iron, aluminium, Manganese and Silicon |
| 15_NR_BSa | Exchangeable bases (Ca++) - meq per 100g of soil - Auto calculated from available |
| 15_NR_CM | Exchangeable bases (Ca/Mg ratio) - Not recorded |
| 15A1_CA | Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment |
| for soluble | |
| | salts |
| 15A1_CEC | Exchangeable bases (CEC) - 1M ammonium chloride at pH 7.0, no pretreatment for soluble salts |
| 15A1_K | Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment |
| for soluble | |
| | salts |
| 15A1_MG | Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment |
| for soluble | |
| | salts |
| 15A1_NA | Exchangeable bases (Ca2+,Mg2+,Na+,K+) - 1M ammonium chloride at pH 7.0, no pretreatment |
| for soluble | |
| | salts |
| 15C1_CA | Exchangeable bases (Ca2+,Mg2+,Na+,K+) - alcoholic 1M ammonium chloride at pH 8.5, |
| pretreatment for | |
| | soluble salts |
| 15C1_CEC | CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for soluble salts |
| 15C1_K | Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for |
| soluble salts | |
| | |
| 15C1_MG | Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for |
| soluble salts | |
| | |
| 15C1_NA | Exchangeable bases and CEC - alcoholic 1M ammonium chloride at pH 8.5, pretreatment for |
| soluble salts | |
| | |
| 15J_BASES | Sum of Bases |
| 15L1_a | Exchangeable bases Base saturation percentage (BSP) - Auto calculated from available using |
| Sum of Cations | |
| | 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 |

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| | |
|----------|-----------------------------------------------------------|
| 19B_NR | Calcium Carbonate (CaCO ₃) - Not recorded |
| 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 |
| P10_gt2m | > 2mm particle size analysis, (method not recorded) |
| P10_NR_C | Clay (%) - Not recorded |
| P10_NR_S | Sand (%) - Not recorded |
| P10_NR_Z | Silt (%) - Not recorded |