

Project Name: Three Springs Latham land resources survey
Project Code: TSL **Site ID:** 0477 **Observation ID:** 1
Agency Name: Agriculture Western Australia

Site Information

| | | | |
|------------------------|----------------------|-------------------|--------------|
| Desc. By: | Christopher Grose | Locality: | |
| Date Desc.: | 14/09/93 | Elevation: | No Data |
| Map Ref.: | | Rainfall: | No Data |
| Northing/Long.: | 6726917 AMG zone: 50 | Runoff: | No Data |
| Easting/Lat.: | 416303 Datum: AGD84 | Drainage: | Well drained |

Geology

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

Landform

Rel/Slope Class: Gently undulating rises 9-30m 1-3% **Pattern Type:** Hills

| | | | |
|---------------------|-----------|------------------------|---------|
| Morph. Type: | Crest | Relief: | No Data |
| Elem. Type: | Hillcrest | Slope Category: | No Data |
| Slope: | % | Aspect: | No Data |

Surface Soil Condition Hardsetting, Hardsetting

Erosion

Soil Classification

| | | | |
|--|--|--------------------------------|------|
| Australian Soil Classification: | | Mapping Unit: | N/A |
| Acidic Dystrophic Brown Dermosol | | Principal Profile Form: | Gn3? |
| ASC Confidence: | | Great Soil Group: | N/A |
| Confidence level not specified | | | |

Site Disturbance Cultivation. Rainfed

Vegetation

Surface Coarse Fragments 10-20%, medium gravelly, 6-20mm, subrounded, Ironstone

Profile Morphology

| | | |
|----|--------------|---|
| Ap | 0 - 0.1 m | Very dark brown (10YR2/3-Moist); ; Sandy loam; Strong grade of structure, 10-20 mm, Angular blocky; |
| | | Dry; 20-50%, coarse fragments; Field pH 5.8 (pH meter); |
| B | 0.1 - 0.65 m | Strong brown (7.5YR5/8-Moist); ; Sandy clay loam; Moderately moist; |
| B | 0.65 - 1 m | Brownish yellow (10YR6/8-Moist); ; Sandy clay loam; Weak grade of structure, 10-20 mm, Subangular |
| | | blocky; 20-50%, Quartz, coarse fragments; Field pH 4.5 (pH meter); |
| | 1 - m | ; Sandy clay loam; |

Morphological Notes

B Structure breaking to mf SAB. Intermittent ferruginous gravels at the top of layer two.

Roots penetrating around blocks rather than through to top of layer 3.

B Gravels are 2-3mm in size, and the layer is very permeable.

Observation Notes

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Laboratory Test Results:

| Depth | pH | 1:5 EC | Ca | Exchangeable Mg | Cations K | Na | Exchangeable Acidity | CEC | ECEC | ESP |
|-------------|--------------------|--------|-------|-----------------|-----------|-------------|----------------------|-----|-------|-----|
| m | | dS/m | | | | Cmol (+)/kg | | | | % |
| 0 - 0.1 | 4.3B 5H | 5B | 0.99H | 0.24 | 0.1 | 0.1 | 0.49J | | 1.43D | |
| 0 - 0.1 | 4.3B 5H 4.9B | 5B | 0.99H | 0.24 | 0.1 | 0.1 | 0.49J | | 1.43D | |
| 0.15 - 0.25 | 3.8B | | | | | | | | | |
| 0.3 - 0.4 | 4B 4.4H | 8B | 0.63H | 0.23 | 0.04 | 0.1 | 1.11J | | 1D | |
| 0.4 - 0.5 | 3.8B | | | | | | | | | |
| 0.8 - 0.9 | 3.9B 4H | 7B | 0.12H | 0.08 | 0.03 | 0.03 | 1.34J | | 0.26D | |

| Depth | CaCO3 | Organic C Clay | Avail. P | Total P | Total N | Total K | Bulk Density | Particle Size Analysis |
|-------------|-------|----------------|----------|---------|---------|---------|--------------|------------------------|
| m | % | % | mg/kg | % | % | % | Mg/m3 | GV CS FS Silt |
| 0 - 0.1 | | 1.18D | | 250B | 0.064E | | | 5.6 |
| 14.8 | | | | | | | | |
| 0 - 0.1 | | 1.18D | | 250B | 0.064E | | | 5.6 |
| 14.8 | | | | | | | | |
| 0.15 - 0.25 | | | | | | | | |
| 0.3 - 0.4 | | 0.38D | | 47B | 0.029E | | | 5.4 |
| 28.5 | | | | | | | | |
| 0.4 - 0.5 | | | | | | | | |
| 0.8 - 0.9 | | 0.11D | | 29B | 0.01E | | | 8.6 |
| 22 | | | | | | | | |

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 |
| 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 |
| 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_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) |

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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)