Project Name: LSG
Project Code: LSG **Site ID:** CP71 **Observation ID:** 1
Agency Name: CSIRO Division of Soils (ACT)

Site Information

Desc. By: P.H. Walker
Date Desc.: //
Map Ref.: Sheet No. : 8727 1:100000
Northing/Long.: 149.186111111111
Easting/Lat.: -35.3194444444445
Locality: High terrace:
Elevation: 600 metres
Rainfall: 640
Runoff: Very slow
Drainage: Moderately well drained

Geology

ExposureType: No Data
Geol. Ref.: No Data
Conf. Sub. is Parent. Mat.: No Data
Substrate Material: Porous, Unconsolidated material (unidentified)

Land Form

Rel/Slope Class: Gently undulating plains <9m 1-3%
Morph. Type: Flat
Elem. Type: Valley flat
Slope: 2 %
Pattern Type: Terrace (alluvial)
Relief: No Data
Slope Category: Very gently sloped
Aspect: 125 degrees

Surface Soil Condition (dry): Firm

Erosion:

Soil Classification

Australian Soil Classification:
Sodic Eutrophic Brown Chromosol
ASC Confidence:
All necessary analytical data are available.
Mapping Unit: N/A
Principal Profile Form: Dy
Great Soil Group: Yellow podzolic soil

Site Disturbance: Extensive clearing, for example poisoning, ringbarking

Vegetation:

Surface Coarse Fragments:

Profile Morphology

A1	0 - 0.05 m	Dark brown (7.5YR3/3-Moist); ; Loamy sand; Massive grade of structure; Dry; Firm consistence; Field pH 5.5 (pH meter); Clear change to -
A12	0.05 - 0.1 m	Brown (7.5YR4/4-Moist); ; Loamy sand; Massive grade of structure; Dry; Very firm consistence; Field pH 5.6 (pH meter); Clear change to -
A2	0.1 - 0.2 m	Reddish brown (5YR4/4-Moist); , 7.5YR44, 2-10% ; , 2-10% ; Sandy loam; Massive grade of structure; Dry; Very firm consistence; Field pH 5.6 (pH meter); Gradual change to -
A2	0.2 - 0.25 m	Reddish brown (5YR4/4-Moist); Reddish yellow (7.5YR6/6-Dry); ; Sandy loam; Massive grade of structure; Dry; Very firm consistence; Field pH 5.9 (pH meter); Abrupt change to -
B	0.25 - 0.3 m	Reddish brown (2.5YR5/4-Moist); ; Medium clay; Massive grade of structure; Rough-ped fabric; Dry; Very strong consistence; Field pH 6.1 (pH meter); Clear change to -
B	0.3 - 0.4 m	Yellowish brown (10YR5/6-Moist); , 10YR56, 0-2% ; , 0-2% ; Medium clay; Massive grade of structure; Rough-ped fabric; Dry; Very firm consistence; Field pH 6.5 (pH meter); Gradual change to -
B	0.4 - 0.5 m	Light olive brown (2.5Y5/6-Moist); , 5YR56, 20-50% ; , 10YR56, 20-50% ; Medium clay; Massive grade of structure; Rough-ped fabric; Dry; Very strong consistence; Field pH 6.8 (pH meter); Gradual change to -
B	0.5 - 0.6 m	Yellowish red (5YR4/6-Moist); , 2.5YR54, 20-50% ; , 20-50% ; Medium clay; Massive grade of structure; Rough-ped fabric; Dry; Very strong consistence; Few cutans, <10% of ped faces or walls coated, distinct; Very few (0 - 2 %), Manganiferous, , Soft segregations; Field pH 7 (pH meter); Clear change to -
BC	0.6 - 0.7 m	Olive brown (2.5Y4/6-Moist); , 5YR46, 2-10% ; , 2.5Y30, 2-10% ; Heavy clay; Massive grade of structure; Dry; Very strong consistence; Common cutans, 10-50% of ped faces or walls coated, distinct; Field pH 7.3 (pH meter); Gradual change to -
BC	0.7 - 0.8 m	Olive brown (2.5Y4/6-Moist); , 5YR46, 2-10% ; , 2.5Y30, 2-10% ; Heavy clay; Massive grade of structure; Dry; Very strong consistence; Field pH 7.8 (pH meter); Gradual change to -

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BC	0.8 - 0.9 m	Light olive brown (2.5Y5/4-Moist); , 5YR46, 2-10% ; , 2.5Y30, 2-10% ; Heavy clay; Weak grade of structure, 10-20 mm, Subangular blocky; Dry; Very strong consistence; Few cutans, <10% of ped faces or walls coated, distinct; Field pH 8.2 (pH meter); Gradual change to -
BC	0.9 - 1 m	Light olive brown (2.5Y5/4-Moist); , 5YR58, 2-10% ; , 2.5Y41, 2-10% ; Heavy clay; Moderate grade of structure, 10-20 mm, Angular blocky; Dry; Very strong consistence; Few cutans, <10% of ped faces or walls coated, distinct; Field pH 8.4 (pH meter); Gradual change to -
C	1.1 - 1.2 m	Brown (7.5YR4/4-Moist); , 7.5YR58, 2-10% ; , 2-10% ; Heavy clay; Weak grade of structure, 10-20 mm, Angular blocky; Dry; Very strong consistence; Few cutans, <10% of ped faces or walls coated, distinct; Very few (0 - 2 %), Manganiferous, , Soft segregations; Field pH 8.6 (pH meter); Gradual change to -
C	1.3 - 1.4 m	Dark yellowish brown (10YR4/4-Moist); ; Heavy clay; Weak grade of structure, 10-20 mm, Angular blocky; Dry; Very strong consistence; Few cutans, <10% of ped faces or walls coated, distinct; Field pH 8.8 (pH meter); Gradual change to -
C	1.4 - 1.5 m	Dark yellowish brown (10YR4/4-Moist); ; Heavy clay; Weak grade of structure, 10-20 mm, Angular blocky; Dry; Very strong consistence; Few cutans, <10% of ped faces or walls coated, distinct; Field pH 8.8 (pH meter); Clear change to -
Ck	1.6 - 1.7 m	Brown (7.5YR4/4-Moist); , 2.5YR36, 2-10% ; , 2.5YR42, 2-10% ; Medium clay; Massive grade of structure; Dry; Very strong consistence; Common (10 - 20 %), Gypseous, Very coarse (20 - 60 mm), Concretions; Field pH 9 (pH meter); Gradual change to -
Ck	1.7 - 1.8 m	Light olive grey (5Y6/2-Moist); , 7.5YR56, 2-10% ; , 2-10% ; Medium clay; Massive grade of structure; Dry; Very strong consistence; Few (2 - 10 %), Gypseous, Very coarse (20 - 60 mm), Concretions; Field pH 8.9 (pH meter); Gradual change to -
C	1.8 - 2 m	Light olive grey (5Y6/2-Moist); , 7.5YR56, 2-10% ; , 2-10% ; Medium clay; Massive grade of structure; Dry; Very strong consistence; Field pH 8.6 (pH meter);

Morphological Notes

Observation Notes

ALLUVIAL:BIOTIC TO 25CM:50-150CM LUSTRIOUS PED FACES:

Site Notes

PIALLIGO

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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 - 0.05	5.5A	<0.04A	1.8K	0.72	0.59	0	8B	11.1J		0.00
0.05 - 0.1	5.6A	<0.04A								
0.1 - 0.2	5.6A	<0.04A	2K	0.42	0.46	0	4.6B	7.6J		0.00
0.2 - 0.25	5.9A	<0.04A								
0.25 - 0.3	6.1A	<0.04A	6.1K	2.1	0.62	0.2	7.5B	16.5J		1.21
0.3 - 0.4	6.5A	<0.04A								
0.4 - 0.5	6.8A	<0.04A	4.2K	2.9	0.41	0.28	4.5B	12.3J		2.28
0.5 - 0.6	7A	<0.04A								
0.6 - 0.7	7.3A	0.04A	7.8K	8.3	0.33	1.3	6.7B	24.4J		5.33
0.7 - 0.8	7.8A	0.07A								
0.8 - 0.9	8.2A	0.09A	10.2K	12	0.42	2.2	7.6B	32.6J		6.75
0.9 - 1	8.4A	0.11A								
1.1 - 1.2	8.6A	0.013A	10.1K	12.7	0.42	2.7	5.2B	31.2J		8.65
1.3 - 1.4	8.8A	0.16A								
1.4 - 1.5	8.8A	0.13A	9.9K	12.3	0.34	2.8	1.9B	27.2J		10.29
1.6 - 1.7	9A	0.26A								
1.7 - 1.8	8.9A	0.21A								
1.8 - 2	8.6A	0.17A								

Depth	CaCO3	Organic C	Avail. P	Total P	Total N	Total K	Bulk Density	Particle Size Analysis				
								GV	CS	FS	Silt	Clay
m	%	%	mg/kg	%	%	%	Mg/m3			%		
0 - 0.05		2.02D			0.188B			0	33D	39	13	10
0.05 - 0.1		1.27D			0.135B			1	35D	41	14	9
0.1 - 0.2		0.67D			0.081B			1	34D	40	12	12
0.2 - 0.25		0.46D			0.056B			2	29D	40	11	18
0.25 - 0.3		0.66D			0.08B			2	15D	32	11	39
0.3 - 0.4		0.38D			0.047B			1	15D	38	14	31
0.4 - 0.5		0.19D			0.029B			1	18D	38	12	28
0.5 - 0.6		0.14D			0.027B			6	15D	35	13	29
0.6 - 0.7		0.23D			0.049B			0	15D	27	10	48
0.7 - 0.8		0.24D			0.044B			0	7D	10	8	74
0.8 - 0.9	0.09A	0.16D			0.035B							
0.9 - 1	0.09A	0.13D			0.032B			4	10D	6	5	74
1.1 - 1.2	0.14A	0.1D										
1.3 - 1.4	0.11A	0.08D						2	16D	8	7	64
1.4 - 1.5	0.09A	0.07D						1	20D	9	7	62
1.6 - 1.7	5.22A	0.06D										
1.7 - 1.8	0.79A	0.04D										
1.8 - 2	0.06A	0.05D						9	33D	12	9	39

Depth	COLE	Gravimetric/Volumetric Water Contents							K sat	K unsat
		Sat.	0.05 Bar	0.1 Bar	0.5 Bar	1 Bar	5 Bar	15 Bar		
m		g/g - m3/m3							mm/h	mm/h
0 - 0.05										
0.05 - 0.1										
0.1 - 0.2										
0.2 - 0.25										
0.25 - 0.3										

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0.3 - 0.4
0.4 - 0.5
0.5 - 0.6
0.6 - 0.7
0.7 - 0.8
0.8 - 0.9
0.9 - 1
1.1 - 1.2
1.3 - 1.4
1.4 - 1.5
1.6 - 1.7
1.7 - 1.8
1.8 - 2

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Laboratory Analyses Completed for this profile

13C1_FE	Citrate/dithionite-extractable iron, aluminium, Manganese and Silicon
15_NR_CA	Exch. basic cations (Ca++) - meq per 100g of soil - Not recorded
15_NR_CEC	CEC - meq per 100g of soil - Not recorded
15_NR_K	Exch. basic cations (K++) - meq per 100g of soil - Not recorded
15_NR_MG	Exch. basic cations (Mg++) - meq per 100g of soil - Not recorded
15_NR_NA	Exch. basic cations (Na++) - meq per 100g of soil - Not recorded
15G_C_AL1	Exchangeable aluminium - meq per 100g of soil - Aluminium By difference of C and A or B
19A1	Carbonates - rapid titration
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_UC	Organic carbon (%) - Uncorrected Walkley and Black method
7_NR	Total nitrogen (%) - Not recorded
P10_GRAV	Gravel (%)
P10_PB_C	Clay (%) - Plummet balance
P10_PB_CS	Coarse sand (%) - Plummet balance
P10_PB_FS	Fine sand (%) - Plummet balance
P10_PB_Z	Silt (%) - Plummet balance