

SITE: PVI 1

Land unit: Monivae Basalt

Aust. Soil Class.: Ferric, Eutrophic, Brown SODOSOL (thick, clay loamy surface) (confidence level 1)

General Land Unit Description:

The level to gently undulating basalt plains between Branxholm and Glenthompson consist of an association of Vertic or Ferric Brown Chromosols and Ferric Brown Sodosols. The Chromosols typically occur on the upper slopes and crests of very slight rises that may have scattered surface boulders, and Sodosols on the lower slopes and depressions. Sodosols or Vertosols, occasionally with a sporadic bleached subsurface horizon, are usually found in open depressions or drainage lines.

Site Description:

Slope: 2%

Geology: Quaternary basalt

Position in landscape: Mid slope of low rises

Landform pattern: Gently undulating plain

Internal drainage: Imperfectly drained



Soil Profile Morphology

Topsoil

A11 0-10 cm Dark brown (10YR3/3), *fine sandy clay loam*, very weak consistence (dry), pH 5.0. Abrupt change to:

A21 10-15 cm Brown (10YR4/3) conspicuously bleached (10YR7/3dry), *fine sandy clay loam*, weak consistence (dry), rusty root channel mottling, abrupt change to:

A22 15-40 cm Brown (10YR5/3), conspicuously bleached (10YR7/3dry), *fine sandy clay loam*, weak consistence (dry), very many (70%) ferruginous nodules (2-10 mm), pH 6.0. Abrupt and wavy change to:

Subsoil

B21 40-50 cm Yellowish brown (10YR5/4) with many (30%) yellowish red (2.5YR4/6) and brownish yellow (10YR6/8) mottles,



medium clay, moderate coarse blocky, parting to strong medium to fine blocky structure, very firm consistence (moist), few (3-5%) ferruginous nodules, pH 6.6. Clear change to:

B22 50-90 cm Brown (10YR4/3) with yellowish brown (10YR5/8) and dark red (2.5YR4/8) mottles, *medium clay*, moderate to strong coarse blocky, parting to strong medium to fine blocky structure, shiny ped faces, firm consistence (moist), pH 6.9. Abrupt change to:

B23 90-120 cm Light grey (10YR7/1) with yellow (10YR7/8) and dark red (2.5YR4/6) mottles, pH 7.4. Transition to:

B24 120+ cm Grey (5Y6/1) with light yellowish brown (2.5Y6/4) mottles, *heavy clay*, firm consistence (moist).

Note: Weathered basalt material commences at depths of between 90 to 120 cm in the soil profile.

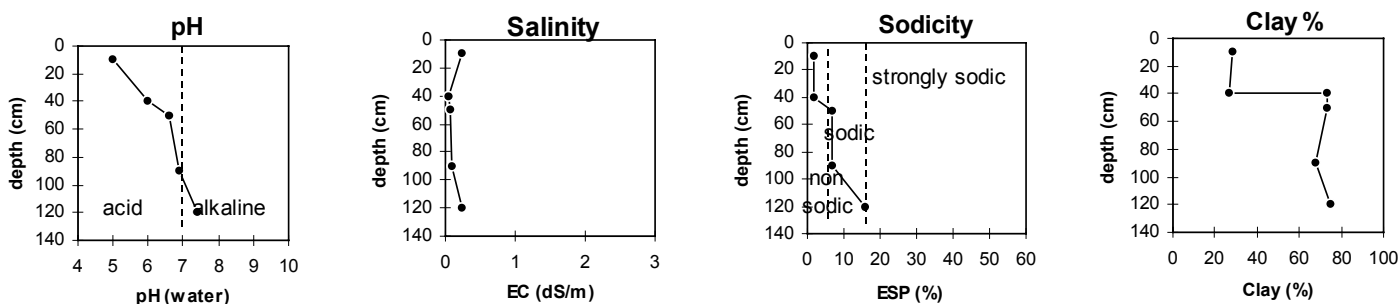
Key profile features:

- Strong texture contrast between surface (A) horizons and subsoil (B21) horizon.
- Conspicuously bleached subsurface (A2 horizon).
- Large amount of ferruginous nodules in subsurface (A2) horizon.

Soil Profile Characteristics:

	pH	Salinity Rating	Sodicity	Dispersion
Surface soil (A1 horizon)	Strongly Acid	Low	Non-Sodic	None
Upper subsoil 40-50	Slightly Acid	Low	Marginally Sodic	None ¹
Deep subsoil (at 90-120 cm)	Slightly Alkaline	Low	Sodic	Moderate-Strong

¹ Strong dispersion after remoulding.



Horizon	Horizon Depth	pH (water)	pH CaCl ₂	EC dS/m	NaCl %	Exchangeable Cations				Ex Al mg/kg	Ex Ac meq/100g	Field pF2.5	Wilting Point pF4.2	Coarse Sand (0.02-0.2mm)	Fine Sand (0.02-0.2mm)	Silt (0.02-0.02MM)	Clay (<0.002mm)
						Ca	Mg	K	Na								
A11	0-10	5.0	4.1	0.24		4.9	2.5	0.47	0.30	22		43.2	16.0	7.9	30.0	24.5	28.0
A22	15-40	6.0	4.8	0.05		3.0	1.8	0.11	0.29	<10		25.9	12.1	16.2	30.7	24.0	27.0
B21	40-50	6.6	5.1	0.08		3.9	6.9	0.14	1.6		11	44.2	28.3	3.0	12.2	11.0	73.5
B22	50-90	6.9	5.5	0.09		4.4	7.7	0.14	1.6		9.9	50.4	29.7	7.6	11.7	12.5	67.5
B23	90-120	7.4	6.8	0.24		7.5	16	0.14	4.5	<10		59.2	37.1	1.5	7.8	15.0	75