

Sampling design

Why are you sampling?

Purposes could include:

- Fertility assessment
- Poor crop performance – issue identification
- Research site characterisation
- Soil type understanding / classification / mapping
- Regulatory and environmental assessments
- Soil health assessment
- Soil carbon measurement
- Soil monitoring








Sampling purpose determines:

- The timing of sampling & frequency
- The number of samples
- Location of sampling points – pasture versus tree crop – zonal, grid, random
- The equipment and sampling method required
- The level of spatial accuracy required
- Whether field observations are required in addition to laboratory analysis
- The skillsets required



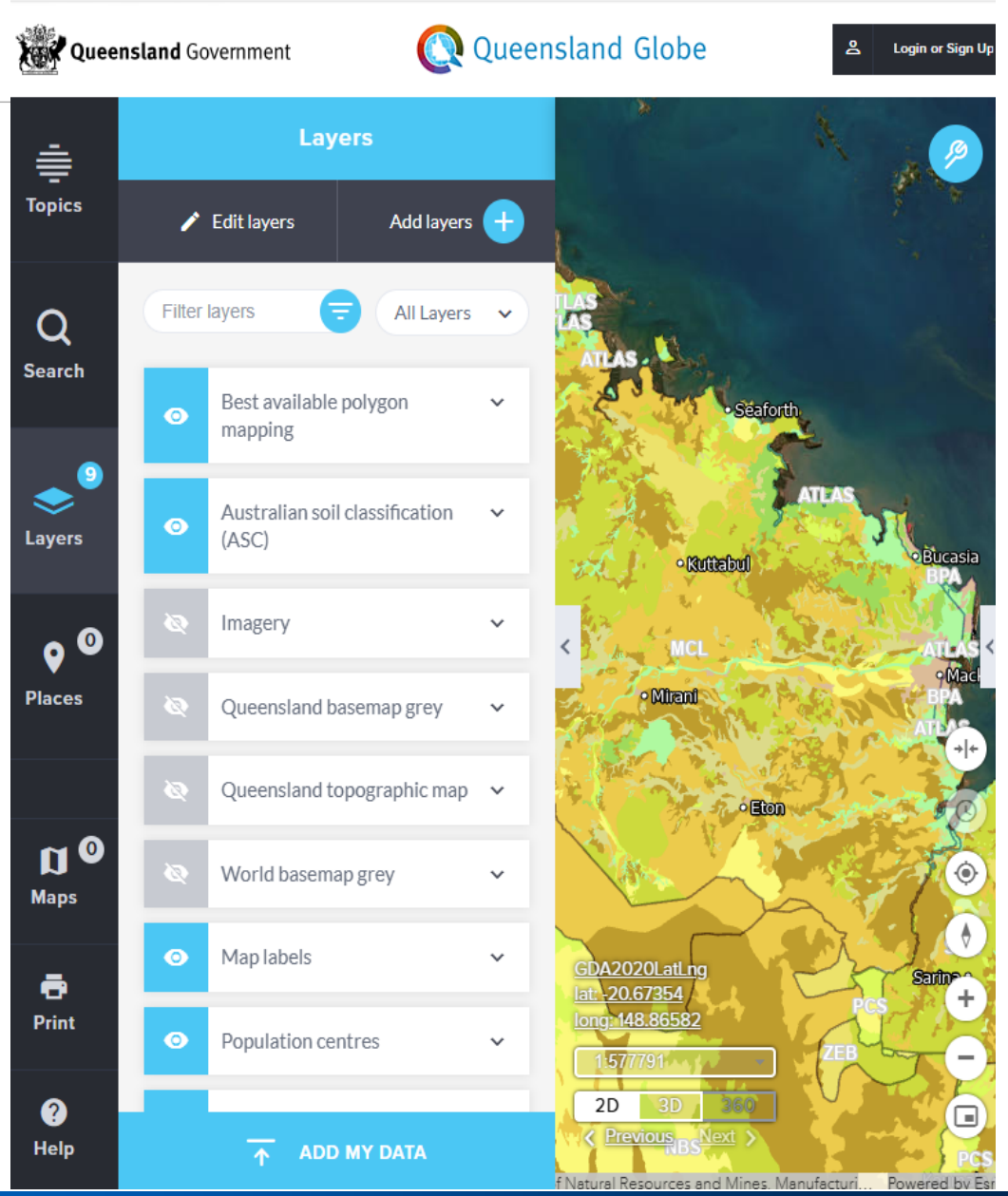




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Before going to the field

- Have a plan
- Be clear of purpose
- Review available soil and land resource mapping
- Understand expected soil variability



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Good Sampling Practice

- Avoid fence lines, tracks and gateways
- Avoid stock camps
- Avoid obvious wet spots unless specifically targeting them
- Awareness of microrelief - gilgai
- Sample depths
- Try to avoid sampling across horizon boundaries
- Use clean sampling equipment

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Getting lab analysis

- Use NATA and/or ASPAC accredited lab
- What to do you need? Get advice if unsure

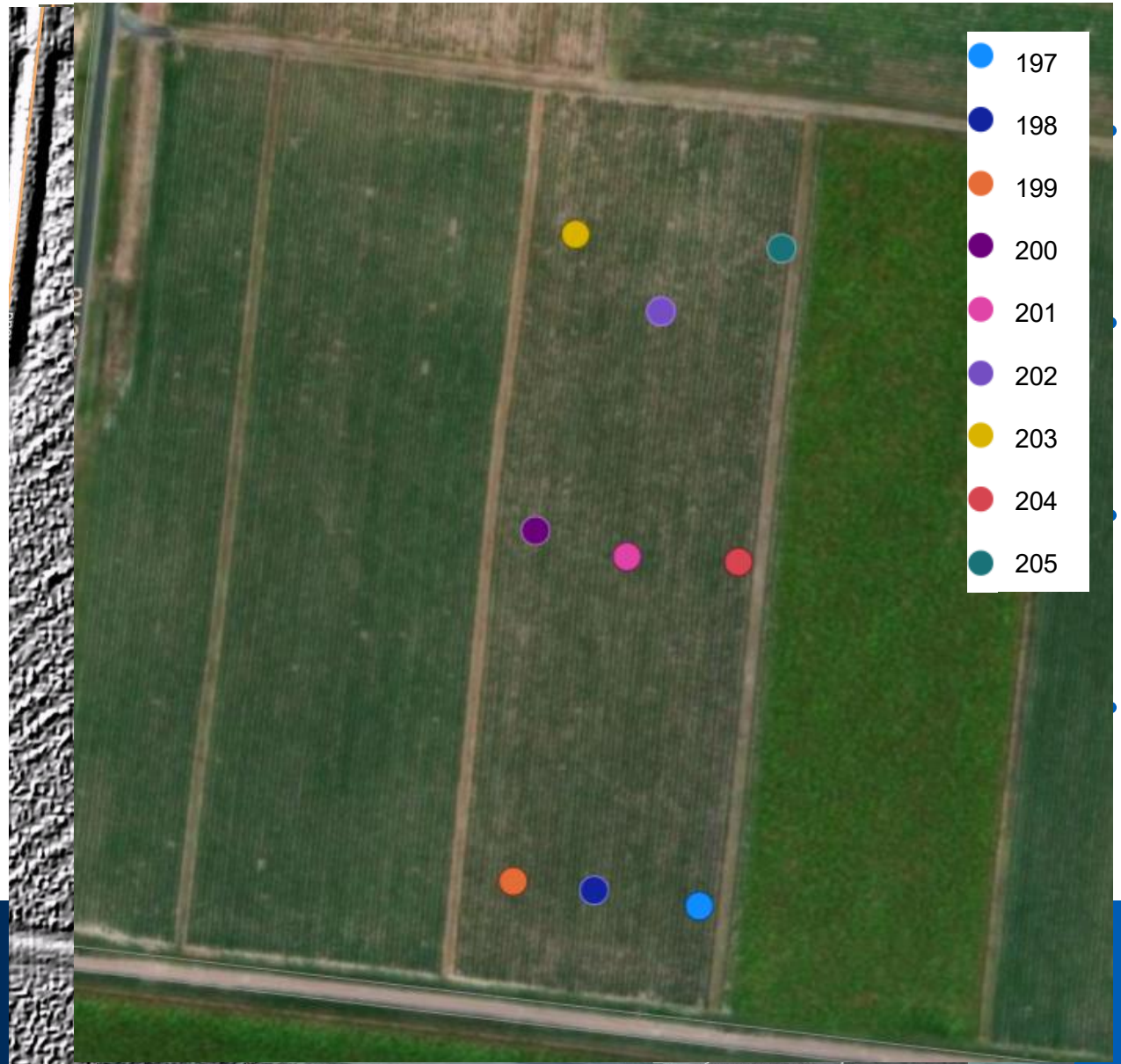
Pictures of soil profiles with clear boundary changes





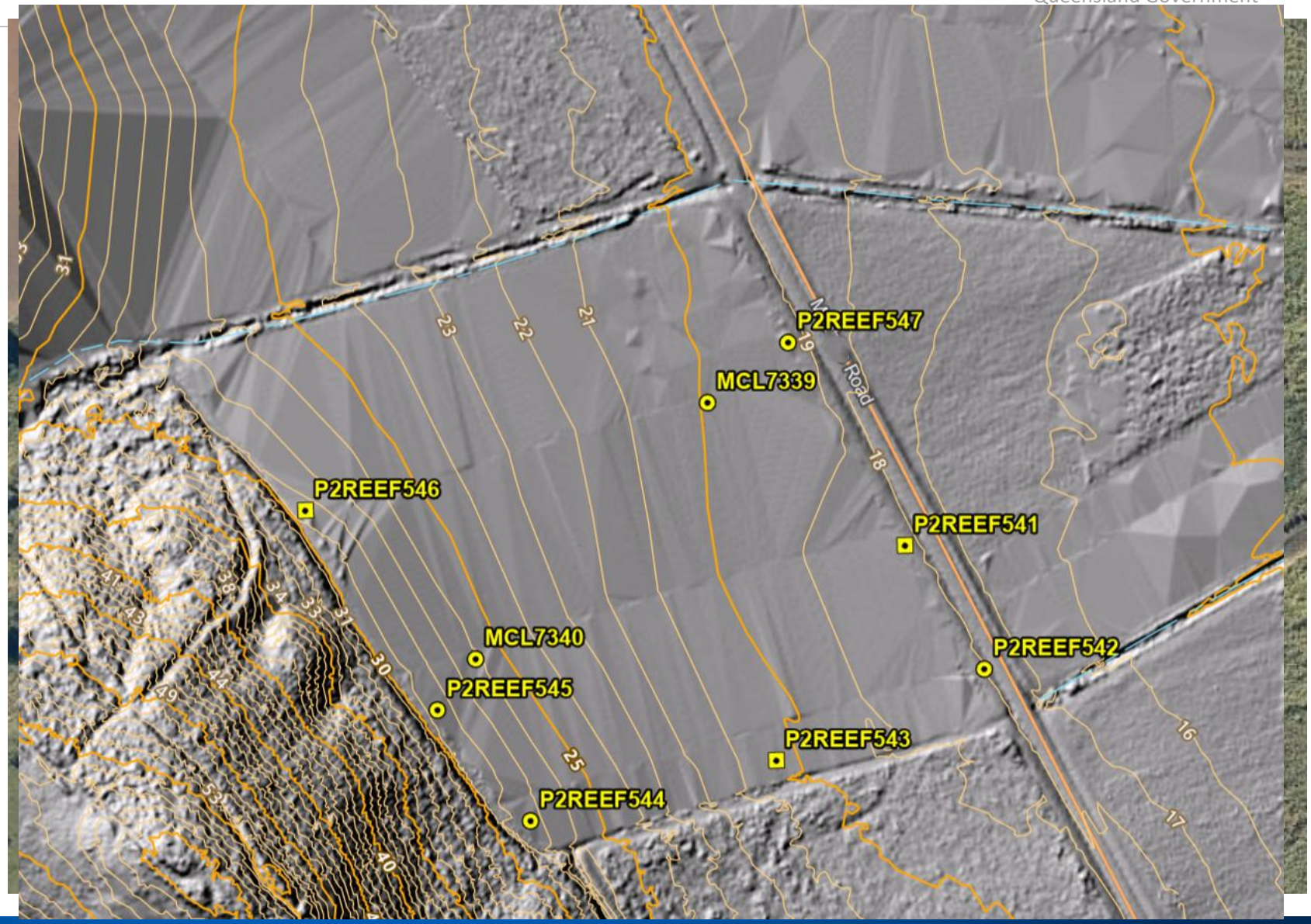


Trial site examples



- Paddock all mapped as Sandiford SPC with minor Calen and Marian
- All sites Dermosols – mapping indicates Chromosols before cultivated
- Soil colour and mottling change at 197 and 205
- Soil pH change at site 197 and 205

Trial site examples




Dundonald Creek