

## Unlock the Secrets of Your Soil

Discover **Precision** Soil Insights with  
**EM31 & EM38**  
Surveys

EM31 & EM38 are non-invasive soil mapping tools that use the electromagnetic induction (EM) principle to detect spatial variation of ground salinity, moisture and texture



Measure rootzone salinity with precision, ensuring optimal growth and yield. With accurate data, you can implement effective irrigation strategies, prevent water stress, and enhance crop quality

Specs:	EM31	EM38
Focal Depth (50%)	1.5-3m	0.3-0.8m
Depth of Investigation	6m	1.5m (vertical dipole)
TX-RX Separation	3.66 m	1 m
Survey Vehicle	Quadbike Sidemount (1 m above ground)	Quadbike Sled (0.1m above ground)

### Key Insights

- Map your soil's salinity, moisture, and texture
- Make informed decisions for higher crop productivity
- Map for variable rate irrigation and fertilization
- Target land management
- Plan Drainage
- Quick surveys





Maximize your insights with combined surveys  
By harnessing the capabilities of both sensors, EM31 and EM38 data can be integrated to produce enhanced images and to accentuate features that would otherwise not be easily detected. Maps of difference between repeated EM38 surveys correlate with change in soil water content.

## Deliverables

- Cleaning of data - removal of obvious metal interference.
- High-resolution images and visuals for in-depth data analysis.
- Technical reports in PDF format.
- Google Earth KMZ for easy navigation to points of interest.
- CSV datasets for advanced analytics.

## Looking for more

- The Geonics EM31 and EM38 are established, reliable instruments useful for cost effective mapping but in some cases other technology application will be appropriate:
- Multidepth instruments offer extra capabilities: AgTEM Wallaby images to tens of metres deep, geo-electric streamers or prong-frames image up to 8 layers and are great used under water for seepage remediation, and we can source EM38-4 or DualEM instruments when requested.
- Soil moisture probes or drilled cores can be integrated with mapping to classify entire paddocks.
- Mapping instruments fitted to farm machinery can conduct mapping each time the instrument is moved, transmitting to the internet while the operator focuses on farming.

