

Moisture Probe Network – Coomandook Ag Bureau

The following link provides access to Natural Resources SA Murray-Darling Basin's (Natural Resources SAMDB) moisture probe host site.

<http://aqualab-data.dyndns.info/>

Use the following login details

User Name: **samdb** Password: **demo**



Fig 1.

This will bring up the dashboard screen (Fig 2) showing the location of the probes on the Natural Resources SAMDB network.

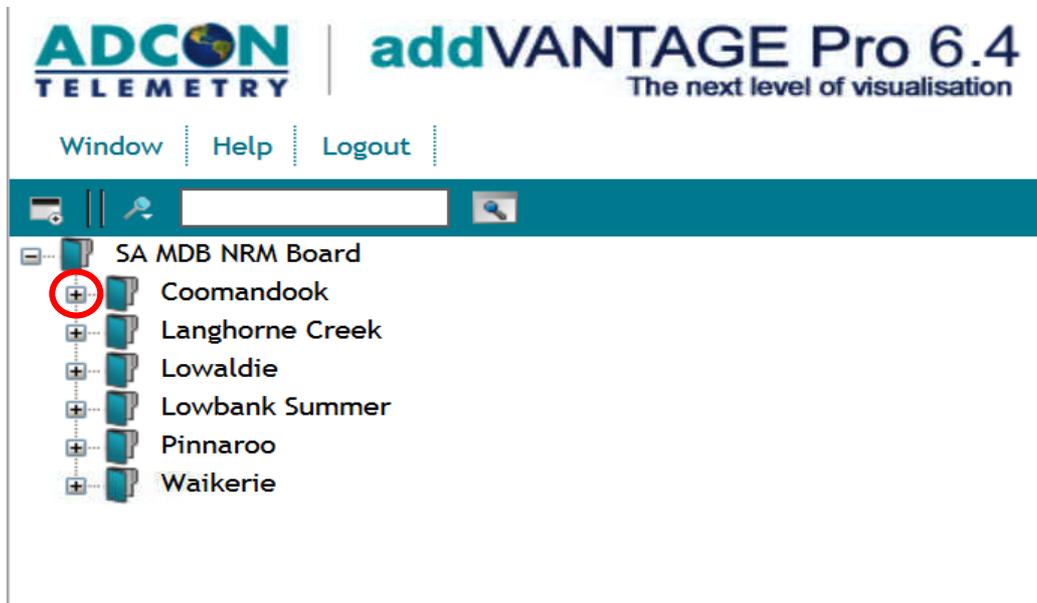


Fig 2.

Clicking on the '+' symbol (red circle shown in Fig 2) next to the Coomandook folder will expand the contents. This will bring up a list of sites where the soil moisture probes are located. These sites are linked with the property owner, for example Andrew Thomas's and Tim Freak's sites in the Coomandook region.



Clicking the '+' symbols next to the property owner will show the different probes and their depth (blue circle in Fig 3). The example below shows Tim Freak has two probes located on his property, one at 40cm depth and one at 80cm depth.

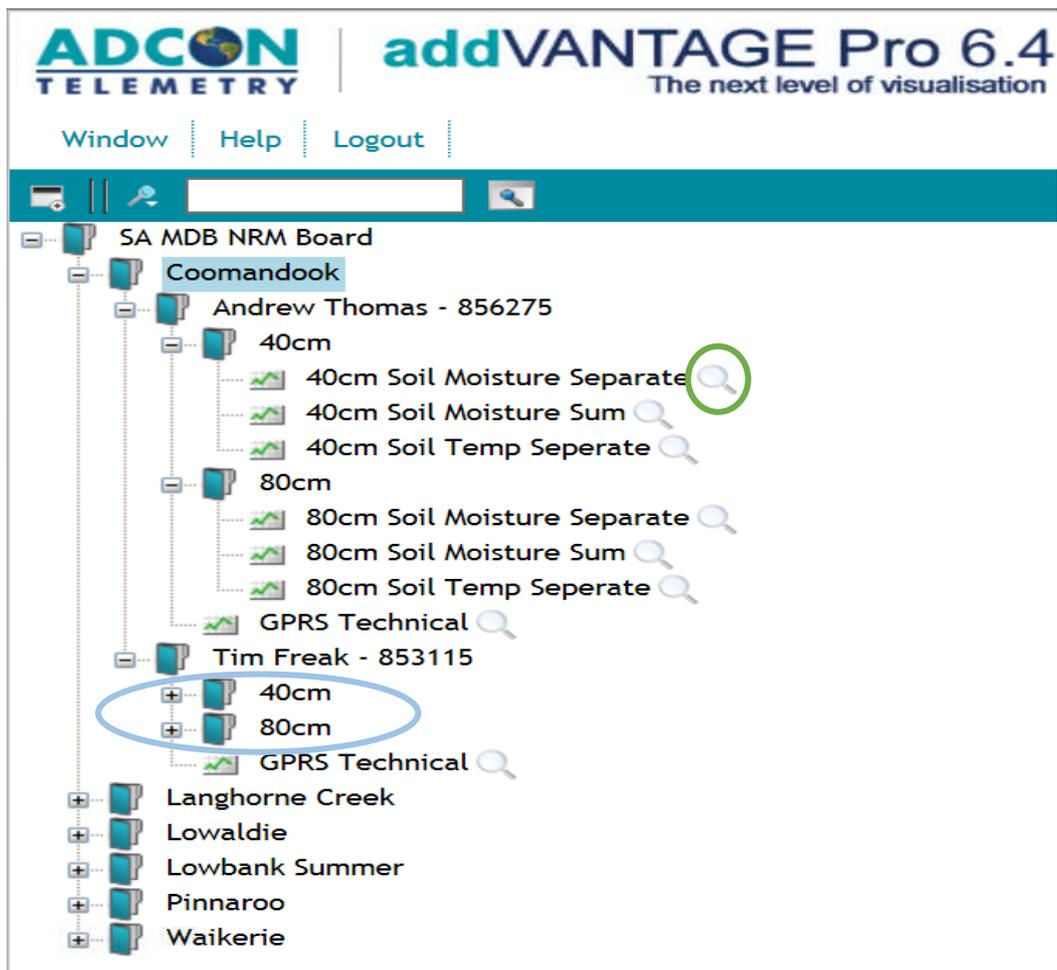


Fig 3.

Clicking on the '+' symbol next to the probe depth will show pre-set trends or graphs. To view these trends, click the magnifying glass (green circle in Fig 3). This will open a new window showing the trend line or graph. Fig 3, shows the two probes in Andrew Thomas's contents with the folders expanded. Each probe has a number of pre-set trend lines.

The browser window will open with the graph produced by probe data. Above this graph, there is a toolbar (Fig 4) with buttons which can be utilised to view the graph. When the cursor hovers over each button, a dialog box will open, describing each function.

The functions outlined in the red box (Fig 4) relates to the ability to print, create a PDF file, or export a csv. file.



Fig 4.

The yellow box in Fig 5 refers to the date range of the trend line. A pre-set date can be entered by clicking where the date is displayed, and choosing a date from a drop down calendar. Buttons each side of the date selection box enable

the user to jump forward or back, pre-determined time frames for the trend line display. To the right of the yellow box, is a drop down list of pre-determined time frames. This list varies from hours through to years.



Fig 5

The two buttons contained in the green box (Fig 5) have two functions. The first button enables the user to view a value for a point in time. An example of this is either the amount of rainfall or soil moisture value logged at each individual point, shown in Fig 6.

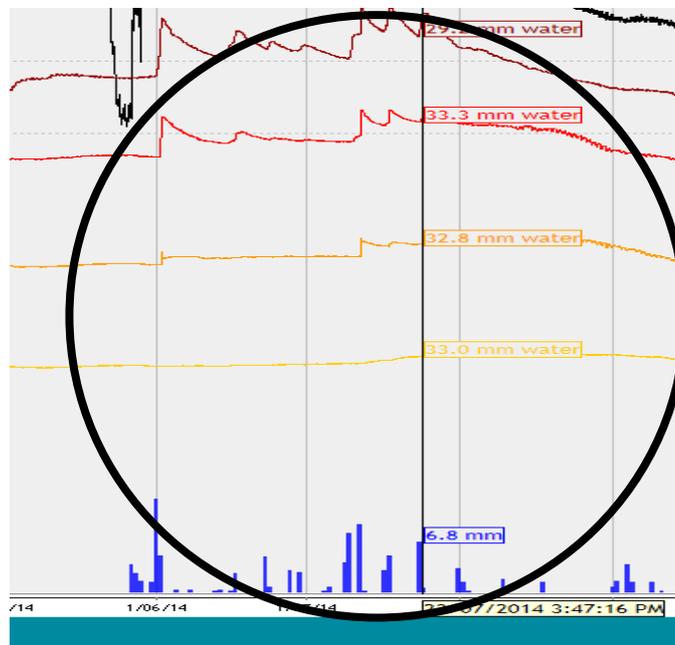
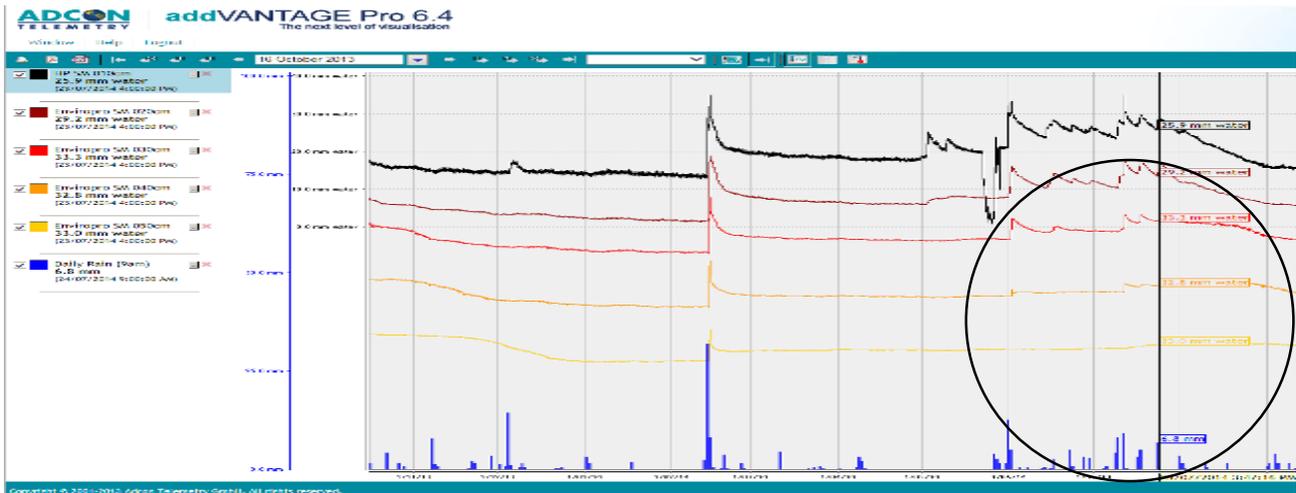


Fig 6



Clicking this same button again changes its function slightly. It now has the ability to sum and display the values for a designated time. To do this, click and hold the left mouse button and drag the cursor either right or left. A blue shaded box will appear. Releasing the mouse button will sum and display the values for the blue shaded area Fig 7 & Fig 8.



Fig 7.

SUM=429,314.3 mm water AVG=21.1 mm water MIN=0.8 mm water MAX=34.8 mm water	SUM=502,781.8 mm water AVG=24.7 mm water MIN=17.1 mm water MAX=34.5 mm water	SUM=610,353.2 mm water AVG=30.0 mm water MIN=25.0 mm water MAX=39.4 mm water	SUM=629,073.1 mm water AVG=30.9 mm water MIN=27.1 mm water MAX=39.4 mm water	SUM=646,996.8 mm water AVG=31.8 mm water MIN=28.6 mm water MAX=36.9 mm water	SUM=148.6 mm AVG=0.8 mm MIN=0.0 mm MAX=31.8 mm
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Fig 8.

The blue writing in the table (Fig 8.) shows from Jan 2014 to Aug 2014, there was 148.6mm of rain. The other colours correspond to the data logged from each individual moisture sensor.

Clicking the second button in the green box (Fig 6.) displays the last available data values .

The buttons contained in the blue box (Fig 9.) allow different formats to display the data. The left provides a graph, and the middle provides a table. The right button displays the last recorded data value for each of the sensors.



Fig 9.

This project is supported by the South Australian Murray-Darling Basin Natural Resources Management Board, through funding from the Australian Government's national Landcare Programme.

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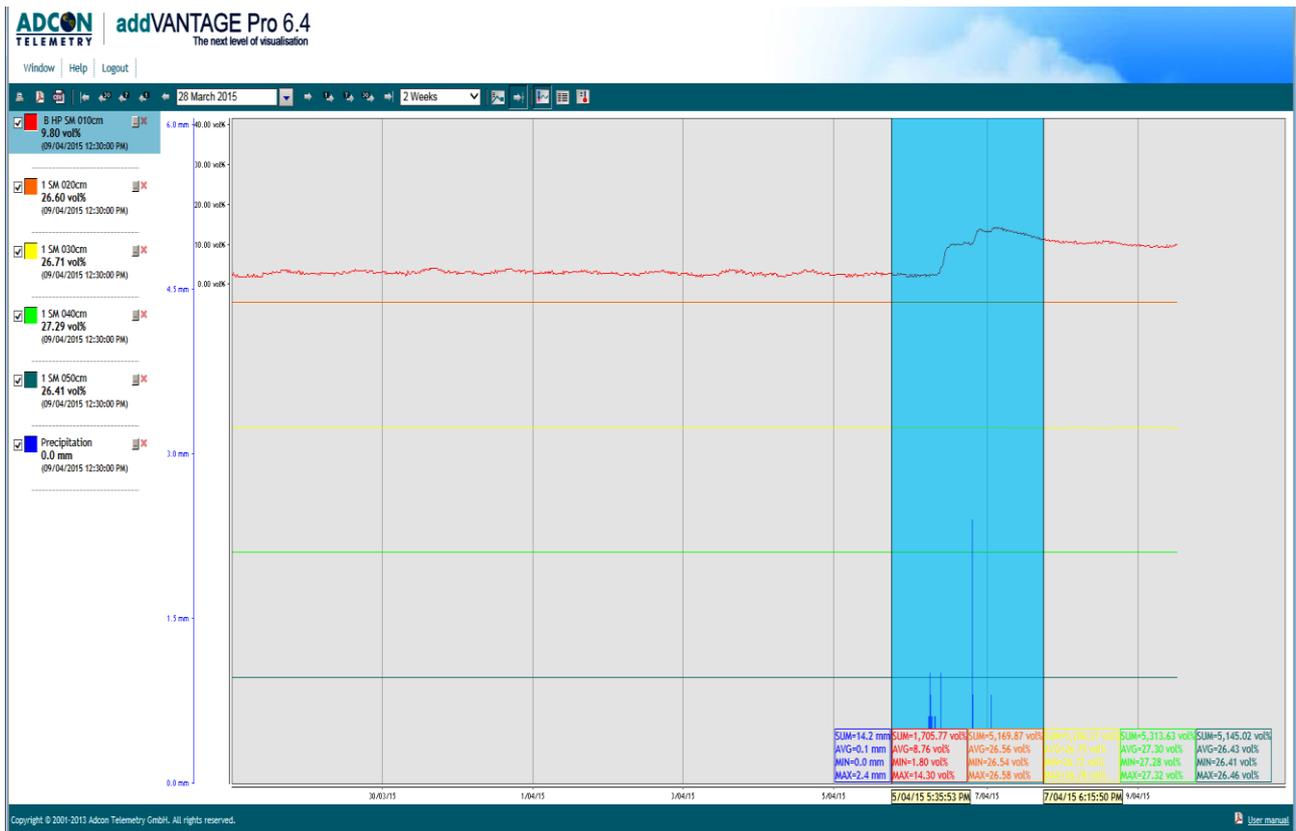


Fig 10. Moisture – Andrew Thomas 40cm probe (red rubbly soil). 14.2mm rainfall event 6 & 7 April 2015

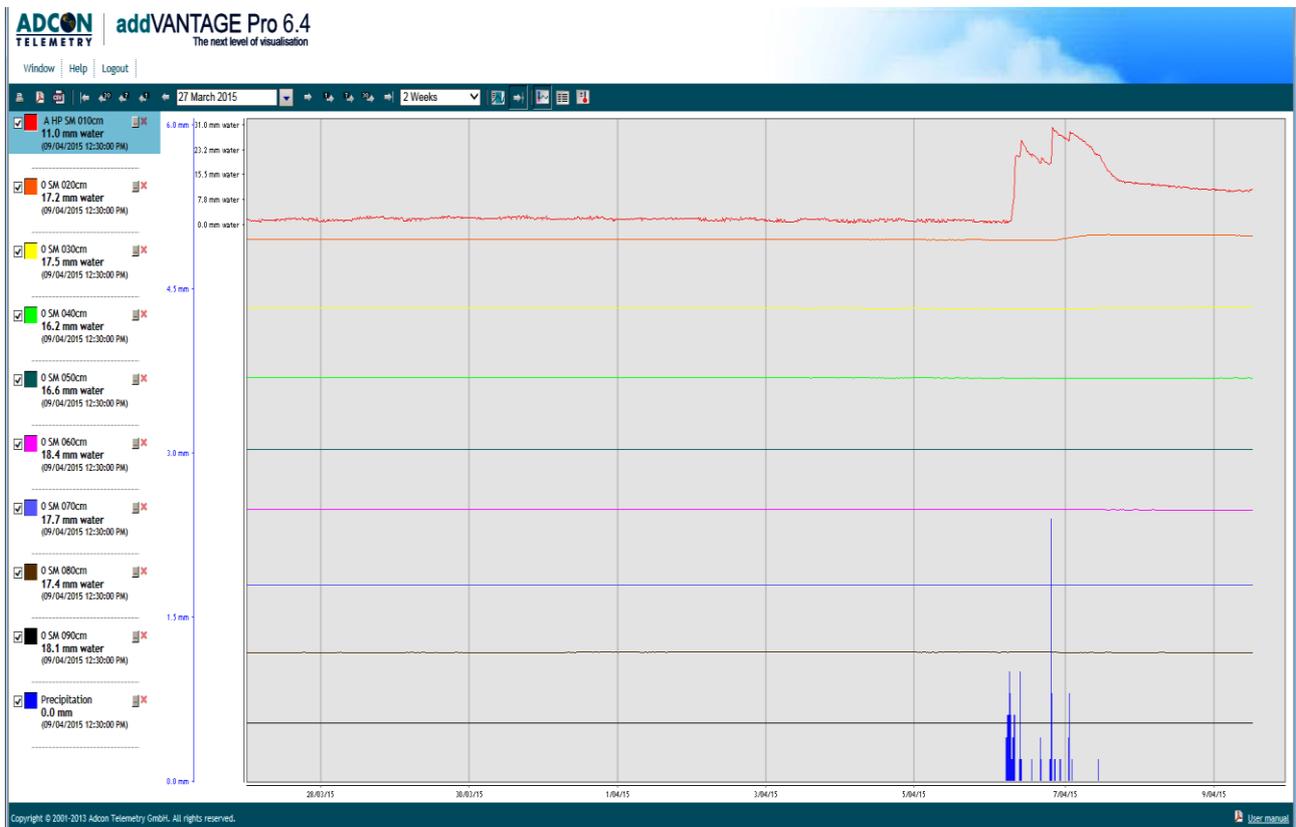


Fig 11. Moisture – Andrew Thomas 80cm probe (sandy soil)



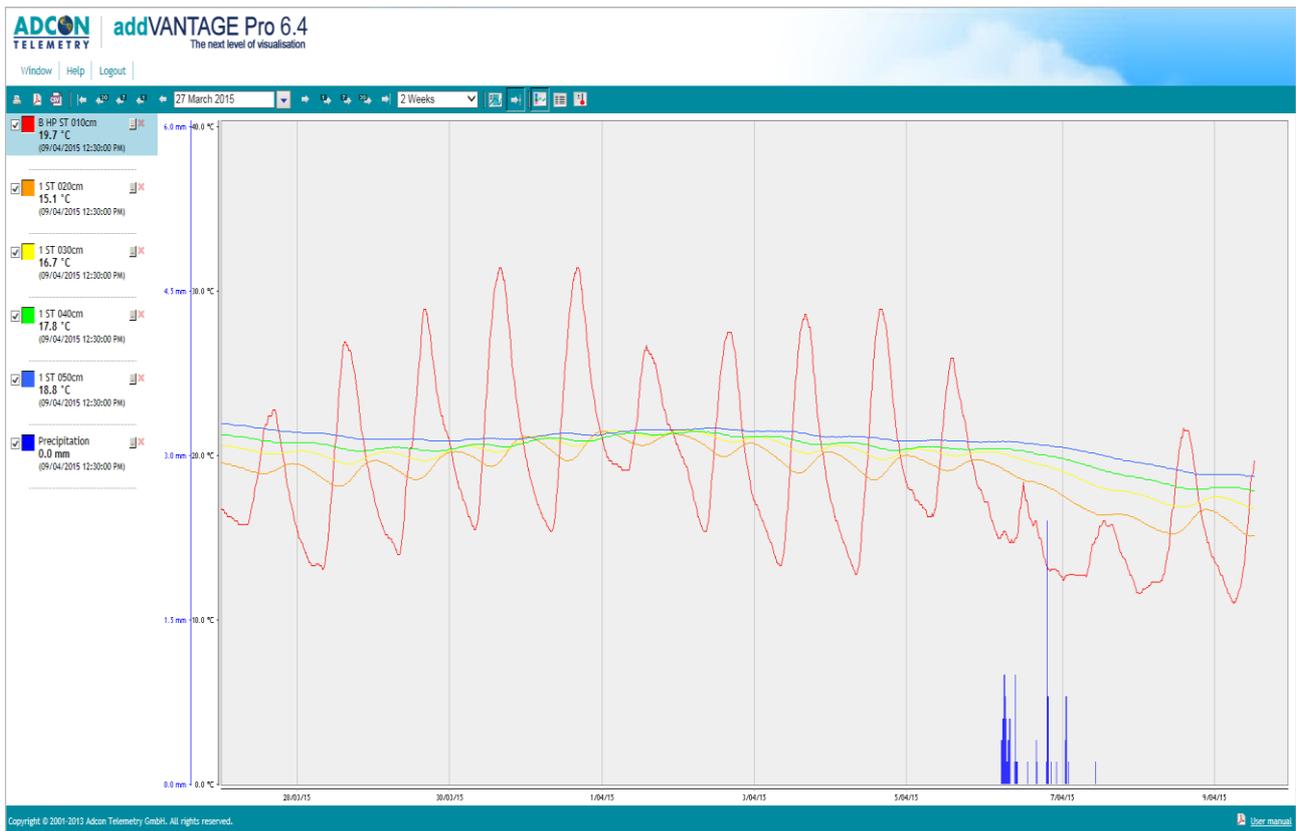


Fig 12. Soil temperature – Andrew Thomas 40cm probe

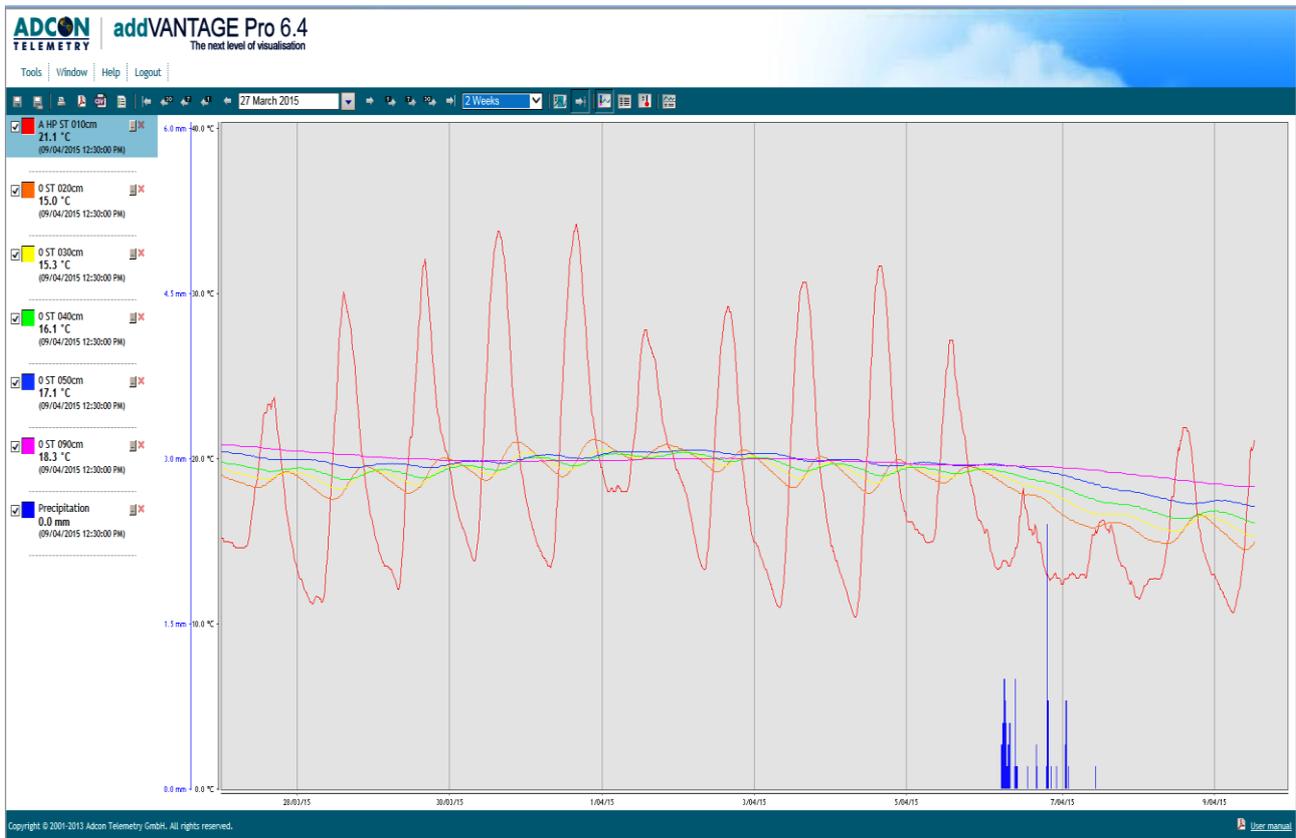


Fig 13. Soil temperature – Andrew Thomas 80cm probe



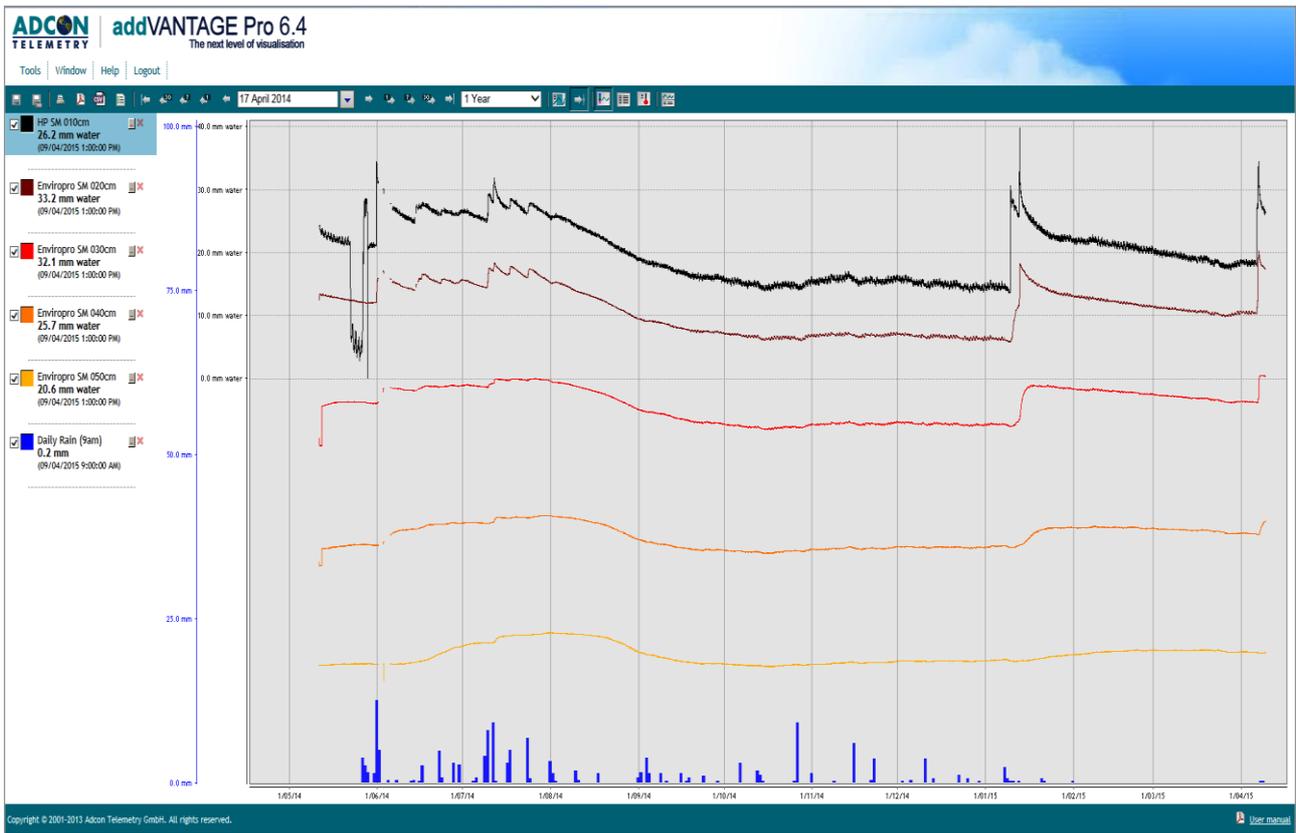


Fig 14. Langhorne Creek annual soil moisture trend with rainfall, 17 April 2014

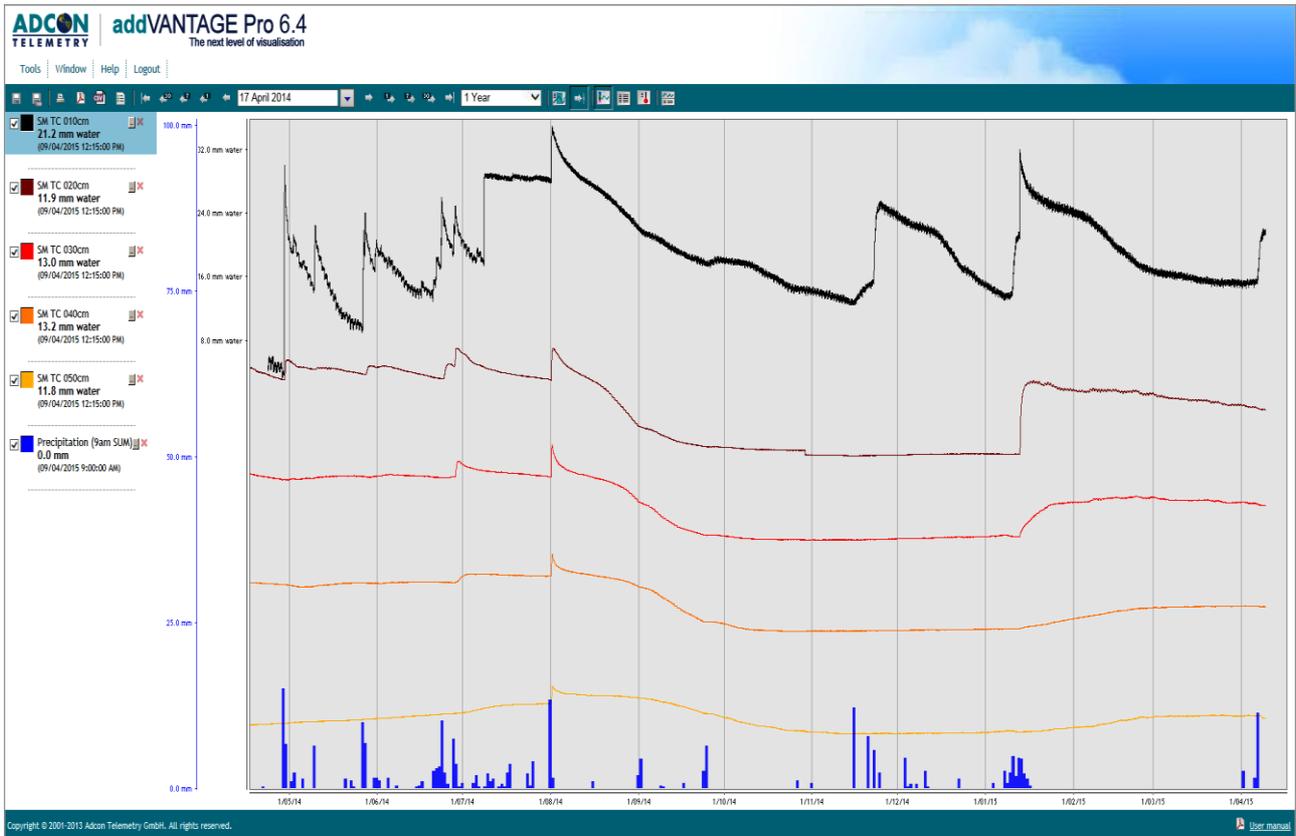


Fig 15. Pinnaroo Annual Soil moisture trend with rainfall, 17 April 2011





**Government of
South Australia**



Natural Resources
SA Murray-Darling Basin

