

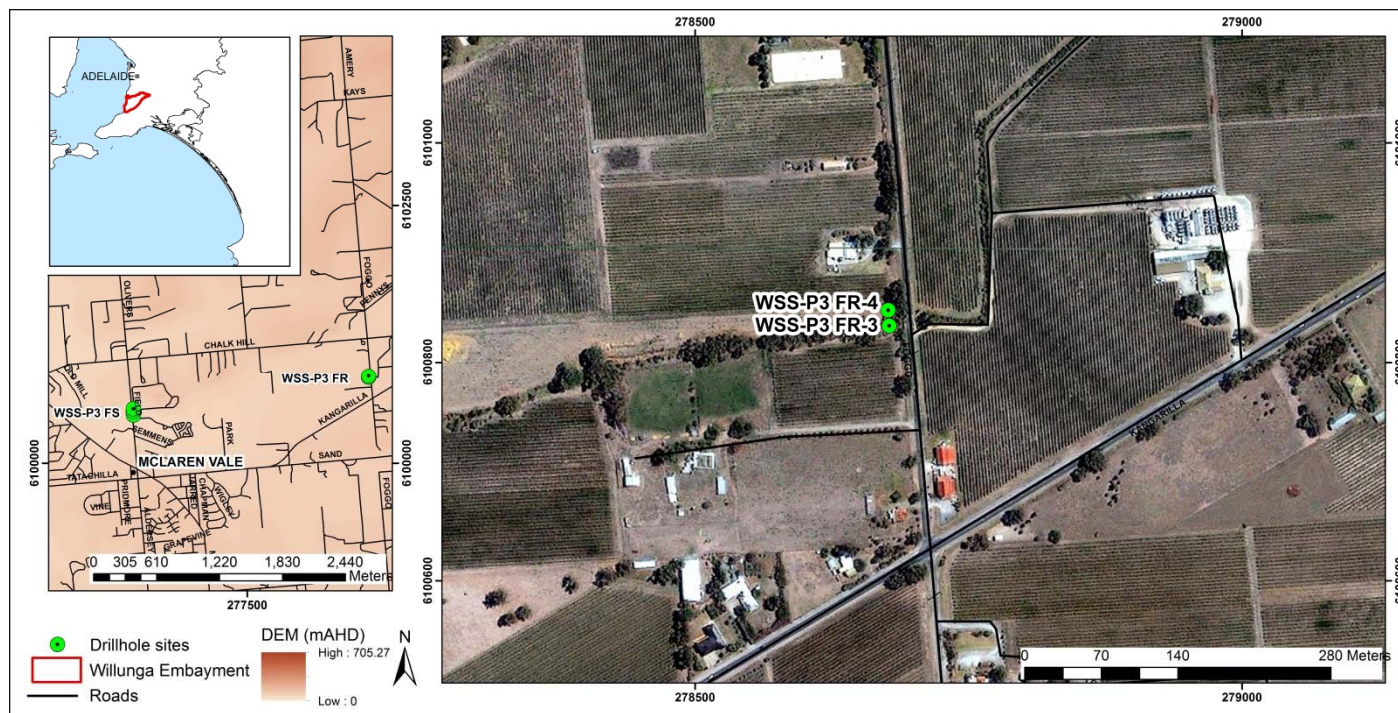


An Australian Government Initiative

# Groundwater Education Investment Fund Project

## Borehole Infrastructure Report

Borehole Type		Piezometer Monitoring Bore	Location	Willunga Super Science Site
Unique Well ID		WSS-P3FR-3	Installed By	Town & Country Drilling Services
Completion Date		02/08/2012	Depth Installed	10.13 mBGS
Drilled By		Town & Country Drilling Services	Depth Drilled	10.13 mBGS
Monument Type		Flush mounted	Drilled Diameter/Method	150 mm/Auger
Monument Diameter/Width		165 mm	Screen Depth	8.13-10.13 mBGS
T.O.M. offset from G.L. (Top of Open Monument)		0 m	Screen Size/Aperture/Type	50 mm/slotted/PVC 18
PVC Casing to T.O.M offset		-0.016 m	Level of Bentonite	7-7.5 mBGS
Ground Elevation (mAHD)		64.258	Casing Size/Type	50 mm/PVC 18
GPS Easting	(MGA-94 Zone 54)	278678	SWL after Development	1.9 mTOC
GPS Northing		6100833	Development Details	Air vacuum/submersible pump
Project Comments: WSS-P3FR-3 is a single piezometer monitoring bore, adjacent to Pedler Creek on Foggo Rd, McLaren Vale.				



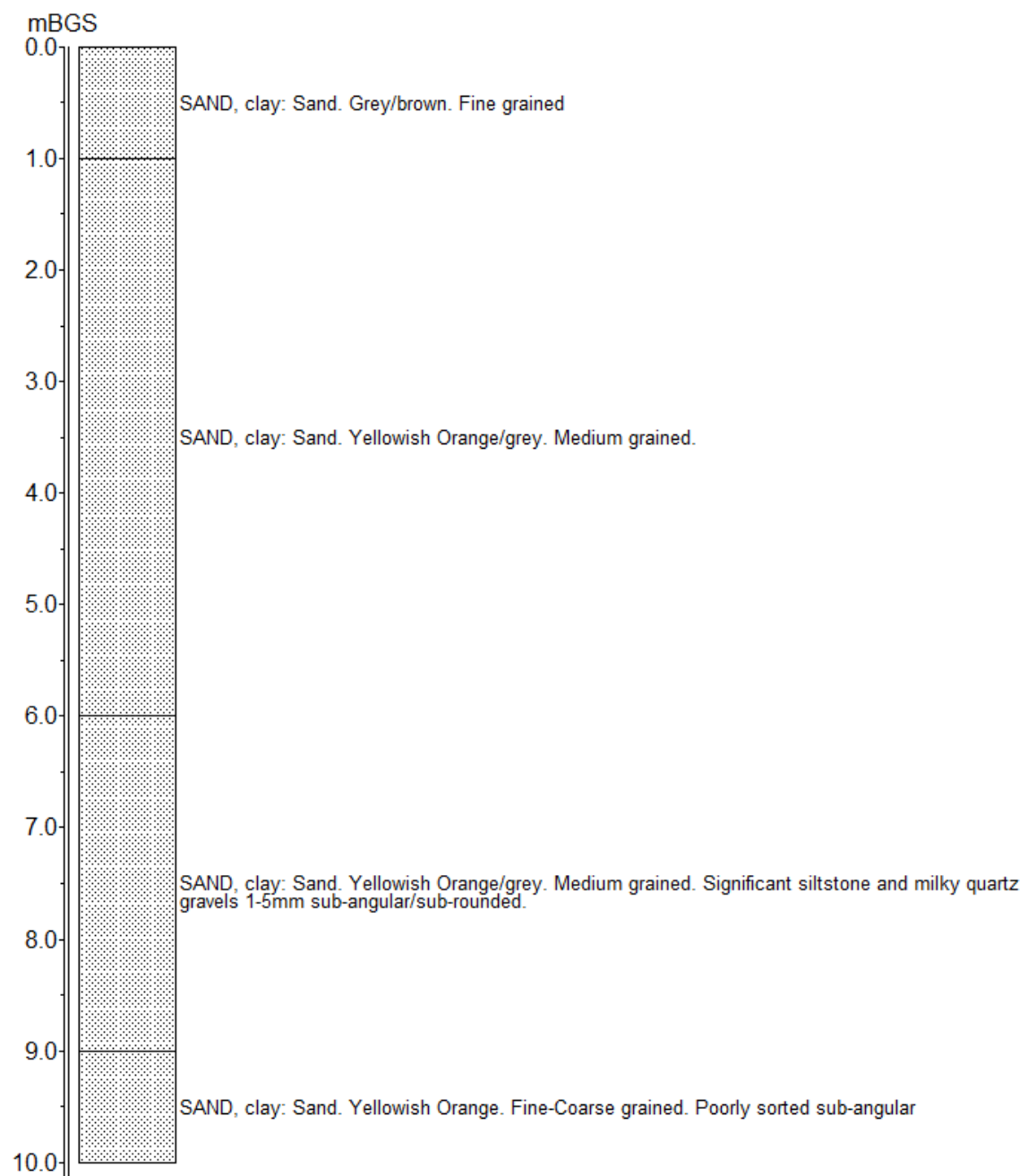
Map of Willunga Super Science Project Shallow Monitoring Well Sites

Note\* Appendix includes Lithology and Well Completion Logs, Geophysical Logs, Hydraulic Test and Chemical Analysis.

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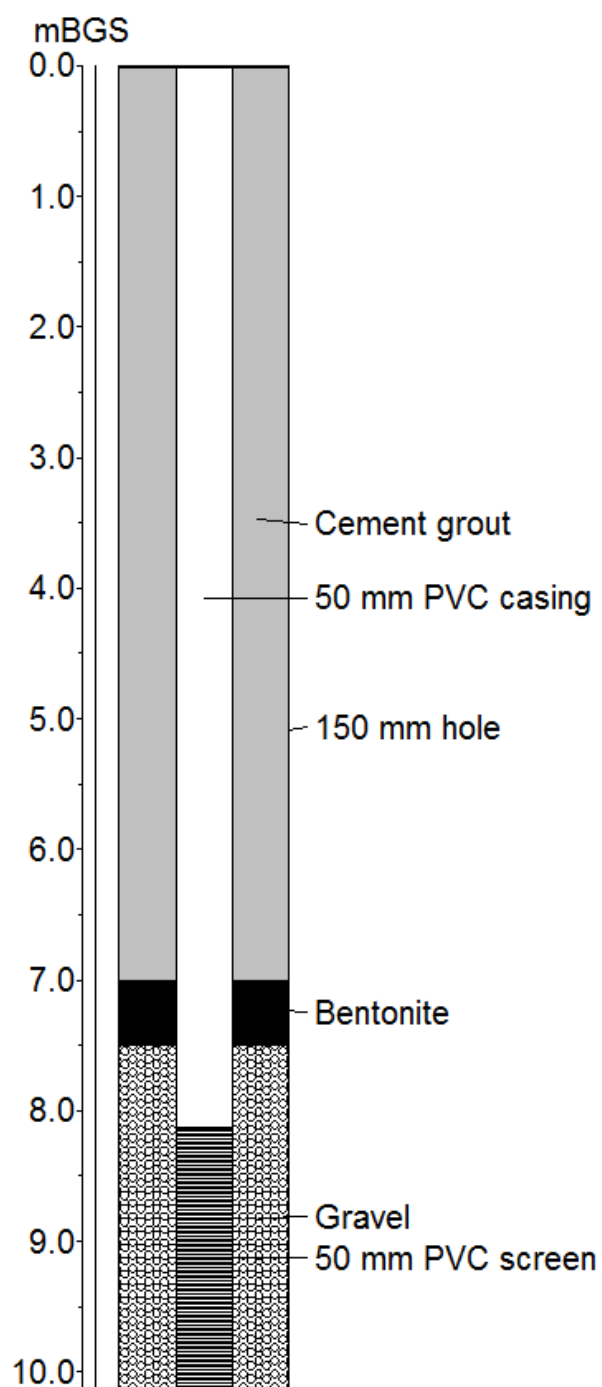
# Lithology

## WSS-P3FR-3



# Well Completion Log

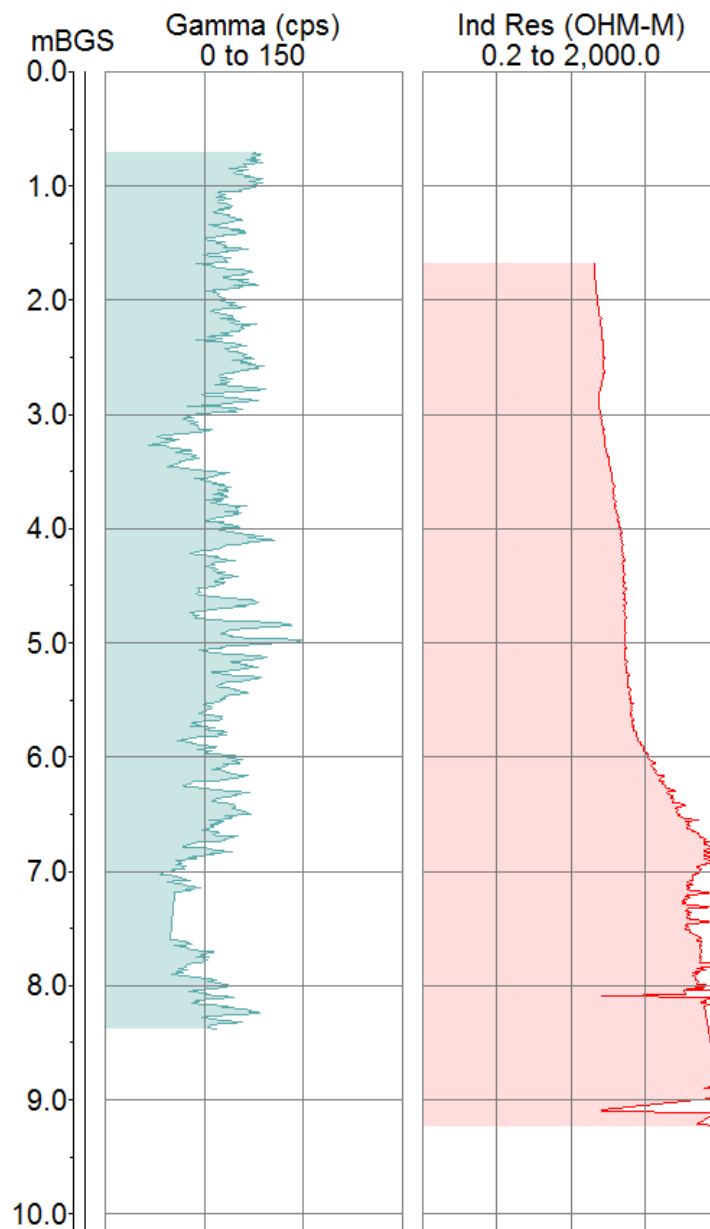
WSS-P3FR-3



## Geophysical Logs

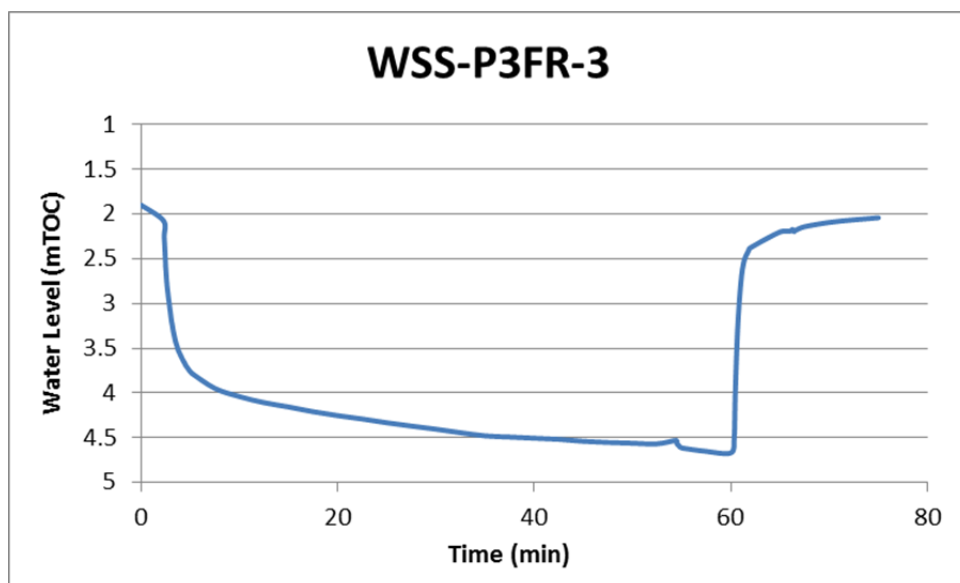
The portable Mount Sopris logging system was used to collect geophysical data from bore WSS-P3FR-3. The 2PGS probe was used to collect natural gamma measurements, and the 2PIA probe was used to measure conductivity/induced resistivity.

### WSS-P3FR-3



## Pumping Test

A pumping test was performed on piezometer WSS-P3FR-3 on 23/11/2012 with a water level logger and a submersible pump using a flow rate of 8.3 L/min. The results of the test are presented below. The report author may be contacted for the full data set.



## Chemical Analysis

The results of major ion chemistry on WSS-P3FR-3 are presented below, along with chemical parameters measured in the field.

Well ID	Date Sampled	SWL mTOC	Field Parameters				Laboratory Analyses @ CSIRO ASU											
			pH	EC	Temp	Alkalinity	pH	E.C.	Total Alkalinity	F <sup>-</sup>	Cl <sup>-</sup>	Br <sup>-</sup>	NO <sub>3</sub> <sup>-</sup>	SO <sub>4</sub> <sup>=</sup>	Ca	K	Mg	
				μS/cm	°C	meq/L		μS/cm	meq/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
WSS-P3FR-3	23/11/2012	1.90	6.66	3401	19.0	NA	7.4	3470	3.4	0.2	985	2.5	13.4	126	157	7.61	103	
							Na	S	Al	As	B	Cd	Co	Cr	Cu	Fe	Mn	
							mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
							440	40.7	<0.05	<0.05	0.07	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	
							Mo	Ni	P	Pb	Sb	Se	Si	Sr	Zn			
							mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L			
							<0.05	<0.05	<0.1	<0.05	<0.1	<0.05	11.2	1.52	<0.05			