



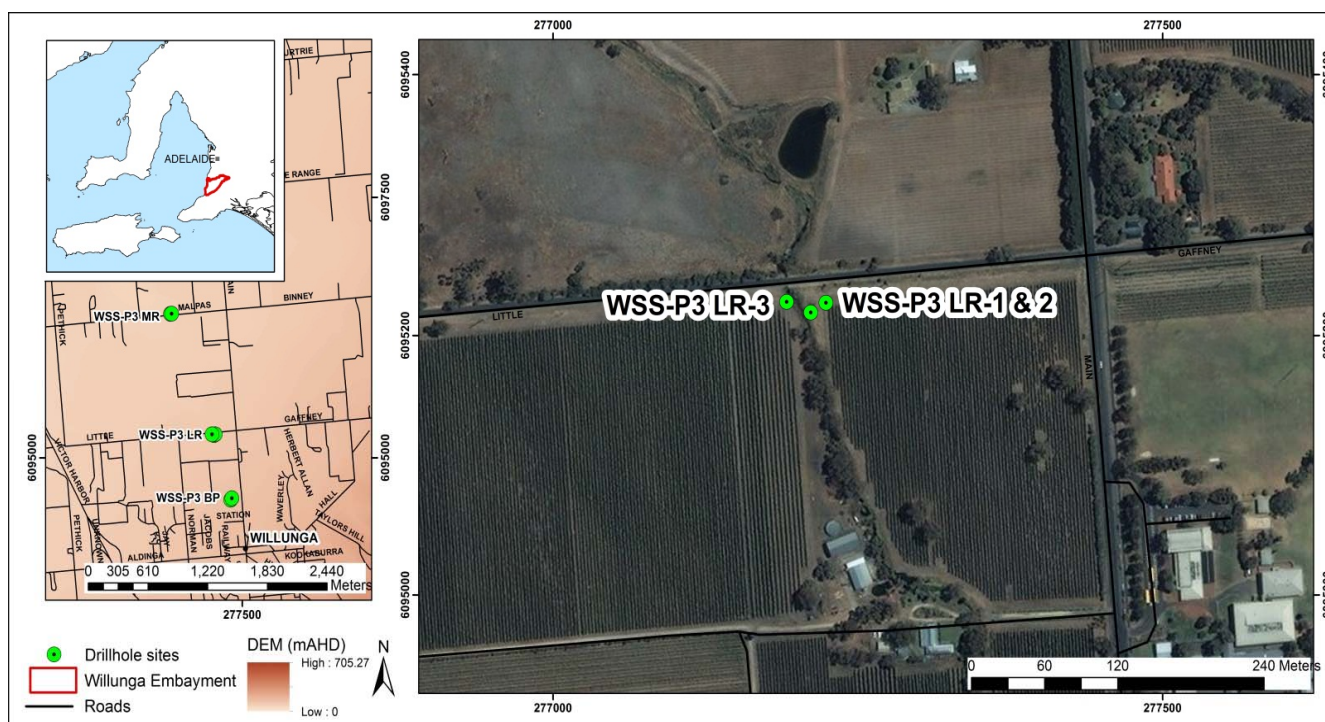
An Australian Government Initiative

Groundwater Education Investment Fund Project

Borehole Infrastructure Report

Borehole Type		Piezometer Monitoring Bore	Location	Willunga Super Science Site
Unique Well ID		WSS-P3LR-3	Installed By	Town & Country Drilling Services
Completion Date		18/12/2012	Depth Installed	9.5 mBGS
Drilled By		Town & Country Drilling Services	Depth Drilled	9.5 mBGS
Monument Type		Flush mounted	Drilled Diameter/Method	150 mm/Air-blade
Monument Diameter/Width		165 mm	Screen Depth	7.5-9.5 mBGS
T.O.M. offset from G.L. (Top of Open Monument)		0 m	Screen Size/Aperture/Type	50 mm/slotted/PCV 18
PVC Casing to T.O.M offset		-0.077 m	Level of Bentonite	6.5-7 mBGS
Ground Elevation (mAHD)		81.949	Casing Size/Type	50 mm/PVC 18
GPS Easting	(MGA-94 Zone 54)	277192	SWL after Development	3.56 mTOC
GPS Northing		6095226	Development Details	Air vacuum/submersible pump

Project Comments: WSS-P3LR-3 is a single piezometer monitoring bore, located on Little Road, Willunga.



Map of Willunga Super Science Project Shallow Monitoring Well Sites

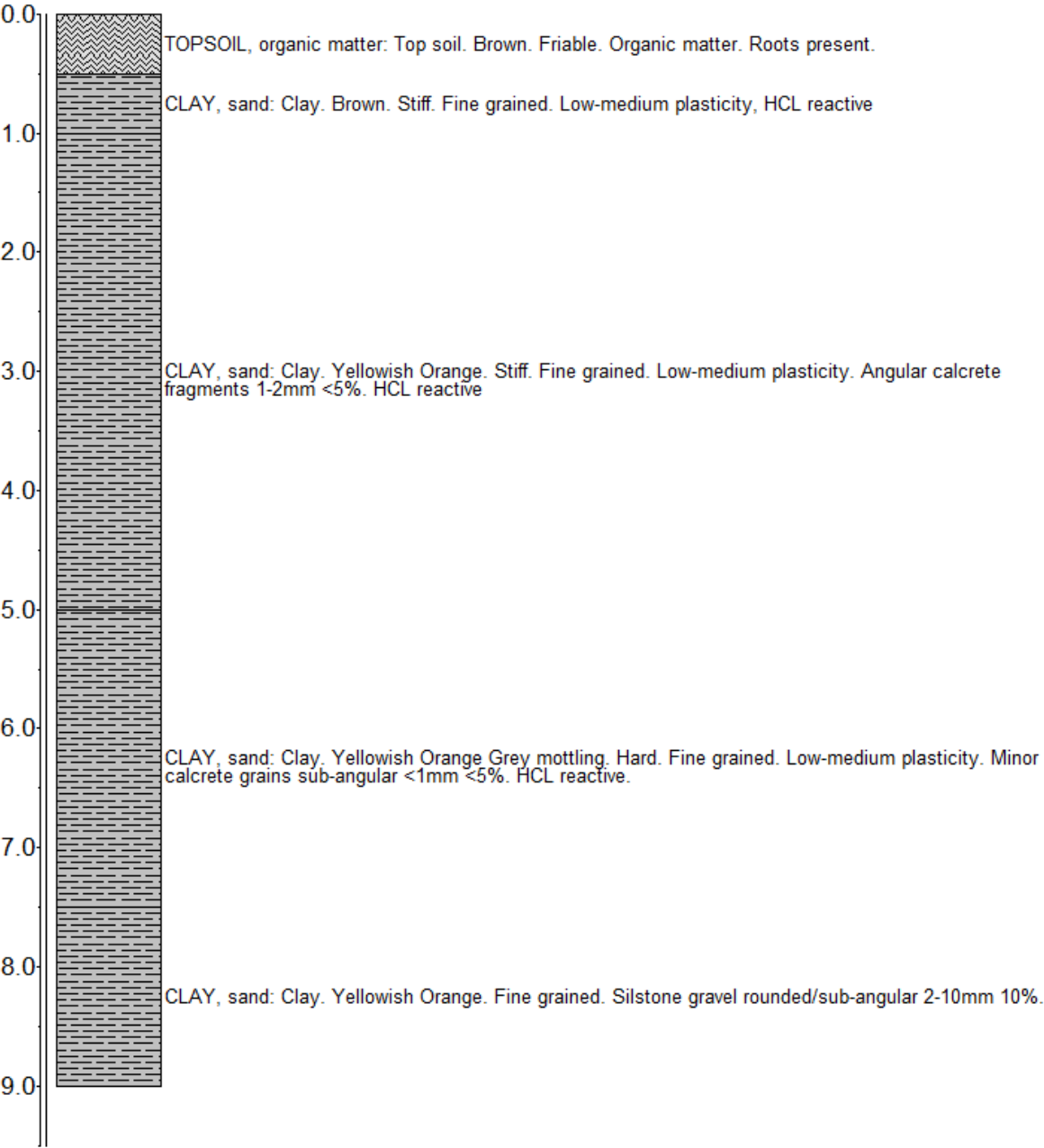
Note* Appendix includes Lithology and Well Completion Logs, Geophysical Logs, Hydraulic Test and Chemical Analysis.

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Lithology

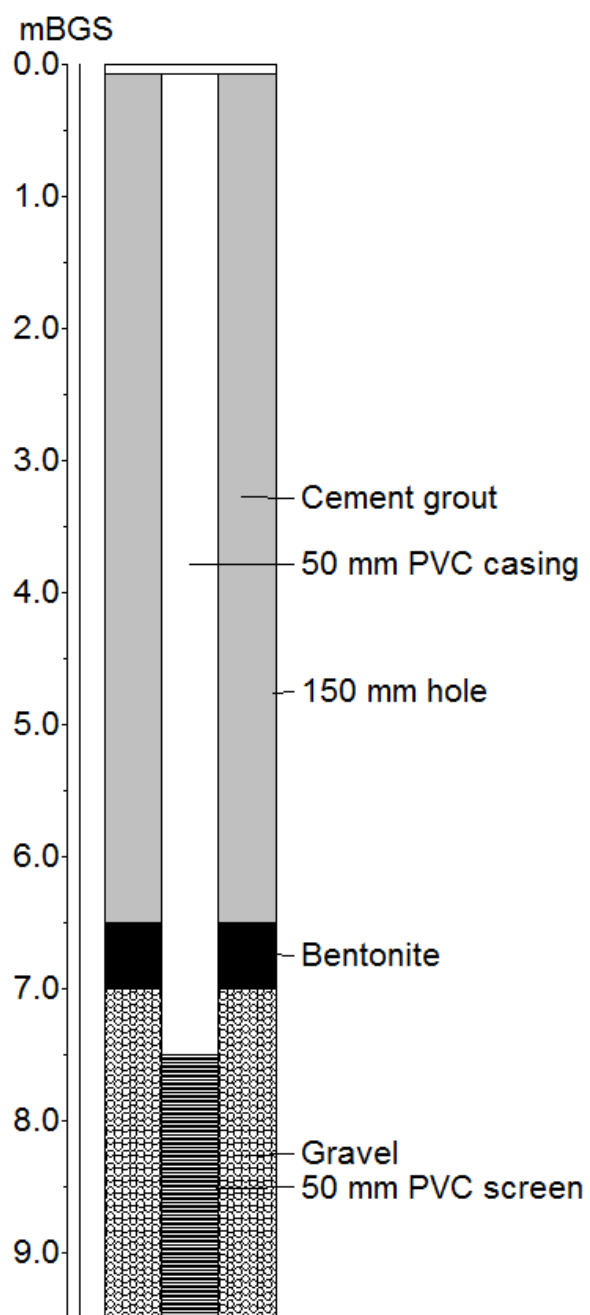
WSS-P3LR-3

mBGS



Well Completion Log

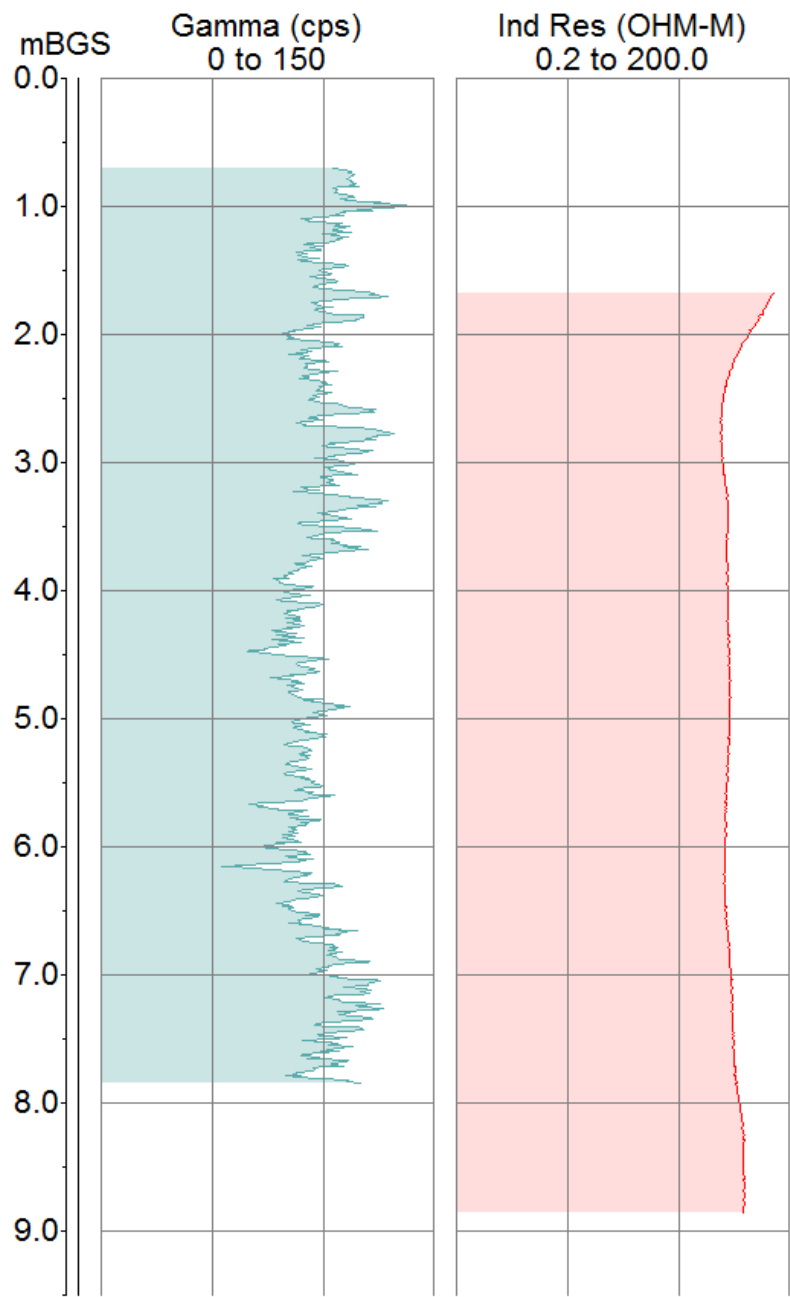
WSS-P3LR-3



Geophysical Logs

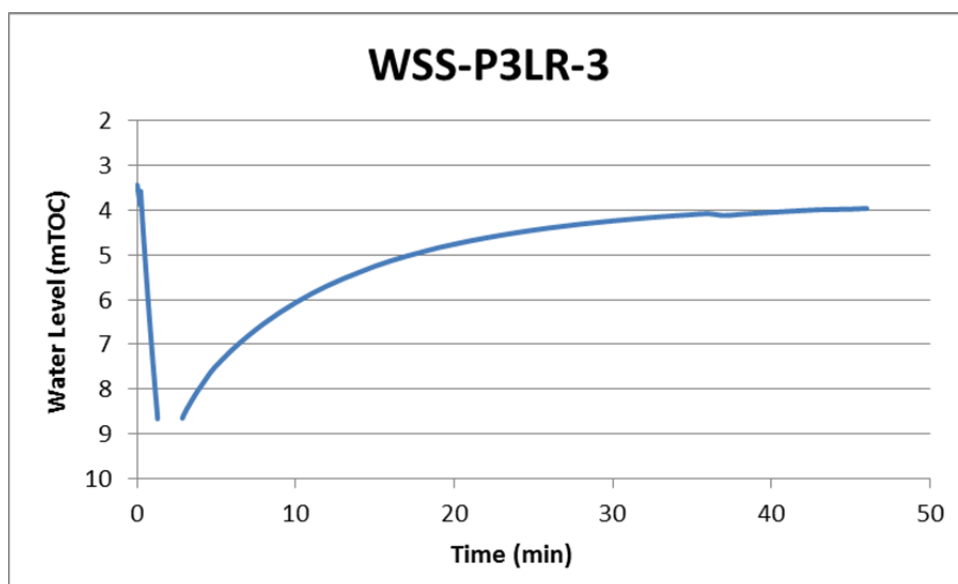
The portable Mount Sopris logging system was used to collect geophysical data from bore WSS-P3LR-3. The 2PGS probe was used to collect natural gamma measurements, and the 2PIA probe was used to measure conductivity/induced resistivity.

WSS-P3LR-3



Slug Test

A slug test was performed on piezometer WSS-P3LR-3 on 21/01/2013 with a water level logger and a submersible pump used to remove the standing water column. The results of the test are presented below. The water level fell below the logger resulting in some missing data. The report author may be contacted for the full data set.



Chemical Analysis

The results of major ion chemistry on WSS-P3LR-3 are presented below, along with chemical parameters measured in the field.

Well ID	Date Sampled	SWL	Field Parameters				Laboratory Analyses @ CSIRO ASU											
		mTOC	pH	EC	Temp	Alkalinity	pH	E.C.	Total Alkalinity	F ⁻	Cl ⁻	Br ⁻	NO ₃ ⁻	SO ₄ ⁼	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-P3LR-3	21/01/2013	3.56	7.07	2910	23.5	9.1	7.8	2849	9.4	0.3	651	1.8	0.4	44	97.7	14.2	101	
							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	mg/L
							334	13.7	<0.05	<0.05	0.451	<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	8.07	1.67	0.05			