



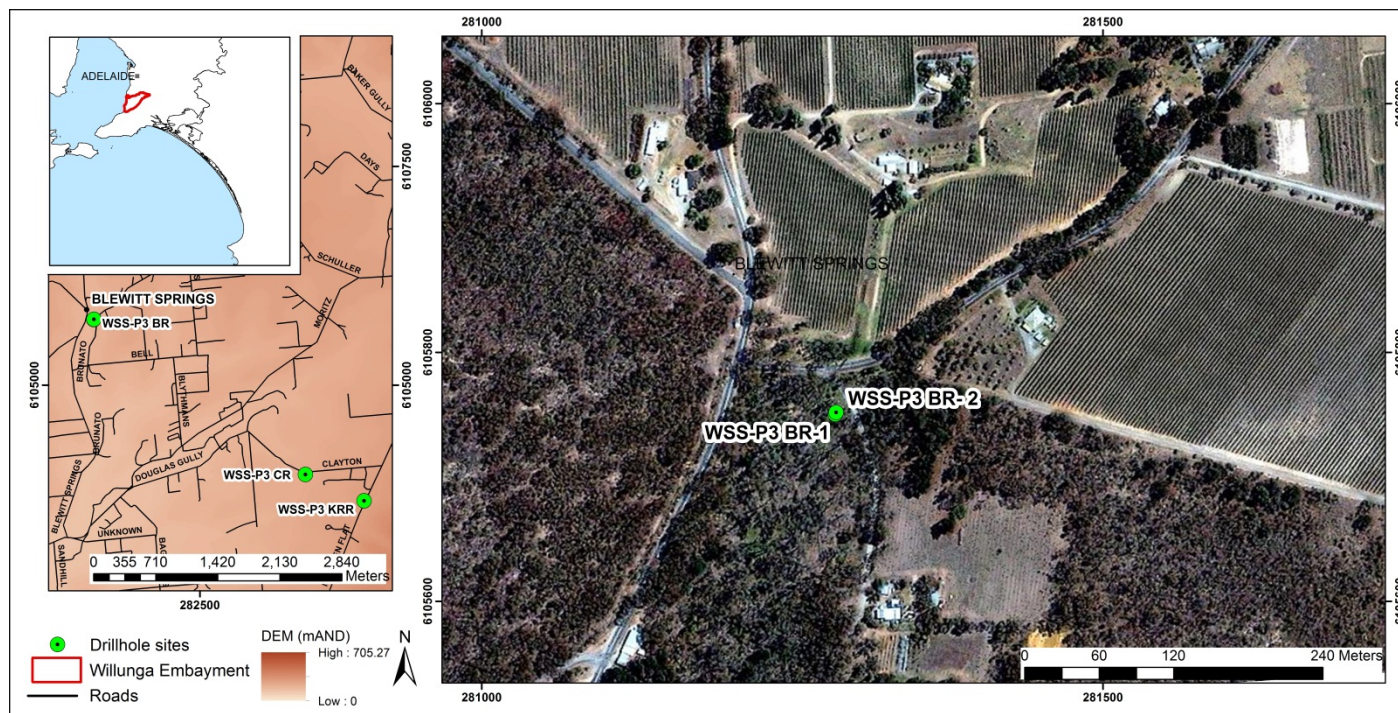
An Australian Government Initiative

Groundwater Education Investment Fund Project

Borehole Infrastructure Report

Borehole Type		Piezometer Monitoring Bore	Location	Willunga Super Science Site
Unique Well ID		WSS-P3BR-2	Installed By	Town & Country Drilling Services
Completion Date		02/11/2012	Depth Installed	13.77 mBGS
Drilled By		Town & Country Drilling services	Depth Drilled	14 mBGS
Monument Type		Square galvanised standpipe	Drilled Diameter/Method	150 mm/Auger
Monument Diameter/Width		100 mm	Screen Depth	12.77-13.77 mBGS
T.O.M. offset from G.L. (Top of Open Monument)		0.627 m	Screen Size/Aperture/Type	50 mm/slotted/ PVC 18
PVC Casing to T.O.M offset		+0.025 m	Level of Bentonite	12-12.5 mBGS
Ground Elevation (mAHD)		132.905	Casing Size/Type	50 mm/PVC 18
GPS Easting	(MGA-94 Zone 54)	281285	SWL after Development	0.58 mTOC
GPS Northing		6105752	Development Details	Air vacuum/submersible pump

Project Comments: WSS-P3BR-2 is a single piezometer monitoring bore, located off Brookmans Road, Blewitt Springs.



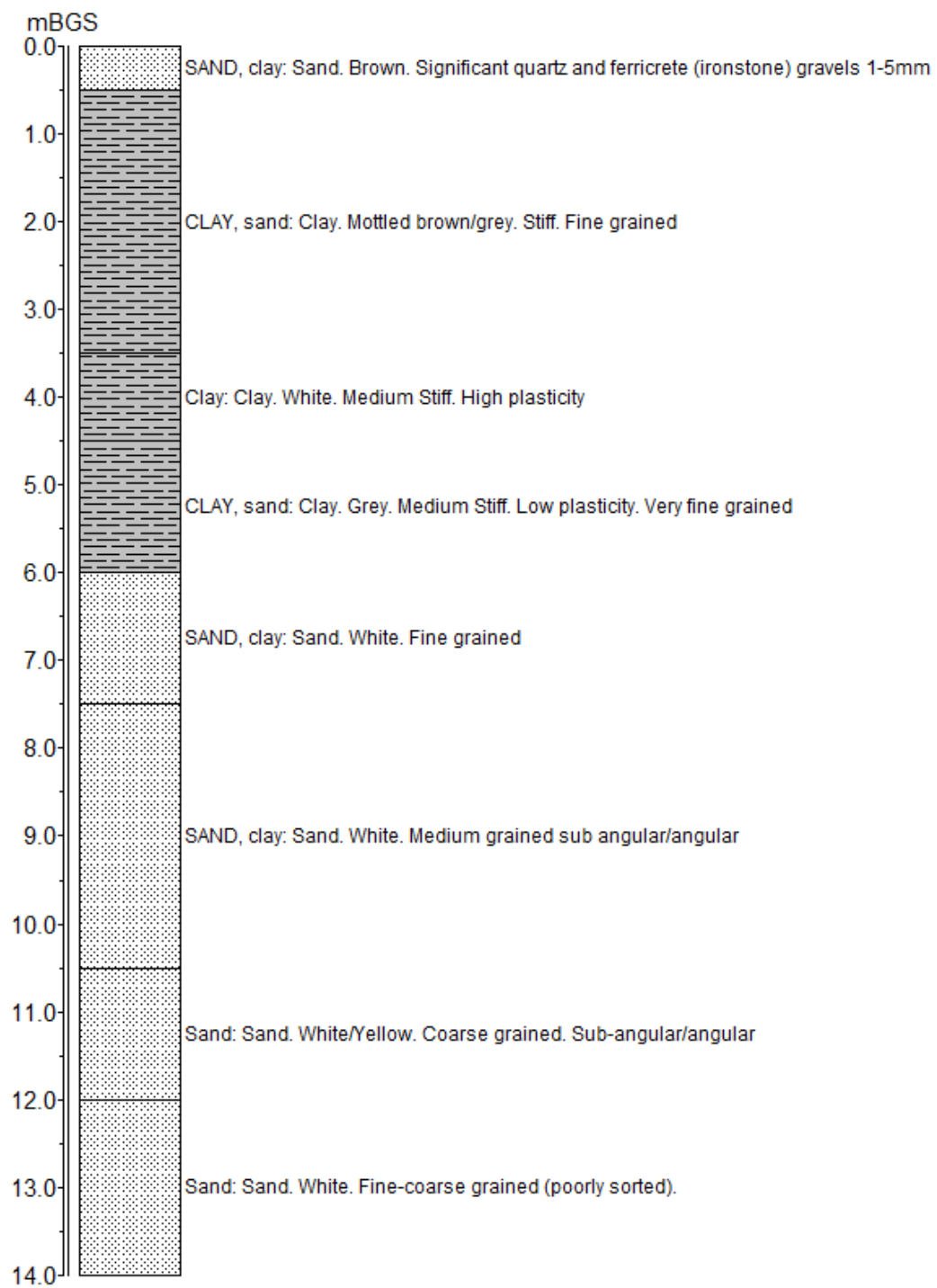
Map of Willunga Super Science Project Shallow Monitoring Well Sites

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

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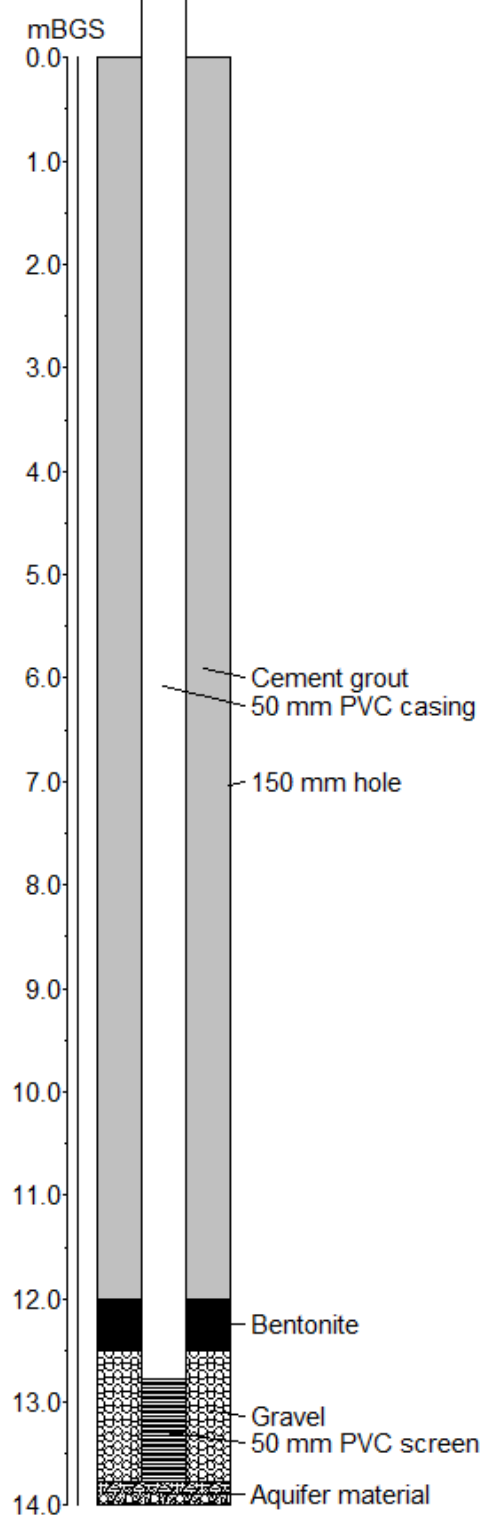
Lithology

WSS-P3BR-2



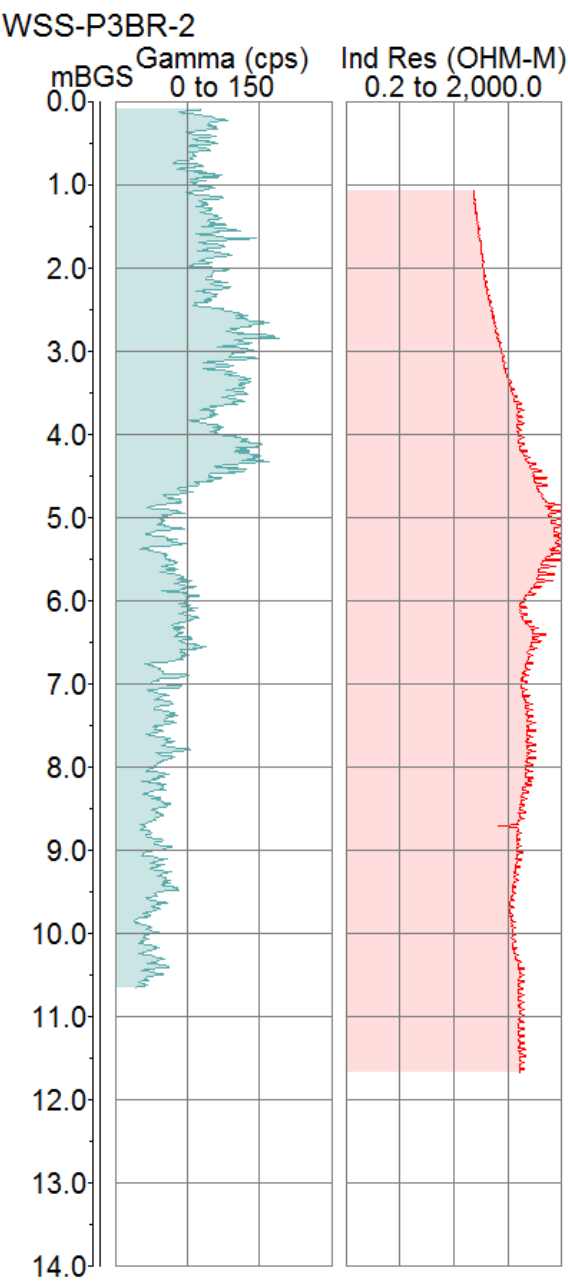
Well Completion Log

WSS-P3BR-2



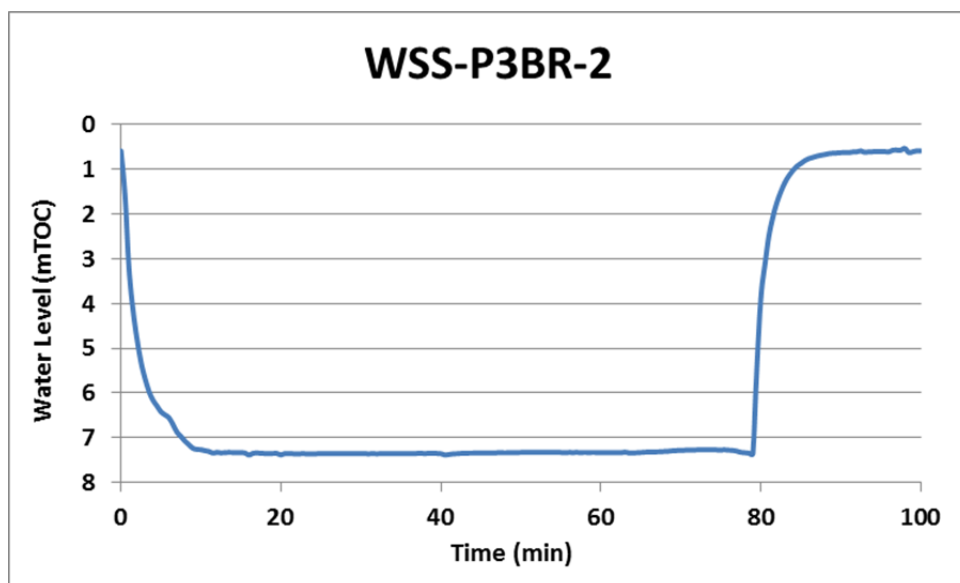
Geophysical Logs

The portable Mount Sopris logging system was used to collect geophysical data from bore WSS-P3BR-12. The 2PGS probe was used to collect natural gamma measurements, and the 2PIA probe was used to measure conductivity/induced resistivity.



Pumping Test

A pumping test was performed on piezometer WSS-P3BR-2 on 7/11/2012 with a water level logger and a submersible pump using a flow rate of 6.6 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-P3BR-2 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 ⁻	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-P3BR-2	7/11/2012	0.58	6.18	2809	18.2	2.8	6.9	2815	2.6	0.1	763	1.9	0.2	128	84.6	6.42	57.3	
							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	
							423	40.7	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	3.62	<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	7.18	0.903	<0.05			