



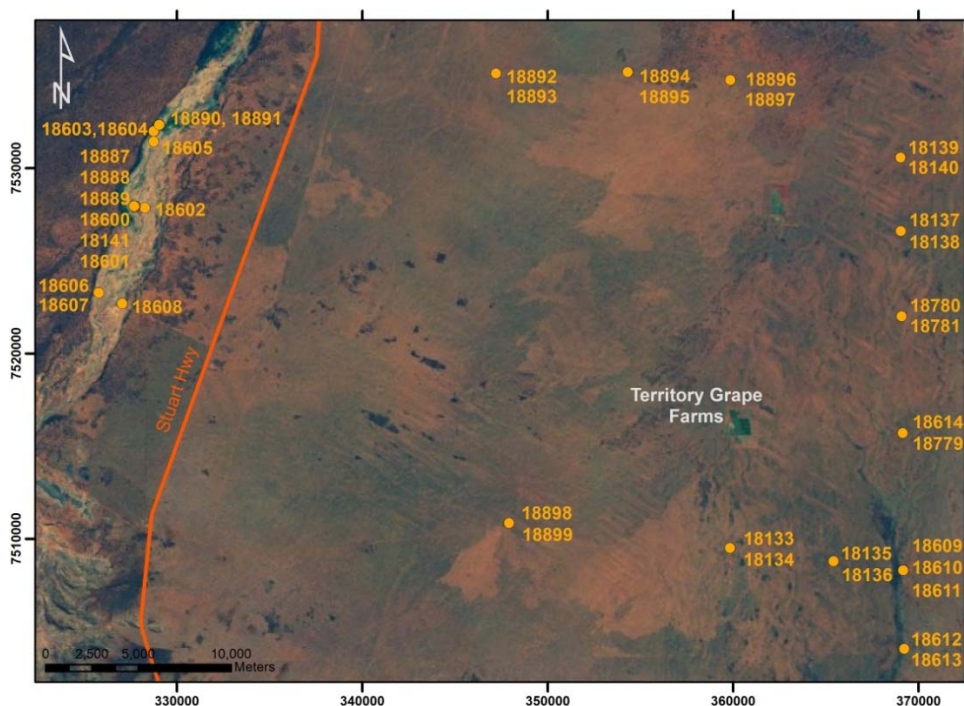
An Australian Government Initiative

# Groundwater Education Investment Fund Project

## Borehole Infrastructure Report

Borehole Type	Piezometer	GPS Easting	(MGA-94 Zone 53)	327692
Unique Well ID	18889	GPS Northing		7527955
Completion Date	6 June 2012	Location		Pine Hill Station, NT
Drilled By	NRETAS	Installed By		NRETAS
Monument Type	Round-Swing Top	Depth Drilled		8.0 m
Monument Diameter/Width	216 mm	Drilled Diameter/Method		140 mm (min), Air Jetting
Development Details	Small airlift.			
Project Comments: 18889 is a single completion piezometer which together with 18887 and 18888 form a transect adjacent to the Woodford River, Ti Tree, NT.				

Bore ID	Casing Size (mm)/ Type	TOC (mAHD)	Casing Depth (mBGL)		Screen Size (mm)/ Aperture (mm)/ Type	Cement (mBGL)		Screen Depth (mBGL)		SWL (mTOC)
	200/Steel		-1.0	3.0	NA	0.0	3.0	NA	NA	NA
18889	50/PVC12	596.261	-0.9	7.2	50/0.5/UPVC18	-0.8	1.0	5.2	6.2	4.43

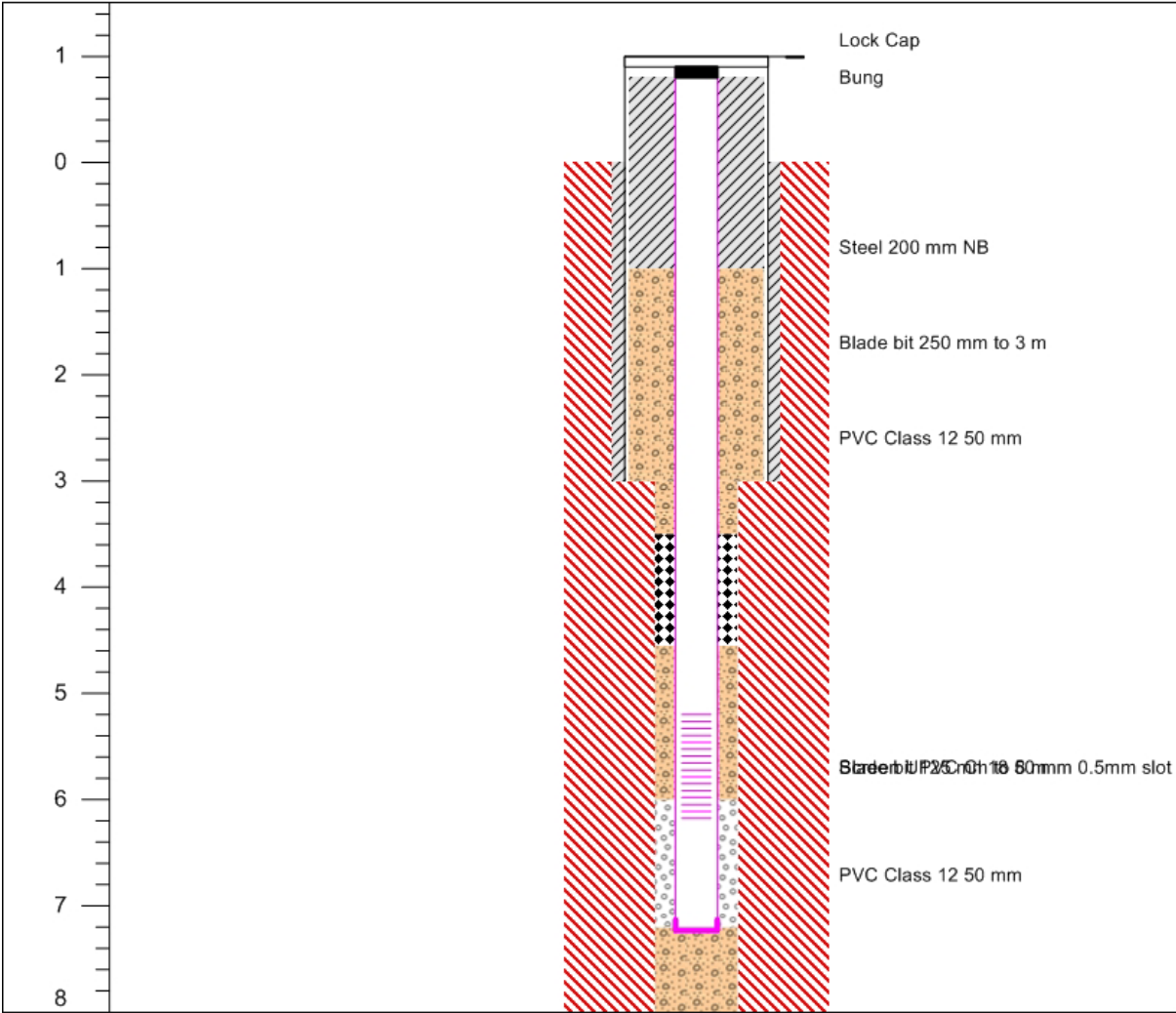


Map of Ti Tree Super Science Piezometer Locations, Pine Hill Station, NT.

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

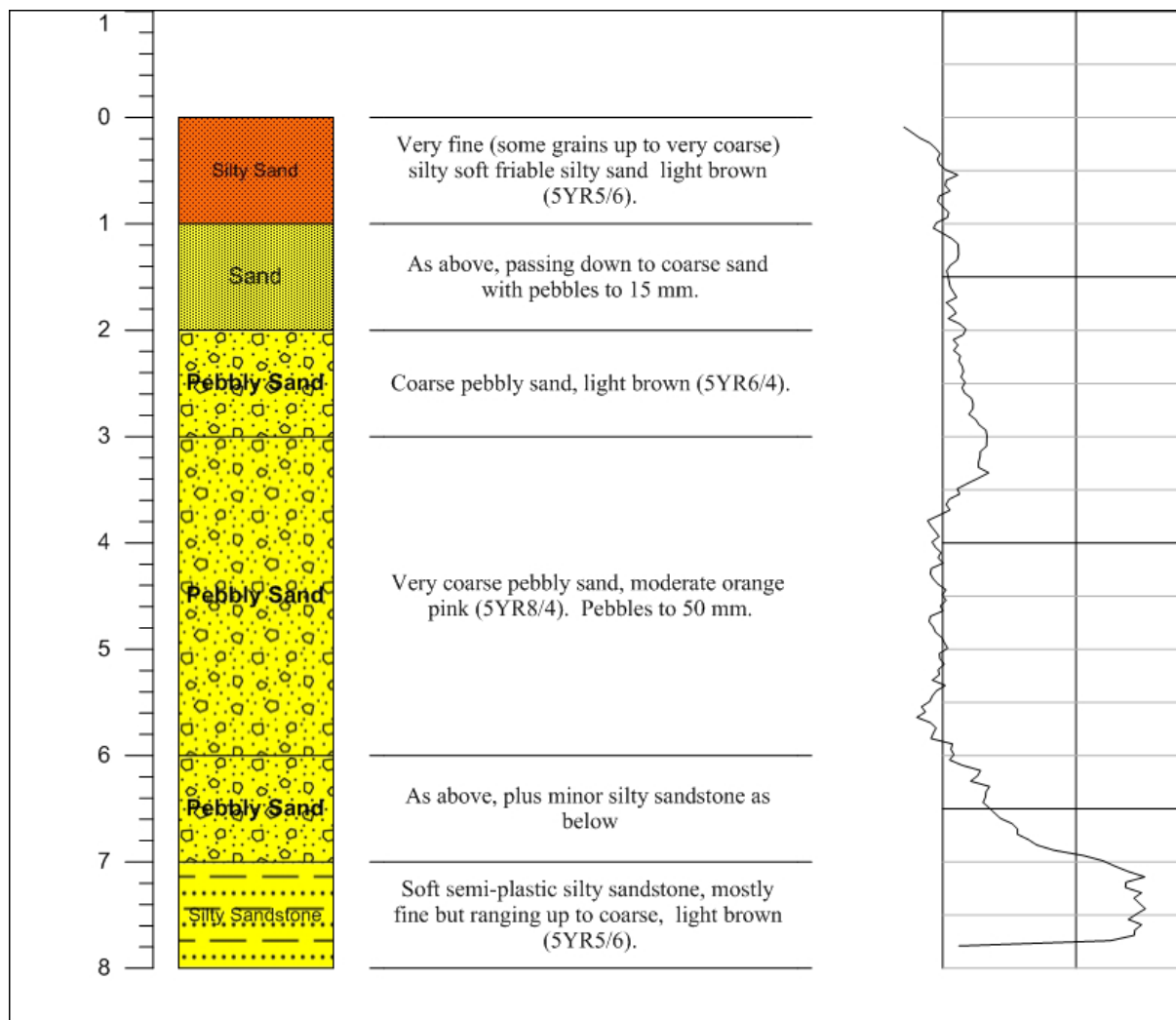
Infrastructure Report prepared by:	Contact Details:	Checked by:
	<a href="mailto:stephanie.villeneuve@flinders.edu.au">stephanie.villeneuve@flinders.edu.au</a> Office: 08 8201 2724	Prof Peter Cook 

# Well Completion Log



Page 1 of 1		Construction Legend		
Date Start 5/06/2012	Steel	Gravel Pack	Creek Sand	
Completed 6/06/2012	PVC	Lock Cap	Fall Back	
Contractor NRETAS	Slots	Bung	Soil	
	Hole	End Cap	Cuttings	
	Cement	Bentonite	Screen	

# Lithology Log



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Air Lift Yield L/s small

Date Start 5/06/2012 Electrical Conductivity  $\mu$ Siemens/cm no sample

Completed 6/06/2012 Standing Water Level m BGL 3.4

Contractor NRETAS

Status

Piezometer

60 110

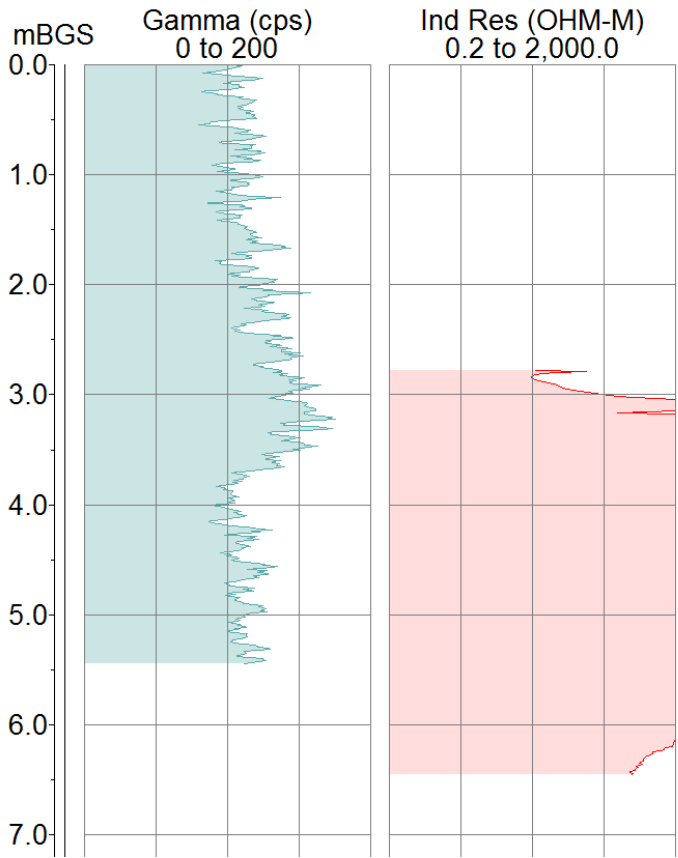
Gamma cps

Depth of casing at logging 3 & 6.5 m

# Geophysical Logs

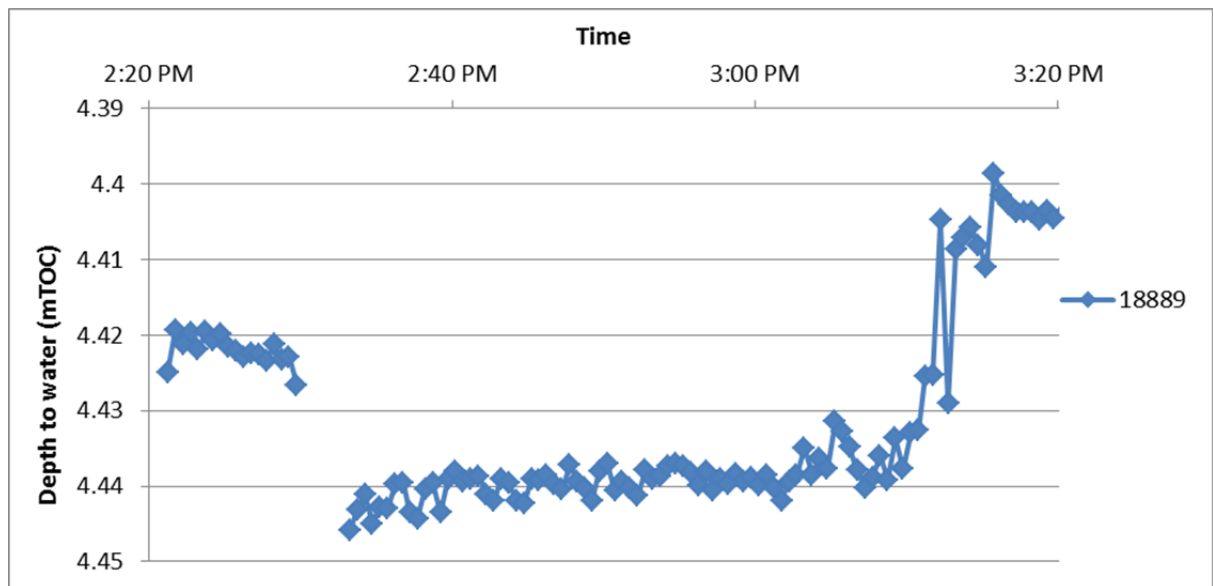
The portable Mount Sopris logging system was used to collect geophysical data from bore 18889. The 2PGS probe was used to collect natural gamma measurements, and the 2PIA probe was used to measure conductivity/induced resistivity.

18889



## Pumping Test

A pumping test was performed on piezometer 18889 on 30/06/2012 by attaching a level logger to a submersible Whale pump, lowering the pump to a depth of 7.5 mTOC and using a flow rate of 5.2 L/min. The results of the test are presented below. The report author may be contacted for the full data set.



# Chemical Analysis

Basic chemical analysis of the dissolved solutes and concentration of ions in the borehole was performed. The testing also included hydrogen ion activity (pH) and fluid electrical conductivity (EC). Data from the chemical analysis is shown below.

Well ID	Date Sampled	SWL	Field Parameters				Laboratory Analyses							
		m	pH	EC	Temp	Alkalinity	Ca <sup>2+</sup>	K <sup>+</sup>	Mg <sup>2+</sup>	Na <sup>+</sup>	Si	Cl <sup>-</sup>	NO <sub>3</sub> <sup>-</sup>	SO <sub>4</sub> <sup>2-</sup>
		TOC		μS/cm	°C	mg/L CaCo <sup>3</sup>	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
18889	30/06/2012	4.425	5.64	50	25.2	2.52	3.1	3.16	1.4	4.32	5.71	2.8	<0.05	1.7