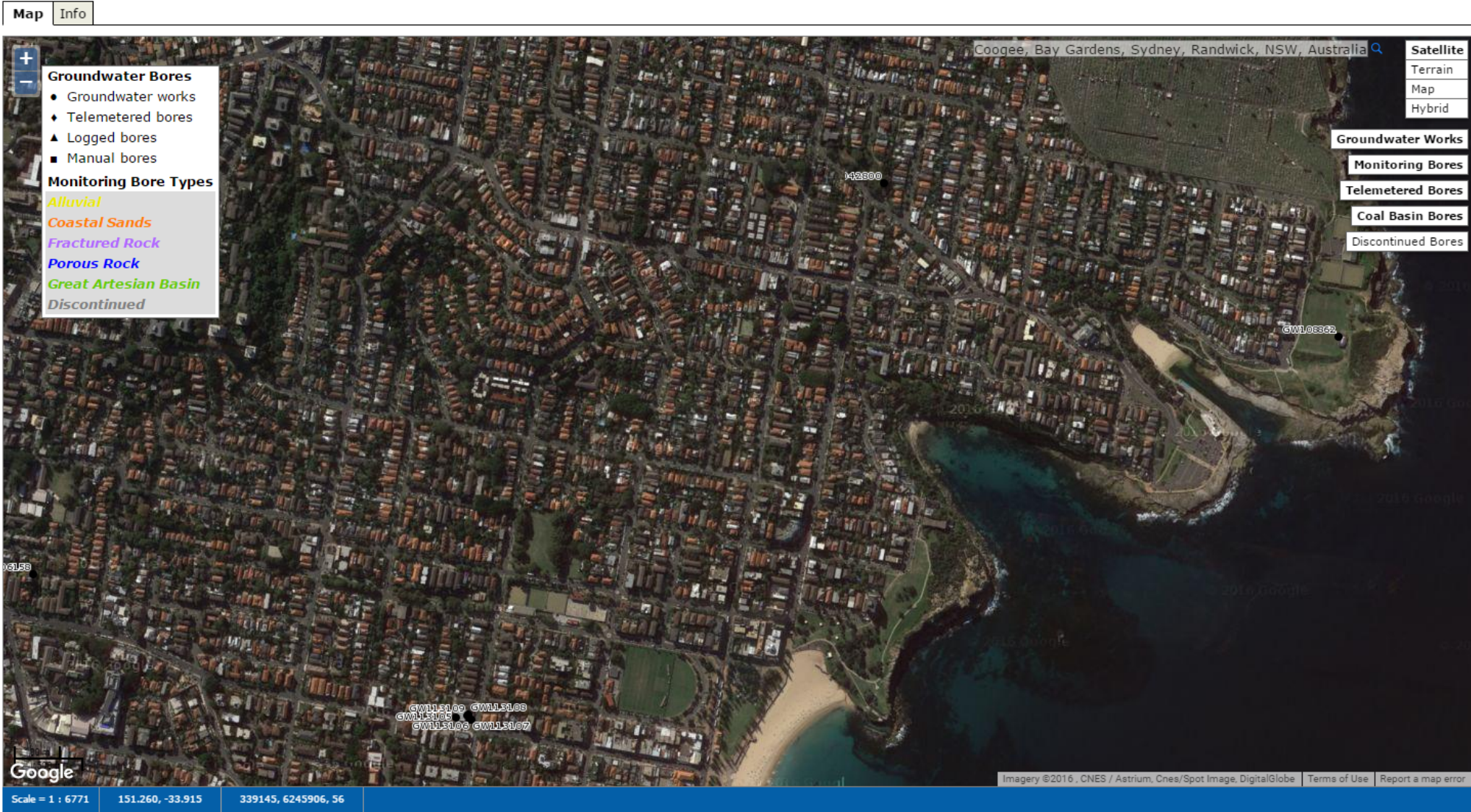


All data times are Eastern Standard Time



NSW Office of Water

Work Summary

GW042800

Licence: 10BL105375	Licence Status: LAPSED
Authorised Purpose(s): RECREATION (GROUNDWATER)	
Intended Purpose(s): RECREATION (GROUNDWATER)	
Work Type: Bore	
Work Status:	
Construct.Method: Cable Tool	
Owner Type: Local Govt	
Commenced Date:	Final Depth: 14.30 m
Completion Date: 01/04/1976	Drilled Depth: 14.30 m
Contractor Name:	
Driller:	
Assistant Driller:	
Property: N/A NSW	Standing Water Level (m):
GWMA: 018 - BOTANY BAY SAND BEDS	Salinity Description:
GW Zone: -	Yield (L/s):

Site Details

Site Chosen By:			
County	Parish	Cadastre	
Form A: CUMBE	CUMBE.001	DP6512 (8)	
Licensed: CUMBERLAND	ALEXANDRIA	Whole Lot //	
Region: 10 - Sydney South Coast	CMA Map: 9130-2S		
River Basin: 213 - SYDNEY COAST - GEORGES RIVER	Grid Zone:	Scale:	
Area/District:			
Elevation: 0.00 m (A.H.D.)	Northing: 6246390.0	Latitude: 33°54'38.3"S	
Elevation Source: (Unknown)	Easting: 339193.0	Longitude: 151°15'38.2"E	
GS Map: -	MGA Zone: 0	Coordinate Source: GD.,ACC.MAP	

Construction

Negative depths indicate Above Ground Level; C-Cemented; SL-Slot Length; A-Aperture; GS-Grain Size; Q-Quantity; PL-Placement of Gravel Pack; PC-Pressure Cemented; S-Sump; CE-Centralisers

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
1		Annulus	Waterworn/Rounded	9.10	14.20				Graded
1	1	Casing	Threaded Steel	0.00	11.20	203			
1	1	Opening	Screen	11.20	14.20	203		1	Stainless Steel

Water Bearing Zones

From (m)	To (m)	Thickness (m)	WBZ Type	S.W.L. (m)	D.D.L. (m)	Yield (L/s)	Hole Depth (m)	Duration (hr)	Salinity (mg/L)
1.50	14.30	12.80	Unconsolidated	1.50		5.30			

Geologists Log

Drillers Log

From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments
0.00	1.22	1.22	Made Ground	Fill	
1.22	4.88	3.66	Sand Water Supply	Sand	

4.88	5.49	0.61	Clay Grey Stiff	Clay	
5.49	8.84	3.35	Sand Grey Water Supply	Sand	
8.84	13.11	4.27	Sand Yellow Water Supply	Sand	
13.11	14.02	0.91	Sand Water Supply	Sand	
14.02	14.33	0.31	Clay Sandy	Clay	

Remarks

09/03/1987: BURNIE PARK CLOVELLY

*** End of GW042800 ***

Warning To Clients: This raw data has been supplied to the NSW Office of Water by drillers, licensees and other sources. The NOW does not verify the accuracy of this data. The data is presented for use by you at your own risk. You should consider verifying this data before relying on it. Professional hydrogeological advice should be sought in interpreting and using this data.

NSW Office of Water

Work Summary

GW108862

Licence: 10BL164833

Licence Status: CANCELLED

Authorised Purpose(s): TEST BORE
Intended Purpose(s): RECREATION (GROUNDWATER)

Work Type: Bore

Work Status: Supply Obtained

Construct.Method: Rotary Air

Owner Type: Local Govt

Commenced Date:
Completion Date: 08/05/2008

Final Depth: 186.00 m
Drilled Depth: 186.00 m

Contractor Name: Britt's Water Solutions

Driller: Darren James Britt

Assistant Driller:

Property: BURROWS PARK, CLOVELLY
OCEAN ST CLOVELLY 2031

Standing Water Level: 32.000

GWMA:
GW Zone:

Salinity:
Yield: 0.350

Site Details

Site Chosen By:

County
Form A: CUMBE
Licensed:

Parish
CUMBE.1

Cadastre
7088 1060705

Region: 10 - Sydney South Coast

CMA Map:

River Basin: - Unknown
Area/District:

Grid Zone:

Scale:

Elevation: 0.00 m (A.H.D.)
Elevation Source: Unknown

Northing: 6246109.0
Easting: 340077.0

Latitude: 33°54'47.9"S
Longitude: 151°16'12.4"E

GS Map: -

MGA Zone: 0

Coordinate Source: Unknown

Construction

Negative depths indicate Above Ground Level; C-Cemented; SL-Slot Length; A-Aperture; GS-Grain Size; Q-Quantity; PL-Placement of Gravel Pack; PC-Pressure Cemented; S-Sump; CE-Centralisers

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
1		Hole	Hole	0.00	30.00	200			Rotary Air
1		Hole	Hole	30.00	186.00	155			Rotary Air
1	1	Casing	Pvc Class 6	-0.30	36.00	155			Driven into Hole, Riveted and Glued

Water Bearing Zones

From (m)	To (m)	Thickness (m)	WBZ Type	S.W.L. (m)	D.D.L. (m)	Yield (L/s)	Hole Depth (m)	Duration (hr)	Salinity (mg/L)
49.00	49.30	0.30	Unknown	32.00		0.22			
150.00	150.10	0.10	Unknown	32.00		0.07			
162.00	162.05	0.05	Unknown	32.00		0.05			

Geologists Log

Drillers Log

From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments
0.00	1.30	1.30	SANDY TOPSOIL	Invalid Code	

1.30	1.50	0.20	GREY CLAY	Grey Clay Bands	
1.50	4.00	2.50	RED SANDSTONE	Invalid Code	
4.00	82.00	78.00	WHITE SANDSTONE	Invalid Code	
82.00	98.00	16.00	BLACK SHALE	Invalid Code	
98.00	186.00	88.00	WHITE SANDSTONE	Invalid Code	

Remarks

08/05/2008: Previous Lic No:10BL164833

*** End of GW108862 ***

Warning To Clients: This raw data has been supplied to the NSW Office of Water by drillers, licensees and other sources. The NOW does not verify the accuracy of this data. The data is presented for use by you at your own risk. You should consider verifying this data before relying on it. Professional hydrogeological advice should be sought in interpreting and using this data.

NSW Office of Water

Work Summary

GW113105**Licence:** 10BL602800**Licence Status:** ACTIVE**Authorised Purpose(s):** MONITORING BORE
Intended Purpose(s): MONITORING BORE**Work Type:** Bore**Work Status:** Equipped**Construct.Method:****Owner Type:** Private**Commenced Date:****Completion Date:** 18/11/2008**Final Depth:****Drilled Depth:****Contractor Name:** Macquarie Drilling**Driller:** Unknown Unknown**Assistant Driller:****Property:** CALTEX - COOGEE 146-148
COOGEE BAY RD COOGEE 2034
NSW**Standing Water Level:****GWMA:****GW Zone:****Salinity:****Yield:**

Site Details

Site Chosen By:**County**
Form A: CUMBE
Licensed:**Parish**
CUMBE.1**Cadastre**
1/202800**Region:** 10 - Sydney South Coast**CMA Map:****River Basin:** - Unknown**Grid Zone:****Scale:****Area/District:****Elevation:** 0.00 m (A.H.D.)**Northing:** 6245344.0**Latitude:** 33°55'11.8"S**Elevation Source:** Unknown**Easting:** 338380.0**Longitude:** 151°15'05.8"E**GS Map:** -**MGA Zone:** 0**Coordinate Source:** Unknown

Construction

Negative depths indicate Above Ground Level; C-Cemented; SL-Slot Length; A-Aperture; GS-Grain Size; Q-Quantity; PL-Placement of Gravel Pack; PC-Pressure Cemented; S-Sump; CE-Centralisers

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
------	------	-----------	------	----------	--------	-----------------------	----------------------	----------	---------

Water Bearing Zones

From (m)	To (m)	Thickness (m)	WBZ Type	S.W.L. (m)	D.D.L. (m)	Yield (L/s)	Hole Depth (m)	Duration (hr)	Salinity (mg/L)
----------	--------	---------------	----------	------------	------------	-------------	----------------	---------------	-----------------

Geologists Log

Drillers Log

From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments
----------	--------	---------------	----------------------	---------------------	----------

Remarks

29/07/2014: Nat Carling, 29-July-2014; Added status, drill method, depth & work name, updated work type.

***** End of GW113105 *****

Warning To Clients: This raw data has been supplied to the NSW Office of Water by drillers, licensees and other sources. The NOW does not verify the accuracy of this data. The data is presented for use by you at your own risk. You should consider verifying this data before relying on it. Professional hydrogeological advice should be sought in interpreting and using this data.

NSW Office of Water

Work Summary

GW113106**Licence:** 10BL602800**Licence Status:** ACTIVE**Authorised Purpose(s):** MONITORING BORE
Intended Purpose(s): MONITORING BORE**Work Type:** Bore**Work Status:** Equipped**Construct.Method:****Owner Type:** Private**Commenced Date:**
Completion Date: 18/11/2008**Final Depth:**
Drilled Depth:**Contractor Name:** Macquarie Drilling**Driller:** Unknown Unknown**Assistant Driller:****Property:** CALTEX - COOGEE 146-148
COOGEE BAY RD COOGEE 2034
NSW**Standing Water Level:****GWMA:**
GW Zone:**Salinity:**
Yield:

Site Details

Site Chosen By:**County**
Form A: CUMBE
Licensed:**Parish**
CUMBE.1**Cadastre**
1/202800**Region:** 10 - Sydney South Coast**CMA Map:****River Basin:** - Unknown
Area/District:**Grid Zone:****Scale:****Elevation:** 0.00 m (A.H.D.)
Elevation Source: Unknown**Northing:** 6245341.0
Easting: 338410.0**Latitude:** 33°55'11.9"S
Longitude: 151°15'07.0"E**GS Map:** -**MGA Zone:** 0**Coordinate Source:** Unknown

Construction

Negative depths indicate Above Ground Level; C-Cemented; SL-Slot Length; A-Aperture; GS-Grain Size; Q-Quantity; PL-Placement of Gravel Pack; PC-Pressure Cemented; S-Sump; CE-Centralisers

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
------	------	-----------	------	----------	--------	-----------------------	----------------------	----------	---------

Water Bearing Zones

From (m)	To (m)	Thickness (m)	WBZ Type	S.W.L. (m)	D.D.L. (m)	Yield (L/s)	Hole Depth (m)	Duration (hr)	Salinity (mg/L)
----------	--------	---------------	----------	------------	------------	-------------	----------------	---------------	-----------------

Geologists Log

Drillers Log

From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments
----------	--------	---------------	----------------------	---------------------	----------

Remarks

29/07/2014: Nat Carling, 29-July-2014; Added status, drill method, depth & work name, updated work type.

***** End of GW113106 *****

Warning To Clients: This raw data has been supplied to the NSW Office of Water by drillers, licensees and other sources. The NOW does not verify the accuracy of this data. The data is presented for use by you at your own risk. You should consider verifying this data before relying on it. Professional hydrogeological advice should be sought in interpreting and using this data.

NSW Office of Water

Work Summary

GW113107**Licence:** 10BL602800**Licence Status:** ACTIVE**Authorised Purpose(s):** MONITORING BORE
Intended Purpose(s): MONITORING BORE**Work Type:** Bore**Work Status:** Equipped**Construct.Method:****Owner Type:** Private**Commenced Date:**
Completion Date: 20/07/2009**Final Depth:**
Drilled Depth:**Contractor Name:** Macquarie Drilling**Driller:** Unkown Unknown**Assistant Driller:****Property:** CALTEX - COOGEE 146-148
COOGEE BAY RD COOGEE 2034
NSW**Standing Water Level:****GWMA:**
GW Zone:**Salinity:**
Yield:

Site Details

Site Chosen By:**County**
Form A: CUMBE
Licensed:**Parish**
CUMBE.1**Cadastre**
1//202800**Region:** 10 - Sydney South Coast**CMA Map:****River Basin:** - Unknown
Area/District:**Grid Zone:****Scale:****Elevation:** 0.00 m (A.H.D.)
Elevation Source: Unknown**Northing:** 6245341.0
Easting: 338409.0**Latitude:** 33°55'11.9"S
Longitude: 151°15'07.0"E**GS Map:** -**MGA Zone:** 0**Coordinate Source:** Unknown

Construction

Negative depths indicate Above Ground Level; C-Cemented; SL-Slot Length; A-Aperture; GS-Grain Size; Q-Quantity; PL-Placement of Gravel Pack; PC-Pressure Cemented; S-Sump; CE-Centralisers

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
------	------	-----------	------	----------	--------	-----------------------	----------------------	----------	---------

Water Bearing Zones

From (m)	To (m)	Thickness (m)	WBZ Type	S.W.L. (m)	D.D.L. (m)	Yield (L/s)	Hole Depth (m)	Duration (hr)	Salinity (mg/L)
----------	--------	---------------	----------	------------	------------	-------------	----------------	---------------	-----------------

Geologists Log

Drillers Log

From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments
----------	--------	---------------	----------------------	---------------------	----------

Remarks

29/07/2014: Nat Carling, 29-July-2014; Added status, drill method, depth & work name, updated work type.

***** End of GW113107 *****

Warning To Clients: This raw data has been supplied to the NSW Office of Water by drillers, licensees and other sources. The NOW does not verify the accuracy of this data. The data is presented for use by you at your own risk. You should consider verifying this data before relying on it. Professional hydrogeological advice should be sought in interpreting and using this data.

NSW Office of Water

Work Summary

GW113108**Licence:** 10BL602800**Licence Status:** ACTIVE**Authorised Purpose(s):** MONITORING BORE
Intended Purpose(s): MONITORING BORE**Work Type:** Bore**Work Status:** Equipped**Construct.Method:****Owner Type:** Private**Commenced Date:****Completion Date:** 23/07/2009**Final Depth:****Drilled Depth:****Contractor Name:** Macquarie Drilling**Driller:** Unknown Unknown**Assistant Driller:****Property:** CALTEX - COOGEE 146-148
COOGEE BAY RD COOGEE 2034
NSW**Standing Water Level:****GWMA:**
GW Zone:**Salinity:**
Yield:

Site Details

Site Chosen By:**County**
Form A: CUMBE
Licensed:**Parish**
CUMBE.1**Cadastre**
1/202800**Region:** 10 - Sydney South Coast**CMA Map:****River Basin:** - Unknown
Area/District:**Grid Zone:****Scale:****Elevation:** 0.00 m (A.H.D.)
Elevation Source: Unknown**Northing:** 6245351.0
Easting: 338405.0**Latitude:** 33°55'11.6"S
Longitude: 151°15'06.8"E**GS Map:** -**MGA Zone:** 0**Coordinate Source:** Unknown

Construction

Negative depths indicate Above Ground Level; C-Cemented; SL-Slot Length; A-Aperture; GS-Grain Size; Q-Quantity; PL-Placement of Gravel Pack; PC-Pressure Cemented; S-Sump; CE-Centralisers

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
------	------	-----------	------	----------	--------	-----------------------	----------------------	----------	---------

Water Bearing Zones

From (m)	To (m)	Thickness (m)	WBZ Type	S.W.L. (m)	D.D.L. (m)	Yield (L/s)	Hole Depth (m)	Duration (hr)	Salinity (mg/L)
----------	--------	---------------	----------	------------	------------	-------------	----------------	---------------	-----------------

Geologists Log

Drillers Log

From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments
----------	--------	---------------	----------------------	---------------------	----------

Remarks

29/07/2014: Nat Carling, 29-July-2014; Added status, drill method, depth & work name, updated work type.

***** End of GW113108 *****

Warning To Clients: This raw data has been supplied to the NSW Office of Water by drillers, licensees and other sources. The NOW does not verify the accuracy of this data. The data is presented for use by you at your own risk. You should consider verifying this data before relying on it. Professional hydrogeological advice should be sought in interpreting and using this data.

NSW Office of Water

Work Summary

GW113109

Licence: 10BL602800	Licence Status: ACTIVE
Authorised Purpose(s): MONITORING BORE Intended Purpose(s): MONITORING BORE	
Work Type: Bore	
Work Status: Equipped	
Construct.Method:	
Owner Type: Private	
Commenced Date:	Final Depth:
Completion Date: 23/07/2009	Drilled Depth:
Contractor Name: Macquarie Drilling	
Driller: Unkown Unknown	
Assistant Driller:	
Property: CALTEX - COOGEE 146-148 COOGEE BAY RD COOGEE 2034 NSW	Standing Water Level:
GWMA:	Salinity:
GW Zone:	Yield:

Site Details

Site Chosen By:	County Form A: CUMBE Licensed:	Parish CUMBE.1	Cadastre 1//202800
Region: 10 - Sydney South Coast	CMA Map:		
River Basin: - Unknown	Grid Zone:	Scale:	
Area/District:			
Elevation: 0.00 m (A.H.D.)	Northing: 6245350.0	Latitude: 33°55'11.6"S	
Elevation Source: Unknown	Easting: 338401.0	Longitude: 151°15'06.7"E	
GS Map: -	MGA Zone: 0	Coordinate Source: Unknown	

Construction

Negative depths indicate Above Ground Level; C-Cemented; SL-Slot Length; A-Aperture; GS-Grain Size; Q-Quantity; PL-Placement of Gravel Pack; PC-Pressure Cemented; S-Sump; CE-Centralisers

Hole	Pipe	Component	Type	From (m)	To (m)	Outside Diameter (mm)	Inside Diameter (mm)	Interval	Details
------	------	-----------	------	----------	--------	-----------------------	----------------------	----------	---------

Water Bearing Zones

From (m)	To (m)	Thickness (m)	WBZ Type	S.W.L. (m)	D.D.L. (m)	Yield (L/s)	Hole Depth (m)	Duration (hr)	Salinity (mg/L)
----------	--------	---------------	----------	------------	------------	-------------	----------------	---------------	-----------------

Geologists Log

Drillers Log

From (m)	To (m)	Thickness (m)	Drillers Description	Geological Material	Comments
----------	--------	---------------	----------------------	---------------------	----------

Remarks

29/07/2014: Nat Carling, 29-July-2014; Added status, drill method, depth & work name, updated work type.

***** End of GW113109 *****

Warning To Clients: This raw data has been supplied to the NSW Office of Water by drillers, licensees and other sources. The NOW does not verify the accuracy of this data. The data is presented for use by you at your own risk. You should consider verifying this data before relying on it. Professional hydrogeological advice should be sought in interpreting and using this data.

Appendix D Historical Aerial Photographs

**Legend:**

 Approximate Site Boundary



Job No: 51707

Client: Pells Sullivan Meynink

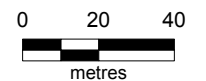
Version: Aerials

Date: 03-Jun-2016

Drawn By: SE

Checked By: LB

Scale 1:2,000



Coor. Sys. GDA 1994 MGA Zone 56

**UNSW Cliffbrook Campus
Coogee, NSW**

AERIAL PHOTOGRAPH 1930

AERIAL PHOTOGRAPH 1930