

be treated after each application. The lime should be thoroughly mixed with the soil through use of a rotary hoe, pulvi-mixer or some similar mechanical process nominated by the contractor to achieve a thorough mix. After mixing, the material could then be excavated and stockpiled in a bunded area until test results indicate acceptable levels of neutralisation were achieved.

C.1.2.2 Liming Ratios

Good quality fine agricultural lime should be used. In calculating liming ratios, a factor of safety of 1.5 is recommended above the theoretical requirement to take into account the rate of lime reactivity and the possibility of inhomogeneous mixing.

The test results from the previous work and of the additional recommended investigations should be considered in assessing liming ratios for PASS. Liming ratios should also be confirmed by testing at the time of construction.

The time required for applied lime to neutralise ASS is widely variable and depends on the specific properties of the neutralised soil, although the lime will begin to neutralise the acid soils from the time of application. Monitoring of the neutralisation rates of the ASS to be removed should be undertaken to provide an indication of the rate of neutralisation and to confirm that the process is working effectively.

C.2.1 Management of Leachate and Excavation Water

Groundwater samples should be obtained to assess the background pH of the groundwater prior to excavation of PASS at the site. Results of this testing should be forwarded to the ASS Consultant for the project, as a review of recommended pH values for groundwater monitoring during construction may be required.

Water pumped out during dewatering should be monitored on a regular basis during the dewatering period. It is suggested that water pH be checked several times throughout the day. At a minimum, pH testing should be carried out three times per day with a minimum of four hours between readings. The results of pH monitoring should be noted, and records kept on site throughout dewatering. If pH levels are found to become consistently lower over several tests, and the pH value approaches the minimum allowable pH of 6.5, all water should be contained and treated prior to release. Once an acceptable water quality is achieved, the treated water may be released. It is recommended that monitoring of turbidity, and dissolved oxygen be carried out immediately upon beginning of pumping and then daily for a period of at least two weeks. Depending on results, monitoring of these parameters should be carried out on a maximum weekly basis thereafter. A shorter timeframe may apply depending on the results of the ongoing testing. The testing interval could be revised at a later date should no significant changes in groundwater quality be evident.

All water runoff from bunded or other treatment areas is to be collected, monitored and then neutralised prior to release. We understand that no dewatering is proposed at this time. The method of neutralisation of leachate water is either to add lime as a slurry to the collected leachate water (depending on the salinity of the water to be treated) or to use a mechanical lime spreader to spread lime over an area close to the inlet point of the collection area. The addition of lime will be undertaken in conjunction with field testing to avoid achieving excessively high pH levels. The quality of the water to be finally discharged must meet appropriate guidelines for release.

C.2.2 Monitoring Program

C.2.2.1 Materials Treated in Bunded Areas

Field testing of the pH of lime treated materials will be required to assess whether pH values are being held at greater than 4. The pH testing should be supplemented with standard ASS laboratory tests from the excavated soil. Testing will be required to produce Total Potential Acidity (TPA) results of zero or indicating a small amount of excess lime. Laboratory results indicating soil containing up to 0.5kg H₂SO₄/tonne would be acceptable. The laboratory samples should each be made up of a minimum of 10 sub-samples from different parts of the stored materials to provide an average value of TPA.

Delivery dockets for the agricultural lime should be kept with other site records to demonstrate that adequate neutralising agent was used on site.

C.2.2.2 Excavation Monitoring

Natural soils exposed in the walls and floor of all excavations during should be checked on a regular basis for the generation of acid conditions, using an approved field pH screening test. Lime should be added to the exposed surface of the soils if values of pH<4 occur. The liming ratio for the soil units should be used, assuming the outer 100mm of soil within the exposed face will be affected. Any water collected in the excavation should also be checked for indications of acid production. Contingency measures should be put in place in accordance with this plan if water pH values of less than pH 6.5 occur.

Soils exposed within the excavation, including those above the water table, shall be maintained in a wet condition by frequent irrigation to restrict oxygen entry into the soil within the excavation. The effects of irrigation on the stability of the excavations should be assessed by a suitably experienced consultant.

C.3.1 Contingency Measures

Soil acidity in disturbed materials should be monitored. Should the field pH tests and the laboratory tests show that the soil acidity has not achieved the minimum required standard, then the material must be reworked and additional lime treatment carried out until it is verified that the soil meets the required standard.

If monitoring of the collected water at the point of discharge indicates the pH is below acceptable discharge limits then discharge must immediately cease and further treatment carried out. Hydrated lime may only be applied in the presence of the ASS Consultant who shall ensure that it is added in small increments so as not to cause unduly high water pH levels (i.e. above 8.5).

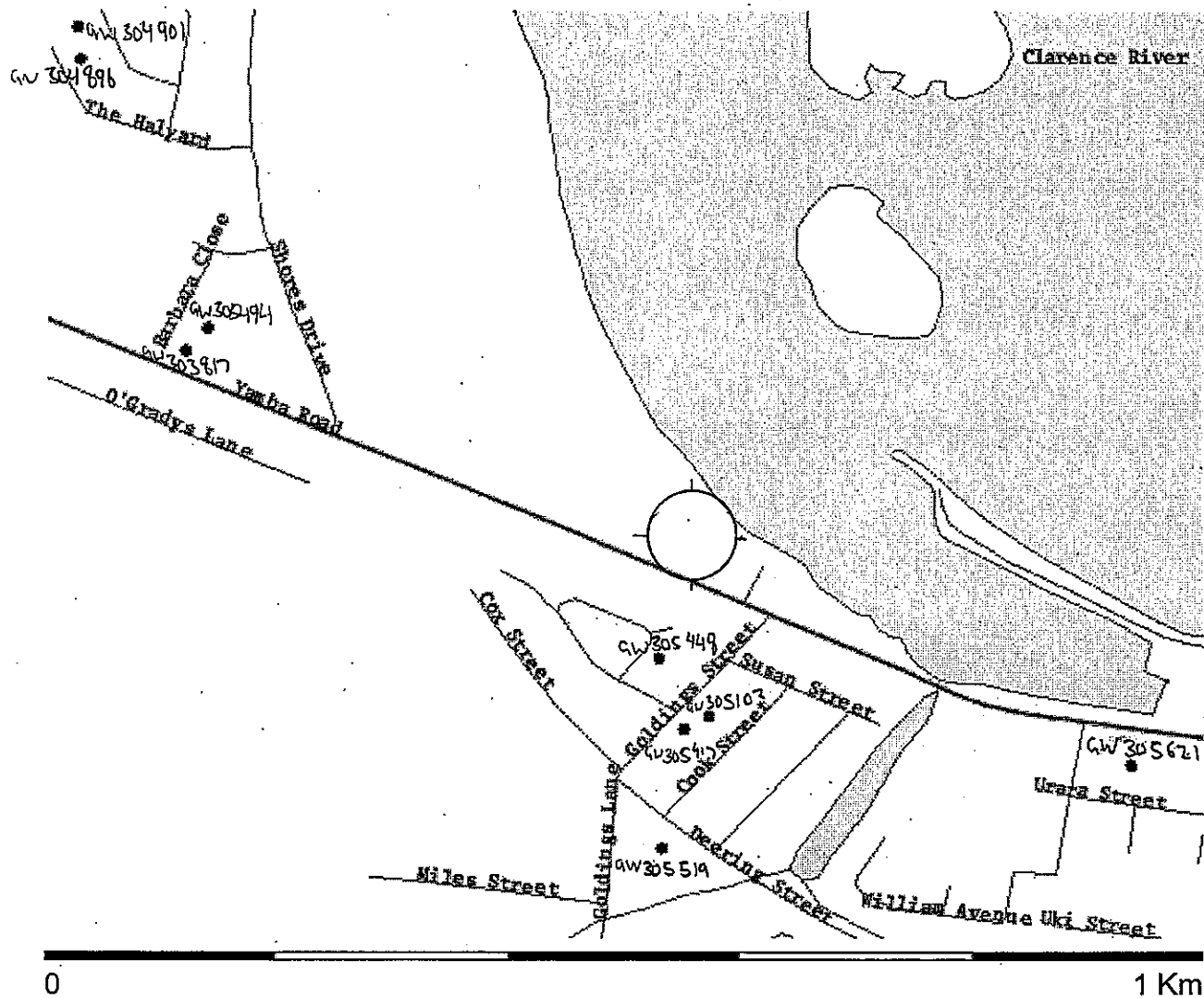
In the event that pH measurement of exposed soils in excavations does not meet required levels, lime shall be spread over the affected area and the pH levels further monitored.

Sufficient lime is to be stored in a dry location on-site to permit the immediate implementation of the above contingency measures. The lime shall be stored in a covered and bunded area to prevent accidental release to waters.

Appendix G

DNR Records

Map from the NSW Natural Resource Atlas



Groundwater Works Summary

For information on the meaning of fields please see [Glossary](#)
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Work Requested -- GW305621

Works Details [\(top\)](#)

GROUNDWATER NUMBER GW305621
LIC-NUM 30BL181240
AUTHORISED-PURPOSES DOMESTIC
INTENDED-PURPOSES DOMESTIC
WORK-TYPE Spear
WORK-STATUS New Bore
CONSTRUCTION-METHOD
OWNER-TYPE Private
COMMENCE-DATE
COMPLETION-DATE 2006-03-07
FINAL-DEPTH (metres) 10.00
DRILLED-DEPTH (metres)
CONTRACTOR-NAME
DRILLER-NAME
PROPERTY WILKS
GWMA - SYDNEY BASIN
GW-ZONE - MAIN FAN AREA PRIMARY RECHARGE
STANDING-WATER-LEVEL
SALINITY
YIELD

Site Details [\(top\)](#)

REGION 30 - NORTH COAST
RIVER-BASIN
AREA-DISTRICT
CMA-MAP
GRID-ZONE
SCALE
ELEVATION
ELEVATION-SOURCE
NORTHING 6743348.03
EASTING 533678.98
LATITUDE 29 26' 19"
LONGITUDE 153 20' 50"
GS-MAP

AMG-ZONE 56
COORD-SOURCE
REMARK

Form-A ([top](#))

COUNTY CLARENCE
PARISH YAMBA
PORTION-LOT-DP 147//751395

Licensed ([top](#))

COUNTY CLARENCE
PARISH YAMBA
PORTION-LOT-DP 147 751395

Water Bearing Zones ([top](#))

no details

Drillers Log ([top](#))

no details

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Groundwater Works Summary

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[Print Report](#)

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Work Requested -- GW305519

Works Details [\(top\)](#)

GROUNDWATER NUMBER GW305519
LIC-NUM 30BL181107
AUTHORISED-PURPOSES DOMESTIC
INTENDED-PURPOSES DOMESTIC
WORK-TYPE Spear
WORK-STATUS New Bore
CONSTRUCTION-METHOD
OWNER-TYPE Private
COMMENCE-DATE
COMPLETION-DATE 2006-01-18
FINAL-DEPTH (metres) 4.00
DRILLED-DEPTH (metres)
CONTRACTOR-NAME
DRILLER-NAME
PROPERTY GOLDING'S
GWMA - SYDNEY BASIN
GW-ZONE - MAIN FAN AREA PRIMARY RECHARGE
STANDING-WATER-LEVEL
SALINITY
YIELD

Site Details [\(top\)](#)

REGION 30 - NORTH COAST
RIVER-BASIN
AREA-DISTRICT
CMA-MAP
GRID-ZONE
SCALE
ELEVATION
ELEVATION-SOURCE
NORTHING 6743224.72
EASTING 533061.16
LATITUDE 29 26' 23"
LONGITUDE 153 20' 27"
GS-MAP

AMG-ZONE 56
COORD-SOURCE Map Interpretation
REMARK

Form-A ([top](#))

COUNTY CLARENCE
PARISH YAMBA
PORTION-LOT-DP 12//830364

Licensed ([top](#))

COUNTY CLARENCE
PARISH YAMBA
PORTION-LOT-DP 12 830364

Water Bearing Zones ([top](#))

no details

Drillers Log ([top](#))

no details

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Groundwater Works Summary

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Work Requested -- GW305417

Works Details ([top](#))

GROUNDWATER NUMBER GW305417
LIC-NUM 30BL183839
AUTHORISED-PURPOSES DOMESTIC
INTENDED-PURPOSES DOMESTIC
WORK-TYPE Bore
WORK-STATUS
CONSTRUCTION-METHOD
OWNER-TYPE
COMMENCE-DATE
COMPLETION-DATE 2005-10-21
FINAL-DEPTH (metres) 4.50
DRILLED-DEPTH (metres) 4.50
CONTRACTOR-NAME
DRILLER-NAME
PROPERTY FERGUSON'S
GWMA - SYDNEY BASIN
GW-ZONE - MAIN FAN AREA PRIMARY RECHARGE
STANDING-WATER-LEVEL 1.50
SALINITY
YIELD 2.00

Site Details ([top](#))

REGION 30 - NORTH COAST
RIVER-BASIN
AREA-DISTRICT
CMA-MAP
GRID-ZONE
SCALE
ELEVATION
ELEVATION-SOURCE
NORTHING 6743406.00
EASTING 533090.00
LATITUDE 29 26' 17"
LONGITUDE 153 20' 28"
GS-MAP

AMG-ZONE 56
COORD-SOURCE
REMARK

Form-A (top)

COUNTY CLARENCE
PARISH YAMBA
PORTION-LOT-DP 14 222741

Licensed (top)

COUNTY CLARENCE
PARISH YAMBA
PORTION-LOT-DP 14 222741

Construction (top)

Negative depths indicate Above Ground Level;H-Hole;P-Pipe;OD-Outside Diameter;
ID-Inside Diameter;C-Cemented;SL-Slot Length;A-Aperture;GS-Grain Size;Q-Quantity

HOLE- NO	PIPE- NO	COMPONENT- CODE	COMPONENT- TYPE	DEPTH- FROM (metres)	DEPTH- TO (metres)	OD (mm)	ID (mm)	INTERVAL	DETAIL
1		Hole	Hole	0.00	4.50	110			Jetted - Water
1	1	Casing	PVC Class 9	0.00	3.00	110	102		Packer; Seated on Backfill
1	1	Opening	Slots - Horizontal	3.90	4.50	50			Steel - ERW; SL: 600mm; A: 50mm

Water Bearing Zones (top)

FROM- DEPTH (metres)	TO-DEPTH (metres)	THICKNESS (metres)	ROCK- CAT- DESC	S- W-L	D- D- L	YIELD	TEST-HOLE- DEPTH (metres)	DURATION	SALINITY
1.50	4.50	3.00		1.50		2.00		0.50	

Drillers Log (top)

FROM	TO	THICKNESS	DESC	GEO-MATERIAL	COMMENT
0.00	0.50	0.50	topsoil		
0.50	4.50	4.00	medium coarse sand		

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Work Requested -- GW305102

Works Details [\(top\)](#)

GROUNDWATER NUMBER GW305102
LIC-NUM 30BL183536
AUTHORISED-PURPOSES DOMESTIC
INTENDED-PURPOSES DOMESTIC
WORK-TYPE Bore
WORK-STATUS
CONSTRUCTION-METHOD Jetted - Water
OWNER-TYPE
COMMENCE-DATE
COMPLETION-DATE 2005-04-14
FINAL-DEPTH (metres) 4.00
DRILLED-DEPTH (metres) 4.00
CONTRACTOR-NAME
DRILLER-NAME
PROPERTY BURNS
GWMA - SYDNEY BASIN
GW-ZONE - MAIN FAN AREA PRIMARY RECHARGE
STANDING-WATER-LEVEL 1.50
SALINITY
YIELD 0.70

Site Details [\(top\)](#)

REGION 30 - NORTH COAST
RIVER-BASIN
AREA-DISTRICT
CMA-MAP
GRID-ZONE
SCALE
ELEVATION
ELEVATION-SOURCE
NORTHING 6743425.00
EASTING 533123.00
LATITUDE 29 26' 17"
LONGITUDE 153 20' 29"
GS-MAP

AMG-ZONE 56
 COORD-SOURCE
 REMARK

Form-A (top)

COUNTY CLARENCE
 PARISH YAMBA
 PORTION-LOT-DP 12 222741

Licensed (top)

COUNTY CLARENCE
 PARISH YAMBA
 PORTION-LOT-DP 12 222741

Construction (top)

Negative depths indicate Above Ground Level;H-Hole;P-Pipe;OD-Outside Diameter;
 ID-Inside Diameter;C-Cemented;SL-Slot Length;A-Aperture;GS-Grain Size;Q-Quantity

HOLE- NO	PIPE- NO	COMPONENT- CODE	COMPONENT- TYPE	DEPTH- FROM (metres)	DEPTH- TO (metres)	OD (mm)	ID (mm)	INTERVAL	DETAIL
1		Hole	Hole	0.00	4.00	100			Jettied - Water
1	1	Casing	PVC Class 9	0.00	2.00	100	92		Packer; Seated on Backfill
1	1	Opening	Slots - Horizontal	3.40	4.00	50			PVC Class 12; SL: 600mm; A: 50mm

Water Bearing Zones (top)

FROM- DEPTH (metres)	TO- DEPTH (metres)	THICKNESS (metres)	ROCK- CAT- DESC	S- W-L	D- D-L	YIELD	TEST- HOLE- DEPTH (metres)	DURATION	SALINITY
1.50	4.00	2.50		1.50	1.00	0.70		0.50	

Drillers Log (top)

FROM	TO	THICKNESS	DESC	GEO-MATERIAL	COMMENT
0.00	0.45	0.45	top soil		
0.45	1.50	1.05	medium coarse sand		
1.50	4.00	2.50	water bearing coffee rock		

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Groundwater Works Summary

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Work Requested -- GW305448

Works Details [\(top\)](#)

GROUNDWATER NUMBER GW305448
LIC-NUM 30BL183874
AUTHORISED-PURPOSES DOMESTIC
INTENDED-PURPOSES DOMESTIC
WORK-TYPE Bore
WORK-STATUS
CONSTRUCTION-METHOD Jetted - Water
OWNER-TYPE
COMMENCE-DATE
COMPLETION-DATE 2005-11-25
FINAL-DEPTH (metres) 4.00
DRILLED-DEPTH (metres) 4.00
CONTRACTOR-NAME
DRILLER-NAME
PROPERTY FITTON
GWMA - SYDNEY BASIN
GW-ZONE - MAIN FAN AREA PRIMARY RECHARGE
STANDING-WATER-LEVEL 3.00
SALINITY
YIELD 1.00

Site Details [\(top\)](#)

REGION 30 - NORTH COAST
RIVER-BASIN
AREA-DISTRICT
CMA-MAP
GRID-ZONE
SCALE
ELEVATION
ELEVATION-SOURCE
NORTHING 6743512.00
EASTING 533057.00
LATITUDE 29 26' 14"
LONGITUDE 153 20' 27"
GS-MAP

AMG-ZONE 56
 COORD-SOURCE
 REMARK

Form-A (top)

COUNTY CLARENCE
 PARISH YAMBA
 PORTION-LOT-DP 47 248159

Licensed (top)

COUNTY CLARENCE
 PARISH YAMBA
 PORTION-LOT-DP 47 248159

Construction (top)

Negative depths indicate Above Ground Level;H-Hole;P-Pipe;OD-Outside Diameter;
 ID-Inside Diameter;C-Cemented;SL-Slot Length;A-Aperture;GS-Grain Size;Q-Quantity

HOLE- NO	PIPE- NO	COMPONENT- CODE	COMPONENT- TYPE	DEPTH- FROM (metres)	DEPTH- TO (metres)	OD (mm)	ID (mm)	INTERVAL	DETAIL
1		Hole	Hole	0.00	4.00	110			Jetted - Water
1		Hole	Hole	0.00	4.00	110			Hand Dug
1	1	Casing	PVC Class 9	0.00	3.00	110	102		Packer; Seated on Backfill; Open End
1	1	Casing	Lining	0.00	3.00				
1	1	Opening	Slots - Horizontal	3.40	4.00	50			PVC Class 12; SL: 600mm; A: 50mm

Water Bearing Zones (top)

FROM- DEPTH (metres)	TO- DEPTH (metres)	THICKNESS (metres)	ROCK- CAT- DESC	S- W-L	D- D-L	YIELD	TEST- HOLE- DEPTH (metres)	DURATION	SALINITY
3.00	4.00	1.00		3.00	3.40	1.00		0.50	

Drillers Log (top)

FROM	TO	THICKNESS	DESC	GEO-MATERIAL	COMMENT
0.00	0.30	0.30	topsoil		
0.30	4.00	3.70	medium coarse sand		

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Work Requested -- GW303817

Works Details [\(top\)](#)

GROUNDWATER NUMBER GW303817
LIC-NUM 30BL181427
AUTHORISED-PURPOSES DOMESTIC
INTENDED-PURPOSES DOMESTIC
WORK-TYPE Spear
WORK-STATUS
CONSTRUCTION-METHOD (Unknown)
OWNER-TYPE Private
COMMENCE-DATE
COMPLETION-DATE 2003-03-01
FINAL-DEPTH (metres) 4.00
DRILLED-DEPTH (metres)
CONTRACTOR-NAME
DRILLER-NAME
PROPERTY 97 YAMBA ROAD
GWMA - SYDNEY BASIN
GW-ZONE - MAIN FAN AREA PRIMARY RECHARGE
STANDING-WATER-LEVEL 2.00
SALINITY
YIELD

Site Details [\(top\)](#)

REGION 30 - NORTH COAST
RIVER-BASIN 204 - CLARENCE RIVER
AREA-DISTRICT
CMA-MAP
GRID-ZONE
SCALE
ELEVATION
ELEVATION-SOURCE (Unknown)
NORTHING 6743972.00
EASTING 532449.00
LATITUDE 29 25' 59"
LONGITUDE 153 20' 4"
GS-MAP

AMG-ZONE 56
COORD-SOURCE Map Interpretation
REMARK

Form-A (top)

COUNTY CLARENCE
PARISH YAMBA
PORTION-LOT-DP LT4 DP232535

Licensed (top)

COUNTY CLARENCE
PARISH YAMBA
PORTION-LOT-DP 4 232535

Construction (top)

Negative depths indicate Above Ground Level;H-Hole;P-Pipe;OD-Outside Diameter;
ID-Inside Diameter;C-Cemented;SL-Slot Length;A-Aperture;GS-Grain Size;Q-Quantity

HOLE- NO	PIPE- NO	COMPONENT- CODE	COMPONENT- TYPE	DEPTH- FROM (metres)	DEPTH- TO (metres)	OD (mm)	ID (mm)	INTERVAL DETAIL
1		Hole	Hole	0.00	4.00			(Unknown)

Water Bearing Zones (top)

no details

Drillers Log (top)

no details

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Work Requested -- GW305494

Works Details [\(top\)](#)

GROUNDWATER NUMBER GW305494
LIC-NUM 30BL183989
AUTHORISED-PURPOSES DOMESTIC
INTENDED-PURPOSES DOMESTIC
WORK-TYPE Bore
WORK-STATUS New Bore
CONSTRUCTION-METHOD
OWNER-TYPE Private
COMMENCE-DATE
COMPLETION-DATE 2006-01-02
FINAL-DEPTH (metres) 4.50
DRILLED-DEPTH (metres) 4.50
CONTRACTOR-NAME
DRILLER-NAME
PROPERTY HODSON'S
GWMA - SYDNEY BASIN
GW-ZONE - MAIN FAN AREA PRIMARY RECHARGE
STANDING-WATER-LEVEL 1.50
SALINITY
YIELD 2.00

Site Details [\(top\)](#)

REGION 30 - NORTH COAST
RIVER-BASIN
AREA-DISTRICT
CMA-MAP
GRID-ZONE
SCALE
ELEVATION
ELEVATION-SOURCE
NORTHING 6744004.58
EASTING 532463.54
LATITUDE 29 25' 58"
LONGITUDE 153 20' 5"
GS-MAP

AMG-ZONE 56
 COORD-SOURCE Map Interpretation
 REMARK

Form-A (top)

COUNTY CLARENCE
 PARISH YAMBA
 PORTION-LOT-DP 11//262620

Licensed (top)

COUNTY CLARENCE
 PARISH YAMBA
 PORTION-LOT-DP 11 262620

Construction (top)

Negative depths indicate Above Ground Level;H-Hole;P-Pipe;OD-Outside Diameter;
 ID-Inside Diameter;C-Cemented;SL-Slot Length;A-Aperture;GS-Grain Size;Q-Quantity

HOLE- NO	PIPE- NO	COMPONENT- CODE	COMPONENT- TYPE	DEPTH- FROM (metres)	DEPTH- TO (metres)	OD (mm)	ID (mm)	INTERVAL	DETAIL
1		Hole	Hole	0.00	4.50	110			Hand Dug
1	1	Casing	Lining	0.00	3.00				
1	1	Casing	PVC Class 9	0.00	3.50	110	102		Packer; Seated; Open End
1	1	Opening	Screen - Gauze/Mesh	3.90	4.50	50			PVC Class 12; A: .25mm

Water Bearing Zones (top)

FROM- DEPTH (metres)	TO- DEPTH (metres)	THICKNESS (metres)	ROCK- CAT- DESC	S- W-L	D- D-L	YIELD	TEST- HOLE- DEPTH (metres)	DURATION	SALINITY
1.50	4.50	3.00		1.50	2.00	2.00			

Drillers Log (top)

FROM	TO	THICKNESS	DESC	GEO-MATERIAL	COMMENT
0.00	0.50	0.50	topsoil		
0.50	4.50	4.00	sand, medium coarse		

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Groundwater Works Summary

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Work Requested -- GW304896

Works Details ([top](#))

GROUNDWATER NUMBER GW304896
LIC-NUM 30BL183158
AUTHORISED-PURPOSES DOMESTIC
INTENDED-PURPOSES DOMESTIC
WORK-TYPE Bore
WORK-STATUS
CONSTRUCTION-METHOD Jetted - Water
OWNER-TYPE
COMMENCE-DATE
COMPLETION-DATE 2004-10-20
FINAL-DEPTH (metres) 6.00
DRILLED-DEPTH (metres) 6.00
CONTRACTOR-NAME
DRILLER-NAME
PROPERTY MATHIE
GWMA - SYDNEY BASIN
GW-ZONE - MAIN FAN AREA PRIMARY RECHARGE
STANDING-WATER-LEVEL 2.00
SALINITY
YIELD 0.50

Site Details ([top](#))

REGION 30 - NORTH COAST
RIVER-BASIN
AREA-DISTRICT
CMA-MAP
GRID-ZONE
SCALE
ELEVATION
ELEVATION-SOURCE
NORTHING 6744402.00
EASTING 532294.00
LATITUDE 29 25' 45"
LONGITUDE 153 19' 59"
GS-MAP

AMG-ZONE 56
 COORD-SOURCE
 REMARK

Form-A (top)

COUNTY CLARENCE
 PARISH YAMBA
 PORTION-LOT-DP 160 801633

Licensed (top)

COUNTY CLARENCE
 PARISH YAMBA
 PORTION-LOT-DP 160 801633

Construction (top)

Negative depths indicate Above Ground Level;H-Hole;P-Pipe;OD-Outside Diameter;
 ID-Inside Diameter;C-Cemented;SL-Slot Length;A-Aperture;GS-Grain Size;Q-Quantity

HOLE- NO	PIPE- NO	COMPONENT- CODE	COMPONENT- TYPE	DEPTH- FROM (metres)	DEPTH- TO (metres)	OD (mm)	ID (mm)	INTERVAL	DETAIL
1		Hole	Hole	0.00	6.00	100			Jetted - Water
1	1	Opening	Slots	5.30	6.00	50			PVC Class 9; SL: 700mm; A: 50mm

Water Bearing Zones (top)

FROM- DEPTH (metres)	TO-DEPTH (metres)	THICKNESS (metres)	ROCK- CAT- DESC	S- W-L	D- D- L	YIELD	TEST-HOLE- DEPTH (metres)	DURATION	SALINITY
2.00	6.00	4.00		2.00		0.50			

Drillers Log (top)

FROM	TO	THICKNESS	DESC	GEO-MATERIAL	COMMENT
0.00	0.50	0.50	topsoil		
0.50	2.00	1.50	sandy loam fg		
2.00	2.50	0.50	silty clay sand fg		
2.50	4.00	1.50	sand mg		
4.00	6.00	2.00	clean sand cg		

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should be sought in interpreting and using this data.

Groundwater Works Summary

For information on the meaning of fields please see [Glossary](#)
Document Generated on Thursday, May 25, 2006

[Print Report](#)

[Works Details](#) [Site Details](#) [Form A Licensed Construction](#) [Water Bearing Zones](#) [Drillers Log](#)

Work Requested -- GW304901

Works Details ([top](#))

GROUNDWATER NUMBER GW304901
LIC-NUM 30BL183168
AUTHORISED-PURPOSES DOMESTIC
INTENDED-PURPOSES DOMESTIC
WORK-TYPE Bore
WORK-STATUS
CONSTRUCTION-METHOD Jetted - Water
OWNER-TYPE
COMMENCE-DATE
COMPLETION-DATE 2004-11-01
FINAL-DEPTH (metres) 6.00
DRILLED-DEPTH (metres) 6.00
CONTRACTOR-NAME
DRILLER-NAME
PROPERTY BELL'S
GWMA - SYDNEY BASIN
GW-ZONE - MAIN FAN AREA PRIMARY RECHARGE
STANDING-WATER-LEVEL 1.80
SALINITY
YIELD

Site Details ([top](#))

REGION 30 - NORTH COAST
RIVER-BASIN
AREA-DISTRICT
CMA-MAP
GRID-ZONE
SCALE
ELEVATION
ELEVATION-SOURCE
NORTHING 6744450.00
EASTING 532290.00
LATITUDE 29 25' 44"
LONGITUDE 153 19' 58"
GS-MAP

AMG-ZONE 56
 COORD-SOURCE
 REMARK

Form-A (top)

COUNTY CLARENCE
 PARISH YAMBA
 PORTION-LOT-DP 144 801633

Licensed (top)

COUNTY CLARENCE
 PARISH YAMBA
 PORTION-LOT-DP 144 801633

Construction (top)

Negative depths indicate Above Ground Level;H-Hole;P-Pipe;OD-Outside Diameter;
 ID-Inside Diameter;C-Cemented;SL-Slot Length;A-Aperture;GS-Grain Size;Q-Quantity

HOLE- NO	PIPE- NO	COMPONENT- CODE	COMPONENT- TYPE	DEPTH- FROM (metres)	DEPTH- TO (metres)	OD (mm)	ID (mm)	INTERVAL	DETAIL
1		Hole	Hole	0.00	6.00	100			Jetted - Water
1	1	Casing	PVC Class 9	0.00	6.00	100	90		
1	1	Opening	Slots - Horizontal	5.40	6.00	40			Steel - ERW; SL: 600mm; A: 40mm

Water Bearing Zones (top)

FROM- DEPTH (metres)	TO-DEPTH (metres)	THICKNESS (metres)	ROCK- CAT- DESC	S- W-L	D- D- L	YIELD	TEST-HOLE- DEPTH (metres)	DURATION	SALINITY
1.80	6.00	4.20		1.80					

Drillers Log (top)

FROM	TO	THICKNESS	DESC	GEO-MATERIAL	COMMENT
0.00	1.80	1.80	sandy loam		
1.80	2.00	0.20	water level		
2.00	4.00	2.00	sand mg with fine silty clay		
4.00	6.00	2.00	sand cg		

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