



**CARBON BASED ENVIRONMENTAL
PTY LIMITED**
ABN 74 102 920 285

**ROCLA QUARRY PRODUCTS
CALGA QUARRY**

ENVIRONMENTAL MONITORING

**DUST DEPOSITION GAUGES, SURFACE AND
GROUND WATERS AND METEOROLOGICAL
STATION**

OCTOBER 2007

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Environmental Scientist
13 November 2007

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EXECUTIVE SUMMARY

Carbon Based Environmental is contracted by Rocla Quarry Products to conduct environmental monitoring at the Calga Sand Quarry.

The monitoring includes;

- Dust Deposition Gauges;
- Surface Waters;
- Ground Waters; and
- Meteorological Station.

This report was prepared by Carbon Based Environmental and includes the following;

- Dust Deposition results for October 2007;
- Surface Water quality results for October 2007;
- Ground Water depth and quality results for October 2007; and
- Meteorological report for October 2007.

The October 2007 dust deposition results show a slight increase in dust deposition rates this month. All sites, on a year to date average basis, are currently below the Air Quality Management Plan exceedence level of 3.7g/m².month. Results were found to be representative of dust levels as determined by the Australian Standard.

Surface water samples were collected on the 1 November 2007. Most sites were not flowing at the time of sampling with only two samples collected; site F and a small dam below site F (additional to the Site Water Management Plan requirements). At the time of sample collection, there was no water discharge observed from the site. The samples were collected and analysed for a normal monthly sampling event. Results show good quality water at both site F and the small dam below site F, with slightly acidic pH, low Electrical Conductivity, and low Total Suspended Solids. Oil and Grease was detected at low levels in the sample taken from the dam below site F. There was no detectable Total Oil and Grease at Site F.

Groundwaters were sampled for normal monthly monitoring on 1 November 2007. Groundwater depths increased at the majority of monitoring bores this month, indicating water moving away from the surface. Water quality parameters remained stable.

The meteorological station continued to return high data recovery and operated well in October 2007. The predominant winds were from the W-WNW. Recorded rainfall on site for October 2007 was 18.0mm, lower than that recorded at the BOM Peats Ridge Station and below the Peats Ridge long-term average for October. Results are detailed below:

Rocla Calga Quarry	18.0mm
BOM Peats Ridge*	29.0mm
BOM Gosford*	21.0mm
BOM Peats Ridge Long term mean for October*	91.6mm

*Data sourced from Bureau of Meteorology (BOM) website (www.bom.gov.au)

1.0 SAMPLING PROGRAM

Rocla Calga Quarry conducts environmental monitoring in accordance to Development Consent, DEC (EPA) licence and Environmental Management Plans. Carbon Based Environmental are contracted to undertake dust deposition gauge, surface and groundwater and meteorological monitoring for the project. Carbon Based Environmental commenced monitoring from the April 2006 monitoring period.

Dust deposition gauges are operated to the Australian Standard AS3580.10.1 “Methods for Sampling and Analysis of Ambient Air Method 10.1 Determination of Particulates—Deposited Matter—Gravimetric Method”. Sampling is undertaken every 30 +/- 2 days and each gauge is analysed for insoluble solids and ash residue. The results are reported as g/m^2 .month.

Surface water sites include local streams and dams. Basic analysis including pH, Electrical Conductivity, Total Suspended Solids and Total Oil and Grease is conducted monthly when sites A to D are flowing and Site F, a dam. Additional samples are collected when daily rainfall exceeds 50mm.

Groundwater sites are monitored at least bi-monthly for water quality and at least quarterly for water level. Groundwater monitoring loggers continuously record water levels in a selection of bores.

Meteorological monitoring is conducted at the quarry and displayed on the site computer with a real time display. Wind parameters are measured according to Australian Standard AS 2923 “Ambient Air— Guide for Measurement of Horizontal Wind for Air Quality Applications”.

The weather stations have the following sensor configuration;

- Air temperature
- Humidity
- Rainfall
- Atmospheric pressure
- Evaporation
- Solar radiation
- Wind speed
- Wind direction

Carbon Based Environmental continued to operate the monitoring equipment and utilise site collections at their existing locations.

2.0 MONTHLY RESULTS

2.1 DUST DEPOSITION GAUGES

Table 1 displays the results for October 2007 and the project average. Results are in g/m².month.

Table 1: Dust Deposition results: 3-Oct-2007 to 1-Nov-2007

Site	Monthly Insoluble Solids	Monthly Ash Residue	Monthly Combustible Matter	Monthly Ash Residue/ Insoluble Solids %	Current Project Average Insoluble Solids
CD1	2.1	0.9	1.2	43	1.4
CD2b	4.8	1.8	3.0	38	1.6
CD3	1.3	0.5	0.8	38	0.8
CD4	1.6	0.5	1.1	31	1.2
CD5	1.4	0.6	0.8	43	1.0
CD6	1.4	0.7	0.7	50	1.2

Insoluble Solids marked with an * indicate an excessively contaminated gauge. Contamination can include bird droppings, vegetation (such as plant matter, algae, pollen, seeds), and insects. Results in bold indicate insoluble solids levels above 3.7 g/m².month, the Development Consent annual average amenity criteria at residential locations. Project average was calculated from the 28 October 2005 (start of the Development Consent period) from results supplied by Rocla or from the installation date of the gauges.

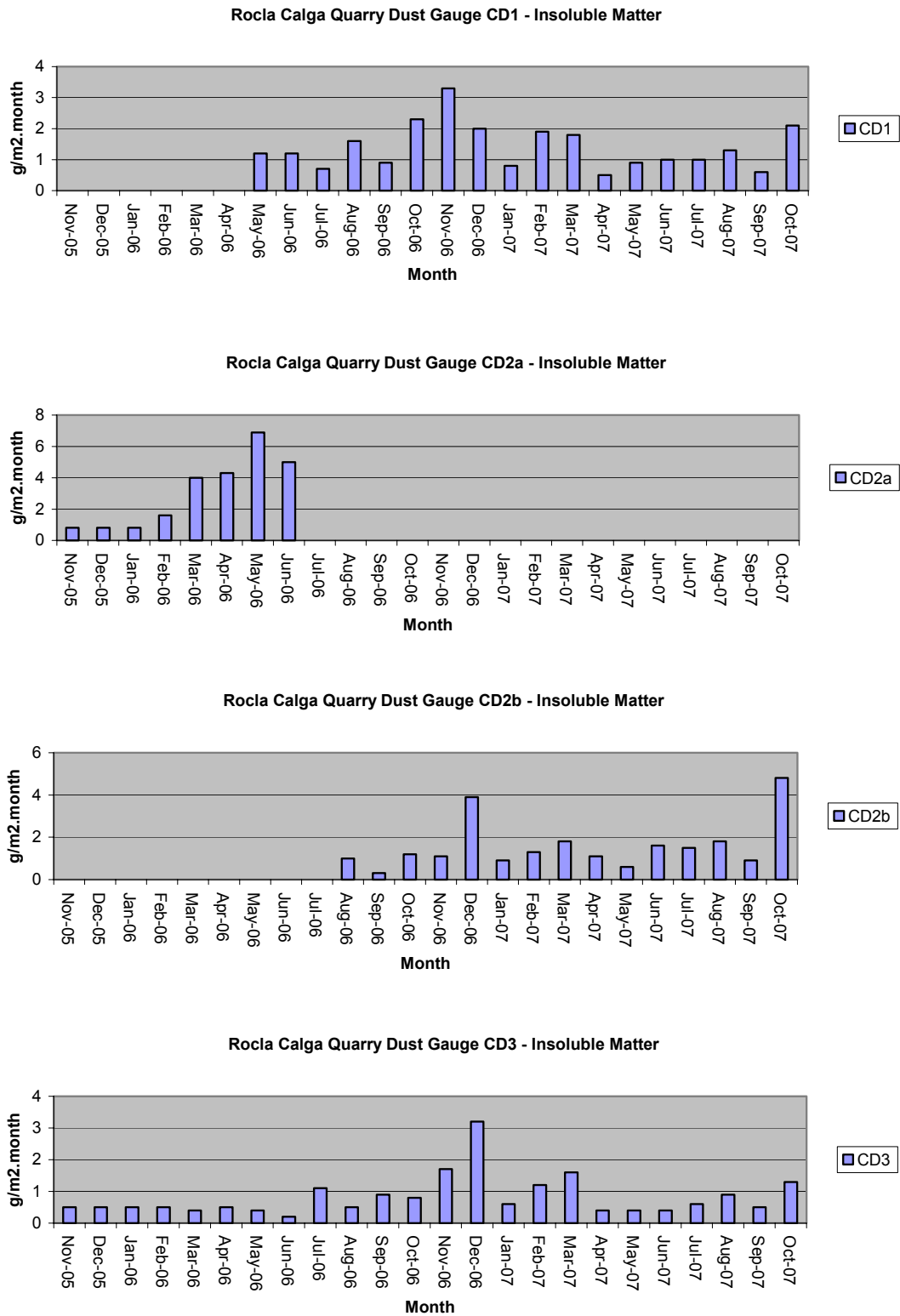
NA= Not Available.

CD1 was installed on the 1 May 2006. CD2a was discontinued at the start of August 2006 due to quarry operations “mining out” the site of the gauge. The replacement gauge, Site CD2b, was located in a position adjacent to the boundary between B. Kashouli and F. & J. Gazzana in conformance with the Air Quality Management Plan. CD4 was installed on 3 October 2006, to gauge air quality impacts to the south of the site operations, as were CD5 and CD6 which were installed on the 14 December 2006.

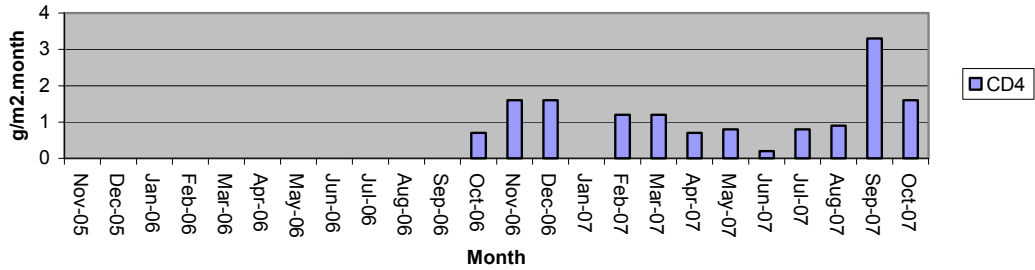
Dust deposition charts for all dust gauge sites appear in **Figure 1** below. The laboratory analysis is provided in **Appendix 1**.

Predominant winds were from the W-WNW, with strongest winds from the SW.

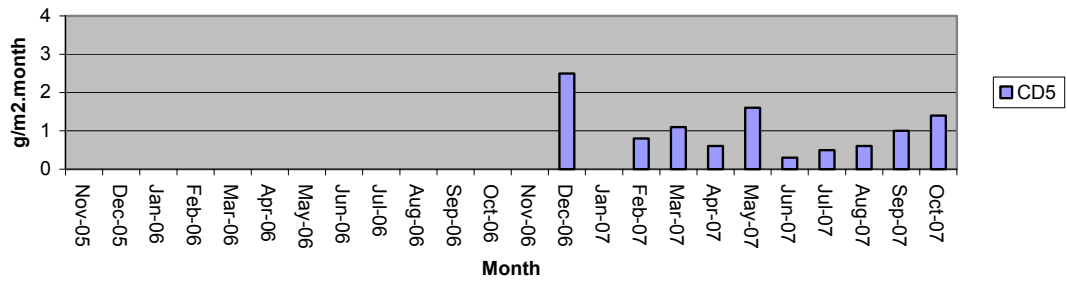
Figure 1: Dust Deposition Charts



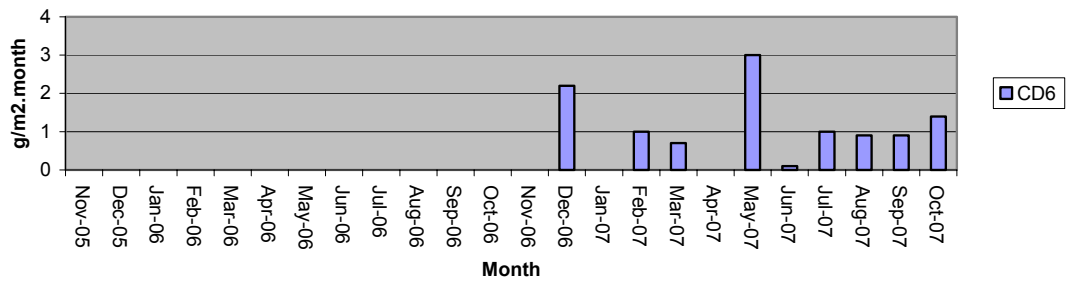
Rocla Calga Quarry Dust Gauge CD4 - Insoluble Matter



Rocla Calga Quarry Dust Gauge CD5 - Insoluble Matter



Rocla Calga Quarry Dust Gauge CD6 - Insoluble Matter



2.2 WATER MONITORING

2.2.1 Surface Waters

Monthly surface water monitoring was conducted on the 1 November 2007. Results are listed in **Table 2**. The laboratory analysis sheets are provided in **Appendix 1**.

Table 2: Monthly surface water monitoring - grab sample results

Site	Observed Flow Rate	Water Colour	Turbidity	pH	EC (uS/cm)	TSS (mg/l)	Oil and Grease (mg/l)
A	Not Flowing	--	--	--	--	--	--
B	Not Flowing	--	--	--	--	--	--
C	Not Flowing	--	--	--	--	--	--
D	Not Flowing	--	--	--	--	--	--
F	Dam	Clear	Clear	5.92	80	3	<5
Dam below F (Lower dam)*	Dam	Clear	Clear	5.58	69	10	5

At the time of sampling, there were no water discharges off site from any sampling location. * The dam below Site F is not a requirement of the Site Water Management Plan.

There was no flow from any site at the time of sampling with two samples collected from dams; these were Site F and a small dam below site F, additional to the Site Water Management Plan requirements. The samples were collected and analysed for a monthly sampling event. Results show generally good water quality with slightly acidic pH, low Electrical Conductivity and low Total Suspended Solids. Oil and Grease was detected at low levels in the sample taken from the dam below site F. There was no detectable Total Oil and Grease at Site F.

2.2.2 Ground Waters

Groundwaters were sampled on the 1 November 2007. Water quality tests for pH and electrical conductivity were conducted by Carbon Based Environmental Pty Limited. For water quality purposes, water was purged from the bore until constant pH (+/- 0.1 pH units) and Electrical Conductivity (+/- 5%) was obtained between samples. Data is displayed in **Table 3 and Figures 2 to 5**.

Water depth indicated increases in groundwater depth (water moving away from the surface) at most monitoring bores this month. The CP series of bores generally show larger increases and decreases in depth to water due to pumping from the bores. Longer term monitoring is required to fully evaluate groundwater depth trends.

Groundwater quality results remained relatively stable and indicate slightly acidic water of low electrical conductivity. Detailed biannual water quality monitoring was conducted in October 2007 and is next due in April 2008.

Table 3: Ground Water Quality Data

Reference	Bore	Type	Depth to water TOC (m) April 06	Depth to water TOC (m) This report	pH This report	Electrical Conductivity (uS/cm) This report
CQ1	Voutos	* Monitor	20.59	19.80	5.5	140
CQ2	Voutos	DIP Only	6.23	5.98	5.0	75
CQ3	Voutos	* Monitor	10.53	10.52	6.2	130
CQ4	Voutos	* Monitor	8.78	6.26	5.1	90
CQ5	Gazzana	DIP Only	8.69	5.36	4.6	185
CQ6	Gazzana	DIP Only	16.00	13.00	4.7	275
CQ7	Gazzana	* Monitor	6.89	6.12	5.0	105
CQ8	Gazzana	* Monitor	11.03	8.40	4.4	195
CQ9	Gazzana	DIP Only	10.10	9.55	4.9	125
CQ10	Voutos	* Monitor	NI	22.42	6.0	140
CQ11S	Gazzana	* Monitor	NI	7.59	4.6	160
CQ11D	Gazzana	* Monitor	NI	9.04	5.6	125
CQ12	Gazzana	* Monitor	NI	4.51	4.8	155
CQ13	Kashouli	* Monitor	NI	12.40	5.3	195
CP3	Gazzana	Domestic	10.40	6.16	5.2	160
CP4	Kashouli	Domestic	13.63	9.22	4.6	245
CP5	Kashouli	Domestic	16.61	22.78	4.7	275
CP6	Kashouli	Domestic	16.27	17.03	4.4	245
CP7	Kashouli	Production	8.56	1.97	5.1	225
CP8	Rozmanec	Domestic	22.17	NR	NR	NR
MW7	Rocla Bore	* Monitor	15.76	16.46	5.5	125
MW8	Rocla Bore	* Monitor	9.82	6.69	5.7	95
MW9	Rocla Bore	* Monitor	22.44	21.99	5.1	95
MW10	Rocla Bore	* Monitor	15.41	12.57	5.1	130

Notes:

TOC = Water level measured from top of bore case to water.

NM = Not Monitored – unable to sample water due to access restrictions.

NR = Not Required by resident.

* = Logger Installed.

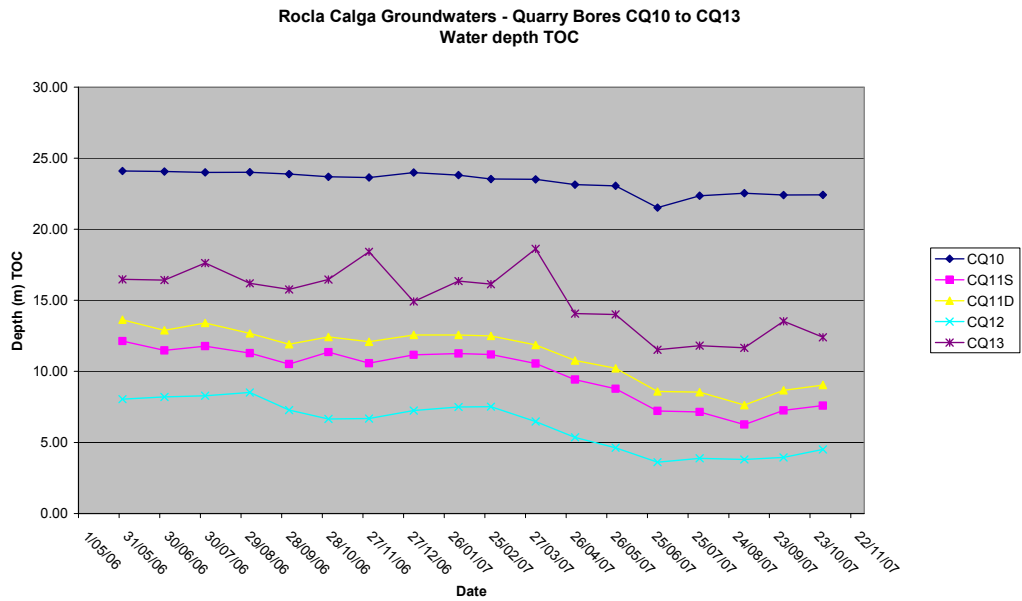
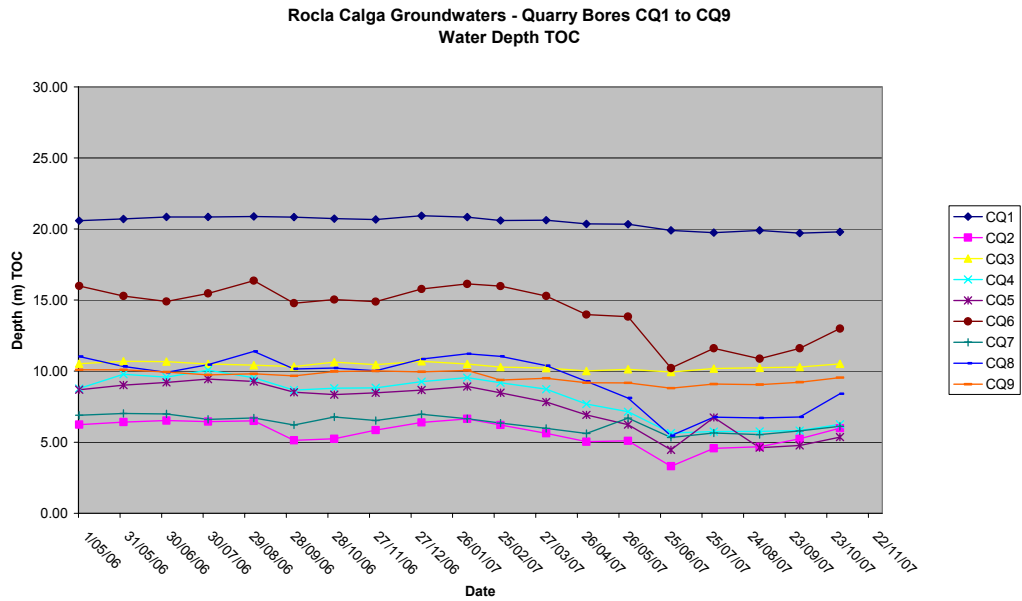
NI = These bores were not installed in April 2006 but are now operational. April 2006 was the first set of measurements taken by Carbon Based Environmental Pty Limited.

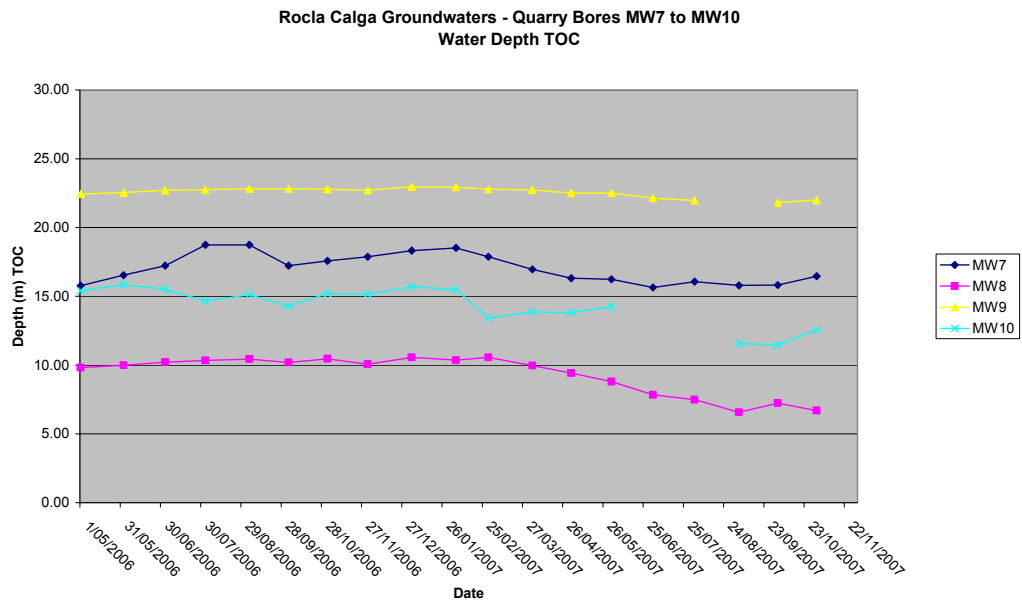
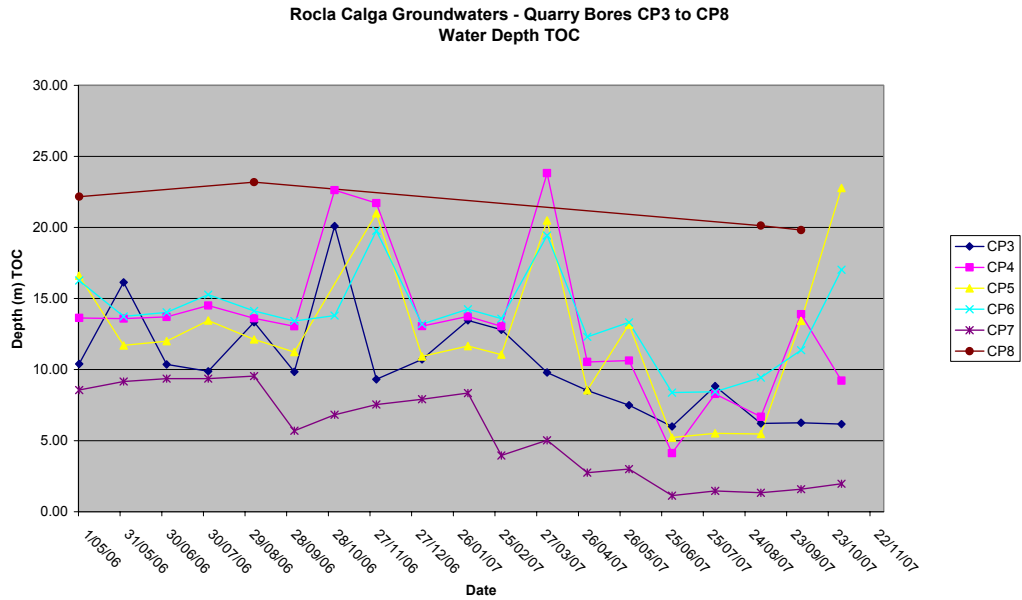
Shading is used to indicate the following trends in water depth (compared to last reading):

	Increase to ground water depth (water moved away from surface)
	Decrease to ground water depth (water moved towards surface)
	Stable water depth (+/- 0.01m)

Available groundwater loggers were downloaded and forwarded to the Rocla Calga Quarry groundwater consultant.

Figures 2 to 5: Groundwater Depth Charts.





2.3 METEOROLOGICAL MONITORING

The Rocla Calga Quarry weather station was fully operational in October 2007 with approximately 100% data recovery. The weather station data follows and includes;

- Monthly data numerical summary;
- Weather charts of air temperature, humidity, heat index and wind chill, atmospheric pressure, solar radiation, evapotranspiration, rain, wind speed and data reception; and
- Wind rose (frequency distribution diagram of wind speed and direction).

Monthly weather statistics from two nearby Bureau of Meteorology (BOM) stations, Peats Ridge and Gosford are included in **Appendix 2** for comparison purposes.

Data for October 2007 shows lower rainfall at the Rocla Calga Quarry station compared to the nearby Peats Ridge and Gosford BOM stations. The rainfall comparison is provided below:

Rocla Calga Quarry	18.0mm
BOM Peats Ridge*	29.0mm
BOM Gosford*	21.0mm
BOM Peats Ridge Long term mean for October*	91.6mm

*Data sourced from Bureau of Meteorology (BOM) website (www.bom.gov.au)

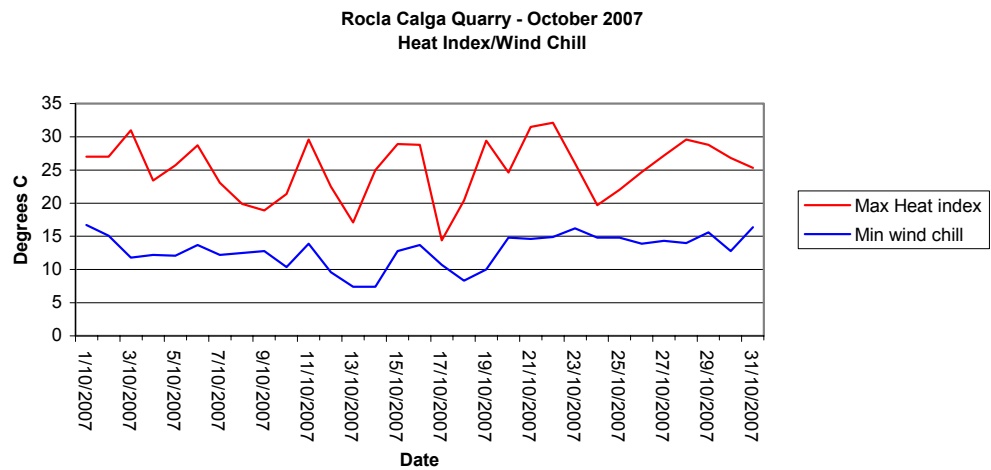
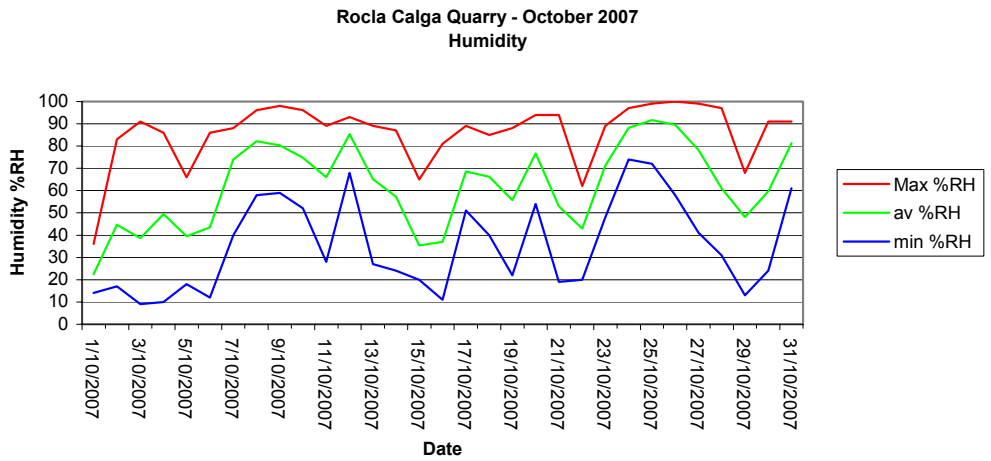
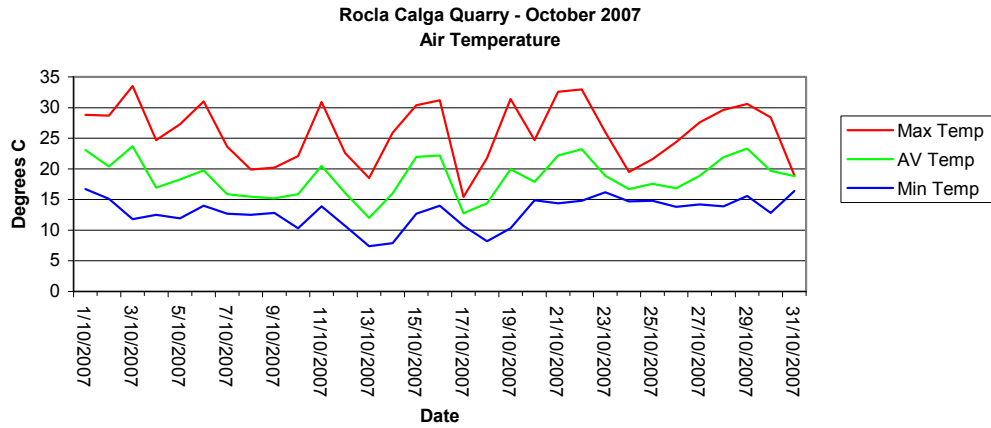
Results are displayed in the following table and figures.

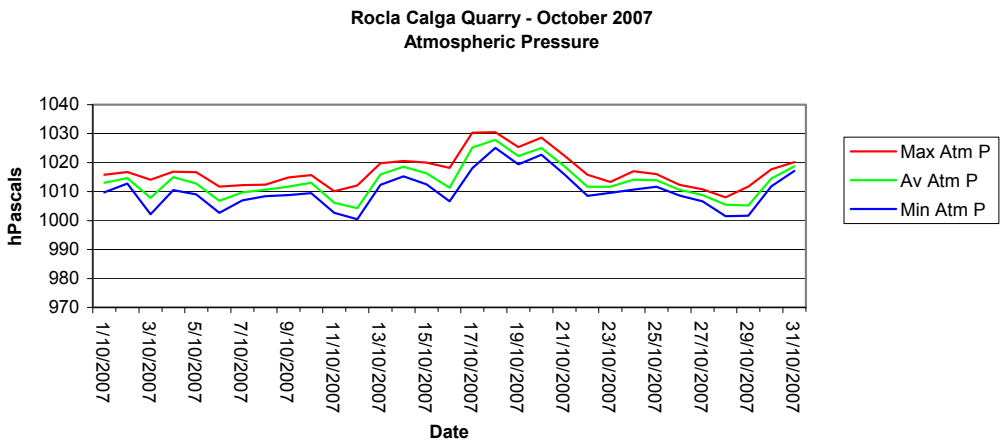
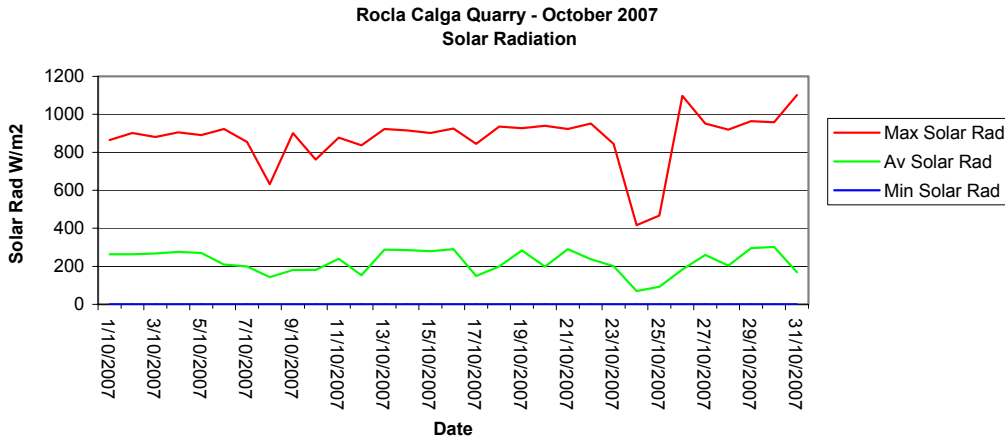
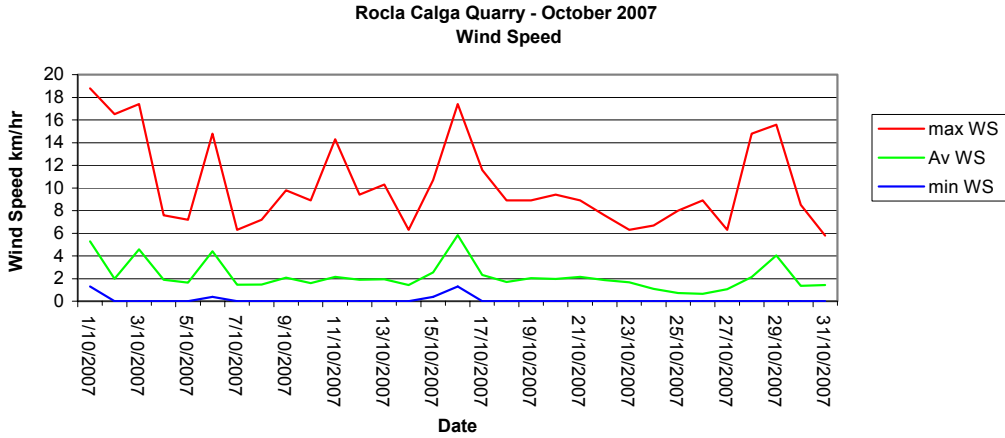
2.3.1 Monthly meteorological data summary

Summary Oct-07 Rocla - Calga

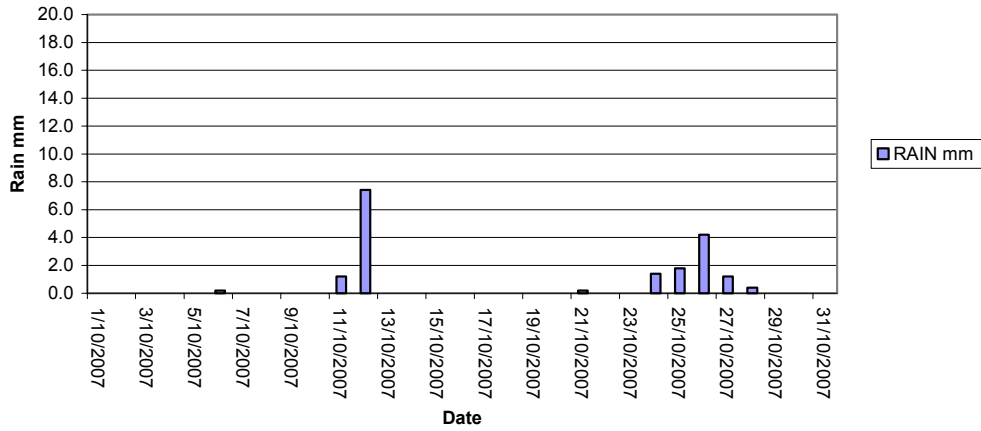
Date	Min Temp	AV Temp	Max Temp	min %RH	av %RH	Max %RH	RAIN mm	ET mm	min WS	Av WS	max WS	Min wind chill	Max Heat index	Min Atm P	Av Atm P	Max Atm P	Min Solar Rad	Av Solar Rad	Max Solar Rad	Min Data %	Av data %	Max Data %
1/10/2007	16.7	23.1	28.8	14	22	36	0.0	9.7	1.3	5.3	18.8	16.7	27.0	1009.7	1013.1	1015.8	0	262.4	865	99.7	100.0	100
2/10/2007	15.1	20.4	28.7	17	45	83	0.0	5.7	0	2.0	16.5	15.1	27.0	1012.8	1014.7	1016.8	0	263.9	902	98.2	99.8	100
3/10/2007	11.8	23.7	33.5	9	39	91	0.0	9.5	0	4.6	17.4	11.8	31.0	1002.2	1007.8	1014.1	0	267.7	880	94.2	99.8	100
4/10/2007	12.5	16.9	24.7	10	49	86	0.0	5.3	0	1.9	7.6	12.2	23.4	1010.5	1015.0	1016.9	0	276.7	905	97.4	99.7	100
5/10/2007	11.9	18.3	27.3	18	40	66	0.0	5.5	0	1.6	7.2	12.1	25.7	1009	1012.8	1016.7	0	271.0	890	84.8	99.1	100
6/10/2007	14	19.8	31	12	44	86	0.2	7.1	0.4	4.4	14.8	13.7	28.7	1002.6	1006.8	1011.7	0	209.8	923	97.1	99.7	100
7/10/2007	12.7	15.9	23.6	40	74	88	0.0	3.4	0	1.5	6.3	12.2	23.1	1007	1009.7	1012.2	0	199.0	855	97.7	99.6	100
8/10/2007	12.5	15.4	19.9	58	82	96	0.0	2.4	0	1.5	7.2	12.5	19.9	1008.4	1010.6	1012.4	0	143.8	632	96.8	99.7	100
9/10/2007	12.8	15.2	20.2	59	80	98	0.0	3.3	0	2.1	9.8	12.8	18.9	1008.8	1011.7	1014.9	0	180.3	901	98	99.9	100
10/10/2007	10.3	15.9	22.1	52	75	96	0.0	3.3	0	1.6	8.9	10.4	21.4	1009.5	1013.1	1015.7	0	180.9	762	93.3	99.6	100
11/10/2007	13.9	20.5	30.9	28	66	89	1.2	4.9	0	2.2	14.3	13.9	29.6	1002.6	1006.2	1010.1	0	240.5	877	95.3	99.9	100
12/10/2007	10.7	16.1	22.6	68	85	93	7.4	2.5	0	1.9	9.4	9.6	22.5	1000.4	1004.3	1012.1	0	152.7	837	98	99.6	100
13/10/2007	7.4	12.0	18.5	27	65	89	0.0	4.7	0	1.9	10.3	7.4	17.1	1012.3	1015.9	1019.8	0	287.1	923	95.9	99.5	100
14/10/2007	7.9	16.0	25.9	24	57	87	0.0	4.9	0	1.4	6.3	7.4	25	1015.2	1018.6	1020.6	0	284.6	915	96.8	99.8	100
15/10/2007	12.7	21.9	30.4	20	35	65	0.0	7.1	0.4	2.5	10.7	12.8	28.9	1012.5	1016.3	1020	0	279.5	902	99.1	99.9	100
16/10/2007	14	22.2	31.2	11	37	81	0.0	10.3	1.3	5.8	17.4	13.7	28.8	1006.6	1011.4	1018.2	0	291.3	926	97.4	99.8	100
17/10/2007	10.7	12.8	15.4	51	69	89	0.0	3.1	0	2.3	11.6	10.7	14.4	1018.1	1025.2	1030.3	0	149.3	845	98.5	99.8	100
18/10/2007	8.2	14.4	21.8	40	66	85	0.0	3.7	0	1.7	8.9	8.3	20.4	1025.1	1027.8	1030.5	0	199.1	935	97.4	99.7	100
19/10/2007	10.3	19.9	31.4	22	56	88	0.0	5.8	0	2.0	8.9	10	29.4	1019.4	1022.3	1025.4	0	283.2	927	97.1	99.9	100
20/10/2007	14.9	17.9	24.7	54	77	94	0.0	3.5	0	2.0	9.4	14.8	24.6	1022.7	1025.0	1028.6	0	197.9	940	96.8	99.6	100
21/10/2007	14.4	22.2	32.6	19	53	94	0.2	6.2	0	2.2	8.9	14.6	31.5	1015.9	1018.7	1022.4	0	291.2	922	96.2	99.6	100
22/10/2007	14.8	23.2	33	20	43	62	0.0	5.7	0	1.9	7.6	14.9	32.1	1008.5	1011.7	1015.8	0	237.3	951	98	99.8	100
23/10/2007	16.2	18.9	26	48	71	89	0.0	3.7	0	1.7	6.3	16.2	26	1009.6	1011.6	1013.3	0	201.2	844	98	99.8	100
24/10/2007	14.7	16.7	19.5	74	88	97	1.4	1.2	0	1.1	6.7	14.8	19.7	1010.7	1014.1	1017	0	70.0	417	97.7	99.4	100
25/10/2007	14.8	17.6	21.6	72	92	99	1.8	1.4	0	0.7	8	14.8	22	1011.6	1013.9	1016	0	92.0	467	97.4	99.6	100
26/10/2007	13.8	16.9	24.4	58	89	100	4.2	2.6	0	0.7	8.9	13.9	24.7	1008.6	1010.6	1012.3	0	183.4	1097	93.9	99.0	100
27/10/2007	14.2	18.9	27.6	41	78	99	1.2	4.2	0	1.1	6.3	14.3	27.2	1006.6	1008.8	1010.8	0	280.7	952	96.5	99.5	100
28/10/2007	13.9	21.9	29.6	31	61	97	0.4	4.8	0	2.1	14.8	14	29.6	1001.5	1005.4	1008	0	203.4	919	95.6	99.4	100
29/10/2007	15.6	23.3	30.6	13	48	68	0.0	7.9	0	4.0	15.6	15.6	28.8	1001.7	1005.2	1011.7	0	294.8	965	97.7	99.8	100
30/10/2007	12.8	19.7	28.4	24	60	91	0.0	5.8	0	1.3	8.5	12.8	26.8	1011.8	1014.5	1017.7	0	302.7	958	96.8	99.7	100
31/10/2007	16.4	18.8	19.0	61	81	91	0.0	2.7	0	1.4	5.8	16.4	25.3	1017.1	1018.8	1020.2	0	168.9	1102	93.3	99.6	100
Monthly	7.4	18.6	33.5	9	62	100	18.0	152.0	0	2.2	18.8	7.4	32.1	1000.4	1013.6	1030.5	0	223.4	1102	84.8	99.7	100

2.3.2 Monthly weather charts

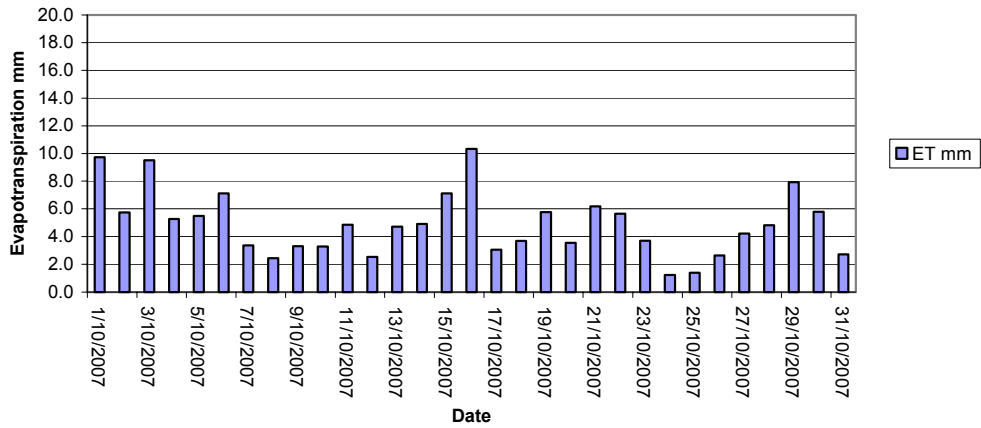




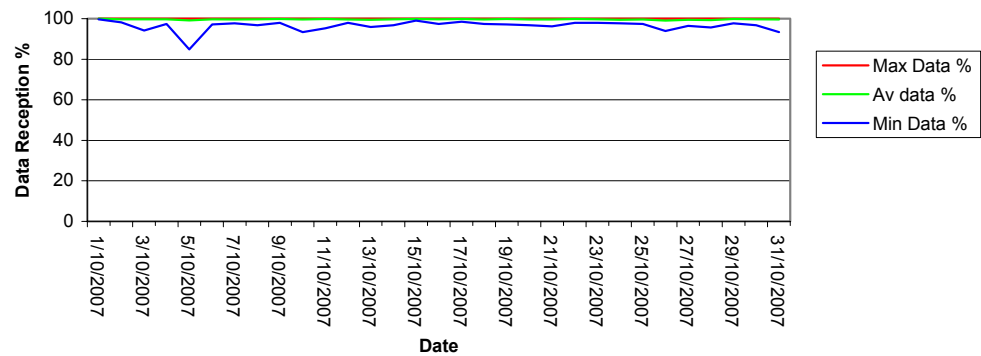
Rocla Calga Quarry - October 2007
Rainfall



Rocla Calga Quarry - October 2007
Evapotranspiration



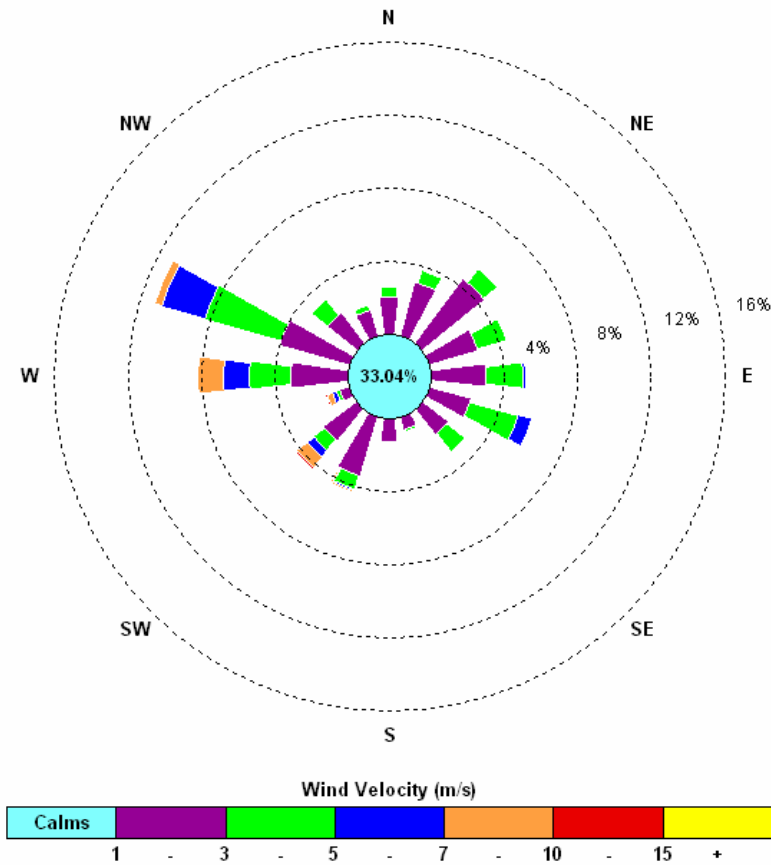
Rocla Calga Quarry - October 2007
Data Reception



2.3.3 Windrose plot

Frequency plot of the average wind speed and average direction over each 15 minute sampling period. Wind is considered calm when less than a 15 minute average of 1m/s.

00:00 1 October 2007 – 23:45 31 October 2007



The windrose shows predominant winds from the W-WNW this month. The maximum wind speed was 18.8 m/s from the SW.

APPENDIX 1
LABORATORY CERTIFICATES

APPENDIX 2

**ADDITIONAL BUREAU OF METEOROLOGY DATA
FROM PEATS RIDGE AND GOSFORD
MONITORING STATIONS**

**Peats Ridge, New South Wales
October 2007 Daily Weather Observations**



**Australian Government
Bureau of Meteorology**

Date	Day	Temps		Rain mm	Evap mm	Sun hours	Max wind gust			9am						3pm					
		Min	Max				Dirn	Spd	Time	Temp	RH	Cld	Dirn	Spd	MSLP	Temp	RH	Cld	Dirn	Spd	MSLP
		°C	°C					km/h	local	°C	%	eighths		km/h	hPa	°C	%	eighths		km/h	hPa
1	Mo	14.4	29.2	0	7.0				22.4	34	0	NNW	19		28.8	17	0	WSW	19		
2	Tu	11.2	29.9	0	6.6				22.8	36	0	NW	4		23.8	40	1	ENE	4		
3	We	12.7	33.6	0	5.4				24.0	28	0	NW	28		33.1	11	1	NW	28		
4	Th	10.2	23.2	0	8.0				17.6	41	2	SSW	9		21.9	13	0	SSE	4		
5	Fr	9.8	26.1	0	5.4				20.0	32	0	NW	58		24.2	22	0	NE	9		
6	Sa	10.9	31.3	0	6.4				22.9	27	5	NW	19		30.2	19	5	WNW	28		
7	Su	12.0	23.2	0	5.2				17.2	69	6	W	4		19.2	60	8	E	4		
8	Mo	10.8	20.1	0	2.4				17.1	70	7	S	9		19.0	65	5	S	4		
9	Tu	11.6	20.2	0	2.2				16.8	76	4	S	4								
10	We	8.3	21.7	0	3.6				17.4	63	6	NE	9		18.7	62	7	ENE	9		
11	Th	13.1	29.2	0	2.6				21.2	64	4	NW	4		26.3	48	4	E	9		
12	Fr	14.7	24.9	1.4	4.8				23.1	60	1	NW	9		17.7	89	7	S	4		
13	Sa	5.7	18.3	5.0	2.8				13.0	47	1	SW	19		16.9	47	0	ENE	19		
14	Su	7.2	25.1	0	4.0				15.8	45	0	NNW	4		24.2	39	1	NW	4		
15	Mo	11.9	29.6	0	4.8				21.6	40	1	NW	4								
16	Tu	17.9	31.4	0	7.6				26.0	25	0	WNW	28		30.9	11	0	SW	46		
17	We	8.7	16.1	0	7.2				14.0	55	8	SE	19		15.4	62	5	SE	9		
18	Th	5.7	21.7	0	2.6				15.0	58	8	SE	9		18.7	50	2	NE	4		
19	Fr	7.8	29.3	0	2.4				21.2	49	2	NW	4								
20	Sa	14.8	26.2	0	5.2				17.1	78	8	S	4		22.0	65	1	NE	4		
21	Su	13.7	30.9	0	3.2				26.2	37	0	NW	4		25.2	44	0	SE	9		
22	Mo	13.3	32.6	0	7.0				26.3	38	0	NW	9		28.4	38	4	E	9		
23	Tu	15.3	26.6	0	5.2				21.0	60	6	SSW	9		21.6	72	8	ENE	9		
24	We	13.4	20.3	0	3.2				17.4	86	8	SE	4		18.3	81	8	ESE	9		
25	Th	15.2	20.7	4.4	1.4				17.6	95	8	ESE	4		19.1	85	8	SE	19		
26	Fr	13.1	23.4	7.0	0.8				20.2	74	4	N	4		21.4	68	6	ENE	4		
27	Sa	13.8		9.8	1.4				20.9	71	1	NW	4								
28	Su		29.2																		
29	Mo	13.2	30.7	1.4	8.8				24.2	56	2	WNW	19		30.2	29	1	SW	19		
30	Tu	11.8	27.6	0	6.6				21.2	41	0	S	4		23.9	43	5	NE	4		
31	We	14.3	24.7	0	5.2				18.0	83	8	S	4		21.6	72	8	S	4		
Statistics for October 2007																					
Mean		11.9	25.9		4.6				20.0	54	3		11		23.1	48	3		11		
Lowest		5.7	16.1		0.8				13.0	25	0	#	4		15.4	11	0	#	4		
Highest		17.9	33.6	9.8	8.8				26.3	95	8	NW	58		33.1	89	8	SW	46		
Total				29.0	139.0																

Gosford, New South Wales
October 2007 Daily Weather Observations



Australian Government
Bureau of Meteorology

Date	Day	Temps		Rain mm	Evap mm	Sun hours	Max wind gust			9am						3pm					
		Min	Max				Dirn	Spd	Time	Temp	RH	Cld	Dirn	Spd	MSLP	Temp	RH	Cld	Dirn	Spd	MSLP
		°C	°C					km/h	local	°C	%	eighths		km/h	hPa	°C	%	eighths		km/h	hPa
1	Mo	12.0	30.5	0			WNW	37	10:48	24.2	28		NNW	11		30.3	13		W	9	
2	Tu	9.8	29.1	0			W	24	10:55	22.6	41		SE	6		22.8	45		ESE	9	
3	We	8.9	34.8	0			NNW	48	13:06	26.3	26		N	11		34.4	9		NNW	22	
4	Th	10.8	23.5	0			SSE	28	00:17	19.3	35		W	9		22.0	33		ESE	9	
5	Fr	5.0	25.0	0			ENE	24	12:45	20.2	35		ESE	2		23.3	32		ENE	9	
6	Sa	6.5	32.6	0			SE	48	17:10	24.4	31		NNW	9		30.4	14		WNW	11	
7	Su	14.2	22.6	0			N	20	19:32	18.4	65		SE	6		20.1	64		ESE	9	
8	Mo	11.1	21.4	0			SE	24	11:21	19.7	69		SE	9		20.4	67		SE	9	
9	Tu	10.7	20.5	0			SSE	37	16:15	17.9	80		SSE	9		18.1	63		SE	17	
10	We	9.4	23.2	0			ESE	24	12:35	19.3	61		E	9		19.9	63		E	6	
11	Th	13.6	30.2	0			WNW	33	20:44	23.2	63		NE	9		28.1	45		NE	4	
12	Fr	12.8	21.6	1.6			SSE	31	21:17	20.7	76		SSE	9		18.4	86		SSE	9	
13	Sa	6.5	18.8	7.4			SE	28	11:30	14.9	42		SW	11		17.0	42		SE	13	
14	Su	4.9	24.1	0			ENE	22	14:20	18.6	37		NE	7		23.2	41		E	9	
15	Mo	7.4	30.7	0			N	24	13:21	22.9	41		NE	4		30.4	24		NNE	9	
16	Tu	11.6	33.2	0			SE	44	16:55	27.2	23		NNW	13		32.7	9		W	13	
17	We	9.2	17.6	0			SSE	39	13:49	15.1	53		SE	17		16.0	62		SE	15	
18	Th	6.3	21.8	0			NE	26	15:26	17.3	53		ESE	7		20.0	46		NE	9	
19	Fr	6.9	30.2	0			N	30	10:29	21.8	51		SE	6		29.2	35		ENE	9	
20	Sa	15.1	24.7	0			SSE	33	01:15	18.8	70		SSE	7		21.8	65		E	9	
21	Su	10.2	29.5	0			E	22	13:54	24.6	60		ESE	2		26.4	38		ENE	11	
22	Mo	9.7	32.6	0			SSE	26	21:34	24.7	53		ESE	6		27.9	38		NNE	6	
23	Tu	14.2	23.2	0			ESE	20	08:40	21.4	71		ESE	9		20.3	74		SSE	9	
24	We	14.8	21.5	0			SE	24	10:58	19.0	83		SE	7		19.5	81		SSE	11	
25	Th	17.1	22.0	4.8			ENE	17	14:46	18.8	98		Calm			20.4	80		NE	9	
26	Fr	14.1	24.8	6.8			ESE	20	12:24	20.4	78		ENE	6		20.1	83		Calm		
27	Sa									21.0	75					24.1	57		E	4	
28	Su		30.6				NNW	28	13:04	21.5	74		SSE	2		29.4	31		NNW	11	
29	Mo	16.2	32.1	0.4			NNW	35	08:37	25.6	60		N	11		31.3	26		NW	13	
30	Tu	9.8	26.6	0			ESE	24	14:40	22.0	53		E	6		24.9	34		E	13	
31	We	14.8	24.7	0			ESE	24	09:54	20.2	80		S	6		21.7	74		SSE	9	
Statistics for October 2007																					
Mean		10.8	26.1							21.0	56			7		24.0	47			9	
Lowest		4.9	17.6							14.9	23			Calm		16.0	9			Calm	
Highest		17.1	34.8	7.4			#	48		27.2	98		SE	17		34.4	86		NNW	22	
Total				21.0																	