



Attachment 4.1H - Environmental Monitoring Worksheet

Period: **16/04/2018** - **30/04/2018**

Location	Test	Freq	Limit		Units	Sample Date	NSW Environment Protection Licence Requirement	Date Sample Transferred to Laboratory	Date Sample Results Received by Holcim	Date of Remote Data Download	Result	Comments
			min	max								

NRR = No Result Recorded

Site: Albion Park Quarry

Environment Protection Licence No.	122
Site Name (As it appears on the licence)	Albion Park Quarry
Site Address (As it appears on the licence)	Albion Park Quarry Woollybutt Drive ALBION PARK RAIL NSW 2527
Link to Licence on EPA Website	http://app.epa.nsw.gov.au/prpoeoapp/ViewPOEOlicence.aspx?DOCID=54925&SYSUID=1&LICID=122

Water

Point	Test	Frequency	Min Limit	Max Limit	Units	Sample Date	Requirement	Transferred	Received	Download	Result	Comments
Point 1	pH	After 90mm rain	6.5	8.5	pH		Y				NRR	
	Oil and Grease	After 90mm rain	0	0	Visible		Y				NRR	
	TSS	After 90mm rain		50	mg/L		Y				NRR	
Point 2	pH	After 90mm rain	6.5	8.5	pH		Y				NRR	
	Oil and Grease	After 90mm rain	0	0	Visible		Y				NRR	
	TSS	After 90mm rain		50	mg/L		Y				NRR	
Point 1	pH	After 90mm rain	6.5	8.5	pH		Y				NRR	
	Oil and Grease	After 90mm rain	0	0	Visible		Y				NRR	
	TSS	After 90mm rain		50	mg/L		Y				NRR	
Point 2	pH	After 90mm rain	6.5	8.5	pH		Y				NRR	
	Oil and Grease	After 90mm rain	0	0	Visible		Y				NRR	
	TSS	After 90mm rain		50	mg/L		Y				NRR	
Point 1	pH	After 90mm rain	6.5	8.5	pH		Y				NRR	
	Oil and Grease	After 90mm rain	0	0	Visible		Y				NRR	
	TSS	After 90mm rain		50	mg/L		Y				NRR	
Point 2	pH	After 90mm rain	6.5	8.5	pH		Y				NRR	
	Oil and Grease	After 90mm rain	0	0	Visible		Y				NRR	
	TSS	After 90mm rain		50	mg/L		Y				NRR	

Air

Point	Test	Frequency	Limit	Units	Sample Date	Requirement	Transferred	Received	Download	Result	Comments
Point 3	Ash	Monthly	90			Y				NRR	
Point 4	Ash	Monthly	90			Y				NRR	
Point 5	Ash	Monthly	90			Y				NRR	
Point 6	Ash	Monthly	90			Y				NRR	

Blasting

Time of Blast											
Point	Test	Frequency	Limit	Units	Sample Date	Requirement	Transferred	Received	Download	Result	Comments
	Per Blast		5	mm/s	16/4/2018	Y	1:47:00 PM	16/4/2018		0.17	
	Per Blast		115	dB	16/4/2018	Y	1:47:00 PM	16/4/2018		111.6	
	Per Blast		5	mm/s	26/4/2018	Y	2:24:00 PM	26/4/2018		0.49	
	Per Blast		115	dB	26/4/2018	Y	2:24:00 PM	26/4/2018		108.8	
	Per Blast		5	mm/s		Y				NRR	
	Per Blast		115	dB		Y				NRR	
	Per Blast		5	mm/s		Y				NRR	
	Per Blast		115	dB		Y				NRR	
	Per Blast		5	mm/s		Y				NRR	

Site: "Johnniefields" Marulan Quarry

Environment Protection Licence No.	1371
Site Name (As it appears on the licence)	Marulan Quarry
Site Address (As it appears on the licence)	Marulan Quarry Brayton Road MARULAN NSW 2579

Link to Licence on EPA Website

<http://app.epa.nsw.gov.au/prpoeoapp/ViewPOEOLlicence.aspx?DOCID=32923&SYSUID=1&LICID=1371>

Blasting											Time of Blast	
Underdowns	Overpressure	Per Blast		115	dB		Y				NRR	no blasting in this reporting period.
	Vibration	Per Blast		5	mm/s		Y				NRR	
Underdowns	Overpressure	Per Blast		115	dB		Y				NRR	
	Vibration	Per Blast		5	mm/s		Y				NRR	
Underdowns	Overpressure	Per Blast		115	dB		Y				NRR	
	Vibration	Per Blast		5	mm/s		Y				NRR	
Underdowns	Overpressure	Per Blast		115	dB		Y				NRR	
	Vibration	Per Blast		5	mm/s		Y				NRR	
Underdowns	Overpressure	Per Blast		115	dB		Y				NRR	
	Vibration	Per Blast		5	mm/s		Y				NRR	

Site: Lynwood Quarry

Environment Protection Licence No.

12939

Site Name (As it appears on the licence)

Lynwood Quarry

Site Address (As it appears on the licence)

Lynwood Quarry 278 Stoney Creek Road, MARULAN NSW 2579

Link to Licence on EPA Website

<http://app.epa.nsw.gov.au/prpoeoapp/ViewPOEOLlicence.aspx?DOCID=105521&SYSUID=1&LICID=12939>

Air												
DD 5	Insoluble Solids	Monthly	0	4	mg/m2/month	20/4/18	Y	20/4/18	24/4/18			1/1/00
DD 8	Insoluble Solids	Monthly	0	4	mg/m2/month	20/4/18	Y	20/4/18	24/4/18			2/1/00
DD 11	Insoluble Solids	Monthly	0	4	mg/m2/month	20/4/18	Y	20/4/18	24/4/18			1/1/00
DD 12	Insoluble Solids	Monthly	0	4	mg/m2/month	20/4/18	Y	20/4/18	24/4/18			1/1/00
DD 13	Insoluble Solids	Monthly	0	4	mg/m2/month	20/4/18	Y	20/4/18	24/4/18			1.70
HVAS 1	PM10	24hr (every 6 days)	0	50	µg/m3	19/4/18	Y	20/4/18	24/4/18			1.70
HVAS 1	PM10	24hr (every 6 days)	0	50	µg/m3	25/4/18	Y	27/4/18	30/4/18			28.70
HVAS 1	PM10	24hr (every 6 days)	0	50	µg/m3	0/1/00	Y	12:00:00 AM	12:00:00 AM			NRR
HVAS 2	PM10	24hr (every 6 days)	0	50	µg/m3	19/4/18	Y	20/4/18	24/4/18			12.90
HVAS 2	PM10	24hr (every 6 days)	0	50	µg/m3	25/4/18	Y	27/4/18	30/4/18			29.80
HVAS 2	PM10	24hr (every 6 days)	0	50	µg/m3	0/1/00	Y	12:00:00 AM	12:00:00 AM			NRR

Blasting												
											Time of Blast	
B1 - Rail	Peak Particle Velocity	Per Blast	0	25	mm/sec	0/1/00	Y	12:00:00 AM				NRR
B2 - Pipeline	Peak Particle Velocity	Per Blast	0	100	mm/sec	0/1/00	Y	12:00:00 AM				NRR
B3 - Resident	Peak Particle Velocity	Per Blast	0	5	mm/sec	0/1/00	Y	12:00:00 AM				NRR
B3 - Resident	Overpressure	Per Blast	0	115	dB	0/1/00	Y	12:00:00 AM				NRR
B1 - Rail	Peak Particle Velocity	Per Blast	0	25	mm/sec	0/1/00	Y	12:00:00 AM				NRR
B2 - Pipeline	Peak Particle Velocity	Per Blast	0	100	mm/sec	0/1/00	Y	12:00:00 AM				NRR
B3 - Resident	Peak Particle Velocity	Per Blast	0	5	mm/sec	0/1/00	Y	12:00:00 AM				NRR
B3 - Resident	Overpressure	Per Blast	0	115	dB	0/1/00	Y	12:00:00 AM				NRR
B1 - Rail	Peak Particle Velocity	Per Blast	0	25	mm/sec	0/1/00	Y	12:00:00 AM				NRR
B2 - Pipeline	Peak Particle Velocity	Per Blast	0	100	mm/sec	0/1/00	Y	12:00:00 AM				NRR
B3 - Resident	Peak Particle Velocity	Per Blast	0	5	mm/sec	0/1/00	Y	12:00:00 AM				NRR
B3 - Resident	Overpressure	Per Blast	0	115	dB	0/1/00	Y	12:00:00 AM				NRR
B1 - Rail	Peak Particle Velocity	Per Blast	0	25	mm/sec	0/1/00	Y	12:00:00 AM				NRR
B2 - Pipeline	Peak Particle Velocity	Per Blast	0	100	mm/sec	0/1/00	Y	12:00:00 AM				NRR
B3 - Resident	Peak Particle Velocity	Per Blast	0	5	mm/sec	0/1/00	Y	12:00:00 AM				NRR
B3 - Resident	Overpressure	Per Blast	0	115	dB	0/1/00	Y	12:00:00 AM				NRR
B4 - Resident	Peak Particle Velocity	Per Blast	0	5	mm/sec	16/04/2018	Y	3:43:00 PM	16/04/2018			0.00
B4 - Resident	Overpressure	Per Blast	0	115	dB	16/04/2018	Y	3:43:00 PM	16/04/2018			0.00
B5 - Resident	Peak Particle Velocity	Per Blast	0	5	mm/sec	16/04/2018	Y	3:43:00 PM	16/04/2018			0.00
B5 - Resident	Overpressure	Per Blast	0	115	dB	16/04/2018	Y	3:43:00 PM	16/04/2018			0.00
B6 - Rail	Peak Particle Velocity	Per Blast	0	25	mm/sec	16/04/2018	Y	3:43:00 PM	16/04/2018			1.02
B6 - Pipeline	Peak Particle Velocity	Per Blast	0	100	mm/sec	16/04/2018	Y	3:43:00 PM	16/04/2018			1.02

B4 - Resident	Peak Particle Velocity	Per Blast	0	5	mm/sec	18/04/2018	Y	4:07:00 PM	18/04/2018		0.00
B4 - Resident	Overpressure	Per Blast	0	115	dB	18/04/2018	Y	4:07:00 PM	18/04/2018		0.00
B5 - Resident	Peak Particle Velocity	Per Blast	0	5	mm/sec	18/04/2018	Y	4:07:00 PM	18/04/2018		0.00
B5 - Resident	Overpressure	Per Blast	0	115	dB	18/04/2018	Y	4:07:00 PM	18/04/2018		0.00
B6 - Rail	Peak Particle Velocity	Per Blast	0	25	mm/sec	18/04/2018	Y	4:07:00 PM	18/04/2018		0.00
B6 - Pipeline	Peak Particle Velocity	Per Blast	0	100	mm/sec	18/04/2018	Y	4:07:00 PM	18/04/2018		0.00
B4 - Resident	Peak Particle Velocity	Per Blast	0	5	mm/sec	24/04/2018	Y	2:34:00 PM	27/04/2018		0.00
B4 - Resident	Overpressure	Per Blast	0	115	dB	24/04/2018	Y	2:34:00 PM	27/04/2018		0.00
B5 - Resident	Peak Particle Velocity	Per Blast	0	5	mm/sec	24/04/2018	Y	2:34:00 PM	27/04/2018		0.00
B5 - Resident	Overpressure	Per Blast	0	115	dB	24/04/2018	Y	2:34:00 PM	27/04/2018		0.00
B6 - Rail	Peak Particle Velocity	Per Blast	0	25	mm/sec	24/04/2018	Y	2:34:00 PM	27/04/2018		0.60
B6 - Pipeline	Peak Particle Velocity	Per Blast	0	100	mm/sec	24/04/2018	Y	2:34:00 PM	27/04/2018		0.60
B4 - Resident	Peak Particle Velocity	Per Blast	0	5	mm/sec	26/04/2018	Y	3:28:00 PM	27/04/2018		0.00
B4 - Resident	Overpressure	Per Blast	0	115	dB	26/04/2018	Y	3:28:00 PM	27/04/2018		0.00
B5 - Resident	Peak Particle Velocity	Per Blast	0	5	mm/sec	26/04/2018	Y	3:28:00 PM	27/04/2018		0.00
B5 - Resident	Overpressure	Per Blast	0	115	dB	26/04/2018	Y	3:28:00 PM	27/04/2018		0.00
B6 - Rail	Peak Particle Velocity	Per Blast	0	25	mm/sec	26/04/2018	Y	3:28:00 PM	27/04/2018		1.11
B6 - Pipeline	Peak Particle Velocity	Per Blast	0	100	mm/sec	26/04/2018	Y	3:28:00 PM	27/04/2018		1.11

01/00

Site: Cooma Road Quarry

Environment Protection Licence No.	1453
Site Name (As it appears on the licence)	Cooma Road Quarry
Site Address (As it appears on the licence)	Cooma Road Quarry Cooma Road Queanbeyan NSW 2620
Link to Licence on EPA Website	http://app.epa.nsw.gov.au/prpoeoapp/ViewPOEOLlicence.aspx?DOCID=32932&SYSUID=1&LICID=1453

Water											
Barracks Creek	pH	Monthly	6.5	8.5	pH		Y				NRR
	Total O&G	Monthly	0	10	mg/L		Y				NRR
	Susp. Solids	Monthly	0	50	mg/L		Y				NRR

Blasting												
Time of Blast												
Heffernans House	Overpressure	Per blast	0	115	dB		Y				NRR	no blasting this reporting period.
	Vibration	Per blast	0	5	mm/s		Y				NRR	
Heffernans House	Overpressure	Per blast	0	115	dB		Y				NRR	
	Vibration	Per blast	0	5	mm/s		Y				NRR	
Heffernans House	Overpressure	Per blast	0	115	dB		Y				NRR	
	Vibration	Per blast	0	5	mm/s		Y				NRR	
Heffernans House	Overpressure	Per blast	0	115	dB		Y				NRR	
	Vibration	Per blast	0	5	mm/s		Y				NRR	

Site: Dubbo Quarry

Environment Protection Licence No.	2212
Site Name (As it appears on the licence)	Dubbo Quarry
Site Address (As it appears on the licence)	Sheraton Road, Dubbo, NSW,2830
Link to Licence on EPA Website	http://app.epa.nsw.gov.au/prpoeoapp/ViewPOEOLlicence.aspx?DOCID=42179&SYSUID=1&LICID=2212

Blasting												
Time of Blast												
Hoicim Property west end of road easement	Overpressure	Per blast		120	dB	23/4/2018	Y				111.1	
	Vibration	Per blast		10	mm/s	23/4/2018	Y				1.67	
WARRENS HOUSE	Overpressure	Per blast		120	dB		Y				NRR	
	Vibration	Per blast		10	mm/s		Y				NRR	
WARRENS HOUSE	Overpressure	Per blast		120	dB		Y				NRR	
	Vibration	Per blast		10	mm/s		Y				NRR	
WARRENS HOUSE	Overpressure	Per blast		120	dB		Y				NRR	

	Vibration	Per blast		10	mm/s		Y					NRR
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Site: Dunloe Sands Quarry

Environment Protection Licence No.	13077
Site Name (As it appears on the licence)	Dunloe Sands Quarry
Site Address (As it appears on the licence)	Pottsville-Mooball Road, Mooball NSW 2483
Link to Licence on EPA Website	http://app.epa.nsw.gov.au/prpoeoapp/ViewPOEOlicence.aspx?DOCID=134905&SYSUID=1&LICID=13077

Water - *Frequency is as per 'Special Frequency 1' referred to in Condition M2.3 of EPL

Monitoring Point	Parameter	Frequency	Value 1	Value 2	Unit	Frequency	Y				NRR	0	
Silt Pond discharge monitoring point	Discharge pH	<24 hours prior to overflow event*	6.5	8.5	pH	0/1/00	Y				NRR	0	
	Discharge pH	Overflow (Day 1)*	6.5	8.5	pH	0/1/00	Y				NRR	0	
	Discharge pH	Overflow (Day 2)*	6.5	8.5	pH	0/1/00	Y				NRR	0	
	Discharge pH	Overflow (Day 3)*	6.5	8.5	pH	0/1/00	Y				NRR	0	
	Discharge pH	Overflow (Day 4)*	6.5	8.5	pH	0/1/00	Y				NRR	0	
	Discharge pH	Overflow (Day 5)*	6.5	8.5	pH	0/1/00	Y				NRR	0	
	Discharge TSS	<24 hours prior to overflow event*	0	50	mg/L	0/1/00	Y				NRR	0	
	Discharge TSS	Overflow (Day 1)*	0	50	mg/L	0/1/00	Y				NRR	0	
	Discharge TSS	Overflow (Day 2)*	0	50	mg/L	0/1/00	Y				NRR	0	
	Discharge TSS	Overflow (Day 3)*	0	50	mg/L	0/1/00	Y				NRR	0	
	Discharge TSS	Overflow (Day 4)*	0	50	mg/L	0/1/00	Y				NRR	0	
	Discharge TSS	Overflow (Day 5)*	0	50	mg/L	0/1/00	Y				NRR	0	
	Oil and Grease	<24 hours prior to overflow event*	0	0	0=Not Visible; 1=Visible	0/1/00	Y				NRR	0	
	Oil and Grease	Overflow (Day 1)*	0	0	0=Not Visible; 1=Visible	0/1/00	Y				NRR	0	
	Oil and Grease	Overflow (Day 2)*	0	0	0=Not Visible; 1=Visible	0/1/00	Y				NRR	0	
	Oil and Grease	Overflow (Day 3)*	0	0	0=Not Visible; 1=Visible	0/1/00	Y				NRR	0	
	Oil and Grease	Overflow (Day 4)*	0	0	0=Not Visible; 1=Visible	0/1/00	Y				NRR	0	
	Oil and Grease	Overflow (Day 5)*	0	0	0=Not Visible; 1=Visible	0/1/00	Y				NRR	0	
	Dredge Pond discharge monitoring point	Discharge pH	<24 hours prior to overflow event*	6.5	8.5	pH	0/1/00	Y				NRR	0
		Discharge pH	Overflow (Day 1)*	6.5	8.5	pH	0/1/00	Y				NRR	0
Discharge pH		Overflow (Day 2)*	6.5	8.5	pH	0/1/00	Y				NRR	0	
Discharge pH		Overflow (Day 3)*	6.5	8.5	pH	0/1/00	Y				NRR	0	
Discharge pH		Overflow (Day 4)*	6.5	8.5	pH	0/1/00	Y				NRR	0	
Discharge pH		Overflow (Day 5)*	6.5	8.5	pH	0/1/00	Y				NRR	0	
Discharge TSS		<24 hours prior to overflow event*	0	50	mg/L	0/1/00	Y				NRR	0	
Discharge TSS		Overflow (Day 1)*	0	50	mg/L	0/1/00	Y				NRR	0	
Discharge TSS		Overflow (Day 2)*	0	50	mg/L	0/1/00	Y				NRR	0	
Discharge TSS		Overflow (Day 3)*	0	50	mg/L	0/1/00	Y				NRR	0	
Discharge TSS		Overflow (Day 4)*	0	50	mg/L	0/1/00	Y				NRR	0	
Discharge TSS		Overflow (Day 5)*	0	50	mg/L	0/1/00	Y				NRR	0	
Oil and Grease		<24 hours prior to overflow event*	0	0	0=Not Visible; 1=Visible	0/1/00	Y				NRR	0	
Oil and Grease		Overflow (Day 1)*	0	0	0=Not Visible; 1=Visible	0/1/00	Y				NRR	0	
Oil and Grease		Overflow (Day 2)*	0	0	0=Not Visible; 1=Visible	0/1/00	Y				NRR	0	
Oil and Grease		Overflow (Day 3)*	0	0	0=Not Visible; 1=Visible	0/1/00	Y				NRR	0	
Oil and Grease		Overflow (Day 4)*	0	0	0=Not Visible; 1=Visible	0/1/00	Y				NRR	0	
Oil and Grease		Overflow (Day 5)*	0	0	0=Not Visible; 1=Visible	0/1/00	Y				NRR	0	

Groundwater

Monitoring Point	Parameter	Frequency	Value 1	Value 2	Unit	Frequency	Y				NRR	0	
DLP1	Ammonia	Yearly	-	-	mg/L	0/1/00	Y			0/1/00	0/1/00	NRR	0
	Chloride	Yearly	-	-	mg/L	0/1/00	Y			0/1/00	0/1/00	NRR	0
0	Electrical conductivity	Yearly	-	-	µm/cm	0/1/00	Y			0/1/00	0/1/00	NRR	0
0	Oil and Grease	Yearly	-	-	mg/L	0/1/00	Y			0/1/00	0/1/00	NRR	0
0	pH	Yearly	-	-	pH	0/1/00	Y			0/1/00	0/1/00	NRR	0
0	Standing Water Level	Yearly	-	-	m	0/1/00	Y			0/1/00	0/1/00	NRR	0
0	Sulfate	Yearly	-	-	mg/L	0/1/00	Y			0/1/00	0/1/00	NRR	0
DLP2	Ammonia	Yearly	-	-	mg/L	0/1/00	Y			0/1/00	0/1/00	NRR	0
	Chloride	Yearly	-	-	mg/L	0/1/00	Y			0/1/00	0/1/00	NRR	0

0	Electrical conductivity	Yearly	-	-	µm/cm	0/1/00	Y		0/1/00	0/1/00	NRR	0
0	Oil and Grease	Yearly	-	-	mg/L	0/1/00	Y		0/1/00	0/1/00	NRR	0
0	pH	Yearly	-	-	pH	0/1/00	Y		0/1/00	0/1/00	NRR	0
0	Standing Water Level	Yearly	-	-	m	0/1/00	Y		0/1/00	0/1/00	NRR	0
0	Sulfate	Yearly	-	-	mg/L	0/1/00	Y		0/1/00	0/1/00	NRR	0
DLP3	Ammonia	Yearly	-	-	mg/L	0/1/00	Y		0/1/00	0/1/00	NRR	0
0	Chloride	Yearly	-	-	mg/L	0/1/00	Y		0/1/00	0/1/00	NRR	0
0	Electrical conductivity	Yearly	-	-	µm/cm	0/1/00	Y		0/1/00	0/1/00	NRR	0
0	Oil and Grease	Yearly	-	-	mg/L	0/1/00	Y		0/1/00	0/1/00	NRR	0
0	pH	Yearly	-	-	pH	0/1/00	Y		0/1/00	0/1/00	NRR	0
0	Standing Water Level	Yearly	-	-	m	0/1/00	Y		0/1/00	0/1/00	NRR	0
0	Sulfate	Yearly	-	-	mg/L	0/1/00	Y		0/1/00	0/1/00	NRR	0
DLP5	Ammonia	Yearly	-	-	mg/L	0/1/00	Y		0/1/00	0/1/00	NRR	0
0	Chloride	Yearly	-	-	mg/L	0/1/00	Y		0/1/00	0/1/00	NRR	0
0	Electrical conductivity	Yearly	-	-	µm/cm	0/1/00	Y		0/1/00	0/1/00	NRR	0
0	Oil and Grease	Yearly	-	-	mg/L	0/1/00	Y		0/1/00	0/1/00	NRR	0
0	pH	Yearly	-	-	pH	0/1/00	Y		0/1/00	0/1/00	NRR	0
0	Standing Water Level	Yearly	-	-	m	0/1/00	Y		0/1/00	0/1/00	NRR	0
0	Sulfate	Yearly	-	-	mg/L	0/1/00	Y		0/1/00	0/1/00	NRR	0
DLP6	Ammonia	Yearly	-	-	mg/L	0/1/00	Y		0/1/00	0/1/00	NRR	0
0	Chloride	Yearly	-	-	mg/L	0/1/00	Y		0/1/00	0/1/00	NRR	0
0	Electrical conductivity	Yearly	-	-	µm/cm	0/1/00	Y		0/1/00	0/1/00	NRR	0
0	Oil and Grease	Yearly	-	-	mg/L	0/1/00	Y		0/1/00	0/1/00	NRR	0
0	pH	Yearly	-	-	pH	0/1/00	Y		0/1/00	0/1/00	NRR	0
0	Standing Water Level	Yearly	-	-	m	0/1/00	Y		0/1/00	0/1/00	NRR	0
0	Sulfate	Yearly	-	-	mg/L	0/1/00	Y		0/1/00	0/1/00	NRR	0
DLP7	Ammonia	Yearly	-	-	mg/L	0/1/00	Y		0/1/00	0/1/00	NRR	0
0	Chloride	Yearly	-	-	mg/L	0/1/00	Y		0/1/00	0/1/00	NRR	0
0	Electrical conductivity	Yearly	-	-	µm/cm	0/1/00	Y		0/1/00	0/1/00	NRR	0
0	Oil and Grease	Yearly	-	-	mg/L	0/1/00	Y		0/1/00	0/1/00	NRR	0
0	pH	Yearly	-	-	pH	0/1/00	Y		0/1/00	0/1/00	NRR	0
0	Standing Water Level	Yearly	-	-	m	0/1/00	Y		0/1/00	0/1/00	NRR	0
0	Sulfate	Yearly	-	-	mg/L	0/1/00	Y		0/1/00	0/1/00	NRR	0

Site:		Humes - Blacktown	
Environment Protection Licence No.	1310		
Site Name (As it appears on the licence)	Humes Blacktown		
Site Address (As it appears on the licence)	Humes Blacktown Lot 1 Woodstock Ave ROOTY HILL NSW 2766		
Link to Licence on EPA Website	http://app.epa.nsw.gov.au/prpoeoapp/ViewPOEOlicence.aspx?DOCID=35038&SYSUID=1&LICID=1310		

Water												
Sediment Basin	TSS	Daily During Discharge		50	mg/L		Y				NRR	
	pH	Daily During Discharge	6.5	8.5	pH		Y				NRR	
Sediment Basin	TSS	Daily During Discharge		50	mg/L		Y				NRR	
	pH	Daily During Discharge	6.5	8.5	pH		Y				NRR	
Sediment Basin	TSS	Daily During Discharge		50	mg/L		Y				NRR	
	pH	Daily During Discharge	6.5	8.5	pH		Y				NRR	
Sediment Basin	TSS	Daily During Discharge		50	mg/L		Y				NRR	
	pH	Daily During Discharge	6.5	8.5	pH		Y				NRR	
Sediment Basin	TSS	Daily During Discharge		50	mg/L		Y				NRR	
	pH	Daily During Discharge	6.5	8.5	pH		Y				NRR	
Sediment Basin	TSS	Daily During Discharge		50	mg/L		Y				NRR	
	pH	Daily During Discharge	6.5	8.5	pH		Y				NRR	

Sediment Basin	TSS	Daily During Discharge		50	mg/L		Y				NRR
	pH	Daily During Discharge	6.5	8.5	pH		Y				NRR
Sediment Basin	TSS	Daily During Discharge		50	mg/L		Y				NRR
	pH	Daily During Discharge	6.5	8.5	pH		Y				NRR
Sediment Basin	TSS	Daily During Discharge		50	mg/L		Y				NRR
	pH	Daily During Discharge	6.5	8.5	pH		Y				NRR
Sediment Basin	TSS	Daily During Discharge		50	mg/L		Y				NRR
	pH	Daily During Discharge	6.5	8.5	pH		Y				NRR
Sediment Basin	TSS	Daily During Discharge		50	mg/L		Y				NRR
	pH	Daily During Discharge	6.5	8.5	pH		Y				NRR

Site: Teven Quarry

Environment Protection Licence No.	3293
Site Name (As it appears on the licence)	Readymix Teven Quarry
Site Address (As it appears on the licence)	Stokers Lane Teven NSW 2478
Link to Licence on EPA Website	http://app.epa.nsw.gov.au/prpoeoapp/ViewPOEOLlicence.aspx?DOCID=85921&SYSUID=1&LICID=3293

Blasting											
Time of Blast											
ID #1	pH	Weekly	6.5	8.5	pH	23/4/18	Y				8.3
ID #1	pH	Weekly	6.5	8.5	pH	30/4/18	Y				8.3
ID #1	Oil&Grease	Yearly during discharge (August)	0	10	mg/L		Y				NRR
ID #1	TSS	Yearly during discharge (August)	0	50	mg/L		Y				NRR

Noise											
144 Stokers Lane - Murphy's Residence	dB(A) L Aeq 15 min	Not specified	0	46	dB		Y				NRR

Site: Boambee Quarry

Environment Protection Licence No.	7094
Site Name (As it appears on the licence)	Boambee Quarry
Site Address (As it appears on the licence)	Boambee Quarry North Boambee Road BOAMBE NSW 2450
Link to Licence on EPA Website	http://app.epa.nsw.gov.au/prpoeoapp/ViewPOEOLlicence.aspx?DOCID=108484&SYSUID=1&LICID=7094

Blasting (M4 & L2.1 - To determine compliance with L3, measurements to be taken at any point within 1 metre of residential boundary)												
Time of Blast												
	Overpressure	Per blast	0	120	dB	18-04-18	Y	12:50:00 PM	18-04-18		103.3	Shot 192
	Vibration	Per blast	0	10	mm/s	18-04-18	Y	12:50:00 PM	18-04-18		1.73	Shot 192
	Overpressure	Per blast	0	120	dB		Y				NRR	
	Vibration	Per blast	0	10	mm/s		Y				NRR	
	Overpressure	Per blast	0	120	dB		Y				NRR	
	Vibration	Per blast	0	10	mm/s		Y				NRR	
	Overpressure	Per blast	0	120	dB		Y				NRR	
	Vibration	Per blast	0	10	mm/s		Y				NRR	

Site: Tuncurry Sand

Environment Protection Licence No.	13359
Site Name (As it appears on the licence)	Tuncurry Sand Quarry
Site Address (As it appears on the licence)	Tip Road Tuncurry NSW 2428
Link to Licence on EPA Website	http://app.epa.nsw.gov.au/prpoeoapp/ViewPOEOLlicence.aspx?DOCID=47350&SYSUID=1&LICID=13359

Water

ID#2 Surface H20 "Lake 1"	Arsenic	Quarterly	0		mg/L		Y				NRR
	Conductivity	Quarterly	0		µS/cm		Y				NRR
	Copper	Quarterly	0		mg/L		Y				NRR
	Iron	Quarterly	0		mg/L		Y				NRR
	pH	Quarterly	0		pH		Y				NRR
	Zinc	Quarterly	0		mg/L		Y				NRR
ID#3 Surface H20 "Lake 2"	Arsenic	Quarterly	0		mg/L		Y				NRR
	Conductivity	Quarterly	0		µS/cm		Y				NRR
	Copper	Quarterly	0		mg/L		Y				NRR
	Iron	Quarterly	0		mg/L		Y				NRR
	pH	Quarterly	0		pH		Y				NRR
	Zinc	Quarterly	0		mg/L		Y				NRR
ID#4 Surface H20 "Lake 3"	Arsenic	Quarterly	0		mg/L		Y				NRR
	Conductivity	Quarterly	0		µS/cm		Y				NRR
	Copper	Quarterly	0		mg/L		Y				NRR
	Iron	Quarterly	0		mg/L		Y				NRR
	pH	Quarterly	0		pH		Y				NRR
	Zinc	Quarterly	0		mg/L		Y				NRR
ID#5 Surface H20 "Lake 4"	Arsenic	Quarterly	0		mg/L		Y				NRR
	Conductivity	Quarterly	0		µS/cm		Y				NRR
	Copper	Quarterly	0		mg/L		Y				NRR
	Iron	Quarterly	0		mg/L		Y				NRR
	pH	Quarterly	0		pH		Y				NRR
	Zinc	Quarterly	0		mg/L		Y				NRR
Air											
ID #1	Deposited Matter	Monthly	0	4	g/m2/month		Y				NRR

Site: Jandra Quarry

Environment Protection Licence No.	2796
Site Name (As it appears on the licence)	Jandra Quarry
Site Address (As it appears on the licence)	Pacific Highway Possum Brush NSW 2430
Link to Licence on EPA Website	http://app.epa.nsw.gov.au/prpoeoapp/ViewPOEOLlicence.aspx?DOCID=87197&SYSUID=1&LICID=2796

Water											
ID #1	Discharge pH	Each overflow event	6.5	8.5	pH	16/04/2018	Y	16/04/2018			8.1
ID #1	Discharge TSS	2 X Daily during discharge	0	50	mg/L	16/04/2018	Y	16/04/2018			49
ID #1	Discharge TSS	2 X Daily during discharge	0	50	mg/L	16/04/2018	Y	16/04/2018			NRR
ID #1	Discharge Turbidity	2 X Daily during discharge	0		ntu	16/04/2018	Y	16/04/2018			50
ID #1	Discharge Turbidity	2 X Daily during discharge	0		ntu	16/04/2018	Y	16/04/2018			NRR
ID #1	Discharge pH	Each overflow event	6.5	8.5	pH		Y				NRR
ID #1	Discharge TSS	2 X Daily during discharge	0	50	mg/L		Y				NRR
ID #1	Discharge TSS	2 X Daily during discharge	0	50	mg/L		Y				NRR
ID #1	Discharge Turbidity	2 X Daily during discharge	0		ntu		Y				NRR
ID #1	Discharge Turbidity	2 X Daily during discharge	0		ntu		Y				NRR
ID #1	Discharge pH	Each overflow event	6.5	8.5	pH		Y				NRR
DD 1	Insoluble Solids	Monthly	0	4							
DD 2	Insoluble Solids	Monthly	0	4	mg/m2/month		Y				
DD 3	Insoluble Solids	Monthly	0	4	mg/m2/month		Y				
DD 4	Insoluble Solids	Monthly	0	4	mg/m2/month		Y				
HVAS 1	Insoluble Solids	Monthly	0	4	mg/m2/month		Y				
HVAS 1	PM10	24hr (every 6 days)	0	50	µg/m3	5/10/18	Y	5/10/18			14
HVAS 1	PM10	24hr (every 6 days)	0	50	µg/m3	5/10/18	Y	5/10/18			6
HVAS 2	PM10	24hr (every 6 days)	0	50	µg/m3	5/10/18	Y	5/10/18			8
HVAS 2	PM10	24hr (every 6 days)	0	50	µg/m3	5/10/18	Y	5/10/18			3
HVAS 2	PM10	24hr (every 6 days)	0	50	µg/m3		Y				NRR

Blasting (To determine compliance with L3, measurements to be taken at any point within 1 metre of residential boundary)

Time of Blast

	Overpressure	Per blast	0	120	dB		Y				NRR
	Vibration	Per blast	0	10	mm/s		Y				NRR
	Overpressure	Per blast	0	120	dB		Y				NRR
	Vibration	Per blast	0	10	mm/s		Y				NRR
	Overpressure	Per blast	0	120	dB		Y				NRR
	Vibration	Per blast	0	10	mm/s		Y				NRR
	Overpressure	Per blast	0	120	dB		Y				NRR
	Vibration	Per blast	0	10	mm/s		Y				NRR
Annual Blasting Requirements (Calculated each month on a cummulative basis)											
	Overpressure	Monthly (Cumulative)	115	120	dB		Y				NRR
	Vibration	Monthly (Cumulative)	5	10	mm/s		Y				NRR