



Attachment 4.1H - Environmental Monitoring Worksheet

Period: 01/08/2018 - 15/08/2018

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
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min max NRR = No Result Recorded

Site: Albion Park Quarry											
Environment Protection Licence No.						112					
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/pppocapp/ViewPDEOLLicence.aspx?DOCID=54923&SYSUID=1&LICID=122					

Water	Point	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		
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	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	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	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	50	mg/L		Y					NRR

Air	Point	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
Point 1	Ash	Monthly	90	90	µg/m³	8/3/18	Y					18
		Monthly	90	90	µg/m³	8/3/18	Y					5
		Monthly	90	90	µg/m³	8/3/18	Y					18
		Monthly	90	90	µg/m³	8/3/18	Y					6

Blasting	Time of Blast	Per Blast	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
Blasting	Time of Blast	Per Blast	5	mm/s		Y					0.46
		Per Blast	115	dB		Y					107.7
		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
		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: "Johnniefelds" 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/pppocapp/ViewPDEOLLicence.aspx?DOCID=52923&SYSUID=1&LICID=1371					

Blasting	Time of Blast	Per Blast	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
Blasting	Time of Blast	Underruns	Overpressure	Per Blast	115	dB	Y				NRR
		Underruns	Vibration	Per Blast	5	mm/s	Y				NRR
		Underruns	Overpressure	Per Blast	115	dB	Y				NRR
		Underruns	Vibration	Per Blast	5	mm/s	Y				NRR
		Underruns	Overpressure	Per Blast	115	dB	Y				NRR
		Underruns	Vibration	Per Blast	5	mm/s	Y				NRR
		Underruns	Overpressure	Per Blast	115	dB	Y				NRR
		Underruns	Vibration	Per Blast	5	mm/s	Y				NRR
		Underruns	Overpressure	Per Blast	115	dB	Y				NRR
		Underruns	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 Stony Creek Road, MARULAN NSW 2579					
Link to Licence on EPA Website						http://app.epa.nsw.gov.au/pppocapp/ViewPDEOLLicence.aspx?DOCID=105521&SYSUID=1&LICID=12939					

Air	DD	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
Air	DD 5	Insoluble Solids	Monthly	0	4	mg/m ² /month	13/8/18	Y	14/8/18	21/8/18		21/00
			Monthly	0	4	mg/m ² /month	13/8/18	Y	14/8/18	21/8/18		01/00
			Monthly	0	4	mg/m ² /month	13/8/18	Y	14/8/18	21/8/18		11/00
			Monthly	0	4	mg/m ² /month	13/8/18	Y	14/8/18	21/8/18		01/00
	DD 13	Insoluble Solids	Monthly	0	4	mg/m ² /month	13/8/18	Y	14/8/18	21/8/18		01/00
			Monthly	0	4	mg/m ² /month	13/8/18	Y	14/8/18	21/8/18		01/00
			Monthly	0	4	mg/m ² /month	13/8/18	Y	14/8/18	21/8/18		01/00
			Monthly	0	4	mg/m ² /month	13/8/18	Y	14/8/18	21/8/18		01/00
	HWAS 1	PM10	24hr (every 6 days)	0	50	µg/m ³	8/11/18	Y	12:00:00 AM	13/8/18		13.60
			24hr (every 6 days)	0	50	µg/m ³	8/11/18	Y	15/8/18	21/8/18		22.60
			24hr (every 6 days)	0	50	µg/m ³	30/12/18	Y	20/8/18	28/8/18		4.90
			24hr (every 6 days)	0	50	µg/m ³	3/5/18	Y	12:00:00 AM	13/8/18		12.80
HWAS 2	PM10	24hr (every 6 days)	0	50	µg/m ³	8/11/18	Y	15/8/18	21/8/18		27.60	
		24hr (every 6 days)	0	50	µg/m ³	17/8/18	Y	20/8/18	28/8/18		6.00	

Blasting	Time of Blast	Per Blast	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	
Blasting	Time of Blast	B4 - Resident	Peak Particle Velocity	Per Blast	0	5	mm/sec	3/8/18	Y	12:41:34 PM		0.00
		B4 - Resident	Overpressure	Per Blast	0	115	dB	3/8/18	Y	12:41:34 PM		0.00
		B5 - Resident	Peak Particle Velocity	Per Blast	0	5	mm/sec	3/8/18	Y	12:41:34 PM		0.00
		B5 - Resident	Overpressure	Per Blast	0	115	dB	3/8/18	Y	12:41:34 PM		0.00
		B4 - Resident	Peak Particle Velocity	Per Blast	0	5	mm/sec	7/8/18	Y	10:41:48 AM		0.00
		B4 - Resident	Overpressure	Per Blast	0	115	dB	7/8/18	Y	10:41:48 AM		0.00
		B5 - Resident	Peak Particle Velocity	Per Blast	0	5	mm/sec	7/8/18	Y	10:41:48 AM		0.00
		B5 - Resident	Overpressure	Per Blast	0	115	dB	7/8/18	Y	10:41:48 AM		0.00
		B4 - Resident	Peak Particle Velocity	Per Blast	0	5	mm/sec	8/8/18	Y	11:26:00 AM		0.00
		B4 - Resident	Overpressure	Per Blast	0	115	dB	8/8/18	Y	11:26:00 AM		0.00
		B5 - Resident	Peak Particle Velocity	Per Blast	0	5	mm/sec	8/8/18	Y	11:26:00 AM		0.00
		B5 - Resident	Overpressure	Per Blast	0	115	dB	8/8/18	Y	11:26:00 AM		0.00
		B4 - Resident	Peak Particle Velocity	Per Blast	0	5	mm/sec	10/8/18	Y	1:15:00 PM		0.00
		B4 - Resident	Overpressure	Per Blast	0	115	dB	10/8/18	Y	1:15:00 PM		0.00
		B5 - Resident	Peak Particle Velocity	Per Blast	0	5	mm/sec	10/8/18	Y	1:15:00 PM		0.00
		B5 - Resident	Overpressure	Per Blast	0	115	dB	10/8/18	Y	1:15:00 PM		0.00
		B4 - Resident	Peak Particle Velocity	Per Blast	0	5	mm/sec	14/8/18	Y	11:48:00 AM		01/00
		B4 - Resident	Overpressure	Per Blast	0	115	dB	14/8/18	Y	11:48:00 AM		01/00
		B5 - Resident	Peak Particle Velocity	Per Blast	0	5	mm/sec	14/8/18	Y	11:48:00 AM		01/00
		B5 - Resident	Overpressure	Per Blast	0	115	dB	14/8/18	Y	11:48:00 AM		01/00
		B1 - Rail	Peak Particle Velocity	Per Blast	0	25	mm/sec	01/00	Y	12:00:00 AM		NRR
		B2 - Pipeline	Peak Particle Velocity	Per Blast	0	100	mm/sec	01/00	Y	12:00:00 AM		NRR
		B3 - Resident	Peak Particle Velocity	Per Blast	0	5	mm/sec	01/00	Y	12:00:00 AM		NRR
		B3 - Resident	Overpressure	Per Blast	0	115	dB	01/00	Y	12:00:00 AM		NRR
		B6 - Rail	Peak Particle Velocity	Per Blast	0	25	mm/sec	01/00	Y	12:00:00 AM		NRR
		B6 - Pipeline	Peak Particle Velocity	Per Blast	0	100	mm/sec	01/00	Y	12:00:00 AM		NRR
		B4 - Resident	Peak Particle Velocity	Per Blast	0	5	mm/sec	01/00	Y	12:00:00 AM		NRR
		B4 - Resident	Overpressure	Per Blast	0	115	dB	01/00	Y	12:00:00 AM		NRR
		B1 - Rail	Peak Particle Velocity	Per Blast	0	25	mm/sec	01/00	Y	12:00:00 AM		NRR
		B2 - Pipeline	Peak Particle Velocity	Per Blast	0	100	mm/sec	01/00	Y	12:00:00 AM		NRR

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/pppocapp/ViewPDEOLLicence.aspx?DOCID=52923&SYSUID=1&LICID=1453					

Water	Point	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	
Barracks Creek	pH	Monthly	6.5	8.5	pH		Y					6	
		Total O&G	Monthly	0	10	mg/L		Y					<1
		Susp. Solids	Monthly	0	50	mg/L		Y					12

Blasting	Time of Blast	Per Blast	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
Helfermans House	Overpressure	Per Blast	0	115	dB	14/8/2018	Y				112.2
		Vibration	Per Blast	0	5	mm/s	14/8/2018	Y			

Hoffmans House	Overpressure	Per Blast	0	115	dB					NRR
	Vibration	Per Blast	0	5	mm/s		Y			NRR
Hoffmans House	Overpressure	Per Blast	0	115	dB					NRR
	Vibration	Per Blast	0	5	mm/s		Y			NRR
Hoffmans House	Overpressure	Per Blast	0	115	dB					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://epa.nsw.gov.au/epoportal/ViewPEOLLicence.aspx?DOCID=44778&SYSUID=1&LICID=212

Blasting		Time of Blast				
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
WARRENS HOUSE	Overpressure	Per Blast	120	dB	Y	NRR
	Vibration	Per Blast	10	mm/s	Y	NRR

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)		Portville-Moolball Road, Moolball NSW 2483
Link to Licence on EPA Website		http://epa.nsw.gov.au/epoportal/ViewPEOLLicence.aspx?DOCID=13490&SYSUID=1&LICID=13077

Water - "Frequency is as per Special Frequency 1 referred to in Condition M2.3 of EPL"												
Silt Discharge		Discharge pH		+24 hours prior to overflow event*		6.5	8.5	pH	No Discharge	Y	NRR	0
0	0	Discharge pH	Overflow (Day 1)*	6.5	8.5	pH	No Discharge	Y			NRR	0
0	0	Discharge pH	Overflow (Day 2)*	6.5	8.5	pH	No Discharge	Y			NRR	0
0	0	Discharge pH	Overflow (Day 3)*	6.5	8.5	pH	No Discharge	Y			NRR	0
0	0	Discharge pH	Overflow (Day 4)*	6.5	8.5	pH	No Discharge	Y			NRR	0
0	0	Discharge pH	Overflow (Day 5)*	6.5	8.5	pH	No Discharge	Y			NRR	0
Oil and Grease		Discharge TSS		+24 hours prior to overflow event*		0	50	mg/L	No Discharge	Y	NRR	0
0	0	Discharge TSS	Overflow (Day 1)*	0	50	mg/L	No Discharge	Y			NRR	0
0	0	Discharge TSS	Overflow (Day 2)*	0	50	mg/L	No Discharge	Y			NRR	0
0	0	Discharge TSS	Overflow (Day 3)*	0	50	mg/L	No Discharge	Y			NRR	0
0	0	Discharge TSS	Overflow (Day 4)*	0	50	mg/L	No Discharge	Y			NRR	0
0	0	Discharge TSS	Overflow (Day 5)*	0	50	mg/L	No Discharge	Y			NRR	0
Oil and Grease		Oil and Grease		+24 hours prior to overflow event*		0	0	D/Not Visible; 1=Visible	No Discharge	Y	NRR	0
0	0	Oil and Grease	Overflow (Day 1)*	0	0	D/Not Visible; 1=Visible	No Discharge	Y			NRR	0
0	0	Oil and Grease	Overflow (Day 2)*	0	0	D/Not Visible; 1=Visible	No Discharge	Y			NRR	0
0	0	Oil and Grease	Overflow (Day 3)*	0	0	D/Not Visible; 1=Visible	No Discharge	Y			NRR	0
0	0	Oil and Grease	Overflow (Day 4)*	0	0	D/Not Visible; 1=Visible	No Discharge	Y			NRR	0
0	0	Oil and Grease	Overflow (Day 5)*	0	0	D/Not Visible; 1=Visible	No Discharge	Y			NRR	0
Average Pond Discharge		Discharge pH		+24 hours prior to overflow event*		6.5	8.5	pH	No Discharge	Y	NRR	0
0	0	Discharge pH	Overflow (Day 1)*	6.5	8.5	pH	No Discharge	Y			NRR	0
0	0	Discharge pH	Overflow (Day 2)*	6.5	8.5	pH	No Discharge	Y			NRR	0
0	0	Discharge pH	Overflow (Day 3)*	6.5	8.5	pH	No Discharge	Y			NRR	0
0	0	Discharge pH	Overflow (Day 4)*	6.5	8.5	pH	No Discharge	Y			NRR	0
0	0	Discharge pH	Overflow (Day 5)*	6.5	8.5	pH	No Discharge	Y			NRR	0
0	0	Discharge TSS	Overflow (Day 1)*	0	50	mg/L	No Discharge	Y			NRR	0
0	0	Discharge TSS	Overflow (Day 2)*	0	50	mg/L	No Discharge	Y			NRR	0
0	0	Discharge TSS	Overflow (Day 3)*	0	50	mg/L	No Discharge	Y			NRR	0
0	0	Discharge TSS	Overflow (Day 4)*	0	50	mg/L	No Discharge	Y			NRR	0
0	0	Discharge TSS	Overflow (Day 5)*	0	50	mg/L	No Discharge	Y			NRR	0
Oil and Grease		Oil and Grease		+24 hours prior to overflow event*		0	0	D/Not Visible; 1=Visible	No Discharge	Y	NRR	0
0	0	Oil and Grease	Overflow (Day 1)*	0	0	D/Not Visible; 1=Visible	No Discharge	Y			NRR	0
0	0	Oil and Grease	Overflow (Day 2)*	0	0	D/Not Visible; 1=Visible	No Discharge	Y			NRR	0
0	0	Oil and Grease	Overflow (Day 3)*	0	0	D/Not Visible; 1=Visible	No Discharge	Y			NRR	0
0	0	Oil and Grease	Overflow (Day 4)*	0	0	D/Not Visible; 1=Visible	No Discharge	Y			NRR	0
0	0	Oil and Grease	Overflow (Day 5)*	0	0	D/Not Visible; 1=Visible	No Discharge	Y			NRR	0

Groundwater												
DLP1	Ammonia	Yearly	-	-	mg/L	8/8/18	Y		8/8/18	17/08/2018	NRR	0
0	Chloride	Yearly	-	-	mg/L	8/8/18	Y		8/8/18	17/08/2018	NRR	0
0	Electrical conductivity	Yearly	-	-	µm/cm	8/8/18	Y		8/8/18	17/08/2018	22/100	0
0	Oil and Grease	Yearly	-	-	mg/L	8/8/18	Y		8/8/18	17/08/2018	<5	0
0	pH	Yearly	-	-	pH	8/8/18	Y		8/8/18	17/08/2018	3/4/00	0
0	Standing Water Level	Yearly	-	-	m	8/8/18	Y		8/8/18	17/08/2018	1/1/00	0
0	Sulfate	Yearly	-	-	mg/L	8/8/18	Y		8/8/18	17/08/2018	NRR	0
0	0	0	-	-	0	0/1/00	Y		0/1/00	0/1/00	0/1/00	0
0	0	0	-	-	0	0/1/00	Y		0/1/00	0/1/00	0/1/00	0
0	0	0	-	-	0	0/1/00	Y		0/1/00	0/1/00	0/1/00	0
0	0	0	-	-	0	0/1/00	Y		0/1/00	0/1/00	0/1/00	0
0	0	0	-	-	0	0/1/00	Y		0/1/00	0/1/00	0/1/00	0
DLP3	Ammonia	Yearly	-	-	mg/L	8/8/18	Y		8/8/18	17/08/2018	NRR	0
0	Chloride	Yearly	-	-	mg/L	8/8/18	Y		8/8/18	17/08/2018	NRR	0
0	Electrical conductivity	Yearly	-	-	µm/cm	8/8/18	Y		8/8/18	17/08/2018	28/721	0
0	Oil and Grease	Yearly	-	-	mg/L	8/8/18	Y		8/8/18	17/08/2018	<5	0
0	pH	Yearly	-	-	pH	8/8/18	Y		8/8/18	17/08/2018	6/1/00	0
0	Standing Water Level	Yearly	-	-	m	8/8/18	Y		8/8/18	17/08/2018	1/1/00	0
0	Sulfate	Yearly	-	-	mg/L	8/8/18	Y		8/8/18	17/08/2018	NRR	0
DLP5	Ammonia	Yearly	-	-	mg/L	8/8/18	Y		8/8/18	17/08/2018	NRR	0
0	Chloride	Yearly	-	-	mg/L	8/8/18	Y		8/8/18	17/08/2018	NRR	0
0	Electrical conductivity	Yearly	-	-	µm/cm	8/8/18	Y		8/8/18	17/08/2018	8/8/00	0
0	Oil and Grease	Yearly	-	-	mg/L	8/8/18	Y		8/8/18	17/08/2018	<5	0
0	pH	Yearly	-	-	pH	8/8/18	Y		8/8/18	17/08/2018	4/1/00	0
0	Standing Water Level	Yearly	-	-	m	8/8/18	Y		8/8/18	17/08/2018	1/1/00	0
0	Sulfate	Yearly	-	-	mg/L	8/8/18	Y		8/8/18	17/08/2018	NRR	0
DLP6	Ammonia	Yearly	-	-	mg/L	8/8/18	Y		8/8/18	17/08/2018	NRR	0
0	Chloride	Yearly	-	-	mg/L	8/8/18	Y		8/8/18	17/08/2018	NRR	0
0	Electrical conductivity	Yearly	-	-	µm/cm	8/8/18	Y		8/8/18	17/08/2018	31/8/01	0
0	Oil and Grease	Yearly	-	-	mg/L	8/8/18	Y		8/8/18	17/08/2018	<5	0
0	pH	Yearly	-	-	pH	8/8/18	Y		8/8/18	17/08/2018	3/1/00	0
0	Standing Water Level	Yearly	-	-	m	8/8/18	Y		8/8/18	17/08/2018	1/1/00	0
0	Sulfate	Yearly	-	-	mg/L	8/8/18	Y		8/8/18	17/08/2018	NRR	0
DLP7	Ammonia	Yearly	-	-	mg/L	8/8/18	Y		8/8/18	17/08/2018	NRR	0
0	Chloride	Yearly	-	-	mg/L	8/8/18	Y		8/8/18	17/08/2018	NRR	0
0	Electrical conductivity	Yearly	-	-	µm/cm	8/8/18	Y		8/8/18	17/08/2018	10/8/09	0
0	Oil and Grease	Yearly	-	-	mg/L	8/8/18	Y		8/8/18	17/08/2018	<5	0
0	pH	Yearly	-	-	pH	8/8/18	Y		8/8/18	17/08/2018	7/1/00	0
0	Standing Water Level	Yearly	-	-	m	8/8/18	Y		8/8/18	17/08/2018	1/1/00	0
0	Sulfate	Yearly	-	-	mg/L	8/8/18	Y		8/8/18	17/08/2018	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://epa.nsw.gov.au/epoportal/ViewPEOLLicence.aspx?DOCID=59338&SYSUID=1&LICID=1310

Water												
Sediment Basin	TSS	Daily During Discharge	50	50	mg/L		Y				NRR	0
	pH	Daily During Discharge	6.5	8.5	pH		Y				NRR	0
Sediment Basin	TSS	Daily During Discharge	50	50	mg/L		Y				NRR	0
	pH	Daily During Discharge	6.5	8.5	pH		Y				NRR	0
Sediment Basin	TSS	Daily During Discharge	50	50	mg/L		Y				NRR	0
	pH	Daily During Discharge	6.5	8.5	pH		Y				NRR	0
Sediment Basin	TSS	Daily During Discharge	50	50	mg/L		Y				NRR	0
	pH	Daily During Discharge	6.5	8.5	pH		Y				NRR	0
Sediment Basin	TSS	Daily During Discharge	50	50	mg/L		Y				NRR	0
	pH	Daily During Discharge	6.5	8.5	pH		Y				NRR	0
Sediment Basin	TSS	Daily During Discharge	50	50	mg/L		Y				NRR	0
	pH	Daily During Discharge	6.5	8.5	pH		Y				NRR	0

Sediment Basin	TSS	Daily During Discharge	50	8.5	mg/L	Y								NRR
	pH	Daily During Discharge	6.5	8.5	pH	Y								NRR
Sediment Basin	TSS	Daily During Discharge	50	8.5	mg/L	Y								NRR
	pH	Daily During Discharge	6.5	8.5	pH	Y								NRR
Sediment Basin	TSS	Daily During Discharge	50	8.5	mg/L	Y								NRR
	pH	Daily During Discharge	6.5	8.5	pH	Y								NRR
Sediment Basin	TSS	Daily During Discharge	50	8.5	mg/L	Y								NRR
	pH	Daily During Discharge	6.5	8.5	pH	Y								NRR
Sediment Basin	TSS	Daily During Discharge	50	8.5	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)	Readytix Teven Quarry
Site Address (As it appears on the licence)	Stokers Lane Teven NSW 2478
Link to Licence on EPA Website	http://api.epa.nsw.gov.au/epoportal/ViewDEOLLicence.aspx?DOCID=559218/SYUID+1&LICID=2829

Water													
Licensed Discharge Point	pH	Special Frequency 1	0	1	Visible	8/1/18	Y	0/100	0/100	0/100	0/100	6/100	NRR
Licensed Discharge Point	Oil&Grease	Special Frequency 1	0	1	Visible	8/1/18	Y	0/100	0/100	0/100	0/100	0/100	NRR
Licensed Discharge Point	TSS	Special Frequency 1	0	1	mg/L	8/1/18	Y	0/100	0/100	0/100	0/100	3/100	NRR
Licensed Discharge Point	pH	Special Frequency 1	6.5	8.5	pH	8/2/18	Y	0/100	0/100	0/100	0/100	7/100	NRR
Licensed Discharge Point	Oil&Grease	Special Frequency 1	0	1	Visible	8/2/18	Y	0/100	0/100	0/100	0/100	0/100	NRR
Licensed Discharge Point	TSS	Special Frequency 1	0	50	mg/L	8/2/18	Y	0/100	0/100	0/100	0/100	1/100	NRR
Licensed Discharge Point	pH	Special Frequency 1	6.5	8.5	pH	8/3/18	Y	0/100	0/100	0/100	0/100	7/100	NRR
Licensed Discharge Point	Oil&Grease	Special Frequency 1	0	1	Visible	8/3/18	Y	0/100	0/100	0/100	0/100	0/100	NRR
Licensed Discharge Point	TSS	Special Frequency 1	0	50	mg/L	8/3/18	Y	0/100	0/100	0/100	0/100	2/100	NRR
Licensed Discharge Point	pH	Special Frequency 1	6.5	8.5	pH	8/6/18	Y	0/100	0/100	0/100	0/100	7/100	NRR
Licensed Discharge Point	Oil&Grease	Special Frequency 1	0	1	Visible	8/6/18	Y	0/100	0/100	0/100	0/100	0/100	NRR
Licensed Discharge Point	TSS	Special Frequency 1	0	50	mg/L	8/6/18	Y	0/100	0/100	0/100	0/100	1/100	NRR
Licensed Discharge Point	pH	Special Frequency 1	6.5	8.5	pH	8/7/18	Y	0/100	0/100	0/100	0/100	7/100	NRR
Licensed Discharge Point	Oil&Grease	Special Frequency 1	0	1	Visible	8/7/18	Y	0/100	0/100	0/100	0/100	0/100	NRR
Licensed Discharge Point	TSS	Special Frequency 1	0	50	mg/L	8/7/18	Y	0/100	0/100	0/100	0/100	2/100	NRR
Licensed Discharge Point	pH	Special Frequency 1	6.5	8.5	pH	8/8/18	Y	0/100	0/100	0/100	0/100	7/100	NRR
Licensed Discharge Point	Oil&Grease	Special Frequency 1	0	1	Visible	8/8/18	Y	0/100	0/100	0/100	0/100	0/100	NRR
Licensed Discharge Point	TSS	Special Frequency 1	0	50	mg/L	8/8/18	Y	0/100	0/100	0/100	0/100	4/100	NRR
Licensed Discharge Point	pH	Special Frequency 1	6.5	8.5	pH	8/8/18	Y	0/100	0/100	0/100	0/100	7/100	NRR
Licensed Discharge Point	Oil&Grease	Special Frequency 1	0	1	Visible	8/8/18	Y	0/100	0/100	0/100	0/100	0/100	NRR
Licensed Discharge Point	TSS	Special Frequency 1	0	50	mg/L	8/9/18	Y	0/100	0/100	0/100	0/100	4/100	NRR
Licensed Discharge Point	pH	Special Frequency 1	6.5	8.5	pH	8/10/18	Y	0/100	0/100	0/100	0/100	7/100	NRR
Licensed Discharge Point	Oil&Grease	Special Frequency 1	0	1	Visible	8/10/18	Y	0/100	0/100	0/100	0/100	0/100	NRR
Licensed Discharge Point	TSS	Special Frequency 1	0	50	mg/L	8/10/18	Y	0/100	0/100	0/100	0/100	3/100	NRR
Licensed Discharge Point	pH	Special Frequency 1	6.5	8.5	pH	0/1/00	Y	0/100	0/100	0/100	0/100	NRR	NRR
Licensed Discharge Point	Oil&Grease	Special Frequency 1	0	1	Visible	0/1/00	Y	0/100	0/100	0/100	0/100	NRR	NRR
Licensed Discharge Point	TSS	Special Frequency 1	0	50	mg/L	0/1/00	Y	0/100	0/100	0/100	0/100	NRR	NRR
Licensed Discharge Point	pH	Special Frequency 1	6.5	8.5	pH	0/1/00	Y	0/100	0/100	0/100	0/100	NRR	NRR
Licensed Discharge Point	Oil&Grease	Special Frequency 1	0	1	Visible	0/1/00	Y	0/100	0/100	0/100	0/100	NRR	NRR
Licensed Discharge Point	TSS	Special Frequency 1	0	50	mg/L	0/1/00	Y	0/100	0/100	0/100	0/100	NRR	NRR
Licensed Discharge Point	pH	Special Frequency 1	6.5	8.5	pH	0/1/00	Y	0/100	0/100	0/100	0/100	NRR	NRR
Licensed Discharge Point	Oil&Grease	Special Frequency 1	0	1	Visible	0/1/00	Y	0/100	0/100	0/100	0/100	NRR	NRR
Licensed Discharge Point	TSS	Special Frequency 1	0	50	mg/L	0/1/00	Y	0/100	0/100	0/100	0/100	NRR	NRR
Licensed Discharge Point	pH	Special Frequency 1	6.5	8.5	pH	0/1/00	Y	0/100	0/100	0/100	0/100	NRR	NRR
Licensed Discharge Point	Oil&Grease	Special Frequency 1	0	1	Visible	0/1/00	Y	0/100	0/100	0/100	0/100	NRR	NRR
Licensed Discharge Point	TSS	Special Frequency 1	0	50	mg/L	0/1/00	Y	0/100	0/100	0/100	0/100	NRR	NRR
Licensed Discharge Point	pH	Special Frequency 1	6.5	8.5	pH	0/1/00	Y	0/100	0/100	0/100	0/100	NRR	NRR
Licensed Discharge Point	Oil&Grease	Special Frequency 1	0	1	Visible	0/1/00	Y	0/100	0/100	0/100	0/100	NRR	NRR
Licensed Discharge Point	TSS	Special Frequency 1	0	50	mg/L	0/1/00	Y	0/100	0/100	0/100	0/100	NRR	NRR
Licensed Discharge Point	pH	Special Frequency 1	6.5	8.5	pH	0/1/00	Y	0/100	0/100	0/100	0/100	NRR	NRR
Licensed Discharge Point	Oil&Grease	Special Frequency 1	0	1	Visible	0/1/00	Y	0/100	0/100	0/100	0/100	NRR	NRR
Licensed Discharge Point	TSS	Special Frequency 1	0	50	mg/L	0/1/00	Y	0/100	0/100	0/100	0/100	NRR	NRR
Licensed Discharge Point	pH	Special Frequency 1	6.5	8.5	pH	0/1/00	Y	0/100	0/100	0/100	0/100	NRR	NRR
Licensed Discharge Point	Oil&Grease	Special Frequency 1	0	1	Visible	0/1/00	Y	0/100	0/100	0/100	0/100	NRR	NRR
Licensed Discharge Point	TSS	Special Frequency 1	0	50	mg/L	0/1/00	Y	0/100	0/100	0/100	0/100	NRR	NRR
Licensed Discharge Point	pH	Special Frequency 1	6.5	8.5	pH	0/1/00	Y	0/100	0/100	0/100	0/100	NRR	NRR
Licensed Discharge Point	Oil&Grease	Special Frequency 1	0	1	Visible	0/1/00	Y	0/100	0/100	0/100	0/100	NRR	NRR
Licensed Discharge Point	TSS	Special Frequency 1	0	50	mg/L	0/1/00	Y	0/100	0/100	0/100	0/100	NRR	NRR
Licensed Discharge Point	pH	Special Frequency 1	6.5	8.5	pH	0/1/00	Y	0/100	0/100	0/100	0/100	NRR	NRR

Noise													
100 water's noise, seven (or Receiver No. 2 in	Daytime - LAeq (15 min)	Yearly	0	37	dB (A)	Y							NRR
100 water's noise, seven (or Receiver No. 2 in	Evening/night/night/night - LAeq (15 min)	Yearly	0	35	dB (A)	Y							NRR

Blasting													
affected residential	Overpressure	Per Blast	0	115	dB	0/1/00	Y	0/100	0/100	0/100	0/100		NRR
affected residential	Peak Particle Velocity	Per Blast	0	8	mm/sec	0/1/00	Y	0/100	0/100	0/100	0/100		NRR
affected residential	Overpressure	Per Blast	0	115	dB	0/1/00	Y	0/100	0/100	0/100	0/100		NRR
affected residential	Peak Particle Velocity	Per Blast	0	8	mm/sec	0/1/00	Y	0/100	0/100	0/100	0/100		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://api.epa.nsw.gov.au/epoportal/ViewDEOLLicence.aspx?DOCID=108444&SYUID+1&LICID=7094

Blasting (M4 & L2.4 - To determine compliance with L3, measurements to be taken at any point within 1 metre of residential boundary)													
Time of Blast													
RL116 & RL95	Overpressure	Per Blast	0	120	dB	8/7/18	Y	0/100	8/7/18		100.1	197_RL110 & 198_RL95	NRR
RL116 & RL95	Vibration	Per Blast	0	10	mm/s	8/7/18	Y	0/100	8/7/18		2.01	197_RL110 & 198_RL95	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

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)	Tp Road Tuncurry NSW 2428
Link to Licence on EPA Website	http://api.epa.nsw.gov.au/epoportal/ViewDEOLLicence.aspx?DOCID=473958/SYUID+1&LICID=13359

Water													
ID#2 Surface H2O "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
ID#3 Surface H2O "Lake 2"	Zinc	Quarterly	0		mg/L	Y							NRR
	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
ID#4 Surface H2O "Lake 3"	pH	Quarterly	0		pH	Y							NRR
	Zinc	Quarterly	0		mg/L	Y							NRR
	Arsenic	Quarterly	0		mg/L	Y							NRR
	Conductivity	Quarterly	0		µS/cm	Y							NRR
	Copper	Quarterly	0		mg/L	Y							NRR
ID#5 Surface H2O "Lake 4"	Iron	Quarterly	0		mg/L	Y							NRR
	pH	Quarterly	0		pH	Y							NRR
	Zinc	Quarterly	0		mg/L	Y							NRR
	Arsenic	Quarterly	0		mg/L	Y							NRR
	Conductivity	Quarterly	0		µS/cm	Y							NRR
Air	Deposited Matter	Monthly	0	4	g/m ² /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://epa.nsw.gov.au/ppocapp/ViewPEOLlicence.aspx?DOCID=87197&SYSUID=1&LICID=2796

Water										
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
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	mg/m ² /month	Y				NRR
DD 2	Insoluble Solids	Monthly	0	4	mg/m ² /month	Y				NRR
DD 3	Insoluble Solids	Monthly	0	4	mg/m ² /month	Y				NRR
DD 4	Insoluble Solids	Monthly	0	4	mg/m ² /month	Y				NRR
HVAS 1	Insoluble Solids	Monthly	0	4	mg/m ² /month	Y				NRR
HVAS 1	PM10	24hr (every 6 days)	0	50	µg/m ³	Y				NRR
HVAS 1	PM10	24hr (every 6 days)	0	50	µg/m ³	Y				NRR
HVAS 2	PM10	24hr (every 6 days)	0	50	µg/m ³	Y				NRR
HVAS 2	PM10	24hr (every 6 days)	0	50	µg/m ³	Y				NRR
HVAS 2	PM10	24hr (every 6 days)	0	50	µg/m ³	Y				NRR
HVAS 2	PM10	24hr (every 6 days)	0	50	µg/m ³	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
Annual Blasting Requirements (Calculated each month on a cumulative basis)										
	Overpressure	Monthly (Cumulative)	115	120	dB	Y				NRR
	Vibration	Monthly (Cumulative)	5	10	mm/s	Y				NRR