



# Talbragar Quarry

## Environmental Monitoring Report

April 2019

# Talbragar Quarry Environmental Monitoring Report

Date Published: April 2019



Protection of the Environment and Operations Act 1997, to make available, within 14 days of obtaining any monitoring data that relates to pollution under an Environment Protection Licence.

The monitoring of pollutants provided in this report is undertaken as per the requirements of Environment Protection Licence 899 (EPL 899 – Boral Talbragar Quarry)

This report provides historical environmental monitoring data for Talbragar Quarry for the period January 2016 to March 2019.

Talbragar Quarry Information	
Premise Details	Boral – Talbragar Quarry
Address	Brocklehurst, Dubbo, NSW, 2830
Licensee	Boral Resources (Country) Pty Ltd
EPL No	899
EPL Location	<a href="https://www.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=33394&amp;SYSUID=1&amp;LICID=899">https://www.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=33394&amp;SYSUID=1&amp;LICID=899</a>

Monitoring data in this report relates to the monitoring undertaken for the following environmental pollutants:

- Blasting
- Water Monitoring

# Talbragar Quarry Environmental Monitoring Report

## Blasting

Blast monitoring is conducted as per condition L4 of EPL 899. The blasting monitoring results are summarised below.

Monitoring Period: January-April 2019  
Licensee: Talbragar Quarry  
Licensee Address: Brocklehurst, Dubbo, NSW 2830  
EPL No: 899

### Qualifications related to blasting:

L4.1 The airblast overpressure level from blasting operations at the premises must not exceed 120dB (Lin Peak) at any time at any noise sensitive locations.

L4.2 The airblast overpressure level from blasting operations at the premises must not exceed 115dB (Lin Peak) at any noise sensitive locations for more than five per cent of the total number of blasts over each reporting period.

L4.3 Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 10mm/sec at any time at any noise sensitive locations.

L4.4 Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 5mm/sec at any time at any noise sensitive locations for more than five per cent of the total number of blasts over each reporting period.

Results							
Monitor Location	Blast Date	Results Received	Blast Time	Ground Vibration Result	Ground Vibration Compliant	Overpressure Result	Over-pressure Compliant
House (Mogriguy)	13/03/2019	13/03/2019	13:56	0.14	Yes	111	Yes
Marrington Road	13/03/2019	13/03/2019	13:56	0.20	Yes	105	Yes
House (Mogriguy)	19/02/2019	19/02/2019	09:40	1.58	Yes	100	Yes
Marrington Road	19/02/2019	19/02/2019	09:40	0.96	Yes	103	Yes
House (Mogriguy)	23/10/2018	23/10/2018	09:22	0.16	Yes	104.9	Yes

## Talbragar Quarry Environmental Monitoring Report

Marrington Road	23/10/2018	23/10/2018	09:22	0.17	Yes	104.9	Yes
House monitor	24/04/2018	24/04/2018	10:13	0.19	Yes	113.3 dBL	Yes
Mogriguy Road	01/03/2018	01/03/2018	10:19	0.21	Yes	107.4 dBL	Yes

### Water Monitoring

Water Quality Monitoring is conducted as per condition M2.1 of EPL 899. The water quality results for the reporting period are tabled below.

Sample Period: January - April 2019  
 Licensee: Talbragar Quarry  
 Licensee Address: Brocklehurst, Dubbo, NSW 2830  
 EPL No: 899

#### Qualifications related to Water

Discharge of pollutants to waters from the sediment basin is only permitted when the discharge occurs solely as a result of rainfall that exceeds the minimum design criteria for sediment control measures in Managing Urban Stormwater: Soils and Construction - Volume 2E Mines and Quarries.

#### L2.4 Water and/or Land Concentration Limits

##### POINT 1

Pollutant	Units of Measure	50 Percentile concentration limit	90 Percentile concentration limit	3DGM concentration limit	100 percentile concentration limit
Total suspended solids	milligrams per litre				50

Monitoring Frequency – Daily During Discharge

Results – EPL 899 Monitoring Point 1 (Discharge Point from Sediment Basin)					
Sampling Date	Date Results Received	pH	Compliant?	Total Suspended Solids (mg/L)	Compliant?

## Talbragar Quarry Environmental Monitoring Report

There were no samples collected and analysed in the period of January - April 2019 as the site did not discharge any water from Point 1.

### Blasting

Blast monitoring is conducted as per condition L4 of EPL 899. The blasting monitoring results are summarised below.

Monitoring Period: December 2017  
Licensee: Talbragar Quarry  
Licensee Address: Brocklehurst, Dubbo, NSW 2830  
EPL No: 899

#### Qualifications related to blasting:

L4.1 The airblast overpressure level from blasting operations at the premises must not exceed 120dB (Lin Peak) at any time at any noise sensitive locations.

L4.2 The airblast overpressure level from blasting operations at the premises must not exceed 115dB (Lin Peak) at any noise sensitive locations for more than five per cent of the total number of blasts over each reporting period.

L4.3 Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 10mm/sec at any time at any noise sensitive locations.

L4.4 Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 5mm/sec at any time at any noise sensitive locations for more than five per cent of the total number of blasts over each reporting period.

Results							
Monitor Location	Blast Date	Results Received	Blast Time	Ground Vibration Result	Ground Vibration Compliant	Overpressure Result	Over-pressure Compliant
	None	N/A	-	-	-	-	-

There were no blasts undertaken at Talbragar Quarry in the month of December 2017.

# Talbragar Quarry Environmental Monitoring Report

## Water Monitoring

Water Quality Monitoring is conducted as per condition M2.1 of EPL 899. The water quality results for the reporting period are tabled below.

Sample Period: November 2017  
 Licensee: Talbragar Quarry  
 Licensee Address: Brocklehurst, Dubbo, NSW 2830  
 EPL No: 899

### Qualifications related to Water

Discharge of pollutants to waters from the sediment basin is only permitted when the discharge occurs solely as a result of rainfall that exceeds the minimum design criteria for sediment control measures in Managing Urban Stormwater: Soils and Construction - Volume 2E Mines and Quarries.

### L2.4 Water and/or Land Concentration Limits POINT 1

Pollutant	Units of Measure	50 Percentile concentration limit	90 Percentile concentration limit	3DGM concentration limit	100 percentile concentration limit
Total suspended solids	milligrams per litre				50

Monitoring Frequency – Daily During Discharge

Results – EPL 899 Monitoring Point 1 (Discharge Point from Sediment Basin)					
Sampling Date	Date Results Received	pH	Compliant?	Total Suspended Solids (mg/L)	Compliant?

## Talbragar Quarry Environmental Monitoring Report

There were no samples collected and analysed in the month of December 2017 as the site did not discharge any water from Point 1.

# Talbragar Quarry Environmental Monitoring Report

## Blasting

Blast monitoring is conducted as per condition L4 of EPL 899. The blasting monitoring results are summarised below.

Monitoring Period: November 2017  
Licensee: Talbragar Quarry  
Licensee Address: Brocklehurst, Dubbo, NSW 2830  
EPL No: 899

### Qualifications related to blasting:

L4.1 The airblast overpressure level from blasting operations at the premises must not exceed 120dB (Lin Peak) at any time at any noise sensitive locations.

L4.2 The airblast overpressure level from blasting operations at the premises must not exceed 115dB (Lin Peak) at any noise sensitive locations for more than five per cent of the total number of blasts over each reporting period.

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L4.4 Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 5mm/sec at any time at any noise sensitive locations for more than five per cent of the total number of blasts over each reporting period.

Results							
Monitor Location	Blast Date	Results Received	Blast Time	Ground Vibration Result	Ground Vibration Compliant	Overpressure Result	Over-pressure Compliant
	None	N/A	-	-	-	-	-

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There were no blasts undertaken at Talbragar Quarry in the month of November 2017.



## Talbragar Quarry Environmental Monitoring Report

### Water Monitoring

Water Quality Monitoring is conducted as per condition M2.1 of EPL 899. The water quality results for the reporting period are tabled below.

Sample Period: November 2017  
Licensee: Talbragar Quarry  
Licensee Address: Brocklehurst, Dubbo, NSW 2830  
EPL No: 899

#### Qualifications related to Water

Discharge of pollutants to waters from the sediment basin is only permitted when the discharge occurs solely as a result of rainfall that exceeds the minimum design criteria for sediment control measures in Managing Urban Stormwater: Soils and Construction - Volume 2E Mines and Quarries.

#### L2.4 Water and/or Land Concentration Limits

##### POINT 1

Pollutant	Units of Measure	50 Percentile concentration limit	90 Percentile concentration limit	3DGM concentration limit	100 percentile concentration limit
Total suspended solids	milligrams per litre				50

#### Monitoring Frequency – Daily During Discharge

Results – EPL 899 Monitoring Point 1 (Discharge Point from Sediment Basin)					
Sampling Date	Date Results Received	pH	Compliant?	Total Suspended Solids (mg/L)	Compliant?

There were no samples collected and analysed in the month of November 2017 as the site did not discharge any water from Point 1.

## Talbragar Quarry Environmental Monitoring Report

### Blasting

Blast monitoring is conducted as per condition L4 of EPL 899. The blasting monitoring results are summarised below.

Monitoring Period: October 2017  
Licensee: Talbragar Quarry  
Licensee Address: Brocklehurst, Dubbo, NSW 2830  
EPL No: 899

#### Qualifications related to blasting:

L4.1 The airblast overpressure level from blasting operations at the premises must not exceed 120dB (Lin Peak) at any time at any noise sensitive locations.

L4.2 The airblast overpressure level from blasting operations at the premises must not exceed 115dB (Lin Peak) at any noise sensitive locations for more than five per cent of the total number of blasts over each reporting period.

L4.3 Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 10mm/sec at any time at any noise sensitive locations.

L4.4 Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 5mm/sec at any time at any noise sensitive locations for more than five per cent of the total number of blasts over each reporting period.

Results							
Monitor Location	Blast Date	Results Received	Blast Time	Ground Vibration Result	Ground Vibration Compliant	Overpressure Result	Over-pressure Compliant
Pig farm (A)	19/10/2017	Yes	16:52	No Trigger	Yes	No Trigger	Yes
Mogriguy farm house	19/10/2017	Yes	16:52	No Trigger	Yes	No Trigger	Yes

There was one blast conducted in October 2017 and results for ground vibration and overpressure were both below the trigger value.

## Talbragar Quarry Environmental Monitoring Report

### Water Monitoring

Water Quality Monitoring is conducted as per condition M2.1 of EPL 899. The water quality results for the reporting period are tabled below.

Sample Period: October 2017  
 Licensee: Talbragar Quarry  
 Licensee Address: Brocklehurst, Dubbo, NSW 2830  
 EPL No: 899

#### Qualifications related to Water

Discharge of pollutants to waters from the sediment basin is only permitted when the discharge occurs solely as a result of rainfall that exceeds the minimum design criteria for sediment control measures in Managing Urban Stormwater: Soils and Construction - Volume 2E Mines and Quarries.

#### L2.4 Water and/or Land Concentration Limits

##### POINT 1

Pollutant	Units of Measure	50 Percentile concentration limit	90 Percentile concentration limit	3DGM concentration limit	100 percentile concentration limit
Total suspended solids	milligrams per litre				50

Monitoring Frequency – Daily During Discharge

Results – EPL 899 Monitoring Point 1 (Discharge Point from Sediment Basin)					
Sampling Date	Date Results Received	pH	Compliant?	Total Suspended Solids (mg/L)	Compliant?

There were no samples collected and analysed in the month of October 2017 as the site did not discharge any water from Point 1.

## Talbragar Quarry Environmental Monitoring Report

### Blasting

Blast monitoring is conducted as per condition L4 of EPL 899. The blasting monitoring results are summarised below.

Monitoring Period: September 2017  
Licensee: Talbragar Quarry  
Licensee Address: Brocklehurst, Dubbo, NSW 2830  
EPL No: 899

#### Qualifications related to blasting:

L4.1 The airblast overpressure level from blasting operations at the premises must not exceed 120dB (Lin Peak) at any time at any noise sensitive locations.

L4.2 The airblast overpressure level from blasting operations at the premises must not exceed 115dB (Lin Peak) at any noise sensitive locations for more than five per cent of the total number of blasts over each reporting period.

L4.3 Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 10mm/sec at any time at any noise sensitive locations.

L4.4 Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 5mm/sec at any time at any noise sensitive locations for more than five per cent of the total number of blasts over each reporting period.

Results							
Monitor Location	Blast Date	Results Received	Blast Time	Ground Vibration Result	Ground Vibration Compliant	Overpressure Result	Over-pressure Compliant

There were no blasts undertaken at Talbragar Quarry in the month of September 2017.

## Talbragar Quarry Environmental Monitoring Report

### Water Monitoring

Water Quality Monitoring is conducted as per condition M2.1 of EPL 899. The water quality results for the reporting period are tabled below.

Sample Period: September 2017  
 Licensee: Talbragar Quarry  
 Licensee Address: Brocklehurst, Dubbo, NSW 2830  
 EPL No: 899

#### Qualifications related to Water

Discharge of pollutants to waters from the sediment basin is only permitted when the discharge occurs solely as a result of rainfall that exceeds the minimum design criteria for sediment control measures in Managing Urban Stormwater: Soils and Construction - Volume 2E Mines and Quarries.

#### L2.4 Water and/or Land Concentration Limits

##### POINT 1

Pollutant	Units of Measure	50 Percentile concentration limit	90 Percentile concentration limit	3DGM concentration limit	100 percentile concentration limit
Total suspended solids	milligrams per litre				50

#### Monitoring Frequency – Daily During Discharge

Results – EPL 899 Monitoring Point 1 (Discharge Point from Sediment Basin)					
Sampling Date	Date Results Received	pH	Compliant?	Total Suspended Solids (mg/L)	Compliant?

There were no samples collected and analysed in the month of September 2017 as the site did not discharge any water from Point 1.

## Talbragar Quarry Environmental Monitoring Report

### Blasting

Blast monitoring is conducted as per condition L4 of EPL 899. The blasting monitoring results are summarised below.

Monitoring Period: August 2017  
Licensee: Talbragar Quarry  
Licensee Address: Brocklehurst, Dubbo, NSW 2830  
EPL No: 899

#### Qualifications related to blasting:

L4.1 The airblast overpressure level from blasting operations at the premises must not exceed 120dB (Lin Peak) at any time at any noise sensitive locations.

L4.2 The airblast overpressure level from blasting operations at the premises must not exceed 115dB (Lin Peak) at any noise sensitive locations for more than five per cent of the total number of blasts over each reporting period.

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L4.4 Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 5mm/sec at any time at any noise sensitive locations for more than five per cent of the total number of blasts over each reporting period.

Results							
Monitor Location	Blast Date	Results Received	Blast Time	Ground Vibration Result	Ground Vibration Compliant	Overpressure Result	Over-pressure Compliant

There were no blasts undertaken at Talbragar Quarry in the month of August 2017.

## Talbragar Quarry Environmental Monitoring Report

### Water Monitoring

Water Quality Monitoring is conducted as per condition M2.1 of EPL 899. The water quality results for the reporting period are tabled below.

Sample Period: August 2017  
Licensee: Talbragar Quarry  
Licensee Address: Brocklehurst, Dubbo, NSW 2830  
EPL No: 899

#### Qualifications related to Water

Discharge of pollutants to waters from the sediment basin is only permitted when the discharge occurs solely as a result of rainfall that exceeds the minimum design criteria for sediment control measures in Managing Urban Stormwater: Soils and Construction - Volume 2E Mines and Quarries.

#### L2.4 Water and/or Land Concentration Limits

##### POINT 1

Pollutant	Units of Measure	50 Percentile concentration limit	90 Percentile concentration limit	3DGM concentration limit	100 percentile concentration limit
Total suspended solids	milligrams per litre				50

Monitoring Frequency – Daily During Discharge

Results – EPL 899 Monitoring Point 1 (Discharge Point from Sediment Basin)					
Sampling Date	Date Results Received	pH	Compliant?	Total Suspended Solids (mg/L)	Compliant?

There were no samples collected and analysed in the month of August 2017 as the site did not discharge any water from Point 1.

## Talbragar Quarry Environmental Monitoring Report

### Blasting

Blast monitoring is conducted as per condition L4 of EPL 899. The blasting monitoring results are summarised below.

Monitoring Period: July 2017  
Licensee: Talbragar Quarry  
Licensee Address: Brocklehurst, Dubbo, NSW 2830  
EPL No: 899

#### Qualifications related to blasting:

L4.1 The airblast overpressure level from blasting operations at the premises must not exceed 120dB (Lin Peak) at any time at any noise sensitive locations.

L4.2 The airblast overpressure level from blasting operations at the premises must not exceed 115dB (Lin Peak) at any noise sensitive locations for more than five per cent of the total number of blasts over each reporting period.

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L4.4 Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 5mm/sec at any time at any noise sensitive locations for more than five per cent of the total number of blasts over each reporting period.

Results							
Monitor Location	Blast Date	Results Received	Blast Time	Ground Vibration Result	Ground Vibration Compliant	Overpressure Result	Over-pressure Compliant

There were no blasts undertaken in the month of July 2017.



## Talbragar Quarry Environmental Monitoring Report

### Water Monitoring

Water Quality Monitoring is conducted as per condition M2.1 of EPL 899. The water quality results for the reporting period are tabled below.

Sample Period: July 2017  
 Licensee: Talbragar Quarry  
 Licensee Address: Brocklehurst, Dubbo, NSW 2830  
 EPL No: 899

#### Qualifications related to Water

Discharge of pollutants to waters from the sediment basin is only permitted when the discharge occurs solely as a result of rainfall that exceeds the minimum design criteria for sediment control measures in Managing Urban Stormwater: Soils and Construction - Volume 2E Mines and Quarries.

#### L2.4 Water and/or Land Concentration Limits

##### POINT 1

Pollutant	Units of Measure	50 Percentile concentration limit	90 Percentile concentration limit	3DGM concentration limit	100 percentile concentration limit
Total suspended solids	milligrams per litre				50

Monitoring Frequency – Daily During Discharge

Results – EPL 899 Monitoring Point 1 (Discharge Point from Sediment Basin)					
Sampling Date	Date Results Received	pH	Compliant?	Total Suspended Solids (mg/L)	Compliant?

There were no samples collected and analysed in the month of July 2017 as the site did not discharge any water from Point 1.

## Talbragar Quarry Environmental Monitoring Report

### Blasting

Blast monitoring is conducted as per condition L4 of EPL 899. The blasting monitoring results are summarised below.

Monitoring Period: June 2017  
Licensee: Talbragar Quarry  
Licensee Address: Brocklehurst, Dubbo, NSW 2830  
EPL No: 899

#### Qualifications related to blasting:

L4.1 The airblast overpressure level from blasting operations at the premises must not exceed 120dB (Lin Peak) at any time at any noise sensitive locations.

L4.2 The airblast overpressure level from blasting operations at the premises must not exceed 115dB (Lin Peak) at any noise sensitive locations for more than five per cent of the total number of blasts over each reporting period.

L4.3 Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 10mm/sec at any time at any noise sensitive locations.

L4.4 Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 5mm/sec at any time at any noise sensitive locations for more than five per cent of the total number of blasts over each reporting period.

Results							
Monitor Location	Blast Date	Results Received	Blast Time	Ground Vibration Result	Ground Vibration Compliant	Overpressure Result	Over-pressure Compliant
Pig farm (A)	23/06/2017	Yes	09:43	0.262mm/s	Yes	109.5dBL	Yes
Mogriguy farm house	23/06/2017	Yes	09:43	0.190mm/s	Yes	108dBL	Yes

## Water Monitoring

Water Quality Monitoring is conducted as per condition M2.1 of EPL 899. The water quality results for the reporting period are tabled below.

Sample Period: June 2017  
 Licensee: Talbragar Quarry  
 Licensee Address: Brocklehurst, Dubbo, NSW 2830  
 EPL No: 899

### Qualifications related to Water

Discharge of pollutants to waters from the sediment basin is only permitted when the discharge occurs solely as a result of rainfall that exceeds the minimum design criteria for sediment control measures in Managing Urban Stormwater: Soils and Construction - Volume 2E Mines and Quarries.

### L2.4 Water and/or Land Concentration Limits

#### POINT 1

Pollutant	Units of Measure	50 Percentile concentration limit	90 Percentile concentration limit	3DGM concentration limit	100 percentile concentration limit
Total suspended solids	milligrams per litre				50

#### Monitoring Frequency – Daily During Discharge

Results – EPL 899 Monitoring Point 1 (Discharge Point from Sediment Basin)					
Sampling Date	Date Results Received	pH	Compliant?	Total Suspended Solids (mg/L)	Compliant?

There were no samples collected and analysed in the month of June 2017 as the site did not discharge any water from Point 1.

## Talbragar Quarry Environmental Monitoring Report

### Blasting

Blast monitoring is conducted as per condition L4 of EPL 899. The blasting monitoring results are summarised below.

Monitoring Period: May 2017  
Licensee: Talbragar Quarry  
Licensee Address: Brocklehurst, Dubbo, NSW 2830  
EPL No: 899

#### Qualifications related to blasting:

L4.1 The airblast overpressure level from blasting operations at the premises must not exceed 120dB (Lin Peak) at any time at any noise sensitive locations.

L4.2 The airblast overpressure level from blasting operations at the premises must not exceed 115dB (Lin Peak) at any noise sensitive locations for more than five per cent of the total number of blasts over each reporting period.

L4.3 Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 10mm/sec at any time at any noise sensitive locations.

L4.4 Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 5mm/sec at any time at any noise sensitive locations for more than five per cent of the total number of blasts over each reporting period.

Results							
Monitor Location	Blast Date	Results Received	Blast Time	Ground Vibration Result	Ground Vibration Compliant	Overpressure Result	Over-pressure Compliant

There were no blasts undertaken at Talbragar Quarry in the month of May 2017.

## Talbragar Quarry Environmental Monitoring Report

### Water Monitoring

Water Quality Monitoring is conducted as per condition M2.1 of EPL 899. The water quality results for the reporting period are tabled below.

Sample Period: May 2017  
 Licensee: Talbragar Quarry  
 Licensee Address: Brocklehurst, Dubbo, NSW 2830  
 EPL No: 899

#### Qualifications related to Water

Discharge of pollutants to waters from the sediment basin is only permitted when the discharge occurs solely as a result of rainfall that exceeds the minimum design criteria for sediment control measures in Managing Urban Stormwater: Soils and Construction - Volume 2E Mines and Quarries.

#### L2.4 Water and/or Land Concentration Limits

##### POINT 1

Pollutant	Units of Measure	50 Percentile concentration limit	90 Percentile concentration limit	3DGM concentration limit	100 percentile concentration limit
Total suspended solids	milligrams per litre				50

Monitoring Frequency – Daily During Discharge

Results – EPL 899 Monitoring Point 1 (Discharge Point from Sediment Basin)					
Sampling Date	Date Results Received	pH	Compliant?	Total Suspended Solids (mg/L)	Compliant?

There were no samples collected and analysed in the month of May 2017 as the site did not discharge any water from Point 1.

## Talbragar Quarry Environmental Monitoring Report

### Blasting

Blast monitoring is conducted as per condition L4 of EPL 899. The blasting monitoring results are summarised below.

Monitoring Period: April 2017  
Licensee: Talbragar Quarry  
Licensee Address: Brocklehurst, Dubbo, NSW 2830  
EPL No: 899

#### Qualifications related to blasting:

L4.1 The airblast overpressure level from blasting operations at the premises must not exceed 120dB (Lin Peak) at any time at any noise sensitive locations.

L4.2 The airblast overpressure level from blasting operations at the premises must not exceed 115dB (Lin Peak) at any noise sensitive locations for more than five per cent of the total number of blasts over each reporting period.

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L4.4 Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 5mm/sec at any time at any noise sensitive locations for more than five per cent of the total number of blasts over each reporting period.

Results							
Monitor Location	Blast Date	Results Received	Blast Time	Ground Vibration Result	Ground Vibration Compliant	Overpressure Result	Over-pressure Compliant

There were no blasts undertaken at Talbragar Quarry in the month of April 2017.

## Talbragar Quarry Environmental Monitoring Report

### Water Monitoring

Water Quality Monitoring is conducted as per condition M2.1 of EPL 899. The water quality results for the reporting period are tabled below.

Sample Period: April 2017  
 Licensee: Talbragar Quarry  
 Licensee Address: Brocklehurst, Dubbo, NSW 2830  
 EPL No: 899

#### Qualifications related to Water

Discharge of pollutants to waters from the sediment basin is only permitted when the discharge occurs solely as a result of rainfall that exceeds the minimum design criteria for sediment control measures in Managing Urban Stormwater: Soils and Construction - Volume 2E Mines and Quarries.

#### L2.4 Water and/or Land Concentration Limits

##### POINT 1

Pollutant	Units of Measure	50 Percentile concentration limit	90 Percentile concentration limit	3DGM concentration limit	100 percentile concentration limit
Total suspended solids	milligrams per litre				50

Monitoring Frequency – Daily During Discharge

Results – EPL 899 Monitoring Point 1 (Discharge Point from Sediment Basin)					
Sampling Date	Date Results Received	pH	Compliant?	Total Suspended Solids (mg/L)	Compliant?

There were no samples collected and analysed in the month of April 2017 as the site did not discharge any water from Point 1.

## Talbragar Quarry Environmental Monitoring Report

### Blasting

Blast monitoring is conducted as per condition L4 of EPL 899. The blasting monitoring results are summarised below.

Monitoring Period: March 2017  
Licensee: Talbragar Quarry  
Licensee Address: Brocklehurst, Dubbo, NSW 2830  
EPL No: 899

#### Qualifications related to blasting:

L4.1 The airblast overpressure level from blasting operations at the premises must not exceed 120dB (Lin Peak) at any time at any noise sensitive locations.

L4.2 The airblast overpressure level from blasting operations at the premises must not exceed 115dB (Lin Peak) at any noise sensitive locations for more than five per cent of the total number of blasts over each reporting period.

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Results							
Monitor Location	Blast Date	Results Received	Blast Time	Ground Vibration Result	Ground Vibration Compliant	Overpressure Result	Over-pressure Compliant

There were no blasts undertaken at Talbragar Quarry in the month of March 2017.



## Talbragar Quarry Environmental Monitoring Report

### Water Monitoring

Water Quality Monitoring is conducted as per condition M2.1 of EPL 899. The water quality results for the reporting period are tabled below.

Sample Period: March 2017  
 Licensee: Talbragar Quarry  
 Licensee Address: Brocklehurst, Dubbo, NSW 2830  
 EPL No: 899

#### Qualifications related to Water

Discharge of pollutants to waters from the sediment basin is only permitted when the discharge occurs solely as a result of rainfall that exceeds the minimum design criteria for sediment control measures in Managing Urban Stormwater: Soils and Construction - Volume 2E Mines and Quarries.

#### L2.4 Water and/or Land Concentration Limits

##### POINT 1

Pollutant	Units of Measure	50 Percentile concentration limit	90 Percentile concentration limit	3DGM concentration limit	100 percentile concentration limit
Total suspended solids	milligrams per litre				50

#### Monitoring Frequency – Daily During Discharge

Results – EPL 899 Monitoring Point 1 (Discharge Point from Sediment Basin)					
Sampling Date	Date Results Received	pH	Compliant?	Total Suspended Solids (mg/L)	Compliant?

There were no samples collected and analysed in the month of March 2017 as the site did not discharge any water from Point 1.

## Talbragar Quarry Environmental Monitoring Report

### Blasting

Blast monitoring is conducted as per condition L4 of EPL 899. The blasting monitoring results are summarised below.

Monitoring Period: February 2017  
Licensee: Talbragar Quarry  
Licensee Address: Brocklehurst, Dubbo, NSW 2830  
EPL No: 899

#### Qualifications related to blasting:

L4.1 The airblast overpressure level from blasting operations at the premises must not exceed 120dB (Lin Peak) at any time at any noise sensitive locations.

L4.2 The airblast overpressure level from blasting operations at the premises must not exceed 115dB (Lin Peak) at any noise sensitive locations for more than five per cent of the total number of blasts over each reporting period.

L4.3 Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 10mm/sec at any time at any noise sensitive locations.

L4.4 Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 5mm/sec at any time at any noise sensitive locations for more than five per cent of the total number of blasts over each reporting period.

Results							
Monitor Location	Blast Date	Results Received	Blast Time	Ground Vibration Result	Ground Vibration Compliant	Overpressure Result	Over-pressure Compliant

There were no blasts undertaken at Talbragar Quarry in the month of February 2017.

## Talbragar Quarry Environmental Monitoring Report

### Water Monitoring

Water Quality Monitoring is conducted as per condition M2.1 of EPL 899. The water quality results for the reporting period are tabled below.

Sample Period: February 2017  
Licensee: Talbragar Quarry  
Licensee Address: Brocklehurst, Dubbo, NSW 2830  
EPL No: 899

#### Qualifications related to Water

Discharge of pollutants to waters from the sediment basin is only permitted when the discharge occurs solely as a result of rainfall that exceeds the minimum design criteria for sediment control measures in Managing Urban Stormwater: Soils and Construction - Volume 2E Mines and Quarries.

#### L2.4 Water and/or Land Concentration Limits

##### POINT 1

Pollutant	Units of Measure	50 Percentile concentration limit	90 Percentile concentration limit	3DGM concentration limit	100 percentile concentration limit
Total suspended solids	milligrams per litre				50

#### Monitoring Frequency – Daily During Discharge

Results – EPL 899 Monitoring Point 1 (Discharge Point from Sediment Basin)					
Sampling Date	Date Results Received	pH	Compliant?	Total Suspended Solids (mg/L)	Compliant?

There were no samples collected and analysed in the month of February 2017 as the site did not discharge any water from Point 1.

## Talbragar Quarry Environmental Monitoring Report

### Blasting

Blast monitoring is conducted as per condition L4 of EPL 899. The blasting monitoring results are summarised below.

Monitoring Period: January 2017  
Licensee: Talbragar Quarry  
Licensee Address: Brocklehurst, Dubbo, NSW 2830  
EPL No: 899

#### Qualifications related to blasting:

L4.1 The airblast overpressure level from blasting operations at the premises must not exceed 120dB (Lin Peak) at any time at any noise sensitive locations.

L4.2 The airblast overpressure level from blasting operations at the premises must not exceed 115dB (Lin Peak) at any noise sensitive locations for more than five per cent of the total number of blasts over each reporting period.

L4.3 Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 10mm/sec at any time at any noise sensitive locations.

L4.4 Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 5mm/sec at any time at any noise sensitive locations for more than five per cent of the total number of blasts over each reporting period.

Results							
Monitor Location	Blast Date	Results Received	Blast Time	Ground Vibration Result	Ground Vibration Compliant	Overpressure Result	Over-pressure Compliant
Pig farm	12/01/2017	16/01/2017	10:25	0.2436mm/s	Yes	113dBL	Yes

## Talbragar Quarry Environmental Monitoring Report

### Water Monitoring

Water Quality Monitoring is conducted as per condition M2.1 of EPL 899. The water quality results for the reporting period are tabled below.

Sample Period: January 2017  
 Licensee: Talbragar Quarry  
 Licensee Address: Brocklehurst, Dubbo, NSW 2830  
 EPL No: 899

#### Qualifications related to Water

Discharge of pollutants to waters from the sediment basin is only permitted when the discharge occurs solely as a result of rainfall that exceeds the minimum design criteria for sediment control measures in Managing Urban Stormwater: Soils and Construction - Volume 2E Mines and Quarries.

#### L2.4 Water and/or Land Concentration Limits

##### POINT 1

Pollutant	Units of Measure	50 Percentile concentration limit	90 Percentile concentration limit	3DGM concentration limit	100 percentile concentration limit
Total suspended solids	milligrams per litre				50

#### Monitoring Frequency – Daily During Discharge

Results – EPL 899 Monitoring Point 1 (Discharge Point from Sediment Basin)					
Sampling Date	Date Results Received	pH	Compliant?	Total Suspended Solids (mg/L)	Compliant?

There were no samples collected and analysed in the month of January 2017 as the site did not discharge any water from Point 1.

## Talbragar Quarry Environmental Monitoring Report

### Blasting

Blast monitoring is conducted as per condition L4 of EPL 899. The blasting monitoring results are summarised below.

Monitoring Period: December 2016  
Licensee: Talbragar Quarry  
Licensee Address: Brocklehurst, Dubbo, NSW 2830  
EPL No: 899

#### Qualifications related to blasting:

L4.1 The airblast overpressure level from blasting operations at the premises must not exceed 120dB (Lin Peak) at any time at any noise sensitive locations.

L4.2 The airblast overpressure level from blasting operations at the premises must not exceed 115dB (Lin Peak) at any noise sensitive locations for more than five per cent of the total number of blasts over each reporting period.

L4.3 Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 10mm/sec at any time at any noise sensitive locations.

L4.4 Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 5mm/sec at any time at any noise sensitive locations for more than five per cent of the total number of blasts over each reporting period.

Results							
Monitor Location	Blast Date	Results Received	Blast Time	Ground Vibration Result	Ground Vibration Compliant	Overpressure Result	Over-pressure Compliant

There were no blasts conducted in the month of December 2016 at Talbragar Quarry.

## Water Monitoring

Water Quality Monitoring is conducted as per condition M2.1 of EPL 899. The water quality results for the reporting period are tabled below.

Sample Period: December 2016  
 Licensee: Talbragar Quarry  
 Licensee Address: Brocklehurst, Dubbo, NSW 2830  
 EPL No: 899

### Qualifications related to Water

Discharge of pollutants to waters from the sediment basin is only permitted when the discharge occurs solely as a result of rainfall that exceeds the minimum design criteria for sediment control measures in Managing Urban Stormwater: Soils and Construction - Volume 2E Mines and Quarries.

### L2.4 Water and/or Land Concentration Limits

#### POINT 1

Pollutant	Units of Measure	50 Percentile concentration limit	90 Percentile concentration limit	3DGM concentration limit	100 percentile concentration limit
Total suspended solids	milligrams per litre				50

Monitoring Frequency – Daily During Discharge

Results – EPL 899 Monitoring Point 1 (Discharge Point from Sediment Basin)					
Sampling Date	Date Results Received	pH	Compliant?	Total Suspended Solids (mg/L)	Compliant?

There were no samples collected and analysed in the month of December 2016 as the site did not discharge any water from Point 1.

## Talbragar Quarry Environmental Monitoring Report

### Blasting

Blast monitoring is conducted as per condition L4 of EPL 899. The blasting monitoring results are summarised below.

Monitoring Period: November 2016  
Licensee: Talbragar Quarry  
Licensee Address: Brocklehurst, Dubbo, NSW 2830  
EPL No: 899

#### Qualifications related to blasting:

L4.1 The airblast overpressure level from blasting operations at the premises must not exceed 120dB (Lin Peak) at any time at any noise sensitive locations.

L4.2 The airblast overpressure level from blasting operations at the premises must not exceed 115dB (Lin Peak) at any noise sensitive locations for more than five per cent of the total number of blasts over each reporting period.

L4.3 Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 10mm/sec at any time at any noise sensitive locations.

L4.4 Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 5mm/sec at any time at any noise sensitive locations for more than five per cent of the total number of blasts over each reporting period.

Results							
Monitor Location	Blast Date	Results Received	Blast Time	Ground Vibration Result	Ground Vibration Compliant	Overpressure Result	Over-pressure Compliant

There were no blasts conducted in the month of November 2016 at Talbragar Quarry.



## Water Monitoring

Water Quality Monitoring is conducted as per condition M2.1 of EPL 899. The water quality results for the reporting period are tabled below.

Sample Period: November 2016  
 Licensee: Talbragar Quarry  
 Licensee Address: Brocklehurst, Dubbo, NSW 2830  
 EPL No: 899

### Qualifications related to Water

Discharge of pollutants to waters from the sediment basin is only permitted when the discharge occurs solely as a result of rainfall that exceeds the minimum design criteria for sediment control measures in Managing Urban Stormwater: Soils and Construction - Volume 2E Mines and Quarries.

### L2.4 Water and/or Land Concentration Limits

#### POINT 1

Pollutant	Units of Measure	50 Percentile concentration limit	90 Percentile concentration limit	3DGM concentration limit	100 percentile concentration limit
Total suspended solids	milligrams per litre				50

Monitoring Frequency – Daily During Discharge

Results – EPL 899 Monitoring Point 1 (Discharge Point from Sediment Basin)					
Sampling Date	Date Results Received	pH	Compliant?	Total Suspended Solids (mg/L)	Compliant?

There were no samples collected and analysed in the month of November 2016 as the site did not discharge any water from Point 1.

## Talbragar Quarry Environmental Monitoring Report

### Blasting

Blast monitoring is conducted as per condition L4 of EPL 899. The blasting monitoring results are summarised below.

Monitoring Period: November 2016  
Licensee: Talbragar Quarry  
Licensee Address: Brocklehurst, Dubbo, NSW 2830  
EPL No: 899

#### Qualifications related to blasting:

L4.1 The airblast overpressure level from blasting operations at the premises must not exceed 120dB (Lin Peak) at any time at any noise sensitive locations.

L4.2 The airblast overpressure level from blasting operations at the premises must not exceed 115dB (Lin Peak) at any noise sensitive locations for more than five per cent of the total number of blasts over each reporting period.

L4.3 Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 10mm/sec at any time at any noise sensitive locations.

L4.4 Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 5mm/sec at any time at any noise sensitive locations for more than five per cent of the total number of blasts over each reporting period.

Results							
Monitor Location	Blast Date	Results Received	Blast Time	Ground Vibration Result	Ground Vibration Compliant	Overpressure Result	Over-pressure Compliant

There were no blasts conducted in the month of November 2016 at Talbragar Quarry.

## Water Monitoring

Water Quality Monitoring is conducted as per condition M2.1 of EPL 899. The water quality results for the reporting period are tabled below.

Sample Period: November 2016  
 Licensee: Talbragar Quarry  
 Licensee Address: Brocklehurst, Dubbo, NSW 2830  
 EPL No: 899

### Qualifications related to Water

Discharge of pollutants to waters from the sediment basin is only permitted when the discharge occurs solely as a result of rainfall that exceeds the minimum design criteria for sediment control measures in Managing Urban Stormwater: Soils and Construction - Volume 2E Mines and Quarries.

### L2.4 Water and/or Land Concentration Limits

#### POINT 1

Pollutant	Units of Measure	50 Percentile concentration limit	90 Percentile concentration limit	3DGM concentration limit	100 percentile concentration limit
Total suspended solids	milligrams per litre				50

#### Monitoring Frequency – Daily During Discharge

Results – EPL 899 Monitoring Point 1 (Discharge Point from Sediment Basin)					
Sampling Date	Date Results Received	pH	Compliant?	Total Suspended Solids (mg/L)	Compliant?

There were no samples collected and analysed in the month of November 2016 as the site did not discharge any water from Point 1.

## Talbragar Quarry Environmental Monitoring Report

### Blasting

Blast monitoring is conducted as per condition L4 of EPL 899. The blasting monitoring results are summarised below.

Monitoring Period: November 2016  
Licensee: Talbragar Quarry  
Licensee Address: Brocklehurst, Dubbo, NSW 2830  
EPL No: 899

#### Qualifications related to blasting:

L4.1 The airblast overpressure level from blasting operations at the premises must not exceed 120dB (Lin Peak) at any time at any noise sensitive locations.

L4.2 The airblast overpressure level from blasting operations at the premises must not exceed 115dB (Lin Peak) at any noise sensitive locations for more than five per cent of the total number of blasts over each reporting period.

L4.3 Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 10mm/sec at any time at any noise sensitive locations.

L4.4 Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 5mm/sec at any time at any noise sensitive locations for more than five per cent of the total number of blasts over each reporting period.

Results							
Monitor Location	Blast Date	Results Received	Blast Time	Ground Vibration Result	Ground Vibration Compliant	Overpressure Result	Over-pressure Compliant

There were no blasts conducted in the month of November 2016 at Talbragar Quarry.

## Water Monitoring

Water Quality Monitoring is conducted as per condition M2.1 of EPL 899. The water quality results for the reporting period are tabled below.

Sample Period: November 2016  
 Licensee: Talbragar Quarry  
 Licensee Address: Brocklehurst, Dubbo, NSW 2830  
 EPL No: 899

### Qualifications related to Water

Discharge of pollutants to waters from the sediment basin is only permitted when the discharge occurs solely as a result of rainfall that exceeds the minimum design criteria for sediment control measures in Managing Urban Stormwater: Soils and Construction - Volume 2E Mines and Quarries.

### L2.4 Water and/or Land Concentration Limits

#### POINT 1

Pollutant	Units of Measure	50 Percentile concentration limit	90 Percentile concentration limit	3DGM concentration limit	100 percentile concentration limit
Total suspended solids	milligrams per litre				50

Monitoring Frequency – Daily During Discharge

Results – EPL 899 Monitoring Point 1 (Discharge Point from Sediment Basin)					
Sampling Date	Date Results Received	pH	Compliant?	Total Suspended Solids (mg/L)	Compliant?

There were no samples collected and analysed in the month of November 2016 as the site did not discharge any water from Point 1.

## Talbragar Quarry Environmental Monitoring Report

### Blasting

Blast monitoring is conducted as per condition L4 of EPL 899. The blasting monitoring results are summarised below.

Monitoring Period: August 2016  
Licensee: Talbragar Quarry  
Licensee Address: Brocklehurst, Dubbo, NSW 2830  
EPL No: 899

#### Qualifications related to blasting:

L4.1 The airblast overpressure level from blasting operations at the premises must not exceed 120dB (Lin Peak) at any time at any noise sensitive locations.

L4.2 The airblast overpressure level from blasting operations at the premises must not exceed 115dB (Lin Peak) at any noise sensitive locations for more than five per cent of the total number of blasts over each reporting period.

L4.3 Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 10mm/sec at any time at any noise sensitive locations.

L4.4 Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 5mm/sec at any time at any noise sensitive locations for more than five per cent of the total number of blasts over each reporting period.

Results							
Monitor Location	Blast Date	Results Received	Blast Time	Ground Vibration Result	Ground Vibration Compliant	Overpressure Result	Over-pressure Compliant
Mogriguy Farm House	11/08/2016	17/08/2016	9:45am	-	Yes	-	Yes

The above blast did not trigger the blast monitor located at the Mogriguy Farm House so actual results cannot be supplied. Trigger levels set on the blast monitor for air blast were 100 dBL and ground vibration 0.8 mm/s. All that can be said is that the results were below these levels.

## Water Monitoring

Water Quality Monitoring is conducted as per condition M2.1 of EPL 899. The water quality results for the reporting period are tabled below.

Sample Period: August 2016  
 Licensee: Talbragar Quarry  
 Licensee Address: Brocklehurst, Dubbo, NSW 2830  
 EPL No: 899

### Qualifications related to Water

Discharge of pollutants to waters from the sediment basin is only permitted when the discharge occurs solely as a result of rainfall that exceeds the minimum design criteria for sediment control measures in Managing Urban Stormwater: Soils and Construction - Volume 2E Mines and Quarries.

### L2.4 Water and/or Land Concentration Limits

#### POINT 1

Pollutant	Units of Measure	50 Percentile concentration limit	90 Percentile concentration limit	3DGM concentration limit	100 percentile concentration limit
Total suspended solids	milligrams per litre				50

Monitoring Frequency – Daily During Discharge

Results – EPL 899 Monitoring Point 1 (Discharge Point from Sediment Basin)					
Sampling Date	Date Results Received	pH	Compliant?	Total Suspended Solids (mg/L)	Compliant?

There were no samples collected and analysed in the month of August 2016 as the site did not discharge any water from Point 1.

## Talbragar Quarry Environmental Monitoring Report

### Blasting

Blast monitoring is conducted as per condition L4 of EPL 899. The blasting monitoring results are summarised below.

Monitoring Period: July 2016  
Licensee: Talbragar Quarry  
Licensee Address: Brocklehurst, Dubbo, NSW 2830  
EPL No: 899

#### Qualifications related to blasting:

L4.1 The airblast overpressure level from blasting operations at the premises must not exceed 120dB (Lin Peak) at any time at any noise sensitive locations.

L4.2 The airblast overpressure level from blasting operations at the premises must not exceed 115dB (Lin Peak) at any noise sensitive locations for more than five per cent of the total number of blasts over each reporting period.

L4.3 Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 10mm/sec at any time at any noise sensitive locations.

L4.4 Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 5mm/sec at any time at any noise sensitive locations for more than five per cent of the total number of blasts over each reporting period.

Results							
Monitor Location	Blast Date	Results Received	Blast Time	Ground Vibration Result	Ground Vibration Compliant	Overpressure Result	Over-pressure Compliant

No blasts were conducted in the month of July 2016.



## Water Monitoring

Water Quality Monitoring is conducted as per condition M2.1 of EPL 899. The water quality results for the reporting period are tabled below.

Sample Period: July 2016  
 Licensee: Talbragar Quarry  
 Licensee Address: Brocklehurst, Dubbo, NSW 2830  
 EPL No: 899

### Qualifications related to Water

Discharge of pollutants to waters from the sediment basin is only permitted when the discharge occurs solely as a result of rainfall that exceeds the minimum design criteria for sediment control measures in Managing Urban Stormwater: Soils and Construction - Volume 2E Mines and Quarries.

### L2.4 Water and/or Land Concentration Limits

#### POINT 1

Pollutant	Units of Measure	50 Percentile concentration limit	90 Percentile concentration limit	3DGM concentration limit	100 percentile concentration limit
Total suspended solids	milligrams per litre				50

Monitoring Frequency – Daily During Discharge

Results – EPL 899 Monitoring Point 1 (Discharge Point from Sediment Basin)					
Sampling Date	Date Results Received	pH	Compliant?	Total Suspended Solids (mg/L)	Compliant?

There were no samples collected and analysed in the month of July 2016 as the site did not discharge any water from Point 1.

## Talbragar Quarry Environmental Monitoring Report

### Blasting

Blast monitoring is conducted as per condition L4 of EPL 899. The blasting monitoring results are summarised below.

Monitoring Period: June 2016  
Licensee: Talbragar Quarry  
Licensee Address: Brocklehurst, Dubbo, NSW 2830  
EPL No: 899

#### Qualifications related to blasting:

L4.1 The airblast overpressure level from blasting operations at the premises must not exceed 120dB (Lin Peak) at any time at any noise sensitive locations.

L4.2 The airblast overpressure level from blasting operations at the premises must not exceed 115dB (Lin Peak) at any noise sensitive locations for more than five per cent of the total number of blasts over each reporting period.

L4.3 Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 10mm/sec at any time at any noise sensitive locations.

L4.4 Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 5mm/sec at any time at any noise sensitive locations for more than five per cent of the total number of blasts over each reporting period.

Results							
Monitor Location	Blast Date	Results Received	Blast Time	Ground Vibration Result	Ground Vibration Compliant	Overpressure Result	Over-pressure Compliant

No blasts were conducted in the month of June 2016.

## Water Monitoring

Water Quality Monitoring is conducted as per condition M2.1 of EPL 899. The water quality results for the reporting period are tabled below.

Sample Period: June 2016  
 Licensee: Talbragar Quarry  
 Licensee Address: Brocklehurst, Dubbo, NSW 2830  
 EPL No: 899

### Qualifications related to Water

Discharge of pollutants to waters from the sediment basin is only permitted when the discharge occurs solely as a result of rainfall that exceeds the minimum design criteria for sediment control measures in Managing Urban Stormwater: Soils and Construction - Volume 2E Mines and Quarries.

### L2.4 Water and/or Land Concentration Limits

#### POINT 1

Pollutant	Units of Measure	50 Percentile concentration limit	90 Percentile concentration limit	3DGM concentration limit	100 percentile concentration limit
Total suspended solids	milligrams per litre				50

Monitoring Frequency – Daily During Discharge

Results – EPL 899 Monitoring Point 1 (Discharge Point from Sediment Basin)					
Sampling Date	Date Results Received	pH	Compliant?	Total Suspended Solids (mg/L)	Compliant?

There were no samples collected and analysed in the month of June 2016 as the site did not discharge any water from Point 1.

## Talbragar Quarry Environmental Monitoring Report

### Blasting

Blast monitoring is conducted as per condition L4 of EPL 899. The blasting monitoring results are summarised below.

Monitoring Period: May 2016  
Licensee: Talbragar Quarry  
Licensee Address: Brocklehurst, Dubbo, NSW 2830  
EPL No: 899

#### Qualifications related to blasting:

L4.1 The airblast overpressure level from blasting operations at the premises must not exceed 120dB (Lin Peak) at any time at any noise sensitive locations.

L4.2 The airblast overpressure level from blasting operations at the premises must not exceed 115dB (Lin Peak) at any noise sensitive locations for more than five per cent of the total number of blasts over each reporting period.

L4.3 Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 10mm/sec at any time at any noise sensitive locations.

L4.4 Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 5mm/sec at any time at any noise sensitive locations for more than five per cent of the total number of blasts over each reporting period.

Results							
Monitor Location	Blast Date	Results Received	Blast Time	Ground Vibration Result	Ground Vibration Compliant	Overpressure Result	Over-pressure Compliant
A	19/05/2016	20/05/2016	10:39	No trigger	Yes	No trigger	Yes

The above blast **did not trigger** the blast monitor so actual results for air blast and ground vibration cannot be supplied. Trigger levels set on the blast monitor for air blast were 105 dBL and ground vibration 3.0 mm/s. All that can be said is that the results were below these levels.

## Water Monitoring

Water Quality Monitoring is conducted as per condition M2.1 of EPL 899. The water quality results for the reporting period are tabled below.

Sample Period: May 2016  
 Licensee: Talbragar Quarry  
 Licensee Address: Brocklehurst, Dubbo, NSW 2830  
 EPL No: 899

### Qualifications related to Water

Discharge of pollutants to waters from the sediment basin is only permitted when the discharge occurs solely as a result of rainfall that exceeds the minimum design criteria for sediment control measures in Managing Urban Stormwater: Soils and Construction - Volume 2E Mines and Quarries.

### L2.4 Water and/or Land Concentration Limits

#### POINT 1

Pollutant	Units of Measure	50 Percentile concentration limit	90 Percentile concentration limit	3DGM concentration limit	100 percentile concentration limit
Total suspended solids	milligrams per litre				50

Monitoring Frequency – Daily During Discharge

Results – EPL 899 Monitoring Point 1 (Discharge Point from Sediment Basin)					
Sampling Date	Date Results Received	pH	Compliant?	Total Suspended Solids (mg/L)	Compliant?

There were no samples collected and analysed in the month of May 2016 as the site did not discharge any water from Point 1.

## Talbragar Quarry Environmental Monitoring Report

### Blasting

Blast monitoring is conducted as per condition L4 of EPL 899. The blasting monitoring results are summarised below.

Monitoring Period: April 2016  
Licensee: Talbragar Quarry  
Licensee Address: Brocklehurst, Dubbo, NSW 2830  
EPL No: 899

#### Qualifications related to blasting:

L4.1 The airblast overpressure level from blasting operations at the premises must not exceed 120dB (Lin Peak) at any time at any noise sensitive locations.

L4.2 The airblast overpressure level from blasting operations at the premises must not exceed 115dB (Lin Peak) at any noise sensitive locations for more than five per cent of the total number of blasts over each reporting period.

L4.3 Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 10mm/sec at any time at any noise sensitive locations.

L4.4 Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 5mm/sec at any time at any noise sensitive locations for more than five per cent of the total number of blasts over each reporting period.

Results							
Monitor Location	Blast Date	Results Received	Blast Time	Ground Vibration Result	Ground Vibration Compliant	Overpressure Result	Over-pressure Compliant
A							

There were no blasts conducted on the site in April 2016.

## Water Monitoring

Water Quality Monitoring is conducted as per condition M2.1 of EPL 899. The water quality results for the reporting period are tabled below.

Sample Period: April 2016  
 Licensee: Talbragar Quarry  
 Licensee Address: Brocklehurst, Dubbo, NSW 2830  
 EPL No: 899

### Qualifications related to Water

Discharge of pollutants to waters from the sediment basin is only permitted when the discharge occurs solely as a result of rainfall that exceeds the minimum design criteria for sediment control measures in Managing Urban Stormwater: Soils and Construction - Volume 2E Mines and Quarries.

### L2.4 Water and/or Land Concentration Limits

#### POINT 1

Pollutant	Units of Measure	50 Percentile concentration limit	90 Percentile concentration limit	3DGM concentration limit	100 percentile concentration limit
Total suspended solids	milligrams per litre				50

Monitoring Frequency – Daily During Discharge

Results – EPL 899 Monitoring Point 1 (Discharge Point from Sediment Basin)					
Sampling Date	Date Results Received	pH	Compliant?	Total Suspended Solids (mg/L)	Compliant?

There were no samples collected and analysed in the month of April 2016 as the site did not discharge any water from Point 1.

## Talbragar Quarry Environmental Monitoring Report

### Blasting

Blast monitoring is conducted as per condition L4 of EPL 899. The blasting monitoring results are summarised below.

Monitoring Period: March 2016  
Licensee: Talbragar Quarry  
Licensee Address: Brocklehurst, Dubbo, NSW 2830  
EPL No: 899

#### Qualifications related to blasting:

L4.1 The airblast overpressure level from blasting operations at the premises must not exceed 120dB (Lin Peak) at any time at any noise sensitive locations.

L4.2 The airblast overpressure level from blasting operations at the premises must not exceed 115dB (Lin Peak) at any noise sensitive locations for more than five per cent of the total number of blasts over each reporting period.

L4.3 Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 10mm/sec at any time at any noise sensitive locations.

L4.4 Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 5mm/sec at any time at any noise sensitive locations for more than five per cent of the total number of blasts over each reporting period.

Results							
Monitor Location	Blast Date	Results Received	Blast Time	Ground Vibration Result	Ground Vibration Compliant	Overpressure Result	Over-pressure Compliant
A							

There were no blasts conducted on the site in March 2016.



## Water Monitoring

Water Quality Monitoring is conducted as per condition M2.1 of EPL 899. The water quality results for the reporting period are tabled below.

Sample Period: March 2016  
 Licensee: Talbragar Quarry  
 Licensee Address: Brocklehurst, Dubbo, NSW 2830  
 EPL No: 899

### Qualifications related to Water

Discharge of pollutants to waters from the sediment basin is only permitted when the discharge occurs solely as a result of rainfall that exceeds the minimum design criteria for sediment control measures in Managing Urban Stormwater: Soils and Construction - Volume 2E Mines and Quarries.

### L2.4 Water and/or Land Concentration Limits

#### POINT 1

Pollutant	Units of Measure	50 Percentile concentration limit	90 Percentile concentration limit	3DGM concentration limit	100 percentile concentration limit
Total suspended solids	milligrams per litre				50

Monitoring Frequency – Daily During Discharge

Results – EPL 899 Monitoring Point 1 (Discharge Point from Sediment Basin)					
Sampling Date	Date Results Received	pH	Compliant?	Total Suspended Solids (mg/L)	Compliant?

There were no samples collected and analysed in the month of March 2016 as the site did not discharge any water from Point 1.

## Talbragar Quarry Environmental Monitoring Report

### Blasting

Blast monitoring is conducted as per condition L4 of EPL 899. The blasting monitoring results are summarised below.

Monitoring Period: January 2016  
Licensee: Talbragar Quarry  
Licensee Address: Brocklehurst, Dubbo, NSW 2830  
EPL No: 899

#### Qualifications related to blasting:

L4.1 The airblast overpressure level from blasting operations at the premises must not exceed 120dB (Lin Peak) at any time at any noise sensitive locations.

L4.2 The airblast overpressure level from blasting operations at the premises must not exceed 115dB (Lin Peak) at any noise sensitive locations for more than five per cent of the total number of blasts over each reporting period.

L4.3 Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 10mm/sec at any time at any noise sensitive locations.

L4.4 Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 5mm/sec at any time at any noise sensitive locations for more than five per cent of the total number of blasts over each reporting period.

Results							
Monitor Location	Blast Date	Results Received	Blast Time	Ground Vibration Result	Ground Vibration Compliant	Overpressure Result	Over-pressure Compliant
A							

There were no blasts conducted on the site in January 2016.

## Water Monitoring

Water Quality Monitoring is conducted as per condition M2.1 of EPL 899. The water quality results for the reporting period are tabled below.

Sample Period: January 2016  
 Licensee: Talbragar Quarry  
 Licensee Address: Brocklehurst, Dubbo, NSW 2830  
 EPL No: 899

### Qualifications related to Water

Discharge of pollutants to waters from the sediment basin is only permitted when the discharge occurs solely as a result of rainfall that exceeds the minimum design criteria for sediment control measures in Managing Urban Stormwater: Soils and Construction - Volume 2E Mines and Quarries.

### L2.4 Water and/or Land Concentration Limits

#### POINT 1

Pollutant	Units of Measure	50 Percentile concentration limit	90 Percentile concentration limit	3DGM concentration limit	100 percentile concentration limit
Total suspended solids	milligrams per litre				50

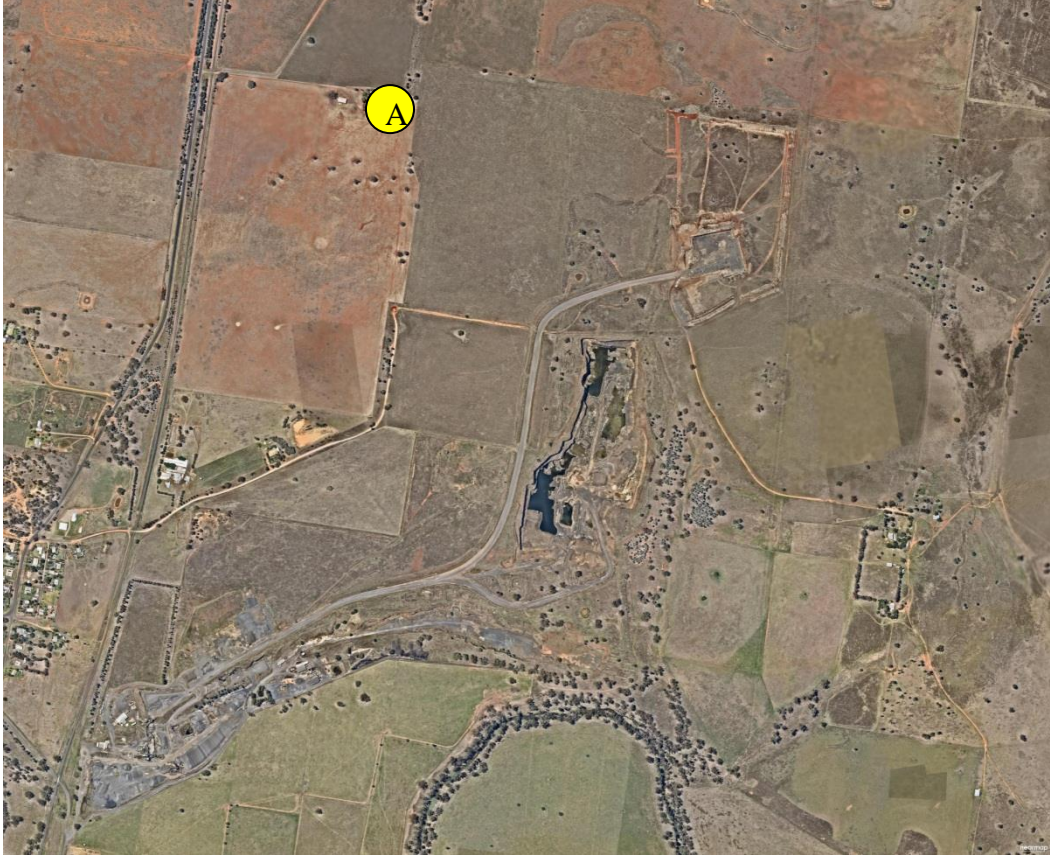
Monitoring Frequency – Daily During Discharge

Results – EPL 899 Monitoring Point 1 (Discharge Point from Sediment Basin)					
Sampling Date	Date Results Received	pH	Compliant?	Total Suspended Solids (mg/L)	Compliant?

There were no samples collected and analysed in the month of January 2016 as the site did not discharge any water from Point 1.

Talbragar Quarry Monitoring Locations

Blast Monitoring Location



Water Quality Monitoring Location

