

Mt Arthur Coal Community Consultative Committee

Planned meeting date:

15 September 2021

Information provided:

1 April to 30 June

Environmental Management

FY21-22 Rehabilitation Update

Mt Arthur Coal completed (with seed) 76.85 ha for FY21, exceeding the MOP target of 73 ha. This included areas in the north (VD4 and VD5), the west (new EME pad area) and south (Saddlers Central and Drayton Void). Bulk shaping is continuing in the Drayton Void area as part of the 43 ha FY22 target.

Mt Arthur Coal has also completed 68.2 ha repair and re-work of drought impacted rehab in the VD4 and VD5 areas. This work includes:

- Scalping to remove weeds and minimise the weed seed bank;
- Any regrowth of weeds sprayed;
- Repair of erosion and re-working of rock drains;
- Application of additional gypsum;
- Application of compost and chisel ploughing to incorporate; and
- Re-application of a higher rate Box Gum Woodland seed mix.

Additionally, a trial of spreading temporary stabilisation is being carried out along VD5. This trial involved spreading rain impacted hay across exposed soil to provide stabilisation prior to sufficient ground cover germinating. Approximately 300 bales of hay were spread across the upper slope to assess coverage and safety requirements.

Environmental Performance

Air Quality Monitoring (Period 1 April to 30 June)

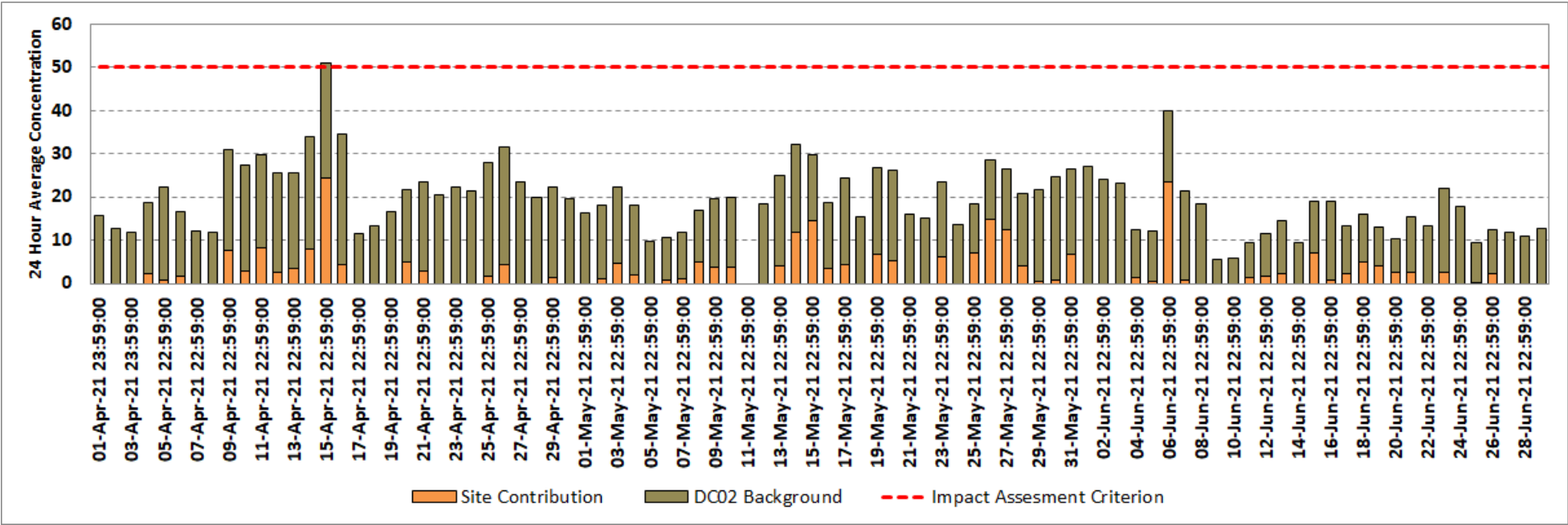
- This paper (for the reporting period of 1 April – 30 June 2021) covers the performance of all six statutory PM10 monitoring sites using TEOMs, and the two dust deposition gauges.
- One day within the reporting period experienced elevated absolute PM10 TEOM monitoring results.
 - 15 April 2021 DC02
- Table 1 below provides an equipment performance summary.
- A guide has been provided at the end of this section to assist in the interpretation of the results and figures. The figures within this section have been developed in line with consultation with members of the CCC.

Table 1. Equipment Performance Summary

Site	Date/s	Reason
DC02	11/05/2021	<75% Data capture due to power outage for part of the day
DC04	10/04/2021 04/05/2021	<75% Data capture due to equipment issues <75% Data capture due to equipment issues
DC07	07/04/2021	<75% Data capture due to equipment issues

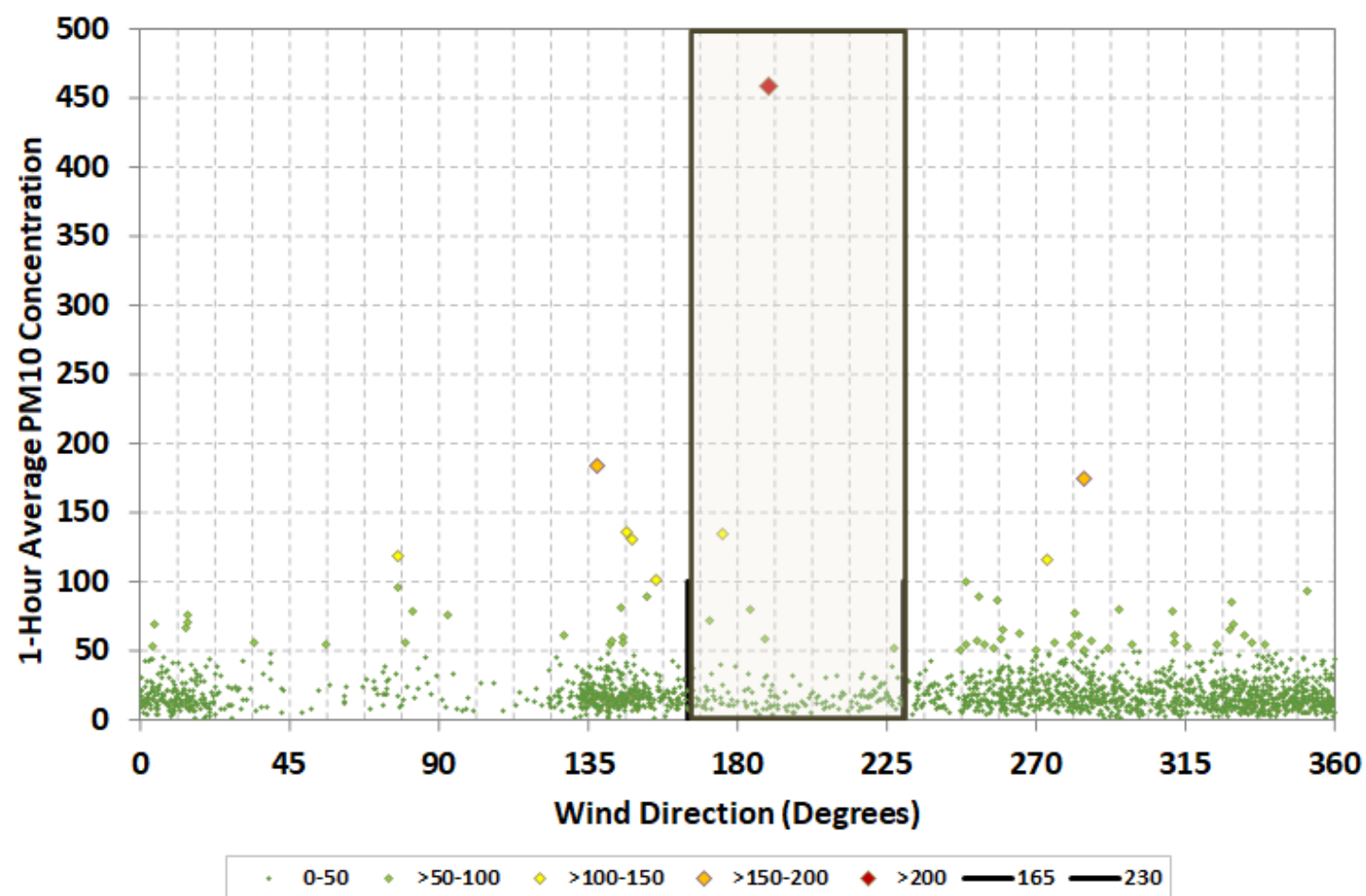
Sheppard Avenue – DC02

Data capture – 99%



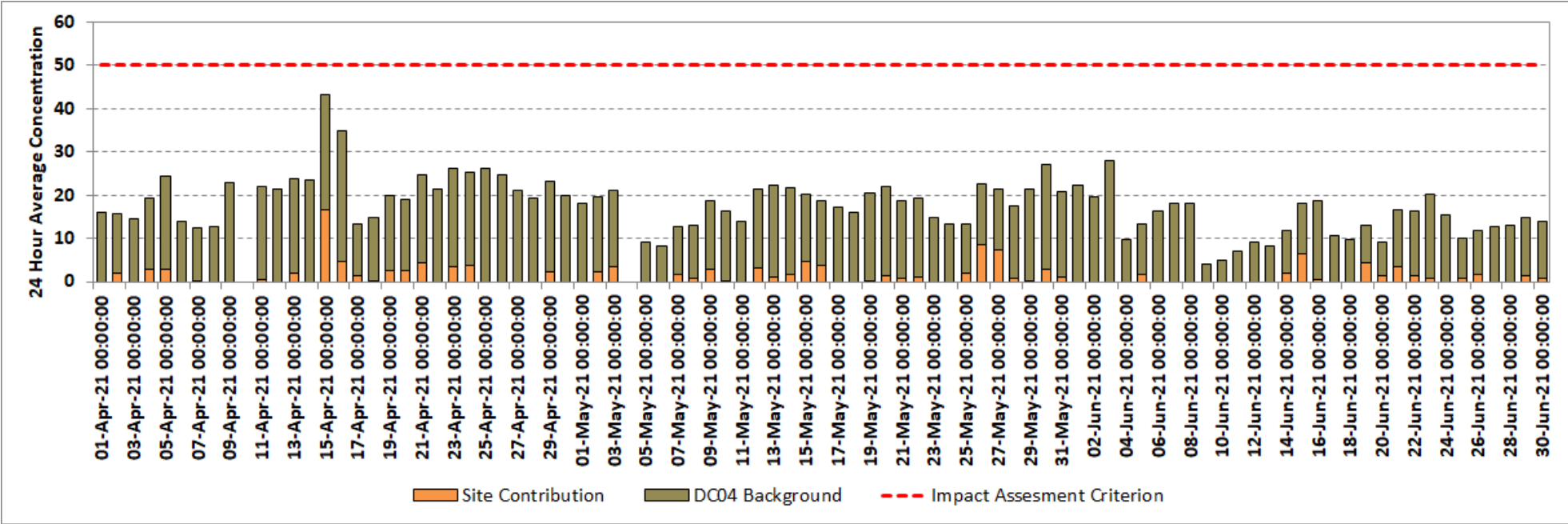
Sheppard Avenue – DC02

DC02

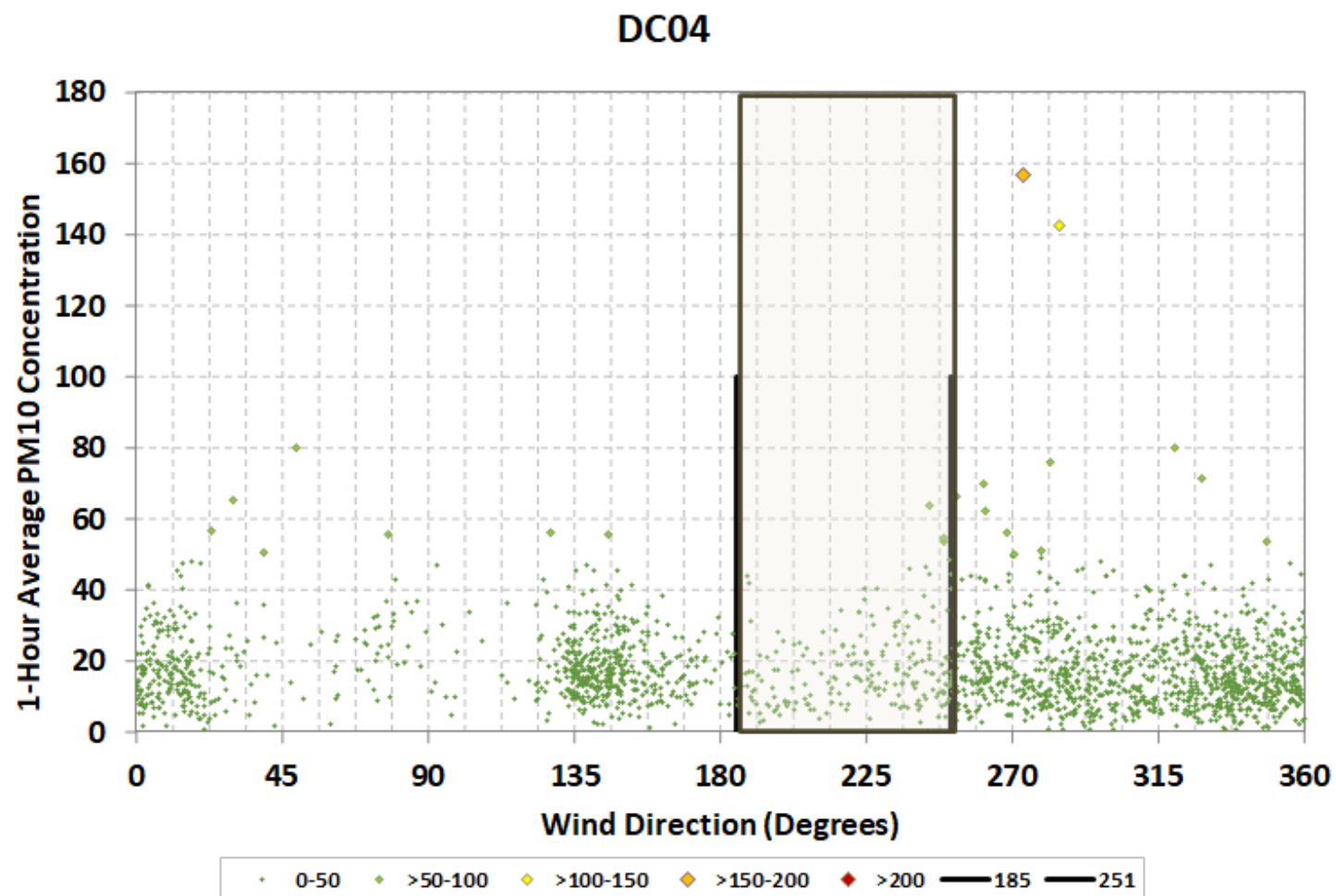


South Muswellbrook – DC04

Data capture – 98%

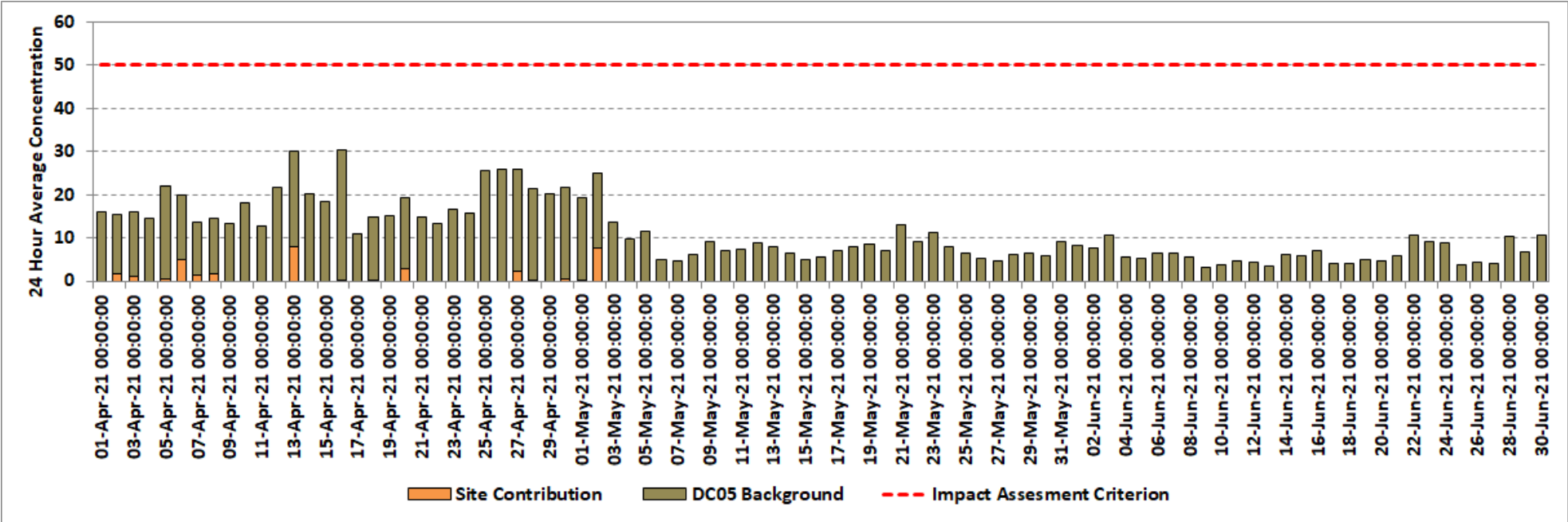


South Muswellbrook – DC04

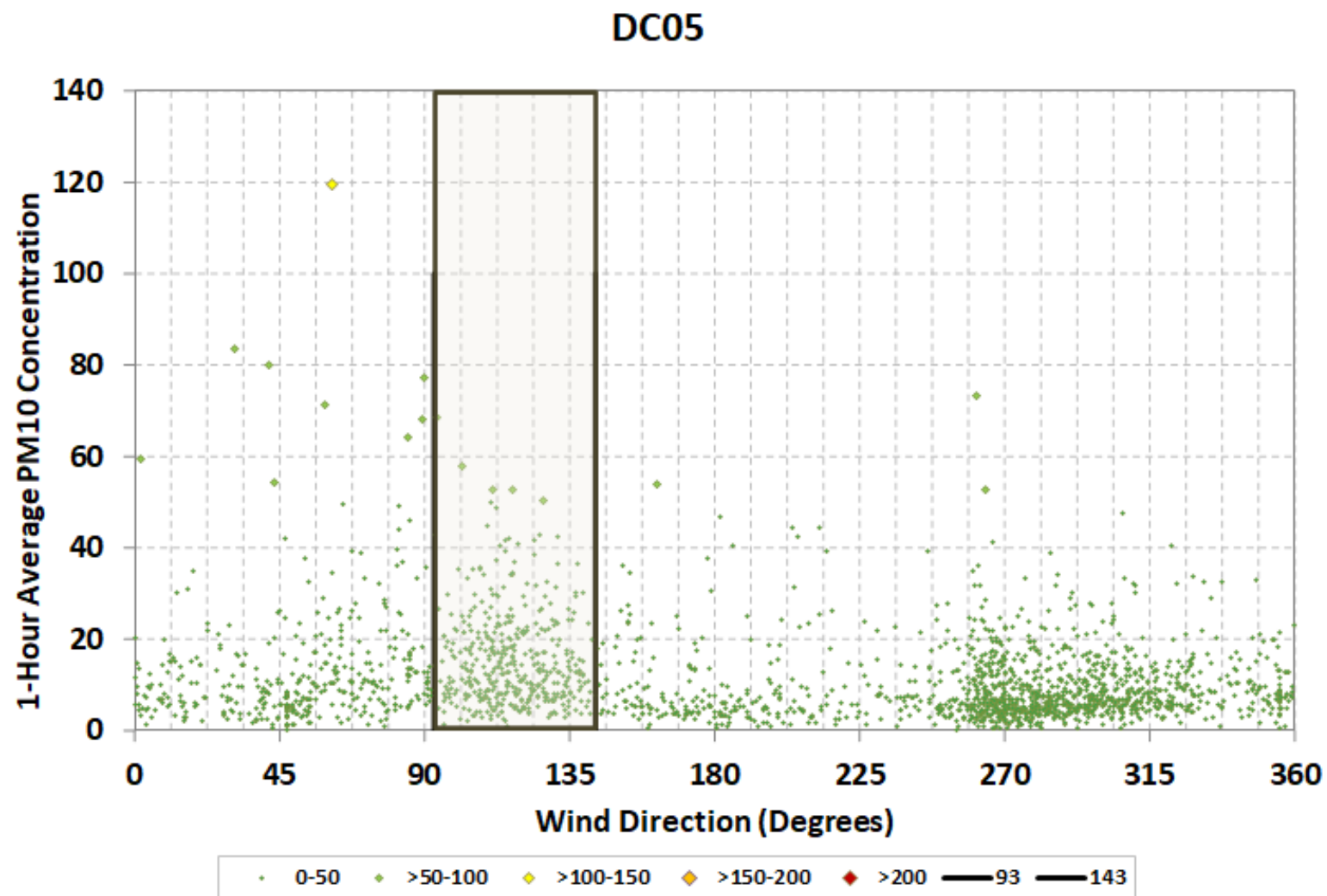


Roxburgh Road – DC05

Data capture – 100%

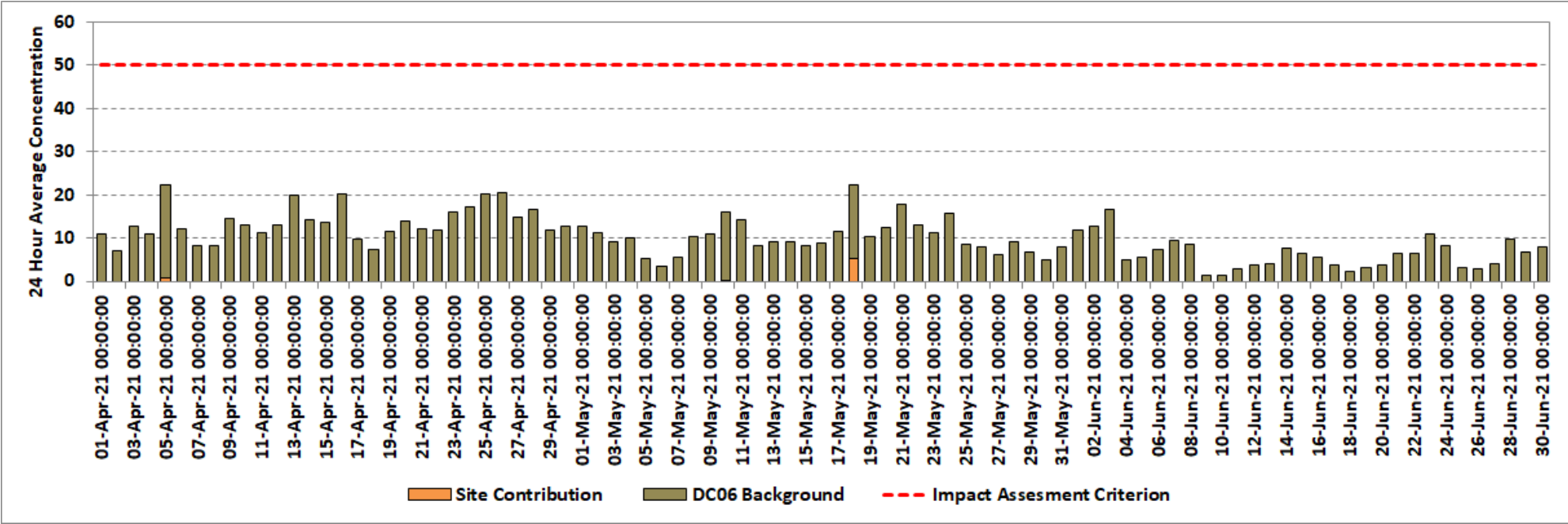


Roxburgh Road – DC05

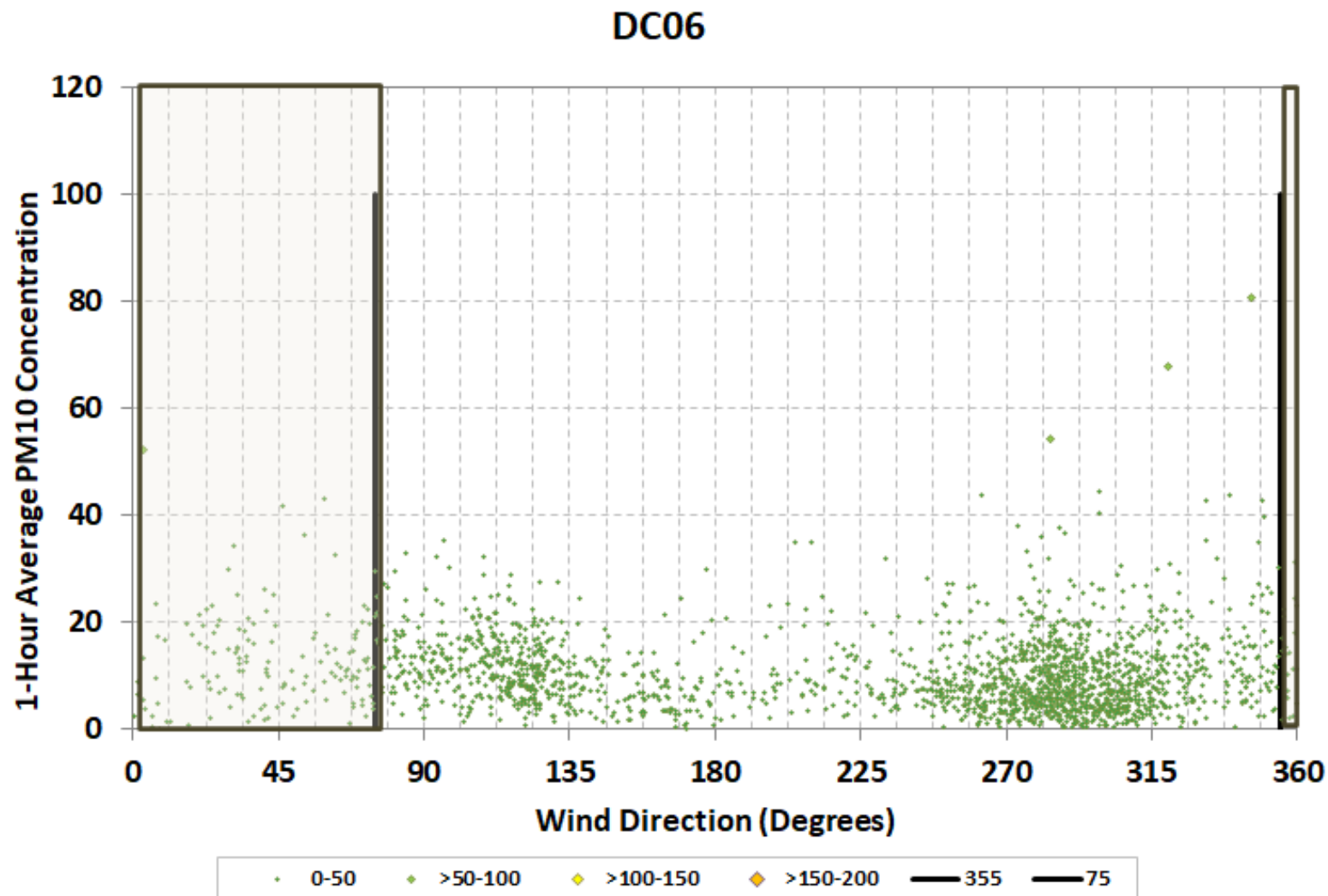


Edderton Homestead - DC06

Data capture – 100%

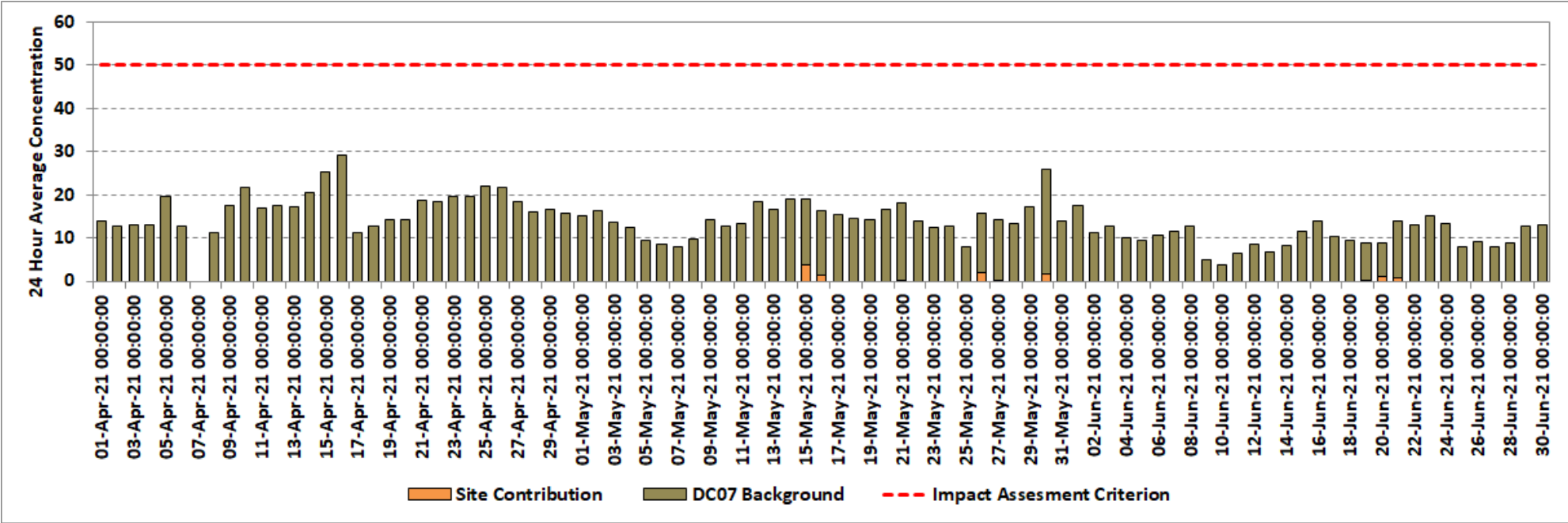


Edderton Homestead - DC06

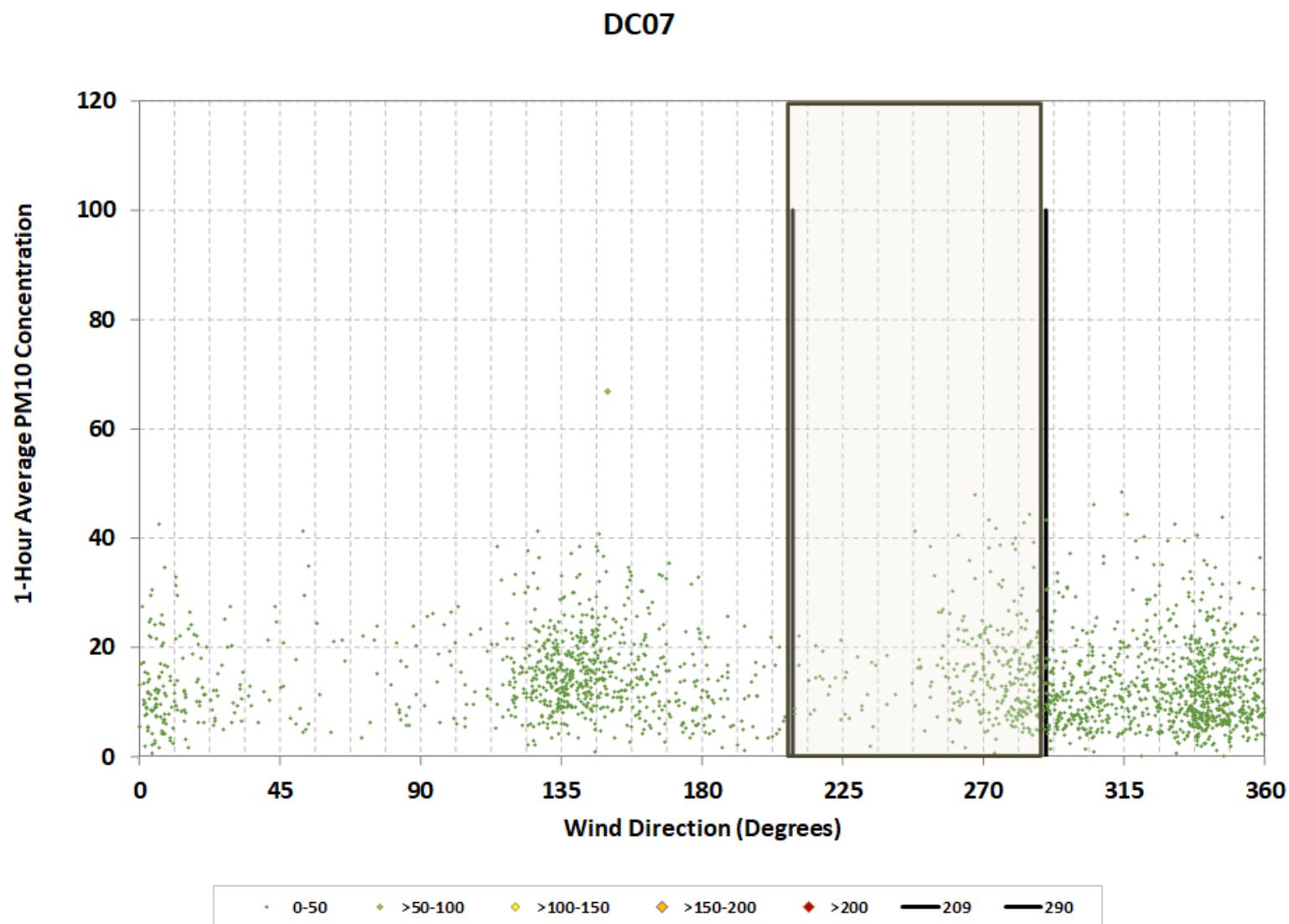


Antiene - DC07

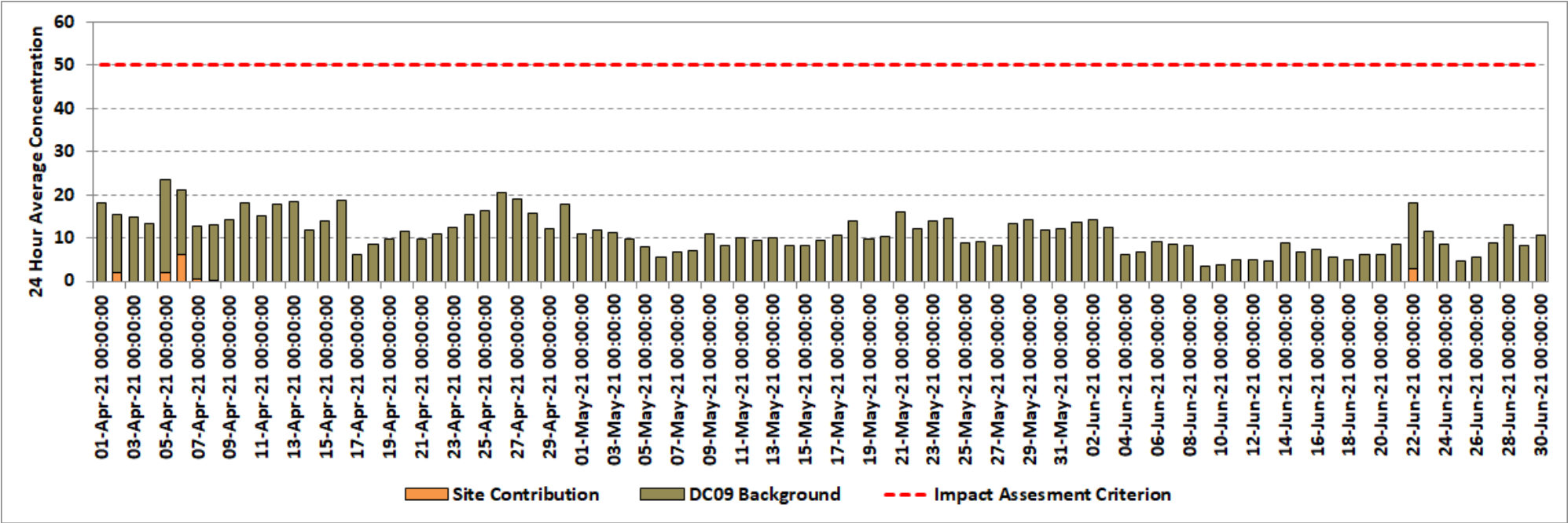
Data capture - 99%



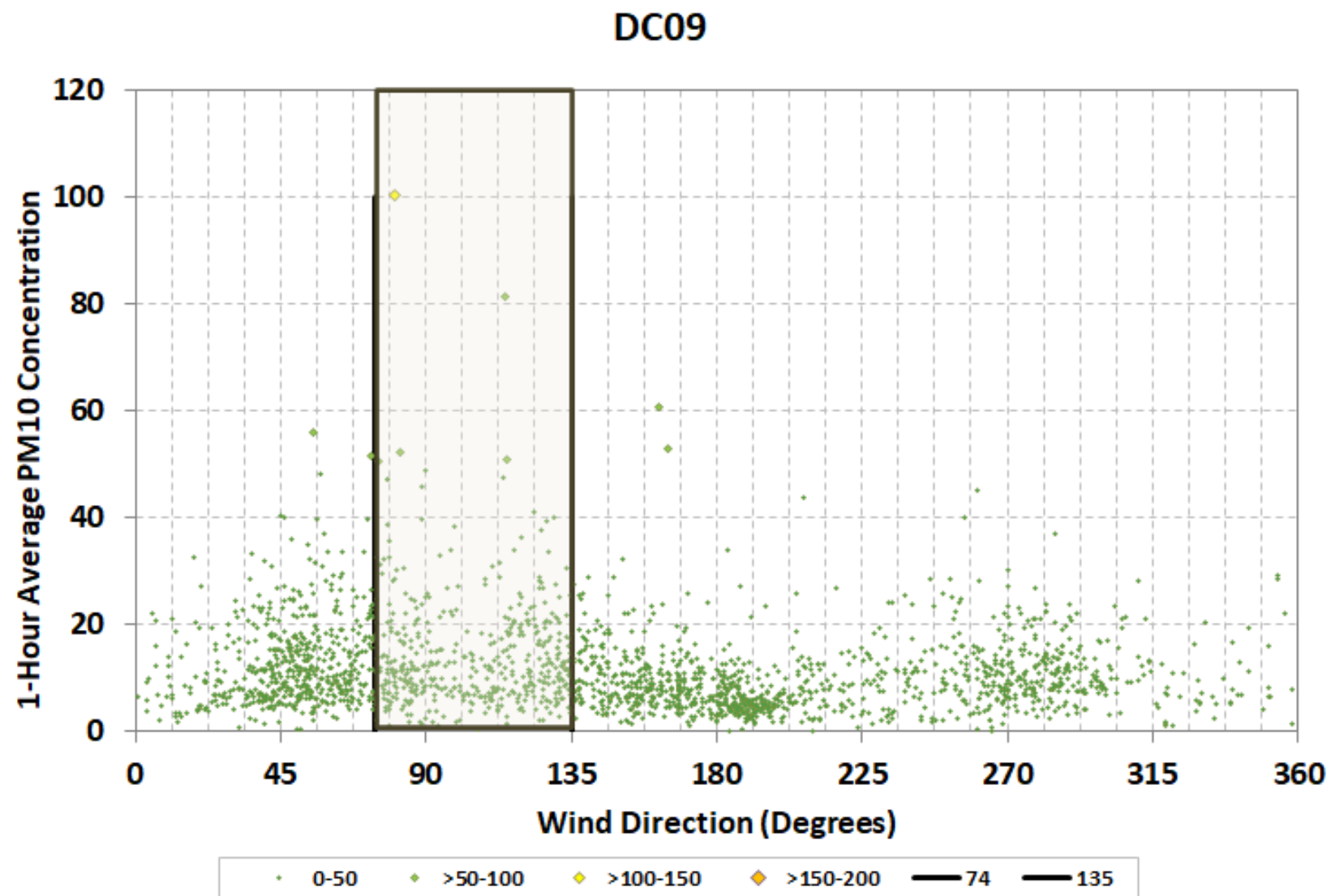
Antiene - DC07



Wellbrook – DC09
Data capture – 100%

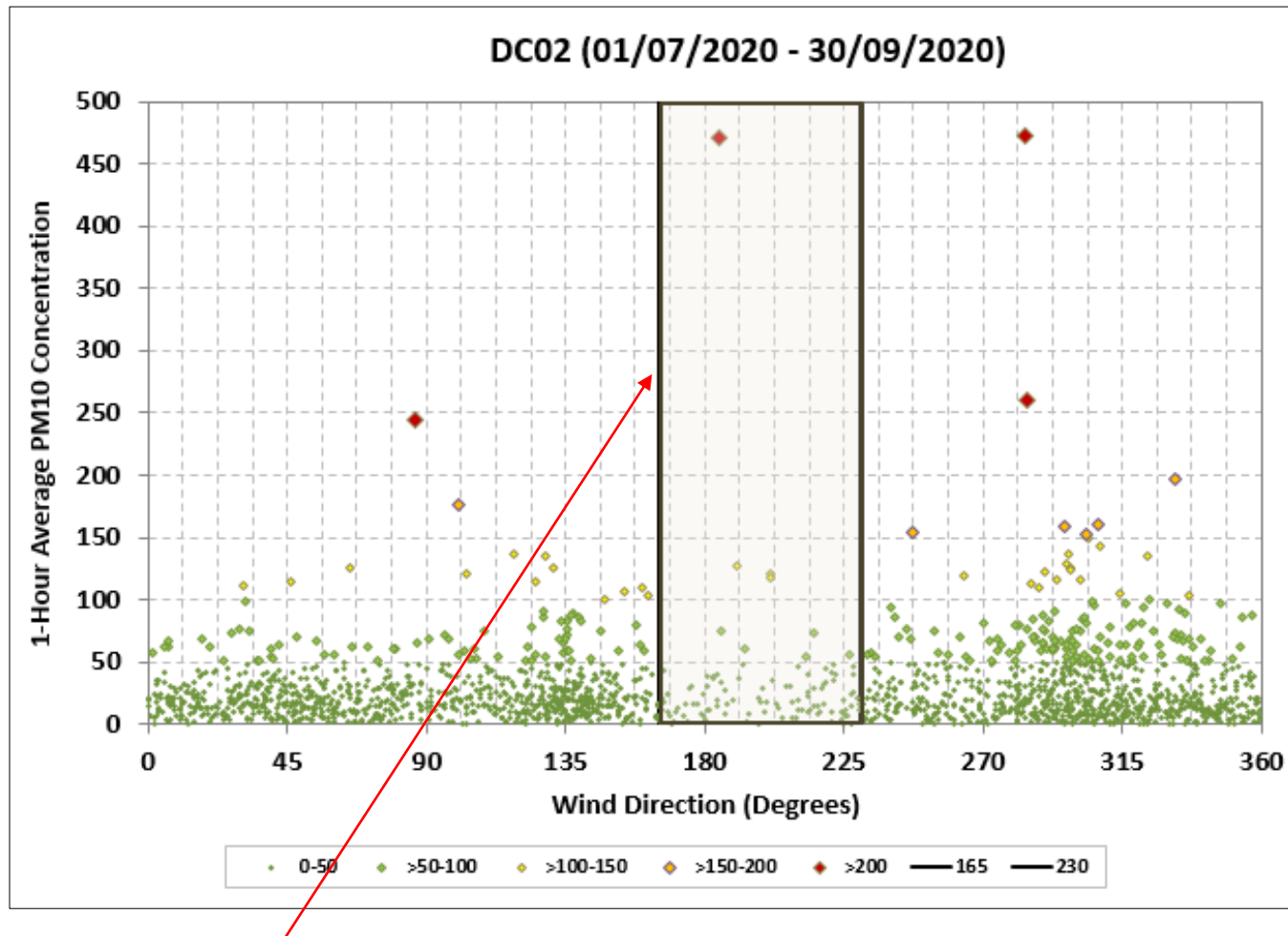


Wellbrook – DC09

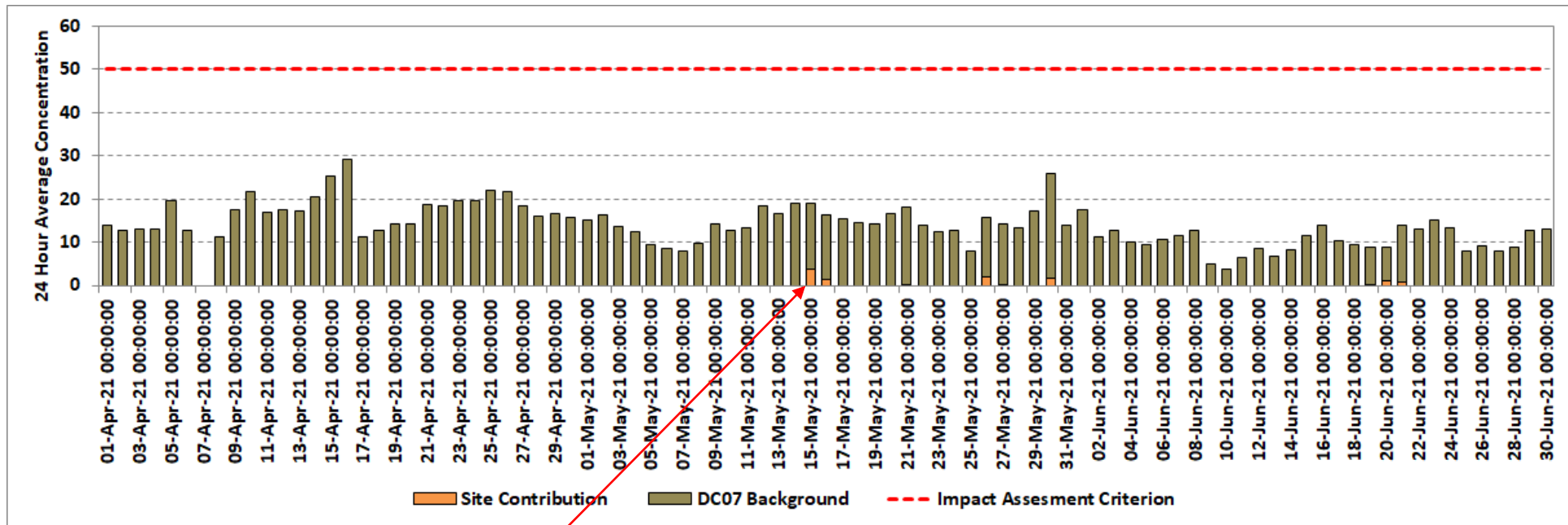


Air Quality Monitoring Interpretation Guidance

This information has been provided to assist with the interpretation of the air quality monitoring results and figures within this report.



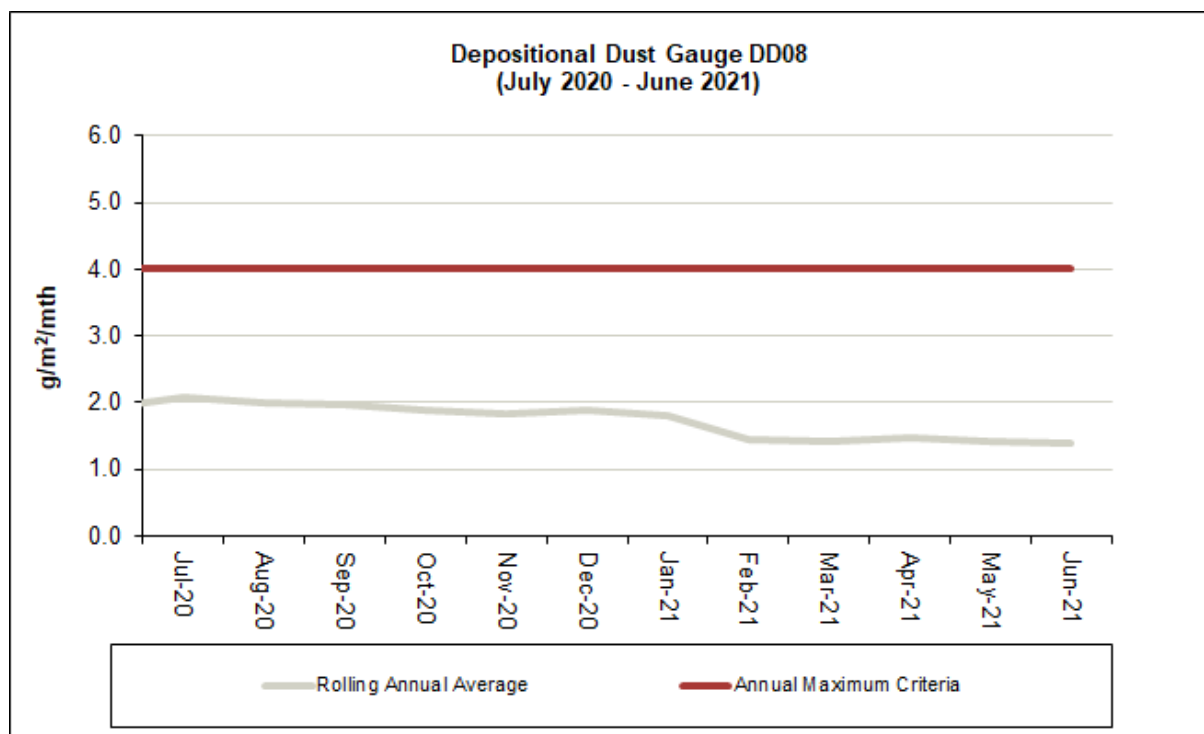
This graphic shows the window where the Mt Arthur Coal contribution is at risk of influencing the DC02 dust monitor based on the wind direction. This window can be referred to as the Arc of Influence. All 1- Hour Average Concentrations have been plotted for the reporting period to give an indication of Mt Arthur's influence on DC02.

Air Quality Monitoring Interpretation Guidance continued

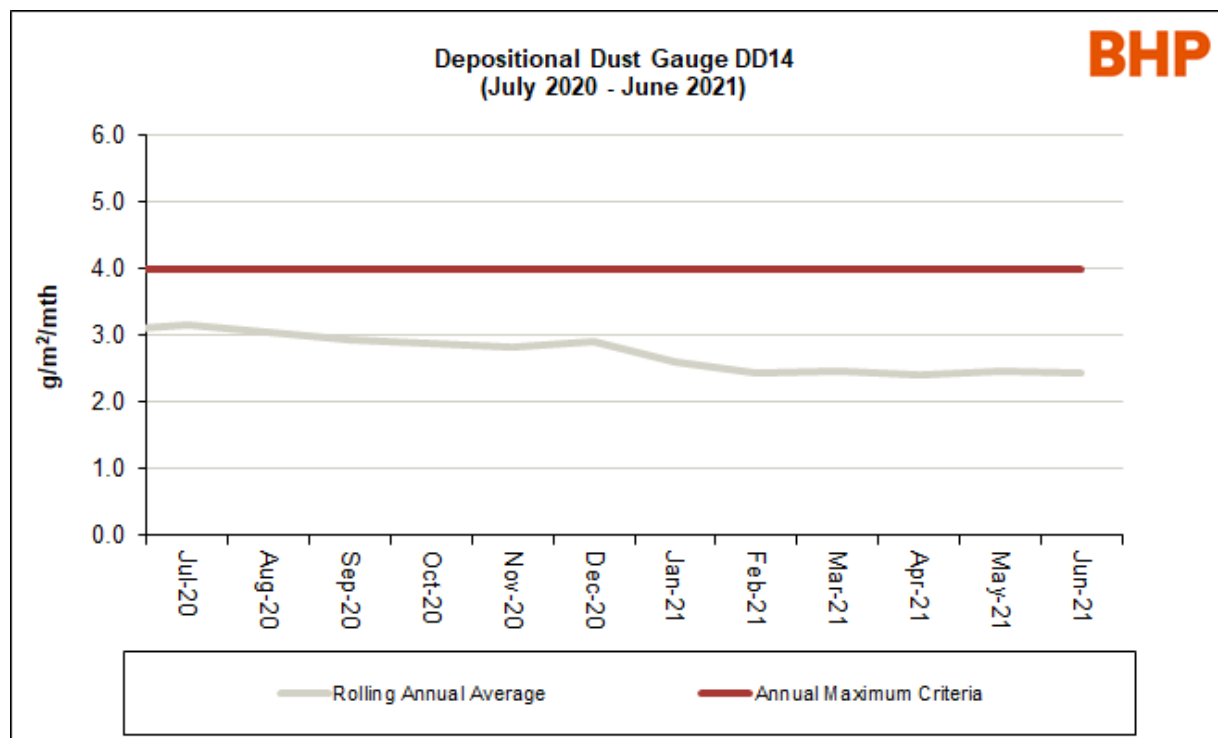
This graphic shows the cumulative Daily 24hr PM10 concentrations along with the incremental Mt Arthur Coal concentrations. This example shows that the cumulative 24hr concentration ('Background') of approximately 20ug/m3; the Mt Arthur incremental concentration ('Site Contribution') is represented by the orange coloured portion.

Deposited Dust**DD08**

Data capture – 100%

**DD14**

Data capture – 100%



Water Monitoring (Period 1 April to 30 June)

Quarterly groundwater monitoring was conducted in April due to wet weather impacting of access to sites and delaying the monitoring in March. Annual groundwater monitoring was conducted in June.

There were six occurrences in the June monitoring period where sampling points exceeded trigger levels. These occurrences are outlined in Table 2 below. Expert groundwater consultants have been engaged to undertake the annual review of groundwater monitoring for the 2021 reporting year. This report will be included in the 2021 Annual Review. The annual groundwater review will include these results and fully assess the trigger exceedances.

Table 2 - GW Triggers June 2021

	GW2	GW40A	GW48	GW49	BCGW22	IW4027
June 2021 Electrical Conductivity (μS/cm)	4900	5520	4360	6790	15800	14800
Electrical Conductivity (μS/cm) Stage 1 Trigger	4266	5290	4090	6170	14100	11810
Electrical Conductivity (μS/cm) Stage 2 Trigger	4770	5650	4750	7530	16240	14500

Blast Monitoring (Period 1 April to 30 June)

There have been no exceedances of the blast criteria during the reporting period. There has been two blasts in excess of the 5mm/s vibration limit and one blast in excess of the 115dBL over pressure limit. There is an allowed exceedance of 5% of blasts for these limits over a 12 month period. The 5% criteria have not been exceeded.

Operational Noise Monitoring (Period 1 April to 30 June)

There have been no exceedances of operational noise criteria during the reporting period. Monthly night time compliance monitoring (attended) was completed to schedule by MAC's external expert consultant. MAC is not informed of when this monitoring is scheduled for completion to ensure there is a true representation of operational activities on any given night.

Environmental Incidents (Period 1 April to 30 June)

Unauthorised Discharge Event (5 June 2021) near Denman Road

On 5 June 2021 a mine water discharge event occurred across Denman Road on the northern boundary of MAC. This event has been reported to the relevant external parties in line with approval and licence conditions with no feedback received to date. As previously reported to the CCC, Mt Arthur is currently working through a Pollution Reduction Study (PRS) in line with the Environmental Protection Licence condition outlined below. This study will assess mine water transfer pipelines within in high risk zones against relevant criteria and provide recommendations for upgrades and improvements. Significant works on site have already begun with a number of high risk pipelines relocated, decommissioned or controlled through secondary containment.

8 Pollution Studies and Reduction Programs

U1 Review of mine water transfer pipelines

U1.1 The Licensee must undertake a review of mine water transfer pipelines at the premises to assess the risk of pollution of waters and identify any actions or works that can be reasonably and feasibly implemented to reduce the risk. A report detailing the findings and recommending upgrades must be provided to the EPA by 24 September 2021 via email to: EPA.DeliveryHub@epa.nsw.gov.au

The review and report must:

- a. be undertaken by an appropriately qualified and experienced person;
- b. assess existing mine water transfer pipelines against relevant guideline design criteria;
- c. provide a risk assessment and ranking of findings to justify recommendations;
- d. include recommendations for upgrades and improvements;
- e. include a timeline for implementation of any recommended upgrades and improvements, based on highest risk and approximate costing.

Note: It is the EPA's intention to formalise the recommendations of the Pollution Study into a Pollution Reduction Program.

Environmental Reporting (Period 1 April to 30 June)

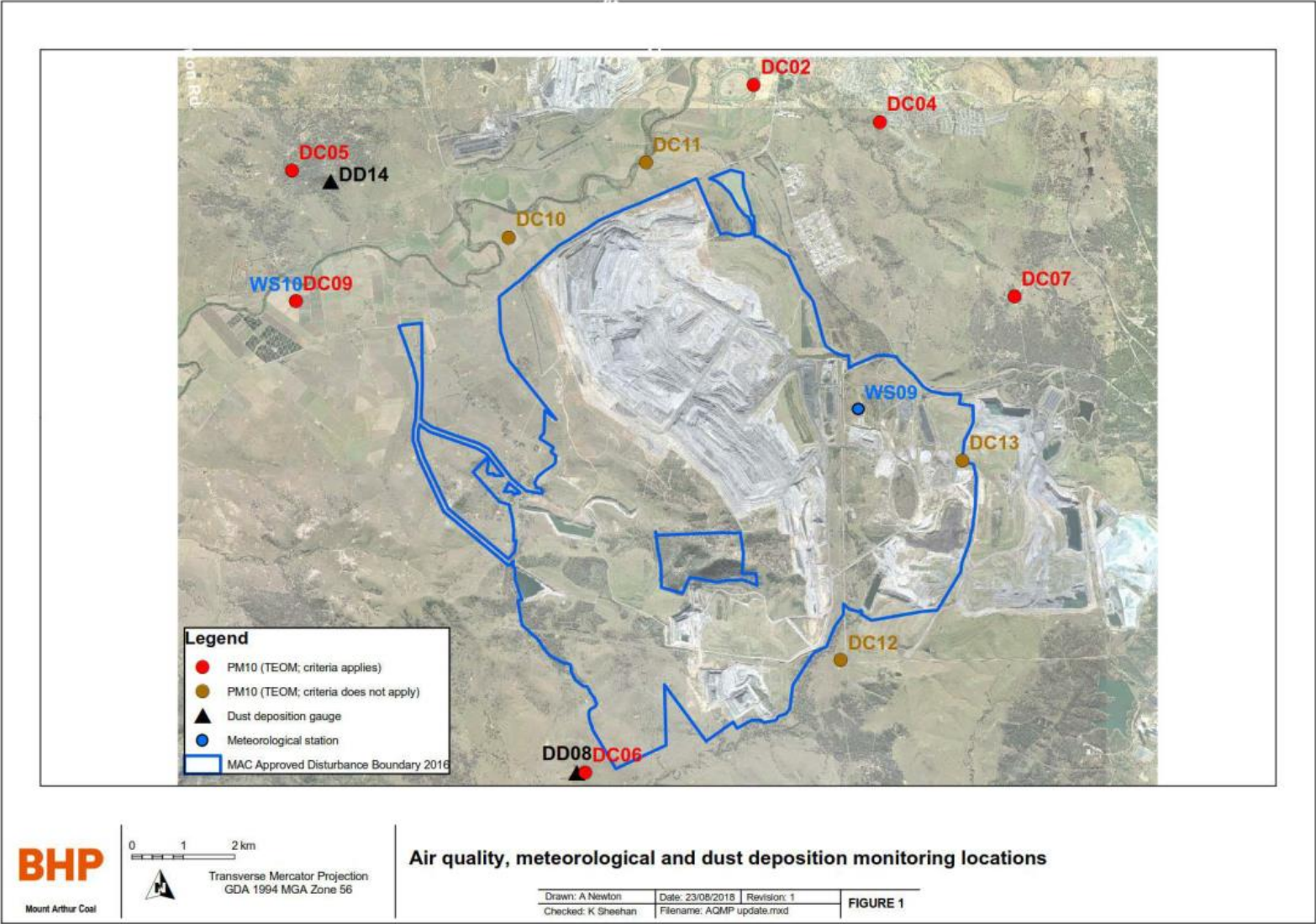
There have been no routine Environmental Protection Licence (EPL) or Project Approval reports required to be submitted during the reporting period.

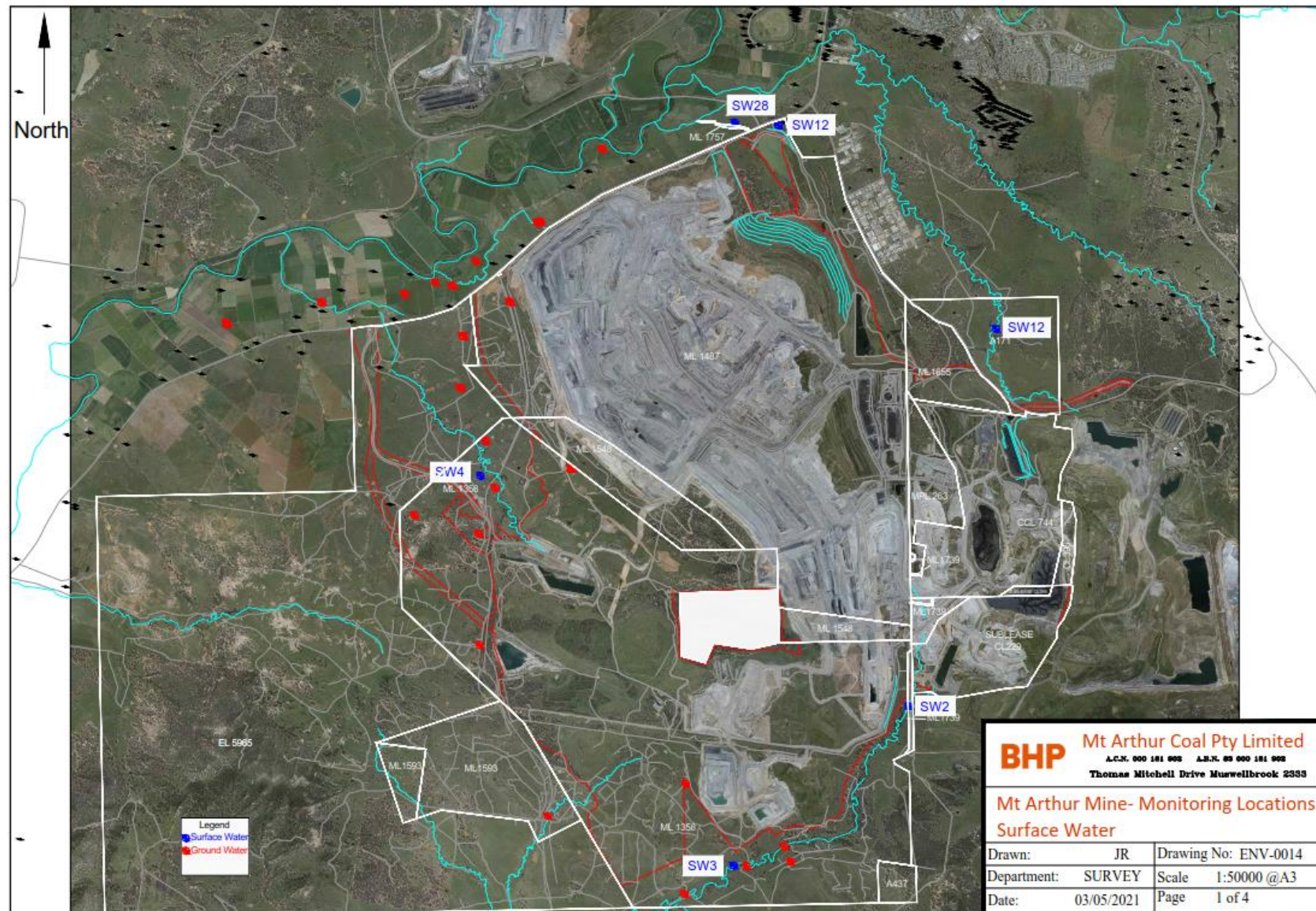
Historical information is available to view on the BHP website using the following link:

<https://www.bhp.com/environment/regulatory-information#>

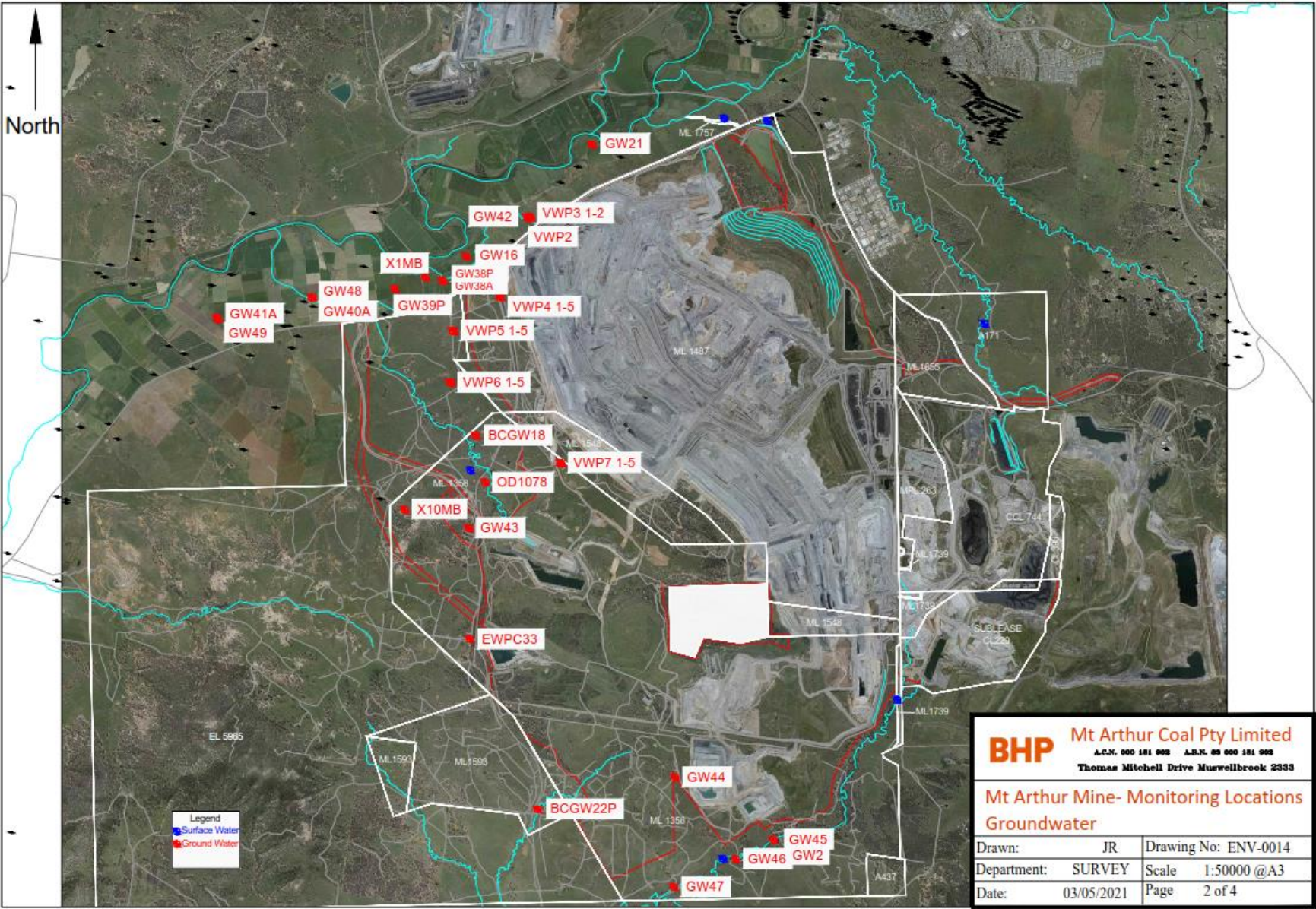
Environmental Monitoring Plans (for reference)

Air Quality and Meteorological Monitoring Locations (Source: Air Quality Management Plan)

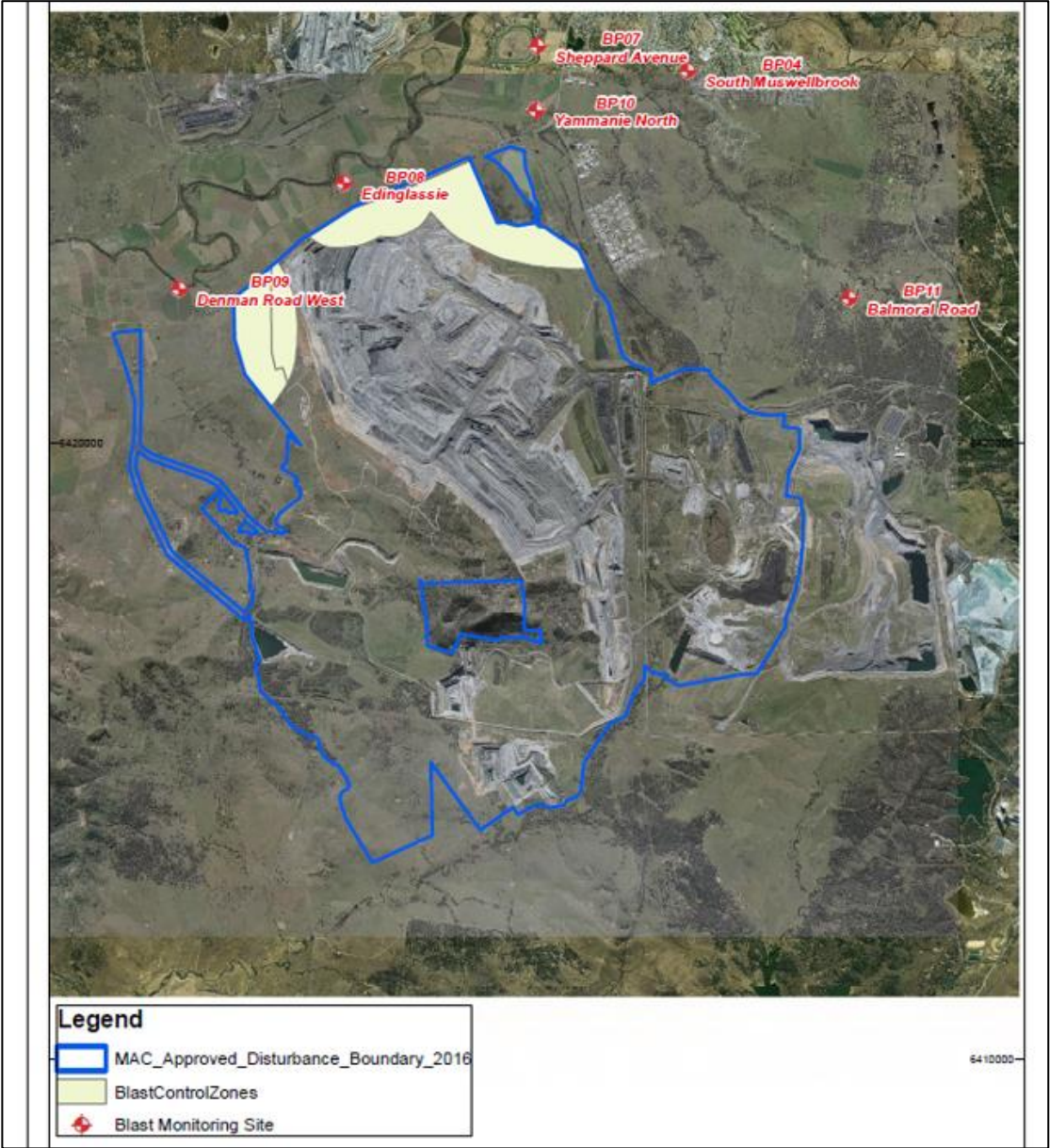


Site Water Monitoring Locations (Sourced and modified from: Site Water Management Plan)**Surface Water Monitoring Locations:**

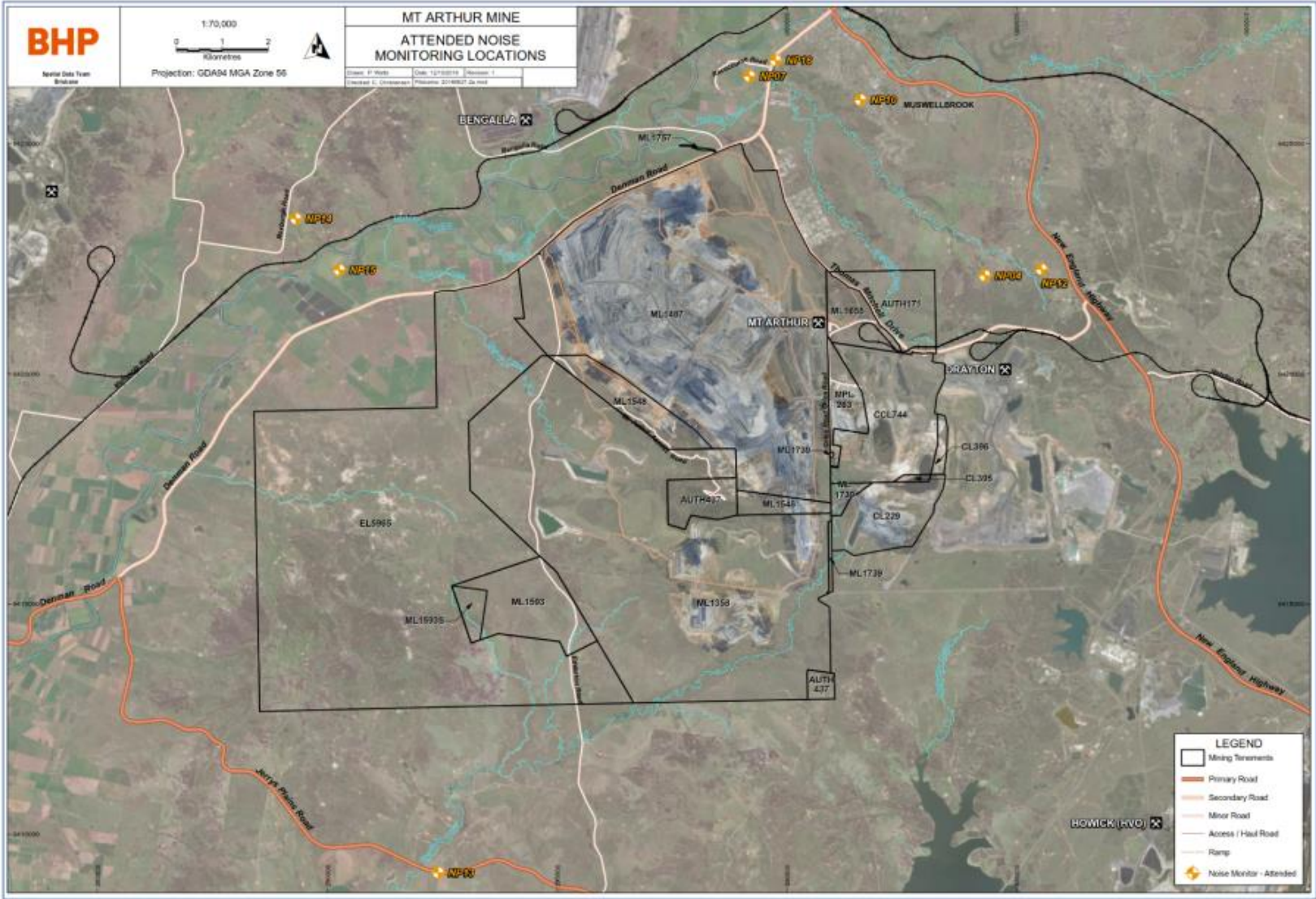
Ground Water Monitoring Locations:



Blast Monitoring Locations (Source: Blast Management Plan)

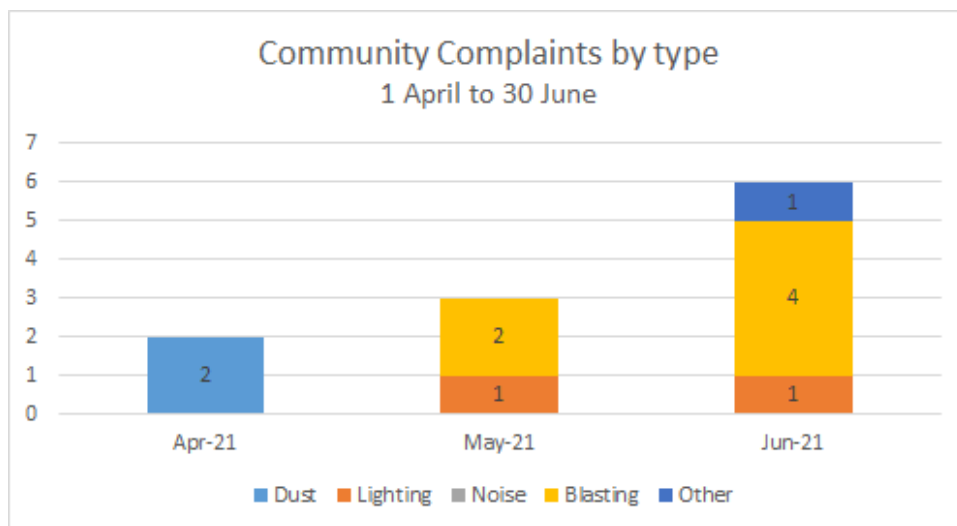


Operational Noise Monitoring (attended) Locations (Source: Noise Management Plan)

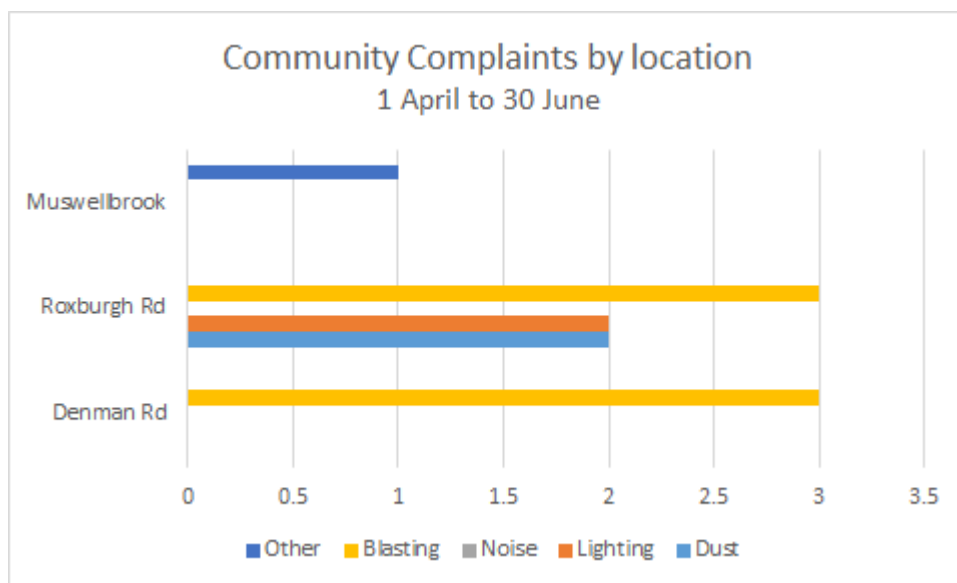


Community Complaints

The Community Complaints included in this report are for the period 1 April to 30 June 2021. Mt Arthur Coal received eleven (11) complaints during this period. Of the eleven complaints, six (6) were related to blasting activity; two (2) to dust; two (2) to lighting and one (1) in the “other” category related to a concern around BHP engagement with Indigenous businesses when tendering for work at Mt Arthur Coal.



Of the eleven (11) complaints received for the three-month reporting period, seven (7) came from residents at Roxburgh Rd, three (3) were from Denman Road and one (1) from Muswellbrook.



Community Complaints Summary: 1 April to 30 June

Date	Time	From	Issue	Lodgement type	Investigation and response to caller
6/04/2021	8:05am	Roxburgh Rd, Muswellbrook	Dust	Community Response Line	Results at the nearest monitor indicated dust levels were not elevated at the time, and the 24-hour average remained within regulatory criteria. Caller was advised of investigation and monitoring results.
13/04/2021	9:23am	Roxburgh Rd, Muswellbrook	Dust	Community Response Line	Results at the nearest monitor indicated dust levels were not elevated at the time, and the 24-hour average remained within regulatory criteria. Caller was advised of investigation and monitoring results.
1/05/2021	2:45pm	Roxburgh Rd, Muswellbrook	Blasting	Community Response Line	Investigation revealed weather conditions were suitable for blasting at the time. Results at the nearest monitor indicated dust levels were not elevated at the time, and the 24-hour average remained within regulatory criteria. Caller was advised of investigation and monitoring results.
10/05/2021	8:40am	Denman Rd, Muswellbrook	Blasting	Community Response Line	Investigation revealed weather conditions were suitable for blasting at the time. Results at the nearest monitor indicated dust levels were not elevated at the time, and the 24-hour average remained within regulatory criteria. Caller was advised of investigation and monitoring results.
28/05/2021	7:31pm	Roxburgh Rd, Muswellbrook	Lighting	Community Response Line	Investigation revealed location of one stationary light, which was relocated.
4/06/2021	8:04pm	Roxburgh Rd, Muswellbrook	Lighting	Community Response Line	Investigation revealed location of stationary lights, which were switched off.
8/06/2021	1:47pm	Muswellbrook	Other	Community Response Line	Caller was advised that all local Indigenous businesses have the opportunity to tender for BHP work at Mt Arthur Coal.

Date	Time	From	Issue	Lodgement type	Investigation and response to caller
9/06/2021	9:37am	Denman Rd, Muswellbrook	Blasting	Community Response Line	Overpressure and vibration results from the blast were within approval limits, and the blast was conducted in accordance with licence requirements for time of blast. Caller was advised of investigation.
9/06/2021	7:37am	Roxburgh Rd, Muswellbrook	Blasting	Community Response Line	Overpressure and vibration results from the blast were within approval limits, and the blast was conducted in accordance with licence requirements for time of blast. Caller was advised of investigation.
21/06/2021	1:53pm	Denman Rd, Muswellbrook	Blasting	Community Response Line	Overpressure and vibration results from the blast were within approval limits, and the blast was conducted in accordance with licence requirements for time of blast. Caller was advised of investigation.
21/06/2021	2:09pm	Roxburgh Rd, Muswellbrook	Blasting	Community Response Line	Overpressure and vibration results from the blast were within approval limits, and the blast was conducted in accordance with licence requirements for time of blast. Caller was advised of investigation.

Actions from previous meeting/s

The actions from previous meetings are listed below.

Action	Status
Actions from 17 February 2020 meeting	
ACTION 1: BHP will report back on air quality monitor downtime data and provide information about what needs to happen to be able to fix the monitor.	To be presented at upcoming meeting.
Actions remaining open from previous meetings	
Action 1 (Feb 2019): Chair to get in touch with the DP&E (DPIE) to ascertain if a Department representative could attend a future CCC meeting to speak about the cumulative impacts of dust. The DP&E were contacted.	Chair to discuss with NSW Department of Planning.
Action 2 (Nov 2019): Chair to arrange a department representative to discuss the lighting issue and associated community impacts particularly through the provision of defining offensive lighting.	Chair to discuss with the NSW Department of Planning.