Investigation information release

Date: February 2023

Uncontrolled dozer travels 230 metres down a ramp

Incident date: 15 January 2023

Event: Unoccupied dozer travels uncontrolled for 230 metres during plant recovery

Location: Maules Creek Coal Mine

Overview

An inoperable and unoccupied dozer was being towed by a second dozer down a mine ramp to an in-pit maintenance area, with an excavator being used as a brake stop, when a recovery sling failed and another disconnected. This resulted in the unoccupied dozer travelling uncontrolled down the ramp for 230 metres before coming to a stop on a windrow. No workers were injured.

The mine

Maules Creek Mine is an open cut coal mine 45 kilometres south-east of Narrabri in the Gunnedah basin of NSW. Maules Creek Coal Pty Ltd, a subsidiary of Whitehaven Coal Limited, is the nominated mine operator of the Maules Creek Mine.

The incident

Workers from 3 different contracting companies undertook the recovery of an inoperable Caterpillar D10T2 dozer that required it to be conveyed to an in-pit maintenance area at the mine on 15 January 2023. Initially a float was arranged to relocate the dozer but it was later identified to be unsuitable for the task and was not used.

The workers completed a job hazard assessment (JHA) that identified towing the dozer to the maintenance area using a Caterpillar 992-wheel loader, with a Caterpillar D11T dozer used as a brake stop. The JHA also required the axles of the D10 dozer to be removed for free movement of the tracks.

When the task was ready to start, the wheel loader was not available and a decision was made to deviate from the JHA and use the D11 dozer as the tow machine with a 36-tonne excavator used as a brake stop (see Figure 1). Preliminary inquiries indicate the JHA was not reconsidered and the risks arising from the work task were not reassessed once the wheel loader was no longer to be used as part of the recovery, and the function of the D11 dozer changed.

The implemented towing system involved:

- the rear of the D10 and D11 dozers being connected by a fibre recovery sling looped around their respective ripper attachments (sling 1) (see Figure 2)
- a second fibre recovery sling connecting the front of the D10 dozer to the 36-tonne excavator being positioned behind it to provide braking (sling 2)

- sling 2 being connected with a D-shackle to a tow/lifting point on the D10 dozer blade (see Figure 3) and then looped around the arm of the excavator bucket attachment across a right-angled steel edge.

About 3pm the workers started towing the D10 dozer down the ramp towards the in-pit maintenance area. No supervisor was present in the area at this time.

Figure 1: Drone imagery showing the positions of machinery before incident

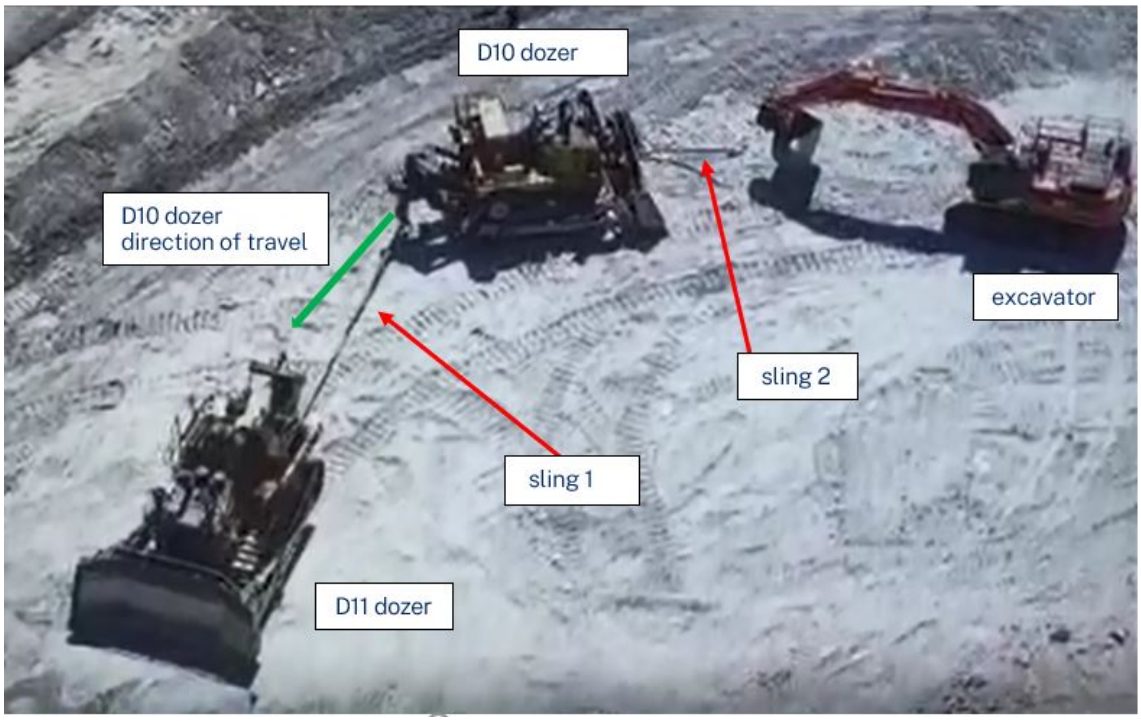


Figure 2: Sling 1 used to connect the ripper attachments of D10 and D11 dozers

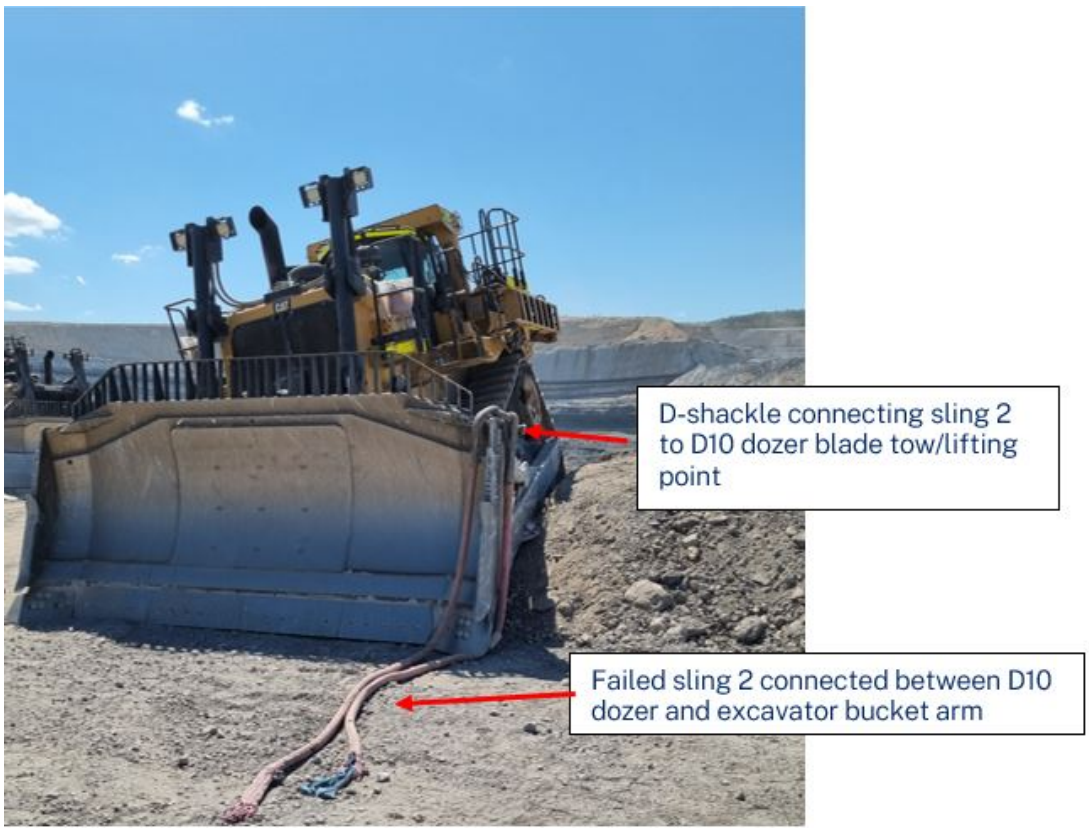
Figure 3: D-shackle connecting sling 2 to D10 dozer blade tow/lifting point

Shortly after the towing began, sling 2 rapidly tensioned and then broke away from the arm of the excavator. The D10 dozer then rolled a short distance until tension developed on sling 1 and it came to a stop as shown in Figure 4.

Figure 4: Drone imagery showing the position of the D10 dozer after the rear sling failed

The D11 dozer operator then tried to reposition the dozer, resulting in slack in the remaining intact sling (sling 1). This caused the sling to slip off the D11 dozer's ripper attachment resulting in the unrestrained D10 dozer rolling down the ramp in an uncontrolled manner for about 230 metres before coming to a stop on a windrow (see Figure 5). Access to the ramp area was restricted before the task began, and no workers were injured as a result of the incident.

Figure 5: Final location of the D10 dozer after uncontrolled travel down the ramp



The investigation

The Regulator has commenced an investigation to determine the cause and circumstances of the incident, which will explore, among other things, the:

- systems of work as they relate to the recovery of plant
- provision, selection and use of fit-for-purpose plant and towing equipment including tow/lifting points
- instruction, training and supervision of the workers involved, and
- adequacy of risk assessments, work instructions and procedures relevant to the incident including the management of change.

The mine operator and contractors are co-operating with the investigation. A report will be published when the investigation is concluded.

Safety observations

Mine operators and contractors are reminded of their duty to identify hazards and manage risks to health and safety in accordance with the provisions of the *Work Health and Safety Act 2011* and *Work Health and Safety (Mines and Petroleum Sites) Act 2013* and Regulations.

In particular, mine operators and contractors must:

- ensure fit-for-purpose plant, towing equipment and tow/lifting points are used as designed and in accordance with towing procedures, to ensure recovered plant remains suitably restrained to prevent uncontrolled movement
- provide appropriate instruction and supervision to ensure risk management processes are complied with so that, when hazardous conditions are encountered or task procedures have

changed from those originally planned, hazards are reassessed with adequate new risk controls put in place.

Workers are reminded of their duty to take care for their own health and safety and of their co-workers. They must also comply as far as they are reasonably able with the mine's work instructions, policy and procedures to ensure worker safety and compliance with the *Work Health and Safety Act 2011* and related legislation.

In particular, workers must:

- ensure they comply with mine operators' towing procedures, hazard identification and risk management processes and inform supervisors whenever hazardous conditions are encountered or task procedures have changed from those originally planned.

Further information

Please refer to the following guidance materials:

- SafeWork NSW Code of practice: Managing the risks of plant in the workplace
- NSW Resources Regulator MDG 15 Mobile and transportable plant for use on mines and petroleum sites
- NSW Resources Regulator Safety Alert SA22-04 Dangers of lifting and pulling activities revealed
- NSW Resources Regulator Investigation report – Serious injury at Springvale Colliery on 5 February 2019

About this information release

The Regulator has issued this information to draw attention to the occurrence of a serious incident in the mining industry. Further information may be published as it becomes available.

Visit our website to:

- learn more about our work on causal investigations and emergency response
- view our publications on other causal investigation

Document control	
CM9 reference	RDOC23/46134
Mine safety reference	IIR23-01
Date published	21 February 2023
Authorised by	Chief Investigator, Major Safety Investigations