

# MINE SAFETY INVESTIGATION UNIT

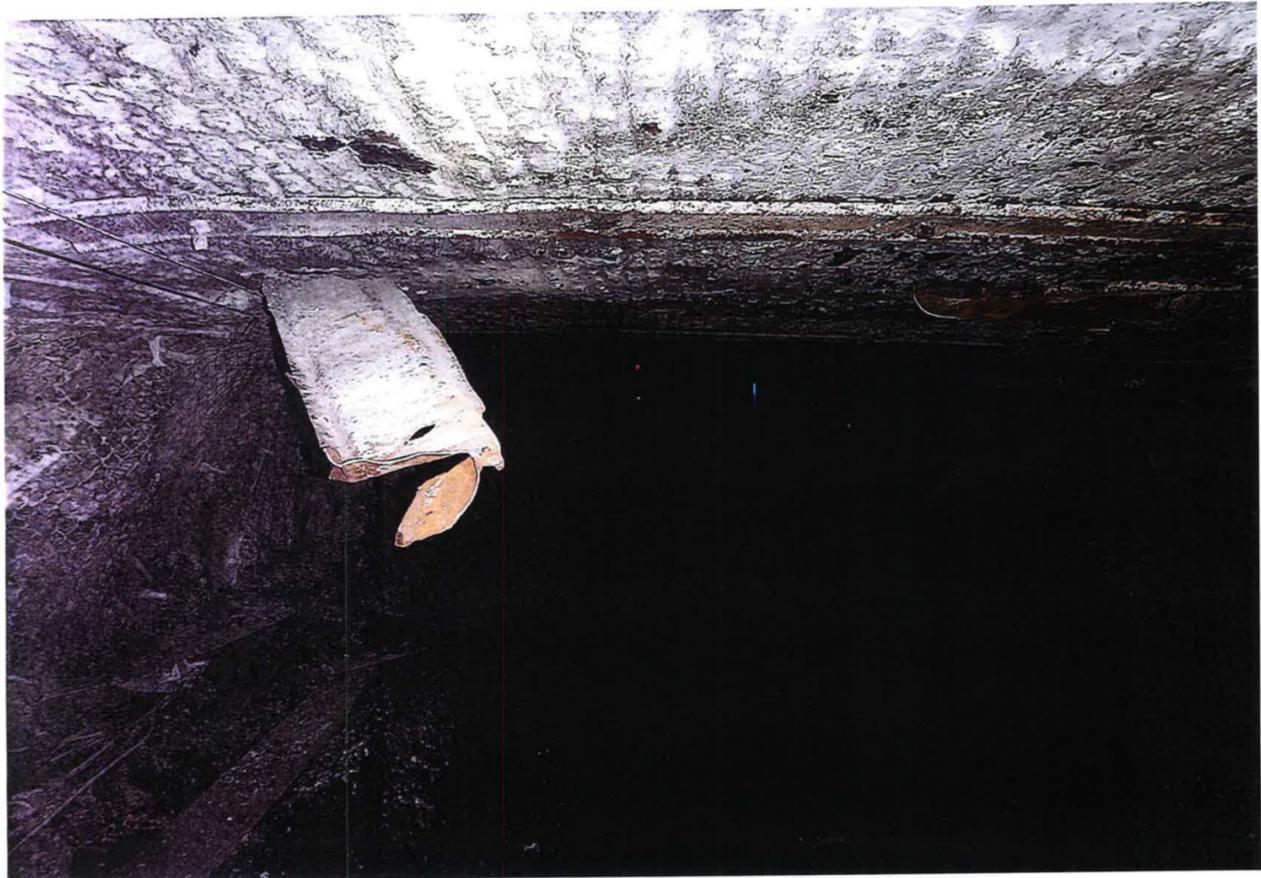
INFORMATION RELEASE

## Serious injury

<b>Incident date</b>	22 January 2016
<b>Event</b>	Severe head laceration from damaged roof support strap
<b>Location</b>	Mannering Colliery, Mannering Park NSW

### Overview

An operator was driving a load haul dump vehicle (LHD) when a damaged roof support strap (W Strap) that was hanging down into the roadway entered the LHD cabin and struck the operator's head near his left eye. The operator received a severe laceration to his head that needed medical treatment.



Photograph of the damaged W Strap hanging down into the roadway. *Photograph taken by the mine.*

## The mine

The mine is a small underground thermal coal mine on the southern side of Lake Macquarie. The mine is operated by LakeCoal Pty Ltd. The mine has been on care and maintenance since late 2012. There are currently about 30 people on site.

The roof support where the incident occurred consists of steel roof support straps, known as W Straps, in conjunction with roof bolts. The W Straps are fixed to the roof with bolts. The straps often distort to conform to irregularities in the roof. The W Straps are positioned on the roof perpendicular to the roadway direction and are spaced about one metre apart.



Photograph of roof support straps (W Straps) in the travel roadway. *Photograph taken by investigators.*

## The incident

The injured operator had worked in the industry for about five years. He was new to this mine site and completed an induction program on the days before the incident.

The operator began his shift at 7 am. At about 1 pm he was instructed to pick up a pump from an underground sump area using a LHD. The LHD was an Eimco 913-6 loader with an empty bucket. The operator was experienced in using this type of plant.

As he was new to site, the operator followed another vehicle (a PJB) into the mine workings. At 1.40 pm the operator entered the intersection of the Main North Travelling Road and Longwall 7 Sump Road (Sump Road).

As he entered the Sump Road the operator was travelling at low speed (second gear) as the roof was low in this section of the mine. The operator did not see a damaged W Strap hanging from the roof in the Sump Road as he was concentrating on following the other vehicle. As the operator drove the LHD forward the W Strap entered the open driver's cabin striking the left-hand side of his head near his left eye. The operator suffered a severe laceration.

The injured operator parked the LHD and sought assistance from other mine workers who transported him to the surface of the mine.

The operator was given first aid treatment by a NSW Ambulance paramedic on the surface of the mine and then transported to a nearby hospital emergency department for further medical attention.

## The investigation

A Mine Safety Inspector responded to the incident and undertook a range of enquiries.

The NSW Mine Safety Investigation Unit has commenced an investigation to determine the cause and circumstances of the incident.

The damaged W Strap was made safe and the road height increased by excavating the floor (roadway).

The mine operator is cooperating with the investigation. An investigation report will be prepared for the Secretary of the NSW Department of Industry.

## Safety observations

Mobile plant interactions with roof supports and other services in underground coal mines is a well-known risk to the industry. When operating or travelling in mobile plant, the consequences of being struck by, or hitting damaged roof supports or other metal structures can include serious injury or death.

Fit for purpose plant, housekeeping and the maintenance of roadways should be a high priority for mine operators.

Available control measures include, but are not limited to:

- a mine strata management plan that encompasses procedures for inspecting the condition of strata support, reporting of damage and repair or replacement of strata support in a timely manner
- as mine roadways deteriorate over time, conduct regular assessment of the height between roof and floor; identify low areas, rectify if possible and erect 'low roof' warning signs
- set and sign post speed limits for each end of identified low roof areas
- introduction to site procedures for plant including an assessment of height and width
- only fit for purpose plant should be used in the mine and mobile plant operator's cabins should provide adequate protection for operators (refer to clause 214 & 215 of the *Work Health and Safety Regulation 2011* and clause 28 of the *Work Health and Safety (Mines and Petroleum Sites) Regulation 2014*)
- include warnings about low roof areas and the potential risks associated with operating mobile plant and machinery in low roof areas in site inductions and training resources
- reinforce to operators the importance of reporting damage to strata support and erecting "No Road" barriers to prevent access

## About this information release

The Mine Safety Investigation Unit has issued this information to draw attention to the occurrence of a serious incident in the mining industry. The investigation is ongoing. Further information may be published as it becomes available.

The information contained in this publication is based on knowledge and understanding at the time of writing. However, because of advances in knowledge, users are reminded of the need to ensure that the information upon which they rely is up to date and to check the currency of the information with the appropriate officer of the Department of Industry, Skills and Regional Development or the user's independent adviser.

Information about the Investigation Unit and its publications can be found at: [www.resourcesandenergy.nsw.gov.au/miners-and-explorers/safety-and-health/major-investigations](http://www.resourcesandenergy.nsw.gov.au/miners-and-explorers/safety-and-health/major-investigations)

For information about health and safety regulation on mine sites contact a mines inspector at one of our local offices [www.resourcesandenergy.nsw.gov.au/miners-and-explorers/safety-and-health/mine-safety-offices](http://www.resourcesandenergy.nsw.gov.au/miners-and-explorers/safety-and-health/mine-safety-offices)

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