



## **SIGNIFICANT INCIDENT REPORT NO: 122**

### **DUMP TRUCK TYRE FAILURE**

#### **Incident**

As a dump truck was being driven away from an excavator after it had been loaded in an open pit gold mine, the rear Position 6 tyre of the truck exploded.

The force of the rupture caused a rock to be propelled from the pit floor through the windscreen of a second truck waiting to be loaded.

The second truck was approximately 10-15 metres away and at 90 degrees to the axis of the first truck and the tyre that ruptured. The operator was fortunate not to have been injured by the flying rock.

#### **Cause**

- The tyre that ruptured was excessively worn and was due to be changed the next shift.
- Spillage containing sharp rocks was present on the pit floor.
- The worn condition of the tyre was such that rocks on the floor of the pit were able to puncture it.
- There was a lack of appreciation by site personnel that the tyre could explode with a sudden and massive release of energy.

#### **Preventative Action**

- Discard criteria should be developed for dump truck tyres in accordance with manufacturer's recommendations.
- Tyre inspections should be carried out by a competent person at least daily to identify defects and monitor wear.
- Pre-start checks systems should require operators to check tyres for new damage and remove any rocks from treads. A truck should be stood down if new tyre damage warrants this.
- So far as is practicable, the pit floor, haul roads and dump areas should be maintained clear of rock spillage and operators should be given instruction in the procedures for dealing with such spillage.

M J Knee  
STATE MINING ENGINEER

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DMI480QY/Rep