

# Serious accidents and high potential incidents

## Mining and quarrying

### Compilation of reports for October 2011

#### Fall of Person (2)

- A worker walking along a maingate road slipped and hit his head on the ground. He sustained a gash to the back of his head and was taken to hospital for treatment and observation.

#### Fall of Equipment/Material (14)

- A scaffold plank fell from above, landing approximately one metre from a worker on the ground.
- A 6m length of drill string fell out of the mast of a DRA-MP1200 exploration drill rig while being unscrewed at the collar of the hole. It landed between the driller and the offsider.
- A rock rolled down and over the bund on to the road while a Cat D10 dozer on the low wall was pushing material.
- A road tipper modified into a water cart was negotiating a sharp left hand corner when the tank detached from the truck body and slid off the base coming to rest on its side against the truck.
- A Cat D11R dozer went over an 8m coal face rolling on to its roof and over to the side. The operator was disoriented due to lack of visibility from excessive dust.

#### Fall of Ground (7)

- A wedge failure in a highwall resulted in about 250t of material falling onto the bench within 3m of an overburden drill located about 10m from the toe of the highwall.
- Rocks fell from a face and hit a Cat 988G loader.
- While loading out an overburden shot a 20t rock rolled down from the face and struck the Hitachi EX1200 excavator

#### Mechanical (21)

- While fitters were reconnecting the tracks of a Cat D10T dozer the master link caught on a fastening bolt of the catwalk support shearing the bolt and propelling it a distance of 16m.
- A faulty keyboard combined with a software bug caused an automatic / uncontrolled advance of underground coal mine chocks. The fault was not detected until the event log was analysed by the software developer in Germany.
- The boom of an underground coal Joy 15SC shuttle car rose up without being activated while the fitters were investigating a brake fault.
- A tail pulley on underground coal drift belt sheared at the bearing housing causing the belt to come off

the pulley and pull towards the tail end structure damaging the structure and the belt.

#### Vehicle – Collision (24)

- Two Terex MT4400 dump trucks collided in the tipping area when the truck in front rolled back while lowering the tray and struck the front of the truck waiting behind.
- An Eimco loader travelling along the main travel road collided with a driftrunner which was parked in a crosscut.
- A Cat 972 loader heading to clean up spillage near a crusher dust bin struck the support column of the bin causing structural damage when the operator tried to pick up his handpiece to respond to a call on the 2-way radio.
- A water truck watering the ROM bin area stopped to allow a Komatsu WA600 loader to reverse from the bin. The loader reversed and collided with the water truck.
- A light vehicle drove up the back of a road-train while travelling over a crest.
- A Cat 785 rear dump truck ran into the rear of another dump truck while manoeuvring at the dig face. Both trucks are fitted with proximity detection, but the system was not operating in one of the trucks.
- The canopy of an EJC130 loader collided with a conveyor ventilation underpass in a main heading. The canopy remained attached to the loader despite the front two posts of the canopy being sheared off at the base.
- An underground dump truck which was tramping down the surface ramp towards the portal collided at a corner on the ramp with a light vehicle which had just exited the portal.
- A Cat R2900 loader was backing around a corner when it struck the front of an occupied light vehicle. The loader pushed the vehicle back about 4m with the rear of the loader stopping just short of the windscreen.
- While a Cat 789 dump truck was queued at the digger waiting to be loaded the operator had a micro sleep and took his foot off the retarder. The truck rolled forward and collided with the dump truck that was being loaded.
- While a Cat D10T dozer was cleaning up in near a Terex RH170 excavator the bucket of the excavator swung and made contact with the front end of the dozer.

( ) The number in brackets next to each category heading is the total number of accidents and incidents reported for that category.

**Vehicle – Loss of Control (35)**

- While a Cat 24H grader was turning on a ramp the right hand front wheel axle snapped and the wheel rolled down the ramp.
- The rear wheel came off a light vehicle as it was travelling along an access road.
- While driving up a decline in a Cat AD55 haul truck the operator had a micro sleep and hit the wall breaking the cab window and causing structural damage.
- A Cat 785 dump truck lost traction on strip watered road and spun through 90 degrees.
- A Cat 793 dump truck was travelling up a ramp when it lost traction, turned sideways and slipped down the ramp for approximately 40 metres.
- A road train was turning a corner when the trailer detached itself from the prime mover.
- A serviceman was refuelling a dozer when the service truck started to roll away. The serviceman ran to the cab, climbed aboard and applied the park brake which stopped the truck.
- A Mack fuel truck rolled onto its side while travelling up a ramp after a steer tyre blew. The driver who was not wearing his seatbelt injured his shoulder.
- The prime mover and first trailer of a road train rolled onto its side while cornering on the haul road.
- A light vehicle rolled onto its side while overtaking a grader on a recently watered section of haul road.
- A Cat D300 articulated watercart was rounding a corner when the trailer rolled onto its side. The cab remained upright.

**Explosion (16)**

- The protective hose over a 12 volt lighting cable on a continuous miner was caught by a drill rig. The hose and internal cable were stretched causing the cable to break. The circuit protection did not detect the fault and power stayed on the cable.
- During maintenance on the methane monitoring system on a Driftrunner the methane monitoring system was found to be in bypass mode.
- During back spooling operations a shuttle car cable became jammed between the sheave roller and check plate. The cable pulled apart causing open arcing of the cable.
- A dozer drove over a perimeter bund and proceeded to within 40m of a loaded shot.
- Three un-inducted maintenance workers entered a quarry without advising anyone of their presence. They were found by other workers who were leaving the blast exclusion zone in readiness for a shot.
- After setting off a shot, the shotfirer noted that one of the blasts did not initiate. The shotfirer entered the development heading, connected up bell wire and ran it out for approximately 100m before firing the shot by hand.

**Fire (39)**

- A boilermaker was cutting drag ropes on a dragline when a stray spark caused the acetylene flashback arrestor to activate. The boilermaker turned the acetylene bottle off.
- A fire started in the engine bay of a Cat D10 dozer when diesel from the fuel line sprayed onto the engine.
- Sparks were observed coming from the left hand wheel motor of a Terex MT4400 dump truck. The operator stopped the truck and a flame was then seen coming from the wheel motor. The fire was extinguished by the water cart. A 300m exclusion zone was established and the vehicle left for 24 hours with the heat in the wheel monitored with a laser sighted heat gun.
- An operator was driving a Cat AD55 down a decline when the engine caught fire after an o-ring on a transmission oil filter failed and sprayed hydraulic oil onto the exhaust. Both the fire suppression and external fire extinguisher were needed to extinguish the flames.
- A fire started on a Cat D10T dozer when a ruptured hydraulic oil line sprayed oil onto the turbo. The cabin activated fire suppression system failed to work so the operator activated the external suppression system which extinguished the fire.
- A cross arm on a 66KV powerline pole broke causing the phase conductor to come in contact with the pole. This resulted in a pole fire which then caused a small grass fire.
- A spontaneous combustion fire occurred in an overburden dump. The fire was extinguished and the area covered with spoil.
- A grass fire was ignited by sparks emitted from arcing of a hot joint on one of the line phases at a 66 – 11kV transformer switch yard.

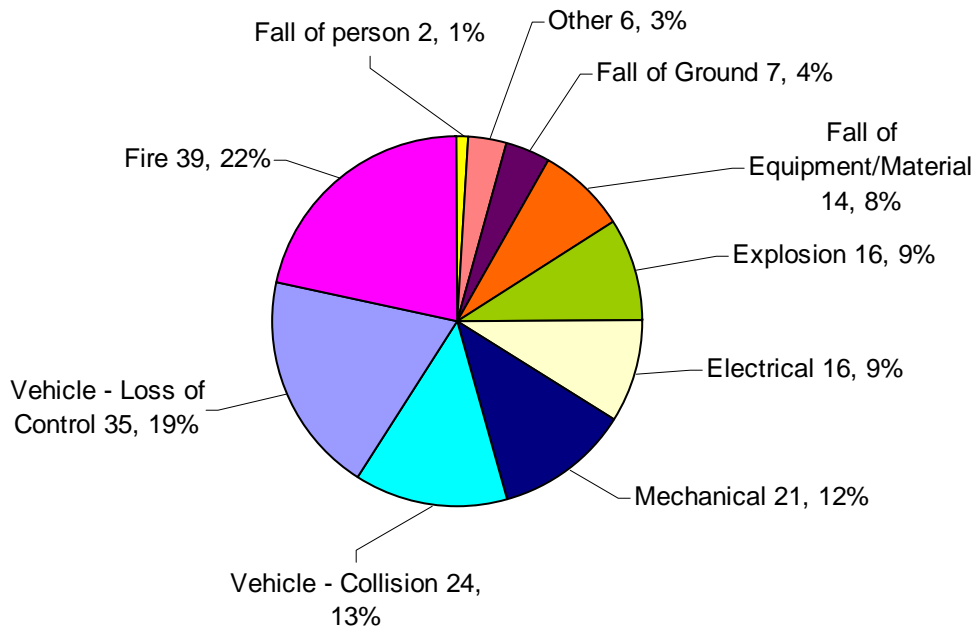
**Electrical (16)**

- A pump tripped on a short circuit fault due to the insulation in the motor terminal box being perished and cracked. When the circuit breaker was reset, a flash was seen to come out of the motor terminal box.
- An apprentice was disconnecting a weatherproof power point when he received an electric shock.
- Live 240V conductors were exposed in a lighting control box as a result of being hit by a dozer that was entering the workshop for maintenance.
- The blade of a rubber tyred dozer contacted an energised 11kV cable resulting in the cable being cut in half. Power tripped off the cable.
- An electrician received an electric shock from a junction box. It appears that the box was conductive due to environmental contamination.
- A fitter was utilising an Enerpac to undo segment bolts on the track of a dozer. As he was placing the head of the Enerpac onto the track he received an electric shock.
- During confirmation of isolation by an oncoming shift for a conveyor belt move, the crew determined that the isolator handle could be activated whilst in the locked position.

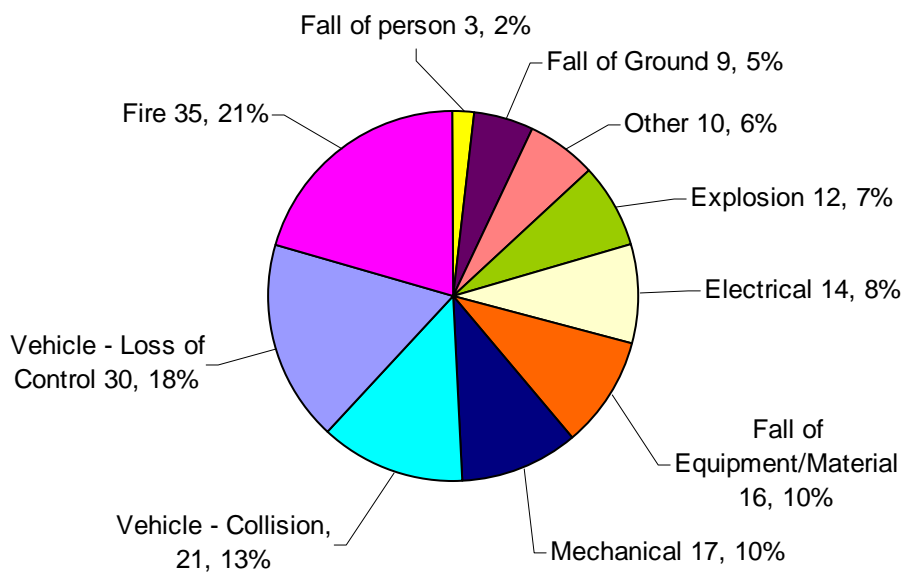
**Other (6)**

- A driller's offsider sustained burns to his gloved hand whilst removing a radiator cap from the drill rig's radiator which had been leaking and needed to be topped up.
- An "out of service" tag had not been attached to a Cat 785 dump truck which was waiting on repairs for a low air pressure fault and which had its tray raised and pinned. An operator started the truck

and lowered the tray which broke the locking pins and then could not disengage the park brake.



**Figure 1: October 2011 Incidents (total 180) by Category**



**Figure 2: Twelve Month Rolling Average (168 incidents/month) by Category**