

Serious accidents and high potential incidents

Mining and quarrying

Compilation of reports for January 2010

Gravity – Fall of Person (1)

- While leaving a crib hut a worker slipped on the top step and fell. His right foot caught between the steps fracturing his ankle.

Gravity – Fall of Equipment (9)

- A Cat D9T drove on the edge of the bench and rolled onto its roof.
- A drill rig fell off a low loader while it was being unloaded.
- An excavator fell off a low loader onto its side while being unloaded.
- A thirty metre high dead tree fell onto the back of an excavator.

Gravity – Rockfall (8)

- Two upper benches of a highwall slumped after a week of rain.
- A section of low wall slumped while operations were in progress nearby.
- An excavator was digging the face and floor when a section of batter failed.
- A twelve metre long by five metre high section of roof fell from a coal development heading.
- As workers were about to charge a development face three tonnes of rock fell from the face burying some of the explosives.
- Overburden material that had been dumped over a quarry face collapsed against the cab of a dozer as it removed material from the toe of the consolidated pile.

Mechanical (11)

- A tyre on a Cat 797 rear dump truck burst and threw up a rock into the window of a passing truck.
- A refuelling pod on a Normet service vehicle detached unexpectedly and slid five metres across the floor when the tray was tilted up.
- A geologist collected a strip sample inbye of the cutter heads of a continuous miner without applying personal isolation.
- Two workers failed to lock out a feed conveyor while changing liner plates in a crusher.

Mechanical – Vehicle Collision (15)

- A Cat 988 loader reversed into a bobcat, which had unexpectedly entered the loader's work area, pushing it back two metres, bursting two tyres and popping the windscreen.
- Two light vehicles collided on the corner of a one way road.
- A light vehicle stopped at, and then drove through a give way sign. When the driver noticed a dump truck about to turn across his path he stopped and reversed out of the way.
- After stopping and giving way, a Cat 785B rear dump truck had to brake heavily as it drove through an intersection when another truck entered from the right.

Mechanical – Vehicle Loss of Control (13)

- A Cat 777 water truck slid into a bund on a wet section of ramp and rolled onto its side.
- The operator of a Cat 793B rear dump truck had a micro-sleep while driving on a divided haul road. The truck ran into a bund at the entrance to a waste dump.
- A parked Franna crane rolled into a light vehicle.
- A 25 tonne Franna non-slew crane was carrying a roll of conveyor belt across an access road when it became unstable and rolled onto its side.

Explosion (10)

- A supervisor fired a development face with a tag still on the in-board.
- During a development firing a sulphide dust explosion occurred which damaged some vent bag.
- A prestart check on a personnel transporter identified that a flameproof alternator cover was missing.

Thermal Fire (32)

- A fire started on a Cat 797 rear dump truck after a burst hydraulic hose sprayed oil onto the turbo.
- Oil sprayed onto the exhaust manifold of an overburden drill rig resulting in a small fire.
- A hole in the fuel line of a Cat D10 dozer allowed fuel to spray onto the turbo causing a small fire.
- A small fire started on a Cat 994 loader when a hydraulic pump came apart and oil sprayed onto the motor.
- When a tail pulley on a conveyor failed the belt moved across and rubbed on steelwork causing a small fire.
- A fitter sustained a burn when sparks from the grinder he was using landed on his shirt which caught fire.

Electrical (17)

- A worker received an electric shock from a GPO in a crib hut while turning on an air conditioner.
- While moving a dragline cable boat the 6.6kV trailing cable was damaged when the incorrect slings attaching the cable loops to the cable boat were disconnected.
- A lighting plant, being towed with its boom still extended, hit a safety wire located beneath a powerline.
- A trades assistant received an electric shock while holding a bracket being welded by a boilermaker.
- While preparing to wash the underbody of a Cat 769D rear dump truck the operator raised the body into an 11kV overhead powerline which tripped the power.
- As a Euclid rear dump truck drove off after dumping its load, the body which was still slightly raised snagged a guy wire supporting an 11kV power pole and pulled the pole over.

Other (7)

- Phosphoric acid spilled onto a boilermaker while working in a storage tank after another worker opened the incorrect spade in a tank above.

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Gravity – Fall of Person (5)

- A worker was walking along a bench when he slipped on a rock and fell fracturing his tibia.
- An operator was standing in the back of a ute tightening bolts on a mobile crusher when he fell to the ground breaking his collarbone.

Gravity – Fall of Equipment (4)

- A Cat 793 rear dump truck reversed through the bund on a dump face and went down the batter ending up at the bottom of the dump on its roof.
- A drill sub, bit and reamer broke from the drill string on an overburden drill rig falling ten metres to the deck where it bounced through the operator's cab window.

Gravity – Rockfall (6)

- Following rain some overhanging rocks fell onto a ramp.
- A 20 metre long section of highwall failed.
- A large lump of coal fell out of the rib while bolting activities were occurring.
- A large rock fell from the wall of an access drive.

Mechanical (18)

- A rock, picked up by the rear wheels of a Cat 789 rear dump truck while the tray was still elevated, was propelled through the rear window of the driver's cabin striking the driver's seat.
- When a filtrate pump in a coal prep plant failed catastrophically parts of the pump housing and impellor were thrown twenty metres.
- When a ball valve on a compressor failed the ball was propelled eight metres.
- A dogman lost his balance and fell against a handrail after he was hit by the end of a four metre length of poly pipe which was being lifted by a Franna crane to the top floor of a coal prep plant.
- While disconnecting load slings from a jib attached to forklift tynes the jib detached unexpectedly and struck the worker.
- A faulty pilot valve caused the boom on a shuttle car to lift without operator control.
- Workers failed to isolate a crusher before attempting to dislodge rocks which were bridged in the jaw.
- While drilling an angled uphole an unplanned breakthrough occurred into an adjacent level.

Mechanical – Vehicle Collision (14)

- While reversing into position beside a shovel a rear dump truck collided with a dozer that was cleaning up.
- An Eimco collided with a parked personnel transporter due to the operator's vision being obscured by the basket attachment which was in a slightly raised position.
- A Cat Tiger dozer reversed over a lighting plant.
- A rear dump truck stood up on its tailgate while pulling away from an excavator during ramp construction.

Mechanical – vehicle loss of control (16)

- A worker was struck on the right foot by the tyne of a forklift which rolled away from its parked position. He sustained a deep gash across the top of his foot.
- An operator of a Getman charge car sustained minor injuries when he tried to get out of the vehicle as it started rolling down a decline.
- Shortly after heavy rain a Komatsu 730E dump truck going down a ramp slid into one coming up the ramp.
- A rear dump truck slid into a bund at the bottom of a ramp that had recently been watered.

Explosion (15)

- While pushing a road over blasted ground a dozer operator has breached a blast exclusion zone.
- The conductors of a 1kV cable were exposed when the cable was pushed against a rockbolt by a basket attachment on an Eimco.
- A worker used oxy acetylene to remove a wheel nut while the tyre was still inflated on the rim.

Thermal Fire (20)

- While electricians were fixing an over current fault on a P&H 4100 shovel a fire started beneath the floor plates in the armature cables where the insulation had worn through.
- A small fire started in the brake on the front drive axle of a Mack road train.
- When a battery lead came into contact with the tail shaft of a coal hauler it shorted causing a small fire beneath the cab.
- A small fire started on a Cat 16G grader after a wiring harness failed.
- A turbo failure on a Hitachi AH500 articulated rear dump truck caused a fire in the exhaust manifold.

Electrical (20)

- While moving a live 6.6kV trailing cable, using a cable tractor, the cable was pinched by the cable reels. It failed and arced, tripping the protection devices. The tractor was isolated for 24 hours because of the tyre fire risk.
- A worker received an electric shock while using a grinder.
- A worker received an electric shock when he touched welder frame.
- A worker opened an electrical switch board and escutcheon panel to re-set an overload on a pug mill.
- A worker was removing some lift chains attached to the fully extended boom of a 220 tonne hydraulic crane when he received an electric shock as a result of a lightning strike about 6km away.

Other (10)

- A boilermaker, who was cutting and welding in an underground shaft loading station, passed out as a result of severe dehydration.

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Fall of Person (1)

- The operator of a wheel dozer stumbled as he descended the dozer's stairs and fell to the ground. He injured his wrist and fractured a bone in his forearm.

Fall of Equipment (19)

- During a smelter furnace re-brick the access door broke from its hinges and was left suspended from a chain block.
- A Cat 777 dump truck on its way to a dump ran over and straddled a windrow adjacent to a 20 metre drop.
- Two one tonne Kone crane hoists with a spreader bar in between them were lifting steel liners in a processing plant. A chain link on one of the hoists failed causing the load to be transferred to the other hoist.
- A Komatsu WA 470 loader reversed over the edge of a ramp and fell five metres while rolling over twice before landing upright on its wheels. The operator was wearing his seatbelt and sustained only minor injuries.

Fall of Ground (5)

- The presence of oxidised coal in a coal seam contributed to the failure of a section of highwall and adjacent endwall of a coalmine open pit.
- In an underground coal mine a section of coal rib dislodged and fell over the top of the rib protection shield pinning and bruising the leg of the bolter operator.
- The backfill in an old mining shaft adjacent to operating conveyor infrastructure slumped resulting in the formation of a hole twenty metres deep.

Mechanical (14)

- A contractor was isolating a longwall chock when a hydraulic hose parted from its fitting. The hose whipped and hit him on the body and covered him in hydraulic oil.
- An incorrectly positioned diversion valve on a hydraulic pump of a shuttle car resulted in the boom lifting when the hydraulic pump was started.
- The tail of a continuous miner slewed unexpectedly while cutting coal.
- After drilling a down hole in the floor with a hand held drill a worker gripped the drill steel to assist him in lifting the drill. His glove caught in the chuck and was ripped off when he accidentally hit the trigger causing the drill steel to rotate.
- While using a sledge hammer to remove a bucket tooth a splinter from the tooth flew off and embedded itself in the stomach of a worker standing three metres away.

Vehicle – Collision (10)

- A Cat 773 water truck driver overtook a Cat 16H grader without positive communication with the grader driver.
- In wet conditions a light vehicle slid through a stop sign at an intersection and collided with a light vehicle coming through the intersection from the right.
- A Cat 773 water cart entered a stockpile area where a Cat 992D loader was working. The water cart driver called up but did not get any response. The loader

operator drove forward with the bucket raised and collided with the water cart.

Vehicle – Loss of Control (18)

- A Komatsu 830E dump truck slid 60 metres down a ramp into a drain on a wet section of road caused by water leaching onto the ramp from an adjacent dump.
- A Komatsu 930E dump truck was driving up a ramp from the pit when it lost propulsion. The truck rolled back into the bund and onto its side.
- A Moxi haul truck trailer rolled onto its side when the operator rounded a corner in damp conditions after rain.
- The operator of an eight tonne Chamberlain non-slew crane lost control of the crane while carrying a heavy load boom first down a long ramp. The crane rolled onto its side when it ran up onto a bund.

Explosion (14)

- Exposed conductors were observed after a shuttle car jammed its cable against the side of a breaker feeder.
- In an underground metal mine a production drill down hole intersected a development lifter butt containing explosive.
- A stemming loader damaged a number of downlines.

Fire (17)

- An operator sustained a burn to his arm when an oxy hose came loose and caught fire when he lit the torch.
- Sparks from grinding activities fell onto an oxy-acetylene hose and started a fire.
- Oil vented from the breather of an overfilled hydraulic tank onto the exhaust of a Terex RH340 excavator causing a small fire.
- A fire erupted briefly on the turbo of an overburden drill when a hydraulic hose split and sprayed oil onto the radiator fan which further diffused the spray toward the turbo.
- A fire started in the hoist gearbox of a dragline after a bearing collapsed.

Electrical (11)

- A contractor received an electric shock from an electric jack hammer.
- While placing a crucible into a rapid ash oven in a laboratory the technician suffered an electric shock.
- A high voltage flashover occurred within an 11kV terminal enclosure.

Other (14)

- Following a coal open pit blast a fume cloud travelled across employees in the pit.
- Approximately 450 tonnes of fill material entered a decline when a stope shotcrete bulkhead breached.
- While relocating the contents of the laboratory a 2.5 litre bottle of Ammonia exploded.
- A box of Sodium Ethyl Xanthate was found bubbling and producing toxic fumes inside a storage compound.

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

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Compilation of reports for April 2010

Fall of Person (2)

- An electrician climbed over a handrail onto a shed roof to retrieve a screwdriver. His foot went through the corroded roof.

Fall of Equipment (9)

- A boilermaker was gouging a worn tub plate on a dragline when the plate's retaining welds let go. The plate fell two metres and struck another boilermaker working on an adjacent wear plate. He sustained a contusion to his lower leg.
- An argon gas bottle fell off a contractor's truck as the truck was turning. The top of the bottle snapped off releasing the gas.
- A crane was stopped suddenly as it was lifting a pallet of mill liners causing the load to swing. This resulted in a number of liners coming loose and falling eleven metres onto pipes and other equipment.
- A Cat 777 dump truck was backing up to the tip head on a waste dump when it went through the bund, over the edge and rolled on its side.
- A 26 tonne Hitachi excavator was travelling between opal leases on a well used track when the ground gave way into old workings causing the excavator to lean on its side.

Fall of Ground (12)

- A high wall failure occurred above a ramp due to a fault in the high wall.
- Approximately 40,000 tonne of sand fell from a side batter of a dredge pond generating a large bow wave which overturned pontoons on the float line.

Mechanical (12)

- A driller's offsider had the end of his ring finger crushed when he passed his hand through the side opening of a set of gripper jaws to clear away some coal at the same time as the driller closed the jaws.
- A worker was removing a section of a longwall monorail and had isolated the energy sources apart from compressed air, which he needed to complete the task. He was struck on the hand and forearm when he mistakenly detached the air hose instead of the hydraulic hose.
- A tyre blew on a Cat 797B dump truck flicking rock fragments up which struck the window of a dozer causing the glass to crack.
- A fault in a remote control pendant which was being used to start the hydraulic pumps on a Magatar continuous haulage system caused the haulage system to tram forward without the controls being activated.
- A 1.5 tonne horizontal pull-lift was attached to an anchoring structure with a fabric sling. While taking up the load the sling was cut in two by a sharp edge on the structure resulting in the hook and chain catapulting past the operator's head with the hook just grazing his ear and head.

- An operator was clearing a blockage of wet dust build up in a chute when his fingers contacted the rotating rotary valve causing amputation of two finger tips.

Vehicle – Collision (11)

- A plough on a coal prep plant raw coal stacker collided with the light vehicle belonging to a technician who was using the local controls to relocate the stacker.
- A loaded Cat 789 dump truck was travelling through a one way section of a haul circuit when it made contact with the off-side of an empty Cat 789 dump truck which was stopped at give way sign.
- A light vehicle parked behind a Komatsu WA 900 loader after the two operators had communicated. The loader then reversed into the driver's side of the light vehicle despite the light vehicle operator's attempts to move out of the way.
- A Komatsu WA 500 loader reversed into a light vehicle which had been left parked in a quarry excavation while the driver conducted an inspection.

Vehicle – Loss of Control (12)

- A loaded Komatsu 830E dump truck crested a hill at approximately 40 kph. The operator applied the retarder but the truck picked up speed. It reached 67 kph before the operator applied the service brake, the heat from which caused a wheel motor cover to catch fire.
- A loader and personnel carrier collided at an underground intersection.
- A parked light vehicle rolled away after the driver left it without setting the handbrake.
- A parked contract driller's Hino service truck rolled away nine metres after the driver left the truck without applying the park brake and chocking the wheels.
- A Cat 793 dump truck was used to tow another Cat 793 to the workshop. The rear truck ran into the lead truck when the lead truck slowed to turn onto a haul road. The rear truck had lost braking capacity.
- A Cat IT28 forklift was found blocking a decline after it rolled from where it was parked.

Explosion (12)

- An IT 14G stemming loader ran over two 400g boosters as it reversed between two rows of drill holes on a shot.
- A 12 volt pump battery on a diesel fuel trailer exploded while being recharged in a workshop.
- After a 185kW compressor tripped and then failed to restart the distribution board exploded blowing the door off.
- A development drill jumbo operator was drilling a back hole when he heard a popping sound. He found that he had intersected a misfired hole which contained the remains of a detonator.
- A charged development heading initiated during the logging in phase of an underground metal mine production blast.

Fire (22)

- Following repair of an oil leak on an exploration drill rig the oil impregnated lagging on the exhaust pipe caught alight.
- A hydraulic O-ring split on an overburden drill rig spraying oil onto the exhaust where it ignited.
- A fire in the engine bay of a Terex 340 excavator was extinguished by mines rescue personnel after the on-board fire suppression failed to extinguish it.
- An air compressor in a gold room caught fire after the operator heard a small explosion.
- A fire on an Elphinstone loader in an underground metal mine could not be extinguished. The mine was initially evacuated and the loader left to burn.

Electrical (11)

- An arcing flash occurred on a 6.6kV switchboard due to a snake entering the board and causing an earth fault.
- A flashover occurred in a pump starter after a circuit breaker was replaced.

- During testing of a longwall isolator HV circuit an electrician received an electric shock when his hand brushed a conductor which had not had sufficient time to be discharged after being charged by the insulation testing device.
- Personnel carried out work on a conveyor after attaching the lockout scissor and personal locks to the conveyor isolation handle which they had locked in the energised position.
- An electrician received an electric shock from a redundant cable in a coal prep plant switchroom.

Other (6)

- A grader operator was scalded by coolant when he removed a radiator cap.
- An operator was scalded on his arm when the radiator cap on a Komatsu 785 water truck, which had been leaking, blew off when he stood on the cap to check it was secure.
- A post blast fume event in a coal open cut breached the blast exclusion zone.

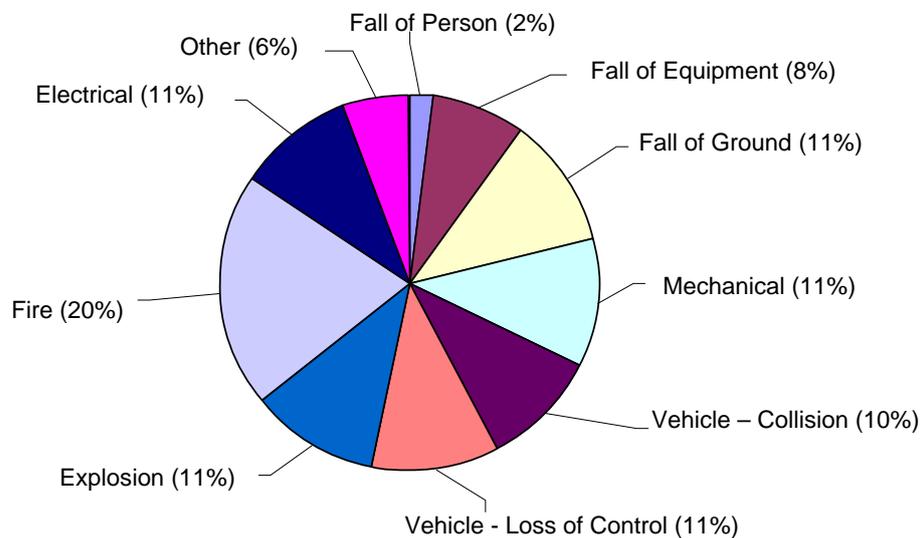


Figure 1. April 2010 Incidents (total 109) by Category

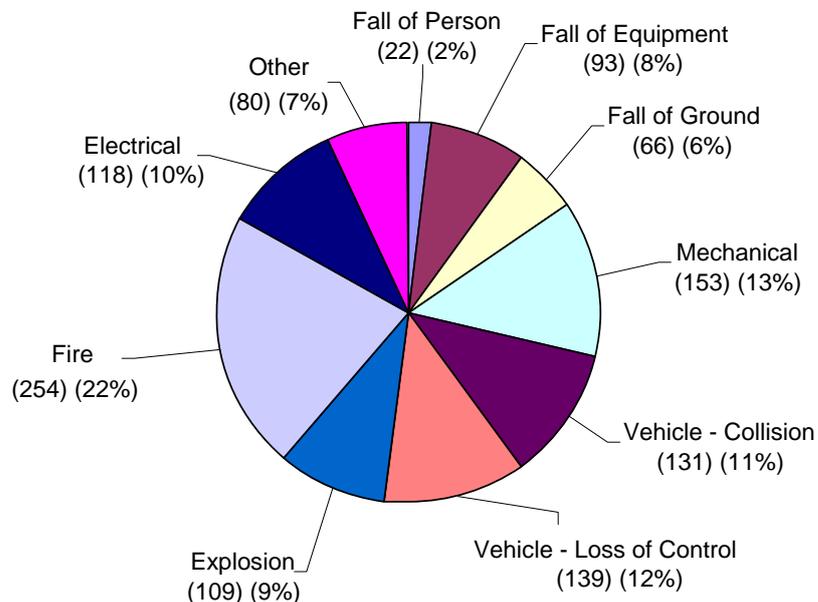


Figure 2 YTD 2009/2010 Incidents (total 1165) by Category

Serious accidents and high potential incidents

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Compilation of reports for May 2010

Fall of Person (3)

- A contract maintenance worker was working from an inadequately fenced process plant work platform six metres above the ground without using fall arrest equipment.

Fall of Equipment (7)

- A Cat D10 dozer trammed off a shovel bench and fell eight metres, landing on the blade.
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- While replacing a flat tyre on a light vehicle the driver placed an air bag under the vehicle to assist in lifting it above the jack height. When he started the engine to inflate the bag the vehicle lurched forward and fell off the jack.
- A five kilogram support bar on a surface drill rig fell eight metres from the mast onto the deck.

Fall of Ground (1)

- As a result of spoil failure at a coal mine, coal was pushed 200 metres from the low wall.

Mechanical (18)

- An Eimco loader slid into the rib in an underground coal mine. While moving the loader off the rib it struck some drill steels which were leaning against the rib. One of the drill steels penetrated the cab and struck the operator on the chest.
- During rockbolting operations on a continuous miner the bolt began to bend as it was pushed into the hole. The operator stopped and retracted the drill pot. As he did so the bolt flicked out of the dolly and struck him on the forearm breaking his wrist.
- While lifting a shipping container with a 50 tonne crane a lifting lug came loose. The lift chains dislodged and hit the front windscreen of the crane.

Vehicle – Collision (14)

- A service truck reversed into a light vehicle which was parked behind it.
- The operator of a Reed overburden drill reversed into his own light vehicle while positioning the drill.
- On nightshift an underground loader carrying stowage collided with another loader which was parked across the main access road on the surface.
- A Cat D11R dozer reversed into the rear tyre of a Cat 793 dump truck. The truck was waiting to reverse on the dump. There was no positive communication between the operators.
- A Cat D11 dozer reversed into a lighting plant while a fitter was testing the plant.
- A Cat 950 loader backed into a dump truck travelling through the stockpile area.

Vehicle – Loss of Control (21)

- A dump truck hit a berm after the driver had a micro sleep.

- In wet conditions a light vehicle skidded through a stop sign at an intersection and into the path of a water cart which had to take evasive action to avoid a collision.
- A Cat 789C dump truck slid and spun 180 degrees on a wet ramp and came to rest on a berm.
- The prime mover and lead trailer of a Kenworth C501 road train water truck rolled onto their sides as the truck turned a corner.
- On nightshift a rear dump truck slid for 100metres on a recently watered ramp before coming to rest against a berm at the bottom of the ramp.
- A light vehicle travelling down a ramp swerved to avoid a kangaroo and ran into a berm.
- A 20 tonne Franna crane was going down an in-pit ramp when the brakes failed. The driver was able to steer the crane down the remainder of the ramp and into the pit where it stopped.
- A light vehicle with two occupants rolled onto its side as it travelled down a recently watered ramp. One of the occupants sustained a broken collar bone.
- A Komatsu 930E dump truck lost propulsion on a dump ramp. When the driver got out to isolate the truck it rolled back down the ramp before coming to rest against a berm.
- A grader stalled while going up a ramp and started to roll back. The driver jumped clear when he was unable to stop it. After rolling 30 metres the grader struck the pit wall and stopped.

Explosion (7)

- A fire extinguisher on a dozer exploded.
- A shuttle car trailing cable jammed between the cable reeler and the frame of the car causing an arc.
- During drilling a development face a lifter hole was drilled within 500mm of a misfired hole containing a primer and the remains of a Nonel detonator.
- While an explosives MMU was on a shot its batteries failed. They were replaced with a different style of battery which resulted in the battery box cover contacting the terminals. This shorted the batteries causing a fire which was extinguished with a portable fire extinguisher. A one kilometre exclusion zone was put in place until the truck was considered safe.

Fire (29)

- A fire in the engine bay of a Cat 793D dump truck was extinguished by the on-board fire suppression system.
- A small fire developed on the tyre of a rear dump truck while operating in an area of a coal open pit where spontaneous combustion was occurring. The truck was parked up in a safe location for 24 hours for the tyre to cool.
- While welding on a D11R dozer some hot slag dropped onto a wiring harness. When the dozer was started it shorted to earth causing a small fire.
- A small fire occurred in a dragline hoist gearbox when the heat from a collapsed bearing ignited some grease.
- The O ring on the oil feed line to one of the turbos on a Terex RH170 excavator failed resulting in oil leaking onto the turbo causing a small fire.

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- An acetylene cylinder caught fire in a workshop while a worker was using an angle grinder nearby. The fire was extinguished and the workshop evacuated for one hour until the cylinder was deemed safe to remove.
- The turbo bearing on an IT forklift collapsed, spraying oil onto the heat insulation between the turbo and exhaust pipe which caught fire.
- When degreaser was splashed onto the engine of an Elphinstone 1700 loader in an underground service bay a fire started which required use of a portable fire extinguisher and the on-board fire suppression to put it out.
- A boilermaker was using an oxy/acetylene torch when one of the hoses caught alight and blew off the fittings creating a fireball that got in under the boilermaker's faceshield resulting in superficial burns to his face.

- A boilermaker was welding in a confined space on an apron feeder. The electrode touched his chest and he received an electric shock. He was taken to hospital for an ECG and kept overnight for observation.
- An exploration drill rig with its mast upright fitted with an extension cut live 440V overhead powerlines while tramping a short distance to a workshop.

Other (5)

- Employees were withdrawn from a coal open pit when gas sampling indicated the presence of 4ppm ethylene and 6ppm ethane.
- A shot generated a significant amount of nitrogen dioxide fumes which drifted over a dragline located outside the exclusion zone. The dragline crew switched off the air conditioner as the fume cloud went over. Later they reported headaches and were taken to hospital for a medical assessment.

Electrical (5)

- An 11kV buried cable was almost contacted by a post hole drill while drilling holed near a building.

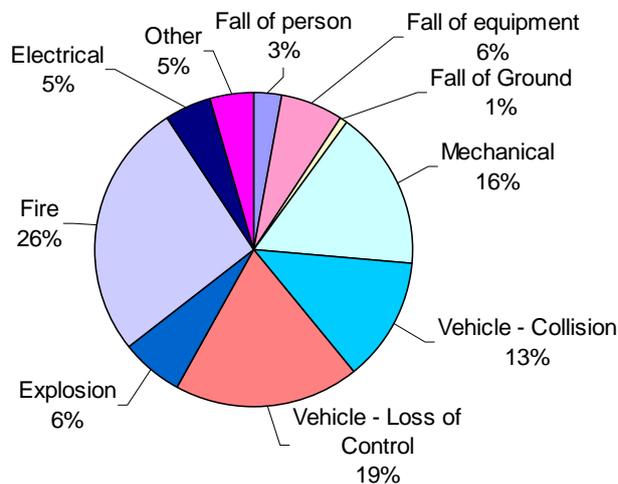


Figure 1. May 2010 Incidents (total 110) by Category

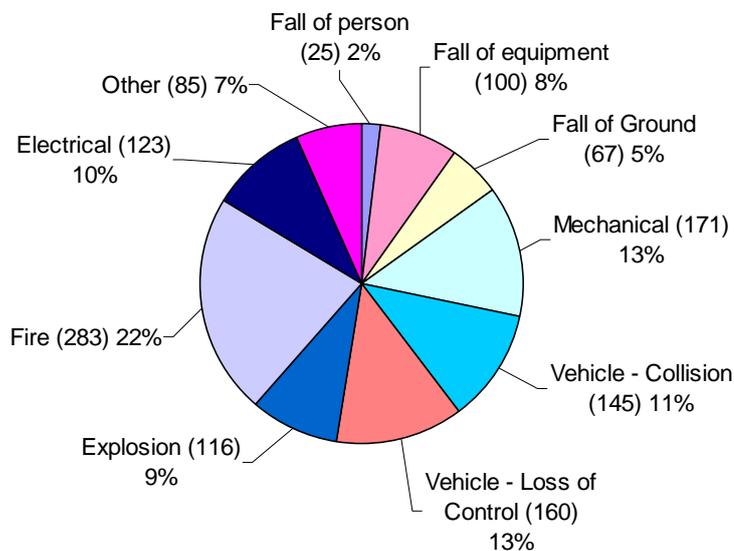


Figure 2 YTD 2009/2010 Incidents (total 1275) by Category

Serious accidents and high potential incidents

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Compilation of reports for June 2010

Fall of Person (3)

- While pressurising a vent bag a serviceman fell about 2.5 metres from an elevated work platform due to the flapping end of the bag pushing him over. He sustained fractures to his left hand wrist and left foot.

Fall of Equipment (9)

- While pulling the casing on an exploration drill rig the pull down chain on the mast snapped and fell to the ground.
- While pulling rods on an exploration drill rig, the drill stem stabiliser and bit fell to the ground after the plug attaching the string to the winch line detached.
- While re-setting the drag limit on a dragline the bucket was hoisted and pulled into the hoist sheaves. The hoist ropes snapped and the bucket fell to the ground.
- A water cart was watering a tailings dam wall lift when the side of the wall gave way and the truck rolled over.
- A Komatsu 475 dozer toppled off the float being used to transport it.
- A Cat 330DL excavator slipped off a narrow coal bench and came to rest on its side.

Fall of Ground (10)

- A section of unsupported roof fell and hit a bolting operator who was standing under the supported roof adjacent to the road header. He sustained lacerations to the back of his head.
- A miner was struck in the middle of his back by a piece of coal that was flicked off the maingate shearer drum.
- A miner was barring down a wall in an underground drive when a 100kg rock slabbed off and rolled onto his foot. The impact broke a bone in his foot.
- A rock fell 15metres from a ROM stockpile and struck the rear passenger door of a parked light vehicle, smashing the window and damaging the door.

Mechanical (22)

- Two employees were working in a trench under a dragline tub replacing wear plates on the tub when they were struck by the hydraulic jack they were using. They sustained bruising and lacerations.
- An apprentice was assisting in the adjustment of the discharge opening of a mobile jaw crusher. He was unscrewing the retaining nut on the drawback tension rod and spring assembly when the rod failed catastrophically causing the components to fly out with force. They struck him on the shoulder causing severe bruising and soft tissue injury.
- A fitter was removing a hydraulic hose from a longwall maingate pump valve block when oil at 50 bar pressure squirted onto his face. He was taken to hospital for treatment for suspected fluid injection injury to his eyes.
- An acid plant operator was sprayed in the face with 98% sulphuric acid when he disconnected a line which was under pressure. He sustained burns to his face.
- A fitter was using a hammer to assist in replacing a taper lock bearing roller pin when a slither of metal came off the inner race and entered his groin.

- A development drill jumbo offsider's hand was crushed between a reamer bit and the drill steel centraliser. After attaching the bit to the drill steel the offsider decided to check that the bit was tight just as the operator closed the centraliser.
- During maintenance in a workshop on a Komatsu 830E dump truck the steer wheels were turned. This caused the 5 kg wheel chock to be flung from below one of the tyres five metres across the workshop. It struck the FOPS on a forklift and ended up behind the operator's seat.
- The operator of a Volvo L90 loader was moving a tailings pipe into position. When the loader articulated the pipe came into contact with the supervisor's light vehicle and a worker who was standing beside the vehicle.
- A fitter had part of a finger amputated when it was caught between a lifting chain and an oil tank that was being lifted into position.
- A light vehicle was driving through water in an underground mine when a drill steel was flicked up by the driver's side front wheel and penetrated the floor.

Vehicle – Collision (18)

- While reversing for loading at the face a Komatsu 830E dump truck made contact with the Leibherr 996 face shovel.
- Two Hitachi 90 tonne dump trucks collided on a ROM pad after one of the operators suffered a suspected stroke.
- A Cat 773 dump truck operator had to take evasive action to avoid a collision when he rounded a corner and unexpectedly found a Cat D9 dozer in his path.
- While backing away from a cleanup push on a waste dump a Cat Tiger dozer collided with a Cat 789 dump truck.
- A shuttle car operator crushed his hand and a fitter standing next to the shuttle car sustained a fractured pelvis when the shuttle car cabin came into contact with the rib line in an underground coal mine.

Vehicle – Loss of Control (14)

- The operator of a CAT 793 dump truck had a micro-sleep whilst operating the truck on the first shift of a new roster. He woke up before he hit the bund.
- The driver of a light vehicle parked in the main decline and got out to check the load. The vehicle rolled forward, climbed up the wall of the decline and tipped onto its side.
- An explosives MMU lost the left hand rear bogie drive wheel as it was travelling on a mine road.

Explosion (9)

- A Cat D11 dozer breached a loaded shot exclusion zone while pushing material.
- A technical assistant picked up a bottle containing picric acid in a laboratory. He didn't know whether the picric acid was still liquid or had dried out to its explosive solid state.
- Hot work was performed on an explosives charge car while the charging kettle still contained Anfo.

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

Fire (27)

- Oil and dust which had accumulated on the exhaust manifold of a Terex RH340B truck during maintenance ignited when the truck was started.
- The operator of Cat D11 dozer was unable to get the on-board fire suppression system to work after a fire started in the engine bay. He used a hand held extinguisher to put it out.
- A fire started in the engine bay of a Hitachi EX2500 excavator after a turbo oil supply line ruptured and sprayed oil onto and past the heat shield.
- Smouldering coal was found behind a longwall conveyor boot end at the start of shift.
- A small fire started in the front right wheel hub of a Tamrock drill jumbo as it was trammung up a decline.
- A worker received burns to his torso when flames emitted from the blade circle drawbar tube of a Cat 24H grader while he was using oxy/acetylene to heat up a broken retaining bolt on the blade circle retainer.

Electrical (15)

- An underground worker received a static shock while rolling out the charging hose from an explosives pump truck.
- A rat entered a high voltage cubicle causing an electrical fault and an explosion.
- A drill rig with its mast raised was being trammed under an 11kV overhead power line. The proximity of the mast to the power line drew an arc and energised the machine. Power did not trip.
- A long boom excavator contacted overhead 11kV power lines. Power tripped three times before latching off.

Other (7)

- There was an unplanned breakthrough of a development heading into a filled stope.
- An overburden blast produced a nitrogen dioxide fume cloud which drifted toward a blast guard forcing him to retreat.

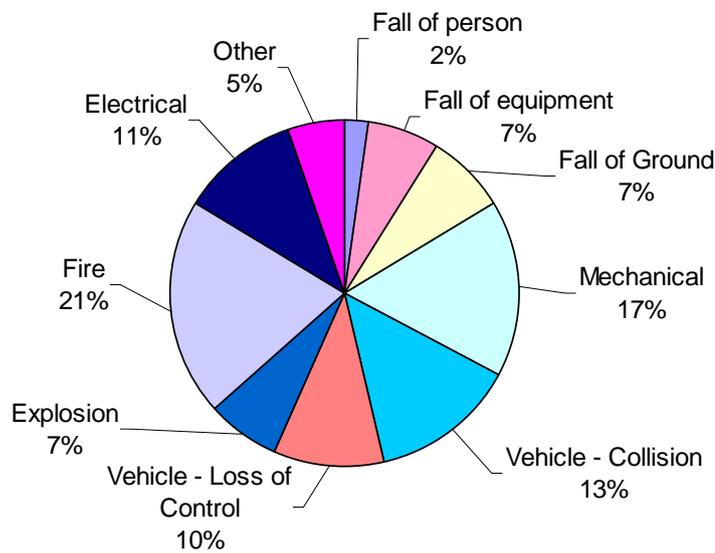


Figure 1. June 2010 Incidents (total 134) by Category

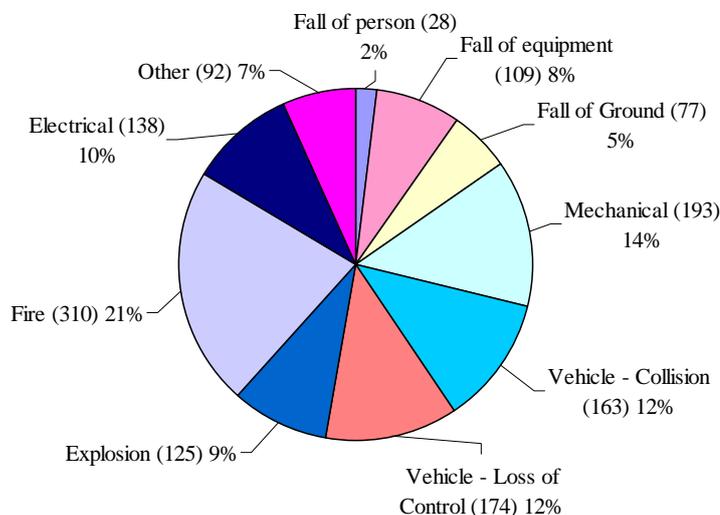


Figure 2 YTD 2009/2010 Incidents (total 1409) by Category

Serious accidents and high potential incidents

Mining and quarrying

Compilation of reports for July 2010

Fall of Person (3)

- During refuelling of an excavator, the operator slipped off the tracks and cracked a bone in his right hand thumb.

Fall of Equipment (4)

- A driller was running the rods into the hole. He had moved the guard from around the drill stem to enable him to guide the rod. The drill head came down and contacted his right hand causing damage to a finger.
- An excavator in a quarry was top loading from a bench into a mobile jaw crusher. Whilst re-positioning the excavator, it toppled over the bench. The operator was rescued from the excavator through the front windscreen and suffered a fracture to his right wrist.
- A mine worker was working from an Eimco bucket whilst removing vent tube from the roof of an underground roadway. A section of vent tube fell, knocking the worker out of the bucket. The worker suffered concussion when he hit the ground.

Fall of Ground (6)

- A Loader operator in an underground metalliferous mine was struck by a 300mm long rock when stepping out of his loader to move a stope fill marker. The operator sustained bruising to an arm.
- A worker was hit by a 15kg rock whilst digging lifters at the face of an underground metalliferous mine. The worker sustained bruising.

Mechanical (28)

- One of the rear wheels fell off a light vehicle as it entered the crib room carpark at a surface coal mine. Initial investigation has revealed that the wheel nuts had come loose allowing the wheel to fall off.
- Several work crews had electrically isolated a conveyor belt at a surface coal mine. During a smoko break, another work crew came onto site and released the loop take up tension tower. This meant that the belt moved after it had been isolated.
- A mineworker suffered bruising to his cheek and hand when he was struck by the end of a 1" airline after a screwed adaptor came apart.
- A Franna mobile crane was started by an operator who was unaware that a maintenance employee was underneath the rear of the crane checking the serial number on the diff housing. The maintenance fitter immediately got out from under the crane and was not injured.

- Whilst moving a pack of sleepers at the dragline shutdown pad, a rigger severed the tip of his left hand middle finger when it got caught between the lifting chain and the sleepers.
- A driller's offsider unscrewed the cap on a fuel tank to inspect the fuel level. He neglected to equalise the fuel tank to the fuel pod causing the 3 inch cam lock to burst off under pressure and hit him in the face. The operator sustained serious injuries.

Vehicle – Collision (19)

- A dump truck operator sustained cuts and bruises when he drove his truck into a bund, causing it to roll onto its side.
- Whilst exiting the workshop area, a loader collided with a stationary Toyota tray-back, which was parked approximately 5m around the corner and down the decline from the workshop. The loader operator did not see the LV or respond to the sounding proximity alarm. The light vehicle sustained significant front end damage but no-one was injured.
- A light vehicle was travelling behind an underground loader down the ramp, when it pulled out to overtake. The LV was nearly hit by a haul truck travelling in the opposite direction which had assumed the LV was an escort vehicle for the loader.

Vehicle – Loss of Control (28)

- Whilst driving a dump truck along a straight stretch of haul road, the driver lost control of the vehicle when he leaned over to find his water bottle. The RDT ran into a bund wall and came to stop. There was no major damage to the equipment, or injuries.
- The driver of a dump truck sustained soft tissue injuries when wet, sticky coal held up in the tray of the truck causing the front wheels to lift off the ground, before dropping back to ground.
- A dump truck slid, and spun 90 degrees, on a recently watered haul road. The truck stopped when it hit the bund.
- A road train hauling coal ran into a berm when the operator failed to correct on a left hand bend. Both trailers rolled and detached from the prime mover at the turntable. The driver suffered cuts to his forehead and a bruised shoulder.
- A Dump Truck incurred minor damage when it slid on the wet road surface of a haul road and rolled onto its side.

Explosion (2)

- Mid shift firing occurred at an underground mine, before all workers were cleared to a safe area. No-one was injured.

Fire (15)

- A steering circuit oil filter on a dump truck worked loose, spaying oil onto a turbo and causing a small fire. The fire was extinguished by auto fire suppression. This incident occurred twice in one week and, on inspection, two others in the fleet were found to be loose.

Electrical (20)

- Two electricians were using an electric crimping machine (similar to an energpac) to crimp dragline armature cables, when they received an electric shock. The extension lead had a faulty earth wire causing the crimper case to become live.

- Whilst wheeling towards the boot end, a Shuttle Car ran over its supply cable causing the cable to pull in half, exposing conductors and causing open arcing. Electrical protection acted as required.
- A Franna Crane, operated by a contractor, was transporting a cyclone cluster to the workshop. As the Franna Crane was passing under the 66kv power lines, a flashover occurred between the top of the boom of the crane and the powerlines.

Other (4)

- The driver of front end loader suffered an epileptic seizure. The loader was stationary at the time. The driver had previously reported a seizure whilst at work and had been allowed to continue driving heavy machinery.

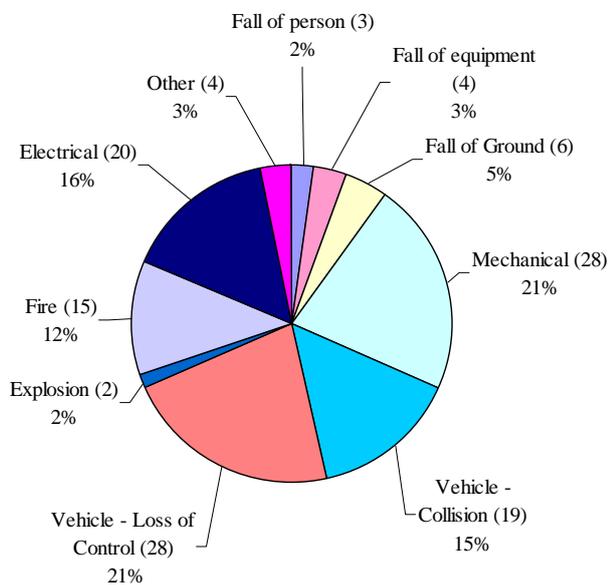


Figure 1 July 2010 Incidents (total 129) by Category

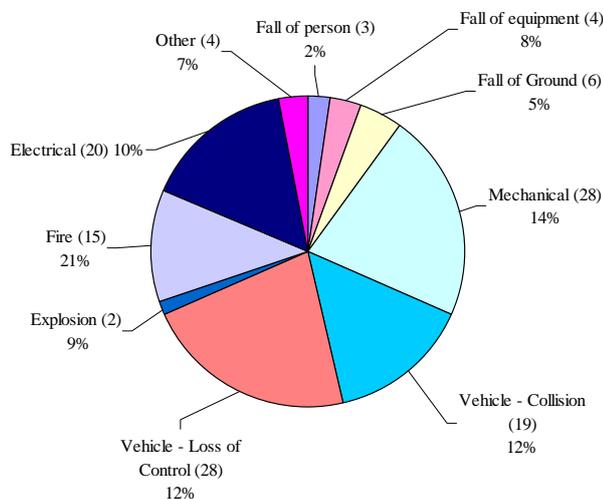


Figure 2 YTD 2010/2011 Incidents (total 129) by Category

Serious accidents and high potential incidents

Mining and quarrying

Compilation of reports for August 2010

Fall of Person (2)

- A worker slipped and fell while walking up a steep incline, fracturing his collarbone.

Fall of Equipment (7)

- A plank fell while scaffolding was being dismantled after a process plant shutdown. It hit part of the plant structure and fell outside the cordoned off drop zone.
- All but one of 24 retaining bolts had been removed from the bottom retaining plate holding a fairlead rope sheave pin in place on a dragline. Subsequently the remaining bolt failed resulting in the retaining plate and the 4.5 tonne pin falling seven metres to the ground.
- A 1.2 tonne armature from a Komatsu 830E dump truck fell to the ground while being lifted by a Franna crane and forklift.

Fall of Ground (6)

- A wedge failure in a highwall resulted in a rockfall of approximately 350,000 tonnes.
- A Cat D10 dozer was cleaning material off the toe of a dragline highwall when the material directly adjacent to the blade dislodged from the wall. Rock impacted on the handrail and bonnet of the dozer.
- A wedge failure from a dragline highwall occurred as a Cat D11 dozer approached the toe to resume ripping. Shortly before, the dragline had cleaned the wall after the dozer operator had ceased ripping and retreated from the toe after noticing some rocks falling.
- A twenty metre long and five metre deep section of roof fell from a heading in a coal mine.
- A miner was digging lifters at a development face in a metal mine when a rock measuring approximately 30cmx30cmx15cm fell from the face striking him on the foot.

Mechanical (18)

- When a shuttle car operator started the pump to reel in excess cable the boom started to lift without the lever being activated.
- A sleeve was being pushed out of a housing when a spacer that had been inserted to take up the slack in the 50 tonne jacking equipment was ejected under force. It landed approximately 50 metres away.

- A fitter was struck in the left eye by a slither of rock which ejected from the tracks of a mobile crusher while it was being trammed.
- The operator on a continuous miner bolting rig was inserting a rockbolt in a hole when it jammed. It bent and flicked back hitting the operator.
- A maintenance worker was setting leg stages on a longwall roof support when he was hit on the back of the hand by high pressure fluid. He was taken to hospital to be assessed for possible fluid injection.
- A rock fell out of the tray of a Cat 789 dump truck while tipping a load of overburden and struck a dozer which was nearby. It bounced onto the hand rail and smashed into a cabin window.
- A concentrator worker used his hand to steady a load of grinding media he was lifting with an overhead crane. The load swung and trapped his hand against a handrail.

Vehicle – Collision (19)

- A Cat 793 dump truck had moved forward at an intersection before seeing an approaching Cat 785 dump truck. Both trucks had to brake heavily to avoid a collision.
- A water cart waited at stop sign for two floats to pass and then came out onto haul road. A light vehicle following the floats had to do 180 degree turn at speed to avoid a collision.
- A Cat 16G grader was trimming the centre of a ramp entrance when a Komatsu 830E haul truck almost collided with it as the truck returned from the pit. The truck stopped about one metre from the front of the grader.
- A Komatsu 730E dump truck drove down a ramp on the wrong side of the ramp centre divider as a Cat 773 water cart was travelling up the ramp.
- On night shift a Cat D11 dozer reversed into a light vehicle parked behind a banded lighting plant on a waste dump.
- A light vehicle reversing on a dump side-swiped a troop carrier which was parked behind.
- As a PJB personnel carrier drove out of the mine portal the operator was blinded by the sun and collided with a parked Eimco loader.

Vehicle – Loss of Control (17)

- A light vehicle carrying four workers rolled on a recently watered haulroad. One of the passengers was thrown from the vehicle and sustained fatal injuries.
- On dayshift the driver of a Cat 789 dump truck fell asleep while driving. The truck veered onto the safety bund on the driver's side of the ramp.

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- A dump truck operator fell asleep while being loaded and rolled away about 50 metres before the driver woke up.
- A light vehicle operator lost control of his vehicle after having a micro sleep. He woke up when the vehicle mounted a grader windrow on the side of the haul road.
- After it had been raining a Cat 797 dump truck slid across the road as it exited a ramp.
- The operator of an empty Cat 789 dump truck lost control of the truck on a right hand bend of an access ramp which had recently been watered. The truck slid about 20 metres into a windrow.
- A Cat 785C dump truck was travelling empty down a ramp that had just been watered when it lost traction. The operator applied the brakes and came to a stop at 90 degrees to the direction of travel. A Cat 16M grader that was following had to take evasive action but ended up contacting a tyre on the truck with one of its rippers.
- Following light rain a Cat 785 dump truck was coming down a ramp when the rear end began to slide as it rounded a switch back. The truck slid in reverse down the ramp for about 90 metres. Another truck coming up the ramp had to reverse down the ramp to avoid a collision.

Explosion (10)

- During preparation of a shot for initiation a light vehicle drove over the lead line.
- On nightshift an excavator was trammed through a shot that was being slept overnight. Despite supervision and a spotter being used contact was made with three downlines, two of which were cut.
- A bystander was struck by shrapnel from the initiation of a lead in line bunch block at the shot firing point. He sustained a cut cheek.
- A flameproof cover on the motor of a continuous miner was found to be damaged during an investigation of earth leakage trips on the motor.

Fire (22)

- A Cat 777F water cart operator noticed smoke and flame coming from under the bonnet. He activated the fire suppression and then opened the bonnet. The flames reappeared. So he used a hand held extinguisher to put it out.
- The operator of a Drill Trek DK 75 drill rig noticed sparks coming from engine area and found a small fire around the starter motor.
- A fire started on a drill rig after oil from a ruptured hose contacted the turbo.
- Workers in an underground coal mine found coal smouldering below a collapsed bottom roller on a conveyor after detecting a burning smell and smoke coming from a heading.
- A small fire started in the wiring of a starter motor on a bobcat which was on a shot cleaning up between rows prior to the loading of holes.

- A small fire started on a Cat R1500 loader being operated remotely after transmission oil dripped onto the turbo. The fire extinguished when the operator shut the machine down.
- The operator of a Gardner-Denver drill rig was parking the rig when a fire ball erupted from the engine area. The operator activated the onboard fire suppression.

Electrical (11)

- A fitter placed a steel cage housing a compressor onto a live electrical lead, which cut the lead. The fitter touched the cage and received an electric shock.
- An attempt was made in a process plant to re-energise a redundant power cable that had been cut in half. The electrical protection operated to remove the power.
- An electrician received an electric shock from a pump connector while fault finding. The connector and pump were both wet due to rain.
- A chef working in a mine camp kitchen sustained an electric shock while using a blender.

Other (5)

- While cutting scrap steel a worker burnt his leg when he dropped the cutting torch.
- A supervisor restoring an acid pump after isolation received an acid burn to his left arm and cheek when splashed by acid from an adjacent pump.
- Fumes from a surface coal mine shot breached the exclusion zone.

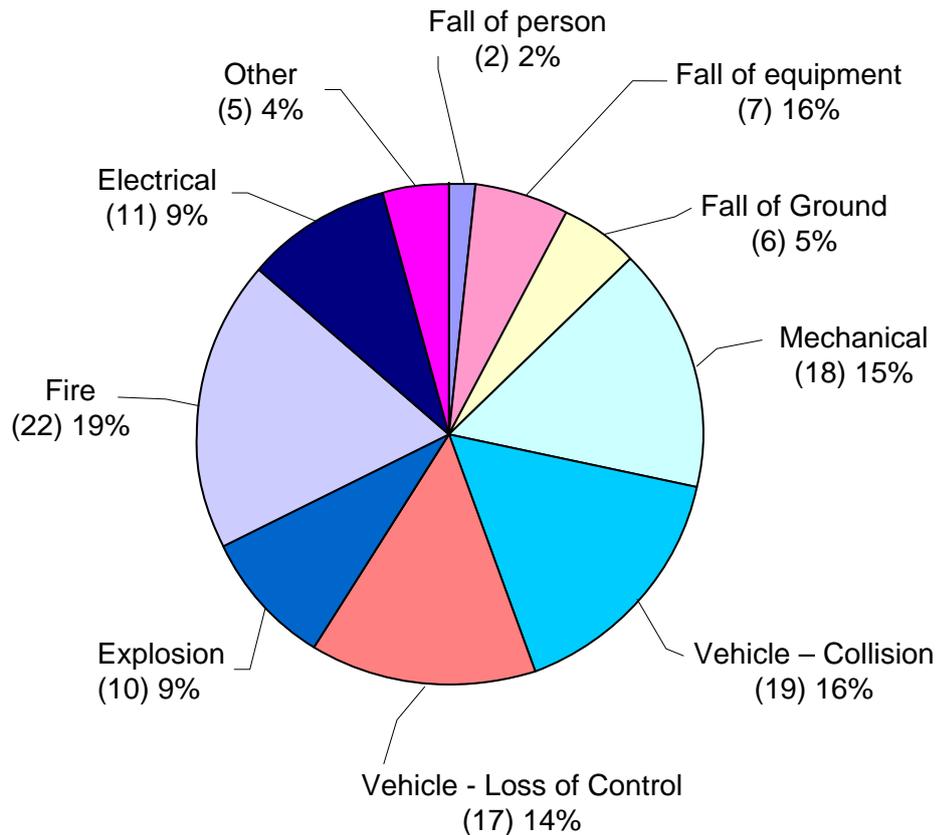


Figure 1: August 2010 Incidents (total 117) by Category

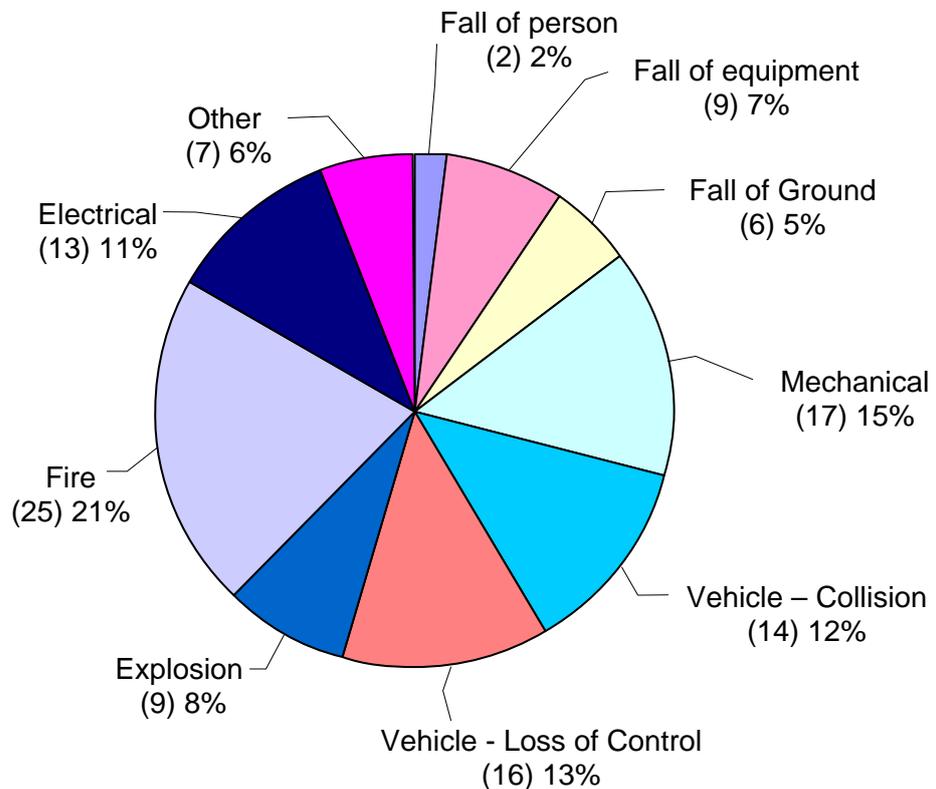


Figure 2: Twelve Month Rolling Average (118 incidents/month) by Category

Serious accidents and high potential incidents

Mining and quarrying

Compilation of reports for September 2010

Fall of Person (4)

- A worker suffered a head laceration and contusion when he fell 1.8 metres from a work platform.
- A worker suffered possible concussion when he fell from a ladder of a Liebherr 996 shovel.
- A worker fell 500mm from a ladder mounted on the side of a fuel pod when the ladder collapsed in against the pod. He suffered a compound fracture of his lower left leg.

Fall of Equipment (5)

- A dozer working on a coal product stockpile reversed over a loadout chute and slumped into the draw cone.
- The timber sleeper decking on a bridge over an access road broke under the weight of a 20 tonne Franna crane.
- An underground production drill rig was drilling an uphole when a section of the backfilled floor under the front of the rig slumped creating a 2m deep x 3m diameter hole.
- A 2.5m long x 150mm diameter pipe fell 5.3m from the roof of a process plant. It ricocheted off a catwalk handrail before striking a worker on the landing below. The worker was taken to hospital with concussion.
- Two previously installed cablebolts fell out of their holes while a jumbo was scaling the back.

Fall of Ground (13)

- A large rock rolled from a 12m high dig face and struck the stairs of an O&K RH200 face shovel parked 5m from the dig face while maintenance was being carried out on the bucket.
- A rock fell from the back and hit a miner on the shoulder while he was clearing upholes.
- A development charger was cleaning holes in the mining face preparation for charging when a 90kg rock fell from the face striking him a glancing blow on the head and shoulders.
- A large rock fell from the tray of a Cat 773 dump truck while tipping into a crusher bin and landed on the access road beside the crusher.
- A worker was using a jack hammer to remove concrete build-up in a pugmill hopper when a lump of concrete fell and struck him on the left leg. He sustained a deep gash in his leg and was taken to hospital.
- Approximately 1.5 tonnes of rock fell from the back onto the boom of a shotcreting rig after the back had been scaled and the first coat of shotcrete applied.

Mechanical (21)

- A Franna crane was being used to position a tailshaft in a Cat 793 dump truck when the winch rope broke. The hook and tailshaft fell onto the transmission.
- A 50 tonne mobile crane was slewing a load when the hook block failed and the load fell 4m to the ground.
- A dragline was excavating a drain against the low wall spoil when the drag ropes flicked up a rock which landed on the engine cover of a Cat D11 dozer.
- When a Sandvik ED7 loader started up the crowd function operated unexpectedly raising the bucket and load to the roof.
- While a light vehicle was travelling down a ramp its right rear wheel detached and rolled 250m down the ramp.
- While using a pedestal drill press the operator's glove caught on the rotating chuck and was pulled in towards the drill. His head contacted the drill and his shirt which also caught on the chuck was ripped off. Unable to engage the emergency stop he called out to a worker nearby who turned the drill off. The operator sustained injuries to his hand and face.
- The feed rail assembly on a development drill jumbo rolled over unexpectedly when the boom was lifted during maintenance.
- A shaft cage with 16 workers inside tripped about 200m below the surface. While the fault was being fixed the brakes released and the cage travelled uncontrolled up the shaft. The cage stopped just below the surface when the emergency brake was activated.
- A worker was knocked off his feet when a 200mm diameter layflat hose pumping water from a pit whipped across the ground. He suffered a suspected broken collar bone and a gash on his head.

Vehicle – Collision (12)

- A maintenance worker carrying out a service on a Cat 785 dump truck while the truck was refuelling had to quickly get out of the way when the truck horn sounded before the truck moved off.
- A Cat D11 dozer was damaged when it was struck by a Hitachi 550 excavator while cleaning up in the swing radius of the excavator.
- A light vehicle was struck by the shoe of a BE 1370 dragline when the dragline started to swing into position after maintenance.

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

- A Komatsu 830E dump truck reversed into the side of a dozer on a waste dump tip head.
- A Cat 16H grader reversed into a stationary haul truck on the pit floor.
- A Cat 988 loader reversed into the side of a Cat 773 water truck.
- A Cat 980 loader reversed into a parked light vehicle.

Vehicle – Loss of Control (17)

- The driver of a Cat 793 dump truck fell asleep on nightshift and collided with the road dividing bund.
- A Cat 797 dump truck lost traction while driving down an over-watered section of a ramp on nightshift. The truck slid for about 50 metres, turned 90 degrees and slid into the safety bund.
- A Komatsu 630 dump truck lost traction during nightshift while travelling unloaded down a ramp when the off side tyres travelled onto the wet uphill haul side. The truck slid for 20m and turned through 180 degrees.
- The operators of two dump trucks on nightshift lost control of their trucks on the same wet section of haul road.
- A light vehicle slid 35m on a haul road which had become wet by rain.
- A light vehicle was rounding a right hand bend on a service road when it mounted the left hand bund and rolled over.
- A light vehicle skidded for 20m on a recently watered road. The driver had braked after realising he had driven onto the haul road on the wrong side of the centre bund.
- A Normet charge car rolled uncontrolled down an underground ramp for 150m after it had shut down due to low radiator fluid level and there had been a delay in the application of the secondary brake. The operator jumped clear.
- A Franna crane rolled over on uneven ground while moving a 6 tonne load.

Explosion (10)

- An acetylene bottle fell from the back of a service truck as it drove round a corner.
- The bolts securing the engine explosion protection exhaust on a PJB transporter were found to be loose.
- A large piece of stone, which was expelled by the continuous miner during cutting, struck and damaged an hour meter flameproof enclosure window on the adjacent coal hauler.
- A generator battery exploded when the generator started.

Fire (16)

- A fire started in the engine housing of a Reichdrill surface production drill rig after an oil separator ruptured and oil sprayed onto the exhaust and turbo. The driller used the onboard fire suppression system and a fire extinguisher to put the fire out.

- Oil leaking onto the turbo from an incorrectly fitted transmission oil cap resulted in a fire on a Cat D10 dozer. The operator activated the onboard fire suppression system.
- A fire started in the engine bay of a Komatsu 930SE dump truck when a fuel injector punched through the rocker cover. Engine oil and diesel vapour contacted the hot turbo and exhaust. The operator activated the onboard fire suppression system.
- The presence of oil on the turbo of a Cat 854G dozer resulted in a small fire. The operator used a hand held fire extinguisher to put the fire out.
- Grinding sparks ignited acetylene leaking from the end of an acetylene hose reel assembly in a workshop.

Electrical (14)

- A contractor was connecting the batteries of a 20kVA Uninterrupted Power Supply unit when two of the cables made contact resulting in an arc flash. The energy in the fault caused the lug on one of the cables to burn off.
- An open arc occurred when the adaptor on a dragline substation broke while the cable tractor was manoeuvring the dragline trailing cable.
- A worker received an electric shock when he went to remove a float switch from a sump. The float switch operated on 240 V and was protected by a 30mA RCD which did not trip. The cable was found to be faulty.
- A boilermaker received an electric shock while he was removing a wire feeder welder earth electrode. The boilermaker's gloves were wet and the main earth electrode on the welder hadn't been attached to the job.
- A loader operator in an underground mine damaged an energised 6.6kV cable when he raised the loader bucket. Power tripped off at the surface substation.

Other (8)

- An exploration drill hole on a coal mine lease was drilled over depth and intersected old mine workings.
- Workers were evacuated from an underground metal mine when the generator supplying power to the primary vent fans caught fire.
- A contract worker was bitten by a snake on his leg while using a whipper snipper.

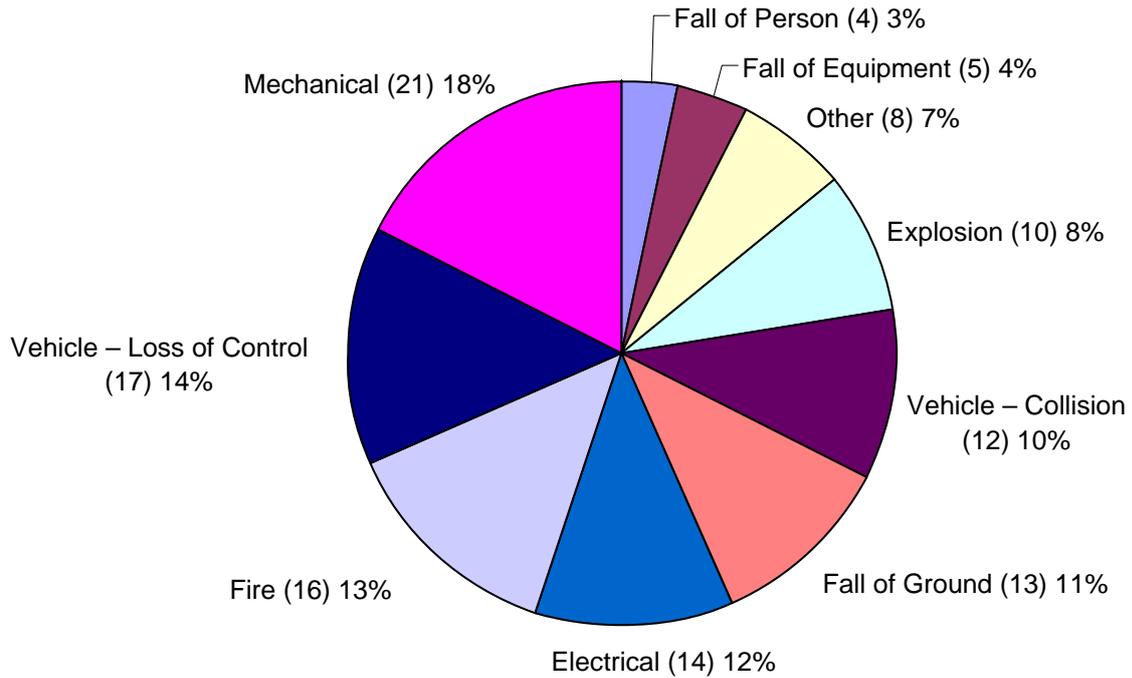


Figure 1: September 2010 Incidents (total 120) by Category

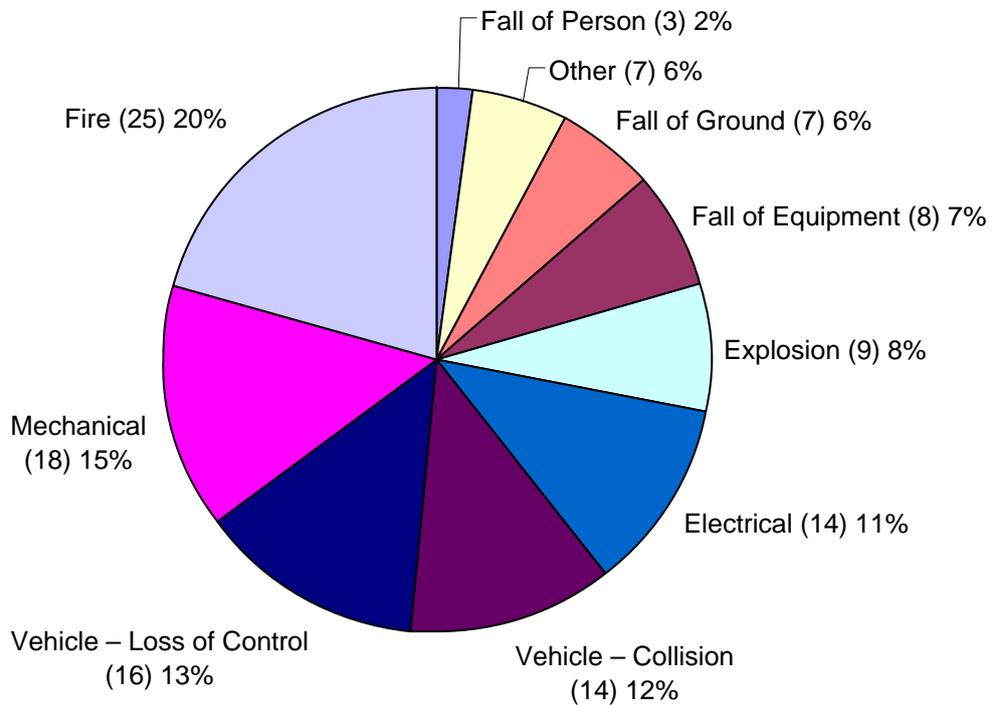


Figure 2: Twelve Month Rolling Average (120 incidents/month) by Category

Serious accidents and high potential incidents

Mining and quarrying

Compilation of reports for October 2010

Fall of Person (1)

- A worker injured his back when he fell off a flat bed truck while tying down a load.

Fall of Equipment (12)

- A T25 Franna crane tipped on its side as it was lowering a 6 tonne load into position.
- A 20 tonne Franna crane tipped on its side while erecting a five tonne concrete power pole.
- The tie down chains restraining a Komatsu 475 dozer on a low loader broke when one side of the low loader dropped rapidly after a hydraulic hose failed. The dozer slid sideways onto the ground.
- The 50kg dirt door in a dragline house fell from its location five metres onto the ground.
- The eyelet on the sideways alignment ram on an Atlas Copco ROC L8 drill rig failed resulting in the boom falling to the ground.
- A section of a mobile Precision Screens stacker conveyor, while being folded into its transport position, fell to the ground, narrowly missing a worker, when a locating pin detached from the holding brackets.
- A powered roof support toppled onto its side in the longwall maingate. A worker standing on the support foot platform fell over while three other workers standing nearby were struck by the attached hydraulic hoses and were knocked to the ground.
- A rapid bolting rig mounted on a longwall armoured face conveyor fell over because the retaining plate had not been installed. Three workers who were training on the rig sustained minor injuries.

Fall of Ground (9)

- A worker was injured when a piece of rock fell from the rib and struck him on the forearm while he was rock bolting in the longwall maingate.
- While tensioning a rockbolt a worker sustained bruising and minor abrasions when he was struck on the lower back by a piece of rib coal which fell between the rib protector and the roof bolter mounted on the continuous miner.
- During a stope firing a rock the size of a basketball fell from the back of an access decline which was bolted but not meshed.
- A section of endwall in coal open pit collapsed close to the dig face.
- A large fall of sand from the mining face in a dredge pond generated a wave on the pond which overturned one of the access float lines and a light vehicle parked on the access ramp.

Mechanical (12)

- After completing a lift of a digger cylinder the hook on a Franna crane has swung and hit the excavator's cabin window.
- While tramping a dozer the brakes have suddenly applied. The operator fell forward hitting his head on the dash.
- During pre-start checks on a Joy 12CM 32B continuous miner the tail slew function activated unexpectedly.
- The cab of an O&K RH170 digger broke away from its mounts and slumped forward after a large rock was forced under the cab.
- While attempting to retrieve a bogged Cat 793 dump truck the towing sling between the truck and the Cat D11 dozer broke throwing components some distance away.
- While fitting a new tyre to a Volvo A40E articulated dump truck the tyre fitter became trapped between the tyre that was being carried on the fork lift tynes and the wheel rim that was still on the truck. He was taken to hospital suffering from soft tissue injuries to his chest.

Vehicle – Collision (15)

- A Cat 16G grader reversed into a parked Cat 777 Water Cart. The impact caused an electrical short circuit and a resultant small fire on the grader.
- Two fitters working on a Cat 16H grader which had broken down in the circuit had to run to safety when a Cat 785 dump truck approached on the same side of the grader as they were working on.
- A rear dump truck was reversing under a digger bucket when another dump truck came into the pit and clipped the off-side of the reversing truck. Handrails on both trucks were damaged.
- A Cat 793 dump truck reversed into the front LHS of a parked Cat 793 dump truck damaging the air box of the parked truck.
- As a Komatsu 830E dump truck left the Go Line it came into contact with a parked light vehicle.
- An Hitachi 780 loader, with the bucket raised about a metre, struck the side of a light vehicle as the loader was manoeuvring in the workshop area.

Vehicle – Loss of Control (13)

- A light vehicle travelling down a ramp lost traction and veered into the bund and rolled on its side.
- When the driver of a Cat 789C dump truck leant over to pick up a water bottle the truck veered to the left and struck a bund.

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

- As a light vehicle slowed to take a corner the left hand wheel separated from the hub.
- An Eimco 130 loader moved over a metre after the operator left the vehicle without applying the park brake despite the doors being fitted with two interlocks.
- The operator of a loaded Cat 777B dump truck applied the retarder as he approached an intersection. The retarder did not hold the machine and it rolled 16 metres through the intersection and stopped after the service brake was applied.
- When the operator of a Cat 769 water truck, which had been parked on the pit floor ramp, released the brakes of the truck it travelled uncontrolled down the ramp and into water in the bottom of the pit.
- A loaded Cat 777 dump truck was descending a ramp when it lost the retarder function and changed from first into second gear. The operator applied the emergency brake and drove into the bund on the pit wall.
- A light vehicle lost steering while turning off the haul road when the tie rod detached.

Explosion (16)

- The flameproof headlight assembly on an ABM20 continuous miner was found damaged.
- Damage to a longwall 110 volt primary lighting cable resulted in the exposure of the conductors.
- When a shuttle car drove over its trailing cable the conductors were exposed.
- The flameproof integrity of a cable reel slip ring enclosure on a shuttle car was compromised when the cover was incorrectly installed.
- An excavator was found to be digging close to a loaded bench due to the incorrect placement of safety bund at two metres instead of ten metres.
- While charging holes on a bench the damaged rear crash bar on an explosives MMU truck snagged two tied off downlines in a loaded hole.

Fire (32)

- A fire occurred on a Cat 789 dump truck after a turbo failure. The on board fire suppression system and a hand held fire extinguisher were used to extinguish the fire.
- When a hydraulic hose failed on a Reich production drill rig oil sprayed onto the hot exhaust manifold and ignited.
- A wheel motor fire in a Komatsu 830E rear dump truck resulted in the position 3 & 4 tyres deflating after their valve stems burnt off.
- A small fire started beneath the passenger seat in a Cat 777 dump truck due to a short in the A/C fan.
- A small fire started in the battery box area of a Cat 777D water truck when the battery terminal clamp dislodged and arced out on the terminal.
- An Atlas Copco air compressor on a production drill rig caught fire.
- When a worker went to adjust the hand piece of an oxy torch which he had just lit the connection from the hose to the handle blew off and both his hands were burnt.

- A fire started in the engine bay of a grader after an electrical short occurred caused by an electrical cable rubbing on a copper pipe.
- A fire started in the engine bay of a Cat D10T dozer after a hydraulic hose burst and sprayed oil onto the turbo.
- A small fire started in the engine bay of a Getman explosives charge car.
- A combination of the on-board fire suppression a hand held fire extinguisher was required to extinguish a fire on an underground Cat 2900 loader.
- The smell of smoke from an electrical fault on the motor of an underground mine dewatering pump resulted in the mine workers evacuating to the refuge bays.

Electrical (11)

- An operator used his foot to reposition the cover of the dead man switch on a raw coal stacker. The incoming 110Volt wire broke and came into contact with the earthing system. An arc flash was seen and the operator was treated for a suspected electric shock.
- A faulty power board resulted in a worker receiving an electric shock when he touched a diesel particulate test rig set up in a surface workshop. Two fitters who then relocated the rig and an electrician who came to investigate also received electric shocks.
- While cleaning down a conveyor tower to remove redundant cable the power tripped. An incorrectly terminated live redundant cable located in a metal conduit had shorted out when it became wet.
- An electrician was identifying redundant cables in a process plant utilising site drawings. He identified a redundant cable and tested it for dead at the supply end. He then went to the field end and as he commenced terminating the cable an arc flash occurred and the power tripped.
- A light vehicle and cable puller were being used to move a dragline cable. The cable puller was not correctly fitted to the cable and cut into the cable whilst it was being pulled, exposing the conductors.
- A worker using a caddy welder received an electric shock when he grabbed the welding rod.

Other (8)

- When a supervisor entered an unventilated drive his light vehicle stalled. A gas reading taken later showed an O₂ level of less than 14.6% in the drive.
- A blast guard was exposed to fumes after a shot was fired in a coal open cut.
- During an emergency response exercise an SSR90 self contained self rescuer malfunctioned due to a manufacturing fault.
- After normal end of shift firing dust and firing fumes came into the underground workshop where two fitters were working.
- A boilermaker was hard facing a loader bucket when a hot piece of molten metal dripped into his boot causing burns to his foot.

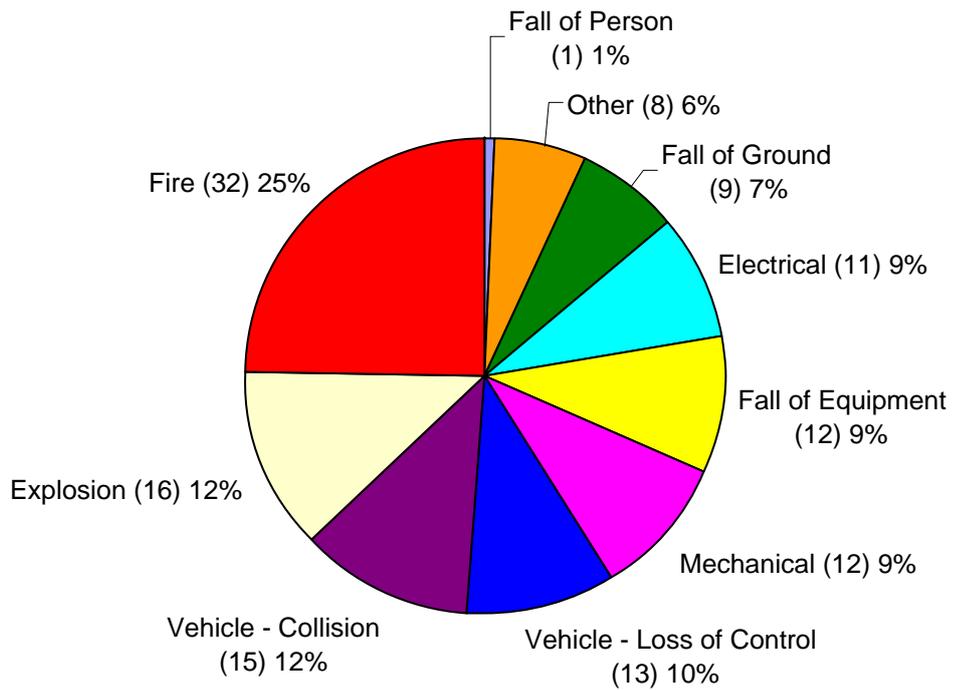


Figure 1: October 2010 Incidents (total 129) by Category

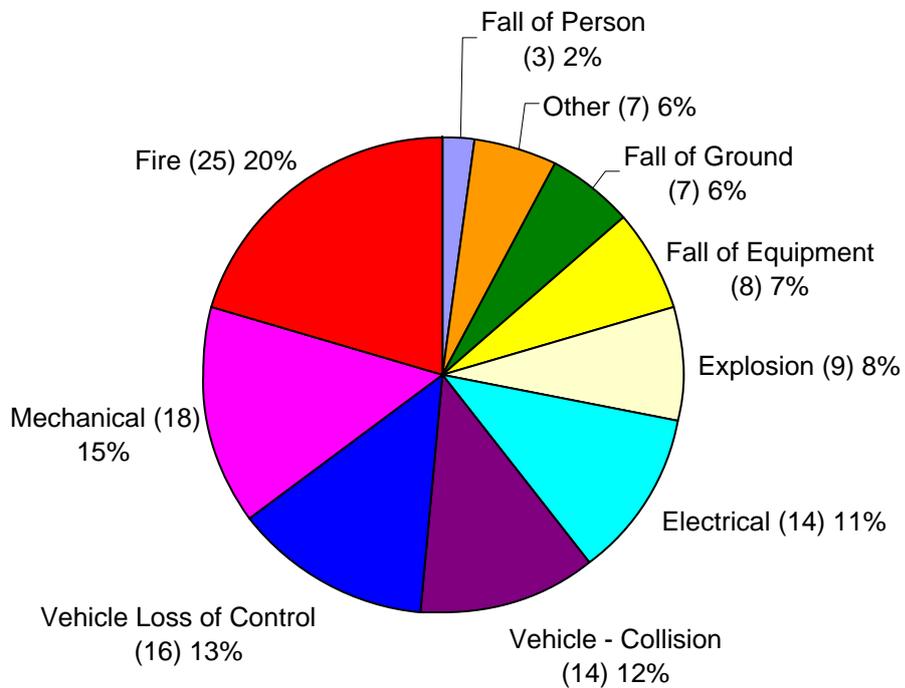


Figure 2: Twelve Month Rolling Average (120 incidents/month) by Category

Serious accidents and high potential incidents

Mining and quarrying

Compilation of reports for November 2010

Fall of Person (4)

- Three employees had removed a section of roofing from a P&H 4100 shovel house. They put on their safety harnesses and started to work around the opening without attaching themselves to the designated attachment points.
- An employee of an explosives contractor was loading holes within the bench edge exclusion zone. He was wearing a harness and lanyard which was attached to an anchor point when unexpectedly lanyard carabiner detached.

Fall of Equipment (13)

- An excavator rolled onto its side when the pad it was working on subsided.
- A Bobcat 435 track excavator slipped sideways into a gully and fell onto its side while carrying out slashing operations along a seismic line.
- While dumping sand a single chassis tipper trailer rolled onto its side when the tray was raised to the second stage.
- As a Komatsu 830E dump truck reversed up to a dump edge to tip the operator felt the rear of the truck start to sink. He lowered the tray and vacated the truck.
- During a storm a number of sheets of fibreglass cladding detached from the side of a cooling tower.
- A conveyor idler fell 40 metres to the ground while it was being replaced.
- A lighting tower section fell against the crane that was lifting it into position.
- While using a backhoe to move some timber formwork one of the lifting chains detached on one side and the load dropped striking the offside. He sustained abrasions and a fractured collar bone.
- A worker was placing grader control valves onto a shelf in a workshop when it collapsed and jammed the tip of his thumb which later required surgery.

Fall of Ground (5)

- A fall of roof, approximately 40 metres long, 3 metres high and the width of the roadway occurred in the inbye side of a longwall intake.
- A fall of roof 3.5 to 4 metres deep occurred at an intersection that had been previously bolted.
- Approximately 15 tonnes of rock fell from the side of an access drive during an end of shift firing.

Mechanical (27)

- The boom of a dragline moved while workers were next to it in a dog box suspended from a crane.
- An intermediate boom support rope on a dragline detached from the boom end clevis and fell onto the boom access walkway.
- The operator of a Cat D10R dozer was halfway down the access ladder when it started to fold away.
- The door interlock on a PJB personnel transporter was found to have been defeated.
- A driller's offside was struck on the mouth by a section of casing as it was withdrawn under tension from a borehole. He lost two teeth and split his lip.
- An exploration driller was peppered in the face by air and dirt particles under high pressure when he used a screwdriver to unblock a drill bit. He had initially pressurised the drill bit in an attempt to free the blockage.
- While lifting the mast on a Redrill SK60 drill rig back into position both upper tilt ram pins failed. The mast fell back down onto the bed of the drill.
- The lifting chain on an air driven gantry crane failed while lifting a load.
- A 130 tonne crane was lifting a 12 metre long section of an underground escape ladderway when the load swung and hit the crane cabin.
- A worker was standing inside a batch plant feed hopper trying to remove an oversize rock. As he dislodged the rock his leg slipped through the hopper gates as they started to close. His leg was caught between the gates which were still held partially open by the rock.
- A worker lost the tip of his middle finger while closing an underground vent door.
- After levering a stone which was jammed between a set of duals on a trailer the truck driver put his hand in to remove it. As he did so one of the tyres burst. He suffered a compound fracture and dislocation of the middle finger on his left hand.
- An exploration driller's offside was struck on the head by a large diameter dust removal hose which detached from the cyclone when it became unintentionally pressurised.
- The shovel on a continuous miner moved unexpectedly when the roof bolting functions were operated.
- While operating the shear function on a continuous miner the tail unexpectedly lowered and slewed between 100 - 200mm.

Vehicle – Collision (15)

- A Cat 792 loader driver called up the shovel operator for permission to clean up the face. When the shovel operator put the dipper on the ground the loader driver took this as acknowledgement and moved forward. The shovel then swung and caught the loader with the counterweight.
- A driftrunner reversed out of a cut-through and struck an Eimco loader.
- As a Cat 777 dump truck was reversing into position to be loaded by a shovel it backed into a Cat D10 dozer which was cleaning up.
- An underground grader was reversing to give way to an oncoming truck when it collided with a light vehicle parked just off the travelway.
- Two Cat 789 dump trucks were queued waiting for the digger to relocate on the bench. A dozer operator asked the front truck to move back so he could clean-up the floor. The front truck reversed and its tray collided with the handrails in front of the cab of the second truck.

Vehicle – Loss of Control (29)

- As an empty Cat 785 dump truck moved back onto its side of an access road after overtaking a grader the truck slid on the recently watered road and its tray clipped the tail end of a loaded Cat 785 dump truck travelling in the opposite direction.
- A Cat 793 dump truck slid down a ramp and turned through 180 degrees on its first run after operations restarted after rain.
- The operator of a Cat 777 dump truck had a micro sleep while driving down a ramp. The truck veered onto the two metre high berm and travelled along it for about 30 metres before coming back onto the ramp.
- The operator of a Cat AD45B underground ejector truck had a micro sleep as he was travelling up a decline. The truck contacted the wall causing significant damage to the cab.
- A Caterpillar 784C coal hauler was travelling along a haul road when the steering wheel separated from the steering column. The operator was able to stop the truck safely on the haul road.
- A Toyota Coaster bus carrying three passengers along a wet haul road spun out and slid off the road.
- A Cat 730 articulated dump truck had just driven through a puddle of water on the haul road and was entering an inclined bend when the dump body tipped onto its side.
- The operator of a loaded Komatsu 730E dump truck over sped through the retarder as he approached an intersection, lost control and hit the centre traffic island where the truck rolled onto its side.
- An underground Toyota Landcruiser trayback drove up onto a rill of muck overbalanced and rolled onto its side.
- The operator of a Manitou tyre handler forklift lost control of the vehicle while travelling down a decline. He managed to stop the forklift in the access to a level below after travelling approximately 700 metres.

- Two workers were travelling in a Toyota Landcruiser Ute along an access road when the vehicle skidded and rolled onto its roof.
- A light vehicle with two occupants rolled on an exploration track.
- A light vehicle lost steering while travelling along a haul road when the left hand side tie rod detached after the failure of a split pin on the retaining bolt.
- A Le Tourneau L1150 loader was about to tip a load into a dump truck when it tipped forward onto its bucket causing the rear wheels to be raised three metres off the ground.
- A 20 tonne Franna crane was travelling in reverse over sloping ground, while transporting a grizzly weighing 5 tonnes, when it tipped onto its side.

Explosion (10)

- The fuses on the primary side of a transportable sub-station auxiliary transformer (6.6kV to 415V) shorted causing the enclosure door to be blown off its hinges.
- A mobile phone fell into a surface concrete drop borehole hopper and fell down the hole landing in a NERZ area of the mine workings.
- A continuous miner unexpectedly intersected a methane gas drainage hole.
- An ignition of methane occurred when a continuous miner intersected a methane drainage in-seam borehole. The flame self-extinguished shortly after it ignited.
- A 12Volt “maintenance free” battery exploded on a surface generator during a service.
- A Cat 2900 loader which was constructing a bund on the level above a partially charged breakthrough shot struck and damaged a booster which contained a detonator encapsulated in emulsion.

Fire (25)

- Slag from an overhead gouging activity ignited rubbish on a lower floor in a coal prep plant.
- A small fire near the turbo was extinguished in the engine bay of a Cat 994 loader.
- While gouging cracks on the mast of a Reedrill SKS overburden drill slag landed on the protective wrap of the mast wiring loom.
- A fire started on a development drill jumbo after a 12Volt battery exploded.
- An 890kg bag of Sodium Ethyl Xanthate was found burning in a processing plant reagent storage shed.
- A fire was noticed in the engine bay of a Cat AD55 dump truck shortly after it had exited the portal. The AFFF system was initiated and the QFRS attended with two fire trucks.
- A grass fire was started by spontaneous combustion of stockpiled waste material.

Electrical (13)

- A large forklift was being used to relocate a shipping container when the underslung earth wire on a high voltage power line was damaged and subsequently caused a short circuit condition.

- A worker received an electric shock from a 240Volt Kanga jackhammer that was powered from a portable generator.
- A boilermaker received an electric shock while changing welding rods.

- A live cable was dug up during preparation work for a concrete slab to be laid for a plant expansion. The cable had not been detected during examination of the area with a cable tracer.

Other (2)

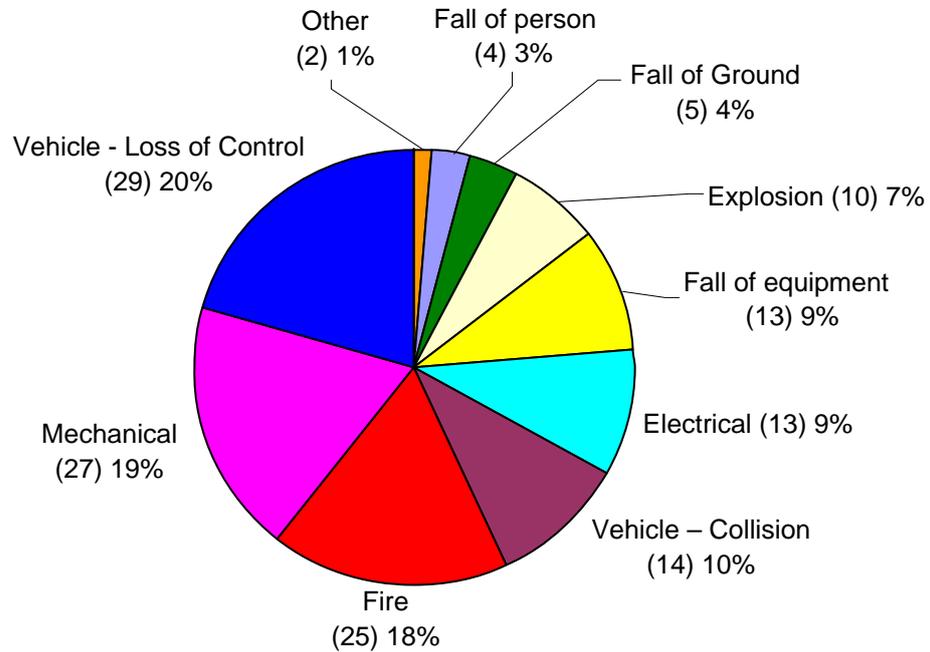


Figure 1: November 2010 Incidents (total 142) by Category

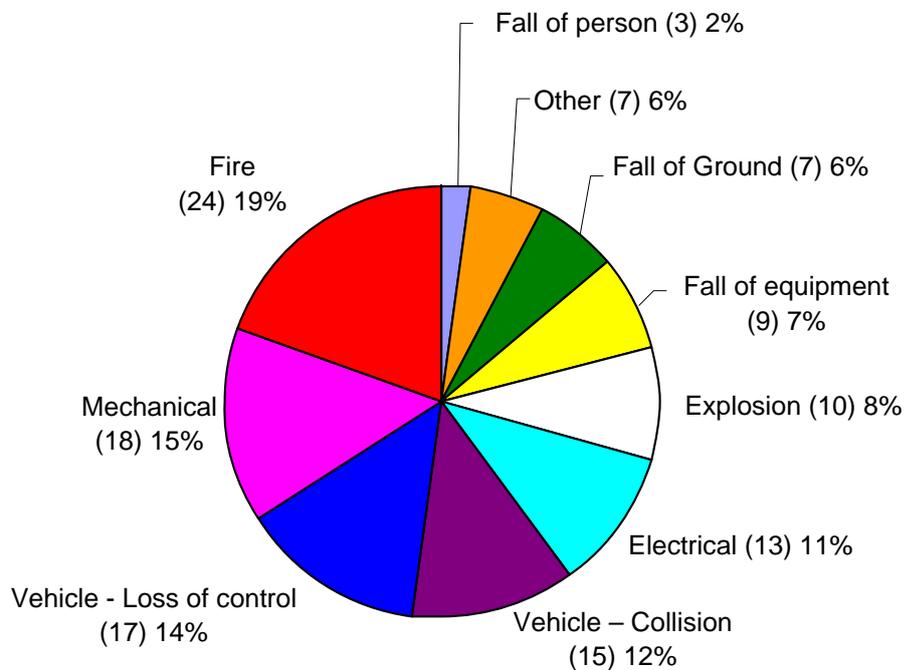


Figure 2: Twelve Month Rolling Average (122 incidents/month) by Category

Serious accidents and high potential incidents

Mining and quarrying

Compilation of reports for December 2010

Fall of Person (3)

- A worker fell 1.5m after part of the vibratory feeder platform he was working from collapsed.
- A miner working from the basket of a Normet explosives charging vehicle was thrown forward and down when the eyelet of the tilt cylinder ram failed.

Fall of Equipment (18)

- A wire sling, rated at 2.3t, broke while lowering a 2t conveyor counterweight into position. The counterweight dropped 3.5m before the conveyor belt took up the load.
- A wire rope, which was tensioning a conveyor belt via a counterweight, failed resulting in the counterweight falling 3m to the ground within the guarded area.
- As a crane was lifting a bull gear away from a dragline one of the three slings failed dropping the gear to the ground.
- The cradle on a Tamrock Axera 7 two boom development drill jumbo dropped to the ground when the roll over post on the boom failed.
- Scaffolding erected in a process plant fell 10m when it was struck by a gantry crane.
- A hoist hood roller shaft failed and fell to the floor of a dragline house.
- A 40 – 50kg mesh guard which had been removed from a feeder chute and leaned up against the walkway handrail toppled over onto the operator who was clearing an obstruction in the chute. The operator suffered a suspected broken rib and punctured lung.
- A 4t forklift was in the process of removing a 57 inch wheel rim assembly from the tray of a semi trailer when the assembly moved forward off the forks and fell 1.4m to the ground.
- A Cat 793D dump truck reversed into a bund to tip its load on a dump when the ground below it slumped about 1.5m.
- A Cat 992 loader was articulated while loading a Cat 777 dump truck on undulating ground when it tipped onto its side with the bucket landing on the body of the truck.
- While unfolding a Hiab crane on an exploration truck the lifting arm dropped and hit the hydraulic tank.
- While pulling rods from an exploration hole a weld failed on the jib hydraulic ram of a Schramm T685 drill rig causing the jib to fall.
- A 33kV power pole that had been eaten by white ants fell over.

Fall of Ground (17)

- A section of highwall 30-40m in length on the middle bench of a ramp failed and fell into the pit which was full of water at the time.
- Approximately 2000bcm of material fell from the crest of an endwall with some falling outside the protective bunded area.
- Material fell from a face around a dump truck with a large rock rilling against the position 2 tyre.
- A fitter was standing on the front platform of an Hitachi EX3600 excavator checking a boom lift cylinder when he was struck by a small rock which fell from the loaded bucket.
- While a dozer was cleaning up at the toe of a highwall some material fell and struck the side of the dozer damaging the handrails.
- A roof fall, 5m long x 1.5m thick and the full width of the heading occurred in the tail gate heading of a longwall.
- A rock weighing about 2kg fell from an underground development face and struck a loader operator who was cleaning material from the toe of the face.
- A development drill jumbo operator had just returned to the cabin after changing a drill bit when 3-4t of rock fell from the face onto the booms.
- A 4t rockfall occurred from the shoulder area of a decline after newly installed ground support failed.

Mechanical (24)

- The driver of a road train had changed a tyre and was lowering the jack when the tyre ruptured. He sustained fatal injuries.
- A fitter was using a torque wrench when the hydraulic line feeding it split and a jet of high pressure oil glanced off his leg.
- A 7kg plastic guide buffer was ejected at high velocity from a walking knuckle of a Marion 8050 dragline which was being walked to a new location. It brushed a spotter standing about 30m away before coming to rest about 90m from where it started.
- During replacement of a bucket ram cylinder on a Komatsu 1250 excavator the supervisor asked for the bucket to be operated to check an oil leak he had noticed. When the bucket moved the partially inserted cylinder link pin broke and was projected 15 metres, just missing the supervisor.
- During a dragline dump rope change crowbars were being used to align the rope in the socket when one of the workers was struck under the chin by a crowbar resulting in a deep laceration.

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

- A worker in an LHD lift basket, which was being raised, broke three fingers when his hand was caught between the handrail of the basket and the structure he was installing.
- During installation of a new Abbey 1t hoist to the front of a DK90 overburden drill rig it was identified that the hoist was not fitted with a proximity switch that would prevent a load being lifted over the hoist operator (refer recommendations from the Coroner's Inquest into the BMA Blackwater Mine Vehicle Loading Crane fatality 12 April 2002).
- A concrete agitator truck driver fractured his vertebrae when he hit his head on the roof of the cab after driving over a bump on a decline.
- A continuous miner continued to reverse after the operator released the dead-man button on the remote control.

Vehicle – Collision (18)

- Two Komatsu 830E dump trucks had a nose to tail collision while queuing to be loaded on a ramp when the rear truck contacted the tray of the truck in front.
- A Mack service truck was reversed into position to refuel a dump truck. The operator applied the park brake and left the cab. As he walked to the rear of the service truck it drove through the park brake and reversed into the dump truck.
- The dayshift dragline operator parked his light vehicle and entered the dragline to have a handover with the nightshift operator. During the handover the nightshift operator swung the dragline and the shoe struck the vehicle.
- A Komatsu 730E dump truck contacted a Komatsu WA900 loader at a tip head. The loader operator was unaware the truck was in his work area.
- A Coaltram loader collided with the rear of a parked forklift in a workshop when the operator's foot caught under the brake pedal and he was unable to fully apply the brakes.

Vehicle – Loss of Control (15)

- A Cat 16M grader was travelling down a ramp when the brakes failed. The driver lowered the blade and rippers to stop the grader.
- A Cat 793 dump truck slid on a ramp and came to rest against the ramp bund.
- The front wheel assembly fell off a Joy 15SC shuttle car after all eight mounting bolts failed.
- A water cart drifted off the haulroad and into the drain while the operator was adjusting the radio.
- While travelling down a ramp a loaded Komatsu 730E dump truck lost retarder function. The operator drove into the ramp bund to stop the truck.
- A light vehicle slid on a wet haul road and contacted the bund where it rolled onto its side.
- A light vehicle operator had a micro sleep and hit the side wall of the drive.
- An IT forklift, which had been parked on a slope with the handbrake engaged, rolled away into a gully where it rolled over.

- A forklift kept travelling in reverse after the operator jumped off to stop the load from falling off the forks.
- While an employee was removing wheel chocks from a service truck in a workshop vehicle bay the truck rolled back 2m.

Explosion (7)

- A shuttle car cable caught between the damaged section of hungry board and the body of the car exposing the conductors and tripping the power.
- Hot work was performed on an explosives MPU truck without cleaning to remove any explosive residues.
- When a shotfirer reversed a light vehicle over a double primed loaded hole one of the downlines caught on the underside of the vehicle and was subsequently stretched and snapped as the vehicle was driven forward.

Fire (25)

- Gear lubricating grease ignited in the hoist gears of a Bucyrus 1370 dragline after a shaft failed causing the gears to misalign and heat up.
- While cutting dragline ropes acetylene leaking from a swivel joint in the acetylene hose ignited.
- While conducting hot work on a production drill rig methane below the rig ignited. A hand held extinguisher was used to put out the fire.
- While refuelling a Cat 16G grader, using a Wiggins fuel fitting, diesel sprayed over the turbo area creating a small fire.
- A fire started on one of the turbos of a Cat 789B dump truck after oil leaked onto the turbo from a loose oil supply fitting. The engine oil pressure light came on and the on-board fire suppression automatically discharged.
- An oil fire in the engine bay of a Komatsu 785 dump truck reignited after the fire suppression had been activated. A nearby water cart was used to finally extinguish the fire.
- A combination of the on-board fire suppression and a hand held fire extinguisher was used to put out a fire in the transmission area of an Elphinstone 2900 underground loader.

Electrical (13)

- An employee received a mild electric shock whilst operating an emergency stop button adjacent to a wash-down pad.
- A boilermaker received an electric shock while changing a welding rod after an extension lead melted onto the earth clamp.
- A sharp edge on a cable pulling device cut into an energised dragline cable during a dragline walk. The inner conductors were exposed and power tripped at the transportable substation.
- The main 1000V circuit breaker on a longwall conveyor failed during operation causing minor damage to the inside of the IP55 enclosure.
- During the starting sequence of a slip ring pump motor, a short circuit was created across the slip rings. The resultant arc fault pressure caused the inspection window on the cover to blow out.

Other (17)

- All personnel were withdrawn from underground and the in-pit area due to an extreme weather event causing loss of power and ventilation.
- Workers were withdrawn from underground coal mine after a panel was sealed following a rise in water levels in the panel which choked off the ventilation circuit resulting in a rise in CH₄ and CO.
- An open cut was inundated by floodwater from the Dawson River after a levee bank was breached.
- Fume from a shot breached the exclusion zone forcing workers to evacuate from their crib huts.
- An underground miner working in a development panel suffered heat exhaustion shortly after the start of his shift. He was taken to the surface and

rehydrated before being taken to hospital for further treatment.

- An underground worker doing manual work on a decline was removed from the mine and taken to hospital after suffering from the early stages of heat exhaustion.
- An underground worker who was engaged in construction work was taken to hospital suffering from heat illness.
- A sulphuric acid tanker driver was unlocking a camlok fitting after unloading when acid sprayed out of the still pressurised fitting, some of which landed on the back of his neck.
- An operator was bitten on the hand by a snake as he got out of the cab of his loader.

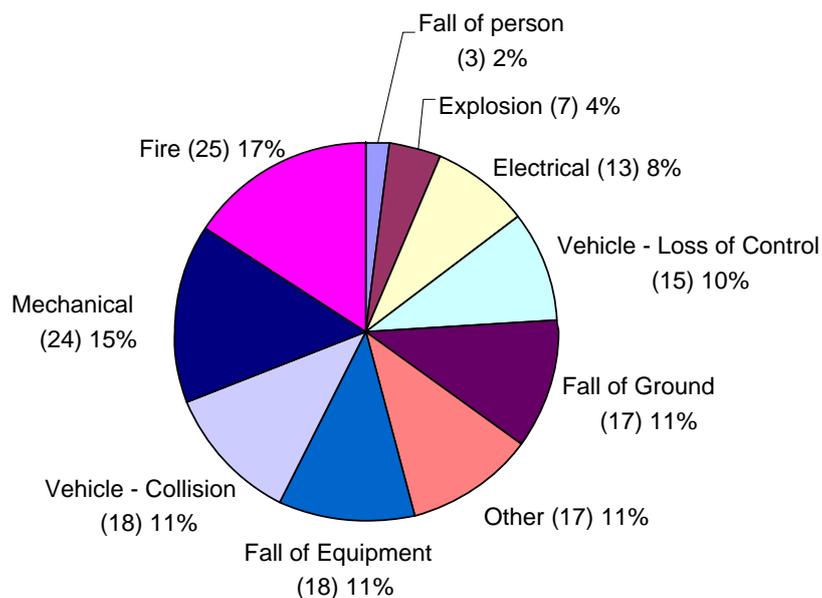


Figure 1: December 2010 Incidents (total 157) by Category

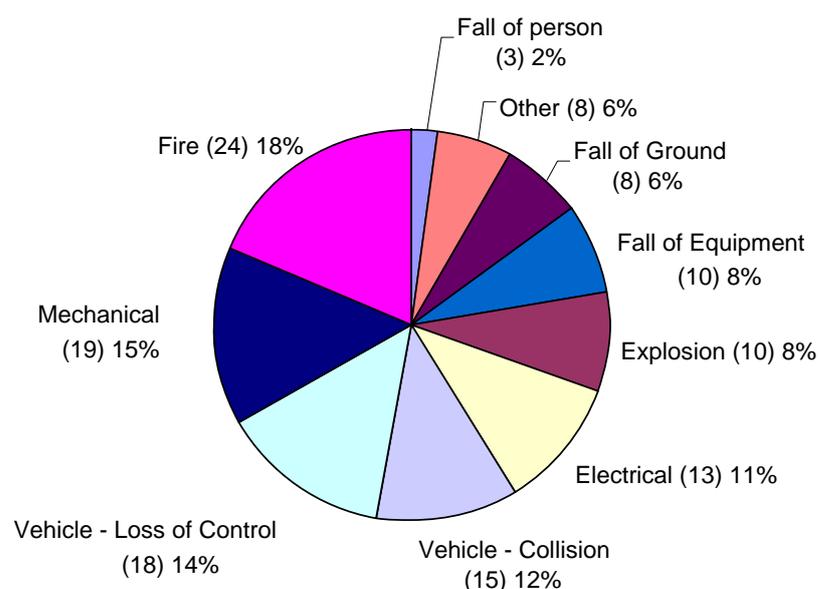


Figure 2: Twelve Month Rolling Average (127 incidents/month) by Category