



**QUEENSLAND EXPLOSIVES INSPECTORATE
SUMMARY OF REPORTED SERIOUS ACCIDENTS AND HIGH POTENTIAL INCIDENTS
JANUARY 2005**

- A signal tube downline of a charged blasthole was cut when a stemming machine carrying a load of stemming material rolled over onto it.
- A dozer was found working in a barricaded area where two misfired holes contained explosives. The dozer driver had reportedly not noticed the barricade.
- Persons broke into a rail depot and stole tool-boxes containing 65 railway track signals.
- At a south east Queensland quarry, flyrock resulting from the firing of four misfired holes damaged two drill rigs located approximately 80m from the face.
- A sulphide dust explosion occurred following the firing of a development drive, destroying approximately 30m of vent ducting.
- A 300mm piece of flyrock from a coal shot landed 20m away from a drill and maintenance crew located outside the 350m blast clearance zone.
- The shock wave after an overburden blast caused two phases of the powerline to clash together. The resultant arc burnt through one cable, which then dropped to the ground. The damaged line was over 1km away from the blast.
- A road train loaded with three containers of ammonium nitrate pulled over to the side of the road. The edge of the road gave way causing the vehicle and one trailer to roll over. The first container was breached spilling approximately 500kg of ammonium nitrate.



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FEBRUARY 2005**

- **Unknown persons placed a large firework item under the mudguard of an unmarked police vehicle. The item exploded causing minor damage to the vehicle.**
- **During the firing of a pre-split blast at a central Queensland coal mine, a small rock damaged the window and rear view mirror on a machine parked 300m from the blast. No personnel were inside the exclusion zone.**
- **Numerous unknown chemicals, including picric acid, were found on a roadside reserve by council workers. Some compounds deemed too sensitive to be transported were detonated on site, with the remainder removed for later disposal.**
- **A number of misfires throughout the state were reported to be caused by factors such as incorrect tie-in of signal tubes and use of poorly performing old stock.**
- **An overburden blast at a central Queensland colliery was loaded in hot ground. Temperature logging was completed in the surrounding holes with results from 50-70 deg C. Constant monitoring for temperature rises was instigated following a risk assessment. The area was tied in, charged and fired without incident.**



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March 2005

- **A truck carrying explosives experienced brake failure when descending the Toowoomba Range, necessitating the use of the safety exit ramp. No injuries were sustained by the driver or members of the public. No product was spilled or damaged.**
- **Another significant flyrock incident was reported from the Bowen Basin this month with rocks up to 80kg found 900m from the blast site. Rocks landing on the adjacent highway caused minor damage to the road surface and to powerlines associated with the railway. Both the railway and the Peak Downs Highway were closed for a large part of a day. Significant airblast and vibration associated with the blast triggered complaints from several neighbouring properties.**
- **Approximately ten (10) misfires were reported. In one instance, an employee started working in an identified misfire area.**



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April 2005

- **A B-double truck carrying 37 tonnes of ammonium nitrate rolled at low speed causing a large product spill. It appears likely that the driver pulled over onto a steep verge, which caused the prime mover and trailers to roll over.**
- **There were several instances of packaged explosive product, primed with detonators, being returned to the magazine of a major Queensland mine.**
- **A minor accident involving nonel tubing at a major manufacturing plant was reported during April. It is likely that operator error was involved.**
- **A pyrite fire resulted after blasting of a development face. All normal precautions had been taken according to standard procedures.**



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May 2005

- A Townsville railway employee suffered injuries to a hand and his chest when initiating a powerful firework item that he reportedly recovered from a rubbish bin.
- Lead wires were observed to be protruding from shot holes on a construction site in north Queensland. Following subsequent investigation by an inspector, an unexploded PCF cartridge was rendered safe, while a second was retrieved from the hole.
- Several misfires have been reported during the month from Bowen Basin coal mines and quarries in south-east Queensland. Causes include loss of lead lines during stemming and faulty detonators.
- Flyrock at a south-east Queensland quarry resulted in damage to two drill rigs on site. The drill rigs were knowingly situated within the blast security area.
- An explosives charge car at a north-west Queensland mine developed a leaking seal at the top of the kettle. The seal started to smoke, but as air continued to escape from the hole, it enlarged to the point where pressure was released and the smoking stopped. The hot seal was doused with an extinguisher.



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June 2005

- **Two stope rings were fired at a north Queensland underground operation. The stopes daylighted into an open cut pit. Flyrock generated from one of the firings travelled in excess of the 400m exclusion zone. Flyrock up to approximately 100mm in diameter impacted on a mine building, penetrating the roof eaves. A second piece of rock of approximately twice the size, landed on the roof of the mine's administration building, although this rock did not penetrate the roofing material.**
- **At a central Queensland coal mine, a contract shotfirer was inspecting the overburden blast and discovered that the leads to one blast hole had been broken away at ground level. The initial investigation indicates that the most likely cause was due to hooking up on a mobile mixing unit (MMU) which it is believed may have reversed over the hole. It is likely that the nonel leads became attached to the MMU and were subsequently snapped when under tension.**
- **A low ANFO flow rate from the kettle of a charging vehicle was being investigated by the charge crew at a major north Queensland mine. Upon dismantling of the discharge actuator by a fitter, 3 damaged LP14 detonators were found to be causing the blockage. A total of 5 detonators (a full bundle) was recovered.**
- **Towards the end of night shift (approx 6am). A shovel finished digging within 2m of a loaded overburden blast hole and then progressed away from this area and continued to dig. The incident was not identified until day shift operations. The hole contained approx 20m of emulsion-based explosives and was primed with two 400g boosters.**



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July 2005

- **During an inspection of a mobile manufacturing unit that had been transported from a mine back to a major regional centre, a number of detonators were found inappropriately stored in a toolbox on the vehicle.**
- **During a nightshift, an excavator continued digging a bench to within 1m of holes charged with explosives. The burden for the proposed shot had in effect been removed, creating further risks from the planned blast.**



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August 2005

- A box containing 66 non-electric and electric detonators was found on the verge of a major Freeway. The product, which was identified by a person associated with the industry, was taken to a nearby quarry for safekeeping. A shotfiring contractor reported the same quantity of product missing, and the owner and product were reunited. The detonators had been left on the back of the shotfirer's vehicle at one blast site, when another employee borrowed the vehicle to visit a second site, not knowing that the product was out of the magazine and temporarily stored on the back of the vehicle.
- A bulldozer working too close to a loaded shot caused rocks to cut lead-in-lines to a blast at a major north Queensland mine. No explosion resulted.
- Another blast site security incident occurred at a south east Queensland quarry when vehicle drove over a lead-in line for a quarry blast. No explosion occurred.
- An employee at a major north Queensland mine was discovered to be secreting detonators whilst carrying out blasting activities. The employee, who admitted to this activity, was immediately dismissed. A warrant was issued under the *Explosives Act 1999* to search the employee's house. No further explosives were found.



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September 2005

- A front-end loader drove over a lead-in line for a quarry blast while getting a load of rock from near the shot.
- Blasting at a major open cut mine was hampered by hot ground and subsiding ground conditions. A subsidence cone with surface diameter of approximately 30m formed suddenly within a blast exclusion zone. Blast holes were being filled close by, just outside the exclusion zone.
- A misfire at a major Bowen Basin coal mine caused an unfired shot to be buried by material fired from an upper bench.
- After attempting to bring down a stope hang up with a water spear and the air cannon it was decided to use explosives. When trying to place the explosives in the rock blockage some rocks started to dislodge. The person placing the explosives exited the chute and was approximately 3 metres away when ore behind the hang up rilled into the chute.
- Sulphide dust explosions occurred with each of three development firings in an underground mine.
- A prepared (detonator-primed) explosives charge for secondary breaking was found sitting on a 20kg bag of ANFO in an underground magazine.
- A contractor water truck drove past an overburden drill and entered a blast area without authorisation.
- Misfires are continuing to be reported from all areas, but predominantly Bowen Basin coal mines.

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October 2005

- A quantity of packaged explosives and detonators was stolen from a surface magazine at a central Queensland underground coal mine.
- Flyrock from a trench blast caused damage to some domestic houses. Although the shotfirer used blast mats and other means to prevent such an occurrence, local geological conditions in part of the trench caused the blast mats to lift enough for flyrock to escape.
- Explosives magazines were flooded at a central Queensland coal mine when a tailings dam wall collapsed.
- Yet another breach of blast site security occurred at a central Queensland coal mine, with a vehicle driving over a loaded shot.

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November 2005

MISFIRES

- At a central Queensland coal mine, 0.5 to 1.0kg of ANFO was found in the dig face after it failed to detonate.
- At least one misfire was reported from a shot using electronic detonators. The electronic detonators were suspected as being at fault.
- A misfire at a central Queensland coal mine was discovered when an excavator uncovered a live detonator, booster and heavy ANFO product.
- A misfire occurred when a 475ms Nonel detonator taped to 5gm detonating cord failed to initiate upon firing the detonator.
- A misfire resulted when high rainfall washed out a hole. Leads and primers were washed down the hole.
- Bulk explosives were found by a dragline operator. The downlines had fired. Product was removed by hand.
- One of sixty six holes failed to fully initiate. Inspection revealed that the detonator and primer had fired. The hole was re-primed and re-fired.
- A shotfirer at a Bowen Basin coal mine attempted to fire two terraces at once. A connectadet between the lower and upper bench failed. It was a poor tie up plan. The shot was re-connected and re-fired.
- Several other misfires were reported from central Queensland coal mines due to cut-offs. Some mines believe that low core-load in nonel initiating lines was to blame. Most misfires were reconnected and fired without further problems.
- A mis-fired hole was located at a south-east Queensland quarry three weeks after it was loaded.
- Two mis-fired holes were located at a Bowen Basin coal mine. These were reconnected and re-fired.

FLYROCK

- An excavator was damaged by flyrock as a result of a face burst.
- Flyrock at a south-east Queensland quarry resulted in damage to plant approximately 150m from the blast.
- Flyrock resulting from an overburden blast at a coal mine landed adjacent to blast guards in separate locations.
- Flyrock was reported from a major central Queensland coal mine.

BLAST SITE SECURITY BREACHES

- A blast controller conducting his final inspection drove a light vehicle over the lead in line to a shot.

OTHER INCIDENTS

- Explosives were used to access a safe on commercial premises.
- Several loaded holes prematurely detonated at a metalliferous mine, possibly due to reactive ground.
- Police who stopped a person on a routine traffic matter, discovered items believed to be explosives. Police proceeded to conduct a search of the person's premises where a number of improvised explosives devices were found.
- An improvised explosives device (IED) was reported at a north Queensland public tip. The area was cordoned off, police and army were called in to disable the device.
- A co-disposal dam wall failed, causing flooding of two large explosives magazines.
- A driver for a major explosives transport company broke his leg after falling from a vehicle during unloading.

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December 2005

- Approximately 20 misfires were reported during the month, predominantly from Central Queensland coal mines.
- A quantity of ammunition and propellant powder stored in the roof space of a domestic dwelling caught fire, causing major damage to the house.
- A container holding 23t of Ammonium Nitrate fell off a tipping frame while attempting to load the prill into a transfer auger. Approximately 2t of material was spilled.
- A plug of Emulite packaged explosive was found wrapped in a towel on the wall of a major south-east Queensland dam.
- Security cameras captured footage of a person who gained unauthorized access to one of the Government explosives reserves by scaling the front gates.
- While loading the last two rows of pallets onto the back of a truck, the base of the pallet being loaded broke and the tynes of a forklift damaged a case of Boosters at the bottom of the pallet.