

# January 2021 Incident periodical

Recent High Potential Incidents  
Learnings and Recommendations  
Queensland Coal Mines Inspectorate

Coal Inspectorate



**Resources Safety & Health**  
Queensland

# 1. Incident – Equipment Collision – Surface Mine

1. During loading operations a large excavator has swung around and contacted a floor clean-up dozer.
2. The excavator operator was not aware of the dozer's presence.
3. No injuries, however significant damage occurred to one of the dozer's hydraulic blade rams.



# Recommendations

## Site Senior Executive

- Ensure the Principal Hazard Management Plan and associated procedures for controlling mobile equipment interaction are effective and all relevant coal mine workers are competent in their use.

## The senior position responsible for “mobile equipment interaction” within the management structure

- Continually monitor and review the effectiveness of risk control measures, and take appropriate corrective and preventive action where non-conformance is identified.

## Coal Mine Workers

- Comply with their mine’s procedures when operating mobile equipment.
- Must always be vigilant when operating, and on the lookout for the unexpected to happen.



## 2. Incident – Explosives security breach – Surface Mine

1. While conducting an inspection of a Magazine Compound, an Open Cut Examiner found the entrance gate to the compound unlocked and not secure.
2. The explosive magazines within the compound were then checked and found to be locked.





# Recommendations

## Site Senior Executive

- Ensure the mine's Safety and Health Management System contains effective procedures that provide for the security of explosives to be always maintained.
- Ensure all persons who work with explosives are trained and competent.

## Senior position responsible for explosives

- Consider developing and implementing a means of secondary checks on the key controls required for the security of explosives.

## Coal Mine Workers

- Always ensure the security of explosives by following the ways stated in the mine's Safety and Health Management System.

### 3. Serious accident – Fall from height - Underground

1. Whilst doing a conveyor install a Coal Mine Worker working on a LTU drive pulley fell 1.7 metres. During the fall the CMW was injured when he contacted the drive motor frame.
2. The Coal Mine Worker received two broken ribs and required hospitalisation.



# Recommendations

## Site Senior Executive

- Ensure the risk to persons from any plant provided by the Site Senior Executive for the performance of work is at an acceptable level.
- Ensure the mine's risk management processes provide guidance to Coal Mine Workers for identifying hazards.

## Supervisors

- Ensure Coal Mine Workers are diligently applying risk management processes by identifying potential hazards at all times, and ensuring effective controls are in place.

## Coal Mine Workers

- Before commencing a task consider the possibility of all hazards when conducting local risk controls, and then ensure effective controls are implemented.



# 4. Incident – Equipment Structural Failure – Surface Mine

- A Hitachi EH5000 rear dump was discharging its load at a dump tiphead, and when the operator moved the truck forward both the right and left hoist cylinders failed causing the tray to fall down rapidly. The impact of this caused the windscreen to shatter.
- No injuries were sustained.



# Recommendations

## Site Senior Executive

- Ensure the Safety and Health Management System contains an effective SOP for assembling and maintaining fixed and mobile plant in its operational location as per Section 72(c) of the Qld Coal Mining Safety & Health Regulation 2017.

## The senior position responsible for mobile plant maintenance

- Ensure adequate structural integrity checks / tests are conducted on parts of mobile plant where there is potential for a structural failure to occur.
- Ensure mobile equipment componentry is maintained and replaced as per the OEM's specifications and recommendations.

## Coal Mine Workers

- Must conduct pre-start inspections on mobile plant identifying defects, and then as per the requirements of their mine's Safety and Health Management System report these defects.



## 5. Incident – Pedestrian hit by equipment – Surface Mine

An operator was on the ground inspecting around an operating dragline's tub for bench cracking. The operator, who was wearing a hardhat, has stood up and his head has knocked a light under the back-side of the dragline. The impact caused him to stumble backwards and then fall onto the ground. The operator was able to recover his position from on the ground and remove himself from the dragline's footprint.





# Recommendations

## Site Senior Executive

- Ensure there are effective procedures in place for working in and around dragline operations, and this should include minimising the risk associated with persons working on the ground whilst a dragline is operating.
- Ensure all persons that work within dragline areas are trained in these procedures.

## Supervisors

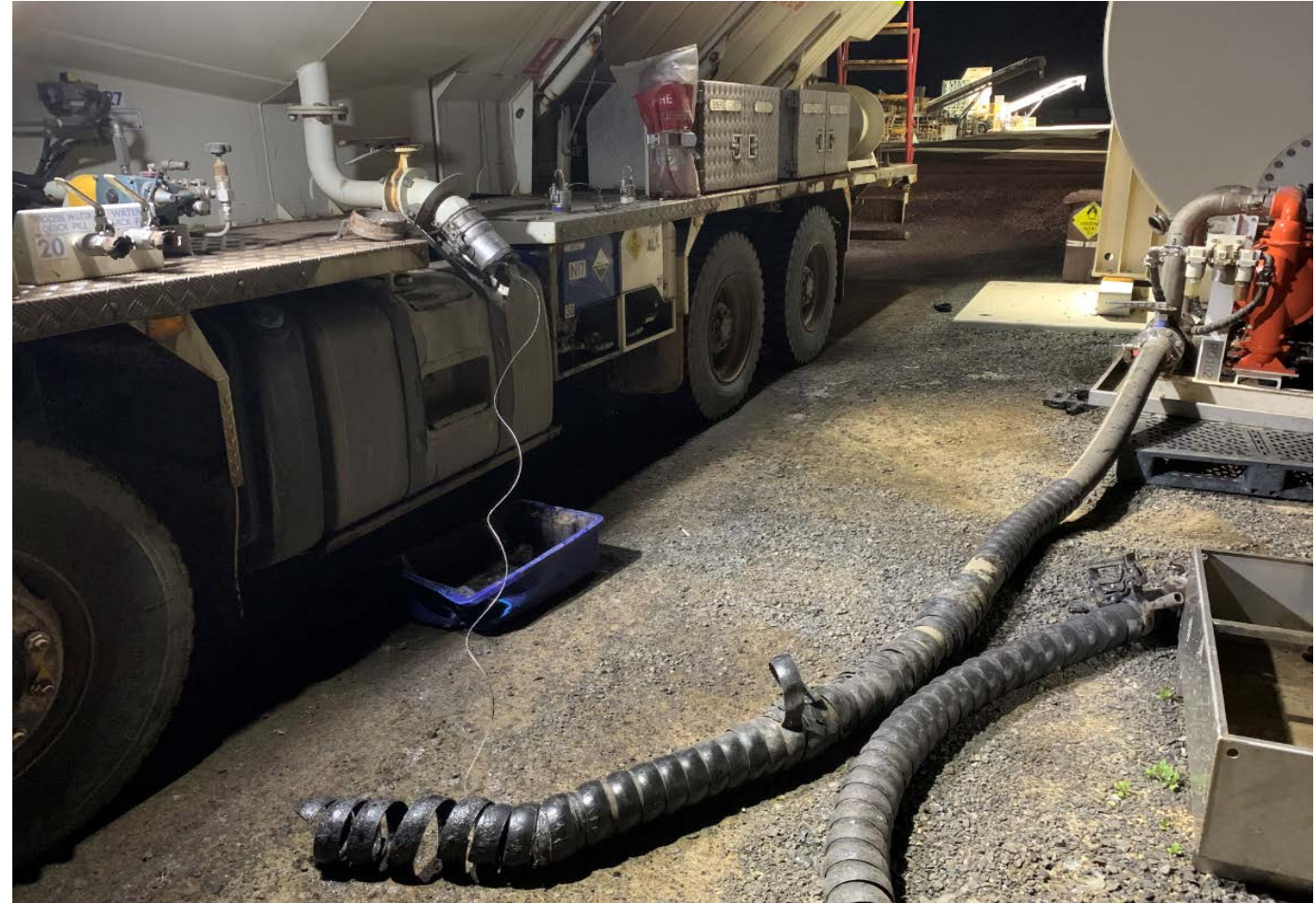
- Should ensure the above procedures are implemented.
- Monitor / audit dragline operations for compliance with the above procedures.

## Coal Mine Workers

- Always conduct their work in accordance with the above procedural requirements.

## 6. Incident – Explosives handling – Surface Mine

On completion of loading an MPU with emulsion, the operator has closed all valves, purged the EP hose, shutdown the compressor, and has then failed to remove the hose from the fill point on the MPU before driving off. This resulted in the hose separating from the Camlock fitting.



# Recommendations

## Site Senior Executive

- Ensure there is an effective procedure in place for loading MPUs with explosive products.
- Ensure persons handling explosives are trained and competent to perform the task.

## Supervisors

- Ensure Coal Mine Workers are conducting their work in accordance with the mines Safety and Health Management System.

## Coal Mine Workers

- Remain vigilant during all tasks at all times.
- Must immediately report all incidents / hazards to their open cut examiner and supervisor.



# February 2021 Incident periodical

Recent High Potential Incidents  
Learnings and Recommendations  
Queensland Coal Mines Inspectorate

Coal Inspectorate



**Resources Safety & Health**  
Queensland

# 1. Incident – Vehicle loss of control – Surface Mine

1. The brakes on a service truck failed when travelling down a ramp.
2. The truck operator used a gap in the centre bund to avoid negotiating curves on the ramp.
3. The operator then steered the passenger side into contact with the centre bund.
4. The contact with the centre bund stopped the truck.
5. A faulty component was found in the braking system.
6. The brake testing schedule was identified to be inadequate.



# Recommendations

## Site Senior Executive

- Ensure the SHMS procedures that provide for the continued effectiveness of braking systems on mobile plant are adequate and are being complied with.

## The senior position responsible for braking system maintenance

- Review the maintenance strategy for braking systems and ensure all brake system components are functioning as intended and are fit for service.

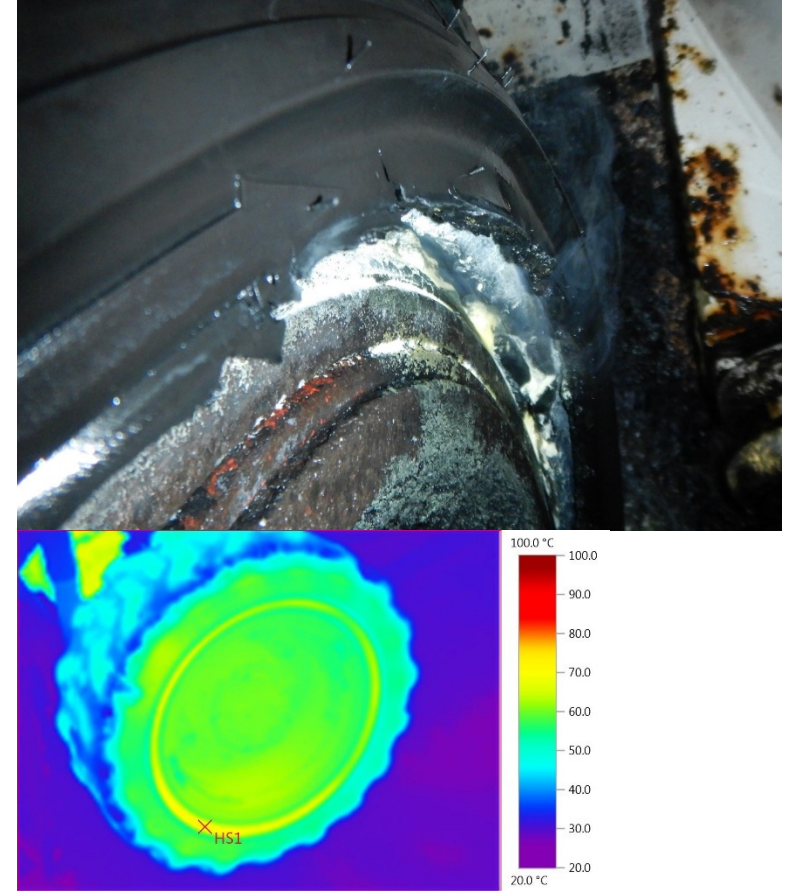
## Coal mine workers

- Comply with your mine's procedures for checking mobile plant before operating mobile equipment.
- Isolate mobile plant with defective safety critical components.



## 2. Incident – Fire on plant- Underground

1. A PJB driver saw smoke coming from a tyre and commenced cooling it with water.
2. Flames appeared from the tyre three times and were extinguished with a DCP extinguisher while cooling with water continued.
3. The duty cycle of the tyres exceeded the tyre rating, allowing excess heat build-up in the tyres.
4. A groove in the sidewall allowed excessive tyre flex allowing hotspots to develop



# Recommendations

## Site Senior Executive

- Ensure the risk to persons from any plant provided by the site senior executive for the performance of work is at an acceptable level.
- Ensure tyres are rated for the service demands the vehicles may experience.

## Supervisors

- Ensure coal mine workers are operating vehicles within their duty cycles and diligently identifying potential hazards and ensuring effective controls are in place at all times .

## Coal mine workers

- When operating mobile plant, stop and investigate if you detect unusual noises or smells from the machine.

### 3. Incident – Collision Mobile Plant – Surface Mine

1. RDT 1 (loaded) stopped at a T-intersection stop sign.
2. RDT 2 approached from RDT 1's right, was unsure what RTD 1 was doing, slowed down and activated hazard lights.
3. RTD 1 commencing a right hand turn in front of RDT 3 (empty) approaching from RTD 1's left.
4. RDT 3 took evasive action and braked to a stop.
5. RDT 1 collided with the tray on RDT 3.
6. Effective communication procedures were not being followed.





# Recommendations

## Site Senior Executive

- Ensure the mine's safety and health management system contains effective procedures for vehicle interaction.
- Ensure all persons who operate mobile plant are trained and competent.

## Senior position responsible for mobile plant operations

- Enforce compliance with all procedures managing vehicle interaction at the mine.

## Coal mine workers

- Coal mine workers must follow mine communication procedures when operating mobile plant.

## 4. Incident – Cable Damage – Underground Mine

- An LHD was used to repair the wheeling road approach to the conveyor loading point.
- The coal mine workers suspended the shuttle car cable from the anchor point, tied off back to the rib.
- Power was left on the shuttle car cable.
- The LHD bucket hit the cable and exposed the conductors



# Recommendations

## Site Senior Executive

- Ensure there is an effective system in the SHMS for selecting, installing and using electrical cables and electrical cable accessories as per Section 188 of the Coal Mining Safety & Health Regulation 2017.

## Supervisors

- Ensure effective risk management is conducted for all tasks conducted by coal mine workers under their supervision.
- Ensure coal mine workers follow the system for management of trailing cables.

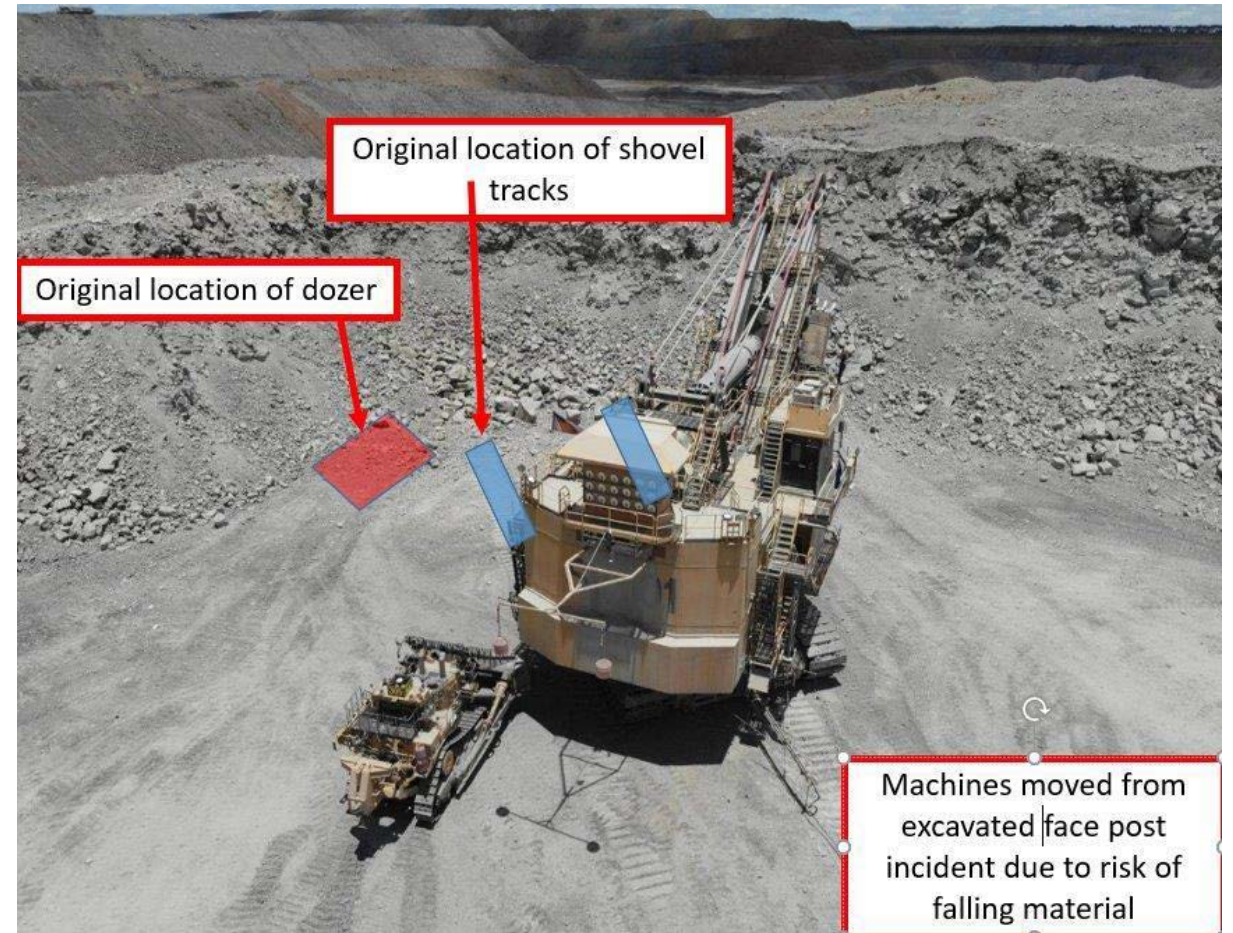
## Coal mine workers

- Follow the system for management of trailing cables.
- Locate electrical cables in places that eliminate the possibility of contact with operating machinery.



## 5. Incident – Collision Mobile Plant – Surface Mine

1. A dozer was cleaning the floor on the off-side of an electric shovel.
2. The dozer entered the shovel swing radius which allowed contact between the blade and the shovel access ladder when the shovel slewed during truck loading.
3. The angle of approach used by the dozer operator was not in accordance with the procedure.



# Recommendations

## Site Senior Executive

- Ensure there are effective procedures in place for working in and around shovel operations, and this should include minimising the risk of contact between machines during loading operations.
- Ensure all persons that work at excavating faces are trained in these procedures.

## Supervisors

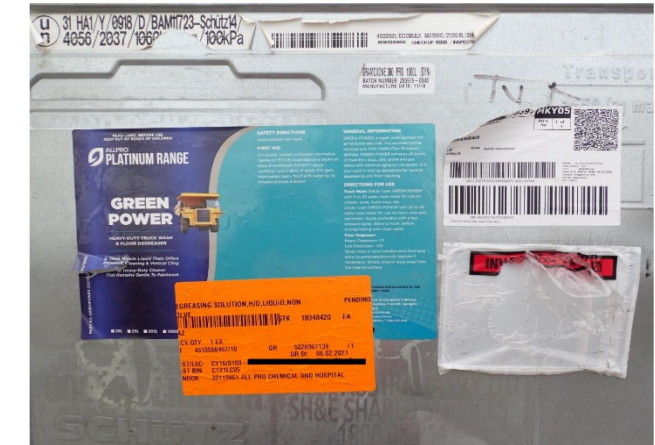
- Should ensure the above procedures are implemented.
- Monitor / audit excavation operations for compliance with the above procedures.

## Coal mine workers

- Always conduct their work in accordance with the above procedural requirements.

# 6. Incident – Failure managing Hazardous Chemicals

1. Several coal mine workers became ill after decanting a liquid chemical from a bulk container.
2. The container carried two product labels, one for a degreaser, one for a herbicide.
3. Testing found the liquid contained herbicide at a concentration of less than 1ppm.
4. Failure to correctly manage hazardous chemicals have occurred at the supplier and at the mine.



# Recommendations

## Site Senior Executive

- Ensure there is an effective procedure for receiving hazardous chemicals into the mine.
- Ensure persons receiving hazardous chemicals are trained and competent in the procedure.

## Supervisors

- Ensure coal mine workers check chemical container labelling before use.
- Ensure suspect chemical containers are isolated and removed from the workplace.

## Coal mine workers

- Check every label on chemical containers to ensure only one chemical is identified.
- Isolate suspect chemical containers and report your suspicions to your supervisor.



# March 2021 Incident periodical

Recent High Potential Incidents  
Learnings and Recommendations  
Queensland Coal Mines Inspectorate

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**Resources Safety & Health**  
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# 1. Incident – Steering joint failure – Surface Mine

1. Whilst travelling a light vehicle lost steering when the right hand side tie rod end nuts came off.
2. The light vehicle had the steering rack and pinion replaced on the shift prior to the incident occurring.



# Recommendations

## Site Senior Executive

- Ensure the SHMS contains an effective maintenance strategy and plans for maintaining mobile plant.
- Ensure the persons carrying out maintenance on mobile plant are competent to perform the work.

## Supervisors

- Ensure mobile equipment componentry is maintained and replaced as per the OEM's specifications and recommendations.
- Check that critical maintenance steps have been completed as required.

## Coal mine workers

- Must maintain mobile plant as per the requirements of their mine's SHMS and the relevant OEM.



## 2. Incident – HV Cable damaged – Surface Mine

1. A dragline was repositioning due to sinking in soft ground.
2. A worker on the ground at the front of the dragline directed the operator to swing to the right. The cable winch under the house was still attached to the cable, and this resulted in significant cable damage when the dragline swung.





# Recommendations

## Site Senior Executive

- Ensure the mine's safety and health management system contains an effective procedure for handling high voltage trailing cables.
- Ensure that all coal mine workers handling high voltage trailing cables are competent to perform the task.

## Supervisors

- Should be checking that workers handling high voltage trailing cables are complying with the requirements of their mine's SHMS.

## Coal mine workers

- Always ensure high voltage trailing cable are handled as per the requirements of their mine's SHMS.

### 3. Incident – Fire - Underground

1. Whilst conducting a belt shutdown inspection on North Mains Trunk belt a CMW smelt burning coal. Upon investigation the CMW found a small pile of smouldering coal fines on the floor under the belt approximately 300mm x 300mm in area and approximately 100mm high.
2. The area was saturated with water and cleaned, and a fire watch was established.
3. The roller directly above the incident area had been changed out earlier in the shift. The roller's bearing was not retained sufficiently to prevent shell inadvertently moving with minor force.

# Recommendations

## Site Senior Executive

- Ensure the SHMS contains a procedure for maintaining conveyor systems, and that this includes the methods required for handling and replacing conveyor rollers.
- Ensure the workers handling and replacing conveyor rollers are competent to perform the task.

## Mechanical Engineering Manager

- Ensure the design parameters of conveyor rollers are appropriate.
- Ensure the method of handling and replacing conveyor rollers does not cause their integrity to be compromised.

## Coal mine workers

- Handle and replace conveyor rollers as per the mine's procedure.

## 4. Incident – Equipment Collision – Surface Mine

- The operator of a large rear dump truck parked in a queue at a dig face with the truck left in gear and only the retarder brake applied.
- The operator has then fell asleep.
- The retarder brake released after a period of time, and the truck then idled forward and run into the tail of another truck that was parked in front of it.
- No injuries, but damaged handrailing resulted.





# Recommendations

## Site Senior Executive

- Ensure the standard operating procedure for using mobile plant contains effective ways of minimising the risks associated with the parking of mobile equipment.

## Senior person responsible for Equipment Interaction

- Ensure the parking of mobile equipment is monitored and audited for compliance with the mine's procedure, and this may be done by periodically checking the vehicle's Vital Information Monitoring System (VIMS) data.

## Coal mine workers

- Must always park mobile equipment as per the requirements of the mine's standard operating procedure for using mobile plant.

## 5. Incident – Failure of Strata Control – Surface Mine

- A dozer operator maintaining an active dump noticed a large rock had rolled down from the tip-head and breached the catch rill below the dump.
- The large rock ended up on the active access leading into an operating dragline's work area.



# Recommendations

## Site Senior Executive

- Must ensure the mine's principal hazard management plan for ground / strata control has identified all potential risks and contains effective controls.

## Supervisors

- Conduct shiftly inspections of active work areas checking that all of the required controls are implemented for managing strata, and the effectiveness of these controls is verified.
- Must ensure a check and examination of each coal mine worker's specific work area is carried out by the coal mine worker.

## Coal Mine Workers

- To carry out their activities / work in a way that does not expose themselves or someone else to an unacceptable level of risk.
- Must check the condition of their work area before commencing the activity.

## 6. Incident – Microsleep – Surface Mine

- At approximately 5:00am an operator of a loaded rear dump truck travelling along a haulroad experienced a microsleep.
- This resulted in the truck contacting the haulroad's left hand side safety berm.





# Recommendations

## Site Senior Executive

- Must ensure the coal mine's safety and health management system provides for controlling risks at the mine associated with the personal fatigue.

## Supervisors

- Periodically monitor and check on the fatigue level of workers.
- Encourage workers to report any fatigue related issues.
- Adopt methods that may reduce the likelihood of fatigue, for example job rotation.

## Coal mine workers

- Ensure they make the necessary pre-shift preparation required for managing fatigue.
- To stop and report any fatigue related issues that they may be experiencing.

## 7. Hazards associated with the use of e-cigarette devices.

- In January 2021 the WA Dept of Mines received a report of an incident at a mine site where an electronic cigarette (vape) battery spontaneously ignited in a worker's pocket whilst he was travelling in a utility with two other workers. Statements described it as a combustion event not unlike fireworks going off and flying around inside the vehicle that they were travelling in. The worker received serious burns to his leg.



## Contributing Factors

E-cigarettes contain interchangeable parts, often including extra-low voltage lithium batteries. Failure of these parts has been linked to ignition of E-cigarettes, with a number of incidences of burn injuries reported overseas. Many have been linked to overcharging and overheating of the batteries, causing the device to ignite or explode in close proximity to the user.

## Recommendations

- Given the foreseeability of these occurrences and their potential consequences, the risks associated with carrying electronic cigarette devices (i.e. vaping equipment) on persons on site, particularly in hazardous areas, should be reviewed and preventative and control measures developed and implemented.
- Refer to “[Mines Safety Bulletin No. 181](#)” issued by WA Department of Mines, Industry Regulation and Safety.

# April 2021 Incident periodical

Recent High Potential Incidents  
Learnings and Recommendations  
Queensland Coal Mines Inspectorate

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Queensland



# Serious Accidents affecting Coal Mine Workers

Eye injury when struck by falling object

Limb fracture during a slip and fall

Two hand injuries from ineffective energy isolation

Hand laceration when using a cutting tool

Among the High Potential Incidents reported:

A CMW fell through an ineffective barricade for a hole in the floor

3 operating mobile plant rollovers

2 ground control failures

1 Rigging failure dropping the load

1 vehicle battery explosion

1 projectile created by a mechanical failure

1 unplanned movement of automated plant

18 Fires on plant

15 Mobile plant collisions

11 Vehicle slides on wet roads

10 Misfires

5 Electrical trailing cables damaged

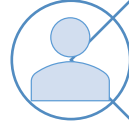
3 Electric shocks

3 Electrical protection failures

# 1. Incident – Near Miss Collision – Surface Mine



A truck driver drove onto the wrong side of the haul road to overtake a grader.



The driver stayed on the wrong side of the road, entered a blind right hand bend in the road, narrowly avoiding colliding with a light vehicle.



The light vehicle had two coal mine workers on board.



# Recommendations

- Audit the SHMS controls ensuring safe overtaking and ensure they effectively manage the hazards.
- Audit the SHMS to ensure the effective training and onboarding of mobile plant operators.
- SHMS to manage the risk of operating other vehicles around graders and the risk of overtaking.

Site Senior  
Executive



- Ensure coal mine workers are competent with the traffic management rules and regularly audit compliance to the rules.

Supervisors



- Learn and follow site rules and procedures for operating mobile plant.
- Do not operate equipment when uncomfortable with your knowledge on operating the equipment.

Coal mine  
workers





## 2. Incident – Explosives Incident– Surface Mine

A box of detonators were found on a haul road at a Surface Mine.

The shotfirer had not used all the locking devices on the vehicle storage cabinet.

The cabinet opened when travelling and allowed the box of detonators to fall out.

The driver did not know it happened and the box of detonators were left on the road.



# Recommendations

- Ensure the mine's safety and health management system contains an effective procedure and specifies fit for purpose equipment for safe and secure transporting of explosives.

Site Senior Executive



- Inspect and audit shotfirers and their equipment to ensure the safe and secure transporting of explosives.

Supervisors

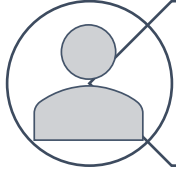


- Ensure containers for transporting explosives cannot open during travel.
- Do not handle, secure the site and immediately report any unsecured explosives to the OCE.

Coal mine workers



# 3. Incident – Fire - Underground



A fitter was servicing a conveyor when he noticed a burning smell.



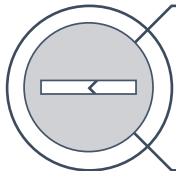
He investigated and found a set of rollers had jammed in the boot end.



He saw an open flame ~ 150mm in height, where a roller was rubbing against belt.



The flame was extinguished and the roller removed.



Design faults allowed the roller to be displaced during operation.



# Recommendations

- Ensure the SHMS contains a procedure for maintaining conveyor systems, and that this includes the methods required for handling and replacing conveyor rollers.
- Ensure the workers handling and replacing conveyor rollers are competent to perform the task.

Site Senior  
Executive



- Ensure the design parameters of conveyor rollers are appropriate.
- Ensure the method of handling and replacing conveyor rollers does not cause their integrity to be compromised.

Mechanical  
Engineering  
Manager



- Handle and replace conveyor rollers as per the mine's procedure.

Coal mine  
workers





# 4. Incident – Eye Injury – Underground Mine

A serious accident occurred when a CMW was removing a cable hanger from a roof bolt.

The hanger dislodged from the extended pole removing device(doofer) and fell down.

It struck the CMW in the face, causing eye damage and a cut to the eyeball (sclera).



*re-enactment photo's: CMW using a cable hook recovery tool in high roof area and cable hook striking his face.*

# Recommendations

- Audit the SHMS to ensure it provides a safe method of work preventing CMW to be in a drop zone for tasks.

Site Senior  
Executive



- Provide fit for purpose equipment for work in different height of operations.

Mechanical  
Engineering



- Use fit for purpose equipment. Position themselves away from drop zones. Wear appropriate PPE.

Coal mine  
workers



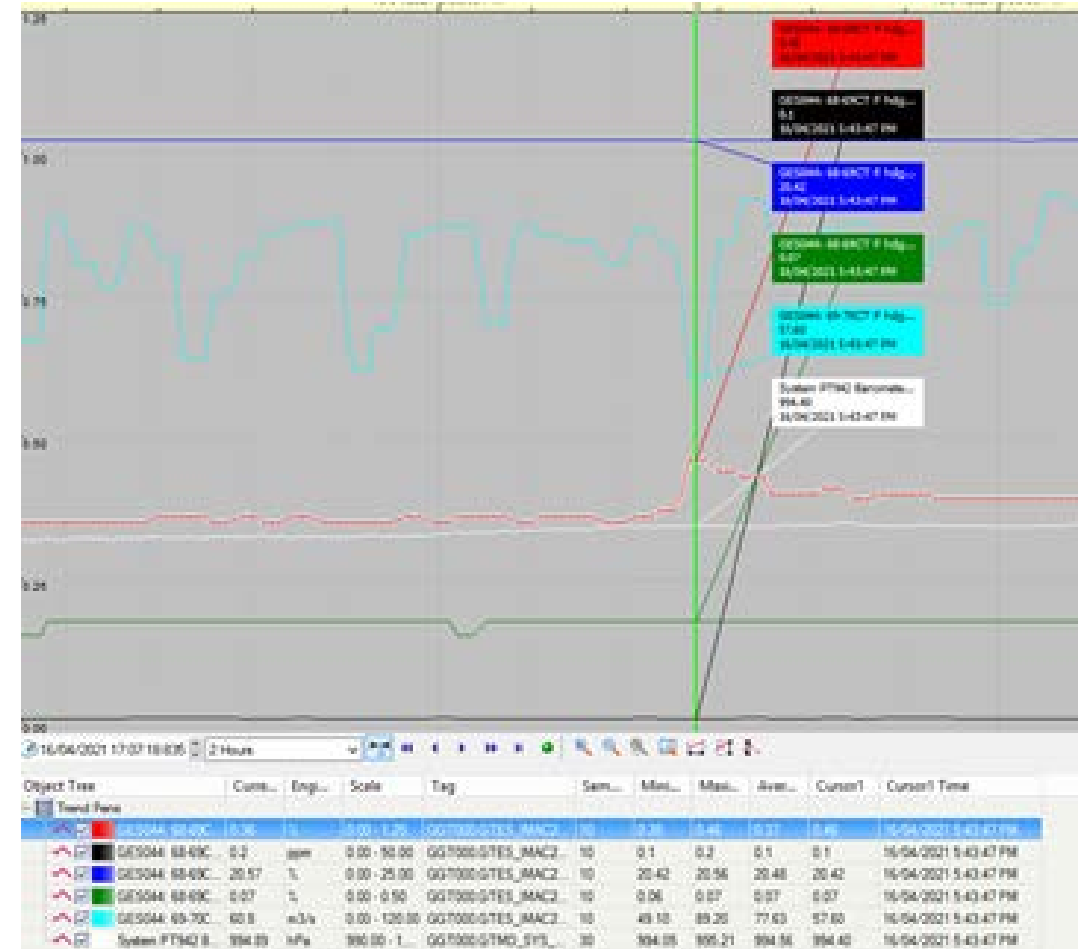
# 5. Incident – Gas exceedance – Underground Mine

Methane gas of more than 2.5% was recorded on a continuous miner's methane detector.

The sudden increase was diluted by the ventilation system.

The methane came out of a blocked methane drainage borehole intersected during mining

High gas pressure in the blocked borehole caused a break out of coal from the face.



# Recommendations

- Ensure the coal mine's SHMS provides for controlling risks of intersecting gas drainage boreholes.
- The SHMS must manage the risks with intersection and unblocking of boreholes.

Site Senior Executive



- Ensure effective controls as specified in the mines SHMS are in place for the safe intersection of boreholes and for unblocking boreholes before intersecting.

Supervisors



- Implement all controls as directed by supervisor and the mine SHMS before intersecting a borehole.

Coal mine workers





# 6. Hazards associated with the use of retractable blade knives

A coal mine worker was seriously injured and admitted to hospital with tendon damage after cutting his finger with a retractable blade knife.

The worker was using the knife to cut HDPE liner when the blade slipped.

Glove protection was not being used.



# Recommendations



Given the foreseeability of these occurrences and their potential consequences, the risks associated with retractable blade knives, need to be considered in the SHMS.



Special gloves (cut 5 gloves) as well as other risk controls are to be implemented. As an example: Some operations have banned retractable knives and implemented alternatives such as snips.

# May 2021 Incident periodical

Recent High Potential Incidents  
Learnings and Recommendations  
Queensland Coal Mines Inspectorate

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**Resources Safety & Health**  
Queensland

# 1. Incident – Strata failure – Surface Mine

- A large section of highwall failed. The section that failed encroached and impacted a loaded blast area on the bench above.
- In 2019 a highwall failure resulted in a fatality in a Queensland Open Cut Mine





# Recommendations

- Ensure the SHMS contains an effective PHMP and procedures for Ground / Strata Control
- Ensure there is a senior position within the management structure responsible for Ground / Strata Control, and that this person is competent.
- Ensure adequate geotechnical inspections are conducted by a competent person.

Site Senior Executive



- Ensure all controls for managing and monitoring Ground / Strata are implemented
- Ensure coal mine workers are complying with the requirements of the PHMP and associated procedures.
- Regularly inspect pit walls identifying and reporting signs of potential failures.

Supervisors /  
Open Cut  
Examiners



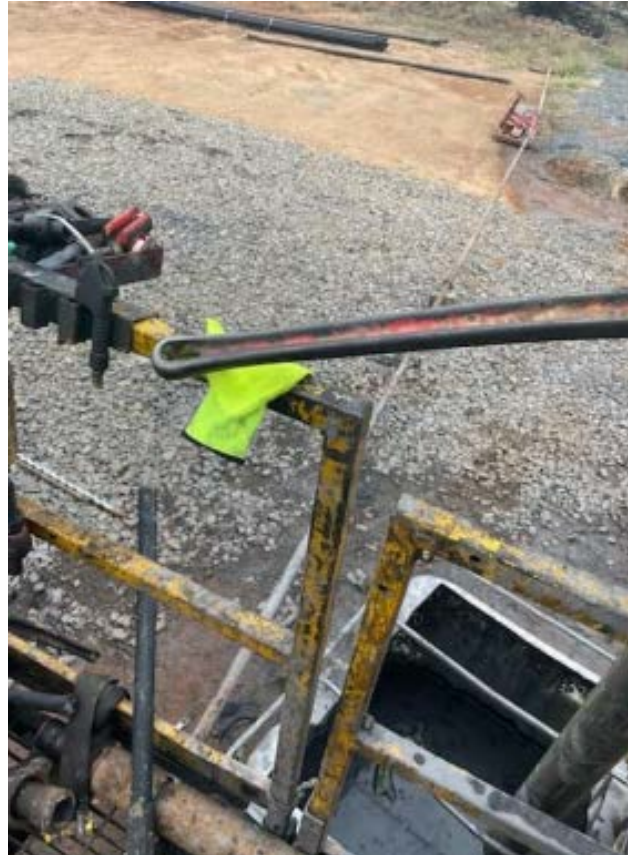
- Must conduct their work in accordance with the PHMP and work procedures pertaining to Ground / Strata Control of highwalls. Stop work where those procedures are not, or cannot be complied with in the operation.

Coal mine workers



## 2. Incident – Serious finger injuries– Surface Mine

A worker's fingers were crushed between a hand tool (stilsons wrench) and handrail on a gas drainage drilling rig. The injured person required hospitalisation and remedial surgery.



# Recommendations

- Develop and implement a SHMS for all persons at the mine, including contractors.
- Review safety and health management plans of contractors and, if necessary, require changes to be made to those plans to enable them to be integrated with the mine's safety and health management system.

Site Senior Executive



- Ensure workers are complying with requirements of the mine's SHMS.
- Conduct regular inspections of work areas identifying potential hazards associated with the task being performed.

Supervisors



- Ensure their personal risk assessment identifies all potential hazards associated with the task they are to perform, and then effective controls are applied to manage the risk.

Coal mine workers



### 3. Incident – Rock Fall - Underground

- A CMW was pulling roof mesh forward on a miner to install primary support. While doing this a section of stone from the roof delaminated and fell from in front of the last bolt and from behind the last installed roof mesh. The piece of stone was approximately 700x100x50mm and deflected off the left hand side timber-jack of the roof bolter striking the CMW on the left forearm causing a laceration that required stitches.
- Other serious accidents have resulted from unsupported ground striking coal mine workers in development headings in 2019 and 2020.
- A fatality occurred from a longwall fall of ground in 2019





# Recommendations

- Ensure the PHMP and associated procedures for strata control are adequate and provide for achieving an acceptable level of risk.
- Ensure no go zones below unsupported strata are clearly defined and understood.

Site Senior  
Executive



- Conduct regular inspections of work areas checking that work is being conducted in accordance with the requirements of the mine's SHMS.

Supervisors  
/ ERZC's



- Must check the condition of their work area before commencing the activity.
- Must carry out their activities / work in a way that does not expose themselves or someone else to an unacceptable level of risk associated with a fall of ground.

Coal mine  
workers



## 4. Incident – Falling Equipment – Surface Mine

Exploration drillers were loading a stem with the rod handler when the stem detached from the handler. The rod toppled into the drill mast, before rebounding backwards and falling onto the rod slew behind the drill. No personnel were in the path of the falling rod.



# Recommendations

- Ensure no work is undertaken by a coal mine worker at the mine until the worker has received training and is competent to perform their duties.

Site Senior Executive



- Ensure equipment is fit for purpose upon entry to the mine site.
- Ensure there are adequate maintenance programs in place necessary for the safe use of equipment.

Contract Owner



- Comply with their mine's procedures when operating mobile equipment.
- Must always report near miss incidents.
- Must identify and report defects when conducting pre-start inspections on equipment.

Coal mine workers



## 5. Incident – Electrical Incident – Surface Mine

- While drilling holes to mount a new motor's protection equipment the drill bit has come in contact with a live bus bar behind the mounting plate.
- The electrical protection (earth leakage) worked as designed.





# Recommendations

- Must ensure the design, installation and maintenance of electrical equipment and installations at the mine provides for preventing persons from inadvertently contacting live parts of equipment or an installation exceeding extra low voltage. Have a preoccupation with failure and ask “The what If?”

Site Senior Executive



- Must ensure the procedures and processes are effective in managing and controlling risks associated with the installation and maintenance of electrical equipment and electrical installations. Have a preoccupation with failure and ask “The what If?”

Electrical Engineering Manager



- Must understand and follow their mine’s electrical SOP’s and work instructions.
- Conduct personal risk assessments to identify and control potential hazards associated with the task being undertaken. Have a preoccupation with failure and ask the “The what If?”

Coal Mine Workers



# June 2021 Incident periodical

Recent High Potential Incidents  
Learnings and Recommendations  
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**Resources Safety & Health**  
Queensland

# June HPI and Serious Accident performance

Month	HPI	Serious Accidents	June Serious accidents
June	108	3	<ul style="list-style-type: none"> <li>Crushed finger caught between component</li> <li>Back injury lifting 43Kg shackle</li> <li>Burns from lancing rod</li> <li>CMW having fallen from 3 step ladder</li> </ul>
May	138	4	
April	91	5	

21% reduction in HPI reporting in June

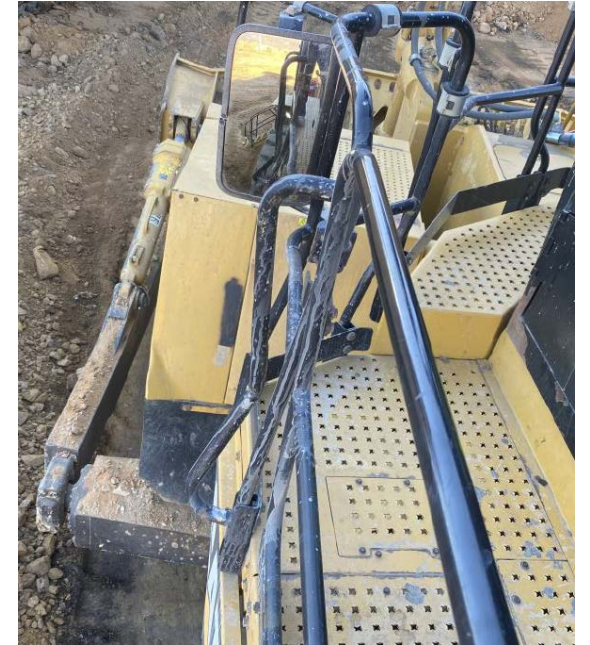
Lowest number of Serious accidents in June for the quarter

142 HPIS reported in July

7 Serious accidents in July

# 1. Incident – Collision – Surface Mine

- A shovel operator requested a wheel dozer operator dress the bench beside the shovel.
- The wheel dozer operator entered the shovel swing radius without positive communications to the shovel operator.
- The shovel slewed to load the offside and the counterweight hit the wheel dozer, damaging handrails and mirror.





# Recommendations

- Ensure the SHMS contains effective procedures for shovel operations.
- Ensure there is a senior position within the management structure responsible for Mobile Plant operations and that this person is competent.
- Ensure adequate inspections are conducted by a competent person.

Site Senior Executive



- Ensure all controls for managing and monitoring shovel operations are implemented
- Monitor coal mine workers compliance with the requirements of positive communications protocols.
- Stop mobile plant operations when positive communications are not implemented.

Supervisors /  
Open Cut  
Examiners



- Must conduct their work in accordance with the work procedures for shovel operations.
- Always use positive communication protocols when approaching mobile plant.
- Stop work where those procedures are not, or cannot be complied with in the operation.

Coal mine workers



## 2. Incident – Collision – Surface Mine

- On nightshift, a rear dump reversing to the tip face, collided with the dump dozer.
- The narrow tip head was not identified as a hazard by the coal mine workers or their supervisors.
- Positive communications protocols were not correctly followed.



# Recommendations

- Review safety and health management plans and, if necessary, require changes to be made to those plans to enable them to be effective.

Site Senior Executive



- Ensure workers are complying with requirements of the mine's SHMS.
- Check dump areas against design criteria
- Conduct regular inspections of work areas and ensure potential hazards associated with the task being performed are effectively identified and controlled.

Supervisors



- Ensure their personal risk assessment identifies all potential hazards associated with the task they are to perform, and that effective controls are applied to manage the risk.
- Check if you have missed any hazards by asking your workmates and supervisors.

Coal mine workers



### 3. Incident – Equipment Failure - Underground

- A CMW was using the drill rig on a continuous miner when the mounting bolts failed.
- The drill rig fell onto the working platform, striking the CMW on the arm.
- The continuous miner's maintenance program was not specific about the method and frequency of mounting bolt checks.





# Recommendations

- Ensure there are adequate maintenance programs in place necessary for the safe use of equipment.

Site Senior  
Executive



- Identify critical components on equipment and ensure they are included in the inspection and testing program.

Supervisors  
/ ERZC's



- Regularly check the physical condition of all the equipment you use for safe operation.
- Use the defect reporting system effectively, do not rely on word of mouth to communicate potential defects.

Coal mine  
workers



## 4. Incident – Collision – Surface Mine

- Light vehicle was parked in park up bay beside a lighting plant.
- A RDT operator during nightshift mistook the bunding around the lighting plant for the dump exit bunding.
- RDT turned beside the lighting plant and collided with the front of the unoccupied light vehicle.



# Recommendations

- Ensure the design standard for dumps considers all the activities expected to occur on the dumps.
- Ensure mobile plant operations have effective traffic management plans in place.

Site Senior Executive



- Implement dump traffic management plans and ensure they are fit for purpose.
- Ensure delineation of parking areas, lighting plant locations and dump entry and exit points are in place and effective.

Supervisors



- Comply with their mine's procedures when operating mobile equipment.

Coal mine workers





# 5. Incident – Falling object risk – CHPP

- A loose conveyor roller was found on the ground next to a conveyor.
- A clear impact mark was found in the ground beside the roller.
- The loose roller had dislodged from a storage pallet on the floor of the coal bin and rolled off the platform, falling to the ground.



Roller Storage Location

Roller Landing Position Beside Conveyor



Impact mark in ground beside overland conveyor transfer belt



# Recommendations

- Must ensure the design of material and spares storage places at the mine provides for the prevention of inadvertent movement of materials or spare parts
- Have a preoccupation with failure and ask “The what If?”

Site Senior Executive



- Ensure procedures and processes for managing and controlling risks associated with storage of materials and spare parts, are effective.
- Have a preoccupation with failure and ask “The what If?”

Supervisors



- Conduct risk assessments to identify and control potential hazards when storing materials and spare parts.
- Have a preoccupation with failure and ask the “The what If?”

Coal Mine Workers



# July 2021 Incident periodical

Recent High Potential Incidents  
Learnings and Recommendations  
Queensland Coal Mines Inspectorate

Coal Inspectorate



**Resources Safety & Health**  
Queensland

# 1. Incident – Suspected fluid injection - Underground

- A coal mine worker was stuck by emulsion oil after a hydraulic fitting failed during the operation of a base lift cylinder on a longwall shield.
- He was later cleared of an injury.
- At the time the shield was not being operated remotely.
- Initial investigations have identified a corroded fitting as a likely cause.
- In service corrosion is not clearly visible due to hose protection sleeving and location.



# Recommendations

- Ensure adequate inspections and audits are in place taking into account environmental factors
- Ensure procedures are in place for remote operations of equipment when normal operating methods are absent
- Ensure the SHMS contains effective procedures for managing fluids under pressure

Site Senior Executive



- Ensure requirements required by site procedures are consistently implemented
- Monitor equipment for abnormal conditions such as advanced or accelerated corrosion
- Monitor operations and intervene when normal operations cannot be undertaken

Supervisors



- Complete work inspections and JSAs prior to undertaking tasks
- Where normal operational tasks cannot be completed undertake a risk assessment prior to completing the task
- Report defective components

Coal mine workers





## 2. Incident – Mechanical laceration – Surface maintenance

- A coal mine worker suffered a serious injury when a spinning grinding wheel contacted the machine frame and kicked back; severely lacerating his left hand.
- Whilst attempting to free a stuck electrical cord the worker lost control of the grinder which was still powered and running.



# Recommendations

- Investigate options for tools requiring a Deadman switch.
- Ensure the SHMS includes procedures for selecting, using, maintaining and testing equipment used for maintaining plant.

Site Senior Executive



- Enforce correct job design before commencing tasks
- Ensure CMWs are appropriately trained in the use of hand tools and follow good work practices
- Ensure coal mine workers are familiar with SHMS procedures for using equipment used for maintaining plant

Supervisors



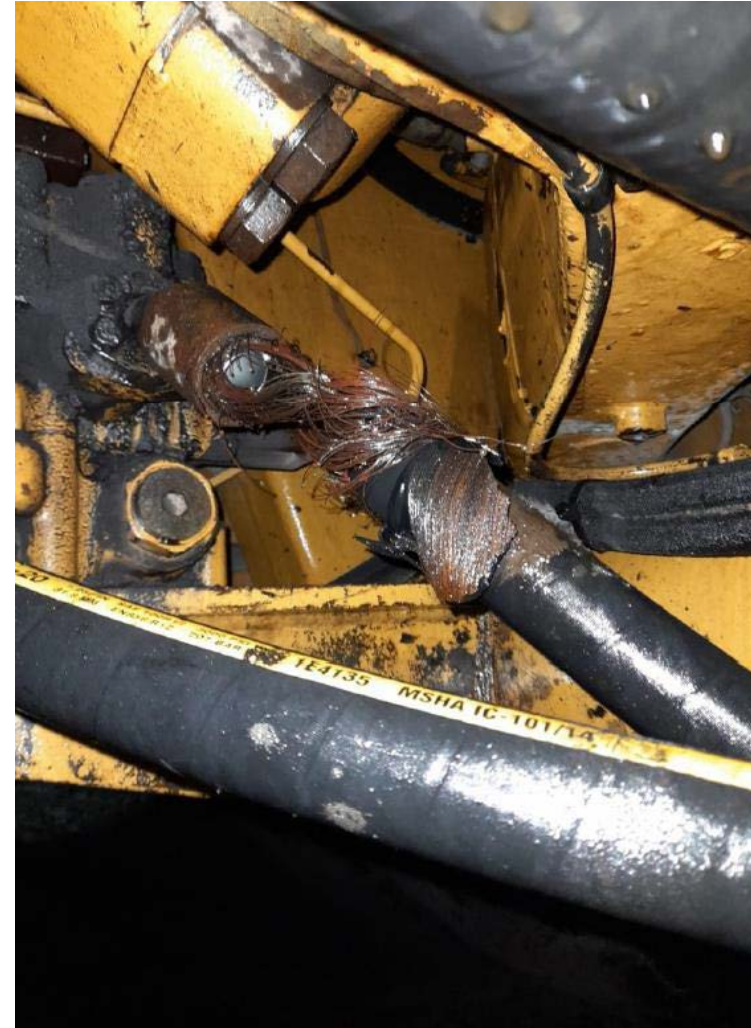
- Risk assess job layout prior to commencing work
- Inspect equipment before use
- Be aware of hazards of uncontrolled equipment
- Do not attempt to multi-task without full control
- Comply with site SHMS procedures for the use of equipment

Coal Mine Workers



### 3. Incident – Sudden drop of surface rear dump tray

- A fully loaded tray of a rear dump truck was partially raised when the tray suddenly dropped severely jarring the truck. The operator experienced back and neck pain.
- The rear dump truck had been incorrectly loaded with the load too far forward.
- A hoist cylinder hose failed whilst the load was being dumped.
- The truck sustained damage to the hoist circuit hydraulic hoses prior to the event. Damage had not been reported or rectified.
- Site procedures for dealing with hydraulics that will not lift an overload were not followed.



# Recommendations

- Must ensure procedures are in place for dealing with overloads outside machine specifications and where the hydraulic system cannot readily lift the load.
- Have defect reporting and inspection and maintenance systems in place.
- Systems are to be regularly audited for effectiveness.

Site Senior Executive



- Communicate to coal mine workers the importance of reporting all equipment damage as per site SHMS processes.
- Recommunicate to operators loading trucks the importance of correct load placement and site specific loading procedures.
- Communicate site procedures for dealing with truck overloads.

Supervisors



- Report damage and defects as per site SHMS procedures.
- Follow site loading procedures.
- Follow site procedures for dealing with overloads.

Coal Mine Workers





## 4. Incident – Surface rear dump truck rollover

- A coal mine worker was driving a loaded rear dump truck. The CMW lost control of the truck on a recently watered road and the truck rolled onto its side.
- The coal mine worker had limited experience in driving the equipment.
- Site training requirements did not include specific training related to wet road conditions, the vehicle dynamics and appropriate use of retarders.



# Recommendations

- Must ensure vehicle training procedures include variable road conditions including wet surfaces.
- Ensure all operators are exposed to wet road driver training.
- Ensure site vehicle training includes competency training in all aspects of vehicle operation.

Site Senior Executive



- Ensure training has been provided to operators on the specific piece of plant, including how the plant responds in changing environmental conditions.
- Ensure operators have been trained in driving to site conditions.

Supervisors



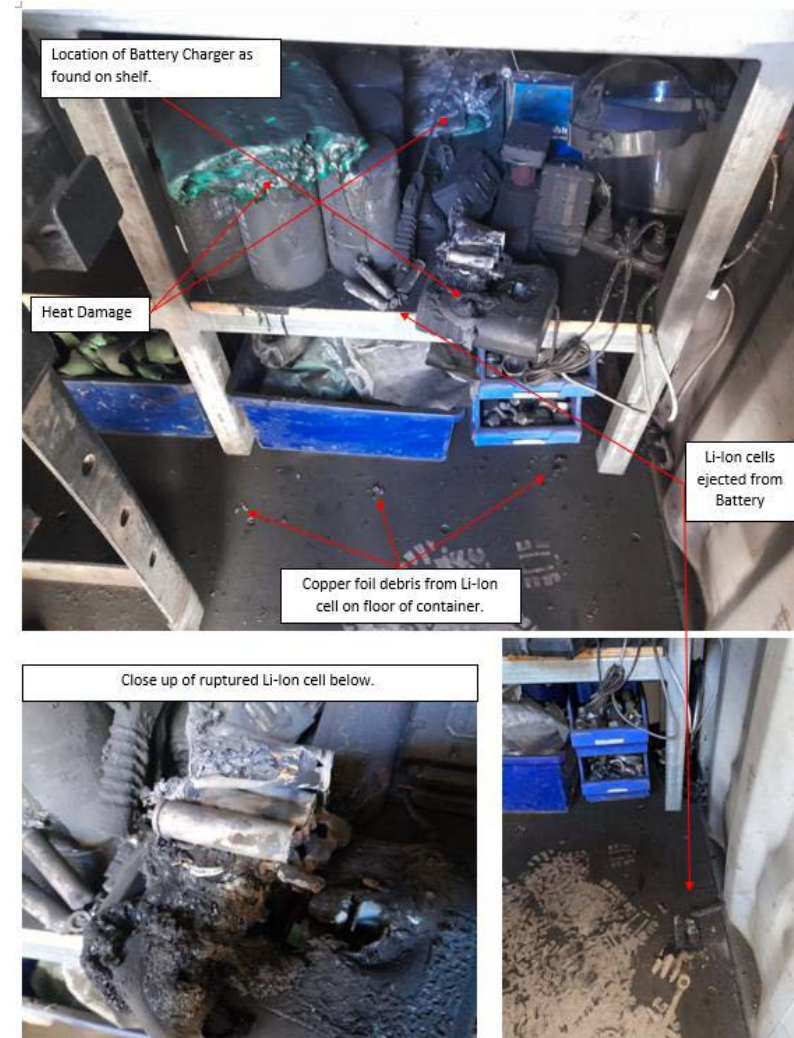
- Complete training as required by the site training scheme.
- If unfamiliar with the vehicle, including the use of retarders under changing road conditions seek further training.

Coal Mine Workers



# 5. Incident – lithium ion battery failure – Surface Mine

- A Makita Battery Charger and a Vanon 18 Volt, 9 Amp Hour battery failed causing a fire.
- It appears that the lithium Ion battery failed while being charged and ejected burning / smouldering debris which has then started a small fire. The battery and charger were significantly damaged from the heat /fire of the failure.
- The Makita battery charger manual specifically states that only Makita rechargeable batteries are to be charged as other types of batteries may burst causing personal injury or damage.



# Recommendations

- Ensure the SHMS includes procedures for selecting, using, maintaining and testing batteries and chargers for electrically powered tools.
- Provide designated places for maintenance personnel to charge batteries for battery tools. Charging areas should be well ventilated and not in close proximity to flammable materials.

Site Senior Executive



- Communicate site requirements for batteries and battery chargers permitted on site.
- Monitor use of chargers and batteries used in power tools.

Supervisors



- Comply with site requirements for the use of battery powered tools.
- Chargers and batteries must be confirmed as being compatible.

Coal Mine Workers





## 6. Incident – Truck collision – Surface Mine

- A coal hauler entering a ROM area collided with a rear dump truck that was in a queue of trucks at the ROM hopper.
- Changes in traffic flow did not identify lighting visibility as a potential hazard.
- Coal mine workers were not familiar with site queuing procedures.



# Recommendations

- Ensure change management procedures are followed and all hazards are identified and risks addressed when changes are made to traffic circuits and road rules.

Site Senior Executive



- Ensure coal mine workers are trained in relevant procedures.
- Monitor operations for compliance with site traffic procedures.

Supervisors



- Be aware of, understand and follow procedures.
- Drive to conditions.
- Report issues such as visibility effects of background light.

Coal Mine Workers



# August 2021 Incident periodical

Recent High Potential Incidents  
Learnings and Recommendations  
Queensland Coal Mines Inspectorate

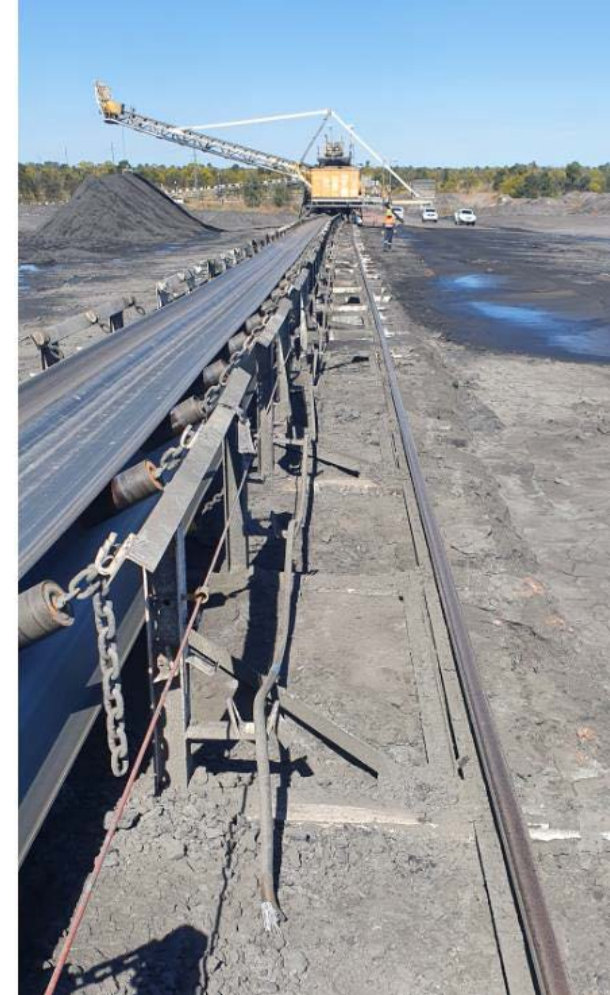
Coal Inspectorate



**Resources Safety & Health**  
Queensland

# 1. Incident – Uncontrolled Movement – Surface Mine

- A material stacker continued to travel along the stockpile in spite of control signals to stop.
- A coal mine worker intervened and manually isolated the drive power.
- Investigation found one set of electrical contactors welded in the closed position. This negated the control system's ability to stop the machine.





# Recommendations

- Audit the maintenance programs in place necessary for the safe use of equipment.

Site Senior Executive



- Identify critical components on equipment and ensure they are included in the inspection and testing program.

Supervisors



- Follow the exclusion requirements in place for moving equipment.

Coal mine workers



## 2. Incident – Critical Control Failure – Surface Mine

- In a workshop, tradesmen were removing wheels from a rear dump truck.
- A tyre was still fitted to the wheel at 30PSI pressure.
- Some wheel nuts were difficult to remove.
- The coal mine workers used an oxy flame to heat the wheel nuts so they could remove them.
- When the tyre fitters arrived and were advised what had happened, the workshop was evacuated.
- The tyre was removed after the area was assessed and deemed safe.



# Recommendations

- Ensure coal mine workers are educated about the risks of working with tyres.
- Review safety and health management tyre management plans and, if necessary, require changes to be made to those plans to enable them to be effective.

Site Senior Executive



- Ensure all oxy flame is kept away from any task involving or near wheels, rims or tyres.
- Ensure workers are complying with requirements of the mine's SHMS.
- Conduct regular inspections of work areas and ensure potential hazards associated with the task being performed are effectively identified and controlled.

Supervisors



- Pyrolysis inside a tyre can be caused by lightning strikes, overheating the tyre during operation and using an oxy flame on hubs, wheels and rims.
- Pyrolysis turns the tyre into an unpredictable "bomb".
- Never ever ever ever ever ever heat wheel nuts or studs when a tyre is fitted to the rim or wheel.

Coal mine workers



### 3. Incident – Explosion Protection - Underground

- A CMW was housekeeping in an underground development panel.
- A “AA battery pack” used to power equipment tracking tags was found.
- The battery pack was not in its certified casing.
- The coal mine worker made the battery pack safe and removed it to the surface.





# Recommendations

- Audit the maintenance programs in place necessary for the safe use of equipment.

Site Senior  
Executive



- Identify critical components on equipment and ensure they are included in the inspection and testing program.

Supervisors  
/ ERZC's



- Learn what items must be inside their certified casing at all times.
- Use the defect reporting system effectively, do not rely on word of mouth to communicate potential defects.

Coal mine  
workers



## 4. Incident – Projectile – Surface Mine

- A large RDT was undergoing maintenance in the workshop.
- A maintainer drove the RDT forward while a wheel chock was positioned on the outside shoulder, in front of position 6 wheel.
- The wheel chock was ejected sideways across the workshop into the next working bay.
- The wheel chock hit an unused ladder, knocking it over and across the bay.



# Recommendations

- Design and construction of safety devices used at the mine should include the prevention of inadvertent movement.
- Have a preoccupation with failure and ask “The What If Questions”

Site Senior  
Executive



- Check the safety devices in use by coal mine workers; ensure they are correctly located and used.

Supervisors



- Comply with their mine’s inspection procedures prior to operating mobile equipment.
- Position wheel chocks correctly.

Coal mine  
workers





## 5. Incident – Premature Detonation – Surface Mine

- During the firing sequence, a loaded blast hole has detonated prematurely.
- An exclusion zone was in place during the firing sequence, so coal mine workers were at a safe distance.





# Recommendations

- Ensure management system for the use of explosives at the mine provides for the premature detonation of explosives.
- Have a preoccupation with failure and ask “The what If?”

Site Senior Executive



- Check that procedures and processes for managing and controlling risks associated with the use of explosives are effective.
- Have a preoccupation with failure and ask “The what If?”

Supervisors



- Comply with the procedures and processes for managing and controlling the risks of explosive handling and firing.
- Have a preoccupation with failure and ask the “The what If?”

Coal Mine Workers



# Safety Alerts and Bulletins

## NOVEMBER

- [Safety Alert 401 – Pressurised steering accumulators sent off-site](#)
- [Safety Alert 400 – Electric motor terminal cover catastrophic failure](#)
- [Safety Alert 399 – Coal Mine Worker crushed by moving plant](#)
- [Safety Bulletin 198 – Managing heat exposure in coal mines](#)

## OCTOBER

- [Safety Alert 398 – Safe use of quick hitches on excavators](#)
- [Safety Alert 397 – Overburden drill falls onto light vehicle](#)
- [Safety Bulletin 197 – High Potential incident under reporting](#)

## SEPTEMBER

- [Safety Alert 396 – Fatality resulting from a fall of ground at an underground coal mine](#)

# September 2021 Incident periodical

Recent High Potential Incidents  
Learnings and Recommendations  
Queensland Coal Mines Inspectorate

Coal Inspectorate



**Resources Safety & Health**  
Queensland

# 1. Incident – Scraper Rollover – Surface Mine

- A contract scraper operating on a sub-soil stockpile attempted to use the bowl to remove material that was blocking the access road.
- While doing so the scraper has risen up the batter of the stockpile at an uneven angle, losing traction and then rolling the scraper over onto its side.
- The operator was not injured.





# Recommendations

- Make sure the contractor safety management plan risk management assessment procedures meet your SHMS requirements.

Site Senior Executive



- During your work area inspection, ensure all potential hazards have been identified by the coal mine workers.
- Stop any work until those hazards are being effectively controlled by the coal mine workers.

OCE's & Supervisors



- Don't operate mobile equipment outside of its safe working limits.
- Don't overestimate your ability to get a job done safely.
- Stop work where procedures are not, or cannot be complied with in the operation.

Coal mine workers



## 2. Incident – Critical Control Failure – Surface Mine

- A contract scaffolder was using a sledge hammer to drive a timber sole plate under a scaffold screw jack.
- A disconnected airline had been left hanging in the scaffolder's work area.
- The moving sledge hammer got tangled in the airline, causing the hammer or the airline to impact the contractor's glasses over his left eye.
- The worker suffered lacerations to his left eye and eye socket area as a result of his glasses breaking apart.
- The sunglasses the worker was wearing were not the correct PPE.



# Recommendations

- Conduct regular audits and ensure contractors' employees are being provided with the correct PPE by their employer.
- When deficiencies are detected, take effective action that ensures contractor employers provide their workers with the correct PPE.

Site Senior Executive



- Randomly check PPE in use by workers is fit for purpose.
- Conduct regular inspections of work areas and stop work until potential hazards associated with the task being performed are effectively identified and controlled.

Supervisors



- Only use PPE provided by your employer.
- Inspect your work area for hazards and take control actions to prevent the hazards causing injury to you or another worker.

Coal mine workers



### 3. Incident – Structural Failure - Surface

- A CMW was walking through the CHPP when a light assembly fell to the floor from its mounting position.
- The light fell from its position on the level the CMW was, down to a walkway approximately 4 metres lower down.
- The light mounting bracket material was heavily corroded the bracket failed through the fasteners.



Rusted light fitting bracket



# Recommendations

- Audit the effectiveness of the maintenance programs in place to ensure the structural integrity of equipment.

Site Senior Executive



- Include equipment mounted at heights in inspection and maintenance programs.

Supervisors



- Use the defect reporting system effectively, do not rely on word of mouth to communicate potential defects.

Coal mine workers



## 4. Incident – Serious Injury – Surface Mine

- A CMW was using a pulling tool to remove the auxiliary yoke on a rear dump truck.
- When the yoke released the tool disengaged, fell and impacted the CMW's finger causing a fracture which required surgery.
- The truck manufacturer manual recommended the use of a different tool for the task.



# Recommendations

- Audit the supervisor's effectiveness in ensuring workers are using the correct tools and following the correct work procedures.

Site Senior Executive



- Confirm workers are using the correct tools for the task.
- Confirm workers have the correct procedures for the task.

Supervisors



- Use fit for purpose tools for each task.
- Follow the tool recommendations given in the manufacturer's manual.

Coal mine workers



# 5. Incident – Non compliant transformer – Underground Mine

- An Exd flameproof transformer was removed from service and sent to an accredited AS/NZS 3800 workshop for overhaul.
- On return asset was placed back in service, introduced and maintained under the guidance of AS/NZS2290.1 for an approximate period of three years
- In the third year of the assets lifecycle, a pre-overhaul inspection was undertaken by an external service provider who found open threaded entries.
- An external ID plaque was covering the open threaded entries and the flameproof integrity of the transformer was compromised whilst in service.
- The open threaded entries were not detected by the mines introduction site process or any detailed internal inspections during the transformer's service in the underground workings.





# Recommendations

- Ensure maintenance strategies provide the fundamental general requirements for the safe use of electrical equipment in hazardous areas

Site Senior Executive



- Ensure maintenance strategies set out the specific requirements for the inspections and maintenance of electrical equipment designed for use in hazardous areas

Electrical Supervisors



- Ensure all in service maintenance inspections compliment the equipment design to ensure its ongoing verification of, or early detection of a failure of explosion protected properties

Electrical Workers



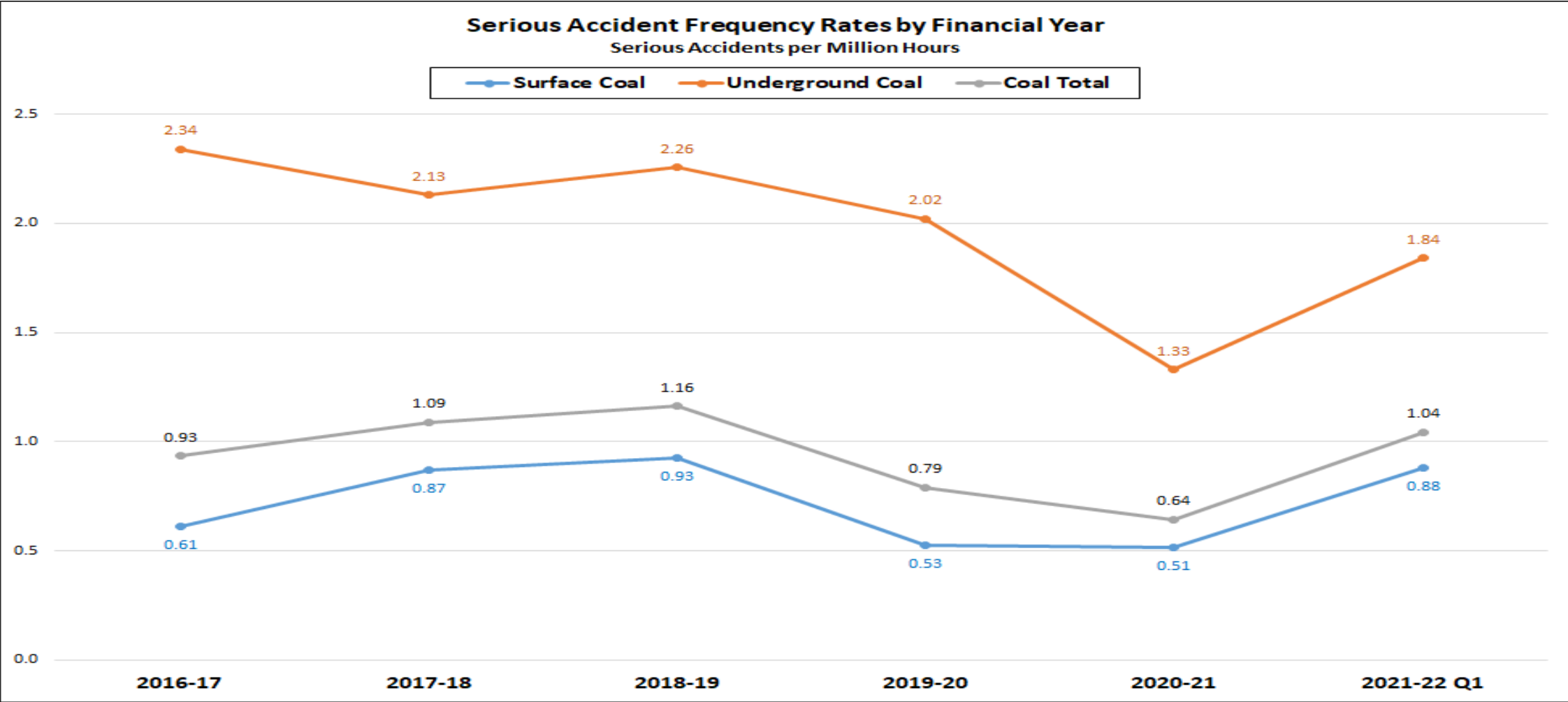
# October 2021 Incident periodical

Industry Safety Performance 1Q FY22  
Recent High Potential Incidents  
Learnings and Recommendations  
Queensland Coal Mines Inspectorate

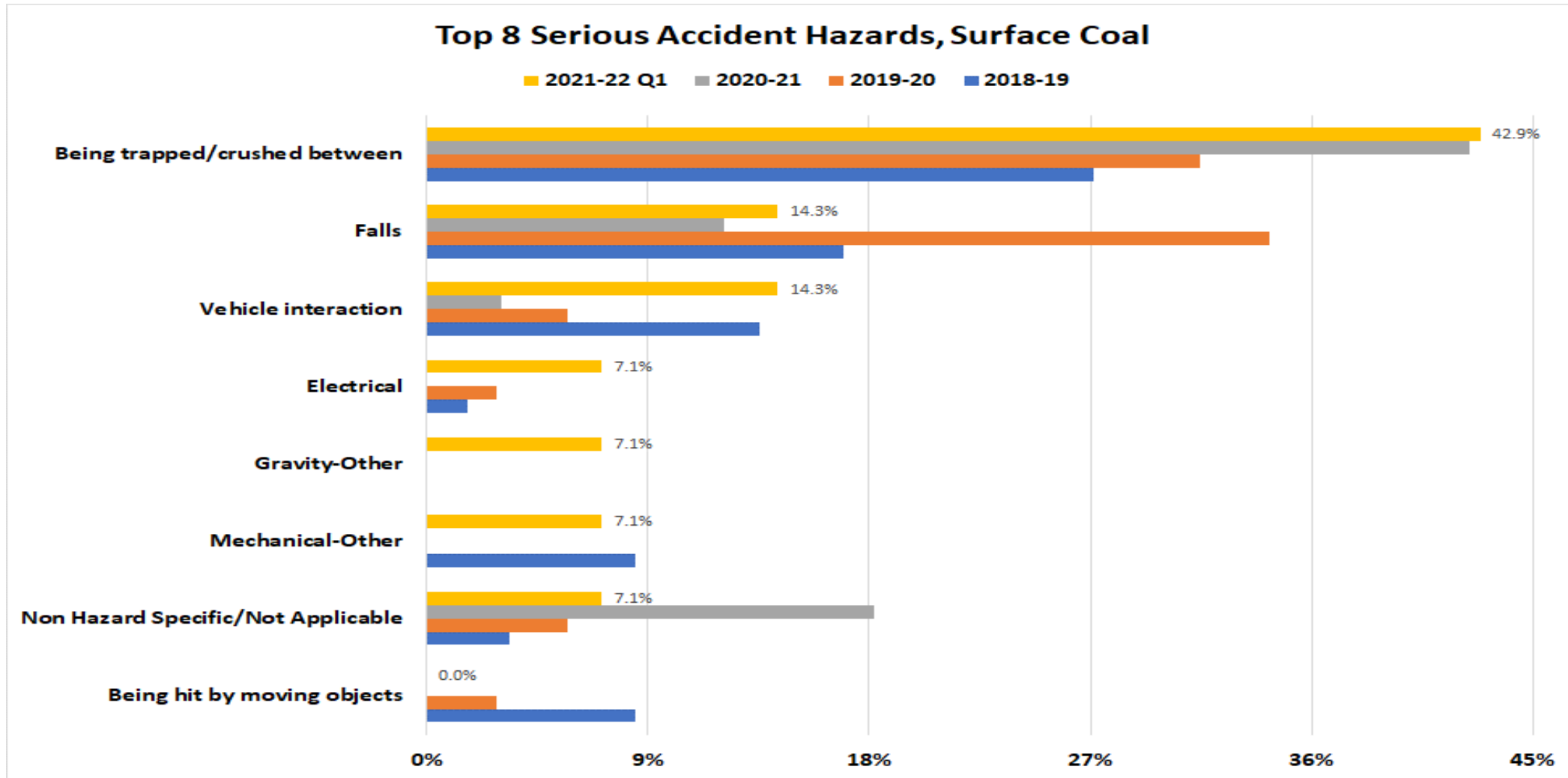
Coal Inspectorate



**Resources Safety & Health**  
Queensland



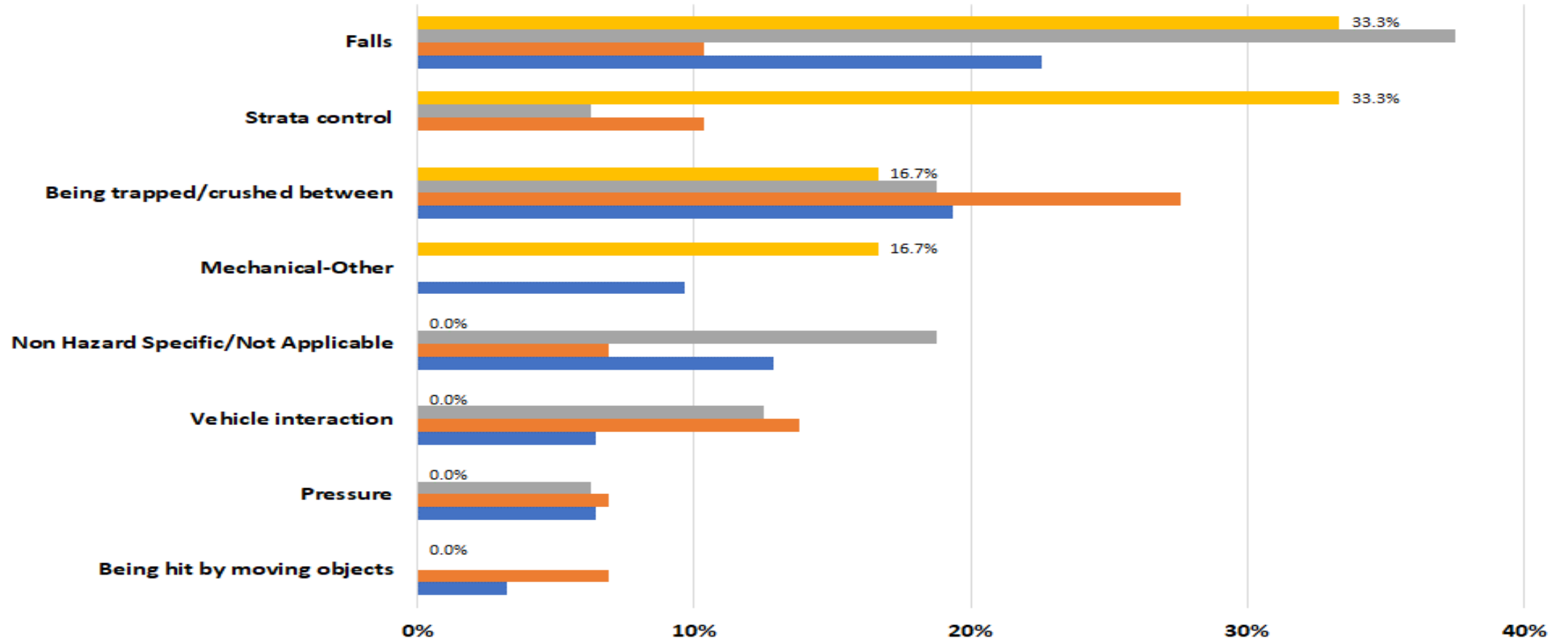
# Serious Accident Hazards – Surface Coal 2018-19 to 2021-22 Q1



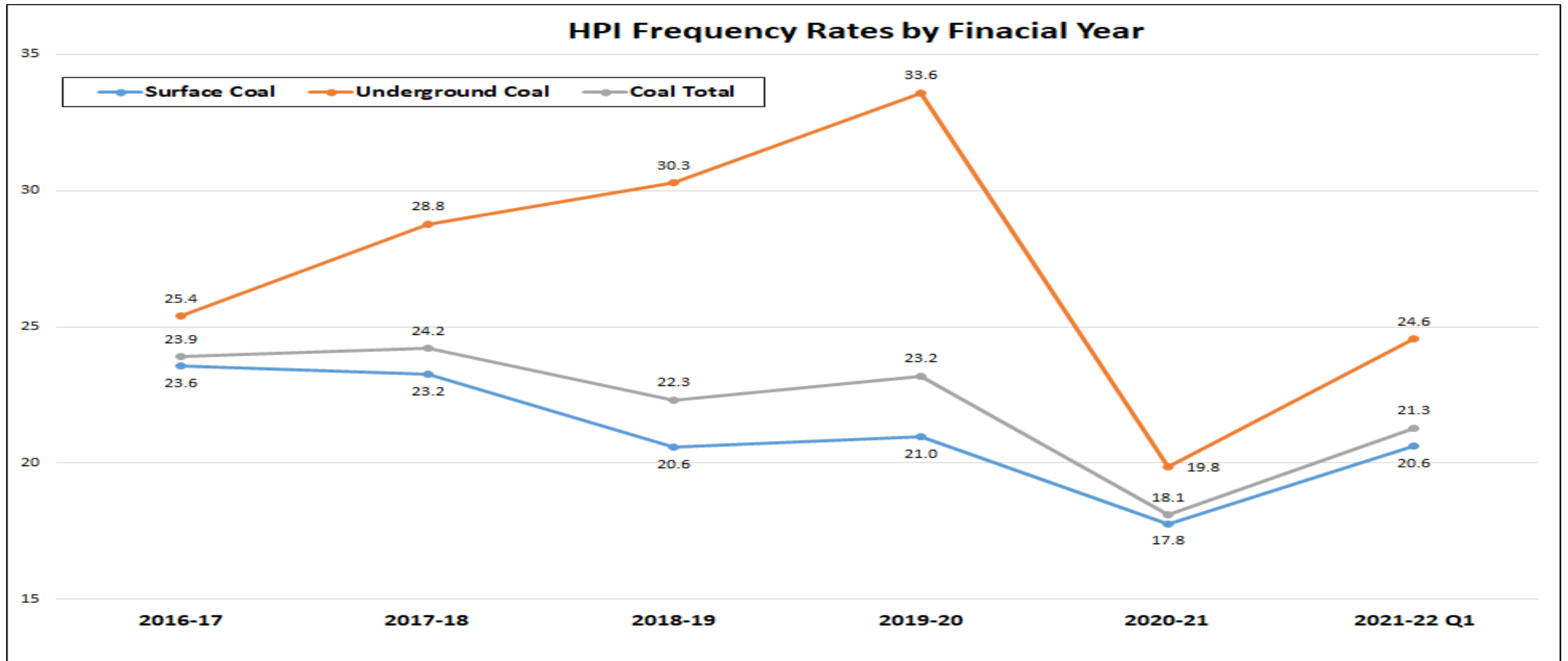


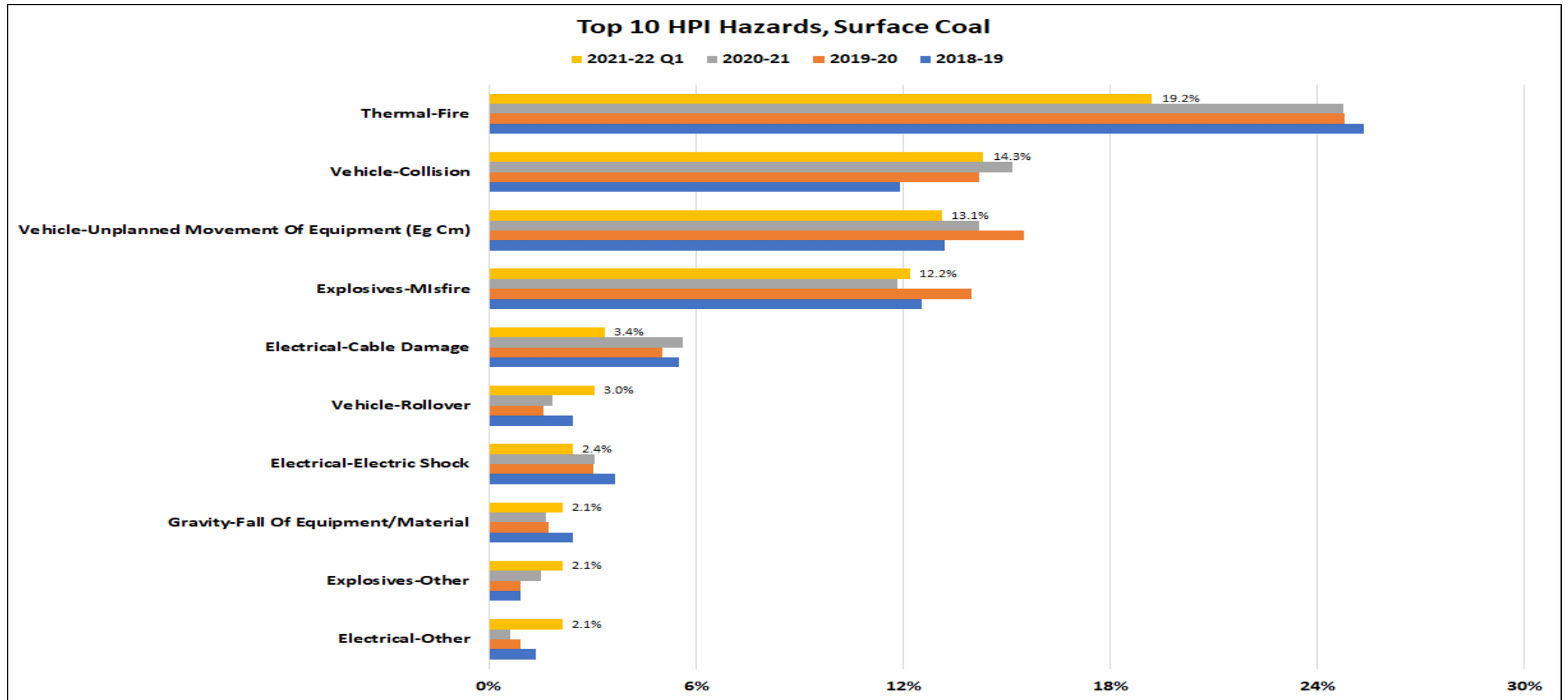
### Top 8 Serious Accident Hazards, Underground Coal

2021-22 Q1 2020-21 2019-20 2018-19



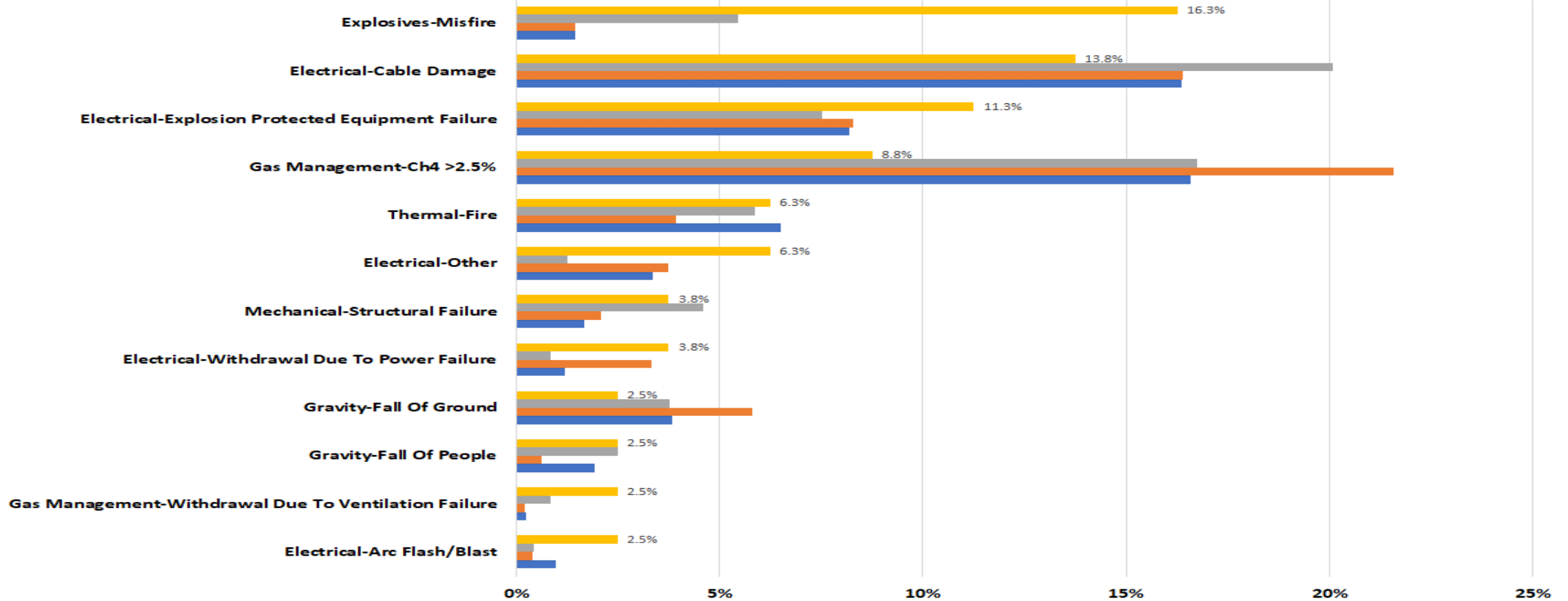
# High Potential Incident Frequency Rates - Annual





### Top 10 HPI Hazards, Underground Coal

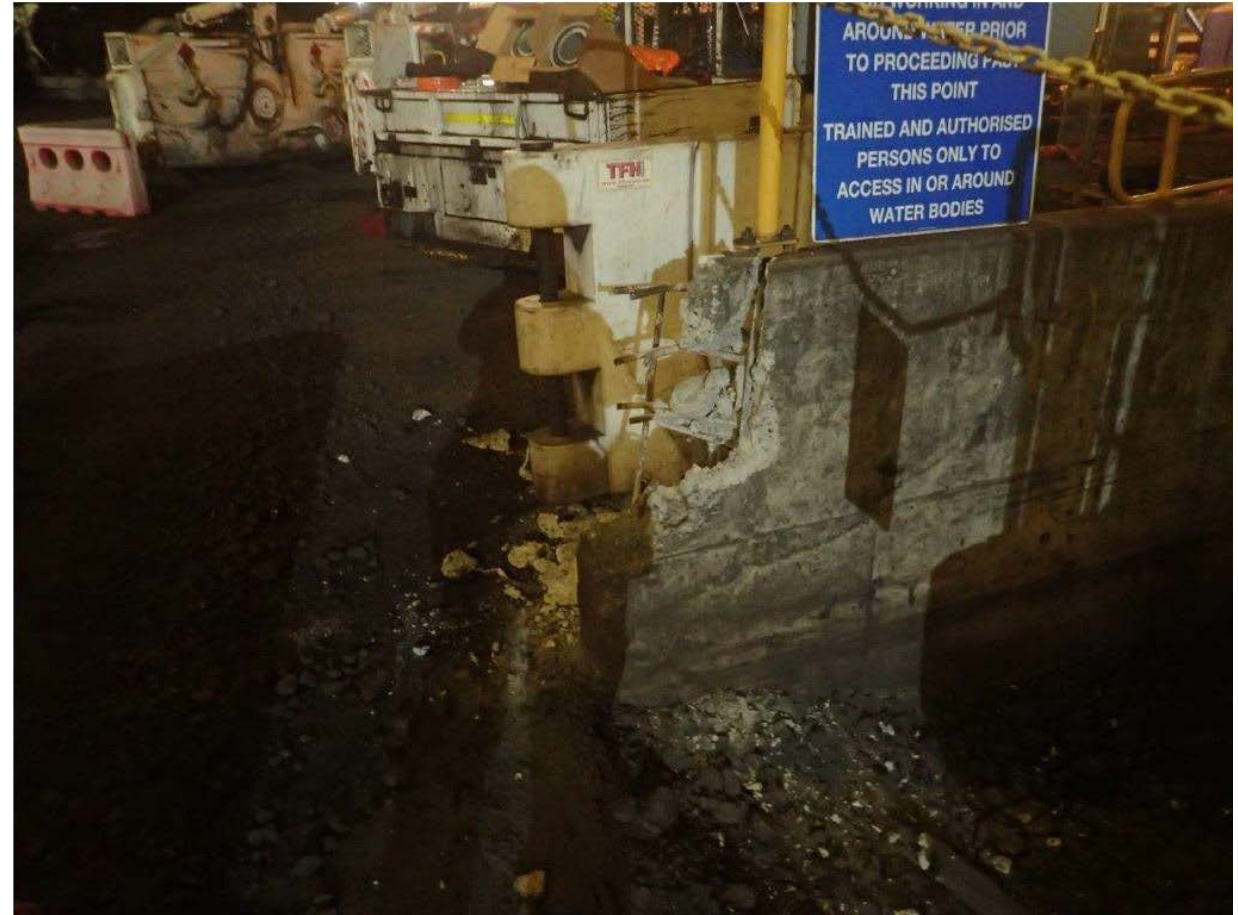
2021-22 Q1 2020-21 2019-20 2018-19





# 1. Incident – Uncontrolled Movement – Underground Mine

- A shield hauler was being manoeuvred on the surface in preparation for parking the machine.
- The steering failed to respond and the hauler collided with a concrete wall.
- A failed pin from the steering assembly was found on the ground.
- The operator was not injured.



# Recommendations

- Audit the effectiveness of procedures for detecting faults in critical components of mobile equipment.
- Correct any deficiencies found in the procedures.
- Request OEMs and suppliers provide details of critical items to be checked & maintained

Site Senior Executive



- Identify critical components on mobile equipment.
- Ensure critical components are included in the inspection and testing program.

Supervisors



- Learn how to check the operation of critical safety components.
- Check the last inspection results before using a machine.

Coal mine workers



## 2. Incident – Critical Control Failure – Underground Mine

- A man transport broke down at an intersection underground during shift change.
- The operator abandoned the machine without chocking the wheels or placing any warning signs either side of the broken down machine.
- An LHD travelling into the mine collided with the unmarked abandoned machine.
- The LHD operator was not injured.



# Recommendations

- Confirm with regular audits that coal mine workers clearly understand their obligations when they identify a hazard.
- Review transport rules and implementation effectiveness

Site Senior Executive



- Ensure coal mine workers understand types of hazards.
- Check the effectiveness of actions coal mine workers take when dealing with hazards.
- Take corrective actions to ensure workers are not exposed to hazards
- Implement and maintain site transport rule standards

Supervisors/ERZCs



- Never leave a hazard unattended or unbarricaded.
- Leave sentries to protect other workers from the hazard, or place barricades to prevent access to the hazard.
- Comply with site transport standards and rules

Coal mine workers





### 3. Incident – Critical Control - Surface Mine

- A dozer operator used their initiative and started some housekeeping in the work area.
- When side cutting a bund at the edge of the work area, the dozer pushed bund material over the edge and down onto a light vehicle travel road below.
- The dozer operator was not aware they had created a hazard for light vehicle operators.
- No one was injured.





# Recommendations

- Confirm by regular audits that supervisors clearly understand their risk when they permit unscheduled work to be done.
- Implement a risk based process to ensure risks introduced by unscheduled activities are controlled and managed

Site Senior  
Executive



- Ensure workers make you aware of their intention to commence unscheduled work and an appropriate risk assessment has been completed and controls implemented
- Audit roadways to ensure they are protected from material being pushed over edges above the road.

Supervisors  
/ OCEs



- Tell your supervisor before you start any unscheduled work.
- Inspect your work area thoroughly before commencing work.
- Make sure your actions don't create a hazard for other workers.

Coal mine  
workers



## 4. Incident – Vehicle runaway – Surface Mine

- An operator left their vehicle and trailer parked while they went into an office to sign out of site.
- While the operator was inside the office, the vehicle rolled away and collided with a car port, damaging the posts holding the car port roof up.
- No person was injured and no other damage was caused.



# Recommendations

- Check that your SHMS has clearly understandable procedures for parking vehicles.

Site Senior  
Executive



- Ensure employees, contractors and visitors are familiar with parking procedures.

Supervisors



- Follow the parking practices for light vehicles at the mine.
- Check for fundamental stability of your vehicle before you leave the driver's seat.

Coal mine  
workers



## 5. Serious Accident – Underground Mine

- Workers were using two eimcos to carry a tailgate drive unit across an installation face.
- They got bogged part way across.
- One of the workers left their eimco to investigate and climbed onto the load to avoid walking through mud.
- Their foot slipped off the edge of the load and dropped 600mm to the floor,
- The impact with the floor fractured the leg below the knee.



# Recommendations

- Make sure the inspection system clearly defines road conditions that are not suitable for use.

Site Senior Executive



- Ensure roads are passable before CMW use them.
- Close roads that are not safe for use.

Supervisors/ERZC



- Don't drive mobile equipment into areas where it can be bogged.
- Don't climb onto loads not designed as walkways.

Coal Mine Workers





# December 2021 Incident periodical

Recent High Potential Incidents  
Learnings and Recommendations  
Queensland Coal Mines Inspectorate

Coal Inspectorate



**Resources Safety & Health**  
Queensland

# 1. Incident – Uncontrolled Movement – Surface Mine

- An ultra class rear dump carrying approx. 380t was travelling up a 1 in 10 ramp at 16km/hr when Pos 5 and 6 wheels became stuck in a large blow hole on the right-hand side of the incline.
- The ramp had been in use for several weeks with no signs of degradation.
- The operator was rescued using an EWP, and was not injured.



# Recommendations

- Ensure the mine's SHMS contains effective specifications for the design and construction of mine roads as per the requirements of Section 128 of the Qld Coal Mining Safety & Health Regulation 2017 and Recognised Standard #19.

Site Senior Executive



- Carry out routine inspections of their respective work areas, including mine roads.
- Ensure any abnormalities / defects in mine roads are dealt with as per the requirements of Section 107 Qld Coal Mining Safety & Health Regulation 2017.

Supervisors / OCE's



- Carry out inspections of their work area prior to commencing work.
- Immediately report any hazards / defects that can cause harm to a person's safety and health.

Coal mine workers



## 2. Incident – Worker partially engulfed – CHPP

- Coal slumped above the face of a tunnel entrance as a stockpile dozer was relocating in the area.
- A coal mine worker who was performing hosing duties in the tunnel's entrance was partially engulfed.
- This event is a timely reminder that in December 1990 a Qld coal mine worker lost their life when fluidised coal engulfed the person in a ROM feeder.



# Recommendations

- Ensure the risk to persons from any plant provided by the site senior executive for the performance of work is at an acceptable level.

Site Senior Executive



- Ensure that activities under their supervision can not be hazardous to any other activities being performed.

Supervisors



- Conduct their work in a way that does not expose themselves or someone else to an unacceptable level of risk.

Coal mine workers





### 3. Incident – Mechanical Failure - Surface Mine

- A Toyota Hilux Dual Cab was travelling along a mine road when the rear driver's side wheel separated from the vehicle
- The wheel studs sheared off after the wheel nuts worked themselves loose.
- An operator had previously identified wheel nut indicators missing during a pre-start inspection, but didn't have a maintainer check the vehicle.



# Recommendations

- Ensure the SHMS contains an effective maintenance strategy for maintaining mobile equipment including light vehicles.

Site Senior Executive



- Ensure that maintenance steps are carried out as required.

Supervisors



- Carry out pre-start inspections as per the requirements of the mine's SHMS.
- Identify and report / record defects.

Coal mine workers



## 4. Incident – Heat Stress – Surface Mine

- A boilermaker was repairing cracks (welding) on a dragline bucket during a planned maintenance day.
- After completing the shift and travelling back into town the worker fell ill and took themselves to the hospital.
- The worker was admitted to hospital with heat stroke, and treated in hospital for the ensuing two days.
- There were very hot conditions on the day of the planned maintenance.

# Recommendations

- Conduct a gap analysis of the mines SHMS against QGN32 “Managing exposure to heat in surface coal mines and surface areas of underground coal mines” and address deficiencies.
- Ensure systems are in place to adequately assess the risk to workers who are required to work in heat. Consideration to be given to type of work, PPE and clothing that may restrict heat transfer, measurement of the thermal environment, appropriate work / rest regimes.
- Ensure processes in place to recognise and treat heat related illness.

Site Senior  
Executive



- Ensure that protections are made available to workers who maybe subjected to working in heat, for example by providing cool drinking water, portable air conditioners/ fans, shade, job rotation and etc.
- Monitor work conditions to identify increasing level of risk.

Supervisors



- Recognise the signs / symptoms of heat exposure and report it to your supervisor.
- Report to work in a fit state giving consideration to personal hydration levels and other personal factors that may impact heat tolerance (e.g. some prescribed medications).
- Further guidance provided in Section 4.3 of QGN32.

Coal mine  
workers



## 5. Incident - Equipment Rollover – Surface Mine

- A coal mine worker was travelling along a haulroad in a hire backhoe when the person became distracted from the task of driving. The backhoe has gradually veered off the haulroad running up an embankment, resulting in backhoe rolling over and coming to rest on its side.
- CMW exited the cab of the backhoe and raised the emergency by radio.
- CMW was assessed and treated by the mine's paramedic.





# Recommendations

- Ensure all coal mine workers are made fully aware of the immediate risk present when a person is distracted whilst operating / driving equipment.

Site Senior  
Executive



- Monitor driver / operator behaviour and intervene if unsafe practices are identified.

Supervisors  
/ OCE's



- Must not become distracted when operating mobile equipment of any type.

Coal Mine  
Workers



## 6. Incident - Lifting and slinging – CHPP

- While lifting a new coarse coal centrifuge basket from the ground floor of the CHPP to the centrifuge floor the soft sling that was being used has failed, resulting in the basket being lifted falling to the ground.
- The workers had also failed to barricade off the work area, however no one was in the area where the basket fell.



# Recommendations

- Audit and monitor the effectiveness of the mine's SOP for selecting, maintaining and using lifting plant.

Site Senior Executive



- Ensure work is being conducted as per the requirements of the work instruction and risk assessment.

Supervisors



- Must ensure the type of lifting equipment specified in the work instruction is used.
- Must ensure all steps listed in the risk assessment are followed.

Coal Mine Workers



# 7. Incident - Uncontrolled Movement – Surface Mine

- A soil compactor being transported on a float has moved approx. 5.6 metres whilst travelling, and came to rest against the float's gooseneck.
- The float operator did not feel any movement or contact, but noticed the soil compactor had moved when checking a side mirror and camera.



# Recommendations

- Ensure the SHMS contains a SOP that provides for the safety of persons when heavy plant and supplies are being transported at the mine.

Site Senior  
Executive



- Ensure coal mine workers within their area of responsibility are complying with the mine's SHMS.

Supervisors  
/ OCE's



- Prior to travelling ensure that equipment placed on floats is immobilised as per the requirements of the mine's SHMS.

Coal Mine  
Workers





## 8. Incident - Microsleep – Surface Mine

- A medium size water truck run off the road and crossed a safety berm before coming to rest directly under an overhead powerline.
- The water truck operator acknowledged that she may have had a microsleep which caused the loss of control.
- The incident occurred at 11:45am.



# Recommendations

- Ensure that the SHMS provides for controlling personal fatigue, and this is audited / monitored for its effectiveness.

Site Senior  
Executive



- Encourage workers to report any self-fatigue.
- Regularly check on the wellbeing of workers within your area of responsibility.

Supervisors  
OCE's



- Do not continue operating / driving if you are experiencing fatigue symptoms. Stop and notify your supervisor.

Coal Mine  
Workers



## 9. Incident - Serious Accident – Surface Mine

- Whilst a coal mine worker was in the process of tightening a pedestal drill chuck utilising the key provided the worker has inadvertently started the drill press (via foot pedal) resulting in the chuck key lanyard entangling with his right hand little finger.
- The injured person was transported to a local hospital for further assessment, and then transported to Brisbane for remedial surgery.



# Recommendations

- Ensure the risk to coal mine workers at the mine is at an acceptable level by providing and maintaining a place of work and plant in a safe state.
- Deadman switches should be one part of a two step process for activating the start-up of machinery.

Site Senior Executive



- Observe and monitor work being conducted to ensure all hazards are being controlled.
- Check the quality and effectiveness of personal risk assessments conducted by workers within their area of responsibility.

Supervisors



- Must assess all tasks for potential hazards / risks prior to commencing, and ensure effective controls are in place.

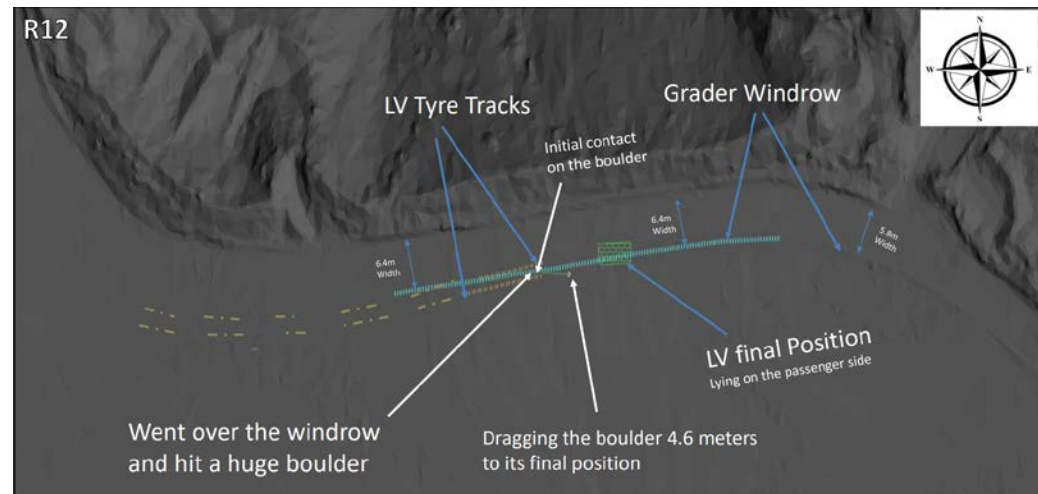
Coal Mine Workers





# 10. Incident - Light Vehicle Rollover – Surface Mine

- A light vehicle was rounding a corner when the driver called a grader operator on the radio for permission to pass. The sun was directly in front of the windscreen as the driver made the turn, limiting their vision. In an attempt to manoeuvre around the grader rill the LV connected with a large rock, causing the LV to roll over coming to rest on its passenger side.





# Recommendations

- Ensure the SHMS provides for an acceptable level of risk for other road users when maintenance activities are being carried out on mine roads.

Site Senior  
Executive



- Ensure road users are made aware of any potential hazards when maintenance activities are being carried out on mine roads.
- Ensure appropriate controls are in place for managing the above potential hazards.

Supervisors  
OCE's



- Comply with their mine's procedures when operating mobile equipment.
- Must always be vigilant when operating, and on the lookout for the unexpected to happen.
- Drive to conditions

Coal Mine  
Workers



# Queensland Mines Inspectorate Presentations

The Queensland Coal Mines Inspectorate, as part of Resources Safety and Health Queensland, promotes improved safety and health outcomes through a variety of publications.

Two presentations on “*Management of trailing cables in coal mines*” and “*Airborne exposure measurement*” from our subject matter experts have recently been uploaded to the [RSHQ website](#).