CMO number:

Incident date: 6/12/19.

Incident title:

CH4 SPIKE @ MG 507
TG DRIVE

COAL ASSETS
AUSTRALIA

E-MAILED
6-12-19

GLENCORE

Incident Investigation Report

Document Number: GCAA-625378177-10439
Status: Approved
Version: 4.0
Effective: 30/08/2018
Review: 27/07/2021
Owner: Manager-Safety and Emergency Capability

PEEPO

People | *Environment* | *Equipment* | *Procedures and documents* | *Organisation*

When conducting an investigation, PEEPO helps us to assess all the factors.

People	Consider: - Were those involved in the incident experienced in the task? - Had they been adequately trained? - Are they physically capable of conducting the task? - What was the status of their health? - Was fatigue a factor? ▶ Number of days in the shift cycle ▶ Days worked before the incident (including other locations if relevant) ▶ Travel arrangements ▶ Were they under stress or time pressures (work or personal)?	Enter People data: EXPERIENCED OPERATORS & ERZ-C.
Environment	Consider: - What were the weather conditions? - Was housekeeping a problem? - Was it too hot or too cold? - Was noise a problem? - Was there adequate light? - Were toxic or hazardous gases, dusts, or fumes present?	Enter Environment data: #CUTTING THROUGH 23rd NICHE #GENERAL UNDERGROUND CONDITIONS.
Equipment	Consider: - Was there an equipment failure? - What caused it to fail? - Was the machinery poorly designed? - Were hazardous substances involved? - Were they clearly identified? - Was a less hazardous substance possible and available? - Was the raw material substandard in some way? - Should PPE have been used? - Was the PPE used?	Enter Equipment data: GAS SPIKE (CH_4) TRIPS TG DRIVE
Procedures	Consider: - Was a safe work procedure used? - Were written procedures available? - Was a SWMS or JSA conducted prior to the task? - Had conditions changed to make the normal procedure unsafe? - Were the appropriate tools and materials available? - Were they used? - Was lockout used when necessary? - Were safety devices working properly?	Enter Procedures data: ALL PROCEDURES FOLLOWED, UNEXPECTED GAS TRIP.
Organisation	Consider: - Were safety rules communicated and understood by all employees? - Were they being enforced? - Was there adequate supervision? - Were workers trained to do the work? If so, when were they trained and is it still valid? - Had hazards been previously identified? - Had procedures been developed to overcome them? - Were unsafe conditions corrected? - Was regular maintenance of equipment carried out? - Were regular safety inspections carried out? - Any changes to equipment, environment, people or procedures?	Enter Organisation data: #NO ORGANISATIONAL ISSUES. #UNIDENTIFIED HAZARD.

Part 1 - Incident Details

Incident Description		Incident Number
Incident summary (Overview of the incident)	CUTTING THROUGH NICHE IN FACE @ MG501, SITTERER @ 180 SHIELD → MG NICHE BOUGHT CH4 FRINGE FORWARD, TRIPPING TG DRIVE	Reportable / Notifiable? ☑ Yes ☐ No

Who		Empl	Contr
Reported by	J. DWYER	☑	☐
Reported to	G. WILSON	☑	☐
Supervisor	G. WILSON	☑	☐
Department	LONGWALL		
Task at time of incident	CUTTING THROUGH NICHE ON FACE.		
Crew	D CREW.		
Witnesses	L. MUNRO B. SEYMORE		
Personnel involved (Identify if contractor or employee, and employer)	L. MUNRO B. SEYMORE G WILSON J. DWYER.		

What

☑ Actual ☐ Potential (*near miss*)

Incident type:
- ☐ Health and Safety
- ☑ Environment
- ☐ Community / Image / Reputation
- ☐ Damage / Loss
- ☐ Process

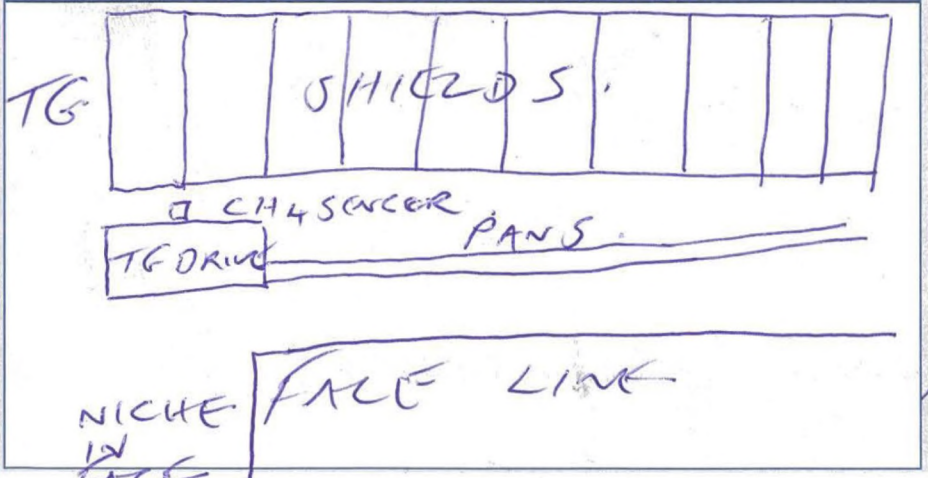
Category (circle rating for both)						
Actual	1	2	3	4	5
Potential	1	2	3	4	5

Analysis tool (Shading relates to category rating above)	5 Whys (H&S Cat 3)	ICAM (E&C Cat 3)

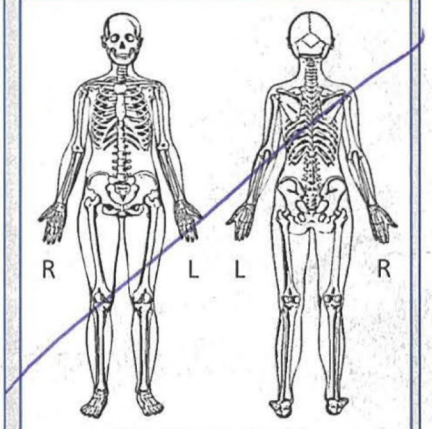
Where	
Incident location	MG 501 LONGWALL TG DRIVE
Equipment involved (type, number, rego)	TG DRIVE CH4 SENSOR.

When	
Date of incident	6/12/19.
Time of incident	5.51 am / pm
Date incident reported	6/12/19.
Time incident reported	5.52 am / pm
Shift start time	9.30 am / pm
Shift length	12 hours / minutes
Time into shift (incident)	8 hours / minutes
Overtime task?	☐ Y ☑ N

Incident Scene (*Sketch of the incident scene*)



Injury Location



Circle injury location(s)

Fatal Hazards *(Tick only if applicable to the incident)*

- ☐ Strata Failure
- ☐ Fire and Explosion
- ☐ Mobile Equipment
- ☐ Inappropriate Emergency Response
- ☐ Inrush and Outburst
- ☐ Explosives and Shotfiring
- ☐ Other *(add details)* N/A
- ☐ Inadequate Energy Isolation
- ☐ Working at Height
- ☐ Lifting and Cranage
- ☐ Confined Space and Irrespirable/ Noxious Atmosphere
- ☐ Tyre and Rim Management
- ☐ Electrical Safety

GCAA SafeCoal Rule Breach *(Tick only if a rule breach is applicable to the incident)*

- ☐ Δ1 - Never work above 2m without appropriate fall protection
- ☐ Δ2 - Always verify the isolation - test for dead.
- ☐ Δ3 - Never enter under suspended loads.
- ☐ Δ4 - Never enter no-go zones.
- ☐ Δ5 - Never operate equipment unless authorised.
- ☐ Δ6 - Never attend work under the influence of alcohol or illicit drugs. Consumption on site is prohibited.
- ☐ Δ7 - Never modify safety devices without permission.
- ☐ Δ8 - Never enter under unsupported roof.
- ☐ Δ9 - Always follow positive radio communication requirements.
- ☐ Δ10 - Always consider health & safety implications when planning.
- ☐ Δ11 - Always follow regulated traffic signage.

N/A.

Fitness for Work *(tick where applicable)*

☐ Alcohol testing conducted	Date and time completed	N/A.	Comments	
☐ Drug testing conducted				

☐ Fatigue assessment – complete GCAA Form *HSEC – Post-incident Fatigue Assessment or approved equivalent*

Description and Timeline of Events

Events leading up to the incident	CUTTING THROUGH 23 cr NICHE 180 SHIFT → SHEARER CUTTING BACK TOWARD MG
Events at the time of the incident	* AS ABOVE * NICHE BRINGS FRINGE FORWARD TRIPPING TG - DRIVE.
Events immediately following the incident	ERT-C - NOTIFIED → PROCEEDED DIRECTLY TO TG TO INSPECT.
Immediate actions taken to control the situation and prevent further harm / loss	* SET UP CURTAIN IN FRONT OF T.G. SHIELDS APPROX 20M IN LENGTH * WORKED WELL - CH_4 SENSOR @ - 45% CH_4
Was this an infrequent or frequent task for the individuals involved?	☐ First time ☑ Rarely ☐ Each shift ☐ Weekly

Injury / Illness

		Employee	Contractor
Name of injured person		☐	☐
Position, role and employer			
Details of the injury *(Include location and type of injury)*			
Was task relevant PPE being worn at the time? *(If so, detail the PPE being worn)*			
Did the injured worker have to stop work as a result of the injury? *(If so, detail action taken – see below for First Aid Treatment)*			
Was first aid or medical treatment provided? *(If so, who provided what treatment)*			

Part 2 – Timeline and 5 Why Analysis *(Not applicable where ICAM process is to be used)*

Timeline

5.51PM.
* CUTTING THROUGH A NICHE @ TG 23CT.
* SHEARER @ 180 SHIELD HEADING BACK TO MG.
* NICHE ALLOWS CH_4 FRINGE TO MOVE FORWARD @ TG DRIVE TRIPPING TG DRIVE AT APPROX ~~2.5% CH_4~~ GW. 1.25% TRIP & ROSE TO APPROX 2.5%.

post-event

* DEPUTY NOTIFIED AT 5.52PM PROCEEDED TO TG TO INVESTIGATE, FOUND TG CH_4 SENSOR SITTING @ 2.5% CH_4 CONFIRMED WITH HAND HELD GAS DETECTOR.
* NOTIFIED COMMS & ROBERT CADY.

event

* ROLL OF BRATTICE ON TG DRIVE.
* GOT ASSISTANCE FROM CREW TO RUN A CURTAIN FROM APPROX 190 SHIELD TO 203 SHIELD. (BRATTICE CURTAIN)
* CLIPPED CURTAIN TO SHIELDS ALONG FACE WITH MINSUP CLIPS.
* VENTILATION ACROSS CURTAIN DROPPED CH_4 READINGS @ TG DRIVE TO BELOW .5% CH_4.

pre-event

* NOTIFIED COMMS & R. CADY.
* REQUEST PERMISSION TO START & ALSO ASKED ABOUT DE-GASSING REQUIREMENTS.

2 CADY 1.12.19. RC

* NOTIFIED BY R. FRENCH THAT DUE TO QUICK ACTIONS NO REQUIREMENT TO DE-GAS → AND SAFE TO RE-START
* RE-STARTED & CUTT TILL END OF SHIFT, CONTINUOUSLY MONITERING → NO FURTHER ISSUES

Why? Why? Why? Why? Why?

GUS WILSON 6/12/19.

This is a guide only. Don't try to fill every box, focus on the event. If more room is needed then add another page

Part 2 – 5 Why Analysis Actions *(Not applicable where ICAM process is to be used)*

Root Cause Description

NICHE IN FACE BRINGS CH_4 FRINGE FORWARD.

Recommended Actions *(from analysis)*

Category (From hierarchy of controls)	Recommended Action	Assigned to	Action Accepted	Due Date
1.	Discuss with ERZ Controller. -	J Canning		21.12.19
	Actions taken towards Inspection			
	Gas readings and responsibilities entered			
	in SOP0347.	J. Canning		21.12.19.
2.	Shearer drivers responsibilities Prior to			(Complete).
	holing into Niche towards			
	Headings / Ventilation and Stage loaders			

Part 3 - Additional Information *(Where applicable, for recording additional information not covered in other sections)*

Notes and Comments

* BRATTICE CURTAIN ALONG SHIELDS VERY EASY TO SET UP.
* IN FUTURE WILL SET UP IN ADVANCE TO PREVENT THIS ISSUE HAPPENING AGAIN.

crew setting up curtain as per M. Downes
Ventilation directive to prevent further incident. ecam Gus Wilson 6/12/

Part 4 – Approval and Quality Review

Investigation Team

Team member names	L. MUNRO, B. SEYMORE, J. DWYRE, G. WILSON

Approval

Supervisor / Investigator	Gus Wilson (Name (printed))	6/12/19. (Date)	Confidential [redacted]
Shift Supervisor	BOB CAMY (Name (printed))	6-12-19. (Date)	
Coordinator / Superintendent	J Canning (Name (printed))	10.12.19 (Date)	
Department Manager	Jason Fanweather (Name (printed))	11/12/19 (Date)	

Quality Review

Comments			
HST Manager	Linda Cardwell (Name (printed))	11.12.19 (Date)	
E&C Manager (Required for all E&C related incidents)	Name (printed)	Date	Signature