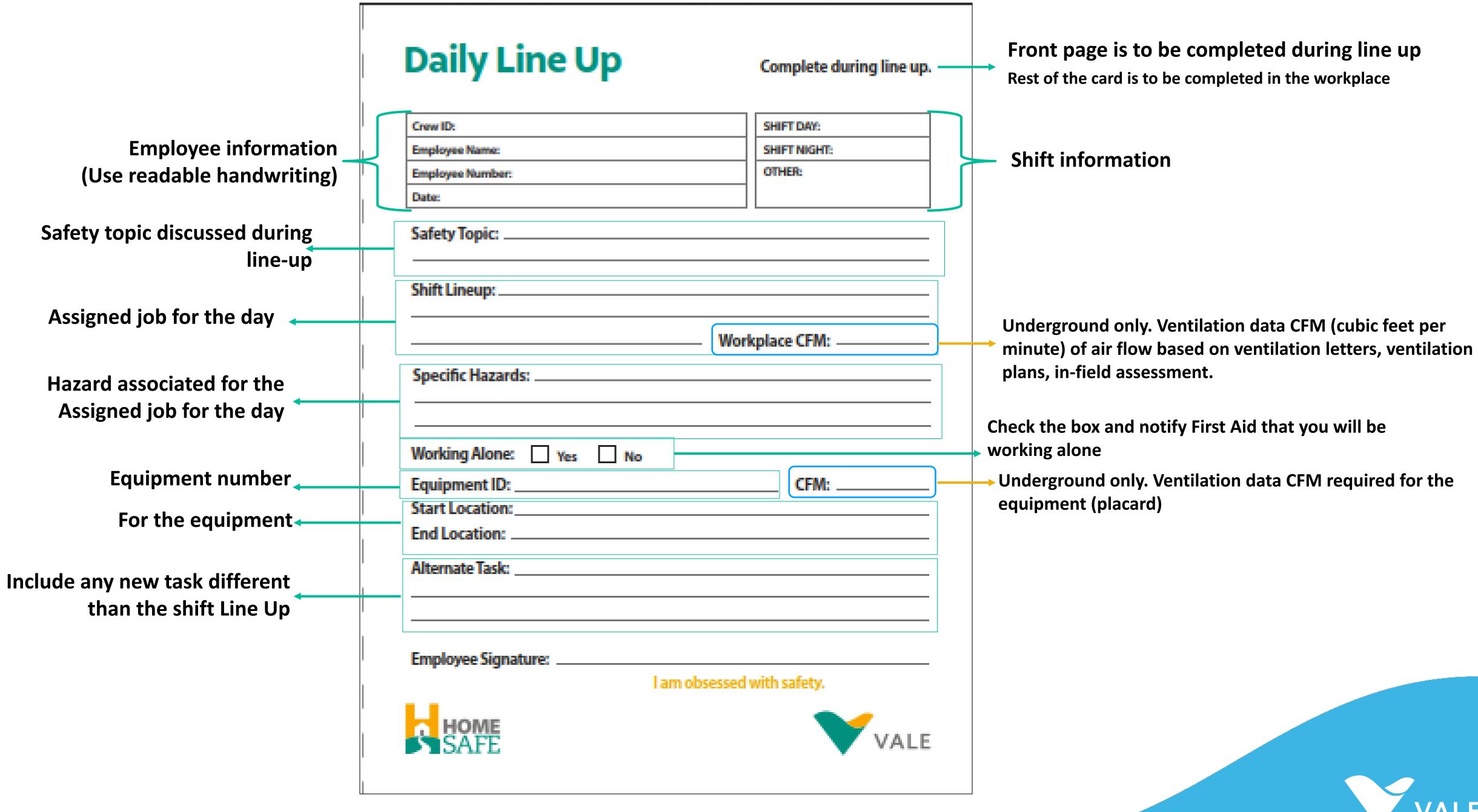
Field Level Hazard Assessment "Safety Cards"







VALE

Job Definition

Complete during line up.

Can you perform the line up? (Knowledge, training, experience and understand the risk associated with the task):

Yes		No
-----	--	----

If no, what is the additional control required?

Hazard Mitigation

Complete in the workplace.

LOW RISK	MEDIUM RISK	HIGH RISK
Work Proceeds	Do not proceed until the hazard/condition has been managed back into the green.	Involve frontline supervisor. JHA may need to be considered If work is abnormal and/or Non-routine.

If any items in the triangle are in the medium to high risk range, list actions taken to lower the risk level to low before continuing with work.

Workplace (Corrections to bring workplace to standard):

If you feel comfortable performing the tasks explained in Line Up answer "yes", otherwise complete the additional control requirement. Examples of additional controls:

- Peer training
- Work with an experienced partner

If you are unable to identify any existing controls, please write " not qualified and contact your supervisor.

It is important to complete this section after performing the workplace inspection.

Circle the box that represents the current state of the workplace.

If in the previous section, the identified risk was medium (yellow) or high (red) list the actions performed to bring the workplace back to standard (low risk-green).



Know Your Critical Controls



Fall From Height (CAR 1)



Lifting Operations (CAR 5)



Unplanned Initation of Explosives (CAR 9)





Mobile Equipment (CAR 2 8, 3)



Entanglement and Crushing (CAR 7)



Contact with Electricity (CAR 10)





Inrush



Chronic Exposure to

Hazardous Substances

Uncontrolled Release

of Energy (CAR 4)

Underground Rock Fall (CAR 8)

Fall From Height (CAR 1)



Y/N/N#

Complete in the workplace if applicable		
Critical Control		
Where required, proper barricades and signage is in place including prevention of falling objects.		
Pre-Inspection of Fall Protection equipment is to be completed before use.		
Openings, including entry/exit areas, are protected by suitable, securely fastened covers or guardrails.		
When using a Fall Arrest system, a written rescue plan has been completed and reviewed by the workers involved.		
The Fall Protection system used is attached to an approved engineered anchor point or suitablestructure (such as a beam or girder).		
Fall protection system has the appropriate lanyard type and length for the task.		
A Fall protection system is to be used in a manner to allow user to achieve 100% tie-off, at all times.		
Where Mobile Equipment is used, level indicators, limit switches/ whisker switches are to be functional.		
A Fall Protection System is to be used when working at heights > 1.8m.		

Before use, a pre-inspection of the staging/scaffold or portable ladder/steps is completed.

Identify the hazard(s) in your assigned task and complete applicable section(s) in the following panels:

e.g., Line Up: Extending services complete critical control sections CAR 2&3, CAR 4.

e.g., Line Up: Install new engine on truck complete critical control sections CAR 5, CAR 7.

Following sections key aspects:

- applicable".

Mobile Equipment (CAR 2 & 3) Complete in the workplace if applicable



omprete in the workplate in applicable	1	complete in the workplace in applicable
Critical Control	Y/N/NA	Critical Control
pre-op and brake test is performed before every use of within your shift.		Barricades are in place with signage warning of the haz
ollow posted speed limits and operate equipment in controlled manner.		Where energy sources have been locked and tagged, verify for zero energy prior to starting work.
Mobile equipment that have a backup camera are functioning. When reversing, an audible alarm sounds.		If work cannot be completed, my Personal Protection le has been removed and replaced with a completed Stat Do Not Operate.
amp and/or level entry protocol for the area is being followed, ncluding PPE (JAWS clip).		Down pipes for air and water lines are identified and se using an approved anchor system.
When traveling on a ramp (up or down), mobile equipment will maintain of a 100' distance from another vehicle.		ZES protocols are followed for Remote Tagging, Designated Tagging or Mobile Tagging.
Proximity detection (JAWS) is functional during travels.		Appropriate guarding, fencing and/or interlocks are in place that protect the worker from rotating or movin
Functioning warning lights are in use when in operation or when parked in non-designated areas.		Whip checks, minsup pins, electrical cable anchor
Safety Bays have a safe access to retreat from the path of approaching mobile equipment.		and/or hose clamps are in place and in good order. All stored energy has been identified, locked and tagge
Ensure the vehicle is equipped with two wheel chocks, and in use when the vehicle is parked.		as per ZES.
Tire replacement is performed following the Changing a Tire and Wheel Assembly procedure.		

In your identified hazard(s) (minimum of one) section answer all the questions. Remember could be Y "yes", N "No", NA "Non

If you answer "no" to a question and you cannot correct it, you must stop the activity and contact your supervisor.



Uncontrolled Release

of Energy (CAR 4)

Complete in the workplace if applicable

Y/N/NA

al Protection lock and tag

What triggers a Job Hazard Analysis (JHA)?

	CONDITIONS		
		ABNORMAL	NORMAL
K	NON-ROUTINE	Non-routine task in abnormal conditions: JHA required to perform job.	Non-routine task in hormal conditions: Review task with supervisor. May require JHA.
¥1	ROUTINE	Routine task in abnormal conditions: Review task with supervisor. May require JHA.	Routine task in normal conditions: Complete safety card.

Event Reporting

Immediately report to your supervisor if an injury, incident, or event occurred. *Supervisor must record in IRIS by end of shift. This section has been allocated to remind the worker when a JHA must be performed

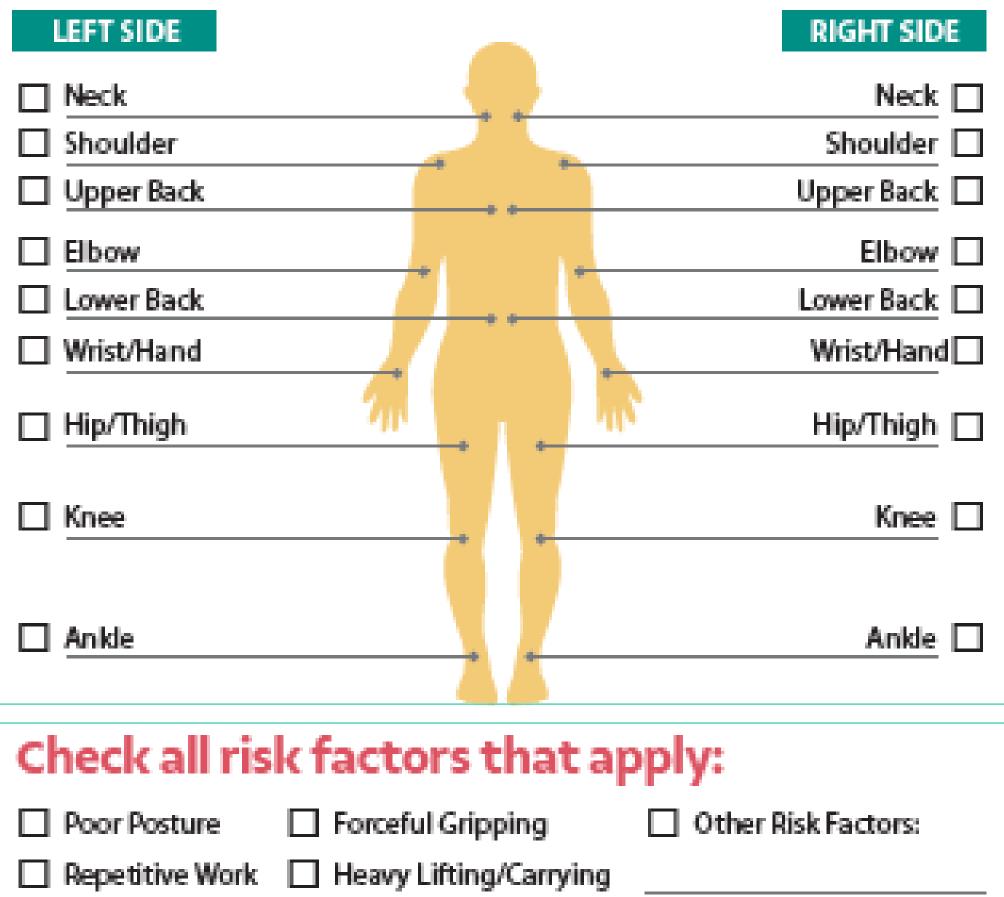
This section has been allocated to remind the worker all events (injury, incident, near miss) must be reported immediately to the supervisor.



MSD Hazard Identification

Complete in the workplace if applicable.

Check all affected areas:



If you identified MSD hazards in a task, decide if you have the tools/training to start work, If, not contact your supervisor.

Bouncing/Jarring

Heavy Shoveling

Vibrating Tools

Static Position



Check the body areas that could be affected by activities performed during the shift

By being aware of your MSD hazards, you will be able to understand how to prevent it

If you identified MSD hazards in a task, decide if you have the tools/training to start work, if not, contact your supervisor



Contact with Electricity (CAR 10)



Y/N/NA

Complete in the workplace if applicable.

Critical Control

A Ground Fault Test was performed on equipment prior to use.

Electrical Substation, Switchroom, Ground Fault Panel or Field Disconnect is in good order.

All Testing Equipment, including PPE for electrical work is approved and verified before use.

Electrical cables are supported with approved Cable Hangers and in a manner to protect from contact of equipment.

Electrical Panel installations are safe from collision with mobile equipment (Cutouts, jersey barriers and or, bumper blocks).

Trailing cables are secured using an approved anchor point and cable clamp.

Personal protective equipment rated for the work and voltage levels is to be used.

Ensure that there is no accumulation of water contacting, or near any electrical components (ground water, leaking pipes, or water sprays).

Underground Inrush

Complete in the workplace if applicable.

omplete in the workplace if applicable.			
Critical Control	Y/N		
Perform a daily inspection of workplace conditions before starting work.			
Ensure there are no abnormal conditions noted with respect to water accumulation. (roadway, sumps, passes, chutes, remuck).			
Appropriate cushion in the chute or pass is being maintained.			
Pre-operational checks of Chute is performed before use.			
Chute lips, Arc gates or Headers are in the latched or closed position when not in use.			
When performing maintenance work, Feeders/Arch gates/ Chute lips are in the closed position with appropriate locks and tags (ZES).			
Scoop bucket holes are not plugged and are draining any excess water.			
The "Angle of repose" is being maintained at all times.			

Wet material/slimes are being stored following the Storage of Wet Material procedures.

Chronic Exposure to Hazardous Substances





Y/N/NA

Dust suppression along routes of travel is being used effectively.

Ventilation ducting is in good condition and for the equipment being operated.

Critical Control

Airborne dust is being controlled/mitigated for all work being performed.

Good communication has taken place between all workgroups that may be affected from work performed.

An approved water spray/fogger is being used when applicable that effectively controls dust.

Good housekeeping practices are followed in all work areas.

Where applicable, half face respirators are available or in use for specific PPE requirements (Ex. Remote Mucking, Dry Shotcrete).

Underground Fire



compiece in the workplace in applicable.			
Critical Control	Y/N/N		
A pre-op inspection of equipment has taken place that focuses on housekeeping and oil leaks.	0		
Flammable Material (such as oil) is stored in approved containers and within storage limits.			
Fire Extinguishers are inspected and if found defective, removed from service, Status Tagged and replaced.			
Good housekeeping practices are followed to eliminate flammable refuse in work areas traveled.			
When fueling, never leave a vehicle unattended and follow safe fueling practices.			
Know your escape ways for your work areas, ensure they are free from obstructions and well labeled.			
Know where the nearest the Refuge Stations and/or Emergency Fresh Air Tents are for work areas traveled.			
Batteries, including rechargeable batteries are stored in an approved manner.			
Hot work, such as welding, cutting or grinding, is being performed under a valid Hot Work Permit or in a designated			

Hotw performed under a valid Hot Work Permit or in a designated area (such as a Welding Bay).

The SCSR (Self-Contained Self Rescuer) passes inspection and is being used in accordance with Vale's protocols.



What triggers a Job Hazard Analysis (JHA)?

		CONDI	TIONS
		ABNORMAL	NORMAL
SK	NON-ROUTINE	Non-routine task in abnormal conditions: JHA required to perform job.	Non-routine task in normal conditions: Review task with supervisor. May require JHA.
TA	ROUTINE	Routine task in abnormal conditions: Review task with supervisor. May require JHA.	Routine task in normal conditions: Complete safety card.

Event Reporting

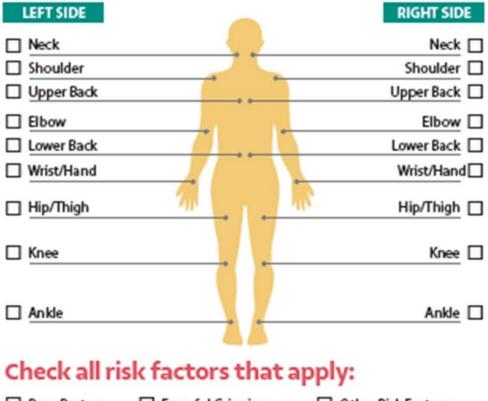
Immediately report to your supervisor if an injury, incident, or event occurred. *Supervisor must record in IRIS by end of shift.



MSD Hazard Identification

Complete in the workplace if applicable.

Check all affected areas:



Poor Posture Forceful Gripping Other Risk Factors:

Repetitive Work	Heavy Lifting/Carrying	
Vibrating Tools	Bouncing/Jarring	
Static Position	Heavy Shoveling	

If you identified MSD hazards in a task, decide if you have the tools/training to start work, If, not contact your supervisor.

Daily Line Up

Complete during line up.

CrewID:	SHIFT DAY:
Employee Name:	SHIFT NIGHT:
Employa e Number:	OTHER:
Date:	
SafetyTopic:	
Shift Lineup:	
	Workplace CFM:
Specific Hazards:	
Working Alone: 🗌 Yes 🗌 No	
Equipment ID:	CFM:
Start Location:	
End Location:	
Alternate Task:	
Employee Signature:	
lam ob	sessed with safety.
T HOME	

Job Definition

Complete during line up.

Can you perform the line up? (Knowledge, training, experience and understand the risk associated with the task):

Yes No

If no, what is the additional control required?

Hazard Mitigation

Complete in the workplace.

LOW RISK	MEDIUM RISK	HIGH RISK
Work Proceeds	Do not proceed until the hazard/condition has been managed backinto the green.	Involve frontline supervisor JHA may need to be considered If work is abnormal and/or Non-routine.

If any items in the triangle are in the medium to high risk range, list actions taken to lower the risk level to low before continuing with work.

Workplace (Corrections to bring workplace to standard):

Know Your Critical Controls







Lifting Operations (CAR 5)



Unplanned Initation of Explosives (CAR 9)



Underground Fire



Mobile Equipment (CAR 2 & 3)

Entanglement and Crushing (CAR 7)

Contact with

Electricity (CAR 10)

Underground

Inrush





Underground Rock Fall (CAR 8)



Chronic Exposure to Hazardous Substances



Lifting Opertaions (CAR 5)

Complete in the workplace if applicable.

Critical Control Y/N/NA Pre-operational check(s) performed on mobile equipment before use. Visual check(s) of rigging equipment performed before use. Pre-operational check(s) of crane performed before use and noted in the Crane Log Book. Load Limit table/weight placard (tags) are identified and legible on lifting devices such as slings, lifting chains. Follow proper rigging and lifting practices, including restricted access to the area. Ensure good communication between employee's performing the task. Ensure that the Outriggers or Stabilizers are applied when load is being lifted. Ensure the load is lifted in a controlled, safe manner. Ensure that the Lifting device(s) being used is appropriate for the load capacities (weight).

Fall From Height (CAR 1)



Y/N/NA

Complete in the workplace if applicable.

Critical Control

Where required, proper barricades and signage is in place including prevention of falling objects.

Pre-Inspection of Fall Protection equipment is to be completed before use.

Openings, including entry/exit areas, are protected by suitable, securely fastened covers or guardraik.

When using a Fall Arrest system, a written rescue plan has been completed and reviewed by the workers involved.

The Fall Protection system used is attached to an approved engineered anchor point or suitablestructure (such as a beam or girder).

Fall protection system has the appropriate lanyard type and length for the task.

A Fall protection system is to be used in a manner to allow user to achieve 100% tie-off, at all times.

Where Mobile Equipment is used, level indicators, limit switches/ whisker switches are to be functional.

A Fall Protection System is to be used when working at heights > 1.8m.

Before use, a pre-inspection of the staging/scaffold or portable ladder/steps is completed.

Entanglement and Crushing (CAR 7)



Complete in the workplace if applicable.

Critical Control

Piping, hoses and equipment are secure and fastened correctly.

Guards, barriers and/or barricades are installed on the moving parts of equipment.

The procedure for the use of mechanical blocks has been followed (e.g. jacks, stands, locking bars, belt clamps, wheel chocks, bucket wheel pins, counter weight pins and chains).

Check to ensure you and your clothing are free from entanglement of rotating/moving equipment (e.g. lathes, conveyors, feed chains).

Ensure you understand the machines and operations in your work area.

The work is free from potential line of fire situations (e.g. sudden release of tension, gravity, moving machinery, path of travel, flying debris, projectiles, and rotating equipment).

Mobile Equipment (CAR 2 & 3)



Complete in the workplace if applicable.

Critical Control	Y/N/NA
A pre-op and brake test is performed before every use of vehicle within your shift.	
Follow posted speed limits and operate equipment in a controlled manner.	
Mobile equipment that have a backup camera are functioning. When reversing, an audible alarm sounds.	
Ramp and/or level entry protocol for the area is being followed, including PPE (JAWS clip).	
When traveling on a ramp (up or down), mobile equipment will maintain of a 100' distance from another vehicle.	
Proximity detection (JAWS) is functional during travels.	
Functioning warning lights are in use when in operation or when parked in non-designated areas.	
Safety Bays have a safe access to retreat from the path of approaching mobile equipment.	
For such the such is the issue of with the such as the other	

Ensure the vehicle is equipped with two wheel chocks, and in use when the vehicle is parked.

Tire replacement is performed following the Changing a Tire and Wheel Assembly procedure.



Y/N/NA

Underground Rock Fall (CAR 8)



Complete in the workplace if applicable.

Critical Control	Y/N/NA
A workplace inspection took place that identifies, corrects potential or unsafe ground conditions prior to starting work activities(s).	
When working in the "High Risk Zone", the area has been scaled and sounded using a 6' steel scaling bar.	
Where applicable, a barricade is installed at the entrance of the heading with signs warning of the hazard.	
Where applicable, the "High Risk Zone" is identified with reflective brow markers as per End States of the Ore Body.	
When loading Development Rounds, follow the Perimeter / Control protocols for the Ore Body.	
Where distress holes are required, they are well identified, checked for explosives and marked.	
Bolting standards, including Face Bolting are followed specific for the heading.	

Uncontrolled Release of Energy (CAR 4)



Complete in the workplace if applicable.

Critical Control	Y/N/NA
Barricades are in place with signage warning of the hazard(s).	
Where energy sources have been locked and tagged, verify for zero energy prior to starting work.	
If work cannot be completed, my Personal Protection lock and tag has been removed and replaced with a completed Status Tag – Do Not Operate.	
Down pipes for air and water lines are identified and secured using an approved anchor system.	
ZES protocols are followed for Remote Tagging, Designated Tagging or Mobile Tagging.	
Appropriate guarding, fencing and/or interlocks are in place that protect the worker from rotating or moving parts.	
Whip checks, minsup pins, electrical cable anchor and/or hose clamps are in place and in good order.	
All stored energy has been identified, locked and tagged as per ZES.	

Unplanned Initiation of Explosives (CAR 9)



Complete in the workplace if applicable

Critical Control	Y/N/NA
Blasting Line - Blasting Box are in good order, wires are shorted and insulated.	
All bootlegs, lifters and destress holes are identified, cleaned, and marked.	
Where applicable, remote drilling is occurring as required in the drilling prints and following the AMS.	
Where applicable, barricades with signage "Loaded Area" are in place.	
Powder and cap magazines have good housekeeping with proper signage, free from accumulation of dust and locked.	
Mobile equipment used for transporting explosives has a functioning red light.	
When transporting explosives, the speed shall not exceed 10 kms/hr and transported without delay.	
Unused explosives are returned to the appropriate magazine.	