



VUL-SWP-007- Firing of Blasts with additional controls concerning Public Road and Rail in exclusion zone.

STANDARD WORK PROCEDURE (SWP)			
Description	<i>Firing of Blasts with additional controls concerning Public Road and Rail in exclusion zone.</i>		
Site	Vulcan Mine – Operations		
Department	<i>Drill and Blast</i>		
PPE Required		Job Step Analysis Reference	
     		<i>JHA 'Firing Blast 11'</i> <i>JHA "Firing Blast 11W"</i>	
Safety helmets must be worn in this area Ear protection must be worn Protective footwear must be worn Protective gloves must be worn High visibility clothing must be worn in this area Eye protection must be worn		Other Relevant Information This SWP is designed to simplify the firing process, it doesn't replace SOP requirements.	
VUL SOP / PRO Reference			
VUL-PLN-035-Emergency planning and response VUL-SOP-116g-Charging and Firing Explosives VUL-TAR-001-Post Blast Fumes TARP VUL-FRM-16-02 Blast controller checklist		This SWP forms a useful checklist for firing practices.	
People, Equipment, Materials and Tools Required			
People	Equipment	Materials	Tools
Shotfirer	Communication devices	Blast plan, Contact list	
Blast Controller	Communication devices	Blast plan, Contact list	PDM mine radio
OCE	Communication devices	Blast plan, Contact list	
Blast Guards	Communication devices	Guard position map	LV, Signage
Blast Sweepers	Communication devices	Sweeping plan	Traffic control
Drone operator	Drone	Blast plan	



REMINDERS	1. Blast Guard Meeting
Ensure Blast guards have a copy of the Blast map, blast controller checklist & understand the area they are guarding.	1.1 Must attend Blast Guard Meeting and read, understand, and sign onto the Blast Controller document. 1.2 Confirm you understand your role as a Blast Guard and your assigned guard number. If unsure of your position, YOU MUST ASK the Blast Controller for confirmation. 1.3 Stop vehicles and unauthorized people from entering shot area during the pre-firing/firing & postponement period. 1.4 Guards shall be appropriately trained and authorized.
REMINDERS	2. Pre-Firing Communication
PDM Blast coordinators Luke – 0400 442 422 Tommy – 0457 810 005 Aurizon Control 4932 0926 Aurizon ECO 49320213	2.1 Blast Controller must contract PDM Blast Coordinator both the morning of and prior to the Vulcan Blast. 2.2 Communication is to ensure that guarding of affected PDM area is organized and in place and no changes are needed to agreed plan of firing execution. 2.3 Blast controller must make contact with Aurizon 1) Morning of the blast 2) 1 hour prior to the blast 3) 5 minutes prior to firing. 4) When the All clear is given This is to check track clearance and isolation.
REMINDERS	3. Saraji Highway Pre & Post Blast
Blast controller will advise highway guarding and sweepers when to perform their tasks.	3.1 Ensure Traffic control is in place and on standby at time of blast guard meeting. 3.2 Blast guards assigned to the highway are to ensure that highway traffic control is setup in the correct location and advise blast controller when ready and on standby. 3.3 Highway Sweeper/s (2 is preferred) are to position themselves on standby at either end of the highway guarding / traffic control. 3.4 The blast controller will advise highway guards when to shut highway down. 3.5 Once this is confirmed, the controller will advise highway sweeping to commence. Sweepers are to follow the last car along the highway and swap positions at either end. Sweepers will ensure that all areas between highway guards are clear of personnel. This includes rail access with signage placed on access roads.



	3.6 After the blast, when advised by blast controller, sweepers will drive back into area of highway near blast and check for flyrock, advise blast controller of findings. 3.7 Clean up people and equipment are to be on standby and ready if assistance is needed to clear any section of the highway before general public are allowed to return.	
REMINDERS	4. Mine Clearance (Sweep)	
OCE is in control of loaded blasts when a shotfirer isn't on site.	4.1 The OCE will consult with the Blast Controller to coordinate the blast guard locations and associated sweep of mine areas in front of blast guarding. 4.2 This is to commence once a loading notification is released and will include organizing the guards required for the blast. 4.3 Communication to field personnel should be done through OCE reports, emails and pre-start meetings. 4.4 The OCE should prep the blast guard and sweeping pack and ensure all people have the required information they need.	
REMINDERS	5. Post Blast Fume	
Flying the drone is to be done with the blast controller so required areas can be viewed.	5.1 Drone flights are to be done for limited access areas. 5.2 This includes doing a pre blast rail corridor sweep and also a post blast rail corridor damage inspection fly over. 5.3 When filming the blast, the drone is to be positioned to view the whole blast, rail corridor and track any fume movements.	
REMINDERS	6. Post Blast Fume	
All guards must plan their retreat path before the blast in case it is needed.	6.1 NOX gas monitors are to be stationed with shotfirer and selected blast guards. 6.2 Any parties in the path of a fume event are to retreat to a safe location and advise blast controller. 6.3 Blast controller is to maintain communication with PDM to advise of fume event that has potential to impact PDM guarding. 6.4 Blast guard locations are to be in accordance with the blast fume management zone which includes a 45-degree vector from the blast area.	
REMINDERS	7. Vibration Control & Monitoring	



Advise with a phone call if Vibration levels exceed APP limits	7.1 Vibration monitors are to be placed in positions outlined in the blast design process. These locations are to be GPS captured for data collection purposes. 7.2 Vibration is to be within Asset Protection Plan limits. 7.3 Vibration monitors are to be placed by tech services personnel and be out of the area before final sweep commences. 7.4 After the blast, monitors are to be retrieved and data downloaded, results emailed to mine management and stored in appropriate database.			
REVIEW, APPROVAL AND NATURE OF CHANGES				
• Evidence of review, approval and revision of this work procedure can be found in the SWP review register. • The nature of changes to this work procedure shall be identified when it is published as current in SWP review register.				
WORKER SIGN-OFF				
I confirm that I have read and understood the Safe Work Procedure for VUL-SWP-05- Firing of Blasts with Public Road and Rail in exclusion zone, which is available to me and I will follow in the event of undertaking this task.				
Name:				
Company:		Job Title:		
Date:		Signature:		