

# Forestry Blaster Assessment

<b>Assessment</b>	<p>This document can be used:</p> <ul style="list-style-type: none"> <li>• For gathering evidence in a training environment,</li> <li>• As a competency check of knowledge on an existing worker; or</li> <li>• As part of a summative assessment.</li> </ul>
<b>Candidate Name</b>	
<b>Assessor Name</b>	
<b>Date of Assessment</b>	
<b>Summary of Assessment</b>	<p><input type="checkbox"/> The candidate met all outcomes of the <b>worker assessment</b></p> <p><input type="checkbox"/> The candidate has <b>NOT</b> met all outcomes of the <b>worker assessment</b></p> <p><input type="checkbox"/> Gap training plan developed</p>
<b>Date of Reassessment</b>	
<b>Summary of Reassessment</b>	<p><input type="checkbox"/> The candidate met all outcomes of the <b>worker assessment</b></p> <p><input type="checkbox"/> The candidate has <b>NOT</b> met all outcomes of the <b>worker assessment</b></p>
<b>Instructions</b>	<ul style="list-style-type: none"> <li>• Complete the assessment with the candidate, adding notes to justify your decisions.</li> <li>• Ensure the first page of this document is completed (all fields).</li> <li>• Develop a gap training plan for practical deficiencies if required.</li> <li>• Use the same form for reassessment (if applicable), only reassessing the areas where gaps exist.</li> <li>• Conduct the competency conversation before conducting the practical assessment.</li> </ul>

**Note:** This worker assessment covers the technical components of a specific role. For general knowledge and a complete picture of a worker's competency, BC Forest Safety recommends the optional Basic Forest Worker competency profile and assessment tools that can be found at [www.bcforestsafesafe.org](http://www.bcforestsafesafe.org).

# Part 1 - Competency Conversation

General Instructions	
<p>To conduct a competency conversation, ask the worker the questions in this first part of the assessment to determine if they understand the knowledge components of their role.</p> <p>It is acceptable to rephrase the question in a way that the worker understands, but the worker cannot be given hints to the correct answer.</p> <p>The assessment should not be used as a training opportunity; instead, any deficiencies identified in this assessment should be collected into a gap training plan and addressed with the worker later.</p> <p><b>Important Note:</b> Do not conduct competency conversation while operating equipment.</p>	
Training and Assessment Rubric	
Assessment Instruction	<p><b>S</b> - This means that the candidate must supply all responses listed, as the knowledge is <b>safety</b> critical or important.</p> <p><b>B</b> - This means the candidate must at a minimum verbalize the <b>bolded</b> responses, and additional responses are further proof of competence.</p> <p><b>P</b> - The candidate must give a <b>percentage</b> of responses correctly to reasonably show competence in the area.</p>

## 1163 – Recognize, Evaluate and Control Blasting Hazards

Locator	Questions			
1.1	<p><b>What are the minimum requirements for signage when transporting explosives?</b></p> <p><input type="checkbox"/> Signage is clearly visible from all four sides</p> <p><input type="checkbox"/> Using correct placards</p> <p>Assessment Instruction: S</p> <table border="1"> <tr> <td>Assessment</td><td><input type="checkbox"/> Outcome met</td><td><input type="checkbox"/> Outcome not met</td></tr> </table>	Assessment	<input type="checkbox"/> Outcome met	<input type="checkbox"/> Outcome not met
Assessment	<input type="checkbox"/> Outcome met	<input type="checkbox"/> Outcome not met		
1.2	<p><b>Why is it important to check every hole before blasting?</b></p> <p><input type="checkbox"/> To determine what explosive should be put in the hole (wet or dry)</p> <p><input type="checkbox"/> Check if hole has caved in. (Could affect quality of shot and safety)</p> <p><input type="checkbox"/> Confirm depth of hole</p> <p>Assessment Instruction: S</p> <table border="1"> <tr> <td>Assessment</td><td><input type="checkbox"/> Outcome met</td><td><input type="checkbox"/> Outcome not met</td></tr> </table>	Assessment	<input type="checkbox"/> Outcome met	<input type="checkbox"/> Outcome not met
Assessment	<input type="checkbox"/> Outcome met	<input type="checkbox"/> Outcome not met		
1.2	<p><b>What do you do if water remains after attempting to dry (dewater) the hole?</b></p> <p><input type="checkbox"/> Use a water-resistant product until out of the wet zone</p> <p>Assessment Instruction: S</p> <table border="1"> <tr> <td>Assessment</td><td><input type="checkbox"/> Outcome met</td><td><input type="checkbox"/> Outcome not met</td></tr> </table>	Assessment	<input type="checkbox"/> Outcome met	<input type="checkbox"/> Outcome not met
Assessment	<input type="checkbox"/> Outcome met	<input type="checkbox"/> Outcome not met		
1.2	<p><b>How do you prevent injury from falling when working on a ladder at heights?</b></p> <p><input type="checkbox"/> Anchor to the wall and use fall restraints</p> <p>Assessment Instruction: S</p> <table border="1"> <tr> <td>Assessment</td><td><input type="checkbox"/> Outcome met</td><td><input type="checkbox"/> Outcome not met</td></tr> </table>	Assessment	<input type="checkbox"/> Outcome met	<input type="checkbox"/> Outcome not met
Assessment	<input type="checkbox"/> Outcome met	<input type="checkbox"/> Outcome not met		

1.2	<b>What are common ground hazards related to blasting?</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> Seams</li> <li><input type="checkbox"/> Voids</li> <li><input type="checkbox"/> Presence of water</li> <li><input type="checkbox"/> Ground/rock instability</li> <li><input type="checkbox"/> Bench height</li> <li><input type="checkbox"/> Flat or sloped quarry</li> <li><input type="checkbox"/> High rock cuts</li> <li><input type="checkbox"/> Slippery rocks</li> </ul> <p style="color: red;">Assessment Instruction: P – 5 from list</p>		
	Assessment	<input type="checkbox"/> Outcome met	<input type="checkbox"/> Outcome not met
1.3	<b>What are potential overhead hazards that need to be assessed pre and post blasting?</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> Powerlines</li> <li><input type="checkbox"/> Low flying aircraft</li> <li><input type="checkbox"/> Loose material above- boulders and logs</li> <li><input type="checkbox"/> Ladders and ropes tied off to access blast holes during the loading process</li> <li><input type="checkbox"/> Danger trees</li> <li><input type="checkbox"/> Weather conditions</li> </ul> <p style="color: red;">Assessment Instruction: P – 4 from list</p>		
	Assessment	<input type="checkbox"/> Outcome met	<input type="checkbox"/> Outcome not met
1.4	<b>If there is potential for lightning what should be done?</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> Shut down or postpone blasting</li> </ul> <p style="color: red;">Assessment Instruction: S</p>		
	Assessment	<input type="checkbox"/> Outcome met	<input type="checkbox"/> Outcome not met

2.1	<p><b>How do you control fly rock?</b></p> <p><input type="checkbox"/> Timing</p> <p><input type="checkbox"/> Collar</p> <p><input type="checkbox"/> Powder factor</p> <p><input type="checkbox"/> Appropriate stemming</p> <p>Assessment Instruction: S</p> <table border="1" data-bbox="345 462 1502 535"> <tr> <td data-bbox="345 462 738 535">Assessment</td><td data-bbox="738 462 1120 535"><input type="checkbox"/> Outcome met</td><td data-bbox="1120 462 1502 535"><input type="checkbox"/> Outcome not met</td></tr> </table>	Assessment	<input type="checkbox"/> Outcome met	<input type="checkbox"/> Outcome not met
Assessment	<input type="checkbox"/> Outcome met	<input type="checkbox"/> Outcome not met		
2.1	<p><b>What are potential hazards during the blast?</b></p> <p><input type="checkbox"/> Loose items above dislodging</p> <p><input type="checkbox"/> Flying debris</p> <p><input type="checkbox"/> Unfavourable rock characteristics</p> <p><input type="checkbox"/> Air overpressure (shockwave)</p> <p>Assessment Instruction: P – 3 from list</p> <table border="1" data-bbox="345 861 1502 934"> <tr> <td data-bbox="345 861 738 934">Assessment</td><td data-bbox="738 861 1120 934"><input type="checkbox"/> Outcome met</td><td data-bbox="1120 861 1502 934"><input type="checkbox"/> Outcome not met</td></tr> </table>	Assessment	<input type="checkbox"/> Outcome met	<input type="checkbox"/> Outcome not met
Assessment	<input type="checkbox"/> Outcome met	<input type="checkbox"/> Outcome not met		
3.1	<p><b>What is the blaster looking for - post blast - before giving all clear signal?</b></p> <p><input type="checkbox"/> Loose material above</p> <p><input type="checkbox"/> Overhanging trees</p> <p><input type="checkbox"/> Rocks in trees</p> <p><input type="checkbox"/> Loose overhanging face</p> <p><input type="checkbox"/> Rock or debris</p> <p><input type="checkbox"/> Damage to standing timber</p> <p><input type="checkbox"/> Low side hazards to downstream operations</p> <p><input type="checkbox"/> Vapour and gases in the air</p> <p><input type="checkbox"/> Misfired explosives</p> <p><input type="checkbox"/> Muck pile (can be unstable)</p> <p>Assessment Instruction: P – 8 from list</p> <table border="1" data-bbox="345 1617 1502 1684"> <tr> <td data-bbox="345 1617 738 1684">Assessment</td><td data-bbox="738 1617 1120 1684"><input type="checkbox"/> Outcome met</td><td data-bbox="1120 1617 1502 1684"><input type="checkbox"/> Outcome not met</td></tr> </table>	Assessment	<input type="checkbox"/> Outcome met	<input type="checkbox"/> Outcome not met
Assessment	<input type="checkbox"/> Outcome met	<input type="checkbox"/> Outcome not met		

3.1	<b>What does regulation require be done post blast?</b> <input type="checkbox"/> Check for misfires and other hazards <input type="checkbox"/> Blaster of record gives permission to enter with “all clear” when safe <b>Assessment Instruction: S</b>		
	Assessment	<input type="checkbox"/> Outcome met	<input type="checkbox"/> Outcome not met

## 1164 – Describe Blasting Terminology and Documentation

Locator	Questions		
2.1	<b>I will name a document – tell me what it is used for:</b> <input type="checkbox"/> <b>Blasters handbook</b> – ‘bible’ of blasting – reference guide, training manual <input type="checkbox"/> <b>ERP/ERAP for explosives</b> – what to do in case of an incident <input type="checkbox"/> <b>TDG</b> – records the product, weight, number of units, official inventory of what is on the vehicle at time of transport <input type="checkbox"/> <b>Pre-inspection form</b> – completed by blaster – a field level hazard assessment (FLHA) <input type="checkbox"/> <b>Magazine inventory form</b> – Record of current inventory in the magazine (all products) – altered after going in and out of magazine <input type="checkbox"/> <b>Security plan</b> – Title of the Natural Resources Canada (NRCAN) plan, requires only authorized people on site <input type="checkbox"/> <b>Key control plan</b> – NRCAN requirement – who can have the keys, where they are stored – who has control – key to magazine, may include powder boxes in the truck <input type="checkbox"/> <b>Security screening</b> – component of the NRCAN plan – Criminal record or background check <input type="checkbox"/> <b>Blasting log / report</b> – Detailed record of blast <b>Assessment Instruction: S</b>		
	Assessment	<input type="checkbox"/> Outcome met	<input type="checkbox"/> Outcome not met

## 1165 – Describe Tools and Equipment for Blasting

Locator	Questions			
1.1	<p><b>What type of knife is used for cutting explosives?</b></p> <p><input type="checkbox"/> Non-sparking</p> <p>Assessment Instruction: S</p> <table border="1"> <tr> <td>Assessment</td><td><input type="checkbox"/> Outcome met</td><td><input type="checkbox"/> Outcome not met</td></tr> </table>	Assessment	<input type="checkbox"/> Outcome met	<input type="checkbox"/> Outcome not met
Assessment	<input type="checkbox"/> Outcome met	<input type="checkbox"/> Outcome not met		
2.2	<p><b>What is WorkSafeBC's minimum requirement for fire extinguishers on a vehicle that transports explosives?</b></p> <p><input type="checkbox"/> Two fire extinguishers with correct rating</p> <p><input type="checkbox"/> Easily accessible</p> <p>Assessment Instruction: S</p> <table border="1"> <tr> <td>Assessment</td><td><input type="checkbox"/> Outcome met</td><td><input type="checkbox"/> Outcome not met</td></tr> </table>	Assessment	<input type="checkbox"/> Outcome met	<input type="checkbox"/> Outcome not met
Assessment	<input type="checkbox"/> Outcome met	<input type="checkbox"/> Outcome not met		
2.2	<p><b>The ratings of the required fire extinguishers is based on gross vehicle weight (GVW) without transporting other dangerous goods. What class of fire extinguisher is required for under 2000 GVW and over 2000 GVW?</b></p> <p><input type="checkbox"/> Under 2000 GVW – minimum 5 BC</p> <p><input type="checkbox"/> More than 2000 GVW - minimum 10 BC</p> <p>Assessment Instruction: S</p> <table border="1"> <tr> <td>Assessment</td><td><input type="checkbox"/> Outcome met</td><td><input type="checkbox"/> Outcome not met</td></tr> </table>	Assessment	<input type="checkbox"/> Outcome met	<input type="checkbox"/> Outcome not met
Assessment	<input type="checkbox"/> Outcome met	<input type="checkbox"/> Outcome not met		

## 1166 – Describe Regulations and Standards related to Blasting

Locator	Questions			
1.1	<p><b>Who is responsible for regulating the storage of explosives?</b></p> <p><input type="checkbox"/> Natural Resources Canada (NRCan)</p> <p>Assessment Instruction: S</p> <table border="1"> <tr> <td>Assessment</td><td><input type="checkbox"/> Outcome met</td><td><input type="checkbox"/> Outcome not met</td></tr> </table>	Assessment	<input type="checkbox"/> Outcome met	<input type="checkbox"/> Outcome not met
Assessment	<input type="checkbox"/> Outcome met	<input type="checkbox"/> Outcome not met		
2.1	<p><b>Who is responsible for regulating the transport of and use of explosives?</b></p> <p><input type="checkbox"/> Transport Canada – transport</p> <p><input type="checkbox"/> WorkSafeBC – use of</p> <p>Assessment Instruction: S</p> <table border="1"> <tr> <td>Assessment</td><td><input type="checkbox"/> Outcome met</td><td><input type="checkbox"/> Outcome not met</td></tr> </table>	Assessment	<input type="checkbox"/> Outcome met	<input type="checkbox"/> Outcome not met
Assessment	<input type="checkbox"/> Outcome met	<input type="checkbox"/> Outcome not met		

3.1	<b>Who is responsible for the safety of the blast area?</b> <input type="checkbox"/> The blaster of record <b>Assessment Instruction: S</b>		
	Assessment	<input type="checkbox"/> Outcome met	<input type="checkbox"/> Outcome not met
3.1	<b>Where would you find regulations related to the use of explosives?</b> <input type="checkbox"/> WorkSafeBC – Occupational Health and Safety Regulation Part 21 <input type="checkbox"/> Blasters handbook <b>Assessment Instruction: S</b>		
	Assessment	<input type="checkbox"/> Outcome met	<input type="checkbox"/> Outcome not met
4.1	<b>What certification is required for use of explosives?</b> <input type="checkbox"/> WorkSafeBC certified blaster on site with certificate on person <b>Assessment Instruction: S</b>		
	Assessment	<input type="checkbox"/> Outcome met	<input type="checkbox"/> Outcome not met
4.1	<b>What documentation is needed to transport explosives?</b> <input type="checkbox"/> Who to contact in an emergency <input type="checkbox"/> TDG certificate <input type="checkbox"/> Current vehicle safety inspection report <b>Assessment Instruction: S</b>		
	Assessment	<input type="checkbox"/> Outcome met	<input type="checkbox"/> Outcome not met
4.1	<b>What approved list do you need to be on to access a magazine?</b> <input type="checkbox"/> On approved list from Natural Resources Canada (NRCAN) <b>Assessment Instruction: S</b>		
	Assessment	<input type="checkbox"/> Outcome met	<input type="checkbox"/> Outcome not met

## 1167 – Describe Explosives for Blasting

Locator	Questions		
1.1	<b>What is critically important when setting up to use detonators and high explosives?</b>  <input type="checkbox"/> They are kept apart to the last most practical moment <b>Assessment Instruction: S</b>		
	Assessment	<input type="checkbox"/> Outcome met	<input type="checkbox"/> Outcome not met
2.1	<b>What is the significant advantage of a shock tube initiation system?</b>  <input type="checkbox"/> Provides for instantaneous initiation without need for electrical means <b>Assessment Instruction: S</b>		
	Assessment	<input type="checkbox"/> Outcome met	<input type="checkbox"/> Outcome not met
2.2	<b>What is good practice when using remote blasting machine in case of malfunction?</b>  <input type="checkbox"/> Shot shell primer with tube/alternative firing methods  <input type="checkbox"/> Tying a safety fuse and lighting <b>Assessment Instruction: S</b>		
	Assessment	<input type="checkbox"/> Outcome met	<input type="checkbox"/> Outcome not met

## 1089 – Describe and Operate Rock Drill

Locator	Questions	
1.1	<p><b>What are the types of drill used in road building?</b></p> <p><input type="checkbox"/> Pneumatic and hydraulic</p> <p><input type="checkbox"/> Excavator mounted</p> <p><input type="checkbox"/> Rubber tire mounted</p> <p><input type="checkbox"/> Air track</p> <p><input type="checkbox"/> Tank and hydraulic crawler</p> <p><input type="checkbox"/> Handheld hammer drill (plugger)</p> <p>Assessment Instruction: P – 4 from list</p>	
	Assessment	<div><input type="checkbox"/> Outcome met</div> <div><input type="checkbox"/> Outcome not met</div>

2.3	<b>What determines placement of drill holes?</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> Rock density or hardness</li> <li><input type="checkbox"/> Patterns</li> <li><input type="checkbox"/> Bit size</li> <li><input type="checkbox"/> Depth</li> <li><input type="checkbox"/> Presence of water</li> <li><input type="checkbox"/> Presence of seams</li> </ul> <p>Assessment Instruction: P – 3 from list</p>		
	Assessment	<input type="checkbox"/> Outcome met	<input type="checkbox"/> Outcome not met

### 1168 – Prepare for Blasting Activity

Locator	Questions		
1.2	<b>If a blasting site is short of explosives, who is authorized to go to the magazine and bring more back to the site?</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> Only someone who has security clearance - Possession and Acquisition License (PAL), Nexus, clearance letter</li> <li><input type="checkbox"/> TDG certification</li> </ul> <p>Assessment Instruction: S</p>		
	Assessment	<input type="checkbox"/> Outcome met	<input type="checkbox"/> Outcome not met
1.3	<b>What documentation must be filled out or kept in vehicle before leaving the storage site?</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> Pre-trip inspection of blasting vehicle</li> <li><input type="checkbox"/> TDG ticket on person</li> <li><input type="checkbox"/> Sign-out magazine inventory sheet</li> <li><input type="checkbox"/> TDG form in truck (transportation documents)</li> <li><input type="checkbox"/> Driver's license on person</li> </ul> <p>Assessment Instruction: P – 4 from list</p>		
	Assessment	<input type="checkbox"/> Outcome met	<input type="checkbox"/> Outcome not met

## 1169 – Blasting and Post Blasting Activity

Locator	Questions			
1.1	<p><b>What is required at a worksite to ensure security and safety of the explosives at all times?</b></p> <p><input type="checkbox"/> Only removed when required, in a locked day box when not being used</p> <p><input type="checkbox"/> Explosives are in view of competent individual at all times</p> <p><input type="checkbox"/> Detonators stored in crush proof container</p> <p>Assessment Instruction: S</p> <table border="1"> <tr> <td>Assessment</td><td><input type="checkbox"/> Outcome met</td><td><input type="checkbox"/> Outcome not met</td></tr> </table>	Assessment	<input type="checkbox"/> Outcome met	<input type="checkbox"/> Outcome not met
Assessment	<input type="checkbox"/> Outcome met	<input type="checkbox"/> Outcome not met		
4.1	<p><b>Under which circumstance is it acceptable to leave explosives unattended?</b></p> <p><input type="checkbox"/> Never</p> <p>Assessment Instruction: S</p> <table border="1"> <tr> <td>Assessment</td><td><input type="checkbox"/> Outcome met</td><td><input type="checkbox"/> Outcome not met</td></tr> </table>	Assessment	<input type="checkbox"/> Outcome met	<input type="checkbox"/> Outcome not met
Assessment	<input type="checkbox"/> Outcome met	<input type="checkbox"/> Outcome not met		
4.2	<p><b>What is critically important when you do not know the location of a misfire?</b></p> <p><input type="checkbox"/> Notify all workers that a misfire has occurred</p> <p><input type="checkbox"/> Unplug blasting machine</p> <p><input type="checkbox"/> Wait a minimum of 1 hour after smoke clears before proceeding or follow manufacturer's recommendations</p> <p><input type="checkbox"/> All wires will be carefully traced, and a search made for unexploded charges</p> <p>Assessment Instruction: S</p> <table border="1"> <tr> <td>Assessment</td><td><input type="checkbox"/> Outcome met</td><td><input type="checkbox"/> Outcome not met</td></tr> </table>	Assessment	<input type="checkbox"/> Outcome met	<input type="checkbox"/> Outcome not met
Assessment	<input type="checkbox"/> Outcome met	<input type="checkbox"/> Outcome not met		
4.3	<p><b>What must be done when transporting explosives back to storage?</b></p> <p><input type="checkbox"/> Update, revise or create new transportation documents</p> <p><input type="checkbox"/> Use approved placards</p> <p><input type="checkbox"/> Use correct packaging (back into correct box)</p> <p><input type="checkbox"/> Deal with used boxes or plastic bags (don't take back to mag site)</p> <p><input type="checkbox"/> Record explosives back into magazine logs</p> <p><input type="checkbox"/> Partial boxes must be marked</p> <p>Assessment Instruction: P – 6 from list</p> <table border="1"> <tr> <td>Assessment</td><td><input type="checkbox"/> Outcome met</td><td><input type="checkbox"/> Outcome not met</td></tr> </table>	Assessment	<input type="checkbox"/> Outcome met	<input type="checkbox"/> Outcome not met
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# Part 2 – Practical Assessment

General Instructions	
<p>To conduct the practical assessment, monitor the worker in a variety of situations to determine if they can consistently perform the skill components of their role in a safe and effective manner. Once confident that the worker can conduct the skills consistently, mark the outcome met. If the worker cannot consistently perform the skills required, add this component to the gap training plan.</p> <p>Remember not to distract the operator when conducting the practical assessment.</p>	
Training and Assessment Rubric	
<b>Outcome Not Met (ONM)</b>	<p><b>Skills:</b> Can complete the task but only with direct instruction and supervision, may lack consistency in application.</p> <p><b>Knowledge:</b> Does not understand what they are doing, or are not aware of a knowledge deficiency, or need guidance and support.</p> <p><b>Attributes:</b> Displays limited or no professional attributes including being fit for work, prepared for the day, working in an organized manner, achieving work outcomes, or lacks in consistency.</p>
<b>Outcome Met (OM)</b>	<p><b>Skills:</b> Consistently completes the task using safe work practices multiple times in a variety of contexts.</p> <p><b>Knowledge:</b> Has a solid grasp of underpinning knowledge, consistently applies it, and can explain it.</p> <p><b>Attributes:</b> Consistently displays professional attributes including being fit for work, prepared for the day, working in and organized manner and achieving work outcomes.</p>

A) PREPARE FOR THE DAY	OM	ONM	N/A
<b>Arrived on time</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Clothing for conditions</b> <ul style="list-style-type: none"> <li>Layered clothing appropriate to the elements for working and transport conditions</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Nutrition and water</b> <ul style="list-style-type: none"> <li>Adequate food for the day</li> <li>Sufficient hydration for work and weather conditions</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Fit for work</b> <ul style="list-style-type: none"> <li>Candidate is physically able to do the task</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Not noticeably impaired</b> <ul style="list-style-type: none"> <li>Candidate is not obviously physically or mentally impaired (by drugs, alcohol, personal situations, fatigue)</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Knows where ERP is located</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>B) PERSONAL PROTECTIVE EQUIPMENT</b> (where applicable)	<b>OM</b>	<b>ONM</b>	<b>N/A</b>
<b>Hard hat</b> <ul style="list-style-type: none"> <li>• CSA – less than 3 years old / ANSI – less than 5 years old</li> <li>• No dents/cracks, modifications</li> <li>• Suspension maintained (4-point min)</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Hi-Vis</b> <ul style="list-style-type: none"> <li>• Minimum 120 square inches front and back</li> <li>• Not faded, discoloured, torn or permanently dirty</li> <li>• Contrasts with the work environment</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Leg protection</b> <ul style="list-style-type: none"> <li>• Minimum 3600/4100 FPM rating</li> <li>• Kevlar not compromised or exposed</li> <li>• Pants maintained and repaired (no loose tears to outer layer)</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Face / Eye protection</b> <ul style="list-style-type: none"> <li>• Face screen free of holes</li> <li>• Moves freely between down and raised position</li> <li>• Safety glasses used when appropriate</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Footwear</b> <ul style="list-style-type: none"> <li>• Appropriate to the conditions</li> <li>• No caulks</li> <li>• Good condition including sole tread pattern</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>PPE inspected and maintained</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

C) TRANSPORT AND STORAGE OF EXPLOSIVES	OM	ONM	N/A
Pre-trip inspection of the blasting vehicle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Blasting ticket on person	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Warning system deactivated for movement of explosives (if applicable)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Placards on vehicle as required	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Explosives on vehicle in a fully enclosed, locked, fire-resistant container, compartment or day box that is:</b> <ul style="list-style-type: none"> <li>• Fixed within or secured to the vehicle to prevent detachment in the event of a rollover</li> <li>• Located above the vehicle deck in a manner that protects the container, compartment or day box from contact with roadside objects and drilling equipment,</li> <li>• Located so the contents are not endangered by any heat source</li> <li>• Locked when outside the worksite, and securely closed when on the worksite, except when opened for depositing or removing the contents of the container, compartment or day box</li> <li>• Attended by a competent person at all times when the container, compartment or day box contains explosives</li> <li>• Separate from the passenger compartment</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Powder load is maximum 80% of the GVWR not exceeding 20,000 kg of net explosive quantity</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Documentation</b> <ul style="list-style-type: none"> <li>• Updated magazine log</li> <li>• Completed TDG form in the truck</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>D) DRILLING PREPARATIONS</b>	<b>OM</b>	<b>ONM</b>	<b>N/A</b>
<b>Spare accessories in case of breakdown</b> <ul style="list-style-type: none"> <li>• Pipe wrench</li> <li>• Basic tools</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>If using air drill</b> <ul style="list-style-type: none"> <li>• Hoses</li> <li>• Hose clamps</li> <li>• Hoses tied up and in good condition</li> <li>• Safety whip in place and properly installed</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>If using hydraulic drill</b> <ul style="list-style-type: none"> <li>• Spare hydraulic fluid</li> <li>• Striker bar</li> <li>• Spare sharpened drill bits</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Clean and functional tools and equipment</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Efficient organization of work area</b> <ul style="list-style-type: none"> <li>• No tripping hazards</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Hazards identified – safe to access</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Signage in place that explains whistles</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Access is guarded – adequate number of people to guard</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>E) DEVELOP DRILLING PATTERN</b>	<b>OM</b>	<b>ONM</b>	<b>N/A</b>
<b>Examines rock characteristics</b> <ul style="list-style-type: none"> <li>• Hard or soft</li> <li>• Angle to rock</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Clear and precise drilling pattern</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Considers ground constraints</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>F) MARK DRILLING POINTS</b>	<b>OM</b>	<b>ONM</b>	<b>N/A</b>
<b>Follows established drilling pattern</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Correct direction of the mast in relation to the ground</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Uses exact measurements and data</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Correct use of measurement template</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>G) PREPARE THE DRILL FOR WORK</b>	<b>OM</b>	<b>ONM</b>	<b>N/A</b>
<b>Position drill correctly</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Correct direction of mast in relation to the ground</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Solid connections</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Correct drilling angle</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Ground constraints considered</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>H) USE THE DRILL</b>	<b>OM</b>	<b>ONM</b>	<b>N/A</b>
<b>Efficient use of drill</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Appropriate diameter and depth of holes being drilled</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Holes free of loose material</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Move drill according to predetermined accesses</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Communicates effectively with other workers</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Replaces broken or stuck rods safely</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>I) BLASTING PLAN</b>	<b>OM</b>	<b>ONM</b>	<b>N/A</b>
Contains procedures for identifying and addressing potential misfires	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Exposure controls	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Identifies any work activities or conditions at the workplace where there is a known or reasonably foreseeable risk to persons or property	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is completed before work begins on the relevant activity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is documented at the time of planning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Readily available to all workers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>J) ALSO DOCUMENTED</b>	<b>OM</b>	<b>ONM</b>	<b>N/A</b>
Type of rock	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If water in holes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Drill bit size	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper stemming	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Calculations for blast	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How to control the blast	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Possible hazards for next phase	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Delays (forestry)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>K) LOAD BLAST PREP</b>	<b>OM</b>	<b>ONM</b>	<b>N/A</b>
No smoking with 50 feet	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
No one there that is not part of the blast	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Explosives and detonators apart until last moment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Blaster has visual control of people involved	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Measures powder when putting in holes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Assess the burden – keeping control of the rock	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Correct:</b> <ul style="list-style-type: none"> <li>• Drill pattern</li> <li>• Direction of holes</li> <li>• Timing</li> <li>• Spacing</li> <li>• Collars</li> <li>• Stemming</li> <li>• Bit size</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Extra explosives picked up by approved personnel (where applicable)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>L) LOAD THE DRILL HOLES</b>	<b>OM</b>	<b>ONM</b>	<b>N/A</b>
Carefully handles explosives	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Clear and complete firing plan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Correct loading steps	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Follows direction of manufacturers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Checking circuits constantly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Compliant storage of surplus materials	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Completes blasting log	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>M) FIRE THE BLAST</b>	<b>OM</b>	<b>ONM</b>	<b>N/A</b>
Clear and precise communication (sounding whistles)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Clears blast zone of people and equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Signage in place that explains whistles Access is guarded – enough people to guard the site	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Listens before blast (aircraft and helicopters)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Careful handling of detonator	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>N) INSPECT THE BLAST AREA</b>	<b>OM</b>	<b>ONM</b>	<b>N/A</b>
Follows post-blasting procedures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Detection of explosives that have not exploded	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Looks for hazards including fly rock and limbs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Conducts post assessment of blast	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Checks blast area then: <ul style="list-style-type: none"> <li>• Signals on radio that it is clear</li> <li>• Or one long whistle – ‘do not enter’</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>O) RETURN EXPLOSIVES TO STORAGE</b>	<b>OM</b>	<b>ONM</b>	<b>N/A</b>
Vehicle with explosives in sight of qualified Blaster	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
New transport log or zero out existing log (reflect what is on the truck)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Powder back into the magazine log	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Uses new boxes (no reusing)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Put correct placards on	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Correct packaging	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Powder magazine kept clean	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>P) CONSISTENCY IN WORK</b>	<b>OM</b>	<b>ONM</b>	<b>N/A</b>
<b>Works in an organized manner</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Achieves outcomes while working safely</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>PPE used consistently as required</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Able to adjust plans as required</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Follows applicable OHS regulations throughout workday</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Meets blasting plan outcomes</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Consistent clear communication with other workers</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Conducts tasks in an ergonomically correct position to reduce MSI</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

This is the last page of the assessment.

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