

# Belly dump truck

RIIMPO336E Conduct belly dump truck operations



## Learner Workbook

## Marking Guide

(Formative assessment)

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Trainer's copy

### Knowledge areas

1. Plan and prepare for belly dump truck operations
2. Operate belly dump truck in line with established requirements
3. Load, haul and dump materials
4. Conduct housekeeping activities

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## Belly dump truck knowledge questions

Question	PC	Question and Answer
1-A	1.1	<p>(Q) What are some examples of documentation you need to read before doing earthmoving work?</p> <p>(A) Answer may include:</p> <ul style="list-style-type: none"> <li>• WHS Act/OHS Acts</li> <li>• Regulations</li> <li>• Codes of practice</li> <li>• Australian Standards</li> <li>• Manufacturer's specifications</li> <li>• Operator's manual for your machine</li> <li>• Site requirements and procedures.</li> </ul>
1-B	1.1	<p>(Q) Why should you check the operator's manual for your equipment before using it?</p> <p>(A) The operator's manual tells you how to operate your machine, and what the machine can do. The manual also tells you about maintenance (how to keep your machine operating correctly).</p>
1-C	1.2	<p>(Q) Where can you find the job's work instructions and what do they explain?</p> <p>(A) Ask your supervisor. Work instructions explain:</p> <ul style="list-style-type: none"> <li>• Where the job is</li> <li>• What the job is</li> <li>• How to do the job from start to finish</li> <li>• How long the job will take</li> <li>• What tools and equipment you need</li> <li>• What to do in unexpected situations like bad weather</li> <li>• How to do the job safely.</li> </ul>
1-D	1.2	<p>(Q) Before you start working on a new site, how do you get signed off by your supervisor so you can work?</p> <p>(A) You need to be familiar with the site, authorised and signed off by your supervisor. You can do this by:</p> <ul style="list-style-type: none"> <li>• Doing site training</li> <li>• Reading site plans</li> <li>• Driving around the site to get familiar with it.</li> </ul>
1-E	1.3	<p>(Q) What are some hazards you must look for before starting work?</p> <p>(A) Answer may include:</p> <ul style="list-style-type: none"> <li>• Uneven, unstable or unsafe ground</li> <li>• Other people</li> <li>• Other vehicles, machines or equipment</li> <li>• Powerlines</li> <li>• Trees</li> <li>• Overhead lines</li> <li>• Bridges</li> <li>• Buildings</li> <li>• Things that might get in your way (for example, tyres, wires, hoses, fences)</li> <li>• Dangerous materials (for example, chemicals, gasses, acids, explosives)</li> <li>• Underground services (for example, gas, water, electricity, phone lines)</li> <li>• Trenches</li> <li>• Dust</li> <li>• Noise.</li> </ul>

1-F	1.3	<p>(Q) What can you do to control traffic in and around a worksite?</p> <p>(A) Answer may include:</p> <ul style="list-style-type: none"> <li>• Close footpaths nearby</li> <li>• Close roads or one or two lanes of a road</li> <li>• Set up detours</li> <li>• Put up warning signs</li> <li>• Use flashing lights</li> <li>• Put up barricades or witches hats</li> <li>• Use a licensed traffic control person</li> </ul> <p>For many of these jobs you need a licensed traffic controller to help.</p>
1-G	1.3	<p>(Q) What could the site environmental management plan show? (list 2)</p> <p>(A) The plan may explain how to manage:</p> <ul style="list-style-type: none"> <li>• Oil spills</li> <li>• Vegetation retention or replacement</li> <li>• Noise management</li> <li>• Manage waste or spoil leaving the site.</li> </ul>
1-H	1.4	<p>(Q) What kinds of PPE might you wear when using a belly dump truck? Explain what you use the PPE for.</p> <p>(A) Answer may include:</p> <ul style="list-style-type: none"> <li>• Ear muffs – to protect your ears</li> <li>• Hard hat/helmet – to protect your head from falling objects</li> <li>• Gloves – to protect your hands</li> <li>• Non-slip boots that cover your whole foot. Some sites require steel-capped to protect your feet</li> <li>• Glasses/goggles – to protect your eyes</li> <li>• Sun screen to protect you from the sun's harmful rays</li> <li>• Safety vest/hi-visibility clothing – to show people where you are.</li> </ul>
1-I	1.5	<p>(Q) Where can you find information about the geology of your worksite? Geology covers things like ground conditions, faults and joints and surface compaction.</p> <p>(A) Your supervisor should have maps of the geology of the worksite. You should look at these maps before working. Your worksite may use software that checks the geology of the area.</p>
1-J	1.6	<p>(Q) Who might you work with or need to talk to on the job?</p> <p>(A) Answer may include:</p> <ul style="list-style-type: none"> <li>• Other plant operators</li> <li>• Maintenance people</li> <li>• Service vehicle operators</li> <li>• Crane operators</li> <li>• Contractors</li> <li>• Inspectors</li> <li>• Supervisors</li> <li>• The general public.</li> </ul>
1-K	1.6	<p>(Q) Why is it important to decide the order of operations on a worksite?</p> <ul style="list-style-type: none"> <li>• To make sure the work flows smoothly</li> <li>• To make sure operators do not get in the way of other machines</li> <li>• To make sure all operations are conducted in the correct order.</li> </ul>

2-A	2.1	<p>(Q) What are some pre-operational checks you do before using the belly dump truck?</p> <p>(A) Answer may include:</p> <ul style="list-style-type: none"> <li>• Look for water or oil under the machine</li> <li>• Check tyre condition, tyre pressure and wheel nuts</li> <li>• Check the fuel gauge to make sure the belly dump truck has enough fuel</li> <li>• Check hydraulic fluids</li> <li>• Check transmission oil</li> <li>• Check engine oil</li> <li>• Check power steering fluid</li> <li>• Check battery fluid level</li> <li>• Check engine coolant</li> <li>• Check air filter indicator</li> <li>• Check instruments and gauges</li> <li>• Check the cabin is clean and free of tools and mess</li> <li>• Check automatic greaser for grease (if fitted).</li> </ul>
2-B	2.1	<p>(Q) Where do you park the belly dump truck?</p> <p>(A) Park the belly dump truck on a firm, level surface.</p>
2-C	2.1	<p>(Q) When you shut down the belly dump truck, what do you do with the dump body?</p> <p>(A) You should:</p> <ul style="list-style-type: none"> <li>• Lower the dump body, or</li> <li>• If you leave the body raised, prop it up with safety bars so it won't fall.</li> </ul>
2-D	2.1	<p>(Q) What controls do you check to make sure you can stop the belly dump truck?</p> <p>(A) Test the brake functions, such as the braking control levers and retarder.</p>
2-E	2.3	<p>(Q) What is the correct way to enter or leave the machine cab?</p> <p>(A) Use the three points of contact. Keep 1 hand and 2 feet or 2 feet and 1 hand in contact with the machine at all time.</p>
2-F	2.3	<p>(Q) When you have finished the prestart checks, what checks do you make when you start the engine?</p> <p>(A) You should:</p> <ul style="list-style-type: none"> <li>• Check the warning lights and gauges for correct engine operation (such as oil pressure)</li> <li>• Check the area and machine is clear of people</li> <li>• Check hoist operation</li> <li>• Check parking brake operation</li> <li>• Check gear selector operation</li> <li>• Check communication equipment (if fitted).</li> </ul>
2-G	2.3	<p>(Q) What checks do you make when you first move the machine?</p> <p>(A) You should:</p> <ul style="list-style-type: none"> <li>• Check the brakes</li> <li>• Check the steering</li> <li>• Check the retarder</li> <li>• Check reversing alarm.</li> </ul>
2-H	2.3	<p>(Q) What does the retarder do?</p> <p>(A) The retarder helps you control the speed of the belly dump truck on slopes. You can use the retarder instead of the service brakes.</p>
2-I	2.3	<p>(Q) What is the risk of working near the edge of a trench or excavation? What should you do to protect yourself?</p> <p>(A) The belly dump truck could tip over and fall into the trench. The edge of the trench could collapse and cave in. Do not work near trenches. If the trench is 1 metre deep the belly dump truck should be at least 1 metre away.</p>
2-J	2.3	<p>(Q) Your truck is empty. Why do you have to give way to loaded trucks and machines?</p> <p>(A) Because you can stop and turn your empty truck more easily than scrapers and loaded trucks.</p>

2-K	2.3	(Q) Which way do you travel down a slope, across or straight down? (A) Travel straight down the slope. You might use the manual retarder to help control the speed of the belly dump truck. If you use the retarder you can use the brakes less.
2-L	2.3	(Q) What is the risk if the tyres slip on rock or shale? (A) The tyres might be damaged and the tread will wear more quickly.
2-M	2.3	(Q) How do you find out the limits and capacity of the belly dump truck? (A) Ask your employer, check the operator's manual and check the data and load plates inside the cabin.
2-N	2.4	(Q) What should you do if you hear the low brake pressure warning alarm? (A) Hold the red emergency brake lever/button down until the machine stops. Wait until the air pressure builds up.
2-O	2.4	(Q) What would you do if the air pressure does not build up? (A) Shut down the machine, tag the machine out of service, report the problem to the supervisor.
2-P	2.5	(Q) Before you reverse the belly dump truck what do you do? (A) Check behind you to make sure the path is clear. Beep the horn 3 times and wait 5 seconds before reversing.
2-Q	2.5	(Q) Can you take a passenger with you in the truck? (A) No, unless there is a seat and a seatbelt for the passenger and site rules allow passengers.
2-R	2.5	(Q) The work area looks dusty and noisy. What should you do to protect yourself? (A) Wear respiration gear such as a mask and wear ear protection such as ear muffs.
2-S	2.5	(Q) You need to make sure the machine is safe to use by the next person. What post-operational checks do you do after you've finished using the belly dump truck? (A) Check for: <ul style="list-style-type: none"> <li>• Leaks</li> <li>• Easy to see problems</li> <li>• Oil, fuel and water (once the truck has cooled down)</li> <li>• Tyre condition and pressure</li> <li>• Cab is clean.</li> </ul>
2-T	2.5	(Q) When do you refuel a machine and why? (A) At the end of the day to help prevent condensation building up in the tank.
3-A	3.1	(Q) Why is it important to position the belly dump truck in the correct position for loading? (A) So the loading equipment can load the belly dump truck as quickly as possible. It's also safer.
3-B	3.1	(Q) How do you know where to position the belly dump truck for loading by a front end loader? (A) The loader driver will advise you of the correct position to place the belly dump truck.
3-C	3.2	(Q) You are using a belly dump truck on a slope and hauling a load. Why should you avoid braking hard on the slope? (A) You could tip over or roll the belly dump truck.
3-D	3.3	(Q) How do you maintain the height of the dumped material when dumping a load? (A) The height is controlled by the opening size of the hatch and the ground speed of the truck during dumping.
3-E	3.3	(Q) What is the advantage of using a belly dump truck instead of a haul truck on road bases and banks? <ul style="list-style-type: none"> <li>• The load is spread more evenly</li> <li>• Faster turn around as the truck does not need to stop to dump the load.</li> </ul>

3-F	3.2	(Q) What kinds of loading equipment might you use to load a belly dump truck? (A) Trainers, use your expertise to decide if the answer is correct. Answer may include: <ul style="list-style-type: none"> <li>• Excavators</li> <li>• Loaders</li> <li>• Conveyor belts</li> <li>• Face shovels.</li> </ul>
3-G	3.3	(Q) Why should you stay in the belly dump truck's cabin while it's being loaded? (A) You must stay in the cabin so the person loading the truck knows where you are. If you stand outside the truck you could be hit and injured or killed.
3-H	3.2	(Q) What is the danger of driving on the side of a hill or trench? (A) You might tip over the belly dump truck. The edge of the trench could collapse and the truck might fall in.
3-I	3.2	(Q) What are some safety things to remember when operating a belly dump truck? (A) You need to know: <ul style="list-style-type: none"> <li>• Don't overload the truck (keep within the SWL/maximum capacity)</li> <li>• Know the height and width of the truck</li> <li>• Keep the truck away from areas where it could tip over</li> <li>• Don't dump a load while the truck is on a slope.</li> </ul>
4-F	4.1	(Q) Why should you clear the work area of loose rocks after you have finished the job? (A) To keep the area safe for other workers.
4-G	4.2	(Q) Why is it important to manage and/or report hazards after you have finished working? (A) To keep the area safe for others.
4-H	4.3	(Q) What are some of the records you might need to keep after you have finished work? (A) •How much fuel the truck used <ul style="list-style-type: none"> <li>• Computer readouts, for example, the hour meter</li> <li>• End of shift documents, for example, a checklist of post-operational checks</li> <li>• Which supplies you used and what might need to be replaced</li> <li>• Work logs – for example, record which work plan you were following</li> <li>• Quality requirements, to prove that you did the job properly</li> <li>• Where and when you used the truck</li> <li>• Record any faults in the logbook.</li> </ul>

### Further training needed:

Note: Formative assessment is designed to check on a learner's progress during the training period. Further training and experience may be needed if learner has not completed all tasks to a satisfactory level.

## Score for knowledge assessment

Knowledge Assessment		
Correct answers:	____ / ____	
Percentage:		
Result (circle):	Satisfactory <input type="checkbox"/>	Not satisfactory <input type="checkbox"/>

Assessor feedback:

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SAMPLE



## Practical Assessment



The assessor must be satisfied the candidate has successfully demonstrated each element and performance criteria contained in the Unit of Competency.

It is the assessor's responsibility to decide if the candidate has competently demonstrated a skill. The assessor may question a candidate further if their demonstration needs clarification.



## Practical assessment instructions



Practical assessment should be performed in a normal working environment where possible. However, under some circumstances may occur in a simulated work environment (refer to assessment conditions for further information).

The Assessor must:

- Clearly explain to the candidate what is expected of them
- Check that the candidate has been provided with the necessary tools and equipment
- Complete checklists as the candidate goes through the tasks
- Only question a candidate during a practical task if it is safe to do so
- Stop the assessment immediately if the candidate is doing something dangerous
- Stop the assessment immediately if the machine or objects are likely to be damaged
- Inform the candidate of the result of the assessment

If an assessor needs to stop the assessment because of danger or possible damage, the candidate must be marked as not yet competent. If the assessment is stopped, further training would need to take place before a re-assessment can be undertaken.

Tasks in the assessment do not have to be assessed in isolation they may be done as one continual task.

## Assessment Guidelines

This assessment is designed to be used with the learning materials developed by Easy Guides Australia. The assessor must be satisfied the applicant has successfully demonstrated each aspect of the Unit of Competency. The answers provided are model answers only. The written assessment determines the candidate's underpinning knowledge.

This assessment can be customised to suit your requirements. When customising this assessment, you must ensure all performance criteria and knowledge evidence are addressed to maintain the integrity of the assessment.

Reasonable adjustments to assessments should be made to accommodate candidates with special needs.

### Notes to Assessor:



Practical components of this assessment may be filmed using a mobile phone to record the practical assessment and note must be made of where the video file is stored.

## Introduction to practical tasks

Note: References to truck, haul truck or machine in this document means belly dump truck.

Welcome to the practical tasks of this pack. The practical tasks help you practise using the machine, and demonstrate your skills to your trainer/supervisor.

These tasks are mostly “hands-on” tasks. You’ll do these tasks on a real or simulated worksite and use real equipment.

A trainer, supervisor or qualified operator will guide you through each task. They will decide if you have successfully completed each task. Ask your trainer if you aren’t sure about something.

Good luck!



(PC 1.2)

In this part of the task you will follow work requirements and procedures and apply them to the job your trainer has given you. Some examples of work requirements and procedures are:

- Nature and scope of tasks
- How to get permits
- Hazards, possible hazards and controls
- Out of bounds areas
- Lighting conditions
- Product identification
- Achievement targets
- Operational conditions
- Site layout
- Worksite inspection requirements
- Plant or equipment defects
- Coordination requirements or issues
- Contamination control requirements
- Environmental control requirements
- Barricade and signage requirements

Your trainer will give you a briefing about the details of the job. The trainer will explain what the job is and where you will do it.

What permits might you need for the job? For example, a permit for working in a hazardous area.

.....

.....

## Hazardous Work Permit

Permit Number: \_\_\_\_\_

**WARNING**

**S02 Gas release immediately following siren.**

Operator's signature: \_\_\_\_\_

Supervisor's signature: \_\_\_\_\_

Location of works: \_\_\_\_\_

Nature of works: \_\_\_\_\_

**This permit is issued subject to all of the conditions listed on the rear of this form to the endorsement of the departments shown below**

Where are the "out of bounds" areas? Out of bounds areas are areas you can't go.

.....

.....

.....

Do you need to set up any extra lighting in the work area?

.....  
.....  
.....

Where do you need to set up barricades and signage on the site?

.....  
.....  
.....

(PC 1.3)

You may need to check codes of practice for your job. There is a sample of a code of practice on the next page. Examples of what it explains are:

- How to manage noise and prevent hearing damage
- Whose job it is to prevent hearing damage.

SAMPLE

## 1.1 Who has health and safety duties in relation to noise?

A **person conducting a business or undertaking** has the primary duty under the WHS Act to ensure, so far as is reasonably practicable, that workers and other persons are not exposed to health and safety risks arising from the business or undertaking.

A person conducting a business or undertaking has more specific obligations under the WHS Regulations to manage the risks of hearing loss associated with noise at the workplace, including:

- ensuring that the noise a worker is exposed to at the workplace does not exceed the exposure standard for noise
- providing audiometric testing to a worker who is frequently required to use personal hearing protectors to protect the worker from hearing loss associated with noise that exceeds the exposure standard.

**Designers, manufacturers, suppliers, importers and installers** of plant or structures that could be used for work must ensure, so far as is reasonably practicable, that the plant or structure is without risks to health and safety. Designers and manufacturers of plant must ensure the plant is designed and manufactured so that its noise emission is as low as reasonably practicable.

Designers, manufacturers, suppliers and importers must also provide information about the noise emission values of the plant and any conditions necessary for minimising the risk of hearing loss and other harm (see Chapter 7 of this Code).

**Officers**, such as company directors, have a duty to exercise due diligence to ensure that the business or undertaking complies with the WHS Act and Regulations. This includes taking reasonable steps to ensure that the business or undertaking has and uses appropriate resources and processes to eliminate or minimise risks that arise from noise.

**Workers** have a duty to take reasonable care for their own health and safety and that they do not adversely affect the health and safety of other persons. Workers must comply with any reasonable instruction and cooperate with any reasonable policy or procedure relating to health and safety at the workplace. For example, if personal hearing protectors are provided by the person conducting the business or undertaking, the worker must use them in accordance with the information, instruction and training provided on their use.

Does this code of practice apply to the job your trainer has given you?

.....

.....

What other codes of practice might apply to the job?

.....

.....

.....

How do they apply to the job?

.....

.....

.....

(PC 1.3)

Look at the sample picture of the worksite below. **Circle** the hazards on the picture. Use the picture as a guide and fill out the job safety analysis form (JSA). (You can find it at the end of this document).



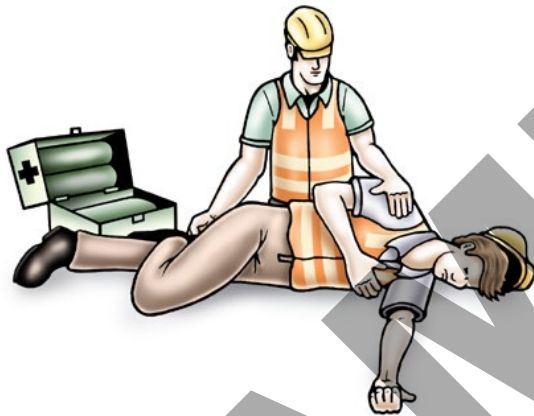
SALE

(PC 1.3 &amp; PC 2.6)

Think about the guidelines (rules) which are needed when using chemicals, fuels or hazardous materials. Please read the guidelines below, and then answer the questions:

**Here are some guidelines you might use if there is a chemical or fuel spill. Your site will have its own procedures (rules). Always follow the procedures from your worksite.**

1. Raise the alarm. Tell your supervisor and workmates. People may need to be evacuated from the area. Get a workmate to put up signs to warn people of the danger.
2. If someone is injured or there is a fire call 000 immediately.
3. If someone has had chemicals or fuels spilled on them you must help them straight away. You must remove any clothing that has been contaminated (had chemicals or fuel spilled on them). You must run water over the skin for at least 15 minutes. You must administer first aid if necessary.



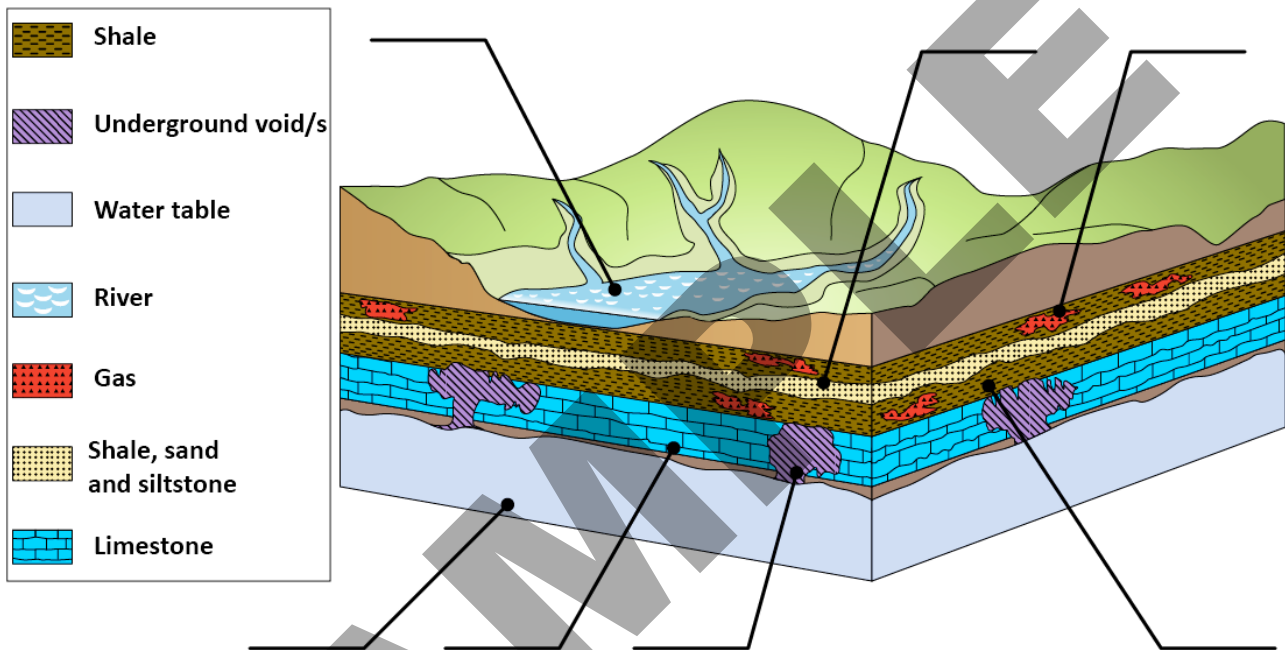
4. If the chemical or fuel is flammable (can easily catch fire) warn everyone. Get rid of anything in the area that could spark a fire.
5. Put on the right PPE to clean up the spill. Check the SDS or any other paperwork for how to do this correctly and safely.
6. The spill may create dangerous fumes. You may need respiration (breathing) equipment. If you haven't been trained how to use respiration equipment properly you might need to get someone who has. Never go into an area if you think there are dangerous fumes or gases.
7. Many chemicals or fuels can hurt the environment. You need to protect the environment from any dangers. You may need to use spill socks to stop the chemical or fuel flowing into drains and the environment. You may need to use an absorbent. An absorbent is something you put over the spill to help soak it up.
8. You must contain the spill and stop it from spreading. You should place the absorbent over the entire spill area. Work in a circle from the outside of the spill area to the inside. This



(PC 1.5)

In this part of the task you will look at geological maps. It's important to look at maps of your site so you know where the challenging or dangerous areas are. Look at the first geological map example shown below. Mark the location of everything listed below on the map.

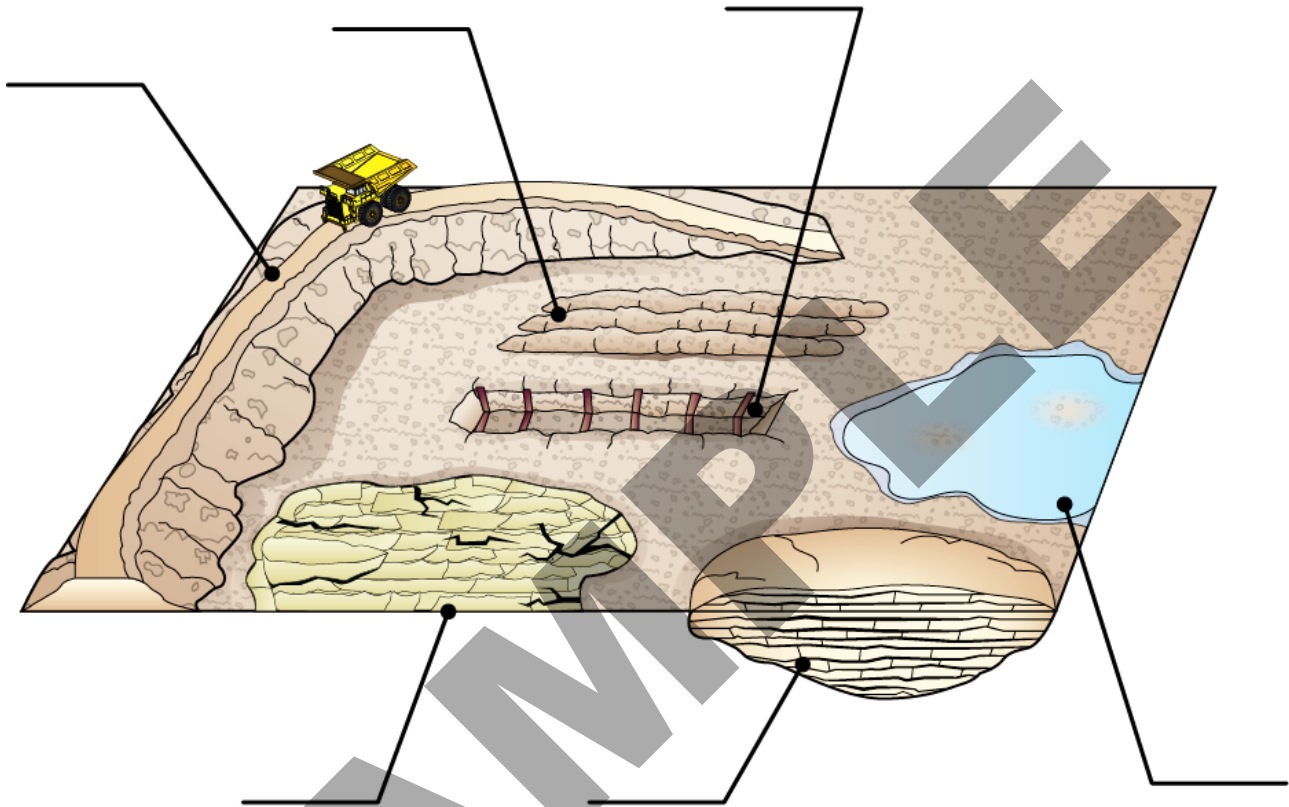
- a) Shale
- b) River
- c) Limestone
- d) Shale, sands and siltstones
- e) Gas
- f) Water table
- g) Underground void





Mark the location of everything listed below on the map.

- a) Pit/trench
- b) Embankment/windrow
- c) Broken ground
- d) Compacted area
- e) Ramp/grade
- f) Wet area (lake/pond)



(PC 1.6)

Communicating with other people and operators on the worksite is important.

Some worksites have specific procedures which must be followed.

Ask your trainer/supervisor for a copy of any procedures for your worksite.

Some common communication methods are normal voice, intercom systems, two way radio or hand and whistle signals. **(Mobile phones and two way radios may not be allowed on some sites due to incompatibility with explosives used).**

Explain some ways you can communicate with others on site.

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.....