



RESULT		ASSESSMENT CRITERIA									
COMPETENT	COACHING REQUIRED										
		<p>2. Why is it important to ensure the workplace is tidy and organised before commencing work?</p> <ul style="list-style-type: none"> - to remove hazards and minimise possible delays whilst coring and recording the desorption <p>3. Explain use of the mentor and identify checks to be carried out</p> <ul style="list-style-type: none"> - demonstrate percentage checks (percentage to be noted) Note: <table border="0"> <tr> <td>O₂</td> <td>19% low alarm</td> <td>23% high alarm</td> </tr> <tr> <td>CH₄</td> <td>alarm at 1%</td> <td></td> </tr> <tr> <td>CO</td> <td>alarm at 50ppm</td> <td></td> </tr> </table> <ul style="list-style-type: none"> - demonstrate operation of CH₄ and O₂ functions - ensure mentor is in correct position - 5m from face <p>4. What details would you expect from the drilling supervisor to allow you to correctly take a coal sample?</p> <ul style="list-style-type: none"> - location of drill rig - location of core barrel, desorber and bombs - depth samples to be taken relative to the face or a centreline - azimuth <p>5. Explain how to determine that the core barrel is full and stopped cutting</p> <ul style="list-style-type: none"> - the drill string will stop and the rotation will increase <p>6. What is the maximum time allowed to elapse between when the drill is stopped before coring and when the sample is connected to the desorber?</p> <ul style="list-style-type: none"> - one (1) hour 	O ₂	19% low alarm	23% high alarm	CH ₄	alarm at 1%		CO	alarm at 50ppm	
O ₂	19% low alarm	23% high alarm									
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		<p>7. Where is the depth of the sample measured from and how is this recorded on the sheet?</p> <ul style="list-style-type: none"> - face (last strap) or a centre line, with the aid of a diagram <p>8. Identify the form used to record the drilling record and desorption process</p> <ul style="list-style-type: none"> - Standard Form - QS-SGM-SF001 <p>A. PRE-OPERATION CHECKS</p> <p>9. Check the drill rig is setup at the correct location</p> <ul style="list-style-type: none"> - azimuth as prescribed in the engineer's details <p>10. Determine the depth of the hole and the number of rods required to progress the hole to the required depth to commence coring (CRITICAL)</p> <p>11. Check core barrel is serviceable</p> <ul style="list-style-type: none"> - core breaker free and pushed back - core barrel bit is sharp and not damaged - check components are seated and screwed together - check for good water flow <p>12. Set up desorber</p> <ul style="list-style-type: none"> - check that equipment is serviceable - fill cylinder with water and cover with beaker and invert. Fill beaker with water - make sure the end of desorption hose (inside inverted cylinder) is level with the outside water level in beaker (CRITICAL) <p>B. COMMENCE DRILLING</p> <p>13. Drill hole to prescribed details record drilling characteristics relevant to each rod</p>



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		<p>14. Stop drilling</p> <ul style="list-style-type: none"> - check that the drill string is stopped at the correct position relative to face or centreline - record time (using record sheet QS-SGM-SF001, using 24hour time (hours, minutes and seconds)) <p>15. Withdraw drill string</p> <ul style="list-style-type: none"> - check the end of the drill string is blanked off to prevent ingress of dirt - check that the observer is used where necessary to ensure drill string is safely withdrawn <p>16. Couple core barrel to drill string</p> <ul style="list-style-type: none"> - push rods back to the face of the hole - couple water supply to rods and allow water to flush to drill face <p>17. Start coring</p> <ul style="list-style-type: none"> - note time on appropriate form when rotation is applied and coring is commenced (CRITICAL) i.e. time core barrel begins cutting coal <p>18. Stop coring</p> <ul style="list-style-type: none"> - check progress of core barrel in the coal and note the time when the core barrel stopped cutting coal (CRITICAL) <p>19. Withdraw drill string</p>
		<p>20. Uncouple core barrel</p> <ul style="list-style-type: none"> - disassemble core barrel - transfer coal sample to 'bomb' - seal bomb to ensure there are no leaks - valve to remain open



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		<p>21. Connect sample to desorber and using the form (QS-SGM-SF001)</p> <ul style="list-style-type: none"> - note time sample is connected to desorber along side level in the graduate cylinder - observe the rate the gas is desorbed from the sample by accurately noting the change in volume and the times of the changes - record time at every 20ml level or change in volume - record a minimum of six (6) changed readings if gassy, then periodical readings - continue desorption for as long as possible - at least twenty (20) minutes. Record final reading - 'bomb closed' and time, disconnect the tube from bomb - no desorption after fifteen (15) minutes, turn off and check for leaks - seal cylinders at the end of the observation period by turning off the valve on the bombs and secure to transport <p>22. Complete report form - QS-SGM-SF001</p> <ul style="list-style-type: none"> - illustrate coring location - detail coring location, relative to a cut-through centre line - date and sign <p>23. Complete report form - QS-AGM-SF005</p> <ul style="list-style-type: none"> - end of shift coring details <p>24. Return core sample and data to supervisor</p> <p>25. Clean and oil disassembled core barrel, paying particular attention to INNER TUBE and CORE BREAKER</p> <p>26. Place core barrel on rig in a safe and secure place</p> <ul style="list-style-type: none"> - ensure air, water and power is isolated



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		<p>27. Operator maintenance and repair</p> <ul style="list-style-type: none"> - to be advised <p>28. Operator reporting</p> <ul style="list-style-type: none"> - report details to supervisor, on-coming operator and/or Control - record results in Shift Equipment Report Book



WHAT WE
BELIEVE
AT OUR
COLLIERY

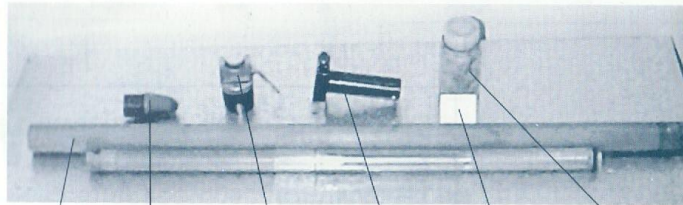
SAFETY

All injuries can
be prevented

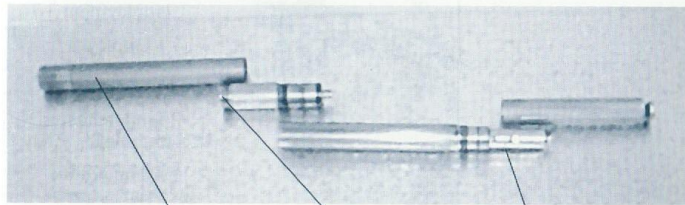


- Working safely is a condition of employment
 - Employee involvement is essential
- Management is accountable for safety
 - All operating exposures can be safeguarded
- Training employees to work safely is essential

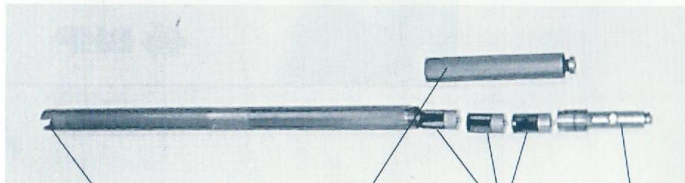




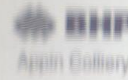
Camera Capsule Front Spear Point Developing Tank Film Dispenser Film Disk Envelope Developing Fluid



Angle Unit Camera Section Timer



Angle Unit - Camera Section Timer Cover Batteries Timer



**EMPLOYEE ASSESSMENT
ORAL AND PRACTICAL SKILLS**

**"OPERATE SINGLE - SHOT SURVEY TOOL"
ASSESSMENT GUIDE:**

ELEMENT OF COMPETENCE:	Conduct Single Shot Survey Tool Operation.
WORKPLACE ASSESSOR:	
WORKPLACE OPERATOR:	
PERFORMANCE:	Conduct Single Shot Survey Tool Operation
CONDITION:	GIVEN: <ul style="list-style-type: none"> • Correct Equipment • Personal Protective Equipment. (P.P.E.) • Engineer's Job Instruction • Mentor
STANDARD:	In accordance with Appin Colliery Standard Operating Procedures, Coal Mines Regulation Act, Occupational Health and Safety Procedures, and without injury to personnel or without damage to equipment.

RESULT		ASSESSMENT CRITERIA
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		ORAL (QUESTIONS) 1. List the equipment to be present before taking camera unit underground - single shot survey instrument - film loader - film developer case - film developer fluid - disc envelopes



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		<p>2. Explain use of the mentor and identify checks to be carried out</p> <ul style="list-style-type: none"> - demonstrate percentage checks (percentage to be noted) - Note: O₂ 19% low alarm 23% high alarm CH₄ alarm at 1% CO alarm at 50ppm - demonstrate operation of CH₄ and O₂ functions - ensure mentor is in correct position - 5m from face <p>3. Explain the procedure for checking battery condition and the camera unit prior to taking underground</p> <ul style="list-style-type: none"> - unscrew unit between angle unit and camera section to expose the bulbs - set switches on electronic timer to 'O' and press start button - bulbs should light for approx. 20 seconds - to set timer on mechanical timer, turn knob slowly from 0 to 30 mins. Bulbs will light up when timer passes between 15 - 20 mins. This indicates battery condition and triggers timer mechanism. Turn knob to desired time period. Allow three (3) mins. for developing time - if lights dull, contacts may need cleaning with steel wool to ensure maximum conductivity <p>4. Why is it important to use clean hands?</p> <ul style="list-style-type: none"> - to ensure electrical contacts are kept clean (CRITICAL) <p>PRACTICAL (DEMONSTRATION)</p> <p>5. Identify where the batteries are changed</p> <ul style="list-style-type: none"> - surface only (Mines Department Approval) CRITICAL <p>6. Prepare camera and conduit</p> <ul style="list-style-type: none"> - determine number of conduit lengths necessary to position camera



Surveying Conduit for pushing Camera up the hole to be surveyed



RESULT		ASSESSMENT CRITERIA
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		<ul style="list-style-type: none"> - couple conduit into one length - load film into loader - position film loader onto camera ensuring no light ingress - open slide and transfer film to camera - assemble survey tool and set timer (timer delay dependent on length of hole and environmental conditions) <p>7. Position camera to take shot</p> <ul style="list-style-type: none"> - place camera in camera capsule with the camera angle unit facing towards the end of the hole (CRITICAL) - position capsule in the hole at the desired position - the standard practice for holes being surveyed at the standpipe must be taken 4m in from the mouth of the hole <p>8. Allow the period to elapse</p> <ul style="list-style-type: none"> - two (2) minutes for standpipe orientation (4m in from hole collar) <p>9. Remove camera from hole and develop film</p> <ul style="list-style-type: none"> - remove camera from capsule or torpedo - set up developing case with developing solution - position camera onto developing case to ensure no light ingress - transfer film from camera to developing case - no light permitted (CRITICAL) - allow developing time - one (1) minute minimum - remove disk from developing case - over exposed - disk all black - under exposed - disk is clear (timer mal-function or flat batteries)



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		<p>10. Record film disk with survey position in disk envelope</p> <ul style="list-style-type: none"> - identify hole number - identify position in bore hole - record date - sign off envelope <p>11. Operator reporting</p> <ul style="list-style-type: none"> - report details to supervisor, on-coming operator and/or Control - record results in Shift Equipment Report Book

