

# SAFETY MANAGEMENT SYSTEM

## Plant and Equipment Risk Assessment

|                            |  |                   |                              |                     |                    |
|----------------------------|--|-------------------|------------------------------|---------------------|--------------------|
| <b>Equipment Location:</b> | <b>Hired From All Master Hire Stores</b> | <b>Equipment:</b> | <b>Core Drill - Electric</b> | <b>Approved By:</b> | <b>Steven Jose</b> |
|                            |  |                   |                              |                     | <b>Signature:</b>  |
|                            |  |                   | <b>Manufacturer Details</b>  | <b>Various</b>      |                    |

| Hazard  | Action Required Yes/No   | Risk Level (Refer to risk matrix) | Hierarchy of Control   | Hazard and Risk Treatment (Complete Hazard Report Form)  | Risk Level after Risk Treatment (Refer to risk matrix) |
|---|--|-----------------------------------|--|--|--|
| <b>Entanglement</b><br>Can anyone's hair, clothing, gloves, necktie, jewellery, cleaning brushes, rags or other materials become entangled with moving parts of the plant, or materials in motion?  | <input checked="" type="checkbox"/> Yes<br><input type="checkbox"/> No | HIGH                              | <input checked="" type="checkbox"/> Elimination<br><input type="checkbox"/> Substitution<br><input checked="" type="checkbox"/> Isolation<br><input type="checkbox"/> Engineering<br><input checked="" type="checkbox"/> Administration<br><input checked="" type="checkbox"/> PPE | <i>Follow manufacturers' instructions</i><br><i>Obey all warning decals</i><br><i>Do not lean or reach into work area with motor running</i><br><i>Do not do any servicing or maintenance with motor running</i><br><i>Wear appropriate PPE whilst operating this machine</i>  | MEDIUM   |
| <b>Crushing</b><br>Can anyone be crushed due to: <ul style="list-style-type: none"> <li>▪ Material falling off the plant?</li> <li>▪ Uncontrolled or unexpected movement of the plant or its load?</li> <li>▪ Lack of capacity for the plant to be slowed, stopped or immobilized?</li> <li>▪ The plant tipping or rolling over?</li> <li>▪ Parts of the plant collapsing?</li> <li>▪ Coming in contact with moving parts of the plant during testing, inspection, use, maintenance, cleaning or repair?</li> <li>▪ Being thrown off or under the plant?</li> <li>▪ Being trapped between the plant and materials or fixed structures?</li> <li>• Other factors?</li> </ul> | <input checked="" type="checkbox"/> Yes<br><input type="checkbox"/> No | HIGH                              | <input checked="" type="checkbox"/> Elimination<br><input type="checkbox"/> Substitution<br><input type="checkbox"/> Isolation<br><input type="checkbox"/> Engineering<br><input checked="" type="checkbox"/> Administration<br><input checked="" type="checkbox"/> PPE            | <i>Follow manufacturers' instructions</i><br><i>Obey all warning decals</i><br><i>Ensure both the machine and the operator are stable</i><br><i>Do not operate the machine unless all protective guards are in place</i><br><i>Keep hands and feet clear of rotating and moving parts as they will cause injury if contacted</i><br><i>Ensure that the motor operation switch is in the off position and lead is disconnected before removing guards or making adjustments</i> | MEDIUM   |
| <b>Cutting, Stabbing and Puncturing</b><br>Can anyone be cut, stabbed or punctured due to? <ul style="list-style-type: none"> <li>▪ Coming in contact with sharp or flying objects?</li> <li>▪ Coming in contact with moving parts of the plant during</li> </ul>   | <input checked="" type="checkbox"/> Yes<br><input type="checkbox"/> No | MEDIUM                            | <input type="checkbox"/> Elimination<br><input type="checkbox"/> Substitution<br><input checked="" type="checkbox"/> Isolation<br><input type="checkbox"/> Engineering<br><input checked="" type="checkbox"/> Administration   | <i>Follow manufacturers' instructions</i><br><i>Obey all warning decals</i><br><i>Do not lean or reach into work area</i>  | MEDIUM   |

## Plant and Equipment Risk Assessment

|  |  |               |   |   |            |
|--|--|---------------|---|---|------------|
| <p>testing, inspection, operation, maintenance, cleaning or repair of the plant?</p> <ul style="list-style-type: none"> <li>▪ Plant, parts of the plant or work pieces disintegrating?</li> <li>▪ Work pieces being ejected?</li> <li>▪ The mobility of the plant?</li> <li>▪ Uncontrolled or unexpected movement of the plant?</li> <li>▪ Other factors?</li> </ul> |  |               | <input checked="" type="checkbox"/> PPE   | <p><i>with motor running</i><br/> <i>Do not do any servicing or maintenance with motor running</i><br/> <i>Ensure all guards and fixtures are in place</i><br/> <i>Ensure machine is switched off before adjusting depth or changing core drill</i><br/> <i>Use the correct speed for size of core drill (refer to operator manual). Any increase/decrease may result in personal injury and damage to the machine or core</i><br/> <i>Only use a diamond impregnated core drill.</i><br/> <i>Ensure appropriate PPEs are used (e.g. protection for eyes, hearing and footwear)</i></p> |            |
| <b>Shearing</b>  |  |               |   |   |            |
| <p>Can anyone's body parts be:</p> <ul style="list-style-type: none"> <li>▪ Sheared between two or more parts of the plant, or between a part of the plant and a work piece or structure?</li> </ul>   | <input type="checkbox"/> Yes<br><input checked="" type="checkbox"/> No |               | <input type="checkbox"/> Elimination<br><input type="checkbox"/> Substitution<br><input type="checkbox"/> Isolation<br><input type="checkbox"/> Engineering<br><input type="checkbox"/> Administration<br><input type="checkbox"/> PPE                                  |   |            |
| <b>Friction</b>  |  |               |   |   |            |
| <p>Can anyone be burnt, gain abrasions etc. due to:</p> <ul style="list-style-type: none"> <li>▪ Contact with moving parts or surfaces of the plant, or material handled by the plant?</li> </ul>  | <input checked="" type="checkbox"/> Yes<br><input type="checkbox"/> No | <b>MEDIUM</b> | <input type="checkbox"/> Elimination<br><input type="checkbox"/> Substitution<br><input checked="" type="checkbox"/> Isolation<br><input type="checkbox"/> Engineering<br><input checked="" type="checkbox"/> Administration<br><input checked="" type="checkbox"/> PPE | <p><i>Follow manufacturers' instructions</i><br/> <i>Obey all warning decals</i><br/> <i>Do not lean or reach into work area with motor running</i><br/> <i>Do not do any servicing or maintenance with motor running</i><br/> <i>Allow motor and other components to completely stop &amp; cool before servicing</i></p>   | <b>LOW</b> |
| <b>Striking</b>  |  |               |   |   |            |
| <p>Can anyone be struck by moving objects due to:</p> <ul style="list-style-type: none"> <li>▪ Uncontrolled or unexpected movement of the plant or material handled by the plant?</li> <li>▪ Plant, parts of the plant or work pieces disintegrating?</li> <li>▪ Work pieces being ejected?</li> <li>▪ Mobility of the plant?</li> </ul>                             | <input checked="" type="checkbox"/> Yes<br><input type="checkbox"/> No | <b>MEDIUM</b> | <input checked="" type="checkbox"/> Elimination<br><input type="checkbox"/> Substitution<br><input type="checkbox"/> Isolation<br><input type="checkbox"/> Engineering<br><input checked="" type="checkbox"/> Administration<br><input checked="" type="checkbox"/> PPE | <p><i>Follow manufacturers' instructions</i><br/> <i>Obey all warning decals</i><br/> <i>The front, underneath and rear of the drilling area must be protected so that persons or equipment cannot be harmed or injured by falling parts or</i></p>   | <b>LOW</b> |

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|  |  |               |  |  |             |
|--|--|---------------|--|--|-------------|
| <ul style="list-style-type: none"> <li>▪ Other factors?</li> </ul>   |  |               |  | <p><i>drilling sludge.</i><br/> <i>Drilling cores must be secured against falling.</i><br/> <i>After mounting, check the anchoring of the drill motor. The drill motor must be securely fixed to the guide support.</i><br/> <i>Ensure appropriate PPE is worn when operating this machine</i></p>   |             |
| <b>High Pressure Fluid</b>   |  |               |  |  |             |
| <p>Can anyone come into contact with?</p> <ul style="list-style-type: none"> <li>▪ Fluids under high pressure in normal use, in the instance of plant failure?</li> </ul>  | <input type="checkbox"/> Yes<br><input checked="" type="checkbox"/> No |               | <input type="checkbox"/> Elimination<br><input type="checkbox"/> Substitution<br><input type="checkbox"/> Isolation<br><input type="checkbox"/> Engineering<br><input type="checkbox"/> Administration<br><input type="checkbox"/> PPE   |  |             |
| <b>Electrical</b>  |  |               |  |  |             |
| <p>Can anyone be injured by electrical shock or burnt due to:</p> <ul style="list-style-type: none"> <li>▪ The plant contacting live electrical conductors?</li> <li>▪ Plant working close to electrical conductors?</li> <li>▪ Overload of electrical circuits?</li> <li>▪ Damaged or poorly maintenance electrical leads or cables?</li> <li>▪ Damaged electrical switches?</li> <li>▪ Water near electrical equipment?</li> <li>▪ Lack of isolation procedures?</li> <li>▪ Other factors</li> </ul> | <input checked="" type="checkbox"/> Yes<br><input type="checkbox"/> No | <b>HIGH</b>   | <input checked="" type="checkbox"/> Elimination<br><input type="checkbox"/> Substitution<br><input checked="" type="checkbox"/> Isolation<br><input type="checkbox"/> Engineering<br><input checked="" type="checkbox"/> Administration<br><input checked="" type="checkbox"/> PPE | <p><i>Follow manufacturers' instructions</i><br/> <i>Obey all warning decals</i><br/> <i>Protective devices should only be removed when the device is turned off, disconnected from the mains and at a standstill. Covers in particular should only be removed and refitted by authorised personnel</i><br/> <i>Ensure that the material to be drilled/cut does not contain any "live" electrical cables, gas or water services</i><br/> <i>Always wear the appropriate PPE when operating this machine</i><br/> <i>Ensure electrical cabling is kept away from water and moisture</i></p> | <b>HIGH</b> |
| <b>Explosion</b>   |  |               |  |  |             |
| <p>Can anyone be injured by fuels such as gases, vapors, liquids, dusts or other substances being ignited triggered by the operation of the plant or by materials handled by the plant?</p>  | <input checked="" type="checkbox"/> Yes<br><input type="checkbox"/> No | <b>MEDIUM</b> | <input type="checkbox"/> Elimination<br><input type="checkbox"/> Substitution<br><input checked="" type="checkbox"/> Isolation<br><input type="checkbox"/> Engineering<br><input checked="" type="checkbox"/> Administration<br><input type="checkbox"/> PPE                       | <p><i>Follow manufacturers' instructions</i><br/> <i>Obey all warning decals</i><br/> <i>Remove all combustible and flammable material from work vicinity</i><br/> <i>Ensure air flow</i></p>  | <b>LOW</b>  |
| <b>Slipping, Tripping and Falling</b>  |  |               |  |  |             |
| <p>Can anyone using the plant, or in the vicinity of the plant, slip, trip or fall due to:</p>   | <input checked="" type="checkbox"/> Yes<br><input type="checkbox"/> No | <b>MEDIUM</b> | <input type="checkbox"/> Elimination<br><input type="checkbox"/> Substitution<br><input type="checkbox"/> Isolation  | <p><i>Follow manufacturers' instructions</i><br/> <i>Obey all warning decals</i></p>   | <b>LOW</b>  |

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|   |  |               |   |   |            |
|---|--|---------------|---|---|------------|
| <ul style="list-style-type: none"> <li>▪ Uneven or slippery work surfaces?</li> <li>▪ Poor housekeeping, such as shavings in the vicinity of the plant, spillage not cleaned up?</li> <li>▪ Obstacles being placed in the vicinity of the plant?</li> <li>▪ Other factors?</li> </ul> |  |               | <input checked="" type="checkbox"/> Engineering<br><input checked="" type="checkbox"/> Administration<br><input checked="" type="checkbox"/> PPE  | <p><i>Wear appropriate footwear</i></p> <p><i>Keep work area clean and clear of obstructions</i></p> <p><i>The sludge resulting from drilling is very slippery. Suitable steps must be taken (removal or cordoning off) so that persons do not slip and injure themselves.</i></p> <p><i>Remove excess water using wet/dry vacuum cleaner and/or mop</i></p> <p><i>Display warning signs if pedestrian needs to share area and have spotter</i></p> |            |
| <b>High Temperature</b>   |  |               |   |   |            |
| Can anyone: <ul style="list-style-type: none"> <li>▪ Come into contact with objects at high temperature?</li> <li>▪ Come into contact with hot fluids?</li> <li>▪ Be injured by fire?</li> </ul>  | <input type="checkbox"/> Yes<br><input checked="" type="checkbox"/> No |               | <input type="checkbox"/> Elimination<br><input type="checkbox"/> Substitution<br><input checked="" type="checkbox"/> Isolation<br><input type="checkbox"/> Engineering<br><input checked="" type="checkbox"/> Administration<br><input checked="" type="checkbox"/> PPE |   |            |
| <b>Temperature and Thermal Comfort</b>  |  |               |   |   |            |
| Can anyone suffer ill-health due to: <ul style="list-style-type: none"> <li>▪ Exposure to high or low temperatures?</li> <li>▪ Failure of air conditioning equipment?</li> </ul>  | <input type="checkbox"/> Yes<br><input checked="" type="checkbox"/> No |               | <input type="checkbox"/> Elimination<br><input type="checkbox"/> Substitution<br><input type="checkbox"/> Isolation<br><input type="checkbox"/> Engineering<br><input type="checkbox"/> Administration<br><input type="checkbox"/> PPE                                  |   |            |
| <b>Suffocation</b>  |  |               |   |   |            |
| Can anyone be suffocated due to: <ul style="list-style-type: none"> <li>▪ Lack of oxygen, or atmospheric contamination?</li> </ul>  | <input checked="" type="checkbox"/> Yes<br><input type="checkbox"/> No | <b>MEDIUM</b> | <input checked="" type="checkbox"/> Elimination<br><input type="checkbox"/> Substitution<br><input type="checkbox"/> Isolation<br><input type="checkbox"/> Engineering<br><input checked="" type="checkbox"/> Administration<br><input type="checkbox"/> PPE            | <p><i>Follow manufacturers' instructions</i></p> <p><i>Obey all warning decals</i></p> <p><i>Ensure adequate ventilation in sealed-off areas.</i></p> <p><i>Position and operate in well ventilated areas only</i></p>  | <b>LOW</b> |

|  |  |               |   |   |            |
|--|--|---------------|---|---|------------|
| <b>Ergonomics</b>  |  |               |   |   |            |
| Can anyone be injured due to: <ul style="list-style-type: none"> <li>▪ Poorly designed seating?</li> <li>▪ Repetitive body movements?</li> <li>▪ Constrained body posture or the need for excessive effort?</li> <li>▪ Design deficiency causing physical or personal stress?</li> <li>▪ Inadequate or poorly placed lighting?</li> <li>▪ Lack of consideration given to human error or human behavior?</li> <li>▪ Mismatch of the plant with human traits and natural limitations?</li> <li>▪ Other factors?</li> </ul> | <input checked="" type="checkbox"/> Yes<br><input type="checkbox"/> No | <b>LOW</b>    | <input checked="" type="checkbox"/> Elimination<br><input type="checkbox"/> Substitution<br><input type="checkbox"/> Isolation<br><input checked="" type="checkbox"/> Engineering<br><input checked="" type="checkbox"/> Administration<br><input type="checkbox"/> PPE | <i>Follow manufacturers' instructions</i><br><i>Obey all warning decals</i><br><i>Take regular breaks/rests</i><br><i>Exercise/stretch regularly</i><br><i>Do not operate beyond your personal capabilities</i><br><i>Observe and use proper manual handling techniques</i>   | <b>LOW</b> |
| <b>Transportation</b>  |  |               |   |   |            |
| Can anyone be injured by this equipment falling or driven off vehicle or trailer while loading, unloading or transportation?   | <input checked="" type="checkbox"/> Yes<br><input type="checkbox"/> No | <b>MEDIUM</b> | <input type="checkbox"/> Elimination<br><input type="checkbox"/> Substitution<br><input type="checkbox"/> Isolation<br><input checked="" type="checkbox"/> Engineering<br><input checked="" type="checkbox"/> Administration<br><input checked="" type="checkbox"/> PPE | <i>Follow manufacturers' instructions</i><br><i>Obey all warning decals</i><br><i>Ensure equipment, attachments and sundry items are securely tied down</i><br><i>Always wear the appropriate PPE when operating this machine</i>   | <b>LOW</b> |
| <b>Operational</b>   |  |               |   |   |            |
| Can anyone be injured by this equipment  | <input checked="" type="checkbox"/> Yes<br><input type="checkbox"/> No | <b>MEDIUM</b> | <input type="checkbox"/> Elimination<br><input type="checkbox"/> Substitution<br><input type="checkbox"/> Isolation<br><input checked="" type="checkbox"/> Engineering<br><input checked="" type="checkbox"/> Administration<br><input checked="" type="checkbox"/> PPE | <i>Follow manufacturers' instructions</i><br><i>Obey all warning decals</i><br><i>Ensure equipment is on stable ground and clear of obstructions</i><br><i>Ensure adequate ventilation</i><br><i>Ensure all safety guards and fixtures are in place</i><br><i>Ensure power and switch switched off before making any adjusts</i><br><i>Ensure hold-to-run controls provided for machine are working properly</i><br><i>Ensure handles and other adjustable parts are set right for the operator</i><br><i>Ensure appropriate PPEs are used (e.g. protection for eyes, hearing and footwear)</i> | <b>LOW</b> |

|  |  |            |  |  |
|--|--|------------|--|--|
| <b>Other Hazards</b>   |  |            |  |  |
| Can anyone be injured or suffer ill-health from exposure to: <ul style="list-style-type: none"> <li>• Chemicals?</li> <li>• Toxic gases or vapors?</li> <li>• Fumes?</li> <li>• Dust?</li> <li>• Noise?</li> <li>• Vibration?</li> <li>• Radiation?</li> <li>• Other Factors?</li> </ul> | <input checked="" type="checkbox"/> Yes<br><input type="checkbox"/> No   | <b>LOW</b> | <input checked="" type="checkbox"/> Elimination<br><input type="checkbox"/> Substitution<br><input type="checkbox"/> Isolation<br><input checked="" type="checkbox"/> Engineering<br><input checked="" type="checkbox"/> Administration<br><input checked="" type="checkbox"/> PPE | <i>Follow manufacturers' instructions</i><br><i>Obey all warning decals</i><br><i>Operate in well-ventilated areas only</i><br><i>Check for utilities (gas, water, electrical) in the drill zone BEFORE operation</i><br><i>Ensure equipment is appropriately labeled and meet the relevant State Legislative requirements</i><br><i>Maintain equipment in good working order - report any malfunction or damage to Master Hire immediately and stop using equipment where it is reasonable to foresee further risk to persons or damage to equipment</i><br><i>Always wear the appropriate PPE whilst operating this machine – this includes safety hat, safety gloves, shoes, hearing and respiratory protection</i> |
| <b>Further Comments:</b>   | <b>A Specific Risk Assessment on site must be undertaken prior to plant operation?</b>   |            |  |  |
|  | <b>This equipment must only be driven/operated by competent persons and holders of the appropriate license</b>   |            |  |  |
|  |  |            |  |  |
|  |  |            |  |  |
| <b>Checklist:</b>  | <input checked="" type="checkbox"/> <i>Manufacturers' manuals referenced</i><br><input checked="" type="checkbox"/> <i>Copy kept in Master Hires' Risk Management File</i> |            |  |  |

### Hazard / Risk Matrix

Reference: Workplace Health and Safety Queensland - Risk Assessment - Supplement 2  
Risk Management Code of Practice 2007

**Step 1 Determine Likelihood – What is the possibility of the event happening?**

|                       | Criteria                                    | Description  |
|-----------------------|---|--|
| <b>Almost certain</b> | Expected in most circumstances.             | Event is a common problem  |
| <b>Likely</b>         | Will probably occur in most circumstances.  | Event is known to have occurred at this site or it has happened              |
| <b>Possible</b>       | Might occur at some time                    | Event could occur at the site or I've heard of it happening                  |
| <b>Unlikely</b>       | Could occur at some time                    | Event is not likely to occur at the site or I have not heard of it happening |
| <b>Rare</b>           | May occur only in exceptional circumstances | Event is practically impossible.   |

**Step 2 Determine Consequence - What will be the result if it happens?**

| Classification       | Example detail description                                   |
|----------------------|--|
| <b>Insignificant</b> | No injuries  |
| <b>Minor</b>         | First aid treatment only; spillage contained at site.        |
| <b>Moderate</b>      | Medical treatment; spillage contained but with outside help. |
| <b>Major</b>         | Extensive injuries; loss of production                       |
| <b>Catastrophic</b>  | Death; toxic release of chemicals                            |

**Step 3 Determine the risk score**

| LIKELIHOOD            | CONSEQUENCE   |          |          |         |              |
|-----------------------|---------------|----------|----------|---------|--------------|
|                       | Insignificant | Minor    | Moderate | Major   | Catastrophic |
| <b>Almost certain</b> | 3 High        | 3 High   | 4 Acute  | 4 Acute | 4 Acute      |
| <b>Likely</b>         | 2 Medium      | 3 High   | 3 High   | 4 Acute | 4 Acute      |
| <b>Possible</b>       | 1 Low         | 2 Medium | 3 High   | 4 Acute | 4 Acute      |
| <b>Unlikely</b>       | 1 Low         | 1 Low    | 2 Medium | 3 High  | 4 Acute      |
| <b>Rare</b>           | 1 Low         | 1 Low    | 2 Medium | 3 High  | 3 High       |

**Step 4 Record risk score against the job sequence steps**

(Note – Risk scores have no absolute value and should only be used for comparison and to engender discussion.)

| Score                  | Action   |
|------------------------|--|
| <b>4<br/>A: Acute</b>  | <b>ACT NOW – Urgent – do something about the risks immediately. Requires immediate attention.</b>              |
| <b>3<br/>H: High</b>   | <b>Highest management decision is required urgently.</b>   |
| <b>2<br/>M: Medium</b> | <b>Follow management instructions.</b>   |
| <b>1<br/>L: Low</b>    | <b>OK for now. Record and review if any equipment/ people/ materials/ work processes or procedures change.</b> |