



Government
_____ of _____
Saskatchewan

Advisory Statement

- Although I have taken reasonable care, I do not provide any guarantee or assurances that the provided information is accurate or correct.
- It is your responsibility to consult or review the appropriate legislation and applicable rules to ensure compliance.
- Information contained herein is used at your own risk.



Legislation/Regulation

- **Mineral Resources Act**
- **Energy and Mines Act**
- **Oil and Gas Conservation Act**
 - **Oil and Gas Conservation Regulations**



Well Completion



Disposal/Injection Well (New Drill) - Wellbore Schematic

<p>Other Information</p> <p>KB Elevation <input type="text"/> m</p> <p>Ground Elevation <input type="text"/> m</p> <p>Specify Lithology Below as:</p> <p>Sandstone <input type="checkbox"/></p> <p>Limestone <input type="checkbox"/></p> <p>Dolomite <input type="checkbox"/></p> <p>Shale <input type="checkbox"/></p> <p>Other - specify <input type="text"/></p> <p>Upper Confining Formation</p> <p>Name <input type="text"/></p> <p>Top <input type="text"/> mKB</p> <p>Lithology <input type="text"/></p> <p>Disposal/Injection Formation</p> <p>Name <input type="text"/></p> <p>Top <input type="text"/> mKB</p> <p>Lithology <input type="text"/></p> <p>Oil/Water Interface <input type="text"/> mKB</p> <p>Lower Confining Formation</p> <p>Name <input type="text"/></p> <p>Top <input type="text"/> mKB</p> <p>Lithology <input type="text"/></p>		<p>Surface Casing</p> <p>Size <input type="text"/> mm</p> <p>Weight <input type="text"/> kg/m</p> <p>Grade <input type="text"/></p> <p>Depth <input type="text"/> mKB</p> <p>Cement Returns <input type="text"/> m³</p> <p>Production Casing</p> <p>Size <input type="text"/> mm</p> <p>Weight <input type="text"/> kg/m</p> <p>Grade <input type="text"/></p> <p>Depth <input type="text"/> mKB</p> <p>Cement Returns <input type="text"/> m³</p> <p>Tubing</p> <p>Size <input type="text"/> mm</p> <p>Weight <input type="text"/> kg/m</p> <p>Grade <input type="text"/></p> <p>Depth <input type="text"/> mKB</p> <p>Injection Packer <input type="text"/> mKB</p> <p>Proposed Perforations <input type="text"/> mKB</p> <p>PBTD <input type="text"/> mKB</p> <p>TD <input type="text"/> mKB</p>
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Surface Casing

- API Specifications
- Minimum Depth
 - 20 metres below glacial drift
 - 10% of TD
 - 75 Metres
- Cemented in place with cement circulated to the top of the hole
- Allowed to set under pressure



Production Casing

- API Standard
- Cement allowed to set under pressure for 24 hrs and pressure tested before perforating
- Porous zones must be isolated/cemented

- Annulus
 - Open to the atmosphere



Injection/Disposal Wells

- Compatibility of disposal/injection fluids with the reservoir fluids and the rock matrix
- Should not form precipitates and change permeability or change the rock properties
- Internal and external corrosion protection including inhibited fluid in the tubing/production casing annulus
- Cased hole logs
- Annual testing



Well Abandonment

- Dry Hole Abandonment
 - Prior approval of abandonment program
 - Isolation of porous zones
 - Heavy mud-laden fluid between plugs
- Cased Hole Abandonment – Outside Pool
 - Mechanical bridge plug with cement plug
- Cased Hole Abandonment – Inside Pool
 - Retainer above perforations
 - Cement squeeze into perforations



Long Term Liability

- A licensee may receive an acknowledgement of reclamation, but
- *The issuance of an acknowledgement of reclamation does not relieve an operator licensee or working interest participant of the licensee's, operator's or working interest participant's past, present or future environmental liability associated with the well or facility*





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