

Chapter 10 Well Activity: Production and Injection Disposal

10. Well Activity: Production and Injection Disposal

Permit holders must complete metering and testing requirements and submit data as part of ongoing production stage. This section describes the requirements and procedures for each well type including water source, oil, gas and injection/disposal well.

Please Note:

This manual is written as a whole and provided to industry in sections to allow permit holders to access activity chapters. It is prudent of the permit holder to review the manual in its entirety and be aware of the content in other sections of the manual.

10.1 Notice of Commencement of Operations

New completion events must be reported to the Regulator through the [eSubmission Portal](#). These events must be reported in order for the corresponding well event to populate in Petrinex. Completion events must be reporting where the following operations occurred at a well:

- Testing operations at a well prior to its being tied into a gas gathering system.
- Initial commencement of production.
- Initial commencement of injection or disposal.
- Suspension of production.
- Suspension of injection or disposal.
- Resumption of production.
- Resumption of injection or disposal.

A separate completion event must be reported for each well or completed zone within a well.

10.2 Concurrent Production

Concurrent production is the controlled, simultaneous production of an oil accumulation and its associated gas cap. Concurrent production may typically be approved for “gassy” oil pools, without defined gas cap wells, where the producing gas-oil ratio significantly exceeds the solution gas-oil ratio. Concurrent production requires a Special Project order under Section 75 of the [Energy Resource Activities Act](#). Refer to the Regulator’s [Concurrent Production Application Guideline](#) for further information on application process and requirements.

10.3 Reservoir Pressure Survey Test Reports

Section 73 [Drilling and Production Regulation](#) defines the requirements for obtaining static bottom hole reservoir pressure measurements. All static bottom hole pressures must be reported to the Regulator within 60 days after the date on which the pressures were measured. Refer to the Regulator’s [Well Data Submission Requirements Manual](#) and [Well Testing and Reporting Requirements](#) document for further information.

Under Section 4(1)(z) of the [Drilling and Production Regulation](#), the Regulator may grant a well operator exemption from initial or annual pool pressure testing requirements. See the Regulator’s [Application Guideline for Exemption of Initial or Annual Pool Pressure Testing Requirements](#) document for more information.

10.4 Oil Well

Sections 54 through 62, 69 and 71 of the [Drilling and Production Regulation](#) provide regulatory requirements for production from oil wells.

Oil Production Analysis

Section 62 of the [Drilling and Production Regulation](#) - Well Data Submission within six months of initial production date, a crude oil sample from each producing formation must be taken and analyzed. Results of component analysis must be submitted to the [eSubmission portal](#) within 60 days of test/sampling.

Overproduction of Oil Reporting

Section 61 of the [Drilling and Production Regulation](#) references overproduction of oil reporting requirements and the Regulator’s [Production Allowable Report Instructions and Examples](#) provides instruction on calculation and reporting methodology, with examples.

Pressure Maintenance and Improved Recovery

Water, natural gas or a fluid such as CO₂ may be injected into an oil pool to achieve higher oil recovery than by primary depletion. Prior to these operations being carried out, a waterflood, gas injection or enhanced oil recovery (EOR) project approval must be issued by the Regulator as a Special Project under Section 75 of the [Energy Resource Activities Act](#). Refer to the Regulator's [Pressure Maintenance or Improved Recovery Project Application Guideline](#) for further information on application process and requirements.

Additional operational requirements for water injection well service can be found in the [Water Service Well Summary Information](#).

10.5 Gas Well

Sections 63 through 67, 70 and 71 of the [Drilling and Production Regulation](#) provide regulatory requirements for production from gas wells.

Gas Production Analysis

Section 67 of the [Drilling and Production Regulation](#) - Within six months of initial production date, a natural gas sample must be taken and analyzed from each producing formation. Results of the component analysis must be submitted within 60 days of test/sampling to the [eSubmission portal](#).

Overproduction of Gas Reporting

Section 66 of the [Drilling and Production Regulation](#) references overproduction of gas reporting requirements and the Regulator's [Annual Gas Allowable Form](#) is used for reporting.

10.6 Water Source Well

Production from a water source well must be carried out in accordance with Section 72 of the [Drilling and Production Regulation](#). In addition, the Regulator's [Supplementary Information for Water Source Wells](#) details requirements for meeting the expectations of Section 72.

10.7 Injection Disposal Well

There are several waste streams associated with oil and gas production and processing. These include saline produced water, hydraulic fracturing flowback water as well as acid gas (H₂S and CO₂). An effective and efficient method of managing these waste streams is to re-inject them into depleted hydrocarbon reservoirs or deep saline aquifers.

The Regulator maintains several documents that provide information related to disposal well operations.

Refer to the following Regulator documents for description of operational requirements:

- [Acid Gas Disposal Well Application Guideline](#).
- [Acid Gas Disposal Well Summary Document](#).
- [Application Guideline for Deep Well Disposal of Produced Water / Non-Hazardous Waste](#).
- [Water Service Well Summary Information](#).

While operating injection or disposal wells, permit holders must submit an Injection/Disposal statement to the [eSubmission portal](#) no later than 25 days after the end of month in which the activity occurred.