# Initiating a New Carbon Capture Well Licence Application



Intended User: Carbon capture licence applicants

# Overview

This quick reference guide (QRG) describes how to initiate a well licence application, **specifically the sections** related to carbon capture and sequestration activities.

For detailed instructions on completing the general steps in a well licence application, watch "New Well Licence Application" video located on the AER website: Systems & Tools > OneStop > <u>OneStop Help</u> > Guides for Well Licences.

# Initiate New Application

- 1. Log in to OneStop and begin on the main landing page.
- 2. Click Initiate in the top navigation bar. Select New Application.



The General - Contact Information page opens.

# **General - Contact Information**

- 1. Complete the mandatory fields (marked with an **asterisk**\*) in the Applicant section (**Name**, **Company Name**, **Phone**, **Email**). Some fields may already be autocompleted based on your login credentials.
  - a) Complete the Consultant section as needed.
- Click Validate. Validate Click Save (lower right of screen). Save
  Click Next to go to General Application Information page. Next >

## **General - Application Information**

- 4. Select Yes or No to indicate whether this application will be added to an existing project.
- Yes No

a) If No, enter the project name in the Project Name field.

This application will be added to an existing project *	Yes No	
Project Name *	Project XX	

b) If Yes, click Search, search for the existing project, and add it to this application.



5. Select Yes or No to indicate whether there are existing authorizations to link to this application.



a) If **Yes**, add the existing authorizations in the table that appears.

ik to this applica	tion *		
ſ			
Remove			
		Accet Tume	Liconcoo Approval Uoldov
	Remove	Remove	Remove

- b) If No, proceed to the next step.
- 6. Click **Save** Click **Next** to go to General Proposed Activity page.

## General - Proposed Activity

7. In the Proposed Activity section, select the **land type** and **specific activities (Wells)**.

Proposed Activity	
This activity is located on $\star$ ()	Public Land Freehold
This application is for the following activities	Pipelines Wells Facilities
<b>Tip</b> Hover over any information ico	on for more information about a requirement.
Sed Activity Public Land - Provincial Crown Land administered under the Public Lands Act for the use of land in respect of energy resource activities. Freehold- Any land in Alberta not administered under the Public Land Kat including public land administered under other Acts or agreements. This activity is located on * O Public Land Freehold	

8. For the associated activity, select Oil and Gas.

	This application is associat	ed with *	Mining	In Situ	Oil and Gas	Transmissi	
Course -	Course -						No.

# **General - Additional Information**

10. Select **Yes** or **No** for each mandatory requirement listed in this section. Depending on your selection, more details will be needed.

There are outstanding concerns related to a applicatio	this Yes No
This activity requires an EPEA approv	al * Yes No
Application/Approval Num	ber

# Wells - Overview

1. Complete the following sections: **Upload Shapefile**, **Public Land Approval**, and **Survey Plan**. Well Location Attributes and Surface Rights sections will autocomplete using data from the submitted shapefile.

Тір
For detailed instructions on submitting shapefiles, see <i>Importing Digital Spatial Data into OneStop</i> QRG located on the AER website OneStop Help > Guides for Well Licences.

2. Click Save. Click Next to go to Wells – Wells Details page.

### Wells – Wells Details

Some sections of the Wells Details page are autocompleted using data from the submitted shapefile.

Note: Greyed-out fields cannot be manually changed.

- 3. Complete the mandatory fields marked with an **asterisk**\*.
  - Type of Drilling Operation
  - Bottomhole Location
  - Proposed bottomhole location is within a road allowance
  - Depth Information (Surface Casing Depth, Projected Total Depth, True Vertical Depth)
  - Mineral Rights
  - Terminating Formation Name

**Note:** Directive 056, section 7.7.6, states: "For the purpose of well licensing, the terminating formation is defined as the deepest formation in which the well will terminate and which the applicant has the right to produce for all intended purposes of the well.

The applicant may drill to a maximum overhole depth of 15 m below the base of the terminating formation. This overhole depth is permitted to accommodate logging tools and casing.

The applicant must not identify any formations within the 15 m overhole as the terminating formation on a well licence application unless the applicant holds the mineral rights.

The applicant must have the permission of the mineral rights holder, whether Crown or Freehold owner or lessee, to exceed the 15 m maximum overhole depth."

Surface Location *	14	12	73	7	w 4	М	Type of Drilling Oper	ation * Vertical
Bottomhole Location *	14	12	73	7	w 4	М	Proposed bottomhole within a road al	location is lowance * Yes No
Well Name *				12-73-7			G	enerate Well Name
Submitted Surface Coordinates and Elevation *	N/S Distanc	e (m)	N/S	Designation outh of No	orth	E/W Distance (m) 706.0	E/W Designation East of West	Ground Elevation (m 719.0
Licensed Surface Coordinates *	N/S Distanc 249.3	:e (m)	N/S	Designation outh		E/W Distance (m) 706.0	E/W Designation East	
	Surface l	Latitude				Surface Longitude	2	
Surface Location (NAD83 ATS 4.1) *	55.31	13197				-110.943997		
	Surface	Casing D	epth			Projected Total De	epth	True Vertical Depth
						820		820
Depth Information (m) *	720							
Depth Information (m) *	720 Mineral							
Depth Information (m) * Rights *	720 Mineral Albe	rta Cro	own		~			

#### Wells - Licence Details

#### Тір

4.

For Purpose and Classification sections, see *Manual 012: Energy Development Applications Procedures and Schedules*, table 8 and *Directive 056: Energy Development Applications and Schedules*, section 7.7.7. <u>Manuals</u> and <u>directives</u> are located on the AER website.

- 5. In the Participant Involvement Requirements section, select Yes or No: Requirements have been met.
  - a) If No, click Attach. Locate the required file(s) from your computer and attach them.

Participant Involvement Requirements	
Requirements have been met *	Yes No
Attach all required information *	Attach

,.....

- b) If Yes, proceed to the next step.
- 6. Enter the distance (km) to the nearest surface development.

Distance to nearest surface development (km) \* 25

7. Select Yes or No to request a two-year licence term.



a) If Yes, the 2 Year Licence Commitment message will appear. Click I Agree.

2 Year Licence Commitment		
Participant involvement notifications will be updated and comp activities. The survey information must be validated to ensure of	pleted prior to details are up	o construction o to date.
	I Agree	I Disagree

- b) If **No**, proceed to the next step.
- 8. In the Purpose section, select the **well type** from the drop-down menu for the following scenarios:
  - Injection: For wells injecting carbon dioxide (CO2) to enhance oil recovery or for CO2 storage
  - Disposal: For wells intended to dispose of CO2 under a carbon sequestration agreement
  - **Disposal (CCS)**: For wells evaluating subsurface reservoir properties under a sequestration evaluation agreement intended to be used as future CO2 disposal wells once a sequestration agreement is granted

Injection	~
Disposal	
Disposal (CCS)	
Domestic	
Evaluation	
Experimental	
Geothermal Closed-Loop In-Multi	
Geothermal Closed-Loop Out-Multi	
Geothermal Closed-Loop Single	
Geothermal Observation	
Geothermal Open-Loop Injection	
Geothermal Open-Loop Production	
Geothermal Other	
Injection	

9. Select the substance(s) from the drop-down menu.

Substance *	
	~
Carbon Dioxide	
Gas	
LPG	
Water	

10. Select the **formation(s)** from the drop-down menu. It is critical to select formation(s) that match the tenure agreement.

#### Important

Review your Alberta Energy and Minerals tenure agreement to ensure you are licensing the well based on the authorization that has been obtained.

Example: If the agreement specifies pore space in the Basal Sandstone Unit, only evaluate the pore space in the Basal Sandston Unit. If you do not have the correct rights for the formation(s) entered here, Alberta Energy and Minerals will flag it. You may be notified for noncompliance and have your well licence cancelled.

Basal Sandstone Unit	~
Alexo Fm	
Arcs Mbr	
Badheart Fm	
Bakken Fm	
Baldonnel Fm	
Banff Fm	
Barons Sd	
Basal Belly River Sd	
Basal Blairmore	
Basal Colorado Sd	
Basal Gething	
Basal Mannville	
Basal Quartz Sd	
Basal Red Beds	
Basal Sandstone Unit	

Note: The Governing Legislation field will autocomplete based on your well type, and substance selections.

Governing Legislation Section 2.020 of the Oil and Gas Conservation Rules

11. In the Classification section, select the **AER classification** from the drop-down menu.

AER Classification *	Development Service	~
Confidential Status *	Confidential	~

Note: Only wells drilled under a sequestration evaluation agreement may be confidential.

- 12. Select Yes or No: Drill cutting samples are required to be taken.
- Yes No
  - a) If Yes, more information will be needed. Provide those requirements in the appropriate sections.

## Example:

Drill cutting samples will be provided as follows * Add Remove	Samples will be collected and submitted as required *	Yes No	
🗌 Interval (m) ‡ 🖲	Drill cutting samples will be provided as follows *	Add Remo	ve
			Interval (m) ‡ 0

### Тір

Watch "Drill Cutting" video for help in completing this requirement. The video is located on the AER website OneStop Help > Guides for Well Licences. Refer to *Directive 056* for drill cutting requirements.

b) If No, proceed to the next step.

Next >

13. Select Yes or No to indicate meeting the requirements outlined in the following sections: Minerals Rights, Surface Impact, Additional Information, and Operational Disclosure.



- c) Based on your "Yes" or "No" response to meeting requirements, more information may be needed. Provide those requirements in the appropriate sections.
- 14. Click **Save**. Click **Next** to go to Wells Working Interest Participants page.

#### Well – Working Interest Participants (WIP)

## Tip

Watch "Wells Working Interest Participants (WIP)" video for help in completing this section. The video is located on the AER website OneStop Help > Guides for Well Licences.

The Working Interest Participants table autocompletes with parties who are participants in the application.

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15. To add new participants, click **Add**. Search for business associate(s) and add them to the table. The interest total must equal 100%.

vorking i	nterest Participants		
Filter <mark>b</mark> y.			
Add	Remove		
Add			
Add			
	Business Associate Code ≑	Company Name 🌻	
	Business Associate Code 🗘	Company Name 🗘 CANADIAN	

16. Click **Save**. Click **Next** to go to Wells – H2S Information page.

# Wells – H<sub>2</sub>S Information

Тір	
Watch "H2S Information Well Application" video for help in completing this section AER website > OneStop Help > Guides for Well Licences.	on. The video is located on the
	Yes No

Next >

- 17. Select Yes or No: Wells included in this activity are expected to encounter H<sub>2</sub>S.
  - d) If No, the Well Category field auto completes. Proceed to Step 2.

Well Catego	ry	B140	)
Wells included in this activity are expected to encount $\mathrm{H_2S}$	er *	Yes	No

e) If **Yes**, more information is needed. New sections appear: Potential H2S Release Rate by Formation, Cumulative H2S Release Rate, and Emergency Planning. **Complete these sections**.

Note: Grey-out fields will be auto completed based on the information entered in the form.

f) Click Save. Save Click Next to go to the Confirmation Page. Next >

Details on the Confirmation page indicate how validations/rules have been applied to the application and whether a baseline or additional review outcome is triggered.

18. You may close your application and return to it later or submit the application.