

Remediation Certificate Application for Upstream Oil and Gas Sites



1.0 SITE IDENTIFICATION

Site Name:									
Land type:	☐ Private	☐ Special Area	☐ Crown, specify disposition number if applicable _____						
County/M.D/I.D./S.A:									
Legal Land Location of the source: <i>(required)</i> .									
Plan	Block	Lot	Provide Plan, Block Lot OR Alberta Township	Quarter	LSD	Section	Township	Range	Meridian
			System						

2.0 APPLICANT

Company:	Contact Person:
File Number:	Position Held:
Mailing Address:	Phone Number:
E-mail Address:	Fax Number:

3.0 CONSULTANT

☐ Not Applicable –proceed to section 4.0	
Company:	Contact Person:
Mailing Address:	Position Held:
	Phone Number:
E-mail Address:	Fax Number:

4.0 LANDOWNER(S)¹

Landowner (s):	☐ Same as applicant –proceed to section 5.0	
If registered landowner(s) is/are different than applicant:		
Name:	Name:	Name:
Mailing Address:	Mailing Address:	Mailing Address:
Phone:	Phone:	Phone:

¹ Attach copies of all current registered owners' certificates of land titles for all land that is the subject of this application. If the land is administered by the Special Area Board, attach a Special Areas Search. Land administered under the Public Lands Act does not require a search, provide disposition numbers.

5.0 OCCUPANCY

Occupant(s): ☐ Yes ☐ No

Occupant
Contact Info: _____

6.0 ACTIVITY – Upstream Oil and Gas Facility

☐ Prepared Wellsite (Not drilled) ☐ Drilled & Abandoned Wellsite ☐ Oil Wellsite ☐ Oil Production Site, Satellite, or Flow line ☐ Sweet Gas Wellsite ☐ Sour Gas Wellsite
☐ Disposal Well ☐ Battery ☐ Other AER Facility (specify): _____

AER Authorization No.(s)²: _____ AER File Number: _____

Associated facilities (e.g. access road, remote sump, campsite):

Current operation status:

☐ Operating ☐ Suspended ☐ Abandoned ☐ Reclaimed ☐ Reclamation Certificate No.: _____

7.0 SUBSTANCE SUMMARY

7.1 Substance Release Summary

Date of substance³(s) release (dd-mmm-year):
(If release date unknown, indicate date of discovery)

Provide a description of the activity that
resulted in the release of the substance(s):

What was the volume of the release, if known?

What regulatory agencies were contacted? (reference and attach any reports submitted)

AER Incident Number(s): _____ ESRD Incident Number(s):⁴ _____

7.2 Substances of Concern – check all types that apply

☐ General and Inorganic Parameters	☐ Metals
☐ Hydrocarbons	☐ Salts
☐ Chlorinated Aromatics	☐ Pesticides
☐ Other Organics	☐ Radionuclides
☐ Halogenated Aliphatics	☐ Other Substances (specify): _____

² Alberta Energy Regulator.

³ In this instance 'substance' means a substance that has been remediated to meet the requirements of *Alberta Tier 1 Soil and Groundwater Remediation Guidelines* (2007, as amended) and is the subject of an application.

⁴ Environment and Sustainable Resource Development.

8.0 SITE CHARACTERIZATION AND REMEDIATION GUIDELINE SELECTION

8.1 Onsite Characterization

What is the existing land use or zoning as defined in Alberta Tier 1?

☐ Natural ☐ Agricultural ☐ Residential ☐ Commercial ☐ Industrial

Is there a proposed future land use that is different from the existing land use? ☐ Yes ☐ No

If "Yes", what is the end or future land use/ zoning?

☐ Natural ☐ Agricultural ☐ Residential ☐ Commercial ☐ Industrial

List potential exposure pathways onsite (refer to Alberta Tier 1 for potential pathways for a given land use)

☐ Human Direct Soil Contact	☐ Plants and Soil Invertebrates Direct Soil Contact
☐ Drinking Water	☐ Aquatic Life
☐ Inhalation of Volatiles	☐ Irrigation
☐ Livestock/Wildlife Soil and Food Ingestion	☐ Livestock/Wildlife Watering
☐ Nutrient and Energy Cycling for Microbes	☐ Other (specify) _____

Is the remediated area within 30 metres of a more sensitive land use? ☐ Yes ☐ No

If 'Yes', was the criteria of the more sensitive land use applied to a portion of the remediated area? ☐ Yes ☐ No

Dominant soil texture type at site: ☐ Coarse ☐ Fine

8.2 Offsite⁵ Information

Were offsite soil or groundwater criteria exceeded prior to remediation? ☐ Yes ☐ No – proceed to section 8.3

Legal Land Location of the off-site area affected by the substance(s):

Plan	Block	Lot	Provide Plan, Block Lot OR Alberta Township System	Quarter	LSD	Section	Township	Range	Meridian

Names of the registered landowner(s) of the off-site impacted land (if applicable):

Name:	Name:	Name:
Mailing Address:	Mailing Address:	Mailing Address:
Phone:	Phone:	Phone:

List potential exposure pathways offsite (refer to Alberta Tier 1 for potential pathways for a given land use).⁶

- | | |
|---|--|
| ☐ Human Direct Soil Contact | ☐ Plants and Soil Invertebrates Direct Soil Contact |
| ☐ Drinking Water | ☐ Aquatic Life |
| ☐ Inhalation of Volatiles | ☐ Irrigation |
| ☐ Livestock/Wildlife Soil and Food Ingestion | ☐ Livestock/Wildlife Watering |
| ☐ Nutrient and Energy Cycling for Microbes | ☐ Other (<i>specify</i>) _____ |

Is the remediated area within 30 metres of a more sensitive land use? ☐ Yes ☐ No

If 'Yes', was the criteria of the more sensitive land use applied to a portion of the remediated area? ☐ Yes ☐ No

Dominant soil texture type at site: ☐ Coarse ☐ Fine

⁵ In this instance, "offsite" is defined as beyond the lease boundary where the release of substance occurred.

⁶ A number of exposure pathways are mandatory and are ineligible for exclusion at Tier 2 regardless of whether they are operative. Their exclusion would lead to a requirement for land and/or water use restrictions. Exposure pathways not eligible for exclusion include direct human contact, soil contact for plants and invertebrates, and others. Refer to *Alberta Tier 2 Soil and Groundwater Remediation Guidelines, 2007, as amended* for information on exposure pathway exclusion.

8.3 Receptors and Preferential Pathways

Identify what remediation criteria were used: -check all that apply

☐ Tier 1
 ☐ Tier 2 - Pathways and Receptor Exclusions
 ☐ Tier 2 - Guideline Adjustments
 ☐ Tier 2 - Site Specific Risk Assessment (SSRA)

If Tier 2 was selected, complete the following table for affected exposure pathways:

Pathway	Exclusion	Adjustment	SSRA	Substances (refer to section 7.2 for categories)
Indoor Vapour Inhalation	☐	☐	☐	
Protection of Groundwater for Potable Water Use	☐	☐	☐	
Protection of Groundwater for Livestock Watering	☐	☐	☐	
Protection of Groundwater for Irrigation	☐	☐	☐	
Protection of Groundwater for Wildlife Watering	☐	☐	☐	
Protection of Groundwater for Freshwater Aquatic Life	☐	☐	☐	
Other: _____	-	-	☐	

Ensure all the locations of the following are clearly identified on reference figures (link to the map list in Appendix A)

Number of surface water bodies located within 300 metres down-gradient or 100 m up-gradient of the remediated area. ⁷		Reference figure(s):	
Number of buried utility corridor(s) onsite, or adjacent to the land, where the release was located.		Reference figure(s):	

Does the site have any conditions that require the mandatory use of *Alberta Tier 2 Soil and Groundwater Remediation Guidelines (2008)*, as amended? ☐ Yes ☐ No

If "Yes", identify the conditions that require the Alberta Tier 2 approach:

- | | | |
|--|--|--|
| ☐ Contamination within 30 cm of building foundation | ☐ Unusual building feature (e.g. earthen floor) | ☐ Contamination within 10 m of a surface water body |
| ☐ Contamination in fractured bedrock | ☐ High hydraulic conductivity (>10 ⁻⁵ m/s) | ☐ Other (see Alberta Tier 1 guidelines and specify) |

Identify the exposure pathway requiring a Tier 2 approach:

⁷Distance is to be measured from the leading edge of the remediated area.

8.4 Groundwater Pathway Assessment

Were Alberta Tier 2 remediation guidelines used for the site assessment? ☐ Yes – Complete the ALL of section 8.4 ☐ No – Proceed to Section 9.0	
Was groundwater investigated for contamination?	☐ Yes ☐ No
Was the base of the remediated zone above the groundwater table?	☐ Yes ☐ No
Is there a hydraulic barrier ⁸ as defined in the Alberta Tier 2 guidelines, between the base of the contaminated area and a potential DUA? (for organic, degradable substances only)	☐ Yes ☐ No
Are any of the potentially impacted water bearing formations considered domestic use aquifers (DUAs) as defined in the Alberta Tier 2 guidelines?	☐ Yes ☐ No
Is the aquifer in the remediated zone suitable for irrigation or livestock watering?	☐ Yes ☐ No
Is the remediated zone below the depth of a typical excavation for a dugout?	☐ Yes ☐ No
Provide the largest measured value of the thickness of massive, undisturbed, unfractured fine-grained material between the base of the remediated zone and the top of a potential DUA.	_____ m (must be greater than 5 m)
Provide the highest measured value of hydraulic conductivity.	_____ m/s
Provide the number of hydraulic conductivity measurements.	_____ (at least 3 separate sampling locations)
Provide the measured hydraulic gradient.	_____
Provide the calculated Darcy velocity of groundwater.	_____ m/s

⁸ “Hydraulic barrier” is defined in Alberta Tier 2 guidelines as being greater than 5 metres thick **and** having a hydraulic conductivity (K) less than 1.0×10^{-7} m/s.

9.0 REMEDIATION

9.1 Remediated Substances

List all individual substances in the release that exceeded Alberta Tier 1 or Tier 2 guidelines. (If there is a substance that is not in the Alberta Tier 1 guidelines, provide concentrations prior to remediation):

[illegible]

9.2 Remediation Process

What date was remediation of the substance(s) started? (dd-mmm-yyyy)				
What date was the remediation of the substance(s) completed? (dd-mmm-yyyy)				
What remediation method(s) was used to treat the release?				
Was any soil treated on site?			☐ Yes	☐ No
Was any groundwater treated on site?			☐ Yes	☐ No
Was any contaminated soil or water removed from the site?			☐ Yes	☐ No
If yes, complete the following table for any soil or water taken to a waste management facility.				
Waste Management Facility ⁹			Amount of contaminated material submitted to waste management facility	
Name	Location	Type	Soil (tonnes)	Water (m ³)

⁹ Contaminated soil and/or groundwater must be disposed at an authorized waste management facility. Attach a summary or list of waste manifests for disposed soil and/or groundwater.

If waste was treated in a land treatment area, provide ERCB approval number (if applicable): _____	
Was any soil imported to the remediated area during remediation activities? If 'YES', attach information including source, volume and analytical results demonstrating that the replacement soil was not contaminated. <i>Not providing this information will result in refusal of the application.</i>	☐ Yes ☐ No

9.3 Confirmation of Remediation	
Was confirmatory sampling conducted once remediation was completed?	☐ Yes – Submit analytical results with remediation report to show remediation success ☐ No
Has the entire release been remediated to applicable criteria?	☐ Yes ☐ No

10.0 REMEDIATION CERTIFICATE INFORMATION	
Total area of land remediated (m²):	
Depth to top of remediated zone: (metres below ground surface)	
Depth to base of remediated zone: (metres below ground surface)	
Number of remediation certificates on the same site:	
List remediation certificate numbers, and the date(s) issued:	

11.0 REQUIRED ATTACHMENTS

The Applicant must submit all of the following:

a)	The <i>Application for a Remediation Certificate</i> form and Appendix A. - Section 12.0 must be signed by a member of a professional regulatory organization; and, - Section 13.0 must be signed by the Applicant.
b)	A survey plan* with references to legal land boundaries, showing the remediated area outlined in yellow for which the certificate is being requested. This map shall include sufficient coordinates to delineate the remediated area for which the certificate is being requested, and its proximity to existing permanent structures. - It is preferred that coordinates be reported using surveyed coordinates, however, global positioning system (GPS) coordinates in NAD83 values will also be accepted. - The detail of the map must be sufficient to show the relationship of the site to the immediate surrounding area. - The map must be submitted separately (not as part of a report), and printable on letter or legal paper.
c)	A description* and figure* showing the extent and depth of the substance(s) on the land where the remediated area is located prior to the remediation of the substance(s), showing whether the substance(s) was present within or outside the remediated area.
d)	A diagram* , including cross-sections, showing the top of remediation and the base of remediation within the remediated area.
e)	A current copy of the Alberta Registries Land Title Certificate* for all lands where the remediated area is located, or, a copy of a Special Areas searches* . If applicable, provide the Public Lands Disposition No.
f)	A list of reports* including all Phase 1 environmental site assessment reports, detailed Phase 2 environmental site assessment reports and Remediation report(s), provided in Appendix A. Copies of the reports must be electronically submitted to the AER if not previously submitted or requested.
g)	Ensure the Remediation report: - Describes the methods used to determine the nature and extent of the substance or substances prior to remediation. - Describes the methods used for soil and/or groundwater sampling, and sample analysis. - Contains a copy of the borehole logs. - Contains a copy of the analytical results of any samples taken from the remediated area before, during and after remediation.
h)	A summary or list of the waste manifest(s)* for any soil or water disposed at a waste management facility during remediation.
i)	A copy of the laboratory analytical results* confirming that any soil imported to the remediated area meets applicable criteria.
j)	A copy of the Subsoil Salinity Tool report* , if Alberta Tier 2 guideline adjustments requiring use of the Subsoil Salinity Tool were used to assess the site remediation.

*** Required attachments.** Please list and reference all required attachments in tables in Appendix A.

12.0 ENVIRONMENTAL PROFESSIONAL DECLARATION

Professional Declaration for Remediation Certificate Applications

1. This Declaration is made in conjunction with an application for a remediation certificate (the "Application") made by _____ (name of Applicant) for the following land(s): _____ (insert legal land description)
2. I am a practicing professional member of the _____, which is a regulated professional organization (the "Professional Organization"). I have a minimum of five years verifiable experience in remediation or reclamation relevant to the Competencies Table contained in the *Competencies for Remediation and Reclamation Advisory Committee's Recommendations Report* (AENV 2006).
3. As a member of the Professional Organization, I have the ability to sign off on remediation certificate applications as defined by Alberta Environment and am authorized by the Applicant to prepare and/or submit the attached report(s) or document(s), listed in Appendix A (the "Professional Reports").
4. To the best of my knowledge and the best of my professional ability, recognizing the standard of care expected of a reasonable professional doing this work, it is my professional opinion that all the information contained in the Professional Report(s) is accurate and complete, and contains all the relevant information for the purposes of this Application.
5. The results reported in the Professional Report(s) are consistent with all current and applicable Provincial criteria, standards and guidelines for remediation or reclamation.
6. The Professional Report(s), including all attachments, data and supplemental information, was prepared by me, or under my direct supervision, or was prepared by a third party(ies) and has been reviewed and accepted by me; and was prepared in accordance with an appropriate quality assurance/quality control system that ensured qualified personnel properly gathered and evaluated all the information contained in and underlying the Professional Reports. All the information submitted is, to the best of my knowledge, true, accurate and complete.
7. I carry, or my employer _____ carries, professional liability insurance (errors and omissions). This insurance will be maintained for the specified liability period.
8. I am aware that it is an offence under section 227 of the *Environmental Protection and Enhancement Act* and section 11 of the Remediation Certificate Regulation (where applicable) to provide false, misleading or inaccurate information and that there are significant fines for committing these offences, including the possibility of imprisonment. See the applicant's declaration for the relevant sections.

Date: _____

Signature: _____

13.0 APPLICANT DECLARATION

This Declaration must be signed by the Applicant (consultant signatures are NOT acceptable).

I, _____ of _____ (Applicant) declare that,
(name) (company, city, province)

This application for a remediation certificate was prepared and completed under my direction. Based on my inquiries of the person or persons who managed the application components required to complete this application the information is, to the best of my knowledge and belief, true, accurate and complete;

- We carried out a Phase I Environmental Site Assessment, and/or Phase II Environmental Site Assessment (copy attached if not previously submitted to the AER);
- We remediated the substance(s) specified in our application within the remediated area and the remediated zone to meet the *Alberta Tier 1 Soil and Groundwater Remediation Guidelines* (Alberta Environment 2007, as amended or updated) or *Alberta Tier 2 Soil and Groundwater Remediation Guidelines* (Alberta Environment 2007, as amended or updated) for the appropriate land use;
- We contacted affected third parties to determine if they wanted their land remediated for the substance(s) in this application. If they did not want their land remediated, they have voluntarily signed the Third Party Risk Management Plan Agreement which I have attached;
- The appropriate professional declarations have been completed and signed by the professional members who conducted or supervised the work;
- I consent to an audit of the remediated area if a remediation certificate is issued;

I also declare that, to the best of my knowledge, all of the information contained within this Application is accurate and includes a complete representation of all the information that is required to be submitted in the Application for a Remediation Certificate. I am aware that it is an offence under section 227 of the *Environmental Protection and Enhancement Act* to provide false or misleading information and that there are significant fines for committing an offence of section 227, including the possibility of imprisonment, the relevant sections which read as follows:

Offences s. 227 A person who

(a) knowingly provides false or misleading information pursuant to a requirement under this Act to provide information,

(b) provides false or misleading information pursuant to a requirement under this Act to provide information

is guilty of an offence.

Penalties. 228 (1) A person who commits an offence referred to in section 60, 87, 108(1), 109(1) or 227(a), (d), (f) or (h) is liable

(a) in the case of an individual, to a fine of not more than \$100 000 or to imprisonment for a period of not more than 2 years or to both fine and imprisonment, or

(b) in the case of a corporation, to a fine of not more than \$1 000 000.

(2) A person who commits an offence referred to in section 61, 67, 75, 76, 79, 88, 108(2), 109(2), 110(1) or (2), 111, 112, 137, 148, 149, 155, 157, 163, 169, 170, 173, 176, 188, 191, 192, 209, 227(b), (c), (e), (g), or (i) or 251 is liable

(a) in the case of an individual, to a fine of not more than \$50 000, or

(b) in the case of a corporation, to a fine of not more than \$500 000.

NAME

SIGNATURE

POSITION

DATE

- Only one copy of the application is required.
 - Electronic submissions are preferred.
 - For paper submissions, please ensure that there are no bindings, staples, or clips of any sort attached to the application and no additional filler sheets (i.e. coloured sheets between sections, header pages, or any non-essential paperwork) are included in the application.
 - As much as possible, make sure all information is on standard 8.5" x 11" paper single sided only.
-

For all lands send the application to:

Alberta Energy Regulator
Closure and Liability Branch
Suite 1000, 250 – 5 St. SW
Calgary, Alberta T2P 0R4

For electronic submissions: RecRemCertApplications@aer.ca
Please indicate "Remediation Application" in the title of the e-mail.

APPENDIX A

List all documents submitted as part of this Remediation Certificate Application. If a required attachment appears within a larger document (e.g.: figure within a report), reference it to the appropriate report.

List of Environmental Reports and Required Attachments*

Title	Date (dd-mmm-yyyy)	Author(s)	Professional Designation(s) & Member No.

List of Figures, and Diagrams*

Title	Description	Page	Document Title

* Please relate the documents referenced in this section to those requested in section 11.0 Required

Attachments

RecRem-March 2014