

**The Strathcona County Protocol
for Seismic Surveying, Drilling,
Construction and Operation of Oil and
Gas Facilities**

in

Strathcona County

[Revised: January 2017]

Statement of Purpose

To ensure that oil and gas exploration and production in Strathcona County is carried out with the least possible impact on the environment, health, safety, and quality of life for the residents of the community.

This purpose will be achieved only by engaging in a “process” with industry and the community that is highly communicative and cooperative in nature. To that end, Strathcona County is committed to taking a pro-active, customer service approach with all stakeholders. Strathcona County will provide a staff person, dedicated to energy development issues, who will be familiar with the Protocol and Alberta Energy Regulator (AER) regulations. This staff person will facilitate the open exchange of information with industry, the AER, residents and landowners.

This document is intended to facilitate the above “process” by providing an outline of expectations to industry as well as information that is beneficial to the County and landowners. In this way all stakeholders involved in exploration and production activities are informed and engaged. It is hoped that by accomplishing this, future activities will be met with reduced conflict and that the impacts to quality of life for our residents will be negligible.

Note: To reference this Protocol, landowner or industry resources (with regard to energy exploration), and listings of wells, pipelines, and facility activities in the area go to: www.strathcona.ca/oilandgas.

The key elements of the process are:

1. Public notification and consultation

Broader public notification and consultation must occur prior to seismic survey or an application for drilling, pipeline or facility license from the province.

Strathcona County requests that public notification and consultation, in addition to the AER Directive 56 and Schedules, be as follows:

- **Broader public notification**

There must be public notification for wells and accompanying pipeline(s) and surface facilities to landowners/residents within a 1.6 km radius of each well or surface facility and an 800 m radius for seismic activities and either side of a large pipeline before an applicant makes application to the AER or Alberta Environment & Parks (AEP). Public notification, which may take place through written correspondence or face-to-face conversations, should provide the project description, location of the proposal, dates of any scheduled public information sessions, and the company name and contact number to landowners and residents. In the case of sour gas/oil, Emergency Planning Zone information should also be provided if applicable. Large pipeline proposals should include a copy of municipal Land Use Bylaw Section 3.2 Pipeline Setbacks. See www.strathcona.ca/bylaw/ .

Directive 56 states that it is the responsibility of industry to assess the area beyond the specified minimum to determine if the radius of investigation recommended by Directive 56 should be expanded. It may be necessary to increase the radius to include public interest groups or others who have expressed an interest in development in the area. With the higher density rural population in Strathcona County's country residential area and due to the intensity of oil and gas activity, the expanded public notification requirement is important because of the number of residents in close proximity to a single well location, pipeline, or multiple number of projects occurring on or near a property.

- **Public consultation or information sessions**

In order to engage the broader public and ensure that all stakeholders involved receive the same information at the same time, public consultation or information sessions should be in the form of an appropriately scheduled forum to provide a complete explanation of the project followed by an adequate question and answer period. Dates for these sessions could be included in the public notification correspondence.

All consultation should be comprehensive, including, for example, the likelihood of additional wells, pipelines, and battery sites. All consultation should include the applicant's previous history.

Note: *Strathcona County can assist with supplying landowner addresses within a 1.6 km well, pipeline or facility radius, as well as the location and contacts for public meeting facilities and services.*

2. Seismic survey

For the purposes of this protocol, "seismic survey" means any activity carried out for the purpose of determining the nature and characteristics of land for exploration purposes, which activity includes, but is not limited to, the use of explosives and vibration equipment.

Where seismic crews desire to use lands in Strathcona County for the purpose of conducting seismic surveys, the following will apply:

- a) the company registers, with the County, the names of all of the persons that will act on behalf of the company and provides a plan of the proposed activity including a map, timeline, and type of activity, and provides, for the County's files, a sample copy of all forms and contracts they may be using;
- b) the County is provided written notice of all the details of the program three weeks prior to the commencement of the program;
- c) the company signs a Road Use Agreement (RUA) or Right-of-Way Construction Activity Permit (ROWAP) as specified by the County, and provides a Traffic Accommodation Plan (TAP) to, the County:
 - If an RUA is required through Strathcona County, the Transportation and Agriculture Services office at 780-417-7100 requires a minimum of five (5) business days notice.

- A TAP meeting the minimum signing requirements in the TAC *Manual for Uniform Traffic Control Devices for Canada* for all activities within the road right-of-way must be submitted to Strathcona County for approval prior to the commencement of the seismic project.
 - Should access construction be required contact Strathcona County or go to: <http://www.strathcona.ca/accessapproach> for an access approach application.
Note: RUA and TAP are required when crossing or accessing County roads.
- d) the company provides written confirmation that notification** to all residents/property owners within 800 metres of the proposed seismic operations was done prior to the commencement of the activity;
 - e) if the proposed route intersects significant areas of Priority Environment Management Areas (which will be identified upon notification of the project to Strathcona County), various Low Impact Seismic methods are preferred to avoid the creation of a 5 m wide linear grid of clearing through these areas. Such clearings not only degrade the remaining wildlife habitat resources in Strathcona County, but also remain evident on the land in the long term as a result of a short-term activity;
 - f) Strathcona County Emergency Services (SCES) is to be consulted with regard to any burning of trees/brush on the location(s) concerned. SCES will determine if a burning permit can be issued or if the trees/brush must be removed and/or chipped.

**Notification to residents should be a minimum of three weeks and include the information fact sheet provided by the County (see Appendix 2).

Note: No cutting of trees or use of dynamite on County lands will be permitted. Strathcona County does not allow seismic surveying on County roads or in County road allowances.

3. Energy exploration

The County will ensure adequate notice and communication to residents about oil and gas exploration and operations in general and specific to their rights as land owners (see Appendix 1).

The County will employ a process, to maximize safety, and quality of life for its residents:

- “Energy exploration” means any activity carried out for the purpose of extracting oil and gas reserves from the subsurface of the land.
- Prior to carrying out oil and gas exploration, drilling, recovering, processing in the field or transmitting by pipeline or vehicle the company person, individual, corporation, partnership, or sole proprietorship will:

- a) notify the County with their company contact name, and phone number and provide a plan of the proposed activity including a map/survey, timeline, type of activity, and a list of all personnel involved;
- b) conduct a complete public notification process as outlined in the AER's Directive 56 and Strathcona County's requirements and requests;
- c) sign a Road Use Agreement and/or Right-of-Way Construction Activity Permit with the County (where applicable); go to: www.strathcona.ca/rowcap/.
- d) comply with the County's standards for: emergency preparedness, land reclamation, environmental and habitat protection, access/approach process, flaring policy, restrictions on noise and light levels, and Land Use Bylaw and Municipal Development Plan policies and bylaws.

4. Water quality

Shallow Aquifer Water Monitoring Wells should be installed down stream of resource wells and impacted domestic water wells where requested. Offers should be made to test all wells within 800 m of drilling or seismic work. Test wells for a specific period after drilling or seismic has been completed (see Appendix 3 for information on local independent water testing labs). Results of testing should be provided to the landowner. Liners and secondary containment should be installed where drainage could occur into surface or groundwater in ecologically sensitive areas. Refer to Section 6 regarding water courses and crossings.

5. Flaring, venting, and incineration

In the interest of air quality and resource conservation, flaring is not permitted in Strathcona County. All companies are asked to do closed chamber drill stem testing to confirm reserves and measure flow rates. All hydrocarbons should be captured and disposed of in an environmentally safe manner off site. In-line production tests maybe considered post-completion.

6. Environmental protection and reclamation

Currently, there are several initiatives that identify and address anthropogenic impacts to ecologically sensitive areas within the County, including the Beaver Hills Moraine and areas adjacent to Elk Island National Park. In applications that impact priority landscapes or Priority Environment Management Areas, the County will notify energy companies and operators if they are working within or in close proximity to these areas. Strathcona County will make available information and planning documents such as the Prioritized Landscape Ecology Assessment to assist the company in developing their plan.

All companies conducting seismic surveys and developing wells, pipelines, and/or facilities should have an environmental protection and reclamation plan agreed to by Strathcona County. Environmental protection and reclamation considerations that are identified during the planning process will mitigate “problems” encountered during surface reclamation activities. Strathcona County staff is available to participate in a construction site visit to assist in determining local conditions. County staff can also provide specifics on weed considerations and controls pertaining to specific areas, stripping and grading, soil stockpiling, seed mixes, restrictions on drilling and trenching, municipal bylaw setbacks (see below), and riparian reclamation in sensitive areas of creeks and wetlands*. When working in ecologically sensitive areas, liners or other drainage handling measures need to be considered and employed to prevent or minimize environmental impacts and degradation.

Requirement for a Clubroot Management Plan must be discussed with Strathcona County Transportation and Agriculture Services (TAS) for all projects. If required, a Clubroot Management Plan must be submitted to TAS for approval.

Strathcona County shall be notified whenever watercourses are crossed or abutted. As per the current Municipal Development Plan (Section 8.25), a minimum 50 m buffer adjacent to the North Saskatchewan River Valley and a 30 m buffer from the top of creek ravines, watercourses, and waterbodies are to be maintained. Open trench methods may be considered only after all other less invasive methods are ruled out for geotechnical reasons. Liners and secondary containment should be installed where drainage could occur into surface or groundwater in ecologically sensitive areas. Refer to Section 11 for pipeline crossing of water courses

Strathcona County has a no disturbance period from April 15 to July 31 to protect migratory birds during the nesting period and requires a nesting owl survey to be done in habitat areas being disturbed after February 15 (as per the MDP). Energy companies must follow all provincial and federal legislation, such as the Migratory Bird Act. Strathcona County can provide information and/or lists of local environmental consultants to industry.

It is expected that reclamation activities will be completed in a timely manner and that equivalent land capabilities will be achieved in comparison to pre-disturbance conditions. In situations where landowner issues are brought forward to County staff regarding environmental protection or reclamation activities, Strathcona County will contact the operator for follow-up and complaint resolution. In instances where the operator does not follow-up accordingly or resolution between the parties cannot be reached, the AER will be contacted to inspect/investigate the situation.

Strathcona County requires a copy of a reclamation report if issued.

*Refer to www.strathcona.ca/oilandgas for a list of native plant material for riparian reclamation.

7. Noise pollution

The AER has an interest in working with industry and residents to investigate specific concerns before, during, and after exploration. Exploration companies should contact the AER St. Albert Field Office to arrange for an independent consultant to take noise readings at the site and at key locations nearby to suggest ways of reducing the noise to an acceptable level for the resident. Drilling noise must be kept to a minimum.

Noise is a quality of life issue for residents, recreational users, and wildlife in ecologically sensitive areas. Every effort should be made to ensure that sound impact is minimized during and after exploration. In ecologically sensitive areas, additional noise suppression may be requested.

Electric motors rather than combustion engine prime movers may be required. Noise proofing and the use of the Best Available Technology Not Entailing Excessive Costs (BATNEEC) are required.

Strathcona County has a Noise Bylaw that restricts hours during which construction equipment noise is permitted. Noise permit applications/information are at: <http://www.strathcona.ca/noisepermit/>

8. Light pollution

All night time site lighting should be kept to a minimum and be confined to the site so as not to impact the surrounding area and the night sky. Strathcona County has a Light Efficient Community Policy: Strathcona County will be a Light Efficient Community (LEC). This means that designs, technologies and practices used for lighting public and private open space will be guided by the International Dark-Sky Association (IDA), the Illuminating Engineering Society of North America (IESNA) and the Transportation Association of Canada (TAC) regarding design, installation and operation of light sources.

The 'Light Efficient Community' approach to lighting the night-time environment parallels ongoing efforts by the Beaver Hills Initiative, Strathcona Wilderness Centre and the Beaver Hills Dark Sky Preserve to protect and conserve unique areas in and around Strathcona County.

9. Emergency preparedness

The AER has safety plan regulations for all operators to have comprehensive emergency response plans (ERP's) in place. Strathcona County Emergency Services (SCES) is the point of contact for discussion of emergency response-related matters.

SCES is trained for oil and gas incidents; however, it is the company that is responsible for immediate and initial response.

SCES's general expectations regarding new projects:

- Consult with SCES at the concept/design stage prior to making application to the AER. SCES aims to work collaboratively with the company to understand the project (e.g. location, risks, mitigation, and response measures) and to comment on any concerns.
- Following AER approval of the project, consult with SCES on draft ERP content such as points of contact and mutual expectations.
- Submit the finalized ERP to SCES for comment, preferably as far in advance of commencement of operations as practicable.
- As part of a public consultation program, industry will review their emergency response plans (in draft or finalized form as appropriate) with the local area residents/businesses to provide them with the assurance that they are prepared and have the public's safety as a priority.

SCES will internally review all energy project notifications referred to the County. Please refer to www.strathcona.ca/oilandgas for further Emergency Services comments and information.

10. Workovers

Strathcona County should be notified about workovers and recompletions. A sign should be posted at the worksite entry/access for these projects that notes the description of the work (i.e. workover) and the company name and contact information. This is a courtesy for adjacent landowners and in the interests of a good neighbor approach. It is intended to enhance communication with the energy company. Re-entries should also be communicated in this manner.

11. Pipelines

Potential pipeline routes for production/conveyance and Municipal Bylaws regarding setbacks from pipelines* must be included as information in the public consultation package during the AER or National Energy Board license application process.

Pipeline planning should reduce land fragmentation and should cross land parcels along section or quarter section lines or follow existing surface disturbances or other linear infrastructure.

Existing surface disturbances may include roads, railway (on non-industrial lands) or existing pipeline corridors.

Water courses and County roads in Strathcona County should be a trenchless crossing utilizing boring or Horizontal Directional Drilling techniques. The goal is to prevent environmental degradation and habitat loss at watercourse crossings, unless the sub-surface ground conditions are such that a trenchless crossing is not achievable. A geotechnical report must be submitted that outlines subsurface constraints and barriers to trenchless methods. Where trenching methods are deemed necessary, please see Section 6 for reclamation recommendations in riparian areas, including riparian plant material.

Pipeline trenches must be compacted sufficiently to prevent slumping and top soil loss to subsoil elevations or erosion.

Companies are encouraged to follow established pipeline designated corridors (Strathcona County Municipal Development Plan Bylaw 1-2007) for pipelines 150 mm (six inch) or larger in diameter carrying upgraded, refined, or other products. Companies are encouraged to take a minimal amount of permanent right-of-way and must share as much of the adjacent right-of-way as temporary working space as it is deemed safe to do so.

Pipelines smaller than 150 mm that are used as production flow lines or as gathering lines may not be installed in corridors. It is expected that all other matters related to pipeline right-of-way preparation, construction, and reclamation phases will be completed in accordance to standards outlined in the Environmental Protection and Enhancement Act (of Alberta), the Water Act (of Alberta), and any pertinent or applicable fact sheets or information letters produced by Alberta Environment & Parks.

Where land spray or mixed bury pit sites will be used for disposing of drilling mud a sign must be posted at the entrance to the disposal site noting the company name, a contact number and the name of the project (i.e. Drilling mud spray site). A Clubroot plan will be required for fields receiving drilling mud. A map of disposal sites/fields and a Road Use Agreement must be submitted to the County. See Appendix 1b for landowner considerations.

*Strathcona County Land Use Bylaw #6-2015, Section 3.12 (go to Land Use Bylaw: www.strathcona.ca/bylaw/).

Appendices

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| Appendix 1 | Negotiating Surface Rights and Right-of-Way Agreements
1a. Landowner consideration checklist
1b. Land spray of Drilling mud – landowner considerations |
| Appendix 2 | Seismic Operations and Landowner Rights
2a. Permit to conduct geophysical operations
2b. A landowner/occupant should consider when agreeing to provide access to a seismic company |
| Appendix 3 | List of Independent Laboratories in Edmonton |

NEGOTIATING SURFACE RIGHTS AND RIGHT-OF-WAY AGREEMENTS

This information is intended to provide Strathcona County landowners with basic information regarding their rights and the procedures associated with oilfield activities on private land. Most commonly, an energy company will approach a private landowner or occupant to negotiate either a surface right lease for a wellsite or a right-of-way agreement for a pipeline.

In Alberta, both landowners and companies have rights. Most land in the province has two separate titles. The owner of the surface title has full control of the land's surface and the ability to work it. The owner of the title to the minerals under the land has the right to explore for and produce oil and gas. In exercising its right to work and remove minerals, the company bears the responsibility of providing you, the landowner, with information about the oilfield activity, of ensuring that the drilling and production activity is carried out in a way that is environmentally and technically acceptable, and of ensuring that its operations minimize, as much as possible, interference with use of the land.

Steps in the Lease and Right-of-Way Process

Survey

In the case of a wellsite, if oil and gas development looks promising on or near your lands, the company will need to survey the land to select a location for the wellsite and access road. In the case of a pipeline, the pipeline route will be surveyed and a plan of survey completed. Under Section 14 of the *Surface Rights Act* and Section 16 of *Surveys Act*, surveyors have the right to undenied access to the land for survey work related to oilfield activity. The company or its agent however, must make a reasonable attempt to notify you of its intent to conduct the land survey. The landowner may want to be present when the surveyor is staking out the access road, wellsite, facility or pipeline route. Certain concerns may be addressed with the surveyors at this point. Waiting to contact the operator will result in additional survey costs to the operator and they may be less willing to make changes, especially minor alterations. The company is liable for any damage caused in conducting the survey.

Initial Contact by Company

If a company considers your land to be a suitable location for a wellsite or a pipeline, the company or an independent land agent will present you with a proposed surface lease or right-of-way agreement. Under Section 17 of the *Land Agents Licensing Act*, the land agent is required to leave a copy of the proposed agreement with the landowner for at least 48 hours (excluding Sundays and holidays) for review before negotiations can begin. A landowner is considered to be anyone who has a right to dispose of an interest in the land. The waiting period is to protect you, as the landowner, so you can carefully study the details of the agreement and prepare for negotiations with the company.

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It is possible for the landowner to waive the 48 hour waiting period. If you chose to do so, you should be absolutely sure you are satisfied with all aspects of the agreement.

The landowner is not required to sign the lease immediately following the 48 hour period. If you require more than 48 hours to consider the agreement, advise the company and take the necessary time.

Location of Development

In your negotiation of a surface lease or right-of-way agreement, it is important to agree on the exact location of the wellsite or pipeline route. Be sure to review the company's survey plan to properly identify the exact location under consideration. If the proposed location would significantly impact your land use or otherwise have an adverse affect on your land, you will need to bring this to the company's attention and try to negotiate a reasonable alternative. In the case of wellsite, you may ask the company whether directional drilling would be an appropriate solution, by which the well would be drilled diagonally instead of vertically.

The AER requires the landowner's approval of the location before issuing a license to the company. If you and the company are unable to agree on a suitable location, the AER can assist with dispute resolution. The dispute may be settled informally through mediation or with a formal AER hearing.

Agreement Considerations

A surface lease and right-of-way agreement will set out the terms and conditions that will govern the future relationship between you and the company. Once the agreement is signed, it becomes a binding legal agreement on the current owner and all future owners of the land if the agreement is assigned to them. Therefore, it is essential that the lease be as comprehensive as possible and tailored to deal with your specific circumstances.

Your negotiations will include the issue of compensation. In the case of a wellsite, annual compensation is to be reviewed every five years. For pipelines, compensation is generally a one time payment. More recently however, landowner groups and associations have been lobbying for annual compensation during the currency of a pipeline right-of-way agreement as well. If you and the company cannot agree on compensation for right of entry, the company can apply to the Surface Rights Board. The Board will usually grant the company a Right of Entry Order and then determine appropriate compensation. This will be done at a hearing.

The agreement should also cover reclamation of the site once oilfield activities have ended. When reclamation is complete and signed by the landowner, the company will apply to Alberta Environment for a reclamation certificate, which is issued when the company meets the Alberta Environment criteria. At that time, the company can terminate the agreement or Right of Entry Order.

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Until an agreement has been signed and the first-year compensation paid in the case of a wellsite or the entry fee for a pipeline, a company is not allowed on your property, except for surveying purposes. Also, if the land is rented, the company must obtain consent from both the occupant and the landowner.

Remember that the agreement presented to you by the land agent is prepared by the company and has primarily its interests in mind. Be sure to consider it carefully to ensure your interests are met as well. It may be useful to consult with a lawyer familiar with surface rights and right-of-way issues that can help you with the negotiations. Also, you may wish to contact the Farmer's Advocate office, a surface rights consultant, the Alberta Surface Rights Federation, or other landowner groups or associations for further information and consultation.

See Appendix 1a for a checklist of considerations the landowner should review when considering a surface lease or right-of-way agreement. The checklist is provided for information purposes only and may not apply to or address the specific situation or concerns of a landowner. If you and the company add any additional conditions or amendments to the agreement, be sure they are made in writing.

To file a Statement of Concern with the AER go to:

http://www.aer.ca/documents/enerfaqs/AER_EnerFAQs11_StatementsOfConcern-Web.pdf

As of October 2013 landowners can file Private Surface Agreements with the AER. For further information go to:

http://www.aer.ca/documents/enerfaqs/AER_EnerFAQs12_PSAR-Web.pdf

Right of Entry Order from the Surface Rights Board

Instead of signing an agreement, some landowners prefer requesting a Right of Entry Order from the Surface Rights Board, although they and the company agree on all issues. A reason for this preference is that the Right of Entry Order can be reviewed and updated should circumstances change. Also, a landowner can return to the Board, instead of going to Court, should a company fail to comply with the conditions set out in the Right of Entry Order. In the case of a pipeline right-of-way, the landowner can go to the Board with a claim for compensation for any damages which occurred during construction.

Temporary vs. Permanent Nature of Workspace

Temporary Work Space (TWS)

It is sometimes necessary for a company to acquire temporary workspace adjacent to the right-of-way. Compensation for temporary access is negotiable. The landowner may request that all required workspace be included in the right-of-way

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agreement and not as part of a separate temporary access agreement. In addition to any other negotiated compensation, the landowner is entitled to be compensated for damages. At the time of reclamation the company must voluntarily disclose in their Application for Reclamation all areas taken for temporary work space (Farmers' Advocate Office website).

Note: *In the case of overlapping right-of-ways with TWS; Company A can apply for an exemption for having to obtain a Reclamation Certificate and the responsibility for reclaiming that area then falls to Company B, who overlapped the first right-of-way.*

Work space included under a Right-of-Entry Order is permanently registered on title until the development is reclaimed. (Landowners do not have a choice, it is all registered on title as permanent right-of-way because that is how the Surface Rights Board (SRB) grants it). The SRB does not distinguish between the rights conveyed under the right-of-way from rights conveyed under the workspace area. An Entry Fee is payable for temporary work space.

Under a private agreement, work space is always negotiated separately and never registered on title, that area will not be reclaimed until the right-of-way is reclaimed, maybe 30 or 40 years. There is no single agency or repository that keeps a record of work space agreements on private lands, and landowners should keep track, unlike Right of Entry Orders, where it is registered on title.

Temporary vs. Permanent Workspace

When a Right of Entry Order is granted by the Surface Rights Board that includes work space, the work space is granted as a permanent right-of-way, due to the fact the work space area will not be reclaimed until the associated development is also reclaimed.

Under a Right of Entry Order the Surface Rights Board has historically awarded 100% of the land value of the right-of-way for compensation, due to the permanent nature of the work space. The Board does not distinguish between the land value paid for compensation on the right-of-way from the land value paid for work space.

Industry practice under private agreements is to offer the landowner 50% land value of the right-of-way.

In 2013 a case proceeded to Court of Queen's Bench on appeal of a Surface Rights Board Decision, whereby the Operator argued work space should be paid at a lesser or reduced value (50% value of the ROW). The Surface Rights Board, in their decision held that a valuation of 100% land value was warranted as, "temporary workspaces are no longer temporary". The courts upheld the Surface Rights Board decision making reference to the permanent nature of work space. The Court confirmed that the work space remains in the permanent possession of the Operator until a Reclamation Certificate is issued and some rights are retained by the Operator. The Courts elected not to define what rights are retained by the Operator. Terasen Pipelines (Corridor) Inc. v R&M Schroter Enterprises Ltd., 2013 ABQB 482.

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In rare cases, the Alberta Energy Regulator will consider stand-alone applications for Reclamation Certificates on private lands, particularly in cases where the landowner may be developing his lands. Under these circumstances landowners should approach the Operator about applying for a stand-alone application for TWS.

For Further Information or Clarification

Several useful publications which address surface lease or right-of-way negotiations include:

When the Oil Patch Comes to Your Backyard (Pembina Institute)

Available from Strathcona County Planning and Development Services

AER Publications

Available from the AER website (www.aer.ca)

- **EnerFAQs 7: Proposed Oil and Gas Development: A Landowner's Guide**
- **AER Brochure: Understanding Oil and Gas Development in Alberta**

Publications from the Farmers' Advocate Office

Available on the Alberta Government website (www1.agric.gov.ab.ca)

- **Pipelines in Alberta**
- **Negotiating Surface Rights**

For more information on temporary workspace contact the Farmers' Advocate Office at 780-310-3276.

Useful contacts include:

<p>Strathcona County Planning and Development Services Phone: 780-416-6739 www.strathcona.ca/oilandgas</p>
<p>Farmers' Advocate Office Provides information and advice and assists with dispute resolution for related farming community matters.</p> <p>305, 7000 – 113 Street Edmonton, Alberta T6H 5T6 Phone: Toll free dialing 310-3276 Fax: 780-427-3913 www1.agric.gov.ab.ca/\$department/deptdocs.nsf/all/ofa2621</p>
<p>Alberta Surface Rights Board Provides information on entry and compensation related to oilfield activities.</p> <p>18th Floor, 10020 – 101A Avenue Edmonton, Alberta T5J 3G2 Phone 780-427-2444 (Toll free by first dialing 310-0000) Fax: 780-427-5798 www.surfacerights.gov.ab.ca</p>
<p>Alberta Environment</p> <p>Main Floor, 9820 – 106 Street Edmonton, Alberta T5K 2J6 Phone: 780-427-2700 (Toll free by first dialing 310-0000) Fax: 780-422-4086 http://esrd.alberta.ca</p>
<p>Alberta Energy Regulator (AER)</p> <p><u>Head office:</u> 640 – 5th Avenue SW Calgary, Alberta T2P 3G4 Phone: 403-297-8311 (Toll free by first dialing 310-0000) Fax: 403-297-7336</p> <p><u>St. Albert field office:</u> Main Floor, Sir Winston Churchill Avenue St. Albert, Alberta T8N 3A3 Phone: 780-460-3800 (24-hour emergency phone #) Fax: 780-460-3802 www.aer.ca</p>

Issue		Points to Consider
		specified administration fee.
4. Compensation	<p>(i) General</p> <p>(ii) First year rent</p> <p>(iii) Subsequent annual rent</p> <p>(iv) Compensation for damages</p>	<p>Compensation under the Agreement should take into consideration the following provisions:</p> <p>(a) entry fee - \$500.00 per acre, for each acre of land in the easement or right-of-way agreement; minimum \$250.00, maximum \$5,500.00;</p> <p>(b) market value of the land per acre - the market value of the land times the number of acres taken;</p> <p>(c) loss of use of the land per acre;</p> <p>(d) adverse effect, inconvenience and nuisance - compensation for inconveniences related to the installation of the wellsite or pipeline. It is common to lump the value of the land and the general inconvenience together;</p> <p>(e) any other costs which the landowner may raise.</p> <p>The compensation in the first year will likely take into consideration the market value of land plus the other factors described above.</p> <p>The annual rent for following years will only likely take into consideration use, adverse effect and any other considerations. Annual rent for following years usually only applies to a wellsite, although may soon more commonly apply to pipelines.</p> <p>A clause may be inserted into the Agreement to deal with compensation for any damages occurring as a result of the company's activities including damage to crops, machinery, livestock, fences, buildings or other improvements on the landowners land.</p> <p>The landowner may also wish to have the</p>

Issue		Points to Consider
	<p>(v) Landowner costs</p> <p>(vi) Interest on late payments</p>	<p>company provide a reasonable sum to compensate the landowner for legal and/or consultation costs as well as the landowner's time in respect to matters relating to the Agreement.</p> <p>The landowner may also wish to have an interest rate set to apply to all late compensation payments made by the company.</p>
5. Construction and Maintenance		<p>The landowner should specify that the company construct and maintain the wellsite or pipeline in a good and workmanlike condition and in accordance with Alberta Environment requirements to minimize environmental impact.</p>
6. Topsoil		<p>The Agreement should specify that the company will conserve all topsoil in a good and workmanlike manner having regard to existing conservation practices under the <i>Conservation & Reclamation Reg.</i> (Alta. Reg. 115/93) and the EPEA, RSA 2000, c. E-12. The landowner may also want the company to store the topsoil on the lands to prevent erosion or contamination of the topsoil.</p>
7. Drainage		<p>The Agreement should prevent the company from obstructing or impeding the natural drainage of the land adjacent to the wellsite or pipeline. Also, the Agreement should provide that the company will construct or maintain any culverts and other structures to ensure the unimpeded flow of water through natural drainage courses to the landowner's reasonable satisfaction.</p>
8. Fencing		<p>The Agreement should require the company to construct and maintain any fences, locking gates or other works necessary on the land to ensure the safety and prevent straying of livestock during the construction process.</p> <p>If the company needs to move or tear down</p>

Issue		Points to Consider
		<p>any of the landowner's fences, the company should be required to replace the fences in substantially the same condition and location as existed prior to removal. Alternatively, the landowner may wish to be compensated for the reasonable costs of repairing or replacing any fences.</p> <p>In the case of a wellsite, the fences should be complete before construction and should be of a permanent nature to prevent trespass into the wellsite. The fences should be in good and substantial condition and all repairs should be promptly completed by the company.</p> <p>The company should also bear responsibility for promptly closing all gates upon the point of entry to the premises.</p>
9. Roadway		<p>Should any roadway be constructed by the company, it should be constructed to a low profile (unless topography dictates otherwise) and if graveled to be topped with rock particles of less than 2 inches in diameter.</p>
10. Weeds	<p>(i) General</p> <p>(ii) Soil sterilant</p> <p>(iii) Cleaning of machinery</p>	<p>The Agreement should provide that the company will prevent obnoxious, nuisance and restricted weeds from growing on or along the subject premises.</p> <p>In its control of all weeds on the subject premises, the company will not use soil sterilant without the written consent of the landowner.</p> <p>The landowner may also wish to have the company wash and clean all machinery, equipment and vehicles prior to entry on the subject premises to prevent the spread of weed seeds and other polluting substances or materials.</p>
11. Seeding		<p>The landowner may wish to have the company prepare adequate cultivated seed beds or plant a certified seed and establish satisfactory perennial growth on or along</p>

Issue		Points to Consider
		the subject lands, workspace or any other area that was disturbed or damaged by the company's activities.
12. Trees		If applicable, the landowner may wish to have the company identify any trees that need to be removed on or along the subject lands and have the company salvage any timber logs, posts or firewood in a manner agreeable to the landowner. The landowner may want to include a penalty for trees that are cut or damaged without the landowner's prior consent.
13. Drilling		In relation to a wellsite, the landowner should insist that the company not drill any water well on the premises without the landowner's prior written consent. Furthermore, both before and after drilling, the landowner should insist that the company properly sample any water wells and water bodies on or near the property and provide the landowner with a certified analysis.
14. Hazardous Substances		The landowner should insist that the company not dispose of any fluids, toxic chemicals, hazardous substances, radioactive material, rocks and/or garbage on the lands or the leased premises without the landowner's prior written consent.
15. Test Flaring		In relation to a wellsite, the landowner should inquire of any alternatives to test flaring such as a high-efficiency incinerator. Should flare testing be necessary, the landowner should negotiate the length of the tests and under what conditions they will be carried out, such as requiring the company to monitor air quality during the flare testing. Furthermore, the landowner may wish to negotiate compensation for any expenses the landowner may incur such as leaving the premises during the time of the test flaring.

Issue		Points to Consider
16. Removal of Debris		In the case of a pipeline, the landowner may wish to have the company remove all stumps, rocks, roots and other debris from the right-of-way to the landowner's satisfaction, after the pipeline construction is completed.
17. Above Ground Installation		Should any above ground installation be required, the landowner may wish to have the company construct the above installation in an area where it will cause the minimum inconvenience to the landowner's operations and subject to the landowner's prior consent. Any above ground installation should be adequately marked and secure the installation so it is clearly visible to the landowner and its employees. Furthermore, the landowner may wish to negotiate annual compensation for any of the above ground installations
18. Indemnity		The Agreement should provide for an indemnity clause by which the company will indemnify the landowner from liabilities, damages, costs and actions associated with the construction, operation and maintenance of the wellsite or pipeline.
19. Surrender and Reclamation	<p>(i) Reclamation certificate</p> <p>(ii) Abandonment or removal</p>	<p>The Agreement should specify the conservation and reclamation obligations to be undertaken by the company. Reclamation should occur in a timely fashion and in accordance with proper reclamation and farming practices. Should the landowner wish to include reclamation obligations beyond the requirements of Alberta Environment, these should be negotiated and provided for in the Agreement.</p> <p>In relation to a pipeline, the landowner may wish the Agreement to provide that the pipeline will be removed after abandonment, if possible. Otherwise, the obligations required pursuant to the obtaining of a Reclamation Certificate will generally allow the company to abandon</p>

Issue		Points to Consider
	(iii) Pre-construction assessment report	<p>buried pipeline in place.</p> <p>The landowner may also wish to insist that the company provide a pre-construction assessment report which provides a basis of comparison for future reclamation work.</p>
20. Dispute Resolution		<p>The Agreement should set the parameters for the resolution of any dispute which arises between the parties. The landowner may wish to include an arbitration clause which allows disputes to be settled under the <i>Alberta Arbitration Act</i>, and without going to court. The landowner may also wish for the Agreement to provide that the company will pay the costs of the arbitration.</p>
21. Notification		<p>The landowner may wish to be immediately notified by the company if there is a leak, spill or other environmental concern associated with a well or pipeline and negotiate any additional compensation for damage. Standards for dealing with leaks and spills are governed by Alberta Environment and the AER, however, the landowner may wish to negotiate additional provisions. In relation to a pipeline landowners may also wish to be consulted if the company is planning to put drilling solids on the ROW. See Appendix 1b.</p>
22. Temporary Work Space		<p>The company may require temporary work space in order to construct its works. This should be discussed at the outset (at survey if possible) and be the subject of a separate agreement between the parties, along with appropriate compensation. See Appendix 1, Page 12.</p>

**LAND SPRAY (AND MIXED BURY COVER) OF DRILLING MUD
LANDOWNER CONSIDERATIONS**

The following recommendations are from a soils consultant:

- Drilling waste is primarily water with bentonite and solids (cuttings) i.e. clay.
- Drilling mud disposal common methods:
 - Land spray - liquids
 - Land Spread - solids are spread on subsoil and mixed
 - Mixed bury cover – pits are dug and buried after being filled
- The pipeline company is allowed to put solids on the pipeline right-of-way (ROW). They don't need permission but they do need to communicate this process to the landowner.
- Nothing in the drilling mud is of benefit to the soil.
- Bentonite is a natural material and if diluted sufficiently and spread at the correct rate (see AER Directive 50 for ratios. www.aer.ca) it should not be a problem.
- It is important to disc in the drilling mud as soon as possible otherwise the mud can flow and collect in low areas and compact.
- Spreading of drilling mud on pasture or hay is not recommended. It should be used on cultivated land.
- If spreading on the ROW use mixed bury cover at a separate pit site. Disposal on the ROW is not recommended.
- Landowners should require spray trucks to sanitize their wheels/vehicle undercarriage before entering the field.

Land agent recommended considerations:

- The company and landowners should have a signed agreement (Temporary Work Space Agreement) prior to entry of any equipment on the field(s).
- The document should address signing consideration; compensation; insurance and damage payment.
- Damages could address what-ifs: rutting; hydraulic line break, etc. It is also recommended that landowners include in the agreement compensation for consequences for non-compliance of equipment sanitation measure (for Clubroot management). Note that it is up to the landowner to monitor and prove non-compliance.
- Compensation includes: \$1000 for signing consideration and then a per cubic meter payment for spraying.
- Area to be sprayed is determined by an environmentalist. This should be shared with the landowner.
- Composition of the spray has to be identified to the landowner.
- Setbacks from environmental areas, etc. are increased in winter.

SEISMIC OPERATIONS AND LANDOWNER RIGHTS

This information is intended to provide Strathcona County land owners with a brief outline of their rights regarding seismic operators wishing to conduct seismic operations on private land.

You have the right to refuse seismic operations on your land. It's important to note that a seismic operator may enter onto deeded property only after obtaining approval from the owner. No other agency has the authority to grant access for seismic operations. Therefore, it's entirely up to the landowner/occupant to negotiate the specific terms of the contract to ensure that his/her interests are protected.

Strathcona County owns all municipal road allowances. Permission for seismic exploration will not be granted by the County for seismic operations within these road allowances.

Notification Condition

According to the Strathcona County Protocol for Seismic Surveying, Drilling, Construction and Operation of Oil and Gas Facilities in Strathcona County *, conditions of all seismic approvals being carried out in Strathcona County include notification to all landowner/occupant/residents within 800 metres of any seismic line(s) planned in the area. This notification must be made a minimum of three weeks prior to the commencement of seismic operations and is required regardless of the energy source being used. The notification must contain, as a minimum, the following information: the name of the seismic exploration company, a contact name complete with phone number, a description of the energy source, and the handout to the exploration company from the County.

Seismic Operations and Water Wells

If water well damage is a prime concern, the land owner can exercise their right to refuse entry until adequate guarantees are given. If there are concerns about the possibility of well failure or water quality deterioration when seismic activity is proposed over your land, the landowner/occupant can negotiate a well test before and after the seismic activity.

Note: **The Alberta Energy Regulator (AER) is the regulator for seismic activity and requires notification within 400 metres of seismic lines, 48 hours prior to commencement of operations.*

Components may include documentation of information about the well, performance of a static level test, and a pump test at the operator's expense, prior to the signing of any permit forms (you may want to negotiate a chemical test pre-imposed). See Appendix 3 for information on independent water testing labs.

Compensation

The matter of compensation for entry and access is left entirely to the landowner/occupant and the seismic operator. There is no legislation governing the amount or method of payment. It is common practice for seismic operators to offer compensation that is equitable to all who are affected by the geophysical program. If a negotiated amount cannot be reached, the landowner/occupant may refuse to allow entry. Generally, most operators agree to pay access fees within 30 to 90 days following completion of the geophysical program. However, payment may be requested prior to or shortly after entry by the licensee.

Consent Agreement

If the landowner/occupant agrees to provide access, he or she will be asked to give written consent. Please note that the landowner's consent should be the result of a negotiated agreement between both the landowner/occupant and the seismic company. In order to best protect the landowner/occupants' interests, Strathcona County recommends the use of the following two forms (see Appendices 2a and 2b). The first form is the *Permit to Conduct Geophysical Operations (2a)*, which is a widely used, standard permit form developed by the Canadian Association of Geophysical Contractors, in conjunction with the office of the Farmer's Advocate and other government and industry bodies.

Strathcona County also recommends that the landowner/occupant execute an addendum to the *Permit to Conduct Geophysical Operations*, to further protect landowner/occupant interests. The purpose of the addendum, which would form a part of the Permit, is to specify any additional conditions the landowner/occupant deems necessary to protect its interests and minimize the impact associated with seismic operations on its property. Please see Appendix "2b" for an example of an addendum which contemplates key considerations a landowner/occupant should consider when agreeing to provide access to a seismic company on its property. It is imperative that the Permit refer to the Addendum, such as is proposed within Section 7 of the Permit attached as Appendix "2b".

Please note these documents are provided for information purposes only. Strathcona County recommends that a landowner/occupant seek advice from legal counsel and develop an agreement which best suits the specific conditions and concerns of the landowner/occupant.

Strathcona County Planning & Development Services offers copies of two publications; Seismic Operations and Farmer's Rights from Alberta Agriculture, Food and Rural Development or When the Oilpatch Comes to Your Backyard from the Pembina Institute. Both publications have more information on the seismic process and how to negotiate the best conditions for you.

For further information or clarification, you may contact the following:

Strathcona County

Planning & Development Services

780-464-8080

www.strathcona.ca

Canadian Association of Geophysical Contractors

403-265-0045

www.cagc.ca

Geophysical Inspectors/Investigators

Alberta Energy Regulator

1-855-297-8311

www@aer.ca

Pembina Institute

780-485-9610

www.pembina.org

Farmers' Advocate Office

Alberta Agriculture, Food and Rural Development

Toll free dialing 310-3276

[http://www1.agric.gov.ab.ca/\\$Department/deptdocs.nsf/all/agdex1127](http://www1.agric.gov.ab.ca/$Department/deptdocs.nsf/all/agdex1127)

Summary Note: *Strathcona County wants to ensure that you know that you have the right to refuse seismic activity on your land and that seismic information may lead to oil/gas exploration that you can not prohibit on your land.*



Approved by CAGC
CAPP, SEPAC, FAO, SRD

PERMIT TO CONDUCT GEOPHYSICAL OPERATIONS

Page ____ of ____

I/We: _____
(Print Name)
of _____
(Full Address)

(hereinafter called the "Grantor") being the Owner Lessee Renter or Representative in possession of the lands (hereinafter called the "Lands") described below and on the attached *Geophysical Operations Plat(s)*, agree to grant to the Licensee: (holder of exploration license) and the personnel and equipment of its subcontractors (hereinafter collectively called the "Grantee") the right and authority to enter onto the Lands for the purposes of conducting all phases of a single geophysical operation:

<input type="checkbox"/> Owned	<input type="checkbox"/> Leased	<input type="checkbox"/> Rented	_____ of Section _____	TWP _____	RGE _____	W _____	M _____
<input type="checkbox"/> Owned	<input type="checkbox"/> Leased	<input type="checkbox"/> Rented	_____ of Section _____	TWP _____	RGE _____	W _____	M _____
<input type="checkbox"/> Owned	<input type="checkbox"/> Leased	<input type="checkbox"/> Rented	_____ of Section _____	TWP _____	RGE _____	W _____	M _____

Furthermore, the Grantor and Grantee hereby covenant the following terms and conditions:

- The Grantee agrees to compensate the Grantor the following Permit Fees:

\$ _____ / Mile	Recorded Source Line	\$ _____ /	Mile Off-line Access
\$ _____ / Mile		\$ _____ /	Fence Cut / Drop
\$ _____ /		\$ _____ /	

These monies are compensation for Permit Fees and not for damages beyond normal wear and tear, and shall be paid within _____ days following the completion of the geophysical operation. In the event that the Grantee does not enter onto the Lands or portions of the Lands permitted, the Grantee shall not be obliged to make any payment to the Grantor for those lands not entered.
- The Grantee agrees to compensate the Grantor for any damages in excess of normal wear and tear that may occur as a result of this operation. If damages occur, they will be compensated for at fair market value.
- The Grantee will conduct all operations in a careful, diligent and responsible manner, in accordance with all applicable laws, geophysical regulations and government approval conditions in the province of ALBERTA B.C. MANITOBA SASKATCHEWAN OTHER _____
- The Grantee shall indemnify and save the Grantor harmless from any actions, claims, losses or demands by a third party arising from acts or omissions of the Grantee in respect of its operations and for any loss, damage cost and expense to the Grantor in respect of such operations.
- It shall be the responsibility of the Grantor to accompany the Grantee and to inspect the permitted Lands upon completion of the operation, to establish and agree upon the amount of compensation. A signed *Geophysical Operations Release* is required from the Grantor before any compensation for damages will be made by the Grantee.
- The Grantor grants a working area as shown and off-line conditions as specified on the *Geophysical Operations Plat(s)*. All operations shall take place in a working area which is approximately _____ feet / meters wide (_____ ft / m for cat cutting or snowplowing).
- The Grantor allows the Grantee to DELETE, SHIFT or OFFSET LINE(s) and/or Receiver and/or Source Points: shift line(s) up to _____ ft/m.
- Other interested parties: eg: Ducks Unlimited, Offer to Purchase, Renters, Acreages, etc. _____
- This permit is in effect from the date endorsed by the Grantor until _____, 20____ excluding a reasonable amount of time to perform a final cleanup which is delayed due to weather conditions.
- Any additional terms, express or implied, shall have no force or effect unless made in writing and agreed to by the Grantor and Grantee as stated below or on the attached *Geophysical Operations Plat(s)* which form part of this document.

I declare that I have the legal authority or the consent of the Owner, or party lawfully in possession of the Lands, to execute this form and accept payment of permit fees and damage fees of which part or all change payable on behalf of the Owner or such party. I further do hereby understand and agree to this statement. As required by legislation, be aware that you, the Grantor, are giving consent for the collection and use of the personal information on this form for the purpose of conducting and completing geophysical operations.

Owner Signature: _____	Date: _____, 20____
Residence Location: _____	Phone: (____) _____
Lessee/Renter/ Representative Signature: _____	Date: _____, 20____
Residence Location: _____	Phone: (____) _____

PROJECT NAME: _____	FILE NO.: _____
Company Name: _____	Line No: _____
Contact Person: _____	Phone: (____) _____
Address: _____	
Permit Agent: _____	Phone: (____) _____
Permit Agent Signature: _____	Cert No.: _____

PLEASE DIRECT ANY CONCERNS YOU MAY HAVE TO THE ABOVE CONTACTS AS SOON AS POSSIBLE.

In Alberta, the "Seismic Operations and Farmers' Rights" booklet is available from the Permit Agent or from the Office of the Farmers' Advocate (780) 427-2433.



GEOPHYSICAL OPERATIONS RELEASE

Approved by CAGC
CAPP, SEPAC, FAO, SRD

Page _____ of _____

I/We, the "Grantor" _____ (Print Name)
of _____ (Full Address)
in the Province of _____ in consideration of the sum of _____ Dollars
(Written Amount)
(\$ _____) do hereby release and forever discharge _____ (Licensee)
and its subcontractors from any and all manners of actions, claims and demands resulting from operations conducted by
_____ (Permittee/Contractor) up to and including the date hereof on the lands described below.

Final cleanup is complete. YES NO Clean up to be completed by: Date: _____, 20____
(Please contact Company 10 days prior to commencement of your Springfield work.)

<input type="checkbox"/> Owned	<input type="checkbox"/> Leased	<input type="checkbox"/> Rented	_____ of Section _____	TWP _____	RGE _____	W _____	M _____
<input type="checkbox"/> Owned	<input type="checkbox"/> Leased	<input type="checkbox"/> Rented	_____ of Section _____	TWP _____	RGE _____	W _____	M _____
<input type="checkbox"/> Owned	<input type="checkbox"/> Leased	<input type="checkbox"/> Rented	_____ of Section _____	TWP _____	RGE _____	W _____	M _____

Allocation of Payment :

Line No. _____	Recorded Source Line _____	mile(s) @ \$ _____	per mile	= \$ _____
_____	Receiver Line _____	mile(s) @ \$ _____	per mile	= \$ _____
_____	Access _____	mile(s) @ \$ _____	per mile	= \$ _____
_____	_____	@ \$ _____		= \$ _____
Line Fee Subtotal				= \$ _____

Damages / Comments:

Damage Subtotal = \$ _____

TOTAL: \$ _____

I declare that I have the legal authority or the consent of the Owner, or party lawfully in possession of the lands, to execute this form and accept payment of compensation on behalf of the Owner or each party, and further do hereby understand and agree to this statement. As required by legislation, be aware that you, the Grantor, are giving consent for the collection and use of the personal information on this form for the purpose of conducting and completing geophysical operations.

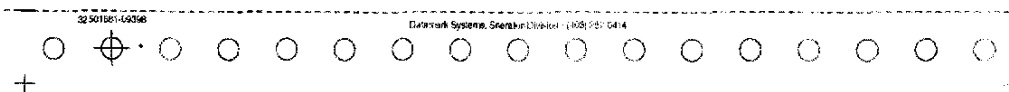
Owner Signature: _____ Phone: (_____) _____ Date: _____, 20____
Lessee/Renter/
Representative Signature: _____ Phone: (_____) _____ Date: _____, 20____

PROJECT NAME: _____	FILE NO.: _____
Company Name: _____	
Contact Person: _____	Phone: (_____) _____
Address: _____	
Permit Agent: _____	Phone: (_____) _____
Permit Agent Signature: _____	Cert. No.: _____

Amount \$ _____ Date _____ 20____ Cheque # _____
Amount \$ _____ Date _____ 20____ Cheque # _____

Revised January 14 2005

DESIGNATIONS



Part 1 - CLIENT COPY
Part 2 - FILE COPY
Part 3 - LANDOWNER COPY



GEOPHYSICAL OPERATIONS PLAT

Approved by CAGC
CAPP, SEPAC, FAO, SRD
Page _____ of _____

Note: The Features on this Plat are approximate in scale. The location of the seismic line(s) are approximate and should vary slightly depending upon the survey, the terrain and obstacles. Cross-hatched portions of the plat do not relate to this permit.

2D 3D

Helicopter Ops

24 HR. Ops

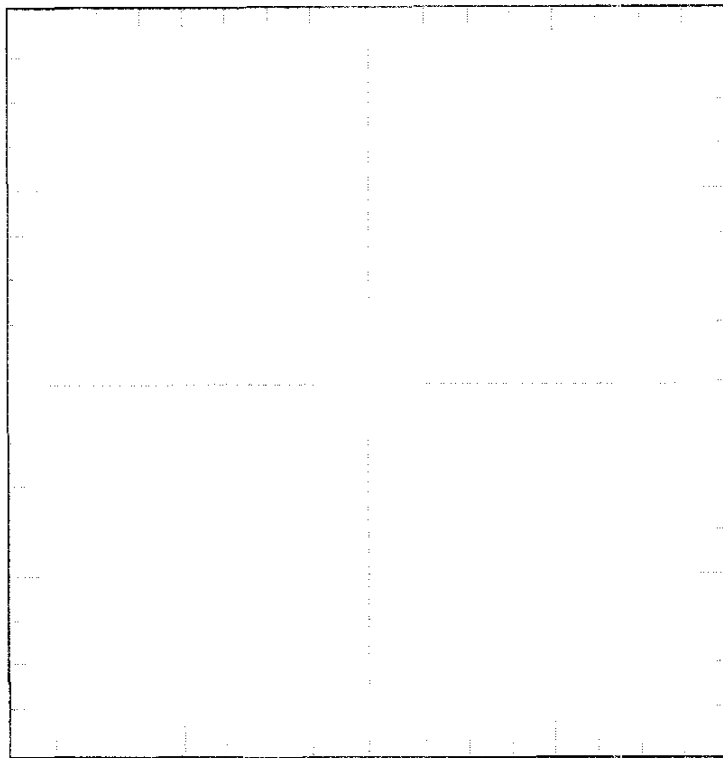
ENERGY SOURCE:

Dynamite

Vibroseis

(OTHER) _____

Line No. _____



Owned Leased Rented
 Owned Leased Rented
 Owned Leased Rented

of Section _____ TWP _____ RGE _____ W _____ M _____
of Section _____ TWP _____ RGE _____ W _____ M _____
of Section _____ TWP _____ RGE _____ W _____ M _____

Yes No WATER: *draw may detail around or use existing crosshairs*

- Creeks, River _____
- Sloughs, Low Areas, Muskeg
- Irrigation, Canals, Water Lines, U/G Power
- Prior Flowing Holes, depth _____
- Drill Water/Temp Div Lic _____

Yes No WATER SUPPLY: In Use _____ Locations and Comments _____

- Domestic Well
- Livestock Well
- Spring
- Dugouts
- Well in Pits

Yes No VEGETATION / LIVESTOCK:

- Crops (Type, Date, etc.) _____
- Trees / Brush
- Mechanical Cut _____ ft/m
- Chainsaw Cut _____ ft/m
- Livestock (Type, Date, etc.) _____

Yes No SNOWPLOWING:

- Cat Width _____ approx. _____ ft/m
- Tractor Width _____ approx. _____ ft/m
- Snow Cover _____

Yes No FENCES: (Grantor will be compensated to repair fences XXX) (XXX)

- Cut _____
- Drop _____
- Use Gates _____

Yes No BUILDINGS:

- Concrete Foundation / Piers
- Other _____

Yes No ACCESS: _____

- Access or detour as required (indicate approx. location)
- Crew Staging / mag site

Yes No UTILITIES:

- Gas / Oil Wells
- Pipelines
- Overhead Powerlines
- Underground Utilities

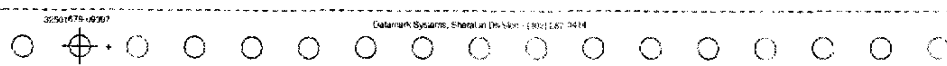
I declare that I have the legal authority or the consent of the Owner, or party lawfully in possession of the Lands, to execute this form and accept payment of permit fees and average fees of which part or all maybe payable on behalf of the Owner or such party. I further do hereby understand and agree to this statement. As required by legislation, be aware that you, the Grantor, are giving consent for the collection and use of the personal information on this form for the purpose of conducting and completing geophysical operations.

Owner Name: _____ Owner Signature: _____ Date: _____ 20____
Lessee/Renter/ Representative Name: _____ Lessee/Renter/ Representative Signature: _____ Date: _____ 20____

PROJECT NAME: _____ FILE NO.: _____
Permit Agent: _____ Permit Agent Signature: _____ Date: _____ 20____

Revised January 14, 2005

DESIGNATIONS:



- Part 1 - CLIENT COPY
- Part 2 - FILE COPY
- Part 3 - CREW COPY
- Part 4 - LANDOWNER COPY



ALBERTA GEOPHYSICAL SETBACK DISTANCE CONSENT FORM

I/We: _____
(Part Name)

Of: _____
(Full Address)

(herein after called the "Grantor") being the Owner Lessee Renter Representative or in possession of the lands

described below, agree to grant the Licensee and the personnel and equipment of its subcontractors (herein after called the "Grantee") to conduct seismic drilling operations according to the Alberta Environmental Protection revised 1997 table of setback distances.

CHARGE WT. _____ SCHEDULE 2 OF ALBERTA EXPLORATION REGULATIONS

Structure	Explosive		Non-Explosive Distance (m)	Test Hole Distance
	Charge Weight (kg)	Distance (m)		
A. Residence, barn, cemetery, a building or structure with a concrete base, irrigation headworks, dam, water well	2 or less	64	50	64
	Greater than 2, not greater than 4	90		
	Greater than 4, not greater than 6	110		
	Greater than 6, not greater than 8	128		
	Greater than 8, not greater than 10	142		
	Greater than 10, not greater than 12	156		
	Greater than 12, not greater than 20	200		
	Greater than 20, not greater than 40	284		
	Greater than 40, not greater than 100	450		

I have read the above table and consent to these distances being used in the following locations:

- water well residence
- structure with concrete base in _____ SEC ____ TWP ____ RGE ____ W ____ M
- water well residence
- structure with concrete base in _____ SEC ____ TWP ____ RGE ____ W ____ M
- water well residence
- structure with concrete base in _____ SEC ____ TWP ____ RGE ____ W ____ M
- water well residence
- structure with concrete base in _____ SEC ____ TWP ____ RGE ____ W ____ M

Comments: _____

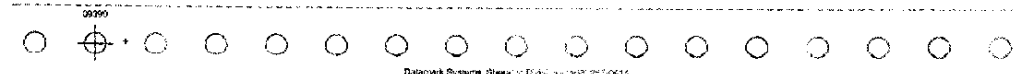
I declare that I have the legal authority or the consent of the Owner, or party lawfully in possession of the Lands, to execute this form and accept payment of permit fees and damage fees of which part or all maybe payable on behalf of the Owner or such party. I further do hereby understand and agree to this statement. As required by legislation, be aware that you, the Grantor, are giving consent for the collection and use of the personal information on this form for the purpose of conducting and completing geophysical operations.

Owner Signature: _____ Date: _____, 20__
 Residence Location: _____ Phone: () _____
 Lessee/Renter/ Representative Signature: _____ Date: _____, 20__
 Residence Location: _____ Phone: () _____

PROJECT NAME: _____ **FILE NO.:** _____
Company Name: _____ **Line Number(s):** _____
Contact Person: _____ **Phone:** () _____
Address: _____
Permit Agent: _____ **Phone:** () _____
Permit Agent Signature: _____ **Certificate No.:** _____
 Please direct any concerns you may have to the above contacts as soon as possible.

The "Seismic Operations and Farmers' Rights" booklet is available from the Permit Agent or from the Office of the Farmers' Advocate (780) 427-2433.

DESIGNATIONS



Part 1 - CLIENT COPY
 Part 2 - LANDOWNER COPY

GRANTOR: _____

GRANTEE: _____

RE: Legal Description: _____ (The "Lands")

Further to the Permit To Conduct Geophysical Operations (the "Permit") executed by the Grantor on the ____ day of _____, 20__ and by the Grantee on the ____ day of _____, 20__, the undersigned hereby agree as follows:

1. Entry

(a) The Grantee shall contain its operations within the designated area of travel as specified in the Permit and not trespass over other areas of the Lands. The Grantee shall notify the Grantor forty-eight (48) hours prior to entry onto the Lands.

(b) The Grantee shall only use the access routes, driveways and gates designated by the Grantor and shall ensure such access routes, driveways and gates are not obstructed or otherwise blocked.

2. Setbacks

(a) The Grantee shall abide by, at least, the minimum setback distances for shot lines and shot hole drilling as specified in the *Exploration Regulation*, as amended from time to time. In the event the Grantee deems it necessary to conduct its activities and operations within the minimum setback distances, the Grantee shall obtain the prior written consent of the Grantor and use a reduced charge, in the case of explosive operations.

(b) Notwithstanding the *Exploration Regulation* does not provide minimum setback distances for seismic activities and operations near a septic system, in the case of explosive operations, the Grantee shall use a reduced charge for shot holes on or near any septic system on the Lands.

3. Seismic Shot Holes

(a) In the case of explosive operations, the Grantee shall clearly mark and identify the location of each shot hole with an approved tag specifying the Grantee's permit number and geophysical approval number.

(b) Once the explosive charge is loaded, the Grantee shall seal shot holes with a plastic plug specifying the Grantee's permit number and fill the shot holes from bottom to top with bentonite pellets, or another approved impervious material.

(c) The Grantee shall spread any drill cuttings from the shot holes and restore the surrounding ground to its original condition, so far as may be practicable to do so. Alternatively or in addition, the Grantor may request the Grantee to remove any excess drill cuttings from the Lands, at the Grantee's cost.

(d) In the event of a flowing shot hole, the Grantee shall strictly comply with the provisions provided in the *Exploration Regulation*, including, without restriction, the proper plugging of any flowing shot holes and notification to the appropriate government authorities.

4. Equipment

(a) The Grantee shall wash and clean all equipment, machinery and vehicles prior to entry onto the Lands. The Grantee shall give the Grantor the opportunity to inspect all equipment, machinery and vehicles prior to entry onto the Lands.

(b) The Grantee shall not use any plastic or wire flags, tape or ribbon on the Lands, nor shall the Grantee, in the case of explosive operations, stack any dynamite charges on the Lands.

5. Water Wells

(a) Prior to the Grantee commencing its activities and operations on the Lands, the Grantee shall conduct at its own cost, a thorough water well test and water analysis of all water wells on or near the Lands, which shall include, without limitation, testing quality, quantity, flow rate, pre-static level, draw down level, recovery time to pre-static level and migrating gas pollution. The Grantee shall provide the Grantor with the certified results of all testing and water analysis.

(b) The Grantee shall compensate the Grantor for the reasonable costs of the repair or replacement of any water well or water source damaged as a result of the Grantee's activities and operations on or near the Lands.

6. Livestock

(a) To prevent the straying of livestock, the Grantee shall keep all gates closed upon entry onto the Lands.

(b) The Grantee shall not operate any low flying helicopters above, over or near livestock on or near the Lands.

(c) The Grantee shall compensate the Grantor for any damage to fences, gates or corrals or for the retrieving and sorting of livestock that have been spooked or stampeded as a result of the Grantee's operations on, above or near the Lands.

7. Compensation for Damages

(a) The Grantee shall install, operate and maintain equipment, services or systems on the Lands in a good and workmanlike manner so as to minimize damage to the Lands. If any damage should arise as a result of the Grantee's activities or operations, the Grantee shall take immediate steps to rectify the problem and prevent additional damage.

(b) The Grantee shall compensate the Grantor for reasonable damage arising out of the Grantee's activities and operations which, without restricting the generality thereof, shall include, without limitation, damage to buildings, structures, foundations, machinery, fences, gates, culverts, trees, crops or other improvements as well as damage caused by diesel spills and any death of or injury to livestock or fisheries. The

Grantee's responsibility to compensate the Grantor for any reasonable previously undetected damage resulting from its activities and operations shall survive the expiration and termination of the rights and privileges granted to the Grantee under the Permit and this Addendum or the signing of any release.

(c) In the event the Grantee deems it necessary to move or destroy any structures, fences or trees for the purposes of carrying out its activities and operations, the Grantee shall obtain the Grantor's prior written consent. The Grantee shall replace any structures, fences or trees in substantially the same condition and location as existed prior to its removal or alternatively, compensate the Grantor the reasonable costs to repair or replace the said structures, fences or trees.

8. Restoration

(a) After the expiration of this Agreement, or no later than the ____ day of _____, 20____, the Grantee shall restore the Lands to the same condition, so far as may be practicable to do so, existing prior to the Grantee's entry thereon at its sole cost and expense and shall remove all equipment, services and systems from the Lands, including but without limitation all stakes, seismic materials, blasting wires, damaged trees, debris and garbage.

(b) In the event that the Grantee should fail to remove any equipment, services, systems or debris from the Lands, the Grantor shall be at liberty to remove same and all costs incurred by the Grantor shall be paid by the Grantee to the Grantor upon demand.

9. Compliance

The Grantee shall at all times comply with any and all applicable codes, statutes, laws, regulations, permits, licenses, orders and directions of any governmental authority from time to time in force in the Province of Alberta.

10. Liability and Indemnity

(a) The Grantee shall, at all times during the exercise of or reliance upon, the rights and privileges granted to the Grantee within the Permit or this Addendum, maintain in force comprehensive general liability insurance or commercial general liability insurance on a primary basis with umbrella or excess liability coverage with a limit of not less than five million (\$5,000,000.00) per occurrence, covering the Grantee's activities and operations governed by the Permit or this Addendum.

(b) The Grantee shall indemnify and save harmless the Grantor from any and all liabilities, damages, costs, expenses, claims, suits, sanctions, administrative proceedings or actions (including, without limitation, insurance deductibles, and legal fees on a solicitor and his own client full indemnity basis) of any kind whatsoever, caused by or resulting from the Grantee's activities and operations on, above or near the Lands, or in any way resulting from the Grantee's breach of any provision of the Permit or this Addendum including, without restriction, the Grantor's costs of enforcement on a solicitor and his own client full indemnity basis.

11. Early Termination

(a) In the event the Grantee does not complete the steps necessary to undertake its activities and operations upon the Lands within six (6) months of the date of this Addendum, the Grantor may revoke the Permit and Addendum.

(b) In the event of a default on the part of the Grantee in the observance or performance of its obligations contained within the Permit or this Addendum, the Grantor shall be entitled to all rights or remedies available at law, or in equity, including termination of the Grantee's right to enter upon the lands upon delivery of any notice to that effect.

12. General

(a) Save and except for as amended within this Addendum, all other terms and conditions contained in the Permit remain the same and in full force and effect. This Addendum is attached to and forms a part of the Permit, and all terms and conditions contained herein are deemed to be terms and conditions of the Permit. If there is any conflict between this Addendum and any term or condition in the Permit, this Addendum shall prevail.

(b) The Permit and this Addendum constitute the entire agreement between the Grantor and Grantee and replace all previous agreements, if any, whether oral or written, dealing with the Lands.

(c) Notwithstanding anything contained in the Permit or this Addendum, the Grantee's obligations under the Permit or this Addendum shall survive the expiration and termination of the rights and privileges granted to the Grantee for any reason whatsoever, until such time as the Grantee's obligations are satisfied in full.

(d) If any term or condition of the Permit or this Addendum becomes unenforceable, it shall be considered separate and severable from the Permit or this Addendum and the remaining terms and conditions shall continue to be binding.

(e) The observance or performance of any term, covenant or condition of the Permit and this Addendum shall not in any way be deemed to be waived unless the waiver is in writing and signed by the Grantor.

(f) The term "Grantee" in the Permit and this Addendum shall include all agents, permittees, landmen, inspectors, contractors, subcontractors, operators, consultants, surveyors and employees of the Grantee. The Grantee shall not, however, assign the Permit or this Addendum, either in whole or in part, without the written agreement of the Grantor. The term "Grantor" in this Addendum shall include any occupant of the Lands.

(g) The Permit and this Addendum shall be governed by and interpreted in accordance with the Laws of the Province of Alberta and the federal laws of Canada applicable therein. The Parties hereto hereby attorn to the exclusive jurisdiction of the Courts of the Province of Alberta.

(h) The Permit and this Addendum may be executed originally or by facsimile and may be executed in counterparts, each of which when so executed and duly delivered to each party hereto shall be deemed to be an original and both of which shall together constitute one and the same instrument, which shall be sufficient evidence by either such original counterpart.

Dated this ____ day of _____, 20__.

GRANTOR: _____ (grantor)

Per: _____

Per: _____

GRANTEE: _____ (grantee)

Per: _____

Per: _____

List of Independent Laboratories in Edmonton

Lab	Phone #	Address	Analytical	Analytical \$	Comments
AGAT Laboratories Contact: Peter Bradshaw bradshaw@agatlabs.com	780-395-2525	6310 Roper Road	routine water quality total extractable hydrocarbons metals (\$60.50 first + \$31 for each additional) total and fecal coliforms	\$214.50 \$181.50 \$50.11 \$60.50	+ \$3 disposal fee \$7 per sample for digest fee
Caro Analytical Services	780-489-9100	17225 - 109 Avenue			
ALS Environmental	780-413-5227	9936 - 67 Avenue	routine water quality (rou-potable) Total and fecal coliforms metals (met-tot-low) BTEX, F1	\$118.00 \$40.00 \$128.00 \$215.00	+\$2 disposal fee
Maxam Analytics Inc.	780-577-7100	9331 - 48 Street			
Exova Labs	780-438-5522	7217 Roper Road	routine water quality total extractable hydrocarbons total metals total and fecal coliforms	\$125.79 \$249.19/soil \$91.14 \$37.32	\$260.92/water
PBR Laboratories	780-450-3957	9960 - 67 Ave.			

NOTE: Some discrepancy may exist between analytical costs depending on drinking water wells versus water wells.

PRICES LISTED ARE AN ESTIMATE ONLY, PLEASE CONFIRM WITH THE COMPANY.