



Licensee Liability Rating Program

Guideline PNG025

November 2015

Revision 1.0

Governing Legislation:

Act: *The Oil and Gas Conservation Act*

Regulation: *The Oil and Gas Conservation Regulations, 2012*

Record of Change

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1. Introduction

The Ministry of the Economy (ECON) Guideline: Licensee Liability Rating (LLR) Program Guideline has been prepared to explain the policies and procedures used to determine a licensee's LLR. The intent of the LLR program is to assess and manage the financial risk that a licensee's well and facility abandonment and reclamation liabilities pose to the Orphan Fund. The Orphan Fund is responsible for carrying out the abandonment and reclamation of the wells and facilities contained within the LLR Program when a licensee/working interest owner is defunct or missing.

The LLR is a rating that is calculated on a monthly basis for all licensees of oil/gas/service wells and upstream oil and gas facilities in the province. The LLR is the licensee's ratio of assets to liabilities as determined or deemed under the provisions of the program.

A licensee's deemed asset value is measured in terms of their net production value. The deemed liability is the total cost for the future abandonment and site reclamation of all wells and upstream facilities licensed to the licensee. Under the provisions of the program, if a licensee's LLR is less than 1.0, meaning that the deemed liability is greater than the deemed assets, that licensee will be required to submit a security deposit to the ministry in the amount of the difference. If the LLR is greater than or equal to 1.0 then a security deposit will not be required.

2. LLR Equation and Terms:

The LLR Program assesses the inventory of all wells and facilities held by a licensee to determine potential financial risk to the Oil and Gas Orphan Fund in terms of that licensee's future costs to abandon and reclaim their wells and facilities. The basic tool used to assess this potential risk for each company is the LLR equation. The equation and a discussion of its parameters are below:

$$LLR = \frac{\text{Deemed Asset}}{\text{Deemed Liability}} = \frac{m^3 \text{ OE } \times \text{Industry Netback} \times \text{return Period}}{\sum [(\text{Abandonment Cost} + \text{Reclamation Cost}) \times \text{PVS}]}$$

The LLR is the licensee's deemed asset to deemed liability ratio as determined by the minister under the authority of the *Oil and Gas Conservation Act*. A licensee's deemed asset value is measured in terms of their net production value. The deemed liability is the total cost for the future abandonment and site reclamation of all a licensee's wells and upstream facilities. Under the provisions of the program, if a licensee's LLR is less than 1.0, that licensee will be required to submit a security deposit to the ministry in the amount of the difference between the deemed liability and deemed asset value. If the LLR is greater than or equal to 1.0, a security deposit will not be required.

2.1 Deemed Asset Calculations

The deemed asset value of a licensee is the cash flow derived from the oil and gas production reported to Petrinex. Deemed asset is calculated by multiplying a licensee's reported production of oil and gas from the preceding 12 calendar months in cubic metres oil equivalent by the 3-year rolling average industry netback by the return period which is equivalent to 3 years.

The m³ OE is defined as the licensee's total production of oil and gas over a 12 month period. The gas production volume is converted to a sales gas volume using a provincial average shrinkage factor. This sales gas volume is then converted into an economic oil equivalent (OE) volume using a gas/oil conversion factor (OE conversion factor). The industry netback is calculated using a rolling 3-year provincial industry average netback. These factors can be found in Appendix 4.

2.2 Deemed Liability Determination for Wells

The deemed liability term in the equation above is defined as the total cost, determined by the minister, to abandon/decommission all of a licensee's wells and facilities and to reclaim the sites of those wells and facilities.

The standard or deemed abandonment liability for a well considers its geographic location, depth and down-hole completion scenario. Please refer to Appendix 1 for the Provincial Well Abandonment Cost Table.

The deemed reclamation liability for a well or facility site considers its geographic location based on the Area Reclamation Cost Table (Appendix 3). The regional abandonment and reclamation cost tables are based on the Petroleum and Natural Gas Division Regional Administration Areas. There are four areas: Area 1 – Lloydminster, Area 2 – Kindersley, Area 3 – Swift Current and Area 4 – Estevan. The reclamation liability cost in each area can be found in Appendix 3. Newly drilled wells are given a one year grace period from their spud date in which they will not incur any abandonment or reclamation liability.

2.3 Deemed Liability Determination for Facilities

As is the case for wells, the deemed liability for a facility is defined as the total cost to abandon/decommission the facility and reclaim the facility site.

For the purpose of determining the deemed liability cost of a specific facility, well equivalents are assigned. The well equivalent is a term used to capture the relative liability of a facility as compared to a well and takes into account factors such as facility throughput and facility type. The well equivalents for multi well oil batteries and gas processing plants are calculated using reported throughputs and the equations in the Facility Well Equivalent Table in Appendix 2. In the cases where the reported throughput is not available, for example a newly licensed facility, the design capacity is used. The remaining facilities in the table are assigned static well equivalents by facility type.

Once the well equivalent for a facility is determined, the equation below is used to calculate the deemed liability:

$$\text{Deemed Liability} = \text{Well Equivalent} \times (\text{Basic Abandonment Cost} + \text{Area Reclamation Cost}) \times PVS$$

Where:

Basic Abandonment Cost = \$10,000 per well equivalent

Area Reclamation Cost = Reclamation cost corresponding to the specific area the facility is located (see Appendix 3)

2.4 Present Value and Salvage Factor (PVS)

The present value and salvage factor is assigned to a well or facility to reflect the timing of abandonment and reclamation and the future value of equipment salvage. The PVS factor varies based on whether the well or facility is active, inactive or used for swabbing. Specifically, the PVS factors are 0.75 and 0.5 for an active well and active facility, respectively. The PVS is 1.0 for inactive wells, swab wells and inactive facilities.

Where a company transfers a well or facility (this affects both seller and buyer) the PVS factor for all the licensed wells and facilities of both parties will be irrevocably set to 1.0. **This is a very important consideration for companies wishing to buy or sell wells and/or facilities, since their post-transfer liability will be assessed at a much higher rate following the transfer than would normally be the case.**

3. LLR Assessments and Security Deposits

There are two purposes for which LLR assessments are normally conducted. The primary purpose is the monthly LLR assessments for each licensee. This assessment is conducted on a scheduled basis as a means of assessing a licensee's on-going financial fitness with respect to their ability to address future abandonment and reclamation costs. The second purpose for which LLR assessments are conducted is where a licensee applies to transfer well and/or facility licence(s) to another party. An LLR assessment is conducted to determine whether or not the transfer in question will invoke any security deposit requirements. For example, where the facilities or wells being transferred carry a higher deemed liability than deemed asset value, a security deposit may be required before the licenses will be transferred.

3.1 Monthly LLR Assessments

ECON continuously performs monthly LLR Assessments of each licensee. Should a licensee's LLR fall below 1.0, the resulting security deposit must be submitted within 60 days of a notice provided by the ministry.

Similarly, if a licensee's previous month's LLR assessment was less than 1.0, and following that, their monthly LLR continues to decrease, the additional security deposit requirements over and above the initial amounts must be submitted within 60 days of a notice provided by the ministry.

Licensees that maintain their LLR at or above 1.0 will not be subject to security deposit requirements.

3.2 Licence Transfer Assessments

If a licensee wishes to have well or facility licenses transferred by ECON to another licensee, a Licence Transfer Application must be completed and submitted in conjunction with the other company. An LLR assessment is then conducted for the transferor and the transferee. Liability of both companies is calculated on the basis that the transfer has been approved. If the post transfer LLR is less than 1.0 and less than the pre-transfer LLR for either party then a security deposit or deposits must be submitted before the ministry will transfer the licenses. Licensees will be notified in writing of security deposit requirements and provided with 30 days of the dated notice in which to submit the deposit. As stated in section 2.4, if the transfer is completed, the PVS factors for all the wells and facilities that both parties own will be irrevocably set to 1.0.

If the assessment shows that the post-transfer LLR of both parties involved is equal to or greater than 1.0, there will be no security deposit requirements and the transfer can proceed provided that the eligibility criteria are met as set forth in section 12 of the *Oil and Gas Conservation Regulations, 2012*.

3.3 Unassessed Problem Sites – How they affect LLR Assessments

A site identified by ECON through an on-site inspection that indicates that the site abandonment and/or reclamation liability exceeds the normal deemed amount will be classified as an “unassessed problem site”. ECON will provide notification to the licensee of any site identified as an unassessed problem site. The liability of the site will be set at four times the deemed abandonment and/or reclamation liability or greater depending on the severity of the problem. Where a site has been identified as an unassessed problem site, the licensee must have a site specific liability assessment conducted by a third party professional within a time period specified by ECON. The value determined by the ministry will be used for monthly LLR assessment purposes until the licensee has the site specific liability assessment conducted.

If a licence transfer involving an unassessed problem site is requested, the liability as determined above by the ministry will be multiplied by a factor of 2 for the purposes of calculating the post transfer LLR. This is to account for the uncertainty and risk involved in transferring a licence for a site that has been classified as a problem site, but where a site specific assessment has not been conducted to quantify the liability. A licensee acquiring an unassessed problem site will have the site’s liability calculated at this higher rate for monthly and transfer LLR assessments until the unassessed problem site identification is removed or converted to a designated problem site.

3.4 Designated Problem Sites

In the case that the results of a site-specific liability assessment verify that the site has an abandonment and/or reclamation liability greater than the deemed amount, the site will be reclassified as a “designated problem site” and the liability as determined by the site-specific assessment will be used for LLR purposes. This classification will remain in effect until abandonment and/or reclamation-related progress has been made at the site. For designated problem sites, both monthly and licence transfer LLR assessments are conducted in the same manner. PVS factor does not apply to designated problem sites.

3.5 Security Deposit

As stated in section 3.1 a licensee whose LLR assessment is less than 1.0 (LLR<1.0) will be advised by ECON of the amount of security deposit that is due. The amount of the security deposit required will be calculated as the difference between the deemed liabilities and the deemed assets.

Full security deposit payments may be returned once a licensee’s LLR is equal to or greater than 1.0. As well, partial refunds of the security deposit can be made where an improvement in the LLR has been achieved. To obtain a refund the licensee must maintain their improved LLR for a period of at least six months and then submit, in writing, a request for the return of the letter of credit.

3.6 Appeals

The Saskatchewan LLR program has been designed to be flexible and provide licensees that have an LLR rating below 1.0 with the ability to submit an appeal. Licensees should be aware that when submitting an appeal, the appeal must be comprehensive, containing documentation and cost data on all of the LLR factors. ECON will only assess the appeal based on all of the various factors used in the calculation of each licensee's LLR. ECON will not accept an appeal that is not comprehensive. Requests for an appeal should be made by letter submitted to the Petroleum Development Branch.

The netback value portion of the appeal must include a completed Licensee Netback Calculation Form (Appendix 6) as well as all financial information supporting the calculation. If a licensee does not have three years of history, the netback calculation must include the industry average for those years required to make up the three year period.

The site specific section of the appeal must contain a detailed third party abandonment cost estimate for each licensed well and facility including problem wells (gas migration, surface casing vent flows, etc.). It also must contain third party reclamation cost assessments for each of the licensee's licensed wells or facilities. Reclamation costs must be based on actual site conditions, including contaminated sites, for each of the company's locations.

3.7 How to Submit

Any security deposit requirements arising from the above-mentioned assessments should be in the form of an irrevocable letter of credit or cash payment. Cheques and letters of credit should be made payable to: The Minister of Finance – The Oil and Gas Orphan Fund. Please note that the letter of credit must be from a recognized Canadian bank or credit union. Payment should be sent to:

Liability Management Group
Saskatchewan Ministry of the Economy
#1000, 2103 – 11th Avenue
Regina, SK S4P 3Z8

4. Liability Reduction

To reduce the liability associated with a well or facility licence when it is no longer used for the purpose for which it was intended, the well or facility must be abandoned or decommissioned and the site assessed and reclaimed.

4.1 Well Abandonment

In order to remove the abandonment liability for a well, it must be properly abandoned according to sections 44-48 of *The Oil and Gas Conservation Regulations, 2012*.

4.2 Facility Abandonment/Decommissioning

In order to reduce the abandonment liability for a facility, the facility must be fully decommissioned by removing all process equipment, tanks, buildings and any associated equipment or structures; removing all produced liquids; and removing and appropriately disposing of any structural concrete. A report then must be submitted to the Petroleum

Development Branch including the type and location of the facility, a legal survey, a clearly labeled photo log depicting the entire lease and a letter signed by an official within the company requesting the status of the facility to be changed to abandoned and the deemed abandonment liability set to zero.

4.3 Acknowledgement of Reclamation

Once a well the well is abandoned or a facility is decommissioned the site must be assessed and reclaimed in accordance with Section 56 of *The Oil and Gas Conservation Regulations* and the *Acknowledgment of Reclamation (AOR) Directive* available on Saskatchewan.ca. This guideline provides requirements that must be met in order to lower or eliminate the deemed reclamation liability for a specific well or facility. If the requirements are met, the deemed reclamation liability is set to zero and an Acknowledgement of Reclamation is issued by ECON.

4.4 Application for Exemption from Reclamation

In cases where a licensee has not yet completed the reclamation work at a site and another licensee wishes to obtain the site for their own purposes, the first licensee may apply for an exemption from reclamation whereby the second licensee assumes liability for future reclamation of the site. In order to execute this agreement both licensees must jointly complete the *Exemption from Reclamation Form* available on Saskatchewan.ca.

4.5 Multiple Licences on a Lease

Where more than one well or licensed facility belonging to a single licensee exists on a lease the liability of the site can be reduced by submitting a request to ECON. The request letter should provide the following information:

- Licensee’s name
- Licensee representative contact name, email and phone number
- Identify the purpose of the letter is to request the liability of associated wells or facilities on a lease be reduced
- Details of the site, such as the well or facility licence numbers included in the request along with their current reclamation liability
- An up to date survey plan with the applicable wells or facilities identified

Email the request letter as a single pdf attachment to Petroleum and Natural Gas (PNG) Services at PNG.support@gov.sk.ca with “Reduction in liability for multiple licences on a site” in the subject line. If the request is approved the liability of qualifying associated wells or facilities will be reduced to full abandonment liability plus 10% of the original reclamation liability.

Example: Where two active wells, operated by a single licensee, exist on a single lease, the licence can submit a request to reduce their reclamation liability on the site. Once approved the licensee reclamation liability for the site would be reduced by \$12,240 (based on the figures in the example below).

Active Licence	Reclamation Liability	
	Before Appeal	After Appeal Approval
Vertical Well Licence (V)	\$13,600	\$13,600
Horizontal Well Licence (HZ)	\$13,600	\$1,360
Total:	\$27,200	\$14,960

Appendix 1 - Provincial Well Abandonment Cost Table

Area	Well Configuration	Lower Well Depth (m)	Upper Depth (m)	Well Abandonment Cost
Any	Swab Wells	Any	Any	\$5,100.00
Any	Water Source Wells	Any	Any	\$5,100.00
1	Empty, Not Perforated	0	1199	\$5,100.00
		1200	1999	\$5,100.00
		2000	2499	\$5,100.00
		2500	2999	\$5,100.00
		>=3000	99999	\$5,100.00
1	Empty, Perforated	0	1199	\$12,300.00
		1200	1999	\$13,700.00
		2000	2499	\$15,100.00
		2500	2999	\$16,900.00
		>=3000	99999	\$19,800.00
1	Tubing Only	0	1199	\$16,800.00
		1200	1999	\$18,100.00
		2000	2499	\$32,600.00
		2500	2999	\$39,000.00
		>=3000	99999	\$49,500.00
1	Tubing and Rods	0	1199	\$18,900.00
		1200	1999	\$31,300.00
		2000	2499	\$34,500.00
		2500	2999	\$41,500.00
		>=3000	99999	\$53,900.00
1	Multi-zone Completion			+25% per completion
2	Empty, Not Perforated	0	1199	\$5,100.00
		1200	1999	\$5,100.00
		2000	2499	\$5,100.00
		2500	2999	\$5,100.00
		>=3000	99999	\$5,100.00
2	Empty, Perforated	0	1199	\$11,800.00
		1200	1999	\$13,100.00
		2000	2499	\$14,500.00
		2500	2999	\$16,200.00
		>=3000	99999	\$16,200.00
2	Tubing Only	0	1199	\$17,500.00
		1200	1999	\$26,300.00
		2000	2499	\$30,000.00
		2500	2999	\$38,200.00
		>=3000	99999	\$38,200.00
2	Tubing and Rods	0	1199	\$20,100.00
		1200	1999	\$28,500.00
		2000	2499	\$32,300.00
		2500	2999	\$40,700.00
		>=3000	99999	\$40,700.00
2	Multi-zone Completion			+25% per completion

Appendix 1 con't - Provincial Well Abandonment Cost Table

Area	Well Configuration	Lower Well Depth (m)	Upper Depth (m)	Well Abandonment Cost
3	Empty, Not Perforated	0	1199	\$5,100.00
		1200	1999	\$5,100.00
		2000	2499	\$5,100.00
		2500	2999	\$5,100.00
		>=3000	99999	\$5,100.00
3	Empty, Perforated	0	1199	\$11,800.00
		1200	1999	\$13,100.00
		2000	2499	\$14,500.00
		2500	2999	\$16,200.00
		>=3000	99999	\$16,200.00
3	Tubing Only	0	1199	\$17,500.00
		1200	1999	\$26,300.00
		2000	2499	\$30,000.00
		2500	2999	\$38,200.00
		>=3000	99999	\$38,200.00
3	Tubing and Rods	0	1199	\$20,100.00
		1200	1999	\$28,500.00
		2000	2499	\$32,300.00
		2500	2999	\$40,700.00
		>=3000	99999	\$40,700.00
3	Multi-zone Completion			+25% per completion
4	Empty, Not Perforated	0	1199	\$5,100.00
		1200	1999	\$5,100.00
		2000	2499	\$5,100.00
		2500	2999	\$5,100.00
		>=3000	99999	\$5,100.00
4	Empty, Perforated	0	1199	\$12,300.00
		1200	1999	\$13,700.00
		2000	2499	\$15,100.00
		2500	2999	\$16,900.00
		>=3000	99999	\$19,800.00
4	Tubing Only	0	1199	\$16,800.00
		1200	1999	\$18,100.00
		2000	2499	\$32,600.00
		2500	2999	\$39,000.00
		>=3000	99999	\$49,500.00
4	Tubing and Rods	0	1199	\$18,900.00
		1200	1999	\$31,300.00
		2000	2499	\$34,500.00
		2500	2999	\$41,500.00
		>=3000	99999	\$53,900.00
4	Multi-zone Completion			+25% per completion

Appendix 2 – Facility Well Equivalents Table

Facility Type	Reported Throughput	Well Count Equivalency
Multi Well Oil Battery	0-50 m ³ /day	WE = 5
	50 - 6933.3 m ³ /day	WE = [(vol-50) x A]+5, A=0.005085
	>6933.3 m ³ /day	WE=40
Gas Processing Facilities	0-900 10 ³ m ³ /day	WE = 10
	900 - 5700 10 ³ m ³ /day	WE = [(vol-900) x C]+10, C=.00625
	>5700 10 ³ m ³ /day	WE = 40
Multi Well Swabbing Oil Battery	Any throughput level	WE = 1
Cleaning Plant	Any throughput level	WE = 5
Gas Compression Facility	Any throughput level	WE = 5
Multi Well Gas Battery	Any throughput level	WE = 5
LPG Storage Facility	Any throughput level	WE = 5
Production/Injection Satellite	Any throughput level	WE = 2
Waste Plant/Reclaimer/Skim Oil	Any throughput level	WE = 5
Water Injection/Disposal Facility	Any throughput level	WE = 2.5
EOR Injection Facility	Any throughput level	WE = 4

Appendix 3 – Area Reclamation Cost Table

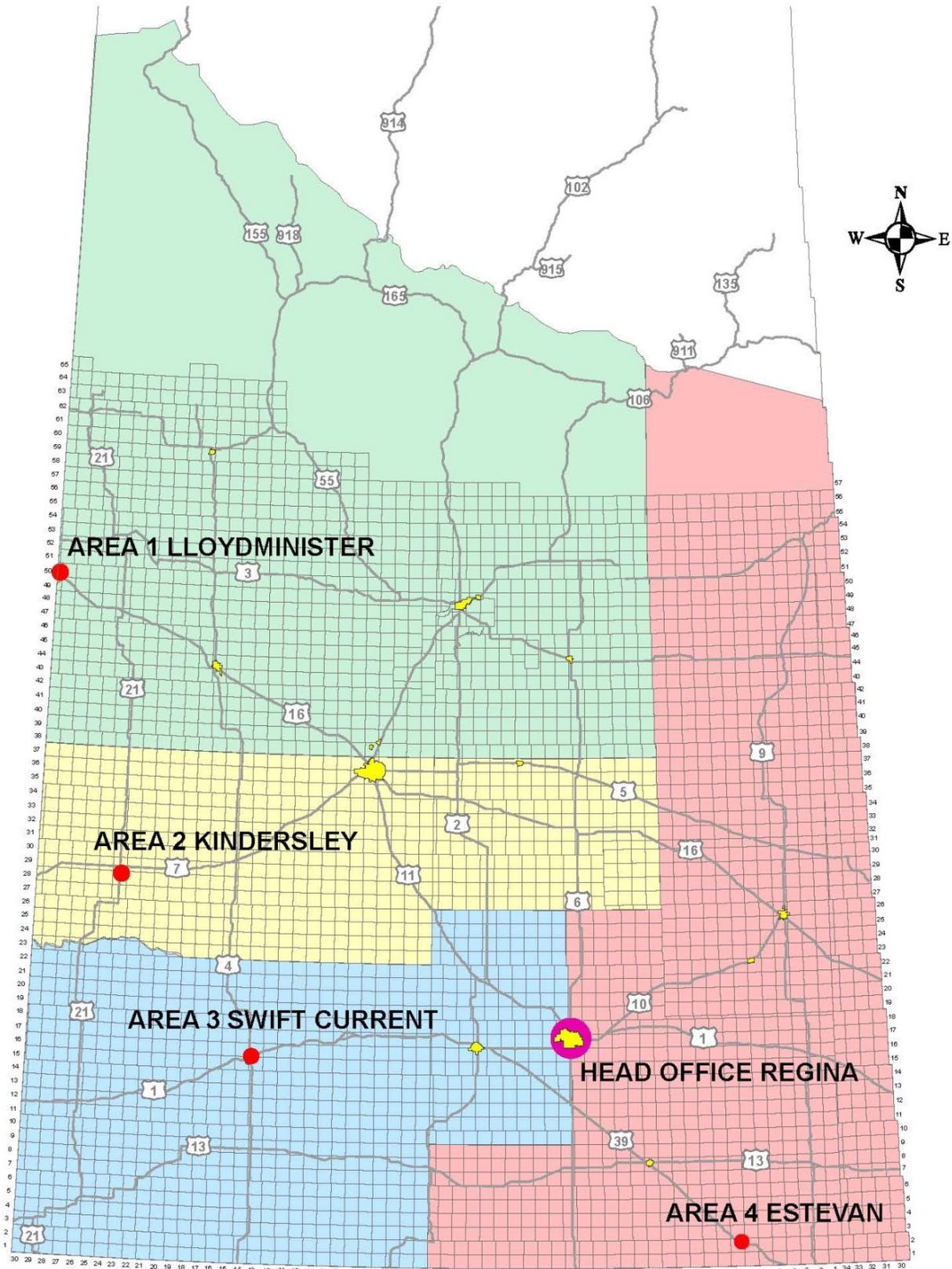
Area	Reclamation Cost
1	\$22,200.00
2	\$22,200.00
3	\$13,600.00
4	\$22,200.00
Swab Wells	\$5,100.00
Water Source Wells	\$5,100.00

Appendix 4 – LLR Factors

Industry Average Netback (\$/m³OE)	Oil Equivalent (OE) (Mm³gas/m³oil)	Shrinkage Factor (%)
\$148.98	0.9715	23.0%

Appendix 5 – Field Office Area Map

SASKATCHEWAN PNG OFFICE ADMINISTRATIVE BOUNDARIES



Appendix 6 – Licensee Netback Calculation Form

	Saskatchewan Ministry of the Economy	Licensee Liability Rating Program Licensee Netback Calculation Form	Petroleum and Natural Gas
Applicant Information			
Company Name			
Company/Agent Contact			
Mailing Address			
City		Province	
Postal Code			
Telephone		Fax:	
E-Mail Address			
Calculation			
	Year 1	Year 2	Year 3
Oil Revenue (\$)			
Gas Revenue (\$)			
Royalty Cost (\$)			
Operating Cost (\$)			
Net Revenue (\$ Oil)			
Production (m ³)			
Gas Production (10 ³ m ³)			
Sales Gas Production (10 ³ m ³)			
AVG. OIL Price (\$/m ³)			
AVG. Sales Gas Price (\$/10 ³ m ³)			
OE ratio (Economic equivalent) (10 ³ m ³ /m ³)			
Shrinkage Factor (%)			
Annual Netback (\$/10 ³ m ³)			
3 Year AVG. Netback (\$/10³m³) 3			
Year AVG. OE ratio (10³m³/m³)			
3 Year AVG. Shrinkage Factor (%)			
Signature and Date			
<p>I hereby certify that I am authorized to represent the above mentioned licensee and I certify that the information submitted herein is correct and accurate to the best of my knowledge.</p>			
Name:		Title:	
Signature:		Date:	
		Year	Month
			Day