



Burlington Resources Canada Ltd.

Applications for Three Well Licences
Pembina Field

November 7, 2006

ALBERTA ENERGY AND UTILITIES BOARD

Decision 2006-110: Burlington Resources Canada Ltd., Applications for Three Well Licences,
Pembina Field

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CONTENTS

1	Decision	1
2	Introduction.....	1
2.1	Applications.....	1
2.2	Intervention.....	1
2.3	Hearing	1
3	Issues.....	2
4	Need for the Wells	2
5	Impact of the Wells.....	2
6	Emergency Response Planning.....	3
Appendices		
1	Hearing Participants.....	7
2	Summary of Commitments and Conditions.....	8
	Figure 1 Map of the Project Area.....	9

ALBERTA ENERGY AND UTILITIES BOARD

Calgary Alberta

**BURLINGTON RESOURCES CANADA LTD.
APPLICATION FOR THREE WELL LICENCES
PEMBINA FIELD**

**Decision 2006-110
Applications No. 1448800, 1460293, and 1460301**

1 DECISION

Having carefully considered all of the evidence, the Alberta Energy and Utilities Board (EUB/Board) hereby approves Applications No. 1448800, 1460293, and 1460301. The Board also considered the associated site-specific emergency response plans (ERP) as part of the hearing and is satisfied that the ERPs are technically complete and meet all EUB requirements.

2 INTRODUCTION

2.1 Applications

Burlington Resources Canada Ltd. (Burlington) applied, pursuant to Section 2.020 of the *Oil and Gas Conservation Regulations*, for licences to drill three level-3 critical sour oil wells from an existing well site in Legal Subdivision (LSD) 6 of Section 6, Township 49, Range 8, West of the 5th Meridian (6-6). The three wells are to be directionally drilled from the 6-6 surface location to projected bottomhole locations in LSD 14-6-49-8W5M (14-6), LSD 3-7-49-8W5M (3-37), and LSD 7-6-49-8W5M (7-6). The anticipated maximum hydrogen sulphide (H₂S) concentration is expected to be 250 moles per kilomole (25.0 per cent), and the anticipated cumulative H₂S release rate for the drilling and completion phases of the wells will be 2.25 cubic metres per second, with a corresponding calculated emergency planning zone (EPZ) of 4.0 kilometres (km). The purpose of all three wells would be to obtain oil production from the Nisku Formation. The existing 6-6 surface location is located 11.0 km west from the Town of Drayton Valley.

2.2 Intervention

Barney Olynyk and Darlene Olynyk (the Olynyks), residents within the EPZ, objected to the applications based on concerns regarding emergency response planning, cumulative effects, proliferation, and the impact of the wells on their health.

2.3 Hearing

The Board held a public hearing in Drayton Valley, Alberta, on September 11, 2006, before Acting Board Members C. A. Langlo, P.Geol. (Presiding Member), F. Rahnama, Ph.D., and N. G. Berndtsson, P.Eng. The Board panel and staff conducted a tour of the general area on September 10, 2006, prior to the opening of the hearing. Those who participated in the hearing are listed in [Appendix 1](#).

The Board considers the hearing closed as of September 11, 2006.

3 ISSUES

The Board considers the issues respecting the applications to be

- need for the wells
- impact of the wells
- emergency response planning

4 NEED FOR THE WELLS

The Olynyks did not provide views respecting the need for the wells.

Burlington submitted that it had acquired the mineral rights associated with the wells and that the wells were needed to access those rights and to evaluate the potential production of the Nisku Formation in this area. Burlington stated the proposed bottomhole locations were selected after reviewing relevant geological and seismic data and that the drilling of the wells would provide information about specific hydrocarbon reserves and delineation of the geological pools in the area. In addition, Burlington stated that the wells would provide economic benefit in terms of employment opportunities and, if successful, royalties to the Province of Alberta for the benefit of all Albertans.

The Board has reviewed the well licence applications and finds they are complete and meet all necessary EUB regulatory requirements. The Board is also satisfied that there is a need for the wells.

5 IMPACT OF THE WELLS

The Olynyks contended that their health concerns made it impossible for them to be in close proximity to sour gas drilling operations. They submitted that due to these concerns they would ideally like to be relocated during the entire course of drilling and completion operations or at a minimum during the period from the start of sour drilling operations through to the end of completion operations. The Olynyks acknowledged that the Board did not have jurisdiction over matters relating to compensation but nonetheless wanted the Board to direct Burlington to relocate them due to their health concerns.

The Olynyks further explained that noise and visual impacts experienced during drilling operations in the vicinity of their residence would aggravate their health concerns. They expressed concern at being within the vicinity during drilling and completion operations of these wells, as the related noise and activity increased their stress and fear.

The Olynyks also expressed concern about the potential impact of the proposed Burlington wells on their water supply and water wells and requested that their water well be tested prior to and after drilling operations.

Burlington acknowledged the health concerns raised by the Olynyks and submitted that it had taken a number of steps to mitigate those concerns. It stated that it had considered the Olynyks'

special needs in its ERP and through a corporate policy for voluntary relocation and compensation. Burlington stated that this policy was developed as a goodwill gesture for persons who had a desire not to be in the area during sour drilling and completion operations, and it believed that the policy provided for reasonable compensation for the costs incurred by individuals as part of the relocation.

Burlington argued that it was not reasonable for it to provide relocation for the entire course of drilling activity. Burlington stressed that its policy was developed to deal with perceived risk during sour drilling and completion operations and noted that this policy was not a regulatory requirement. Burlington added that its policy was clear, transparent, and in the public domain. It also noted its policy did not require the participants to establish the existence of a medical condition as a precondition.

The Board notes that Burlington and the Olynyks agreed on the terms of voluntary relocation, as described in [Appendix 2](#). Burlington also agreed to test the Olynyks' water well before and after drilling the wells.

The Board acknowledges the concerns raised by the Olynyks that the drilling of sour wells in the vicinity causes the Olynyks a significant amount of stress and that such stress may have an impact on their health. However, the Board is concerned that the medical evidence presented by the Olynyks was not conclusive in this regard, given its general content. The Board is also concerned that because the author of the medical opinion was not present, there was no opportunity for either the applicant or the Board itself to test the medical opinion provided.

The Board acknowledges the agreement reached by the Burlington and the Olynyks with regard to the matter of relocation, but reaffirms that matters of relocation and compensation are beyond EUB regulatory requirements and jurisdiction. The Board also acknowledges Burlington's commitment to test the Olynyks' water well.

6 EMERGENCY RESPONSE PLANNING

The Olynyks expressed concern regarding the ERP, as they felt that there was inadequate evidence to confirm that the ERP provided adequate protection because there had not yet been an incident to test the ERP process. The Olynyks acknowledged that they had not requested a copy of Burlington's entire ERP plan for these wells; however, they did confirm that they had received a copy of the ERP information package from Burlington and that the emergency response service provider had discussed the information package with them. The Olynyks explained that they had some discussion with Burlington regarding the ERP and a planning exercise, but they said that they had not participated in any planning exercises.

The Olynyks expressed concern about the number of ERPs in which they resided and received information on. They stated they had received and were reviewing 35 new EPZ information packages for wells where they would be within the EPZ. The Olynyks also expressed frustration regarding the volume of telephone calls received from oil company representatives regarding the ongoing oil and gas development in the area.

Burlington stated that its ERPs were developed using an experienced consultant to ensure that regulatory requirements including public consultation and the identification of special hazards were dealt with. Burlington acknowledged that H₂S was the primary hazard that would activate an ERP. It also noted that it had drilled four similar wells to date in this area, all with site-specific approved ERPs, and that one ERP was successfully tested through a full deployment exercise.

Burlington noted that during its public consultation it met with the Brazeau County, the Royal Canadian Mounted Police, and the David Thompson Health Region regarding its applications and ERP and that comments received regarding the ERP were incorporated. In addition, specific roles and responsibilities were agreed upon for the county in the event of an emergency, in accordance with the *Alberta Government Plan: Upstream Petroleum Incident Support Plan*.

Burlington contended that the ERPs could adequately deal with people with medical sensitivities or special needs. It noted that this information was collected while completing the *Directive 071: Emergency Preparedness and Response Requirements for the Upstream Petroleum Industry* consultation. Burlington further noted that the ERPs detailed all special needs and egress issues, including provisions for the evacuation of people with special needs in the event of an emergency. Burlington noted, however, that *Directive 071* did not require such action during noncritical drilling or completion operations.

Burlington stated that it considered its ERPs adequate to protect public health and safety and in many instances exceed minimum regulatory requirements. It reiterated that in the case of an emergency, rovers would continuously monitor through the EPZs on a daily basis to ensure awareness of any activities taking place.

Burlington acknowledged the concerns expressed by the Olynyks arising as a result of their residence in numerous EPZs and the confusion about overlapping EPZs. Burlington noted that through a consultant it had prepared an overlapping EPZ map that included the area wells and associated EPZs, which in turn allowed Burlington to identify EPZs that the Olynyks resided in. However, it could not confirm if this information was provided to the Olynyks or the availability of this for public review.

Burlington noted that while the Olynyks were in the drilling EPZs, they would most likely not be in the production EPZs. Burlington advised that it was compliant with current EUB requirements relating to overlapping EPZs when conducting critical sour drilling operations and noted that *Directive 071* did not allow more than two wells with overlapping EPZs to conduct simultaneous sour operations. Burlington committed to ensuring that the Olynyks were incorporated into the ERP of the producing operator. It also committed to notify the Olynyks of any workover operations commencing on the applied-for wells, even though they would be outside of the associated producing EPZ. Burlington further committed to ensuring that the Olynyks were notified of any H₂S concentration changes that may affect the EPZs for the life of the wells.

Burlington noted that while the Olynyks did not request a copy of the ERPs, during its public consultation program a general ERP information handout was created and distributed to them. Burlington outlined the difficulties companies were faced with when consulting the public in an area where numerous operations were taking place; however, Burlington was of the view that

developing a “one-size-fits-all” ERP would not necessarily be the solution due to the nuances specific to each company.

The Board acknowledges the concerns expressed by the Olynyks relating to the current level of drilling activity in the area. It also acknowledges that landowners and residents may be faced with numerous information packages and notification documentation. However, the Board believes that these requirements are a key part of its mandate to ensure that potentially impacted parties are provided basic information and notification.

The Board notes the concerns raised by the Olynyks regarding overlapping EPZs, including what is meant by an overlapping EPZ, when it is in effect, and who is affected by it. It is for these reasons that the EUB has overlapping EPZ policies to restrict simultaneous drilling operations in sour zones. In this regard, the Board notes that Burlington’s use of its affiliate company name on letterhead in its correspondence with the Olynyks may have added to this confusion. The Board would strongly encourage Burlington to ensure that its official correspondence accurately reflects the point of corporate responsibility and provides clarity to landowners.

The Board recognizes Burlington’s commitment to notify the Olynyks of any change in H₂S concentration that would change EPZs for the life of the wells. The Board expects that Burlington will communicate this condition to all subsequent operators and owners of these wells.

The Board notes that although the Olynyks will not be in the associated production EPZ for the wells in question, Burlington has committed to provide them with notification of any workover operations and production changes that may affect the EPZ.

The Board recognizes that Burlington conducted a simulation exercise, which the Olynyks did not participate in. The Board believes such exercises are important in ensuring that company responders and any contract safety operators are familiar with the emergency response actions detailed in the ERP. The Board believes participation in such exercises assists the public in understanding the how an ERP works and the value of conducting such planning exercises. The Board believes that such participation may have helped to increase the Olynyks’ confidence in the ERP process. The Board has reviewed and is satisfied that the ERP meets the requirements set out in *Directive 071*.

The Board is satisfied that Burlington has, through its correspondence and consultation with the Olynyks, provided reasonable options and specific commitments to address their concerns.

The Board also reiterates the commitment it made in *Decision 2006-087: Dominion Exploration Canada Ltd.* to establish a committee to investigate how to better coordinate emergency response planning within the Pembina area and encourages industry to fully participate on this committee. The Board recognizes that Burlington and the Pembina Nisku Operators Group (PNOG) have established a technical review panel to review the air quality in the area and potentially develop an air quality monitoring program for the area. The Board believes that the air quality initiative is important and encourages ongoing participation.

Dated in Calgary, Alberta, on November 7, 2006.

ALBERTA ENERGY AND UTILITIES BOARD

C. A. Langlo, P.Geol.
Presiding Member

F. Rahmana, Ph.D.
Acting Board Member

N. G. Berndtsson, P.Eng.
Acting Board Member

APPENDIX 1 HEARING PARTICIPANTS

Principals and Representatives
(Abbreviations used in report)**Witnesses**

Burlington Resources Canada Ltd. (Burlington)	J. Alexander
G. M. Nettleton	J. Stansbury
J. Jamieson	D. Pane
	T. Smith, P.Eng.
	R. Brown,
	of Bissett Resources Consultants Ltd.
B. Olynyk and D. Olynyk (Olynyks)	B. Olynyk and D. Olynyk
D. Bishop	
Alberta Energy and Utilities Board staff	
J. R. McKee, Board Counsel	
M. Douglas, C.E.T.	
C. Ravensdale	
K. Mather	
L. Isbister	
S. Paulson	

APPENDIX 2 SUMMARY OF COMMITMENTS AND CONDITIONS

The Board notes that during its public consultation program and at the hearing, Burlington committed to undertake certain activities in connection with its operations that are not strictly required by the EUB's regulations or guidelines. These undertakings are described as commitments and are summarized below. It is the Board's view that when a company makes commitments of this nature, it has satisfied itself that these activities will benefit both the project and the public, and the Board takes these commitments into account when arriving at its decision. The Board expects the applicant, having made the commitments, to fully carry out the undertaking or advise the EUB if, for whatever reasons, it cannot fulfill a commitment. The EUB would then assess whether the circumstances regarding the failed commitment warrant a review of the original approval. The Board also notes that the affected parties also have the right to request a review of the original approval if commitments made by the applicant remain unfulfilled.

The Board recognizes the Olynyks' request to make these approvals conditional on the commitments that were made during the course of the hearing and upon Burlington providing reasonable relocation compensation for the period of their relocation. Conditions generally are requirements in addition to or otherwise expanding upon existing regulations and guidelines. The Board would like to state that matters related to compensation are outside the jurisdiction of the EUB. As such, the Board is satisfied that there is no need to condition these approvals.

COMMITMENTS BY BURLINGTON

- Provide at least 72 hours' notification to the Olynyks between the end of the sour drilling operations and the commencement of completion operations.
- Test the Olynyks' water well before and after drilling operations.
- Ensure that the Olynyks are incorporated into the producing operator's ERP.
- Notify the Olynyks of any workover operations.
- Ensure that the Olynyks are notified of any H₂S concentration changes.
- Fulfill commitments made in letters dated June 4, 2006, June 10, 2006, and August 4, 2006, which were all submitted as part of Burlington's submission.

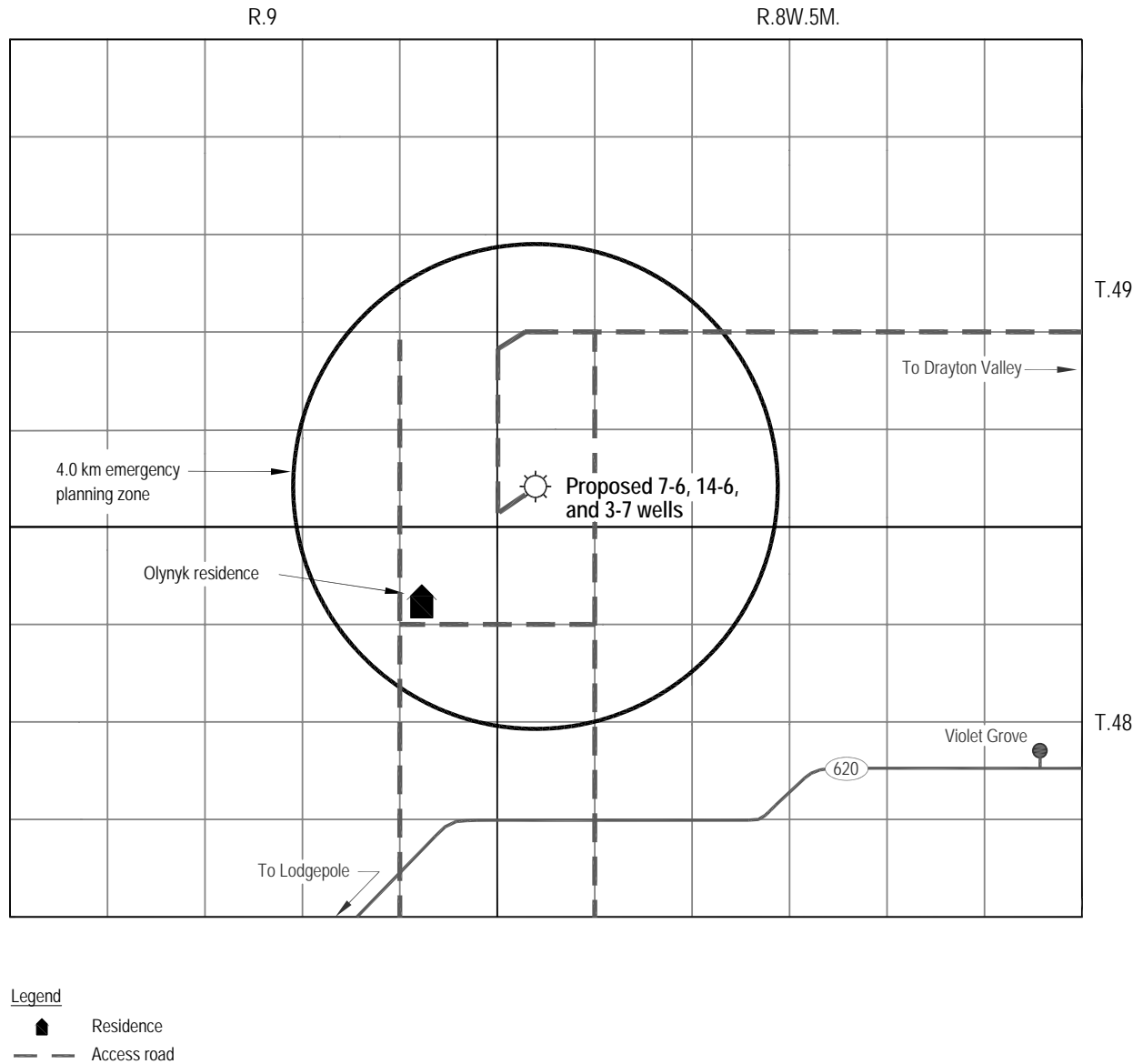


Figure 1. Map of the project area