



Canadian Natural Resources Limited

Application for a Pipeline Licence
Taber Field

February 12, 2008

ALBERTA ENERGY AND UTILITIES BOARD

Decision 2008-012: Canadian Natural Resources Limited, Application for a Pipeline Licence,
Taber Field

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ALBERTA ENERGY AND UTILITIES BOARD

Calgary Alberta

CANADIAN NATURAL RESOURCES LIMITED APPLICATION FOR A PIPELINE LICENCE TABER FIELD

Decision 2008-012
Application No. 1510976

1 DECISION

Having carefully considered all of the evidence, the Alberta Energy and Utilities Board (EUB/Board) hereby approves Application No. 1510976.

2 INTRODUCTION

2.1 Application

Canadian Natural Resources Limited (CNRL) has applied, pursuant to Part 4 of the *Pipeline Act*, for approval to construct and operate two pipelines, one from an existing facility with a surface location at Legal Subdivision (LSD) 2, Section 12, Township 10, Range 17, West of the 4th Meridian, to an existing injection well with a surface location at LSD 12-7-10-16W4M and one from a pipeline tie-in point with a surface location of LSD 12-7-10-16W4M to an existing injection well with a surface location at LSD 15-7-10-16W4M. The purpose of the pipelines would be to transport saltwater, with 0.00 moles per kilomole (0 per cent) hydrogen sulphide (H₂S), from the existing facility to the two existing injection wells stated above. The total length of the pipelines together would be about 2.85 kilometres (km), with a maximum outside diameter of 168 millimetres. The proposed pipelines would run parallel to an existing pipeline right-of-way and would be constructed within the corporate limits of the Town of Taber.

2.2 Intervention

The Municipal District of Taber (the MD of Taber) submitted letters of opposition to the proposed pipelines on November 15 and 21, 2007, stating concerns regarding the location of the pipelines and the potential impact on property value and future development. The MD of Taber is a landowner along a portion of the proposed pipelines' right-of-way.

2.3 Hearing

The Board held a public hearing in Taber, Alberta, which commenced and concluded on December 11, 2007, before Board Member T. M. McGee (Presiding Member) and Acting Board Members D. D. Waisman, C.E.T., and F. Rahnama, Ph.D. A site visit was conducted by the panel members and staff on the afternoon of December 10, 2007. Those who appeared at the hearing are listed in [Appendix 1](#).

3 ISSUES

The Board considers the issues respecting the application to be

- need for the pipelines,
- location of the pipelines, and
- impact on property value and future development.

In reaching the determinations contained within this decision, the Board has considered all relevant materials constituting the record of this proceeding, including the evidence and argument provided by each party. Accordingly, references in this decision to specific parts of the record are intended to assist the reader in understanding the Board's reasoning relating to a particular matter and should not be taken as an indication that the Board did not consider all relevant portions of the record with respect to that matter.

4 NEED FOR THE PIPELINES

4.1 Views of the Applicant

CNRL explained that the proposed pipelines would transport an estimated 800 cubic metres per day (m^3/day) of water for injection at two existing injection wells located at LSD 12-7-10-16W4M and LSD 15-7-10-16W4M. It further explained that water injection at these points would sustain pool pressures in the Taber Q and Sawtooth A pool as oil was produced and that this pressure maintenance was essential to achieve ultimate pool recovery. CNRL stated that the applied-for pipelines were necessary to achieve a 35 per cent recovery level from the Taber Q and Sawtooth A pool. It further stated that the proposed pipelines would result in a recovery of about 100 000 m^3 of oil. The proposed pipelines would also provide a means of disposing of water produced in conjunction with oil and supplement the natural energy of the pool during depletion caused by the production of oil.

CNRL stated that by boosting the injection capacity into this pool, it expected the reactivation of existing production in the area that was currently shut in due to water disposal capacity constraints. It explained that the additional recovery of oil would create additional revenue of about \$33 million, which would correspond to royalty revenues to the province of Alberta of close to \$2.6 million. CNRL further explained that there would also be an incremental benefit to the local economy.

CNRL stated that it had an approved water disposal scheme for this area and emphasized that the injection of water into the pool would assist in the maintenance of the pool. According to CNRL, if the pipelines were not approved it would continue to have inadequate fluid-handling capacity, which would result in wells that were currently producing to be shut in. As such, CNRL explained, pool pressures would not be maintained, resulting in a reduced resource recovery, wherein valuable resources would be left in the ground and royalties lost. CNRL emphasized that without the pipelines it would not be able to maximize the ultimate hydrocarbon recovery.

CNRL argued that the MD of Taber's proposal to truck in water to the area instead of constructing the proposed pipelines was not a viable option. It explained that the MD of Taber's proposal would result in about 29 truckloads a day to meet the water requirements for the injection sites. CNRL further explained that the proposal would result in significant additional costs to truck in water and would pose a safety risk due to increased traffic and trucks crossing

secondary Highway 864. CNRL stated that the proposal would require injection facilities at each of the injection wells, which would result in additional costs and surface impacts. Further, CNRL stated that each injection facility would require additional equipment, including a 1000-barrel tank and a 150-horsepower injection motor, at a minimum. CNRL indicated that the injection facilities would have potential for H₂S emissions from the tanks and that it would potentially have to put a flare stack at each site to deal with the emissions.

4.2 Views of the Interveners

The MD of Taber did not contest the need to inject water back into the reservoir in order to maximize the oil recovery or that CNRL had an approved water disposal scheme but felt that there was another alternative to how the water could be delivered to the injection wells. The MD of Taber argued the pipelines were not needed as CNRL could truck the necessary water to the two injection wells instead of the proposed pipelines. The MD of Taber stated it felt that this was a viable option. The MD of Taber did not dispute the surface impacts that building injection facilities would cause if CNRL were to truck the water to the two injection wells.

4.3 Views of the Board

The Board accepts the need to inject water into the reservoir in order to maximize the ultimate hydrocarbon recovery of the pool. It recognizes that CNRL has an approved water disposal scheme for the area. The Board acknowledges the option presented by the MD of Taber for trucking water to the injection wells. However, the Board notes that this option would raise other significant issues, such as an excessive number of truckloads required to meet water volume requirements, safety concerns arising from the significant increase in traffic, and additional surface impacts. Accordingly, the Board believes that the proposed pipelines are a more viable option than trucking water to the injection sites.

5 LOCATION OF THE PIPELINES

5.1 Views of the Applicant

CNRL stated that the proposed pipeline route would be parallel to an existing 15 m CNRL pipeline right-of-way. It explained that this route was chosen for several reasons: it would be consistent with industry best practices, it would be constructed with minimal surface impacts, and it would be the most efficient in terms of cost. CNRL emphasized that all the landowners along the proposed right-of-way were in agreement with the routing of the pipelines, with the exception of the MD of Taber. CNRL submitted an updated photo mosaic map at the hearing that reflected a slight route change on an adjacent landowner's land, which resulted from an agreement between CNRL and that landowner. CNRL stated that it had not looked at alternative routes, as it felt this was the best route for the pipelines.

CNRL argued that the MD of Taber's suggestion to move the proposed pipelines 200 m south of its proposed crossing of the MD of Taber's lands would interfere with the pivot irrigation system on the adjacent landowner's land, and therefore CNRL did not consider it to be a viable option. CNRL did not comment on the MD of Taber's comment to locate the pipelines to the north of the existing pipeline right-of-way.

CNRL stated that there had been no registered development plans for the MD of Taber's land when it selected the proposed route. CNRL emphasized that when the MD of Taber originally purchased this land, around 1999, the existing 15 m pipeline right-of-way was already constructed and operating. CNRL confirmed that one of the pipelines in the existing right-of-way had been abandoned. Furthermore, CNRL commented that if the proposed pipelines were approved, the existing operating pipelines and the proposed pipelines would be in operation for at least another 10 years or as long as production from the pool continued.

CNRL acknowledged that in previous discussions with the MD of Taber, a reduced right-of-way of 7 m for the proposed pipelines was acceptable to both parties if the pipelines were routed to be parallel to the existing 15 m pipeline right-of-way. This would mean that the entire pipeline corridor would be 22 m in width. It stated that since an agreement had not been reached, CNRL proposed to proceed with the standard 15 m right-of-way, which would result in the overall pipeline corridor being 30 m in width.

5.2 Views of the Interveners

The MD of Taber admitted that it was not aware that CNRL had followed industry best practices when it proposed a route parallel an existing pipeline right-of-way. The MD of Taber acknowledged that CNRL had received agreements for the proposed pipelines' route from the remaining landowners along the pipelines' right-of-way. The MD of Taber did not argue against the updated photo mosaic submitted by CNRL that reflected the slight route change, which resulted from an agreement between CNRL and an adjacent landowner.

The MD of Taber suggested that CNRL move the proposed pipeline route about 200 m south of the proposed crossing of the MD of Taber's land as an alternative location. It argued that this location would not have much, if any, impact on the adjacent landowners' irrigation operations, as CNRL would interfere with the adjacent landowners' irrigation operations with the applied-for route. Based on questions from Board counsel, the MD of Taber commented that it would also be a viable option for the proposed pipelines to be located on the north side of the existing pipeline right-of-way where it crossed the MD of Taber's land. The MD of Taber did not present any evidence to support this option during the hearing.

The MD of Taber acknowledged that it did not have registered subdivision plans for this parcel of land but explained that given the terrain of the property, the southern half would be the best location to build a home or residential development. It explained that by adding another pipeline right-of-way to the existing pipeline corridor, essentially increasing the pipeline corridor from 15 to 30 m, it would reduce the area that would be the most opportune for someone to build in. The MD of Taber admitted that when it originally purchased the land, in about 1999, that the existing pipelines were present.

The MD of Taber stated that it originally understood that the proposed pipelines would replace the existing pipelines, not work in conjunction with them. Due to this understanding, the MD of Taber explained it felt that its proposed pipeline route at the south end of the property was a better location. The MD of Taber admitted that its preference was still to have the pipelines built in the southern part of the property even though it now understood that CNRL was not planning

to remove the existing pipelines and that a piece of that parcel of land would be caught between two pipeline rights-of-way.

The MD of Taber acknowledged that in previous discussions with CNRL both parties had agreed to a reduced right-of-way of 7 m for the proposed pipelines if they were routed parallel to the existing pipeline right-of-way, which would mean that the entire pipeline corridor would be 22 m in width. The MD of Taber indicated that if the pipelines were approved, the location with the least impact should be used and the pipelines' right-of-way should be restricted to 7 m, with 8 m of temporary work space, essentially creating a combined right-of-way of 22 m instead of 30 m.

5.3 Views of the Board

The Board notes that the proposed pipelines would run parallel to an existing pipeline right-of-way, which is consistent with industry best practice. The Board acknowledges that the remaining landowners along the proposed pipelines' right-of-way have agreed to the route for the pipelines. The Board also acknowledges that CNRL submitted an updated photo mosaic map that reflected a slight route change, which was a result of an agreement between CNRL and an adjacent landowner.

The Board recognizes that CNRL would impact the adjacent landowners' use of their land with the applied-for route but notes that if the proposed pipelines' right-of-way were moved 200 m south of its proposed location where it crosses the MD of Taber's land, as suggested, it would have more of an impact on the adjacent landowners' irrigation operations. The Board also notes that the MD of Taber's comment that the pipelines be located north of the existing pipeline right-of-way as it crosses the MD of Taber's land was not substantiated by any evidence during the hearing.

The Board notes that there have been no registered subdivision plans by the MD of Taber for this parcel of land. The Board understands that when the MD of Taber originally purchased the parcel of land, around 1999, CNRL's existing pipeline right-of-way was present. The Board further understands that CNRL does not intend to have the applied-for pipelines replace the existing pipelines; rather, they would work in conjunction.

The Board believes that just because a pipeline or pipelines are located on someone's land, it is not assumed that all pipelines should be located there. Instead, locations should be reviewed and evaluated as potential alternatives. The Board notes that CNRL did not evaluate alternative locations and would strongly encourage CNRL to present a thorough review of alternatives in future applications. The Board further believes that the alternative location proposed by the MD of Taber, which would effectively cause part of the MD of Taber's parcel of land to be caught between two pipeline rights-of-way, would have a much greater impact than the routing proposed by CNRL.

The Board notes that a reduced pipeline right-of-way would effectively reduce the overall width of the pipeline corridor from 30 m to 22 m, which would minimize potential surface impacts. The Board generally supports parties working together to minimize surface impacts in the area whenever possible. The Board is of the opinion that in this case a reduced pipeline corridor would be the best option. The Board understands that during earlier discussions between CNRL

and the MD of Taber, a reduced pipeline right-of-way was discussed and a 7 m right-of-way was agreed to by both parties, as opposed to the typical 15 m right-of-way. The Board also understands that during these previous discussions, CNRL identified that it would require a 15 m working area but that 8 m of that working area would be used as temporary workspace. The Board believes that since CNRL was able to agree to a reduced pipeline right-of-way in previous discussions with the MD of Taber, it would still be able to construct the pipeline with a reduced pipeline right-of-way. Therefore, the Board expects CNRL to live up to this agreement and use a reduced pipeline right-of-way of 7 m.

6 IMPACT ON PROPERTY VALUES AND FUTURE DEVELOPMENT

6.1 Views of the Applicant

CNRL emphasized that the MD of Taber had not made any application to subdivide the land. CNRL indicated that even though the MD of Taber believed that the additional pipelines would affect the value of the land, no evidence was brought forward to support the claim.

6.2 Views of the Interveners

The MD of Taber stated that it had looked at the possibility of subdividing the parcel of land at one point but explained that the subdivision plan did not go ahead and that it had decided to tender the parcel as one piece. It explained that the tender would close in February and that if the land were sold in February, there could be construction in spring, depending on who purchased the land.

The MD of Taber acknowledged that while it felt that having a pipeline cross the land would negatively affect its property value, it had not provided any documentation to support its claim.

6.3 Views of the Board

The Board notes that to date no application has been made to subdivide the land owned by the MD of Taber. The Board further notes that the parcel of land is currently being tendered. The Board understands that the MD of Taber has concerns regarding how the additional pipelines may affect its land but notes that no evidence was brought forward to substantiate the claim.

7 CONCLUSION

The Board expects CNRL to use a reduced pipeline right-of-way, specifically a 7 m right-of-way with 8 m of temporary workspace.

Having carefully considered all of the evidence, the Board hereby approves Application No. 1510976.

Dated in Calgary, Alberta, on February 12, 2008.

ALBERTA ENERGY AND UTILITIES BOARD

<original signed by>

T. M. McGee
Presiding Member

<original signed by>

D. D. Waisman, C.E.T.
Acting Board Member

<original signed by>

F. Rahnama, Ph.D.
Acting Board Member

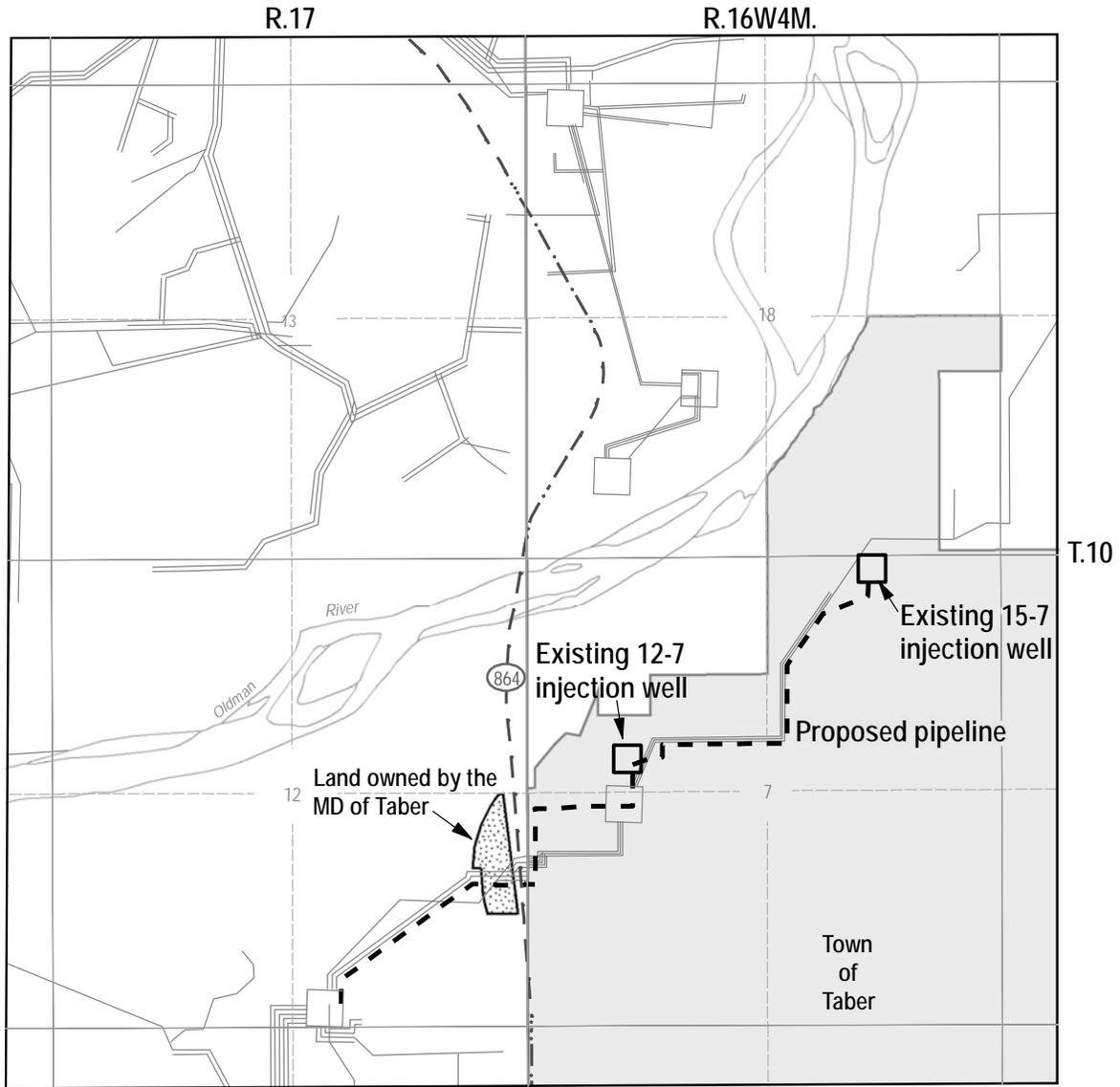
APPENDIX 1 HEARING PARTICIPANTS

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

Canadian Natural Resources Limited (CNRL)
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S. JanskyThe Municipal District of Taber
B. Miskuski

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Alberta Energy and Utilities Board staff
S. Damji, Board Counsel
E. Tom
G. McLean



Legend

- Existing pipeline infrastructure in the area
- Approximate boundary of the corporate limits of the Town of Taber

Figure 1. Area map