

Canadian Natural Resources Limited

Applications for Three Pipelines and a Free-Standing Liner Dunvegan Field

July 22, 2019

Alberta Energy Regulator

Decision 2019 ABAER 007: Canadian Natural Resources Limited, Applications for Three Pipelines and a Free-Standing Liner, Dunvegan Field

July 22, 2019

Published by

Alberta Energy Regulator

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2019 ABAER 007

Canadian Natural Resources Limited Applications for Three Pipelines and a Free-Standing Liner Dunvegan Field

Applications 158722 and 158850

Decision

[1] The Alberta Energy Regulator (AER) approves Canadian Natural Resources Limited's (Canadian Natural's) applications 158722 and 158850, as amended, subject to the conditions outlined in this decision report and summarized in [appendix 2](#).

Applications

[2] Canadian Natural's two applications seek approval of a project to repair and replace existing pipeline infrastructure about 11 to 14 kilometres (km) south of the town of Fairview, Alberta (see [appendix 3](#)).

Application 158722

[3] Canadian Natural initially filed application 158722 under part 4 of the *Pipeline Act* for approval to construct and operate four pipelines: an 88.9 millimetre (mm) outside diameter (OD) (3-inch) oil effluent pipeline containing a maximum hydrogen sulphide (H₂S) concentration of 3.0 moles per kilomole (0.3 per cent), an 88.9 mm OD fuel gas pipeline containing no H₂S, a 219.1 mm OD (8-inch) natural gas pipeline containing a maximum H₂S concentration of 9.0 moles per kilomole (0.9 per cent), and an 88.9 mm OD natural gas pipeline containing a maximum H₂S concentration of 9.0 moles per kilomole (0.9 per cent).

[4] Canadian Natural originally proposed to install the following three pipelines from Legal Subdivision (LSD) 4, Section 23, Township 80, Range 3, West of the 6th Meridian (Satellite 5) to pipeline tie-in points at LSD 16-20-080-03W6M:

- the oil effluent pipeline,
- the fuel gas pipeline, and
- the 219.1 mm OD natural gas pipeline.

[5] These three pipelines would be constructed in Section 22, which is owned by D. and M. Wieben.

[6] As initially proposed, these three pipelines would include an additional 20 metres (m) of new right-of-way (ROW) in Section 22 and 5 m of temporary work space. The new ROW and temporary work space would run alongside an existing Canadian Natural ROW, which contains a number of active and discontinued pipelines—including a 219.1 mm OD natural gas pipeline that Canadian Natural would discontinue when it constructs the new pipelines.

[7] Canadian Natural also applied to construct and operate the fourth pipeline (the 88.9 mm OD natural gas pipeline) from a battery at LSD 16-10-080-03W6M to a tie-in point at LSD 08-10-080-03W6M (Satellite 11). This proposed pipeline would be installed in an existing Canadian Natural ROW on G. and B. Wieben's land in Section 10. Canadian Natural would use this pipeline to replace an older natural gas pipeline (licence 56478-149) that runs north from the battery at LSD 16-10-080-03W6M to Satellite 5.

Application 158850

[8] Canadian Natural also filed application 158850 under part 4 of the *Pipeline Act* for approval to install a new free-standing pipeline inside an existing natural gas pipeline from LSD 04-21-80-3W6M to LSD 16-20-80-3W6M. Canadian Natural used the term free-standing liner in its application, which is another way to describe such an installation. G. and B. Wieben also own the southwest quarter of Section 21, on which the existing pipeline is found.

Background

[9] Canadian Natural filed applications 158722 and 158850 on a nonroutine basis with the AER in the fall of 2017 because the landowners had expressed concerns with the applications that were unresolved.

[10] In response to concerns expressed by both D. and M. Wieben and G. and B. Wieben (collectively the Wiebens) about the additional ROW for the new pipelines, Canadian Natural amended its plans and reduced the new ROW it would require to 10 m. To achieve this, it proposed to no longer proceed with the oil effluent pipeline and to install the proposed 88.9 mm OD fuel gas pipeline as a free-standing liner inside the existing 219.1 mm OD pipeline in Section 22 once the new 219.1 mm OD natural gas pipeline is commissioned.

[11] As the hearing process unfolded, Canadian Natural requested access from D. and M. Wieben to survey the existing ROW in Section 22. As a result, Canadian Natural determined that it would construct this portion of the project within the existing ROW.

[12] During the hearing process, the AER and Canadian Natural discovered that minor licence corrections (of an administrative nature) are required for existing pipelines with licence 56478, lines 24, 59, 60, 61, 169, and 177, to bring them into compliance.

[13] On May 14, 2019, Canadian Natural submitted information outlining its amended application 158722, indicating that it would

- no longer proceed with the oil effluent pipeline in Section 22,
- install the proposed fuel gas pipeline inside the existing 219.1 mm OD pipeline as a free-standing liner, and
- not need any new ROW for the project, but would require an additional 10 m of temporary work space next to the existing ROW in Section 22 to complete the construction.

Hearing

[14] The AER held a public oral hearing in Fairview, Alberta, which started on May 29, 2019, and ended on May 30, 2019, before hearing commissioners D. O’Gorman (presiding), J. Daniels, and B. Zaitlin (the panel). Those who appeared at the hearing are listed in [appendix 1](#).

[15] On February 11, 2019, we, as the panel assigned to preside over this hearing, issued a notice of hearing for applications 158722 and 158850. The Wiebens submitted requests to participate and we granted full participation rights to the Wiebens on March 8, 2019.

[16] On April 23, 2019, we issued a notice of scheduling of hearing.

[17] All parties engaged in a round of information requests, as well as exchanges, to clarify the scope of issues in the weeks leading up to the oral hearing.

[18] On May 28, 2019, we conducted a site visit (accompanied by AER staff) to get a better understanding of the land use and the area surrounding the proposed project. At the beginning of the oral hearing, we gave the parties an oral account of what we saw on the site visit.

Legal Framework

[19] Section 2(1) of the *Responsible Energy Development Act (REDA)* states that the mandate of the AER is to provide for the efficient, safe, orderly, and environmentally responsible development of energy resources in Alberta. The AER is also mandated to regulate, in respect of energy resource activities, the protection of the environment, the conservation and management of water, and the disposition and management of public lands.

[20] Subsection 3.1(1) of the *Pipeline Act* states that subject to subsection (2), the AER has jurisdiction with respect to pipelines.

[21] The *Pipeline Act* also states that the AER makes rules

- respecting matters preparatory to or in connection with any ground disturbance (section 3(1)(g));
- respecting approvals required under section 42 (section 3(1)(i));
- respecting the construction, operation, testing, maintenance and repair of pipelines (section 3(1)(k));

- respecting the discontinuation, abandonment and removal of pipelines, including the circumstances under which a pipeline must be discontinued, abandoned or removed, the timing of such discontinuation, abandonment or removal and the manner in which discontinuation, abandonment and removal are to be carried out (section 3(1)(l)); and
- to meet any special case that may arise and for which no provision is made in the *Pipeline Act* (section 3(1)(ee)).

[22] The *Pipeline Act* also states that the AER may inquire into any matter relating to

- the observance of safe and efficient practices in the construction, operation, discontinuation and abandonment of pipelines (section 4(b));
- the observance of safe and efficient methods in any work, operations or activities when a ground disturbance in a controlled area is being undertaken (section 4(c)); and
- the control of pollution and conservation of the environment in the development, operation, discontinuation and abandonment of pipeline facilities (section 4(d)).

[23] When considering the pipeline applications under the *Pipeline Act*, we considered, as required under section 15 of *REDA* and section 3 of the *REDA General Regulation*, the following factors:

- the social and economic effects of the proposed project,
- the effects of the proposed project on the environment,
- the interests of landowners, and
- the impacts on landowners from use of the lands for the proposed project.

[24] In reaching our decision, we have considered all relevant materials constituting the record of this proceeding, including the evidence and argument of each party. References in this decision to specific parts of the record are intended to assist the reader in understanding our reasoning on a particular matter, and do not mean that we did not consider all relevant portions of the record with respect to that matter.

Issues

[25] In determining whether to grant Canadian Natural's applications, we considered whether the project is consistent with the safe, orderly, efficient, and environmentally responsible development of Alberta's energy resources and if it meets all AER regulatory requirements. In addition, we considered whether there were potential impacts on the landowners or the environment and whether such impacts could be mitigated.

[26] On March 20, 2019, after receiving feedback from the parties, we determined the following issues for this proceeding:

- the need for additional ROW for the new pipelines and for the installation of the free-standing liner and abandonment of existing pipelines,
- the potential for soil contamination and the impact of noxious weeds,
- the potential for impacts on future land development,
- the potential for impacts on the soil from construction, and
- waste management during construction.

[27] During the oral hearing, the parties raised two additional issues:

- the need for the project and
- soil testing for potential contamination from pipeline failures.

[28] We also determined that the following matters were outside of the scope of this proceeding and we did not consider them during the hearing or in our decision:

- concerns with existing pipelines (such as pipeline breaks, sinking ROW, bell holes, and soil mixing), and
- removal of existing caveats and easements on the lands.

Need for the Project

[29] In the spring of 2014, Canadian Natural acquired the field in which the existing pipelines are located (the Dunvegan field) from Devon Energy. Canadian Natural presently operates about 850 producing wells and 1950 km of active pipelines in the Dunvegan field. The pipeline system in this field has a history of failures. So, in 2014, the AER requested that Canadian Natural conduct a field-wide integrity assessment of the Dunvegan field and develop a remedial program to secure the long-term integrity of the pipelines there.

[30] In response, Canadian Natural devised a five-year, \$25 million dollar remedial program that it presented to the AER in August 2014. Canadian Natural

- committed to doing service leak testing annually and to conducting aerial emissions surveys in the spring and fall to regularly monitor the integrity of the existing pipelines in the field until it completes the remedial program, and
- performed a line-by-line assessment to determine whether existing pipelines need to be repaired or replaced (based on both current and projected usage).

[31] Canadian Natural found that 22 pipelines built before 1985 had failed between 1984 and May 2014 because of corrosion. A number of inspections by both Devon Energy and Canadian Natural revealed external corrosion concerns. Canadian Natural identified that about 70 pipelines built before 1985 would

need to be replaced, rerouted, or lined. Any pipeline section considered unviable would be discontinued or abandoned.

[32] During the oral hearing, Canadian Natural submitted that the remedial program is now about 90 per cent complete. Three of the outstanding pipelines that need to be addressed are on the Wiebens' lands:

- the 219.1 mm OD natural gas pipeline from 4-23 to 16-20 (licences 56478-24, -59, -60, -61, -169, and -177),
- the 88.9 mm OD natural gas pipeline from 16-10 to 4-23 (licence 56478-149; also known as P149), and
- the 101.6 mm OD pipeline from 4-21 to 16-20 (licence 56478-51).

[33] Canadian Natural assessed these three pipelines as having a high likelihood of failure, based on each pipeline's coating type, age, and failure history.

[34] Canadian Natural submitted that the project would replace or repair these three pipelines. The proposed new pipelines and free-standing liner installation are a part of Canadian Natural's strategy to safely explore for, drill, and produce hydrocarbons from its existing mineral rights, and are needed to support its ongoing activities in this area. Without the project, production and transportation of hydrocarbons in the area would be subject to a high risk of pipeline failure.

[35] The Wiebens did not contest the need for the project and the replacement of these pipelines. They acknowledged that they are concerned about the risk of failures for these pipelines and would like the project to be constructed sooner rather than later.

[36] We find that the evidence supports the need for the project. The project, if successful, will have a positive economic impact and is consistent with the safe, orderly, efficient, and environmentally responsible development of Alberta's energy resources.

Need for Additional Right-of-Way and Abandonment of Existing Pipelines

[37] Canadian Natural initially proposed a new ROW parallel to the existing ROW in Section 22 of D. and M. Wieben's lands. The Wiebens expressed significant concern about Canadian Natural's plans for a new ROW to construct the project. However, before the oral hearing began, Canadian Natural revised its applications (in draft form) to remove the need for a new ROW.

[38] We acknowledge that Canadian Natural has made a commitment to addressing one of the major concerns of the Wiebens by proposing to construct this project without requiring any new ROW on the Wiebens' lands. We are making this a condition of approval.

[39] The Wiebens also expressed the following concerns with indefinitely discontinuing or abandoning in place the existing pipelines:

- They should not have to offer multiple different points of surface access to allow Canadian Natural to produce its mineral assets.
- Pipelines abandoned in place will negatively affect the use and enjoyment of their property.
- Pipelines could have a discontinued status for very long periods of time and not be fully abandoned.
- Pipelines left in the ground must be left in a safe and secure state as required under the *Pipeline Act*. The Wiebens believe that this safe and secure state includes the soil around the pipeline and that proof that the soil has not been contaminated from pipeline failures is required to demonstrate that the pipelines are left in a safe and secure state.

[40] During the oral hearing, Canadian Natural committed to abandoning the following three existing pipelines the Wiebens were concerned about instead of simply keeping them in discontinued status:

- a 60.3 mm OD discontinued pipeline in Section 22 in the ROW proposed for the new 219.1 mm OD natural gas pipeline (licence 56477-4; also known as P4),
- an 88.9 mm OD discontinued pipeline from the 16-10 well to the 16-15 lease (licence 56478-86; also known as P86), and
- the 88.9 mm OD operating pipeline from the 16-10 well to Satellite 5 (also known as P149).

[41] Canadian Natural explained the process it follows to abandon pipelines and discussed why it believes that a properly abandoned in place pipeline is safe and secure. When pipelines are abandoned, they are cleaned out and filled with either fresh water or air, the ends are capped underground, and the associated surface piping is removed. The pipeline then gradually deteriorates in the ground, which Canadian Natural suggests is unproblematic.

[42] At the oral hearing, the Wiebens proposed that we exercise our authority under section 33 of the *Pipeline Act* to compel Canadian Natural to remove the existing pipelines P86 and P149. However, the Wiebens did not submit an application to the AER under section 33 of the *Pipeline Act* to request that these pipelines be removed.

[43] D. Wieben asserted that P86 and P149 could be pulled out from bell holes along the route and stated that he has spoken to people in the pipeline industry who have said it can be done. His understanding is that pipelines are pulled regularly in Texas. However, he did not present any specific evidence to support this assertion.

[44] Canadian Natural indicated that its practice is to not remove pipelines because of the costs involved and the additional risks that it would introduce from disturbing the soil to remove the pipeline. It did not agree to remove P86 and P149.

[45] Canadian Natural acknowledged that we have the capability to use section 33 of the *Pipeline Act* as proposed by the Wiebens. However, it suggested that such an action should be subject to a very stringent public interest test, as identified in *AER Decision 2014 ABAER 003: Douglas and Dorothy Hollands, Section 33 Application for Pipeline Removal, Leduc-Woodbend Field*. Canadian Natural submitted that there are no human or animal health concerns, no environmental concerns, or any other significant impacts associated with leaving these pipelines abandoned in place. All of these are concerns that, if evident, could potentially justify both the increased cost that pipeline removal would impose on Canadian Natural and the risks posed by the additional soil disturbance. Canadian Natural added that abandoning pipelines in place is the standard and is a widely accepted industry practice in Alberta and that the situation on the Wiebens' lands is not unique.

[46] We note that under the *Pipeline Act* and section 82 of the *Pipeline Rules*, a company that stops using a pipeline must decide within 12 months whether to resume the operation of the pipeline or whether to discontinue or abandon it. There is no requirement for a company to remove the pipeline.

[47] We also note that the Wiebens have not presented sufficient evidence of the potential for significant negative impacts on their families if the pipelines are abandoned in place. No evidence of serious health or safety risks has been provided, and no imminent economic risks to the Wiebens exist. The issue of potential impacts on the Wiebens' future use of the land is addressed later on in this report (see paragraph 72).

[48] We acknowledge Canadian Natural's commitment to addressing a concern of the Wiebens by abandoning the three existing pipelines P4, P86, and P149. We are setting this as a condition of approval, to be completed within three years of the date of this decision report, which will allow time for potential delays in completing the project.

[49] We find that directing Canadian Natural to remove a pipeline under section 33 of the *Pipeline Act* would require establishing that such a removal is in the public interest. The Wiebens, in this proceeding, provided little evidence to this effect and failed to establish the public interest case for removal of existing pipelines.

[50] The Wiebens expressed their concerns about the number of abandoned in place pipelines that exist both on their lands and across the province. We acknowledge that this concern should be considered as part of a broader policy issue, but it is beyond the jurisdiction of this hearing panel. It is the Government of Alberta's responsibility to decide whether it will develop a policy to respond to these concerns. We suggest that such a policy could explore whether there are certain situations in which it might be reasonable to require pipeline licensees to remove abandoned pipelines and begin gathering data on the operational and cost implications of such an approach. We encourage the Government of Alberta to consider such an exercise in policy development.

[51] We also find that Canadian Natural must construct these projects without any additional ROW on the Wiebens' land and have set this commitment from Canadian Natural as a condition of approval. We also find that Canadian Natural must abandon existing pipelines P4, P86, and P149 within three years of the date this decision report is issued and have also set this as a condition of approval.

Conditions

[52] We have set the following two commitments made by Canadian Natural addressing new ROW and abandonment of existing pipeline as conditions of approval:

- Canadian Natural must construct the project without any additional ROW on the Wiebens' land.
- Canadian Natural must abandon existing pipelines with licences 56477-4 (P4), 56478-86 (P86), and 56478-149 (P149) within three years of the date this decision report is issued.

Potential for Soil Contamination and Impact of Noxious Weeds

[53] The Wiebens were concerned about the potential for contamination to enter their lands through inadequate equipment cleaning or weed prevention practices.

[54] Canadian Natural committed to protecting the Wiebens' lands from contamination and described its approach to achieve this, including conducting thorough equipment cleaning, having a qualified supervisor and soil specialist on site, and communicating with the Wiebens. It submitted that these practices would address concerns about the potential spread of clubroot, head blight, and black leg of canola. Several documents outline the practices that Canadian Natural follows:

- *Alberta Clubroot Management Plan* (Government of Alberta, 2014),
- *Clubroot Disease Management Best Management Practices* (Canadian Association of Petroleum Producers, 2008),
- *Club Root Equipment Cleanup Inspection* (Canadian Natural), and
- *Clubroot of Canola Mitigation Strategy: Fairview Pipeline Replacement Project* (Canadian Natural, 2019).

[55] Canadian Natural noted that the equipment cleaning protocol for clubroot is also effective against head blight and black leg of canola.

[56] Canadian Natural committed to providing regular email updates to the Wiebens during construction on their lands if the Wiebens want this. Such updates would include copies of equipment cleaning inspection documents and photographs. We have set this as a condition of approval.

[57] The Wiebens expressed openness to working with Canadian Natural to address their concerns. However, B. Wieben expressed concern that even if Canadian Natural follows good soil protection

practices during construction, contamination could enter their lands later during ongoing operations and maintenance of these (and perhaps other) pipelines. We encourage Canadian Natural to continue the same soil protection practices during its regular operations that it follows during the construction timeframe.

[58] We find that Canadian Natural has an acceptable plan in place to manage the risk of soil contamination from weeds and soil diseases.

Conditions

[59] We have set the following two commitments made by Canadian Natural addressing soil contamination as conditions of approval:

- Canadian Natural must provide email updates on a regular basis (at least biweekly) to both Wieben families during construction of the project. It must also attach copies of equipment cleaning inspection documents and photographs to the emails it sends to the Wiebens.
- Canadian Natural must follow the soil protection practices outlined in the following documents during construction of the project:
 - *Alberta Clubroot Management Plan* (Government of Alberta, 2014),
 - *Clubroot Disease Management Best Management Practices* (Canadian Association of Petroleum Producers, 2008),
 - *Club Root Equipment Cleanup Inspection* (Canadian Natural), and
 - *Clubroot of Canola Mitigation Strategy: Fairview Pipeline Replacement Project* (Canadian Natural, 2019).

Soil Testing for Potential Contamination from Pipeline Failures

[60] During the oral hearing, the Wiebens indicated that they would like soil testing to be done along the routes of four of the existing pipelines (P4, P86, P149, and the existing 219.1 mm OD pipeline in Section 22) to check for previous contamination in case any of these pipelines had experienced an undetected failure in the past.

[61] The Wiebens were concerned that the risk of contamination at these sites could represent a liability that they might need to address in the future, which might affect their ability to get financing for future work on their lands. However, the Wiebens did not present any evidence that they have had a problem receiving financing to date. The Wiebens were also concerned that potential contamination might affect their crops.

[62] The Wiebens proposed that Canadian Natural develop a soil testing program that assesses the soil along discontinued and abandoned pipelines, including underneath these pipelines. G. Wieben suggested that this testing take place in accordance with the Alberta Environment and Parks (AEP) *Alberta Tier 2*

Soil and Groundwater Remediation Guidelines and that sampling be done down to six feet below the surface, every 100 feet along the pipeline.

[63] Canadian Natural indicated that it has no evidence that any of these pipelines has ever had a failure. It employs the following two main approaches when searching for potential pipeline failures:

- It performs aerial emission surveys with visual inspection and flame ionization testing, which can detect the presence of methane down to concentrations of 0.1 parts per million (ppm). Any readings of 2 to 3 ppm are reported for investigation. It has conducted such surveys twice every year along all ROWs in the Dunvegan field with active pipelines during the remedial program, and would continue to do so once every year once the remedial program is complete.
- It performs pressure service testing on some of the low-pressure pipelines.

[64] Canadian Natural conducted an aerial leak detection survey during April 2019 along the route for the existing 219.1 mm OD pipeline in Section 22. It did not find any evidence to suggest the pipeline has failed.

[65] Canadian Natural acknowledges that although these pipelines of concern to the Wiebens have not had failures to date, many of the pipelines in the Dunvegan field required or still require repair or replacement as part of the remedial program to mitigate the risk of failure.

[66] Canadian Natural explained the approach it follows for leak surveys on all existing active pipelines and how escaped product would migrate to the surface to be detected by its surveys. Canadian Natural also explained the challenges of digging under pipelines to check soil samples, and explained the behaviour of the gases and liquids that escape from pipeline failures to support its assertion that it has no reason to suspect that any leaks have occurred along the pipelines in question (P4, P86, P149, and the existing 219.1 mm OD pipeline in Section 22). It suggested that if a leak existed, one would expect to see evidence of failure at the surface.

[67] We accept Canadian Natural's evidence about the challenges and risks of trying to get soil samples either from below or at the same depth of an existing pipeline. Such challenges and risks include the potential to strike and damage the pipeline, contaminate the soil sample, or disturb a potentially significant amount of soil. We do not think that these challenges and risks are acceptable when nothing on the surface indicates any potential contamination where such soil sampling at depth might be justified.

[68] We note that the Wiebens made the point that they have observed locations on their lands in the past where leaks have occurred. However, they did not specifically identify any particular locations where they believed that leaks had occurred along the routes of P4, P86, P149, or the existing 219.1 mm OD pipeline in Section 22. We acknowledge that leaks have occurred on other pipelines on the Wiebens' lands in the past.

[69] We note that, to the best of our knowledge, Canadian Natural has not been conducting aerial surveys over the route of the discontinued pipeline P86. We find that it is reasonable for Canadian Natural to provide some assurance to the Wiebens that no soil contamination exists along this route. A Phase 1 environmental site assessment following the AEP *Alberta Environmental Site Assessment Standard* would require Canadian Natural to examine its own records and the AER's records on pipeline P86 and develop some level of understanding of whether contamination might exist along this route. Such an assessment is sometimes used to provide assurance that a property owner has assessed the likelihood of potential contamination on the property. It may be useful to the Wiebens, in the future, to have a documented Phase 1 environmental site assessment report for this ROW. We find that a reasonable amount of time within which Canadian Natural should conduct this work is within one year of abandoning the pipeline.

[70] We find that there is no need for Canadian Natural to develop and implement the type of soil testing program the Wiebens suggest along the routes of the existing pipelines P4, P86, P149, and the existing 219.1 mm OD pipeline in Section 22. However, we believe that a Phase 1 environmental site assessment along the P86 route is a reasonable compromise and can help address some of the Wiebens' fears about potential contamination along this route. We are therefore applying this as a condition of approval, but only to the P86 route because

- the other three pipelines suggested by the Wiebens share their ROWs with other pipelines (some active, some inactive), making it more challenging to attribute potential contamination to these three pipelines; and
- the ROWs with active pipelines have been subject to regular aerial surveys.

Condition

[71] We have set the following requirement addressing soil sampling from potential pipeline failures as a condition of approval:

- Canadian Natural must conduct a Phase 1 environmental site assessment along the P86 pipeline route and report the results to the Wiebens within one year of the pipeline being placed into abandoned status.

Potential for Impacts on Future Land Development

[72] The Wiebens suggested that their ability to develop their lands in the future could be compromised by both the new ROW for the project, as was originally proposed, as well as the continuation of caveats on their lands associated with discontinued or abandoned pipelines. G. Wieben's daughter, J. Heffren, also commented that she plans to eventually take over the family farm and may want to pursue other activities on the land. The Wiebens confirmed during the hearing process that they have not made any firm plans for future development and have not filed any formal development applications with a governing authority.

[73] Canadian Natural acknowledged that landowners sometimes express concern about the impacts of oil and gas infrastructure on their lands, but stated that there is no conclusive evidence suggesting that such infrastructure has a negative impact on rural property values in Alberta.

[74] We note that in considering these applications, we cannot speculate on potential new activities that the landowners may want to pursue on the lands in the future. We must base our decisions on the evidence presented during the hearing process.

[75] We find that there is insufficient evidence to demonstrate the extent to which the project might have a negative impact on the Wiebens' ability to pursue future land development options.

Potential for Impacts on the Soil from Construction

[76] The Wiebens expressed a concern that construction of the pipelines could negatively affect the soil on their lands because of issues such as inappropriate compaction or the use of sand as fill rather than topsoil. They indicated that they have had such problems on their lands in the past.

[77] Canadian Natural identified its planned construction practices and explained the procedures it would follow to avoid such impacts:

- install the new pipeline in Section 10 in one day so that the soil would not have a chance to freeze,
- construct the new 219.1 mm OD natural gas pipeline under thawed soil conditions,
- conduct soil surveys at the start of construction, and
- have a soil specialist on site.

[78] We find that the practices Canadian Natural has committed to follow should prevent or mitigate any impacts the project may have on the soil on the Wiebens' lands. We encourage Canadian Natural to work with the Wiebens to develop a communication plan to notify them of its construction timing and practices.

Waste Management During Construction

[79] None of the parties filed submissions or expressed concerns about waste management during construction, so we did not consider it further.

Conclusion

[80] In our review of Canadian Natural's amended applications to construct the three pipelines and install the free-standing liner, we considered the relevant legislation and regulations, the design and construction of the project, the need for the project, and the potential impacts of the project on the landowners. After taking all of these matters into account, we have concluded that the project meets all applicable AER

regulatory requirements; can be constructed and operated safely; and is consistent with the efficient, safe, orderly, and environmentally responsible development of Alberta's energy resources.

[81] We are satisfied that potential impacts on the landowners have been adequately addressed by project design, construction practices, and mitigation measures to be followed by Canadian Natural, as well as through the conditions we have placed on this approval.

[82] We therefore approve Canadian Natural's applications, subject to the five conditions set out in [appendix 2](#). We note, however, that before the project can proceed, Canadian Natural must make any required corrections to licence 56478 for lines 24, 59, 60, 61, 169, and 177 to bring them into compliance.

[83] We also recommend that the Government of Alberta develop a policy to define whether there are certain situations in which it might be reasonable to require pipeline licensees to remove abandoned pipelines, and begin gathering data on the operational and cost implications of such an approach.

Dated in Calgary, Alberta, on July 22, 2019.

Alberta Energy Regulator

D. O'Gorman
Presiding Hearing Commissioner

J. Daniels
Hearing Commissioner

B. Zaitlin
Hearing Commissioner

Appendix 1 Hearing Participants

Principals and Representatives

(Abbreviations used in report)

Witnesses

Canadian Natural Resources Limited
(Canadian Natural)
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D. Stratmoen
G. Clegg
K. Gerow
R. Petrone

Wiebens

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Appendix 2 Summary of Conditions

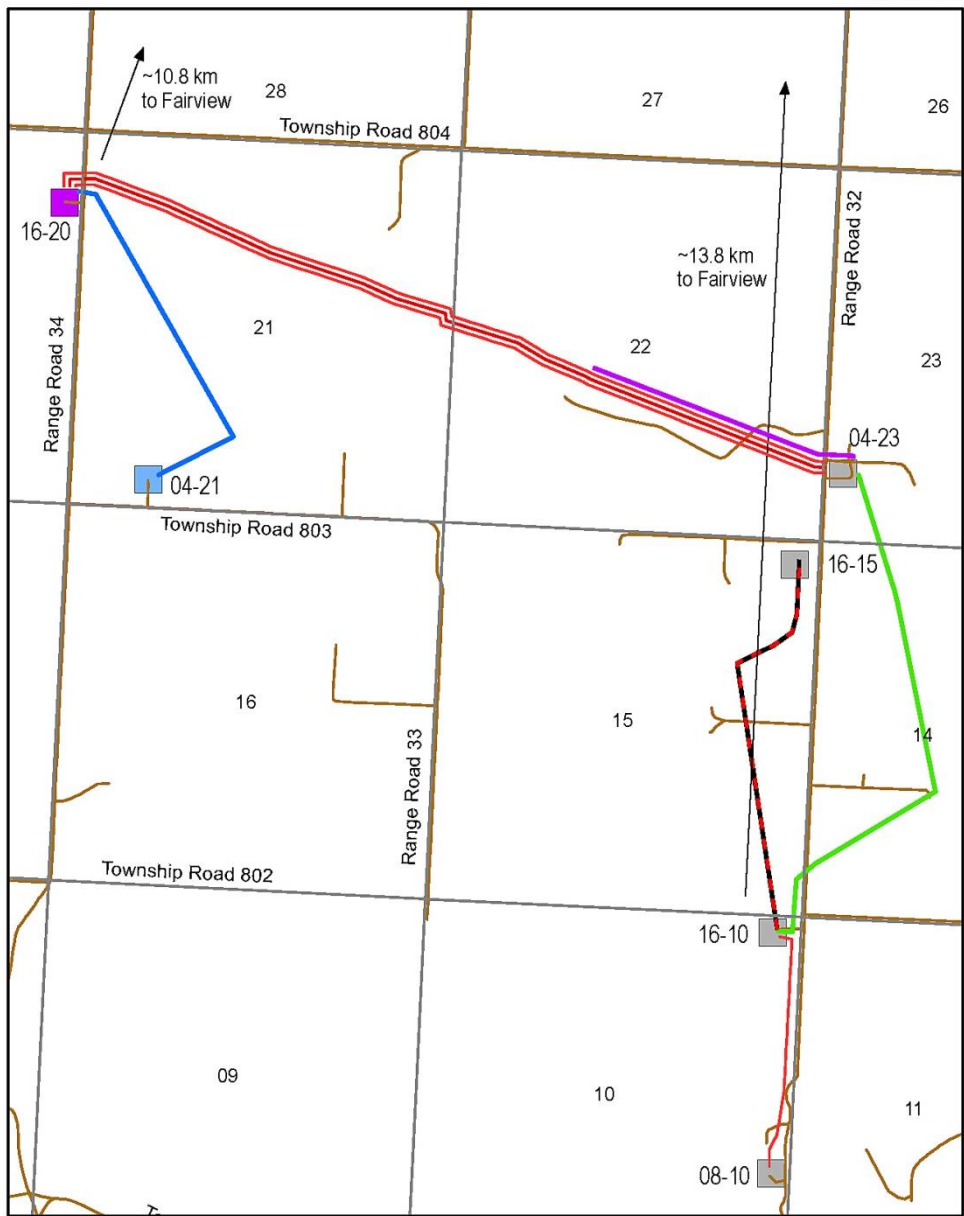
Conditions generally are requirements in addition to or otherwise expanding upon existing regulations and guidelines. An applicant must comply with conditions or it is in breach of its approval and subject to enforcement action by the AER. Enforcement of an approval includes enforcement of the conditions attached to that licence. Sanctions imposed for the breach of such conditions may include the suspension of the approval, resulting in the shut-in of a facility.

Conditions










- 1) Canadian Natural must construct the project without any additional ROW on the Wiebens' land.
- 2) Canadian Natural must abandon existing pipelines with licences 56477-4 (P4), 56478-86 (P86), and 56478-149 (P149) within three years of the date this decision report is issued.
- 3) Canadian Natural must provide email updates on a regular basis (at least biweekly) to both Wieben families during construction of the project. It must also attach copies of equipment cleaning inspection documents and photographs to the emails it sends to the Wiebens.
- 4) Canadian Natural must follow the soil protection practices outlined in the following documents during construction of the project:
 - *Alberta Clubroot Management Plan* (Government of Alberta, 2014)
 - *Clubroot Disease Management Best Management Practices* (Canadian Association of Petroleum Producers, 2008)
 - *Club Root Equipment Cleanup Inspection* (Canadian Natural)
 - *Clubroot of Canola Mitigation Strategy: Fairview Pipeline Replacement Project* (Canadian Natural, 2019)
- 5) Canadian Natural must conduct a Phase 1 environmental site assessment along the P86 pipeline route and report the results to the Wiebens within one year of the pipeline being placed into abandoned status.

Appendix 3 Project Area Map

R.03 W. 6M.



Legend

- | | | | |
|---|---|---|-------------------|
|  | Proposed pipeline |  | Battery/satellite |
|  | Proposed liner |  | Satellite |
|  | Discontinued pipeline, licence 56477, line 4 |  | Well site |
|  | Discontinued pipeline, licence 56478, line 86 |  | Roads - gravel |
|  | Natural gas pipeline, licence 56478, line 149 | | |