



# Terra Energy Corp.

Applications for an Oil Effluent Pipeline  
Grande Prairie

September 25, 2012

**ENERGY RESOURCES CONSERVATION BOARD**

Decision 2012ABERCB 012: Terra Energy Corp, Applications for an Oil Effluent Pipeline,  
Grande Prairie

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## CONTENTS

Decision .....	1
Introduction.....	1
Applications .....	1
Interventions .....	1
Hearing.....	2
Issues.....	2
Routing.....	2
Evidence.....	2
Findings.....	4
Consultation .....	6
Findings.....	6
Conclusion .....	7
Appendices	
Appendix 1 Hearing Participants.....	8
Figures	
Figure 1. Map of the proposed routes and interveners' lands.....	9



**ENERGY RESOURCES CONSERVATION BOARD**

Calgary Alberta

**TERRA ENERGY CORP.****APPLICATIONS FOR AN OIL EFFLUENT PIPELINE****2012 ABERCB 012****GRANDE PRAIRIE****Applications No. 1698084 AND 1698094**

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**DECISION**

[1] Having carefully considered all of the evidence, the Energy Resources Conservation Board (ERCB/Board) hereby approves Application No. 1698094. The application for the alternative route, Application No. 1698084, is closed.

**INTRODUCTION****Applications**

[2] Terra Energy Corp. (Terra) applied, under Part 4 of the *Pipeline Act*, for approval to construct and operate an oil effluent pipeline to tie in certain wells to a Terra facility. Terra submitted applications for two alternative routes. The proposed pipelines would be located about 3.5 kilometres (km) southwest (SW) of Grande Prairie (see attached figure.)

[3] **Application No. 1698084** (the “east route”): Terra would construct and operate two pipeline segments for the purpose of transporting oil effluent with a maximum hydrogen sulphide (H<sub>2</sub>S) content of 7.50 moles per kilomole (mol/kmol), or 0.75 per cent in the gas phase. One segment would be about 1.01 km long and would transport oil effluent from a well at Legal Subdivision (LSD) 11, Section 12, Township 71, Range 7, West of the 6th Meridian (11-12 well) to the other segment at LSD 8-12-71-7W6M. This other segment would be about 6.22 km long and would transport oil effluent from a well at LSD 6-7-71-6W6M (6-7 well) to a tie-in point at a facility located at LSD 15-15-71-7W6M (15-15).

[4] **Application No. 1698094** (the “west route”): Terra would construct and operate two pipeline segments for the purpose of transporting oil effluent with a maximum H<sub>2</sub>S content of 7.50 mol/kmol, or 0.75 per cent. One segment would be about 5.14 km long and would transport oil effluent from a well at LSD 11-12-71-7W6M to a pipeline tie-in point at a facility located at LSD 15-15-71-7W6M. The other segment would be about 2.38 km long and would transport oil effluent from a well at LSD 6-7-71-6W6M to the other segment at LSD 11-12-71-7W6M.

**Interventions**

[5] Two groups of interveners participated in the hearing. The East Route Interveners (ERI) included Kelly Gitzel and Diana Gitzel, Joyce Boyce, Kay Garner, and Mabel Davies. These interveners own land along the east route as shown on the attached figure. The ERI objected to the east route and had no objection to the west route. The ERI’s main concerns were with impacts of the routing on future development of their land and on their health and safety, and with lack of compliance with ERCB consultation requirements.

[6] The West Route Interveners (WRI) included Carl Linden and Maureen Linden, who own land along the proposed west route shown on the attached figure, and Barry Diederich. Mr. Diederich owns the land on which the 11-12 well is located, but the west route uses the same land that is already used for the 11-12 well and road. The WRI objected to the west route and had no objection to the east route. The Lindens raised concerns about impacts of the routing on their farming operation and about the safety of their adult son, who would reside within the emergency planning zone (EPZ) of the west route.

## **Hearing**

[7] The Board held a public hearing in Grande Prairie, Alberta, on July 10-12, 2012, before Board Members T. L. Watson, P.Eng. (Presiding Member), T. C. Engen, and J. D. Dilay, P.Eng. The Board and staff visited the area of the proposed alternative routes on July 9, 2012.

[8] Those who appeared at the hearing are listed in Appendix 1.

## **ISSUES**

[9] The Board notes that Terra said it needed a pipeline in order to produce the 11-12 and 6-7 wells because ERCB requirements prohibit flaring, and therefore Terra needed to transport the oil effluent to a facility at 15-15 so that the solution gas could be conserved. Terra advised that without a pipeline, it would ultimately have to abandon the wells. The Board also notes that the interveners did not challenge the need for a pipeline.

[10] The Board considers the issues respecting the applications to be

- routing impacts, and
- consultation.

[11] In reaching the determinations contained in 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 help the reader understand the Board's reasoning on 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.

## **ROUTING**

### **Evidence**

[12] Terra submitted that the County and City of Grande Prairie Intermunicipal Development Plan lists the lands in the area of application as Residential/Public Use. The plan identified that the lands would be part of the City's annexation within the next 30-50 years. Terra noted that the land is designated as agricultural and acknowledged that a pipeline would make it harder to subdivide and develop the lands for future residential use.

[13] The ERI submitted that certain of its members have plans to subdivide and develop their lands in the near term, and that some parts of the subdivision application process have begun. The ERI raised concerns about what it termed the “corridor effect,” whereby parallel rights-of-way (ROW) can effectively sterilize land against future development. The corridor effect would apply to the Gitzels’ 9.65-acre parcel on the north side of the railway in the SW quarter of section 13-71-7W6M and to Ms. Boyce’s land, which have a railway and an ATCO Gas and Pipeline Ltd. (ATCO) pipeline ROW of 15 metres (m) traversing it. Terra acknowledged that the setback guideline for the railway ROW that borders the Gitzels’ land is 15 m, but said that this guideline has no regulatory force. Terra’s proposed east route would add 15 m to the existing pipeline’s current 15 m ROW. The ERI submitted that this would effectively sterilize the Gitzel’s land as the building envelope would be reduced in size. The only place suitable for a dwelling would require such a long driveway that it would dissuade potential buyers from considering it. The ERI submitted that the corridor effect would not sterilize the Boyce land, but would make it less attractive to potential buyers.

[14] Terra and Mr. Diederich agreed that both routes would cross Mr. Diederich’s land only on the existing lease site. Mr. Diederich indicated that his preference for the west route was due to his support of the Lindens’ intervention, as the Lindens lease and farm some of Mr. Diederich’s property.

[15] Mr. Linden said that he currently farms 4200 acres in the area of application and that he hoped to continue farming. He indicated he farmed the land traversed by the west route using zero tillage practices and that he would cultivate the ROW if the Board approved the west route.

[16] The interveners raised safety as a general concern, but provided no specific issues with Terra’s proposed emergency response plan (ERP). The ERI submitted that it received the ERP during the proceeding and did not have enough time to review it prior to the hearing. The ERI’s counsel told the Board that she had received the ERP but did not give it to her clients because she did not want to overwhelm them. Terra stated that none of the interveners resided in either of the proposed EPZs. It said that the east route EPZ includes five residences, whereas the west route EPZ includes three residences and a seed-cleaning facility.

[17] Terra submitted that it had considered and accommodated, where possible, the concerns and desires of landowners for the proposed routes. Ms. Davies’ land would be traversed by both the east and the west routes; however, she objected to the east route because it would cross her land along the quarter-section line. Ms. Davies said that she advised Terra that if a pipeline was required, she would prefer that it run in a southeast direction through the muskeg area of her land and not along the southern fenceline. Terra submitted that its proposed west route accommodated Ms. Davies’ request, and that the west route was modified to accommodate the requests of the landowner of SW 7-71-7W6M and the landowner of SW 12-71-7W6M. Further, Terra said that it accommodated Mr. Diederich by routing the pipeline off his land so that the only part of the pipeline on his land would be completely within the existing lease.

[18] The ERI confirmed that no matter the amount of consultation and information, its members did not want a pipeline on their lands.

[19] Relying on a report from Vulture Energy Ltd. (Vulture report), the ERI submitted that a pipeline should not be approved because it was likely the pipeline would ultimately transport gas with 5 per cent H<sub>2</sub>S from the Halfway Formation. Terra responded that although it had targeted

both the Charlie Lake and Halfway formations with the 11-12 well, the Halfway Formation had no productive capacity and the applications were for production from the Charlie Lake Formation, which has H<sub>2</sub>S contents ranging from only 0.0 to 0.08 per cent in the area. Terra further stated that even if it decided to increase the H<sub>2</sub>S content beyond 0.75 per cent, it would need to submit an amendment application. Such an amendment application would require notification to the landowners, and the wells would be shut-in until it was approved. The WRI was concerned that once a pipeline was installed, there would be a good possibility that an application requesting an increase in H<sub>2</sub>S content to the pipelines would be approved.

[20] Regarding proliferation, Terra said it believed that there were no appropriate sour facilities within 15 km other than the 15-15 facility. The ERI stated that the west route would be the preferred route because it would provide closer tie-in points for future development, thereby reducing proliferation of sour pipelines. Terra said that should the wells be successful and it decide to drill more wells, the most likely locations would be closer to the east route. However, Terra acknowledged that it was unclear whether this would occur and agreed that it would likely drill Sections 7 and 12 of 71-7W6M to continue its mineral leases.

## Findings

[21] The Board supports using existing linear disturbances and paralleling pipelines when routing new pipelines. However, it recognizes that there are many factors to be taken into account in pipeline routing, such as landowner requests, impacts on land use, and impacts on future development. The Board notes that *Directive 077: Pipelines – Requirements and Reference Tools*<sup>1</sup> provides some guidance to applicants by suggesting that they consider opportunities to share pipeline ROWs to minimize land encumbrances where such opportunities make sense. The Board notes that it has no policies that require companies to place pipelines parallel to existing ROWs. The Board considers the appropriateness of following existing disturbances on a case-by-case basis.

[22] In this case, Terra said that it had not approached ATCO to determine if the existing ROW on the east route could be shared. Therefore, Terra's pipeline would have an additional ROW beside the existing one, increasing the total ROW to 30 m.

[23] The Board notes that the east route would cross more individually owned parcels of land than the west route. The Board is of the view that the impact of development restrictions, such as the ROW, on future subdivision would be greater because the parcels along the east route are smaller. The Board notes the financial investment of Mrs. Boyce in bringing utilities to her land and receiving conditional approval to further subdivide her land in May 2010; the testimony of the Gitzels and Mrs. Boyce about future plans for subdivision and sale of their properties; and the proximity of the ERI lands to Grande Prairie. The Board is satisfied that some members of the ERI are actively pursuing development of their lands. The Board notes that the Lindens indicated that they had no immediate plans to subdivide their lands for development and in fact were considering expanding their farming operations.

[24] The Board is of the view that Mr. Diederich would not be affected because the proposed west route would traverse his land on an existing lease site, so no new land belonging to him would be required for the pipeline. The Board notes Mr. Linden's concerns about the impacts on

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<sup>1</sup> See Part B, Section 4: Joint Use of Right-of-Way.

his zero-till farming operations. Zero-till is a system of planting crops into untilled soil by opening a narrow slot or trench only of sufficient width and depth to allow proper seed coverage. Zero-till increases the amount of water and organic matter in the soil and decreases erosion. If the pipeline went through his land, the ROW would require several years to build up sufficient organic matter to be as productive as before. Mr. Linden agreed that he would be able to farm the ROW. The Board finds that the impacts on land use would be less for the west route and would be minimal.

[25] Regarding safety, the Board notes that there are three residences in the west route EPZ and five in the east route EPZ. The Board recognizes that having fewer residents in the EPZ for a project simplifies the response to an emergency. This supports using the west route. However, the Board is of the opinion that the ERP for either route is acceptable.

[26] The Board notes Terra's effort to work with area residents to develop a project that, where possible, accommodates the needs of the residents. This was demonstrated by Terra moving the pipeline south of Mr. Diederich's land, routing through the muskeg on Mrs. Davies' land, and routing around other landowners' properties on the west route. The Board notes that these accommodations resulted in a pipeline ROW that accommodated other landowners but did not satisfy the Lindens. It appears that the east route does not accommodate many landowner concerns. The Board supports routing accommodation where landowners and an applicant are able to work together to resolve concerns. This supports the west route.

[27] The Board notes that the applications are for pipelines that would transport oil effluent with a maximum H<sub>2</sub>S concentration in the gas phase of 0.75 per cent, not 5 per cent. The Board understands that the ERI's concern about 5 per cent H<sub>2</sub>S content is based on the Vulture report. This report considered gas from the Halfway Formation, not the Charlie Lake Formation that the 11-12 and 6-7 wells will produce from. The Board notes that the author of the report, Al Bessel, did not attend the hearing to speak to his report. Accordingly, the Board gives the Vulture report no weight. The Board considers the 0.75 per cent H<sub>2</sub>S content for the pipeline to be consistent with the Charlie Lake Formation. The Board accepts Terra's evidence that the likelihood of H<sub>2</sub>S increasing in the Charlie Lake Formation is low. The Board notes that Terra stated that it would not produce from the Halfway Formation, and in any event, to operate the pipelines at an H<sub>2</sub>S content higher than 0.75 per cent, Terra would be required to submit an amendment application, including landowner notification and consultation.

[28] Although speculative, the Board understands that both Sections 7 and 12 of 71-7W6M, which Terra intends to drill to continue its mineral leases, are crossed by the east and west routes. Terra's current mineral holdings trend toward the northwest; this favours the west route. There is no indication that drilling would occur in Section 13-71-7W6M or to the northeast of the proposed pipelines. Accordingly, the Board is not persuaded that the east route would provide closer tie-in points for future development, and it is reasonable to assume that the west route would be equally, if not more, likely to provide closer tie-in points for future production. In any event, given the proximity of the two proposed routes to future drilling sites, the difference in length of future pipelines, whether connected to the east or west route, would be small.

## CONSULTATION

### Evidence

[29] Terra said that it originally consulted with residents inside the EPZs for both the east and west routes on April 27, 2011. Terra provided evidence that it had responded to questions from the ERI before 2011 and said that the ERI did not attempt to contact Terra directly once it filed the current applications in 2011. Terra advised that it completed its notification and consultation requirements under *ERCB Directive 056: Energy Development Applications and Schedules (September 2011)* over the 2009 to 2012 period. The ERI also said that once it retained a lawyer in 2011, it did not attempt to contact Terra about its concerns. The WRI confirmed that it did not respond directly to Terra's agent, but asked that all communications be directed to its lawyer.

[30] The WRI raised concerns that Terra's decision makers did not attend the hearing; however, Terra responded that the Board could rely on any commitments made by its staff at the proceeding. Terra also submitted that its vice-president had offered to attend a meeting with the ERI but that the ERCB and Terra had jointly cancelled the meeting so that Terra could further consult with the WRI.

### Findings

[31] The Board is satisfied that the statements and commitments made by Terra's staff at the hearing were made on behalf of the company. The Board notes that Terra's manager of land administration and contracts, Jeff Pike, indicated that he was not the ultimate decision maker for Terra and could only make certain commitments. Mr. Pike also indicated that "the buck stopped" with Terra's president, but that he didn't feel the need to attend the hearing if Mr. Pike attended. The Board cautions that if no person with the authority to speak on behalf of an applicant participates in the hearing, the applicant runs the risk of the application being denied or of the Board imposing special conditions.

[32] The Board notes that Terra met its obligation to *Directive 071: Emergency Preparedness and Response Requirements for the Upstream Petroleum Industry (November 2008)* by notifying non-resident landowners of its proposed development and providing them with a public safety package related to the project.

[33] It appears that both the ERI and the WRI could have engaged more fully in the consultation processes instead of referring Terra to their lawyers, which may have led to inefficiencies in addressing the landowners' concerns. The Board has policies in place that require companies to conduct a thorough participant involvement program with local landowners to identify issues and concerns with proposed developments. The Board expects that when landowner issues are raised, the company and landowner will identify, assess, and where reasonable, adopt alternatives or modifications to projects to address concerns from landowners affected by the applicant's proposals. Even while preparing for a hearing, the Board encourages parties to continue communicating in an effort to resolve issues, and the ERCB provides ADR staff for this purpose.

## CONCLUSION

[34] After weighing the evidence and arguments of all parties, the Board concludes that both the east and west routes are acceptable but that the west route is preferable to the east route for the reasons stated above. Accordingly, the Board approves Application No. 1698094 for the west route. The alternative route Application No. 1698084 is closed.

Dated in Calgary, Alberta, on September 25, 2012.

## ENERGY RESOURCES CONSERVATION BOARD

*Original signed by*

T. L. Watson, P.Eng.  
Presiding Member

*Original signed by*

T. C. Engen  
Board Member

*Original signed by*

J. D. Dilay, P.Eng.  
Board Member

## APPENDIX 1 HEARING PARTICIPANTS

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### Principals and Representatives (Abbreviations used in report)

### Witnesses

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#### Terra Energy Corp. (Terra)

M. A. Marion  
L. E. da Costa

J. Pike  
D. L. Spratt, R.E.T.  
M. Hovrisko of  
Black Gold Emergency Planners Inc.  
J. Seper of  
Britt Land Services  
Ryan Dubetz of  
ONSTREAM Engineering Ltd.  
A. J. W. Springer, P.Eng. of  
Stantec  
R. J. Telford, AACI, P.App, P.L and PSL of  
McNally Land Services Ltd.

#### D. Gitzel, K. Gitzel, J. Boyce, M. Davies, K. Garner

D. P. Bishop

D. Gitzel  
K. Gitzel  
J. Boyce  
M. Davies  
C. Holler (in support of M.Davies)  
C. Oilund (on behalf of K. Garner)  
D. Rycroft (on behalf of K. Garner)  
B. S. Gettel, AACI, of  
Gettel Appraisals Ltd.

#### C. Linden, M. Linden, B. Diederich

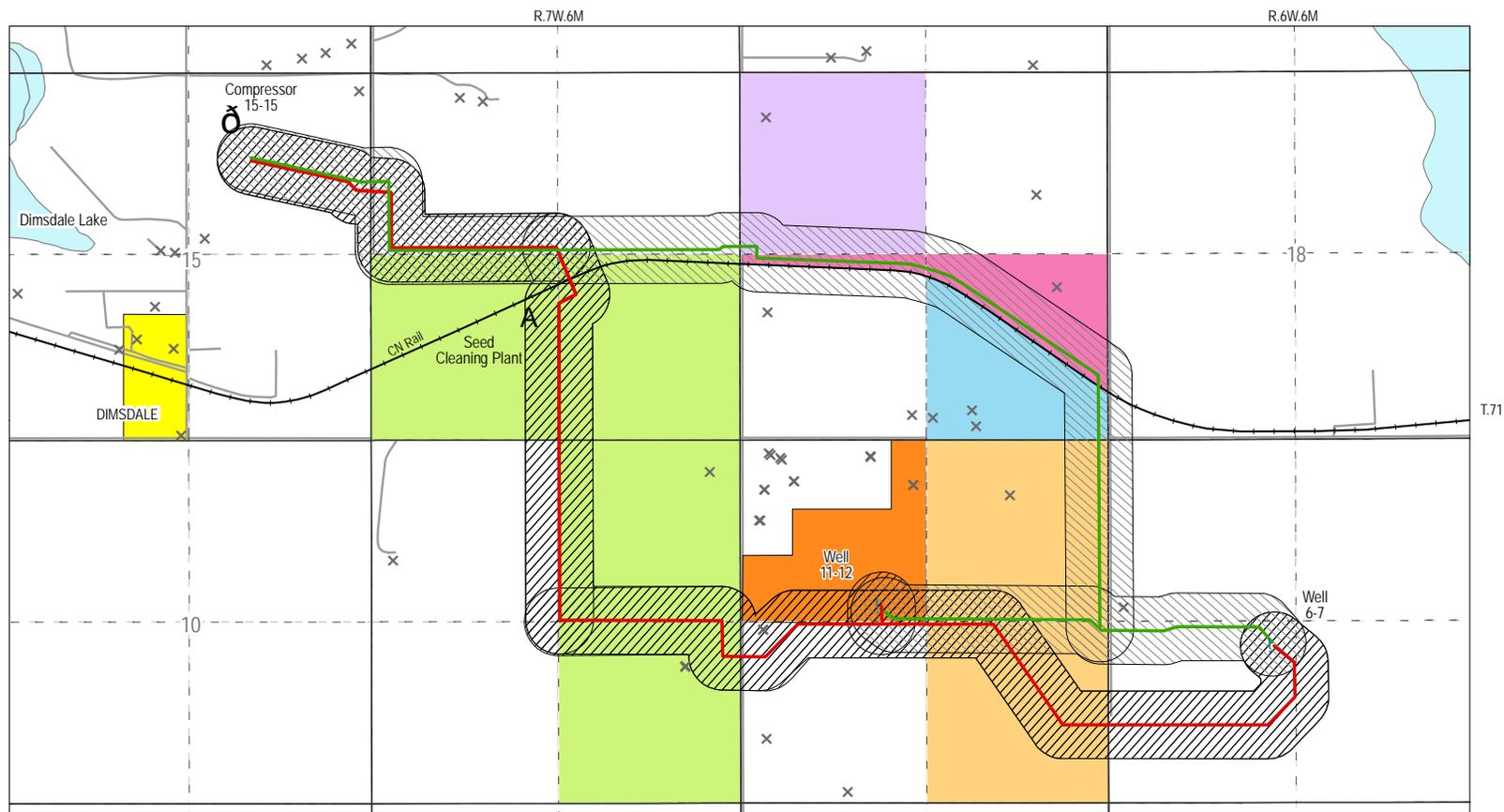
J. D. Carter, Q.C.

C. Linden  
B. Diederich

#### Energy Resources Conservation Board staff

D. Burns, Board Counsel  
A. Karg, Law Student  
A. Allum  
R. Guttman  
S. Lee, P.Eng.  
Q. Eastlick  
A. Mahmood  
P. Abraham  
J. Olson

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Legend

- |                       |                  |                     |                                  |   |
|-----------------------|------------------|---------------------|----------------------------------|---|
| ! Wells               | — Road           | x Resident          | Orange Davies lands              | Purple Garner land                        |
| Compressor            | Green East route | East route 150m EPZ | Orange Diederich land            | Pink Gagnon, Gitzel, Holler, Rycroft land |
| A Seed cleaning plant | Red West route   | West route 150m EPZ | Blue Ed Boyce Holdings Ltd. land | Light Green Linden lands                  |

Figure 1. Map of the proposed routes and interveners' lands