

# **ALBERTA ENERGY AND UTILITIES BOARD**

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**Calgary Alberta**

**RIO ALTO EXPLORATION LTD.  
APPLICATION TO MODIFY  
A SWEET GAS PROCESSING FACILITY  
MCLEOD FIELD**

**Decision Report 99-9  
Application No. 1030648**

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## **1 DECISION**

The Board has carefully considered the evidence received and has determined that Rio Alto Exploration Ltd. (Rio Alto) did not adequately demonstrate that approval of the proposed expansion of the McLeod field sweet gas processing facility is currently in the public interest. In reaching this decision, the Board found that Rio Alto had not adequately demonstrated the need for the proposed expansion or that the current operations of the plant are consistent with Alberta Energy and Utilities Board (EUB) noise requirements. The Board also had concerns that the company's public consultation program had not met general EUB expectations for new applications. Until the above can be demonstrated, the Board is not prepared to approve further expansion. Therefore, the Board denies Application No. 1030648 without prejudice to any future applications.

The reasons for the Board's decision are presented below.

## **2 APPLICATION AND HEARING**

### **2.1 Application and Intervention**

Rio Alto submitted Application No. 1030648 to the EUB in accordance with section 26 (1)(b) of the Oil and Gas Conservation Act requesting approval to modify a sweet gas processing facility in the McLeod field. The existing plant is located at Legal Subdivision 16, Section 36, Township 55, Range 15, West of the 5th Meridian. Rio Alto stated that it is proposing to install three additional gas compressors in order to fully utilize the plant's existing processing capacity. The facility would be designed to process 1133 thousand cubic metres per day ( $10^3 \text{ m}^3/\text{d}$ ) of raw sweet gas and would recover 1085.1  $10^3 \text{ m}^3/\text{d}$  of sales gas, 73.0 cubic metres per day of  $\text{C}_5 +$  (condensate), and 186.2 cubic metres per day of LPG mix.

The Board received an objection to the Application from area residents Brian and Janet Ficht on 21 October 1998. The Board directed, pursuant to section 29 of the Energy Resources Conservation Act, that a public hearing be held to consider the Application. The Board subsequently received a joint submission from Brian and Janet Ficht, William and Hilda King, Larry and Laura King, and John and Joan See (the McLeod Coalition) on 22 January 1999, setting out their position with respect to the Application.

The attached figure shows the location of Rio Alto's existing sweet gas processing facility (the McLeod plant), and other existing facilities, and the residences in the immediate surrounding area.

## 2.2 Hearing

The application and interventions were considered at a hearing in Edson, Alberta, on 29 January 1999, before Board Members B. F. Bietz, P.Biol., and A. J. Berg, P.Eng., and Acting Board Member T. M. Hurst. Those who appeared at the hearing and abbreviations used in this report are listed in the following table:

### THOSE WHO APPEARED AT THE HEARING

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#### Principals and Representatives (Abbreviations Used in Report)

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Rio Alto Exploration Ltd. (Rio Alto)  
H. R. Hansford  
S. Gibson

The McLeod Coalition  
R. M. Kruhlak

Alberta Energy and Utilities Board staff

D. L. Schafer  
T. Donnelly, Board Counsel  
D. DeGagne  
R. Schafer

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#### Witnesses

D. C. Klapco  
A. Gunst, P.Eng.  
D. R. Moore, P.Eng.  
of Tundra Engineering Ltd.  
R. G. Patching, M.Eng., P.Eng.  
of Patching Associates Acoustical  
Engineering Ltd.

Larry King  
William King  
Janet Ficht  
Brian Ficht  
Joan See  
J. Farquharson, C.E.T.  
of Faszler Farquharson Associates Ltd.

## 3 PRELIMINARY MATTERS

At the outset of the hearing Rio Alto requested the Board approve its application without further consideration of the intervener's submission. In making this argument, Rio Alto noted that the intervener's submission did not specifically oppose the application and furthermore did not provide any evidence which would indicate that the proposed plant expansion would result in unacceptable noise levels.

The McLeod Coalition submitted that it was a legitimate intervener to the Rio Alto application, as shown by its submission, and that it was participating in the hearing in order to deal with the problem of increasing noise from the plant. The McLeod Coalition noted that it was prepared to address the evidence provided by Rio Alto on that matter.

The Board denied Rio Alto's request and acknowledged that the intervener's submission had raised bona fide issues that were relevant and of concern to the Board.

## 4 ISSUES

The Board considers the issues respecting the Application to be:

- C the need for the facility expansion,
- C noise impacts from plant operations, and
- C the adequacy of the public consultation.

### 4.1 Views of Rio Alto

#### 4.1.1 Need for the Facility Expansion

Rio Alto stated that through an acquisition of Seagull Energy Resources in October 1997, it had acquired a 26.9 per cent working interest in the McLeod plant. The McLeod plant had been in operation since 1986 and Rio Alto stated that it took over as operator when it acquired its working interest. In the winter of 1997, Rio Alto expanded the plant.

Rio Alto stated that its current application proposed to further upgrade and debottleneck the plant by providing additional compression capacity. Three additional compressors were proposed in order to increase the plant's raw gas inlet capacity from  $903 \times 10^3 \text{ m}^3/\text{d}$  to  $1133 \times 10^3 \text{ m}^3/\text{d}$ . The three compressors were: a 400-horsepower (HP) gas-driven inlet booster compressor; a 730-HP gas-driven inlet and sales compressor designed to utilize existing process capacity; and a 270-HP gas-driven overhead compressor to improve the capacity on inlet and sales compressors, and to reduce flaring and emissions from the plant.

In response to questioning and in its evidence, Rio Alto indicated that the proposed expansion would allow the plant to process potential new gas reserves in the area for both itself and its working interest partners. Rio Alto noted that a plant partner had already licensed and prepared three new drilling locations in the area and that a minimum of 15 other exploration and development locations had been identified. Rio Alto indicated that it has also identified numerous well re-completion candidates in the area. Rio Alto stated that these wells could be expected to fill much or all of the incremental raw gas inlet capacity of  $230 \times 10^3 \text{ m}^3/\text{d}$  afforded by an expansion.

Rio Alto stated that the additional compression capacity would also allow it to add additional gas volumes to the plant by lowering the overall field pressure and thus improving the deliverability of existing older wells located closer to the plant. At the hearing, Rio Alto did acknowledge that these gas volumes alone would not likely increase the raw inlet gas volumes beyond the plant's current licensed capacity.

Finally, Rio Alto noted that a plant partner has approximately  $85 \times 10^3 \text{ m}^3/\text{d}$  of gas that is currently processed elsewhere and that it believed that the partner would prefer to run this gas through the McLeod plant for economic reasons.

Rio Alto said that it had spent in excess of \$1.9 million and had committed an additional \$0.6 million to the proposed project. Rio Alto noted that on a corporate basis, whenever it

incurred a short fall in its contractual gas supply obligations, these volumes would need to be made up through the purchase of spot gas. Therefore, delays in the approval of its application to expand the capability of the McLeod plant may have a negative financial impact on, and potentially result in substantial financial loss to Rio Alto and its partners.

#### **4.1.2 Noise Impacts from Plant Operations**

Based on the results of its public consultation program, Rio Alto stated that it believed Mr. & Mrs. Ficht, who lived approximately 2040 metres (m) from the plant site, were the only local area residents with ongoing concerns about potential noise from the expanded McLeod plant. Rio Alto stated that it had commissioned a Noise Impact Assessment which indicated that noise levels from the expanded plant at the Ficht residence would be within the Permissible Sound Level (PSL) as set out in the EUB's Interim Directive 94-4 (ID 94-4).

Rio Alto stated that it believed that the appropriate PSL for residences in the area was 40 dBA Leq night-time. It stated that it reached this conclusion on the premise that the area was not pristine due to the presence of other industries. Rio Alto indicated that while an argument could be made, based on high ambient levels, to actually warrant an increased PSL, it did not do so as this would be inconsistent with the spirit of ID 94-4.

Rio Alto also submitted the results from two noise surveys carried out at the B. & J. Ficht and the J. & J. See residences, respectively, which it believed confirmed that the existing McLeod plant was in compliance with EUB requirements. Cognizant of continued concern about noise by Mr. & Mrs. Ficht, Rio Alto confirmed that it had committed to install hospital grade mufflers on the proposed new compressors and to orientate the new coolers away from their residence to further mitigate noise. Rio Alto stated that it had considered other noise control measures but felt they would not be cost effective. Rio Alto stated that in its view any additional noise control would result in very negligible reductions that would likely be imperceptible to local residents and so did not warrant the additional cost.

Rio Alto stated that in an attempt to gather as much relevant data as possible before the EUB public hearing was to take place, it had commissioned a third noise survey. Rio Alto stated that this survey, which was conducted over eight days and nights, reconfirmed that noise levels at the B. & J. Ficht residence were within the established PSL. As a further assurance to the interveners, Rio Alto committed to conduct a post construction noise survey at the residences of the interveners or at any other applicable residence in order to confirm that the PSL had been met. If found to be exceeding the PSL, Rio Alto stated it would be prepared to work with local residents to resolve the matter and meet the EUB's Noise Control Directive, ID 94-4. Rio Alto also indicated that it would redo the noise survey, regardless of the Board's decision on its application, to address the concerns of Mr. King that were raised at the hearing (see section 4.2.2 below).

#### **4.1.3 Public Consultation**

Rio Alto stated that it had made a corporate commitment to establish good relations and maintain communications with area residents and interested parties who live near its energy operations throughout Alberta. Rio Alto said that the proposed McLeod plant expansion application was its first encounter with the community noise issue and Rio Alto felt that it had made a reasonable effort to resolve the issue. It noted that the noise surveys it had conducted

early in its application process clearly demonstrated its commitment to resolving the resident's noise concerns.

Rio Alto said that as part of its application for expansion it had identified area landowners in the vicinity of its plant and sent its land representative to visit them in April 1998. Rio Alto stated that it had decided to take a proactive approach to its public consultation and to personally consult landowners, occupants, and residents within 1.5 kilometres (km) of the plant. It had done this, notwithstanding that it believed that under the EUB's Guide 56 "*Energy Development Application Guide and Schedules*" it only had an obligation to personally consult with landowners, occupants, and residents within 0.5 km of the plant. Rio Alto stated that it had obtained written consent for the proposed application from the immediate landowner. It had also delivered information packages to the J. & J. See and R. & D. See residences, the only residences within 1.5 km of the plant. Rio Alto said that the See families had raised no concerns.

In addition, Rio Alto stated that it also visited several other landowners in the area to deliver information packages. These included the L. King and B. & J. Ficht residences. Rio Alto noted that the only concerns raised were from B. & J. Ficht. Rio Alto stated that it decided to focus its energy toward working with the Ficht's in order to alleviate their concerns.

As a result of its initial consultation program, Rio Alto stated that it had concluded that a public meeting would not be necessary in this case. The company stated that it reached this conclusion because:

- The only concern raised was by B. & J. Ficht whose residence was over 2 km from the plant site.
- Rio Alto intended to honour the commitments already made by Seagull Energy Resources at an open house that it had held in July 1997, regarding issues related to the plant expansion carried out in 1997.

Rio Alto observed that the proposed new plant expansion was much smaller in size and complexity than the past 1997 project and upon reviewing the results of the public forum held in July 1997, Rio Alto felt that it could continue to fulfill its obligations based on the commitments that were made by Seagull. In response to questioning, Rio Alto stated that it did not have a formal community involvement program in place that would allow the community residents direct access to a company representative who could assist them in resolving problems. It did note, however, that it has operators at the plant site daily and a field foreman that tours the field on a routine basis and that these personnel are accessible to the public to hear concerns. Rio Alto stated that it was committed to improving communication with residents, to being proactive in obtaining input from stakeholders, and to ensuring that a company representative is readily accessible in the community to deal with issues or concerns. Rio Alto concluded by saying that, in this case, a town hall meeting may have been useful.

## **4.2 Views of the Interveners**

### **4.2.1 Need for the Facility Expansion**

The interveners stated that they did not directly oppose the need for the plant expansion. Rather, their first concern was that noise levels from the existing plant were unacceptable and some

form of remedial action was required. As a result, they stated, they were therefore concerned that the proposed expansion would lead to further incremental noise levels. Furthermore, the interveners questioned the validity of the noise surveys that Rio Alto had recently completed to verify compliance.

#### **4.2.2 Noise Impacts from Plant Operations**

At the hearing, the Kings described their perception of the current noise levels from the plant. The Kings stated that noise levels have in recent years become unacceptably loud. The Kings noted that the noise was not constant but was often sufficiently loud that at times it was difficult to talk in their yard or sleep at night. Furthermore, the Kings said that the noise levels had become noticeably worse over the past year.

The Kings also believed that existing noise levels had adversely affected their cattle operation. As a result of noise from the plant, the Kings observed that their cattle no longer grazed on the western portion of their pastures located on the northeast quarter of their land in section 31. Additionally, the Kings expressed an annoyance with light from nighttime flaring at the plant but indicated they had no specific concerns regarding odors from the plant or associated truck traffic given the general level of oil and gas activity in the area.

The Fichts submitted that noise levels from the plant have also impacted their lifestyle in that the noise was an irritant and an annoyance, and contrary to the quality of life that they expected to enjoy, given the nature of the area where they live. The Fichts stated that they were affected by the noise on an irregular basis and that these irregular instances were dependent on certain weather conditions. Additionally, the Fichts also noted that noise levels had become louder in the last year, specifically, since the 1997 plant expansion. The Fichts indicated that there was also noise from truck traffic on the plant road but noted that only some of this traffic was related to plant activity.

The Fichts questioned the validity of the results of the noise surveys conducted by Rio Alto, indicating that there was a difference between their perception of the noise levels compared to the noise levels measured by the surveys. The Fichts also questioned why noise testing would not be done in the summertime when they attributed noise levels from the plant to be at their worst. The Fichts agreed under questioning that there were other noise generating activities present in the area such as other oil and gas activities, as well as logging, agricultural, and recreational activities. However, the Fichts stated that noise from these activities were generally only of a short duration.

Mrs. See stated that she also believed that the sound levels from the plant had increased since the last expansion. Mrs. See indicated that the noise from the plant's motors and fans was not steady but rather was intermittent in nature. Mrs. See stated that the noise was irritating at times and on occasion it was difficult to sleep at night due to noise levels from the plant. Additionally, Mrs. See indicated a concern regarding traffic on the plant road beside her home. Mrs. See said that both the volume and noise level from plant related traffic had increased. Mrs. See also stated that the traffic on the plant road did not come at scheduled intervals but was present at different times during the day. Mrs. See did, however, note that dust from road traffic was not a problem and that the dust control program was working.

The interveners presented a description of the steps that, in their view, should be taken in carrying out an optimal comprehensive noise survey and noise impact assessment. In doing so they compared their suggested requirements with the assessment supplied by Rio Alto and pointed to deficiencies in the applicants noise survey and impact assessment related work. Modeling results submitted by the interveners suggested that under different conditions from those used by Rio Alto, noise levels at the B. & J. Ficht residence could exceed the 40 dBA Leq night-time PSL.

Other concerns with Rio Alto's noise assessment were raised. These included the lack of any mention of a small compressor station which, while not related to Rio Alto's operations, was in fact closer to the B. & J. Ficht residence than the plant and which could have a possible influence on noise levels. The interveners noted that they believed that a case could also be made for a reduction in the PSL from the baseline given the low ambient sound levels noted in the applicant's survey data. The interveners did accept, however, that a case could also be made for a higher ambient adjustment under different assumptions.

With regards to the Rio Alto application to expand the plant, the interveners conceded that the proposed additions to the plant would likely have little effect on the overall sound levels. They were opposed to the expansion, however, until the current noise conditions were addressed. The interveners argued that using a reasonable cost benefit analysis, Rio Alto could conduct effective noise control at the existing plant to further reduce noise levels. They also believed that a new survey, under representative conditions should be conducted before as well as after construction to ensure first that the plant under its current configuration is in compliance and second as a base for determining the sound qualities, including the sound level impact of the plant after modification.

#### **4.2.3 Public Consultation**

With regard to public consultation, the interveners indicated a general concern with Rio Alto's public consultation program with respect to the proposed plant expansion. The Kings indicated that, from their perspective, Rio Alto was neither thorough nor proactive in its consultation efforts. The Kings stated that although some personal contact had been made on behalf of Rio Alto regarding this application, Rio Alto did not attempt further contact even when specifically directed to another member of the King family who may have been better able to discuss the family's concerns regarding the application. Additionally, the Kings believed that it would have been beneficial to have had the opportunity to participate in an open house relative to this application.

The Ficht's also expressed frustration with regards to Rio Alto's consultation process. The Ficht's indicated that there were large time delays in which Rio Alto did not pursue any consultation with the Ficht's and that their experience with Rio Alto was quite different from what Rio Alto had stated in its submissions. The Ficht's stated that comments made by Rio Alto in its submissions suggesting that there were numerous conversations with the Ficht's, and that Rio Alto had gone to great lengths to deal with the Ficht's, were not accurate. Furthermore, the Ficht's indicated that the communication with Rio Alto was not community based and additional communication efforts on behalf of Rio Alto should have been pursued. The Ficht's were also particularly concerned with Rio Alto's suggestion that their issues were not related to noise concerns but rather due to other issues unrelated to the plant expansion.

Mrs. See stated that she could not recall receiving a formal information package from Rio Alto and that there should be better communication between companies and the public in order to avoid these types of problems. Mrs. See expressed her wish for a list of phone numbers from Rio Alto and other operators in the area should a need arise to contact industry representatives if problems occur in the future.

### **4.3 Views of the Board**

#### **4.3.1 Need for the Facility Expansion**

With regard to the need for the plant expansion, the Board recognizes that Rio Alto has determined that it believes that the proposed project would meet both its own and its partners' business needs. However, while the Board does not routinely interfere with business decisions, the Board is also required to evaluate the need for the proposed project in the broader public interest and requires more evidence of project need than simply the wishes of the owners, particularly where valid public concerns exist.

In this instance, the Board heard evidence from Rio Alto with respect to its perceived need for the expansion of the plant's raw gas inlet capacity from  $903 \times 10^3 \text{ m}^3/\text{d}$  to  $1133 \times 10^3 \text{ m}^3/\text{d}$ . Rio Alto stated that the plant expansion was required in part to allow the company to process older, lower pressure wells and gas from wells that it expected would be successfully drilled in the area. In addition, it believed that the gas volumes which it expected one of the partners in the plant to divert from another processing facility in the area also helped to justify the proposed expansion.

With regards to the older wells, the Board notes that Rio Alto acknowledged that increased deliverability and gas volumes from these older existing wells near the plant would not on their own precipitate the need for an increase to the plant's raw gas inlet capacity. While increased compression would allow these wells to be produced to the plant at a higher rate, this additional gas could be processed using existing plant capacity.

With regard to potential recompletions and new gas wells, the Board notes that while Rio Alto did submit that it had recompletion prospects and that its partners had identified numerous new well drilling locations, none of these new wells had apparently been drilled or tested at the time of the hearing. Since Rio Alto did not provide specific evidence detailing the nature, origin, volume, or life of these undeveloped reserves, the Board is unable to accept on its face the potential for new gas reserves as sufficient to justify the proposed plant expansion.

The third potential new gas source identified by Rio Alto was existing reserves that it expected would be diverted to its plant by one of the plant partners. However, the Board notes that Rio Alto also confirmed that it had had no formal discussions with this party regarding this matter. Furthermore, Rio Alto agreed that any such diversion would be subject to the existing contractual arrangements for the processing of this gas which may be subject to delays regarding contractual arrangements or similar issues arising from such a change. Again, the Board is unable to accept that potential future arrangements, for which no evidence as to the likelihood of their success had been presented, as sufficient evidence of need.

### **4.3.2 Noise Impacts from Plant Operations**

With regard to noise impacts, the Board believes that while some discrepancies exist in Rio Alto's noise impact assessments and comprehensive sound surveys, they are based on an acceptable approach and assumptions. In particular, the Board notes that the land near the Rio Alto facility is a quiet rural area, typical of much of Alberta. Therefore, the Board does not believe that either an upward or downward ambient A-3 adjustment of the PSL is warranted and accepts the PSL determination of 40 dBA Leq night-time for the surrounding residences.

With respect to current noise levels from the McLeod gas plant, the Board accepts Rio Alto's findings that, based on the survey work to date, there is no evidence that the current plant exceeds the Board's guidelines for permissible sound levels. However, the Board also notes that although the King residences appear to be the second closest residences to the plant site and within line of sight of the plant, no survey work was apparently carried out there. Given the evidence of the Kings that noise levels have progressively become louder since the expansion, to the point that on occasion sleep and normal conversation are impaired and that the behavior of their cattle has apparently changed, the Board believes that additional survey work, under appropriate conditions, is still required to determine whether the current plant meets acceptable noise guidelines.

The Board would also strongly recommend that Rio Alto seek the advice of its sound consultant in the design of such a study including timing and location of the sound meters and to work with the EUB's Drayton Valley Field Centre Office in the design of an appropriate comprehensive noise survey. The Board will also expect Rio Alto to seek the input of the residents in such a survey and to consider other aspects of the sound environment, such as tonal qualities, in assessing the extent of noise impacts. If the facility is found to exceed the PSL at any of the nearby residences used in the survey, Rio Alto will be required to develop and submit an acceptable action plan to correct the problem in an expeditious manner.

With respect to the proposed plant expansion, the Board also accepts Rio Alto's modelling results which suggest that the proposed plant expansion will result in very little incremental noise. Since previous survey work undertaken by Rio Alto had indicated that the current plant was in compliance with the noise control requirements, the Board can understand why Rio Alto believed that there was no clear rationale for the company to incur additional costs for further noise control. However, the Board also notes that, in its efforts to address the noise concerns of the Fichts, the company had proposed to orient its compressor's cooling fans to the east. Since this is in line with the King's residences, this suggests that Rio Alto may need to further consider its options in reducing the noise from the plant. While such measures need not be employed prior to the results of the additional noise survey it would appear to the Board that the company would be well served to carry out an examination of the relative benefits and costs of the various noise control options at the same time.

### **4.3.3 Public Consultation**

With regard to Rio Alto's public consultation program, the Board has several concerns with the program carried out by Rio Alto. In particular, it was clear at the hearing that while the company may have believed that it had established good communications with its neighbors, it had in fact almost completely failed to address the concerns of the Kings, two of the nearest families residing proximal to the plant. This failure also seemed to be symptomatic of what appeared to

be a general lack of understanding by the company of local issues. While the Board cannot be certain as to the cause of this breakdown, it did appear that Rio Alto had not established any clear method of obtaining local input into its operations or in ensuring that this information would be transmitted to its corporate offices. The Board would also encourage Rio Alto to take additional care in submission of its applications to ensure no misunderstanding of issues is created, including the level of noise to be expected.

The Board notes Rio Alto's comments that, notwithstanding it had no obligation under the EUB's Guide 56, it personally contacted landowners, occupants, and residents within 1.5 km of the plant and in doing so it felt it exceeded the prescribed notification requirements. However, the Board expects any company, as the proponent, to assume responsibility for involving the public and to be alert to, and recognize circumstances where its public involvement program should exceed the minimum requirements. The Board believes that Rio Alto could have been more thorough in both its public consultation efforts particularly in regards to the King families and in the documentation of its public involvement program.

The Board also believes that on a more general basis, Rio Alto has an obligation to establish better communications with area residents. While each company is responsible for developing the appropriate consultation program, in this case the Board agrees with the interveners that Rio Alto should likely have conducted an open house or a public information session early in the process as part of its public involvement program. The Board also believes that in holding a public information session, Rio Alto could have formally introduced itself to the community and used the opportunity to provide area residents with a community based contact for the purpose of conveying ideas, issues, or concerns.

Dated at Calgary, Alberta, on 23 April 1999.

#### **ALBERTA ENERGY AND UTILITIES BOARD**

*[Original signed by]*

B. F. Bietz, P.Biol.  
Board Member

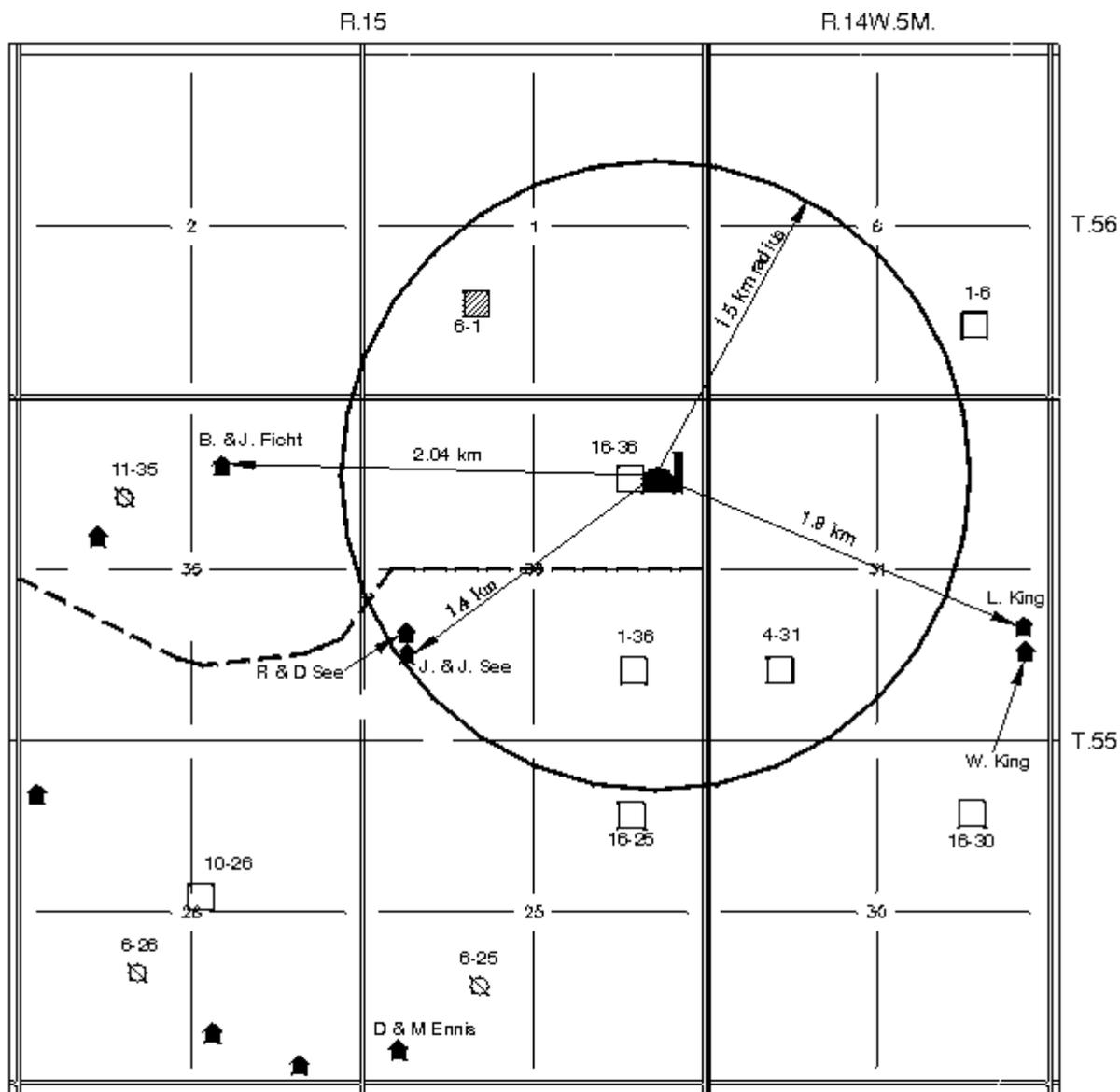
A. J. Berg, P.Eng.\*  
Board Member

*[Original signed by]*

T. M. Hurst  
Acting Board Member

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\* Mr. Berg was unavailable for signature but concurs with the contents and with the issuing of this report.



Legend

- Rio Alto McLeod Gas Plant
- Compressor station
- Existing well site
- Abandoned/suspended well site
- McLeod Gas Plant Road
- Residence

McLeod Field  
 Application No. 1030648  
 Rio Alto Exploration Ltd.

Decision 99-9