

ALBERTA ENERGY AND UTILITIES BOARD

Calgary Alberta

**TALISMAN ENERGY INC.
APPLICATION FOR A PIPELINE PERMIT,
TEMPORARY COMPRESSOR
AND PERMANENT BOOSTER COMPRESSOR
MEDICINE RIVER FIELD
LSD 10-12-39-3W5M**

**Examiner Report 99-4
Applications No. 1041416 and 1047693**

1 RECOMMENDATIONS

The examiners have considered the evidence presented and recommend that Applications No. 1041416 and 1047693 be approved. With respect to operations at the Talisman Energy Inc. (Talisman) battery located in Legal Subdivision 10, Section 12, Township 39, Range 3, West of the 5th Meridian (10-12 battery), the examiners further recommend that Talisman be required to

- conduct a comprehensive sound level survey after the temporary and booster compressors are operational; the survey must be done during conditions that are representative of the proposed testing of the well at LSD 11-7-39-2W5M (11-7 well) and normal operation of the 10-12 battery;
- submit the results of the comprehensive sound level survey, including sufficient information to demonstrate that conditions at the time of the survey were as specified above, to the Board and provide a copy to Mr. Campbell; and
- operate the temporary compressor only during the test of the 11-7 well.

2 INTRODUCTION

2.1 Applications

Application No. 1041416

In accordance with Part 4 of the *Pipeline Act*, Talisman applied to construct and operate 1.48 kilometres of 88.9-millimetre outside diameter pipeline from the existing 11-7 well to the existing 10-12 battery. In accordance with Sections 7.001 and 15.210 of the Oil and Gas Conservation Regulations, Talisman also applied for approval to install a temporary 550 kW compressor, for a period not longer than one year, at the 10-12 battery.

Application No. 1047693

In accordance with Sections 7.001 and 15.210 of the Oil and Gas Conservation Regulations, Talisman applied to install a permanent 19 kW electric booster compressor at the 10-12 battery.

The attached figure shows the location of Talisman's existing 10-12 battery, the proposed pipeline route, the 11-7 well and the residences in the immediate surrounding area.

2.2 Interventions

The Board received a written objection to the applications from Mr. A. Hietala on 13 February 1999. Mr. Hietala resides on and farms the northwest quarter of Section 12-39-3W5M which is adjacent to the 10-12 battery. He was concerned that Talisman's application would lead to the development of a gas processing facility. He also expressed concerns about increased emissions, disposal of waste water, and landscaping that would result in changes to natural drainage patterns and would be detrimental to his property. Mr. Hietala only spoke to the issue of surface water drainage at the hearing.

The Board also received an objection on 6 June 1999 on behalf of D. and N. Campbell who reside some 850 metres north of the 10-12 battery. The Campbells expressed a concern with extreme noise pollution from the battery.

2.3 Hearing

The applications and interventions were considered at a public hearing in Sylvan Lake, Alberta on 2 November 1999, before Board-appointed examiners T. Pesta, P.Eng., B. Hubbard, P.Eng. and T. Abel, P.Eng. The examiners and Board staff viewed the 10-12 battery site and surrounding area on the afternoon of 1 November 1999. Those who appeared at the hearing are listed on the following table.

THOSE WHO APPEARED AT THE HEARING

Principals and Representatives	Witnesses
Talisman Energy Inc. R. Hansford	B. Hakstol, P.Eng. A. Paterson, P.Eng. A. Orr N. Hircock, P.Eng., of Patching Associates Acoustical Engineering Ltd.
A. Hietala	A. Hietala
D. and N. Campbell R. Elander	D. Campbell
Alberta Energy and Utilities Board staff D. Brezina, Board Counsel M. Drake L. Morrison	

3 ISSUES

The examiners consider the issues to be

- need for the pipeline and compressors,
- noise, and
- surface water drainage.

4 NEED FOR THE PIPELINE AND COMPRESSORS

Talisman stated that the proposed pipeline and temporary compressor were required to enable an EUB-approved production test of the 11-7 well. Talisman noted that under EUB approval conditions, the 11-7 well had been shut in to enhance the resource recovery from a waterflood scheme in the Ostracod A Pool. The proposed production test is intended to produce new information that would aid Talisman's reservoir management planning to bring the 11-7 well on production. Talisman stated that the EUB approval for the production test was conditional on all gas being conserved.

Talisman advised that existing compression capacity at the 10-12 battery was insufficient to conduct the test. It determined the proposed temporary compressor and pipeline to be its best alternative to enable the production test. Talisman considered installing either a temporary or permanent battery at the 11-7 well site but rejected both options because they would have involved trucking of clean oil, the existing gas pipeline from the 11-7 well is at capacity, and the 10-12 battery is near the 11-7 well.

Talisman stated that the booster compressor was required at the 10-12 battery in order to eliminate the continuous burning of treater gas, which was of concern to area residents.

The interveners did not oppose the need for the pipeline, the temporary compressor, or the booster compressor. In his submission of 12 October 1999, Mr. Hietala did suggest that oil and gas formations be allowed to stabilize for a period of years so more accurate reservoir engineering plans could be developed to increase recovery rates.

The examiners concur with the need to production test the 11-7 well. The specific details of the test have been reviewed and approved by the EUB conditional on the conservation of all produced gas. The examiners believe that the production test of the well is necessary to generate information that will assist Talisman and the EUB to determine an optimum reservoir development strategy that will maximize resource conservation.

Having regard for surface impact and utilization of existing facilities, the examiners believe that the proposed pipeline and addition of a temporary compressor at the 10-12 battery are preferable to construction of a new battery at the 11-7 well site. Therefore, the examiners are satisfied that there is a need for the proposed pipeline and the temporary compressor at the 10-12 battery. However, the proposed compressor has been applied for as a temporary addition to the 10-12 battery and the need has been justified on the basis of the test of the 11-7 well. Therefore, the

examiners believe that operation of the temporary compressor should be restricted to handling gas production from the 11-7 well test.

The examiners are also satisfied that the 19 kW booster compressor is necessary to eliminate the continuous incineration or flaring of treater gas and note that this will further enhance gas conservation at the 10-12 battery.

5 NOISE

Talisman indicated that no changes had occurred in the operation of the battery around August 1998 that would have caused any increase in noise. Talisman undertook a sound level study of its 10-12 battery in March 1999. An acoustic survey around the existing compressor at the site and modelling of expected sound levels from the facility showed that five residences nearest the battery could experience sound levels higher than the EUB's maximum permissible nighttime level of 40 dBA. The modelling predicted that installation of a hospital-grade silencer and low-noise fan on the existing compressor would reduce sound levels below 40 dBA at these five residences. Talisman undertook the modifications in April 1999. In August 1999, Talisman undertook an additional sound level study to measure actual sound levels at the two nearest residences. The study confirmed that sound levels from the battery were within the EUB permissible sound levels by 2 dBA.

Talisman modelled the sound levels that could result from adding the proposed temporary and booster compressors at the 10-12 battery. The results indicated that with the addition of the hospital-grade silencer and low-noise fan to the existing compressor and the installation of similar equipment on the proposed temporary compressor, sound levels at the five nearest residences would continue to be within the 40 dBA permissible level.

Talisman committed to undertake a comprehensive sound survey following the start-up of the proposed compressors to confirm that actual sound levels at local residences are within the EUB requirements. Talisman stated that a 90-day sound survey would not yield any information that could not be obtained from a one- or two- night survey conducted under representative conditions.

Mr. Campbell stated that the noise from the 10-12 battery seemed to become more noticeable at his residence around August 1998; until then, the noise had not been noticeable on a continuous basis. Since that time, noise from the battery has affected his family's enjoyment of outdoor activities on their property and has been disturbing inside the residence at night. He also stated that noise from the battery had on occasion caused the walls of their home to vibrate.

Mr. Campbell expressed suspicion regarding the noise surveys that had been conducted by Talisman and stated that the noise levels from the battery seemed to be lower while the surveys were being conducted. Mr. Campbell suggested that this might be due to less production being handled at the battery during these periods. Mr. Campbell requested that Talisman be required to conduct a 90-day noise survey after start-up of the temporary and booster compressors and that the survey be correlated with production throughput records. Mr. Campbell further requested that

the EUB suspend operation of the 10-12 battery for a minimum of 30 days if the results of the noise survey do not show compliance with EUB requirements.

Mr. Campbell acknowledged a change in the type of noise emitted from the battery as a result of the measures taken by Talisman in 1999 to reduce the noise levels. However, he was not satisfied that the level of noise had actually been reduced.

The examiners are satisfied that the evidence presented by Talisman demonstrates that the sound levels from the 10-12 battery as measured during the 18 August 1999 survey are in compliance with the EUB's requirements. The examiners accept Talisman's evidence that the sound survey was conducted under conditions representative of normal operations for the battery. The examiners acknowledge Mr. Campbell's concerns regarding noise from the 10-12 battery and recognize that sound could be more noticeable under a broad range of factors, yet remain within the requirements of the EUB Noise Control Directive.

The examiners accept the results of Talisman's survey, which predicts that sound levels from the battery would continue to be within the EUB requirements following the addition of the proposed temporary and booster compressors. However, the examiners note that the expected sound level is predicted to be near the maximum allowable under EUB requirements, actual sound levels may not occur exactly as modelled, and noise from the battery is a serious concern to the Campbells. Therefore, the examiners believe that it would be reasonable for Talisman to conduct a comprehensive sound level survey to determine actual sound levels from the 10-12 battery following the addition of the temporary and booster compressors. The examiners are satisfied with Talisman's commitment to undertake such a survey and stress that the EUB's Noise Control Directive requires that a comprehensive sound level survey be conducted during a period of representative conditions. The examiners believe it likely that with the current rates of production to the 10-12 battery and the expected production from the 11-7 well test, sufficient gas will be available at the 10-12 battery to require operation of the compressors at or near capacity. Therefore, the examiners believe that the comprehensive sound level survey should be conducted at or near full loading of the compressors. Operating conditions during the comprehensive sound level survey, including any variation in compressor throughputs, must be fully documented and reported along with the results of the survey. The examiners do not believe that an extended 90-day sound survey, as proposed by Mr. Campbell, is necessary to confirm the validity of the results.

Notwithstanding the examiners' recommendation to approve the addition of the temporary and booster compressors as applied for, the subsequent operation of the 10-12 battery must be shown to be in compliance with the EUB's Noise Control Directive. The EUB considers the failure of a facility to meet the permissible sound levels to be a major non-compliance event, which would result in enforcement actions.

6 SURFACE WATER DRAINAGE

Talisman stated that installation of the proposed pipeline would not interfere with the local natural drainage of water. Talisman committed to follow appropriate construction and reclamation practices and to meet all applicable standards of the EUB and Alberta Environment. Further, Talisman outlined its program for post-construction follow-up, which would provide landowners on the right-of-way with an opportunity to raise any issues or concerns with respect to reclamation of their land.

Talisman had reviewed historic and present-day aerial photographs around the battery and had undertaken a site inspection to assess if surface water drainage patterns had been altered by its operations. Talisman could not determine that any changes in drainage patterns had occurred in the area and thus concluded that its operations had not altered local drainage. Additionally, in response to Mr. Heitala's concerns that actions of adjacent landowners were affecting drainage in the area, Talisman indicated that it could not control the actions of other parties on their own land.

Talisman's operators had recently checked all culverts associated with its access roads and on adjacent municipal roads. No problems were noted during this inspection. Talisman further stated that, in the course of regular duties, its operators are responsible for maintaining culverts and otherwise correcting any drainage problems noted in association with culverts on its access roads.

Mr. Hietala stated that he was concerned that the proposed pipeline would change the natural surface water drainage patterns in the area and cause flooding on his property. He identified an existing ditch running from the 10-12 battery north along the fence line that he suggested allows water to drain from the northeast quarter of section 12-39-3W5M onto his property. Mr. Hietala also expressed concerns that adjacent landowners had undertaken activities causing the blocking of culverts on Talisman's access road to the 10-12 battery and that this further contributed to the flooding of his land.

The examiners accept Talisman's commitment to construct and reclaim the proposed pipeline in accordance with the applicable standards set by the EUB and Alberta Environment. The examiners further accept that Talisman's commitment to conduct a post-construction review of the right-of-way with landowners is an appropriate means to ensure successful reclamation and to address any concerns that may arise. Therefore, the examiners are satisfied that the proposed pipeline can be constructed in an environmentally sound manner and without adverse effect on natural surface water drainage patterns.

With respect to local water drainage issues associated with the 10-12 battery, the examiners note the efforts and commitment by Talisman to ensure that culverts on their access road are maintained in an appropriate manner. The examiners do not believe the proposed pipeline and additional compressors will alter water drainage patterns on or around the 10-12 battery.

Furthermore, the evidence did not indicate that that the existing 10-12 battery has altered local water drainage patterns to affect Mr. Heitala's property. Therefore, the panel believes the matter of Mr. Heitala's broader drainage concerns should be addressed by Alberta Environment. The examiners will inform Alberta Environment of Mr. Heitala's concerns.

Dated at Calgary, Alberta, on 14 December 1999.

ALBERTA ENERGY AND UTILITIES BOARD

[Original signed by]

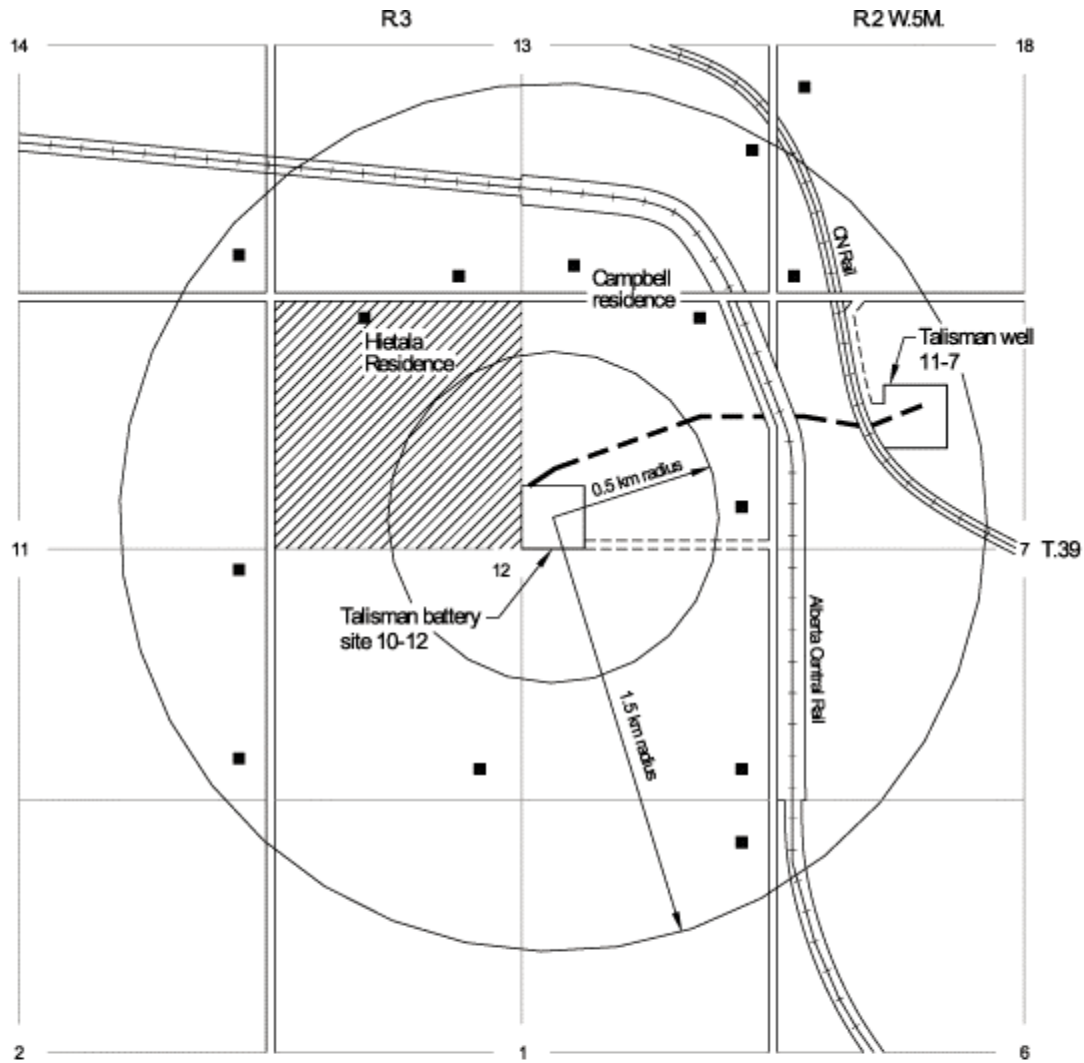
T. Pesta, P.Eng.

[Original signed by]

B. Hubbard, P.Eng.

[Original signed by]

T. Abel, P.Eng.



Legend

- | | | |
|---|--|---|
|  Proposed pipeline |  Access road |  Residence |
|  Railway |  Mr. Hietala property | |
|  Government road allowance | | |

Medicine River Field

Applications No. 1041416, 1047693

Talisman Energy Inc.

Examiner 99-4

