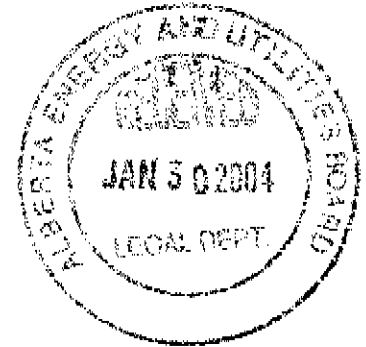




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January 30<sup>th</sup>, 2004

Alberta Energy and Utilities Board  
640 - 5<sup>th</sup> Avenue SW  
Calgary, Alberta T2P 3G4  
VIA COURIER



**Attention: Gary D. Perkins**

**RE: General Bulletin 2003-28; Phase 3 Proceedings**

Paramount Resources wishes to comment on the scope and process for the General Bulletin 2003-28, Phase 3 Proceedings. Many opinions have been expressed during the GB 2003-28 process which beg comment, but Paramount Resources' immediate concerns will be focused in three areas: Definition of "potentially recoverable bitumen"; Use of engineering data, geological interpretation and risk management, and; The role of the SSG in the hearing process.

Regarding the definition of potentially recoverable bitumen:

In its letter of December 17<sup>th</sup>, 2003, the Alberta Energy and Utilities Board (AEUB) provided a "Description of Phase 3 Interim Hearing". "The scope (of the hearing) will be limited to assessing whether gas is associated with potentially recoverable bitumen."<sup>1</sup>

The Staff Submission Group (SSG) has submitted "that detailed evidence addressing such issues as the commercial bitumen criteria...are not necessary at this stage of the proceedings, given the urgency of the bitumen conservation issue."<sup>2</sup>

Paramount Resources submits that the 10m of net thickness and 50% bitumen saturation criteria<sup>3</sup> established originally by the Joint Industry/EUB Committee, and included in AEUB Interim Directive (ID) 99-1, was intended to define when a review of gas production in association with bitumen was required.<sup>4</sup> Through the Surmont and Chard Leismer hearings the criteria evolved into the definition "potentially recoverable bitumen". In GB 2003-28 this definition was further expanded, implying all "potentially recoverable bitumen" will be recovered via steam assisted gravity drainage (SAGD).<sup>5</sup>

We agree with the Board's statements that bitumen pay criteria submitted by industry "vary significantly"<sup>6</sup>. Paramount submits however, that there is an industry consensus that SAGD requires a higher, continuous, pay thickness with greater bitumen saturation than the definition of "potentially recoverable bitumen".

Paramount requests that the Board examine the distinction between "potentially recoverable bitumen", via any technology, and bitumen recoverable via SAGD technology. Re-establishing a distinction between SAGD recoverable and potentially recoverable bitumen would allow the board to balance the gas conservation required when gas is in direct contact with SAGD bitumen, versus gas associated with "potentially recoverable bitumen".

Regarding engineering data, geological interpretation and risk management:

It is recognized the Regional Geological Study (RGS) methods have inherent uncertainties. For example, in the report it is stated that existing well density "is insufficient to recognize local channel occurrences"<sup>7</sup>. It is also stated, "where limited confidence could be placed on existing pressure data, the resultant gas pooling was primarily based on the geological interpretation."<sup>8</sup> No criteria were provided for "insufficient", "limited confidence" or assumed geological confidence levels. Because the relative confidence levels inherent in the study areas geological and engineering data are not explored, there is little opportunity to examine the impacts of data and interpretation uncertainty on assessed risks.

Given that "the Board's challenge is to manage risk in a fair and responsible way"<sup>9</sup>, Paramount Resources requests the Board incorporate more rigorous risk management concepts in the Phase 3 Proceedings for GB 2003-28. That may begin with the Board asking what are the acceptable risk thresholds, and what are the inherent uncertainties of engineering and geological knowledge. That may result, for example, in the Board requiring different risk thresholds for different sizes or quality of resources, or different communication types. Paramount expects inclusion of risk management concepts will uncover significant areas of uncertainty, reducible through further integrated examination of the study area. We expect this would enable both more certain protection of SAGD recoverable bitumen resource and the approval of more gas production.

Regarding the role of the Staff Submission Group (SSG):


Paramount Resources has noted that the SSG appears to be the major party requesting gas shut-ins for Phase 3. It is unclear how the SSG can perform both as active intervener and expert staff assisting the Board. Paramount expects the Board will resolve this concern through both the process used in Phase 3 and the selection of the hearing staff.

In closing, Paramount Resources submits the objective of Phase 3 Proceedings for GB 2003-28 should be to set in place understandings and processes which conserve both gas and bitumen resource. The Phase 3 process is by definition focused on bitumen conservation, but must take into account evidence that gas above a SAGD project may not be recoverable following the completion of SAGD. Gas that is shut-in above potentially recoverable bitumen may also be lost as infrastructure is removed as a result of an indefinite shut-in. While the heating value of the gas may be less than the bitumen in any single area, the economic and environmental values of the two resources should also be balanced in the ongoing risk management process.

Finally, Paramount Resources encourages the AEUB to continue to support the ongoing ADOE and Industry Gas over Bitumen Technical Solutions effort, and incorporate their results in conservation deliberations as appropriate.

Yours truly,

**Paramount Resources**



Gary Bunio  
Manager, Heavy Oil

<sup>1</sup> Alberta Energy and Utilities Board (AEUB), Phase 3 Bitumen Conservation Requirements Athabasca Wabiskaw-McMurray, Dec. 17<sup>th</sup>, 2003, p. 3.

<sup>2</sup> AUEB Staff Submission Group (SSG), Recommendations for Production Status of Gas Wells Athabasca Wabiskaw-McMurray, Jan. 26<sup>th</sup>, 2004, p. 2.

<sup>3</sup> AEUB ID 99-1, Gas/Bitumen Production in Oil Sands Areas Application, Notification, and Drilling Requirements, Feb. 3<sup>rd</sup>, 1999, Appendix.

<sup>4</sup> AEUB, Report of the Industry/EUB Committee Gas Production Application – Oil Sands Areas, Nov. 24<sup>th</sup>, 1998, p. 1&2. The report included: “These cutoffs are not meant to be guidelines for gas production approvals nor do they represent cut offs for currently commercial bitumen projects.”

<sup>5</sup> AEUB GB 2003-28, Bitumen Conservation Requirements Athabasca Wabiskaw-McMurray, July 22<sup>nd</sup>, 2003, p. 2.

<sup>6</sup> AEUB Decision 2003-23, Chard Area and Leismer Field Athabasca Oil Sands Area Applications for the Production and Shut-in of Gas, March 18<sup>th</sup>, 2003, p. 12.

<sup>7</sup> AEUB, Athabasca Wabiskaw-McMurray Regional Geological Study, Dec. 31<sup>st</sup>, 2003, p. iii.

<sup>8</sup> *Ibid*, p. 77

<sup>9</sup> AEUB GB 2003-28, Bitumen Conservation Requirements Athabasca Wabiskaw-McMurray, July 22<sup>nd</sup>, 2003, p. 2.