

May 20, 2005



Nexen Inc.
C/o Borden Ladner Gervais LLP
1000, 400 – 3 Ave. S.W.
Calgary, Alberta, Canada T2P 4H2

Attention: Mr. Randall Block

Dear Sir:

**Re: GENERAL BULLETIN 2003-28 (GB 2003-28)
BITUMEN CONSERVATION REQUIREMENTS
ATHABASCA, WABISKAW – MCMURRAY
PHASE 3 FINAL PROCEEDING NO. 1347905
PEOC REPLY TO RESPONSE SUBMISSION FILED BY NEXEN**

With respect to Nexen's response submission received May 13th, 2005, Paramount Energy Operating Corp. (PEOC) notes that Nexen raises various issues, which are addressed here.

In Nexen's response, Nexen has made the statement:

“Having utilized the above inputs, PEOC then runs the simulations and draws two conclusions:

- There is no communication of bitumen with overlying gas, and there is no significant risk of communication; and,
- There is no economic bitumen in the Athabasca.”

At no time has PEOC ever advanced such a position with regards the second point about there being no economic bitumen in Athabasca. The first point regarding communication is addressed further into this document.

Nexen's assertions and conclusions regarding PEOC's submission are underlined, with PEOC's reply below.

- **Simulations were meant to apply to a broad area:**

PEOC modeled specific pools. The intent was to determine the impact that depleted gas would have on SAGD ultimate bitumen recovery. At the end of these studies, the results of all the simulation sensitivity studies converged on a consistent conclusion: namely, that the overlying gas pressure had essentially no impact on SAGD recovery. In fact, the modeling showed that the different geology was the controlling factor in determining and distinguishing between good and bad SAGD performance. With this convergence of these results from what represents a wide variety of geology and fluid combinations, it seemed logical that it is likely that these same mechanisms are at play in other areas. PEOC's conclusions are that geology determines SAGD performance, not overlying gas pressure. This would likely be a regional pattern.

PEOC Reply to NEXEN – May 20, 2005

Paramount Energy Trust ▲ **Paramount Operating Trust** ▲ **Paramount Energy Operating Corp.**

as trustee of Paramount Operating Trust and administrator of Paramount Energy Trust

- **RGS stratigraphy not adhered to:**

PEOC used the stratigraphy as outlined in the RGS study for every well utilized in the study. The interpretation of sedimentology within the RGS stratigraphy may vary slightly, but in no way that would likely create a different primary result in the flow simulator.

- **Utilized a small number of wells that artificially limited the geological variability and constituted an improper use of geostatistical methodology:**

PEOC utilized all wells within each pool studied. The geostatistical methodology was appropriate, and indeed served to preserve the heterogeneity as indicated from all the available wells and core within the pool.

- **Models are constructed from wells in which the A2 mud is present:**

PEOC used the stratigraphy as outlined in the RGS study for every well utilized in the study. However, no continuous mudstone was ever introduced into the modeling. There was a deliberate geostatistical modeling step, designed to prevent a shale barrier being formed.

- **PEOC models exaggerated the presence of low permeability facies in the upper McMurray:**

PEOC described the facies in a consistent manner. No exaggeration has occurred.

- **Although vertical pathways exist, simulation models conclude that no communication exists:**

The modeling shows that the steam chamber does not interact with the overlying gas zones in these models, not that communication does not exist. Please review the pressure discussion and Figures 1 through 4.

- **PEOC failed to properly utilize wells that have high permeability pathways:**

PEOC utilized all wells within each pool studied. This included wells with different upper zone characteristics. Sensitivity modeling of the sand in subsequent runs explored the impact of depleted gas on bitumen recovery for different sand fill configurations. The geostatistically derived reservoir properties for the bottom 2/3 of the bitumen intervals were systematically replaced with uniform high quality material. Bitumen recovery and steam/oil ratios characteristics of these sensitivities and additional generic configurations in which a uniform high quality resource spanning the entire column were markedly better than the geostatistical versions and relatively insensitive to overlying gas zone pressure.

- **PEOC employs wells that have limited bitumen resource:**

PEOC utilized all wells within each pool studied. This included wells with different upper zone characteristics. Sensitivity models were run that added substantial thicknesses of high quality, bitumen-bearing sandstones. Bitumen recovery and steam/oil ratios characteristics of these sensitivities and additional generic configurations in which a uniform high quality resource spanning the entire column were markedly better than the geostatistical versions and relatively insensitive to overlying gas zone pressure.

- **Facies interpretation using well logs is a flawed approach:**

PEOC facies determination was conditioned by considering and correlating core facies to log facies. PEOC reviewed all core within an expanded area (outside of the immediate well control of the pool studies), and made systematic correlations between core facies and log facies to make predictions as to facies in those wells that were not cored. This is standard industry practice.

Section III of NEXEN's Response Submission contends that PEOC's position on continued gas production is predicated on the presence of sealing shales. Nexen's conclusion is incorrect, as no sealing shales were integrated into the models. PEOC's efforts to recognize and preserve geological heterogeneity suggest that the inherent properties of heterogeneous strata within the subject pools yield zones of adverse horizontal and vertical transmissibility which restricts development of SAGD steam chambers and limits interaction of the steam chambers and overlying gas intervals.

NEXEN's commentary on the G Pool states "It is unclear how a model that demonstrates a statistical probability of pressure communication can, nonetheless, result in no communication". The following figures depict the initial pressure distribution of the 11-19 2D SAGD flow simulation and pressure information after the depletion of the gas interval immediately prior to SAGD operations.

Hangingsstone X , 11-19 , 600 kPa , original reservoir
Pressure at initial and start SAGD

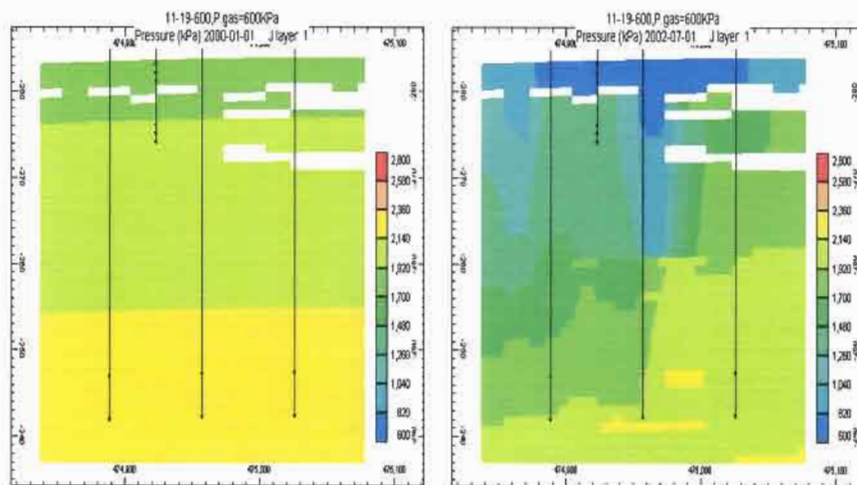


Figure 1: Well 11-19 Pressure Distribution

Initially, pressure monotonically increases from the gas zone (i.e. 283~275 metres in 11-19) through to the base of the bitumen interval at 237 metres. After six months of gas production; pressure of the gas zone is approximately 600 kPa and pressure throughout the underlying bitumen column has been correspondingly depleted. Similar pressure distributions extracted from the Corner G and C Pool 2D models and the Top Gas sensitivity models follow. PEOC studies suggest that there is sufficient lateral and vertical permeability to transmit pressure but insufficient transmissibility to effectively support fluid migration.

Corner G , 04-15, 600 kPa, Original Reservoir
Pressure at initial and start SAGD

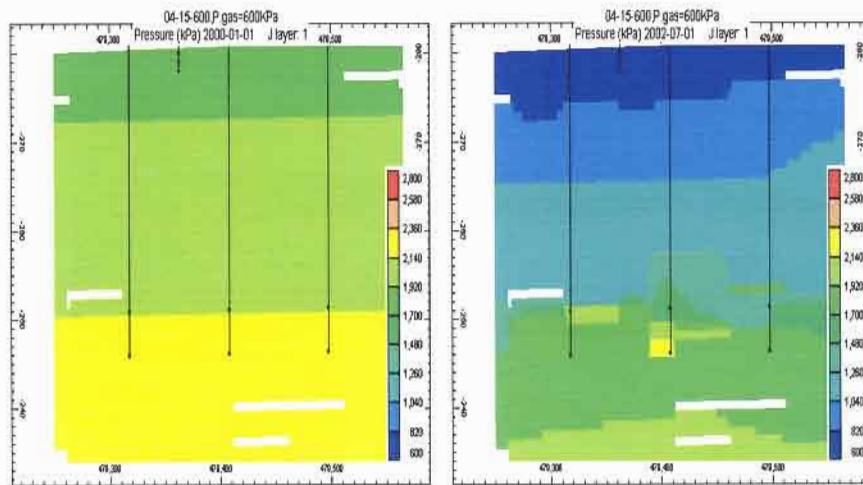


Figure 2: Well 04-15 Pressure Distribution

Corner C , 03-34, 600 kPa , original reservoir
Pressure at initial and start SAGD

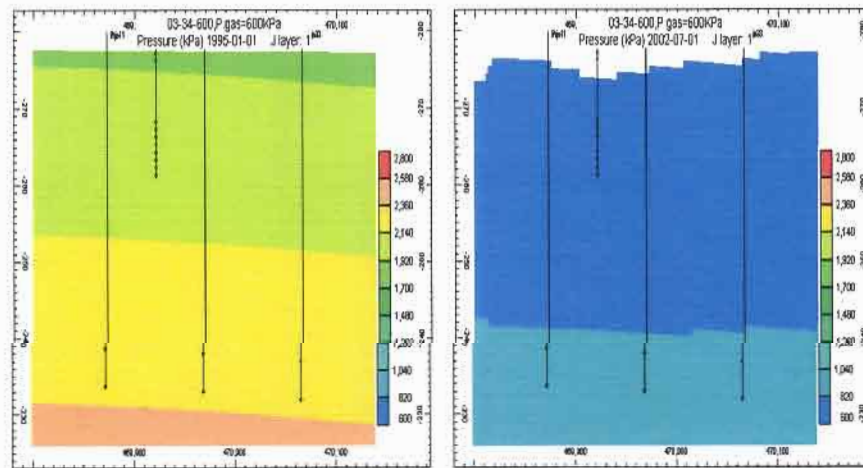


Figure 3: Well 03-34 Pressure Distribution

Top Sand Sensitivity Model , Run 3.2B-600
Pressure at initial and start SAGD

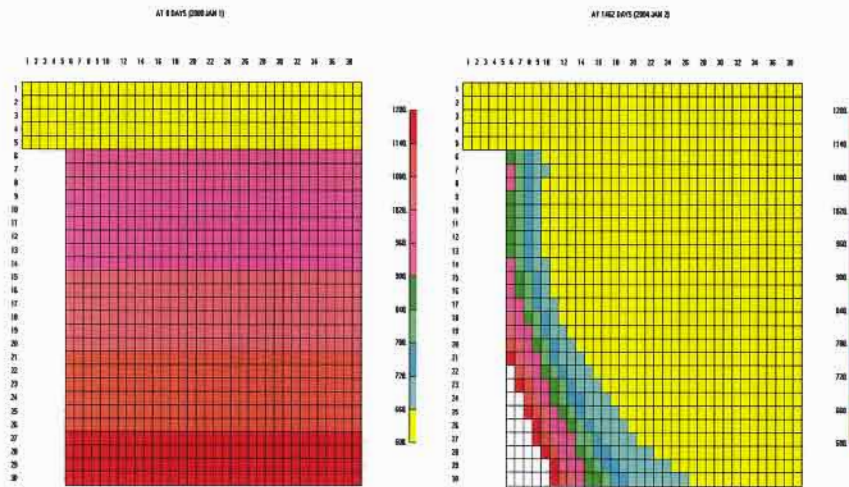


Figure 4: Top Sand Case3.2B-600 Pressure Distribution

PEOC's integrated approach to numerical flow simulation incorporates the inherent geological character of the McMurray Formation in the Corner McMurray C, Corner McMurray G, Hangingstone McMurray X, and Hangingstone McMurray KKK Pools and preserves the heterogeneity of the strata. PEOC contends that its numerical models are well founded and sufficiently accurate to provide a realistic forecast to assess the impact that depleted overlying gas zones has on ultimate bitumen recovery.

Should you have any questions, please contact the undersigned at 269-4419.

Yours truly,

PARAMOUNT ENERGY OPERATING CORP.

Original signed by

Brett Norris
Vice President, New Ventures & Geoscience

cc: Interested Parties