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**VIA EMAIL**

February 7, 2007

Alberta Energy and Utilities Board  
640 - 5 Avenue S.W.  
Calgary Alberta  
T2P 3G4

Attention: Mr. Gary D. Perkins

Dear Mr. Perkins:

**Re: EnCana Oil And Gas Partnership (EnCana) Application No. 1394112  
Canadian Natural Resources Limited (CNRL) Application No. 1409180  
Husky Oil Operations Limited (Husky) Application No. 1481725  
Cold Lake Oil Sands Area – Clearwater Deposit**

Attached please find the information requests of EnCana to CNRL and Husky.

Yours very truly,

**McCarthy Tétrault LLP**

*Original signed by D. G. Davies*

**D. G. DAVIES**

DGD/pg  
Enclosures

cc: Alberta Energy and Utilities Board  
Attention: Mr. Ernie Smith

Canadian Natural Resources Limited  
Attention: Mr. Jared Paddock

Thackray Burgess  
Attention: Mr. Patrick J. McGovern

Husky Oil Operations Ltd.  
Attention: Ms. Susan Anderson

Borden Ladner Gervais LLP  
Attention: Mr. Randall W. Block

Imperial Oil Resources  
Attention: Ms. Susan C. Stark

**ALBERTA ENERGY AND UTILITIES BOARD**

**ENCANA OIL AND GAS PARTNERSHIP (ENCANA) APPLICATION NO. 1394112  
CANADIAN NATURAL RESOURCES LIMITED (CNRL) APPLICATION NO. 1409180  
HUSKY OIL OPERATIONS LIMITED (HUSKY) APPLICATION NO. 1481725  
COLD LAKE OIL SANDS AREA – CLEARWATER DEPOSIT**

**Information Requests of EnCana to CNRL**

With respect to CNRL's model:

1. Please provide the DLS location of the well that was history matched in the model. Please provide the historical (field measured data) gas-oil-ratio or the historical gas production rate of this well and indicate whether gas/oil ratio was one of the history match parameters.
2. Please explain why CNRL did not deplete the reservoir to 500 kPa by incorporating, into the history match model, a flank gas cap and production of this gas cap to 500 kPa.
3. Please confirm the following observations in the models and please provide the source of the following data input into the model.
  - a. Initial water saturation in the grid blocks containing wells. (inj\_left, pro\_left, inj\_right and pro\_right) is 0.99
  - b. Initial mobile water saturation in the grid blocks containing wells. (inj\_left, pro\_left, inj\_right and pro\_right) is 0.65 and elsewhere is 0.01.
  - c. Initial porosity in the grid blocks containing wells. (inj\_left, pro\_left, inj\_right and pro\_right) is 0.45.
  - d. There is no gas cap represented in the model.
  - e. Porosity, particularly of greater than 36% in non well grid blocks
  - f. Permeability (vertical and horizontal)
  - g. Initial solution gas-oil ratio
  - h. Initial mobile water saturation in the gridblocks and its variation between gridblocks
4. With respect to the oil-water and gas-liquid relative permeability applied in the model:
  - a. Please explain the three relative permeability regions applied in the model (Rel Perm Set Number) and any geological facies are they meant to represent.
  - b. What was the source of the relative permeability data for each region?
  - c. If the source was laboratory data please provide the full laboratory reports.
  - d. No hysteresis relative permeability was used. Please explain.

- e. The oil-water relative permeability has a sharp drop in value from a water saturation of 0.60 to 0.70. Please explain.
5. On page 10, CNRL states that “It was determined that at 500 kPa the solution GOR is about 1.0
    - a. How was the 500 kPa pressure arrived at?
    - b. How was the GOR determined to be 1 at 500 kPaa?
  6. Please confirm that the initial reservoir pressure for all gridblocks in the models was set to 3500 kPaa regardless of grid block depths. If true, please explain why gravity effects were ignored.
  7. Were any measured field reservoir pressure or reservoir temperatures used to assess the model’s ability to match field performance? Please provide the results of any pressure or temperature history matches and the field data.
  8. It is observed in the model that the production wells were constrained by bottomhole producing pressure of between 100 and 6,600 kPaa. Please provide field data to support for the production well pressure constraints used in the history match.
  9. Please confirm that the following three constraints were applied together at the same time to match historical performance of the well in the model:
    - Maximum liquid production rate
    - Maximum oil production rate, and
    - Minimum bottomhole pressure

With regard to the Vertical (Deviated) vs. Horizontal Well CSS discussion on page 2:

10. EnCana does not believe that wells in Wolf Lake are relevant to the bitumen area in and around the gas pools subject to CNRL’s shut-in request, however, if CNRL believes they are valid analogs please provide the following data for each individual well that has been included in CNRL’s group graphs :
  - a. Length of well bore open in the Clearwater
  - b. Estimated drainage area
  - c. Average net pay, porosity, and water saturation in the estimated drainage area of the well.
  - d. Average, maximum, and minimum vertical permeability in the drainage area of the well
  - e. A plot of cumulative bitumen recovery and cumulative steam oil ratio.
  - f. A plot of oil rate, water cut, gas oil ratio and steam injection rate.