

**DEER CREEK ENERGY LIMITED
JOSLYN NORTH MINE PROJECT**

**JOSLYN NORTH MINE PROJECT
THIRD ROUND EUB SIR RESPONSES**

December 2007

Table of Contents

GENERAL.....	1
PROCESSING.....	1
SOCIO-ECONOMIC.....	4

List of Figures

Figure 1-1	Project Update Site Layout With Development Area.....	2
Figure 2-1	Sensitivity of Solids in Product Bitumen to Extent of Asphaltene Precipitation	3

GENERAL

- 1. Provide an updated project map detailing the applied for Joslyn Mine project area structures and major infrastructure.**

Response:

For the layout of the proposed project development area (PDA) for the Joslyn North Mine Project, see Figure 1-1. The PDA in Figure 1-1 is similar to the PDA shown in the Joslyn North Mine Application, Figure A.1.0-4. The north boundary is shown slightly north of the Joslyn Lease boundary to reflect a north pit crest that has been extended past the lease boundary for resource conservation purposes. DCEL has engaged with Canadian Natural Resources Limited (CNRL) on boundary planning discussions with the intent to develop a mutually acceptable boundary plan. The PDA in the vicinity of the Joslyn Energy Development Incorporated (JEDI) lease (002) also shows a slight extension on the JEDI lease. DCEL has also engaged with JEDI representatives on boundary planning discussions with the intent to develop a mutually acceptable boundary plan for the Joslyn North Mine Project.

The proposed water intake is indicated in the eastern part of the PDA.

PROCESSING

- 2. Secondary SIR Responses, Questions 12c, page 14. Deer Creek Energy Ltd. (DCEL) indicates the imposition of a condition of approval requiring asphaltene rejection not to exceed DCEL's proposed percentage based on bitumen production on an annual average basis would be inappropriate. DCEL also requested an opportunity to further discuss the extent of asphaltene rejection.**
 - a. What asphaltene rejection rates are the mass and energy balances provided as part of the application based upon?**

Response:

For DCEL's data relating filterable solids in bitumen product (ASTM D4807) to the quantity of asphaltenes precipitated (n-pentane insolubles), see Figure 2-1. The scatter in the data is partly attributable to analytical accuracy and partly attributable to variations in the first stage settler overflow rate (excessively high overflow rates will entrain more solids for the same extent of asphaltene precipitation).

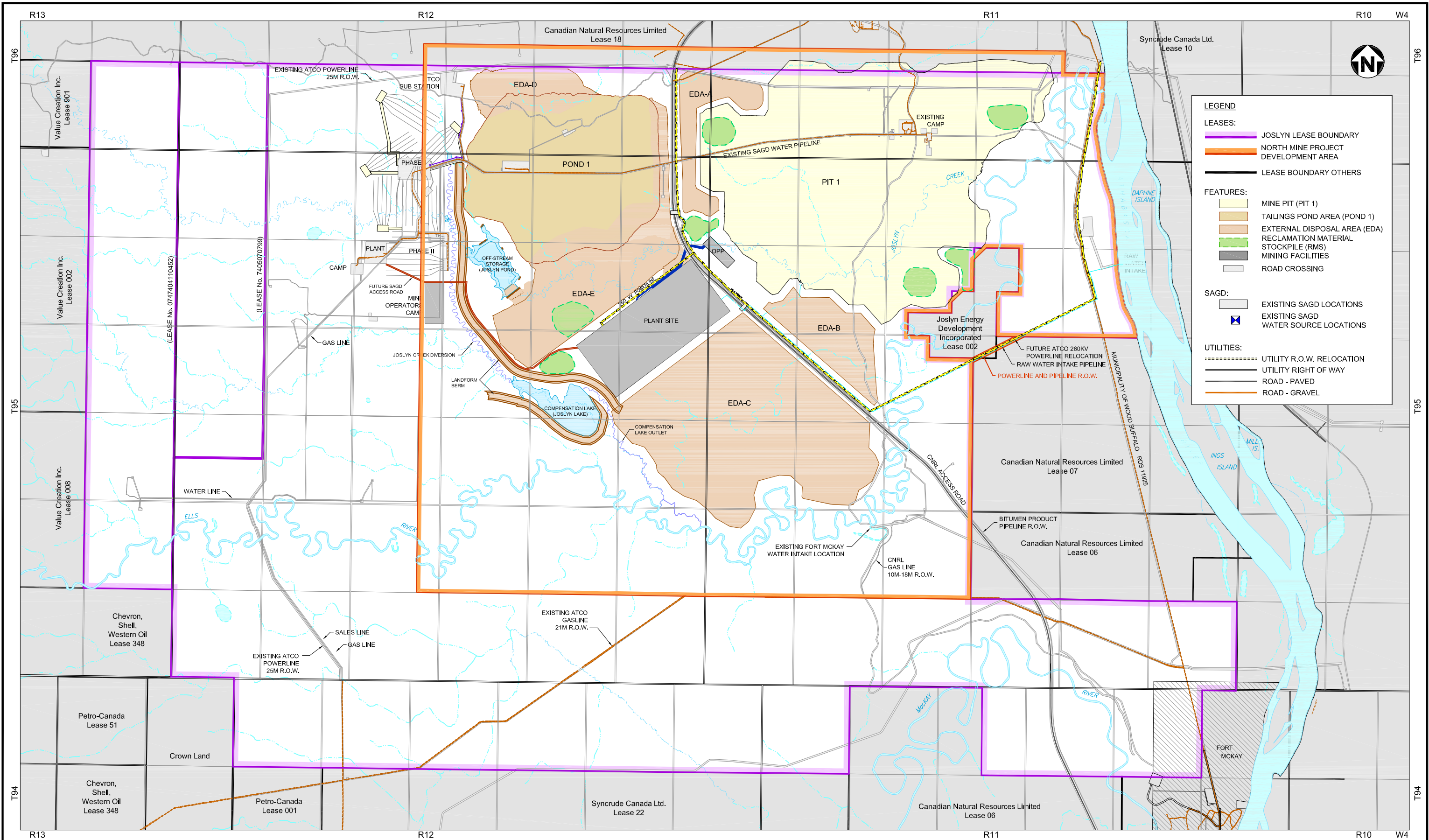


FIGURE 1
PROJECT UPDATE SITE LAYOUT WITH DEVELOPMENT AREA

DCEL’s design basis anticipates the weight of asphaltenes precipitated in the froth treatment process will equal 7.7% of the weight of bitumen product, as shown in the Supplemental Information Submission, Volume 1: Project Update, Figure 5.3-2. The quantity of filterable solids in the bitumen product is a key factor in defining the quality of the product.

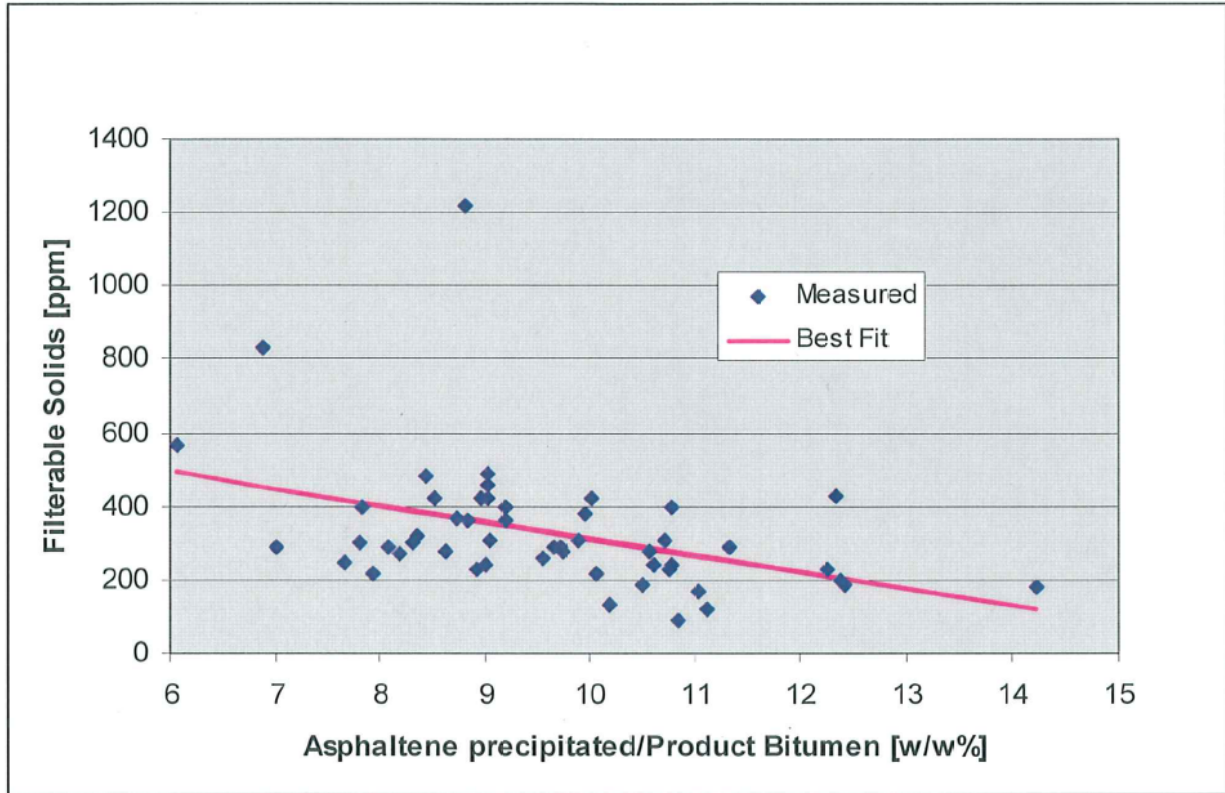


Figure 2-1 Sensitivity of Solids in Product Bitumen to Extent of Asphaltene Precipitation

- b. If DCEL does not believe that a condition of approval should reflect the applied for 7.7% asphaltene rejection rate, what asphaltene rejection rate does DCEL consider to be an appropriate rejection rate in a condition of approval?**

Response:

DCEL requests the flexibility to operate at asphaltene precipitation rates of 10% of the product bitumen annually, consistent with approvals granted to other operators, but up to 12% for short periods depending on market conditions.

- c. **Provide justification for this proposed asphaltene rejection rate as well as material and energy balances reflecting this rejection rate?**

Response:

See the responses to SIR 2a and 2b.

- d. **What is the impact of this new rejection rate on the tailings plan?**

Response:

At a 10% asphaltene rejection rate there would be a marginal increase in tailings. The tailings material balance was designed to accommodate marginal increases. There might be occasions when there is a market requirement for a cleaner bitumen product, which requires operation at the higher rejection rate. If there was a necessity to operate at the higher rejection rate for lengthier periods, DCEL would modify its tailings management plan.

SOCIO-ECONOMIC

3. **Secondary SIR Responses, Question 33, Page 32. DCEL provides a table that includes a column titled “*Bus Trips to Joslyn Lease.*” Clarify where those bus trips come from and if those are one way or includes trips leaving site.**

Response:

The buses will come from either the Fort McMurray airport or from Fort McMurray. The majority of the construction personnel are expected to come from outside the region and fly into the Fort McMurray airport. Approximately 10% of construction personnel are expected to be sourced from the Fort McMurray area. The buses from the airport are expected to operate once per week and will include passengers both ways. Buses from Fort McMurray are expected to operate twice daily and will include passengers both ways.

DCEL continues to have discussions with other oil sands operators in the region contemplating industry-operated airstrips with the intent to participate in such an airstrip to reduce the travel time for site personnel. Such an approach would minimize the Joslyn North Mine Project contribution to traffic on Highway 63.

4. Secondary SIR Responses, Question 33, Page 32. Explain Table 33-1 in comparison to table 5 provided in the SEIA, taking into consideration the update of the project changing from two phases to one.

Response:

The main differences between Table 5 in the SEIA and Table 33-1 of the Secondary SIR responses are the following:

- The main construction force peak shown in Table 5 was predicted to be in 2009, associated with construction of the first production train. The next peak was predicted to be in the 2011/2012 period, associated with construction of the second production train. The construction years shown in Table 5 are 2007 to 2013.
- The main construction force peak shown in Table 33-1 is predicted to be in the 2011/2012 period when two production trains are being constructed simultaneously. The construction years shown are 2008 to 2013, a year less than in Table 5.