



INFORMATIONAL LETTER IL 85-12

August 1985

TO: Oil and Oil Sands Operators

OIL SANDS PRIMARY PRODUCTION: WELL SPACING PRIMARY RECOVERY SCHEME APPROVALS

In the transition oil sands areas, the Board and Alberta Environment have become increasingly concerned with the need for long-range planning to provide for orderly and efficient development and minimization of surface disturbance. In these areas, such as at Lindbergh, a certain amount of primary production can be achieved without or prior to the application of well stimulation enhanced recovery techniques. The Board believes that initial drilling should conform with conventional oil well spacing in the area but with reasonable flexibility to accommodate geological delineation. However, to provide for orderly and efficient conversion to the enhanced recovery mode, it is necessary to plan the development of the primary mode to match the requirements for close well spacing (2 to 4 hectares per well) and minimize surface disturbance by way of maximum use of drilling pad modules and central process facilities.

To provide for orderly development of these kinds of oil sands areas - a typical case being Lindbergh - the Board and Alberta Environment have adopted the following procedures:

1.

a) As a routine procedure well licences are issued for oil sands wells, for primary production, provided the location conforms with conventional oil target provisions in the area and suitable oil sands casing/cementing provisions are met and the Land Conservation and Reclamation Council have been notified prior to surface disturbance occurring on the lease.

b) If the well is not within conventional well target spacing, the Board may grant the licence for the oil sands well provided that supporting information confirms compatibility with potential future development of the oil sands facilities in the area and the Land Conservation and Reclamation Council have been notified prior to surface disturbance occurring on the lease.

c) The Land Conservation and Reclamation Council may be contacted in St. Paul at 645-6394 and in Wainwright at 842-5690.

2. An operator intending to infill drill with more than one well per oil drilling spacing unit and install

an array of primary production wells must apply for a "Primary Recovery Scheme Approval" and a Development and Reclamation Approval in accordance with the attached guidelines. The application must address the question of advance planning for enhanced recovery, and the development and reclamation aspects.

3. For lands where oil sands enhanced recovery approvals have been issued (experimental or commercial in situ schemes), wells which conform with the project plans will be licensed without further detailed review. Inquiries regarding this matter should be directed to Mr. John Nichol, Oil Sands Department at 297-3110 or Mr. Larry Brocke, Land Reclamation Division at 422-2636.

ENERGY RESOURCES CONSERVATION BOARD

<signed by>

N. A. Strom
Board Member

and

ALBERTA ENVIRONMENT

K. R. Smith
Assistant Deputy Minister

Attachment 1 to IL 85-12

PRIMARY RECOVERY AND DEVELOPMENT AND RECLAMATION APPROVAL

An application under section 10 of the Oil Sands Conservation Act for a primary recovery scheme shall include statements concerning

(a) technical aspects of the scheme including

- (i) the legal description of the area of application,
- (ii) the size, target areas and orientation of the drilling spacing units, proposed well array patterns (including interwell distances and buffer zone distances),
- (iii) if drilling pads are to be utilized, the number of drilling pads per section, the number of wells per pad and the type of drilling and completion programs to be followed (directional or slant),
- (iv) well drilling, casing and cementing programs including diagrammatic sketches,
- (v) the geological nature of the formations,

(vi) the effect of the proposed spacing and target area on primary recovery of crude bitumen and on correlative rights,

(vii) the enhanced recovery potential, for the formations including comments on the anticipated types of enhanced recovery scheme being contemplated,

(viii) the expected duration of primary recovery operations and the probable timing of installation and enhanced recovery operations,

(ix) if enhanced recovery operations are considered not possible, the basis for that conclusion,

(x) the method of gathering and transporting well production to field and storage facilities and to market outlets, including conceptual site development plan layouts,

(b) environmental protection measures including

(i) noise suppression, well vent and tank vapour collection, water disposal and sand and oily waste disposal,

(ii) water management plans for on- and off-site drainage.

(c) development and reclamation aspects including

(i) disturbance plans shown on a topographic map,

(ii) a description of the soils, a map showing the areas to be stripped and the location and volume of stockpiles,

(iii) a description and map(s) illustrating lease and road construction practices and weed control,

(iv) the land use(s) of the area and the impact of the proposed development program on current land surface uses,

(v) a final reclamation plan including soil replacement and revegetation,

(vi) a summary description of all planned environmental monitoring programs.

(d) public communication information including

(i) the names and mailing addresses of the surface owners and occupants within the area of application and the contiguous quarter sections,

(ii) results of discussions of the proposed primary recovery scheme and associated well spacing by the applicant with affected persons indicating the position of those persons regarding the proposal.

(e) maps showing

(i) the mineral lessors and lessees in and adjoining the area of application and names of landowners and occupants for those same areas,

(ii) wells in the area and the status of each,

(iii) oil sands sector boundaries and existing and proposed primary recovery scheme approval boundaries,

(iv) the array of surface well sites and related facilities.

(f) tabulations showing

(i) the productivity of existing wells in the area,

(ii) the rock and fluid properties determined for the reservoirs,

(iii) the economics of development on a primary recovery basis and, in particular, on the proposed drilling spacing units or well spacing.