

February 7, 2011

9045-8295/8550-59240-06

Jenny Hay Mineral Negotiator Imperial Oil Resources Limited 237 Fourth Ave SW CALGARY, AB T2G 3M9

Dear Ms. Hay:

RE:

GOOD ENGINEERING PRACTICE SPECIAL PROJECTS

OTHER THAN NORMAL SPACING ORDERS

HORN RIVER FIELD - MUSKWA-OTTER PARK & EVIE SHALE FORMATIONS

The Commission has reviewed your application dated December 8, 2010, requesting approval of Good Engineering Practice for areas within the Horn River Basin - Horn River formation.

The Horn River Basin is an area of intense new activity for shale gas development. Numerous wells from multiple pads have been drilled within the area of application. Gas recovery from this resource will continue to benefit from the ability to produce horizontal wells in optimal locations, drilling from central sites.

As a result of recent legislative changes, authorities previously contained in a single approval document for this activity are now covered in the attached;

- 1) Orders 11-06-007, 11-06-008, 11-06-009 and 11-06-010 designating Good Engineering Practice within portions of the regional Horn River field Muskwa-Otter Park and Evie shale gas formations as Special Projects under section 75 of the Oil and Gas Activities Act, and
- 2) Orders 11-06-007 OTN, 11-06-008 OTN, 11-06-009 OTN and 11-06-010 OTN approving Other Than Normal Spacing under section 65.1 of the Petroleum and Natural Gas Act for the subject formations and areas.

As a Good Engineering Practice special project the applicant intends to locate, complete and operate wells in a manner to optimize resource recovery while minimizing surface impacts.

For regulatory purposes, the Commission designates the Middle Devonian aged Muskwa-Otter Park as a single formation, and the Evie shale as a separate zone. Therefore, wells completed within the Muskwa-Otter Park formation are not considered commingled, removing any requirement for application, notification or approval. Completing a wellbore for un-segregated production from both the Muskwa-Otter Park and the Evie will require submission of the form Notification of Commingled Production.

Please note that the following Experimental Scheme approvals are hereby terminated, the areas now included within the subject GEP approvals;

Approval 08-15-008 IMPERIAL SHALE GAS PROJECT #1 Approval 08-15-009 IMPERIAL SHALE GAS PROJECT #2 Approval 08-15-010 IMPERIAL SHALE GAS PROJECT #3 Approval 08-15-011 IMPERIAL SHALE GAS PROJECT #4

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Any well already rig released within the Experimental Schemes will retain the remaining portion of the 3-year confidentiality period, however new wells will <u>not</u> obtain Experimental status. A final Progress Report, required as a condition of the Experimental Scheme approval, must be submitted to the Commission within 60 days of this date, regardless of the previous reporting cycle.

Should you have any questions, please contact the undersigned at (250) 419-4421 or Kelly Okuszko at (250) 419-4433.

Sincerely,

Richard Slocomb, P. Eng.

Supervisor, Reservoir Engineering

Resource Conservation

Attachments

IN THE MATTER of an application from Imperial Oil Resources Limited. (Imperial) to the Commission dated December 8, 2010 for a Good Engineering Practice project.

ORDER 11-06-007

1 Under Section 75(1)(a) of the Oil and Gas Activities Act, the Horn River field – Muskwa-Otter Park and Evie formations is designated as a special project for the enhanced recovery of natural gas utilizing Good Engineering Practice within the following area;

NTS 94-O-02 Block J Units 14-17, 24-27, 34-39, 44-49, 56-59, 66-69, 76-79 and 86-99

Alex Ferguson Commissioner

Oil and Gas Commission

IN THE MATTER of an application from Imperial Oil Resources Limited. (Imperial) to the Commission dated December 8, 2010 for a Good Engineering Practice project.

ORDER 11-06-008

Under Section 75(1)(a) of the Oil and Gas Activities Act, the Horn River field – Muskwa-Otter Park and Evie formations is designated as a special project for the enhanced recovery of natural gas utilizing Good Engineering Practice within the following area;

NTS 94-O-02 Block H Units 94-97 NTS 94-O-02 Block I Units 4-7, 16, 17, 26, 27

> Alex Ferguson Commissioner

Oil and Gas Commission

IN THE MATTER of an application from Imperial Oil Resources Limited. (Imperial) to the Commission dated December 8, 2010 for a Good Engineering Practice project.

ORDER 11-06-009

1 Under Section 75(1)(a) of the Oil and Gas Activities Act, the Horn River field – Muskwa-Otter Park and Evie formations is designated as a special project for the enhanced recovery of natural gas utilizing Good Engineering Practice within the following area;

NTS 94-O-01 Block E Units 71, 81, 91

NTS 94-O-01 Block F Units 76-80, 86-90, 96-100

NTS 94-O-01 Block K Units 6-10, 16-20, 26-30, 38-40, 48-50

NTS 94-O-01 Block L Units 1, 11-13, 21-23, 31, 41

Alex Ferguson Commissioner

Oil and Gas Commission

IN THE MATTER of an application from Imperial Oil Resources Limited. (Imperial) to the Commission dated December 8, 2010 for a Good Engineering Practice project.

ORDER 11-06-010

1 Under Section 75(1)(a) of the Oil and Gas Activities Act, the Horn River field – Muskwa-Otter Park and Evie formations is designated as a special project for the enhanced recovery of natural gas utilizing Good Engineering Practice within the following area;

NTS 94-O-01 Block J Units 16-20, 26-30, 36-40, 46-50 NTS 94-O-01 Block K Units 11, 21, 31, 41

Alex Ferguson

Commissioner

Oil and Gas Commission

ORDER 11-06-007-OTN

1 Under Section 65.1(2) of the Petroleum and Natural Gas Act, Other Than Normal Spacing is approved within the regional Horn River field Muskwa-Otter Park and Evie formations within the following area;

NTS 94-O-02 Block J Units 14-17, 24-27, 34-39, 44-49, 56-59, 66-69, 76-79 and 86-99

- 2 Under section 65.1(3) of the *Petroleum and Natural Gas Act*, I specify the following:
 - a) the target area for a gas well completed within the project area is not nearer than 100 m to the sides of the Other Than Normal Spacing area,
 - b) a gas well completed outside the specified target area may be subject to an off-target production penalty,

 gas wells drilled within the specified project area are not subject to spacing requirements.

Richard Slocomb

Supervisor, Reservoir Engineering

Oil and Gas Commission

ORDER 11-06-008-OTN

1 Under Section 65.1(2) of the *Petroleum and Natural Gas Act*, Other Than Normal Spacing is approved within the regional Horn River field Muskwa-Otter Park and Evie formations within the following area;

NTS 94-O-02 Block H Units 94-97 NTS 94-O-02 Block I Units 4-7, 16, 17, 26, 27

- 2 Under section 65.1(3) of the *Petroleum and Natural Gas Act*, I specify the following:
 - a) the target area for a gas well completed within the project area is not nearer than 100 m to the sides of the Other Than Normal Spacing area,
 - b) a gas well completed outside the specified target area may be subject to an off-target production penalty,
 - gas wells drilled within the specified project area are not subject to spacing requirements.

Richard Slocomb

Supervisor, Reservoir Engineering

Oil and Gas Commission

ORDER 11-06-009-OTN

1 Under Section 65.1(2) of the Petroleum and Natural Gas Act, Other Than Normal Spacing is approved within the regional Horn River field Muskwa-Otter Park and Evie formations within the following area;

NTS 94-O-01 Block E Units 71, 81, 91 NTS 94-O-01 Block F Units 76-80, 86-90, 96-100 NTS 94-O-01 Block K Units 6-10, 16-20, 26-30, 38-40, 48-50 NTS 94-O-01 Block L Units 1, 11-13, 21-23, 31, 41

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 - a) the target area for a gas well completed within the project area is not nearer than 100 m to the sides of the Other Than Normal Spacing area,
 - b) a gas well completed outside the specified target area may be subject to an off-target production penalty,
 - gas wells drilled within the specified project area are not subject to spacing requirements.

Richard Slocomb

Supervisor, Reservoir Engineering

Oil and Gas Commission

ORDER 11-06-010-OTN

Under Section 65.1(2) of the Petroleum and Natural Gas Act, Other Than Normal Spacing is approved within the regional Horn River field Muskwa-Otter Park and Evie formations within the following area;

NTS 94-O-01 Block J Units 16-20, 26-30, 36-40, 46-50 NTS 94-O-01 Block K Units 11, 21, 31, 41

- 2 Under section 65.1(3) of the Petroleum and Natural Gas Act, I specify the following:
 - a) the target area for a gas well completed within the project area is not nearer than 100 m to the sides of the Other Than Normal Spacing area,
 - b) a gas well completed outside the specified target area may be subject to an off-target production penalty,
 - c) gas wells drilled within the specified project area are not subject to spacing requirements.

Richard Slocomb

Supervisor, Reservoir Engineering

Oil and Gas Commission