

MADE at the City of Calgary, in the
Province of Alberta, on

18th day of February 2020.



ALBERTA ENERGY REGULATOR

The Alberta Energy Regulator (AER) pursuant to the *Oil and Gas Conservation Act*, chapter O-6 of the Revised Statutes of Alberta, 2000, orders as follows:

1) The following table shows

- the specified pools and wells in the **KAKWA Field** wherein production may be commingled in the wellbore, and
- the allocation factors to prorate the commingled production to the specified pools:

Pools	Wells (Unique Identifier)	Allocation Percentage
a) KAKWA EDMONTON A, KAKWA BELLY RIVER A, KAKWA BELLY RIVER B, KAKWA BELLY RIVER C, KAKWA BELLY RIVER D, KAKWA CHINOOK B, KAKWA MAIN CARDIUM VVV, and KAKWA DUNVEGAN EEE	All	None
b) KAKWA BELLY RIVER F, KAKWA CHINOOK R, KAKWA PADDY H, KAKWA PADDY J, KAKWA PADDY K, KAKWA CADOTTE QQQ,	All	None

KAKWA CADOTTE SSS,
 KAKWA CADOTTE TTT,
 KAKWA NOTIKEWIN T,
 KAKWA NOTIKEWIN U,
 KAKWA NOTIKEWIN V,
 KAKWA NOTIKEWIN W,
 KAKWA FALHER E3E,
 KAKWA FALHER F3F,
 KAKWA FALHER G3G,
 KAKWA FALHER H3H,
 KAKWA FALHER I3I,
 KAKWA BLUESKY MM,
 KAKWA GETHING WWW,
 KAKWA GETHING XXX,
 KAKWA GETHING ZZZ,
 KAKWA CADOMIN FF,
 KAKWA CADOMIN GG,
 KAKWA NIKANASSIN Q,
 KAKWA MFP8568 GETHING,
 KAKWA MFP8569 CADOMIN, and
 KAKWA MFP8570 CADOMIN

- | | | | |
|----|---|---------------------|------|
| c) | KAKWA CHINOOK B,
KAKWA MAIN CARDIUM UUU, and
KAKWA DUNVEGAN EEE | 00/08-32-062-08W6/0 | None |
| d) | KAKWA MAIN CARDIUM G,
KAKWA MAIN CARDIUM I, and
KAKWA C CARDIUM F | All | None |
| e) | KAKWA MAIN CARDIUM H,
KAKWA MAIN CARDIUM K, | All | None |

KAKWA MAIN CARDIUM M,
KAKWA DUNVEGAN E,
KAKWA DUNVEGAN N,
KAKWA DUNVEGAN O,
KAKWA DUNVEGAN V,
KAKWA DUNVEGAN X,
KAKWA DUNVEGAN BB,
KAKWA CADOTTE A,
KAKWA CADOTTE C,
KAKWA CADOTTE D,
KAKWA CADOTTE E,
KAKWA CADOTTE G,
KAKWA CADOTTE M,
KAKWA CADOTTE O,
KAKWA CADOTTE T,
KAKWA CADOTTE U,
KAKWA CADOTTE LL,
KAKWA SPIRIT RIVER D,
KAKWA NOTIKWIN B,
KAKWA NOTIKWIN D,
KAKWA NOTIKWIN H,
KAKWA FALHER D,
KAKWA FALHER J,
KAKWA FALHER KKK,
KAKWA BLUESKY C,
KAKWA BLUESKY D,
KAKWA BLUESKY E,
KAKWA BLUESKY G,
KAKWA BLUESKY K,
KAKWA BLUESKY O,

KAKWA BLUESKY P,
 KAKWA BLUESKY Q,
 KAKWA BLUESKY Y,
 KAKWA GETHING B,
 KAKWA GETHING D,
 KAKWA GETHING J,
 KAKWA GETHING L,
 KAKWA GETHING JJ,
 KAKWA GETHING OO,
 KAKWA GETHING RR,
 KAKWA GETHING SS,
 KAKWA CADOMIN A,
 KAKWA CADOMIN D,
 KAKWA CADOMIN F,
 KAKWA CADOMIN I,
 KAKWA NIKANASSIN B,
 KAKWA NIKANASSIN C,
 KAKWA NIKANASSIN D,
 KAKWA NIKANASSIN E, and
 KAKWA MONTNEY A

f) ¹	KAKWA MAIN CARDIUM I, KAKWA C CARDIUM F, KAKWA FALHER J, and KAKWA BLUESKY E	All	None
g)	KAKWA MAIN CARDIUM VV, KAKWA CADOTTE TT, KAKWA FALHER D, KAKWA BLUESKY U, KAKWA GETHING YY, and	00/13-18-062-06W6/0 00/13-18-062-06W6/0	68 32

KAKWA DUNVEGAN CC

(see clause 15 and 16)

h)	KAKWA MAIN CARDIUM RRR and KAKWA DUNVEGAN TT (see clause 14)	All	None
i)	KAKWA MAIN CARDIUM TTT, KAKWA CADOTTE LLL, and KAKWA FALHER T2T	All	None
j)	KAKWA MAIN CARDIUM D2D and KAKWA CADOTTE UUU	All	None
k)	KAKWA DUNVEGAN CC and KAKWA CADOTTE TT (see clause 16)	00/10-13-062-07W6/0 00/10-13-062-07W6/0	65 35
l)	KAKWA DUNVEGAN RR, KAKWA CADOTTE JJJ, KAKWA FALHER N2N, and KAKWA FALHER O2O	All	None
m)	KAKWA DUNVEGAN VV and KAKWA DUNVEGAN AAA	00/11-14-061-03W6/0	None
n)	KAKWA DUNVEGAN ZZ, KAKWA DUNVEGAN BBB, KAKWA SPIRIT RIVER G, and KAKWA BLUESKY II (see clause 14)	All	None
o)	KAKWA PADDY I and KAKWA CADOMIN HH	All	None

p) KAKWA BLUESKY HH and KAKWA GETHING GGG	All	None
q) KAKWA GETHING III and KAKWA CADOMIN T	All	None
r) KAKWA HALFWAY C and KAKWA MONTNEY Z	All	None

- 2) Non associated gas production from the SMOKY RIVER GRP, DUNVEGAN FM, FORT ST JOHN GRP, and BULLHEAD GRP may be taken without segregation in the wellbore from wells in the following areas:

IN TOWNSHIP 61, RANGE 5, WEST OF THE 6th MERIDIAN:

Sections 18, 21-27, 35-36

IN TOWNSHIP 62, RANGE 4, WEST OF THE 6th MERIDIAN:

Section 6

IN TOWNSHIP 62, RANGE 5, WEST OF THE 6th MERIDIAN:

Sections 1-3, 11

- 3) Non associated gas production from the SMOKY GRP, DUNVEGAN FM, FORT ST JOHN GRP, and BULLHEAD GRP may be taken without segregation in the wellbore from wells in the following areas:

IN TOWNSHIP 61, RANGE 3, WEST OF THE 6th MERIDIAN:

Sections 1-17

- 4) Non associated gas production from the CARDIUM FM, KASKAPAU FM, POUCE COUPE MBR, DOE CREEK MBR, DUNVEGAN FM, FORT ST JOHN GRP, BULLHEAD GRP, and NIKANASSIN FM may be taken without segregation in the wellbore from wells in the following areas:

IN TOWNSHIP 60, RANGE 5, WEST OF THE 6th MERIDIAN:

Section 30

IN TOWNSHIP 61, RANGE 4, WEST OF THE 6th MERIDIAN:

Sections 12 and 30

IN TOWNSHIP 61, RANGE 5, WEST OF THE 6th MERIDIAN:

Section 13

- 5) Non associated gas production from the CARDIUM FM, DOE CREEK MBR, DUNVEGAN FM, FORT ST JOHN GRP, and BULLHEAD GRP may be taken without segregation in the wellbore from wells in the following areas:

IN TOWNSHIP 61, RANGE 6, WEST OF THE 6th MERIDIAN:

Section 30

IN TOWNSHIP 61, RANGE 7, WEST OF THE 6th MERIDIAN:

Sections 12-13, 24-25, 35-36

IN TOWNSHIP 62, RANGE 7, WEST OF THE 6th MERIDIAN:

Sections 1-2, 10-16, 21-24, 26-28, 31-35

IN TOWNSHIP 62, RANGE 8, WEST OF THE 6th MERIDIAN:

Sections 27-29, 31, 34, 36

IN TOWNSHIP 63, RANGE 8, WEST OF THE 6th MERIDIAN:

Sections 5-10, 17

(see clause 11 and 13)

- 6) Non associated gas production from the CARDIUM FM, DOE CREEK MBR, DUNVEGAN FM, FORT ST JOHN GRP, and BULLHEAD GRP may be taken without segregation in the wellbore from wells in the following areas:

IN TOWNSHIP 63, RANGE 7, WEST OF THE 6th MERIDIAN:

Sections 2-5, 8-17, 22

IN TOWNSHIP 63, RANGE 8, WEST OF THE 6th MERIDIAN:

Sections 10, 16, 20-21

(see clause 10)

- 7) Non associated gas production from the CARDIUM FM, DOE CREEK MBR, DUNVEGAN FM, FORT ST JOHN GRP, and BULLHEAD GRP may be taken without segregation in the wellbore from wells in the following areas:

IN TOWNSHIP 60, RANGE 6, WEST OF THE 6th MERIDIAN:

Sections 31-33

IN TOWNSHIP 61, RANGE 4, WEST OF THE 6th MERIDIAN:

Section 5

IN TOWNSHIP 61, RANGE 5, WEST OF THE 6th MERIDIAN:

Sections 7-8, 11-12, 14-17, 19-20, 28-29, 33-34

IN TOWNSHIP 61, RANGE 6, WEST OF THE 6th MERIDIAN:

Sections 4-19, 22-25, 31-33

IN TOWNSHIP 62, RANGE 4, WEST OF THE 6th MERIDIAN:

Sections 4 and 5

IN TOWNSHIP 62, RANGE 6, WEST OF THE 6th MERIDIAN:

Sections 4-9, 16-19

(see clause 11 and 17)

- 8) Non associated gas production from the DUNVEGAN FM, FORT ST JOHN GRP, and BULLHEAD GRP may be taken without segregation in the wellbore from wells in the following areas:

IN TOWNSHIP 61, RANGE 6, WEST OF THE 6th MERIDIAN:

Sections 31-33

IN TOWNSHIP 62, RANGE 6, WEST OF THE 6th MERIDIAN:

Sections 4-9, 16-19

- 9) Non associated gas production from the DUNVEGAN FM, FORT ST JOHN GRP, BULLHEAD GRP, and NIKANASSIN FM may be taken without segregation in the wellbore from wells in the following areas:

IN TOWNSHIP 61, RANGE 4, WEST OF THE 6th MERIDIAN:

Section 31

IN TOWNSHIP 62, RANGE 5, WEST OF THE 6th MERIDIAN:

Section 4

- 10) Commingling of production is subject to the following conditions:

(a) The well licensee shall continuously monitor wellbore pressures during periods of shut-in to ensure that no zones are exposed to reservoir pressures that would exceed 90 per cent of the closure pressure of any other zone open in the wellbore.

(b) In the wells located in Sections 2 to 5, 8 to 17, and 22 of Township 63, Range 7, West of the 6th Meridian, and Sections 10, 16, 20 and 21 of Township 63, Range 8, West of the 6th Meridian, if the wellbore pressure of any pool open in the wellbore reaches 90 per cent of the fracture pressure of the pools in the Cardium Formation, Dunvegan Formation, and Cadotte Member, then the well licensee must mechanically isolate the pools in the Cardium Formation, Dunvegan Formation, and Cadotte Member from the pools within the Falher and Wilrich Members.

(c) Initial shut-in pressure must be taken on the well with the unique identifier of 03/01-10-063-07W6. A subsequent shut-in pressure must be taken in three years time, no later than June 1, 2014. The shut-in period must be a minimum of 14 days.

(d) The well licensee shall submit an annual report compiling data as per subclauses (a), (b), and (c) to illustrate continued compliance. The initial report is due June 30, 2012.

- 11) Commingling of production is subject to the following conditions:

(a) The well licensee shall continuously monitor wellbore pressures during periods of shut-in to ensure that no zones are exposed to reservoir pressures that would exceed 90 per cent of the closure pressure of any other zone open in the wellbore.

(b) In the wells located in the sections specified, if the wellbore pressure of any pool open in the wellbore reaches 90 per cent of the fracture pressure of the pools in the Cardium Formation, Dunvegan Formation, and Cadotte Member, then the well licensee must mechanically isolate the pools in the Cardium Formation, Dunvegan Formation, and Cadotte Member from the pools within the Falher and Wilrich Members.

(c) Initial shut-in pressure must be taken on the well with the unique identifier of 02/15-34-062-08W6. A subsequent shut-in pressure must be taken in three years time, no later than June 1, 2014. The shut-in period must be a minimum of 14 days.

(d) The well licensee shall submit an annual report compiling data as per subclauses (a), (b), and (c) to illustrate continued compliance. A report is due June 30, 2013.

12) Commingling of production is subject to the following: (c) Initial shut-in pressure must be taken on the wells with the unique identifier of 02/16-21-062-07W6 and 02/15-34-062-08W6. A subsequent shut-in pressure must be taken in three years time, no later than April 1, 2015. (d) The wells licensee shall submit an annual report compiling data as per subclauses (a), (b), and (c) to illustrate continued compliance. A report is due September 30, 2013.

13) (a) The well licensee shall continuously monitor wellbore pressures during periods of shut-in to ensure that no zones are exposed to reservoir pressures that would exceed 90 per cent of the closure pressure of any other zone open in the wellbore. (b) In the wells located in the sections specified, if the wellbore pressure of any pool open in the wellbore reaches 90 per cent of the fracture pressure of the pools in the Cardium Formation, Dunvegan Formation and Cadotte Member, then the well licensee must mechanically isolate the pools in the Cardium Formation, Dunvegan Formation, and Cadotte Member from the Pools within the Falher and Wilrich Members.

14) Oil and Gas production from pools listed in clause 1, subclauses a and c and non associated gas production from the DE2 formations (top of the Smoky Formation to the base of the Rock Creek Group), may be taken without segregation in the wellbore from wells in Jayar Field.

15) The gas production from the well with the unique identifier of 00/13-18-062-06W6 must be allocated 32% to the Kakwa Dunvegan CC Pool and 68% for the other pools open in the wellbore that are approved for commingled production.

16) Allocated percentage applies to production of gas only. All oil production are to be reported to the Kakwa Dunvegan CC Pool.

17) Commingling of production is subject to the following conditions:

(a) The well licensee shall continuously monitor wellbore pressures during periods of shut-in to ensure that no zones are exposed to reservoir pressures that would exceed 90 per cent of the closure pressure of any other zone open in the wellbore.

(b) In the wells located in Sections 31 to 33 of Township 60, Range 6, West of the 6th Meridian, Section 5 of Township 61, Range 4, West of the 6th Meridian, Sections 7, 8, 11, 12, 14 to 17, 19, 20, 28, 29, 33 and 34 of Township 61, Range 5, West of the 6th Meridian, Sections 4 to 19, 22 to 25, and 31 to 33 of Township 61, Range

6, West of the 6th Meridian, Sections 4 and 5 of Township 62, Range 4, West of the 6th Meridian, and Sections 4 to 9, 16 to 19 of Township 62, Range 6, West of the 6th Meridian, if the wellbore pressure of any pool open in the wellbore reaches 90 per cent of the fracture pressure of the pools in the Cardium Formation, Dunvegan Formation, and Cadotte Member, then the well licensee must mechanically isolate the pools in the Cardium Formation, Dunvegan Formation, and Cadotte Member from the pools within the Falher and Wilrich Members.

(c) Initial shut-in pressures must be taken on the wells with the unique identifiers of 00/16-33-060-06W6, 00/08-07-061-06W6, 00/03-31-061-06W6 and 00/07-19-061-05W6. A subsequent shut-in pressure must be taken in three years time, no later than April 1, 2014, for the 00/08-07-061-06W6 well, September 1, 2014, for the 00/16-33-060-06W6 and 00/03-31-061-06W6 wells, and December 1, 2014, for 00/07-19-061-05W6 well. The shut-in period must be a minimum of 14 days.

(d) The well licensee shall submit an annual report compiling data as per subclauses (a), (b), and (c) to illustrate continued compliance. The initial report is due September 30, 2012 for wells in Sections 31 to 33 of Township 60, Range 6, West of the 6th Meridian, and April 30, 2012 for the wells in the remaining areas.

18) AER Order No. MU8835 is rescinded.

END OF DOCUMENT