

COMMINGLING Order No. MU8787

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



5th day of April 2016.

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 **CAROLINE 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)	CAROLINE FIRST WHITE SPECKS A and	00/12-06-035-05W5/0	None
	CAROLINE VIKING A		
b)	CAROLINE CARDIUM J,	All	None
	CAROLINE CARDIUM BB,		
	CAROLINE VIKING KK,		
	CAROLINE VIKING LL,		
	CAROLINE VIKING SS,		
	CAROLINE VIKING ZZ,		
	CAROLINE GLAUCONITIC FF,		
	CAROLINE BASAL MANNVILLE 161,		
	CAROLINE BASAL MANNVILLE J6J, and		
	CAROLINE BASAL MANNVILLE F8F		
c)	CAROLINE CARDIUM M,	All	None

CAROLINE CARDIUM N,

CAROLINE CARDIUM HH, and

CAROLINE GLAUCONITIC L

- d) CAROLINE CARDIUM W and All None CAROLINE VIKING II
- e) CAROLINE CARDIUM Z and All None CAROLINE VIKING RR
- f) CAROLINE CARDIUM AA, All None CAROLINE CARDIUM GG,
 - CAROLINE VIKING P,
 - CAROLINE VIKING JJ,
 - CAROLINE VIKING PP,
 - CAROLINE VIKING UU,
 - CAROLINE GLAUCONITIC C,
 - CAROLINE GLAUCONITIC S,
 - CAROLINE GLAUCONITIC X,
 - CAROLINE GLAUCONITIC RR,
 - CAROLINE BASAL MANNVILLE GG,
 - CAROLINE BASAL MANNVILLE QQ,
 - CAROLINE BASAL MANNVILLE S2S,
 - CAROLINE BASAL MANNVILLE G3G,
 - CAROLINE BASAL MANNVILLE P7P,
 - CAROLINE BASAL MANNVILLE S7S, and
 - CAROLINE ROCK CREEK G
- g) CAROLINE CARDIUM CC and All None CAROLINE CARDIUM DD
- h) CAROLINE CARDIUM LL, CAROLINE VIKING II,

All

None

CAROLINE VIKING XX,

CAROLINE GLAUCONITIC DD, CAROLINE BASAL MANNVILLE K2K, CAROLINE BASAL MANNVILLE L2L, CAROLINE BASAL MANNVILLE X2X, and CAROLINE BASAL MANNVILLE H6H

- i) CAROLINE VIKING X and 00/16-32-033-05W5/0 CAROLINE GLAUCONITIC C (see clause 5)
- j) CAROLINE VIKING X, 00/08-05-034-05W5/0 None
 CAROLINE GLAUCONITIC C,
 CAROLINE BASAL MANNVILLE A4A,
 CAROLINE BASAL MANNVILLE B4B, and
 CAROLINE BASAL MANNVILLE C4C
 (see clause 6)
- k) CAROLINE VIKING X, 00/06-08-034-05W5/0 None
 CAROLINE GLAUCONITIC C,
 CAROLINE BASAL MANNVILLE A4A,
 CAROLINE BASAL MANNVILLE B4B,
 CAROLINE BASAL MANNVILLE C4C, and
 CAROLINE BASAL MANNVILLE G8G
 (see clause 2)
 I) CAROLINE VIKING X, 00/06-33-033-05W5/0 None

CAROLINE BASAL MANNVILLE A4A,

CAROLINE BASAL MANNVILLE B4B, and

CAROLINE BASAL MANNVILLE C5C

(see clause 4)

None

- m) CAROLINE VIKING Z,
 CAROLINE GLAUCONITIC F,
 CAROLINE GLAUCONITIC U,
 CAROLINE OSTRACOD A,
 CAROLINE BASAL MANNVILLE O,
 CAROLINE BASAL MANNVILLE Y,
 CAROLINE BASAL MANNVILLE Y2Y, and
 CAROLINE BASAL MANNVILLE B5B
- n) CAROLINE VIKING VV,
 CAROLINE GLAUCONITIC I,
 CAROLINE GLAUCONITIC J,
 CAROLINE GLAUCONITIC CCC,
 CAROLINE BASAL MANNVILLE A,
 CAROLINE BASAL MANNVILLE L,
 CAROLINE BASAL MANNVILLE SS,
 CAROLINE BASAL MANNVILLE J2J,
 CAROLINE BASAL MANNVILLE T2T,
 CAROLINE BASAL MANNVILLE C3C,
 CAROLINE BASAL MANNVILLE P3P,
 CAROLINE BASAL MANNVILLE Q3Q,
 CAROLINE BASAL MANNVILLE R3R,
 CAROLINE BASAL MANNVILLE S3S, and
 CAROLINE BASAL MANNVILLE S3S, and
- o) CAROLINE VIKING WW,
 CAROLINE GLAUCONITIC H,
 CAROLINE GLAUCONITIC V,
 CAROLINE GLAUCONITIC VV,
 CAROLINE BASAL MANNVILLE 000,

None

None

All

All

All

None

	CAROLINE BASAL MANNVILLE PPP,		
	CAROLINE BASAL MANNVILLE RRR,		
	CAROLINE BASAL MANNVILLE Z2Z,		
	CAROLINE BASAL MANNVILLE J3J,		
	CAROLINE BASAL MANNVILLE K3K,		
	CAROLINE BASAL MANNVILLE L3L,		
	CAROLINE BASAL MANNVILLE T4T,		
	CAROLINE BASAL MANNVILLE A7A, and		
	CAROLINE RUNDLE A		
n)	GARRINGTON MANNVILLE D,	00/06-36-034-05W5/0	None
p)	CAROLINE BASAL MANNVILLE A,	00/00-30-034-03773/0	None
	CAROLINE BASAL MANNVILLE L,		
	CAROLINE BASAL MANNVILLE SS, and		
	CAROLINE BASAL MANNVILLE J2J		
	(see clause 7)		
q)	GARRINGTON MANNVILLE D,	00/08-14-035-05W5/0	None
	CAROLINE BASAL MANNVILLE A,		
	CAROLINE BASAL MANNVILLE T2T, and		
	CAROLINE BASAL MANNVILLE B3B		
	(see clause 3)		
r)	CAROLINE GLAUCONITIC C,	00/11-19-033-05W5/0	None
,	CAROLINE BASAL MANNVILLE GG,		
	CAROLINE BASAL MANNVILLE RR,		
	CAROLINE BASAL MANNVILLE MMM,		
	CAROLINE BASAL MANNVILLE O2O,		
	CAROLINE BASAL MANNVILLE P2P, and		
	CAROLINE BASAL MANNVILLE Q2Q		
s)	HARMATTAN EAST GLAUCONITIC C and	00/07-04-033-04W5/0	20

	CAROLINE RUNDLE E	00/07-04-033-04W5/0	80
t)	CAROLINE GLAUCONITIC P,	All	None
	CAROLINE BASAL MANNVILLE W5W,		
	CAROLINE BASAL MANNVILLE X5X, and		
	CAROLINE BASAL MANNVILLE L6L		
u)	CAROLINE GLAUCONITIC Y and	All	None
	CAROLINE BASAL MANNVILLE Y5Y		
V)	CAROLINE GLAUCONITIC AA and	All	None
,	CAROLINE BASAL MANNVILLE C6C		
w)	CAROLINE GLAUCONITIC BB,	All	None
	CAROLINE BASAL MANNVILLE D6D, and		
	CAROLINE BASAL MANNVILLE E6E		
x)	¹ CAROLINE GLAUCONITIC GG,	All	None
	CAROLINE BASAL MANNVILLE K6K, and		
	CAROLINE BASAL MANNVILLE M6M		
y)	CAROLINE OSTRACOD A,	00/09-02-036-07W5/0	None
• /	CAROLINE BASAL MANNVILLE EE, and		
	CAROLINE BASAL MANNVILLE FF		
7)	CAROLINE BASAL MANNVILLE A5A and	All	None
Z)			NULLE
	CAROLINE ELKTON N		

- 2) All oil production and the gas production determined by multiplying the oil production by an initial solution gas-oil ratio of 181 m3/m3, will be attributed to the Caroline Viking X Pool and the remaining gas production will be attributed to the Caroline Glauconitic C, Basal Mannville A4A, B4B, C4C, and G8G Pools.
- 3) All oil production and gas production to be allocated as follows: 90% of the oil production and 70% of the gas production will be attributed to the Mannville D Pool and the remaining 10% of the oil production and 30% of the gas production will be attributed to the Basal Mannville T2T, A & B3B pools.
- 4) All oil production and the gas production determined by multiplying the oil production by an initial solution gas-oil

ratio of 181 m3/m3, will be attributed to the Caroline Viking X Pool and the remaining gas production will be attributed to the Caroline Basal Mannville A4A, B4B, and C5C Pools.

- 5) All oil production and the gas production determined by multiplying the oil production by an initial solution gas-oil ratio of 181 m3/m3, will be attributed to the Caroline Viking X Pool and the remaining gas production will be attributed to the Caroline Glauconitic C Pool.
- 6) All oil production and the gas production determined by multiplying the oil production by an initial solution gas-oil ratio of 181 m3/m3, will be attributed to the Caroline Viking X Pool and the remaining gas production will be attributed to the Caroline Glauconitic C, Basal Mannville A4A, B4B, and C4C Pools.
- 7) All oil production and the gas production determined by multiplying the oil production by an initial solution gas-oil ratio of 85 m3/m3, will be attributed to the Mannville D Pool and the remaining gas production will be attributed to the Caroline Basal Mannville A, L, SS, and J2J Pools.
- 8) Production from pools in the Ellerslie Member in the Caroline Field may be taken without segregation in the wellbore.
- 9) AER Order No. MU8649 is rescinded.

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