

**North Ebor Unit No. 2**

**Waterflood Progress Report 2018**

**January 1<sup>st</sup> through December 31<sup>st</sup> 2018**

**Prepared for:**

**Manitoba Industry, Economic Development and Mines**

**Petroleum Branch**

**Prepared by:**

**Tundra Oil and Gas**

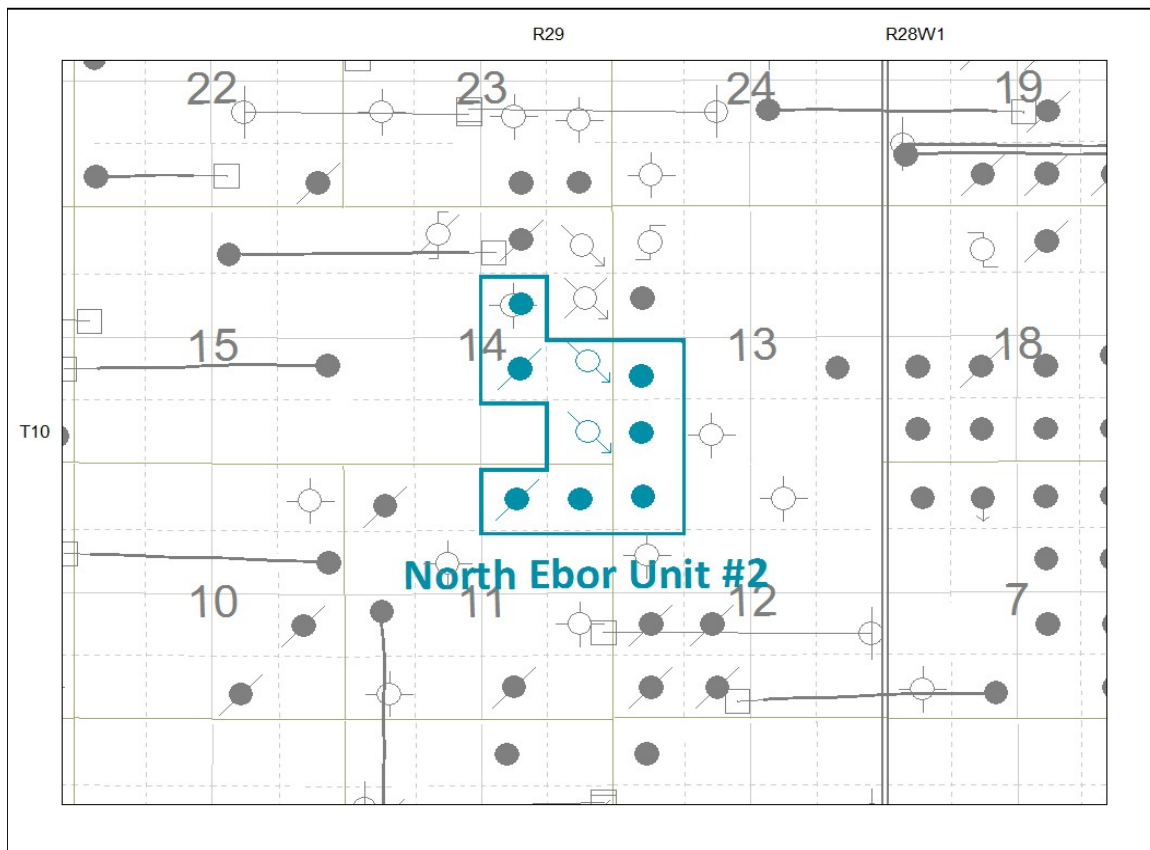
**April 2, 2019**

## INTRODUCTION

North Ebor Unit No. 2 Enhanced Oil Recovery (EOR) Waterflood Project was approved under Board Order No. PM 67 effective Oct. 1, 1991, with Tundra Oil and Gas as Operator. The EOR project area contains 9 wells in 9 LSDs in Township 10, Range 29 W1 as shown in the figure below.

**This unit is currently not on injection.**

**Figure 1: North Ebor Unit No. 2 Area Outline**



## North Ebor Unit No. 2

Tundra Oil and Gas (Tundra), as the operator of the North Ebor Unit No. 2 Enhanced Oil Recovery (EOR) project hereby submits the 2018 EOR report as per section 73 of the Drilling and Production Regulations.

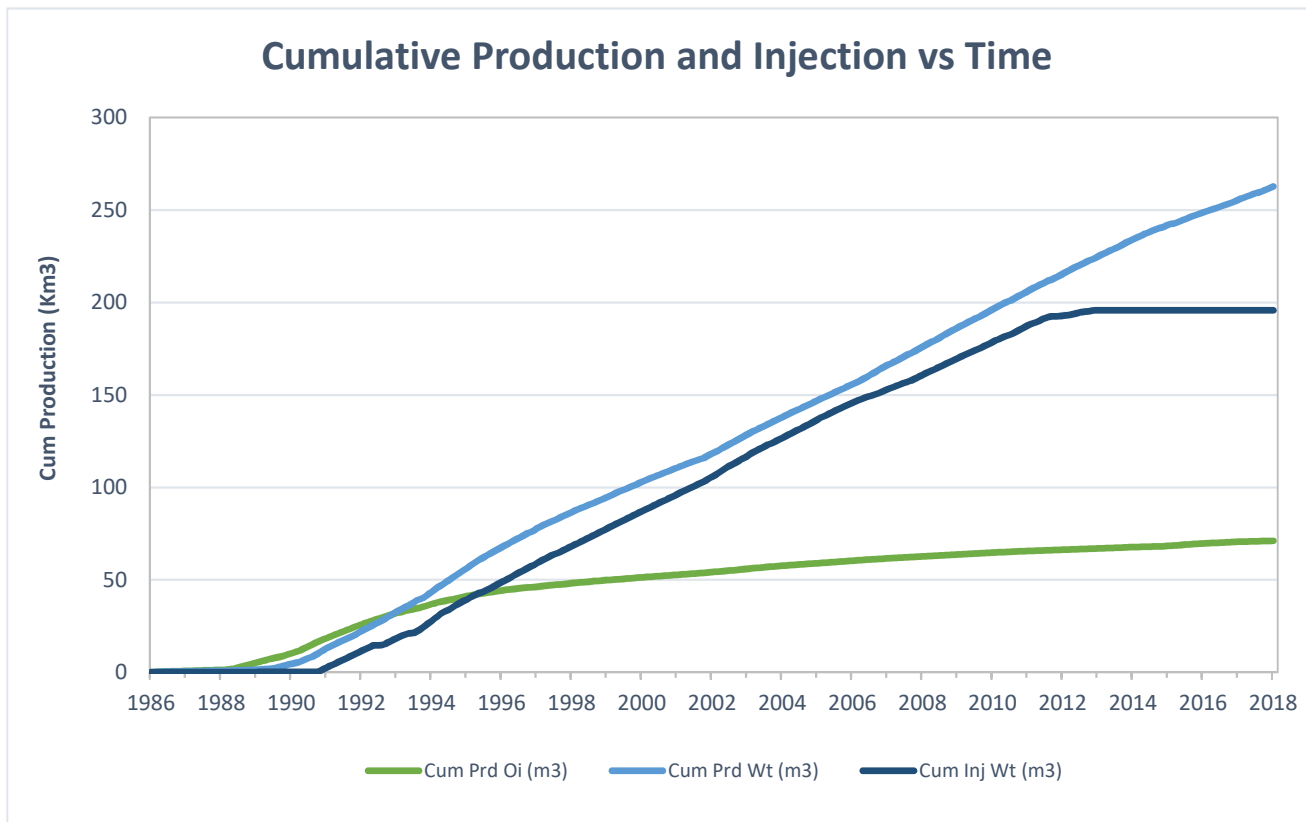
**a) Monthly oil and water production rates, injection rate, GOR and WOR**

MONTH	Cal Dly Oil m <sup>3</sup> /day	Cal Dly Wtr m <sup>3</sup> /day	Cal Inj Wtr m <sup>3</sup> /day	WOR m <sup>3</sup> /m <sup>3</sup>	GOR m <sup>3</sup> /m <sup>3</sup>
Jan-2018	1.80	19.20	0.00	10.69	0
Feb-2018	0.77	21.61	0.00	28.14	0
Mar-2018	1.16	19.01	0.00	16.37	0
Apr-2018	1.56	20.48	0.00	13.10	0
May-2018	1.55	20.04	0.00	12.94	0
Jun-2018	1.57	17.90	0.00	11.38	0
Jul-2018	1.24	14.11	0.00	11.36	0
Aug-2018	1.64	15.83	0.00	9.64	0
Sep-2018	1.07	20.68	0.00	19.27	0
Oct-2018	1.45	22.27	0.00	15.41	0
Nov-2018	1.41	22.80	0.00	16.21	0
Dec-2018	1.33	23.88	0.00	17.97	0

**b) Cumulative volume of oil, gas and water produced and fluid injected**

2018 PRODUCTION	
Produced Oil (m <sup>3</sup> )	505
Produced Gas (m <sup>3</sup> )	0
Produced Water (m <sup>3</sup> )	7,225
Fluid Injected (m <sup>3</sup> )	0
CUMULATIVE PRODUCTION	
Produced Oil (m <sup>3</sup> )	71,116
Produced Water (m <sup>3</sup> )	262,738

## North Ebor Unit No. 2



## c) Well List

## North Ebor Unit No. 2 Well List

<i><b>UWI</b></i>	<i><b>Type</b></i>	<i><b>Status</b></i>	<i><b>Future Plans</b></i>
100/15-11-010-29W1/0	Vertical	Abandoned	-
100/16-11-010-29W1/2	Vertical	Producing	-
100/13-12-010-29W1/0	Vertical	Producing	-
100/04-13-010-29W1/0	Vertical	Producing	-
100/05-13-010-29W1/0	Vertical	Pumping	-
100/01-14-010-29W1/0	Vertical	Injection	-
100/07-14-010-29W1/0	Vertical	Abandoned	-
100/08-14-010-29W1/0	Vertical	Injection	-
102/10-14-010-29W1/0	Vertical	Producing	-

## North Ebor Unit No. 2

### d) Discussion

Water injection started in October 1991. North Ebor Unit No. 2 had 2 injection patterns in place, one vertical injector on the north side 00/08-14-010-29W1/00 (00/08-14), the other vertical injector on the south side at 00/01-14-010-29W1/00 (00/01-14). In November 2013, the 00/01-14 and 00/08-14 injectors were suspended pending system modifications.