

Waskada Unit No. 2

Waterflood Progress Report 2018

January 1st through December 31st 2018

Prepared for:

Manitoba Industry, Economic Development and Mines

Petroleum Branch

Prepared by:

Tundra Oil and Gas

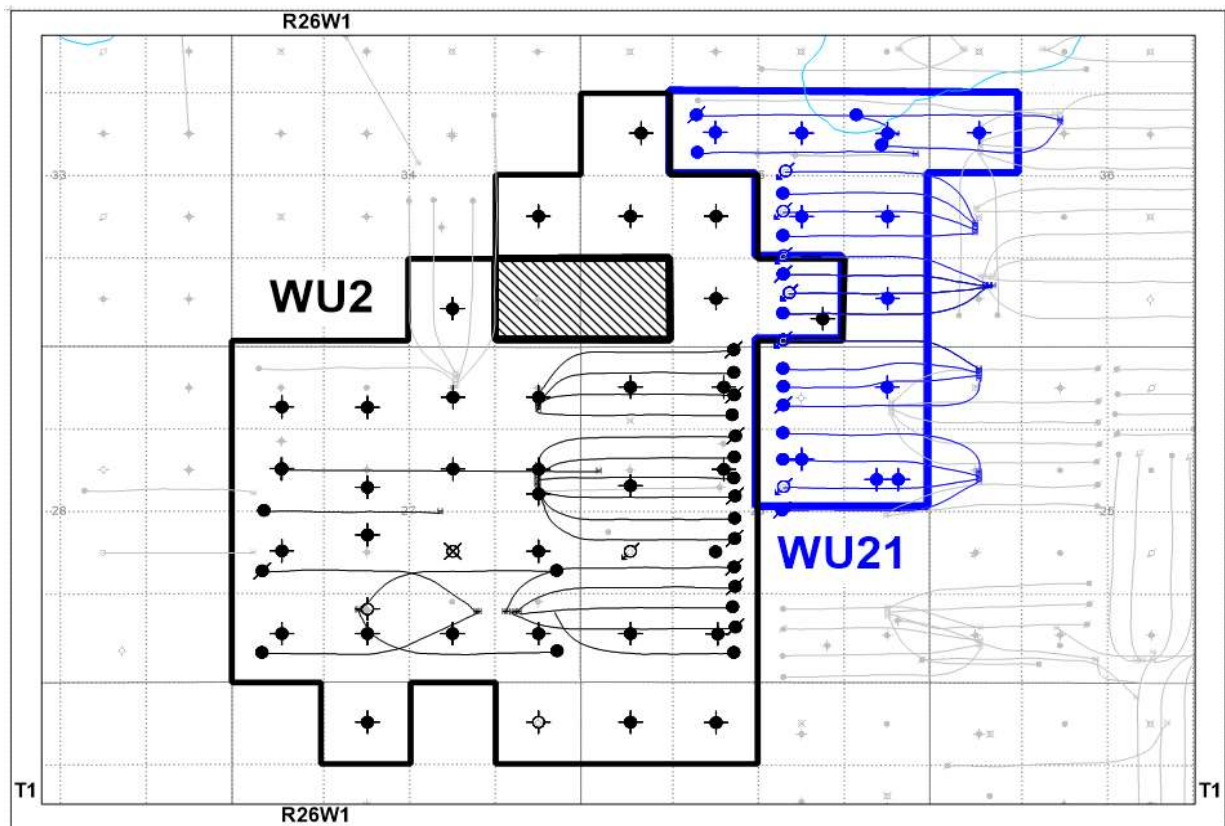
April 5, 2019

INTRODUCTION

Waskada Unit No. 2 Enhanced Oil Recovery (EOR) Waterflood Project was approved under Board Order No. PM58 effective January 1984. The Unit area contains 46 abandoned/inactive wells, including 9 inactive vertical injectors, 13 producing wells, 2 inter-unit horizontal injection wells and 1 well waiting to be completed, in 35 LSDs in Township 1 Range 26 W1 as shown in the figure below.

This unit is currently not on injection and there are no immediate plans to reactivate injection. The 2 inter-unit horizontal wells at 03/02-35 and 05/02-35-001-26W1 were converted to injectors in 2018 to support Waskada Unit No. 21.

Figure 1: Waskada Unit No. 2 Area Outline



Waskada Unit No. 2

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

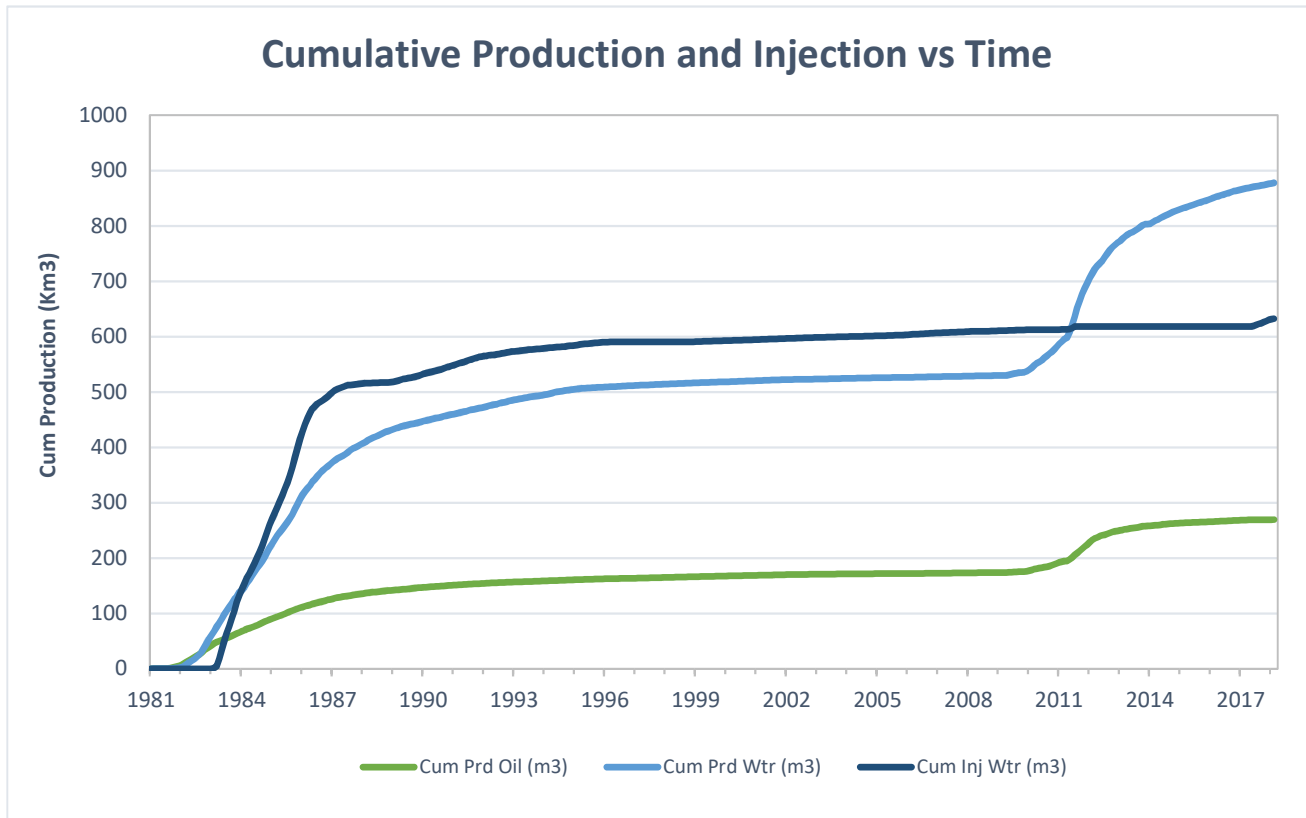
a) Monthly oil and water production rates, injection rate, GOR and WOR

| MONTH | Cal Dly Oil m ³ /day | Cal Dly Wtr m ³ /day | Cal Inj Wtr m ³ /day | WOR m ³ /m ³ | GOR m ³ /m ³ |
|----------|------------------------------------|------------------------------------|------------------------------------|---------------------------------------|---------------------------------------|
| Jan-2018 | 5.61 | 36.02 | 0.00 | 6.42 | 0 |
| Feb-2018 | 3.34 | 31.35 | 0.00 | 9.38 | 0 |
| Mar-2018 | 2.68 | 30.26 | 0.00 | 11.30 | 0 |
| Apr-2018 | 2.00 | 29.23 | 29.13 | 14.59 | 0 |
| May-2018 | 1.18 | 24.35 | 59.26 | 20.56 | 0 |
| Jun-2018 | 1.09 | 27.77 | 58.43 | 25.47 | 0 |
| Jul-2018 | 1.35 | 27.07 | 48.81 | 19.98 | 0 |
| Aug-2018 | 1.77 | 26.20 | 61.26 | 14.82 | 0 |
| Sep-2018 | 2.96 | 34.81 | 69.63 | 11.76 | 0 |
| Oct-2018 | 2.29 | 34.00 | 63.58 | 14.87 | 0 |
| Nov-2018 | 2.53 | 30.84 | 48.70 | 12.17 | 0 |
| Dec-2018 | 1.86 | 28.50 | 22.84 | 15.29 | 0 |

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

| 2018 PRODUCTION | |
|----------------------------------|---------|
| Produced Oil (m ³) | 870 |
| Produced Gas (m ³) | 0 |
| Produced Water (m ³) | 10,955 |
| Fluid Injected (m ³) | 14,105 |
| CUMULATIVE PRODUCTION | |
| Produced Oil (m ³) | 269,487 |
| Produced Water (m ³) | 877,900 |

Waskada Unit No. 2



c) Well List

Waskada Unit No. 2 Well List

| <i>UWI</i> | <i>Type</i> | <i>Status</i> | <i>Future Plans</i> |
|----------------------|-------------|----------------|---------------------|
| 100/14-22-001-26W1/0 | Vertical | Abandoned | - |
| 100/16-22-001-26W1/0 | Vertical | Abandoned | - |
| 100/13-23-001-26W1/0 | Vertical | Abandoned | - |
| 100/14-23-001-26W1/0 | Vertical | Abandoned | - |
| 100/03-26-001-26W1/0 | Vertical | Abandoned Zone | - |
| 102/03-26-001-26W1/0 | Horizontal | Producing | - |
| 103/03-26-001-26W1/0 | Horizontal | Producing | - |
| 104/03-26-001-26W1/0 | Horizontal | Suspended | - |
| 100/04-26-001-26W1/0 | Vertical | Abandoned Zone | - |
| 100/05-26-001-26W1/0 | Vertical | Injection | - |
| 100/06-26-001-26W1/0 | Vertical | Producing | - |
| 102/06-26-001-26W1/0 | Horizontal | Suspended | - |
| 103/06-26-001-26W1/0 | Horizontal | Producing | - |
| 104/06-26-001-26W1/0 | Horizontal | Suspended | - |
| 105/06-26-001-26W1/0 | Horizontal | Suspended | - |
| 100/11-26-001-26W1/0 | Vertical | Abandoned Zone | - |
| 103/11-26-001-26W1/0 | Horizontal | Suspended | - |
| 104/11-26-001-26W1/0 | Horizontal | Suspended | - |
| 105/11-26-001-26W1/0 | Horizontal | Producing | - |
| 106/11-26-001-26W1/0 | Horizontal | Producing | - |
| 102/12-26-001-26W1/0 | Vertical | Abandoned | - |
| 100/13-26-001-26W1/0 | Vertical | Abandoned | - |
| 100/14-26-001-26W1/0 | Vertical | Abandoned | - |
| 102/14-26-001-26W1/0 | Horizontal | Producing | - |
| 103/14-26-001-26W1/0 | Horizontal | Suspended | - |
| 104/14-26-001-26W1/0 | Horizontal | Producing | - |
| 105/14-26-001-26W1/0 | Horizontal | Suspended | - |
| 100/01-27-001-26W1/0 | Vertical | Abandoned | - |
| 103/01-27-001-26W1/0 | Horizontal | Producing | - |
| 100/02-27-001-26W1/0 | Vertical | Abandoned | - |
| 100/03-27-001-26W1/0 | Vertical | Abandoned | - |
| 102/03-27-001-26W1/2 | Vertical | Abandoned | - |
| 100/04-27-001-26W1/0 | Vertical | Abandoned | - |
| 102/04-27-001-26W1/0 | Horizontal | Producing | - |
| 100/05-27-001-26W1/0 | Vertical | Abandoned | - |
| 102/05-27-001-26W1/0 | Horizontal | Producing | - |
| 103/05-27-001-26W1/0 | Horizontal | Suspended | - |
| 102/06-27-001-26W1/0 | Vertical | Abandoned | - |
| 100/07-27-001-26W1/0 | Vertical | Abandoned | - |
| 100/08-27-001-26W1/0 | Vertical | Abandoned | - |
| 102/08-27-001-26W1/0 | Horizontal | Producing | - |
| 100/09-27-001-26W1/0 | Vertical | Abandoned | - |
| 102/09-27-001-26W1/2 | Vertical | Abandoned | - |
| 100/10-27-001-26W1/0 | Vertical | Abandoned Zone | - |
| 102/11-27-001-26W1/0 | Vertical | Abandoned | - |

c) Well List

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| <i>UWI</i> | <i>Type</i> | <i>Status</i> | <i>Future Plans</i> |
|----------------------|--------------------|----------------------|----------------------------|
| 100/12-27-001-26W1/0 | Vertical | Abandoned | - |
| 103/12-27-001-26W1/0 | Horizontal | Drilled & Cased | - |
| 102/13-27-001-26W1/0 | Vertical | Abandoned | - |
| 102/14-27-001-26W1/0 | Vertical | Abandoned | - |
| 102/15-27-001-26W1/0 | Vertical | Abandoned | - |
| 102/16-27-001-26W1/0 | Vertical | Abandoned | - |
| 100/02-34-001-26W1/2 | Vertical | Abandoned | - |
| 100/08-34-001-26W1/0 | Vertical | Abandoned | - |
| 100/02-35-001-26W1/0 | Vertical | Abandoned | - |
| 102/02-35-001-26W1/0 | Horizontal | Suspended | - |
| 103/02-35-001-26W1/0 | Horizontal | Inter-Unit Injector | - |
| 104/02-35-001-26W1/0 | Horizontal | Producing | - |
| 105/02-35-001-26W1/0 | Horizontal | Inter-Unit Injector | - |
| 100/03-35-001-26W1/2 | Vertical | Abandoned | - |
| 100/05-35-001-26W1/0 | Vertical | Abandoned | - |
| 100/06-35-001-26W1/0 | Vertical | Abandoned | - |