PROPOSED GOODLANDS UNIT NO. 2

Application for Enhanced Oil Recovery Waterflood Project

Lower Amaranth Formation

Lower Amaranth A (03 29A) and Lower Amaranth I Pool (03 29I)

Waskada Field, Manitoba

June 1, 2016

Tundra Oil and Gas Partnership

INTRODUCTION

The Waskada Oil Field is located in Townships 1 and 2, Ranges 23-26 W1. The Waskada Lower Amaranth Oil pool was discovered in June 1980 when Omega Hydrocarbons recompleted a former Mississippian producer in the stratigraphically higher Lower Member of the Amaranth Formation. Secondary recovery through waterflood has been initiated throughout much of the pool. Tundra Oil and Gas (Tundra) currently operates Waskada Lower Amaranth Unit 1, 2, 3, 4, 5, 6, 7, 8, 13, 14, 15, 16, 17, 18 and 19 as shown on Figure 1.

In the southern part of the Waskada field, potential exists for incremental production and reserves from a Waterflood EOR project in the Lower Amaranth oil reservoirs. The following represents an application by Tundra to establish Goodlands Unit No. 2 (NW/4 Sec 2, Sec 3, Sec 4, Sec 5, S/2 Sec 6, SE/4 Sec 7, Sec 8, LSDs 1-4 Sec 17-1-24W1) and implement a Secondary Waterflood EOR scheme within the Lower Amaranth Formation as outlined on Figure 2.

The proposed project area falls within the existing designated 03-29A Lower Amaranth A Pool and 03-29I Lower Amaranth I Pool of the Waskada Oilfield (Figure 3).

SUMMARY

1. The proposed Goodlands Unit No. 2 will include 119 horizontal wells and 41 vertical wells, from which 4 of the vertical wells are abandoned, within 90 Legal Sub Divisions (LSD) of the Lower Amaranth producing reservoir. The project is located south of Goodlands Unit No. 1 (Figure 2).

2. Total Net Original Oil in Place (OOIP) in Goodlands Unit No. 2 has been calculated to be 11,055.3 e^3m^3 (69,535.4 Mbbl) for an average of 122.8 net e^3m^3 (772.6 Mbbl) OOIP per 40 acre LSD based on a 0.5 md cutoff for the Green to Red Sands as defined by Type log in Appendix/Figure.

3. Cumulative production to the end of February 2016 from the 160 wells within the proposed Goodlands Unit No. 2 project area was 803.8 e^3m^3 (5,058.1 Mbbl) of oil, and 1292.3 e^3m^3 (8,132.6 Mbbl) of water, representing a 7.3% Recovery Factor (RF) of the Net OOIP.

4. Estimated Ultimate Recovery (EUR) of Primary Proved Producing oil reserves in the proposed Goodlands Unit No. 2 project area has been calculated to be 884.4 e^3m^3 (5,562.9 Mbbl), with 89.4 e^3m^3 (562.4 Mbbl) remaining as of the end of February 2016.

5. Ultimate oil recovery of the proposed Goodlands Unit No. 2 OOIP, under the current Primary Production method, is forecasted to be 8.0%

6. The production from the Goodlands Unit No. 2 peaked in May 2011 at 540.4 m^3 (OPD) as shown in Figure 4. As of February 2016, production was 66.2 m^3 OPD, 358.2 m^3 of water per day (WPD) and a 84.4% watercut.

7. In May 2011, production averaged 5.1 m^3 OPD per well in Goodlands Unit No. 2. As of February 2016, average per well production has declined to 0.7 m^3 OPD. Decline analysis of the group primary production data forecasts total oil to continue declining at an annual rate of approximately 30.0% in the project area.

8. Estimated Ultimate Recovery (EUR) of proved oil reserves under Secondary WF EOR for the proposed Goodlands Unit No. 2 has been calculated to be 1,192.7 e^3m^3 (7,501.9 Mbbl), with 388.9 e^3m^3 (2,443.8 Mbbl) remaining. An incremental 308.3 e^3m^3 (1,939.0 Mbbl) of proved oil reserves, or 2.8%, are forecasted to be recovered under the proposed Unitization and Secondary EOR production vs the existing Primary Production method.

9. Total RF under Secondary WF in the proposed Goodlands Unit No. 2 is estimated to be 10.8%.

10. Based on the waterflood response in the adjacent main portion of the Waskada field, the Lower Amaranth Formation in the proposed project area is believed to be a suitable reservoir for WF EOR operations.

11. Existing horizontal wells, with multi-stage hydraulic fractures will be converted to injection to provide waterflood support to existing horizontal/vertical producing wells (Figure 5) within the proposed Goodlands Unit No. 2 to complete waterflood patterns.

Geology

Stratigraphy:

The Triassic aged Lower Amaranth formation is the oil producing reservoir that is the subject of this unit application. The stratigraphy of the reservoir section for the proposed unit is shown on the structural cross section attached as Appendix 1. The section runs N to S approximately through the mid-point of the proposed unit. The Lower Amaranth is bounded on top by the Amaranth Evaporite and by the Mississippian Unconformity at the base.

Stratigraphic nomenclature has been modeled after previous operator's (EOG Resources) conventions. The producing sequence in descending order consists of the Lower Amaranth A Unit, Lower Amaranth Green Sand, Lower Amaranth Blue Sand, Lower Amaranth Purple Sand, Lower Amaranth Brown Sand, Lower Amaranth Red Sand, and the Lower Amaranth Lower Sand. The reservoir units are primarily represented by the Green, Blue, Purple, Brown, and Red Sands. The Upper portion of the Lower Amaranth A unit is considered tight, and represents the top seal for the reservoir.

Sedimentology:

The Lower Amaranth reservoir units (top of Green through to base of Red Sand) comprise interlaminated shale, siltstone, and fine grained sandstone. The laminations tend to be range from > 1 cm up to 20 cm in thickness, often show signs of scouring at the base of each laminae, and tend to fine upwards. There are anhydrite beds capping each sub unit within the producing sequence; these anhydrite layers are generally correlatable over the entire Pierson / Waskada / Goodlands area. These anhydrite layers are the basis for the stratigraphic framework that is being used to describe the reservoir within the proposed unit.

The units within the producing sequence have very similar characteristics. Color tends to vary with grain size in that the finer grained material tends to be brick red, while the courser grained material generally tends to be grey to light brown. All of the sub units have a varying component of anhydrite cement, which will appear as mm sized nodules in heavily cemented areas. Finally, well rounded, floating, course, frosted quartz grains are common throughout the entire productive interval.

Lower Amaranth reservoir is interpreted as having been deposited in an arid tidal flat (Sabkha) setting. The stratigraphic divisions (Green, Blue, Purple, Brown, Red, and Lower Sands) are interpreted as representing individual evaporitic cycles, each exhibiting relatively higher depositional energy at the base, grading into very low energy towards the top.

Since each cycle is bound by an erosive surface on the top and bottom, there can be lateral variability in sediment preservation within each cycle. Occasional preservation of high angled cross stratification suggests periods of very high energy during deposition which are interpreted as channels deposits, which help support a tidal flat setting depositional model.

The Upper portion of the Upper Amaranth A unit is made up of brick red shale that is generally not bedded and does not tend to exhibit any sedimentary structures. It is a low permeability zone that represents the top seal to the Lower Amaranth reservoir.

The Lower Sand portion of the Lower Amaranth (immediately beneath the Red Sand), has a lot of the same characteristics as the productive interval, but tends to have much less effective porosity due to abundant anhydrite cement.

Structure:

Structure contour maps are provided for the top and base of the reservoir interval (Appendices 2 and 3). The reservoir units dip to the southwest, which is consistent with regional dip. Structural mapping based on well control does not indicate the presence of large scale structural features that would indicate an increased risk of faulting within the proposed unit boundary.

Reservoir Continuity:

There are limited barriers to reservoir continuity that are apparent from the data available. Available data from well logs do not show any apparent lateral facies changes within the proposed unit that would result in significant lateral permeability barriers. An Isopach map of the reservoir interval (Appendix 4) shows that the reservoir thickness remains consistent between about 10.0 meters and 11.5 meters.

Also, as mentioned above, there are no indications of any structural features that could set up any lateral permeability barriers within the proposed unit. The lack of lateral permeability barriers suggests this pool is well suited for secondary oil recovery.

Reservoir Quality:

Net pay determination within the proposed unit was done by using a sonic porosity cut off. There are a number of steps that were undertaken in order to determine net pay from sonic log data:

- Core data from the entire Waskada / Goodlands area (Appendix 5) was used to determine a relationship between porosity and permeability. Based on a best fit line through the available core analysis it was determined that a core porosity of 10% represents 0.5 md of permeability (Appendix 6).
- Sonic porosity was calculated for wells in which digital sonic data was available (Appendix 7) using the following formula:

$$Sonic\ Porosity = \frac{Dt - Dtmatrix}{Dtwater - Dtmatrix}$$

Where

Dt = Sonic travel time (ms/m)
Dt_{matrix} = Sonic travel time of the rock matrix (198 ms/m)
Dt_{water} = Sonic travel time of the formation water (681 ms/m)

- In order to translate this relationship to well logs, a comparison between sonic porosity and core porosity was undertaken. A total of 52 wells were found in the Waskada / Goodlands area that had digital sonic curves along with core analysis over the Lower Amaranth reservoir interval (Appendix 8). Sonic Porosity from logs was compared to core porosity from core analysis (Appendix 9), and the data suggests that there is a good relationship between porosity from core and porosity from Sonic data.

From this relationship, a sonic log porosity cut of 10% was used as a pay determination for each logged well. In this way, the porosity / permeability relationship as determined from core can be translated into wells where there is log data available. In turn, this increases the control points for OOIP determination, which increases the resolution of OOIP mapping.

OOIP Estimates

OOIP values were calculated using the following volumetric equation:

$$OOIP = \frac{Area * Net\ Pay * \ Porosity * (1 - Water\ Saturation)}{Initial\ Formation\ Volume\ Factor\ of\ Oil}$$

or

$$OOIP(m3) = \frac{A * h * \emptyset * (1 - Sw)}{Bo} * \frac{10{,}000m2}{ha}$$

or

$$OOIP(Mbbl) = \frac{A * h * \emptyset * (1 - Sw)}{Bo} * 3.28084\frac{ft}{m} * 7{,}758.367\frac{bbl}{acre * ft} * \frac{1Mbbl}{1{,}000bbl}$$

where

OOIP	= Original Oil in Place by LSD (Mbbl, or m3)
A	= Area (40acres, or 16.187 hectares, per LSD)
h * Ø	= Net Pay * Porosity, or Phi * h (ft, or m)
Bo	= Formation Volume Factor of Oil (stb/rb, or sm3/rm3)
Sw	= Water Saturation (decimal)

For the purposes of this unit application, Bo and Sw were held constant at 1.17 and 40% respectively. The initial oil formation volume factor was adopted from a PVT taken from the 8-26-1-26W1, thought to be representative of the fluid characteristics in the reservoir. Sw determination was set at 40% based analysis of capillary pressure data from six different locations in the Waskada / Goodlands area (6-21-1-25W1, 7-28-1-25W1, 13-10-1-24W1, 15-1-1-25W1, and 14-14-2-25W1).

Phi * h maps were created from sonic porosity log data (Appendix 10). The average phi * h value within each LSD was calculated using IHS Petra software, this provided the final input into the OOIP calculation.

Total volumetric OOIP for the Lower Amaranth within the proposed unit has been calculated to be 11,055,239 m^3 (69,535,360 bbls).

Tabulated parameters for each LSD from the calculations can be found in Table 4.

Original Oil in Place (OOIP) calculations and geologic summary were prepared by Todd Neely and reviewed by Bill Ward, P. Geol. (VP Exploration at Tundra Oil and Gas).

Historical Production

A historical group production history plot for the proposed Goodlands Unit No. 2 is shown as Figure 4. Oil production commenced from the proposed Unit area in July 1993 and peaked during May 2011 at 540.4 m^3 OPD. As of February 2016, production was 66.2 m^3 OPD, 358.2 m^3 of water per day (WPD) and a 84.4% watercut.

From peak production in May 2011 to date, oil production is declining at an annual rate of approximately 30.0% under the current Primary Production method.

The remainder of the field's production and decline rates indicate the need for pressure restoration and maintenance. Waterflooding is deemed to be the most efficient means of secondary recovery to introduce energy back into the system and provide a real sweep between wells.

UNITIZATION

Unitization and implementation of a Waterflood EOR project is forecasted to increase overall recovery of OOIP from the proposed project area.

Unit Name

Tundra proposes that the official name of the new Unit shall be Goodlands Unit No. 2.

Unit Operator

Tundra Oil and Gas Partnership (Tundra) will be the Operator of record for Goodlands Unit No. 2.

Unitized Zone

The Unitized zone(s) to be waterflooded in the Goodlands Unit No. 2 will be the Lower Amaranth formation.

Unit Wells

The 119 horizontal wells and 41 vertical wells to be included in the proposed Goodlands Unit No. 2 are outlined in Table 3.

Unit Lands

The Goodlands Unit No. 2 will consist of 90 LSDs as follows:

NW/4 Section 2 of Township 1, Range 24, W1M
Section 3 of Township 1, Range 24, W1M
Section 4 of Township 1, Range 24, W1M
Section 5 of Township 1, Range 24, W1M
S/2, NE ¼ and LSD's 11 & 14 Section 6 of Township 1, Range 24, W1M
SE/4 Section 7 of Township 1, Range 24, W1M
Section 8 of Township 1, Range 24, W1M
LSDs 1-4 Section 17 of Township 1, Range 24, W1M

The lands included in the 40 acre tracts are outlined in Table 1.

Tract Factors

The proposed Goodlands Unit No. 2 will consist of 90 Tracts based on the 40 acre LSDs containing the existing 119 horizontal and 41 vertical wells.

The Tract Factor contribution for each of the LSD's within the proposed Goodlands Unit No. 2 was calculated as follows:

- Gross OOIP by LSD, minus cumulative production to date for the LSD as distributed by the LSD specific Production Allocation (PA) % in the applicable producing horizontal or vertical well (to yield Remaining Gross OOIP)
- Last twelve (12) months production to date for the LSD as distributed by the LSD specific PA % in the applicable producing horizontal or vertical well.
- Tract Factor by LSD = Fifty percent (50%) of the product of Remaining Gross OOIP by LSD as a % of total proposed Unit Remaining Gross OOIP, and fifty percent (50%) of the product of the Last 12 Months Production as a % of total proposed Unit Last 12 Months Production.

Tract Factor calculations for all individual LSDs based on the above methodology are outlined within Table 2. In the past, multiple methods of assigning tract participation factors have been used in the Waskada area. Tundra believes that the above given method provides the most equitable assignment of tract participation factors to all mineral owners, given the geological, reservoir and well completion risks associated with waterflooding horizontal to horizontal wellbores in Lower Amaranth formation.

Working Interest Owners

Table 1 outlines the working interest (WI) for each recommended Tract within the proposed Goodlands Unit No. 2. Tundra Oil and Gas Partnership holds a 100% WI ownership in all the proposed Tracts.

Tundra Oil and Gas Partnership will have a 100% WI in the proposed Goodlands Unit No. 2.

WATERFLOOD EOR DEVELOPMENT

Technical Studies

The waterflood performance predictions for the proposed Goodlands Unit No. 2 Lower Amaranth project are based on internal engineering assessments, as well as empirically observed waterflood performance in nearby Waskada Units 16 and 17, which employed a vertical to vertical waterflood. Utilizing project area specific reservoir and geological parameters, a Black oil simulation model using Exodus software was created by Tundra to evaluate the potential waterflood response using horizontal injectors to flood horizontal producers, which is the configuration that Tundra proposes in Goodlands Unit #2. While the model was created using geological and historical production data from Waskada Unit 19, in section 34-1-25W1, the results observed in the model were similar to those observed empirically in Units 16 and 17, and deemed representative of what Tundra would expect in Goodlands Unit 2.

Horizontal Injection Wells and EOR Development

The Goodlands Unit 2 Project will be first of its kind in the area because the existing data in the adjacent WF project of Goodlands Unit 1 does not include many horizontal-to-horizontal pattern. Therefore, it is difficult to formulate an EOR development plan that could be implemented throughout the entire proposed Unit all at once.

Primary production from the original vertical/horizontal producing wells in the proposed Goodlands Unit No. 2 has declined significantly from peak rate indicating a need for secondary pressure support. Through the process of developing similar waterfloods, Tundra has measured a significant variation in reservoir pressure depletion by the existing primary producing wells. Placing new horizontal wells immediately on water injection in areas without significant reservoir pressure depletion has been problematic in similar low permeability formations, and has a negative impact on the ultimate total recovery of oil.

Tundra's plan includes a first phase of converting 8 horizontal oil producing wells to Water Injection Wells (WIW) as shown in Figure 5. This first stage of EOR development will target areas that are deemed in need of immediate water injection support while allowing Tundra to have a better understanding of the performance of a horizontal-to-horizontal waterflood pattern. Further, this will allow Tundra to design the best suited EOR plan for the rest of the Unit area. New horizontal injectors may be considered to be drilled at that time.

If new injection wells are drilled in this area, Tundra believes an initial period of producing all new horizontal wells prior to placing them on permanent water injection is essential and all Unit mineral owners will benefit.

Tundra will continue to monitors reservoir pressure, fluid production and decline rates in each pattern to determine when the well will be converted to water injection.

Reserves Recovery Profiles and Production Forecasts

The primary waterflood performance predictions for the proposed Goodlands Unit No. 2 are based on oil production decline curve analysis. The secondary predictions are based primarily on internal engineering analysis performed by the Tundra reservoir engineering group, utilizing an Exodus simulation model generated in Waskada Unit 19 (described previously), and simulating horizontal injectors offsetting horizontal producers for waterflood development. These results were then compared and contrasted to empirically observed data in Waskada Unit 16 and 17 to ensure proper calibration of data and results.

Primary Production Forecast

Cumulative production in the Goodlands Unit No. 2 project area, to the end of February 2016 from 160 wells, was 803.8 e^3m^3 of oil and 1,292.3 e^3m^3 of water for a recovery factor of 7.3% of the calculated Net OOIP.

Ultimate Primary Proved Producing oil reserves recovery for Goodlands Unit No. 2 has been estimated to be 884.4 e^3m^3, or an 8.0% Recovery Factor (RF) of OOIP. Remaining Producing Primary Reserves has been estimated to be 89.4 e^3m^3 to the end of February 2016.

The expected production decline and forecasted cumulative oil recovery under continued Primary Production is shown in Figures 7 and 8.

Pre-Production Schedule/Timing for Conversion of Horizontal Wells to Water Injection

Tundra proposes to implement an initial phase which consists of 8 Horizontal conversions throughout the last quarter of 2016 to test the efficiency of the Goodlands Unit 2 Waterflood.

Criteria for Conversion to Water Injection Well

Initially, 8 water injection wells are required for this proposed unit as shown in Figure 5. Once the waterflood response is observed, Tundra will continue to convert additional wells to Injection.

Tundra will monitor the following parameters to assess the best timing for each individual horizontal well to be converted from primary production to water injection service.

- Measure reservoir pressures through primary production
- Fluid production rates and any changes in decline rate
- Any observed production interference effects with adjacent vertical and horizontal wells
- Pattern mass balance and/or oil recovery factor estimates
- Reservoir pressure relative to bubble point pressure

The above schedule allows for the proposed Goodlands Unit No. 2 project to be developed equitably, efficiently, and moves to project to the best condition for the start of waterflood as quickly as possible. It also provides the Unit Operator flexibility to manage the reservoir conditions and response to help ensure maximum ultimate recovery of reserves.

Secondary EOR Production Forecast

The proposed project oil production profile under Secondary Waterflood has been developed based on the response observed to date in Waskada Unit 16 and 17, as well as internal Black Oil Simulation model of section 34-1-25W1 in Waskada 19, which simulates a horizontal to horizontal waterflood. (Figure 6).

Secondary Waterflood plots of the expected oil production forecast over time and the expected oil production vs. cumulative oil are plotted in Figures 9 and 10, respectively. Total Secondary EUR for the proposed Goodlands Unit No. 2 is estimated to be 1,192.7 e^3m^3 with 388.9 e^3m^3 remaining representing a total secondary recovery factor of 10.8% for the proposed Unit area. An incremental 308.3 e^3m^3 of oil, or a 2.8% recovery factor, are forecasted to be recovered under the proposed Unitization and Secondary EOR production scheme vs. the existing Primary Production method.

Estimated Fracture Pressure

Completion data from the existing producing wells within the project area indicate an actual fracture pressure gradient range of 17.0 to 18.0 kPa/m true vertical depth (TVD).

WATERFLOOD OPERATING STRATEGY

Water Source

The injection water for the proposed Goodlands Unit No. 2 will be supplied from the existing Waskada 15-9-2-25W1 Battery source and injection water system. All existing injection water is obtained from the Swan River formation in the 100/05-09-002-25W1 and 100/10-09-002-25W1 licensed water source wells. Swan River water from the two source wells is pumped to the main Waskada Units Water Plant at 15-9-2-25W1, filtered, and pumped up to injection system pressure. A diagram of the Waskada water injection system and new pipeline connection to the proposed Goodlands Unit No. 2 project area injection wells is shown as Figure 11.

Based on past experience, Tundra does not believe that the produced water can be cleaned to the required specifications feasibly. Therefore, Tundra plans to use source water from a Swan River well as a source supply for Goodlands Unit No. 2.

A mixture of produced waters from the Lower Amaranth has been extensively tested for compatibility with 100/05-09 source Swan River water, by a highly qualified third party, prior to implementation by Tundra. All potential mixture ratios between the two waters, under a range of temperatures, have been simulated and evaluated for scaling and precipitate producing tendencies. Testing of multiple scale inhibitors has also been conducted and minimum inhibition concentration requirements for the source water volume determined. At present, continuous scale inhibitor application is maintained into the source water stream out of the Waskada injection water facility. Review and monitoring of the source water scale inhibition system is also part of an existing routine maintenance program.

Injection Wells

New water injection wells for the proposed Goodlands Unit No. 2 will be cleaned out and configured downhole for injection as shown in Figures 12 and 13. The horizontal injection well will be stimulated by

multiple hydraulic fracture treatments to obtain suitable injection. Tundra has extensive experience with horizontal fracturing in the area, and all jobs are rigorously programmed and monitored during execution. This helps ensure optimum placement of each fracture stage to prevent, or minimize, the potential for out-of-zone fracture growth and thereby limit the potential for future out-of-zone injection.

The new water injection wells will be placed on injection after the pre-production period and approval to inject. Wellhead injection pressures will be maintained below the least value of either:

- the area specific known and calculated fracture gradient, or
- the licensed surface injection Maximum Allowable Pressure (MOP)

Tundra has a thorough understanding of area fracture gradients. A management program will be utilized to set and routinely review injection target rates and pressures vs. surface MOP and the known area formation fracture pressures.

All new water injection wells are surface equipped with injection volume metering and rate/pressure control. An operating procedure for monitoring water injection volumes and meter balancing will also be utilized to monitor the entire system measurement and integrity on a daily basis.

The proposed Goodlands Unit No. 2 horizontal water injection well rate is forecasted to average 10 - 30 m^3 WPD, based on expected reservoir permeability and pressure.

Reservoir Pressure

No representative initial pressure surveys are available for the proposed Goodlands Unit No. 2 project area in the Lower Amaranth producing zone. Tundra assumed operatorship of these properties in 2015, and has been unable to recover any pressure surveys from the original operators.

Reservoir Pressure Management during Waterflood

Tundra expects it will take 2-4 years to re-pressurize the reservoir due to cumulative primary production voidage and pressure depletion. Initial monthly Voidage Replacement Ratio (VRR) is expected to be approximately 1.25 to 2.00 within the patterns during the fill up period. As the cumulative VRR approaches 1, target reservoir operating pressure for waterflood operations will be 75-90% of original reservoir pressure.

Waterflood Surveillance and Optimization

Goodlands Unit No. 2 EOR response and waterflood surveillance will consist of the following:

- Regular production well rate and WCT testing
- Daily water injection rate and pressure monitoring vs target
- Water injection rate/pressure/time vs. cumulative injection plot
- Reservoir pressure surveys as required to establish pressure trends
- Pattern VRR
- Potential use of chemical tracers to track water injector/producer responses
- Use of some or all of: Water Oil Ratio (WOR) trends, Log WOR vs Cum Oil, Hydrocarbon Pore Volumes Injected, Conformance Plots

The above surveillance methods will provide an ever increasing understanding of reservoir performance, and provide data to continually control and optimize the Goodlands Unit No. 2 waterflood operation. Controlling the waterflood operation will significantly reduce or eliminate the potential for out-of-zone injection, undesired channeling or water breakthrough, or out-of-Unit migration. The monitoring and surveillance will also provide early indicators of any such issues so that waterflood operations may be altered to maximize ultimate secondary reserves recovery from the proposed Goodlands Unit No. 2.

On Going Reservoir Pressure Surveys

Any pressures taken during the operation of the proposed unit will be reported within the Annual Progress Reports for Goodlands Unit No. 2 as per Section 73 of the Drilling and Production Regulation.

Economic Limits

Under the current Primary recovery method, existing wells within the proposed Goodlands Unit No. 2 will be deemed uneconomic when the net oil rate and net oil price revenue stream becomes less than the current producing operating costs. With any positive oil production response under the proposed Secondary recovery method, the economic limit will be significantly pushed out into the future. The actual economic cut off point will then again be a function of net oil price, the magnitude and duration of production rate response to the waterflood, and then current operating costs. Waterflood projects generally become uneconomic to operate when Water Oil Ratios (WOR's) exceed 100.

WATER INJECTION FACILITIES

The Goodlands Unit No. 2 waterflood operation will utilize the existing Tundra operated source well supply and water plant (WP) facilities located at 15-9-2-25 W1M Battery. Injection wells will be connected to the existing high pressure water pipeline system supplying other Tundra-operated Waterflood Units.

A complete description of all planned system design and operational practices to prevent corrosion related failures is shown in Figure 14.

NOTIFICATION OF MINERAL AND SURFACE RIGHTS OWNERS

Tundra is in the process of notifying all mineral rights and surface rights owners of this proposed EOR project and formation of Goodlands Unit No. 2. Copies of the notices and proof of service, to all surface and mineral rights owners will be forwarded to the Petroleum Branch when available to complete the Goodlands Unit No. 2 Application.

Goodlands Unit No. 2 Unitization, and execution of the formal Goodlands Unit No. 2 Agreement by affected Mineral Owners, is expected during Q4 2016. Copies of same will be forwarded to the Petroleum Branch, when available, to complete the Goodlands Unit No. 2 Application.

Should the Petroleum Branch have further questions or require more information, please contact Robert [redacted] at 403.767.1248 or by email at robert.prefontaine@tundraoilandgas.com.

TUNDRA OIL & GAS PARTNERSHIP

Original Signed by Robert [redacted] June 6, 2016, in Calgary, AB

Proposed Goodlands Unit No. 2

Application for Enhanced Oil Recovery Waterflood Project

List of Figures

Figure No. 1

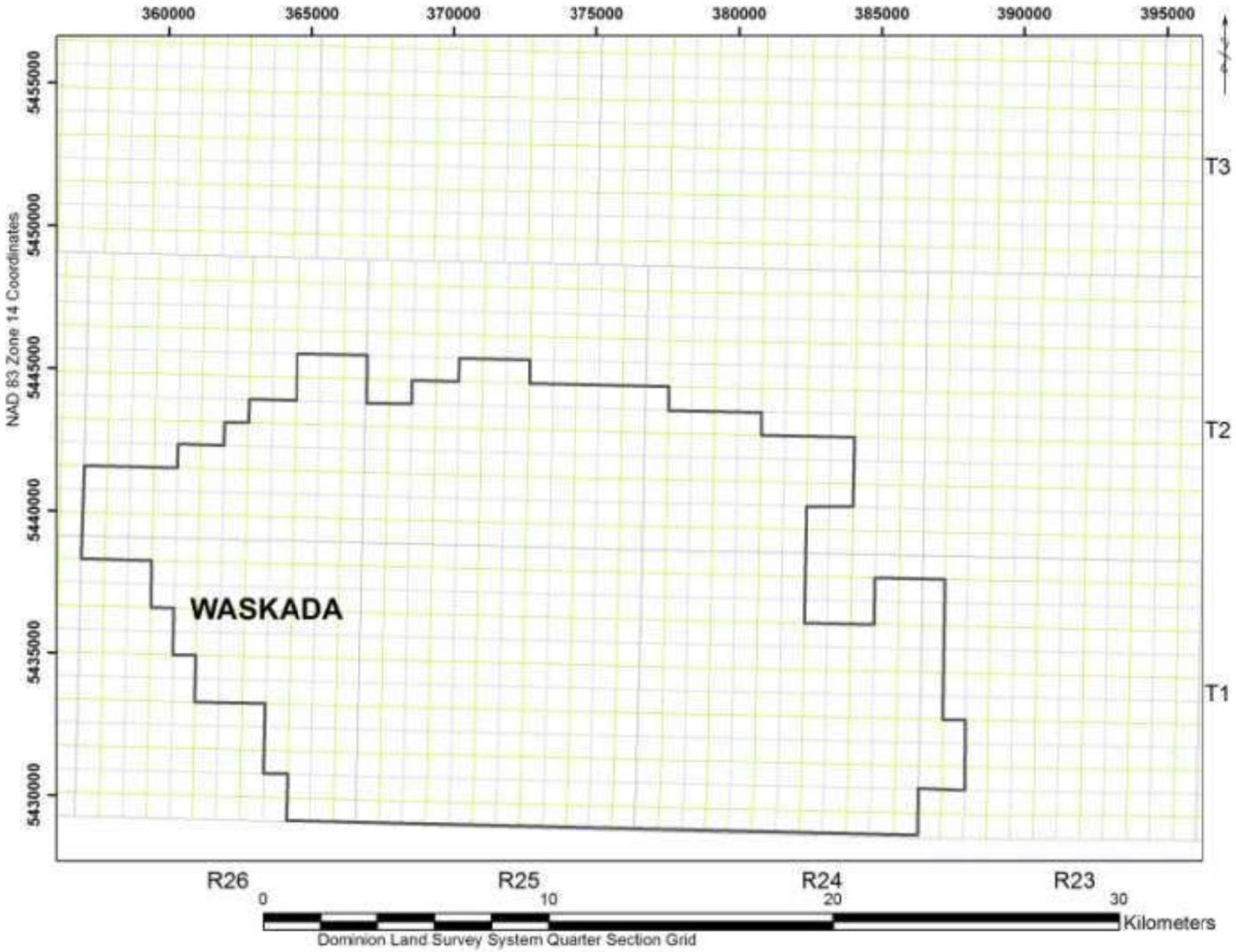

Figure 4 - Waskada Field (03)

Figure No. 2

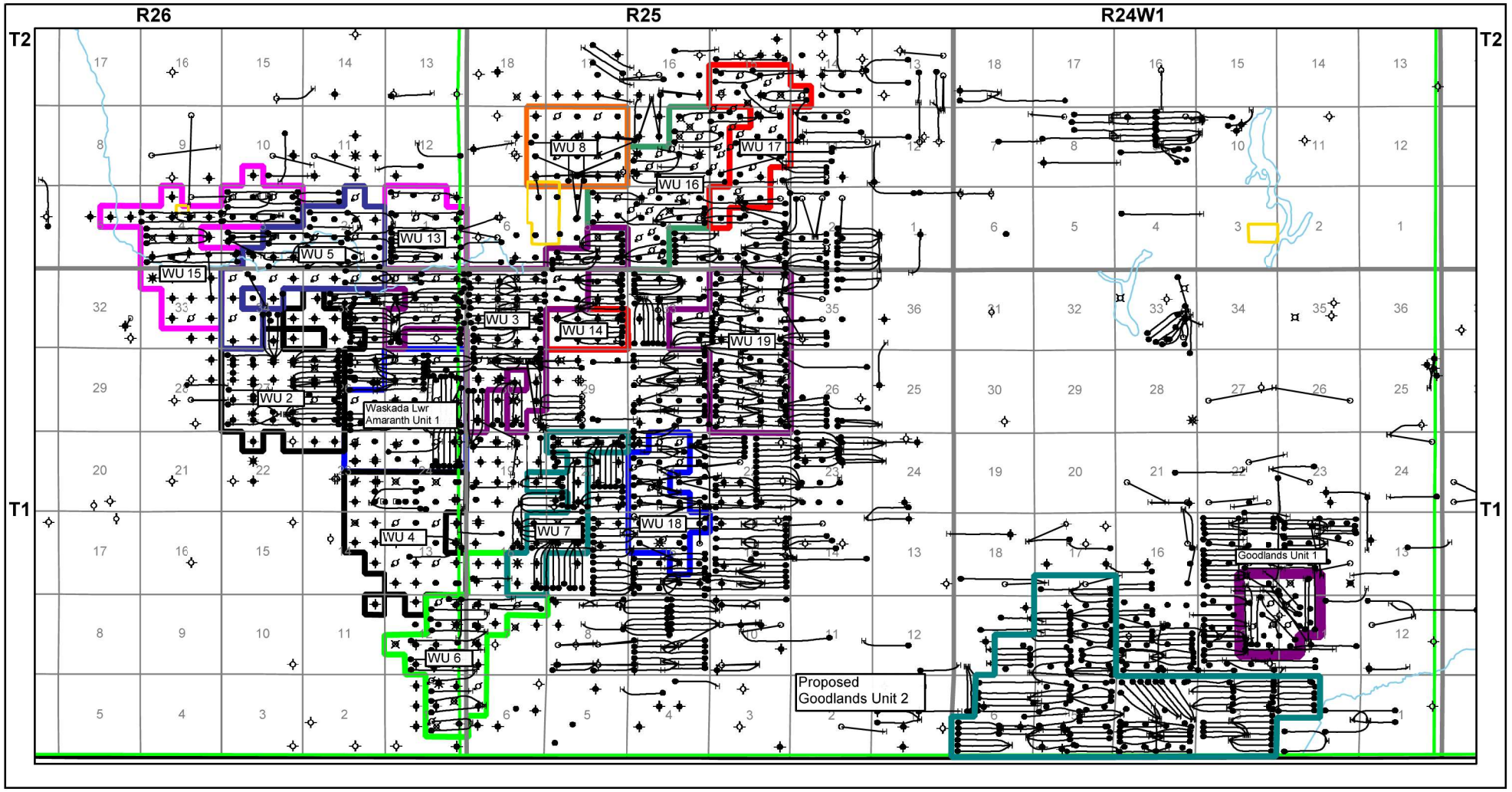

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Figure No. 3

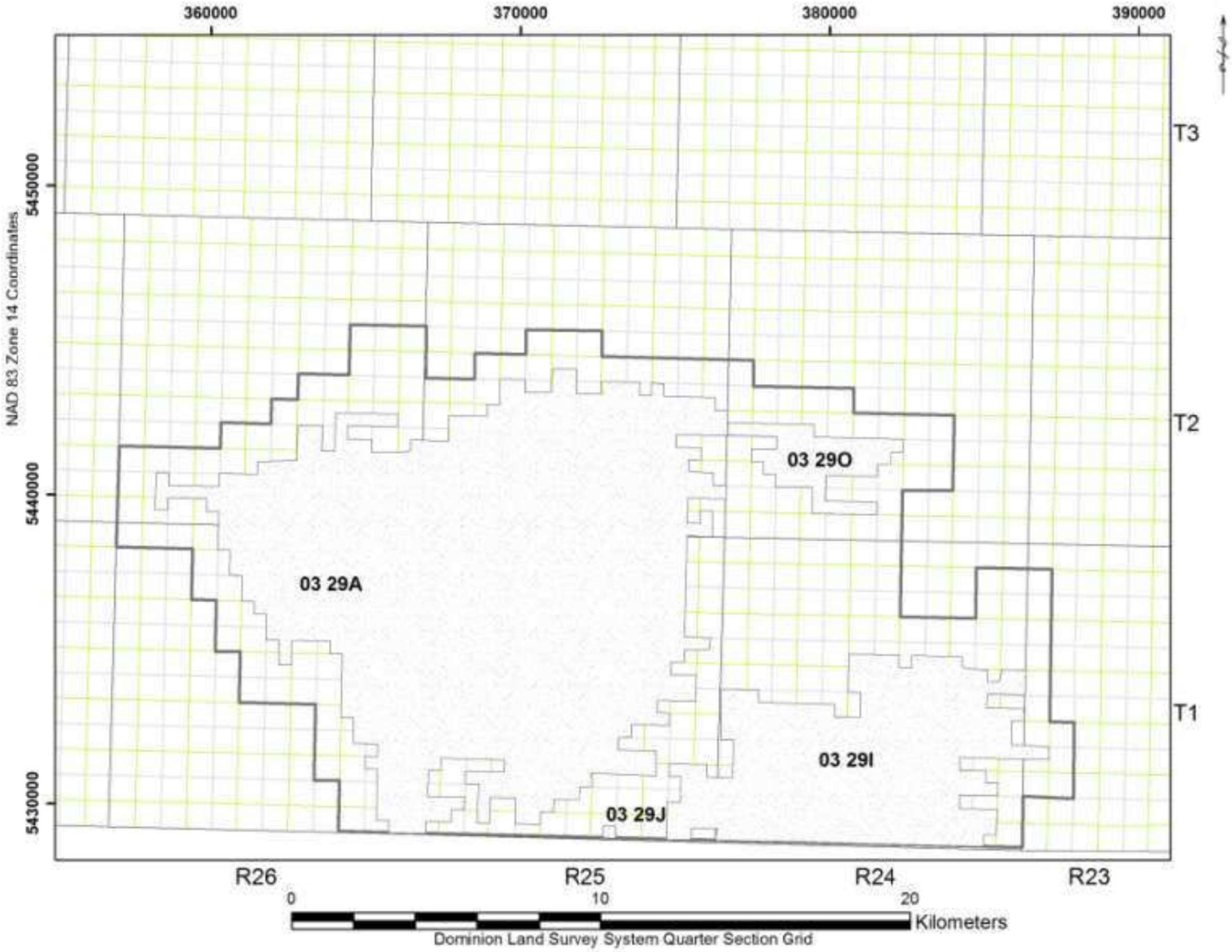


Figure 18 - Waskada Lower Amaranth Pools (03 29A, I, J, K & O)

Figure No. 4

Well Information as of 5/18/2016 - Group Well Report

Production Graph

Group:	proposed goodlands unit no. 2.lwell	**On Prod:**	1985-10 to 2016-02	**Cum Oil:**	5058063.2 bbl
# of Wells:	160	**Prod Form:**	AMRNTHL; AMRNTH	**Cum Gas:**	1378161.2 mcf
Fluid:	Oil	**Field:**	WASKADA (3)	**Cum Wtr:**	8132612.7 bbl
Mode:	Producing; Pumping; Abandoned	**Pool Code:**	29I; 29A	**Cum Inj Oil:**	0.0 bbl
		Unit Code:		**Cum Inj Gas:**	0.0 mcf
				Cum Inj Wtr:	0.0 bbl

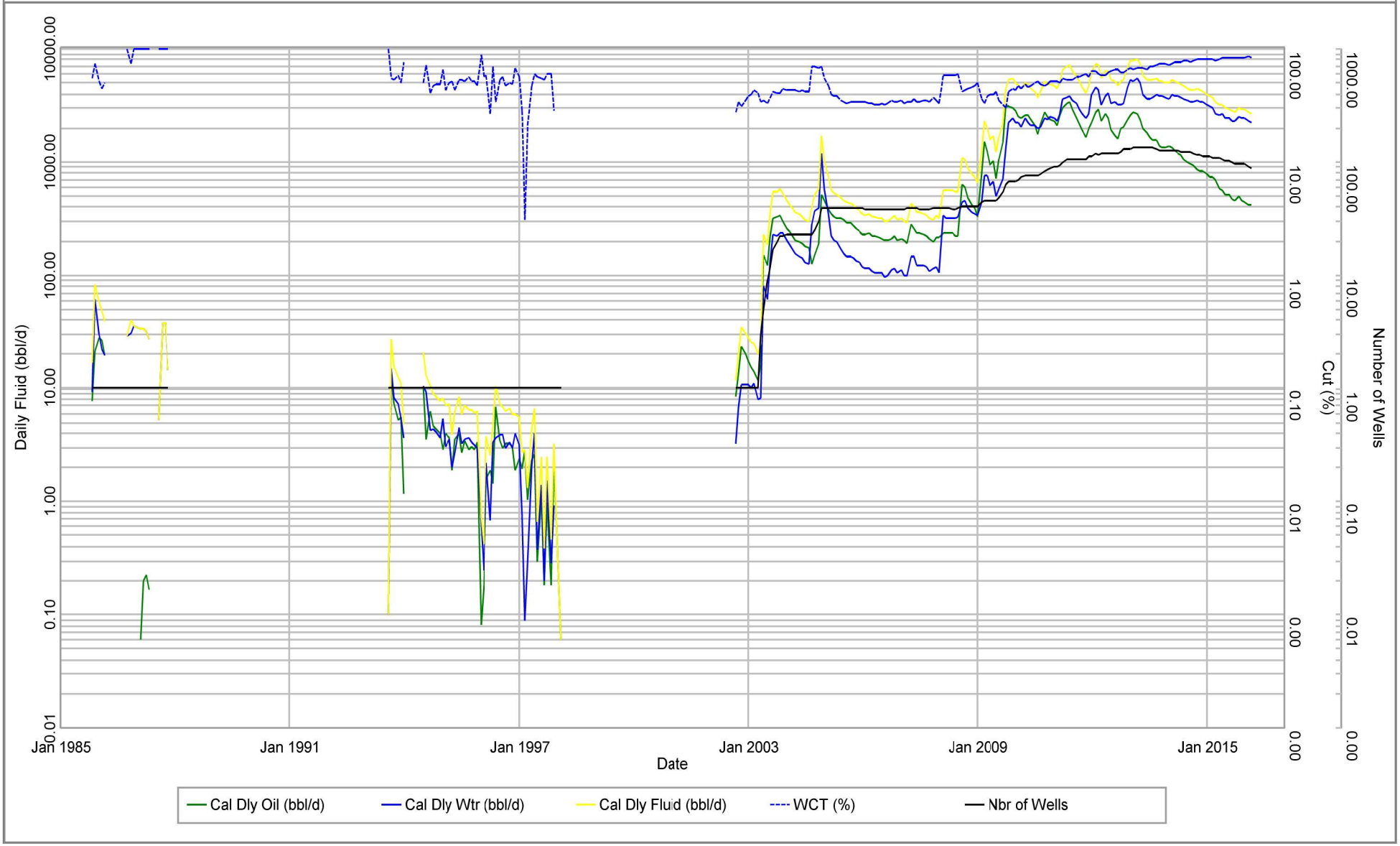
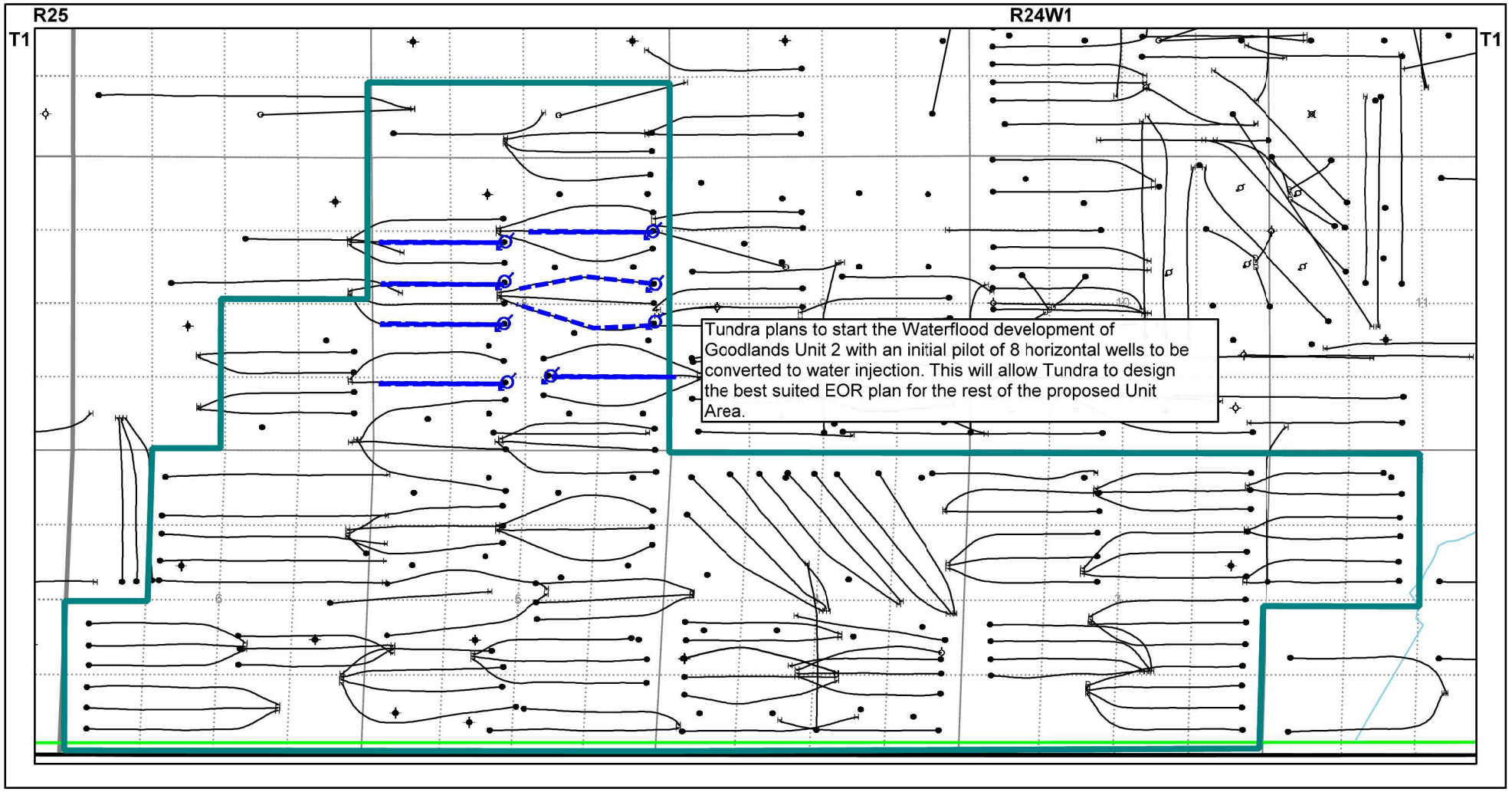


Figure No. 5



Datum: NAD27 Projection: Stereographic DLS Version AB: ATS 2.6, BC: PRB 2.0, SK: STS 2.5, MB: MLI07

Figure No. 6a

Well Information as of 12/4/2015 - Group Well Report

Production Graph

Group:	waskada unit 16.lwell	**Prod Form:**	AMRNTHL; WINNPGS	**On Prod:**	1984-07 to 2015-08
# of Wells:	69	**Field:**	WASKADA (3)	**Cum Oil:**	537510.3 m3
Fluid:	Oil; Water Injection; Salt Water	**Pool Code:**	29A; 76	**Cum Gas:**	2169.9 E3m3
Mode:	Producing; Injection; Abandoned Zone; Pumping; Disposal	**Unit Code:**	329A16; 329A17	**Cum Wtr:**	408882.7 m3

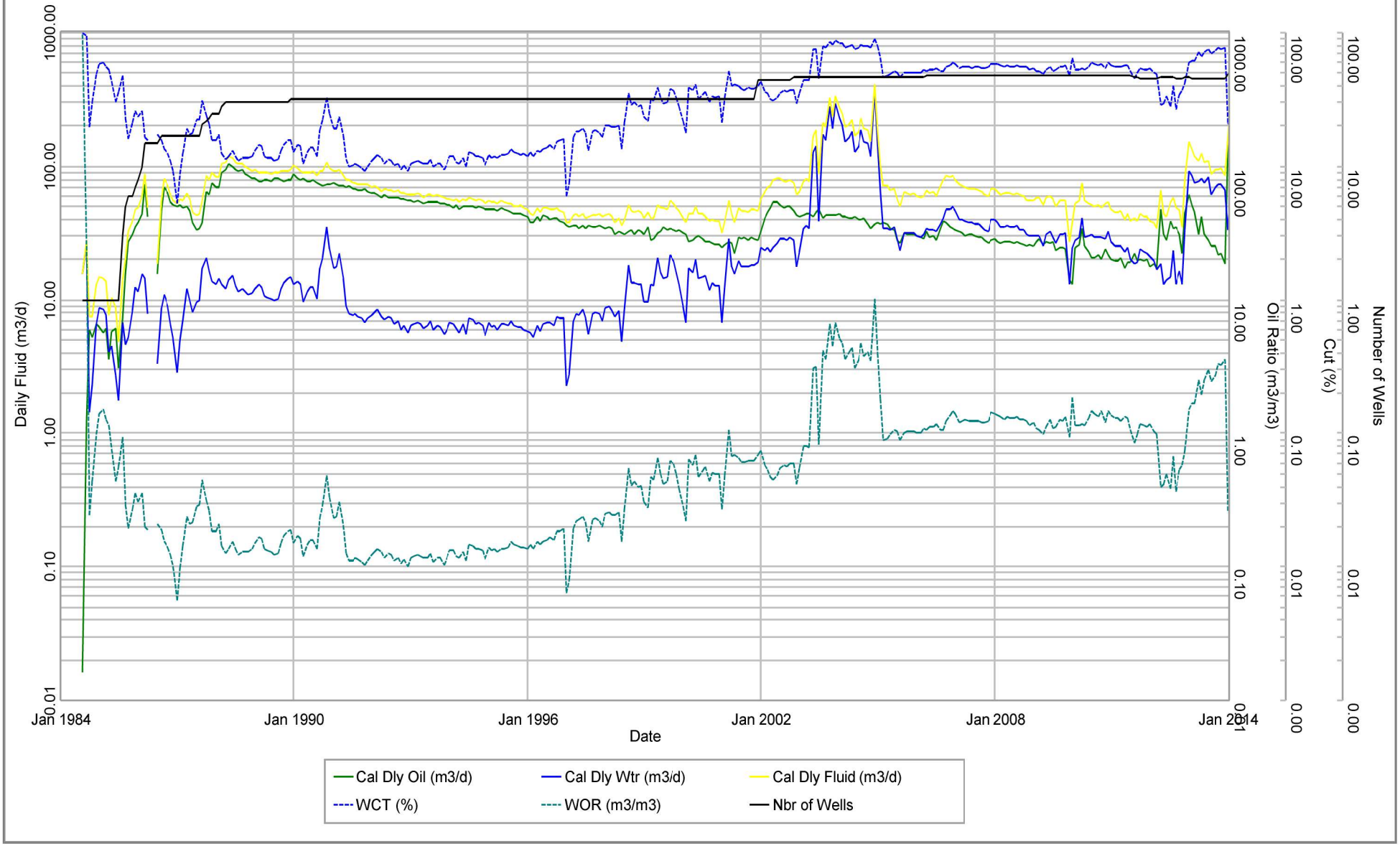
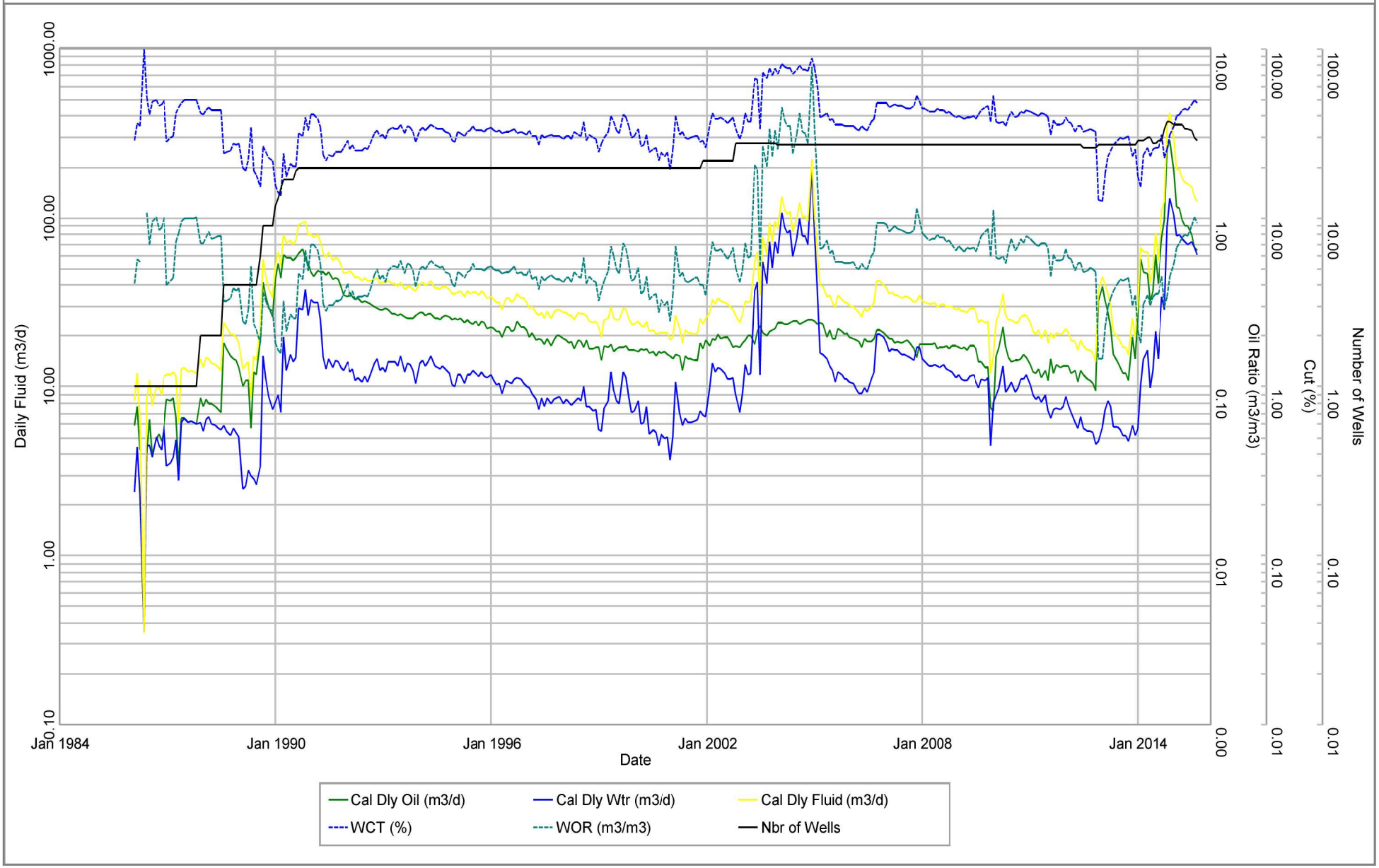


Figure No. 6b

Well Information as of 12/4/2015 - Group Well Report

Production Graph

Group:	waskada unit 17.lwell	**Prod Form:**	AMRNTHL	**On Prod:**	1986-01 to 2015-08
# of Wells:	41	**Field:**	WASKADA (3)	**Cum Oil:**	270643.6 m3
Fluid:	Oil; Water Injection	**Pool Code:**	29A	**Cum Gas:**	1105.9 E3m3
Mode:	Producing; Pumping; Injection; Abandoned Zone	**Unit Code:**	329A17	**Cum Wtr:**	178020.3 m3



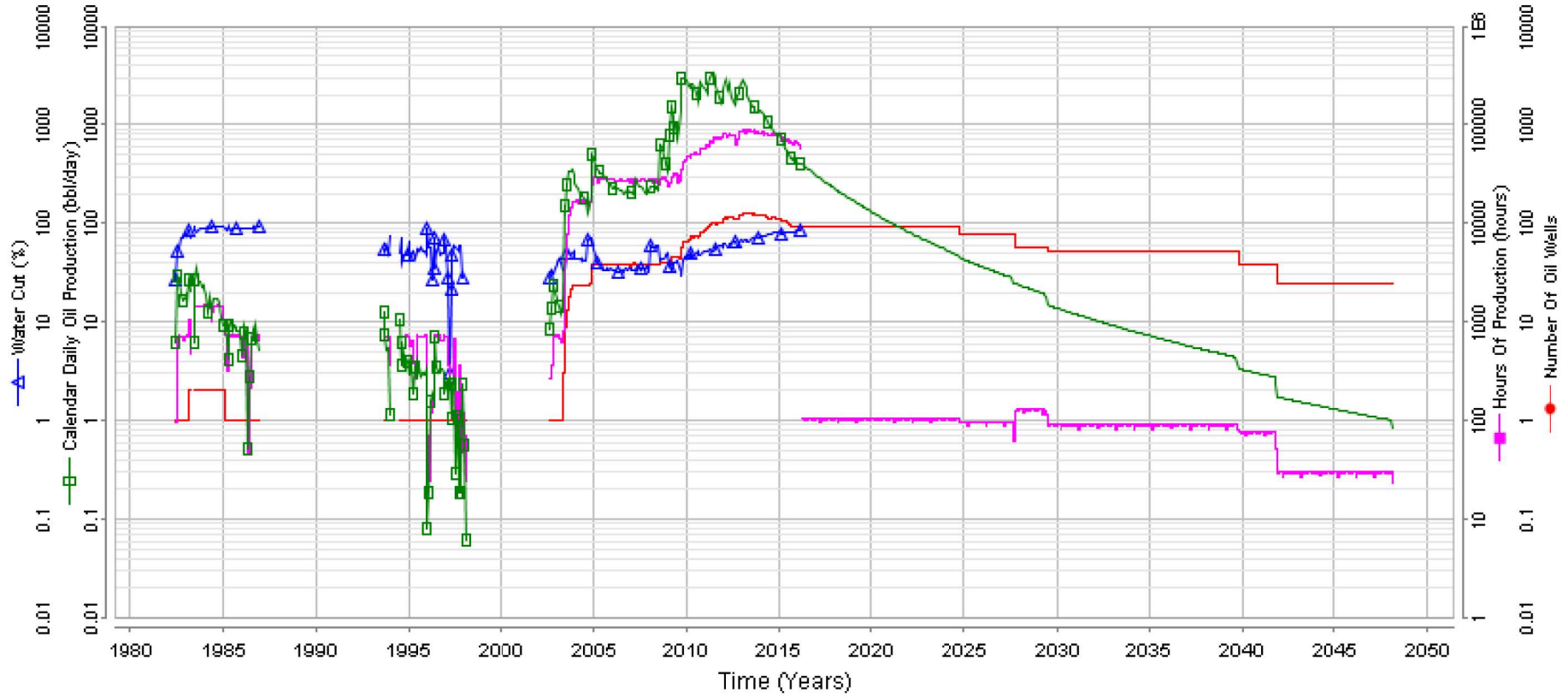
 Datum: NAD27[TM]

Printed on 12/18/2015 2:58:23 PM

Figure No. 7

CONSOLIDATED PRODUCTION AND FORECAST

Effective January 01, 2016
Selection: Current selection from current workbench list
Type:
Category: Base



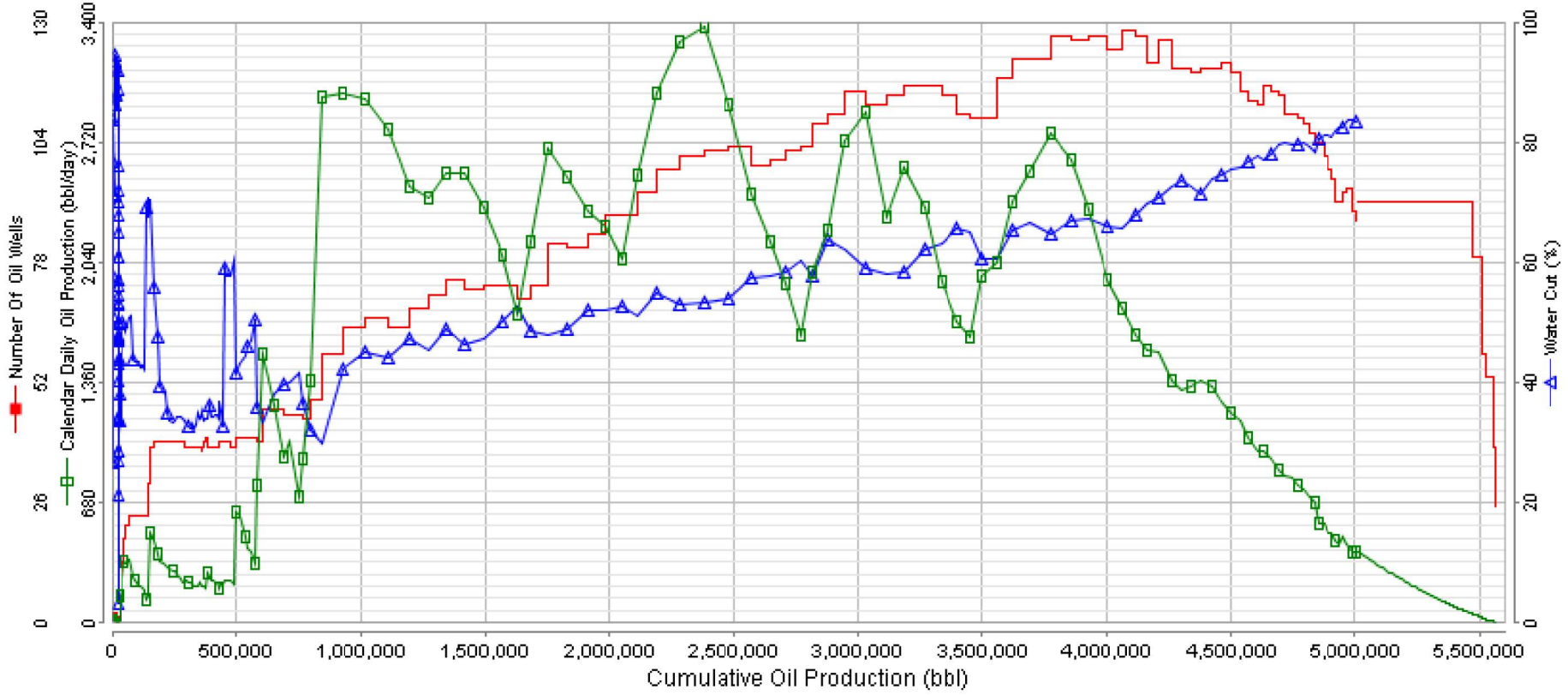
Cum Oil (bbl)	5,001,377	Cum Gas (Mcf)	1,408,989	Cum Water (bbl)	7,900,773	Cum Cond (bbl)	0
Forecast Start	2016/03/01	Calculation Type		Est. Cum Prod (bbl)	5,000,515	Decline Exponent	
Forecast End	2048/02/29	OVIP (bbl)		Remaining (bbl)	562,369	Intial Decline (%/yr)	99.8
Initial Rate (bbl/day)	254,924.2	Recovery Factor		Surface Loss		Life Index	4.83
Final Rate (bbl/day)	633.4	Ult. Recoverable (bbl)	5,562,884	Total Sales (Mcf)		Half Life (years)	2.86

Report Time: Fri, 03 Jun 2016 08:26
Economic Case: $60 flat deck - Nov 2015 /
Hierarchy: Reserves
DB: WORKING_RP : Mosaic10 Version: 2016.0

Figure No. 8

CONSOLIDATED PRODUCTION AND FORECAST

Effective January 01, 2016
Selection: Current selection from current workbench list
Type:
Category: Base



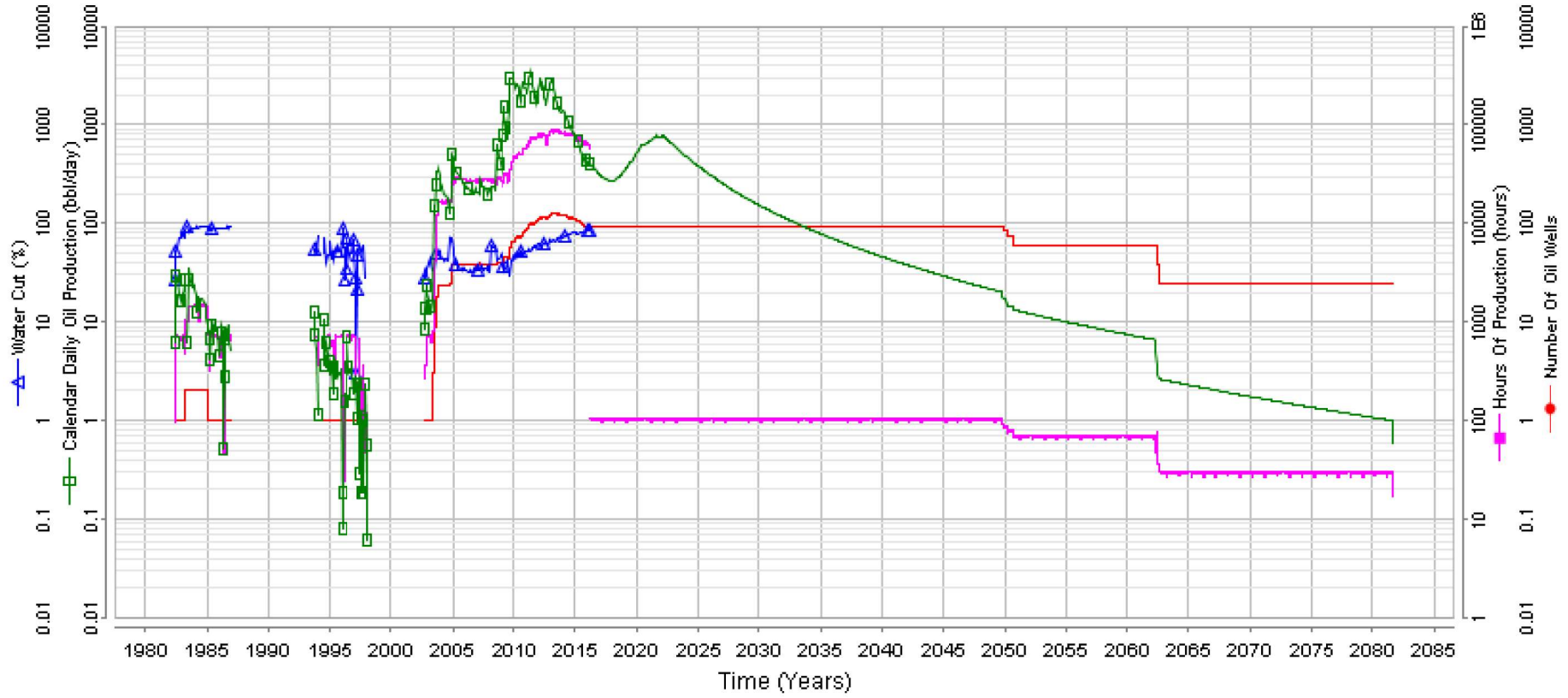
Cum Oil	(bbl)	5,001,377	Cum Gas	(Mcf)	1,408,989	Cum Water	(bbl)	7,900,773	Cum Cond (bbl)	0
Forecast Start		2016/03/01	Calculation Type			Est. Cum Prod	(bbl)	5,000,515	Decline Exponent	
Forecast End		2048/02/29	OVIP	(bbl)		Remaining	(bbl)	562,369	Intial Decline (%/yr)	99.8
Initial Rate	(bbl/day)	254,924.2	Recovery Factor			Surface Loss			Life Index	4.83
Final Rate	(bbl/day)	633.4	Ult. Recoverable	(bbl)	5,562,834	Total Sales	(Mcf)		Half Life (years)	2.86

Report Time: Fri, 03 Jun 2016 08:26
Economic Case: $60 flat deck - Nov 2015 /
Hierarchy: Reserves
DB: WORKING_RP : Mosaic10 Version: 2016.0

Figure No. 9

CONSOLIDATED PRODUCTION AND FORECAST

Effective January 01, 2016
Selection: Current selection from current workbench list
Type:
Category: Base + Growth 1



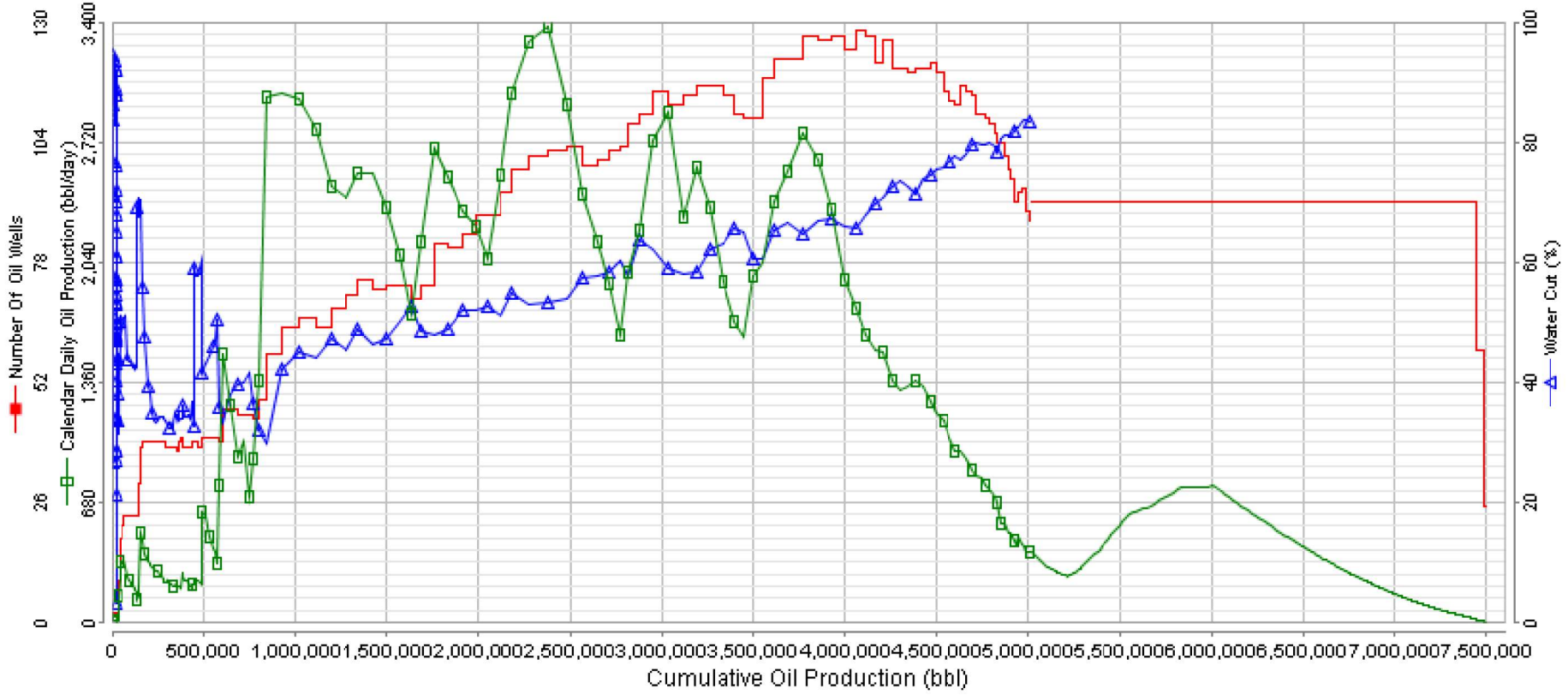
Cum Oil (bbl)	5,001,377	Cum Gas (Mcf)	1,408,989	Cum Water (bbl)	7,900,773	Cum Cond (bbl)	0
Forecast Start	2016/03/01	Calculation Type		Est. Cum Prod (bbl)	5,000,515	Decline Exponent	
Forecast End	2081/08/31	OVIP (bbl)		Remaining (bbl)	2,501,363	Intial Decline (%/yr)	99.8
Initial Rate (bbl/day)	254,924.2	Recovery Factor		Surface Loss		Life Index	21.45
Final Rate (bbl/day)	628.9	Ult. Recoverable (bbl)	7,501,878	Total Sales (Mcf)		Half Life (years)	6.98

Report Time: Mon, 30 May 2016 15:48
Economic Case: $60 flat deck - Nov 2015 /
Hierarchy: Reserves
DB: WORKING_RP : Mosaic10 Version: 2016.0

Figure No. 10

CONSOLIDATED PRODUCTION AND FORECAST

Effective January 01, 2016
Selection: Current selection from current workbench list
Type:
Category: Base + Growth 1



Cum Oil (bbl)	5,001,377	Cum Gas (Mcf)	1,408,989	Cum Water (bbl)	7,900,773	Cum Cond (bbl)	0
Forecast Start	2016/03/01	Calculation Type		Est. Cum Prod (bbl)	5,000,515	Decline Exponent	
Forecast End	2081/08/31	OVIP (bbl)		Remaining (bbl)	2,501,363	Intial Decline (%/yr)	99.8
Initial Rate (bbl/day)	254,924.2	Recovery Factor		Surface Loss		Life Index	21.45
Final Rate (bbl/day)	628.9	Ult. Recoverable (bbl)	7,501,878	Total Sales (Mcf)		Half Life (years)	6.98

Report Time: Mon, 30 May 2016 15:48
Economic Case: $60 flat deck - Nov 2015 /
Hierarchy: Reserves
DB: WORKING_RP : Mosaic10 Version: 2016.0

Figure No. 11

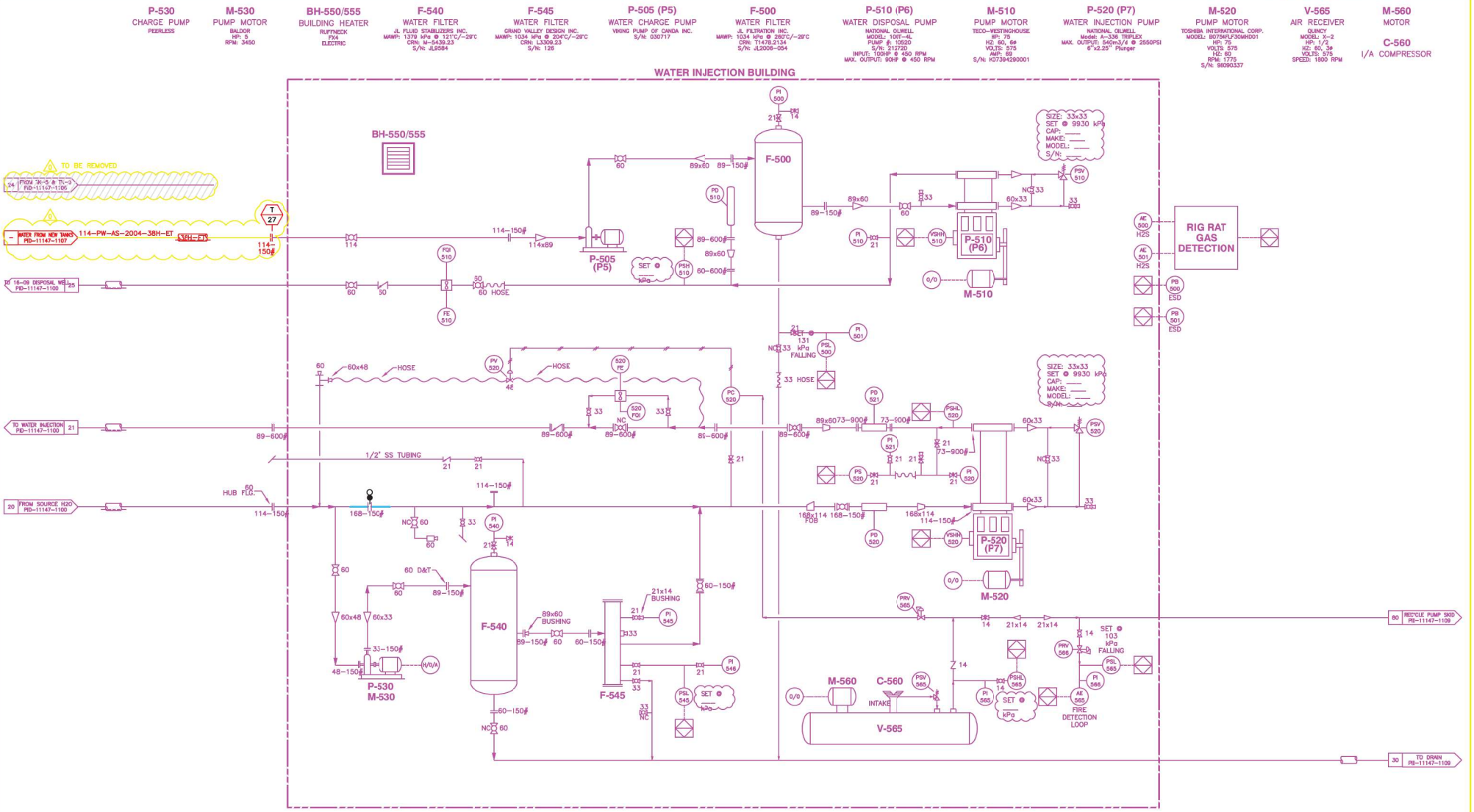


Figure No. 11

XREF: 11147PIDMSTR.DWG
Q:\11147\PID\11147-1108.DWG
PLOTTED: JUN 25, 2012 10:08 AM

No.	Revision	By	Date	Chk.	E.Chk	E/App	Client
0	2011 ADDITIONS – ISSUED FOR CONSTRUCTION (QLE #11147)	AMP	12-02-28	CDK			
B	2011 ADDITIONS – ISSUED FOR REVIEW (QLE # 11147)	AMP	12-02-06	CDK			
A	2011 ADDITIONS – AS BUILT (QLE # 11147)	STK	11-10-14	MBG			

Stamps

Engineering Record		
RFE		
Client		
Approved		
Eng. Check		
Date		
Enc. By		
	IFC	AB

GAS LIQUIDS ENGINEERING

WASKADA 15-09 BATTERY

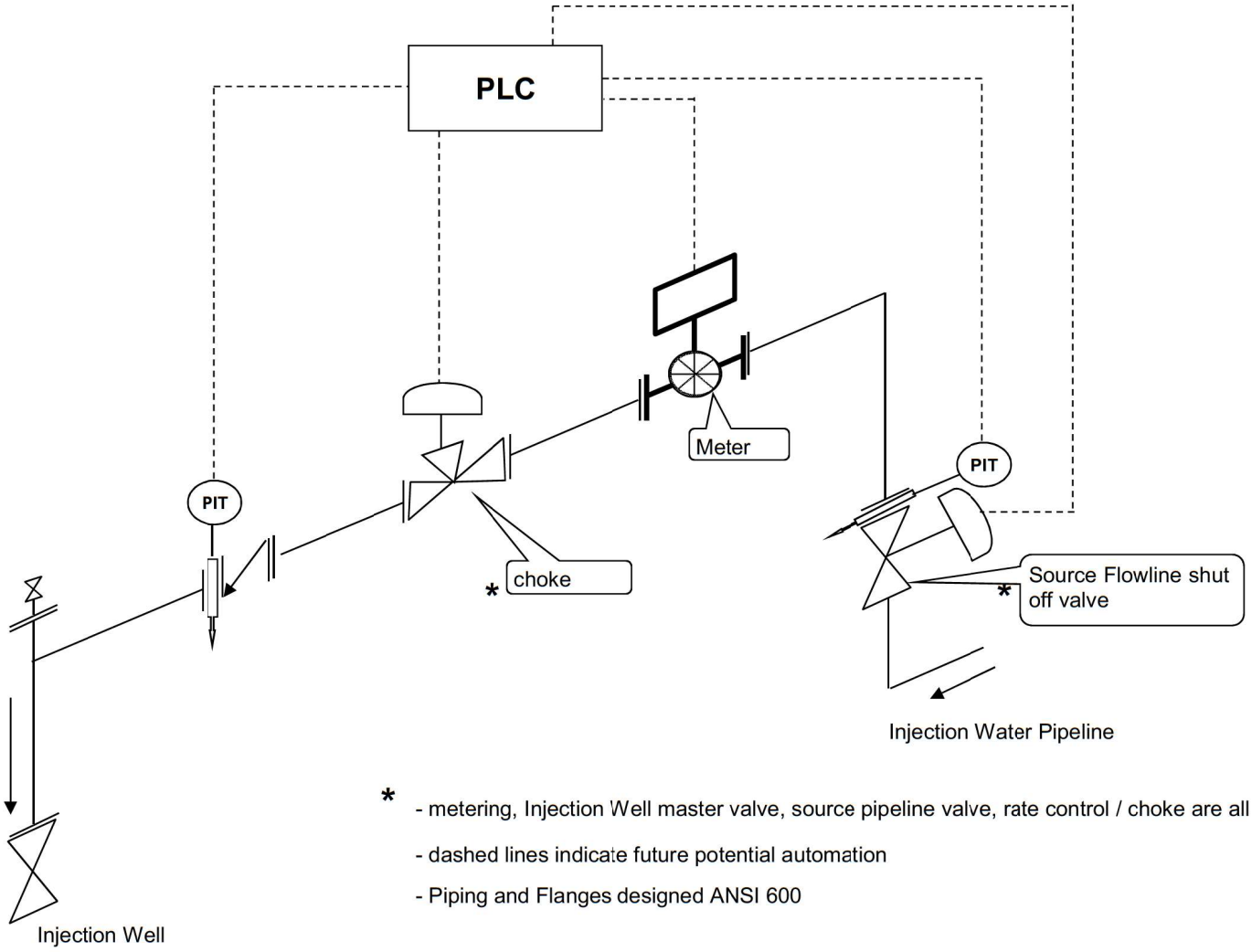
PROCESS & INSTRUMENTATION DIAGRAM
WATER INJECTION BUILDING
LSD 15-09-002-25 W1M

Scale	Size	Drawing Number	Rev.
NONE	D	PID-11147-1108	0

Figure No. 12

Goodlands Unit No. 2

Proposed Injection Well Surface Piping P&ID

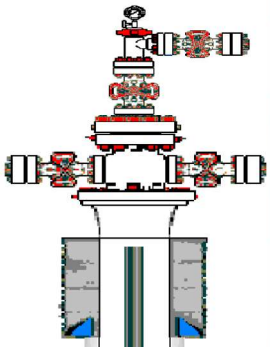


* - metering, Injection Well master valve, source pipeline valve, rate control / choke are all standard

- dashed lines indicate future potential automation
- Piping and Flanges designed ANSI 600

Figure No. 13

Licence # 8772



Tundra Oil & Gas Partnership

WELLBORE SCHEMATIC

WELL NAME: Tundra Goodlands Unit 2 HZNTL WIW **DATE:** 12/1/2015

LOCATION: **Prepared by:** KC

MEASUREMENTS ARE IN METERS / DEPTHS ARE MEASURED IN DEPTH KB UNLESS OTHERWISE NOTED

ELEVATIONS					WELLHEAD DESCRIPTION		
KB EL	GRD EL	KB to GRD	KB to SCF	KB to TH	Make / Type	Size / Rating	
478.90	474.76	4.1	3.90	3.37	Streamflo	9x5.5x2m	2000 psi

CASING	O.D. mm	WEIGHT kg/m	GRADE	I.D. mm	LANDED DEPTH	TVD	TOP
SURFACE	219.1	35.72	J-55	205.66	150.0	150.0	0
PRODUCTION	139.7	23.07	J-55	125.73	1650	895.0	0
LINER	N/A						

K.O.P.	635.0
PBTD	1630

REMARKS 5.5" Monobore well. Both strings cemented to surface.

FORMATION	PERFORATIONS OPEN HOLE	TVD	REMARKS
Lower Amarath	1048-1622	897.1	16 intervals x1m x 86mm x 96spm
Lower Amarath	1048-1622	897.1	16 x 4T Fracs x 0.6m3/min x 100-800 conc

WELLBORE EQUIPMENT

No. joints	DESCRIPTION	LENGTH	DEPTH KB

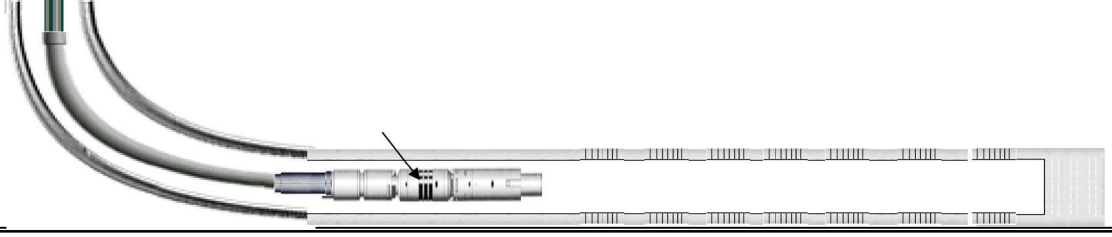
WEIGHT OF TBG STRING (daN)		TOTAL TUBING STRING	
TENSION / COMPRESSION (+/- daN)		KB to THF	
LANDED STRING WEIGHT		STRETCH/ COMPRESSION m	

ROD STRING

No. RODS	SIZE	DESCRIPTION	GRADE	NEW / USED	LENGTH	DEPTH KB
						0.00
						0.00
						0.00
						0.00
						0.00
						0.00
						0.00
						0.00
						0.00
						0.00

BOTTOM HOLE PUMP

DESCRIPTION:				PUMP No.	
BARREL TYPE:		PLUNGER TYPE:		MAX. STROKE:	
BALLS/SEATS:		PULL ROD:		FISH NECK:	
COMMENTS:					



Goodlands Unit No. 2

EOR Waterflood Project

Planned Corrosion Control Program **

Source Well

- Continuous downhole corrosion inhibition
- Continuous surface corrosion inhibitor injection
- Downhole scale inhibitor injection
- Corrosion resistant valves and internally coated surface piping

Pipelines

- Source well to 15-9-2-25 Water Plant – Fiberglass
- New High Pressure Pipeline to Unit 9 injection wells – 2000 psi high pressure Fiberglass

Facilities

- 15-9-2-25 Water Plant and New Injection Pump Station
    - Plant piping – 600 ANSI schedule 80 pipe, Fiberglass or Internally coated
    - Filtration – Stainless steel bodies and PVC piping
    - Pumping – Ceramic plungers, stainless steel disc valves
    - Tanks – Fiberglass shell, corrosion resistant valves

Injection Wellhead / Surface Piping

- Corrosion resistant valves and stainless steel and/or internally coated steel surface piping

Injection Well

- Casing cathodic protection where required
- Wetted surfaces coated downhole packer
- Corrosion inhibited water in the annulus between tubing / casing
- Internally coated tubing surface to packer
- Surface freeze protection of annular fluid
- Corrosion resistant master valve
- Corrosion resistant pipeline valve

Producing Wells

- Casing cathodic protection where required
- Downhole batch corrosion inhibition as required
- Downhole scale inhibitor injection as required

Figure 14

** subject to final design and engineering

Proposed Goodlands Unit No. 2

Application for Enhanced Oil Recovery Waterflood Project

List of Tables

TABLE NO. 1: TRACT PARTICIPATION FOR PROPOSED GOODLANDS UNIT NO. 2

Working Interest				Royalty Interest		Tract Participation
Tract No.	Land Description	Owner	Share (%)	Owner	Share (%)	Tract (%)
1	11-02-001-24W1M	Tundra Oil & Gas Partnership	100%	5954887 Manitoba Ltd.	50%	1.027349537%
				5265691 Manitoba Ltd.	50%	
2	12-02-001-24W1M	Tundra Oil & Gas Partnership	100%	5954887 Manitoba Ltd.	50%	1.168244276%
				5265691 Manitoba Ltd.	50%	
3	13-02-001-24W1M	Tundra Oil & Gas Partnership	100%	5954887 Manitoba Ltd.	50%	1.284535778%
				5265691 Manitoba Ltd.	50%	
4	14-02-001-24W1M	Tundra Oil & Gas Partnership	100%	5954887 Manitoba Ltd.	50%	1.233192849%
				5265691 Manitoba Ltd.	50%	
5	01-03-001-24W1M	Tundra Oil & Gas Partnership	100%	5954887 Manitoba Ltd.	50%	1.351417901%
				5265691 Manitoba Ltd.	50%	
6	02-03-001-24W1M	Tundra Oil & Gas Partnership	100%	5954887 Manitoba Ltd.	50%	1.341756520%
				5265691 Manitoba Ltd.	50%	
7	03-03-001-24W1M	Tundra Oil & Gas Partnership	100%	M. R. & M. A. Farms Incorporated	100%	0.575467875%
8	04-03-001-24W1M	Tundra Oil & Gas Partnership	100%	M. R. & M. A. Farms Incorporated	100%	0.594787368%
9	05-03-001-24W1M	Tundra Oil & Gas Partnership	100%	M. R. & M. A. Farms Incorporated	100%	1.293460518%
10	06-03-001-24W1M	Tundra Oil & Gas Partnership	100%	M. R. & M. A. Farms Incorporated	100%	1.265087341%
11	07-03-001-24W1M	Tundra Oil & Gas Partnership	100%	5954887 Manitoba Ltd.	50%	0.872098323%
				5265691 Manitoba Ltd.	50%	
12	08-03-001-24W1M	Tundra Oil & Gas Partnership	100%	5954887 Manitoba Ltd.	50%	0.865121893%
				5265691 Manitoba Ltd.	50%	
13	09-03-001-24W1M	Tundra Oil & Gas Partnership	100%	5954887 Manitoba Ltd.	50%	1.530877209%
				5265691 Manitoba Ltd.	50%	
14	10-03-001-24W1M	Tundra Oil & Gas Partnership	100%	5954887 Manitoba Ltd.	50%	1.178268650%
				5265691 Manitoba Ltd.	50%	
15	11-03-001-24W1M	Tundra Oil & Gas Partnership	100%	M. R. & M. A. Farms Incorporated	100%	1.179203293%
16	12-03-001-24W1M	Tundra Oil & Gas Partnership	100%	M. R. & M. A. Farms Incorporated	100%	1.191551575%
17	13-03-001-24W1M	Tundra Oil & Gas Partnership	100%	M. R. & M. A. Farms Incorporated	100%	0.743065975%
18	14-03-001-24W1M	Tundra Oil & Gas Partnership	100%	M. R. & M. A. Farms Incorporated	100%	0.748600295%
19	15-03-001-24W1M	Tundra Oil & Gas Partnership	100%	5954887 Manitoba Ltd.	50%	0.974249426%
				5265691 Manitoba Ltd.	50%	
20	16-03-001-24W1M	Tundra Oil & Gas Partnership	100%	5954887 Manitoba Ltd.	50%	1.245412247%
				5265691 Manitoba Ltd.	50%	
21	01-04-001-24W1M	Tundra Oil & Gas Partnership	100%	Minister of Finance	100%	1.148519749%
22	02-04-001-24W1M	Tundra Oil & Gas Partnership	100%	Minister of Finance	100%	1.320674445%
23	03-04-001-24W1M	Tundra Oil & Gas Partnership	100%	Meggison Resources Ltd.	100%	0.934724160%
24	04-04-001-24W1M	Tundra Oil & Gas Partnership	100%	Meggison Resources Ltd.	100%	0.968645706%
25	05-04-001-24W1M	Tundra Oil & Gas Partnership	100%	Meggison Resources Ltd.	100%	0.940377769%
26	06-04-001-24W1M	Tundra Oil & Gas Partnership	100%	Meggison Resources Ltd.	100%	0.865843379%
27	07-04-001-24W1M	Tundra Oil & Gas Partnership	100%	Minister of Finance	100%	1.078106323%
28	08-04-001-24W1M	Tundra Oil & Gas Partnership	100%	Minister of Finance	100%	1.227851775%
29	09-04-001-24W1M	Tundra Oil & Gas Partnership	100%	4442164 Manitoba Ltd.	100.00%	0.826877668%
30	10-04-001-24W1M	Tundra Oil & Gas Partnership	100%	4442164 Manitoba Ltd.	100.00%	1.150929169%
31	11-04-001-24W1M	Tundra Oil & Gas Partnership	100%	4442164 Manitoba Ltd.	100.00%	1.203703875%
32	12-04-001-24W1M	Tundra Oil & Gas Partnership	100%	4442164 Manitoba Ltd.	100.00%	1.077375606%
33	13-04-001-24W1M	Tundra Oil & Gas Partnership	100%	4442164 Manitoba Ltd.	100.00%	1.250979259%
34	14-04-001-24W1M	Tundra Oil & Gas Partnership	100%	4442164 Manitoba Ltd.	91.15%	1.045958030%
				Municipality of Brenda-Waskada	8.85%	
35	15-04-001-24W1M	Tundra Oil & Gas Partnership	100%	4442164 Manitoba Ltd.	89.80%	0.939263707%
				Municipality of Brenda-Waskada	10.20%	
36	16-04-001-24W1M	Tundra Oil & Gas Partnership	100%	4442164 Manitoba Ltd.	100.00%	1.031839858%
37	01-05-001-24W1M	Tundra Oil & Gas Partnership	100%	Meggison Resources Ltd.	100.00%	1.052297619%
38	02-05-001-24W1M	Tundra Oil & Gas Partnership	100%	Meggison Resources Ltd.	100.00%	1.238669675%
39	03-05-001-24W1M	Tundra Oil & Gas Partnership	100%	Meggison Resources Ltd.	100.00%	1.890459343%
40	04-05-001-24W1M	Tundra Oil & Gas Partnership	100%	Meggison Resources Ltd.	100.00%	1.776307648%
41	05-05-001-24W1M	Tundra Oil & Gas Partnership	100%	Meggison Resources Ltd.	100.00%	1.249406193%
42	06-05-001-24W1M	Tundra Oil & Gas Partnership	100%	Meggison Resources Ltd.	100.00%	1.433667193%
43	07-05-001-24W1M	Tundra Oil & Gas Partnership	100%	Meggison Resources Ltd.	100.00%	1.201440871%
44	08-05-001-24W1M	Tundra Oil & Gas Partnership	100%	Meggison Resources Ltd.	100.00%	1.140874988%
45	09-05-001-24W1M	Tundra Oil & Gas Partnership	100%	Meggison Resources Ltd.	100.00%	0.964499865%
46	10-05-001-24W1M	Tundra Oil & Gas Partnership	100%	Meggison Resources Ltd.	100.00%	0.853586108%
47	11-05-001-24W1M	Tundra Oil & Gas Partnership	100%	Meggison Resources Ltd.	100.00%	1.175672049%
48	12-05-001-24W1M	Tundra Oil & Gas Partnership	100%	Meggison Resources Ltd.	100.00%	1.286866114%
49	13-05-001-24W1M	Tundra Oil & Gas Partnership	100%	Meggison Resources Ltd.	100.00%	1.188953186%

Working Interest				Royalty Interest		Tract Participation
Tract No.	Land Description	Owner	Share (%)	Owner	Share (%)	Tract (%)
50	14-05-001-24W1M	Tundra Oil & Gas Partnership	100%	Meggison Resources Ltd.	100.00%	1.365985732%
51	15-05-001-24W1M	Tundra Oil & Gas Partnership	100%	Meggison Resources Ltd.	100.00%	0.945106917%
52	16-05-001-24W1M	Tundra Oil & Gas Partnership	100%	Meggison Resources Ltd.	100.00%	0.836125931%
53	01-06-001-24W1M	Tundra Oil & Gas Partnership	100%	Meggison Resources Ltd.	100.00%	0.661330981%
54	02-06-001-24W1M	Tundra Oil & Gas Partnership	100%	Meggison Resources Ltd.	100.00%	0.834274867%
55	03-06-001-24W1M	Tundra Oil & Gas Partnership	100%	Meggison Resources Ltd.	50.00%	1.246145917%
				Tundra Oil & Gas Partnership	50.00%	
56	04-06-001-24W1M	Tundra Oil & Gas Partnership	100%	Meggison Resources Ltd.	50.00%	1.219603437%
				Tundra Oil & Gas Partnership	50.00%	
57	05-06-001-24W1M	Tundra Oil & Gas Partnership	100%	Meggison Resources Ltd.	50.00%	1.514663889%
				Tundra Oil & Gas Partnership	50.00%	
58	06-06-001-24W1M	Tundra Oil & Gas Partnership	100%	Meggison Resources Ltd.	50.00%	1.510383361%
				Tundra Oil & Gas Partnership	50.00%	
59	07-06-001-24W1M	Tundra Oil & Gas Partnership	100%	Meggison Resources Ltd.	100.00%	1.535865381%
60	08-06-001-24W1M	Tundra Oil & Gas Partnership	100%	Meggison Resources Ltd.	100.00%	1.699972417%
61	09-06-001-24W1M	Tundra Oil & Gas Partnership	100%	Minister of Finance	100.00%	2.055384208%
62	10-06-001-24W1M	Tundra Oil & Gas Partnership	100%	Minister of Finance	100.00%	2.127401118%
63	11-06-001-24W1M	Tundra Oil & Gas Partnership	100%	Minister of Finance	100.00%	2.286180055%
64	14-06-001-24W1M	Tundra Oil & Gas Partnership	100%	Minister of Finance	100.00%	1.507474650%
65	15-06-001-24W1M	Tundra Oil & Gas Partnership	100%	Minister of Finance	100.00%	1.331811638%
66	16-06-001-24W1M	Tundra Oil & Gas Partnership	100%	Minister of Finance	100.00%	1.260857473%
67	01-07-001-24W1M	Tundra Oil & Gas Partnership	100%	Thanx Gramps Inc.	100.0000%	0.800261730%
68	02-07-001-24W1M	Tundra Oil & Gas Partnership	100%	Thanx Gramps Inc.	100.0000%	0.833706867%
69	07-07-001-24W1M	Tundra Oil & Gas Partnership	100%	Thanx Gramps Inc.	100.0000%	0.704950675%
70	08-07-001-24W1M	Tundra Oil & Gas Partnership	100%	Thanx Gramps Inc.	100.0000%	0.809877506%
71	01-08-001-24W1M	Tundra Oil & Gas Partnership	100%	4732996 Manitoba Ltd.	8.33333%	0.869404947%
				4756976 Manitoba Ltd.	8.33333%	
				Gordon [redacted] Thoms	16.66667%	
				Charlotte [redacted] Morgan	16.66667%	
				2637490 Manitoba Ltd.	16.66667%	
				6021573 Manitoba Ltd.	16.66667%	
				3948324 Manitoba Ltd.	16.66667%	
72	02-08-001-24W1M	Tundra Oil & Gas Partnership	100%	4732996 Manitoba Ltd.	8.33333%	0.861900841%
				4756976 Manitoba Ltd.	8.33333%	
				Gordon [redacted] Thoms	16.66667%	
				Charlotte [redacted] Morgan	16.66667%	
				2637490 Manitoba Ltd.	16.66667%	
				6021573 Manitoba Ltd.	16.66667%	
				3948324 Manitoba Ltd.	16.66667%	
73	03-08-001-24W1M	Tundra Oil & Gas Partnership	100%	S & A Resources Ltd.	100.0000%	0.774338303%
74	04-08-001-24W1M	Tundra Oil & Gas Partnership	100%	S & A Resources Ltd.	100.0000%	0.756505077%
75	05-08-001-24W1M	Tundra Oil & Gas Partnership	100%	S & A Resources Ltd.	100.0000%	0.962378108%
76	06-08-001-24W1M	Tundra Oil & Gas Partnership	100%	S & A Resources Ltd.	100.0000%	1.073032246%
77	07-08-001-24W1M	Tundra Oil & Gas Partnership	100%	4732996 Manitoba Ltd.	8.33333%	0.757371659%
				4756976 Manitoba Ltd.	8.33333%	
				Gordon [redacted] Thoms	16.66667%	
				Charlotte [redacted] Morgan	16.66667%	
				2637490 Manitoba Ltd.	16.66667%	
				6021573 Manitoba Ltd.	16.66667%	
				3948324 Manitoba Ltd.	16.66667%	
78	08-08-001-24W1M	Tundra Oil & Gas Partnership	100%	4732996 Manitoba Ltd.	8.33333%	0.937864115%
				4756976 Manitoba Ltd.	8.33333%	
				Gordon [redacted] Thoms	16.66667%	
				Charlotte [redacted] Morgan	16.66667%	
				2637490 Manitoba Ltd.	16.66667%	
				6021573 Manitoba Ltd.	16.66667%	
				3948324 Manitoba Ltd.	16.66667%	
79	09-08-001-24W1M	Tundra Oil & Gas Partnership	100%	4732996 Manitoba Ltd.	8.33333%	1.121744346%
				4756976 Manitoba Ltd.	8.33333%	
				Gordon [redacted] Thoms	16.66667%	
				Charlotte [redacted] Morgan	16.66667%	
				2637490 Manitoba Ltd.	16.66667%	
				6021573 Manitoba Ltd.	16.66667%	
				3948324 Manitoba Ltd.	16.66667%	
				4732996 Manitoba Ltd.	8.33333%	
				4756976 Manitoba Ltd.	8.33333%	

Working Interest				Royalty Interest		Tract Participation
Tract No.	Land Description	Owner	Share (%)	Owner	Share (%)	Tract (%)
80	10-08-001-24W1M	Tundra Oil & Gas Partnership	100%	Gordon [redacted] Thoms	16.66667%	1.354883244%
				Charlotte [redacted] Morgan	16.66667%	
				2637490 Manitoba Ltd.	16.66667%	
				6021573 Manitoba Ltd.	16.66667%	
				3948324 Manitoba Ltd.	16.66667%	
81	11-08-001-24W1M	Tundra Oil & Gas Partnership	100%	S & A Resources Ltd.	100.000%	0.837579412%
82	12-08-001-24W1M	Tundra Oil & Gas Partnership	100%	S & A Resources Ltd.	100.000%	0.830407058%
83	13-08-001-24W1M	Tundra Oil & Gas Partnership	100%	S & A Resources Ltd.	100.000%	0.610789084%
84	14-08-001-24W1M	Tundra Oil & Gas Partnership	100%	S & A Resources Ltd.	100.000%	0.731544947%
85	15-08-001-24W1M	Tundra Oil & Gas Partnership	100%	4732996 Manitoba Ltd.	8.33333%	1.117677809%
				4756976 Manitoba Ltd.	8.33333%	
				Gordon [redacted] Thoms	16.66667%	
				Charlotte [redacted] Morgan	16.66667%	
				2637490 Manitoba Ltd.	16.66667%	
				6021573 Manitoba Ltd.	16.66667%	
				3948324 Manitoba Ltd.	16.66667%	
86	16-08-001-24W1M	Tundra Oil & Gas Partnership	100%	4732996 Manitoba Ltd.	8.33333%	1.189511057%
				4756976 Manitoba Ltd.	8.33333%	
				Gordon [redacted] Thoms	16.66667%	
				Charlotte [redacted] Morgan	16.66667%	
				2637490 Manitoba Ltd.	16.66667%	
				6021573 Manitoba Ltd.	16.66667%	
				3948324 Manitoba Ltd.	16.66667%	
87	01-17-001-24W1M	Tundra Oil & Gas Partnership	100%	3948324 Manitoba Ltd.	100.00000%	0.843076802%
88	02-17-001-24W1M	Tundra Oil & Gas Partnership	100%	3948324 Manitoba Ltd.	100.00000%	0.824660523%
89	03-17-001-24W1M	Tundra Oil & Gas Partnership	100%	S & A Resources Ltd.	100.00000%	0.673030908%
90	04-17-001-24W1M	Tundra Oil & Gas Partnership	100%	S & A Resources Ltd.	100.00000%	0.656814584%
						100.000000000%

TABLE NO. 2: TRACT FACTOR CALCULATIONS FOR GOODLANDS UNIT NO. 2

TRACT FACTORS BASED ON OIL-IN-PLACE (OOIP) - CUMULATIVE PRODUCTION TO FEBRUARY 2016

LS-SE	Tract	OOIP (m3)	HZ Wells Cum Alloc Prod (m3)	Vert Wells Cum Prodn (m3)	Sum Hz + Vert Alloc Cum Prodn	OOIP - Cum	OOIP-Cum by LSD/Total OOIP	Last 12 Months Alloc Prod (m3)	Vt Wells Last 12 Months Alloc Prod (m3)	Sum Hz + Vert Alloc Last 12 Months Prod (m3)	Alloct Last 12 Months Prod by LSD/Total Prod	50% OOIP-Cum + 50% Last 12 Months Prod Tract Factor	Tract
11-02	11-02-001-24W1M	110,386	5,286.9	0.0	5,286.9	105,100	0.010248477	356.3	0.0	356.3	0.010298513	0.010273495	11-02-001-24W1M
12-02	12-02-001-24W1M	111,472	5,754.5	0.0	5,754.5	105,718	0.010308767	451.7	0.0	451.7	0.013056119	0.011682443	12-02-001-24W1M
13-02	13-02-001-24W1M	110,863	8,314.2	0.0	8,314.2	102,549	0.009999791	542.9	0.0	542.9	0.015690925	0.012845358	13-02-001-24W1M
14-02	14-02-001-24W1M	111,024	7,866.6	490.6	8,357.2	102,667	0.010011254	451.6	55.4	507.0	0.014652603	0.012331928	14-02-001-24W1M
01-03	01-03-001-24W1M	110,830	9,052.3	0.0	9,052.3	101,778	0.009924556	591.8	0.0	591.8	0.017103802	0.013514179	01-03-001-24W1M
02-03	02-03-001-24W1M	112,650	8,980.0	0.0	8,980.0	103,670	0.010109114	578.7	0.0	578.7	0.016726016	0.013417565	02-03-001-24W1M
03-03	03-03-001-24W1M	115,148	1,211.8	0.0	1,211.8	113,936	0.011110168	13.8	0.0	13.8	0.000399190	0.005754679	03-03-001-24W1M
04-03	04-03-001-24W1M	118,687	1,225.4	0.0	1,225.4	117,462	0.011453941	15.3	0.0	15.3	0.000441806	0.005947874	04-03-001-24W1M
05-03	05-03-001-24W1M	118,555	8,715.8	0.0	8,715.8	109,839	0.010710669	524.5	0.0	524.5	0.015158541	0.012934605	05-03-001-24W1M
06-03	06-03-001-24W1M	115,452	8,509.7	0.0	8,509.7	106,942	0.010428143	514.6	0.0	514.6	0.014873604	0.012650873	06-03-001-24W1M
07-03	07-03-001-24W1M	113,277	11,625.2	0.0	11,625.2	101,652	0.009912267	260.5	0.0	260.5	0.007529700	0.008720983	07-03-001-24W1M
08-03	08-03-001-24W1M	111,846	11,625.2	0.0	11,625.2	100,221	0.009777738	260.5	0.0	260.5	0.007529700	0.008651219	08-03-001-24W1M
09-03	09-03-001-24W1M	113,423	10,532.9	736.7	11,269.6	102,154	0.009961198	645.5	69.2	714.7	0.020656346	0.015308772	09-03-001-24W1M
10-03	10-03-001-24W1M	114,468	9,631.9	0.0	9,631.9	104,836	0.010222754	461.7	0.0	461.7	0.013342619	0.011782687	10-03-001-24W1M
11-03	11-03-001-24W1M	116,306	11,544.8	0.0	11,544.8	104,761	0.010215435	462.6	0.0	462.6	0.013368631	0.011792033	11-03-001-24W1M
12-03	12-03-001-24W1M	118,838	11,544.8	0.0	11,544.8	107,293	0.010462401	462.6	0.0	462.6	0.013368631	0.011915516	12-03-001-24W1M
13-03	13-03-001-24W1M	119,649	7,042.5	0.0	7,042.5	112,607	0.010980500	134.3	0.0	134.3	0.003880819	0.007430660	13-03-001-24W1M
14-03	14-03-001-24W1M	117,638	7,042.5	1,358.9	8,401.4	109,236	0.010651876	134.3	15.2	149.5	0.004320130	0.007486003	14-03-001-24W1M
15-03	15-03-001-24W1M	114,770	9,972.5	0.0	9,972.5	104,797	0.010219000	320.6	0.0	320.6	0.009265989	0.009742494	15-03-001-24W1M
16-03	16-03-001-24W1M	111,910	10,955.6	0.0	10,955.6	100,954	0.009844227	521.2	0.0	521.2	0.015064018	0.012454122	16-03-001-24W1M
01-04	01-04-001-24W1M	124,349	5,899.2	3,088.8	8,988.0	115,361	0.011249062	342.2	63.4	405.6	0.011721333	0.011485197	01-04-001-24W1M
02-04	02-04-001-24W1M	126,708	5,544.8	3,283.0	8,827.8	117,880	0.011494749	317.2	199.0	516.2	0.014918739	0.013206744	02-04-001-24W1M
03-04	03-04-001-24W1M	125,910	7,126.0	1,735.6	8,861.6	117,048	0.011413626	188.0	63.9	251.9	0.007280857	0.009347242	03-04-001-24W1M
04-04	04-04-001-24W1M	125,129	7,300.4	2,302.9	9,603.3	115,526	0.011265180	194.1	86.4	280.5	0.008107734	0.009686457	04-04-001-24W1M
05-04	05-04-001-24W1M	124,148	5,932.9	2,348.1	8,281.0	115,867	0.011298470	177.0	82.8	259.8	0.007509086	0.009403778	05-04-001-24W1M
06-04	06-04-001-24W1M	124,581	5,667.5	649.2	6,316.7	118,264	0.011532177	171.0	29.1	200.1	0.005784691	0.008658434	06-04-001-24W1M
07-04	07-04-001-24W1M	124,838	6,056.1	2,561.8	8,617.9	116,221	0.011332903	331.0	22.9	353.9	0.010229223	0.010781063	07-04-001-24W1M
08-04	08-04-001-24W1M	122,964	6,875.5	3,183.0	10,058.5	112,905	0.011009642	382.2	86.5	468.7	0.013547393	0.012278518	08-04-001-24W1M
09-04	09-04-001-24W1M	121,759	8,872.6	0.0	8,872.6	112,886	0.011007767	191.3	0.0	191.3	0.005529786	0.008268777	09-04-001-24W1M
10-04	10-04-001-24W1M	123,477	10,993.9	2,782.8	13,776.7	109,645	0.010691726	305.0	121.5	426.5	0.012326857	0.011509292	10-04-001-24W1M
11-04	11-04-001-24W1M	124,128	10,576.9	0.0	10,576.9	113,551	0.011072571	449.8	0.0	449.8	0.013001506	0.012037039	11-04-001-24W1M
12-04	12-04-001-24W1M	124,285	3,290.1	3,031.9	6,322.0	117,963	0.011502828	240.5	107.0	347.5	0.010044685	0.010773756	12-04-001-24W1M
13-04	13-04-001-24W1M	124,856	12,483.9	0.0	12,483.9	112,372	0.010957623	486.5	0.0	486.5	0.014061962	0.012509793	13-04-001-24W1M
14-04	14-04-001-24W1M	124,223	11,840.3	3,309.9	15,150.2	109,073	0.010635924	352.7	3.1	355.8	0.010283236	0.010459580	14-04-001-24W1M
15-04	15-04-001-24W1M	122,953	10,662.2	0.0	10,662.2	112,291	0.010949685	271.1	0.0	271.1	0.007835589	0.009392637	15-04-001-24W1M
16-04	16-04-001-24W1M	121,287	8,800.8	2,758.9	11,559.7	109,727	0.010699701	170.4	173.4	343.8	0.009937096	0.010318399	16-04-001-24W1M
01-05	01-05-001-24W1M	122,881	5,284.5	0.0	5,284.5	117,597	0.011467106	331.4	0.0	331.4	0.009578846	0.010522976	01-05-001-24W1M
02-05	02-05-001-24W1M	123,220	7,780.5	0.0	7,780.5	115,439	0.011256734	467.7	0.0	467.7	0.013516659	0.012386697	02-05-001-24W1M
03-05	03-05-001-24W1M	122,702	12,722.7	0.0	12,722.7	109,979	0.010724266	937.1	0.0	937.1	0.027084921	0.018904593	03-05-001-24W1M
04-05	04-05-001-24W1M	123,202	11,418.8	0.0	11,418.8	111,784	0.010900251	852.0	0.0	852.0	0.024625902	0.017763076	04-05-001-24W1M
05-05	05-05-001-24W1M	125,253	8,259.2	0.0	8,259.2	116,994	0.011408345	469.9	0.0	469.9	0.013579779	0.012494062	05-05-001-24W1M
06-05	06-05-001-24W1M	125,544	9,625.1	1,219.7	10,844.8	114,700	0.011184588	539.2	65.9	605.1	0.017488755	0.014336672	06-05-001-24W1M
07-05	07-05-001-24W1M	124,490	9,828.6	0.0	9,828.6	114,662	0.011180888	444.5	0.0	444.5	0.012847930	0.012014409	07-05-001-24W1M
08-05	08-05-001-24W1M	123,303	8,642.9	2,021.5	10,664.4	112,638	0.010983584	390.9	18.5	409.4	0.011833916	0.011408750	08-05-001-24W1M
09-05	09-05-001-24W1M	124,202	6,391.3	1,932.2	8,323.5	115,879	0.011299600	173.5	103.0	276.5	0.007990398	0.009644999	09-05-001-24W1M
10-05	10-05-001-24W1M	125,306	4,515.7	1,428.0	5,943.7	119,362	0.011639251	135.0	53.0	188.0	0.005432471	0.008535861	10-05-001-24W1M
11-05	11-05-001-24W1M	125,934	10,641.0	2,209.2	12,850.2	113,084	0.011027017	431.7	0.3	432.0	0.012486424	0.011756720	11-05-001-24W1M
12-05	12-05-001-24W1M	125,870	10,638.1	3,866.2	14,504.3	111,366	0.010859524	466.4	48.4	514.8	0.014877798	0.012868661	12-05-001-24W1M
13-05	13-05-001-24W1M	125,800	10,045.3	2,632.7	12,678.0	113,122	0.011030785	387.9	53.2	441.1	0.012748279	0.011889532	13-05-001-24W1M
14-05	14-05-001-24W1M	126,042	11,534.3	5,069.4	16,603.7	109,438	0.010671551	536.5	39.5	576.0	0.016648164	0.013659857	14-05-001-24W1M
15-05	15-05-001-24W1M	125,768	9,863.1	2,502.7	12,365.8	113,403	0.011058129	150.5	120.9	271.4	0.007844009	0.009451069	15-05-001-24W1M
16-05	16-05-001-24W1M	125,218	11,313.4	3,640.9	14,954.3	110,264	0.010752083	177.4	29.2	206.6	0.005970435	0.008361259	16-05-001-24W1M
01-06	01-06-001-24W1M	126,753	279.8	0.0	279.8	126,473	0.012332629	30.9	0.0	30.9	0.000893991	0.006613310	01-06-001-24W1M
02-06	02-06-001-24W1M	128,174	1,518.0	0.0	1,518.0	126,656	0.012350486	150.0	0.0	150.0	0.004335012	0.008342749	02-06-001-24W1M
03-06	03-06-001-24W1M	132,363	4,254.5	0.0	4,254.5	128,109	0.012492152	430.1	0.0	430.1	0.012430766	0.012461459	03-06-001-24W1M
04-06	04-06-001-24W1M	132,618	3,948.4	0.0	3,948.4	128,669	0.012546803	409.8	0.0	409.8	0.011845266	0.012196034	04-06-001-24W1M
05-06	05-06-001-24W1M	131,058	7,961.2	0.0	7,961.2	123,097	0.012003425	632.8	0.0	632.8	0.018289852	0.015146639	05-06-001-24W1M
06-06	06-06-001-24W1M	132,211	7,889.4	0.0	7,889.4	124,321	0.012122820	625.7	0.0	625.7	0.018084847	0.015103834	06-06-001-24W1M
07-06	07-06-001-24W1M	128,592	7,024.4	0.0	7,024.4	121,568	0.011854321	652.7	0.0	652.7	0.018862986	0.015358654	07-06-001-24W1M
08-06	08-06-001-24W1M	127,020	6,989.2	572.3	7,561.5	119,458	0.011648612	649.1	124.2	773.3	0.022350836	0.016999724	08-06-001-24W1M
09-06	09-06-001-24W1M	126,881	7,691.0	0.0	7,691.0	119,190	0.011622502	1,020.2	0.0	1,020.2	0.029485182	0.020553842	09-06-001-24W1M
10-06	10-06-001-24W1M	128,478	7,977.4	0.0	7,977.4	120,500	0.011750227	1,065.6	0.0	1,065.6	0.030797796	0.021274011	10-06-001-24W1M
11-06	11-06-001-24W1M	131,405	8,157.6	554.3	8,711.9	122,693	0.011964014	1,164.6	3.5	1,168.1	0.033759587	0.022861801	11-06-001-24W1M
14-06	14-06-001-24W1M	126,990	9,308.7	0.0	9,308.7	117,681	0.011475294	646.1	0.0	646.1	0.018674199	0.015074747	14-06-001-24W1M
15-06	15-06-001-24W1M	126,230	8,947.0	0.0	8,947.0	117,283	0.011436466	525.9	0.0	525.9	0.015199767	0.013318116	15-06-001-24W1M
16-06	16-06-001-24W1M	125,627	8,121.0	0.0	8,121.0	117,506	0.011458253	476.1	0.0	476.1	0.013758897	0.012608575	16-06-001-24W1M
01-07	01-07-001-24W1M	123,454	8,771.1	0.0	8,771.1	114,683	0.011182932	166.9	0.0	166.9	0.004822303	0.008002617	01-07-001-24W1M
02-07	02-07-001-24W1M	122,826	8,771.1	2,352.6	11,123.7	111,702	0.010892288	166.9	33.2	200.1	0.005781850	0.008337069	02-07-001-24W1M
07-07	07-07-001-24W1M	120,814	3,599.1	0.0	3,599.1	117,215	0.011429912	92.4	0.0	92.4	0.002669102	0.007049507	07-07-001-24W1M
08-07	08-07-001-24W1M	122,449	3,599.1	1,009.4	4,608.5	117,840	0.011490856	92.4	70.5	162.9	0.004706694	0.008098775	08-07-001-24W1M
01-08	01-08-001-24W1M	125,681	13,441.2	3,425.4	16,866.6	108,814	0.010610722	165.0	69.5	234.5	0.006777377	0.008694049	01-08-001-24W1M
02-08	02-08-001-24W1M	125,395	13,204.0	3,998.5	17,202.5	108,192	0.010550064	161.7	69.7	231.4	0.006687953	0.008619008	02-08-001-24W1M
03-08	03-08-001-24W1M	125,195	7,214.0	2,144.2	9,358.2	115,836	0.011295440	136.5	8.5	145.0	0.004191326	0.007743383	03-08-001-24W1M
04-08	04-08-001-24W1M	124,738	5,517.4	1,983.0	7,500.4	117,238	0.011432101	114.0	13.9	127.9	0.003698001	0.007565051	04-08-001-24W1M
05-08	05-08-001-24W1M	123,465	8,146.9	0.0	8,146.9	115,318	0.011244887	276.9	0.0	276.9	0.008002676	0.009623781	05-08-001-24W1M
06-08	06-08-001-24W1M	124,606	8,102.4	2,709.3	10,811.7	113,795	0.011096346	276.8	81.8	358.6	0.010364299	0.010730322	06-08-001-24W1M
07-08	07-08-001-24W1M	125,621	8,537.8	2,757.0	11,294.8	114,326	0.011148145	136.4	2.0	138.4	0.003999289	0.007573717	07-08-001-24W1M
08-08	08-08-001-24W1M	126,260	9,312.2	2,633.5	11,945.7	114,314	0.011146996	159.3	104.0	263.3	0.007610286	0.009378641	08-08-001-24W1M
09-08	09-08-001-24W1M	127,001	8,874.1	2,999.4	11,873.5	115,127	0.011226286	349.7	38.1	387.8	0.011208601	0.011217443	09-08-001-24W1M
10-08	10-08-001-24W1M	125,962	12,226.3	2,695.4	14,921.7	111,041	0.010827810	454.9	108.0	562.9	0.016269855	0.013548832	10-08-001-24W1M
11-08	11-08-001-24W1M	124,210	7,070.4	0.0	7,070.4	117,140	0.011422564	184.4	0.0	184.4	0.005329024	0.008375794	11-08-001-24W1M
12-08	12-08-001-24W1M	122,218	7,187.7	0.0	7,187.7	115,031	0.011216873	186.5	0.0	186.5	0.005391268	0.008304071	12-08-001-24W1M
13-08	13-08-001-24W1M	120,911	1,406.3	0.0	1,406.3	119,505	0.011653195	19.5	0.0	19.5	0.000562586	0.006107891	13-08-001-24W1M
14-08	14-08-001-24W1M	123,361	1,336.9	530.2	1,867.1	121,494	0.011847163	18.4	77.9	96.3	0.002783735	0.007315449	14-08-001-24W1M
15-08	15-08-001-24W1M	125,608	10,645.7	2,385.5	13,031.2	112,577	0.010977586	373.1	20.5	393.6	0.011375970	0.011176778	15-08-001-24W1M
16-08	16-08-001-24W1M	127,834	10,862.6	3,488.8	14,351.4	113,482	0.011065898	379.1	61.2	440.3	0.012724323	0.011895111	16-08-001-24W1M
01-17	01-17-001-24W1M	127,439	5,505.6	0.0	5,505.6	121,934	0.011890022	172.0	0.0	172.0	0.004971514	0.008430768	01-17-001-24W1M
02-17	02-17-001-24W1M	125,342	5,274.9	0.0	5,274.9	120,067	0.011708027	165.6	0.0	165.6	0.004785183	0.008246605	02-17-001-24W1M
03-17	03-17-001-24W1M	123,153	1,088.3	0.0	1,088.3	122,065	0.011902799	53.9	0.0	53.9	0.001557819	0.006730309	03-17-001-24W1M
04-17	04-17-001-24W1M	119,827	1,088.3	0.0	1,088.3	118,739	0.011578473	53.9	0.0	53.9	0.001557819	0.006568146	04-17-001-24W1M
		11,055,238	**703,713.1**	**96,383.4**	**800,096.5**	**10,255,142**	**1.000000000**			**34,600**	**1.000000000**	**1.000000000**	

Table No. 3: Goodlands Unit No. 2

Short UWI	UWI	License Number	Type	Pool Name	Producing Zone	Mode	On Prod Date	Prod Date	Cal Dly Oil (m3/d)	Monthly Oil (m3)	Cum Prd Oil (m3)	Cal Dly Water (m3/d)	Monthly Water (m3)	Cum Prd Water (m3)	Cal Dly Gas (E3m3/d)	Monthly Gas (E3m3)	Cum Prd Gas (E3m3)	WCT (%)	Last 12 Months Oil Prod (m3)
100/11-02	100/11-02-001-24W1/0	007331	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	9/22/2010	Feb-2016	2.0	56.6	4,907.2	2.3	66.7	7979.2	0.0	0.8	226.4	54.10	429.4
102/11-02	102/11-02-001-24W1/0	007686	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	3/14/2011	Feb-2016	0.3	7.9	3,653.1	1.3	37.4	5758.0	0.0	0.8	187.1	82.56	196.5
103/11-02	103/11-02-001-24W1/0	007687	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	3/14/2011	Feb-2016	0.6	16.5	4,026.9	7.8	226.1	18091.2	0.0	0.8	221.3	93.20	173.5
14-02	100/14-02-001-24W1/0	005150	Vertical	LOWER AMARANTH I	AMRNTHL	Pumping	5/2/2003	Mar-2008	0.0	0.4	490.6	0.0	0.7	991.3		0.0	0.0	63.64	55.4
102/14-02	102/14-02-001-24W1/0	007688	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	3/14/2011	Feb-2016	0.7	20.3	5,347.3	0.5	18.5	8564.0	0.0	0.8	222.8	47.68	356.2
103/14-02	103/14-02-001-24W1/0	007689	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	3/10/2011	Feb-2016	0.6	16.3	3,853.5	11.8	342.9	27902.2	0.0	0.8	302.7	95.46	246.9
104/14-02	104/14-02-001-24W1/0	007690	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	3/10/2011	Feb-2016	0.6	16.6	4,518.9	0.8	23.8	6654.8	0.0	0.8	213.7	58.91	213.3
100/01-03	100/01-03-001-24W1/0	007698	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	4/13/2011	Feb-2016	0.6	18.6	7,876.3	1.2	34.5	5661.3	0.0	0.8	478.4	64.97	281.3
102/01-03	102/01-03-001-24W1/0	007699	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	4/9/2011	Feb-2016	0.2	5.9	6,390.5	0.8	21.8	5238.6	0.0	0.8	375.8	78.70	142
103/01-03	103/01-03-001-24W1/0	009587	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	11/18/2013	Feb-2016	1.8	52.9	4,298.6	2.5	73.7	4543.9		0.0	0.0	58.21	777.6
100/05-03	100/05-03-001-24W1/0	007431	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	10/8/2010	Feb-2014		0.0	4,723.0	0.0	0.9	24631.2		0.0	0.0	100.00	41.8
102/05-03	102/05-03-001-24W1/0	007982	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	1/13/2012	Apr-2015	0.3	8.8	4,814.2	0.2	7.2	8623.1		0.0	0.0	45.00	201.6
103/05-03	103/05-03-001-24W1/0	007983	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	1/13/2012	Feb-2016	0.3	7.4	4,659.2	2.5	72.4	15417.7		0.0	95.1	90.73	232.7
104/05-03	104/05-03-001-24W1/0	007984	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	1/13/2012	Jan-2015	0.0	0.1	5,466.3	0.3	8.0	10996.7		0.0	0.0	98.77	592.1
100/08-03	100/08-03-001-24W1/0	007136	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	1/27/2010	Feb-2016	0.4	10.9	9,777.1	0.5	16.7	9276.0	0.0	0.8	430.5	60.51	213.1
102/08-03	102/08-03-001-24W1/0	007700	Dir/Dev	LOWER AMARANTH A	AMRNTHL	Producing	4/9/2011	May-2015	0.0	0.1	5,324.4	0.0	0.3	3423.4		0.0	291.9	75.00	81.2
103/08-03	103/08-03-001-24W1/0	007701	Dir/Dev	LOWER AMARANTH I	AMRNTHL	Producing	4/13/2011	Feb-2016	0.5	14.1	5,198.5	1.8	51.2	4602.0	0.0	0.8	507.2	78.41	120.5
09-03	100/09-03-001-24W1/0	004347	Vertical	LOWER AMARANTH I	AMRNTHL	Abandoned	8/4/1993	Jan-1998	0.0	0.3	736.7		0.0	794.9		0.0	0.0	0.00	69.2
102/09-03	102/09-03-001-24W1/0	007702	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	4/4/2011	Aug-2015	0.0	1.0	4,834.5	0.1	2.8	5121.1		0.0	316.8	73.68	151.7
103/09-03	103/09-03-001-24W1/0	007703	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	4/7/2011	Feb-2016	1.3	38.6	7,852.8	1.1	31.1	4560.7	0.0	0.8	432.9	44.62	462.8
104/09-03	104/09-03-001-24W1/0	007704	Horizontal	LOWER AMARANTH A	AMRNTHL	Producing	4/2/2011	Feb-2016	0.7	20.3	6,374.5	0.3	9.4	3184.1	0.0	0.8	371.2	31.65	264
105/09-03	105/09-03-001-24W1/0	007705	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	4/7/2011	May-2015	0.0	0.3	5,238.4	0.0	0.8	3658.0		0.0	305.4	72.73	241.3
106/09-03	106/09-03-001-24W1/0	009595	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	12/11/2013	Feb-2016	1.3	36.8	2,799.4	1.8	53.0	3191.6		0.0	0.0	59.02	571.2
100/11-03	100/11-03-001-24W1/0	007123	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	12/20/2010	Feb-2016	0.4	12.6	6,358.6	0.9	25.4	5338.2	0.0	0.8	230.1	66.84	277
102/11-03	102/11-03-001-24W1/0	007124	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	12/20/2010	Feb-2016	0.8	23.9	5,589.2	1.1	33.2	4065.4	0.0	0.8	346.1	58.14	329.1
103/11-03	103/11-03-001-24W1/0	007125	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	12/20/2010	Feb-2016	0.0	1.2	2,935.8	0.5	15.4	3632.6	0.0	0.8	269.9	92.77	39.2
14-03	100/14-03-001-24W1/0	005151	Vertical	LOWER AMARANTH I	AMRNTHL	Pumping	5/1/2003	Mar-2014	0.0	0.1	1,358.9	0.0	0.2	1679.2		0.0	6.0	66.67	15.2
102/14-03	102/14-03-001-24W1/0	006936	Horizontal	LOWER AMARANTH I	AMRNTH	Producing	8/15/2009	Feb-2016	0.5	15.2	11,173.7	7.5	218.8	29295.0	0.0	0.8	673.1	93.50	318.3
103/14-03	103/14-03-001-24W1/0	006937	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	8/15/2009	Feb-2016	0.3	8.9	8,498.1	0.1	3.3	4816.6	0.0	0.8	457.0	27.05	109.4
100/16-03	100/16-03-001-24W1/0	007115	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	2/19/2010	Feb-2016	1.2	34.9	6,529.3	1.5	43.9	6446.5	0.0	0.8	184.2	55.71	362.9
102/16-03	102/16-03-001-24W1/0	007116	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	2/19/2010	Jul-2015	0.0	0.8	6,514.5	0.1	2.4	6723.7		0.0	262.4	75.00	171.8
103/16-03	103/16-03-001-24W1/0	007117	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	2/19/2010	Feb-2016	0.2	5.1	6,901.1	1.9	53.7	9490.8	0.0	0.8	342.5	91.33	106.5
01-04	100/01-04-001-24W1/0	005312	Vertical	LOWER AMARANTH I	AMRNTHL	Producing	10/9/2004	Feb-2016	0.1	4.0	3,088.8	0.0	0.3	1452.1		0.0	91.2	6.98	63.4
102/01-04	102/01-04-001-24W1/0	008208	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	12/29/2011	Feb-2016	0.3	8.3	5,500.0	0.2	4.5	3894.1		0.0	75.9	35.16	252.6
103/01-04	103/01-04-001-24W1/0	008926	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	11/23/2012	Feb-2016	1.1	33.0	4,157.6	0.3	10.0	2893.7		0.0	121.9	23.26	374.4
02-04	100/02-04-001-24W1/0	005089	Vertical	LOWER AMARANTH I	AMRNTHL	Producing	8/15/2002	Dec-2011	0.1	3.5	3,283.0	0.0	1.1	1441.6		0.0	0.4	23.91	199
03-04	100/03-04-001-24W1/0	005313	Vertical	LOWER AMARANTH I	AMRNTHL	Producing	10/17/2004	Sep-2012	0.2	4.9	1,735.6	0.3	9.0	956.3		0.0	1.7	64.75	63.9
102/03-04	102/03-04-001-24W1/0	008746	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	9/20/2012	Feb-2016	0.3	8.9	1,889.3	0.1	3.9	1552.3		0.0	67.9	30.47	118.1
04-04	100/04-04-001-24W1/0	005306	Vertical	LOWER AMARANTH I	AMRNTHL	Producing	10/9/2004	Sep-2011	0.0	1.4	2,302.9	0.0	0.7	900.1		0.0	3.8	33.33	86.4
102/04-04	102/04-04-001-24W1/0	007817	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	12/23/2011	Feb-2016	0.4	10.6	6,005.3	0.3	9.2	3598.1		0.0	58.7	46.46	80.2
103/04-04	103/04-04-001-24W1/0	007828	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	1/10/2012	Feb-2016	0.5	14.7	6,748.1	0.0	1.0	2885.5		0.0	126.5	6.37	139.5
104/04-04	104/04-04-001-24W1/0	008927	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	11/22/2012	Feb-2016	0.4	11.9	4,962.2	0.0	1.0	3109.1		0.0	134.1	7.75	230.5
05-04	100/05-04-001-24W1/0	005307	Vertical	LOWER AMARANTH I	AMRNTHL	Producing	10/9/2004	Oct-2011	0.1	2.8	2,348.1	0.1	1.8	995.4		0.0	4.0	39.13	82.8
102/05-04	102/05-04-001-24W1/0	008344	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	1/12/2012	Dec-2015	0.1	2.9	5,503.3	0.0	0.9	3906.9		0.0	45.1	23.68	5.8
103/05-04	103/05-04-001-24W1/0	008999	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	12/14/2012	Feb-2016	0.7	19.2	1,776.6	0.3	9.3	2169.1		0.0	106.3	32.63	138.2
104/05-04	104/05-04-001-24W1/0	009000	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	12/1/2012	Feb-2016	0.4	10.6	1,031.4	0.0	0.7	1797.6		0.0	124.3	6.19	136
06-04	100/06-04-001-24W1/0	005308	Vertical	LOWER AMARANTH I	AMRNTHL	Producing	10/9/2004	Nov-2012	0.0	0.3	649.2	0.0	0.7	1542.5		0.0	0.6	70.00	29.1
07-04	100/07-04-001-24W1/0	005314	Vertical	LOWER AMARANTH I	AMRNTHL	Producing	9/4/2004	Sep-2014	0.1	1.7	2,561.8		0.0	1154.1	0.2	4.7	42.2	0.00	22.9
08-04	100/08-04-001-24W1/0	005310	Vertical	LOWER AMARANTH I	AMRNTHL	Producing	9/4/2004	Feb-2016	0.2	6.3	3,183.0	0.2	4.8	1617.8		0.0	156.4	43.24	86.5
102/08-04	102/08-04-001-24W1/0	007183	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	4/1/2010	Feb-2016	0.9	26.5	7,964.3	0.8	22.6	3708.5		0.0	131.2	46.03	455.7

Short UWI	UWI	License Number	Type	Pool Name	Producing Zone	Mode	On Prod Date	Prod Date	Cal Dly Oil (m3/d)	Monthly Oil (m3)	Cum Prd Oil (m3)	Cal Dly Water (m3/d)	Monthly Water (m3)	Cum Prd Water (m3)	Cal Dly Gas (E3m3/d)	Monthly Gas (E3m3)	Cum Prd Gas (E3m3)	WCT (%)	Last 12 Months Oil Prod (m3)
104/08-04	104/08-04-001-24W1/0	008200	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	1/3/2012	Aug-2015	0.2	5.7	4,234.0	0.3	10.6	2103.3		0.0	194.7	65.03	70.1
105/08-04	105/08-04-001-24W1/0	009202	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	3/21/2013	Feb-2016	0.6	16.3	2,519.7	0.4	11.7	1371.0		0.0	93.6	41.79	219.8
10-04	100/10-04-001-24W1/0	005226	Vertical	LOWER AMARANTH I	AMRNTHL	Producing	10/20/2003	Aug-2014	0.1	2.3	2,782.8	0.1	1.8	2962.6	0.0	0.7	228.0	43.90	121.5
12-04	100/12-04-001-24W1/0	005204	Vertical	LOWER AMARANTH I	AMRNTHL	Producing	9/13/2003	Aug-2013	0.0	0.8	3,031.9	0.0	0.6	2815.0	0.0	0.1	29.4	42.86	107
100/13-04	100/13-04-001-24W1/0	006240	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	2/28/2007	Feb-2016	0.3	9.9	11,137.1	2.3	65.9	6990.0	0.0	0.8	636.9	86.94	279.1
102/13-04	102/13-04-001-24W1/0	007022	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	9/20/2009	Dec-2015	0.2	5.9	9,871.3	1.7	53.2	19739.8	0.0	0.8	504.8	90.02	721.7
103/13-04	103/13-04-001-24W1/0	007023	Horizontal	LOWER AMARANTH I	AMRNTH	Producing	10/7/2009	Feb-2016	0.3	7.3	8,180.9	17.2	499.6	47208.9	0.0	0.8	637.4	98.56	42.6
14-04	100/14-04-001-24W1/0	005154	Vertical	LOWER AMARANTH I	AMRNTHL	Producing	4/30/2003	Jul-2013	0.0	1.0	3,309.9	0.0	0.2	1862.9		0.0	4.5	16.67	3.1
102/14-04	102/14-04-001-24W1/0	007029	Horizontal	LOWER AMARANTH I	AMRNTH	Producing	12/6/2009	Feb-2016	0.0	0.3	8,948.2	8.4	244.8	22316.9	0.0	0.8	650.0	99.88	398.9
103/14-04	103/14-04-001-24W1/0	007030	Horizontal	LOWER AMARANTH I	AMRNTH	Producing	12/6/2009	Feb-2016	0.5	15.6	3,338.5	1.3	38.1	2440.1	0.0	0.8	206.2	70.95	245.5
104/14-04	104/14-04-001-24W1/0	007031	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	10/10/2009	Feb-2016	0.0	0.9	7,915.2	1.4	41.1	20791.2	0.0	0.8	610.9	97.86	230.4
100/15-04	100/15-04-001-24W1/0	006431	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	10/27/2007	Feb-2016	0.4	12.4	6,912.9	4.3	123.3	40032.6	0.0	0.8	446.8	90.86	152.4
102/15-04	102/15-04-001-24W1/0	007032	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	10/9/2009	Jan-2016	0.3	9.0	13,495.0	0.2	6.6	6421.7		0.0	1074.2	42.31	139.6
16-04	100/16-04-001-24W1/0	005156	Vertical	LOWER AMARANTH I	AMRNTHL	Producing	6/27/2003	Jun-2012	0.1	3.6	2,758.9	0.0	1.4	1279.1	0.0	1.1	240.6	28.00	173.4
102/16-04	102/16-04-001-24W1/0	007062	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	2/21/2010	Feb-2016	0.6	16.0	7,724.8	0.5	14.5	4394.5	0.0	0.8	676.5	47.54	257.4
100/01-05	100/01-05-001-24W1/0	008331	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	3/26/2012	Feb-2016	0.5	15.0	7,295.3	0.9	26.5	4512.8	0.0	0.8	260.8	63.86	264.7
100/02-05	100/02-05-001-24W1/0	008752	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	1/16/2013	Feb-2016	0.3	8.4	2,737.6	0.5	13.1	3215.1	0.0	0.8	86.2	60.93	196.6
102/03-05	102/03-05-001-24W1/0	008332	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	10/12/2012	Feb-2016	1.6	45.1	7,472.6	12.1	351.8	18079.9	0.0	0.8	80.6	88.64	705.8
103/03-05	103/03-05-001-24W1/0	008753	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	1/16/2013	Feb-2016	0.5	14.9	3,917.8	1.0	28.4	6322.1	0.0	0.8	91.9	65.59	365
104/03-05	104/03-05-001-24W1/0	008880	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	10/13/2012	Feb-2016	2.1	59.9	7,239.6	10.4	302.2	19014.3	0.0	0.8	162.1	83.46	932.4
100/05-05	100/05-05-001-24W1/0	006848	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	7/7/2009	Feb-2016	0.3	9.7	8,738.1	0.4	13.0	3969.6	0.0	0.8	268.1	57.27	171.4
102/05-05	102/05-05-001-24W1/0	007157	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	11/13/2010	May-2015	0.4	11.8	4,443.4	1.5	47.9	6767.9	0.0	0.4	240.0	80.23	189.7
06-05	100/06-05-001-24W1/2	005160	Vertical	LOWER AMARANTH I	AMRNTH	Producing	12/8/2003	Oct-2011	0.2	4.8	1,219.7	0.1	3.6	1356.9		0.0	0.0	42.86	65.9
102/06-05	102/06-05-001-24W1/0	008333	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	10/12/2012	Feb-2016	0.4	11.8	4,091.9	1.3	38.9	5110.8	0.0	0.8	31.8	76.73	192
103/06-05	103/06-05-001-24W1/0	008334	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	10/12/2012	Feb-2016	0.9	26.4	4,053.7	8.2	238.9	14803.0	0.0	0.8	41.2	90.05	444.8
100/07-05	100/07-05-001-24W1/0	007126	Horizontal	LOWER AMARANTH I	AMRNTH	Producing	3/16/2010	Aug-2015	0.0	0.3	5,801.0	0.0	0.1	3721.7		0.0	304.0	25.00	107.5
08-05	100/08-05-001-24W1/0	005161	Vertical	LOWER AMARANTH I	AMRNTHL	Producing	6/24/2003	Sep-2013	0.0	0.4	2,021.5	0.0	0.2	1724.4		0.0	15.8	33.33	18.5
102/08-05	102/08-05-001-24W1/0	008335	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	3/26/2012	Feb-2016	1.1	32.3	6,921.5	0.7	19.2	4795.0	0.0	0.8	240.3	37.28	443.6
103/08-05	103/08-05-001-24W1/0	008336	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	3/26/2012	Feb-2016	0.6	16.4	5,345.6	2.4	71.0	8799.9	0.0	0.8	164.2	81.24	278.6
09-05	100/09-05-001-24W1/0	005328	Vertical	LOWER AMARANTH I	AMRNTHL	Producing	11/10/2004	Mar-2011	0.0	0.1	1,932.2	0.0	0.1	1387.2		0.0	0.0	50.00	103
102/09-05	102/09-05-001-24W1/0	006941	Horizontal	LOWER AMARANTH I	AMRNTH	Producing	8/20/2009	Feb-2016	0.6	18.5	5,145.7	0.5	17.6	3382.0	0.0	0.8	122.5	48.75	221.9
10-05	100/10-05-001-24W1/0	005198	Vertical	LOWER AMARANTH I	AMRNTHL	Producing	8/14/2003	Jan-2013	0.0	0.6	1,428.0	0.0	0.4	1444.7	0.0	0.1	6.8	40.00	53
102/10-05	102/10-05-001-24W1/0	006847	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	7/4/2009	Dec-2015	0.2	7.2	6,386.6	0.3	9.8	3507.4	0.0	0.8	354.1	57.65	174.6
103/10-05	103/10-05-001-24W1/0	007127	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	3/13/2010	Apr-2014	0.1	2.7	2,323.6	0.2	5.4	3236.4	0.1	2.3	100.6	66.67	32.4
11-05	100/11-05-001-24W1/0	005329	Vertical	LOWER AMARANTH I	AMRNTHL	Producing	11/11/2004	Jun-2014	0.0	0.3	2,209.2	0.0	0.3	1056.7		0.0	2.3	50.00	0.3
102/11-05	102/11-05-001-24W1/2	008661	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	9/11/2012	Feb-2016	1.5	43.1	3,162.8	0.5	13.2	1410.1	0.0	0.8	96.3	23.45	413.9
12-05	100/12-05-001-24W1/0	005205	Vertical	LOWER AMARANTH I	AMRNTHL	Producing	9/10/2003	Jul-2013	0.0	0.1	3,866.2	0.0	0.1	1455.1		0.0	14.9	50.00	48.4
102/12-05	102/12-05-001-24W1/0	007128	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	11/13/2010	Feb-2016	0.7	19.3	6,058.0	0.5	14.2	3692.3	0.0	0.8	624.8	42.39	318.1
103/12-05	103/12-05-001-24W1/0	008661	Horizontal	LOWER AMARANTH I		Producing	N/A												0
13-05	100/13-05-001-24W1/0	005330	Vertical	LOWER AMARANTH I	AMRNTHL	Producing	11/12/2004	Mar-2014	0.0	0.3	2,632.7	0.0	0.3	1383.2		0.0	0.0	50.00	53.2
14-05	100/14-05-001-24W1/0	005155	Vertical	LOWER AMARANTH I	AMRNTHL	Producing	4/29/2003	Sep-2014	0.0	0.6	5,069.4	0.0	0.1	1833.9	0.0	0.2	21.9	14.29	39.5
102/14-05	102/14-05-001-24W1/0	006832	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	1/12/2009	Jun-2015	0.1	3.5	10,632.6	0.0	0.7	3289.0	0.0	0.2	230.1	16.67	71.6
103/14-05	103/14-05-001-24W1/0	008662	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	9/12/2012	Feb-2016	0.8	22.1	5,136.4	0.5	14.8	1951.3	0.0	0.8	370.5	40.11	325.8
104/14-05	104/14-05-001-24W1/0	008775	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	8/28/2012	Feb-2016	1.4	41.5	6,473.8	0.4	12.3	2985.5	0.0	0.8	63.8	22.86	403.1
15-05	100/15-05-001-24W1/0	005331	Vertical	LOWER AMARANTH I	AMRNTHL	Producing	11/11/2004	Mar-2011	0.1	2.9	2,502.7	0.0	1.0	1235.8		0.0	0.0	25.64	120.9
16-05	100/16-05-001-24W1/0	005162	Vertical	LOWER AMARANTH I	AMRNTHL	Producing	7/19/2003	Jun-2013	0.0	0.2	3,640.9		0.0	2070.8		0.0	11.8	0.00	29.2
102/16-05	102/16-05-001-24W1/0	006818	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	1/8/2009	Feb-2016	0.3	8.2	10,090.1	0.7	19.4	5050.3	0.0	0.8	150.8	70.29	206.8
103/16-05	103/16-05-001-24W1/0	006942	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	9/14/2009	Jun-2015	0.1	3.1	5,755.7	0.1	2.4	3562.1	0.0	0.1	528.8	43.64	102
104/16-05	104/16-05-001-24W1/0	006946	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	9/11/2009	Mar-2015	0.4	12.6	8,355.4	0.3	10.4	3643.5		0.0	686.9	45.22	164
100/04-06	100/04-06-001-24W1/0	008901	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	10/11/2012	Mar-2013	0.2	6.1	462.4	4.5	141.1	3772.0		0.0	0.0	95.86	0
102/04-06	102/04-06-001-24W1/0	008902	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	10/19/2012	Feb-2015	0.1	2.0	837.1	40.2	1125.7	53782.8	0.0	1.3	30.5	99.82	67.4

Short UWI	UWI	License Number	Type	Pool Name	Producing Zone	Mode	On Prod Date	Prod Date	Cal Dly Oil (m3/d)	Monthly Oil (m3)	Cum Prd Oil (m3)	Cal Dly Water (m3/d)	Monthly Water (m3)	Cum Prd Water (m3)	Cal Dly Gas (E3m3/d)	Monthly Gas (E3m3)	Cum Prd Gas (E3m3)	WCT (%)	Last 12 Months Oil Prod (m3)
103/04-06	103/04-06-001-24W1/0	008903	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	10/16/2012	Feb-2016	1.8	52.4	7,455.2	9.7	281.4	17119.0	0.0	0.8	153.2	84.30	879.3
100/05-06	100/05-06-001-24W1/0	008218	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	11/22/2011	Feb-2016	0.7	19.3	7,419.6	2.2	64.5	12859.0	0.0	0.8	76.8	76.97	429.9
102/05-06	102/05-06-001-24W1/0	008772	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	10/14/2012	Feb-2016	1.1	30.9	4,919.7	4.5	132.4	7980.5	0.0	0.8	125.5	81.08	483.5
103/05-06	103/05-06-001-24W1/0	008773	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	10/15/2012	Feb-2016	0.5	15.1	4,432.3	16.8	487.1	27159.5	0.0	0.8	141.2	96.99	384.8
100/07-06	100/07-06-001-24W1/0	007768	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	11/22/2011	Feb-2016	1.5	43.1	7,629.4	2.9	85.0	9617.0	0.0	0.8	221.1	66.35	537.8
102/07-06	102/07-06-001-24W1/0	008776	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	1/10/2013	Feb-2016	1.1	31.0	4,057.3	2.4	68.7	6138.4	0.0	0.8	123.9	68.91	505.3
103/07-06	103/07-06-001-24W1/0	008777	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	1/10/2013	Feb-2016	0.4	11.7	2,651.8	41.5	1205.6	48544.7	0.0	0.8	84.3	99.04	293.2
08-06	100/08-06-001-24W1/0	005207	Vertical	LOWER AMARANTH I	AMRNTHL	Abandoned	9/13/2003	Dec-2005	0.1	3.4	572.3	0.4	11.5	1644.7		0.0	0.0	77.18	124.2
11-06	100/11-06-001-24W1/0	003703	Vertical	LOWER AMARANTH I	AMRNTHL	Abandoned	10/27/1985	Oct-1987		0.0	554.3	2.3	72.6	2441.5		0.0	0.0	100.00	3.5
102/11-06	102/11-06-001-24W1/0	007993	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	12/17/2011	Feb-2016	2.7	79.7	1,895.1	41.4	1199.9	48265.8		0.0	272.9	93.77	546.4
103/11-06	103/11-06-001-24W1/0	008062	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	11/26/2011	Feb-2016	1.0	28.2	8,079.1	17.1	497.1	37649.8		0.0	218.6	94.63	685.5
104/11-06	104/11-06-001-24W1/0	008063	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	11/26/2011	Feb-2016	1.5	42.6	10,579.3	20.8	602.6	47339.2		0.0	299.2	93.40	951.9
105/11-06	105/11-06-001-24W1/0	008064	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	11/27/2011	Feb-2016	5.2	150.2	5,679.9	36.0	1042.6	51138.7		0.0	176.3	87.41	1636.1
100/14-06	100/14-06-001-24W1/0	006836	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	1/24/2009	Feb-2016	2.7	78.3	12,830.9	1.1	32.5	14944.1		0.0	150.3	29.33	703.6
102/14-06	102/14-06-001-24W1/0	006983	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	9/3/2009	Feb-2016	1.7	49.1	12,924.8	20.8	603.3	71669.7		0.0	167.8	92.47	750.3
100/01-07	100/01-07-001-24W1/0	006955	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	9/5/2009	Feb-2016	0.1	2.8	5,855.2	0.9	27.3	7553.9	0.0	0.8	328.6	90.70	51.2
102/01-07	102/01-07-001-24W1/0	006956	Horizontal	LOWER AMARANTH I	AMRNTH	Producing	9/7/2009	Jul-2015	0.0	0.1	4,511.6		0.0	4921.5		0.0	221.2	0.00	20.8
02-07	100/02-07-001-24W1/0	005189	Vertical	LOWER AMARANTH I	AMRNTHL	Producing	8/10/2003	Jan-2012	0.2	6.8	2,352.6	0.1	3.9	1616.4		0.0	0.0	36.45	33.2
102/02-07	102/02-07-001-24W1/0	006938	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	9/5/2009	Feb-2016	0.6	16.4	7,503.9	0.9	27.3	5887.0	0.0	0.8	347.2	62.47	231.2
08-07	100/08-07-001-24W1/0	005190	Vertical	LOWER AMARANTH I	AMRNTHL	Producing	8/12/2003	Nov-2009	0.0	0.5	1,009.4	0.0	0.6	1977.4		0.0	0.0	54.55	70.5
102/08-07	102/08-07-001-24W1/0	006957	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	9/4/2009	Oct-2014	0.0	0.8	3,854.5	0.0	1.4	3480.2		0.0	156.8	63.64	81.8
103/08-07	103/08-07-001-24W1/0	006958	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	9/4/2009	Feb-2016	0.5	14.9	3,015.1	0.7	19.3	6492.0	0.0	0.8	160.2	56.43	133.4
01-08	100/01-08-001-24W1/0	005332	Vertical	LOWER AMARANTH I	AMRNTHL	Producing	11/10/2004	Nov-2011	0.0	0.1	3,425.4	0.0	0.1	1666.1		0.0	0.0	50.00	69.5
102/01-08	102/01-08-001-24W1/0	006635	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	7/14/2008	Feb-2016	0.2	4.7	11,230.2	0.2	4.8	4004.3	0.0	0.9	432.6	50.53	70
103/01-08	103/01-08-001-24W1/0	006945	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	9/11/2009	Jul-2014	0.0	0.5	7,346.6	0.0	0.3	4138.0		0.0	481.8	37.50	68.4
02-08	100/02-08-001-24W1/0	005199	Vertical	LOWER AMARANTH I	AMRNTHL	Producing	8/9/2003	Aug-2012	0.0	1.2	3,998.5	0.0	0.4	1713.5		0.0	13.1	25.00	69.7
102/02-08	102/02-08-001-24W1/0	006943	Horizontal	LOWER AMARANTH I	AMRNTH	Producing	8/26/2009	Feb-2016	0.3	7.8	8,854.8	0.1	2.2	3222.0	0.0	0.9	485.8	22.00	94.4
03-08	100/03-08-001-24W1/0	005333	Vertical	LOWER AMARANTH I	AMRNTHL	Producing	11/12/2004	Aug-2013	0.1	1.8	2,144.2	0.0	0.6	1113.6	0.0	0.3	168.2	25.00	8.5
102/03-08	102/03-08-001-24W1/0	006843	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	1/28/2009	Feb-2016	0.0	0.9	7,762.3	0.0	0.6	3958.8	0.0	0.9	211.7	40.00	190.5
103/03-08	103/03-08-001-24W1/0	006844	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	2/3/2009	Jul-2015	0.0	0.4	7,172.5	0.0	1.5	3876.3		0.0	486.1	78.95	14.3
104/03-08	104/03-08-001-24W1/0	008774	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	9/10/2012	Feb-2016	0.2	6.0	3,448.4	0.2	5.0	2686.6	0.0	0.8	44.7	45.45	149.3
04-08	100/04-08-001-24W1/0	005200	Vertical	LOWER AMARANTH I	AMRNTHL	Producing	8/14/2003	Jun-2012	0.0	0.7	1,983.0	0.0	0.3	1956.0		0.0	0.0	30.00	13.9
06-08	100/06-08-001-24W1/0	005175	Vertical	LOWER AMARANTH I	AMRNTHL	Producing	7/28/2003	Feb-2014	0.2	5.6	2,709.3	0.0	1.1	2021.2	0.0	0.5	44.8	16.42	81.8
102/06-08	102/06-08-001-24W1/0	007158	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	8/7/2010	Feb-2016	1.9	55.4	6,352.0	3.0	88.0	5437.3	0.0	0.9	477.3	61.37	373.7
103/06-08	103/06-08-001-24W1/0	007769	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	2/19/2011	Feb-2016	0.1	3.0	6,388.3	0.2	5.4	2973.1	0.0	0.8	848.2	64.29	95.2
07-08	100/07-08-001-24W1/0	005334	Vertical	LOWER AMARANTH I	AMRNTHL	Producing	11/10/2004	Aug-2014	0.1	2.0	2,757.0	0.0	0.9	1471.5		0.0	0.0	31.03	2
102/07-08	102/07-08-001-24W1/0	006604	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	6/29/2008	Jul-2014	0.1	2.8	8,837.2	0.1	2.6	3633.5	0.0	1.0	486.6	48.15	235.9
103/07-08	103/07-08-001-24W1/0	006944	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	8/28/2009	Feb-2016	0.1	2.0	8,326.5	0.2	4.4	3326.4	0.0	0.8	590.7	68.75	50
08-08	100/08-08-001-24W1/0	005163	Vertical	LOWER AMARANTH I	AMRNTHL	Producing	6/25/2003	Oct-2013	0.3	9.1	2,633.5	0.1	4.6	2309.2		0.0	197.8	33.58	104
102/08-08	102/08-08-001-24W1/0	007129	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	9/3/2010	Feb-2016	0.0	0.3	2,947.9	0.1	2.1	1883.7	0.0	0.9	816.3	87.50	51.3
09-08	100/09-08-001-24W1/0	005335	Vertical	LOWER AMARANTH I	AMRNTHL	Producing	11/9/2004	Aug-2013	0.0	0.8	2,999.4	0.0	1.0	1604.4		0.0	0.0	55.56	38.1
102/09-08	102/09-08-001-24W1/0	006845	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	2/7/2009	Dec-2014	0.3	8.0	8,568.5	0.4	12.0	4437.1	0.0	1.5	367.7	60.00	252.2
103/09-08	103/09-08-001-24W1/0	007130	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	9/3/2010	Feb-2016	0.7	20.4	5,517.3	0.4	11.6	3295.6	0.0	0.8	1119.5	36.25	337.9
104/09-08	104/09-08-001-24W1/0	007131	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	9/3/2010	Feb-2016	0.9	26.6	5,999.9	0.7	20.0	3956.4	0.0	0.8	672.7	42.92	201.4
10-08	100/10-08-001-24W1/0	005227	Vertical	LOWER AMARANTH I	AMRNTHL	Producing	10/19/2003	Aug-2012	0.0	0.1	2,695.4		0.0	2416.4		0.0	4.8	0.00	108
100/11-08	100/11-08-001-24W1/0	007159	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	8/7/2010	Feb-2016	0.8	24.3	6,336.4	1.4	39.8	4825.6	0.0	0.9	1158.3	62.09	223.2
102/11-08	102/11-08-001-24W1/0	007160	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	8/7/2010	Jan-2016	0.0	0.8	6,201.8	0.0	0.8	5147.2		0.0	405.3	50.00	143.2
103/11-08	103/11-08-001-24W1/0	007770	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	11/3/2011	Feb-2016	0.1	1.6	1,734.1	0.3	8.0	4513.9	0.0	0.8	277.0	83.33	37
104/11-08	104/11-08-001-24W1/0	007771	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	11/3/2011	Feb-2016	0.1	4.0	3,307.3	0.3	8.9	6292.9	0.0	0.8	299.8	68.99	91.1
14-08	100/14-08-001-24W1/0	005176	Vertical	LOWER AMARANTH I	AMRNTHL	Abandoned	7/30/2003	May-2007	0.0	0.6	530.2	0.1	1.7	1283.1		0.0	0.0	73.91	77.9
102/14-08	102/14-08-001-24W1/0	007772	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	11/3/2011	Feb-2016	0.0	0.2	2,589.8	0.0	0.3	9135.8	0.0	0.9	258.0	60.00	25.9

Short UWI	UWI	License Number	Type	Pool Name	Producing Zone	Mode	On Prod Date	Prod Date	Cal Dly Oil (m3/d)	Monthly Oil (m3)	Cum Prd Oil (m3)	Cal Dly Water (m3/d)	Monthly Water (m3)	Cum Prd Water (m3)	Cal Dly Gas (E3m3/d)	Monthly Gas (E3m3)	Cum Prd Gas (E3m3)	WCT (%)	Last 12 Months Oil Prod (m3)
15-08	100/15-08-001-24W1/0	005336	Vertical	LOWER AMARANTH I	AMRNTHL	Producing	11/8/2004	Aug-2013	0.0	1.4	2,385.5	0.1	2.2	2220.5		0.0	0.0	61.11	20.5
16-08	100/16-08-001-24W1/0	005164	Vertical	LOWER AMARANTH I	AMRNTHL	Producing	6/26/2003	Jun-2014	0.0	0.5	3,488.8	0.0	0.1	2253.9		0.0	97.9	16.67	61.2
102/16-08	102/16-08-001-24W1/0	006846	Horizontal	LOWER AMARANTH I	AMRNTH	Producing	7/2/2009	Feb-2016	0.5	13.7	8,383.5	0.6	18.2	4289.3	0.0	0.9	1468.8	57.05	225.6
103/16-08	103/16-08-001-24W1/0	007132	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	9/1/2010	Nov-2014	0.7	20.6	7,189.2	1.0	30.1	6182.0	0.0	0.6	644.2	59.37	265.8
104/16-08	104/16-08-001-24W1/0	007161	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	2/8/2011	Feb-2016	0.6	17.8	6,551.6	0.6	18.4	3948.8	0.0	0.8	811.7	50.83	278.4
100/01-17	100/01-17-001-24W1/0	007326	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	2/8/2011	Jan-2016		0.0	7,230.8	0.1	2.1	20816.0		0.0	670.1	100.00	202.1
102/01-17	102/01-17-001-24W1/0	007327	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	2/8/2011	Jul-2014	0.0	0.1	6,516.5	1.2	38.1	22640.7		0.0	542.7	99.74	218.4
100/04-17	100/04-17-001-24W1/0	007773	Horizontal	LOWER AMARANTH I	AMRNTHL	Producing	2/18/2011	Dec-2015	0.1	2.1	2,176.5	0.2	5.4	5280.0	0.0	0.8	137.4	72.00	107.8

Table No. 4: OOIP Calculation

Polygon Name	Total Area (MTR x MTR)	Data Area (MTR x MTR)	ROIP (MBO)	ROIP (BBL)	ROIP (m^3)	Phih
11-2-1-24W1	161,753.53	161,753.53	694.31	694,310	110,386	1.3307
12-2-1-24W1	161,752.77	161,752.77	701.14	701,140	111,472	1.3438
13-2-1-24W1	161,598.17	161,598.17	697.31	697,310	110,863	1.3378
14-2-1-24W1	161,598.70	161,598.70	698.32	698,320	111,024	1.3397
1-3-1-24W1	160,823.81	160,823.81	697.10	697,100	110,830	1.3438
2-3-1-24W1	160,820.59	160,820.59	708.55	708,550	112,650	1.3659
3-3-1-24W1	160,816.39	160,816.39	724.26	724,260	115,148	1.3962
4-3-1-24W1	160,813.04	160,813.04	746.52	746,520	118,687	1.4392
5-3-1-24W1	161,135.26	161,135.26	745.69	745,690	118,555	1.4347
6-3-1-24W1	161,138.38	161,138.38	726.17	726,170	115,452	1.3971
7-3-1-24W1	161,142.65	161,142.65	712.49	712,490	113,277	1.3708
8-3-1-24W1	161,145.95	161,145.95	703.49	703,490	111,846	1.3534
9-3-1-24W1	161,704.63	161,704.63	713.41	713,410	113,423	1.3678
10-3-1-24W1	161,705.06	161,705.06	719.98	719,980	114,468	1.3804
11-3-1-24W1	161,705.10	161,705.10	731.54	731,540	116,306	1.4025
12-3-1-24W1	161,705.33	161,705.33	747.47	747,470	118,838	1.4331
13-3-1-24W1	162,027.99	162,027.99	752.57	752,570	119,649	1.4400
14-3-1-24W1	162,027.68	162,027.68	739.92	739,920	117,638	1.4158
15-3-1-24W1	162,028.01	162,028.01	721.88	721,880	114,770	1.3813
16-3-1-24W1	162,027.58	162,027.58	703.89	703,890	111,910	1.3468
1-4-1-24W1	162525.33	162525.33	782.13	782,130	124,349	1.4919
2-4-1-24W1	162514.87	162514.87	796.97	796,970	126,708	1.5204
3-4-1-24W1	162503.63	162503.63	791.95	791,950	125,910	1.5109
4-4-1-24W1	162493.22	162493.22	787.04	787,040	125,129	1.5016
5-4-1-24W1	162137.72	162137.72	780.87	780,870	124,148	1.4931
6-4-1-24W1	162148.20	162148.20	783.59	783,590	124,581	1.4982
7-4-1-24W1	162158.78	162158.78	785.21	785,210	124,838	1.5012
8-4-1-24W1	162169.38	162169.38	773.42	773,420	122,964	1.4786
9-4-1-24W1	162,068.29	162,068.29	765.84	765,840	121,759	1.4650
10-4-1-24W1	162,067.78	162,067.78	776.30	776,300	123,422	1.4850
11-4-1-24W1	162,066.92	162,066.92	780.74	780,740	124,128	1.4935
12-4-1-24W1	162,066.23	162,066.23	781.73	781,730	124,285	1.4954
13-4-1-24W1	161,709.19	161,709.19	785.32	785,320	124,856	1.5056
14-4-1-24W1	161,709.14	161,709.14	781.34	781,340	124,223	1.4980
15-4-1-24W1	161,710.52	161,710.52	773.35	773,350	122,953	1.4826
16-4-1-24W1	161,711.26	161,711.26	762.87	762,870	121,287	1.4625
1-5-1-24W1	159,109.73	159,109.73	772.90	772,900	122,881	1.5060
2-5-1-24W1	159,088.39	159,088.39	775.03	775,030	123,220	1.5103
3-5-1-24W1	159,065.77	159,065.77	771.77	771,770	122,702	1.5042
4-5-1-24W1	159,044.27	159,044.27	774.92	774,920	123,202	1.5106
5-5-1-24W1	159,761.16	159,761.16	787.82	787,820	125,253	1.5288
6-5-1-24W1	159,782.50	159,782.50	789.65	789,650	125,544	1.5322
7-5-1-24W1	159,804.76	159,804.76	783.02	783,020	124,490	1.5191
8-5-1-24W1	159,826.09	159,826.09	775.55	775,550	123,303	1.5044
9-5-1-24W1	160,841.34	160,841.34	781.21	781,210	124,202	1.5058
10-5-1-24W1	160,839.24	160,839.24	788.15	788,150	125,306	1.5192
11-5-1-24W1	160,835.69	160,835.69	792.10	792,100	125,934	1.5268
12-5-1-24W1	160,833.58	160,833.58	791.70	791,700	125,870	1.5261
13-5-1-24W1	161,552.65	161,552.65	791.26	791,260	125,800	1.5184
14-5-1-24W1	161,555.13	161,555.13	792.78	792,780	126,042	1.5214
15-5-1-24W1	161,558.75	161,558.75	791.06	791,060	125,768	1.5180
16-5-1-24W1	161,560.85	161,560.85	787.60	787,600	125,218	1.5114
1-6-1-24W1	161,440.27	161,440.27	797.25	797,250	126,753	1.5310
2-6-1-24W1	161,474.86	161,474.86	806.19	806,190	128,174	1.5479
3-6-1-24W1	166,096.22	166,096.22	832.54	832,540	132,363	1.5540
4-6-1-24W1	166,131.96	166,131.96	834.14	834,140	132,618	1.5566
5-6-1-24W1	164,773.67	164,773.67	824.33	824,330	131,058	1.5510
6-6-1-24W1	164,737.95	164,737.95	831.58	831,580	132,211	1.5650
7-6-1-24W1	161,474.83	161,474.83	808.82	808,820	128,592	1.5529
8-6-1-24W1	161,440.33	161,440.33	798.93	798,930	127,020	1.5342
9-6-1-24W1	161,791.79	161,791.79	798.06	798,060	126,881	1.5292
10-6-1-24W1	161,795.21	161,795.21	808.10	808,100	128,478	1.5484
11-6-1-24W1	163,670.85	163,670.85	826.51	826,510	131,405	1.5656
14-6-1-24W1	162307.46	162307.46	798.74	798,740	126,990	1.5257
15-6-1-24W1	161,795.40	161,795.40	793.96	793,960	126,230	1.5214
16-6-1-24W1	161,791.90	161,791.90	790.17	790,170	125,627	1.5141
1-7-1-24W1	161,046.79	161,046.79	776.50	776,500	123,454	1.4948
2-7-1-24W1	161,183.66	161,183.66	772.55	772,550	122,826	1.4859
7-7-1-24W1	161,182.59	161,182.59	759.90	759,900	120,814	1.4616
8-7-1-24W1	161,046.03	161,046.03	770.18	770,180	122,449	1.4827
1-8-1-24W1	161,329.15	161,329.15	790.51	790,510	125,681	1.5191
2-8-1-24W1	161,248.63	161,248.63	788.71	788,710	125,395	1.5164
3-8-1-24W1	161,167.67	161,167.67	787.45	787,450	125,195	1.5147
4-8-1-24W1	161,087.51	161,087.51	784.58	784,580	124,738	1.5100
5-8-1-24W1	160,989.05	160,989.05	776.57	776,570	123,465	1.4955
6-8-1-24W1	161,069.43	161,069.43	783.75	783,750	124,606	1.5086
7-8-1-24W1	161,150.01	161,150.01	790.13	790,130	125,621	1.5201
8-8-1-24W1	161,229.92	161,229.92	794.15	794,150	126,260	1.5270
9-8-1-24W1	161,132.64	161,132.64	798.81	798,810	127,001	1.5369
10-8-1-24W1	161,052.44	161,052.44	792.28	792,280	125,962	1.5251
11-8-1-24W1	160,971.50	160,971.50	781.26	781,260	124,210	1.5047
12-8-1-24W1	160,891.14	160,891.14	768.73	768,730	122,218	1.4813
13-8-1-24W1	160,792.56	160,792.56	760.51	760,510	120,911	1.4663
14-8-1-24W1	160,872.32	160,872.32	775.92	775,920	123,361	1.4953
15-8-1-24W1	160,953.32	160,953.32	790.05	790,050	125,608	1.5218
16-8-1-24W1	161,033.51	161,033.51	804.05	804,050	127,834	1.5480
1-17-1-24W1	161,926.09	161,926.09	801.57	801,570	127,439	1.5347
2-17-1-24W1	161,757.81	161,757.81	788.38	788,380	125,342	1.5110
3-17-1-24W1	161,588.96	161,588.96	774.61	774,610	123,153	1.4862
4-17-1-24W1	161,420.90	161,420.90	753.69	753,690	119,827	1.4475
				69,535,360	**11,055,238**	

SW = 40%
Porosity = 10%
BO = 1.17

Table No. 5

Proposed Goodlands Unit 2

LOWER AMARANTH FORMATION ROCK & FLUID PARAMETERS

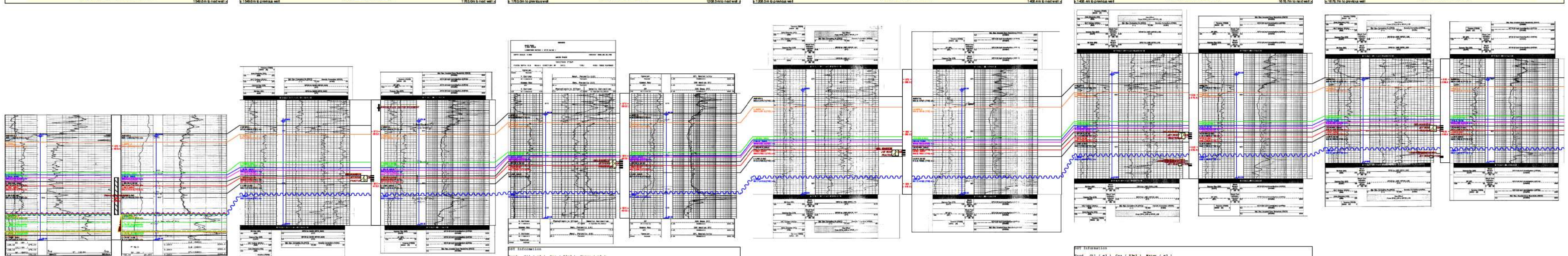
Formation Pressure	8500 kPa	Initial Average Reservoir Pressure
Formation Temperature	45 C	
Saturation Pressure	4220 kPa	Bubble Point
GOR	20 - 50 m3/m3	Gas Oil Ratio
API Oil Gravity	37.2	
Swi (fraction)	0.40	Initial Water Saturation
Produced Water Specific Gravity	1.08	
Produced Water pH	7.1 - 7.3	
Produced Water TDS	180,000	
Wettability	Moderately oil-wet	

Proposed Goodlands Unit No. 2

Application for Enhanced Oil Recovery Waterflood Project

List of Appendices

A — 00/08-01-001-25W1/0 KB: 474.6 m RR: 1963-08-07 TD: 943.0 m [TVD] FormTD: TILSTNBD Mode: Abnd Fluid: N/A VOYAGER BLACKROCK S. CRANMER 8-1-1-25 1549.6m to next well >	00/08-06-001-24W1/0 KB: 481.7 m RR: 2003-08-05 TD: 957.0 m [TVD] FormTD: LODGEPOL Mode: Abnd Fluid: Oil EOG WASKADA 8-6-1-24 (WPM) < 1549.6m to previous well 1763.0m to next well >	00/09-05-001-24W1/0 KB: 495.0 m RR: 2004-10-13 TD: 959.0 m [TVD] FormTD: TILSTNBD Mode: Prod Fluid: Oil EOG WASKADA 9-5-1-24 (WPM) < 1763.0m to previous well 1208.5m to next well >	00/10-04-001-24W1/0 KB: 506.5 m RR: 2003-10-04 TD: 975.0 m [TVD] FormTD: TILSTNBD Mode: Prod Fluid: Oil EOG WASKADA 10-4-1-24 (WPM) < 1208.5m to previous well 1408.4m to next well >	00/14-03-001-24W1/0 KB: 524.1 m RR: 2003-03-20 TD: 985.0 m [TVD] FormTD: TILSTNBD Mode: Pump Fluid: Oil EOG WASKADA 14-3-1-24 (WPM) < 1408.4m to previous well 1678.7m to next well >	00/14-02-001-24W1/0 — A` KB: 531.6 m RR: 2003-03-16 TD: 975.0 m [TVD] FormTD: Mississippian Top Mode: Pump Fluid: Oil EOG WASKADA 14-2-1-24 (WPM) < 1678.7m to previous well



DST Information (00/08-01-001-25W1/0)

1. 908.0(TVD)-916.0(TVD) (TILSTNBD)
   Type: DUAL CONVENTIONAL STRADDLE (BLANK OFF) 4 PACKERS
   VO: 30.0/90.0 SI: 60.0/120.0 min
   FP: 320.0/1659.0 kPa
   SIP: 8103.0/7657.0 kPa
   HP: 10292.0/10058.0 kPa
   "BLOW DESCRIPTION: FAINT AIR BLOW ON PREFLOW, INCREASING TO VERY WEAK. VERY WEAK AIR BLOW ON FINAL FLOW. RECOVERY: 126M (413FT) MUD SHTEMP: 41C; PERMEABILITY: LOW FORMATION DAMAGE: NONE WATER: RW .45 OHMM, SG: 1.01,CL: 2950"

Prod	Oil (m3)	Gas (E3m3)	Water (m3)
Cum	0.0	0.0	0.0
Daily	0.0	0.0	0.0

DST Information (00/08-06-001-24W1/0)

Prod	Oil (m3)	Gas (E3m3)	Water (m3)
Cum	572.3	0.0	1644.7
Daily	0.7	0.0	2.1

DST Information (00/09-05-001-24W1/0)

Prod	Oil (m3)	Gas (E3m3)	Water (m3)
Cum	1932.2	0.0	1387.2
Daily	0.9	0.0	0.7

DST Information (00/10-04-001-24W1/0)

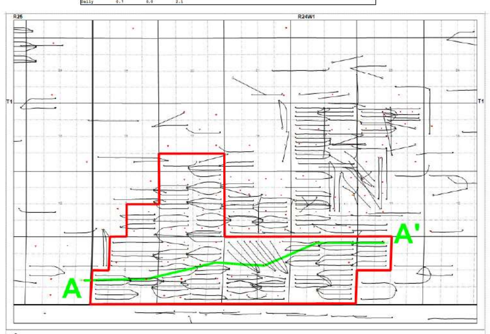
Prod	Oil (m3)	Gas (E3m3)	Water (m3)
Cum	2782.8	228.0	2962.6
Daily	0.8	0.1	0.8

DST Information (00/14-03-001-24W1/0)

Prod	Oil (m3)	Gas (E3m3)	Water (m3)
Cum	1358.9	6.0	1679.2
Daily	0.4	0.0	0.5

DST Information (00/14-02-001-24W1/0)

Prod	Oil (m3)	Gas (E3m3)	Water (m3)
Cum	490.6	0.0	991.3
Daily	0.3	0.0	0.6



Legend

- Dry & Abandoned
- Abandoned Oil
- Oil
- Contact Type - Conformity
- Contact Type - Unconformity
- Contact Type - Time Equivalence
- Contact Type - Left Fault
- Contact Type - Right Fault

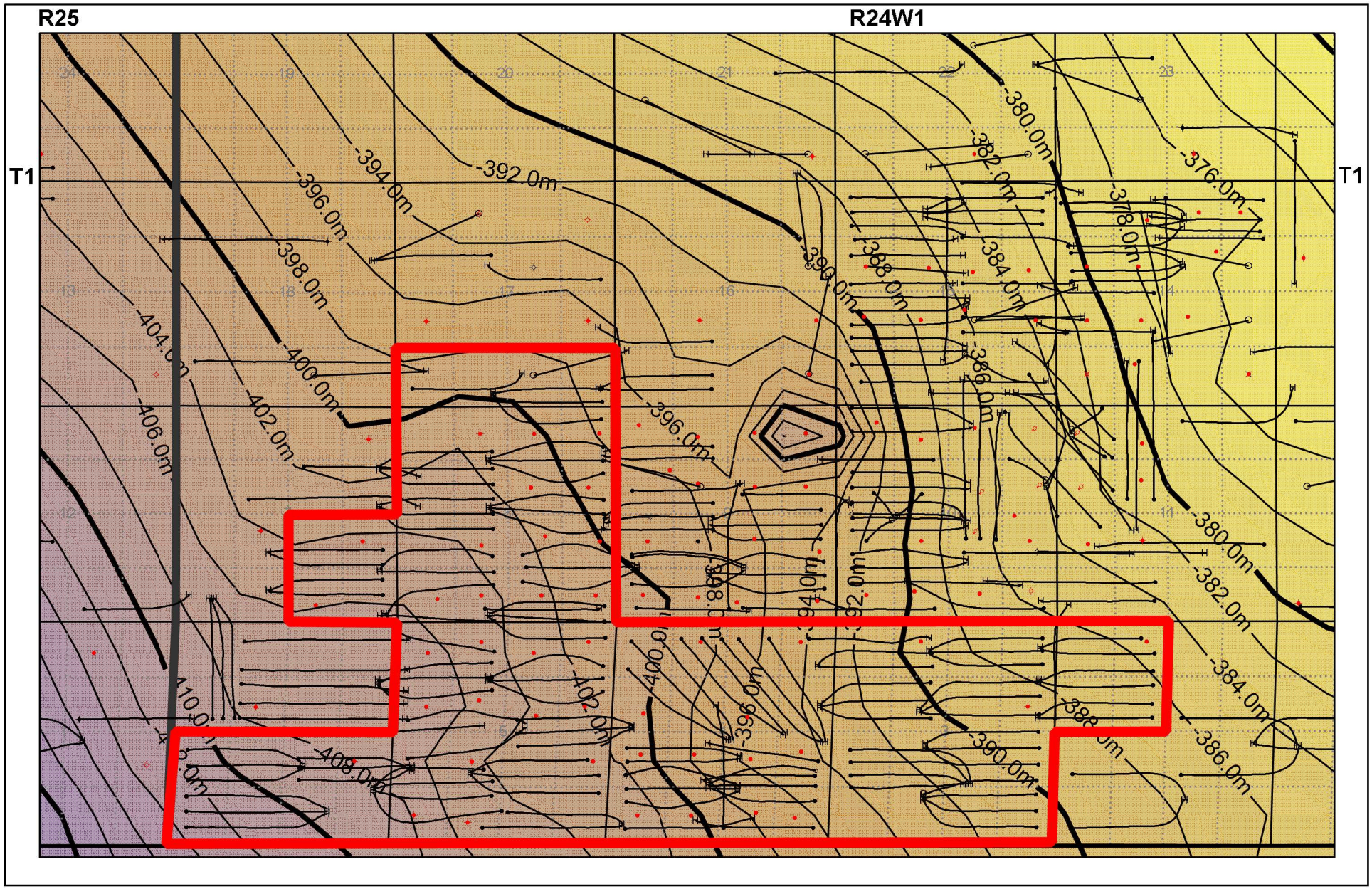
Appendix 1

Tundra Oil and Gas Partnership

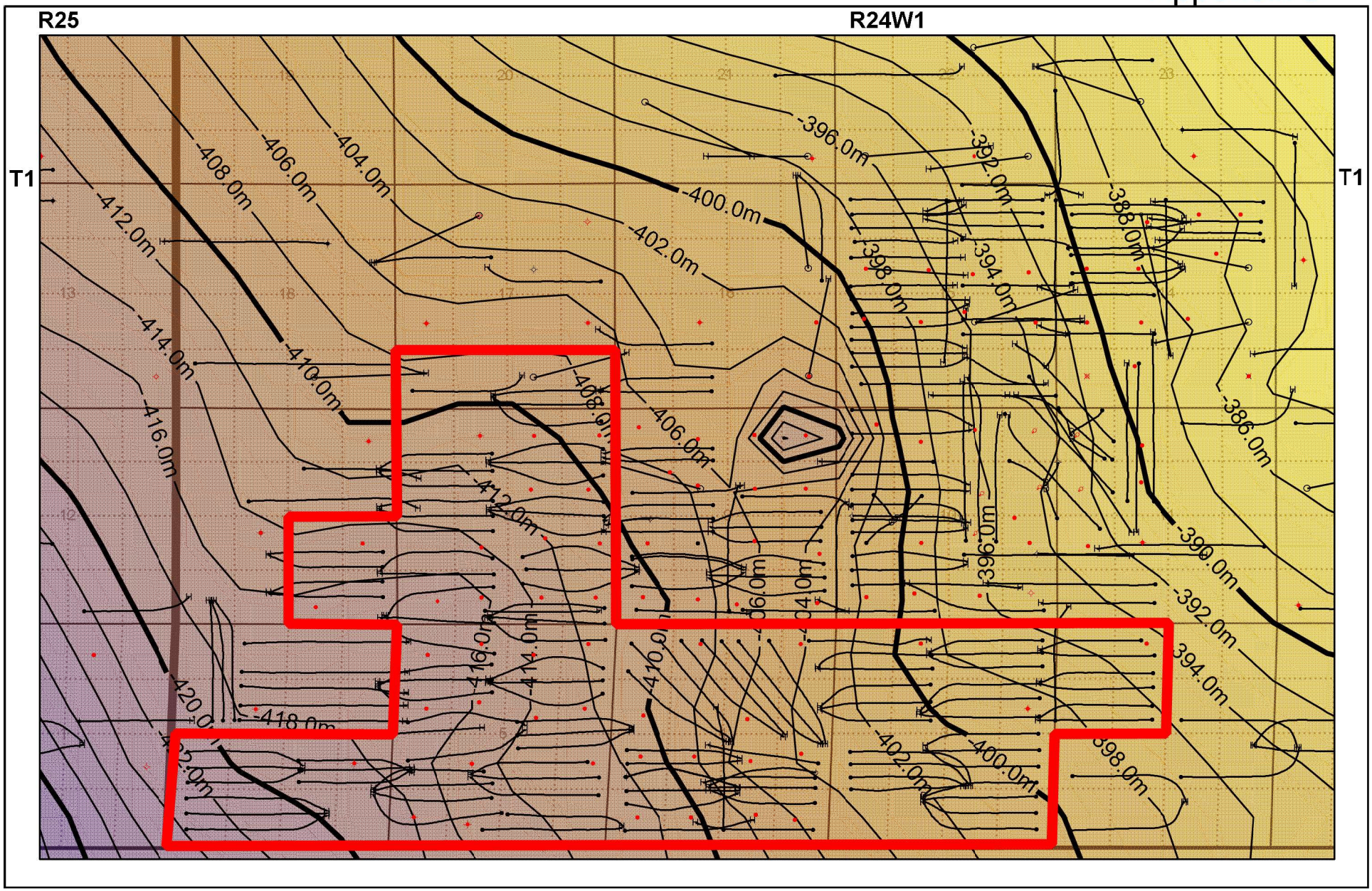
Structural Cross Section through Goodlands Unit 2.

Produced by: AccuLogs Version 8.2.1.178546 Datum: NAD27

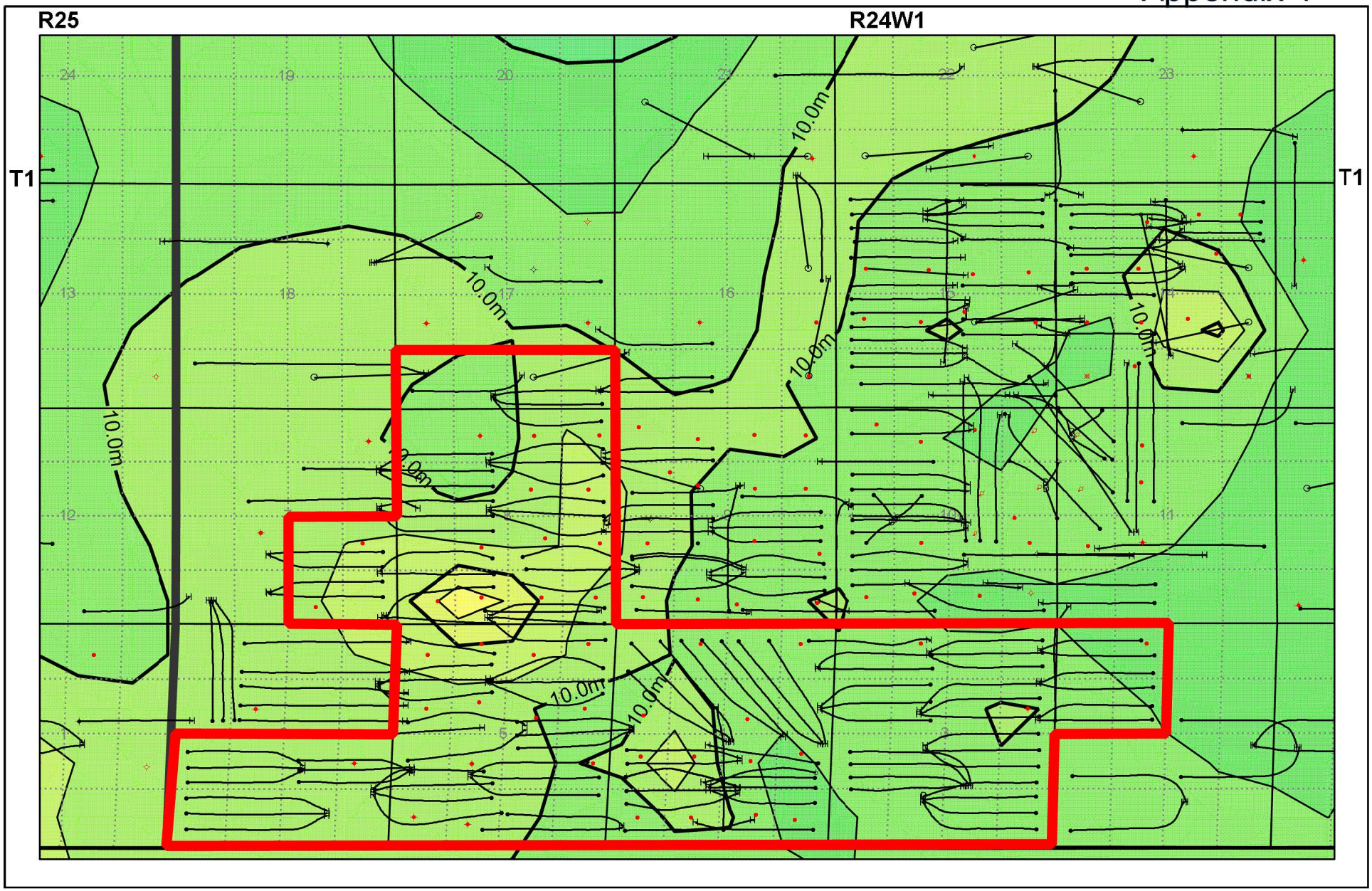
Author: Nasty
Modified On: Thursday, June 02, 2016 04:34PM
Printed On: Thursday, June 02, 2016 04:34PM
Start Formation: 5m. above AMRNTHL
End Formation: 5m. below U-MISS P
Cross Section Name: WASKADAGN2



Goodlands Unit 2 Application
Green Sand Structure (Top of Reservoir)
June 07, 2016

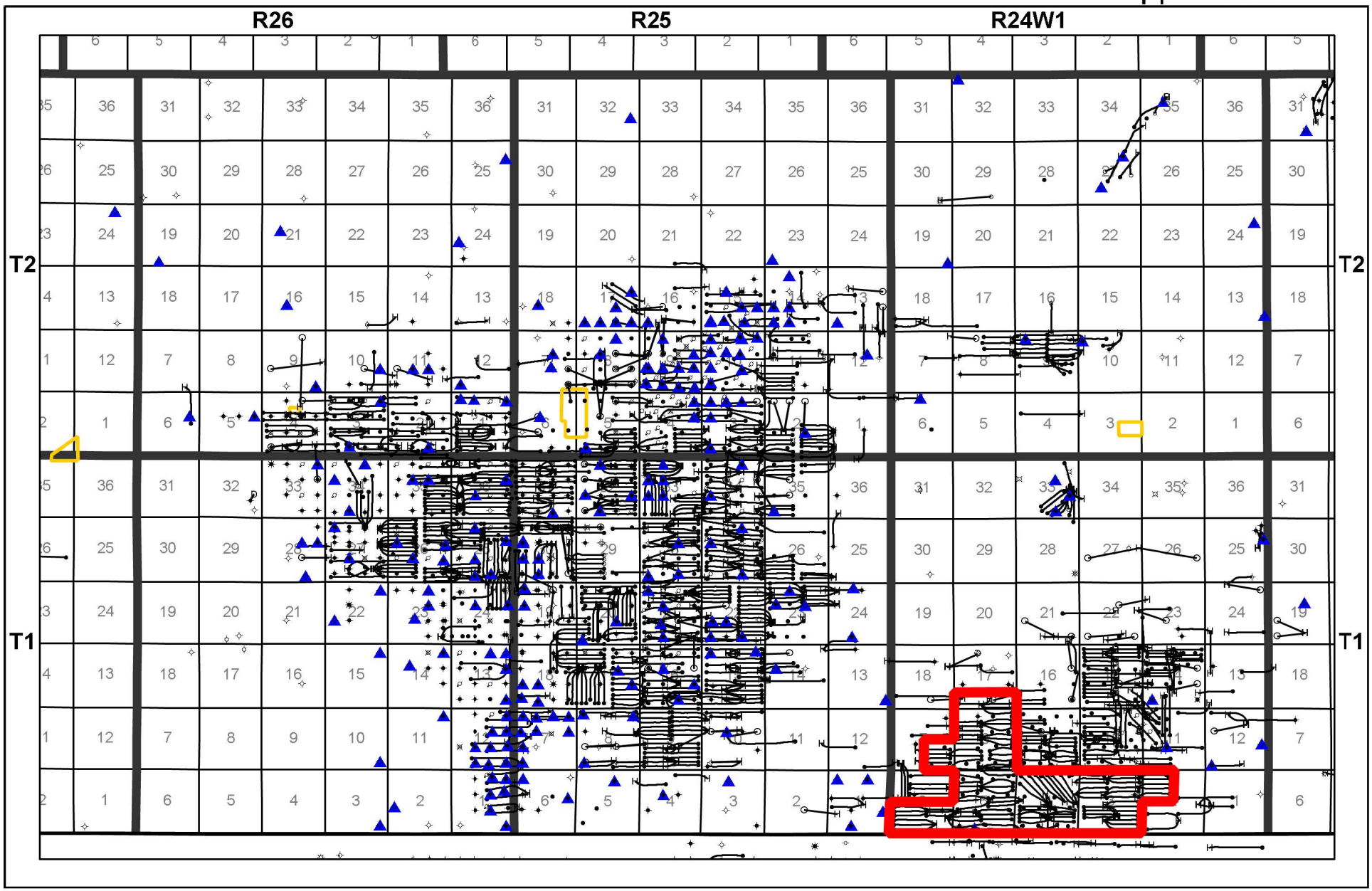


Goodlands Unit 2 Application
Lower Sand Structure (Base of Reservoir)
June 07, 2016



Goodlands Unit 2 Application
Reservoir Isopach (Top Green to Top Lower Sand)
June 07, 2016

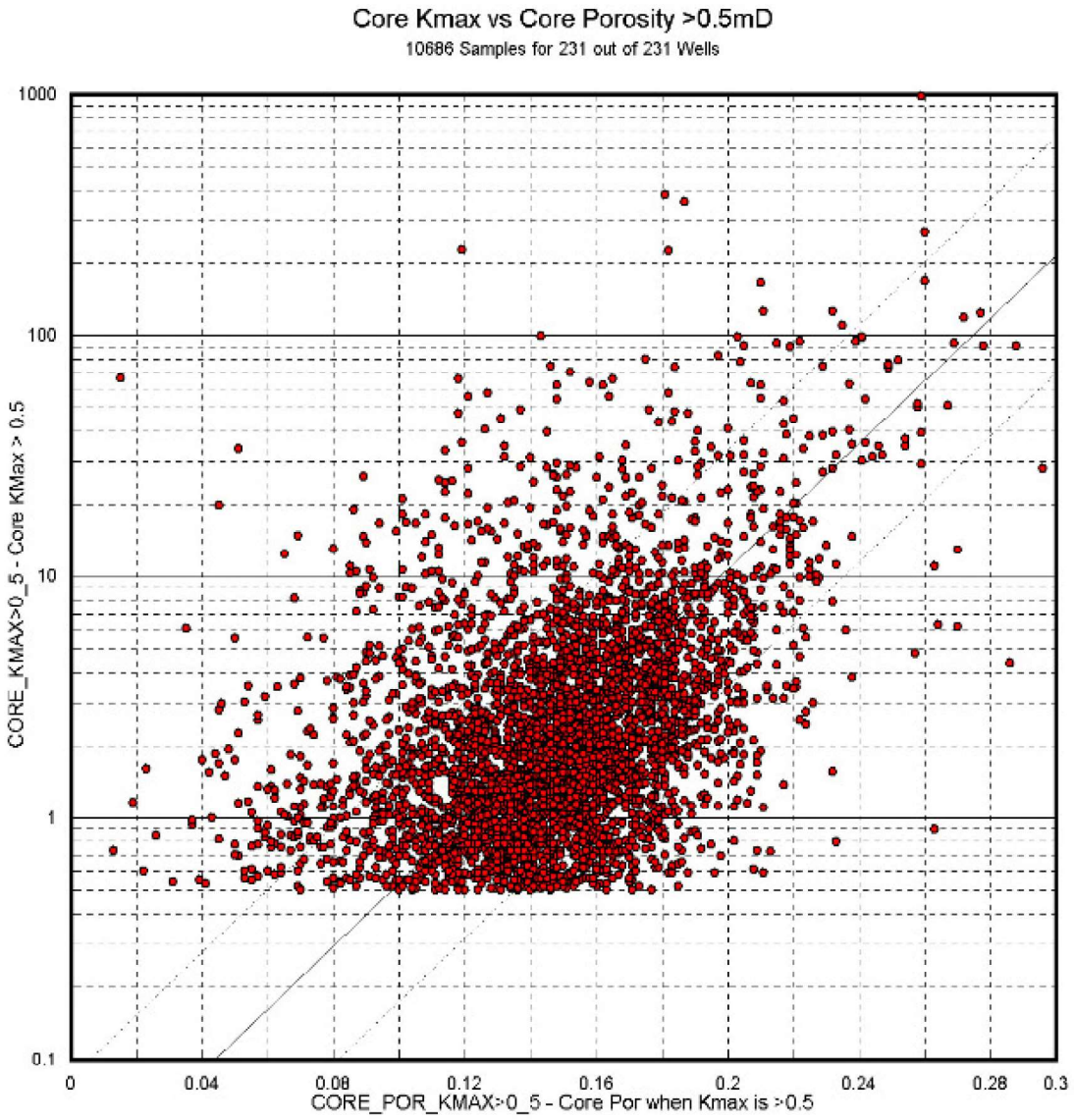
Appendix 5



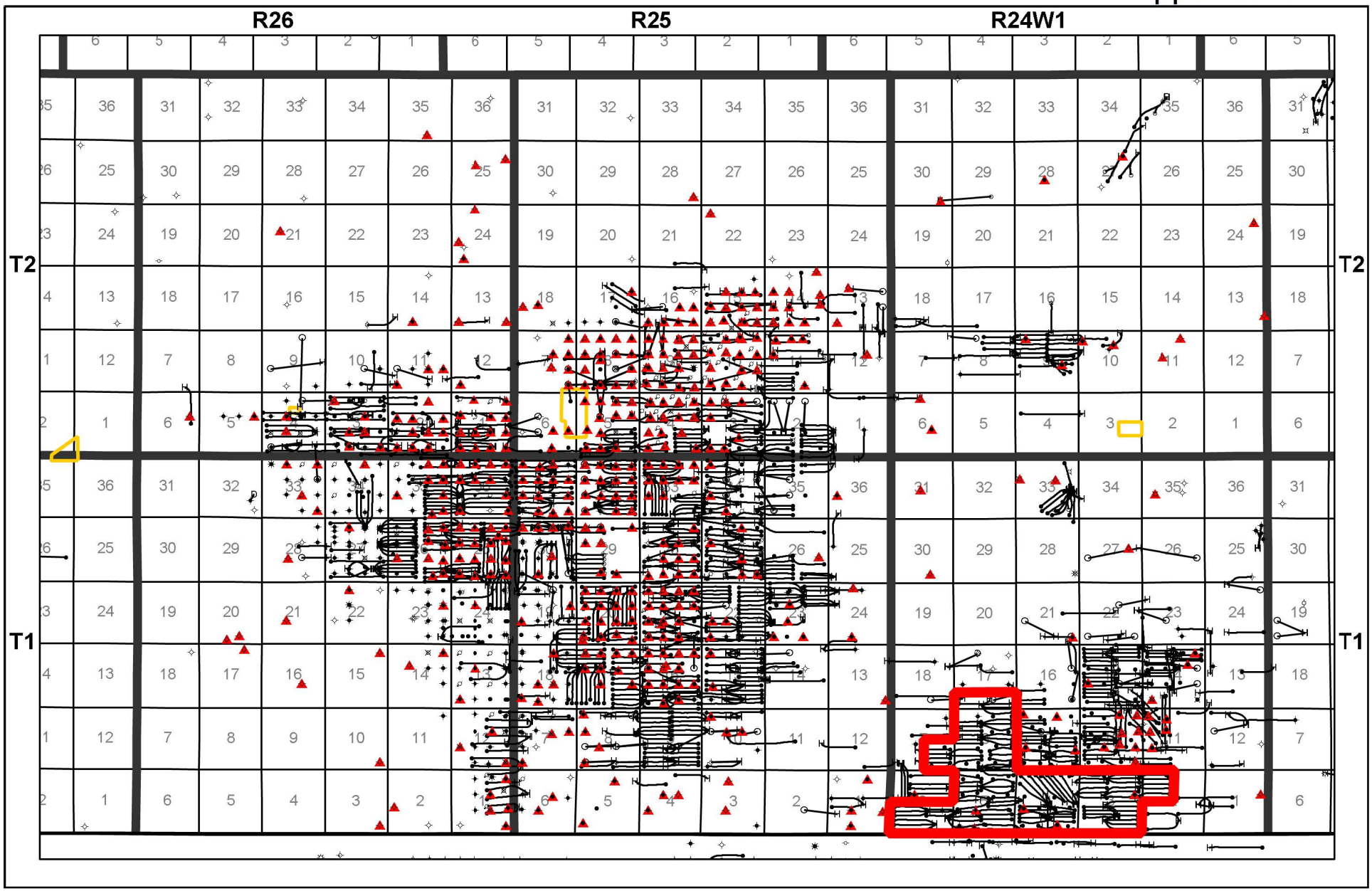
Goodlands Unit 2 Application
Wells with Core Analysis Used to Create Core Perm vs Core Porosity Cross Plot
June 07, 2016

Appendix 6

Tundra Pierson Waskada Project

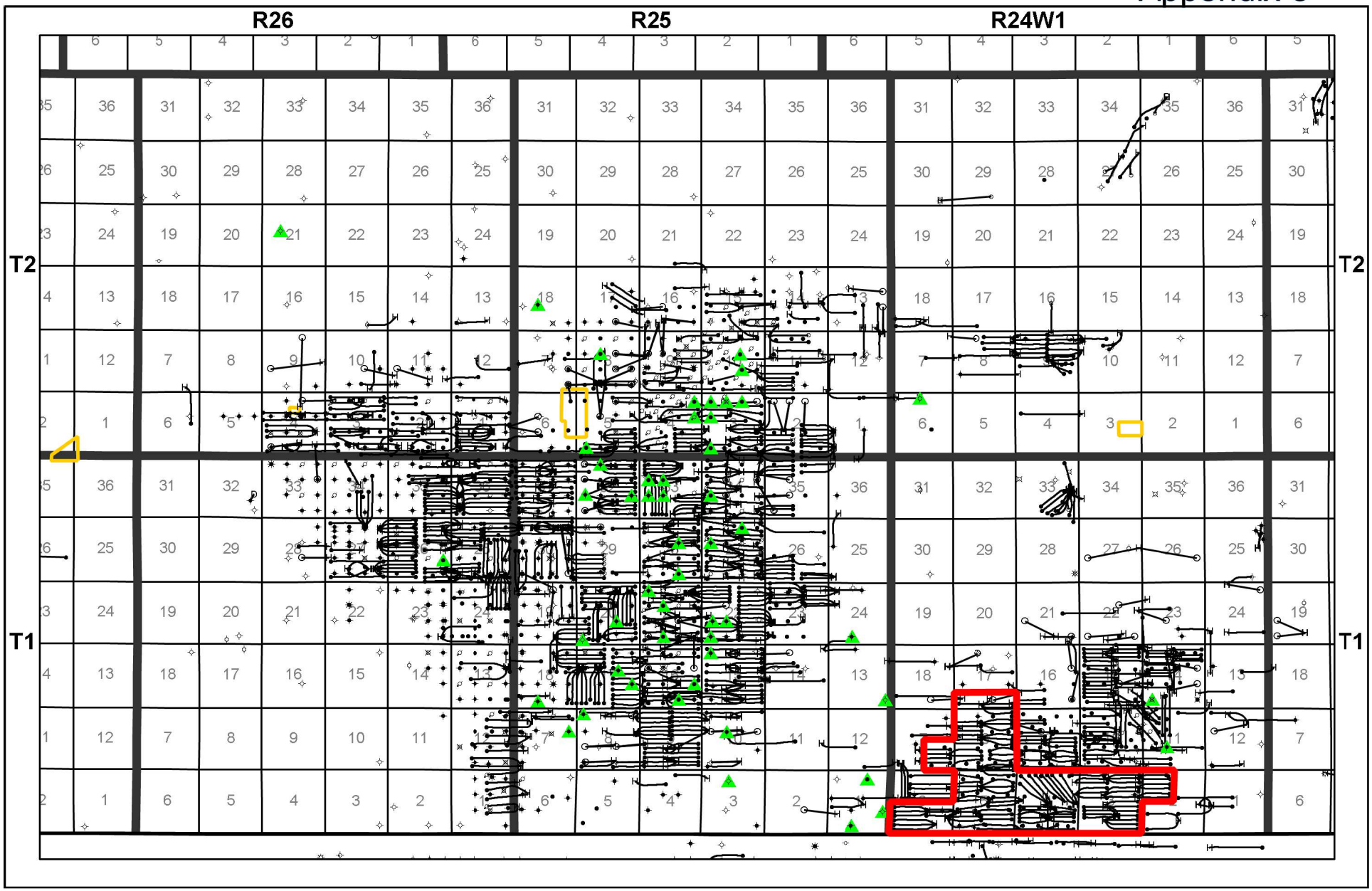


LOG(CORE_KMAX>0_5) = 12.99873743*CORE_POR_KMAX>0_5 - 1.5681 Corr=0.422 StdErr=0.4908



Goodlands Unit 2 Application
Wells with Digital Sonic Logs
June 07, 2016

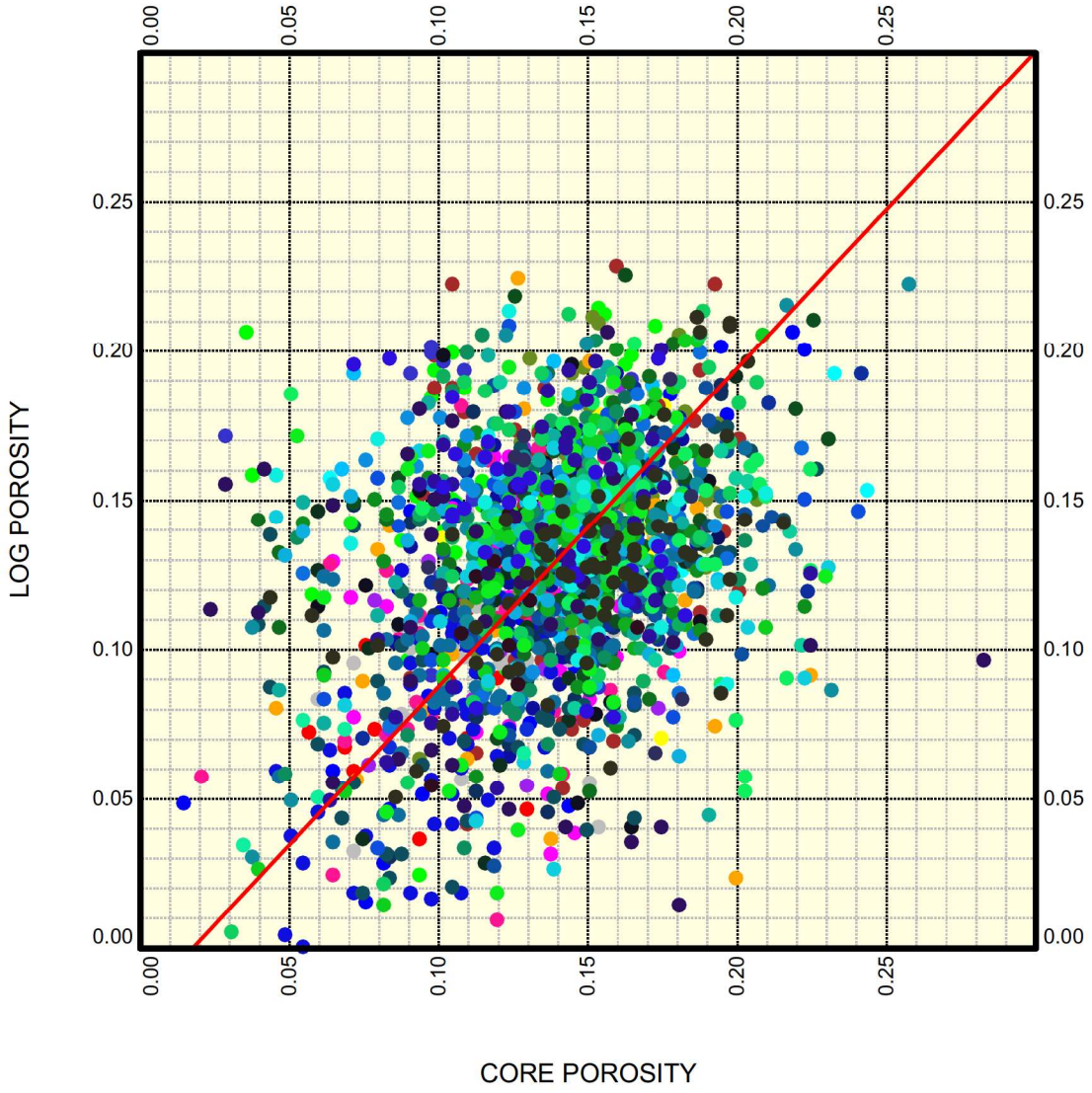
Appendix 8



Goodlands Unit 2 Application
Wells with Digital Sonic Logs and Core Analysis over the Lower Amaranth Reservoir Interval
June 07, 2016

Log Porosity vs Core Porosity Crossplot

Well: 52 Wells



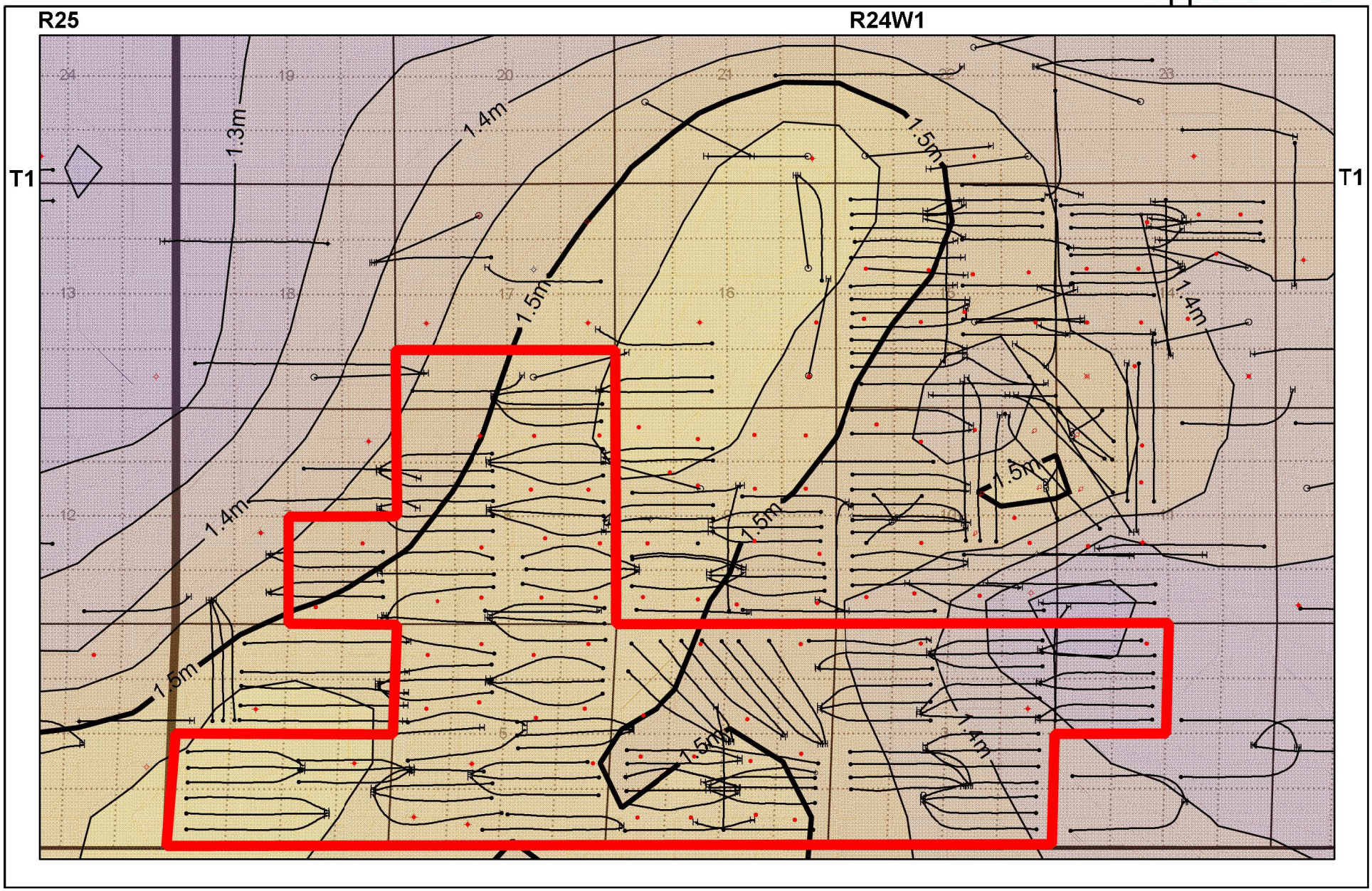
Wells:

100011300125W100	100021600125W100	100022800125W100	100030100125W100	100031800125W100
100032100125W100	100032400125W100	100040300225W100	100040500225W100	100041400124W100
100042000125W100	100042200125W100	100052200125W100	100053200125W100	100053300125W100
100053400125W100	100061100124W100	100061800225W100	100062200125W100	100063300125W100
100071000225W100	100072000125W100	100080100125W100	100081600125W100	100081700125W100
100082600126W100	100083200125W100	100090400225W100	100090700125W100	100101000225W100
100101700125W100	100102800125W100	100110800225W100	100111000125W100	100112100125W100
100112100226W100	100113300125W100	100120300225W100	100122700125W100	100123300125W100
100130300225W100	100130800125W100	100131500125W100	100132100125W100	100140300125W100
100140300225W100	100140600224W100	100143200125W100	100150100125W100	100150300225W100
100152700125W100	100160400225W100			

Intervals: U-GREEN_SAND U-BLUE_SAND U-PURPLE_SAND U-BROWN_SAND U-RED_SAND U-LWR_SAND

Functions:

test: Regression Logs: CORE.POROSITY, PHIE, CC: 0.329356
PHIE = (-0.0186548 + 1.06436*(POROSITY))



Goodlands Unit 2 Application
Phi_h at 10% cut off
June 07, 2016