

Daly Unit #15
2019 Annual EOR Report

Executive Summary

In 2019 oil production in Daly Unit #15 averaged 59 m³/d (371 bbl/d) totaling 21.5 e³m³ (135 mbbbl). Annual production inclined by 49% from 2018 to 2019, using the yearly averages. Comparing December 2018 to December 2019 the production increase by 0.26%. By the end of 2019 cumulative oil production from the Daly Unit #15 was 84.7 e³m³ (532.6 mbbbl). The unit is currently still under primary production and has had no water injected into the producing formations.

In December 2019 there were 11 producing oil wells fully within the unit and four wells that cross unit boundaries, and no active water injectors in the unit. In 2017, two wells were drilled within the unit. In 2018, four crossover wells were drilled in the unit. In 2019, one well was drilled within the unit.

Discussion

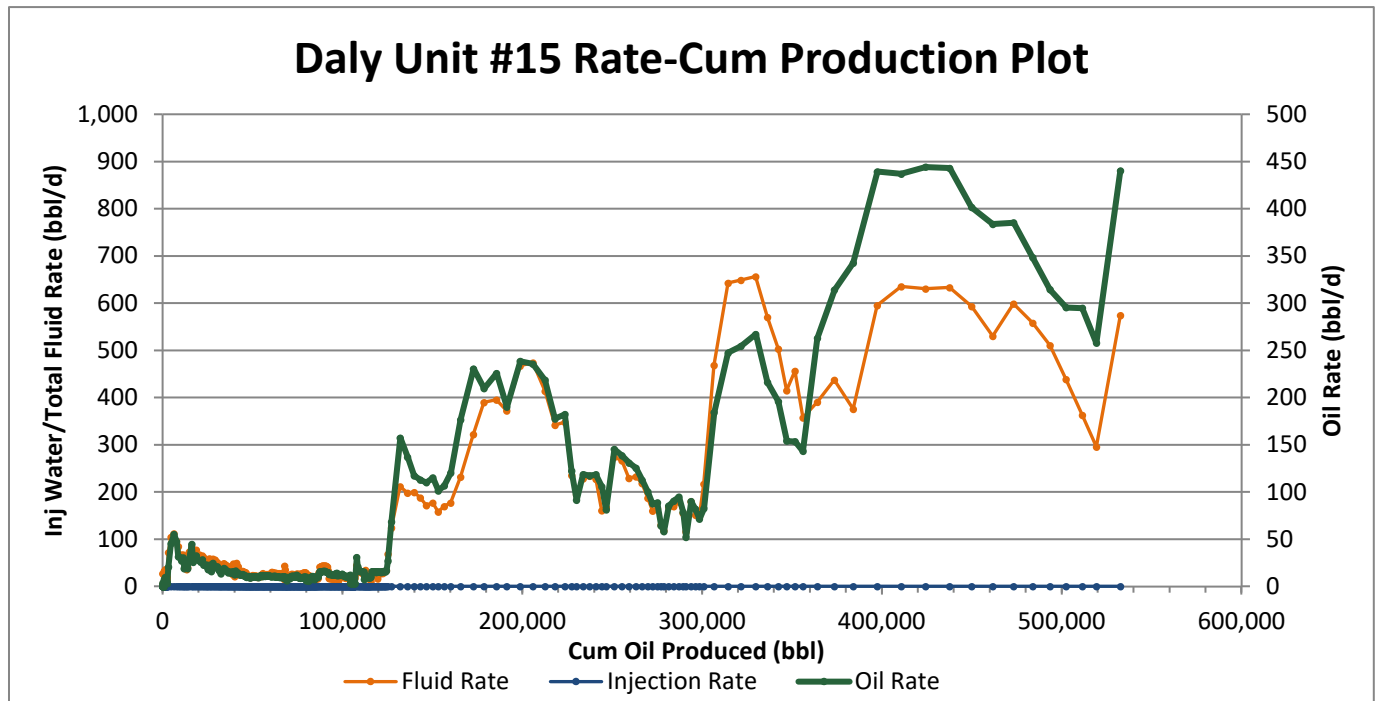
The Daly Unit #15 was created as a unit in 2018, with the intention of further development through the implementation of a waterflood scheme.

In 1956, 3 vertical wells were drilled and all were left dry and abandoned. In 1984, a vertical well was drilled and first produced in 1985. In the following years 3 additional vertical wells were drilled and produced. In 2010, a relatively unsuccessful open hole horizontal well was drilled. In the following years Corex was active drilling horizontal wells and completing with hydraulic fractures, resulting in much more successful wells. The intention is to progress to secondary recovery methods after a period of primary production. This unit has a low recovery factor and further development through waterflood will increase the recovery. In 2019, the producing WOR was $0.3 \text{ m}^3/\text{m}^3$.

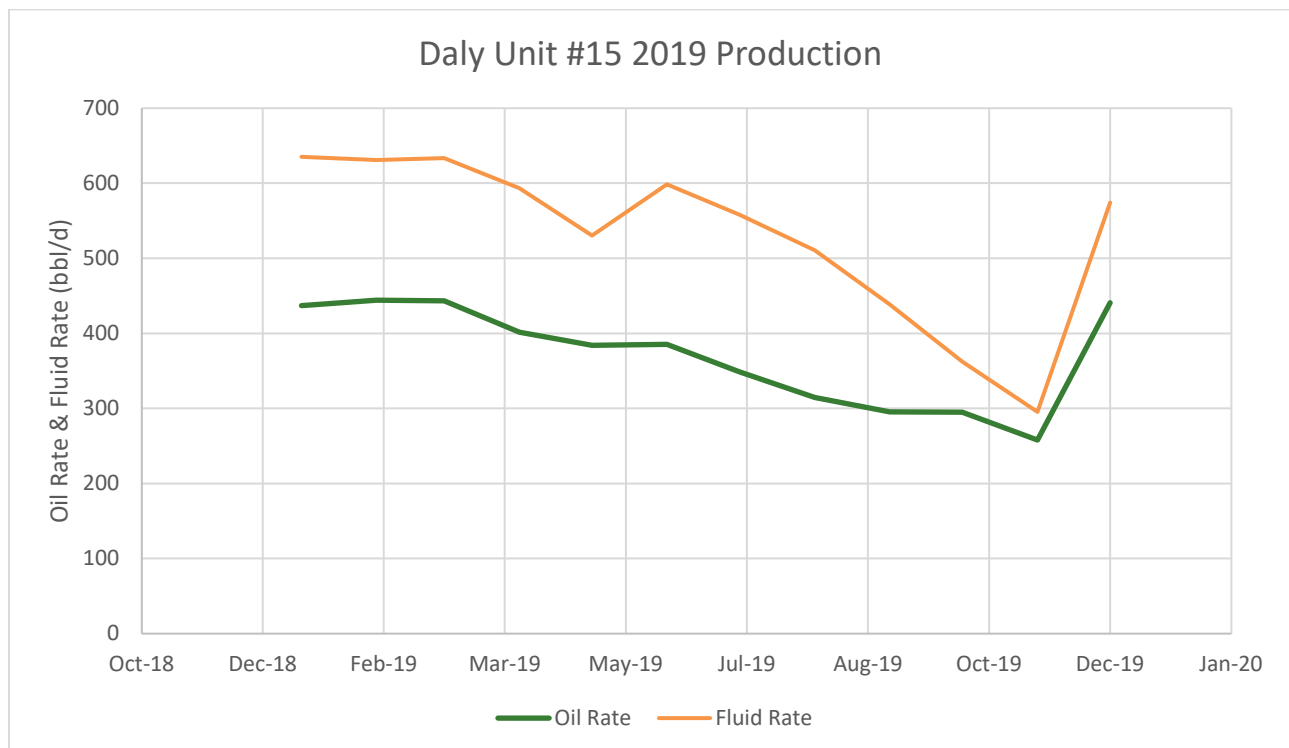
Significant events in 2019 are as follows:

- October 2019, drill the 103/15-10-010-28W1/00 horizontal well in the Daly.

Daly Unit #15 – Rate vs Cum Oil Production



Daly Unit #15 – Rate vs Time



2019 Reservoir Pressure Surveys

Unit	UWI	License	Test Type	Date of Pressure	Duration of SI (days)	Extrapolated Pressure (kPaa)
Daly #15	102/12-10-010-28W1/00	7210	Flow & BU	2014-03-17	65	2,348

Only one pressure has been taken in this unit since the history of its inception. This is from a known low pressure horizontal well in the Crinoid member. With the performance of the remainder of the wells in the other Lodgepole members, the pressures in the other members would be closer to the initial reservoir pressure. It is estimated that the initial reservoir pressure is around 7,500 kPa and the bubble point around 2,000 kPa. With the recent rapid development in the unit and the inter well spacing the reservoir pressure is likely dropping significantly. When effects of a decline in pressure is seen, the implementation of a waterflood will be advantageous. Due to the nature of the rock in this area and the lower permeability recording accurate pressures are difficult.

2019 Well Servicing

UWI	Unit	Licence	Start Date	Operation	Objective
104/13-09-010-28W1/00	DU15	10793	2019-06-10	Facilities	Tie In Only
104/13-09-010-28W1/00	DU15	10793	2019-09-28	Facilities	Cathodic
104/13-09-010-28W1/00	DU15	10793	2019-10-23	Facilities	Insulate and Heat Trace for Compressor
102/12-09-010-28W1/00	DU15	10146	2019-01-31	Completion/Workover	Pump Repair
103/15-10-010-28W1/00	DU#15	11279	2019-03-04	Construction	Construction
103/15-10-010-28W1/00	DU#15	11279	2019-03-15	Facilities	Equip & Tie-In
103/15-10-010-28W1/00	DU#15	11279	2019-10-20	Drilling	Drilling - original
103/15-10-010-28W1/00	DU#15	11279	2019-10-26	Completion/Workover	Initial Completion
104/12-09-010-28W1/00	DU15	10792	2019-06-10	Facilities	Tie In Only