Virden Roselea Unit #3

2016 Annual EOR Report

Executive Summary

In 2016 oil production in the Virden Roselea Unit #3 (VRU #3) was 33.2 m^3/d (209 bbl/d) totaling 12.1 e^3m^3 (76.3 mbbl). Annual production declined 20.4% from 2015 to 2016. By the end of 2016 cumulative oil production from the VRU #3 was 2 636 e^3m^3 (16.5 mmbbl). The original forecasted recovery was 1 290 e^3m^3 (8.1 mmbbl) on primary recovery and 2 837 e^3m^3 (17.9 mmbbl) total primary plus secondary recovery.

In December 2016 there were 50 producing oil wells and 19 water injectors active in the unit. In 2016, one re-entry off of an existing horizontal in the Scallion formation was drilled.

Discussion

The VRU #3 has been under waterflood since 1967, 12 years after first production from the pool in 1954. Water injection increased the oil production rate from ~100 m^3/d (~629 bbl/d) to ~225 m^3/d (1,415 bbl/d); however, lower than peak production from the field of 450 m^3/d (2,830 bbl/d). Expected ultimate oil recovery was doubled by the waterflood. As of yet, the waterflood forecast has not been exceeded as in other units.

Prior to 2013, there had been only one development well drilled in VRU #3 in the last nine years, a horizontal well drilled in 2008. In 2002 and 2003, nine horizontal wells were drilled in the unit with mixed results. In 2014, two Scallion and three Virden horizontal wells were drilled in the unit. In 2015, an additional Scallion well was drilled. In 2016, a re-entry well was drilled in the Scallion formation.

There have been no new wells converted to injection since 1974. Currently, potential conversions are under technical review to improve the sweep efficiency in the unit. In the Northeast segment of the unit different tracers were placed into the injectors and the produced water was monitored from the producing wells. The results showed that the reservoir is very complex with notable fracturing. A clear fracture trend can be seen in the NW-SE orientation, with water from distant injectors traveling to some wells and completely bypassing others. Therefore, there is an undisputable high permeability channel that is preferential to flow in some areas of the unit. This gives us the understanding that the waterflood is more complex than envisioned and the patterns that have been drawn in all of the units will rarely be correct. The intricacy of the reservoir and ultimately the waterflood behavior cannot be fully understood. With natural fractures the low recovery of the unit and poor sweep efficiency is understandable. An increase in the injector to producer ratio will likely be effective and change the well-established streamlines. This unit also has the lowest cum VRR of any of the units at 0.81, and increasing the amount of injection as well as balancing the flood would be beneficial. The water injection rate was 1,175 m^3/d (7,388 bbl/d) in 2016 and the producing WOR was 30 m^3/m^3. The injected water at VRU #3 is not filtered or treated in any way.

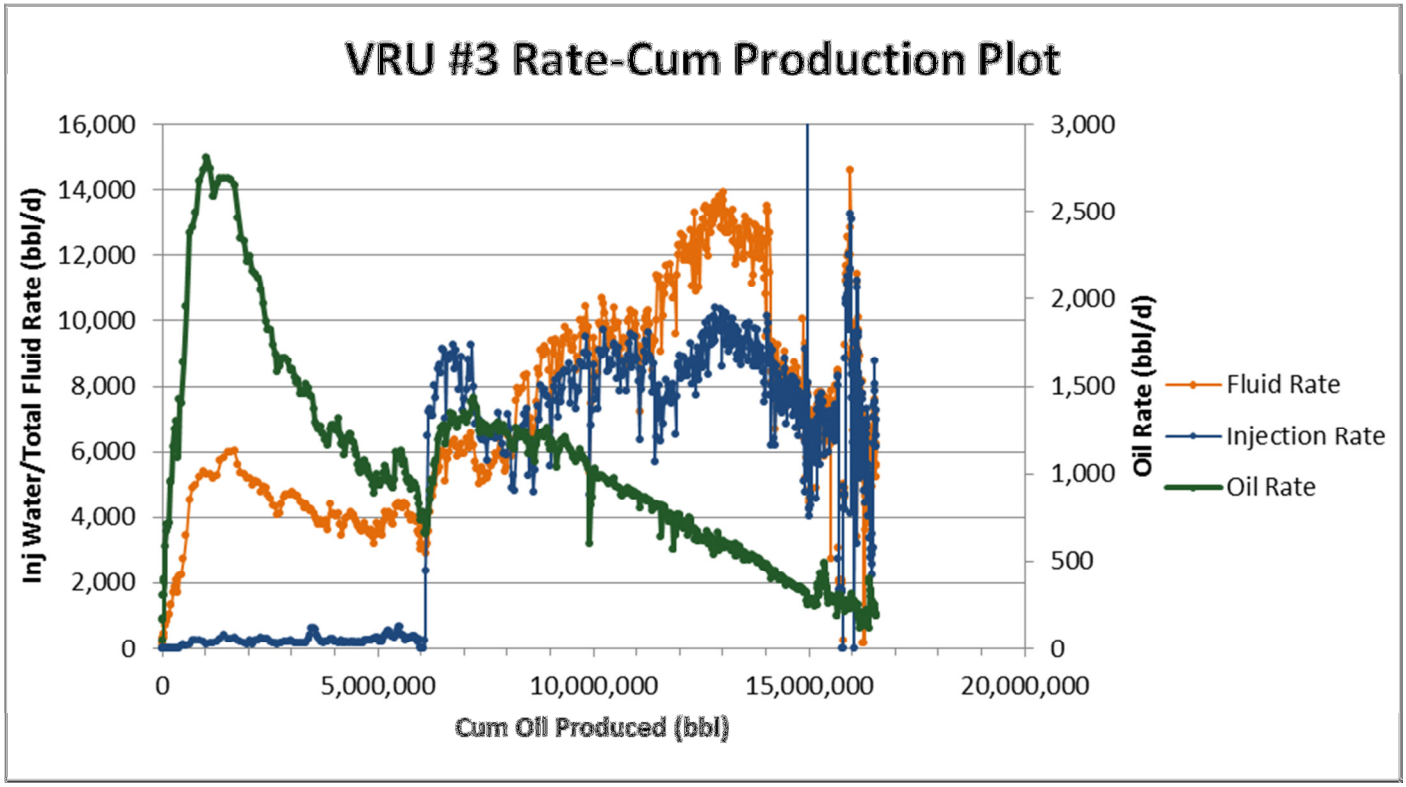
Significant events in 2016 are as follows:

- March 2016, reactivated the 102/03-11-010-26W1/00 disposal well for the unit.
- June 2016, abandon the 102/02-18-010-25W1/00 vertical well.
- September 2016, re-enter the 102/08-23-010-26W1/00 horizontal well and drill a second leg in the Scallion formation.

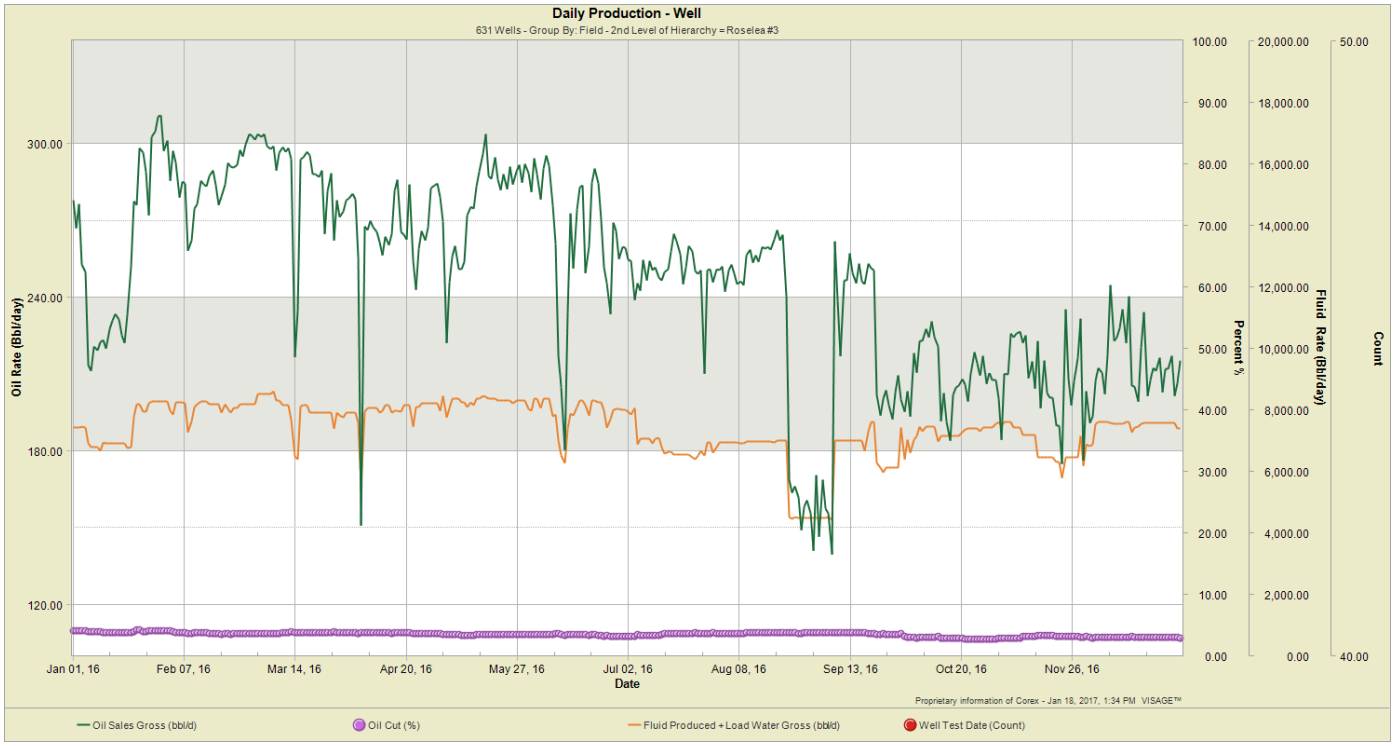
In the composite rate – cumulative oil plot below, waterflood response is clearly demonstrated at a cumulative oil production of 1000 e^3m^3 (6.3 MMbbl) after a pattern waterflood was initiated.

Detailed production, injection, voidage tables and plots for the total unit and each injection pattern are at the end of this report.

VRU #3 – Rate vs Cum Oil Production



VRU #3 – Rate vs Time



2016 Reservoir Pressure Surveys

In 2016, no pressure survey was conducted in the unit, below are the pressures collected in 2015:

Unit	UWI	License	Test Type	Date of Pressure	Duration of SI (days)	Datum BHP (kPaa)
VRU #3	100/10-11-010-26W1/00	1230	AWS BU	9/11/2015	11	6,450
VRU #3	102/05-12-010-26W1/00	10238	BH BU	2/20/2015	8	6,193

In 2015, two pressure surveys were conducted within the unit, pressures close to normally pressured. In 2014, six pressure surveys were conducted giving an average pool pressure of 7 200 kPaa. Prior pressure surveys have shown that wide variations in pressure exist across the pool. Average pressure is estimated to be between 6 500 – 8 500 kPaa based on pressures taken in 2011 and 2012, indicating that the reservoir is over pressured, based on the current survey (few data points) the reservoir appears more normally pressured.

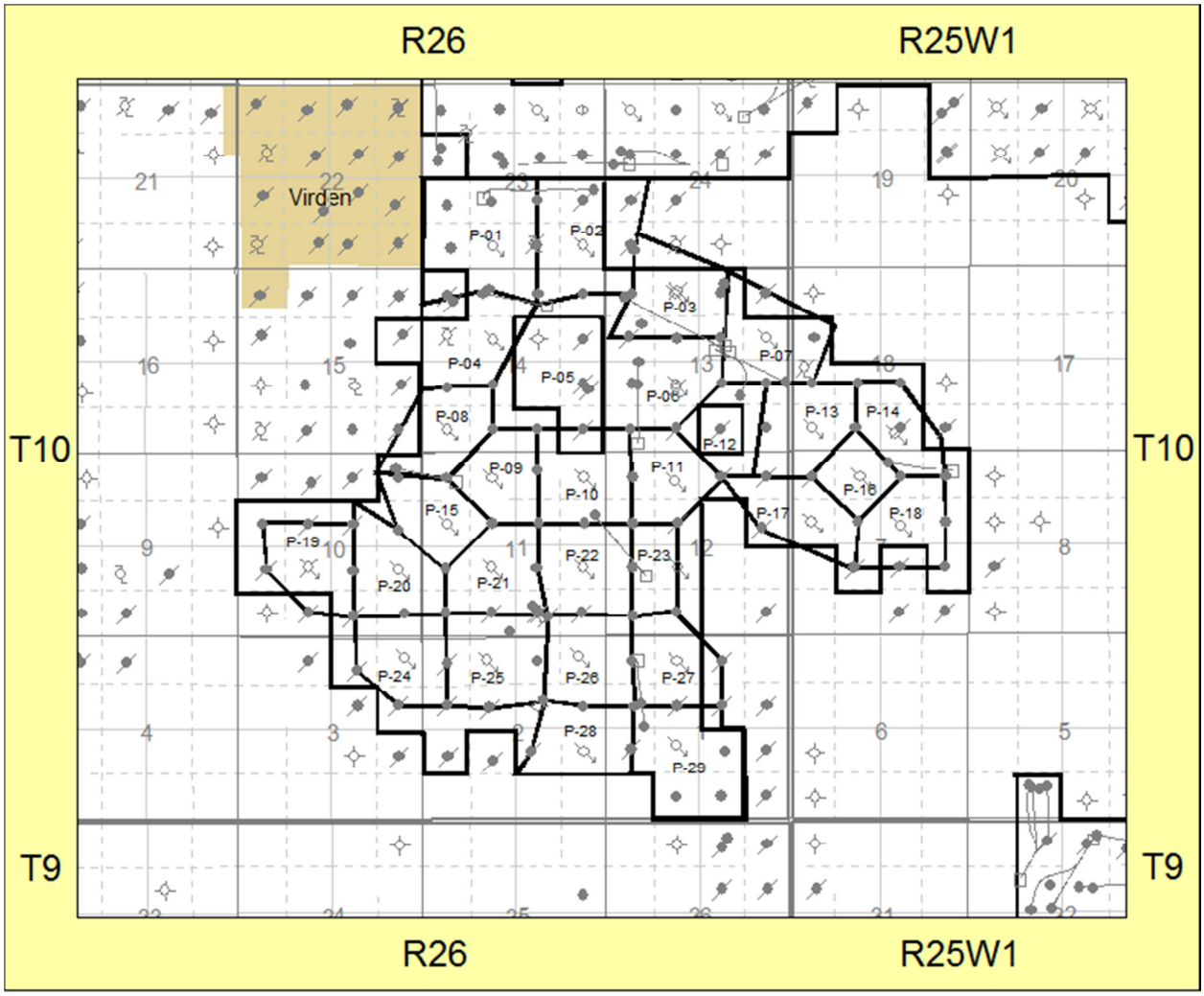
The voidage replacement ratio (VRR) in 2016 hovered around 1.00. At the end of the year the VRR was 1.09. The cumulative VRR at year end was 0.81. The high reservoir pressure is inconsistent with the cumulative VRR less than 1.0.

There is partial pressure support for the field from an aquifer on the west side of the unit and the water influx from the aquifer is not accounted for in the VRR calculation. An oil formation volume factor of 1.06 rm^3/sm^3 and a water formation volume factor of 1.04 rm^3/sm^3 were used in the VRR calculations.

2016 Well Servicing

UWI	Unit	Licence	Operation	Date	Objective
102/03-11-010-26W1/02	VRU#3	001516	Salt Water Disposal	8-Mar-16	
02-11-10-26	VRU#3	F16VIR001	Battery Upgrade	21-Mar-16	
103/05-18-010-25W1/00	VRU#3	10124	Install Compressor	17-Jun-16	
103/05-18-010-25W1/00	VRU#3	10124	Pump Repair	26-Oct-16	
102/10-11-010-26W1/00	VRU#3	10623	Equip & Tie-In	30-Nov-16	
102/07-11-010-26W1/00	VRU#3	9931	Major Surface R&M	22-Feb-16	
102/07-11-010-26W1/00	VRU#3	9931	Major Surface R&M	8-Jun-16	
PIPELINE REPLACEMENT	VRU#3	P16VIR004	Pipelines	20-Oct-16	
100/07-18-010-25W1/00	VRU#3	002125	Wellhead Repair	6-Jun-16	
100/05-18-010-25W1/00	VRU#3	000900	Major Surface R&M	12-Sep-16	
MAJOR SURFACE R & M	VRU#3	RM16VIR021	Major Surface R&M	17-Nov-16	
102/02-18-010-25W1/00	VRU#3	002141	Abandon Well	26-May-16	
100/11-01-010-26W1/00	VRU#3	001231	In Line Inspection	15-Aug-16	
102/11-02-010-26W1/00	VRU#3	10052	Upsize Pump	12-Sep-16	
PIPELINE REPLACEMENT	VRU#3	P16VIR005	Pipelines	11-Apr-16	
103/08-13-010-26W1/00	VRU#3	10622	Equip & Tie-In	30-Nov-16	
TURNAROUND	VRU#3	T16VIR007	Turnaround	1-Jul-16	
102/04-12-010-26W1/00	VRU#3	10204	Pump Repair	4-Apr-16	
100/05-13-010-26W1/00	VRU#3	001017	Inhibitor Squeeze	2-Feb-16	
100/05-13-010-26W1/00	VRU#3	001017	Inhibitor Squeeze	20-Dec-16	
HEADER REPAIR	VRU#3	FF16VIR004	Header Repair	15-Sep-16	
BATTERY UPGRADE - TANK BASE	VRU#3	F16VIR004	Battery Upgrade	17-Oct-16	
102/08-23-010-26W1/00	VRU#3	006837	Initial Completion	23-Sep-16	SCALLION COMPLETION
102/08-23-010-26W1/00	VRU#3	006837	Equip Only	23-Sep-16	
102/08-23-010-26W1/00	VRU#3	006837	Construction	26-Sep-16	
102/08-23-010-26W1/00	VRU#3	006837	Drilling - re-entry	30-Sep-16	
100/03-23-010-26W1/00	VRU#3	000734	Packer Repair	25-May-16	

Waterflood Pattern Map

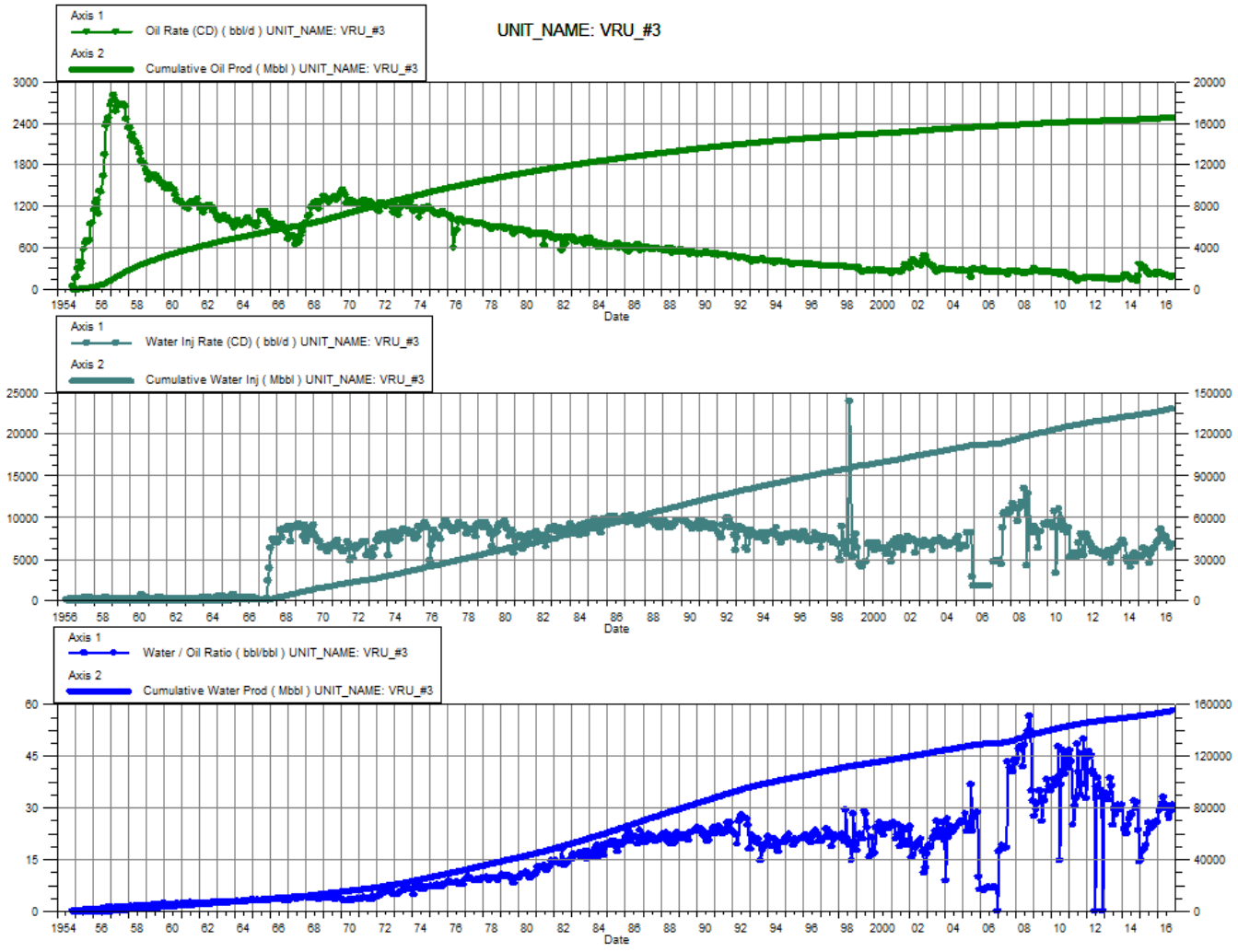


Waterflood Pattern Table

Pattern	Well
P-01	100/03-23-010-26W1/00
P-02	100/01-23-010-26W1/00
P-03	100/14-13-010-26W1/00
P-03	102/14-13-010-26W1/00
P-04	100/11-14-010-26W1/00
P-06	100/06-13-010-26W1/00
P-07	100/09-13-010-26W1/00
P-08	100/04-14-010-26W1/00
P-09	100/14-11-010-26W1/00
P-10	100/16-11-010-26W1/00
P-11	100/14-12-010-26W1/00
P-13	100/04-18-010-25W1/00
P-14	102/02-18-010-25W1/00
P-15	100/12-11-010-26W1/00
P-16	100/14-07-010-25W1/00
P-17	100/12-07-010-25W1/00
P-18	100/10-07-010-25W1/00
P-19	100/06-10-010-26W1/00
P-20	100/08-10-010-26W1/00
P-21	100/06-11-010-26W1/00
P-22	100/08-11-010-26W1/00
P-23	100/06-12-010-26W1/00
P-24	100/16-03-010-26W1/00
P-25	100/14-02-010-26W1/00
P-26	100/16-02-010-26W1/00
P-27	100/14-01-010-26W1/00
P-28	100/08-02-010-26W1/00
P-29	100/06-01-010-26W1/00

Total for VRU #3

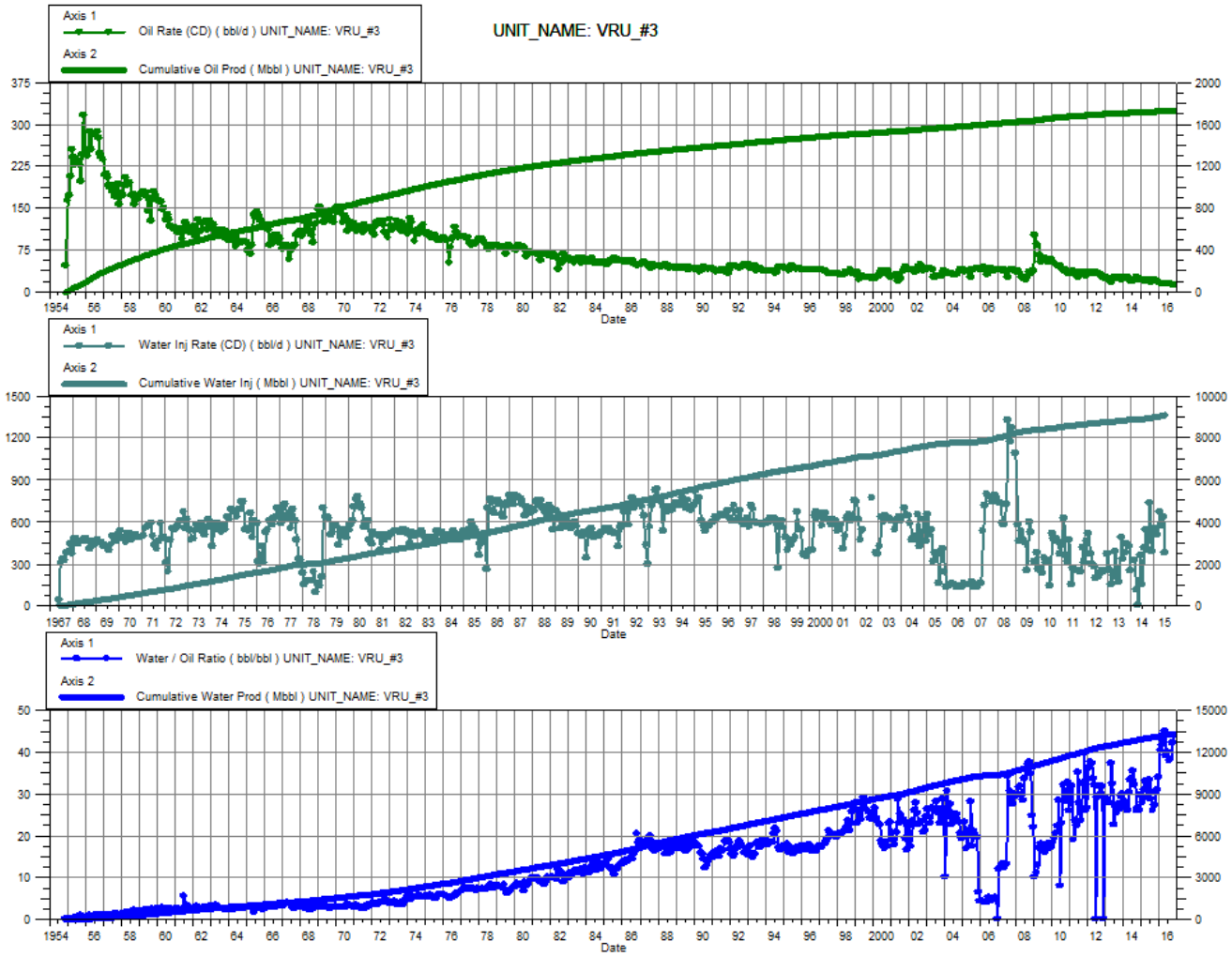
Date	Oil Rate (CD) m3/d	Cum Oil Prod Mm3	Water Rate (CD) m3/d	Cum Water Prod Mm3	Water Inj Rate (CD) m3/d	Cum Water Inj Mm3	Water Oil Ratio m3/m3	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio	Water Inj Pressure kPa
1/31/2016	37.3	2623.63	1086.4	24397.95	1156.23	21716.7	29.12	1.03	0.80	3,906.23
2/29/2016	39.0	2624.76	1169.8	24431.88	1344.10	21755.7	30.01	1.11	0.80	4,090.66
3/31/2016	36.1	2625.88	1121.3	24466.64	1365.06	21798.0	31.06	1.18	0.80	4,364.37
4/30/2016	33.5	2626.88	1100.9	24499.67	1262.99	21835.9	32.87	1.11	0.80	4,488.45
5/31/2016	35.5	2627.98	1055.2	24532.38	1174.88	21872.3	29.70	1.08	0.80	4,928.30
6/30/2016	33.3	2628.98	1023.3	24563.08	1211.05	21908.6	30.73	1.15	0.80	5,051.54
7/31/2016	30.8	2629.94	864.3	24589.87	1132.11	21943.7	28.05	1.26	0.81	4,878.92
8/31/2016	30.1	2630.87	801.9	24614.73	1010.34	21975.0	26.64	1.21	0.81	4,768.70
9/30/2016	29.6	2631.76	858.0	24640.47	993.12	22004.8	28.97	1.12	0.81	4,128.44
10/31/2016	31.1	2632.72	963.0	24670.32	1086.15	22038.5	30.97	1.09	0.81	4,695.27
11/30/2016	30.1	2633.63	968.6	24699.38	1121.60	22072.2	32.16	1.12	0.81	4,746.96
12/31/2016	31.0	2634.59	1080.5	24732.88	1207.33	22109.6	34.86	1.09	0.81	4,797.82



VRU #3

Pattern P-01 – 00/03-23-010-26W1/0

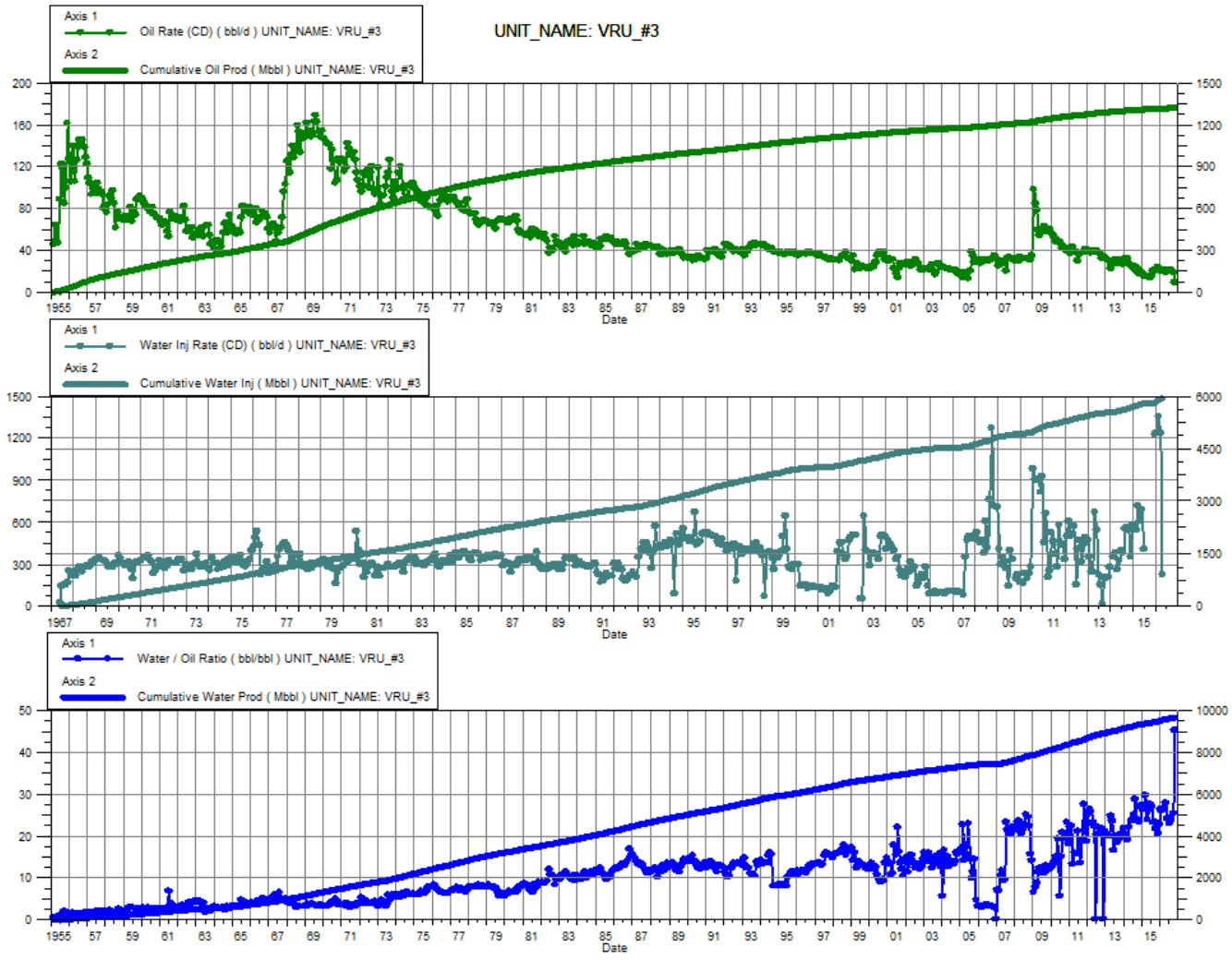
Date	Oil Rate (CD) m3/d	Cum Oil Prod Mm3	Water Rate (CD) m3/d	Cum Water Prod Mm3	Water Inj Rate (CD) m3/d	Cum Water Inj Mm3	Water Oil Ratio m3/m3	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio	Water Inj Pressure kPa
1/31/2016	2.5	274.39	102.6	2092.93		1446.2	40.36		0.61	600.00
2/29/2016	2.5	274.46	104.1	2095.95		1446.2	41.64		0.61	600.00
3/31/2016	2.5	274.54	106.8	2099.26		1446.2	42.54		0.61	600.00
4/30/2016	2.3	274.61	104.6	2102.39		1446.2	44.81		0.61	580.00
5/31/2016	2.5	274.68	98.5	2105.45		1446.2	39.19		0.61	-
6/30/2016	2.4	274.75	94.3	2108.28		1446.2	39.97		0.61	-
7/31/2016	2.6	274.83	97.5	2111.30		1446.2	37.89		0.61	-
8/31/2016	2.4	274.91	92.9	2114.18		1446.2	38.09		0.60	-
9/30/2016	2.1	274.97	88.5	2116.83		1446.2	42.14		0.60	-
10/31/2016	1.9	275.03	85.2	2119.48		1446.2	44.11		0.60	-
11/30/2016	4.3	275.16	118.0	2123.02		1446.2	27.63		0.60	-
12/31/2016	4.4	275.30	117.9	2126.67		1446.2	27.09		0.60	-



VRU #3

Pattern P-02 – 00/01-23-010-26W1/0

Date	Oil Rate (CD) m3/d	Cum Oil Prod Mm3	Water Rate (CD) m3/d	Cum Water Prod Mm3	Water Inj Rate (CD) m3/d	Cum Water Inj Mm3	Water Oil Ratio m3/m3	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio	Water Inj Pressure kPa
1/31/2016	3.2	209.53	84.7	1514.95	197.32	934.9	26.22	2.24	0.54	3,719.35
2/29/2016	3.4	209.63	86.9	1517.47	215.76	941.2	25.91	2.39	0.54	4,313.79
3/31/2016	3.4	209.73	88.9	1520.22	196.92	947.3	26.43	2.13	0.55	4,706.45
4/30/2016	3.1	209.83	87.3	1522.84	36.06	948.4	27.89	0.40	0.55	4,736.67
5/31/2016	3.4	209.93	82.0	1525.39		948.4	24.13		0.55	-
6/30/2016	3.2	210.03	77.7	1527.72		948.4	24.03		0.54	-
7/31/2016	3.5	210.14	79.7	1530.19		948.4	22.95		0.54	-
8/31/2016	3.5	210.24	81.5	1532.71		948.4	23.57		0.54	-
9/30/2016	3.1	210.34	77.1	1535.02		948.4	25.22		0.54	-
10/31/2016	1.5	210.38	65.4	1537.05		948.4	45.27		0.54	-
11/30/2016	3.1	210.47	73.4	1539.25		948.4	23.67		0.54	-
12/31/2016	3.7	210.59	93.9	1542.17	156.76	953.2	25.72	1.61	0.54	167.74

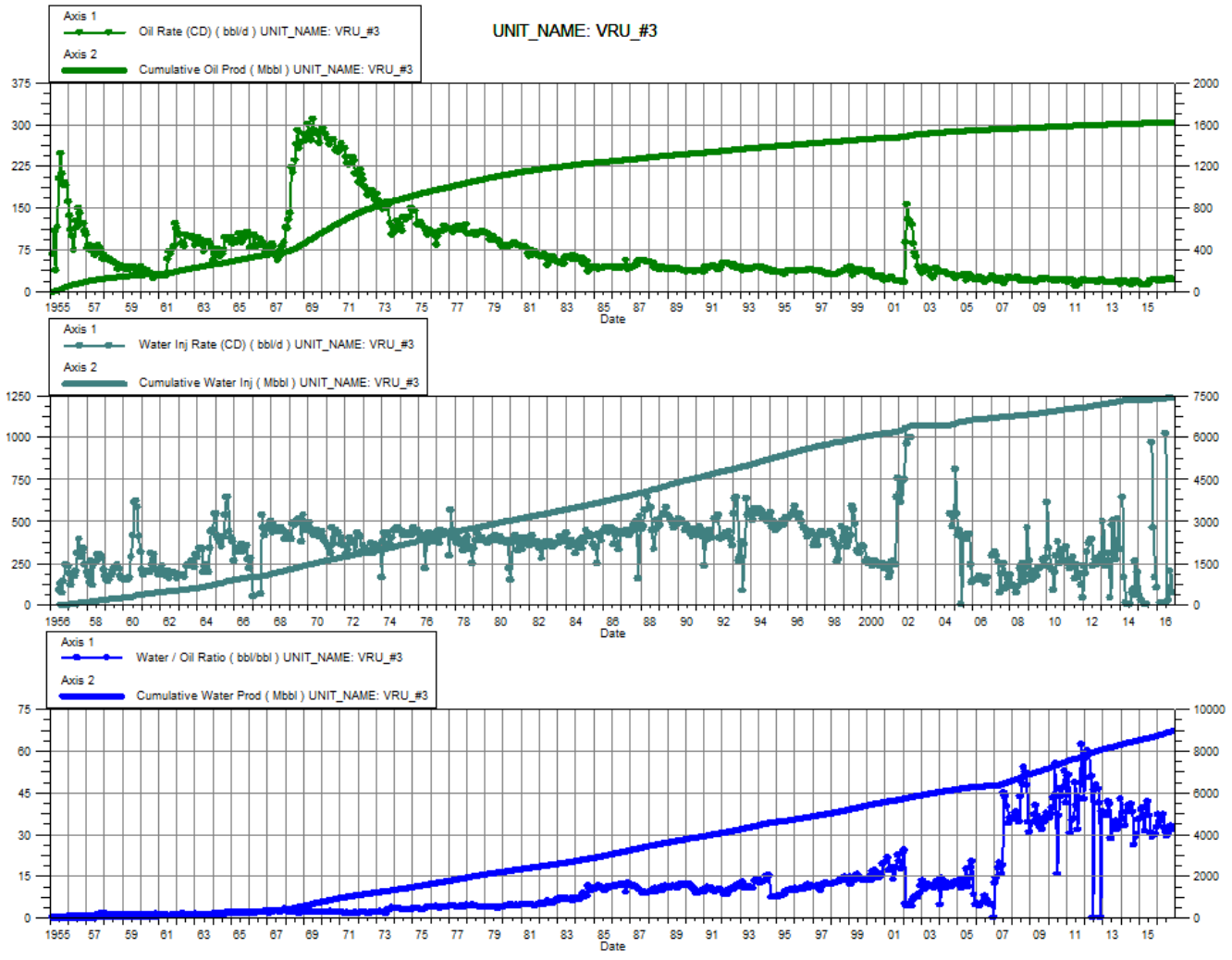


VRU #3

Pattern P-03 – 00/14-13-010-26W1/0

P-03 – 02/14-13-010-26W1/0

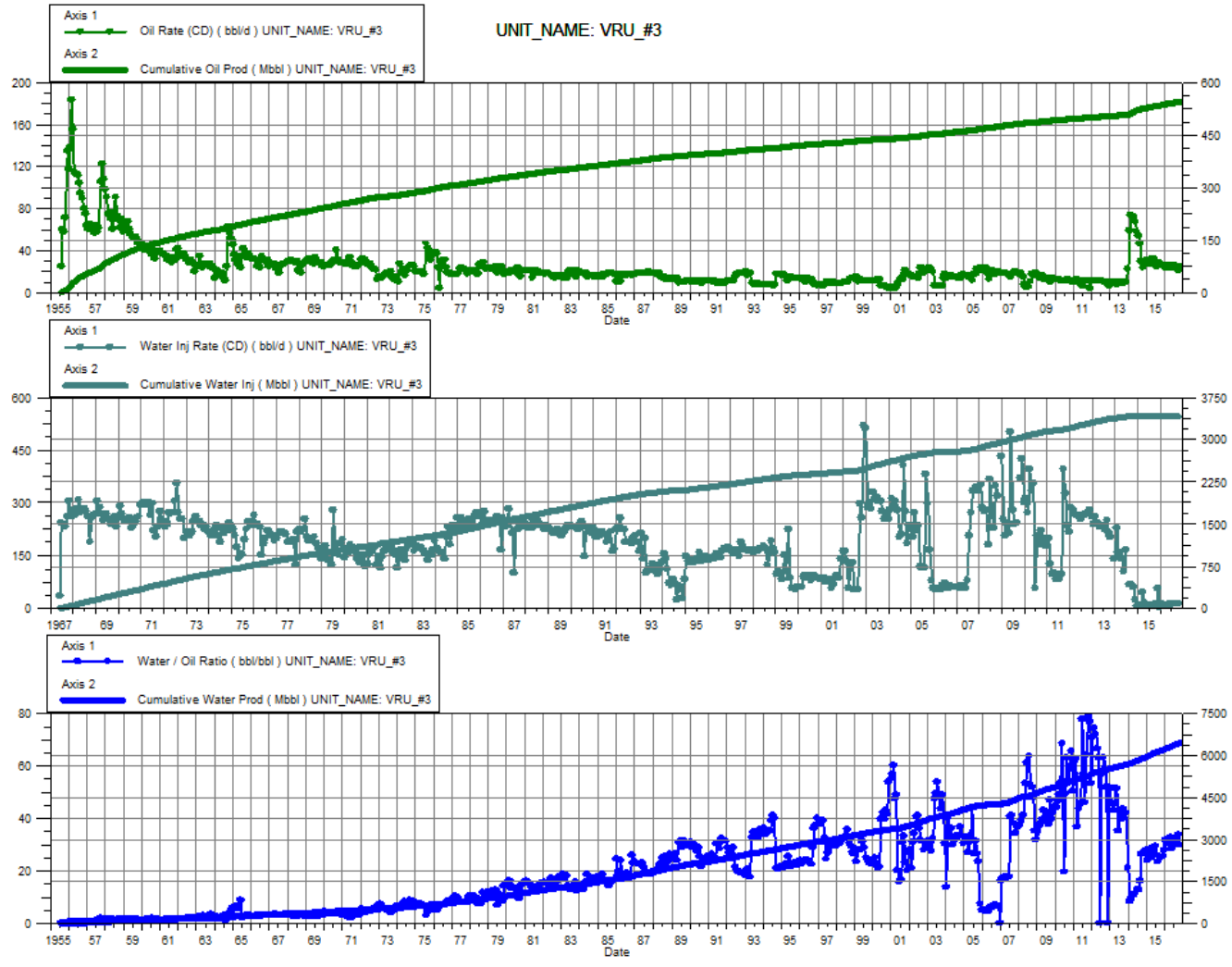
Date	Oil Rate (CD) m3/d	Cum Oil Prod Mm3	Water Rate (CD) m3/d	Cum Water Prod Mm3	Water Inj Rate (CD) m3/d	Cum Water Inj Mm3	Water Oil Ratio m3/m3	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio	Water Inj Pressure kPa
1/31/2016	3.2	257.57	118.3	1391.96		1177.4	37.00		0.71	3,416.13
2/29/2016	3.6	257.67	122.5	1395.52		1177.4	34.51		0.71	3,910.34
3/31/2016	3.5	257.78	124.2	1399.36	1.34	1177.4	35.09	0.01	0.71	4,209.68
4/30/2016	3.3	257.88	123.0	1403.05		1177.4	37.16		0.71	4,500.00
5/31/2016	3.6	257.99	117.4	1406.69		1177.4	32.34		0.71	4,500.00
6/30/2016	3.5	258.10	110.7	1410.01	162.53	1182.3	31.25	1.42	0.71	4,510.00
7/31/2016	3.6	258.21	104.1	1413.24	3.08	1182.4	29.15	0.03	0.71	4,803.23
8/31/2016	4.0	258.33	119.4	1416.94	4.18	1182.5	30.14	0.03	0.70	4,858.06
9/30/2016	3.7	258.44	121.9	1420.60	31.96	1183.5	32.80	0.25	0.70	3,600.00
10/31/2016	3.6	258.55	113.6	1424.12	11.47	1183.9	31.53	0.10	0.70	3,600.00
11/30/2016	2.0	258.61	62.1	1425.98	5.72	1184.0	30.88	0.09	0.70	3,643.33
12/31/2016	3.3	258.72	123.8	1429.82	6.19	1184.2	37.18	0.05	0.70	4,893.55



VRU #3

Pattern P-04 – 00/11-14-010-26W1/0

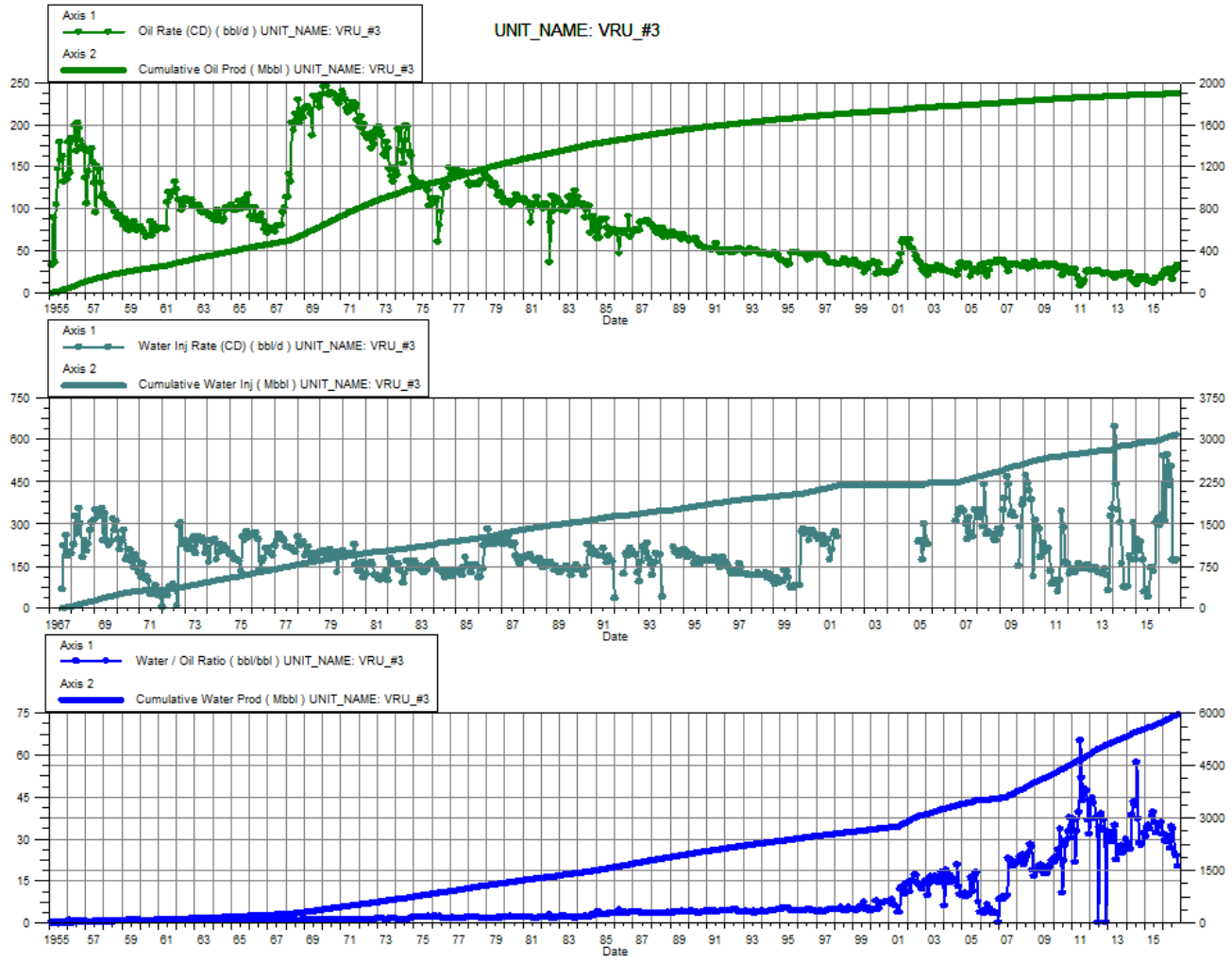
Date	Oil Rate (CD) m3/d	Cum Oil Prod Mm3	Water Rate (CD) m3/d	Cum Water Prod Mm3	Water Inj Rate (CD) m3/d	Cum Water Inj Mm3	Water Oil Ratio m3/m3	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio	Water Inj Pressure kPa
1/31/2016	3.8	85.65	121.2	993.81	2.08	544.4	31.89	0.02	0.50	4,695.16
2/29/2016	4.1	85.77	125.3	997.45	1.68	544.4	30.26	0.01	0.50	4,563.79
3/31/2016	4.2	85.90	128.5	1001.43	1.57	544.5	30.96	0.01	0.50	4,935.48
4/30/2016	3.9	86.02	125.7	1005.21	1.46	544.5	32.69	0.01	0.50	4,543.00
5/31/2016	4.2	86.15	120.1	1008.93	1.73	544.6	28.42	0.01	0.50	5,795.81
6/30/2016	3.9	86.26	114.0	1012.35	1.50	544.6	29.41	0.01	0.50	5,834.67
7/31/2016	4.1	86.39	122.5	1016.15	1.82	544.7	29.62	0.01	0.49	5,378.23
8/31/2016	3.7	86.51	115.9	1019.74	1.95	544.7	31.09	0.02	0.49	4,969.35
9/30/2016	3.5	86.61	118.9	1023.31	1.87	544.8	33.93	0.02	0.49	3,369.67
10/31/2016	4.1	86.74	121.9	1027.08	1.81	544.8	30.03	0.01	0.49	5,396.45
11/30/2016	4.0	86.86	133.4	1031.09	3.61	545.0	33.74	0.03	0.49	5,590.00
12/31/2016	3.9	86.98	133.9	1035.24	3.97	545.1	34.75	0.03	0.49	5,590.00



VRU #3

Pattern P-06 – 00/06-13-010-26W1/0

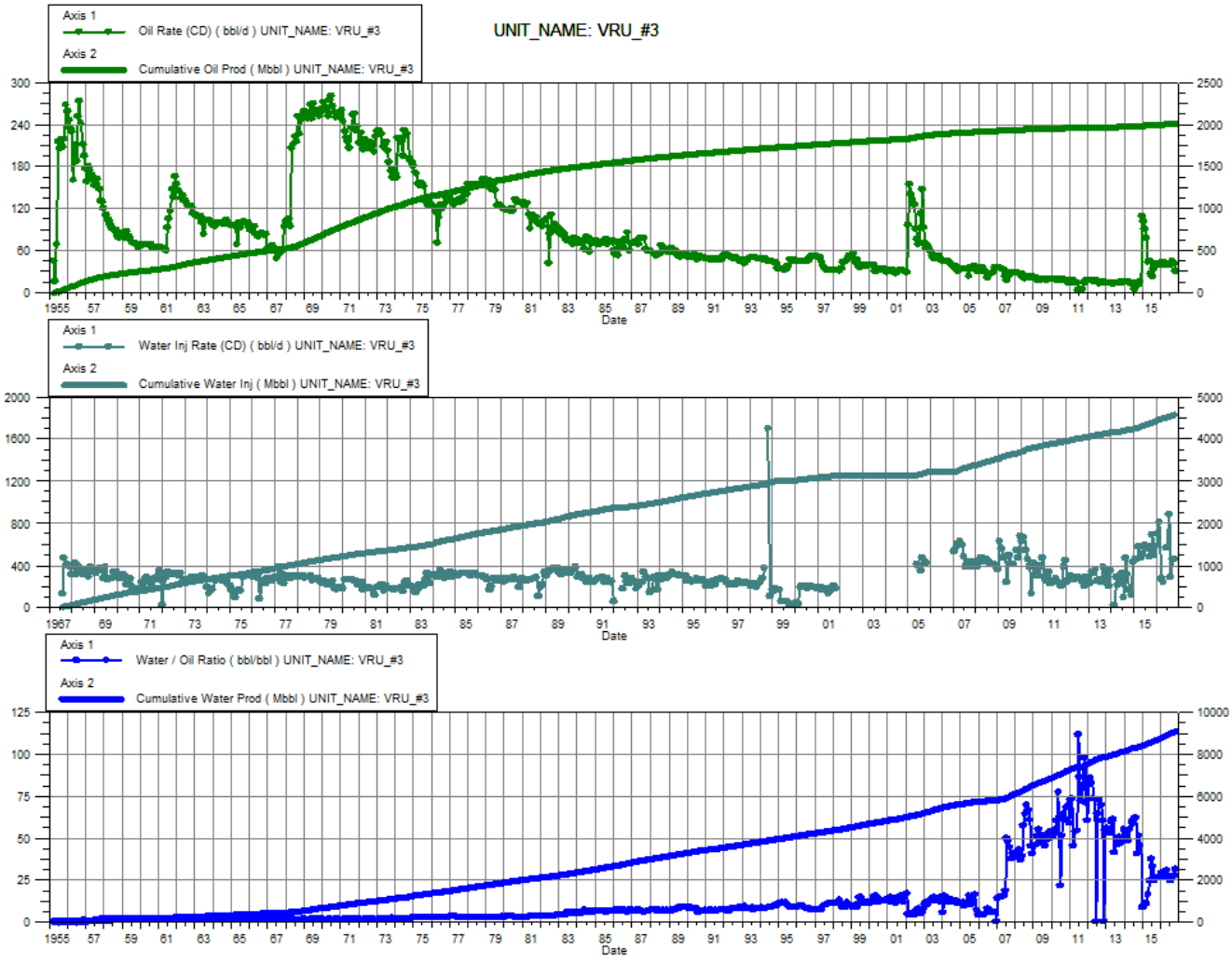
Date	Oil Rate (CD) m3/d	Cum Oil Prod Mm3	Water Rate (CD) m3/d	Cum Water Prod Mm3	Water Inj Rate (CD) m3/d	Cum Water Inj Mm3	Water Oil Ratio m3/m3	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio	Water Inj Pressure kPa
1/31/2016	3.7	301.22	116.1	917.53	46.90	476.2	31.62	0.39	0.39	4,943.55
2/29/2016	4.1	301.34	121.3	921.04	52.91	477.7	29.49	0.42	0.39	4,763.79
3/31/2016	4.3	301.47	124.9	924.92	86.10	480.4	29.01	0.67	0.39	5,116.13
4/30/2016	4.0	301.59	123.6	928.62	49.23	481.9	30.86	0.39	0.39	4,143.00
5/31/2016	4.5	301.73	118.4	932.29	87.16	484.6	26.56	0.71	0.39	5,424.84
6/30/2016	3.2	301.82	109.8	935.59	69.31	486.7	34.21	0.61	0.39	5,738.33
7/31/2016	2.7	301.91	88.3	938.33	80.57	489.2	33.38	0.89	0.39	5,398.39
8/31/2016	4.0	302.03	99.8	941.42	27.21	490.0	24.74	0.26	0.39	5,299.68
9/30/2016	4.4	302.17	107.0	944.63	26.25	490.8	24.08	0.24	0.39	3,843.67
10/31/2016	5.3	302.33	106.6	947.94	27.20	491.6	20.29	0.24	0.39	5,406.13
11/30/2016	3.0	302.42	68.3	949.98	18.03	492.2	22.63	0.25	0.39	5,590.00
12/31/2016	3.8	302.54	109.1	953.37	15.35	492.7	29.01	0.14	0.39	5,590.00



VRU #3

Pattern P-07 – 00/09-13-010-26W1/0

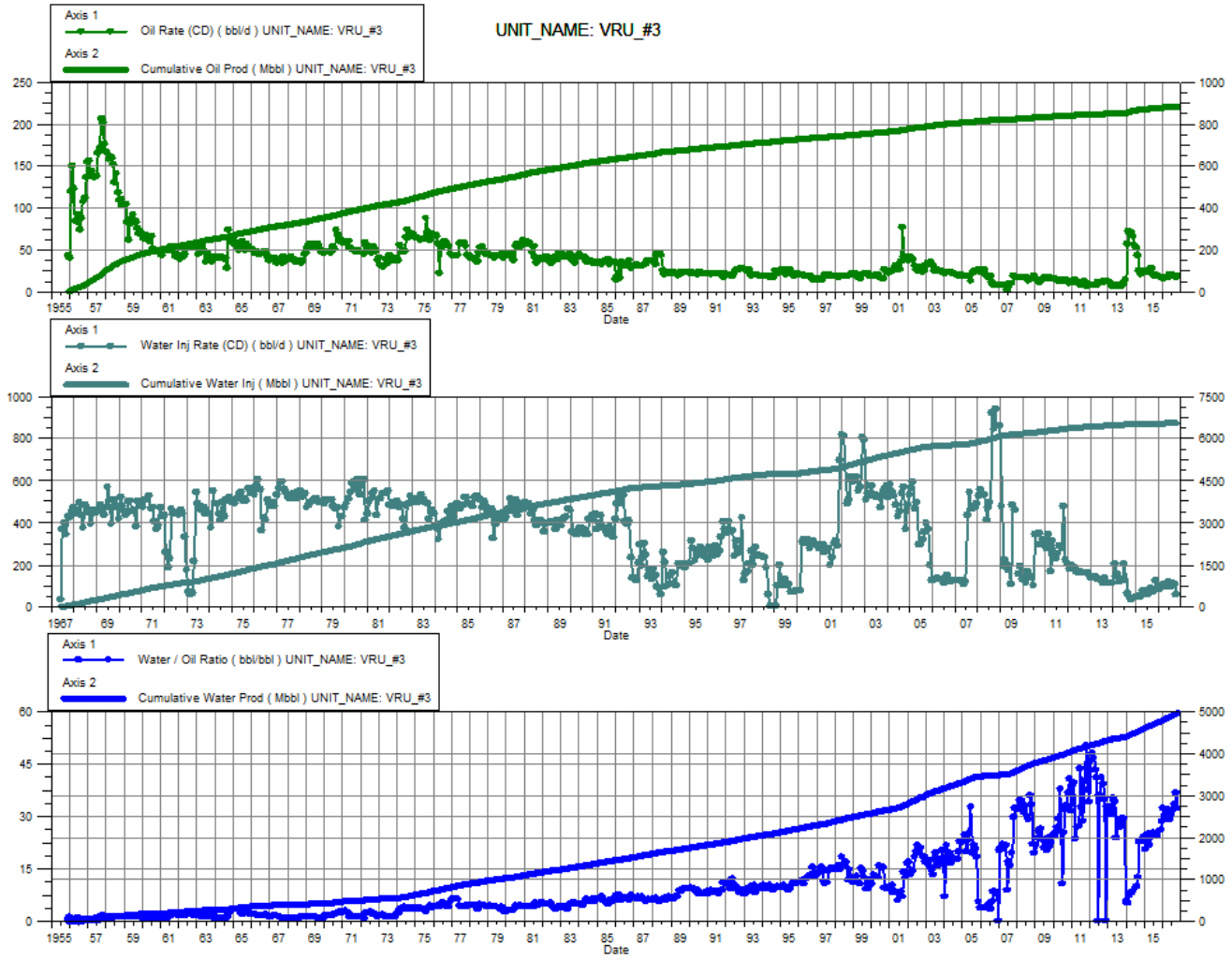
Date	Oil Rate (CD) m3/d	Cum Oil Prod Mm3	Water Rate (CD) m3/d	Cum Water Prod Mm3	Water Inj Rate (CD) m3/d	Cum Water Inj Mm3	Water Oil Ratio m3/m3	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio	Water Inj Pressure kPa
1/31/2016	6.3	318.14	181.8	1396.38	111.55	709.1	28.90	0.59	0.41	4,612.90
2/29/2016	7.0	318.34	187.3	1401.81	128.52	712.9	26.89	0.66	0.41	5,006.90
3/31/2016	6.9	318.55	190.9	1407.73	43.13	714.2	27.65	0.22	0.41	5,206.45
4/30/2016	6.2	318.74	189.1	1413.40	38.04	715.3	30.36	0.20	0.41	5,400.00
5/31/2016	6.7	318.95	180.7	1419.00		715.3	27.12		0.41	5,419.35
6/30/2016	6.4	319.14	172.0	1424.16	89.68	718.0	27.10	0.50	0.41	6,000.00
7/31/2016	6.2	319.33	149.7	1428.80	139.99	722.4	24.20	0.90	0.41	6,003.23
8/31/2016	7.1	319.55	181.2	1434.42	46.16	723.8	25.48	0.25	0.41	6,058.06
9/30/2016	6.7	319.75	183.9	1439.94	72.93	726.0	27.67	0.38	0.41	4,800.00
10/31/2016	4.9	319.90	154.0	1444.71	72.61	728.2	31.49	0.46	0.41	4,800.00
11/30/2016	5.0	320.05	121.1	1448.34	101.75	731.3	24.11	0.81	0.41	4,836.67
12/31/2016	5.8	320.23	196.2	1454.42	109.02	734.7	33.75	0.54	0.41	5,903.23



VRU #3

Pattern P-08 – 00/04-14-010-26W1/0

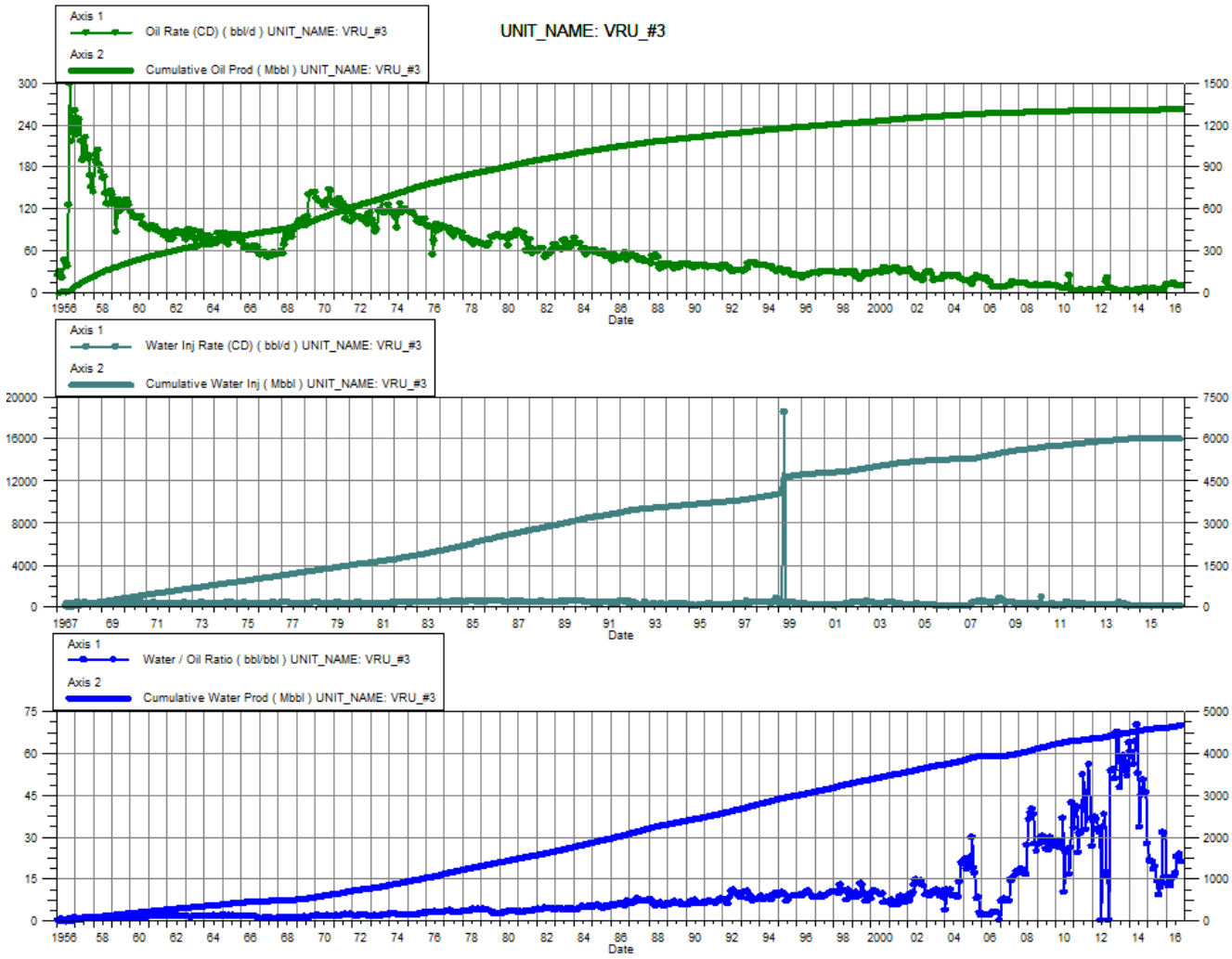
Date	Oil Rate (CD) m3/d	Cum Oil Prod Mm3	Water Rate (CD) m3/d	Cum Water Prod Mm3	Water Inj Rate (CD) m3/d	Cum Water Inj Mm3	Water Oil Ratio m3/m3	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio	Water Inj Pressure kPa
1/31/2016	2.6	139.99	84.5	764.75	13.39	1039.3	32.22	0.15	1.15	4,031.94
2/29/2016	2.9	140.07	87.5	767.29	13.81	1039.7	30.09	0.15	1.14	4,402.41
3/31/2016	2.9	140.16	89.2	770.06	16.76	1040.3	30.63	0.18	1.14	4,754.84
4/30/2016	2.8	140.25	88.8	772.72	15.36	1040.7	32.02	0.17	1.14	4,919.67
5/31/2016	3.3	140.35	96.8	775.72	16.29	1041.2	29.14	0.16	1.13	5,500.65
6/30/2016	3.0	140.44	90.7	778.44	18.57	1041.8	30.39	0.20	1.13	5,586.33
7/31/2016	3.2	140.54	101.0	781.57	15.42	1042.3	31.38	0.15	1.13	5,186.77
8/31/2016	3.0	140.63	99.3	784.65	17.49	1042.8	33.39	0.17	1.12	5,090.00
9/30/2016	2.8	140.72	101.8	787.71	16.87	1043.3	36.50	0.16	1.12	5,088.67
10/31/2016	3.1	140.81	98.7	790.76	9.06	1043.6	32.39	0.09	1.12	5,050.00
11/30/2016	2.6	140.89	93.9	793.58	0.27	1043.6	36.29	0.00	1.11	5,050.00
12/31/2016	2.5	140.96	92.3	796.44	0.61	1043.6	36.93	0.01	1.11	5,050.00



VRU #3

Pattern P-09 – 00/14-11-010-26W1/0

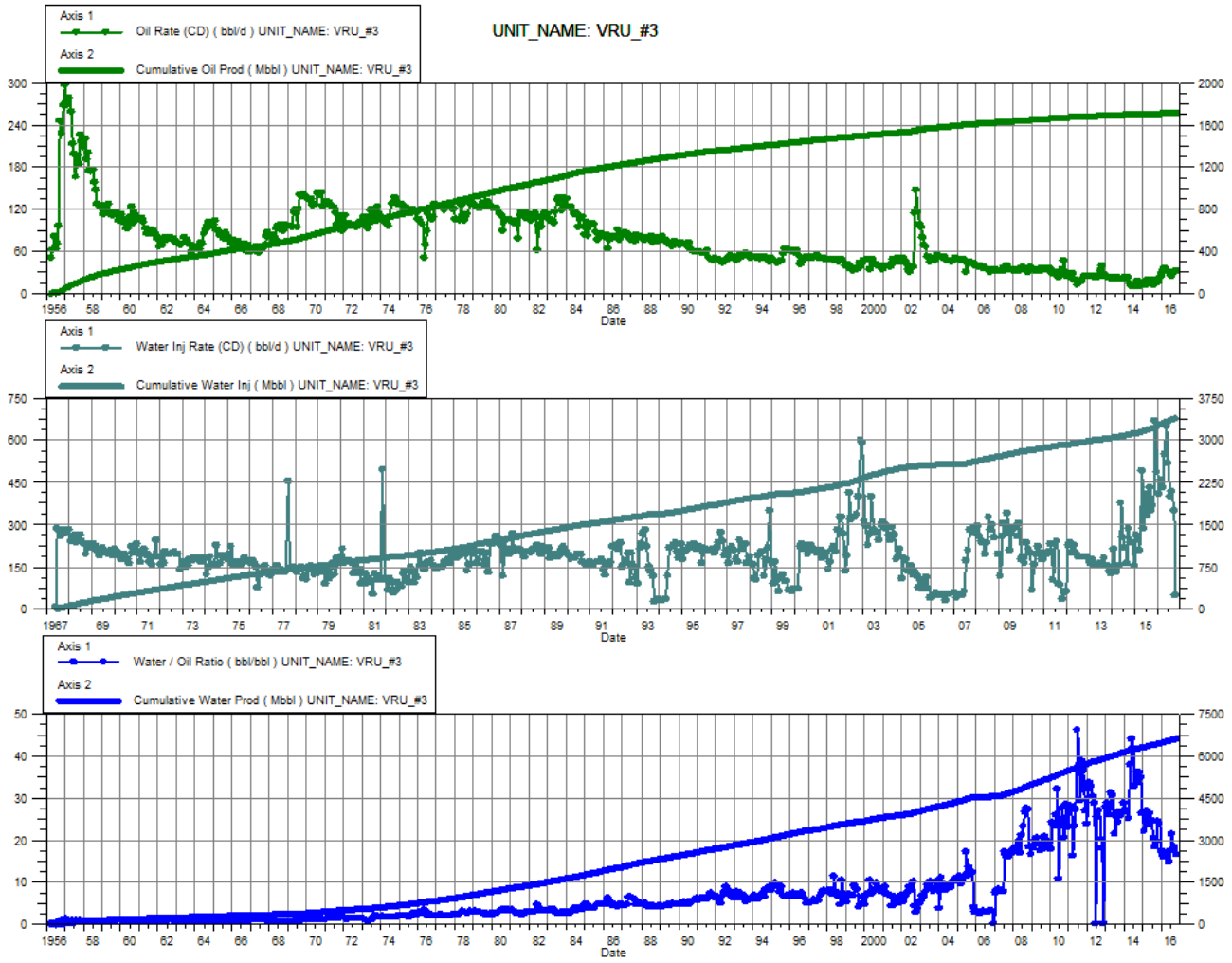
Date	Oil Rate (CD) m3/d	Cum Oil Prod Mm3	Water Rate (CD) m3/d	Cum Water Prod Mm3	Water Inj Rate (CD) m3/d	Cum Water Inj Mm3	Water Oil Ratio m3/m3	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio	Water Inj Pressure kPa
1/31/2016	1.9	208.66	25.3	734.74	6.73	957.2	13.21	0.25	1.01	5,014.52
2/29/2016	2.0	208.72	24.8	735.46	7.20	957.4	12.39	0.27	1.01	5,464.14
3/31/2016	2.1	208.78	26.4	736.28	9.21	957.7	12.61	0.32	1.01	5,864.52
4/30/2016	2.0	208.84	29.6	737.17	8.56	957.9	14.77	0.27	1.01	6,000.00
5/31/2016	2.2	208.91	35.2	738.26	8.62	958.2	15.78	0.23	1.01	6,000.00
6/30/2016	2.0	208.97	34.3	739.29	9.02	958.5	16.93	0.25	1.01	6,008.33
7/31/2016	1.6	209.02	37.6	740.45	7.44	958.7	23.01	0.19	1.01	6,249.68
8/31/2016	1.6	209.08	35.4	741.55	8.07	958.9	21.71	0.22	1.00	6,212.90
9/30/2016	1.5	209.12	36.3	742.64	8.53	959.2	23.75	0.23	1.00	5,429.17
10/31/2016	1.7	209.17	35.5	743.74	7.89	959.4	21.23	0.21	1.00	6,285.48
11/30/2016	1.2	209.21	23.8	744.46	9.46	959.7	19.33	0.38	1.00	6,600.00
12/31/2016	1.2	209.25	23.0	745.17	8.86	960.0	19.52	0.37	1.00	6,600.00



VRU #3

Pattern P-10 – 00/16-11-010-26W1/0

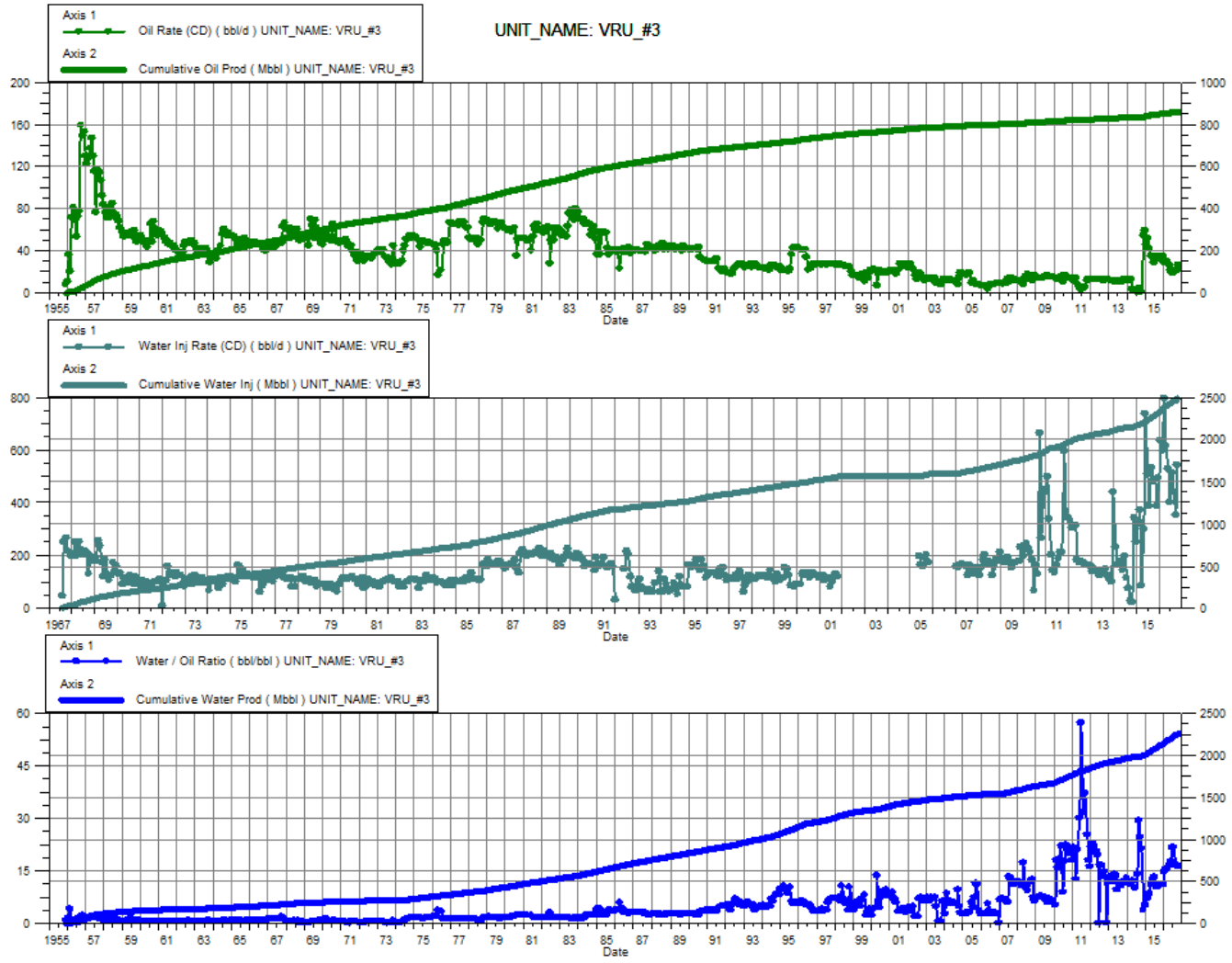
Date	Oil Rate (CD) m3/d	Cum Oil Prod Mm3	Water Rate (CD) m3/d	Cum Water Prod Mm3	Water Inj Rate (CD) m3/d	Cum Water Inj Mm3	Water Oil Ratio m3/m3	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio	Water Inj Pressure kPa
1/31/2016	5.0	272.36	82.5	1030.90	65.44	520.7	16.56	0.75	0.40	4,096.61
2/29/2016	5.5	272.52	86.6	1033.41	72.92	522.8	15.80	0.79	0.40	4,008.62
3/31/2016	5.6	272.69	89.1	1036.17	68.55	524.9	15.87	0.72	0.40	4,409.68
4/30/2016	5.1	272.85	85.9	1038.74	87.78	527.6	16.75	0.96	0.40	5,020.00
5/31/2016	5.0	273.00	72.8	1041.00	103.45	530.8	14.56	1.33	0.40	5,604.84
6/30/2016	4.5	273.14	77.3	1043.32	82.69	533.3	17.32	1.01	0.40	5,641.67
7/31/2016	4.0	273.26	84.6	1045.94	63.69	535.2	21.31	0.72	0.40	5,390.32
8/31/2016	4.7	273.40	83.0	1048.51	66.47	537.3	17.84	0.76	0.41	5,070.97
9/30/2016	4.8	273.55	87.1	1051.13	55.30	539.0	18.23	0.60	0.41	4,230.00
10/31/2016	5.2	273.71	84.9	1053.76	7.44	539.2	16.39	0.08	0.41	5,096.77
11/30/2016	3.8	273.82	85.9	1056.33	2.62	539.3	22.70	0.03	0.40	5,000.00
12/31/2016	3.6	273.93	84.3	1058.94		539.3	23.26		0.40	5,000.00



VRU #3

Pattern P-11 – 00/14-12-010-26W1/0

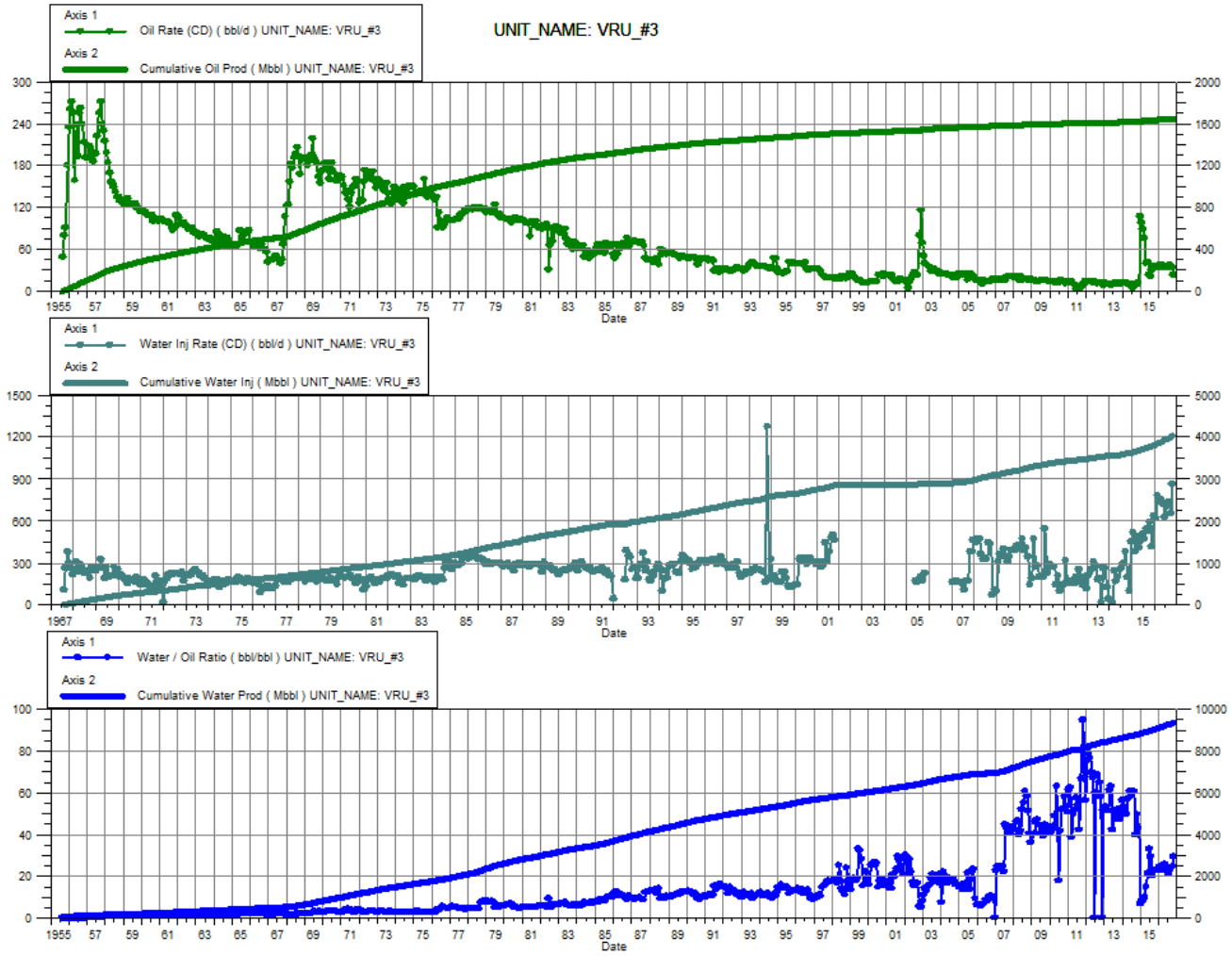
Date	Oil Rate (CD) m3/d	Cum Oil Prod Mm3	Water Rate (CD) m3/d	Cum Water Prod Mm3	Water Inj Rate (CD) m3/d	Cum Water Inj Mm3	Water Oil Ratio m3/m3	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio	Water Inj Pressure kPa
1/31/2016	4.6	135.58	68.4	342.01	101.02	372.3	14.74	1.38	0.78	4,643.55
2/29/2016	4.6	135.71	70.3	344.05	94.86	375.1	15.36	1.27	0.78	4,463.79
3/31/2016	4.7	135.86	73.2	346.32	126.87	379.0	15.54	1.63	0.78	4,825.81
4/30/2016	4.3	135.99	70.5	348.43	98.31	381.9	16.44	1.31	0.78	4,140.00
5/31/2016	3.3	136.09	59.2	350.27	83.80	384.5	17.71	1.34	0.79	5,309.68
6/30/2016	3.0	136.18	65.4	352.23	63.90	386.5	21.68	0.93	0.79	5,386.67
7/31/2016	3.1	136.28	67.7	354.33	81.65	389.0	21.75	1.15	0.79	4,995.16
8/31/2016	3.2	136.38	54.0	356.00	69.97	391.2	16.68	1.22	0.79	4,814.52
9/30/2016	3.4	136.48	57.2	357.72	56.24	392.8	16.61	0.93	0.79	3,795.00
10/31/2016	4.2	136.61	67.8	359.82	86.57	395.5	16.03	1.20	0.79	5,106.45
11/30/2016	2.8	136.70	66.4	361.81	126.47	399.3	23.42	1.83	0.80	5,300.00
12/31/2016	2.7	136.78	65.2	363.83	123.00	403.1	24.07	1.81	0.80	5,300.00



VRU #3

Pattern P-13 – 00/04-18-010-26W1/0

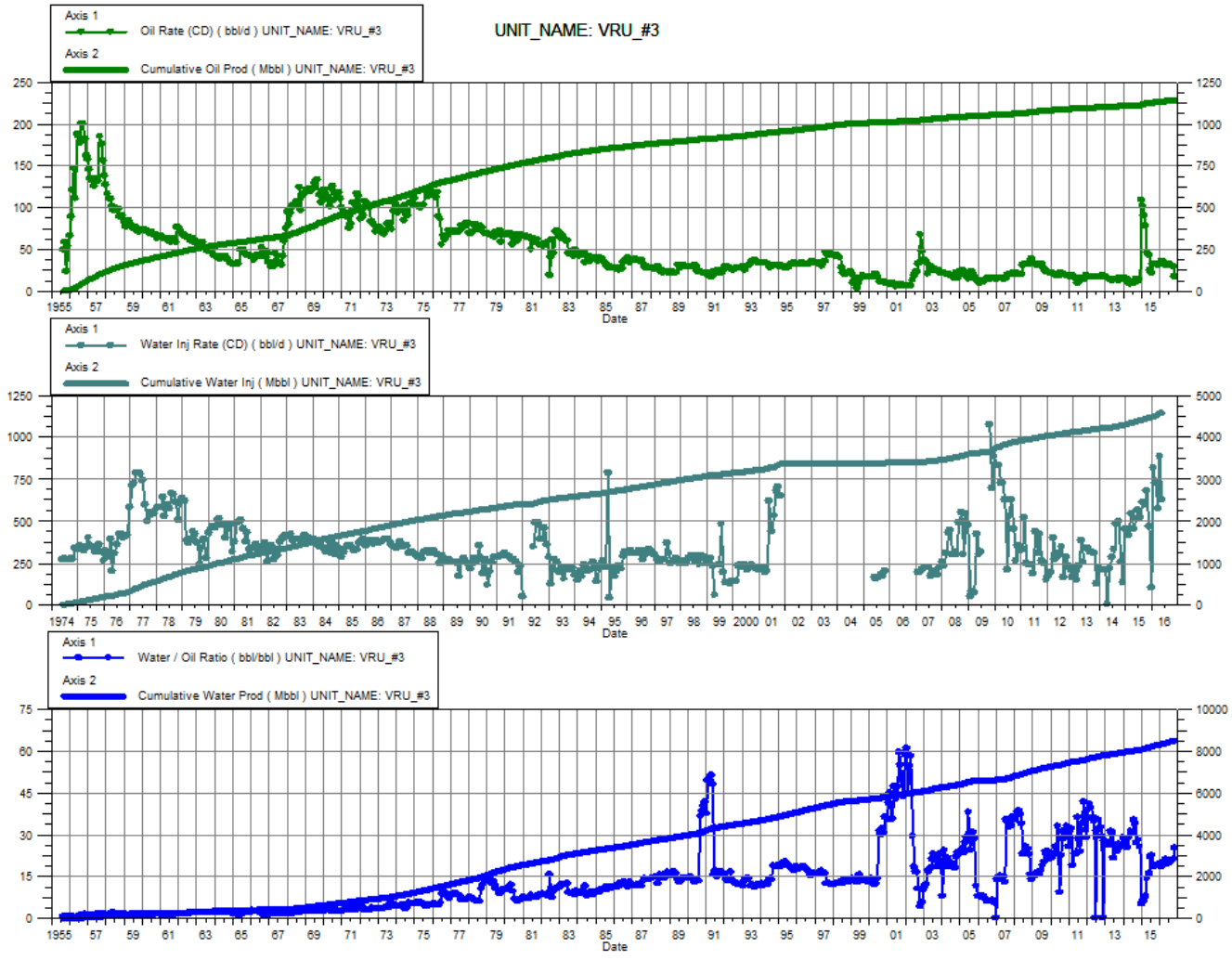
Date	Oil Rate (CD) m3/d	Cum Oil Prod Mm3	Water Rate (CD) m3/d	Cum Water Prod Mm3	Water Inj Rate (CD) m3/d	Cum Water Inj Mm3	Water Oil Ratio m3/m3	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio	Water Inj Pressure kPa
1/31/2016	5.5	260.72	135.4	1451.63	98.23	608.2	24.51	0.70	0.35	4,019.35
2/29/2016	6.1	260.90	139.2	1455.67	123.91	611.8	22.75	0.85	0.36	4,606.90
3/31/2016	6.1	261.08	142.7	1460.10	117.27	615.5	23.53	0.79	0.36	4,806.45
4/30/2016	5.4	261.25	140.8	1464.32	120.03	619.1	25.90	0.82	0.36	5,000.00
5/31/2016	5.8	261.43	134.8	1468.50	114.83	622.6	23.25	0.82	0.36	5,019.35
6/30/2016	5.5	261.59	132.0	1472.46	100.28	625.6	23.81	0.73	0.36	5,600.00
7/31/2016	5.5	261.77	117.9	1476.11	113.95	629.2	21.34	0.92	0.36	5,596.77
8/31/2016	5.9	261.95	133.7	1480.26	117.40	632.8	22.72	0.84	0.36	5,464.52
9/30/2016	5.5	262.11	135.9	1484.33	103.95	635.9	24.66	0.74	0.36	4,400.00
10/31/2016	3.7	262.23	109.4	1487.73	137.45	640.2	29.27	1.21	0.37	4,400.00
11/30/2016	4.8	262.37	106.8	1490.93	114.35	643.6	22.05	1.02	0.37	4,430.00
12/31/2016	4.7	262.52	147.3	1495.49	91.14	646.4	31.12	0.60	0.37	5,303.23



VRU #3

Pattern P-14 – 02/02-18-010-26W1/0

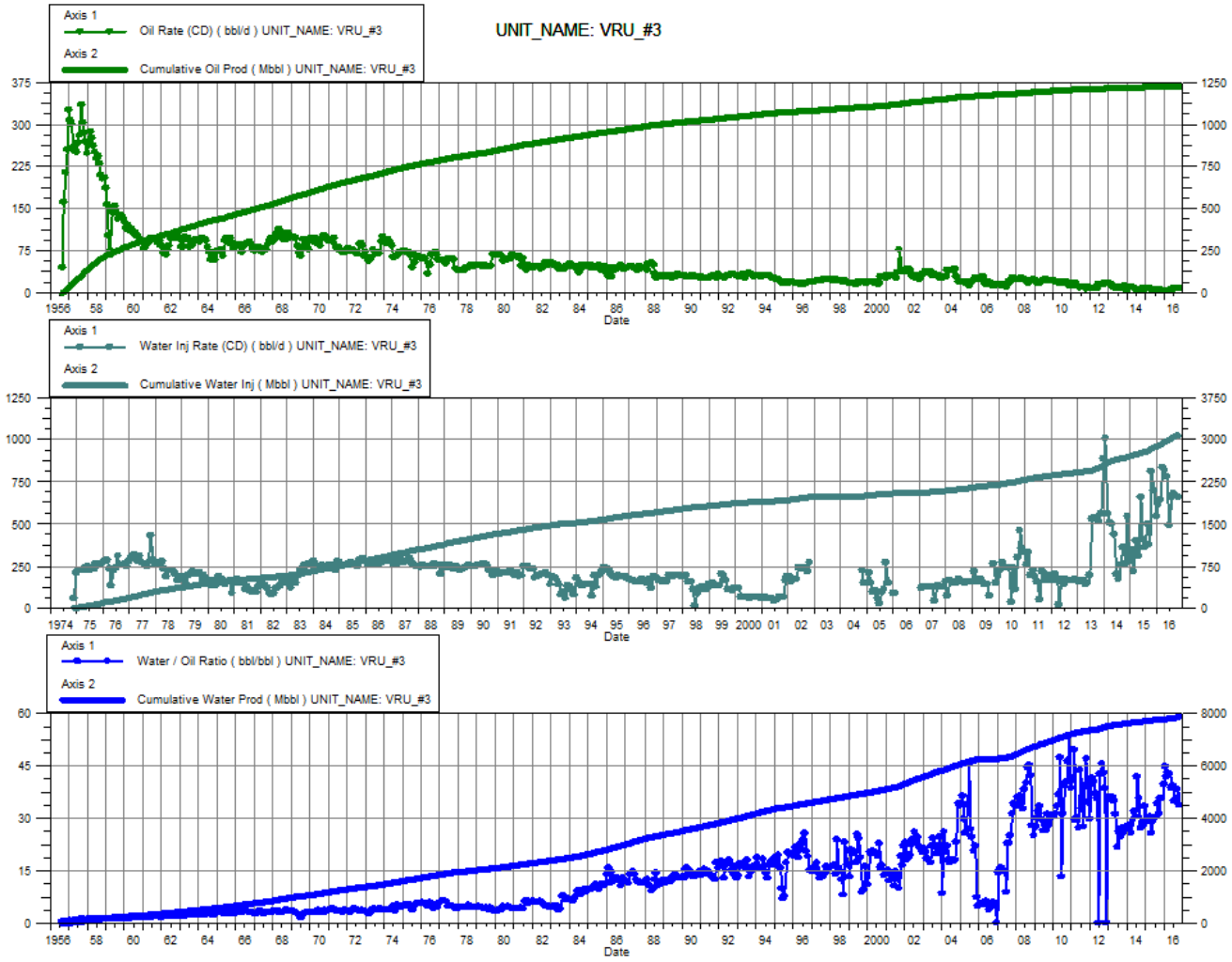
Date	Oil Rate (CD) m3/d	Cum Oil Prod Mm3	Water Rate (CD) m3/d	Cum Water Prod Mm3	Water Inj Rate (CD) m3/d	Cum Water Inj Mm3	Water Oil Ratio m3/m3	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio	Water Inj Pressure kPa
1/31/2016	5.2	180.57	102.5	1325.56	130.59	717.4	19.91	1.21	0.48	3,712.90
2/29/2016	5.7	180.74	106.0	1328.64	115.87	720.8	18.58	1.04	0.48	4,110.34
3/31/2016	5.7	180.91	108.0	1331.99	91.85	723.6	19.14	0.81	0.48	4,406.45
4/30/2016	5.1	181.06	106.9	1335.19	141.17	727.9	21.18	1.26	0.48	4,600.00
5/31/2016	5.4	181.23	102.4	1338.37	99.75	731.0	19.05	0.93	0.48	4,451.61
6/30/2016	5.1	181.38	100.9	1341.39		731.0	19.67		0.48	-
7/31/2016	5.2	181.54	103.6	1344.60		731.0	19.81		0.48	-
8/31/2016	5.0	181.70	100.7	1347.72		731.0	20.16		0.48	-
9/30/2016	4.8	181.84	101.4	1350.77		731.0	21.16		0.48	-
10/31/2016	2.9	181.93	73.9	1353.06		731.0	25.41		0.48	-
11/30/2016	4.8	182.08	107.9	1356.29		731.0	22.47		0.47	-
12/31/2016	4.0	182.20	108.5	1359.66		731.0	27.44		0.47	-



VRU #3

Pattern P-15 – 00/12-11-010-26W1/0

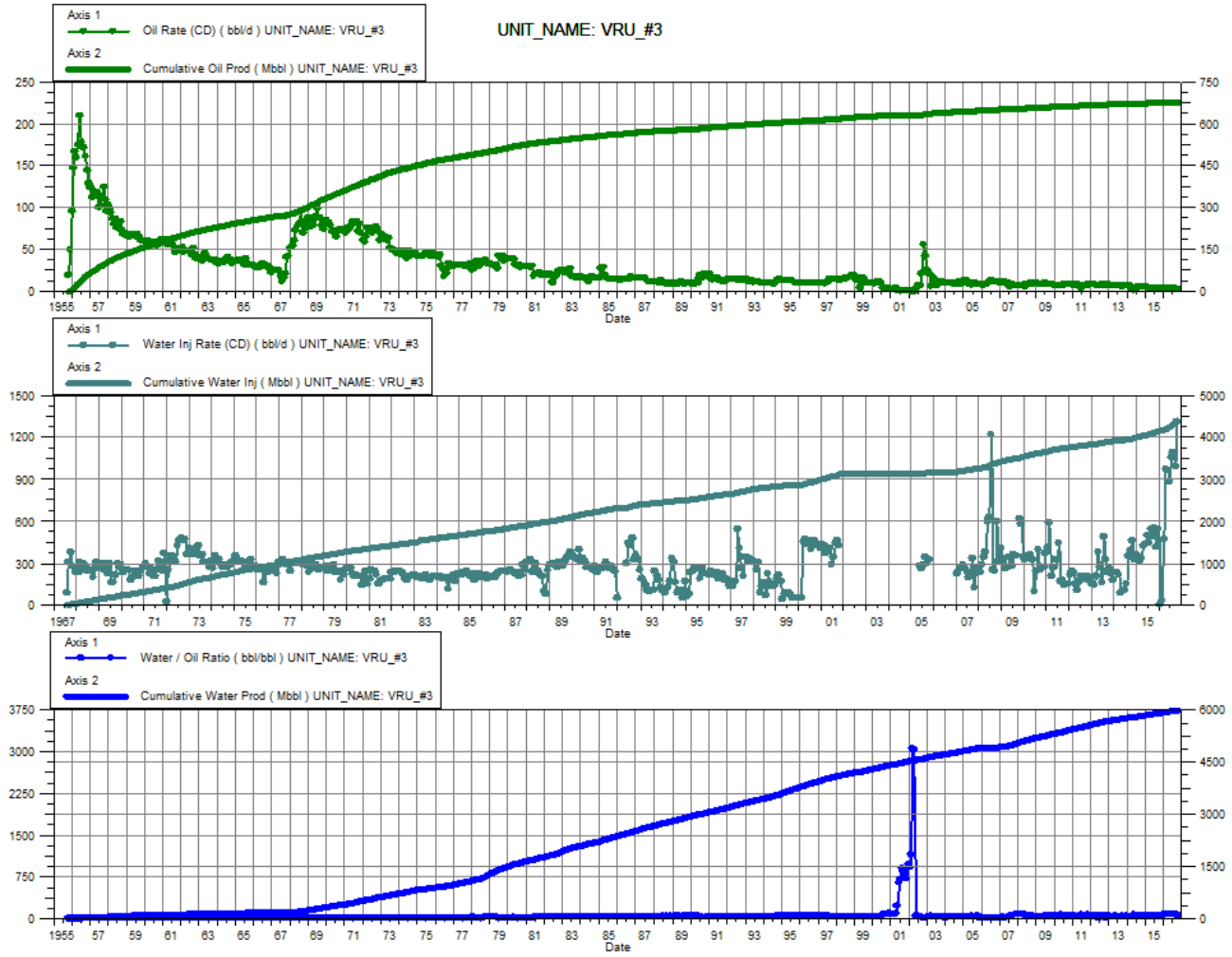
Date	Oil Rate (CD) m3/d	Cum Oil Prod Mm3	Water Rate (CD) m3/d	Cum Water Prod Mm3	Water Inj Rate (CD) m3/d	Cum Water Inj Mm3	Water Oil Ratio m3/m3	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio	Water Inj Pressure kPa
1/31/2016	0.7	194.84	31.6	1238.06	97.45	460.8	44.68	3.02	0.32	4,606.45
2/29/2016	0.8	194.86	32.7	1239.01	101.98	463.7	41.93	3.05	0.32	4,813.79
3/31/2016	0.8	194.88	32.9	1240.03	132.70	467.8	43.07	3.94	0.33	5,200.00
4/30/2016	0.8	194.91	33.9	1241.05	130.34	471.7	42.54	3.76	0.33	5,220.00
5/31/2016	1.2	194.94	44.5	1242.42	124.83	475.6	38.49	2.74	0.33	5,829.03
6/30/2016	1.1	194.98	44.6	1243.76	77.96	477.9	39.20	1.71	0.33	6,080.00
7/31/2016	1.3	195.02	45.9	1245.18	104.43	481.2	34.81	2.21	0.33	5,500.00
8/31/2016	1.3	195.06	45.0	1246.58	108.36	484.5	34.95	2.34	0.34	5,470.97
9/30/2016	1.2	195.10	46.1	1247.96	106.39	487.7	38.23	2.25	0.34	4,623.33
10/31/2016	1.3	195.14	44.3	1249.34	104.61	491.0	33.71	2.29	0.34	5,303.23
11/30/2016	0.9	195.16	34.8	1250.38	126.50	494.8	38.18	3.55	0.34	5,400.00
12/31/2016	0.9	195.19	33.1	1251.40	110.70	498.2	37.94	3.26	0.34	5,400.00



VRU #3

Pattern P-16 – 00/14-07-010-25W1/0

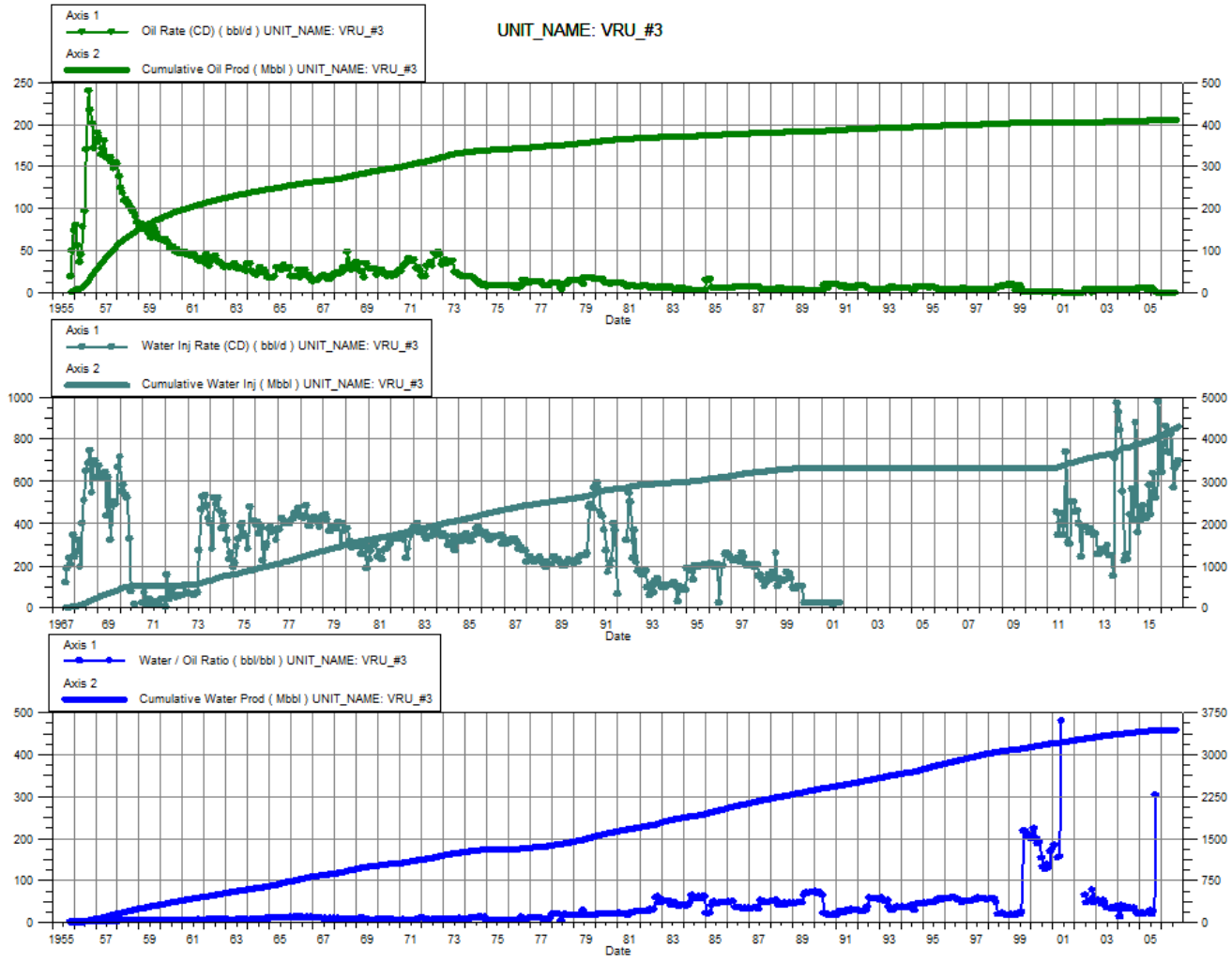
Date	Oil Rate (CD) m3/d	Cum Oil Prod Mm3	Water Rate (CD) m3/d	Cum Water Prod Mm3	Water Inj Rate (CD) m3/d	Cum Water Inj Mm3	Water Oil Ratio m3/m3	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio	Water Inj Pressure kPa
1/31/2016	0.5	107.39	35.0	942.94	1.00	661.9	71.41	0.03	0.63	3,303.23
2/29/2016	0.5	107.40	36.3	944.00	5.36	662.1	66.96	0.15	0.63	3,406.90
3/31/2016	0.6	107.42	37.2	945.15	75.48	664.4	68.19	2.00	0.63	3,638.71
4/30/2016	0.5	107.43	36.7	946.25	154.92	669.1	72.36	4.17	0.63	4,800.00
5/31/2016	0.6	107.45	35.1	947.34	152.94	673.8	62.24	4.28	0.64	4,816.13
6/30/2016	0.6	107.47	35.0	948.39	140.65	678.0	62.84	3.96	0.64	5,300.00
7/31/2016	0.6	107.49	35.0	949.47	168.48	683.3	59.56	4.74	0.65	5,293.55
8/31/2016	0.6	107.50	33.8	950.52	174.06	688.7	60.97	5.06	0.65	5,067.74
9/30/2016	0.5	107.52	29.6	951.41	158.22	693.4	61.65	5.26	0.65	4,100.00
10/31/2016	0.5	107.53	28.9	952.30	208.42	699.9	55.29	7.08	0.66	4,100.00
11/30/2016	0.5	107.55	31.4	953.25	173.94	705.1	62.38	5.45	0.66	4,136.67
12/31/2016	0.5	107.56	31.5	954.22	147.22	709.6	64.29	4.60	0.67	5,206.45



VRU #3

Pattern P-17 – 00/12-07-010-25W1/0

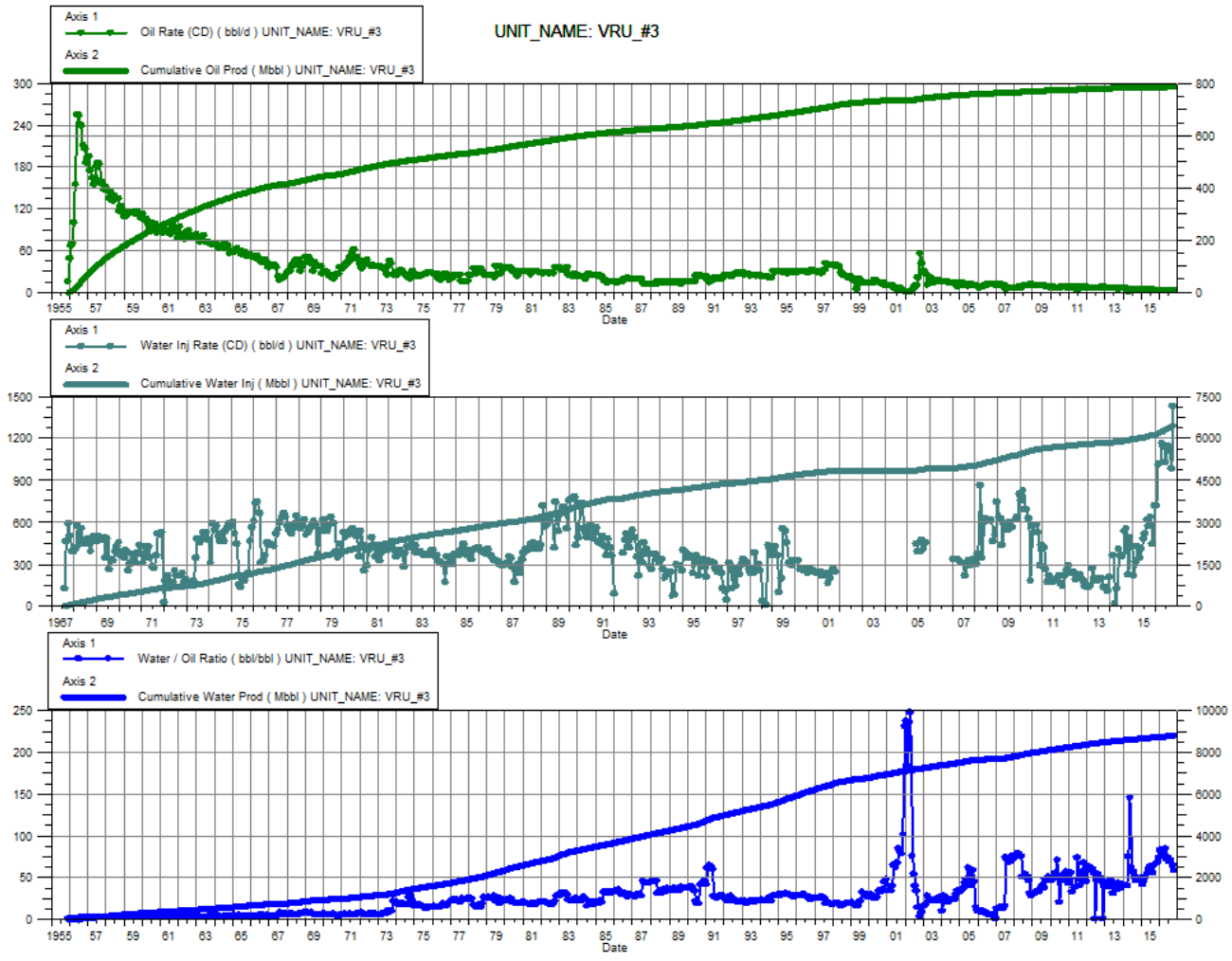
Date	Oil Rate (CD) m3/d	Cum Oil Prod Mm3	Water Rate (CD) m3/d	Cum Water Prod Mm3	Water Inj Rate (CD) m3/d	Cum Water Inj Mm3	Water Oil Ratio m3/m3	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio	Water Inj Pressure kPa
1/31/2016		65.20		547.04	102.60	652.8			1.06	4,593.55
2/29/2016		65.20		547.04	123.58	656.4			1.07	4,412.07
3/31/2016		65.20		547.04	137.10	660.6			1.08	4,759.68
4/30/2016		65.20		547.04	118.27	664.2			1.08	5,055.00
5/31/2016		65.20		547.04	116.82	667.8			1.09	5,220.32
6/30/2016		65.20		547.04	131.70	671.8			1.10	5,397.17
7/31/2016		65.20		547.04	90.91	674.6			1.10	5,020.97
8/31/2016		65.20		547.04	104.76	677.8			1.11	4,870.97
9/30/2016		65.20		547.04	108.17	681.1			1.11	4,036.67
10/31/2016		65.20		547.04	110.60	684.5			1.12	5,100.00
11/30/2016		65.20		547.04	110.15	687.8			1.12	5,100.00
12/31/2016		65.20		547.04	145.15	692.3			1.13	5,100.00



VRU #3

Pattern P-18 – 00/10-07-010-25W1/0

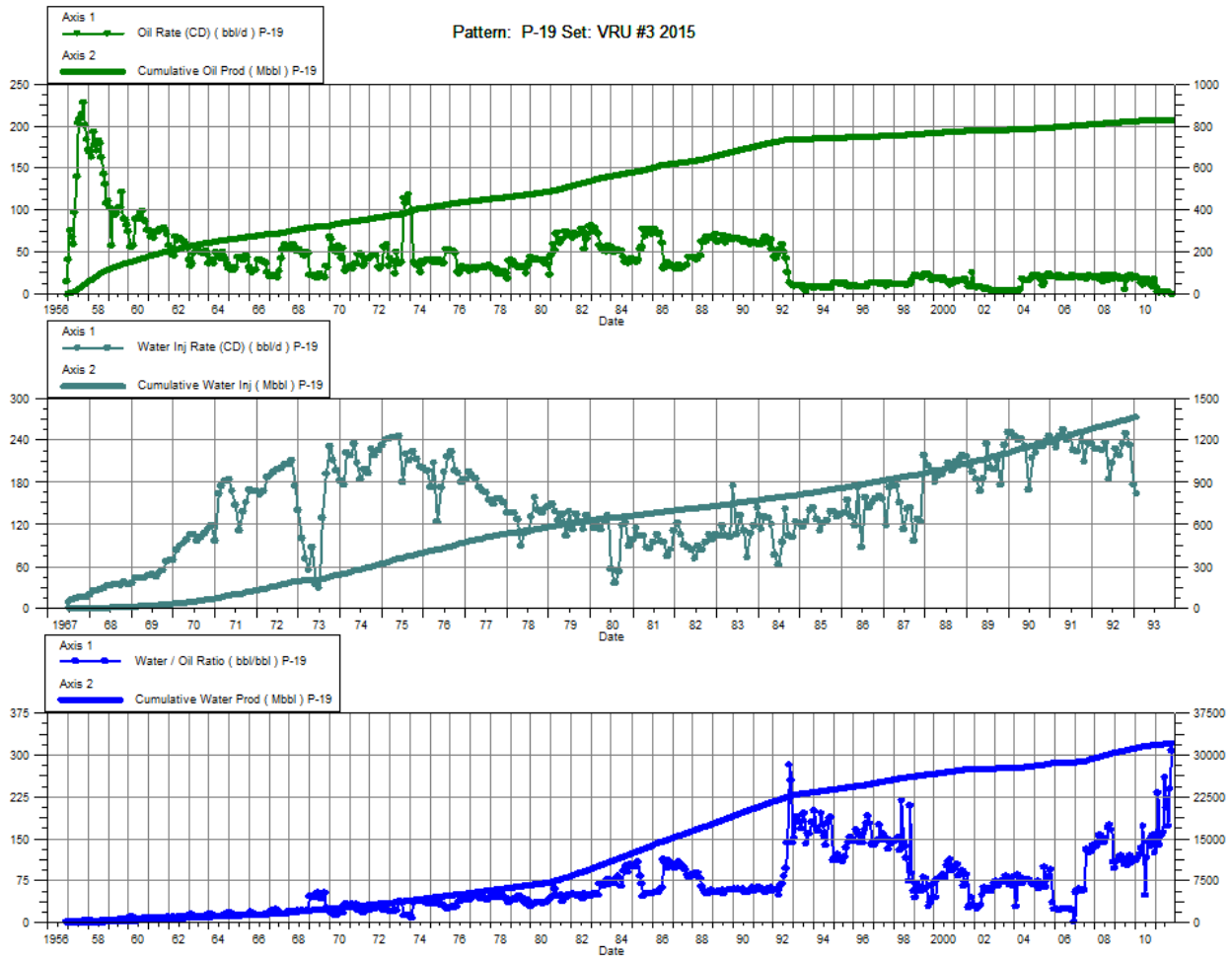
Date	Oil Rate (CD) m3/d	Cum Oil Prod Mm3	Water Rate (CD) m3/d	Cum Water Prod Mm3	Water Inj Rate (CD) m3/d	Cum Water Inj Mm3	Water Oil Ratio m3/m3	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio	Water Inj Pressure kPa
1/31/2016	0.4	125.12	34.9	1390.31	114.63	980.6	82.63	3.24	0.65	3,812.90
2/29/2016	0.5	125.14	36.1	1391.36	160.75	985.2	77.64	4.39	0.65	4,206.90
3/31/2016	0.5	125.15	37.1	1392.51	162.92	990.3	79.25	4.34	0.65	4,406.45
4/30/2016	0.4	125.17	36.6	1393.60	185.42	995.8	83.72	5.01	0.66	4,600.00
5/31/2016	0.5	125.18	35.0	1394.69	180.61	1001.4	71.92	5.08	0.66	4,616.13
6/30/2016	0.5	125.19	34.9	1395.73	163.05	1006.3	73.17	4.61	0.66	5,096.67
7/31/2016	0.5	125.21	34.9	1396.82	182.00	1012.0	69.29	5.14	0.66	5,000.00
8/31/2016	0.5	125.22	33.9	1397.86	178.43	1017.5	70.44	5.20	0.67	4,945.16
9/30/2016	0.5	125.24	33.5	1398.87	156.63	1022.2	64.88	4.60	0.67	3,300.00
10/31/2016	0.6	125.26	32.7	1399.89	227.59	1029.3	57.98	6.83	0.67	3,300.00
11/30/2016	0.5	125.27	35.6	1400.95	196.69	1035.2	65.47	5.44	0.68	3,353.33
12/31/2016	0.5	125.29	35.7	1402.06	167.08	1040.3	67.50	4.61	0.68	4,893.55



VRU #3

Pattern P-19 – 00/06-10-010-26W1/0

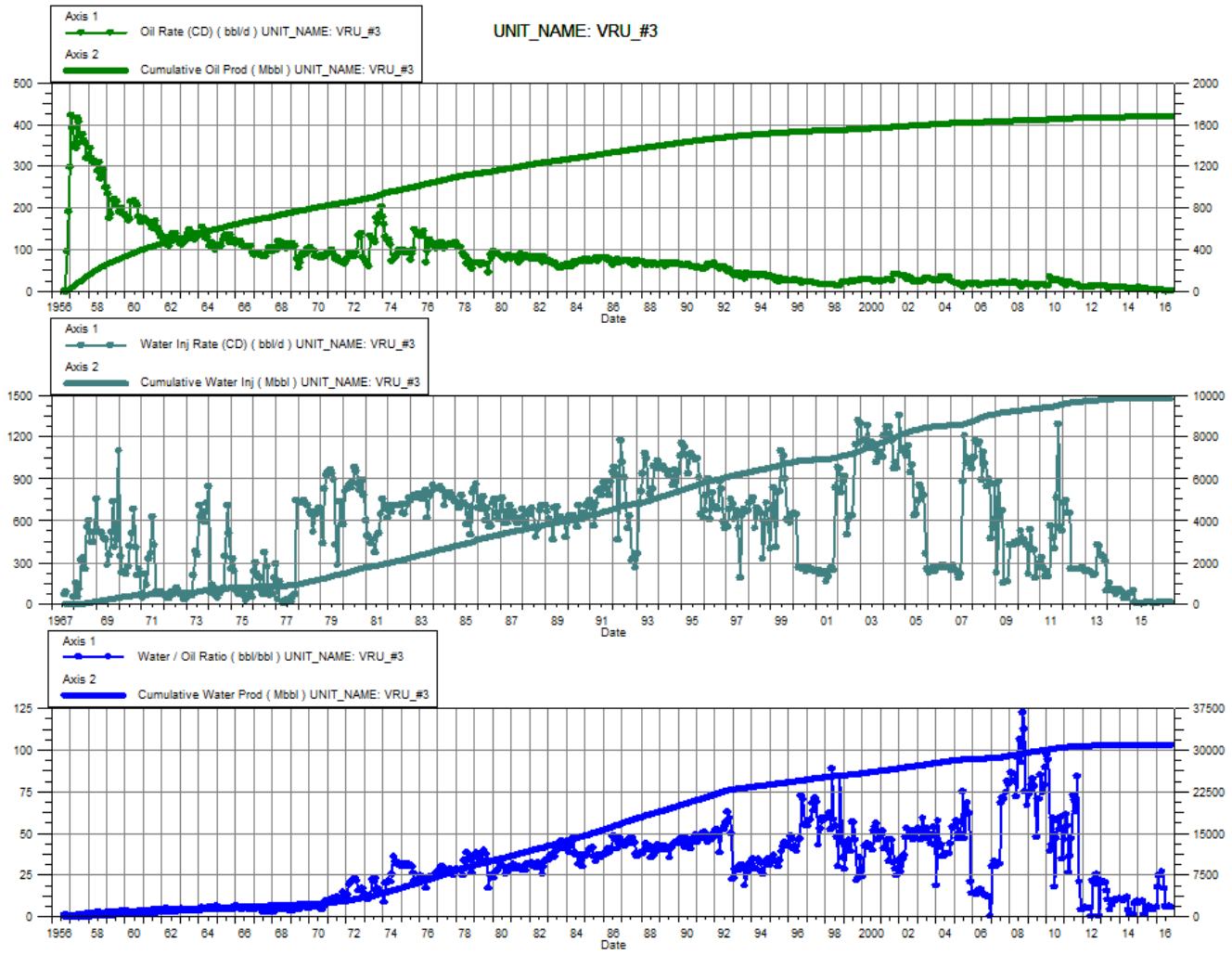
Date	Oil Rate (CD) m3/d	Cum Oil Prod Mm3	Water Rate (CD) m3/d	Cum Water Prod Mm3	Water Inj Rate (CD) m3/d	Cum Water Inj Mm3	Water Oil Ratio m3/m3	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio	Water Inj Pressure kPa
1/31/2016	0.0	0.00	0.0	0.00		0.0	0.00	--	0.04	--
2/29/2016	0.0	0.00	0.0	0.00		0.0	0.00	--	0.04	--
3/31/2016	0.0	0.00	0.0	0.00		0.0	0.00	--	0.04	--
4/30/2016	0.0	0.00	0.0	0.00		0.0	0.00	--	0.04	--
5/31/2016	0.0	0.00	0.0	0.00		0.0	0.00	--	0.04	--
6/30/2016	0.0	0.00	0.0	0.00		0.0	0.00	--	0.04	--
7/31/2016	0.0	0.00	0.0	0.00		0.0	0.00	--	0.04	--
8/31/2016	0.0	0.00	0.0	0.00		0.0	0.00	--	0.04	--
9/30/2016	0.0	0.00	0.0	0.00		0.0	0.00	--	0.04	--
10/31/2016	0.0	0.00	0.0	0.00		0.0	0.00	--	0.04	--
11/30/2016	0.0	0.00	0.0	0.00		0.0	0.00	--	0.04	--
12/31/2016	0.0	0.00	0.0	0.00		0.0	0.00	--	0.04	--



VRU #3

Pattern P-20 – 00/08-10-010-26W1/0

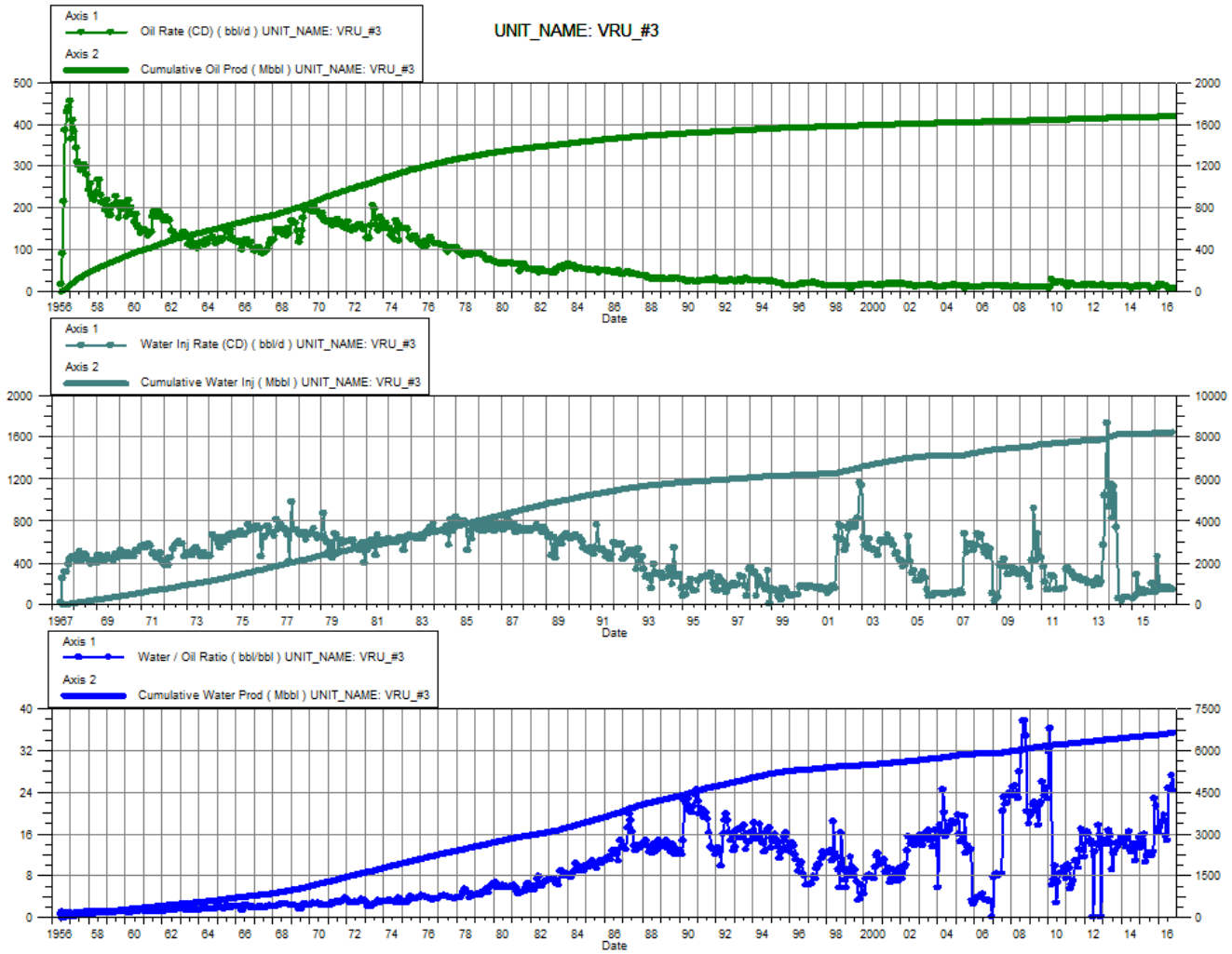
Date	Oil Rate (CD) m3/d	Cum Oil Prod Mm3	Water Rate (CD) m3/d	Cum Water Prod Mm3	Water Inj Rate (CD) m3/d	Cum Water Inj Mm3	Water Oil Ratio m3/m3	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio	Water Inj Pressure kPa
1/31/2016	0.8	267.10	13.3	4920.71	0.72	1566.6	17.47	0.05	0.30	3,309.68
2/29/2016	0.7	267.12	16.2	4921.18	0.84	1566.7	24.54	0.05	0.30	3,605.17
3/31/2016	0.7	267.14	16.5	4921.69	0.79	1566.7	25.57	0.05	0.30	3,751.29
4/30/2016	0.6	267.15	16.1	4922.18	1.76	1566.7	26.46	0.11	0.30	3,788.67
5/31/2016	0.5	267.17	8.9	4922.45	2.07	1566.8	16.55	0.22	0.30	3,753.87
6/30/2016	0.4	267.18	2.4	4922.52	2.48	1566.9	5.89	0.88	0.30	3,785.33
7/31/2016	0.4	267.20	2.4	4922.60	2.00	1566.9	5.58	0.70	0.30	3,648.39
8/31/2016	0.4	267.21	2.4	4922.67	2.24	1567.0	5.68	0.81	0.30	3,587.10
9/30/2016	0.4	267.22	2.4	4922.74	1.97	1567.1	6.22	0.70	0.30	3,216.33
10/31/2016	0.4	267.23	2.4	4922.82	1.81	1567.1	5.56	0.65	0.30	3,693.55
11/30/2016	0.4	267.25	2.6	4922.89	2.57	1567.2	6.28	0.87	0.30	3,800.00
12/31/2016	0.4	267.26	2.6	4922.97	2.39	1567.3	6.46	0.81	0.30	3,800.00



VRU #3

Pattern P-21 – 00/06-11-010-26W1/0

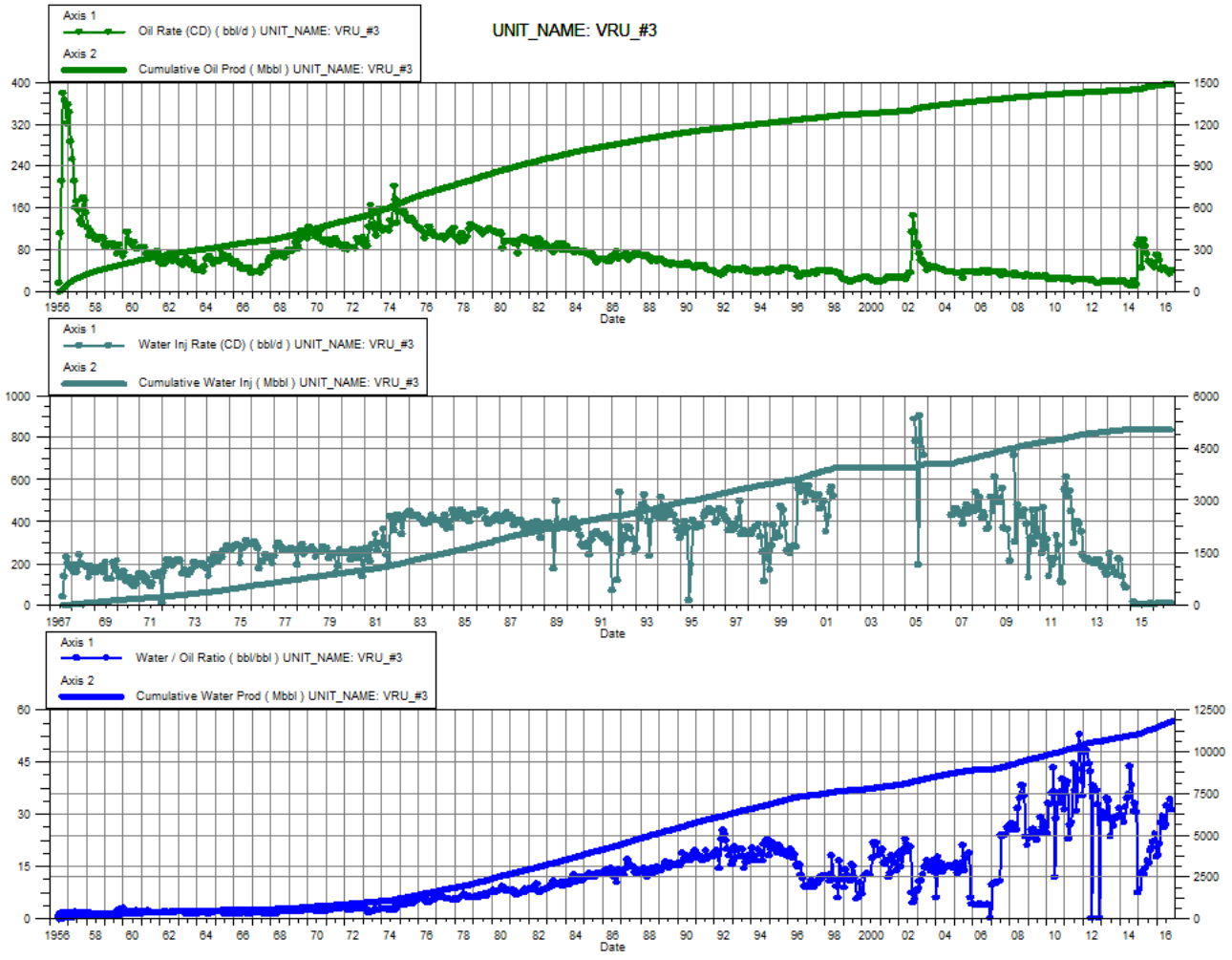
Date	Oil Rate (CD) m3/d	Cum Oil Prod Mm3	Water Rate (CD) m3/d	Cum Water Prod Mm3	Water Inj Rate (CD) m3/d	Cum Water Inj Mm3	Water Oil Ratio m3/m3	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio	Water Inj Pressure kPa
1/31/2016	2.6	266.45	43.7	1046.26	19.05	1301.8	17.01	0.41	0.99	4,154.84
2/29/2016	2.5	266.52	46.2	1047.60	72.92	1303.9	18.21	1.49	0.99	4,310.34
3/31/2016	2.6	266.60	48.2	1049.10	25.58	1304.7	18.38	0.50	0.99	4,606.45
4/30/2016	2.4	266.68	46.9	1050.51	21.50	1305.3	19.50	0.44	0.99	4,810.00
5/31/2016	2.3	266.75	35.8	1051.61	22.33	1306.0	15.71	0.59	0.99	5,109.68
6/30/2016	2.0	266.81	28.9	1052.48	26.61	1306.8	14.56	0.86	0.99	5,196.67
7/31/2016	1.4	266.85	35.2	1053.57	22.50	1307.5	24.69	0.61	0.99	5,093.55
8/31/2016	1.4	266.89	34.3	1054.64	25.75	1308.3	24.77	0.72	0.99	4,869.35
9/30/2016	1.3	266.93	35.2	1055.69	24.56	1309.1	27.04	0.67	0.99	3,986.67
10/31/2016	1.4	266.98	34.3	1056.75	22.21	1309.8	24.23	0.62	0.99	5,050.00
11/30/2016	1.4	267.02	36.8	1057.86	26.77	1310.6	27.17	0.70	0.99	5,050.00
12/31/2016	1.3	267.06	36.0	1058.97	23.30	1311.3	27.87	0.63	0.99	5,050.00



VRU #3

Pattern P-22 – 00/08-11-010-26W1/0

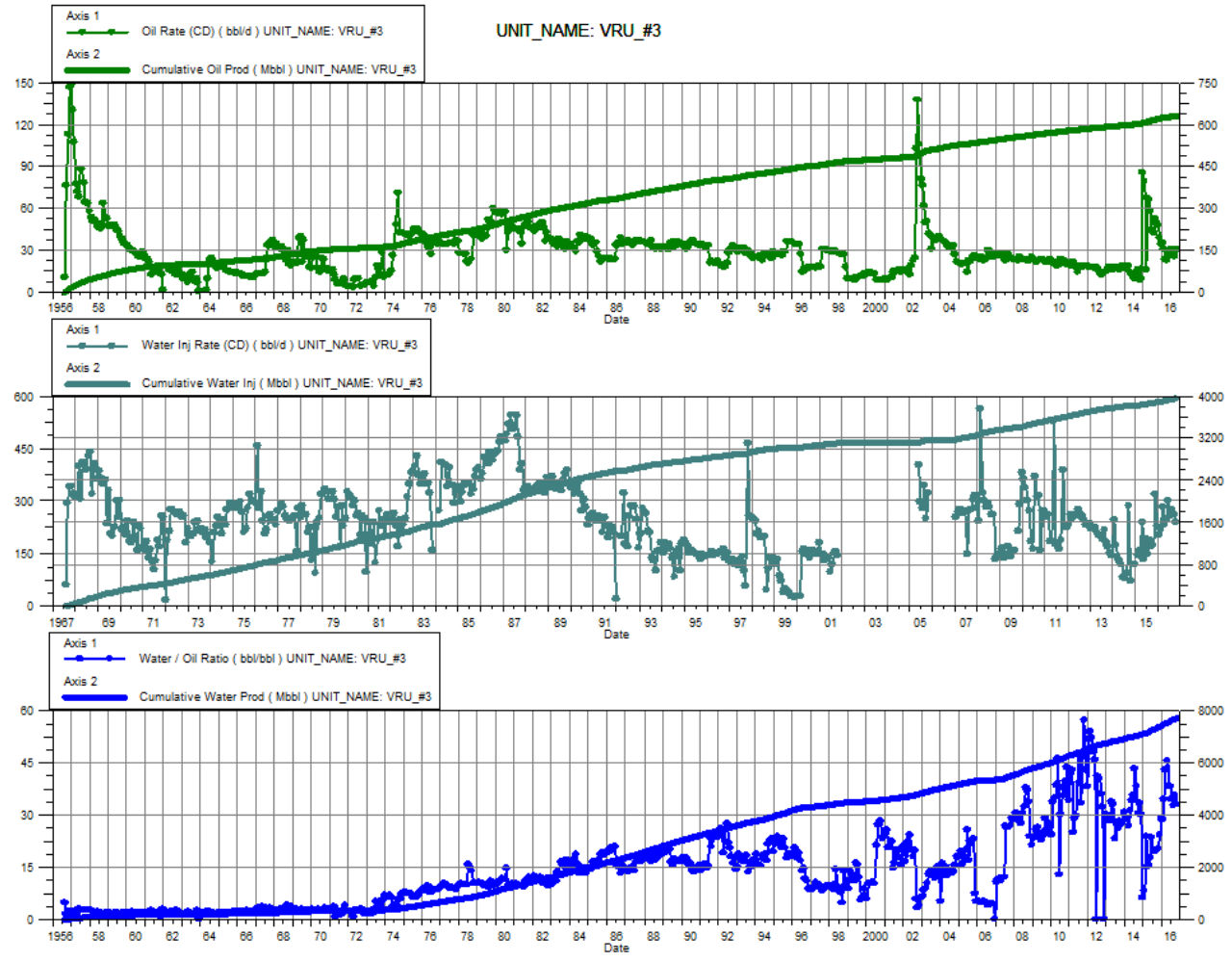
Date	Oil Rate (CD) m3/d	Cum Oil Prod Mm3	Water Rate (CD) m3/d	Cum Water Prod Mm3	Water Inj Rate (CD) m3/d	Cum Water Inj Mm3	Water Oil Ratio m3/m3	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio	Water Inj Pressure kPa
1/31/2016	11.3	235.43	202.0	1825.64	0.72	798.8	17.89	0.00	0.39	4,611.29
2/29/2016	9.5	235.70	203.0	1831.53	0.84	798.8	21.33	0.00	0.39	4,960.34
3/31/2016	7.0	235.92	191.0	1837.45	1.02	798.8	27.40	0.01	0.38	5,259.68
4/30/2016	6.7	236.12	196.9	1843.35	0.88	798.9	29.52	0.00	0.38	5,562.00
5/31/2016	7.4	236.35	191.7	1849.30	0.95	798.9	26.03	0.01	0.38	5,919.68
6/30/2016	7.1	236.56	189.6	1854.98	1.13	798.9	26.88	0.01	0.38	6,001.33
7/31/2016	6.3	236.76	204.2	1861.31	0.91	799.0	32.42	0.00	0.38	5,744.84
8/31/2016	5.6	236.93	175.4	1866.75	0.97	799.0	31.09	0.01	0.38	5,558.06
9/30/2016	5.4	237.09	182.5	1872.23	1.03	799.0	34.03	0.01	0.38	4,633.33
10/31/2016	6.3	237.29	198.3	1878.38	0.91	799.0	31.34	0.00	0.38	5,606.45
11/30/2016	6.0	237.47	211.0	1884.71	1.05	799.1	35.49	0.01	0.38	5,800.00
12/31/2016	5.8	237.65	213.9	1891.34	1.16	799.1	36.61	0.01	0.38	5,800.00



VRU #3

Pattern P-23 – 00/06-12-010-26W1/0

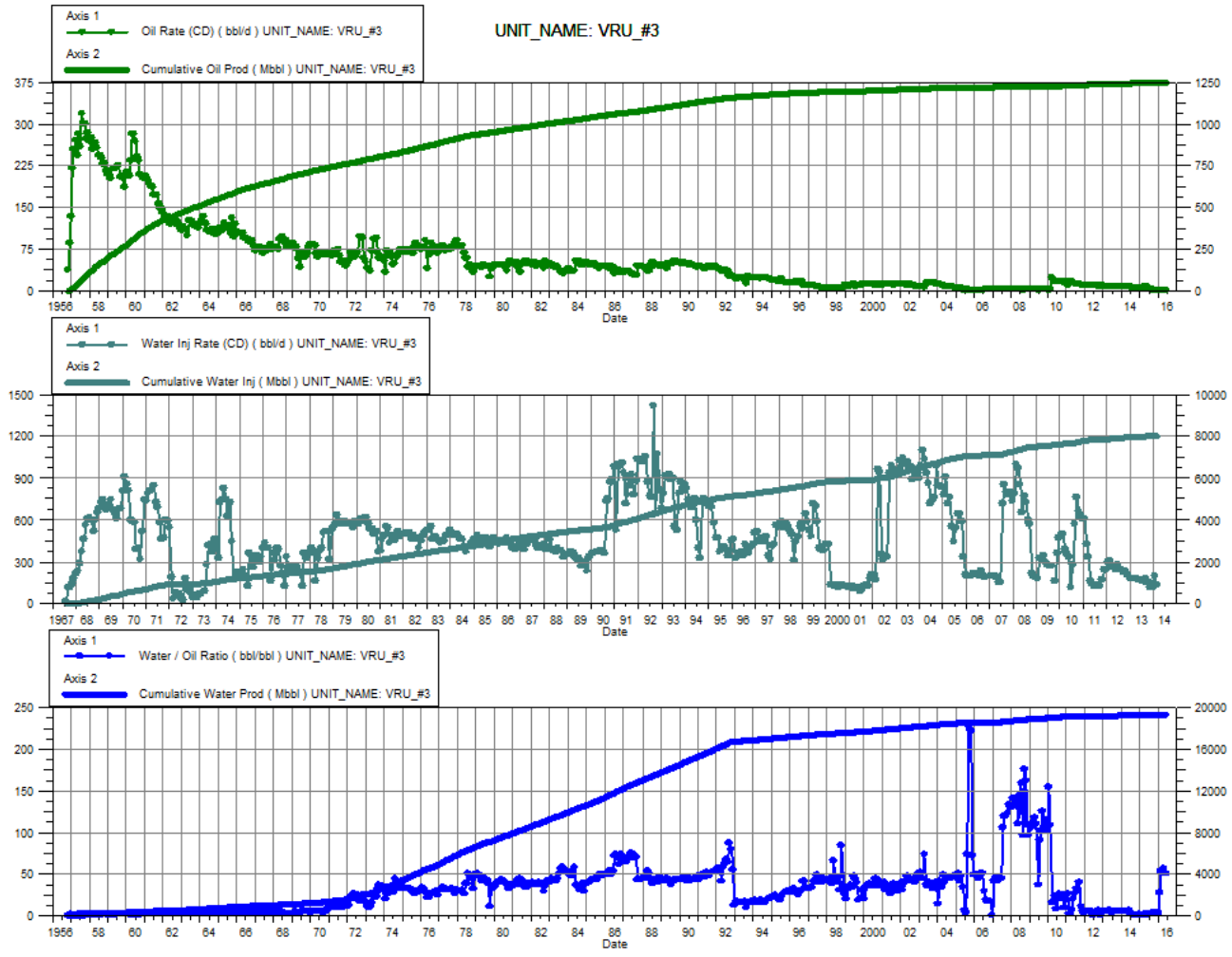
Date	Oil Rate (CD) m3/d	Cum Oil Prod Mm3	Water Rate (CD) m3/d	Cum Water Prod Mm3	Water Inj Rate (CD) m3/d	Cum Water Inj Mm3	Water Oil Ratio m3/m3	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio	Water Inj Pressure kPa
1/31/2016	5.6	99.33	161.4	1185.26	32.43	619.6	28.79	0.19	0.48	4,199.68
2/29/2016	4.9	99.48	167.0	1190.10	34.66	620.6	34.33	0.20	0.48	4,501.55
3/31/2016	3.7	99.59	157.8	1194.99	45.02	622.0	42.91	0.28	0.48	4,832.26
4/30/2016	3.6	99.70	164.7	1199.93	36.72	623.1	45.28	0.22	0.48	5,063.33
5/31/2016	4.3	99.83	163.3	1205.00	39.40	624.3	38.30	0.24	0.48	5,461.61
6/30/2016	4.2	99.96	161.3	1209.84	48.26	625.8	38.17	0.29	0.48	5,560.67
7/31/2016	4.9	100.11	167.1	1215.02	41.10	627.0	34.45	0.24	0.48	5,285.48
8/31/2016	4.3	100.24	138.9	1219.32	44.12	628.4	32.62	0.31	0.48	5,122.58
9/30/2016	4.1	100.36	145.1	1223.68	41.62	629.7	35.72	0.28	0.48	4,335.00
10/31/2016	4.9	100.51	162.1	1228.70	37.98	630.8	32.90	0.23	0.47	5,335.48
11/30/2016	4.6	100.65	172.0	1233.86	50.02	632.3	37.41	0.28	0.47	4,900.00
12/31/2016	4.6	100.79	175.8	1239.31	48.21	633.8	38.56	0.27	0.47	4,900.00



VRU #3

Pattern P-24 – 00/16-03-010-26W1/0

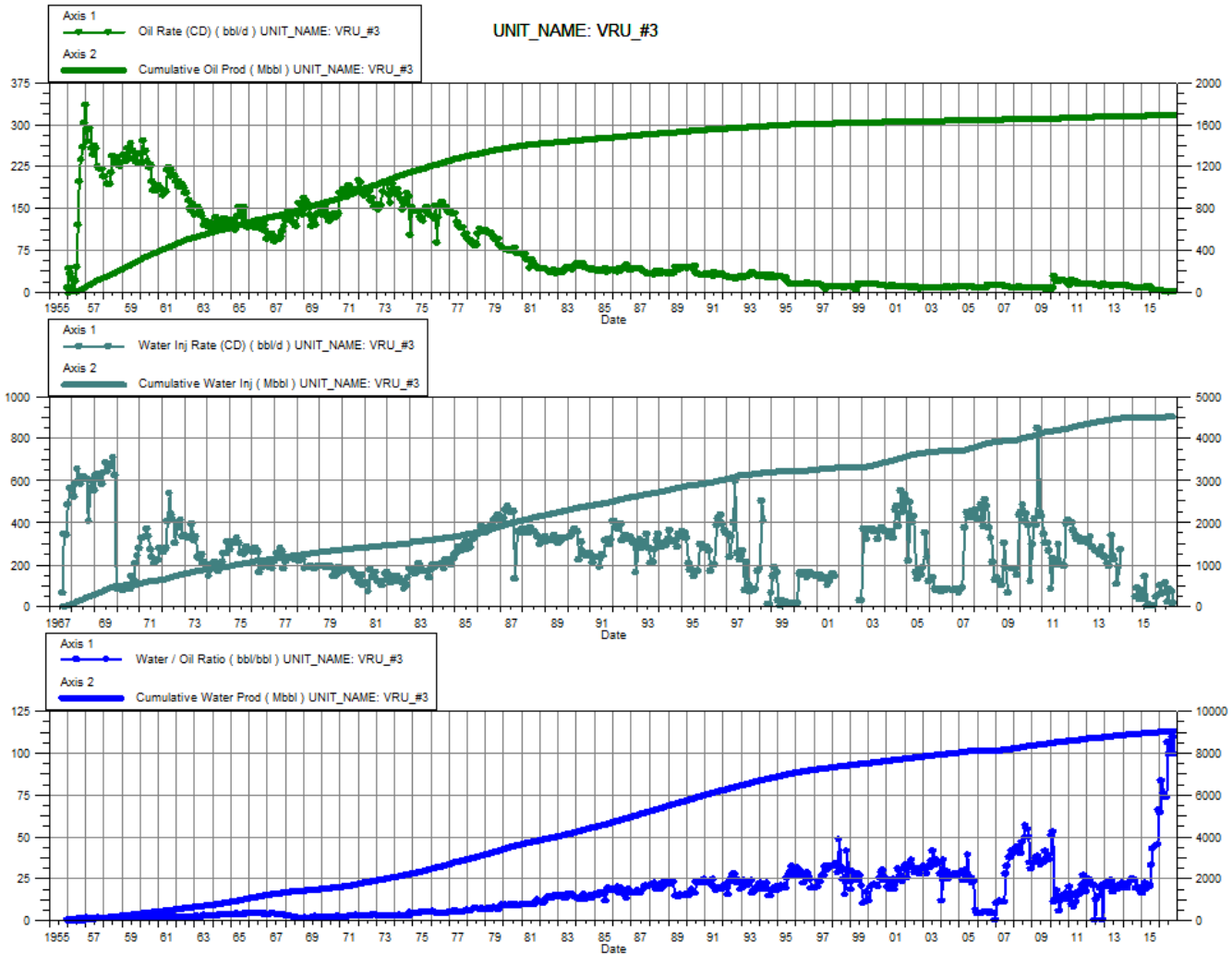
Date	Oil Rate (CD) m3/d	Cum Oil Prod Mm3	Water Rate (CD) m3/d	Cum Water Prod Mm3	Water Inj Rate (CD) m3/d	Cum Water Inj Mm3	Water Oil Ratio m3/m3	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio	Water Inj Pressure kPa
1/31/2016	0.4	198.48	10.9	3061.81		1274.7	27.22		0.39	--
2/29/2016	0.3	198.48	13.7	3062.20		1274.7	52.83		0.39	--
3/31/2016	0.3	198.49	14.0	3062.64		1274.7	54.30		0.39	--
4/30/2016	0.2	198.50	13.7	3063.05		1274.7	56.86		0.39	--
5/31/2016	0.1	198.50	6.5	3063.25		1274.7	50.20		0.39	--
6/30/2016		198.50		3063.25		1274.7			0.39	--
7/31/2016		198.50		3063.25		1274.7			0.39	--
8/31/2016		198.50		3063.25		1274.7			0.39	--
9/30/2016		198.50		3063.25		1274.7			0.39	--
10/31/2016		198.50		3063.25		1274.7			0.39	--
11/30/2016		198.50		3063.25		1274.7			0.39	--
12/31/2016		198.50		3063.25		1274.7			0.39	--



VRU #3

Pattern P-25 – 00/14-02-010-26W1/0

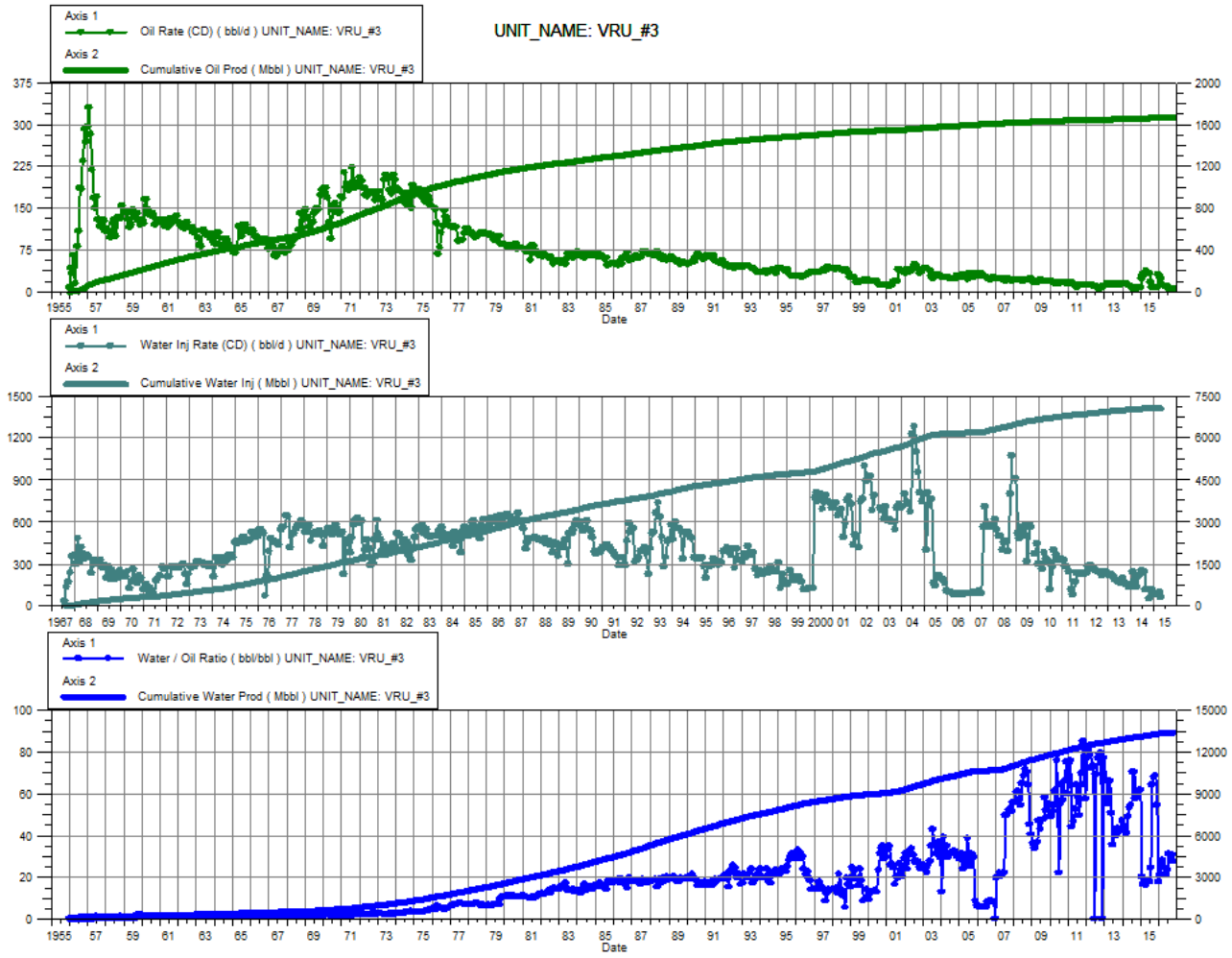
Date	Oil Rate (CD) m3/d	Cum Oil Prod Mm3	Water Rate (CD) m3/d	Cum Water Prod Mm3	Water Inj Rate (CD) m3/d	Cum Water Inj Mm3	Water Oil Ratio m3/m3	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio	Water Inj Pressure kPa
1/31/2016	0.7	268.56	44.1	1434.86	7.16	715.9	64.47	0.16	0.42	4,000.00
2/29/2016	0.6	268.58	48.0	1436.25	8.37	716.2	83.41	0.17	0.42	4,027.59
3/31/2016	0.4	268.59	31.8	1437.24	15.74	716.7	75.79	0.49	0.42	4,806.45
4/30/2016	0.3	268.60	24.2	1437.96	8.78	716.9	73.45	0.36	0.42	4,965.00
5/31/2016	0.2	268.61	16.6	1438.48	10.35	717.2	73.51	0.62	0.42	3,807.26
6/30/2016	0.1	268.61	9.9	1438.77	18.04	717.8	106.00	1.81	0.42	2,475.00
7/31/2016	0.1	268.61	10.2	1439.09	3.08	717.9	99.09	0.30	0.42	2,475.00
8/31/2016	0.1	268.62	10.0	1439.40	12.73	718.3	102.77	1.27	0.42	2,530.65
9/30/2016	0.1	268.62	10.2	1439.70	11.25	718.6	109.25	1.09	0.42	4,226.67
10/31/2016	0.1	268.62	10.0	1440.01	1.90	718.7	99.55	0.19	0.42	5,000.00
11/30/2016	0.1	268.62	10.8	1440.34	39.11	719.8	111.93	3.58	0.42	5,000.00
12/31/2016	0.1	268.63	10.9	1440.67	34.38	720.9	116.10	3.14	0.42	5,000.00



VRU #3

Pattern P-26 – 00/16-02-010-26W1/0

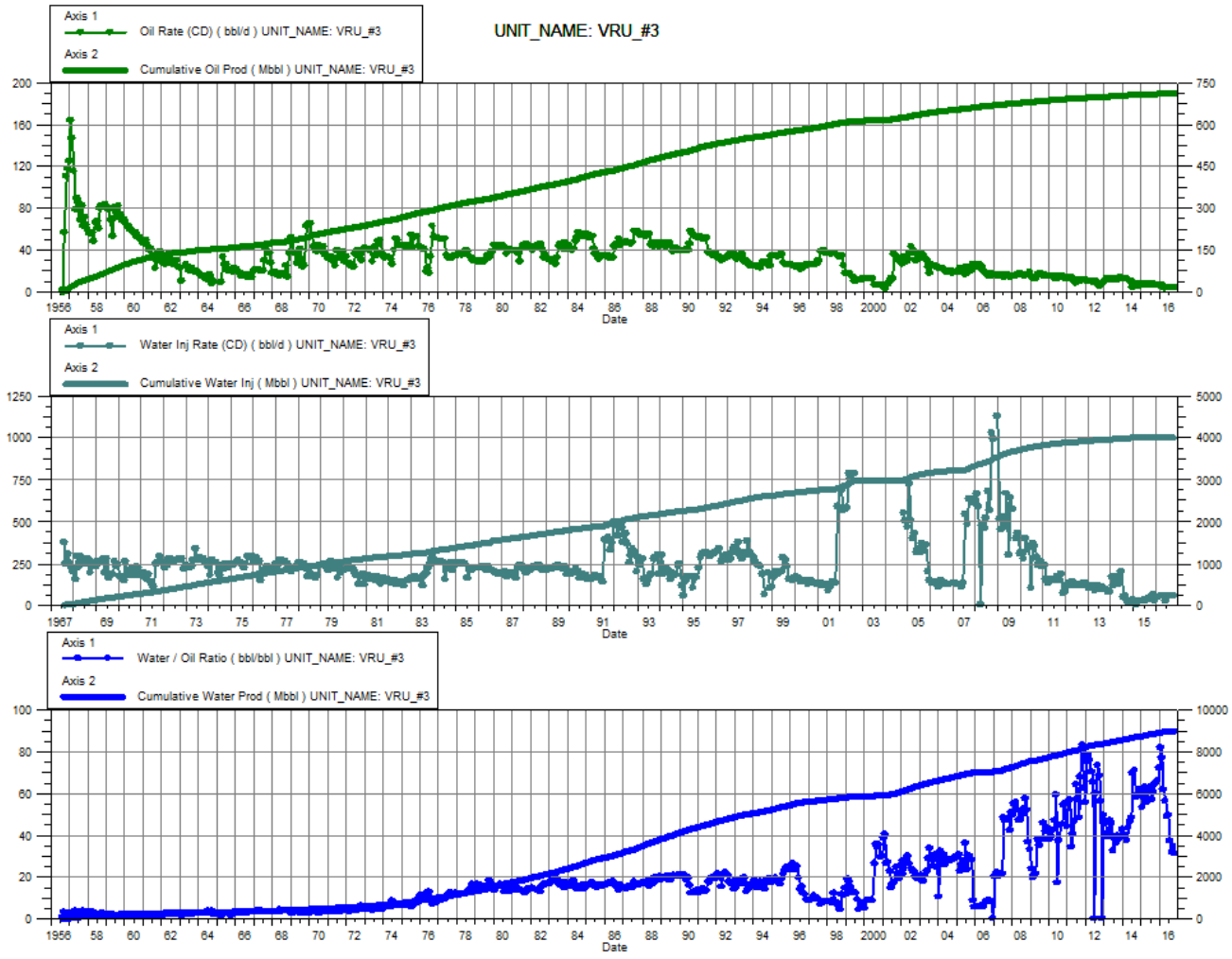
Date	Oil Rate (CD) m3/d	Cum Oil Prod Mm3	Water Rate (CD) m3/d	Cum Water Prod Mm3	Water Inj Rate (CD) m3/d	Cum Water Inj Mm3	Water Oil Ratio m3/m3	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio	Water Inj Pressure kPa
1/31/2016	4.8	264.97	97.7	2120.15		1125.9	20.56		0.47	3,700.00
2/29/2016	3.7	265.08	95.5	2122.92		1125.9	25.70		0.47	3,700.00
3/31/2016	1.9	265.14	54.0	2124.59		1125.9	28.04		0.47	3,700.00
4/30/2016	1.7	265.19	42.0	2125.85		1125.9	24.66		0.47	3,700.00
5/31/2016	1.9	265.25	40.2	2127.10		1125.9	21.42		0.47	3,700.00
6/30/2016	1.7	265.30	40.3	2128.31		1125.9	23.23		0.47	3,700.00
7/31/2016	1.2	265.34	36.0	2129.42		1125.9	31.09		0.47	3,700.00
8/31/2016	1.1	265.37	31.9	2130.41		1125.9	28.22		0.47	3,700.00
9/30/2016	1.1	265.40	32.7	2131.39		1125.9	30.82		0.47	3,700.00
10/31/2016	1.2	265.44	31.9	2132.38		1125.9	27.69		0.47	3,700.00
11/30/2016	1.1	265.47	34.7	2133.42		1125.9	31.05		0.47	3,700.00
12/31/2016	1.1	265.51	34.8	2134.50		1125.9	31.92		0.47	3,700.00



VRU #3

Pattern P-27 – 00/14-01-010-26W1/0

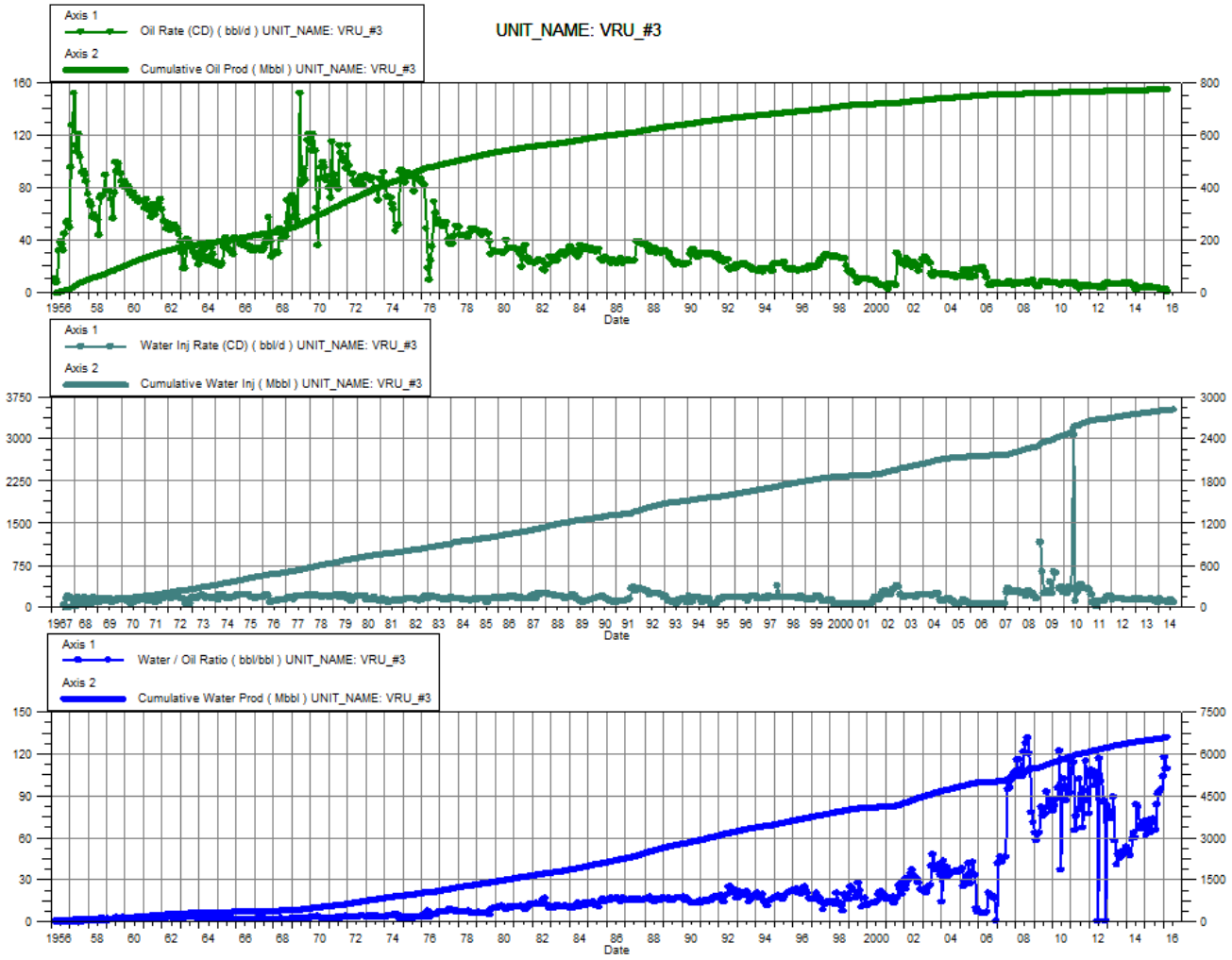
Date	Oil Rate (CD) m3/d	Cum Oil Prod Mm3	Water Rate (CD) m3/d	Cum Water Prod Mm3	Water Inj Rate (CD) m3/d	Cum Water Inj Mm3	Water Oil Ratio m3/m3	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio	Water Inj Pressure kPa
1/31/2016	1.0	113.06	79.6	1419.89	7.23	637.5	81.68	0.09	0.42	4,358.06
2/29/2016	1.1	113.09	81.5	1422.25	7.37	637.8	76.71	0.09	0.42	4,606.90
3/31/2016	0.7	113.11	44.3	1423.62	9.13	638.0	61.55	0.20	0.42	4,806.45
4/30/2016	0.6	113.13	32.4	1424.59	8.41	638.3	56.42	0.26	0.41	5,013.33
5/31/2016	0.6	113.15	30.9	1425.55	8.96	638.6	48.65	0.28	0.41	5,419.35
6/30/2016	0.6	113.17	31.2	1426.49	3.68	638.7	49.50	0.12	0.41	5,586.67
7/31/2016	0.7	113.19	26.0	1427.29	9.07	639.0	37.03	0.34	0.41	5,196.77
8/31/2016	0.7	113.21	22.0	1427.97		639.0	31.98		0.41	5,100.00
9/30/2016	0.6	113.23	22.6	1428.65	9.37	639.2	35.06	0.40	0.41	5,103.33
10/31/2016	0.7	113.25	22.3	1429.34	8.61	639.5	31.07	0.38	0.41	5,206.45
11/30/2016	0.7	113.28	24.0	1430.06	12.53	639.9	35.01	0.51	0.41	5,400.00
12/31/2016	0.7	113.30	24.3	1430.82	12.84	640.3	36.00	0.51	0.41	5,400.00



VRU #3

Pattern P-28 – 00/08-02-010-26W1/0

Date	Oil Rate (CD) m3/d	Cum Oil Prod Mm3	Water Rate (CD) m3/d	Cum Water Prod Mm3	Water Inj Rate (CD) m3/d	Cum Water Inj Mm3	Water Oil Ratio m3/m3	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio	Water Inj Pressure kPa
1/31/2016	0.4	123.04	48.3	1047.43		449.0	116.92		0.38	3,400.00
2/29/2016	0.5	123.06	50.0	1048.88		449.0	108.98		0.38	3,400.00
3/31/2016	0.1	123.06	11.6	1049.24		449.0	108.73		0.38	3,400.00
4/30/2016		123.06		1049.24		449.0			0.38	3,400.00
5/31/2016		123.06		1049.24		449.0			0.38	3,400.00
6/30/2016		123.06		1049.24		449.0			0.38	3,400.00
7/31/2016		123.06		1049.24		449.0			0.38	3,400.00
8/31/2016		123.06		1049.24		449.0			0.38	3,400.00
9/30/2016		123.06		1049.24		449.0			0.38	3,400.00
10/31/2016		123.06		1049.24		449.0			0.38	3,400.00
11/30/2016		123.06		1049.24		449.0			0.38	3,400.00
12/31/2016		123.06		1049.24		449.0			0.38	3,400.00



VRU #3

Pattern P-29 – 00/06-01-010-26W1/0

Date	Oil Rate (CD) m3/d	Cum Oil Prod Mm3	Water Rate (CD) m3/d	Cum Water Prod Mm3	Water Inj Rate (CD) m3/d	Cum Water Inj Mm3	Water Oil Ratio m3/m3	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio	Water Inj Pressure kPa
1/31/2016	1.9	170.61	103.5	2001.71		749.8	55.49		0.35	2,100.00
2/29/2016	2.3	170.68	114.5	2005.03		749.8	50.30		0.34	2,100.00
3/31/2016	2.0	170.74	81.3	2007.55		749.8	40.02		0.34	2,100.00
4/30/2016	1.7	170.79	65.6	2009.52		749.8	38.34		0.34	2,100.00
5/31/2016	2.0	170.85	66.2	2011.57		749.8	33.33		0.34	2,100.00
6/30/2016	1.9	170.91	63.4	2013.47		749.8	33.60		0.34	2,100.00
7/31/2016	2.0	170.97	40.0	2014.71		749.8	20.51		0.34	2,100.00
8/31/2016	1.5	171.02	23.9	2015.45		749.8	15.55		0.34	2,100.00
9/30/2016	1.5	171.06	25.5	2016.22		749.8	17.05		0.34	2,100.00
10/31/2016	2.1	171.13	32.5	2017.23		749.8	15.24		0.34	2,100.00
11/30/2016	2.0	171.19	34.9	2018.27		749.8	17.26		0.34	2,100.00
12/31/2016	1.9	171.25	33.9	2019.32		749.8	17.71		0.34	2,100.00