

Virden Roselea Unit No. 3
2020 Annual EOR Report

Executive Summary

In 2020, oil production in Virden Roselea Unit No. 3 (VRU #3) was 41.7 m³/d (262 bbl/d) totaling 15.2 e³m³ (95.9 mmbbl). Annual production declined 20.3% from 2019 to 2020 using the yearly average, comparing December 2019 to December 2020 the unit declined in production by 26.1%. By the end of 2020 cumulative oil production from the VRU #3 was 2,702 e³m³ (16.99 mmbbl). The original forecasted recovery was 1,290 e³m³ (8.1 mmbbl) on primary recovery and 2,837 e³m³ (17.9 mmbbl) total primary plus secondary recovery.

In December 2020 there were 41 producing oil wells and 14 water injectors active in the unit. In 2016, one re-entry from an existing horizontal in the Scallion formation was drilled. In 2017, six dual leg horizontal wells and three re-entries from existing horizontals were drilled within the unit. In 2018, three dual leg horizontal wells were drilled in the unit. In 2019, two horizontal wells were drilled. In 2020, one well was drilled in the unit.

Discussion

The VRU #3 has been under waterflood since 1967, 13 years after first production from the pool in 1954. Water injection increased the oil production rate from $\sim 100 \text{ m}^3/\text{d}$ ($\sim 629 \text{ bbl/d}$) to $\sim 225 \text{ m}^3/\text{d}$ ($1,415 \text{ bbl/d}$); however, lower than peak production from the field of $450 \text{ m}^3/\text{d}$ ($2,830 \text{ bbl/d}$). 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 nine years prior, 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. In 2017, six dual leg horizontal wells and three re-entries from existing horizontals were drilled within the unit. In 2018, three dual leg horizontal wells were drilled in the unit. In 2019, two horizontal wells were drilled. In 2020, one well was drilled in the unit.

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 0.83 and increasing the amount of injection as well as balancing the flood would be beneficial. The water injection rate was $1,834 \text{ m}^3/\text{d}$ ($11,541 \text{ bbl/d}$) in 2020 and the producing WOR was $25.7 \text{ m}^3/\text{m}^3$. The injected water at VRU #3 is not filtered or treated in any way.

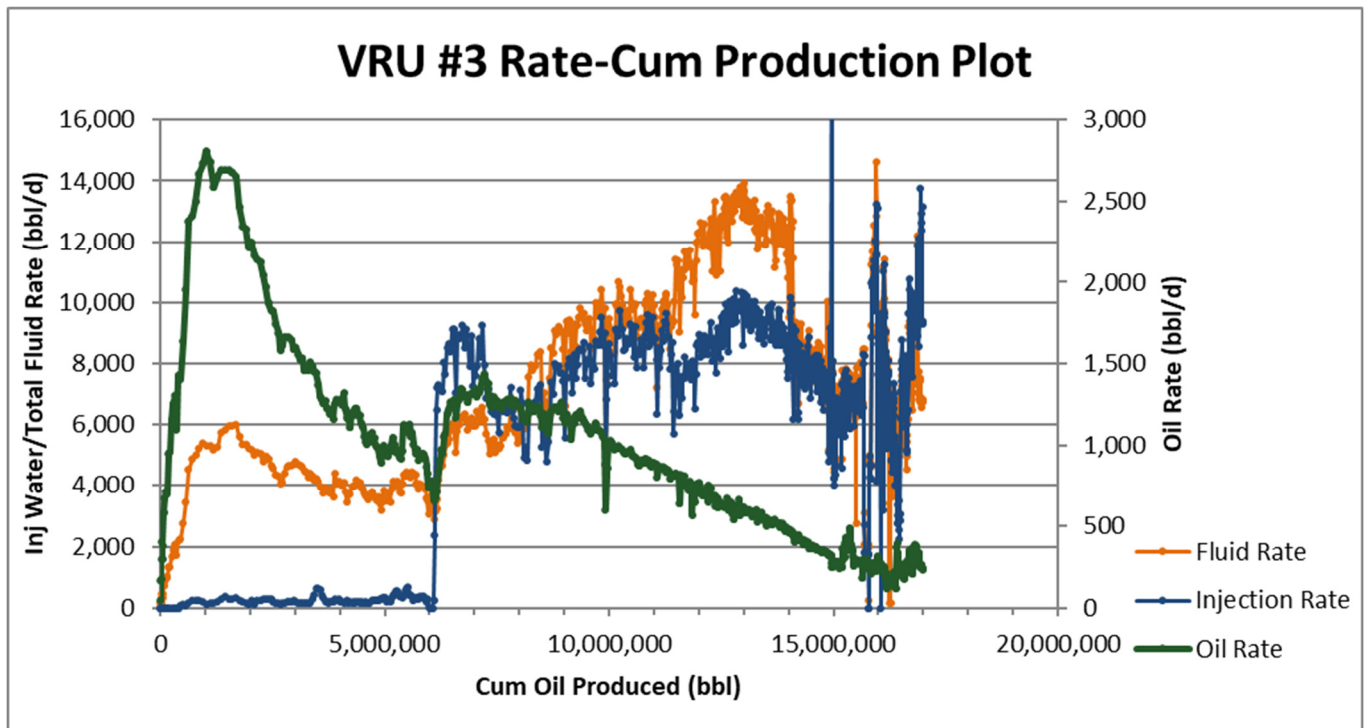
Significant events in 2020 are as follows:

- January 2020, drill the 102/03-23-010-26W1/00 horizontal well in the Oolites and Scallion.

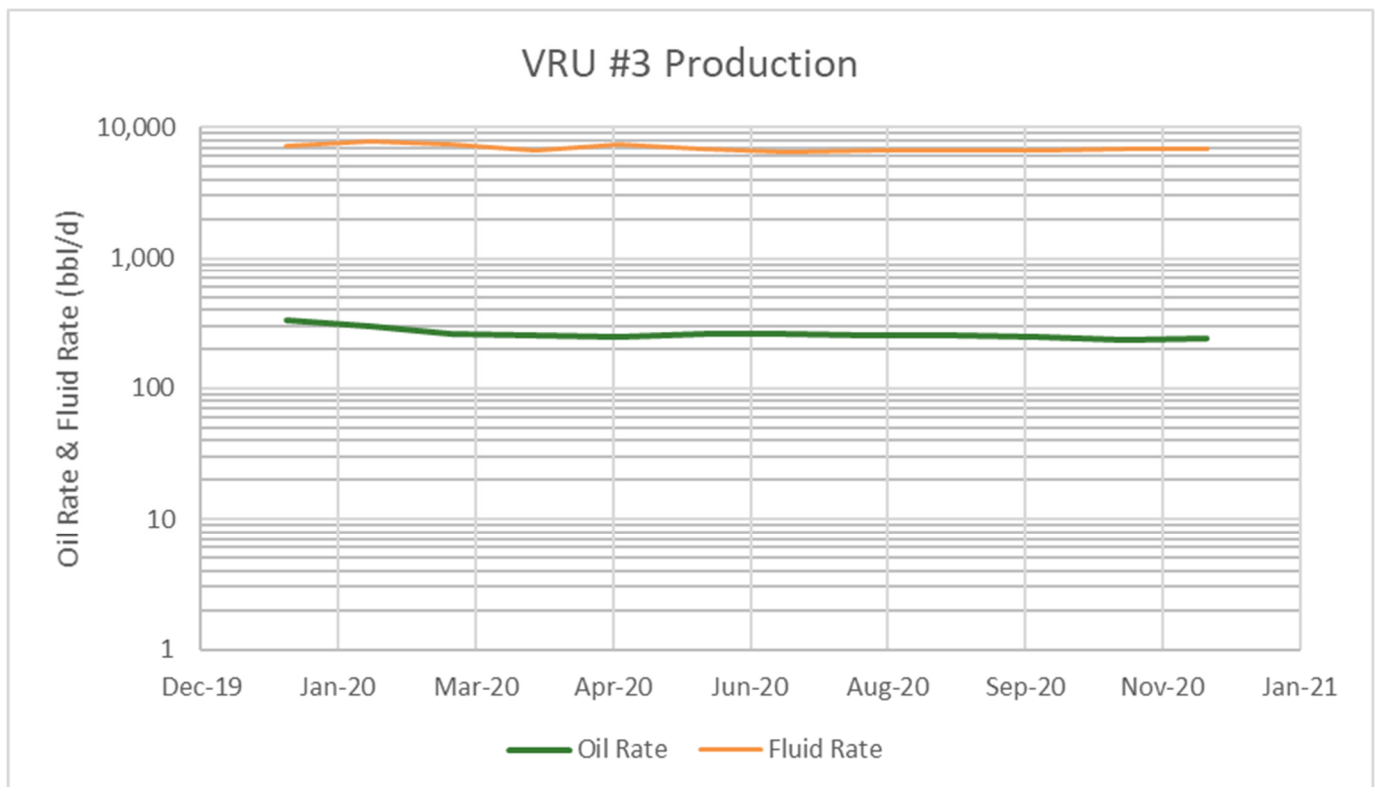
In the composite rate – cumulative oil plot below, waterflood response is clearly demonstrated at a cumulative oil production of 1000 e³m³ (6.3 MMbbl) after a pattern waterflood was initiated.

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



2020 Reservoir Pressure Surveys

Unit	UWI	License	Test Type	Date of Pressure	Duration of SI (days)	Datum BHP (kPaa)
VRU #3	102/03-23-010-26W1/00	11339	BH BU	2020-02-26	22	2,731

In 2020, one pressure on a newly drilled well was recorded, giving a low reservoir pressure. In 2018, three pressures were taken, giving an average of 5,900 kPa. This is similar to the pressure survey conducted in 2017 that gave an average reservoir pressure of 6,000 kPa. This is close to normally pressured, if a bit under pressured. 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. There are plans to implement more waterflood conversions within the unit to reduce further decline in the pressure due to the drilling of new infill wells.

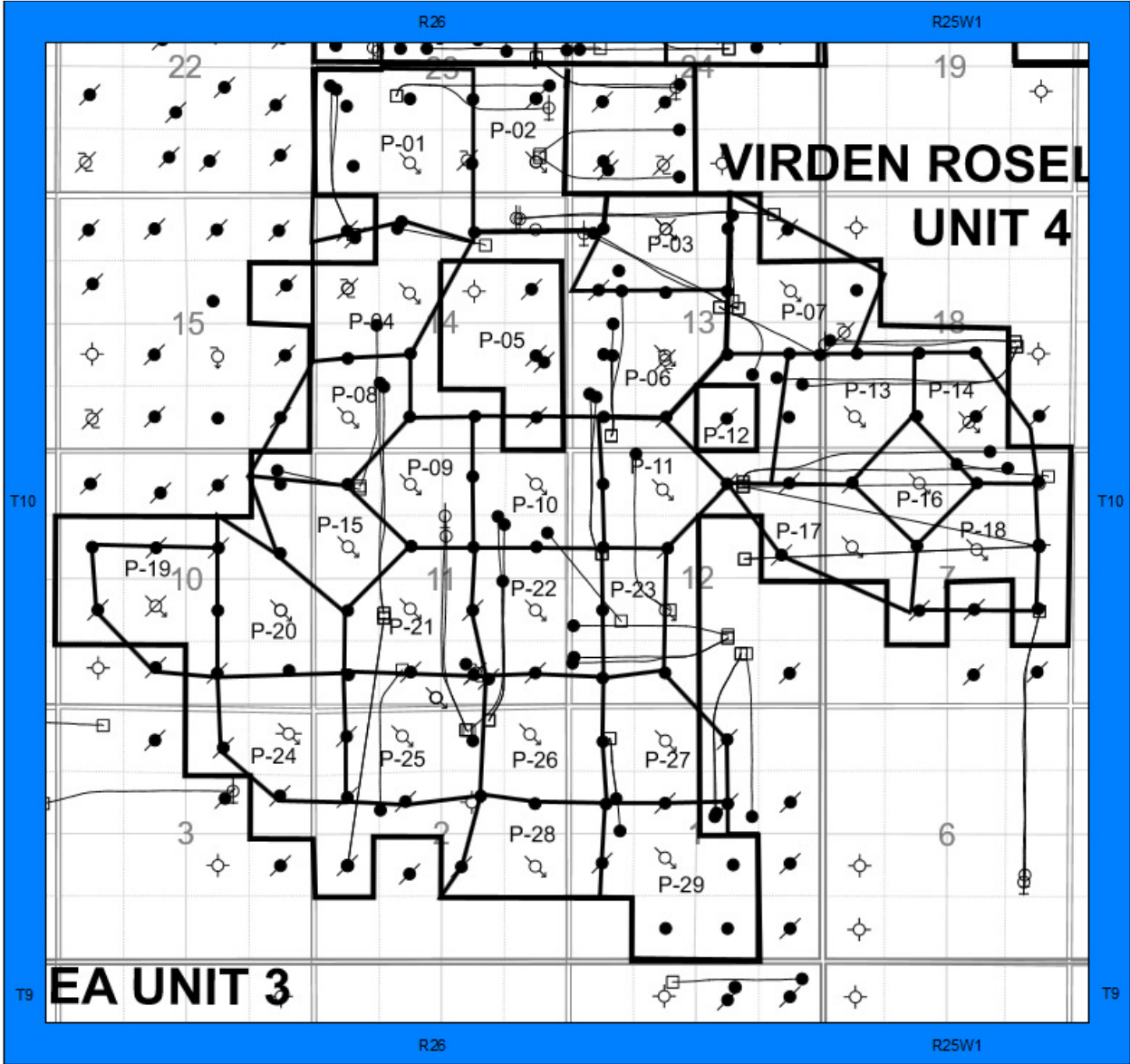
The voidage replacement ratio (VRR) in 2020 hovered around 1.5. At the end of the year the VRR was 1.46. The cumulative VRR at year end was 0.83. This is well below cumulative VRR of 1.0, indicating more water should be injected.

There is potentially 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 $1.06 \text{ rm}^3/\text{sm}^3$ and a water formation volume factor of $1.04 \text{ rm}^3/\text{sm}^3$ were used in the VRR calculations.

2020 Well Servicing

UWI	Unit	Licence	Start Date	Job Category	Primary Job Type
103/10-11-010-26W1/00	VRU#3	11061	2020-01-29 0:00	Completion/Workover	Pump Repair
102/03-23-010-26W1/00	VRU#3	11339	2020-01-29 12:00	Drilling	Drilling - original
INJECTION LINE REPLACEMENT	VRU#3	P19VIR017	2020-02-03 0:00	Facilities	Pipeline / Flowline Replacement
102/04-13-010-26W1/00	VRU#3	10779	2020-02-09 6:00	Completion/Workover	Pump Repair
100/13-12-010-26W1/00	VRU#3	001197	2020-02-09 12:00	Completion/Workover	Pump Repair
102/03-23-010-26W1/00	VRU#3	11339	2020-02-25 17:00	Completion/Workover	Initial Completion
100/12-11-010-26W1/00	VRU#3	001237	2020-03-03 15:00	Completion/Workover	Packer Repair
EM SURVEYS - VRU3	VRU#3	R20VIR002	2020-04-01 9:11	Facilities	Remediation
TURNAROUND - 02-11-10-26 BATTERY	VRU#3	T20VIR004	2020-05-25 8:00	Facilities	Turnaround
102/05-23-010-26W1/00	VRU#3	10688	2020-06-10 7:30	Completion/Workover	Pump Repair
100/03-01-010-26W1/00	VRU#3	001373	2020-06-11 15:00	Completion/Workover	Pump Repair
100/01-23-010-26W1/02	VRU#3	000738	2020-07-15 7:30	Completion/Workover	Equipment Pressure Integrity Test
ASSINIBOINE COATING - VIRDEN ROSELEA UNIT NO. 3	VRU#3	FF20VIR013	2020-10-12 7:30	Facilities	Header Repair
100/05-13-010-26W1/00	VRU#3	001017	2020-10-26 7:30	Completion/Workover	Inhibitor Squeeze
102/14-12-010-26W1/00	VRU#3	10053	2020-11-28 11:00	Completion/Workover	Pump Repair

Waterflood Pattern Map

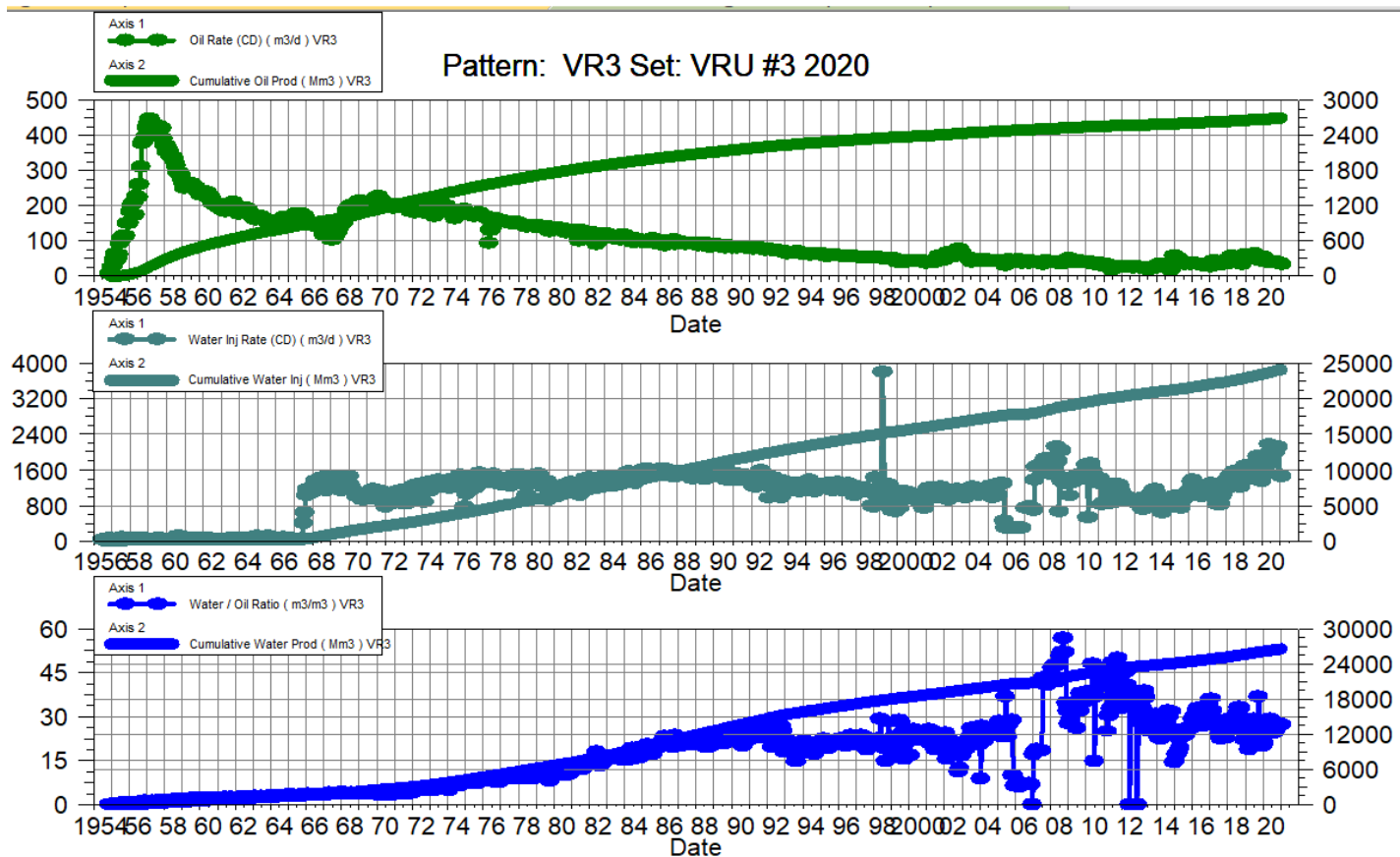


Waterflood Pattern Table

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 & 100/01-10-010-26W1/00
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 & 102/03-11-010-26W1/02
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

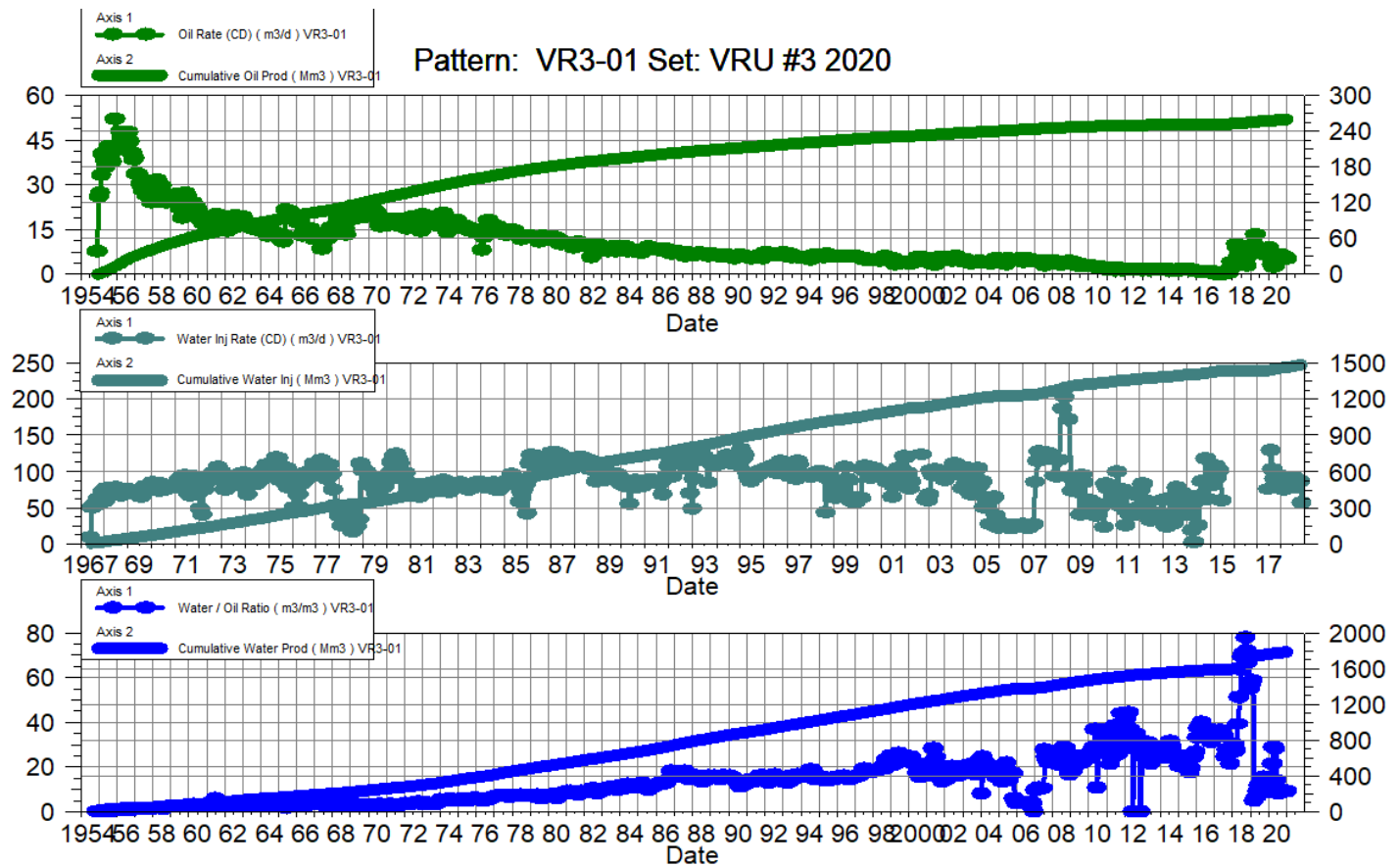
Date	Oil Rate (CD) m3/d	Cum Oil Prod Mm3	Water Rate (CD) m3/d	Cum Water Prod Mm3	Water Inj Rate (CD) m3/d	Cum Water Inj Mm3	Water Oil Ratio m3/m3	Voidage Replacement Ratio	Cum Voidage Replacement Ratio	Water Inj Pressure kPa
1-31-2020	53.4	2687.12	1106.3	26092.90	1476.74	23626.3	20.72	1.27	0.82	4,603.70
2-29-2020	47.2	2688.49	1182.3	26127.19	1924.18	23682.1	25.05	1.56	0.82	4,603.70
3-31-2020	41.0	2689.76	1139.0	26162.49	1885.63	23740.6	27.78	1.60	0.82	4,603.70
4-30-2020	40.3	2690.97	1028.8	26193.36	1713.91	23792.0	25.56	1.60	0.82	4,603.70
5-31-2020	39.7	2692.20	1154.4	26229.15	2186.10	23859.8	29.05	1.83	0.82	4,603.70
6-30-2020	41.5	2693.45	1054.9	26260.79	1750.47	23912.3	25.41	1.60	0.82	4,603.70
7-31-2020	41.6	2694.74	1003.0	26291.89	1965.82	23973.2	24.10	1.88	0.83	4,603.70
8-31-2020	40.0	2695.97	1030.7	26323.84	2054.23	24036.9	25.79	1.92	0.83	4,603.70
9-30-2020	40.7	2697.19	1027.8	26354.67	2006.03	24097.1	25.28	1.88	0.83	4,603.70
10-31-2020	38.9	2698.40	1030.6	26386.62	2090.44	24161.9	26.50	1.95	0.83	4,603.70
11-30-2020	37.7	2699.53	1037.5	26417.74	2118.88	24225.5	27.55	1.97	0.83	4,603.70
12-31-2020	36.4	2700.66	983.6	26448.23	1489.53	24271.6	27.05	1.46	0.83	4,603.70



VRU #3

Pattern P-01 – 00/03-23-010-26W1/0

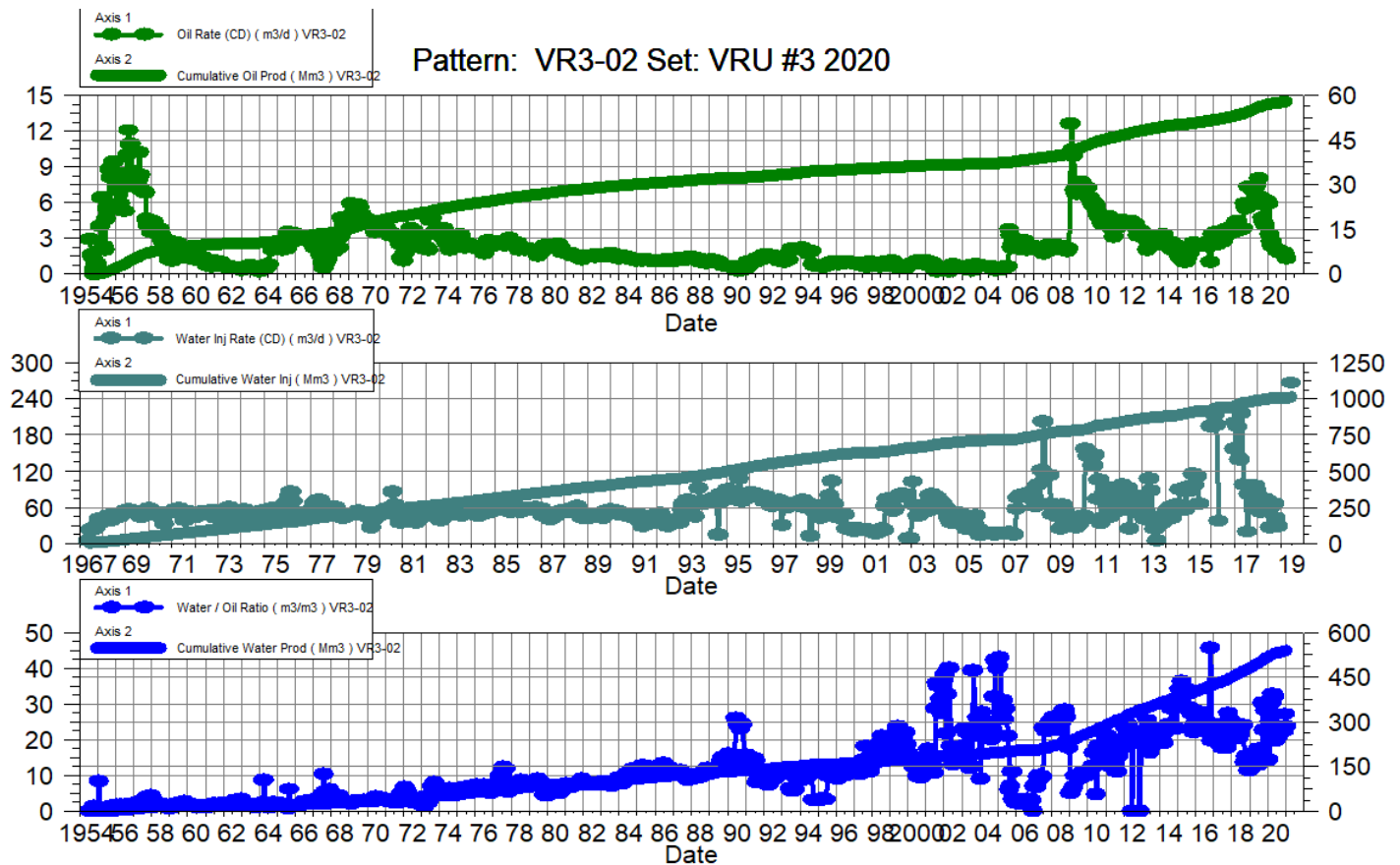
Date	Oil Rate (CD) m3/d	Cum Oil Prod Mm3	Water Rate (CD) m3/d	Cum Water Prod Mm3	Water Inj Rate (CD) m3/d	Cum Water Inj Mm3	Water Oil Ratio m3/m3	Voidage Replacement Ratio	Cum Voidage Replacement Ratio	Water Inj Pressure kPa
1-31-2020	8.8	258.79	75.2	1760.22		1493.8	8.56		0.74	4,700.00
2-29-2020	5.6	258.96	77.6	1762.47		1493.8	13.76		0.74	4,700.00
3-31-2020	3.3	259.06	68.9	1764.60		1493.8	21.04		0.74	4,700.00
4-30-2020	2.5	259.13	72.7	1766.78		1493.8	28.84		0.74	4,700.00
5-31-2020	2.7	259.22	75.8	1769.14		1493.8	27.90		0.74	4,700.00
6-30-2020	4.6	259.36	63.9	1771.05		1493.8	13.85		0.73	4,700.00
7-31-2020	6.5	259.56	51.6	1772.65		1493.8	7.97		0.73	4,700.00
8-31-2020	6.2	259.75	54.3	1774.33		1493.8	8.82		0.73	4,700.00
9-30-2020	6.4	259.94	54.8	1775.98		1493.8	8.59		0.73	4,700.00
10-31-2020	6.0	260.12	53.0	1777.62		1493.8	8.88		0.73	4,700.00
11-30-2020	5.9	260.30	53.2	1779.22		1493.8	9.05		0.73	4,700.00
12-31-2020	5.6	260.47	50.0	1780.77		1493.8	8.86		0.73	4,700.00



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 Replacement Ratio	Water Inj Pressure kPa
1-31-2020	5.9	57.25	84.4	519.51		1022.3	14.25		1.77	4,700.00
2-29-2020	3.4	57.34	84.0	521.95		1022.3	25.04		1.76	4,700.00
3-31-2020	2.8	57.43	83.3	524.53		1022.3	30.30		1.75	4,700.00
4-30-2020	2.4	57.50	77.2	526.85		1022.3	32.74		1.75	4,700.00
5-31-2020	2.2	57.57	70.8	529.04		1022.3	31.93		1.74	4,700.00
6-30-2020	2.1	57.63	40.6	530.26		1022.3	19.59		1.74	4,700.00
7-31-2020	1.9	57.69	38.7	531.46		1022.3	20.52		1.73	4,700.00
8-31-2020	1.8	57.75	41.1	532.73		1022.3	22.31		1.73	4,700.00
9-30-2020	1.9	57.80	42.7	534.02		1022.3	22.11		1.72	4,700.00
10-31-2020	1.8	57.86	41.5	535.30		1022.3	22.93		1.72	4,700.00
11-30-2020	1.9	57.92	41.2	536.54		1022.3	22.11		1.72	4,700.00
12-31-2020	1.6	57.97	42.7	537.86		1022.3	27.08		1.71	4,700.00

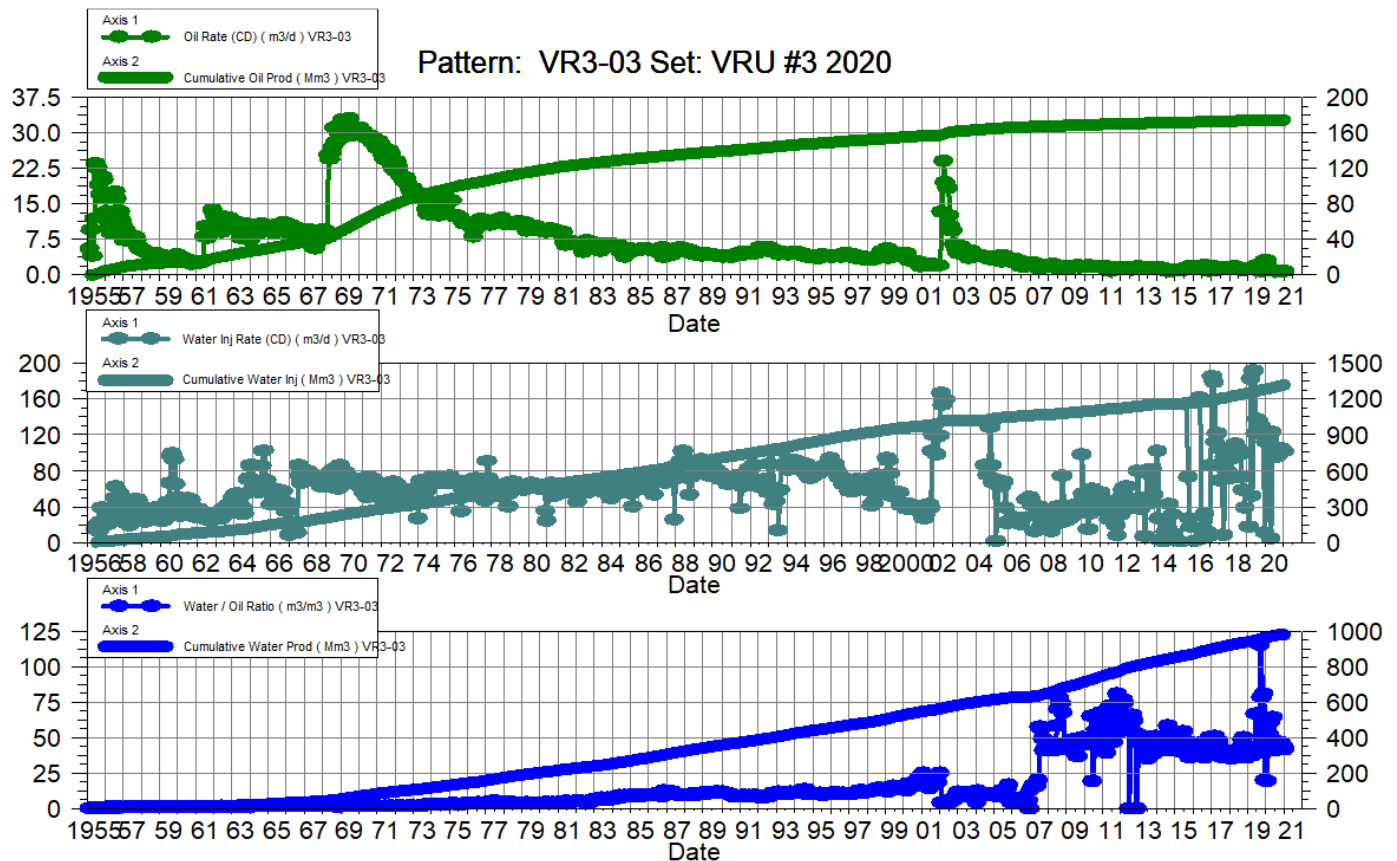


VRU #3

Pattern P-03 – 00/14-13-010-26W1/0

P-03 – 02/14-13-010-26W1/0

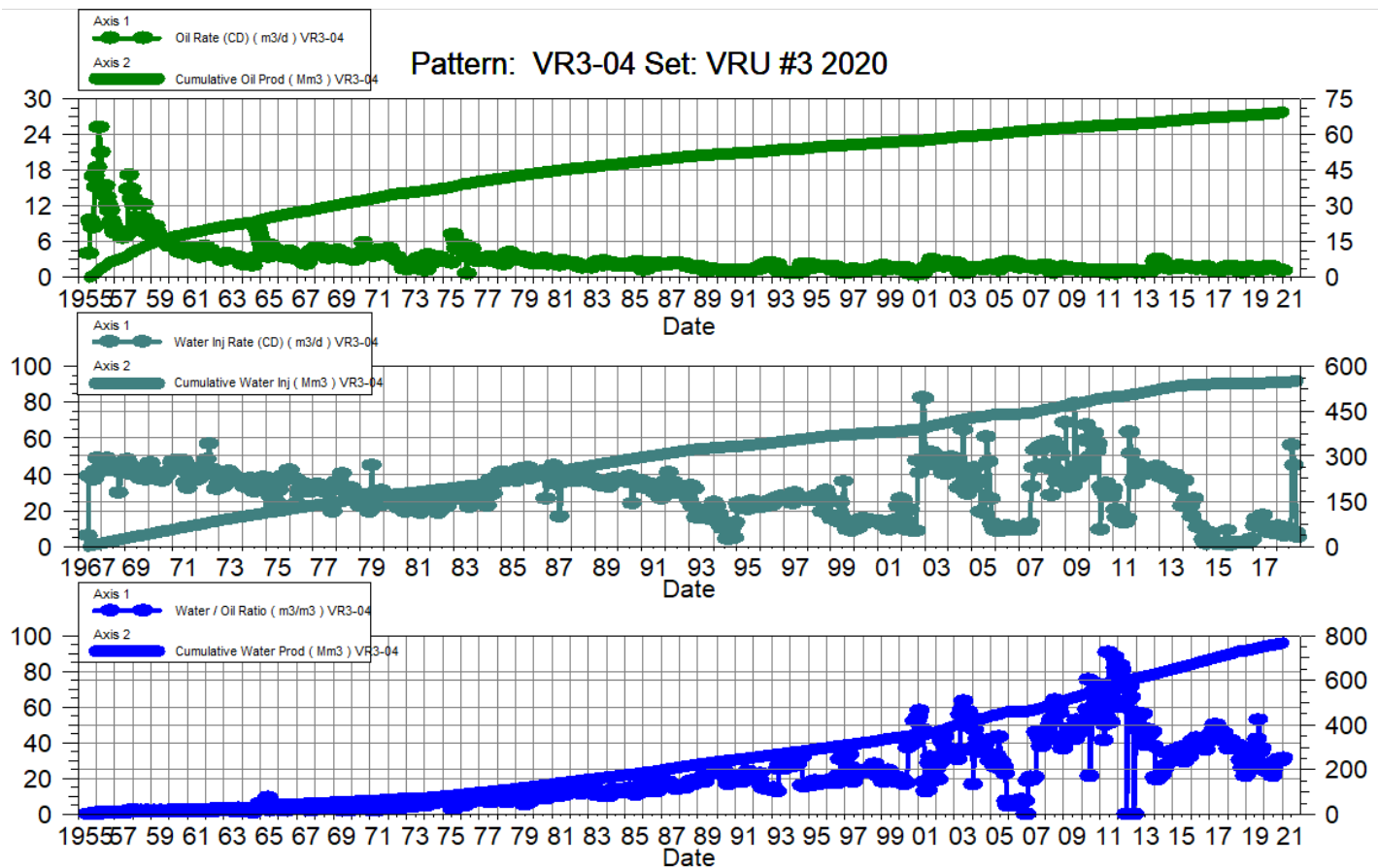
Date	Oil Rate (CD) m3/d	Cum Oil Prod Mm3	Water Rate (CD) m3/d	Cum Water Prod Mm3	Water Inj Rate (CD) m3/d	Cum Water Inj Mm3	Water Oil Ratio m3/m3	Voidage Replacement Ratio	Cum Voidage Replacement Ratio	Water Inj Pressure kPa
1-31-2020	3.0	175.01	57.9	963.31	111.97	1291.7	19.28	1.84	1.13	4,200.00
2-29-2020	1.4	175.05	67.6	965.27	110.59	1294.9	48.62	1.60	1.13	4,200.00
3-31-2020	1.3	175.09	68.3	967.39	114.45	1298.4	51.93	1.64	1.13	4,200.00
4-30-2020	1.1	175.12	65.0	969.34	3.87	1298.6	60.98	0.06	1.13	4,200.00
5-31-2020	1.1	175.15	68.0	971.45	122.97	1302.4	64.05	1.78	1.13	4,200.00
6-30-2020	0.9	175.18	37.0	972.56	106.60	1305.6	40.38	2.81	1.13	4,200.00
7-31-2020	0.8	175.21	35.4	973.66	98.71	1308.6	42.74	2.72	1.14	4,200.00
8-31-2020	0.8	175.23	38.1	974.84	94.61	1311.6	46.85	2.43	1.14	4,200.00
9-30-2020	0.8	175.26	38.5	975.99	98.50	1314.5	45.99	2.50	1.14	4,200.00
10-31-2020	0.8	175.28	37.4	977.15	99.19	1317.6	46.19	2.59	1.14	4,200.00
11-30-2020	0.8	175.31	37.6	978.28	104.23	1320.7	45.54	2.71	1.14	4,200.00
12-31-2020	0.8	175.33	35.9	979.39	102.17	1323.9	43.08	2.78	1.14	4,200.00



VRU #3

Pattern P-04 – 00/11-14-010-26W1/0

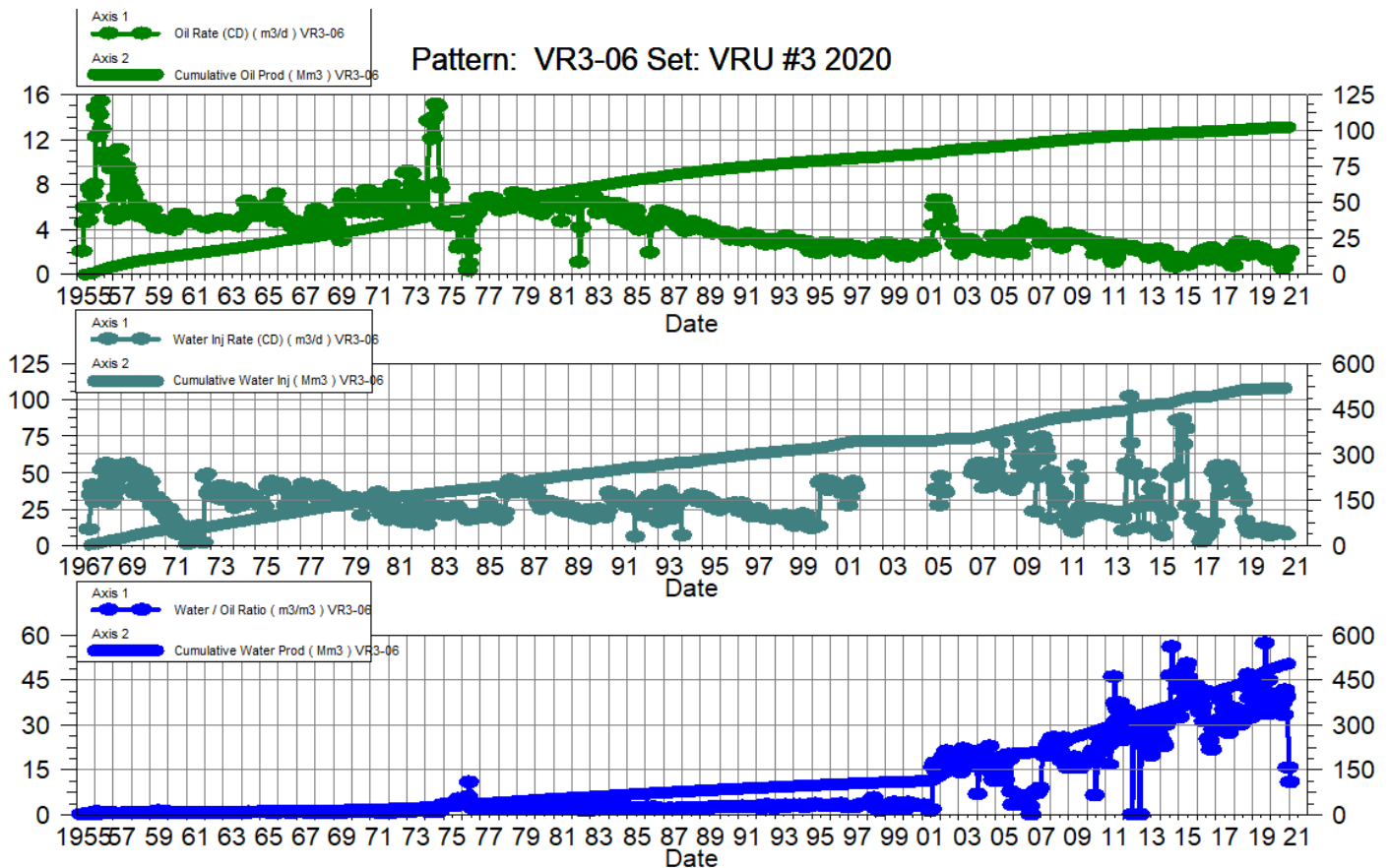
Date	Oil Rate (CD) m3/d	Cum Oil Prod Mm3	Water Rate (CD) m3/d	Cum Water Prod Mm3	Water Inj Rate (CD) m3/d	Cum Water Inj Mm3	Water Oil Ratio m3/m3	Voidage Replacement Ratio	Cum Voidage Replacement Ratio	Water Inj Pressure kPa
1-31-2020	1.8	68.85	44.4	750.92		554.3	25.09		0.68	5,100.00
2-29-2020	1.9	68.90	46.0	752.25		554.3	24.11		0.67	5,100.00
3-31-2020	1.7	68.95	40.7	753.51		554.3	24.14		0.67	5,100.00
4-30-2020	1.6	69.00	38.1	754.66		554.3	24.02		0.67	5,100.00
5-31-2020	1.7	69.05	40.2	755.90		554.3	23.89		0.67	5,100.00
6-30-2020	1.8	69.11	39.4	757.08		554.3	21.37		0.67	5,100.00
7-31-2020	1.5	69.15	37.6	758.25		554.3	25.29		0.67	5,100.00
8-31-2020	1.4	69.20	39.8	759.48		554.3	29.17		0.67	5,100.00
9-30-2020	1.4	69.24	40.5	760.70		554.3	29.25		0.67	5,100.00
10-31-2020	1.3	69.28	39.1	761.91		554.3	30.38		0.67	5,100.00
11-30-2020	1.3	69.32	39.8	763.11		554.3	30.28		0.67	5,100.00
12-31-2020	1.3	69.36	37.4	764.26		554.3	29.76		0.66	5,100.00



VRU #3

Pattern P-06 – 00/06-13-010-26W1/0

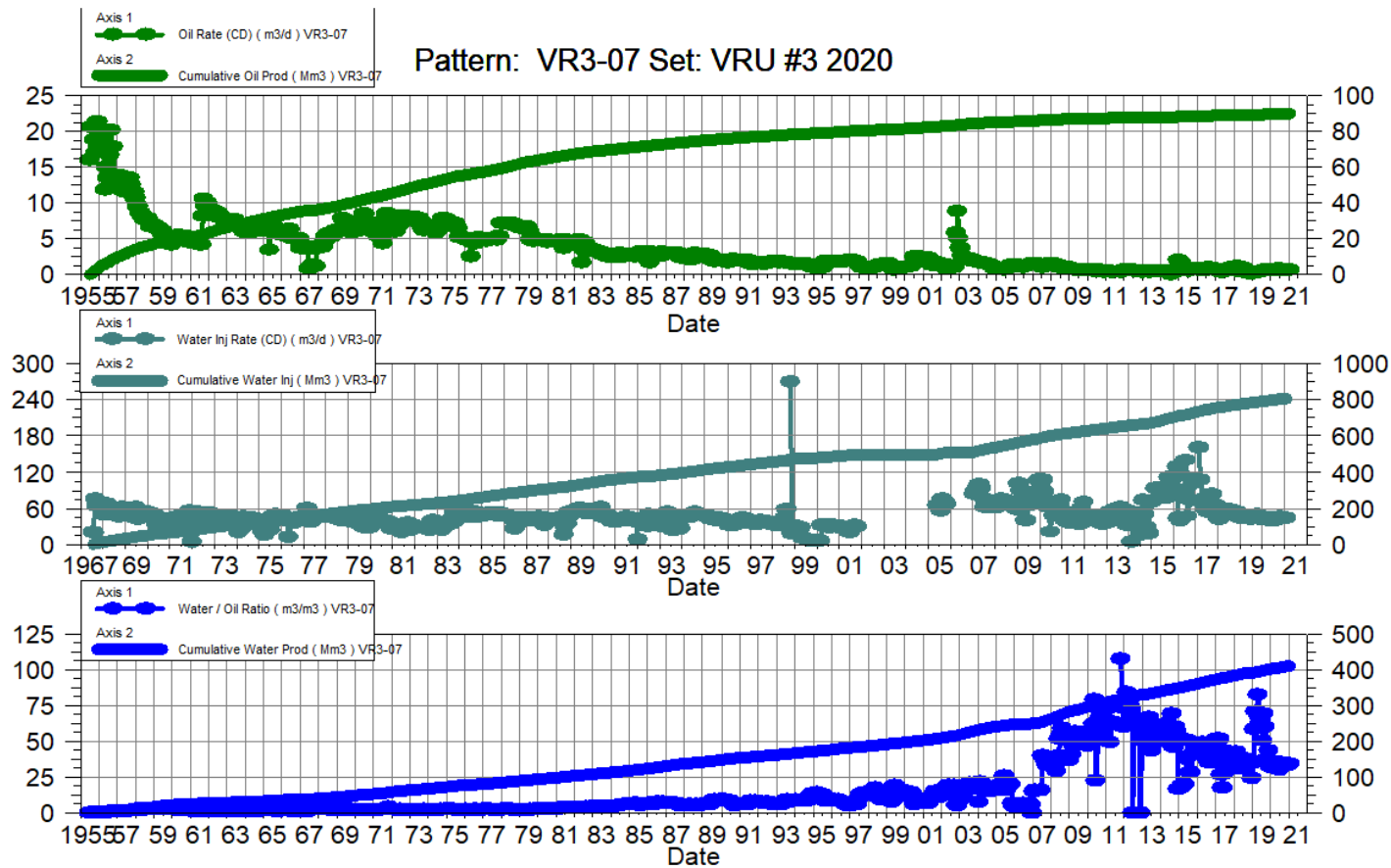
Date	Oil Rate (CD) m3/d	Cum Oil Prod Mm3	Water Rate (CD) m3/d	Cum Water Prod Mm3	Water Inj Rate (CD) m3/d	Cum Water Inj Mm3	Water Oil Ratio m3/m3	Voidage Replacement Ratio	Cum Voidage Replacement Ratio	Water Inj Pressure kPa
1-31-2020	1.7	102.30	59.6	485.57	11.68	520.2	34.31	0.19	0.88	5,200.00
2-29-2020	1.7	102.35	61.8	487.36	8.24	520.4	35.95	0.13	0.88	5,200.00
3-31-2020	1.5	102.40	58.2	489.16	7.74	520.7	39.81	0.13	0.88	5,200.00
4-30-2020	1.5	102.44	56.9	490.87	6.40	520.9	38.20	0.11	0.88	5,200.00
5-31-2020	1.6	102.49	60.8	492.75	6.42	521.1	38.83	0.10	0.87	5,200.00
6-30-2020	1.7	102.54	59.8	494.54	7.07	521.3	34.71	0.12	0.87	5,200.00
7-31-2020	1.5	102.59	55.5	496.26	9.45	521.6	36.48	0.17	0.87	5,200.00
8-31-2020	0.9	102.62	34.5	497.33	7.52	521.8	37.08	0.21	0.87	5,200.00
9-30-2020	0.6	102.64	19.9	497.93	7.77	522.0	33.18	0.38	0.87	5,200.00
10-31-2020	1.4	102.68	59.5	499.77	7.81	522.3	41.38	0.13	0.86	5,200.00
11-30-2020	1.5	102.73	60.0	501.57	9.07	522.6	39.27	0.15	0.86	5,200.00
12-31-2020	2.0	102.79	30.4	502.51	8.10	522.8	15.41	0.25	0.86	5,200.00



VRU #3

Pattern P-07 – 00/09-13-010-26W1/0

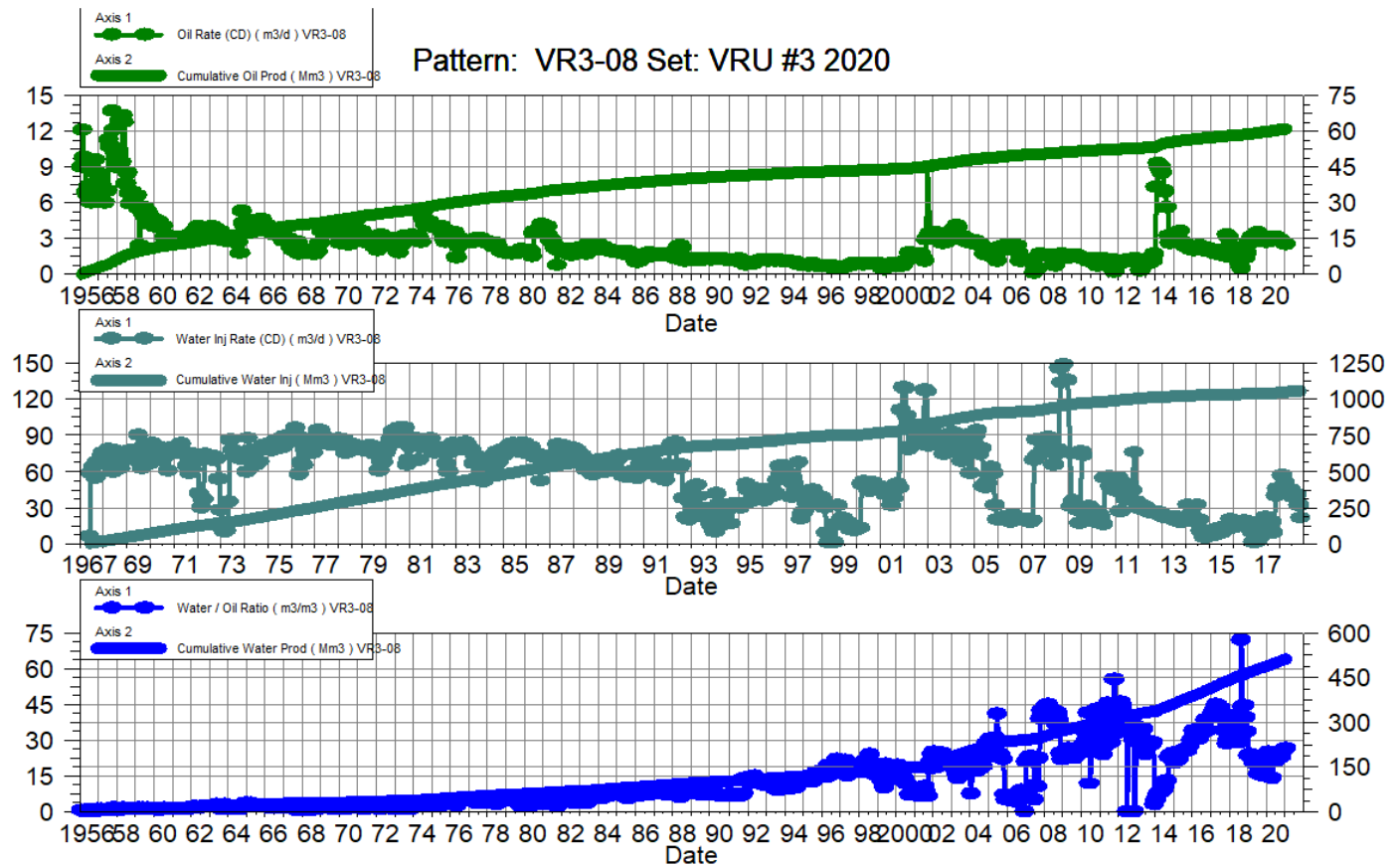
Date	Oil Rate (CD) m3/d	Cum Oil Prod Mm3	Water Rate (CD) m3/d	Cum Water Prod Mm3	Water Inj Rate (CD) m3/d	Cum Water Inj Mm3	Water Oil Ratio m3/m3	Voidage Replacement Ratio	Cum Voidage Replacement Ratio	Water Inj Pressure kPa
1-31-2020	0.7	89.83	22.2	400.90	43.71	796.7	31.81	1.91	1.62	4,700.00
2-29-2020	0.7	89.86	24.5	401.61	43.07	798.0	33.40	1.71	1.62	4,700.00
3-31-2020	0.7	89.88	24.3	402.37	42.77	799.3	35.45	1.71	1.62	4,700.00
4-30-2020	0.7	89.90	23.6	403.07	38.90	800.5	34.23	1.60	1.62	4,700.00
5-31-2020	0.8	89.92	25.1	403.85	44.23	801.8	33.54	1.71	1.62	4,700.00
6-30-2020	0.8	89.95	24.7	404.59	40.10	803.0	29.73	1.57	1.62	4,700.00
7-31-2020	0.8	89.97	23.4	405.32	39.81	804.3	31.43	1.65	1.62	4,700.00
8-31-2020	0.7	89.99	25.5	406.11	41.45	805.6	34.97	1.58	1.62	4,700.00
9-30-2020	0.8	90.01	25.7	406.88	43.70	806.9	34.29	1.65	1.62	4,700.00
10-31-2020	0.7	90.04	25.1	407.66	44.74	808.3	34.47	1.74	1.62	4,700.00
11-30-2020	0.7	90.06	25.2	408.41	43.40	809.6	33.90	1.67	1.62	4,700.00
12-31-2020	0.7	90.08	24.0	409.16	43.66	810.9	32.99	1.77	1.62	4,700.00



VRU #3

Pattern P-08 – 00/04-14-010-26W1/0

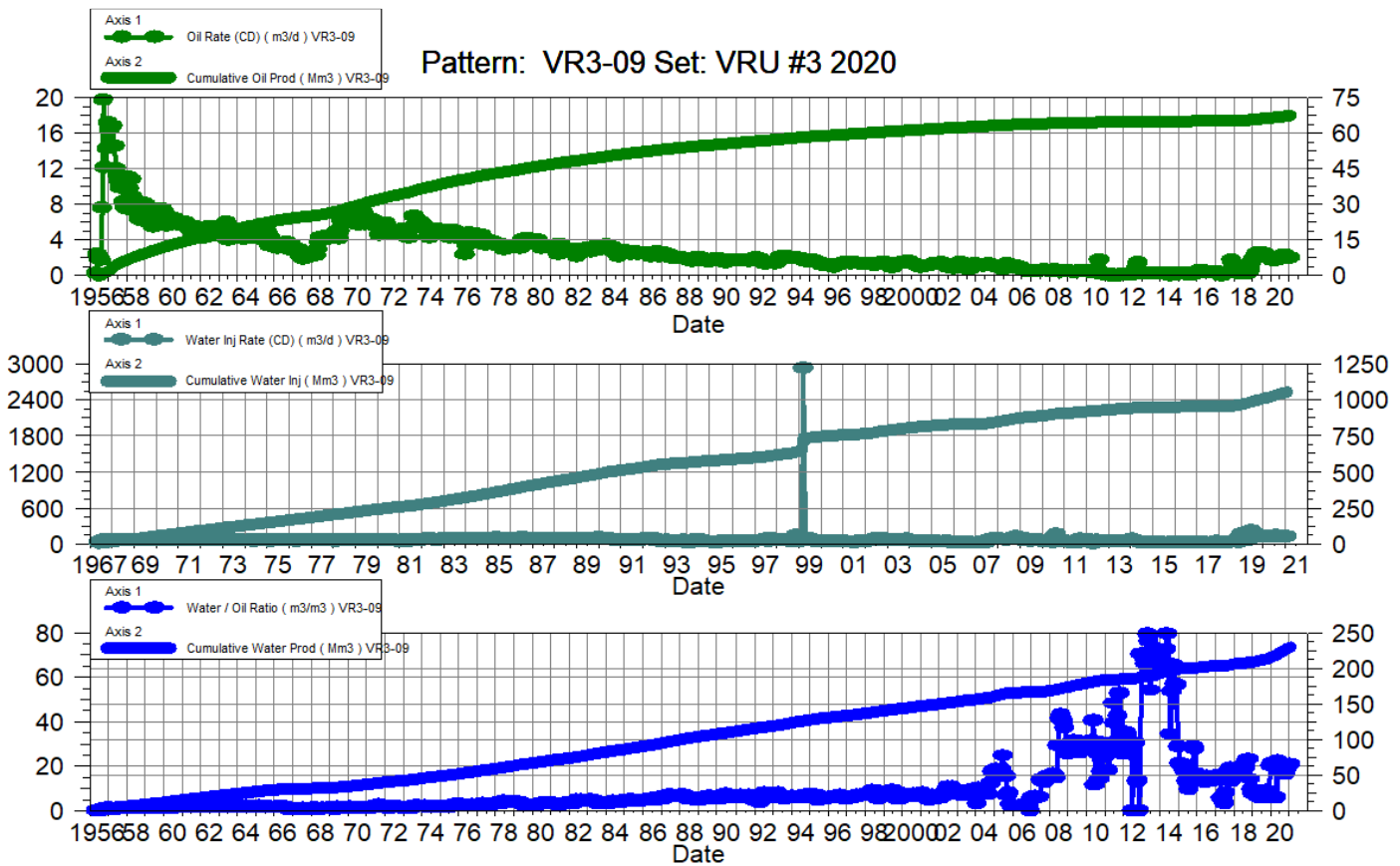
Date	Oil Rate (CD) m3/d	Cum Oil Prod Mm3	Water Rate (CD) m3/d	Cum Water Prod Mm3	Water Inj Rate (CD) m3/d	Cum Water Inj Mm3	Water Oil Ratio m3/m3	Voidage Replacement Ratio	Cum Voidage Replacement Ratio	Water Inj Pressure kPa
1-31-2020	2.9	60.15	69.5	488.30		1065.1	24.33		1.94	4,300.00
2-29-2020	2.9	60.23	71.0	490.36		1065.1	24.77		1.93	4,300.00
3-31-2020	2.8	60.32	69.0	492.49		1065.1	24.65		1.92	4,300.00
4-30-2020	2.8	60.40	38.6	493.65		1065.1	13.72		1.92	4,300.00
5-31-2020	2.9	60.49	70.7	495.84		1065.1	24.10		1.91	4,300.00
6-30-2020	3.1	60.58	70.0	497.94		1065.1	22.61		1.90	4,300.00
7-31-2020	3.2	60.68	67.4	500.03		1065.1	21.30		1.90	4,300.00
8-31-2020	3.0	60.77	65.1	502.05		1065.1	21.66		1.89	4,300.00
9-30-2020	3.0	60.86	67.9	504.09		1065.1	22.84		1.88	4,300.00
10-31-2020	2.9	60.95	64.4	506.08		1065.1	22.64		1.87	4,300.00
11-30-2020	2.8	61.03	68.3	508.13		1065.1	24.73		1.87	4,300.00
12-31-2020	2.6	61.12	67.6	510.23		1065.1	26.01		1.86	4,300.00



VRU #3

Pattern P-09 – 00/14-11-010-26W1/0

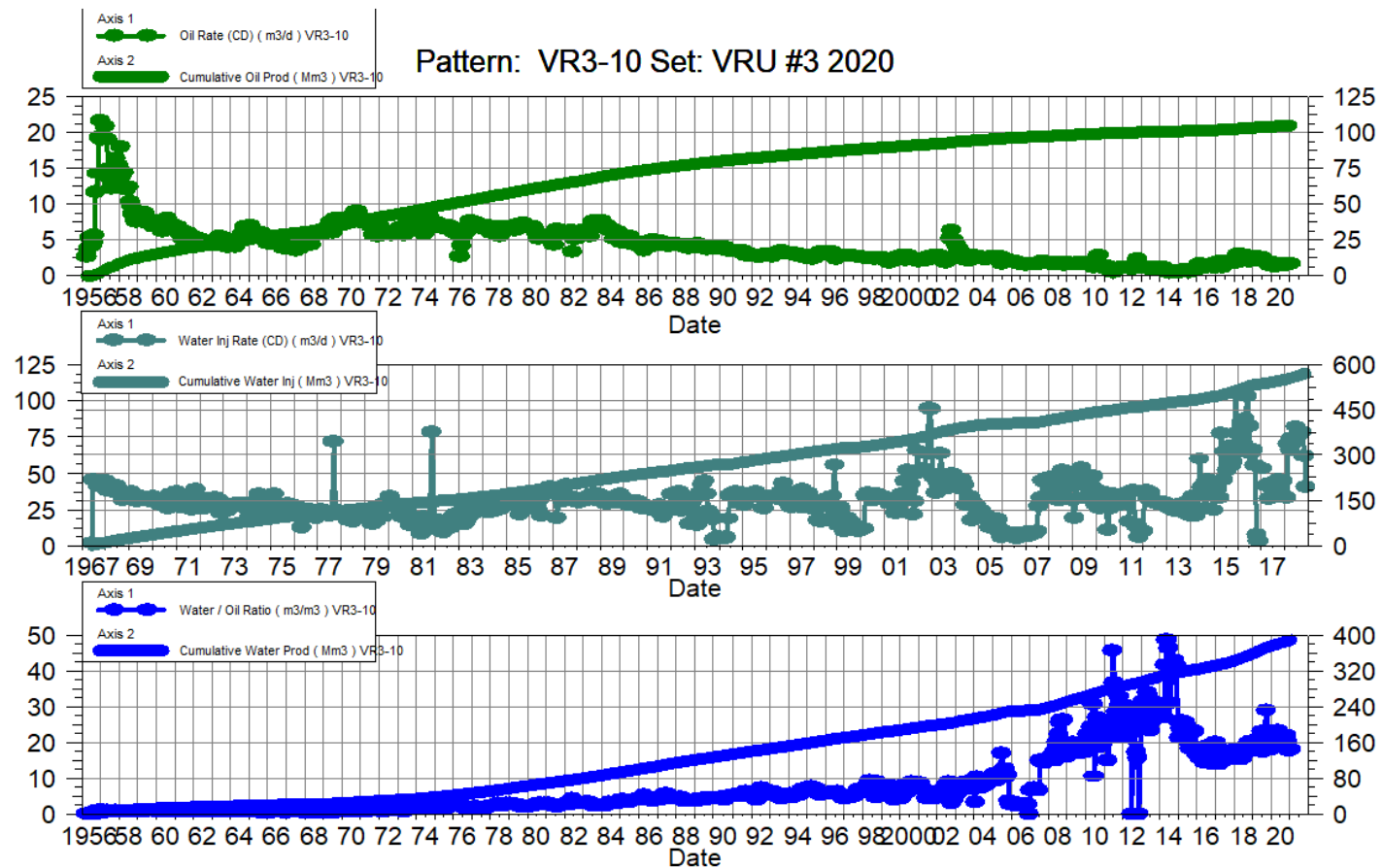
Date	Oil Rate (CD) m3/d	Cum Oil Prod Mm3	Water Rate (CD) m3/d	Cum Water Prod Mm3	Water Inj Rate (CD) m3/d	Cum Water Inj Mm3	Water Oil Ratio m3/m3	Voidage Replacement Ratio	Cum Voidage Replacement Ratio	Water Inj Pressure kPa
1-31-2020	1.8	66.75	37.7	215.85	109.03	1017.3	21.45	2.77	3.58	4,500.00
2-29-2020	1.9	66.80	40.7	217.03	118.48	1020.8	21.08	2.78	3.58	4,500.00
3-31-2020	1.9	66.86	40.5	218.28	110.87	1024.2	21.01	2.61	3.58	4,500.00
4-30-2020	1.8	66.92	10.2	218.59	114.03	1027.6	5.64	9.43	3.58	4,500.00
5-31-2020	1.9	66.97	41.1	219.86	112.74	1031.1	22.21	2.63	3.58	4,500.00
6-30-2020	1.9	67.03	40.9	221.09	117.43	1034.6	21.48	2.74	3.58	4,500.00
7-31-2020	2.1	67.10	39.5	222.32	124.45	1038.5	18.68	2.99	3.57	4,500.00
8-31-2020	2.3	67.17	38.8	223.52	116.90	1042.1	17.02	2.84	3.57	4,500.00
9-30-2020	2.3	67.24	39.0	224.69	122.70	1045.8	16.65	2.97	3.57	4,500.00
10-31-2020	2.3	67.31	38.8	225.89	118.74	1049.5	16.64	2.88	3.56	4,500.00
11-30-2020	2.1	67.37	40.1	227.09	119.03	1053.1	18.85	2.81	3.56	4,500.00
12-31-2020	2.0	67.44	40.9	228.36	116.57	1056.7	20.27	2.71	3.56	4,500.00



VRU #3

Pattern P-10 – 00/16-11-010-26W1/0

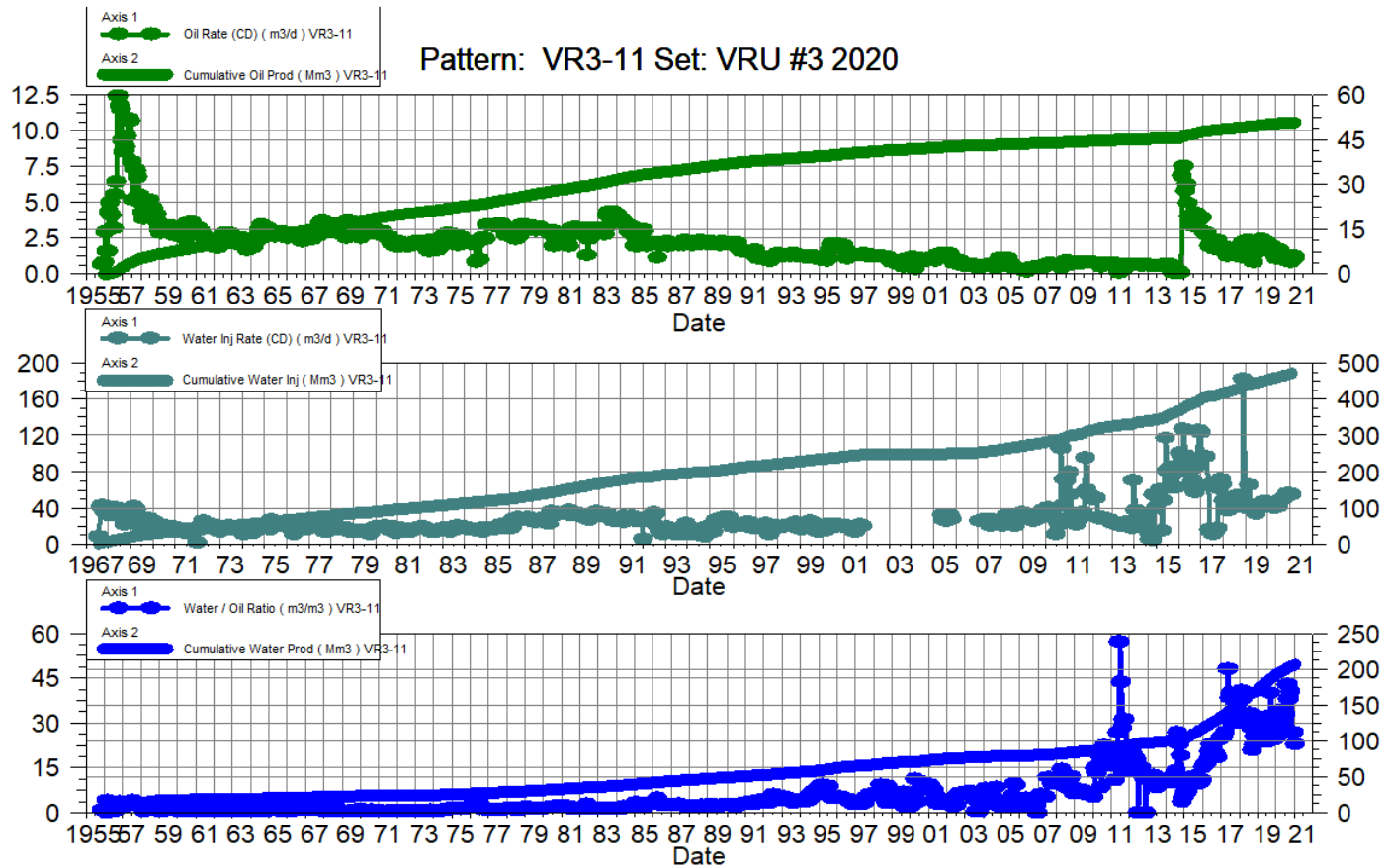
Date	Oil Rate (CD) m3/d	Cum Oil Prod Mm3	Water Rate (CD) m3/d	Cum Water Prod Mm3	Water Inj Rate (CD) m3/d	Cum Water Inj Mm3	Water Oil Ratio m3/m3	Voidage Replacement Ratio	Cum Voidage Replacement Ratio	Water Inj Pressure kPa
1-31-2020	1.4	104.56	29.4	375.63		575.0	21.24		1.19	4,500.00
2-29-2020	1.9	104.62	38.2	376.74		575.0	20.09		1.19	4,500.00
3-31-2020	1.6	104.67	36.7	377.88		575.0	22.91		1.19	4,500.00
4-30-2020	1.4	104.71	32.5	378.86		575.0	23.37		1.18	4,500.00
5-31-2020	1.5	104.75	34.5	379.93		575.0	23.22		1.18	4,500.00
6-30-2020	1.7	104.80	34.0	380.94		575.0	20.61		1.18	4,500.00
7-31-2020	1.5	104.85	32.5	381.95		575.0	21.10		1.18	4,500.00
8-31-2020	1.5	104.90	33.7	383.00		575.0	22.10		1.17	4,500.00
9-30-2020	1.6	104.95	32.9	383.98		575.0	21.15		1.17	4,500.00
10-31-2020	1.5	104.99	32.0	384.97		575.0	21.86		1.17	4,500.00
11-30-2020	1.6	105.04	32.5	385.95		575.0	20.01		1.17	4,500.00
12-31-2020	1.8	105.09	31.3	386.92		575.0	17.63		1.16	4,500.00



VRU #3

Pattern P-11 – 00/14-12-010-26W1/0

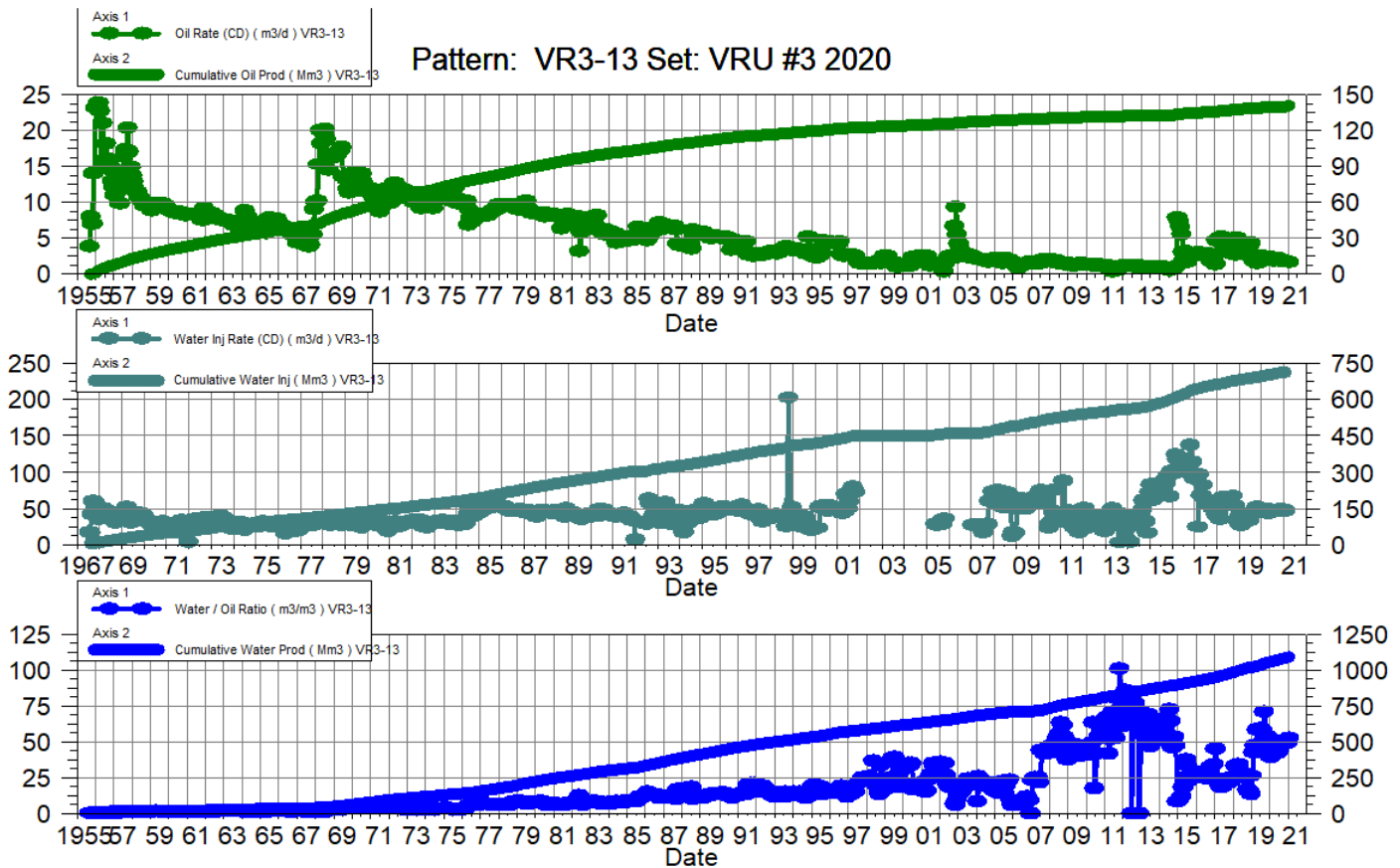
Date	Oil Rate (CD) m3/d	Cum Oil Prod Mm3	Water Rate (CD) m3/d	Cum Water Prod Mm3	Water Inj Rate (CD) m3/d	Cum Water Inj Mm3	Water Oil Ratio m3/m3	Voidage Replacement Ratio	Cum Voidage Replacement Ratio	Water Inj Pressure kPa
1-31-2020	1.1	50.60	35.8	192.58	43.48	457.1	33.20	1.18	1.87	5,000.00
2-29-2020	1.7	50.65	44.2	193.87	45.17	458.4	26.71	0.98	1.87	5,000.00
3-31-2020	1.7	50.70	42.7	195.19	43.35	459.7	25.70	0.98	1.86	5,000.00
4-30-2020	1.3	50.74	37.4	196.31	38.93	460.9	29.13	1.01	1.86	5,000.00
5-31-2020	1.1	50.77	38.4	197.50	45.55	462.3	34.25	1.15	1.86	5,000.00
6-30-2020	1.2	50.81	37.0	198.61	40.60	463.5	30.48	1.06	1.85	5,000.00
7-31-2020	1.1	50.84	37.2	199.76	46.84	465.0	32.57	1.22	1.85	5,000.00
8-31-2020	0.9	50.87	40.2	201.01	48.52	466.5	42.66	1.18	1.85	5,000.00
9-30-2020	1.1	50.90	39.9	202.21	49.43	468.0	38.07	1.21	1.84	5,000.00
10-31-2020	0.9	50.93	36.0	203.32	53.23	469.6	40.32	1.44	1.84	5,000.00
11-30-2020	0.9	50.96	24.1	204.05	55.30	471.3	26.93	2.21	1.84	5,000.00
12-31-2020	1.3	51.00	33.2	205.08	54.93	473.0	26.58	1.59	1.84	5,000.00



VRU #3

Pattern P-13 – 00/04-18-010-26W1/0

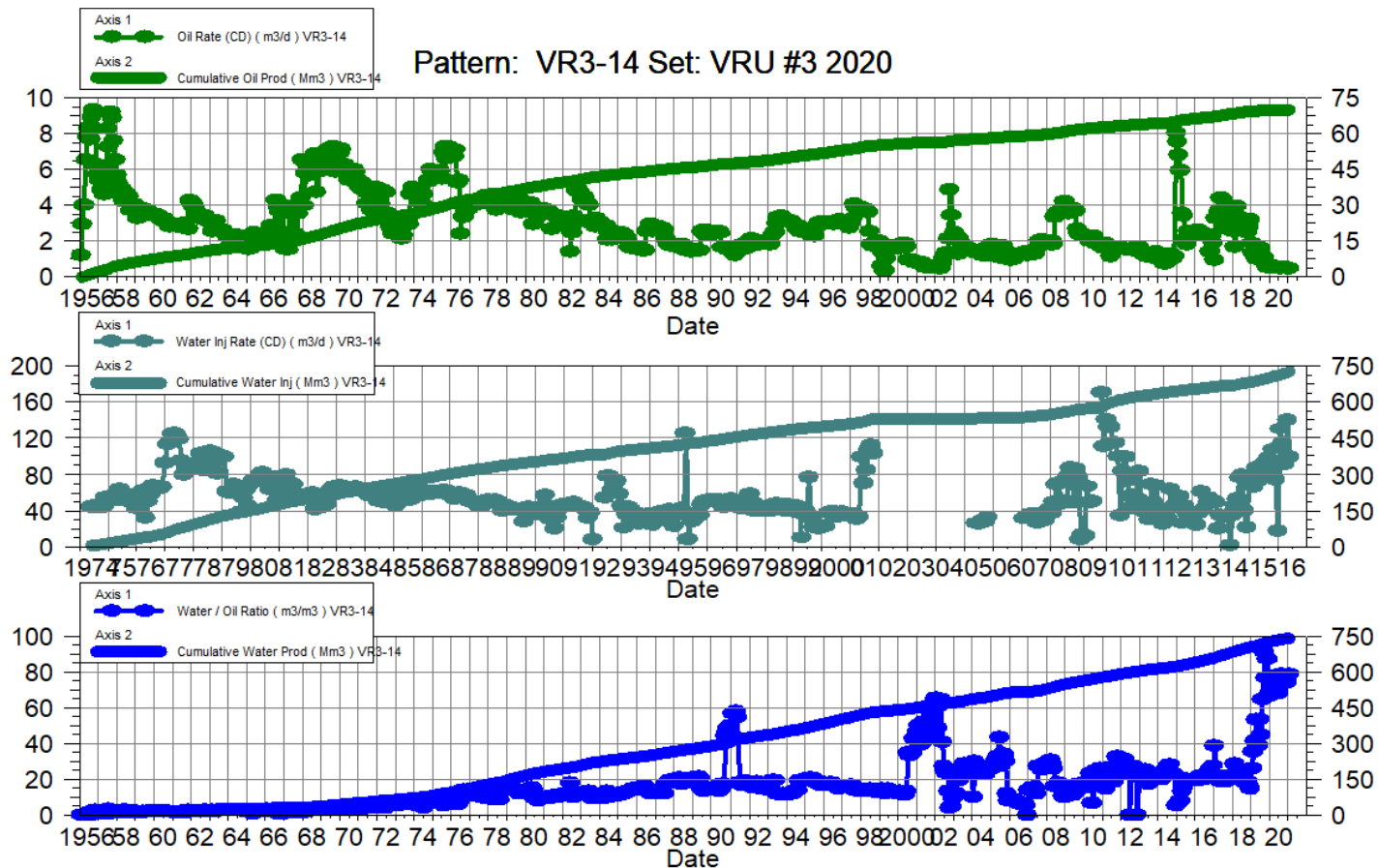
Date	Oil Rate (CD) m3/d	Cum Oil Prod Mm3	Water Rate (CD) m3/d	Cum Water Prod Mm3	Water Inj Rate (CD) m3/d	Cum Water Inj Mm3	Water Oil Ratio m3/m3	Voidage Replacement Ratio	Cum Voidage Replacement Ratio	Water Inj Pressure kPa
1-31-2020	2.4	139.97	94.4	1055.95	46.45	701.9	39.03	0.48	0.59	4,900.00
2-29-2020	2.1	140.03	95.8	1058.73	46.62	703.3	45.37	0.48	0.59	4,900.00
3-31-2020	1.9	140.09	91.7	1061.57	46.94	704.7	48.72	0.50	0.59	4,900.00
4-30-2020	2.0	140.15	91.5	1064.31	42.63	706.0	46.81	0.46	0.59	4,900.00
5-31-2020	2.0	140.21	93.1	1067.20	47.97	707.5	47.04	0.50	0.59	4,900.00
6-30-2020	2.2	140.28	91.1	1069.94	45.60	708.9	42.16	0.49	0.58	4,900.00
7-31-2020	1.9	140.34	85.2	1072.58	46.10	710.3	44.30	0.53	0.58	4,900.00
8-31-2020	1.9	140.39	93.7	1075.48	46.19	711.7	49.66	0.48	0.58	4,900.00
9-30-2020	1.9	140.45	95.2	1078.34	46.60	713.1	50.08	0.48	0.58	4,900.00
10-31-2020	1.8	140.51	90.7	1081.15	47.00	714.6	50.52	0.51	0.58	4,900.00
11-30-2020	1.9	140.56	93.2	1083.95	47.27	716.0	49.71	0.50	0.58	4,900.00
12-31-2020	1.8	140.62	88.9	1086.70	47.08	717.4	49.32	0.52	0.58	4,900.00



VRU #3

Pattern P-14 – 02/02-18-010-26W1/0

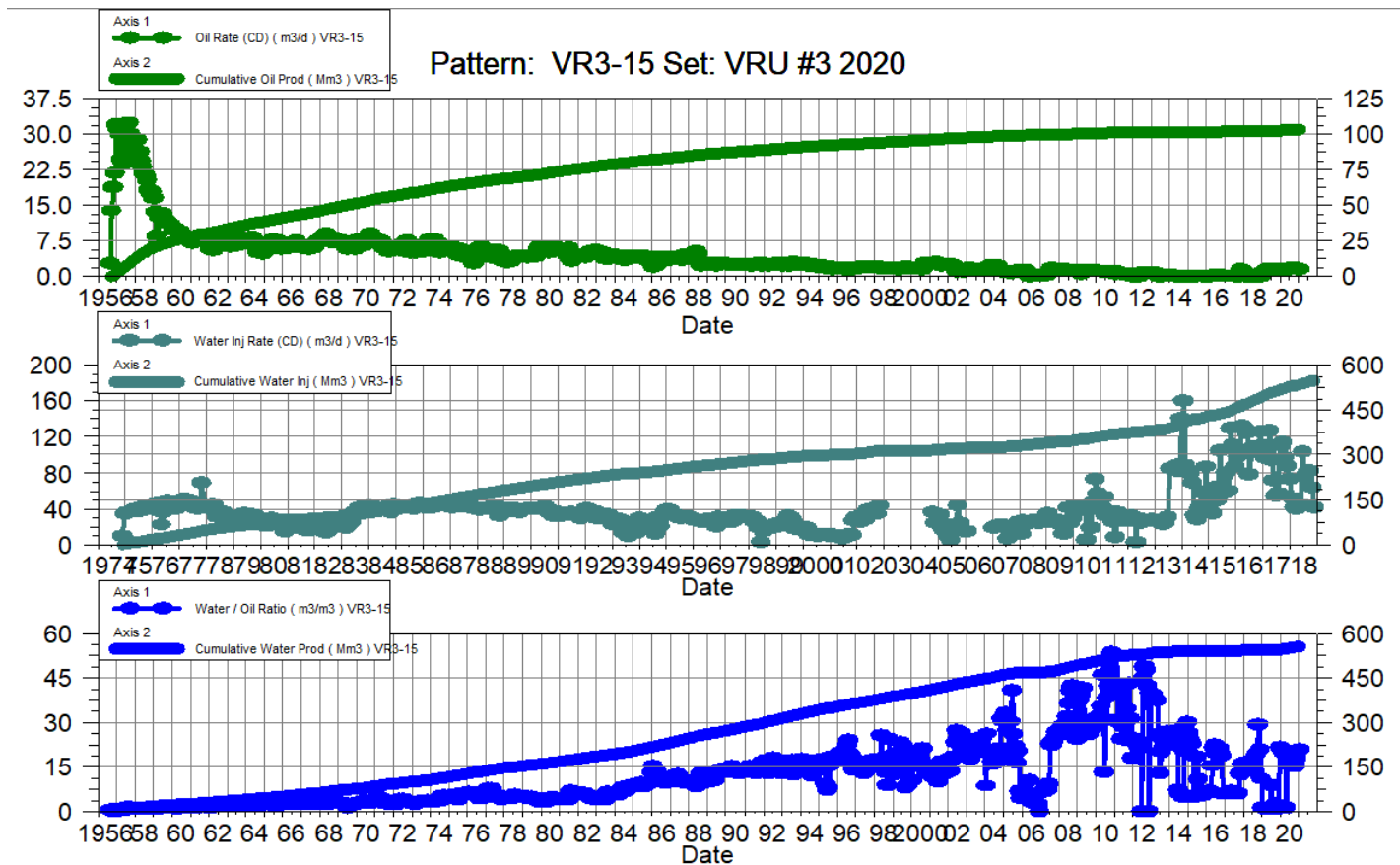
Date	Oil Rate (CD) m3/d	Cum Oil Prod Mm3	Water Rate (CD) m3/d	Cum Water Prod Mm3	Water Inj Rate (CD) m3/d	Cum Water Inj Mm3	Water Oil Ratio m3/m3	Voidage Replacement Ratio	Cum Voidage Replacement Ratio	Water Inj Pressure kPa
1-31-2020	0.7	70.03	43.8	725.68		731.0	66.31		0.92	4,600.00
2-29-2020	0.6	70.05	44.3	726.96		731.0	70.38		0.92	4,600.00
3-31-2020	0.5	70.07	41.3	728.24		731.0	77.53		0.91	4,600.00
4-30-2020	0.5	70.08	39.0	729.41		731.0	74.61		0.91	4,600.00
5-31-2020	0.5	70.10	40.8	730.68		731.0	75.52		0.91	4,600.00
6-30-2020	0.6	70.12	40.1	731.88		731.0	68.07		0.91	4,600.00
7-31-2020	0.5	70.13	36.6	733.01		731.0	71.69		0.91	4,600.00
8-31-2020	0.5	70.15	41.2	734.29		731.0	78.84		0.91	4,600.00
9-30-2020	0.5	70.17	41.6	735.54		731.0	76.95		0.91	4,600.00
10-31-2020	0.5	70.18	40.0	736.78		731.0	77.16		0.90	4,600.00
11-30-2020	0.5	70.20	40.8	738.00		731.0	75.79		0.90	4,600.00
12-31-2020	0.5	70.21	37.8	739.18		731.0	73.83		0.90	4,600.00



VRU #3

Pattern P-15 – 00/12-11-010-26W1/0

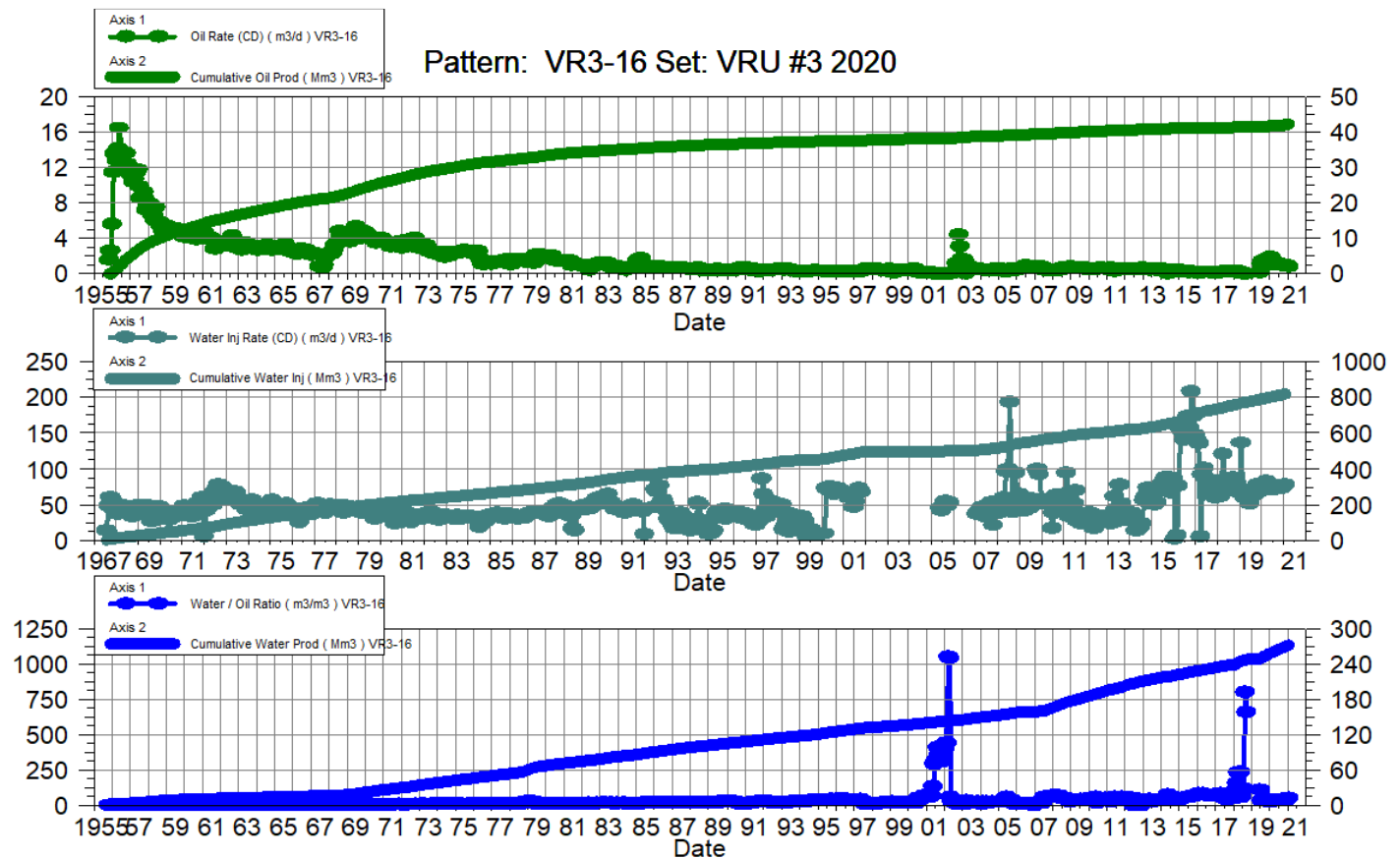
Date	Oil Rate (CD) m3/d	Cum Oil Prod Mm3	Water Rate (CD) m3/d	Cum Water Prod Mm3	Water Inj Rate (CD) m3/d	Cum Water Inj Mm3	Water Oil Ratio m3/m3	Voidage Replacement Ratio	Cum Voidage Replacement Ratio	Water Inj Pressure kPa
1-31-2020	1.5	103.00	30.6	545.58		551.4	21.07		0.85	5,100.00
2-29-2020	1.5	103.04	30.9	546.48		551.4	20.52		0.85	5,100.00
3-31-2020	1.6	103.09	31.3	547.45		551.4	19.53		0.85	5,100.00
4-30-2020	1.6	103.14	1.9	547.50		551.4	1.17		0.85	5,100.00
5-31-2020	1.6	103.19	31.4	548.48		551.4	19.32		0.84	5,100.00
6-30-2020	1.7	103.24	31.4	549.42		551.4	19.02		0.84	5,100.00
7-31-2020	1.9	103.30	30.5	550.37		551.4	16.40		0.84	5,100.00
8-31-2020	1.9	103.36	29.2	551.27		551.4	15.04		0.84	5,100.00
9-30-2020	2.0	103.42	29.3	552.15		551.4	15.01		0.84	5,100.00
10-31-2020	2.0	103.48	29.4	553.06		551.4	15.03		0.84	5,100.00
11-30-2020	1.7	103.53	30.5	553.97		551.4	17.61		0.84	5,100.00
12-31-2020	1.6	103.58	31.5	554.95		551.4	20.10		0.84	5,100.00



VRU #3

Pattern P-16 – 00/14-07-010-25W1/0

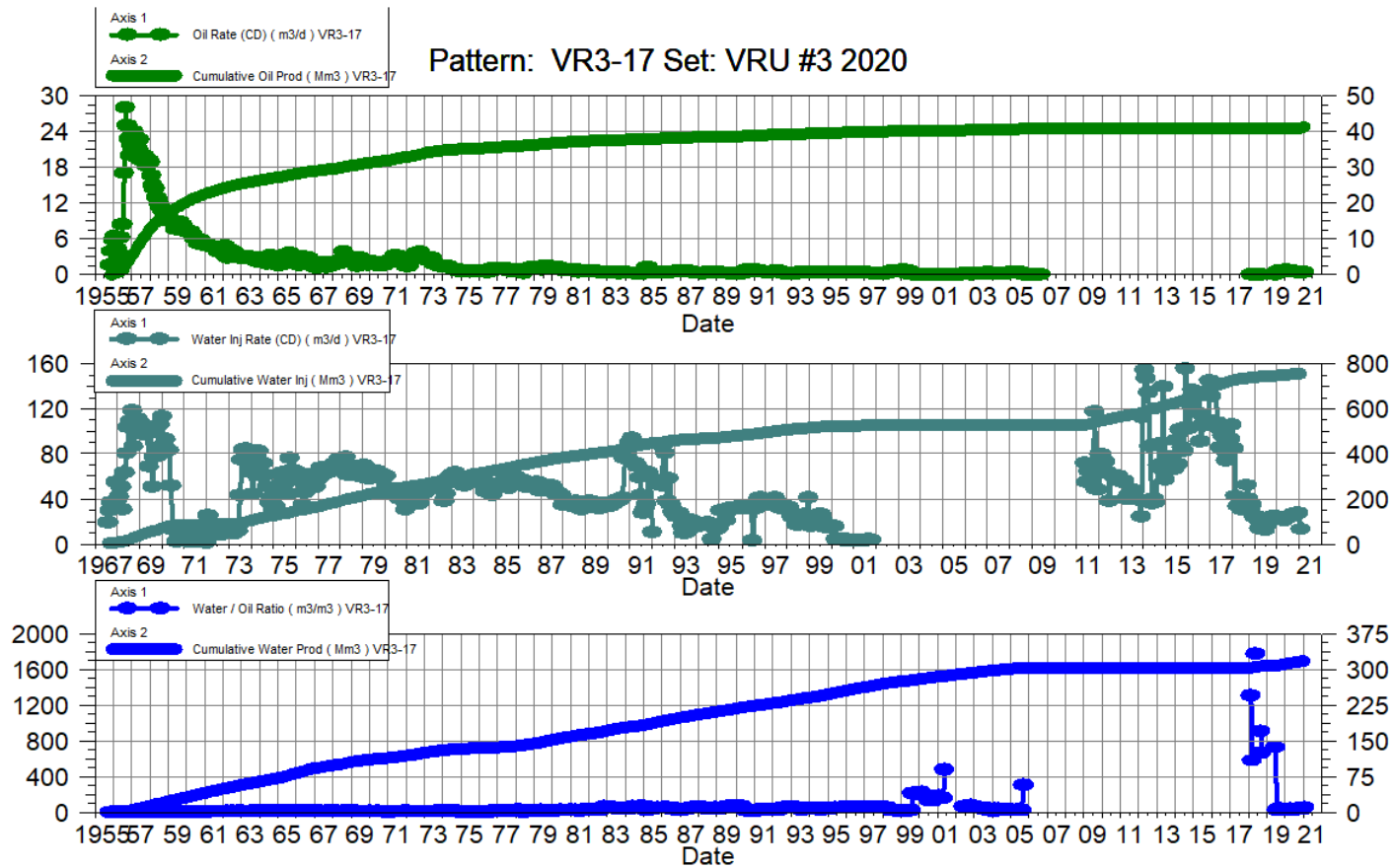
Date	Oil Rate (CD) m3/d	Cum Oil Prod Mm3	Water Rate (CD) m3/d	Cum Water Prod Mm3	Water Inj Rate (CD) m3/d	Cum Water Inj Mm3	Water Oil Ratio m3/m3	Voidage Replacement Ratio	Cum Voidage Replacement Ratio	Water Inj Pressure kPa
1-31-2020	1.9	41.90	41.0	257.91	74.26	795.5	21.80	1.73	2.65	4,600.00
2-29-2020	1.3	41.93	38.1	259.01	76.79	797.8	29.91	1.95	2.64	4,600.00
3-31-2020	1.1	41.97	37.1	260.16	82.39	800.3	32.79	2.16	2.64	4,600.00
4-30-2020	1.3	42.01	43.0	261.45	70.57	802.4	33.30	1.59	2.64	4,600.00
5-31-2020	1.2	42.04	38.8	262.65	77.74	804.9	32.94	1.94	2.63	4,600.00
6-30-2020	1.3	42.08	37.5	263.78	72.17	807.0	29.74	1.86	2.63	4,600.00
7-31-2020	1.1	42.12	36.0	264.89	70.97	809.2	31.69	1.91	2.63	4,600.00
8-31-2020	1.1	42.15	38.5	266.09	76.19	811.6	35.82	1.92	2.63	4,600.00
9-30-2020	1.0	42.18	39.8	267.28	76.70	813.9	39.34	1.88	2.62	4,600.00
10-31-2020	0.9	42.21	36.3	268.41	73.87	816.2	40.07	1.98	2.62	4,600.00
11-30-2020	1.0	42.24	38.9	269.58	72.27	818.3	39.65	1.81	2.62	4,600.00
12-31-2020	0.9	42.27	39.4	270.80	73.29	820.6	42.72	1.82	2.61	4,600.00



VRU #3

Pattern P-17 – 00/12-07-010-25W1/0

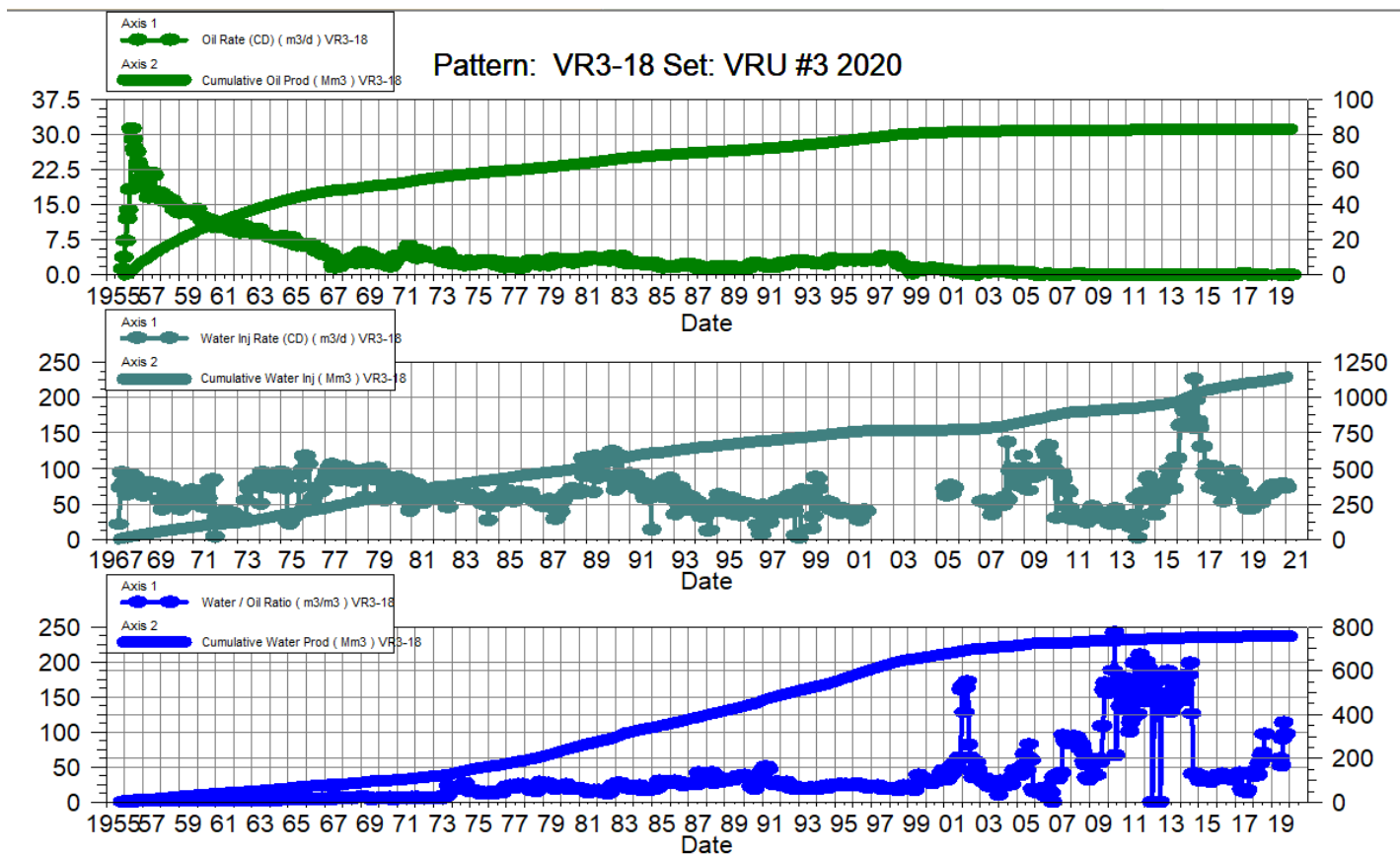
Date	Oil Rate (CD) m3/d	Cum Oil Prod Mm3	Water Rate (CD) m3/d	Cum Water Prod Mm3	Water Inj Rate (CD) m3/d	Cum Water Inj Mm3	Water Oil Ratio m3/m3	Voidage Replacement Ratio	Cum Voidage Replacement Ratio	Water Inj Pressure kPa
1-31-2020	0.9	41.04	20.5	310.86	23.00	752.2	21.80	1.07	2.13	5,000.00
2-29-2020	0.6	41.06	19.0	311.41	23.52	752.9	29.91	1.20	2.13	5,000.00
3-31-2020	0.6	41.07	18.5	311.98	22.06	753.6	32.79	1.15	2.13	5,000.00
4-30-2020	0.7	41.09	21.5	312.63	20.33	754.2	33.30	0.92	2.13	5,000.00
5-31-2020	0.6	41.11	19.4	313.23	21.84	754.9	32.94	1.09	2.13	5,000.00
6-30-2020	0.6	41.13	18.8	313.79	23.37	755.6	29.74	1.20	2.12	5,000.00
7-31-2020	0.6	41.15	18.0	314.35	24.65	756.4	31.69	1.33	2.12	5,000.00
8-31-2020	0.5	41.16	19.3	314.95	24.84	757.1	35.82	1.25	2.12	5,000.00
9-30-2020	0.5	41.18	19.9	315.54	26.10	757.9	39.34	1.28	2.12	5,000.00
10-31-2020	0.5	41.19	18.2	316.11	25.42	758.7	40.07	1.37	2.12	5,000.00
11-30-2020	0.5	41.21	19.4	316.69	26.90	759.5	39.65	1.35	2.12	5,000.00
12-31-2020	0.5	41.22	19.7	317.30	26.82	760.3	42.72	1.33	2.12	5,000.00



VRU #3

Pattern P-18 – 00/10-07-010-25W1/0

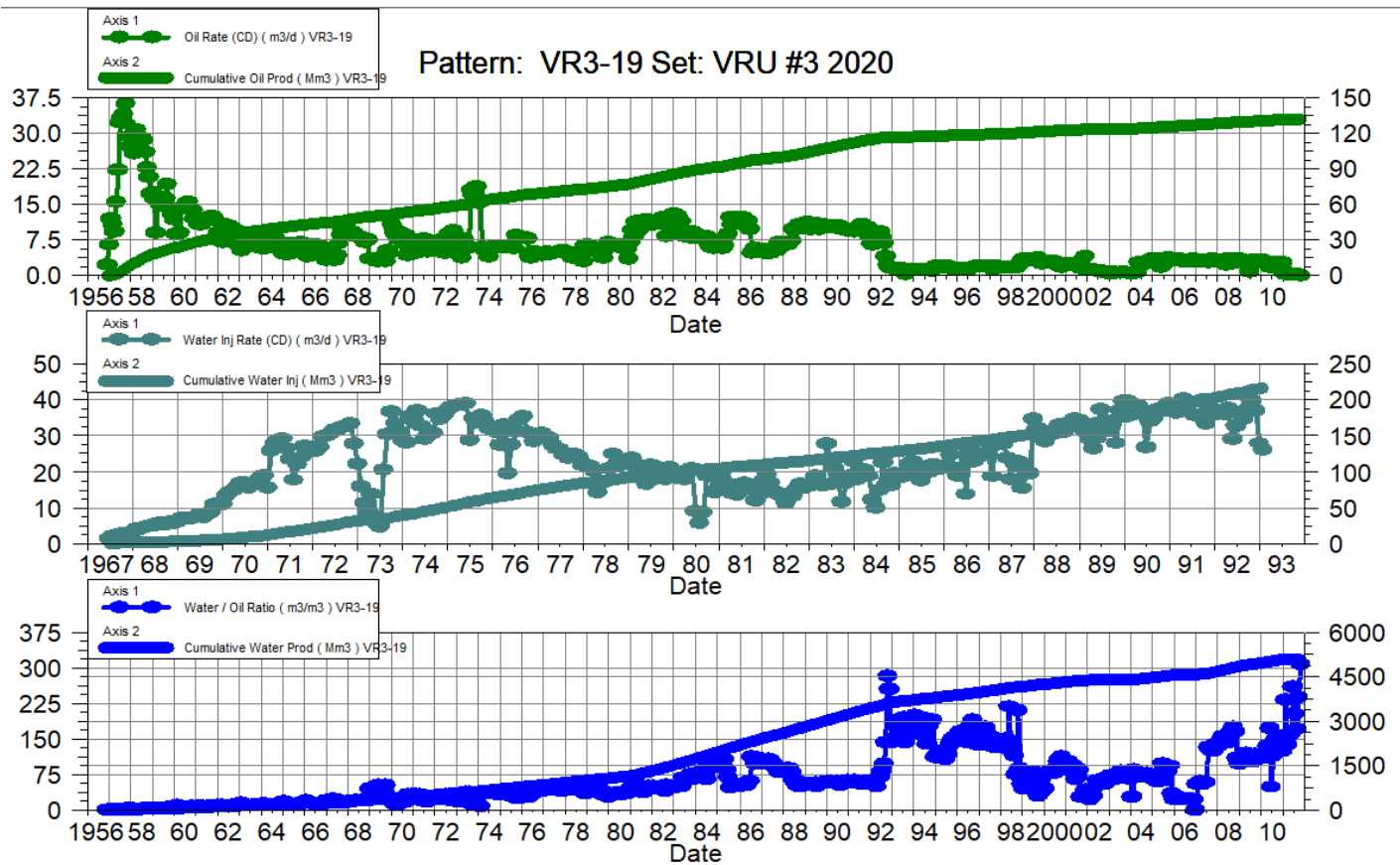
Date	Oil Rate (CD) m3/d	Cum Oil Prod Mm3	Water Rate (CD) m3/d	Cum Water Prod Mm3	Water Inj Rate (CD) m3/d	Cum Water Inj Mm3	Water Oil Ratio m3/m3	Voidage Replacement Ratio	Cum Voidage Replacement Ratio	Water Inj Pressure kPa
1-31-2020		83.37		756.40	62.00	1124.1			1.34	4,800.00
2-29-2020	0.0	83.37	0.0	756.40	67.72	1126.1			1.34	4,800.00
3-31-2020		83.37		756.40	70.87	1128.3			1.34	4,800.00
4-30-2020		83.37		756.40	64.63	1130.2			1.34	4,800.00
5-31-2020		83.37		756.40	75.32	1132.6			1.35	4,800.00
6-30-2020		83.37		756.40	73.67	1134.8			1.35	4,800.00
7-31-2020		83.37		756.40	71.58	1137.0			1.35	4,800.00
8-31-2020		83.37		756.40	71.48	1139.2			1.35	4,800.00
9-30-2020		83.37		756.40	75.23	1141.5			1.36	4,800.00
10-31-2020		83.37		756.40	77.16	1143.9			1.36	4,800.00
11-30-2020		83.37		756.40	75.27	1146.1			1.36	4,800.00
12-31-2020		83.37		756.40	77.94	1148.5			1.37	4,800.00



VRU #3

Pattern P-19 – 00/06-10-010-26W1/0

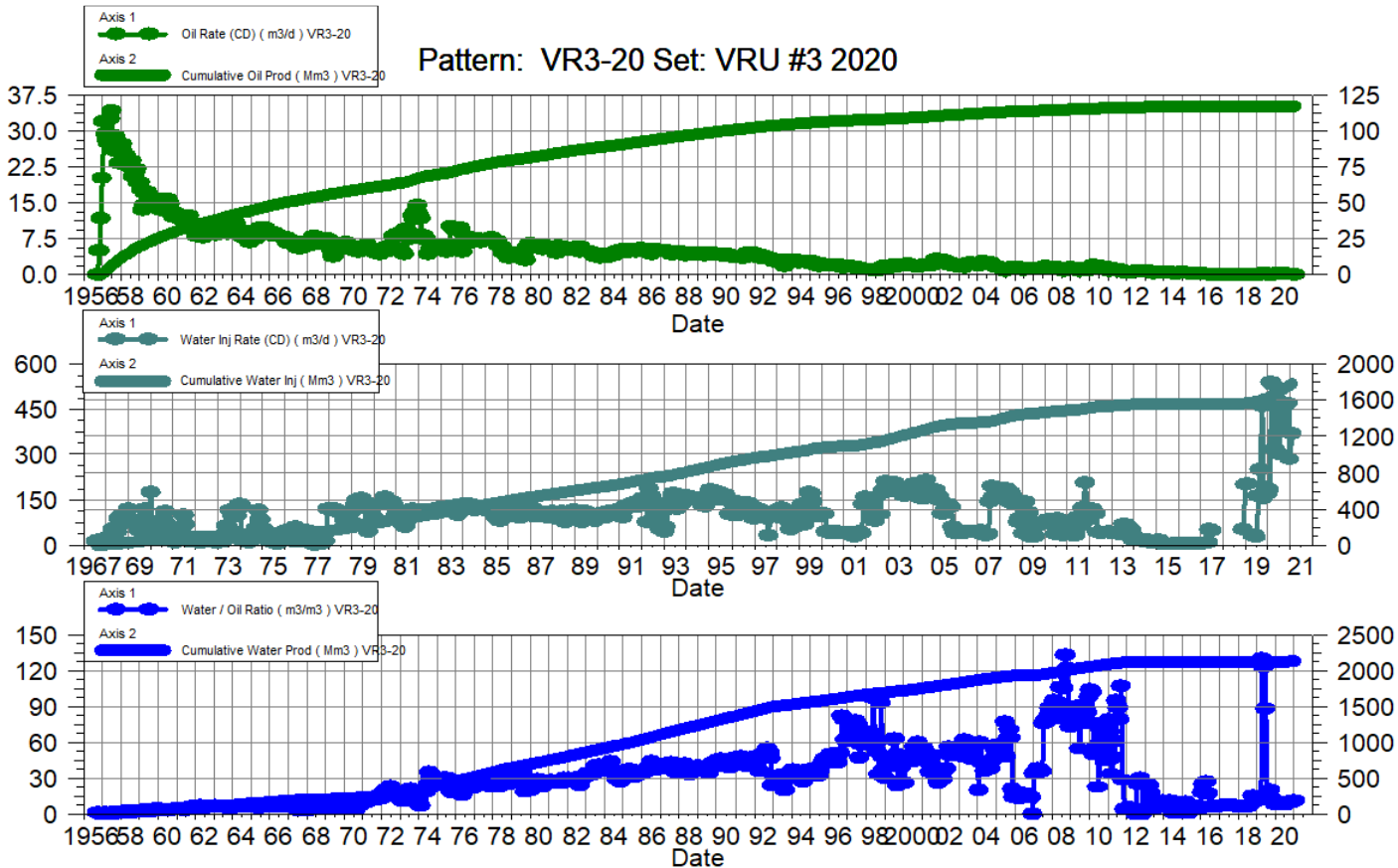
Date	Oil Rate (CD) m3/d	Cum Oil Prod Mm3	Water Rate (CD) m3/d	Cum Water Prod Mm3	Water Inj Rate (CD) m3/d	Cum Water Inj Mm3	Water Oil Ratio m3/m3	Voidage Replacement Ratio	Cum Voidage Replacement Ratio	Water Inj Pressure kPa
1-31-2020		132.00		5087.57		217.7	0.00	--	0.04	--
2-29-2020		132.00		5087.57		217.7	0.00	--	0.04	--
3-31-2020		132.00		5087.57		217.7	0.00	--	0.04	--
4-30-2020		132.00		5087.57		217.7	0.00	--	0.04	--
5-31-2020		132.00		5087.57		217.7	0.00	--	0.04	--
6-30-2020		132.00		5087.57		217.7	0.00	--	0.04	--
7-31-2020		132.00		5087.57		217.7	0.00	--	0.04	--
8-31-2020		132.00		5087.57		217.7	0.00	--	0.04	--
9-30-2020		132.00		5087.57		217.7	0.00	--	0.04	--
10-31-2020		132.00		5087.57		217.7	0.00	--	0.04	--
11-30-2020		132.00		5087.57		217.7	0.00	--	0.04	--
12-31-2020		132.00		5087.57		217.7	0.00	--	0.04	--



VRU #3

Pattern P-20 – 00/08-10-010-26W1/0

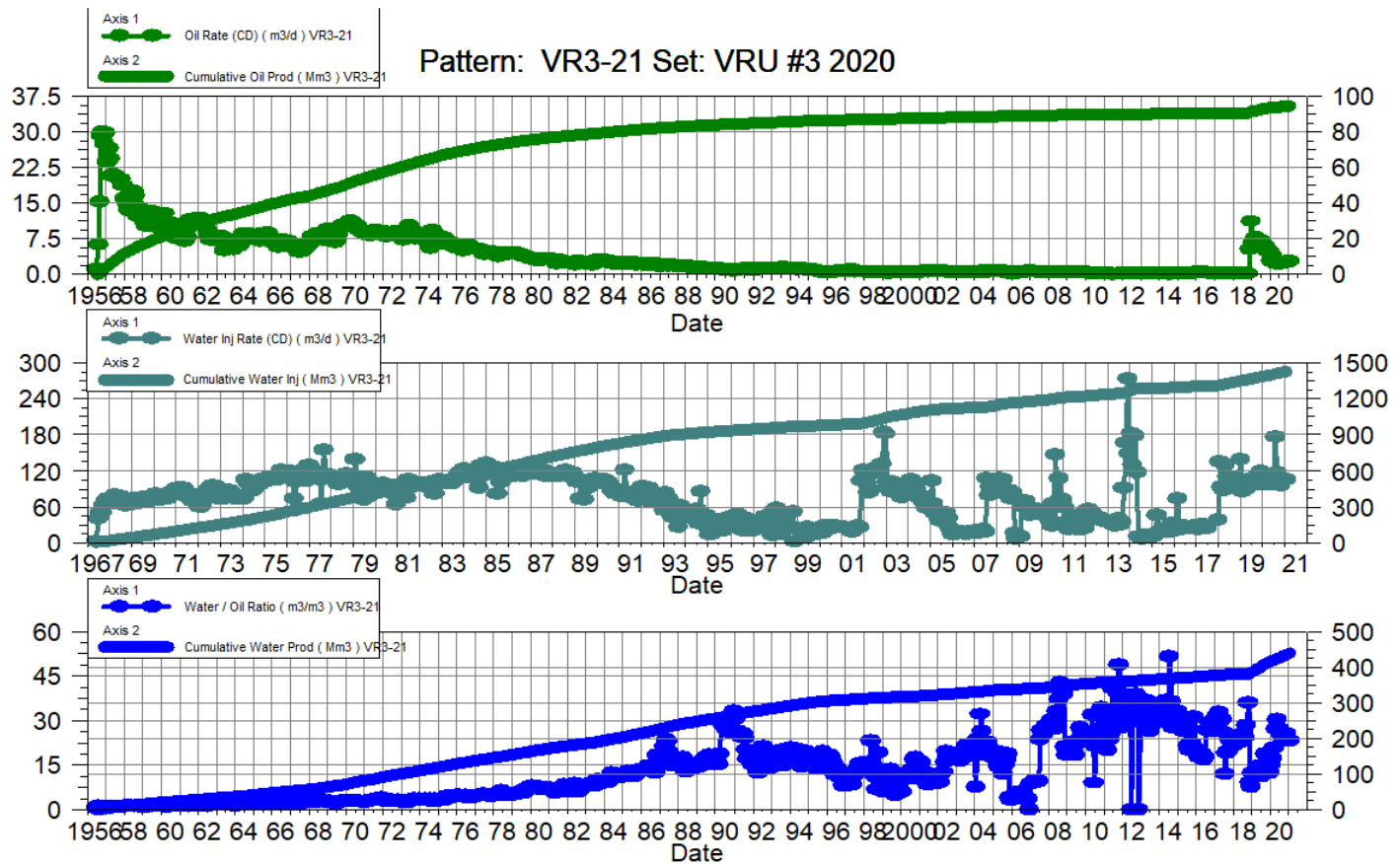
Date	Oil Rate (CD) m3/d	Cum Oil Prod Mm3	Water Rate (CD) m3/d	Cum Water Prod Mm3	Water Inj Rate (CD) m3/d	Cum Water Inj Mm3	Water Oil Ratio m3/m3	Voidage Replacement Ratio	Cum Voidage Replacement Ratio	Water Inj Pressure kPa	Water Inj Pressure kPa
1-31-2020	0.3	117.92	2.0	2120.05	181.94	1635.5	7.73	79.233	0.73	3,500.00	5,000.00
2-29-2020	0.3	117.93	2.1	2120.11	542.13	1651.2	8.23	235.125	0.74	3,500.00	5,000.00
3-31-2020	0.2	117.93	1.9	2120.17	532.08	1667.7	8.79	247.328	0.74	3,500.00	5,000.00
4-30-2020	0.2	117.94	1.9	2120.23	317.54	1677.2	8.51	150.76	0.75	3,500.00	5,000.00
5-31-2020	0.2	117.95	2.0	2120.29	486.20	1692.3	8.35	215.511	0.76	3,500.00	5,000.00
6-30-2020	0.3	117.95	2.0	2120.35	300.80	1701.3	7.44	133.861	0.76	3,500.00	5,000.00
7-31-2020	0.2	117.96	1.9	2120.41	402.41	1713.8	7.86	188.238	0.77	3,500.00	5,000.00
8-31-2020	0.2	117.97	1.9	2120.46	445.99	1727.6	9.49	218.036	0.77	3,500.00	5,000.00
9-30-2020	0.2	117.97	1.9	2120.52	378.44	1739.0	9.32	184.079	0.78	3,500.00	5,000.00
10-31-2020	0.2	117.98	1.8	2120.58	466.99	1753.5	9.32	233.459	0.78	3,500.00	5,000.00
11-30-2020	0.2	117.98	1.9	2120.63	471.61	1767.6	10.19	229.559	0.79	3,500.00	5,000.00
12-31-2020	0.2	117.99	1.6	2120.68	284.32	1776.4	10.91	159.527	0.79	3,500.00	5,000.00



VRU #3

Pattern P-21 – 00/06-11-010-26W1/0

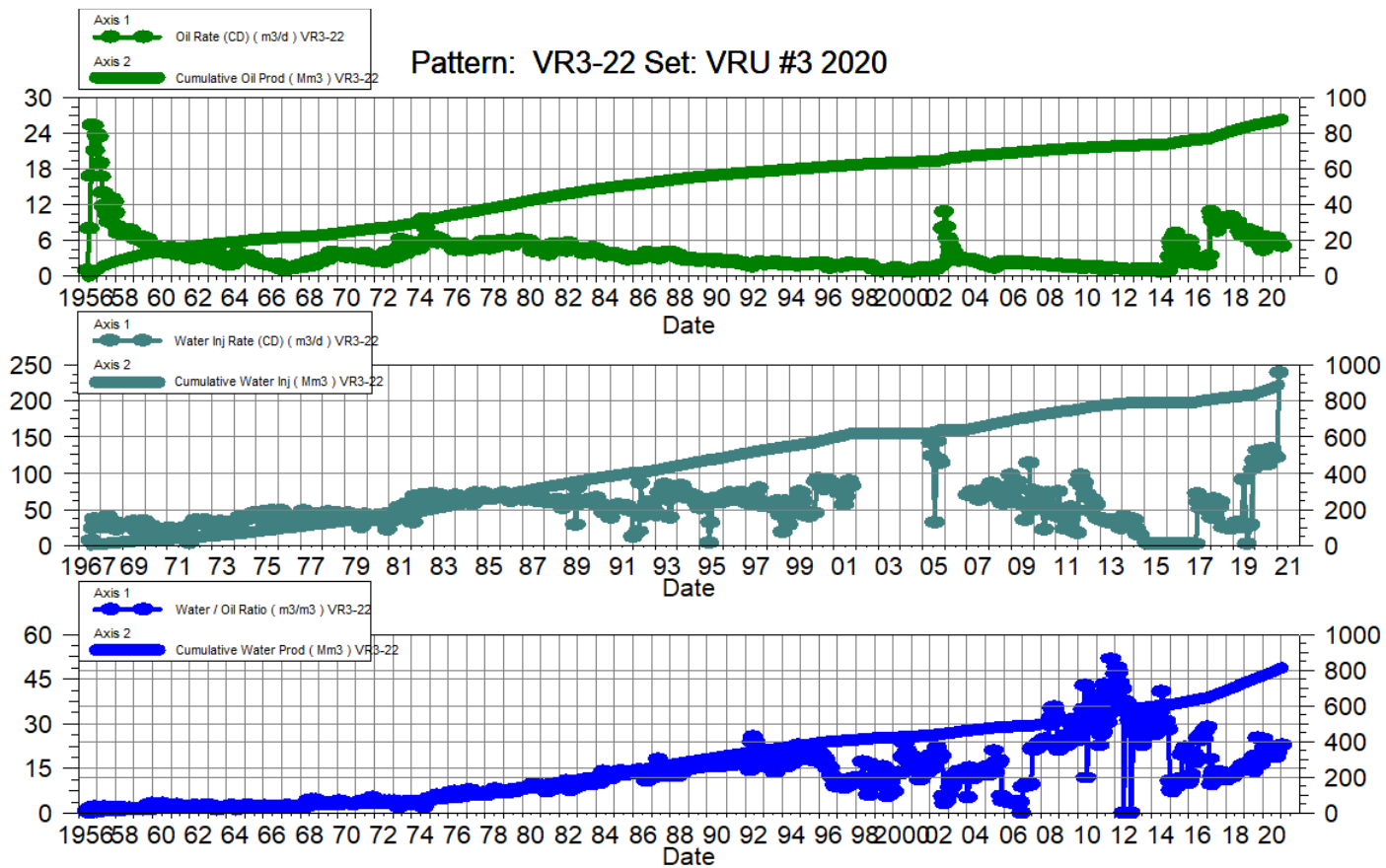
Date	Oil Rate (CD) m3/d	Cum Oil Prod Mm3	Water Rate (CD) m3/d	Cum Water Prod Mm3	Water Inj Rate (CD) m3/d	Cum Water Inj Mm3	Water Oil Ratio m3/m3	Voidage Replacement Ratio	Cum Voidage Replacement Ratio	Water Inj Pressure kPa
1-31-2020	2.8	93.90	42.3	415.86	96.42	1396.7	14.92	2.14	2.73	5,000.00
2-29-2020	3.9	94.02	66.9	417.80	104.55	1399.7	16.98	1.48	2.73	5,000.00
3-31-2020	3.0	94.11	62.0	419.72	97.35	1402.7	20.78	1.50	2.72	5,000.00
4-30-2020	2.2	94.18	60.5	421.53	98.00	1405.7	27.02	1.56	2.72	5,000.00
5-31-2020	2.2	94.24	66.2	423.58	97.81	1408.7	30.35	1.43	2.71	5,000.00
6-30-2020	2.4	94.32	65.1	425.54	100.80	1411.7	27.06	1.49	2.71	5,000.00
7-31-2020	2.4	94.39	61.1	427.43	177.45	1417.2	25.55	2.79	2.71	5,000.00
8-31-2020	2.5	94.47	64.6	429.43	117.48	1420.9	25.68	1.75	2.70	5,000.00
9-30-2020	2.7	94.55	65.4	431.39	98.73	1423.8	24.48	1.45	2.70	5,000.00
10-31-2020	2.6	94.63	63.8	433.37	94.87	1426.8	24.64	1.43	2.69	5,000.00
11-30-2020	2.6	94.71	65.5	435.34	102.80	1429.9	25.42	1.51	2.69	5,000.00
12-31-2020	2.8	94.79	63.5	437.30	104.01	1433.1	22.99	1.57	2.68	5,000.00



VRU #3

Pattern P-22 – 00/08-11-010-26W1/0

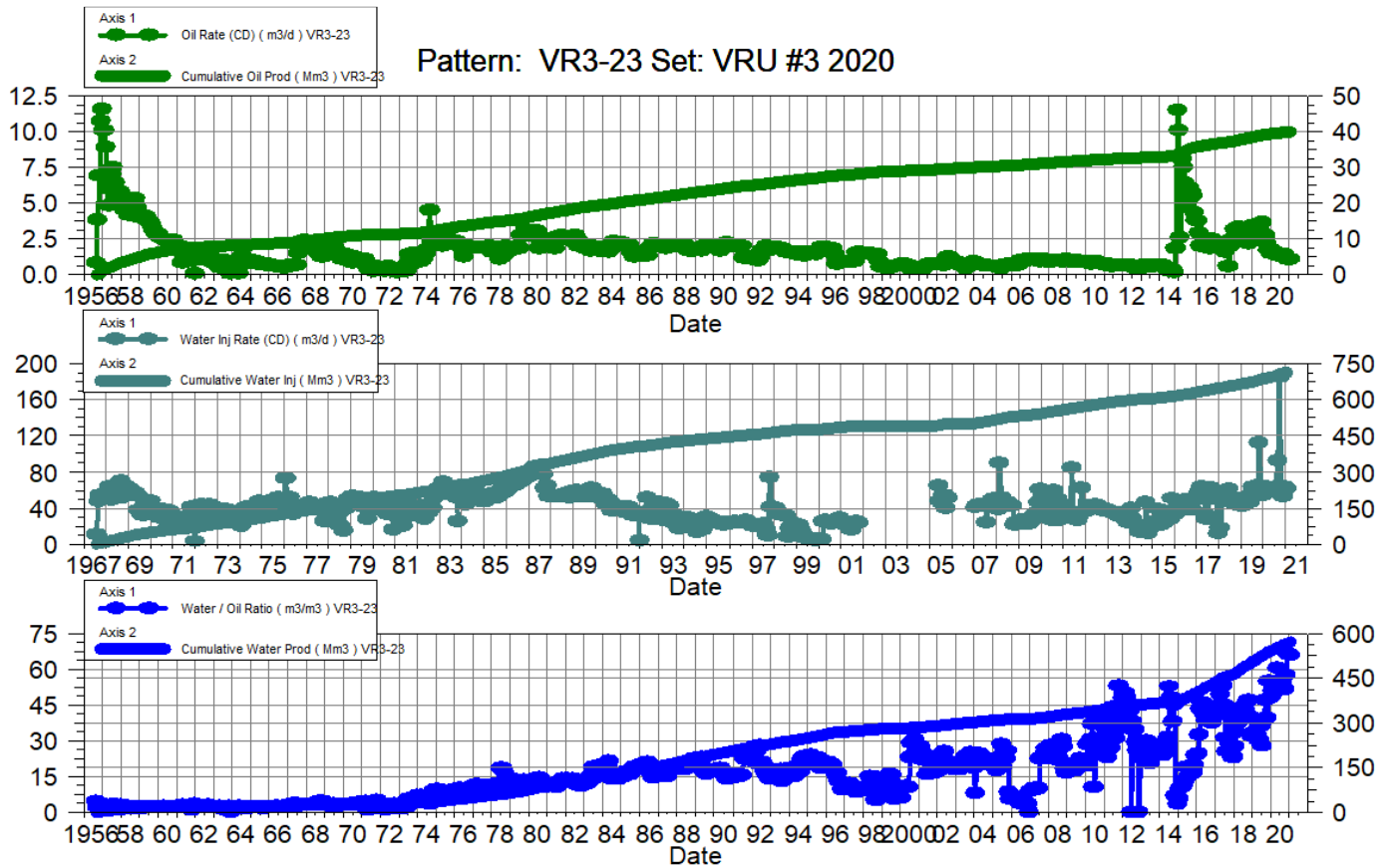
Date	Oil Rate (CD) m3/d	Cum Oil Prod Mm3	Water Rate (CD) m3/d	Cum Water Prod Mm3	Water Inj Rate (CD) m3/d	Cum Water Inj Mm3	Water Oil Ratio m3/m3	Voidage Replacement Ratio	Cum Voidage Replacement Ratio	Water Inj Pressure kPa
1-31-2020	4.5	85.95	110.7	769.60	118.10	846.7	24.84	1.02	0.99	4,400.00
2-29-2020	6.6	86.14	121.6	773.12	131.55	850.5	18.35	1.03	0.99	4,400.00
3-31-2020	5.6	86.32	115.3	776.70	123.23	854.3	20.67	1.02	0.99	4,400.00
4-30-2020	5.2	86.47	113.4	780.10	125.80	858.1	21.93	1.06	0.99	4,400.00
5-31-2020	5.4	86.64	122.0	783.88	125.65	862.0	22.43	0.99	0.99	4,400.00
6-30-2020	6.0	86.82	119.5	787.46	111.57	865.4	19.95	0.89	0.99	4,400.00
7-31-2020	5.8	87.00	112.4	790.95	112.19	868.8	19.23	0.95	0.99	4,400.00
8-31-2020	6.1	87.19	119.7	794.66	127.74	872.8	19.62	1.01	0.99	4,400.00
9-30-2020	6.4	87.38	121.1	798.29	134.63	876.8	18.87	1.06	0.99	4,400.00
10-31-2020	5.8	87.56	118.6	801.97	126.74	880.8	20.31	1.02	0.99	4,400.00
11-30-2020	5.4	87.73	120.6	805.58	121.93	884.4	22.28	0.97	0.99	4,400.00
12-31-2020	5.2	87.89	115.5	809.17	121.57	888.2	22.19	1.01	0.99	4,400.00



VRU #3

Pattern P-23 – 00/06-12-010-26W1/0

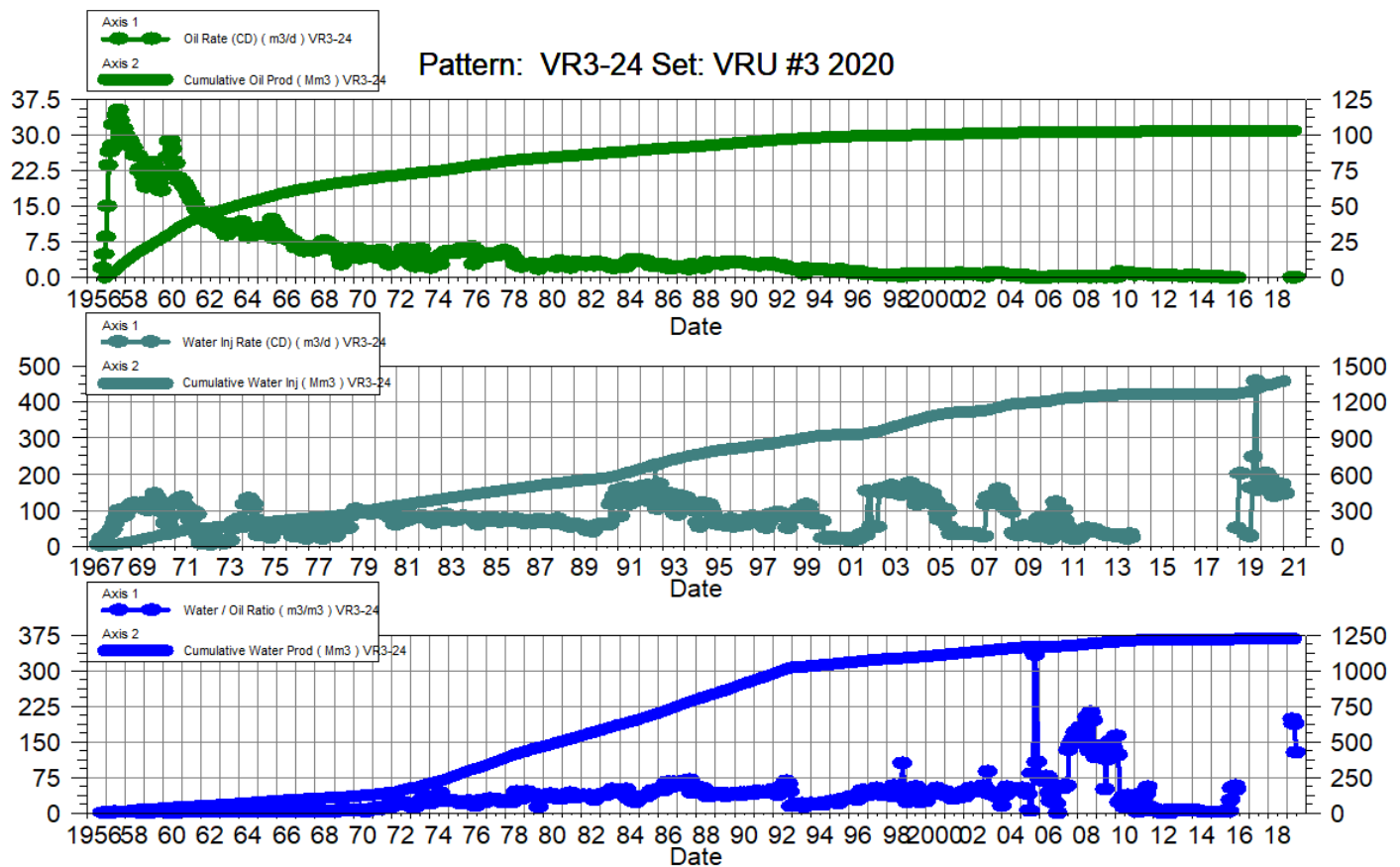
Date	Oil Rate (CD) m3/d	Cum Oil Prod Mm3	Water Rate (CD) m3/d	Cum Water Prod Mm3	Water Inj Rate (CD) m3/d	Cum Water Inj Mm3	Water Oil Ratio m3/m3	Voidage Replacement Ratio	Cum Voidage Replacement Ratio	Water Inj Pressure kPa
1-31-2020	1.7	39.59	84.0	542.36	56.00	691.6	48.26	0.65	1.19	5,100.00
2-29-2020	1.7	39.64	84.9	544.82	63.76	693.4	51.02	0.74	1.19	5,100.00
3-31-2020	1.6	39.69	80.1	547.31	59.58	695.2	50.32	0.73	1.18	5,100.00
4-30-2020	1.4	39.73	76.7	549.61	60.73	697.1	54.22	0.78	1.18	5,100.00
5-31-2020	1.3	39.77	80.0	552.09	58.45	698.9	60.44	0.72	1.18	5,100.00
6-30-2020	1.4	39.82	76.7	554.39	60.27	700.7	53.84	0.77	1.18	5,100.00
7-31-2020	1.4	39.86	71.0	556.59	63.45	702.7	51.67	0.88	1.18	5,100.00
8-31-2020	1.4	39.90	76.1	558.95	92.90	705.5	54.24	1.20	1.18	5,100.00
9-30-2020	1.5	39.95	76.3	561.24	185.70	711.1	51.34	2.39	1.18	5,100.00
10-31-2020	1.3	39.99	75.3	563.57	61.06	713.0	57.54	0.80	1.18	5,100.00
11-30-2020	1.1	40.02	75.1	565.82	52.73	714.6	66.58	0.69	1.18	5,100.00
12-31-2020	1.1	40.06	74.5	568.13	63.74	716.6	66.23	0.84	1.18	5,100.00



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 Replacement Ratio	Water Inj Pressure kPa
1-31-2020		103.81		1221.41	181.94	1339.3			1.01	--
2-29-2020		103.81		1221.41	202.22	1345.2			1.01	--
3-31-2020		103.81		1221.41	203.03	1351.5			1.02	--
4-30-2020		103.81		1221.41		1351.5			1.02	--
5-31-2020		103.81		1221.41	188.58	1357.4			1.02	--
6-30-2020		103.81		1221.41		1357.4			1.02	--
7-31-2020		103.81		1221.41	137.68	1361.6			1.03	--
8-31-2020		103.81		1221.41	148.21	1366.2			1.03	--
9-30-2020		103.81		1221.41	141.67	1370.5			1.03	--
10-31-2020		103.81		1221.41	163.31	1375.5			1.04	--
11-30-2020		103.81		1221.41	172.72	1380.7			1.04	--
12-31-2020		103.81		1221.41		1380.7			1.04	--

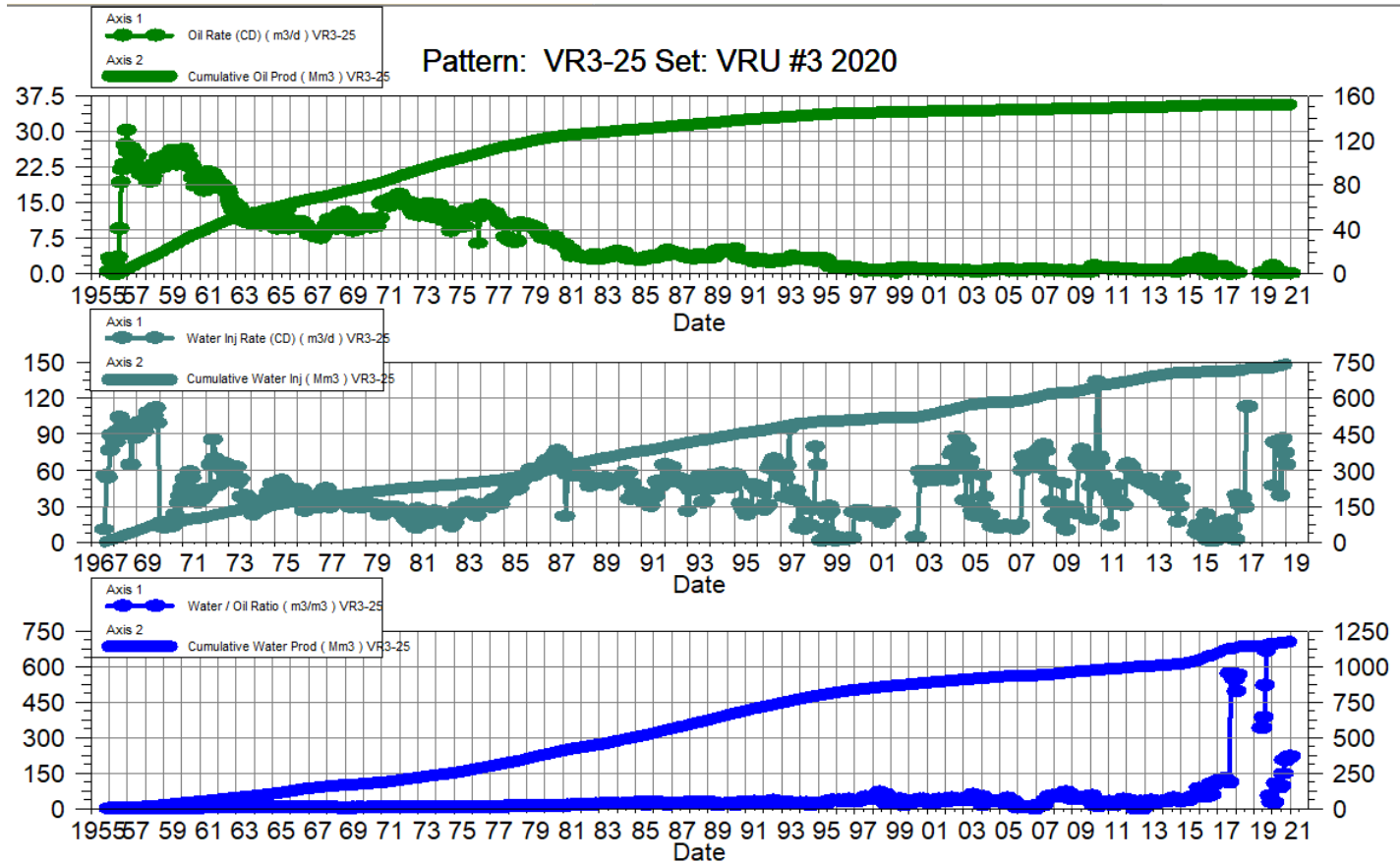


VRU #3

Pattern P-25 – 00/14-02-010-26W1/0

02/03-11-010-26W1/2

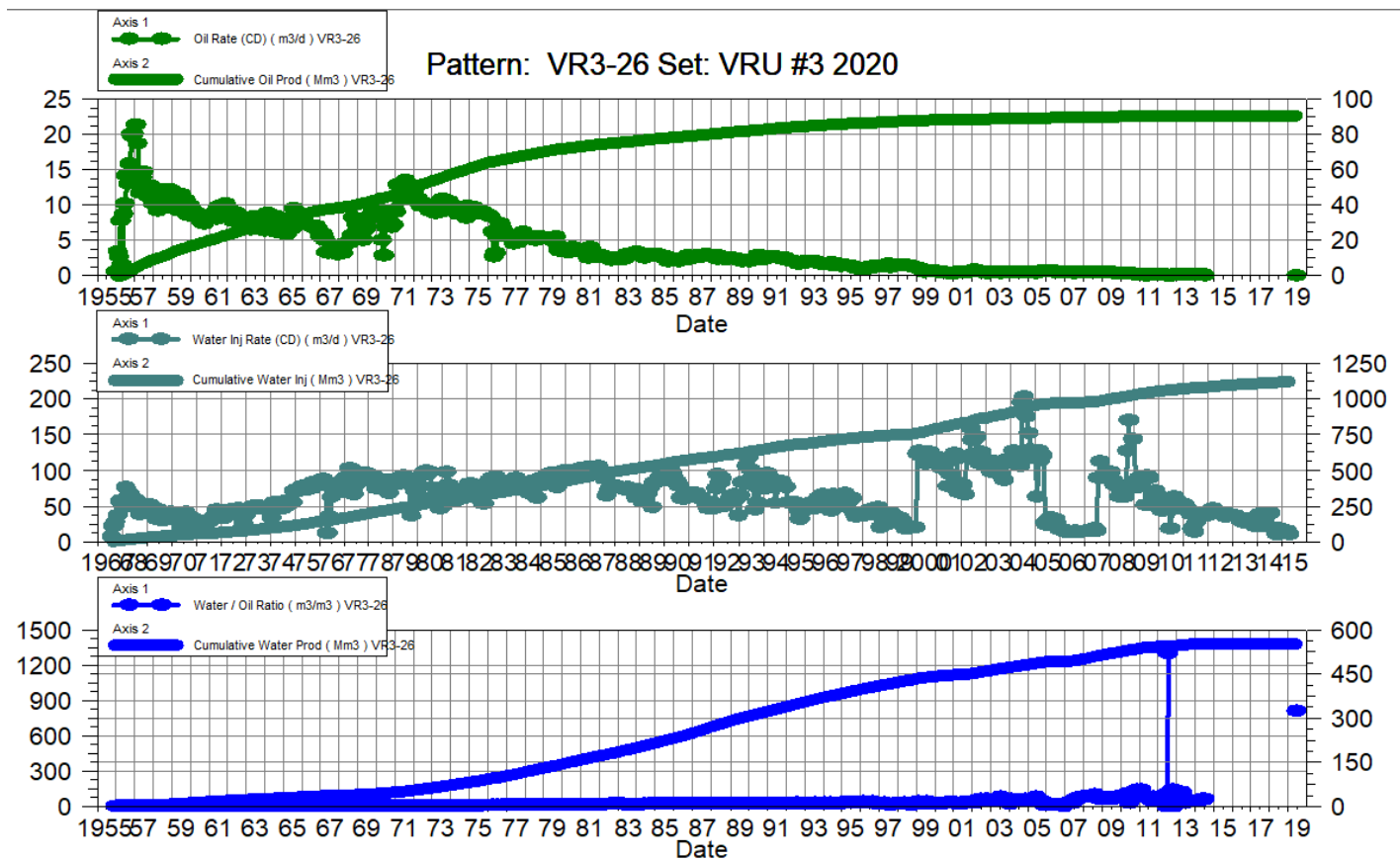
Date	Oil Rate (CD) m3/d	Cum Oil Prod Mm3	Water Rate (CD) m3/d	Cum Water Prod Mm3	Water Inj Rate (CD) m3/d	Cum Water Inj Mm3	Water Oil Ratio m3/m3	Voidage Replacement Ratio	Cum Voidage Replacement Ratio	Water Inj Pressure kPa	Water Inj Pressure kPa
1-31-2020	1.8	153.02	40.0	1157.18		747.7	22.78		0.57	5,000.00	5,800.00
2-29-2020	1.6	153.06	40.6	1158.36		747.7	24.93		0.57	5,000.00	5,800.00
3-31-2020	0.4	153.08	40.6	1159.61		747.7	107.02		0.57	5,000.00	5,800.00
4-30-2020	0.4	153.09	39.6	1160.80		747.7	103.72		0.57	5,000.00	5,800.00
5-31-2020	0.4	153.10	42.3	1162.12		747.7	101.75		0.57	5,000.00	5,800.00
6-30-2020	0.5	153.11	41.6	1163.36		747.7	90.87		0.57	5,000.00	5,800.00
7-31-2020	0.4	153.13	40.1	1164.61		747.7	95.81		0.57	5,000.00	5,800.00
8-31-2020	0.3	153.14	42.3	1165.92		747.7	146.56		0.57	5,000.00	5,800.00
9-30-2020	0.2	153.14	42.1	1167.18		747.7	204.41		0.57	5,000.00	5,800.00
10-31-2020	0.2	153.15	41.0	1168.45		747.7	205.50		0.57	5,000.00	5,800.00
11-30-2020	0.2	153.15	41.5	1169.69		747.7	215.93		0.56	5,000.00	5,800.00
12-31-2020	0.2	153.16	39.9	1170.93		747.7	217.09		0.56	5,000.00	5,800.00



VRU #3

Pattern P-26 – 00/16-02-010-26W1/0

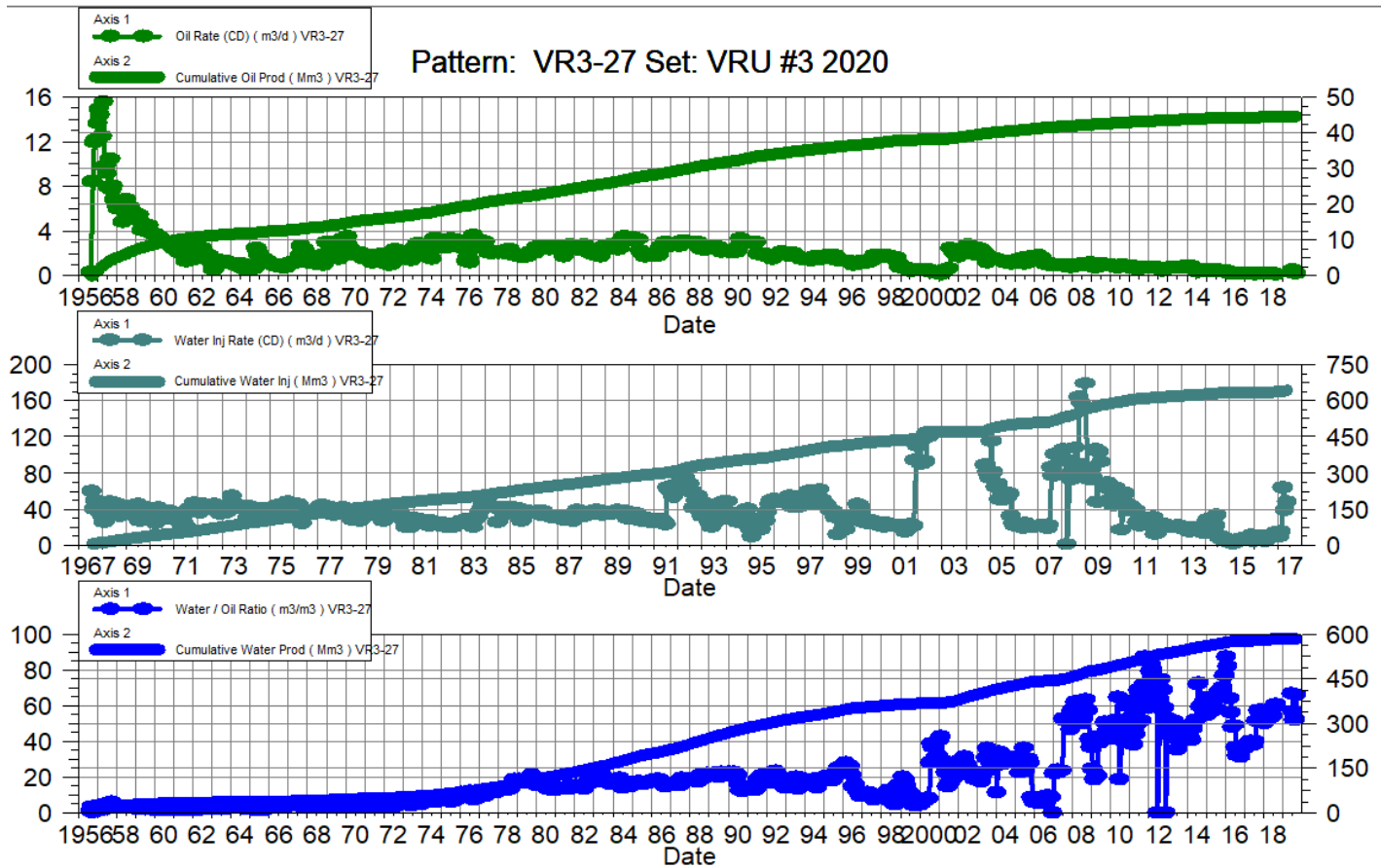
Date	Oil Rate (CD) m3/d	Cum Oil Prod Mm3	Water Rate (CD) m3/d	Cum Water Prod Mm3	Water Inj Rate (CD) m3/d	Cum Water Inj Mm3	Water Oil Ratio m3/m3	Voidage Replacement Ratio	Cum Voidage Replacement Ratio	Water Inj Pressure kPa
1-31-2020		90.78		552.36		1125.85			1.75	3,700.00
2-29-2020		90.78		552.36		1125.85			1.75	3,700.00
3-31-2020		90.78		552.36		1125.85			1.75	3,700.00
4-30-2020		90.78		552.36		1125.85			1.75	3,700.00
5-31-2020		90.78		552.36		1125.85			1.75	3,700.00
6-30-2020		90.78		552.36		1125.85			1.75	3,700.00
7-31-2020		90.78		552.36		1125.85			1.75	3,700.00
8-31-2020		90.78		552.36		1125.85			1.75	3,700.00
9-30-2020		90.78		552.36		1125.85			1.75	3,700.00
10-31-2020		90.78		552.36		1125.85			1.75	3,700.00
11-30-2020		90.78		552.36		1125.85			1.75	3,700.00
12-31-2020		90.78		552.36		1125.85			1.75	3,700.00



VRU #3

Pattern P-27 – 00/14-01-010-26W1/0

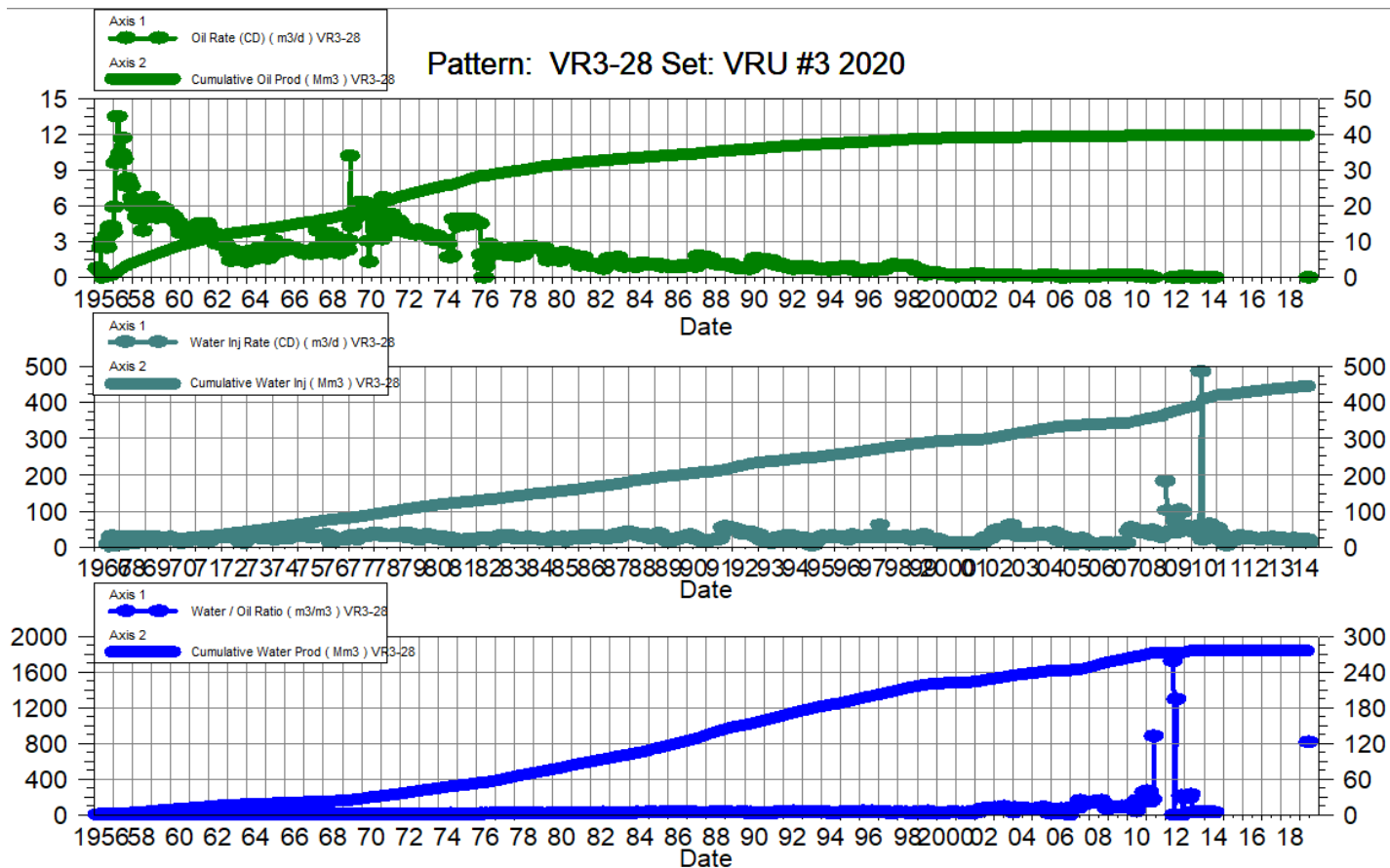
Date	Oil Rate (CD) m3/d	Cum Oil Prod Mm3	Water Rate (CD) m3/d	Cum Water Prod Mm3	Water Inj Rate (CD) m3/d	Cum Water Inj Mm3	Water Oil Ratio m3/m3	Voidage Replacement Ratio	Cum Voidage Replacement Ratio	Water Inj Pressure kPa
1-31-2020		44.64		584.34		645.6			1.03	5,400.00
2-29-2020		44.64		584.34		645.6			1.03	5,400.00
3-31-2020		44.64		584.34		645.6			1.03	5,400.00
4-30-2020		44.64		584.34		645.6			1.03	5,400.00
5-31-2020		44.64		584.34		645.6			1.03	5,400.00
6-30-2020		44.64		584.34		645.6			1.03	5,400.00
7-31-2020		44.64		584.34		645.6			1.03	5,400.00
8-31-2020		44.64		584.34		645.6			1.03	5,400.00
9-30-2020		44.64		584.34		645.6			1.03	5,400.00
10-31-2020		44.64		584.34		645.6			1.03	5,400.00
11-30-2020		44.64		584.34		645.6			1.03	5,400.00
12-31-2020		44.64		584.34		645.6			1.03	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 Replacement Ratio	Water Inj Pressure kPa
1-31-2020		40.00		276.31		448.98			1.42	3,400.00
2-29-2020		40.00		276.31		448.98			1.42	3,400.00
3-31-2020		40.00		276.31		448.98			1.42	3,400.00
4-30-2020		40.00		276.31		448.98			1.42	3,400.00
5-31-2020		40.00		276.31		448.98			1.42	3,400.00
6-30-2020		40.01		276.31		448.98			1.42	3,400.00
7-31-2020		40.01		276.31		448.98			1.42	3,400.00
8-31-2020		40.01		276.31		448.98			1.42	3,400.00
9-30-2020		40.01		276.31		448.98			1.42	3,400.00
10-31-2020		40.01		276.31		448.98			1.42	3,400.00
11-30-2020		40.01		276.31		448.98			1.42	3,400.00
12-31-2020		40.01		276.31		448.98			1.42	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 Replacement Ratio	Water Inj Pressure kPa
1-31-2020	1.7	128.23	38.2	1618.87		749.8	21.90		0.43	2,100.00
2-29-2020	1.7	128.27	38.6	1619.99		749.8	23.27		0.43	2,100.00
3-31-2020	1.4	128.32	34.2	1621.05		749.8	24.02		0.43	2,100.00
4-30-2020	1.4	128.36	31.5	1622.00		749.8	22.41		0.43	2,100.00
5-31-2020	1.5	128.41	32.7	1623.01		749.8	22.10		0.43	2,100.00
6-30-2020	1.4	128.45	26.6	1623.81		749.8	18.98		0.43	2,100.00
7-31-2020	2.0	128.51	36.1	1624.92		749.8	18.20		0.43	2,100.00
8-31-2020	1.5	128.56	32.9	1625.94		749.8	22.48		0.43	2,100.00
9-30-2020	1.5	128.60	32.9	1626.93		749.8	22.16		0.43	2,100.00
10-31-2020	1.3	128.64	30.6	1627.88		749.8	23.74		0.43	2,100.00
11-30-2020	1.1	128.67	28.9	1628.75		749.8	26.39		0.43	2,100.00
12-31-2020	0.5	128.69	21.1	1629.40		749.8	39.84		0.43	2,100.00

