

Routledge Unit No. 1
2020 Annual EOR Report

Executive Summary

In 2020, oil production in Routledge Unit No. 1 was 42.8 m³/d (269 bbl/d) totaling 15.7 e³m³ (98.5 mmbbl). Annual production inclined 38% from 2019 to 2020, based on the yearly average. Comparing to December 2019 to December 2020 the unit production inclined by 10%. By the end of 2020 cumulative oil production from the Routledge Unit No. 1 was 2,672 e³m³ (16.8 mmbbl).

In Routledge Unit No. 1 development began in 1955 and was developed primarily with vertical wells. The unit was largely left to primary decline with minimal water injection schemes implemented; most of the water was disposed and did not support the declining wells. Active programs of drilling horizontal wells in 2001, 2006, and 2007 revived the unit, increasing production to half the primary peak production rates. In 2014, three Scallion wells were drilled within the unit. In 2015 two wells were converted to injection and another in 2016. In 2017, two Scallion wells were drilled, as well as, one Oolite well and one Virden well. In 2018, there was no drilling activity within the unit. In 2019, two horizontal wells were drilled and three wells were converted to injection. In 2020, one horizontal well was drilled as well as one vertical disposal well. Further development with infills and injector conversions will result in improved recovery within the unit. In December 2020, there were 30 active oil producers, 5 active injection wells and two disposal wells.

Discussion

With the approval for waterflooding Corex has begun to inject into the Lodgepole and continued infill drilling within the unit. Due to the surface conditions in the area most activity is required to be completed in the winter when the ground is frozen. Further injector conversions for waterflooding and pressure maintenance and continued infill drilling will help to gain incremental reserves from the unit. Considering the performance of other units in Virden secondary recovery should result in significant upside. Some encouraging response can be seen from the injection conversions.

Significant events in 2020 are as follows:

- March 2020, perform a water shutoff on the 102/12-16-009-25W1/00 well.
- August 2020, suspend the 100/06-20-009-25W1/00 vertical well.
- August 2020, suspend the 102/01-20-009-25W1/00 horizontal well.
- November 2020, drill the 102/16-17-009-25W1/00 vertical injection well.

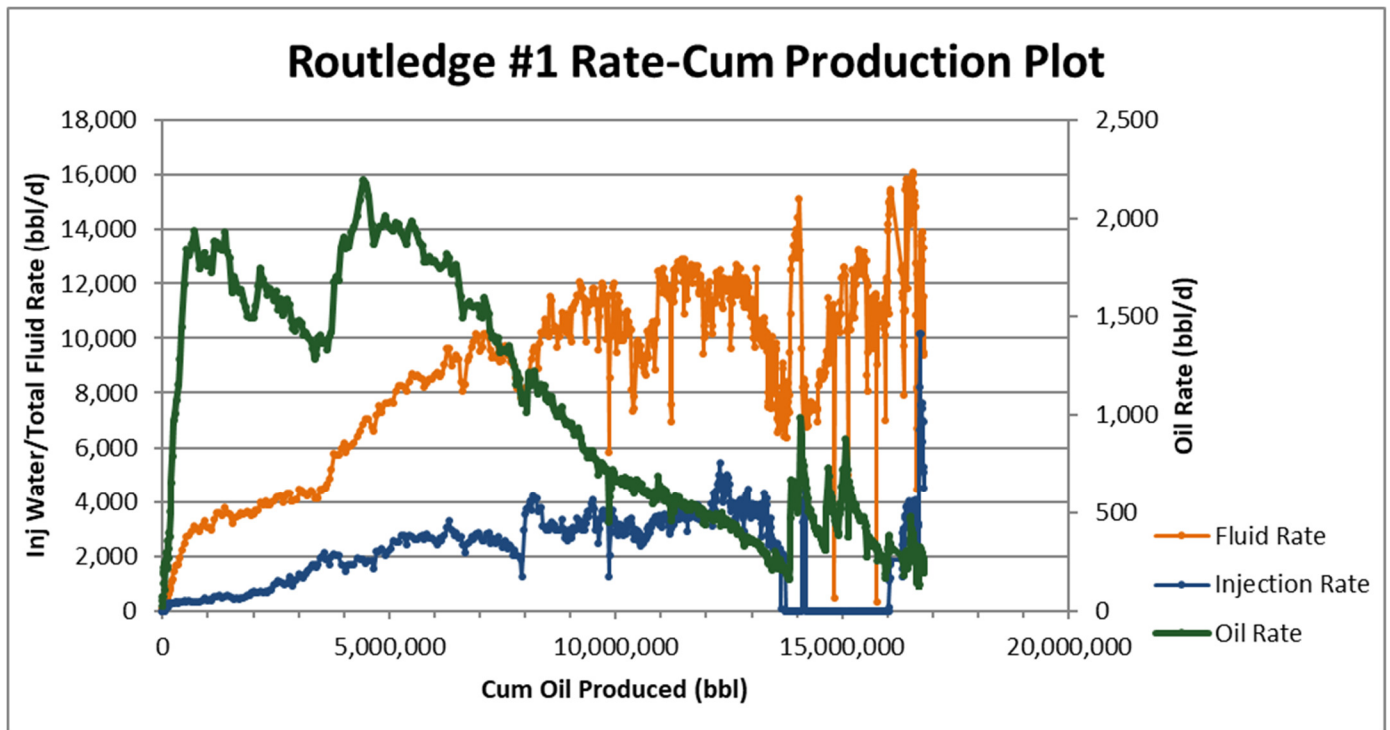
In April 2015, two Scallion horizontal wells were converted to injection (102/11-21-009-25W1/00 and 102/04-27-009-25W1/00). In 2016 another well was converted to injection, the 102/09-29-009-25W1/00 horizontal well. In 2019, an additional three wells were converted to injection. In 2020, the wells injected an average per annum rate of 1,109 m³/d (6,974 bbl/d) of water. Currently, all six of the designated patterns are currently injecting. In 2020, the producing WOR for the unit was 45.8 m³/m³.

Water disposal in 2020 in the Routledge Unit No. 1 was 1,514 m³/d (9,522 bbl/d). Water was disposed into three wells (100/15-17-009-25W1/00 predominantly, 100/16-17-009-25W1/00- now inactive- and the newly drilled 102/16-17-009-25W1/00).

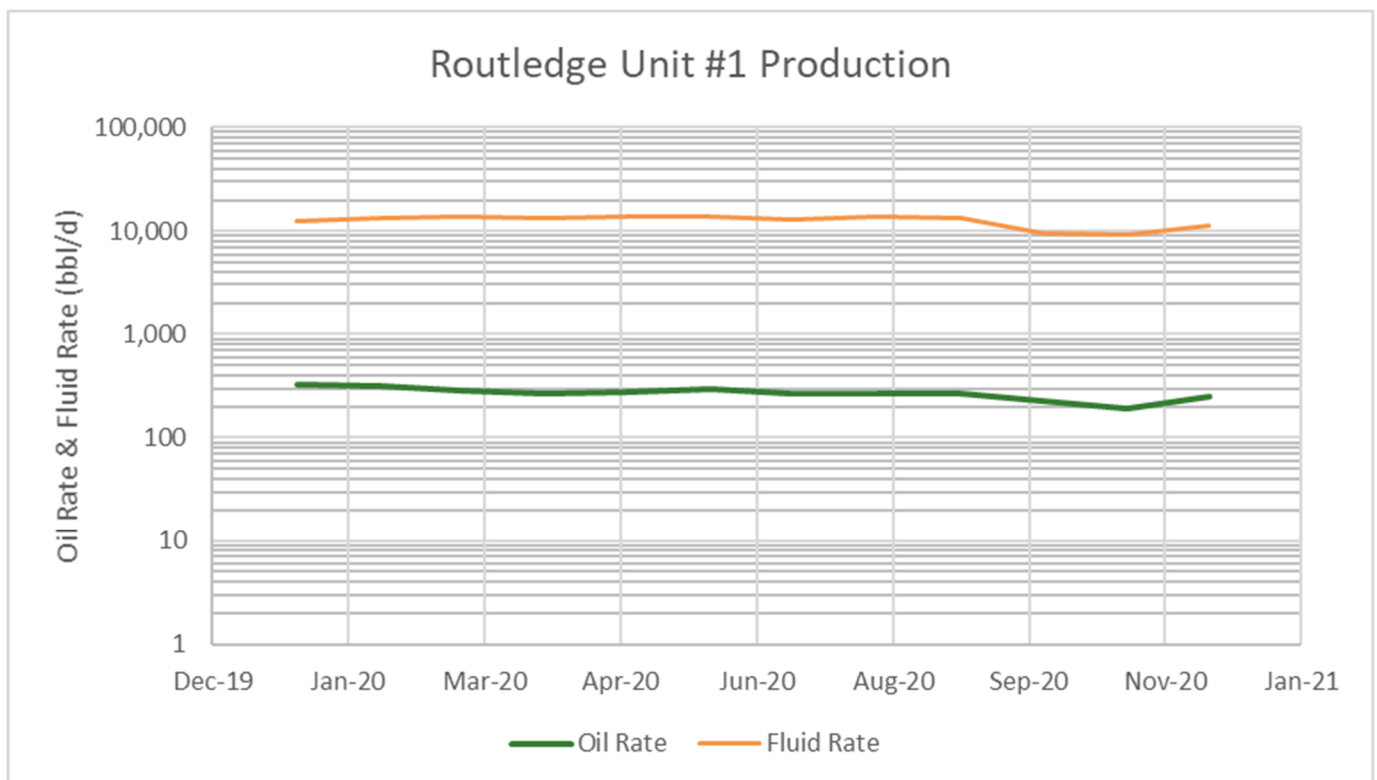
Detailed production, injection, voidage tables and plots for the total unit and each injection pattern are at the end of this report.

Below, in the composite rate – cumulative oil plot the historical unit production can be seen.

Routledge #1 – Rate vs Cum Oil Production



Routledge #1 – Rate vs Time



2020 Reservoir Pressure Surveys

| Unit | UWI | License | Test Type | Date of Pressure | Duration of SI (days) | Datum BHP (kPaa) |
|-----------|-----------------------|---------|-----------|------------------|-----------------------|------------------|
| Routledge | 102/06-17-009-25W1/00 | 11449 | BH BU | 2020-11-16 | 6 | 6,374 |
| Routledge | 100/03-22-009-25W1/00 | 1621 | FL Shot | 2020-05-07 | | 4,858 |
| Routledge | 100/04-22-009-25W1/00 | 1622 | FL Shot | 2020-05-07 | | 4,228 |
| Routledge | 100/14-28-009-25W1/00 | 888 | FL Shot | 2020-06-02 | | 3,898 |
| Routledge | 100/07-32-009-25W1/00 | 1997 | FL Shot | 2020-06-02 | | 5,319 |
| Routledge | 100/09-32-009-25W1/00 | 1896 | FL Shot | 2020-06-02 | | 4,450 |
| Routledge | 102/10-32-009-25W1/00 | 5049 | FL Shot | 2020-06-02 | | 5,421 |
| Routledge | 100/11-32-009-25W1/00 | 1938 | FL Shot | 2020-06-02 | | 5,855 |
| Routledge | 102/15-32-009-25W1/00 | 5096 | FL Shot | 2020-06-02 | | 4,646 |
| Routledge | 100/04-33-009-25W1/00 | 992 | FL Shot | 2020-06-02 | | 6,207 |

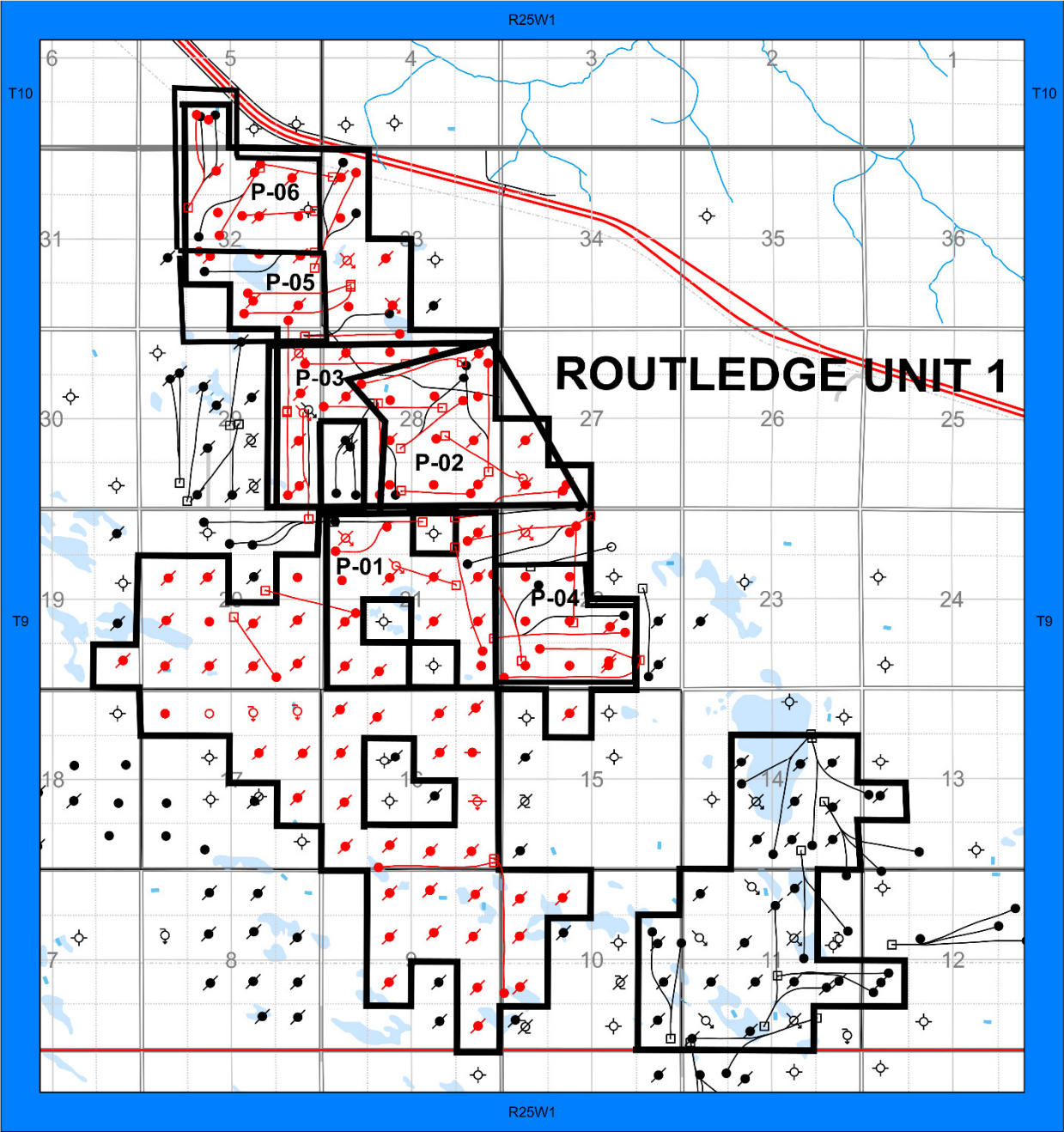
In 2020, 10 pressures were taken throughout the unit with an average pressure of ~5,100 kPa. This is slightly higher than the six pressures recorded in 2018 giving an average reservoir pressure of 4,750 kPa. Pressure measurements were taken in 2016 throughout the whole unit resulting in an average reservoir pressure of 4,300 kPa. This data supports that we have seen an increase in pressure in some areas of the unit where the waterflood has been implemented. Note that the initial reservoir pressure was estimated at 6,700 kPa. In 2017, two pressures were recorded that are close to estimated initial reservoir pressure in the south of the unit, and as there has been no injection in the area, this may indicate pressure support from an aquifer. The pressure data would indicate that the resulting injector conversions have helped to increase the reservoir pressure; however, the reservoir pressure in some areas is quite low and further conversions would be beneficial. Overall, the low pressures of the unit relative to the initial reservoir pressure suggest that additional water injection is needed for pressure support and to improve recovery.

In 2020 the instantaneous VRR was 0.56 and the cumulative VRR was 0.24, excluding the disposal within the unit. Looking only at the Northern portion of the unit where the injection is focused the instantaneous VRR is 0.85 and the cumulative VRR is 0.21. This indicates that there is still plenty of voidage to be replaced within the unit and further injector conversions would be beneficial. As discussed, there is partial support from an aquifer within the unit that is not taken into account within the VRR calculations.

2020 Well Servicing

| UWI | Unit | Licence | Start Date | Job Category | Primary Job Type |
|---|------|------------|------------------|---------------------|---------------------------------|
| 100/01-21-009-25W1/00 | RU#1 | 001559 | 2020-01-08 8:00 | Completion/Workover | Workover |
| 102/16-17-009-25W1/00 | RU#1 | 11449 | 2020-02-13 8:00 | Construction | Construction |
| 102/12-16-009-25W1/00 | RU#1 | 11233 | 2020-03-18 10:00 | Completion/Workover | Water Shut Off |
| 103/04-22-009-25W1/00 | RU#1 | 10600 | 2020-06-04 7:30 | Completion/Workover | Pump Repair |
| 100/06-20-009-25W1/00 | RU#1 | 001636 | 2020-08-04 7:30 | Completion/Workover | Suspension |
| 102/01-20-009-25W1/00 | RU#1 | 004731 | 2020-08-18 7:30 | Abandon | Abandon Well |
| 100/06-20-009-25W1/00 | RU#1 | 001636 | 2020-09-01 8:00 | Facilities | Reclamation |
| 102/01-20-009-25W1/00 | RU#1 | 004731 | 2020-09-01 9:24 | Facilities | Reclamation |
| PHASE 2 UPGRADE - 16-17-09-25 BTY - F20VIR001 | RU#1 | F20VIR001 | 2020-09-07 8:00 | Facilities | Battery Upgrade |
| 102/16-17-009-25W1/00 | RU#1 | 11449 | 2020-09-08 10:00 | Completion/Workover | Completion |
| ASSINIBOINE COATING - ROUTLEDGE UNIT NO. 1 | RU#1 | FF20VIR011 | 2020-09-22 7:30 | Facilities | Pipeline / Flowline Replacement |
| 04-27-09-25 BONEYARD | RU#1 | RM20VIR012 | 2020-10-06 20:24 | Facilities | Major Surface R&M |
| 102/07-22-009-25W1/00 | RU#1 | 6445 | 2020-10-17 7:30 | Completion/Workover | Pump Repair |
| 08-21-09-25 HEADER REPLACEMENT | RU#1 | FF20VIR017 | 2020-10-20 7:30 | Facilities | Header Repair |
| HEADER REPLACEMENT - 08-32-09-25 | RU#1 | FF20VIR012 | 2020-10-30 8:57 | Facilities | Header Repair |
| 102/16-17-009-25W1/00 | RU#1 | 11449 | 2020-11-08 0:00 | Drilling | Drilling - original |
| 102/16-17-009-25W1/00 | RU#1 | 11449 | 2020-11-23 7:30 | Facilities | Equip & Tie-In |
| 102/10-32-009-25W1/00 | RU#1 | 005049 | 2020-12-08 7:30 | Completion/Workover | Pump Repair |

Waterflood Pattern Map

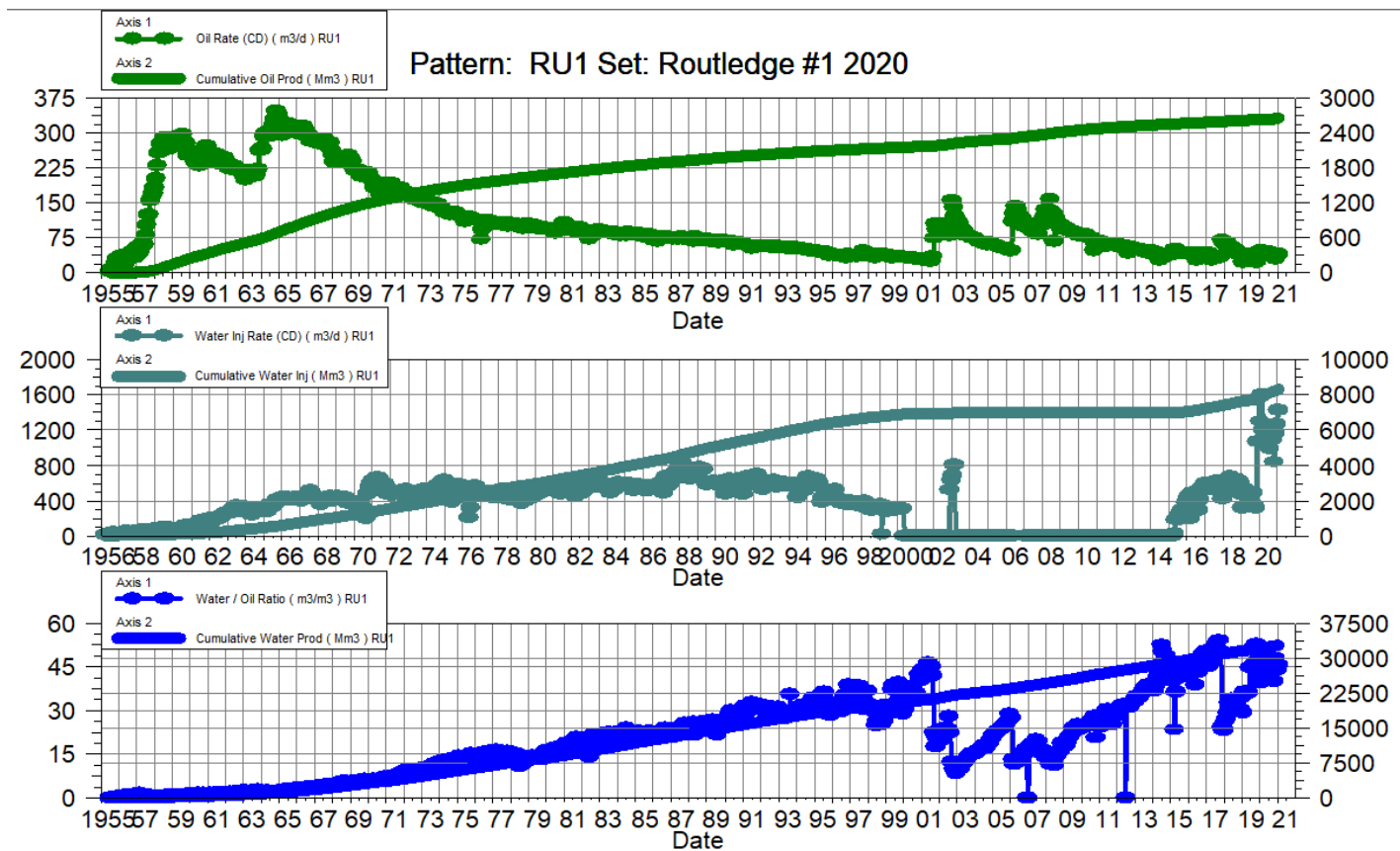


Waterflood Pattern Table

| Pattern | Well |
|---------|-----------------------|
| P-01 | 102/11-21-009-25W1/00 |
| P-02 | 102/04-27-009-25W1/00 |
| P-03 | 102/09-29-009-25W1/00 |
| P-04 | 102/04-22-009-25W1/00 |
| P-05 | 102/02-32-009-25W1/00 |
| P-06 | 102/11-32-009-25W1/00 |

Total for Routledge Unit #1

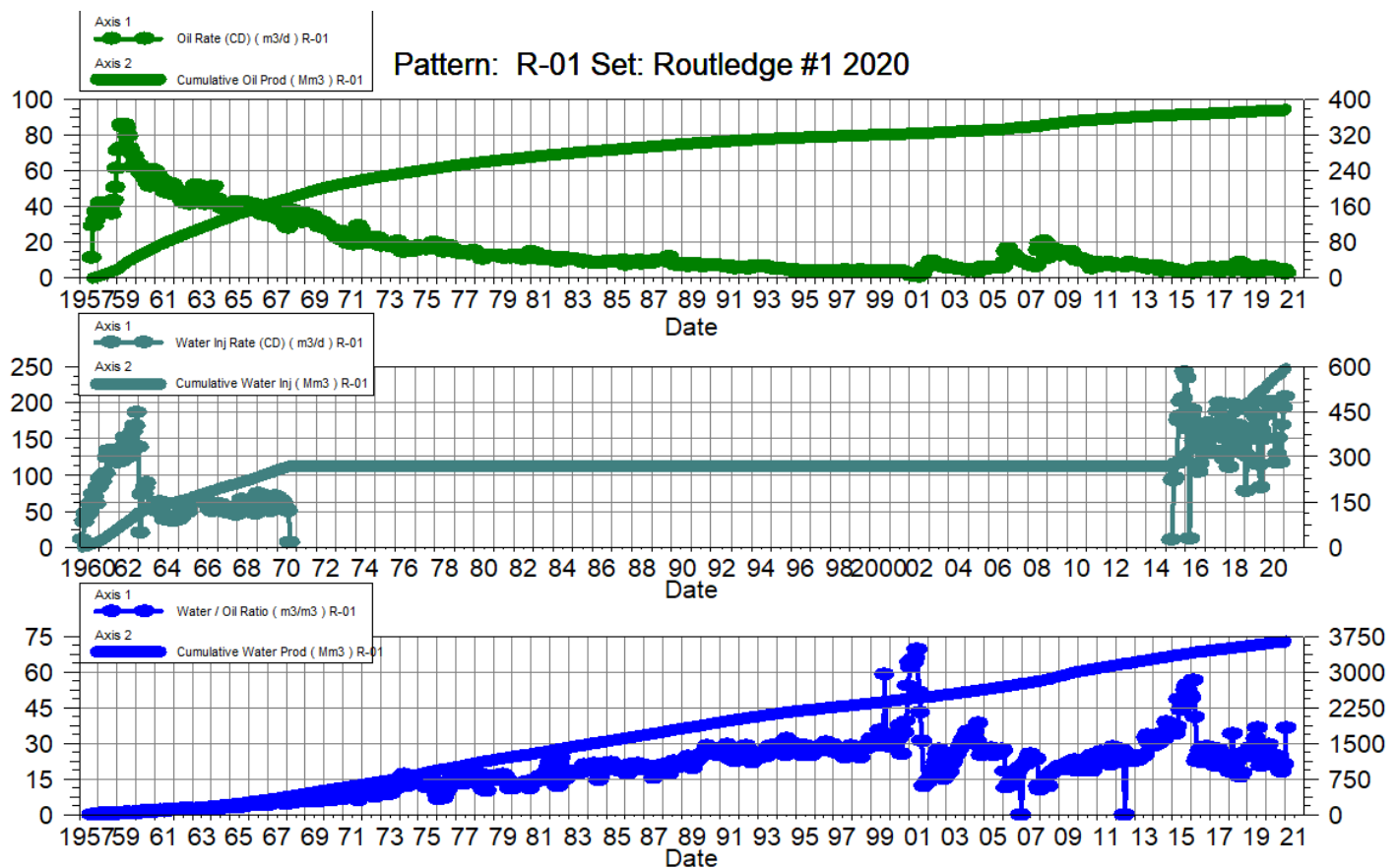
| Date | Oil Rate (CD) m3/d | Cum Oil Prod Mm3 | Water Rate (CD) m3/d | Cum Water Prod Mm3 | Water Inj Rate (CD) m3/d | Cum Water Inj Mm3 | Water Oil Ratio m3/m3 | Voidage Replacement Ratio | Cum Voidage Replacement Ratio | Water Inj Pressure kPa |
|------------|-----------------------|---------------------|-------------------------|-----------------------|-----------------------------|----------------------|--------------------------|------------------------------|----------------------------------|---------------------------|
| 1-31-2020 | 47.90 | 2640.31 | 1891.71 | 32023.15 | 1307.03 | 7911.21 | 39.49 | 0.67 | 0.23 | 4,204.58 |
| 2-29-2020 | 47.63 | 2641.69 | 1985.72 | 32080.73 | 1613.20 | 7957.99 | 41.69 | 0.79 | 0.23 | 4,068.56 |
| 3-31-2020 | 44.21 | 2643.06 | 2069.64 | 32144.89 | 1201.04 | 7995.23 | 46.82 | 0.57 | 0.23 | 4,760.43 |
| 4-30-2020 | 39.32 | 2644.24 | 1765.23 | 32197.85 | 1209.03 | 8031.50 | 44.90 | 0.67 | 0.23 | 5,088.78 |
| 5-31-2020 | 43.32 | 2645.59 | 2022.16 | 32260.54 | 1216.42 | 8069.21 | 46.68 | 0.59 | 0.23 | 5,669.39 |
| 6-30-2020 | 46.55 | 2646.98 | 2014.97 | 32320.99 | 1186.47 | 8104.80 | 43.29 | 0.58 | 0.23 | 5,965.32 |
| 7-31-2020 | 42.26 | 2648.29 | 1861.39 | 32378.69 | 988.61 | 8135.45 | 44.04 | 0.52 | 0.23 | 5,837.18 |
| 8-31-2020 | 42.51 | 2649.61 | 1966.02 | 32439.63 | 1111.32 | 8169.90 | 46.25 | 0.55 | 0.23 | 6,183.86 |
| 9-30-2020 | 42.45 | 2650.88 | 1914.33 | 32497.06 | 1104.48 | 8203.03 | 45.10 | 0.56 | 0.23 | 5,894.89 |
| 10-31-2020 | 36.28 | 2652.01 | 1452.61 | 32542.10 | 840.25 | 8229.08 | 40.04 | 0.56 | 0.23 | 4,386.10 |
| 11-30-2020 | 30.57 | 2652.93 | 1459.31 | 32585.88 | 1170.17 | 8264.18 | 47.73 | 0.79 | 0.23 | 5,689.91 |
| 12-31-2020 | 40.17 | 2654.17 | 1757.41 | 32640.35 | 1278.39 | 8303.81 | 43.75 | 0.71 | 0.24 | 6,225.90 |



Routledge Unit No. 1

Pattern P-01 - 02/11-21-009-25W1/00

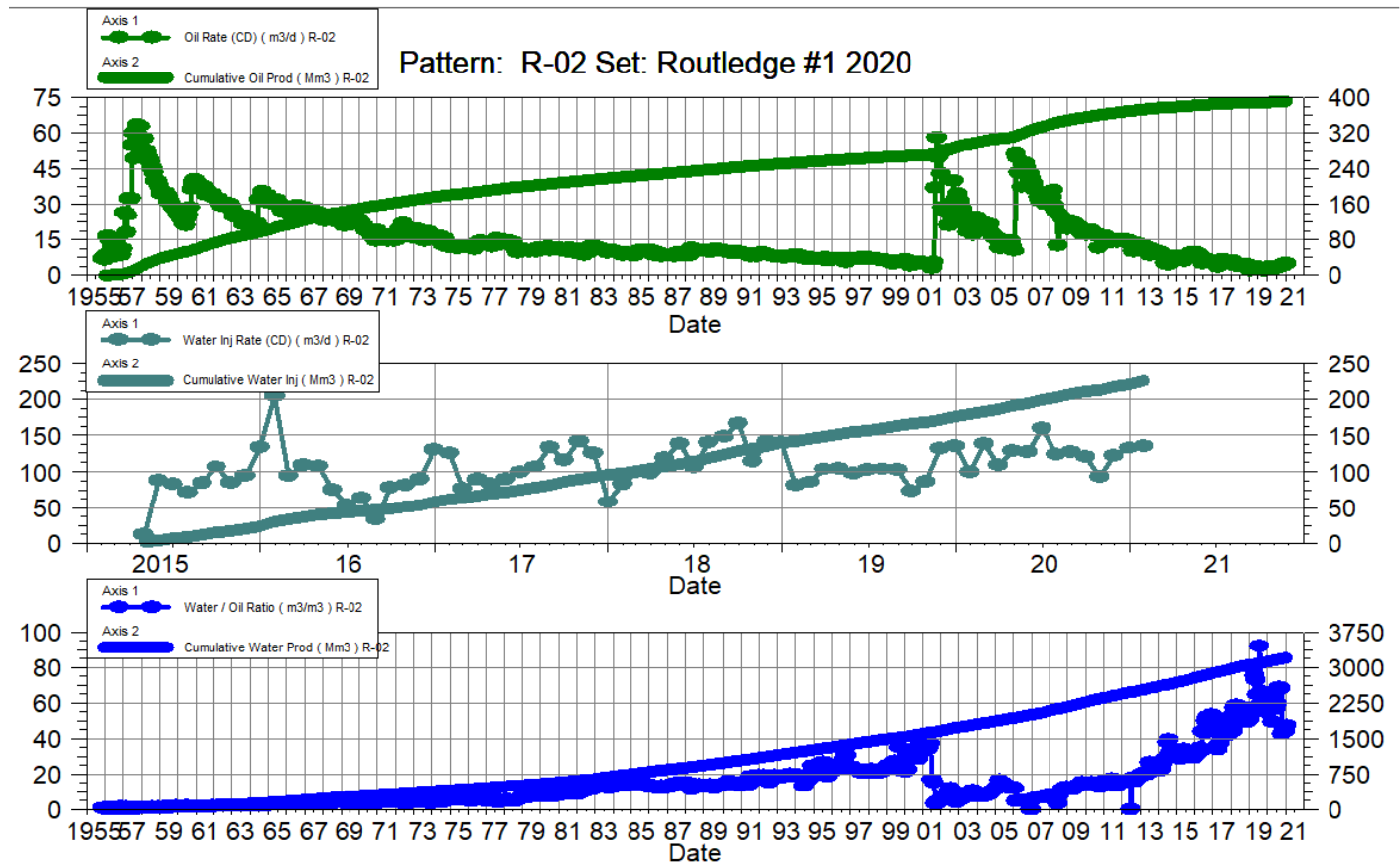
| Date | Oil Rate (CD) m3/d | Cum Oil Prod Mm3 | Water Rate (CD) m3/d | Cum Water Prod Mm3 | Water Inj Rate (CD) m3/d | Cum Water Inj Mm3 | Water Oil Ratio m3/m3 | Voidage Replacement Ratio | Cum Voidage Replacement Ratio | Water Inj Pressure kPg |
|------------|-----------------------|---------------------|-------------------------|-----------------------|-----------------------------|----------------------|--------------------------|---------------------------------|-------------------------------------|---------------------------|
| 1-31-2020 | 4.73 | 375.96 | 131.95 | 3590.81 | 151.25 | 535.45 | 27.88 | 1.11 | 0.14 | 3,930.21 |
| 2-29-2020 | 4.74 | 376.10 | 138.74 | 3594.83 | 183.53 | 540.77 | 29.28 | 1.28 | 0.14 | 3,789.17 |
| 3-31-2020 | 5.62 | 376.27 | 143.28 | 3599.27 | 200.30 | 546.98 | 25.49 | 1.34 | 0.14 | 4,460.55 |
| 4-30-2020 | 6.04 | 376.45 | 126.24 | 3603.06 | 203.02 | 553.07 | 20.92 | 1.53 | 0.14 | 4,809.15 |
| 5-31-2020 | 4.89 | 376.60 | 115.85 | 3606.65 | 202.85 | 559.36 | 23.70 | 1.68 | 0.14 | 5,367.73 |
| 6-30-2020 | 4.87 | 376.75 | 106.65 | 3609.85 | 195.33 | 565.22 | 21.88 | 1.75 | 0.14 | 5,642.28 |
| 7-31-2020 | 4.43 | 376.89 | 99.00 | 3612.92 | 116.60 | 568.83 | 22.33 | 1.13 | 0.14 | 5,533.19 |
| 8-31-2020 | 4.83 | 377.04 | 116.39 | 3616.53 | 128.55 | 572.82 | 24.07 | 1.06 | 0.14 | 5,899.03 |
| 9-30-2020 | 4.75 | 377.18 | 115.11 | 3619.98 | 151.53 | 577.36 | 24.25 | 1.26 | 0.14 | 5,632.57 |
| 10-31-2020 | 5.15 | 377.34 | 91.85 | 3622.83 | 117.24 | 581.00 | 17.85 | 1.21 | 0.15 | 4,172.87 |
| 11-30-2020 | 2.77 | 377.42 | 59.08 | 3624.60 | 169.94 | 586.10 | 21.34 | 2.75 | 0.15 | 5,421.17 |
| 12-31-2020 | 4.76 | 377.57 | 100.51 | 3627.72 | 193.57 | 592.10 | 21.13 | 1.84 | 0.15 | 5,970.53 |



Routledge Unit No. 1

Pattern P-02 - 02/04-27-009-25W1/00

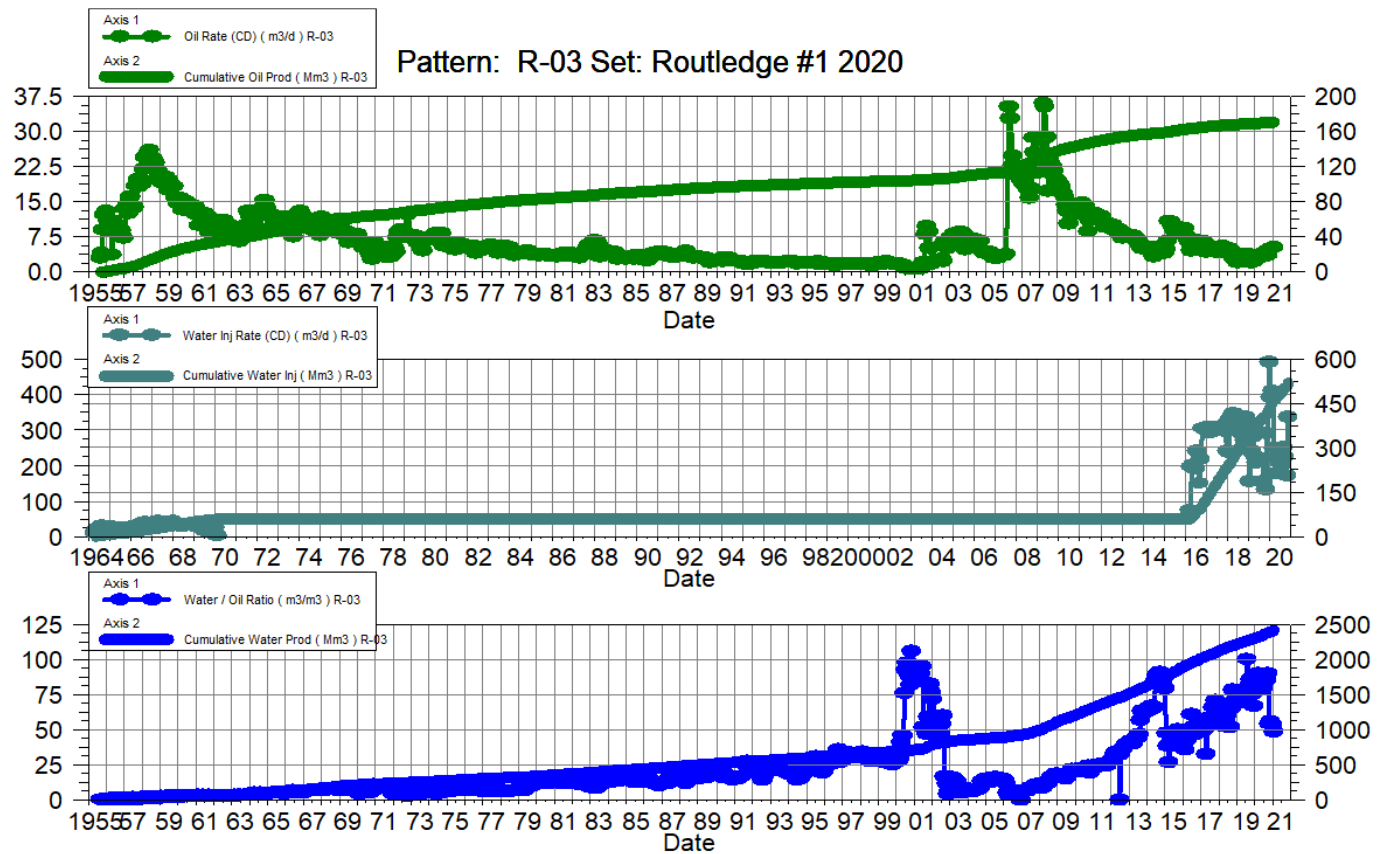
| Date | Oil Rate (CD) m3/d | Cum Oil Prod Mm3 | Water Rate (CD) m3/d | Cum Water Prod Mm3 | Water Inj Rate (CD) m3/d | Cum Water Inj Mm3 | Water Oil Ratio m3/m3 | Voidage Replacement Ratio | Cum Voidage Replacement Ratio | Water Inj Pressure kPg |
|------------|-----------------------|---------------------|-------------------------|-----------------------|-----------------------------|----------------------|--------------------------|---------------------------------|-------------------------------------|---------------------------|
| 1-31-2020 | 3.85 | 390.75 | 218.72 | 3121.59 | 98.92 | 180.53 | 56.74 | 0.44 | 0.05 | 4,184.24 |
| 2-29-2020 | 3.48 | 390.85 | 215.11 | 3127.83 | 139.51 | 184.57 | 61.73 | 0.64 | 0.05 | 4,049.58 |
| 3-31-2020 | 3.58 | 390.96 | 224.57 | 3134.79 | 108.76 | 187.94 | 62.75 | 0.48 | 0.05 | 4,736.94 |
| 4-30-2020 | 2.67 | 391.04 | 131.43 | 3138.73 | 128.52 | 191.80 | 49.32 | 0.96 | 0.05 | 5,075.52 |
| 5-31-2020 | 3.62 | 391.16 | 222.46 | 3145.63 | 126.90 | 195.73 | 61.46 | 0.56 | 0.06 | 5,661.33 |
| 6-30-2020 | 3.77 | 391.27 | 213.72 | 3152.04 | 160.75 | 200.56 | 56.64 | 0.74 | 0.06 | 5,951.34 |
| 7-31-2020 | 3.60 | 391.38 | 213.59 | 3158.66 | 123.74 | 204.39 | 59.38 | 0.57 | 0.06 | 5,833.35 |
| 8-31-2020 | 3.44 | 391.49 | 235.14 | 3165.95 | 127.84 | 208.36 | 68.35 | 0.54 | 0.06 | 6,165.97 |
| 9-30-2020 | 3.48 | 391.59 | 235.72 | 3173.02 | 121.27 | 211.99 | 67.64 | 0.51 | 0.06 | 5,874.06 |
| 10-31-2020 | 4.50 | 391.73 | 191.71 | 3178.96 | 92.29 | 214.85 | 42.65 | 0.47 | 0.06 | 4,411.01 |
| 11-30-2020 | 4.17 | 391.86 | 193.46 | 3184.77 | 121.97 | 218.51 | 46.45 | 0.62 | 0.06 | 5,682.39 |
| 12-31-2020 | 4.98 | 392.01 | 218.25 | 3191.53 | 133.26 | 222.64 | 43.82 | 0.60 | 0.06 | 6,238.76 |



Routledge Unit No. 1

Pattern P-03 - 02/09-29-009-25W1/00

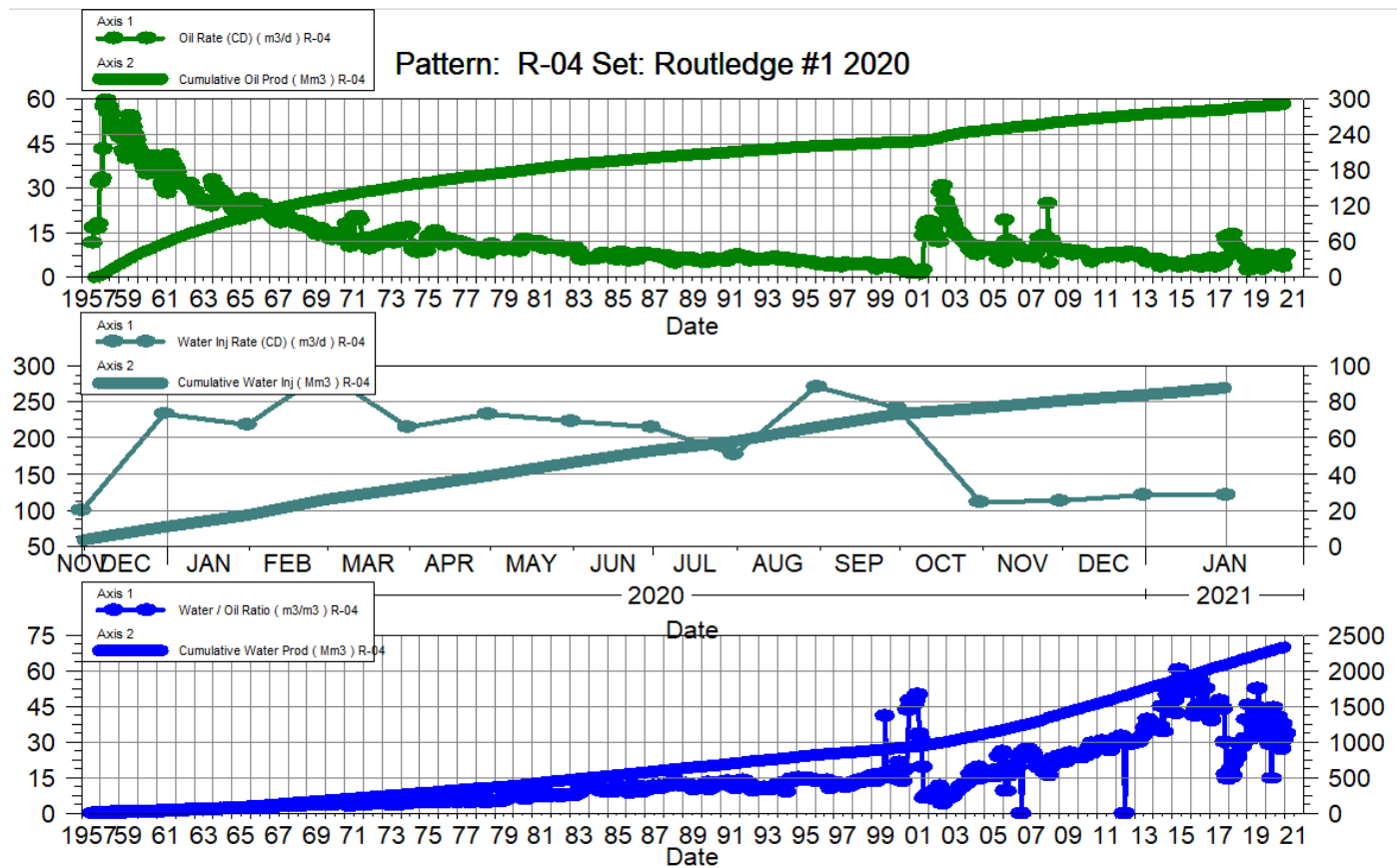
| Date | Oil Rate (CD) m3/d | Cum Oil Prod Mm3 | Water Rate (CD) m3/d | Cum Water Prod Mm3 | Water Inj Rate (CD) m3/d | Cum Water Inj Mm3 | Water Oil Ratio m3/m3 | Voidage Replacement Ratio | Cum Voidage Replacement Ratio | Water Inj Pressure kPg |
|------------|-----------------------|---------------------|-------------------------|-----------------------|-----------------------------|----------------------|--------------------------|---------------------------------|-------------------------------------|---------------------------|
| 1-31-2020 | 3.13 | 169.87 | 245.20 | 2300.19 | 394.87 | 445.69 | 78.32 | 1.59 | 0.18 | 4,251.95 |
| 2-29-2020 | 3.05 | 169.96 | 267.21 | 2307.94 | 412.92 | 457.67 | 87.71 | 1.53 | 0.18 | 4,107.93 |
| 3-31-2020 | 3.16 | 170.06 | 284.15 | 2316.75 | 250.05 | 465.42 | 89.93 | 0.87 | 0.19 | 4,797.16 |
| 4-30-2020 | 3.50 | 170.16 | 300.18 | 2325.76 | 178.09 | 470.76 | 85.73 | 0.59 | 0.19 | 5,142.55 |
| 5-31-2020 | 3.61 | 170.27 | 309.46 | 2335.35 | 222.06 | 477.65 | 85.81 | 0.71 | 0.19 | 5,736.26 |
| 6-30-2020 | 3.97 | 170.39 | 313.27 | 2344.75 | 208.03 | 483.89 | 78.96 | 0.66 | 0.19 | 6,021.41 |
| 7-31-2020 | 3.65 | 170.51 | 303.44 | 2354.15 | 242.52 | 491.40 | 83.08 | 0.79 | 0.19 | 5,901.82 |
| 8-31-2020 | 3.71 | 170.62 | 314.27 | 2363.90 | 251.57 | 499.20 | 84.77 | 0.79 | 0.20 | 6,235.01 |
| 9-30-2020 | 3.54 | 170.73 | 317.13 | 2373.41 | 225.91 | 505.98 | 89.52 | 0.70 | 0.20 | 5,936.52 |
| 10-31-2020 | 4.72 | 170.87 | 255.52 | 2381.33 | 170.63 | 511.27 | 54.19 | 0.66 | 0.20 | 4,457.73 |
| 11-30-2020 | 4.93 | 171.02 | 275.00 | 2389.58 | 339.45 | 521.45 | 55.72 | 1.21 | 0.20 | 5,750.41 |
| 12-31-2020 | 5.19 | 171.18 | 278.23 | 2398.21 | 521.45 | 53.65 | 0.20 | | | 6,316.35 |



Routledge Unit No. 1

Pattern P-04 - 02/04-22-009-25W1/00

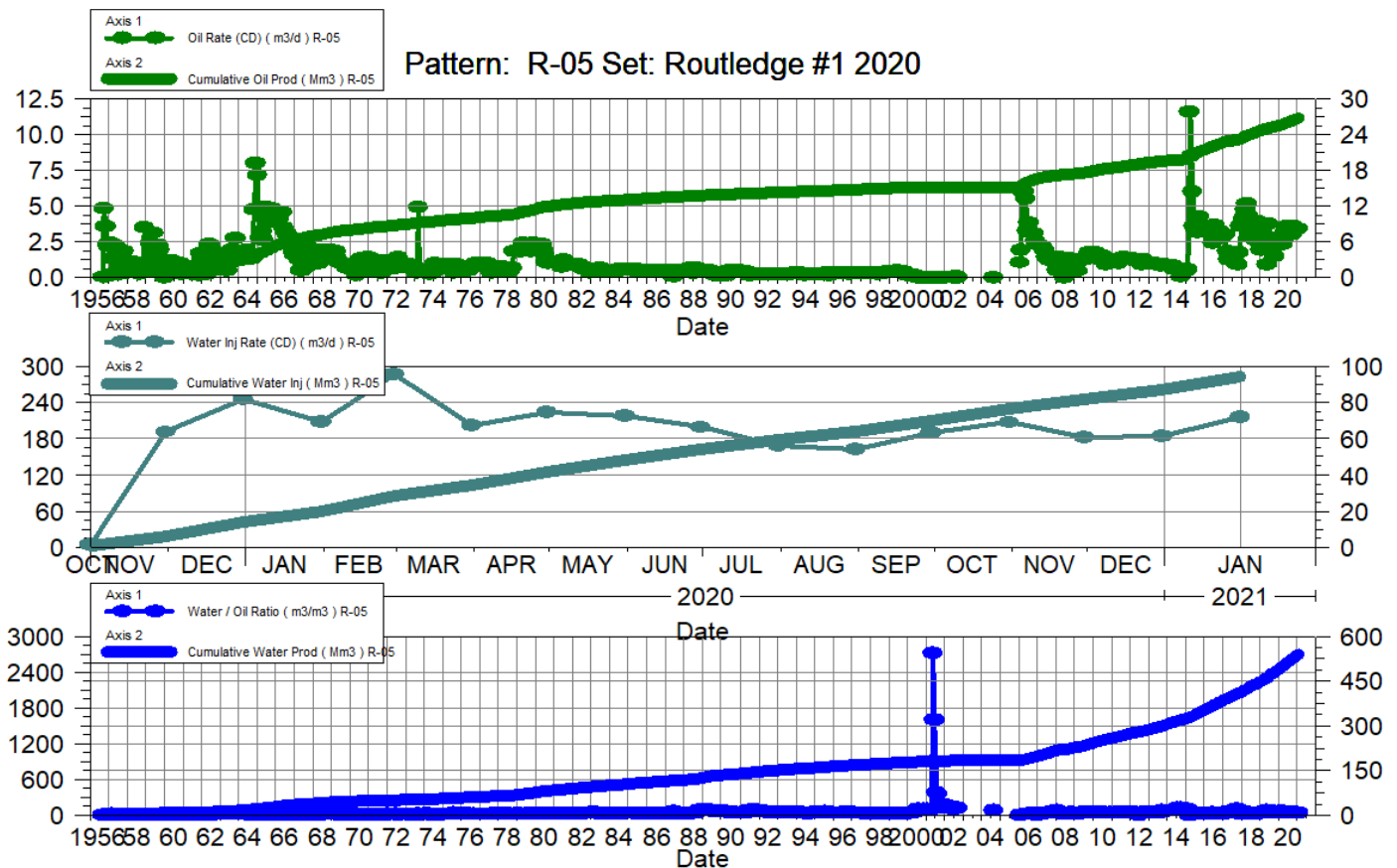
| Date | Oil Rate (CD) m3/d | Cum Oil Prod Mm3 | Water Rate (CD) m3/d | Cum Water Prod Mm3 | Water Inj Rate (CD) m3/d | Cum Water Inj Mm3 | Water Oil Ratio m3/m3 | Voidage Replacement Ratio | Cum Voidage Replacement Ratio | Water Inj Pressure kPg |
|------------|-----------------------|---------------------|-------------------------|-----------------------|-----------------------------|----------------------|--------------------------|---------------------------------|-------------------------------------|---------------------------|
| 1-31-2020 | 6.89 | 289.56 | 222.49 | 2258.99 | 219.32 | 17.07 | 32.28 | 0.96 | 0.01 | 4,181.02 |
| 2-29-2020 | 6.36 | 289.74 | 226.60 | 2265.56 | 292.53 | 25.55 | 35.61 | 1.26 | 0.01 | 4,036.97 |
| 3-31-2020 | 7.29 | 289.97 | 210.87 | 2272.09 | 215.58 | 32.24 | 28.91 | 0.99 | 0.01 | 4,718.71 |
| 4-30-2020 | 7.10 | 290.18 | 104.48 | 2275.23 | 233.70 | 39.25 | 14.71 | 2.09 | 0.02 | 5,041.91 |
| 5-31-2020 | 4.74 | 290.33 | 211.13 | 2281.77 | 223.77 | 46.19 | 44.57 | 1.04 | 0.02 | 5,622.98 |
| 6-30-2020 | 5.38 | 290.49 | 219.88 | 2288.37 | 215.97 | 52.66 | 40.85 | 0.96 | 0.02 | 5,926.50 |
| 7-31-2020 | 6.22 | 290.68 | 246.22 | 2296.00 | 177.05 | 58.15 | 39.60 | 0.70 | 0.02 | 5,796.72 |
| 8-31-2020 | 6.60 | 290.88 | 265.58 | 2304.24 | 271.74 | 66.58 | 40.24 | 1.00 | 0.03 | 6,156.38 |
| 9-30-2020 | 6.24 | 291.07 | 211.60 | 2310.58 | 243.14 | 73.87 | 33.90 | 1.12 | 0.03 | 5,875.72 |
| 10-31-2020 | 4.53 | 291.21 | 122.00 | 2314.37 | 110.34 | 77.29 | 26.95 | 0.87 | 0.03 | 4,407.56 |
| 11-30-2020 | 3.49 | 291.32 | 129.98 | 2318.27 | 113.28 | 80.69 | 37.20 | 0.85 | 0.03 | 5,603.33 |
| 12-31-2020 | 7.45 | 291.55 | 229.59 | 2325.38 | 120.64 | 84.43 | 30.81 | 0.51 | 0.03 | 6,111.13 |



Routledge Unit No. 1

Pattern P-05 - 02/02-32-009-25W1/00

| 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 kPg |
|------------|-----------------------|---------------------|-------------------------|-----------------------|-----------------------------|----------------------|--------------------------|---------------------------------|-------------------------------------|---------------------------|
| 1-31-2020 | 2.59 | 25.65 | 130.99 | 489.14 | 208.35 | 19.97 | 50.57 | 1.56 | 0.04 | 4,163.61 |
| 2-29-2020 | 2.42 | 25.72 | 136.24 | 493.09 | 288.06 | 28.33 | 56.24 | 2.08 | 0.06 | 4,036.79 |
| 3-31-2020 | 2.31 | 25.79 | 145.23 | 497.60 | 203.65 | 34.64 | 62.92 | 1.38 | 0.07 | 4,741.85 |
| 4-30-2020 | 2.66 | 25.87 | 146.83 | 502.00 | 225.57 | 41.41 | 55.20 | 1.51 | 0.08 | 5,057.74 |
| 5-31-2020 | 3.27 | 25.97 | 142.69 | 506.42 | 218.23 | 48.17 | 43.60 | 1.49 | 0.09 | 5,638.86 |
| 6-30-2020 | 3.57 | 26.08 | 142.81 | 510.71 | 199.94 | 54.17 | 39.99 | 1.37 | 0.10 | 5,948.79 |
| 7-31-2020 | 3.27 | 26.18 | 137.72 | 514.98 | 169.48 | 59.42 | 42.14 | 1.20 | 0.11 | 5,808.35 |
| 8-31-2020 | 3.12 | 26.28 | 143.35 | 519.42 | 162.57 | 64.46 | 45.94 | 1.11 | 0.12 | 6,135.76 |
| 9-30-2020 | 3.03 | 26.37 | 144.04 | 523.74 | 191.17 | 70.20 | 47.55 | 1.30 | 0.13 | 5,842.76 |
| 10-31-2020 | 3.59 | 26.48 | 114.32 | 527.29 | 208.01 | 76.65 | 31.88 | 1.76 | 0.14 | 4,396.09 |
| 11-30-2020 | 3.35 | 26.58 | 113.05 | 530.68 | 183.32 | 82.15 | 33.80 | 1.57 | 0.15 | 5,655.27 |
| 12-31-2020 | 3.40 | 26.68 | 123.36 | 534.50 | 185.19 | 87.89 | 36.26 | 1.46 | 0.16 | 6,177.84 |



Routledge Unit No. 1

Pattern P-06 - 02/11-32-009-25W1/00

| 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 kPg |
|------------|-----------------------|---------------------|-------------------------|-----------------------|-----------------------------|----------------------|--------------------------|---------------------------------|-------------------------------------|---------------------------|
| 1-31-2020 | 1.18 | 148.65 | 90.74 | 2033.41 | 234.32 | 21.85 | 76.75 | 2.55 | 0.01 | 4,516.45 |
| 2-29-2020 | 1.12 | 148.68 | 95.22 | 2036.17 | 296.64 | 30.45 | 85.36 | 3.08 | 0.01 | 4,390.94 |
| 3-31-2020 | 0.92 | 148.71 | 100.47 | 2039.28 | 222.71 | 37.35 | 109.48 | 2.20 | 0.02 | 5,107.38 |
| 4-30-2020 | 0.45 | 148.72 | 63.18 | 2041.18 | 240.13 | 44.56 | 140.40 | 3.77 | 0.02 | 5,405.80 |
| 5-31-2020 | 1.14 | 148.76 | 96.63 | 2044.18 | 222.61 | 51.46 | 84.50 | 2.28 | 0.02 | 5,989.17 |
| 6-30-2020 | 1.25 | 148.79 | 96.89 | 2047.08 | 206.45 | 57.65 | 77.40 | 2.10 | 0.03 | 6,301.62 |
| 7-31-2020 | 1.15 | 148.83 | 93.62 | 2049.98 | 159.23 | 62.59 | 81.41 | 1.68 | 0.03 | 6,149.63 |
| 8-31-2020 | 0.98 | 148.86 | 98.01 | 2053.02 | 169.05 | 67.83 | 99.95 | 1.71 | 0.03 | 6,511.04 |
| 9-30-2020 | 0.90 | 148.89 | 97.16 | 2055.94 | 171.45 | 72.97 | 107.96 | 1.75 | 0.03 | 6,207.69 |
| 10-31-2020 | 1.18 | 148.92 | 77.33 | 2058.34 | 141.74 | 77.37 | 65.32 | 1.81 | 0.04 | 4,471.33 |
| 11-30-2020 | 0.82 | 148.95 | 60.74 | 2060.16 | 242.21 | 84.63 | 73.92 | 3.93 | 0.04 | 6,026.88 |
| 12-31-2020 | 2.22 | 149.02 | 117.08 | 2063.79 | 297.73 | 93.86 | 52.79 | 2.50 | 0.04 | 6,540.79 |

