

VIRDEN ROSELEA UNIT No. 3
PROGRESS REPORT
January 1 to December 31, 2010

Enerplus Corporation
Manitoba Team
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Introduction

Viriden Roselea Unit No. 3 became effective December, 1966. This report summarizes the operations of the Unit for the period from January 1 to December 31, 2010 and discusses the performance of the Project to date. The area map of the Viriden Roselea Unit No. 3 is shown in Figure 1.

Discussion

Oil Production

In 2010, oil production rate for the Unit averaged 36.6 m³/d with a WOR of 38.9 m³/ m³. In comparison, the average oil production rate for 2009 was 42.6 m³/d with a WOR of 28.9 m³/m³. The decrease in oil production is partly the result of increasing water cut and shut-in of a number of producers due to inadequate water handling capacity. No new wells were drilled in 2010 in this Unit. A list of well servicing jobs in 2010 is shown in Table 1.

Total oil production in 2010 is 13,351 m³. Cumulative oil since commencement of production is 2,553.4 E³m³. Details of the production data are shown in Table 4 as well as graphically in the attached figures.

Water Injection

Average water injection rate for the Unit in 2010 was 1422 m³/d, an increase from the 2009 average rate of 1231 m³/d. There were no conversions in the Unit during 2010.

Cumulative water injected to December 31, 2010 is 42,781 E³m³. Details of the water injection data are also shown in Table 4 as well as the attached figures.

Voidage

The total project voidage during 2010 was 530.18 E³rm³, resulting in the voidage replacement ratio (VRR) of 0.979. It is important to note that there is an aquifer of moderate strength that is providing pressure support to the west side of the Unit, near Sections 2, 3, and 10-010-26 W1M. The VRR calculation does not account for the water influx since its exact rate of production at the wells is difficult to quantify. All the water produced from Roselea Unit 3 is injected back into the reservoir and is included in the injection volume for voidage calculations.

Cumulative total voidage from commencement of production to December 31, 2010 is 25,142 E³rm³ and the cumulative VRR is 0.79. Oil formation volume factor used in calculations is 1.05 rm³/stm³. Detailed voidage calculations are shown in Table 4.

Reservoir Pressure

In 2010, reservoir pressure has been recorded in 13 wells. All of the pressure tests were AWS (Acoustic Well Sounder) measurements. The bottomhole pressures range from approx. 7,200 kPa to 10,850 kPa, depending on the well location and voidage replacement history etc.

Based on the available pressure tests, the average reservoir pressure in the Unit in 2010 is 8470 kPa. A summary of the pressure data is given in Table 2.

Recovery

Based on the current estimated OOIP of 239,740 E3rm³, current recovery factor is 18.6%.

Waterflood Patterns

The Virden Roselea Unit No. 3 waterflood was originally developed mainly as inverted 9-spot patterns, which are still considered to be the waterflood patterns over a large area in the Unit. However, there are a few exceptions, particularly near the boundaries of the Unit: such as 00/14-07 (inverted 5-spot), 00/10-07 (inverted 8-spot), and 00/12-18 and 00/02-18 (inverted 6-spots) etc. The current waterflood patterns map is shown in Figure 2.

A list of waterflood patterns and corresponding injectors is given in Table 3. Table 4 provides detailed production, injection, pressure and voidage for each pattern.

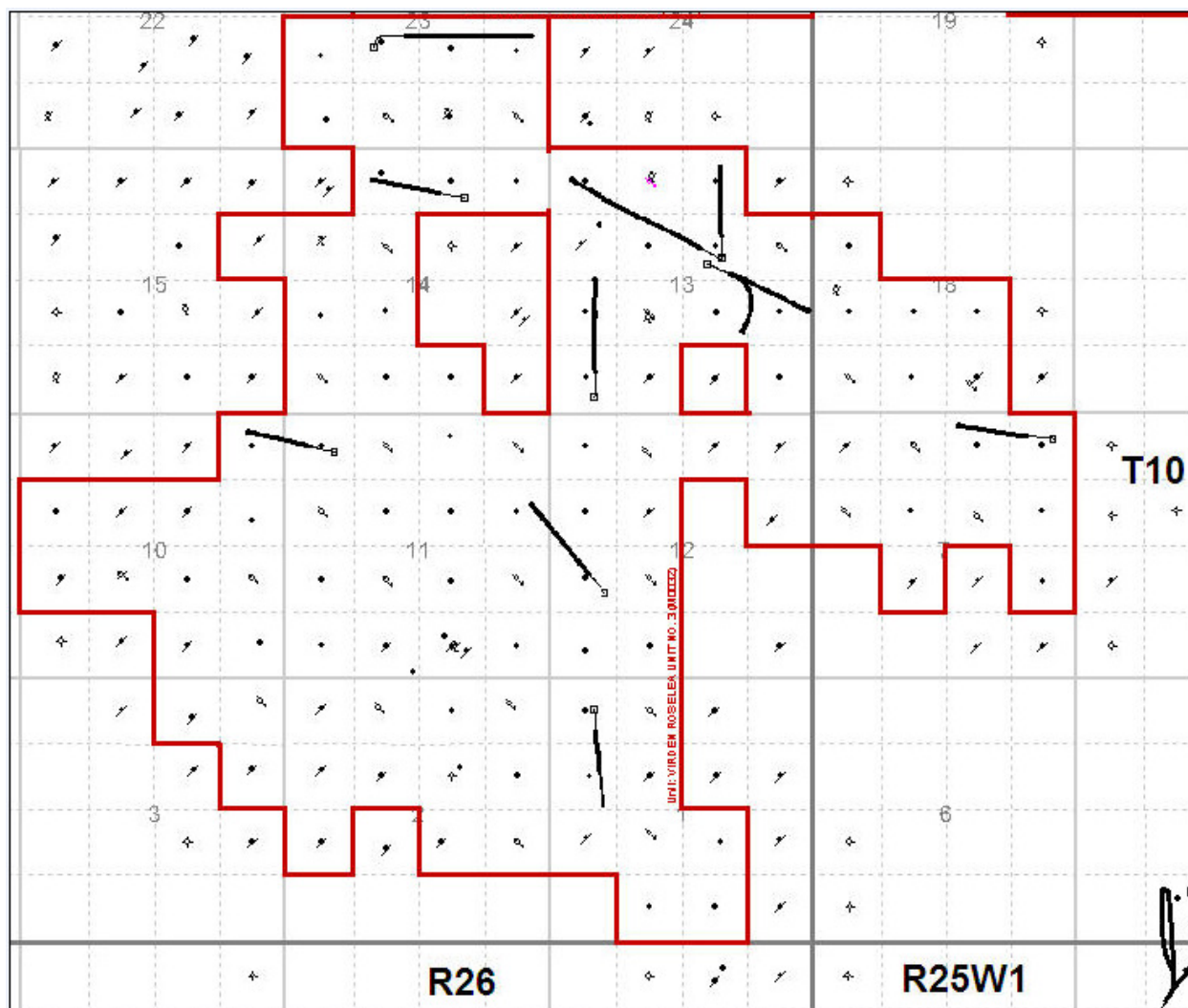


Figure 1: Virden Roselea Unit No. 3 Map

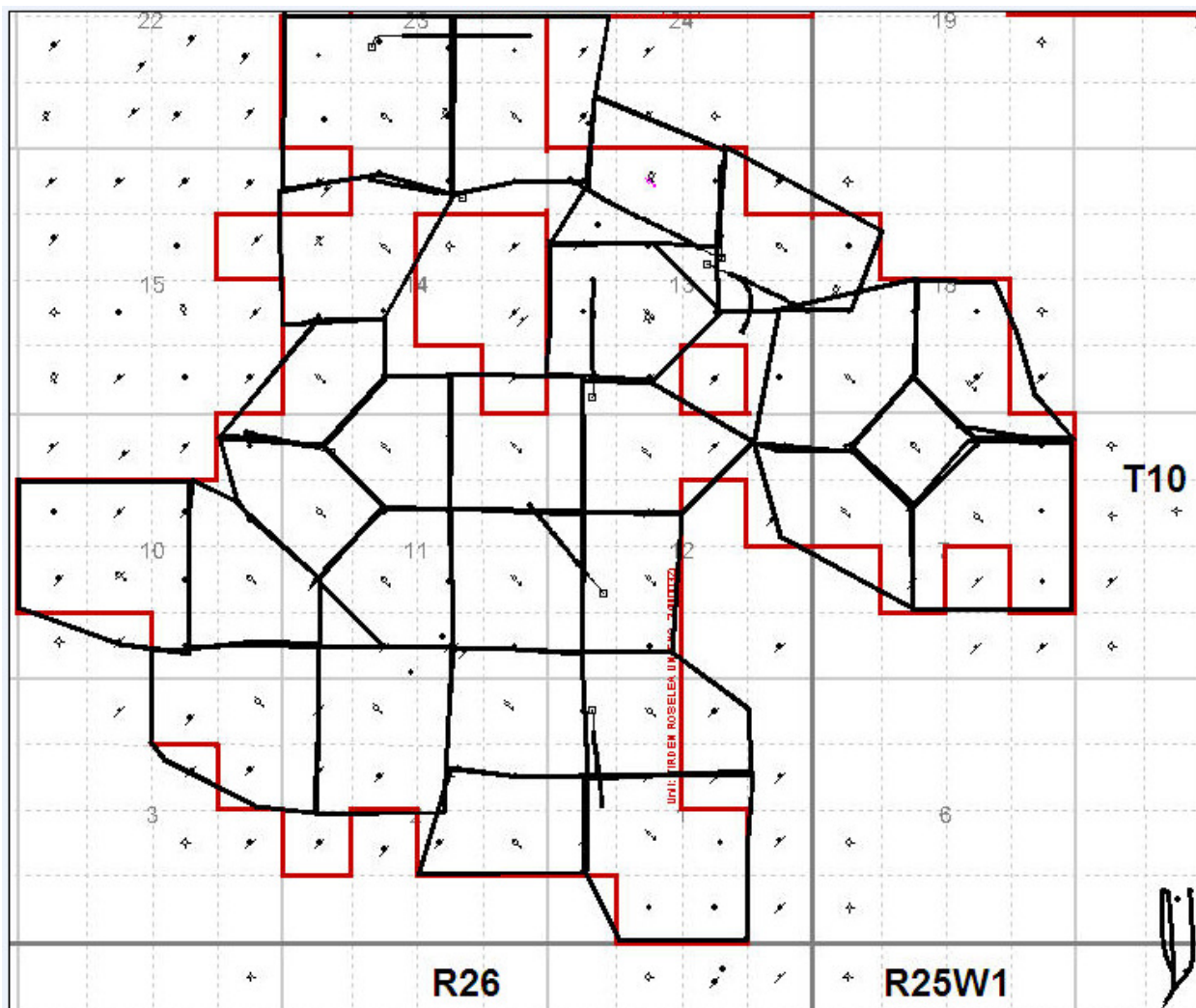


Figure 2: Pattern Map

Table 1: Well Servicing Report

UWI	Start Date	Type	Objective
100/04-11-010-26W1/00	1/13/2010	Recompletion	Recompletion
100/12-12-010-26W1/00	1/18/2010	Recompletion	Recompletion
100/04-11-010-26W1/00	2/25/2010	Recompletion	Water shut off
100/12-12-010-26W1/00	2/27/2010	Recompletion	Water shut off
100/12-10-010-26W1/00	5/26/2010	Maintenance	Corrosion inhibitor squeeze
100/13-12-010-26W1/00	5/28/2010	Workover	Recompletion
100/11-11-010-26W1/00	6/9/2010	Workover	Recompletion
100/09-02-010-26W1/00	6/14/2010	Recompletion	Deepen well to 640.5 mKB
100/03-23-010-26W1/00	6/21/2010	Maintenance	Annual annulus pressure test
100/01-23-010-26W1/00	6/21/2010	Maintenance	Annual annulus pressure test
100/14-13-010-26W1/00	6/21/2010	Maintenance	Annual annulus pressure test
100/09-13-010-26W1/00	6/21/2010	Maintenance	Annual annulus pressure test
100/04-18-010-25W1/00	6/22/2010	Maintenance	Annual annulus pressure test
100/14-11-010-26W1/00	6/22/2010	Maintenance	Annual annulus pressure test
100/12-11-010-26W1/00	6/22/2010	Maintenance	Annual annulus pressure test
100/06-11-010-26W1/00	6/22/2010	Maintenance	Annual annulus pressure test
100/11-14-010-26W1/00	6/22/2010	Maintenance	Annual annulus pressure test
100/04-14-010-26W1/00	6/22/2010	Maintenance	Annual annulus pressure test
100/08-10-010-26W1/00	6/22/2010	Maintenance	Annual annulus pressure test
100/06-12-010-26W1/00	6/22/2010	Maintenance	Annual annulus pressure test
100/14-01-010-26W1/00	6/22/2010	Maintenance	Annual annulus pressure test
100/14-02-010-26W1/00	6/22/2010	Maintenance	Annual annulus pressure test
100/14-12-010-26W1/00	6/22/2010	Maintenance	Annual annulus pressure test
100/16-11-010-26W1/00	6/22/2010	Maintenance	Annual annulus pressure test
100/08-11-010-26W1/00	6/22/2010	Maintenance	Annual annulus pressure test
100/14-07-010-25W1/00	6/23/2010	Maintenance	Annual annulus pressure test
100/10-07-010-25W1/00	6/23/2010	Maintenance	Annual annulus pressure test
100/06-13-010-26W1/00	6/23/2010	Maintenance	Annual annulus pressure test
100/02-14-010-26W1/00	7/26/2010	Workover	MOSR to workover well
100/11-11-010-26W1/00	8/10/2010	Workover	Water Shut Off
100/09-02-010-26W1/00	8/17/2010	Workover	Swab, evaluate for potential water shut off
100/04-23-010-26W1/00	8/23/2010	Flush By	Strip out rod string
100/12-11-010-26W1/00	8/27/2010	Workover	Perform a Gyp-X2 squeeze on the existing perforations, add perms and perform a selective acid job on the new perms
100/14-11-010-26W1/00	9/7/2010	Workover	Pump Gyp-X2 prior to recompletion
100/14-12-010-26W1/00	9/7/2010	Workover	Pump Gyp-X treatment, new perms, acidize
100/06-11-010-26W1/00	9/13/2010	Workover	Gyp-X squeeze
100/02-14-010-26W1/00	9/30/2010	Workover	Swab test for water shut-off
100/12-10-010-26W1/00	10/14/2010	Maintenance	Corrosion inhibitor squeeze
100/08-02-010-26W1/00	11/8/2010	Flush By	Flow back well and flow line to clean up prior to Gyp-X2 squeeze.
100/16-02-010-26W1/00	11/9/2010	Maintenance	Flow back well and flow line
100/14-01-010-26W1/00	11/9/2010	Flush By	Flow back well and flow line
100/06-01-010-26W1/00	11/10/2010	Flush By	Flow back well and flow line prep for Gyp-X2

Table 2: 2010 Pressure Surveys

UWI	Test Date	Test Type	Shut-in since	Shut-in Period (days)	BH Pressure (kPaa)
100/08-07-010-25W1	November 22, 2010	AWS	November 16, 2005	1832	8,270
100/09-07-010-25W1	November 22, 2010	AWS	August 10, 2008	834	9,584
100/11-07-010-25W1	November 22, 2010	AWS	August 2, 2008	842	9,512
100/12-18-010-25W1	November 22, 2010	AWS	January 1, 2010	325	7,198
100/13-01-010-26W1	November 22, 2010	AWS	March 30, 2008	967	9,069
100/01-11-010-26W1	November 4, 2010	AWS	March 31, 2008	948	10,852
100/10-11-010-26W1	November 22, 2010	AWS	February 16, 2010	279	9,948
100/02-14-010-26W1	November 4, 2010	AWS	October 10, 2010	25	7,337
100/05-14-010-26W1	November 4, 2010	AWS	August 17, 2004	2270	8,249
100/04-23-010-26W1	November 12, 2010	AWS	September 21, 2010	52	6,596
100/05-23-010-26W1	November 12, 2010	AWS	September 21, 2010	52	6,526
100/05-05-011-25W1	November 22, 2010	AWS	September 29, 2008	784	8,515
100/01-07-011-25W1	November 22, 2010	AWS	December 4, 2007	1084	8,459
		AVERAGE RESERVOIR PRESSURE in 2010 -->			8470

Table 3: Waterflood Patterns and Corresponding Injectors

Pattern	Well
PAT 01-23	00/01-23-010-26W1/0
PAT 02-18	00/02-18-010-26W1/0
PAT 04-18	00/04-18-010-26W1/0
PAT 06-01	00/06-01-010-26W1/0
PAT 06-10	00/06-10-010-26W1/0
PAT 06-11	00/06-11-010-26W1/0
PAT 06-12	00/06-12-010-26W1/0
PAT 06-13	00/06-13-010-26W1/0
PAT 08-02	00/08-02-010-26W1/0
PAT 08-10	00/08-10-010-26W1/0
PAT 08-11	00/08-11-010-26W1/0
PAT 09-13	00/09-13-010-26W1/0
PAT 10-07	00/10-07-010-26W1/0
PAT 11-14	00/11-14-010-26W1/0
PAT 12-07	00/12-07-010-26W1/0
PAT 12-11	00/12-11-010-26W1/0
PAT 14-11	00/14-11-010-26W1/0
PAT 14-02	00/14-02-010-26W1/0
PAT 14-07	00/14-07-010-26W1/0
PAT 14-11	00/14-11-010-26W1/0
PAT 14-12	00/14-12-010-26W1/0
PAT 14-13	00/14-13-010-26W1/0
PAT 16-02	00/16-02-010-26W1/0
PAT 16-03	00/16-03-010-26W1/0
PAT 16-11	00/16-11-010-26W1/0

Table 4

Virden Roselea Unit No. 3

Total for Project

Date	Monthly Oil Prod m3	Oil Rate (CD) m3/d	Monthly Water Prod m3	Water Rate (CD) m3/d	Water Oil Ratio m3/m3	Monthly Water Inj m3	Water Inj Rate (CD) m3/d	Water Inj Press kpa	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio
Jan-10	1240.30	40.01	44224.50	1426.60	35.66	46535.00	1501.13	5467	1.002	0.786
Feb-10	1063.30	37.98	40539.50	1447.84	38.13	41553.00	1484.04	5450	1.083	0.787
Mar-10	1262.70	40.73	45770.40	1476.46	36.25	45983.00	1483.32	5454	0.957	0.787
Apr-10	1085.50	36.18	41704.10	1390.14	38.42	41937.00	1397.90	5451	0.992	0.787
May-10	1122.10	36.20	53438.70	1723.83	47.62	53269.00	1718.35	5473	0.956	0.788
Jun-10	1032.70	34.42	15152.80	505.09	14.67	15495.00	516.50	5490	0.967	0.788
Jul-10	1196.50	38.60	43615.30	1406.95	36.45	43963.90	1418.19	5326	0.961	0.788
Aug-10	1181.50	38.11	54739.00	1765.77	46.33	54290.40	1751.30	5371	0.951	0.789
Sep-10	1177.50	39.25	46651.00	1555.03	39.62	46569.00	1552.30	5390	0.985	0.789
Oct-10	1045.30	33.72	46465.10	1498.87	44.45	45986.00	1483.42	4944	0.948	0.789
Nov-10	899.60	29.99	40547.80	1351.59	45.07	40618.00	1353.93	4612	0.992	0.790
Dec-10	1043.40	33.66	43268.80	1395.77	41.47	43622.00	1407.16	4549	0.964	0.790
Cumulative Oil Produced (E3m3)					2553.241					
Cumulative Water Produced (E3m3)					22458.599					
Cumulative Water Injected (E3m3)					19783.550					

Table 4

Virden Roselea Unit No. 3

Pattern: PAT 01-23

Date	Monthly Oil Prod m3	Oil Rate (CD) m3/d	Monthly Water Prod m3	Water Rate (CD) m3/d	Water Oil Ratio m3/m3	Monthly Water Inj m3	Water Inj Rate (CD) m3/d	Water Inj Press kpa	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio
Jan-10	66.35	2.14	990.34	31.95	14.93	851.00	27.45		0.787	1.246
Feb-10	57.96	2.07	904.18	32.29	15.60	697.00	24.89	4900	0.784	1.245
Mar-10	62.92	2.03	1038.13	33.49	16.50	1126.00	36.32	4900	1.000	1.244
Apr-10	55.33	1.84	997.14	33.24	18.02	945.00	31.50	4897	0.907	1.244
May-10	58.86	1.90	1357.95	43.80	23.07	1160.00	37.42	4800	0.801	1.243
Jun-10	55.81	1.86	365.79	12.19	6.55	1345.00	44.83		3.211	1.244
Jul-10	61.01	1.97	971.46	31.34	15.92	4842.40	156.21		4.586	1.250
Aug-10	61.31	1.98	1245.44	40.18	20.31	4472.00	144.26		3.348	1.254
Sep-10	59.77	1.99	1088.19	36.27	18.21	4318.00	143.93		3.802	1.259
Oct-10	60.46	1.95	1193.10	38.49	19.73	4464.00	144.00	3597	3.484	1.263
Nov-10	55.93	1.86	1214.37	40.48	21.71	3883.00	129.43	3577	3.091	1.267
Dec-10	59.44	1.92	1006.87	32.48	16.94	4570.00	147.42	3010	4.191	1.272
Cumulative Oil Produced (E3m3)					96.704					
Cumulative Water Produced (E3m3)					544.590					
Cumulative Water Injected (E3m3)					816.516					

Table 4

Virden Roselea Unit No. 3

Pattern: PAT 02-18

Date	Monthly Oil Prod m3	Oil Rate (CD) m3/d	Monthly Water Prod m3	Water Rate (CD) m3/d	Water Oil Ratio m3/m3	Monthly Water Inj m3	Water Inj Rate (CD) m3/d	Water Inj Press kpa	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio
Jan-10	69.85	2.25	1011.21	32.62	14.48	4110.00	132.58		3.716	0.972
Feb-10	61.01	2.18	923.33	32.98	15.13	3710.00	132.50	5400	4.079	0.977
Mar-10	66.39	2.14	1060.27	34.20	15.97	3570.00	115.16	5400	3.098	0.981
Apr-10	58.17	1.94	1018.38	33.95	17.51	3471.00	115.70	5400	3.258	0.985
May-10	61.63	1.99	1369.61	44.18	22.22	3100.00	100.00	5400	2.119	0.988
Jun-10	59.22	1.97	378.50	12.62	6.39	1008.00	33.60		2.318	0.989
Jul-10	67.00	2.16	1031.23	33.27	15.39	2597.00	83.77		2.312	0.991
Aug-10	55.46	1.79	1335.96	43.10	24.09	3096.00	99.87		2.178	0.994
Sep-10	53.87	1.80	1172.60	39.09	21.77	2174.00	72.47		1.792	0.995
Oct-10	53.29	1.72	1221.46	39.40	22.92	1300.00	41.94	5568	0.998	0.995
Nov-10	49.60	1.65	1258.17	41.94	25.37	1689.00	56.30	5007	1.306	0.996
Dec-10	52.74	1.70	1043.08	33.65	19.78	1602.00	51.68	5207	1.430	0.997

Cumulative Oil Produced (E3m3) 61.525

Cumulative Water Produced (E3m3) 563.369

Cumulative Water Injected (E3m3) 623.850

Table 4

Virden Roselea Unit No. 3

Pattern: PAT 03-23

Date	Monthly Oil Prod m3	Oil Rate (CD) m3/d	Monthly Water Prod m3	Water Rate (CD) m3/d	Water Oil Ratio m3/m3	Monthly Water Inj m3	Water Inj Rate (CD) m3/d	Water Inj Press kpa	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio
Jan-10	74.80	2.41	2359.69	76.12	31.55	1326.00	42.77	4800	0.533	0.937
Feb-10	62.71	2.24	2094.73	74.81	33.40	1051.00	37.54	4800	0.528	0.937
Mar-10	70.37	2.27	2463.29	79.46	35.00	1699.00	54.81	4800	0.657	0.936
Apr-10	62.33	2.08	2376.14	79.20	38.12	1473.00	49.10	4800	0.611	0.936
May-10	66.61	2.15	3235.55	104.37	48.57	1579.00	50.94	4800	0.468	0.935
Jun-10	63.01	2.10	871.64	29.05	13.83	652.00	21.73	4773	0.705	0.935
Jul-10	66.36	2.14	2329.96	75.16	35.11	2553.50	82.37	4010	1.044	0.935
Aug-10	51.16	1.65	2529.94	81.61	49.45	2372.00	76.52	4306	0.900	0.935
Sep-10	60.82	2.03	2448.99	81.63	40.26	2306.00	76.87	4487	0.930	0.935
Oct-10	49.01	1.58	2270.60	73.25	46.33	2290.00	73.87	4100	0.967	0.935
Nov-10	43.33	1.44	2211.22	73.71	51.04	1782.00	59.40	3473	0.800	0.935
Dec-10	48.24	1.56	1916.17	61.81	39.72	2122.00	68.45	3100	1.058	0.935

Cumulative Oil Produced (E3m3) 182.400

Cumulative Water Produced (E3m3) 1267.038

Cumulative Water Injected (E3m3) 1356.491

Table 4

Virden Roselea Unit No. 3

Pattern: PAT 04-14

Date	Monthly Oil Prod m3	Oil Rate (CD) m3/d	Monthly Water Prod m3	Water Rate (CD) m3/d	Water Oil Ratio m3/m3	Monthly Water Inj m3	Water Inj Rate (CD) m3/d	Water Inj Press kpa	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio
Jan-10	32.00	1.03	801.20	25.85	25.04	666.00	21.48	4900	0.782	3.079
Feb-10	27.80	0.99	731.45	26.12	26.31	502.00	17.93	4900	0.717	3.073
Mar-10	30.30	0.98	839.95	27.10	27.72	812.00	26.19	4900	0.913	3.067
Apr-10	26.60	0.89	806.70	26.89	30.33	716.00	23.87	4897	0.869	3.062
May-10	26.25	0.85	1032.65	33.31	39.34	668.00	21.55	4800	0.618	3.054
Jun-10	26.10	0.87	293.40	9.78	11.24	467.00	15.57	4787	1.475	3.052
Jul-10	29.50	0.95	778.70	25.12	26.40	1699.00	54.81	4400	2.058	3.050
Aug-10	30.15	0.97	1000.05	32.26	33.17	1703.00	54.94	4400	1.619	3.045
Sep-10	28.75	0.96	921.30	30.71	32.05	1681.00	56.03	4383	1.790	3.041
Oct-10	26.60	0.86	935.70	30.18	35.18	1471.00	47.45	3903	1.497	3.037
Nov-10	18.15	0.60	696.30	23.21	38.36	1540.00	51.33	4000	2.181	3.035
Dec-10	27.80	0.90	842.70	27.18	30.31	1524.00	49.16	4000	1.714	3.031

Cumulative Oil Produced (E3m3) 48.252

Cumulative Water Produced (E3m3) 279.791

Cumulative Water Injected (E3m3) 995.949

Table 4

Virden Roselea Unit No. 3

Pattern: PAT 04-18

Date	Monthly Oil Prod m3	Oil Rate (CD) m3/d	Monthly Water Prod m3	Water Rate (CD) m3/d	Water Oil Ratio m3/m3	Monthly Water Inj m3	Water Inj Rate (CD) m3/d	Water Inj Press kpa	Voidage Replacement Ratio	Cum Voidage Replacem Ratio
Jan-10	43.45	1.40	1780.20	57.43	40.97	1950.00	62.90	5900	1.047	0.539
Feb-10	37.90	1.35	1627.55	58.13	42.94	2100.00	75.00	5900	1.367	0.540
Mar-10	41.75	1.35	1859.80	59.99	44.55	1900.00	61.29	5900	0.979	0.541
Apr-10	36.65	1.22	1805.15	60.17	49.25	1920.00	64.00	5900	1.055	0.542
May-10	39.20	1.26	2471.20	79.72	63.04	1700.00	54.84	5900	0.664	0.542
Jun-10	37.33	1.24	659.98	22.00	17.68	656.00	21.87	5910	0.951	0.542
Jul-10	43.10	1.39	1795.51	57.92	41.66	913.00	29.45	6187	0.486	0.542
Aug-10	44.03	1.42	2299.18	74.17	52.22	2318.00	74.77	5806	0.969	0.543
Sep-10	41.07	1.37	2235.55	74.52	54.44	1295.00	43.17	5993	0.576	0.543
Oct-10	40.55	1.31	2526.98	81.52	62.32	1378.00	44.45	5777	0.526	0.543
Nov-10	31.37	1.05	1903.64	63.45	60.69	952.00	31.73	5117	0.498	0.543
Dec-10	40.02	1.29	2159.27	69.65	53.96	959.00	30.94	5013	0.427	0.543
Cumulative Oil Produced (E3m3)					141.990					
Cumulative Water Produced (E3m3)					830.421					
Cumulative Water Injected (E3m3)					528.924					

Table 4

Virden Roselea Unit No. 3

Pattern: PAT 06-01

Date	Monthly Oil Prod m3	Oil Rate (CD) m3/d	Monthly Water Prod m3	Water Rate (CD) m3/d	Water Oil Ratio m3/m3	Monthly Water Inj m3	Water Inj Rate (CD) m3/d	Water Inj Press kpa	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio
Jan-10	69.47	2.24	2416.32	77.95	34.78	1675.00	54.03	5500	0.660	0.469
Feb-10	60.42	2.16	2193.00	78.32	36.29	1305.00	46.61	5500	0.628	0.469
Mar-10	65.80	2.12	2533.10	81.71	38.50	2109.00	68.03	5500	0.795	0.470
Apr-10	57.87	1.93	2433.03	81.10	42.04	1766.00	58.87	5507	0.718	0.470
May-10	58.18	1.88	3082.00	99.42	52.98	1953.00	63.00	5700	0.609	0.470
Jun-10	44.95	1.50	697.87	23.26	15.53	629.00	20.97	5690	0.855	0.471
Jul-10	63.73	2.06	2348.05	75.74	36.85	1852.00	59.74	5400	0.752	0.471
Aug-10	62.40	2.01	3004.98	96.93	48.16	2298.00	74.13	5400	0.734	0.472
Sep-10	60.10	2.00	2693.55	89.79	44.82	1650.00	55.00	5400	0.607	0.472
Oct-10	59.48	1.92	3040.12	98.07	51.12	1540.00	49.68	5400	0.487	0.472
Nov-10	53.58	1.79	2949.43	98.31	55.05	1450.00	48.33	5400	0.489	0.472
Dec-10	57.40	1.85	2478.20	79.94	43.17	1502.00	48.45	5400	0.580	0.472
Cumulative Oil Produced (E3m3)					121.414					
Cumulative Water Produced (E3m3)					1373.623					
Cumulative Water Injected (E3m3)					706.835					

Table 4

Virden Roselea Unit No. 3

Pattern: PAT 06-10

Date	Monthly Oil Prod m3	Oil Rate (CD) m3/d	Monthly Water Prod m3	Water Rate (CD) m3/d	Water Oil Ratio m3/m3	Monthly Water Inj m3	Water Inj Rate (CD) m3/d	Water Inj Press kpa	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio
Jan-10	100.55	3.24	11103.70	358.18	110.43					0.043
Feb-10	84.05	3.00	9716.50	347.02	115.60					0.043
Mar-10	91.45	2.95	11143.90	359.48	121.86					0.043
Apr-10	65.90	2.20	8799.35	293.31	133.53					0.042
May-10	52.80	1.70	9117.75	294.12	172.68					0.042
Jun-10	73.35	2.44	3561.75	118.72	48.56					0.042
Jul-10	89.75	2.90	10254.80	330.80	114.26					0.042
Aug-10	89.45	2.89	12852.35	414.59	143.68					0.042
Sep-10	68.95	2.30	9268.15	308.94	134.42					0.042
Oct-10	49.55	1.60	7482.95	241.39	151.02					0.042
Nov-10	38.30	1.28	5970.30	199.01	155.88					0.042
Dec-10	88.25	2.85	10875.10	350.81	123.23					0.042
Cumulative Oil Produced (E3m3)					131.762					
Cumulative Water Produced (E3m3)					5062.103					
Cumulative Water Injected (E3m3)					217.725					

Table 4

Virden Roselea Unit No. 3

Pattern: PAT 06-11

Date	Monthly Oil Prod m3	Oil Rate (CD) m3/d	Monthly Water Prod m3	Water Rate (CD) m3/d	Water Oil Ratio m3/m3	Monthly Water Inj m3	Water Inj Rate (CD) m3/d	Water Inj Press kpa	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio
Jan-10	13.59	0.44	413.88	13.35	30.45	1495.00	48.23	5800	3.424	3.056
Feb-10	12.89	0.46	443.82	15.85	34.44	1505.00	53.75	5800	3.573	3.056
Mar-10	37.55	1.21	261.97	8.45	6.98	1470.00	47.42	5800	4.783	3.057
Apr-10	29.54	0.98	235.27	7.84	7.96	1350.00	45.00	5800	5.137	3.059
May-10	28.18	0.91	311.10	10.04	11.04	1156.00	37.29	5800	3.327	3.059
Jun-10	26.31	0.88	84.17	2.81	3.20	797.00	26.57	5787	7.224	3.060
Jul-10	29.70	0.96	220.68	7.12	7.43	2052.00	66.19	5419	7.990	3.064
Aug-10	30.12	0.97	281.92	9.09	9.36	4536.00	146.32	6000	14.186	3.072
Sep-10	28.22	0.94	270.37	9.01	9.58	2012.00	67.07	6000	6.796	3.075
Oct-10	26.14	0.84	255.23	8.23	9.76	3318.00	107.03	5955	11.510	3.081
Nov-10	24.13	0.80	259.77	8.66	10.77	2204.00	73.47	4600	7.834	3.085
Dec-10	25.57	0.82	213.80	6.90	8.36	2215.00	71.45	4600	9.026	3.088
Cumulative Oil Produced (E3m3)					88.771					
Cumulative Water Produced (E3m3)					304.900					
Cumulative Water Injected (E3m3)					1217.561					

Table 4

Virden Roselea Unit No. 3

Pattern: PAT 06-12

Date	Monthly Oil Prod m3	Oil Rate (CD) m3/d	Monthly Water Prod m3	Water Rate (CD) m3/d	Water Oil Ratio m3/m3	Monthly Water Inj m3	Water Inj Rate (CD) m3/d	Water Inj Press kpa	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio
Jan-10	24.33	0.78	454.70	14.67	18.69	1790.00	57.74	6200	3.655	1.624
Feb-10	20.62	0.74	599.55	21.41	29.07	1510.00	53.93	6200	2.639	1.626
Mar-10	23.40	0.75	658.53	21.24	28.14	1490.00	48.06	6200	2.139	1.627
Apr-10	21.55	0.72	659.03	21.97	30.58	1305.00	43.50	6200	1.940	1.628
May-10	25.33	0.82	934.20	30.14	36.89	910.00	29.35	6200	0.929	1.626
Jun-10	23.05	0.77	236.67	7.89	10.27	782.00	26.07	6173	3.038	1.627
Jul-10	27.07	0.87	653.68	21.09	24.14	1836.00	59.23	5390	2.640	1.629
Aug-10	27.50	0.89	834.07	26.91	30.33	1541.00	49.71	5106	1.751	1.629
Sep-10	23.98	0.80	728.65	24.29	30.39	1514.00	50.47	5300	2.035	1.630
Oct-10	21.85	0.70	797.35	25.72	36.49	790.00	25.48	5265	0.944	1.628
Nov-10	20.15	0.67	811.68	27.06	40.28	1300.00	43.33	4200	1.582	1.628
Dec-10	21.50	0.69	672.90	21.71	31.30	1347.00	43.45	4200	1.899	1.629
Cumulative Oil Produced (E3m3)					30.687					
Cumulative Water Produced (E3m3)					313.296					
Cumulative Water Injected (E3m3)					560.862					

Table 4

Virden Roselea Unit No. 3

Pattern: PAT 06-13

Date	Monthly Oil Prod m3	Oil Rate (CD) m3/d	Monthly Water Prod m3	Water Rate (CD) m3/d	Water Oil Ratio m3/m3	Monthly Water Inj m3	Water Inj Rate (CD) m3/d	Water Inj Press kpa	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio
Jan-10	97.65	3.15	2045.10	65.97	20.94	1910.00	61.61	6000	0.872	0.617
Feb-10	84.77	3.03	1866.45	66.66	22.02	2101.00	75.04	6000	1.167	0.619
Mar-10	92.65	2.99	2144.12	69.17	23.14	2201.00	71.00	6000	0.963	0.620
Apr-10	81.52	2.72	2059.16	68.64	25.26	2001.00	66.70	6000	0.945	0.621
May-10	84.83	2.74	2745.31	88.56	32.36	1901.00	61.32	6000	0.658	0.621
Jun-10	54.91	1.83	485.74	16.19	8.85	536.00	17.87	5993	1.000	0.622
Jul-10	91.85	2.96	1972.76	63.64	21.48	1554.00	50.13	5787	0.736	0.622
Aug-10	86.48	2.79	2256.68	72.80	26.10	1432.00	46.19	5400	0.598	0.622
Sep-10	86.30	2.88	2316.05	77.20	26.84	1337.00	44.57	5393	0.563	0.622
Oct-10	85.16	2.75	2595.08	83.71	30.47	883.00	28.48	5194	0.323	0.621
Nov-10	66.66	2.22	2131.14	71.04	31.97	1105.00	36.83	5000	0.509	0.620
Dec-10	71.03	2.29	1821.32	58.75	25.64	974.00	31.42	5000	0.504	0.620
Cumulative Oil Produced (E3m3)					145.183					
Cumulative Water Produced (E3m3)					537.886					
Cumulative Water Injected (E3m3)					423.911					

Table 4

Virden Roselea Unit No. 3

Pattern: PAT 08-02

Date	Monthly Oil Prod m3	Oil Rate (CD) m3/d	Monthly Water Prod m3	Water Rate (CD) m3/d	Water Oil Ratio m3/m3	Monthly Water Inj m3	Water Inj Rate (CD) m3/d	Water Inj Press kpa	Voidage Replacement Ratio	Cum Voidage Replacemnt Ratio
Jan-10	9.75	0.31	908.68	29.31	93.17	1326.00	42.77	5200	1.415	1.254
Feb-10	8.34	0.30	813.90	29.07	97.60	1051.00	37.54	5200	1.387	1.255
Mar-10	9.23	0.30	952.62	30.73	103.22	1699.00	54.81	5200	1.731	1.256
Apr-10	8.12	0.27	915.03	30.50	112.66	1414.00	47.13	5200	1.551	1.257
May-10	8.54	0.28	1225.35	39.53	143.52	15147.00	488.61	5200	12.034	1.299
Jun-10	7.32	0.24	329.84	10.99	45.05	511.00	17.03	5200	1.534	1.299
Jul-10	7.36	0.24	1046.98	33.77	142.21	1317.00	42.48	5200	1.225	1.299
Aug-10	9.03	0.29	1270.57	40.99	140.72	1867.00	60.23	5200	1.430	1.300
Sep-10	6.40	0.21	828.51	27.62	129.39	1850.00	61.67	5200	2.244	1.302
Oct-10	7.03	0.23	1018.44	32.85	144.93	1703.00	54.94	5200	1.628	1.303
Nov-10	5.43	0.18	1100.64	36.69	202.77	1604.00	53.47	5200	1.469	1.304
Dec-10	6.10	0.20	964.36	31.11	158.04	1575.00	50.81	5200	1.591	1.305

Cumulative Oil Produced (E3m3) 41.050

Cumulative Water Produced (E3m3) 281.400

Cumulative Water Injected (E3m3) 421.722

Table 4

Virden Roselea Unit No. 3

Pattern: PAT 08-10

Date	Monthly Oil Prod m3	Oil Rate (CD) m3/d	Monthly Water Prod m3	Water Rate (CD) m3/d	Water Oil Ratio m3/m3	Monthly Water Inj m3	Water Inj Rate (CD) m3/d	Water Inj Press kpa	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio
Jan-10	32.13	1.04	3334.56	107.57	103.79	2210.00	71.29	4400	0.643	0.684
Feb-10	29.24	1.04	3034.71	108.38	103.77	2330.00	83.21	4400	0.825	0.684
Mar-10	56.94	1.84	3312.93	106.87	58.18	2210.00	71.29	4400	0.643	0.684
Apr-10	44.49	1.48	2814.22	93.81	63.26	2200.00	73.33	4400	0.779	0.684
May-10	43.35	1.40	3718.31	119.95	85.77	2100.00	67.74	4400	0.547	0.684
Jun-10	41.10	1.37	1048.49	34.95	25.51	1021.00	34.03	4420	0.948	0.684
Jul-10	50.12	1.62	3333.75	107.54	66.51	2629.00	84.81	5000	0.761	0.684
Aug-10	50.12	1.62	4108.05	132.52	81.97	1958.40	63.17	5000	0.462	0.684
Sep-10	42.14	1.40	3187.37	106.25	75.64	1872.00	62.40	5000	0.587	0.683
Oct-10	43.39	1.40	3751.86	121.03	86.47	900.00	29.03	5000	0.232	0.683
Nov-10	31.38	1.05	1657.82	55.26	52.84	1354.00	45.13	5000	0.811	0.683
Dec-10	39.59	1.28	2674.38	86.27	67.55	1398.00	45.10	5000	0.505	0.682

Cumulative Oil Produced (E3m3) 112.231

Cumulative Water Produced (E3m3) 2073.799

Cumulative Water Injected (E3m3) 1493.406

Table 4

Virden Roselea Unit No. 3

Pattern: PAT 08-11

Date	Monthly Oil Prod m3	Oil Rate (CD) m3/d	Monthly Water Prod m3	Water Rate (CD) m3/d	Water Oil Ratio m3/m3	Monthly Water Inj m3	Water Inj Rate (CD) m3/d	Water Inj Press kpa	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio
Jan-10	72.68	2.34	1899.20	61.26	26.13	2195.00	70.81	6600	1.090	1.144
Feb-10	57.20	2.04	1803.25	64.40	31.53	2001.00	71.46	6600	1.166	1.144
Mar-10	61.98	2.00	2077.37	67.01	33.52	2100.00	67.74	6600	0.961	1.144
Apr-10	54.05	1.80	2028.40	67.61	37.53	2180.00	72.67	6600	1.059	1.143
May-10	60.00	1.94	2798.95	90.29	46.65	1911.00	61.65	6600	0.655	1.141
Jun-10	54.02	1.80	697.20	23.24	12.91	613.00	20.43	6593	0.824	1.141
Jul-10	63.80	2.06	1965.40	63.40	30.81	1579.00	50.94	6406	0.762	1.140
Aug-10	64.77	2.09	2507.60	80.89	38.71	2239.00	72.23	6600	0.852	1.138
Sep-10	62.52	2.08	2174.30	72.48	34.77	1370.00	45.67	6600	0.620	1.137
Oct-10	63.40	2.05	2340.78	75.51	36.92	2225.00	71.77	6568	0.906	1.136
Nov-10	58.40	1.95	2382.73	79.42	40.80	1574.00	52.47	5600	0.653	1.134
Dec-10	62.08	2.00	1973.82	63.67	31.80	1603.00	51.71	5600	0.771	1.133
Cumulative Oil Produced (E3m3)					78.919					
Cumulative Water Produced (E3m3)					574.495					
Cumulative Water Injected (E3m3)					741.084					

Table 4

Virden Roselea Unit No. 3

Pattern: PAT 09-13

Date	Monthly Oil Prod m3	Oil Rate (CD) m3/d	Monthly Water Prod m3	Water Rate (CD) m3/d	Water Oil Ratio m3/m3	Monthly Water Inj m3	Water Inj Rate (CD) m3/d	Water Inj Press kpa	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio
Jan-10	46.65	1.50	2231.31	71.98	47.83	3100.00	100.00	5400	1.333	0.822
Feb-10	40.72	1.45	2039.32	72.83	50.08	2975.00	106.25	5400	1.551	0.825
Mar-10	44.78	1.44	2332.54	75.24	52.09	2675.00	86.29	5400	1.102	0.825
Apr-10	39.29	1.31	2259.29	75.31	57.51	2175.00	72.50	5400	0.958	0.826
May-10	42.05	1.36	3089.61	99.66	73.47	1900.00	61.29	5400	0.595	0.825
Jun-10	39.72	1.32	821.57	27.39	20.68	609.00	20.30	5387	0.715	0.825
Jul-10	44.40	1.43	2167.34	69.91	48.81	2082.00	67.16	5042	0.922	0.825
Aug-10	45.27	1.46	2773.14	89.46	61.26	1462.00	47.16	6303	0.508	0.824
Sep-10	41.77	1.39	2445.55	81.52	58.55	1815.00	60.50	6380	0.739	0.824
Oct-10	40.85	1.32	2660.70	85.83	65.13	1491.00	48.10	5794	0.541	0.823
Nov-10	31.74	1.06	2039.70	67.99	64.27	1873.00	62.43	5460	0.916	0.823
Dec-10	40.38	1.30	2272.07	73.29	56.26	2299.00	74.16	6000	0.974	0.823
Cumulative Oil Produced (E3m3)					157.295					
Cumulative Water Produced (E3m3)					586.198					
Cumulative Water Injected (E3m3)					612.929					

Table 4

Virden Roselea Unit No. 3

Pattern: PAT 10-07

Date	Monthly Oil Prod m3	Oil Rate (CD) m3/d	Monthly Water Prod m3	Water Rate (CD) m3/d	Water Oil Ratio m3/m3	Monthly Water Inj m3	Water Inj Rate (CD) m3/d	Water Inj Press kpa	Voidage Replacement Ratio	Cum Voidage Replacemnt Ratio
Jan-10	15.65	0.50	700.11	22.58	44.73	3710.00	119.68	4700	5.077	1.109
Feb-10	13.71	0.49	639.13	22.83	46.62	3690.00	131.79	4700	6.130	1.113
Mar-10	14.94	0.48	733.97	23.68	49.13	3410.00	110.00	4700	4.461	1.116
Apr-10	13.07	0.44	704.98	23.50	53.93	3310.00	110.33	4700	4.667	1.120
May-10	13.53	0.44	942.81	30.41	69.67	3100.00	100.00	4700	3.177	1.122
Jun-10	13.24	0.44	258.62	8.62	19.53	866.00	28.87	4717	3.220	1.123
Jul-10	14.65	0.47	669.78	21.61	45.72	2827.00	91.19	5206	4.046	1.125
Aug-10	16.32	0.53	853.43	27.53	52.28	2881.00	92.94	5410	3.245	1.128
Sep-10	15.90	0.53	749.00	24.97	47.10	2762.00	92.07	5690	3.655	1.130
Oct-10	14.99	0.48	756.13	24.39	50.43	2590.00	83.55	5387	3.291	1.132
Nov-10	14.18	0.47	784.48	26.15	55.33	1385.00	46.17	4387	1.756	1.133
Dec-10	15.12	0.49	650.41	20.98	43.01	2145.00	69.19	4213	3.157	1.135
Cumulative Oil Produced (E3m3)					81.540					
Cumulative Water Produced (E3m3)					708.044					
Cumulative Water Injected (E3m3)					896.769					

Table 4

Virden Roselea Unit No. 3

Pattern: PAT 11-14

Date	Monthly Oil Prod m3	Oil Rate (CD) m3/d	Monthly Water Prod m3	Water Rate (CD) m3/d	Water Oil Ratio m3/m3	Monthly Water Inj m3	Water Inj Rate (CD) m3/d	Water Inj Press kpa	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio
Jan-10	38.90	1.25	1479.24	47.72	38.02	1537.00	49.58	5200	0.992	0.989
Feb-10	33.86	1.21	1350.38	48.23	39.88	1212.00	43.29	5200	0.949	0.989
Mar-10	36.87	1.19	1550.74	50.02	42.06	1959.00	63.19	5200	1.209	0.990
Apr-10	32.38	1.08	1489.49	49.65	46.00	1590.00	53.00	5207	1.058	0.990
May-10	34.41	1.11	2028.30	65.43	58.94	1763.00	56.87	5400	0.837	0.990
Jun-10	32.71	1.09	546.39	18.21	16.70	265.00	8.83	5380	0.462	0.989
Jul-10	33.86	1.09	1512.51	48.79	44.68	1016.00	32.77	4823	0.644	0.988
Aug-10	33.61	1.08	1936.54	62.47	57.62	936.00	30.19	5494	0.465	0.986
Sep-10	34.57	1.15	1705.99	56.87	49.34	1054.00	35.13	5267	0.613	0.985
Oct-10	34.81	1.12	1850.80	59.70	53.17	885.00	28.55	4297	0.460	0.983
Nov-10	30.18	1.01	1783.77	59.46	59.11	954.00	31.80	4200	0.532	0.981
Dec-10	34.29	1.11	1561.77	50.38	45.55	867.00	27.97	4200	0.532	0.980
Cumulative Oil Produced (E3m3)					62.321					
Cumulative Water Produced (E3m3)					447.547					
Cumulative Water Injected (E3m3)					500.224					

Table 4

Virden Roselea Unit No. 3

Pattern: PAT 12-07

Date	Monthly Oil Prod m3	Oil Rate (CD) m3/d	Monthly Water Prod m3	Water Rate (CD) m3/d	Water Oil Ratio m3/m3	Monthly Water Inj m3	Water Inj Rate (CD) m3/d	Water Inj Press kpa	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio
Jan-10	0.00	0.00	0.00	0.00						2.066
Feb-10	0.00	0.00	0.00	0.00						2.066
Mar-10	0.00	0.00	0.00	0.00						2.066
Apr-10	0.00	0.00	0.00	0.00						2.066
May-10	0.00	0.00	0.00	0.00						2.066
Jun-10	0.00	0.00	0.00	0.00						2.066
Jul-10	0.00	0.00	0.00	0.00						2.066
Aug-10	0.00	0.00	0.00	0.00						2.066
Sep-10	0.00	0.00	0.00	0.00						2.066
Oct-10	0.00	0.00	0.00	0.00						2.066
Nov-10	0.00	0.00	0.00	0.00						2.066
Dec-10	0.00	0.00	0.00	0.00						2.066
Cumulative Oil Produced (E3m3)					30.432					
Cumulative Water Produced (E3m3)					225.067					
Cumulative Water Injected (E3m3)					528.292					

Table 4

Virden Roselea Unit No. 3

Pattern: PAT 12-11

Date	Monthly Oil Prod m3	Oil Rate (CD) m3/d	Monthly Water Prod m3	Water Rate (CD) m3/d	Water Oil Ratio m3/m3	Monthly Water Inj m3	Water Inj Rate (CD) m3/d	Water Inj Press kpa	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio
Jan-10	48.44	1.56	1498.48	48.34	30.93	1120.00	36.13	5200	0.709	0.588
Feb-10	41.69	1.49	1324.39	47.30	31.77	1190.00	42.50	5200	0.944	0.588
Mar-10	46.00	1.48	1572.15	50.71	34.18	1187.00	38.29	5200	0.718	0.589
Apr-10	40.34	1.34	1509.94	50.33	37.43	1150.00	38.33	5200	0.751	0.589
May-10	40.80	1.32	1973.85	63.67	48.38	1170.00	37.74	5200	0.569	0.589
Jun-10	40.59	1.35	550.50	18.35	13.56	153.00	5.10	5207	0.261	0.589
Jul-10	45.20	1.46	1437.08	46.36	31.80	1171.00	37.77	5403	0.774	0.589
Aug-10	45.90	1.48	1833.87	59.16	39.96	558.00	18.00	5484	0.291	0.588
Sep-10	42.52	1.42	1756.57	58.55	41.31	1421.00	47.37	5383	0.799	0.589
Oct-10	38.84	1.25	1816.33	58.59	46.77	2268.00	73.16	2097	1.198	0.591
Nov-10	29.63	0.99	1614.42	53.81	54.49	1685.00	56.17	5000	1.038	0.592
Dec-10	38.94	1.26	1514.20	48.85	38.89	1632.00	52.65	5000	1.029	0.593
Cumulative Oil Produced (E3m3)					92.534					
Cumulative Water Produced (E3m3)					519.403					
Cumulative Water Injected (E3m3)					363.487					

Table 4

Virden Roselea Unit No. 3

Pattern: PAT 14-01

Date	Monthly Oil Prod m3	Oil Rate (CD) m3/d	Monthly Water Prod m3	Water Rate (CD) m3/d	Water Oil Ratio m3/m3	Monthly Water Inj m3	Water Inj Rate (CD) m3/d	Water Inj Press kpa	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio
Jan-10	23.28	0.75	790.55	25.50	33.97	1548.00	49.94	6100	1.863	1.270
Feb-10	20.20	0.72	708.68	25.31	35.08	1220.00	43.57	6100	1.815	1.271
Mar-10	22.08	0.71	828.75	26.73	37.54	1972.00	63.61	6100	2.270	1.273
Apr-10	18.32	0.61	766.70	25.56	41.84	1590.00	53.00	6107	2.050	1.274
May-10	20.55	0.66	1083.95	34.97	52.75	1710.00	55.16	6300	1.517	1.275
Jun-10	18.73	0.62	285.65	9.52	15.26	481.00	16.03	6257	1.596	1.275
Jul-10	22.57	0.73	755.43	24.37	33.46	1817.00	58.61	4987	2.287	1.277
Aug-10	23.38	0.75	940.25	30.33	40.22	1755.00	56.61	4600	1.784	1.278
Sep-10	21.10	0.70	879.18	29.31	41.67	1350.00	45.00	4600	1.518	1.278
Oct-10	20.07	0.65	1028.00	33.16	51.21	1190.40	38.40	4561	1.113	1.278
Nov-10	17.25	0.58	901.30	30.04	52.25	1250.00	41.67	3400	1.378	1.278
Dec-10	18.67	0.60	780.25	25.17	41.78	1144.00	36.90	3400	1.403	1.278
Cumulative Oil Produced (E3m3)					40.324					
Cumulative Water Produced (E3m3)					434.624					
Cumulative Water Injected (E3m3)					608.134					

Table 4

Virden Roselea Unit No. 3

Pattern: PAT 14-02

Date	Monthly Oil Prod m3	Oil Rate (CD) m3/d	Monthly Water Prod m3	Water Rate (CD) m3/d	Water Oil Ratio m3/m3	Monthly Water Inj m3	Water Inj Rate (CD) m3/d	Water Inj Press kpa	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio
Jan-10	9.08	0.29	478.93	15.45	52.76	2210.00	71.29	4800	4.437	0.947
Feb-10	10.01	0.36	546.05	19.50	54.53	2170.00	77.50	4800	4.233	0.950
Mar-10	35.90	1.16	443.92	14.32	12.36	2000.00	64.52	4800	4.072	0.952
Apr-10	28.17	0.94	410.06	13.67	14.56	2100.00	70.00	4800	4.840	0.954
May-10	26.71	0.86	549.05	17.71	20.55	1900.00	61.29	4800	3.229	0.956
Jun-10	24.90	0.83	148.24	4.94	5.95	564.00	18.80	4807	3.277	0.957
Jul-10	28.19	0.91	388.33	12.53	13.78	1454.00	46.90	5000	3.412	0.959
Aug-10	28.53	0.92	495.57	15.99	17.37	2060.00	66.45	5000	3.844	0.961
Sep-10	26.65	0.89	423.23	14.11	15.88	1850.00	61.67	5000	4.155	0.963
Oct-10	26.40	0.85	429.97	13.87	16.29	4181.00	134.87	4935	8.958	0.968
Nov-10	24.45	0.82	437.61	14.59	17.90	2150.00	71.67	3000	4.703	0.971
Dec-10	25.88	0.83	361.23	11.65	13.96	2122.00	68.45	3000	5.358	0.973

Cumulative Oil Produced (E3m3) 115.008

Cumulative Water Produced (E3m3) 559.977

Cumulative Water Injected (E3m3) 657.974

Table 4

Virden Roselea Unit No. 3

Pattern: PAT 14-07

Date	Monthly Oil Prod m3	Oil Rate (CD) m3/d	Monthly Water Prod m3	Water Rate (CD) m3/d	Water Oil Ratio m3/m3	Monthly Water Inj m3	Water Inj Rate (CD) m3/d	Water Inj Press kpa	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio
Jan-10	8.06	0.26	386.27	12.46	47.92	1591.00	51.32	5700	3.953	1.777
Feb-10	7.05	0.25	352.63	12.59	50.03	1578.00	56.36	5700	4.759	1.780
Mar-10	7.69	0.25	404.96	13.06	52.67	1631.00	52.61	5700	3.872	1.783
Apr-10	6.72	0.22	388.98	12.97	57.86	1701.00	56.70	5700	4.352	1.786
May-10	7.00	0.23	521.10	16.81	74.42	1590.00	51.29	5700	2.951	1.788
Jun-10	7.11	0.24	147.59	4.92	20.75	460.00	15.33	5713	3.006	1.788
Jul-10	9.32	0.30	433.24	13.98	46.50	1186.00	38.26	6090	2.625	1.790
Aug-10	10.39	0.34	540.41	17.43	52.03	1941.00	62.61	5800	3.453	1.792
Sep-10	10.07	0.34	474.31	15.81	47.12	1195.00	39.83	5793	2.497	1.794
Oct-10	9.81	0.32	502.13	16.20	51.17	1276.00	41.16	5587	2.442	1.795
Nov-10	9.22	0.31	518.53	17.28	56.26	1263.00	42.10	5147	2.423	1.796
Dec-10	9.83	0.32	429.92	13.87	43.75	1823.00	58.81	5200	4.061	1.799
Cumulative Oil Produced (E3m3)					42.481					
Cumulative Water Produced (E3m3)					280.150					
Cumulative Water Injected (E3m3)					581.246					

Table 4

Virden Roselea Unit No. 3

Pattern: PAT 14-11

Date	Monthly Oil Prod m3	Oil Rate (CD) m3/d	Monthly Water Prod m3	Water Rate (CD) m3/d	Water Oil Ratio m3/m3	Monthly Water Inj m3	Water Inj Rate (CD) m3/d	Water Inj Press kpa	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio
Jan-10	22.54	0.73	579.82	18.70	25.72	1220.00	39.35	5000	1.982	2.375
Feb-10	17.24	0.62	458.13	16.36	26.57	963.00	34.39	5000	2.195	2.374
Mar-10	18.63	0.60	494.10	15.94	26.52	1556.00	50.19	5000	2.971	2.375
Apr-10	16.35	0.55	474.63	15.82	29.03	1297.00	43.23	5003	2.672	2.376
May-10	16.95	0.55	632.24	20.39	37.30	1317.00	42.48	5100	1.987	2.375
Jun-10	16.63	0.55	174.16	5.81	10.47	464.00	15.47	5077	2.454	2.375
Jul-10	16.65	0.54	417.71	13.47	25.09	1196.00	38.58	4387	2.695	2.375
Aug-10	26.68	0.86	677.00	21.84	25.37	4657.00	150.23	4000	6.478	2.383
Sep-10	58.63	1.95	961.15	32.04	16.39	994.00	33.13	3967	0.985	2.379
Oct-10	16.65	0.54	438.55	14.15	26.34	1100.00	35.48	3000	2.365	2.379
Nov-10	8.15	0.27	344.75	11.49	42.30	845.00	28.17	3000	2.424	2.379
Dec-10	8.65	0.28	285.75	9.22	33.03	886.00	28.58	3000	2.947	2.380

Cumulative Oil Produced (E3m3) 95.812

Cumulative Water Produced (E3m3) 286.186

Cumulative Water Injected (E3m3) 912.006

Table 4

Virden Roselea Unit No. 3

Pattern: PAT 14-12

Date	Monthly Oil Prod m3	Oil Rate (CD) m3/d	Monthly Water Prod m3	Water Rate (CD) m3/d	Water Oil Ratio m3/m3	Monthly Water Inj m3	Water Inj Rate (CD) m3/d	Water Inj Press kpa	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio
Jan-10	24.43	0.79	126.11	4.07	5.16	1170.00	37.74	6400	7.560	2.088
Feb-10	20.20	0.72	299.05	10.68	14.81	1091.00	38.96	6400	3.699	2.092
Mar-10	23.59	0.76	314.10	10.13	13.32	1111.00	35.84	6400	3.215	2.094
Apr-10	22.74	0.76	357.52	11.92	15.73	1001.00	33.37	6400	2.660	2.096
May-10	24.68	0.80	474.75	15.31	19.24	900.00	29.03	6400	1.763	2.095
Jun-10	15.01	0.50	124.12	4.14	8.27	314.00	10.47	6397	2.275	2.095
Jul-10	24.42	0.79	439.68	14.18	18.00	808.00	26.06	6310	1.703	2.094
Aug-10	24.79	0.80	560.99	18.10	22.63	632.00	20.39	6584	1.056	2.089
Sep-10	21.35	0.71	448.03	14.93	20.98	3169.00	105.63	6077	6.826	2.105
Oct-10	23.66	0.76	403.05	13.00	17.03	1314.00	42.39	5403	3.011	2.108
Nov-10	21.85	0.73	410.24	13.67	18.78	2150.00	71.67	5500	5.029	2.117
Dec-10	21.17	0.68	328.10	10.58	15.50	2167.00	69.90	5500	6.066	2.127

Cumulative Oil Produced (E3m3) 45.055

Cumulative Water Produced (E3m3) 94.358

Cumulative Water Injected (E3m3) 296.898

Table 4

Virden Roselea Unit No. 3

Pattern: PAT 14-13

Date	Monthly Oil Prod m3	Oil Rate (CD) m3/d	Monthly Water Prod m3	Water Rate (CD) m3/d	Water Oil Ratio m3/m3	Monthly Water Inj m3	Water Inj Rate (CD) m3/d	Water Inj Press kpa	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio
Jan-10	49.10	1.58	1578.41	50.92	32.15	3028.00	97.68	7406	1.822	1.140
Feb-10	42.87	1.53	1440.97	51.46	33.61	1507.00	53.82	7604	1.101	1.140
Mar-10	46.48	1.50	1654.79	53.38	35.60	1153.00	37.19	7697	0.664	1.139
Apr-10	40.89	1.36	1589.29	52.98	38.87	1006.00	33.53	7600	0.625	1.138
May-10	43.50	1.40	2164.41	69.82	49.75	428.00	13.81	7594	0.190	1.135
Jun-10	41.32	1.38	583.02	19.43	14.11	932.00	31.07	7407	1.508	1.136
Jul-10	46.20	1.49	1522.59	49.12	32.96	1456.00	46.97	7600	0.909	1.135
Aug-10	46.82	1.51	1942.69	62.67	41.50	1856.00	59.87	7600	0.914	1.135
Sep-10	45.17	1.51	1723.70	57.46	38.16	1162.00	38.73	7593	0.665	1.134
Oct-10	45.35	1.46	1902.60	61.37	41.95	1565.00	50.48	7410	0.787	1.133
Nov-10	41.89	1.40	1936.55	64.55	46.23	1236.00	41.20	7677	0.632	1.132
Dec-10	44.53	1.44	1605.57	51.79	36.05	1623.00	52.35	7016	0.963	1.131
Cumulative Oil Produced (E3m3)					128.424					
Cumulative Water Produced (E3m3)					711.528					
Cumulative Water Injected (E3m3)					951.377					

Table 4

Virden Roselea Unit No. 3

Pattern: PAT 16-02

Date	Monthly Oil Prod m3	Oil Rate (CD) m3/d	Monthly Water Prod m3	Water Rate (CD) m3/d	Water Oil Ratio m3/m3	Monthly Water Inj m3	Water Inj Rate (CD) m3/d	Water Inj Press kpa	Voidage Replacement Ratio	Cum Voidage Replacem Ratio
Jan-10	24.25	0.78	1129.93	36.45	46.59	1484.00	47.87	5400	1.260	1.484
Feb-10	20.79	0.74	1021.70	36.49	49.15	1170.00	41.79	5400	1.217	1.484
Mar-10	22.88	0.74	1184.57	38.21	51.78	1890.00	60.97	5400	1.534	1.484
Apr-10	19.10	0.64	1108.46	36.95	58.04	1573.00	52.43	5407	1.412	1.484
May-10	21.31	0.69	1528.70	49.31	71.73	1573.00	50.74	5600	0.995	1.483
Jun-10	19.32	0.64	409.01	13.63	21.17	532.00	17.73	5593	1.256	1.483
Jul-10	20.76	0.67	1269.88	40.96	61.16	1370.00	44.19	5400	1.040	1.482
Aug-10	22.48	0.73	1581.65	51.02	70.36	1941.00	62.61	5400	1.186	1.481
Sep-10	18.15	0.61	1058.08	35.27	58.29	1730.00	57.67	5400	1.628	1.481
Oct-10	17.35	0.56	1196.92	38.61	68.98	1610.00	51.94	5400	1.299	1.481
Nov-10	16.33	0.54	1427.34	47.58	87.42	1540.00	51.33	5400	1.080	1.480
Dec-10	17.20	0.55	1200.68	38.73	69.80	1659.00	53.52	5400	1.335	1.480

Cumulative Oil Produced (E3m3) 98.787

Cumulative Water Produced (E3m3) 628.824

Cumulative Water Injected (E3m3) 1078.239

Table 4

Virden Roselea Unit No. 3

Pattern: PAT 16-03

Date	Monthly Oil Prod m3	Oil Rate (CD) m3/d	Monthly Water Prod m3	Water Rate (CD) m3/d	Water Oil Ratio m3/m3	Monthly Water Inj m3	Water Inj Rate (CD) m3/d	Water Inj Press kpa	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio
Jan-10	5.20	0.17	868.40	28.01	167.00	2410.00	77.74	4700	2.705	0.937
Feb-10	7.22	0.26	944.82	33.74	130.77	2210.00	78.93	4700	2.519	0.938
Mar-10	32.62	1.05	909.38	29.33	27.87	1900.00	61.29	4700	1.975	0.939
Apr-10	24.55	0.82	707.20	23.57	28.81	1700.00	56.67	4700	2.350	0.940
May-10	22.60	0.73	956.25	30.85	42.31	1650.00	53.23	4700	1.651	0.940
Jun-10	21.15	0.71	296.25	9.88	14.01	532.00	17.73	4710	1.693	0.940
Jul-10	24.67	0.80	930.32	30.01	37.70	1370.00	44.19	5000	1.405	0.941
Aug-10	24.90	0.80	1149.88	37.09	46.18	2827.00	91.19	5000	2.357	0.942
Sep-10	23.05	0.77	821.25	27.37	35.63	3624.00	120.80	5000	4.344	0.944
Oct-10	23.65	0.76	1014.22	32.72	42.88	3273.60	105.60	4952	3.090	0.946
Nov-10	19.05	0.63	295.35	9.85	15.50	3010.00	100.33	3500	9.672	0.948
Dec-10	22.50	0.73	708.73	22.86	31.50	2998.00	96.71	3500	4.014	0.950
Cumulative Oil Produced (E3m3)					98.703					
Cumulative Water Produced (E3m3)					1201.255					
Cumulative Water Injected (E3m3)					1235.793					

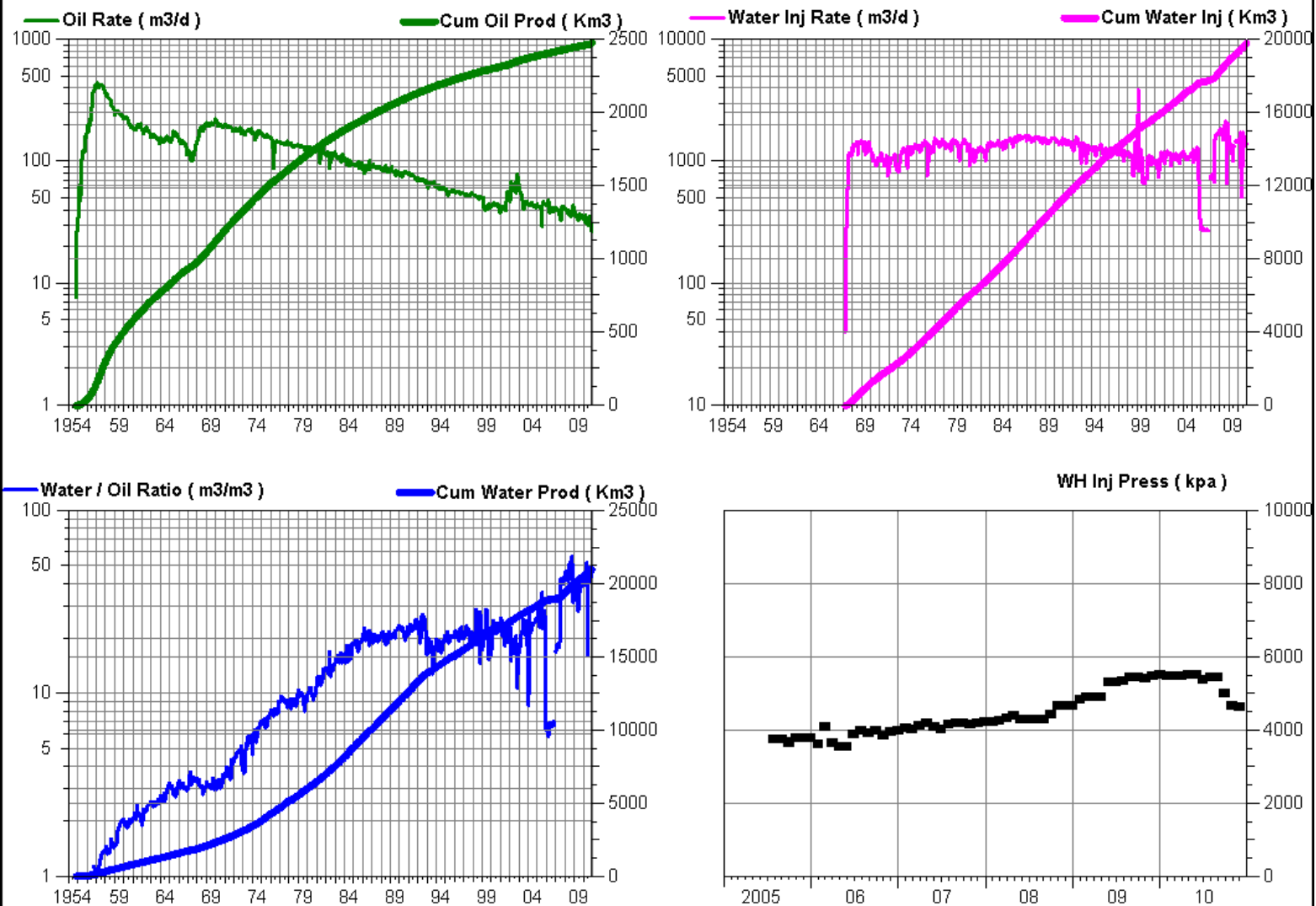
Table 4

Virden Roselea Unit No. 3

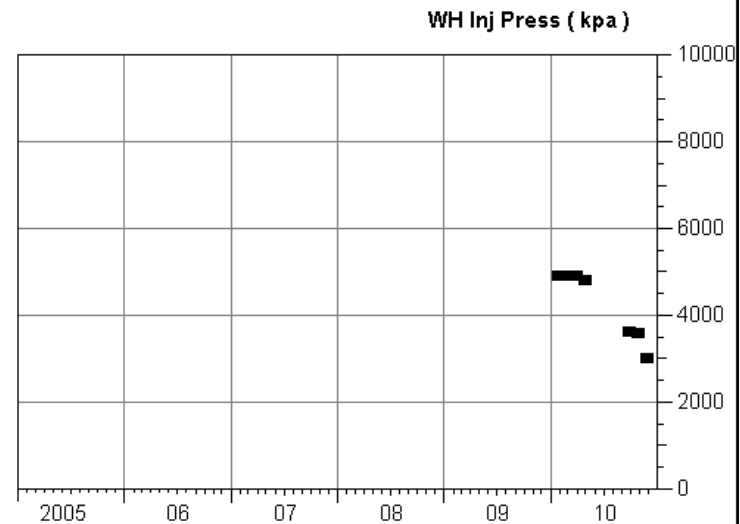
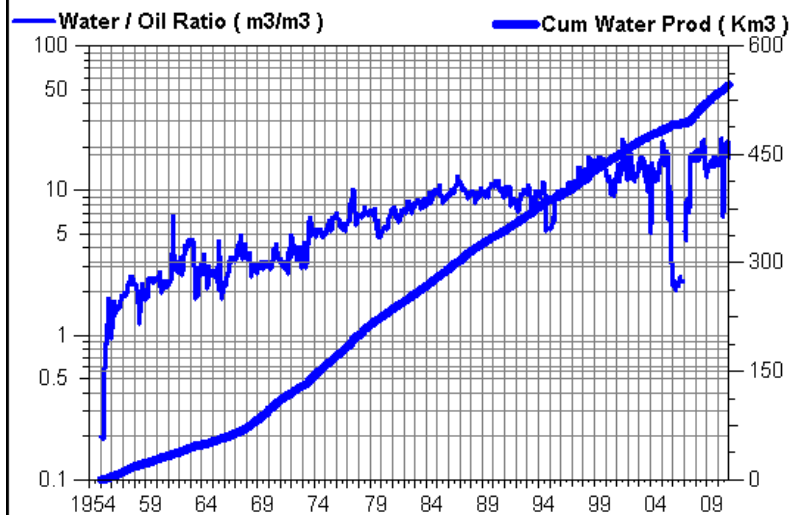
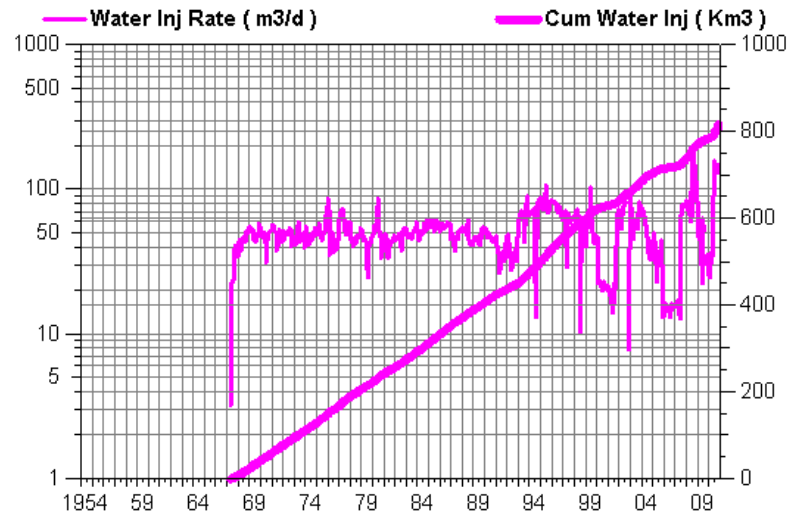
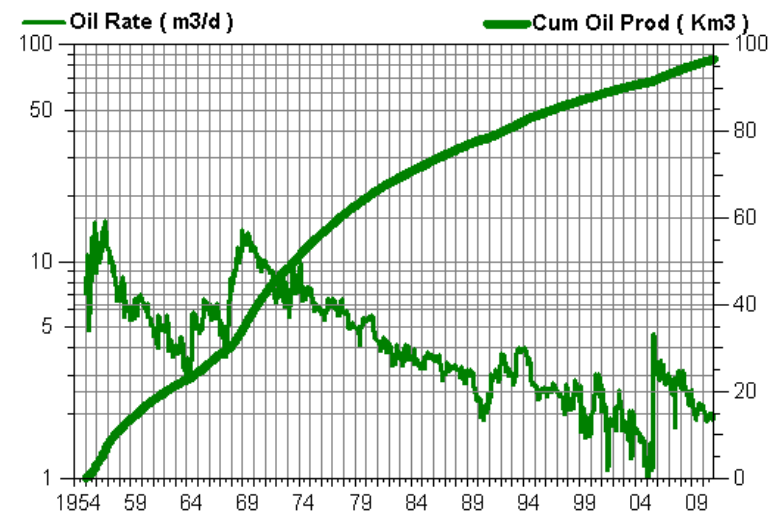
Pattern: PAT 16-11

Date	Monthly Oil Prod m3	Oil Rate (CD) m3/d	Monthly Water Prod m3	Water Rate (CD) m3/d	Water Oil Ratio m3/m3	Monthly Water Inj m3	Water Inj Rate (CD) m3/d	Water Inj Press kpa	Voidage Replacement Ratio	Cum Voidage Replacemt Ratio
Jan-10	51.45	1.66	731.06	23.58	14.21	903.00	29.13	5000	1.128	1.179
Feb-10	37.17	1.33	717.78	25.63	19.31	714.00	25.50	5000	1.024	1.179
Mar-10	46.39	1.50	833.45	26.89	17.97	1153.00	37.19	5000	1.282	1.179
Apr-10	42.79	1.43	856.42	28.55	20.02	1003.00	33.43	5000	1.128	1.179
May-10	46.03	1.48	1154.05	37.23	25.07	983.00	31.71	5000	0.802	1.178
Jun-10	35.31	1.18	307.17	10.24	8.70	306.00	10.20	5000	0.901	1.178
Jul-10	45.22	1.46	880.88	28.42	19.48	787.00	25.39	5000	0.831	1.177
Aug-10	55.64	1.79	1267.64	40.89	22.78	952.00	30.71	5010	0.704	1.175
Sep-10	83.60	2.79	1375.23	45.84	16.45	1064.00	35.47	5277	0.737	1.173
Oct-10	46.21	1.49	841.60	27.15	18.21	980.00	31.61	4597	1.080	1.173
Nov-10	35.45	1.18	754.94	25.16	21.30	840.00	28.00	4500	1.075	1.173
Dec-10	35.57	1.15	613.85	19.80	17.26	866.00	27.94	4500	1.304	1.173
Cumulative Oil Produced (E3m3)					103.518					
Cumulative Water Produced (E3m3)					283.863					
Cumulative Water Injected (E3m3)					455.342					

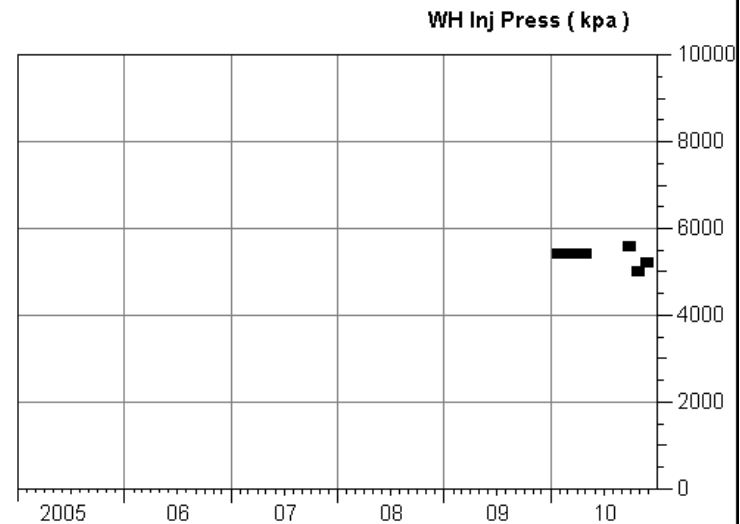
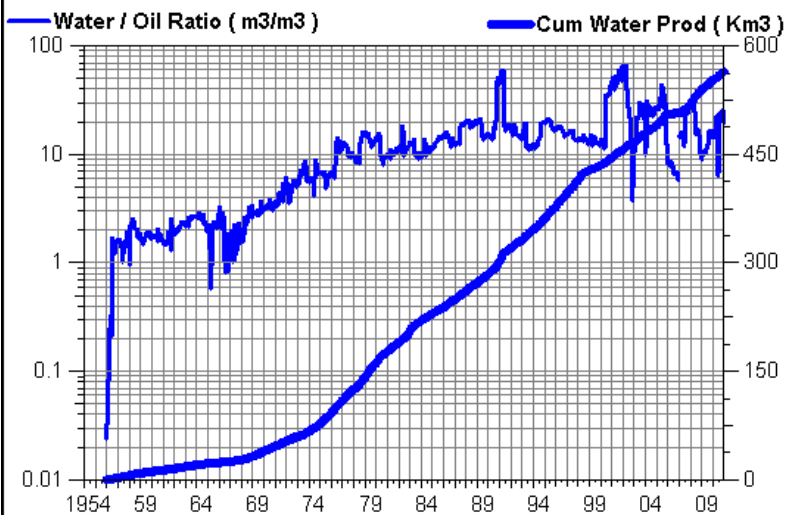
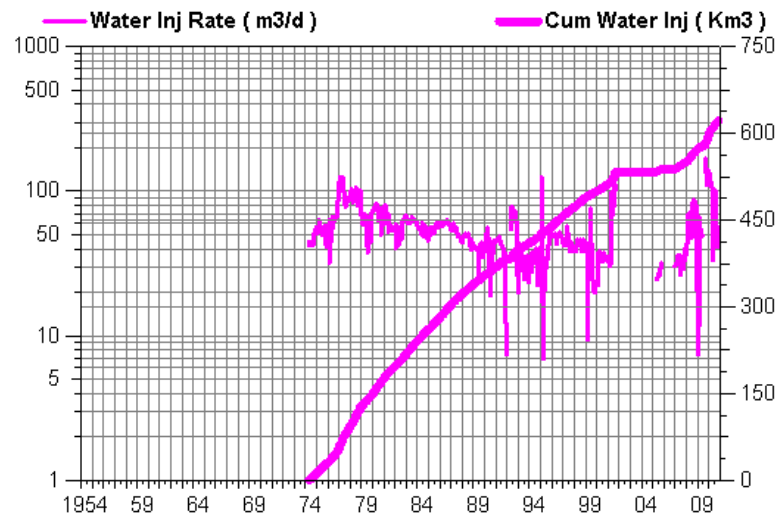
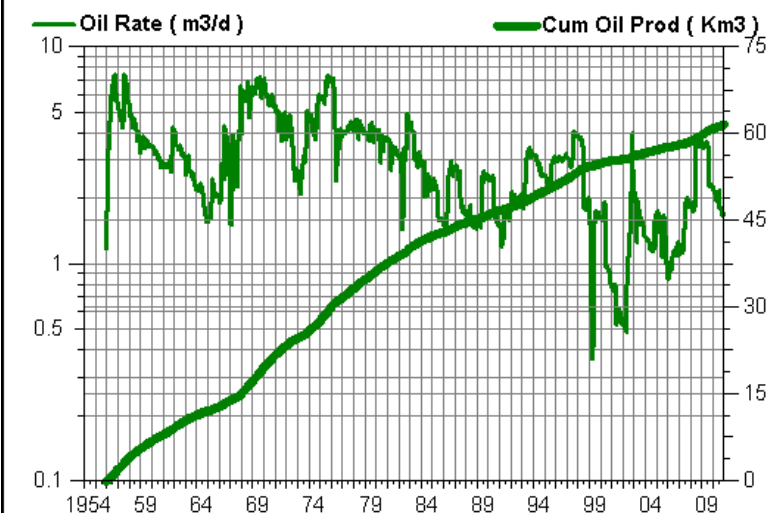
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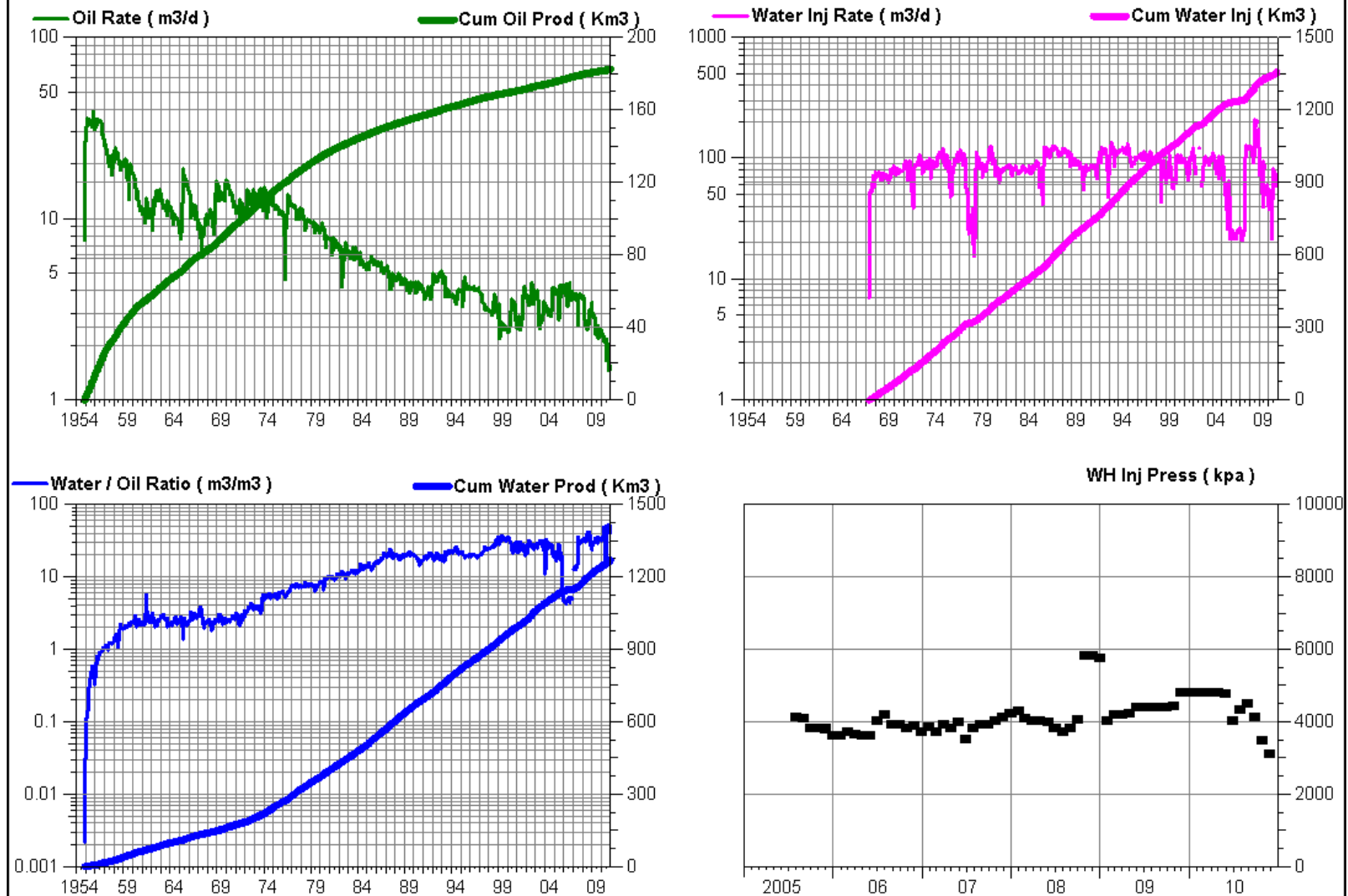
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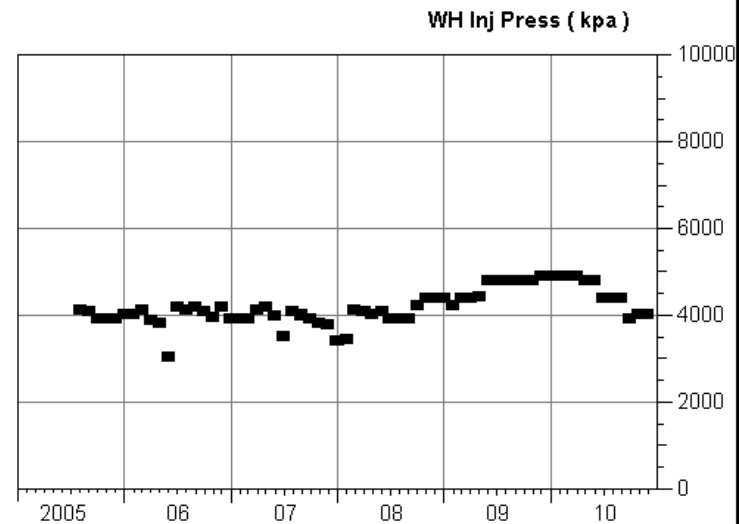
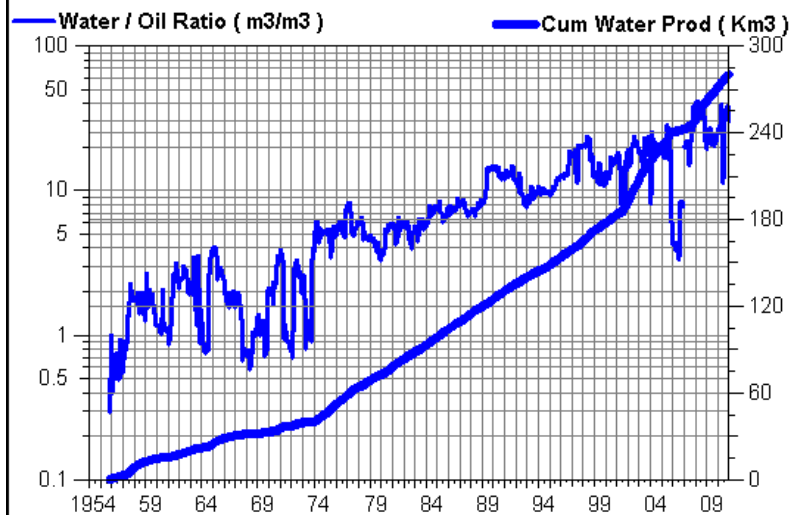
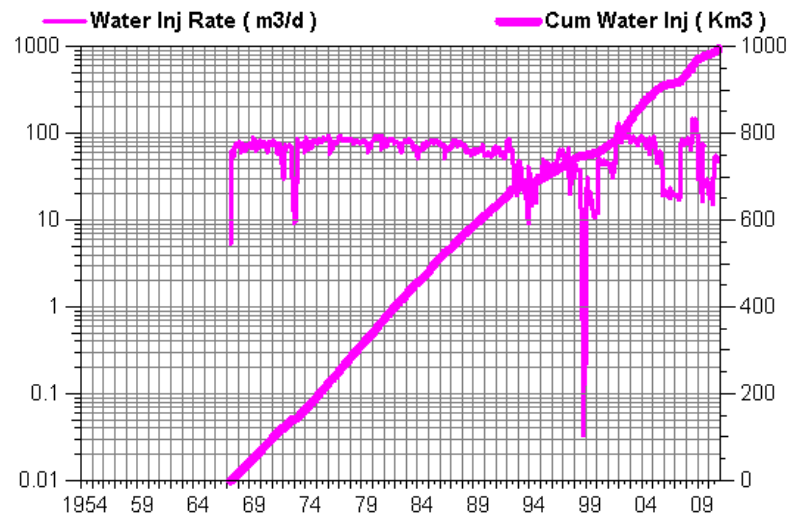
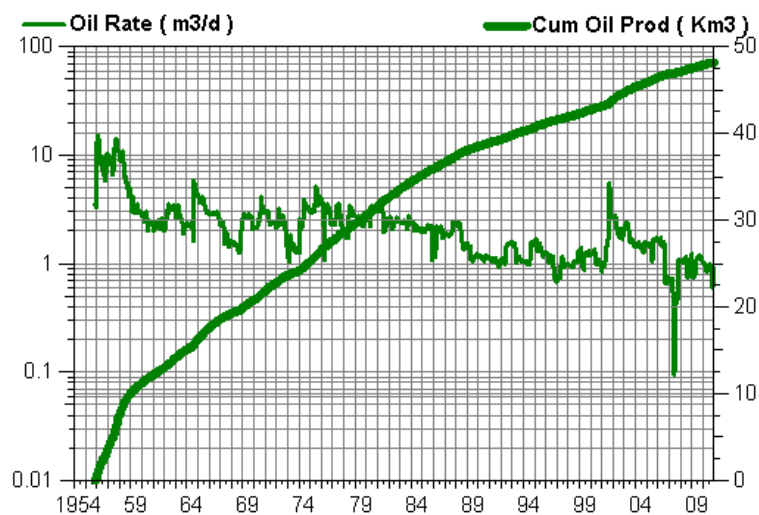
VRU3 Pattern: PAT 02-18



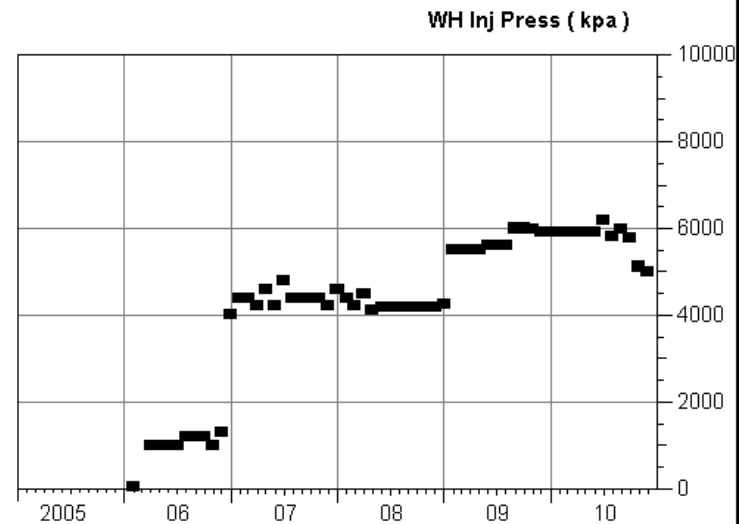
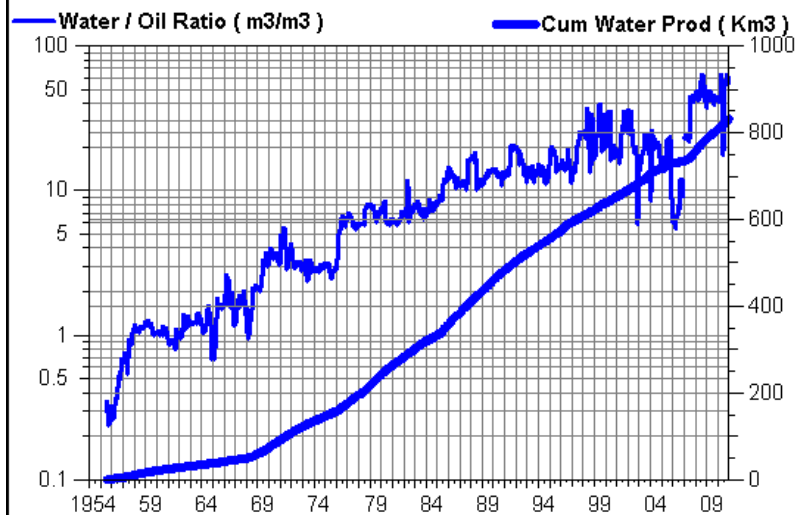
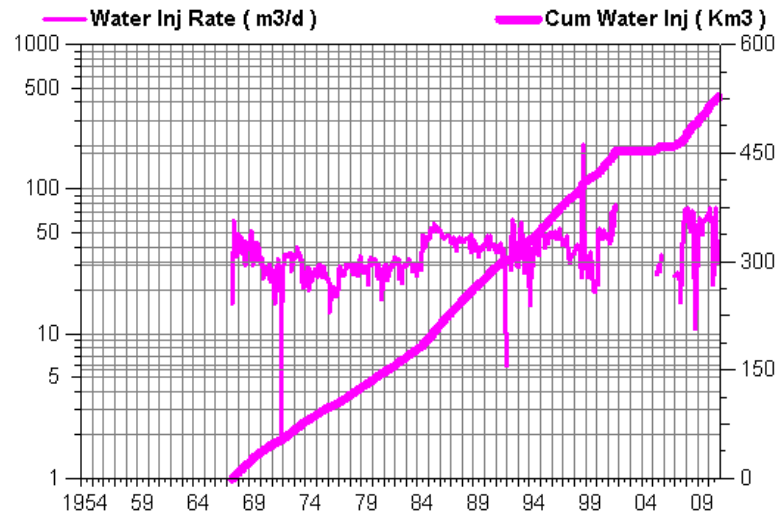
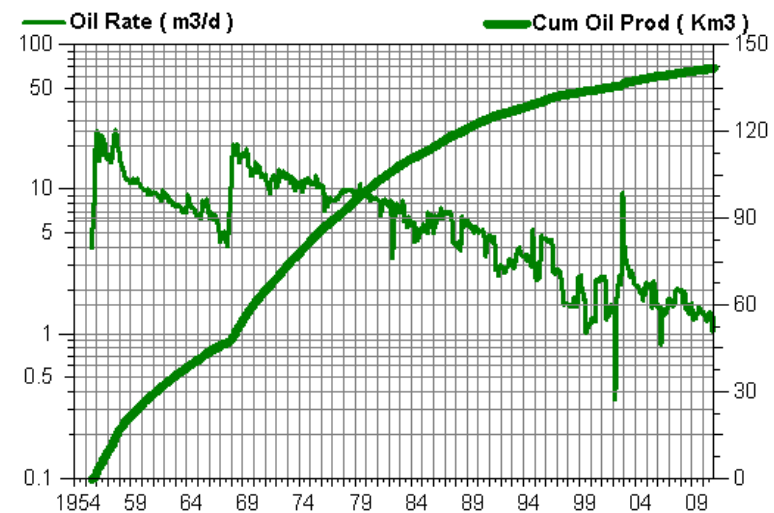
VRU3 Pattern: PAT 03-23



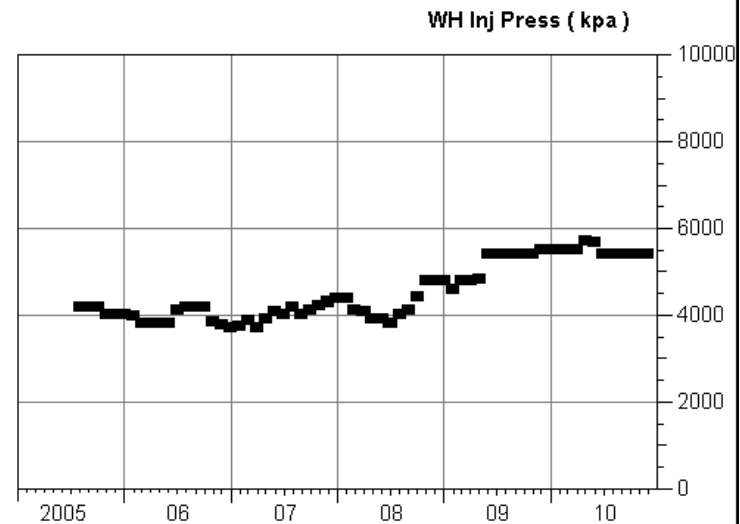
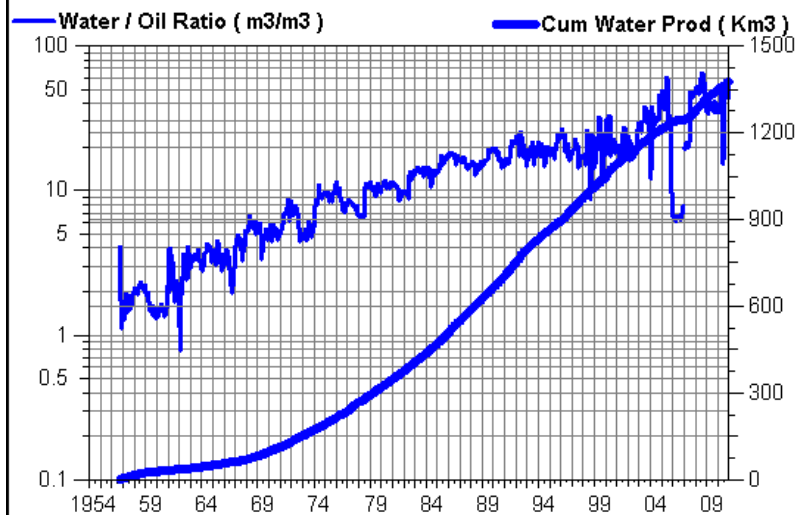
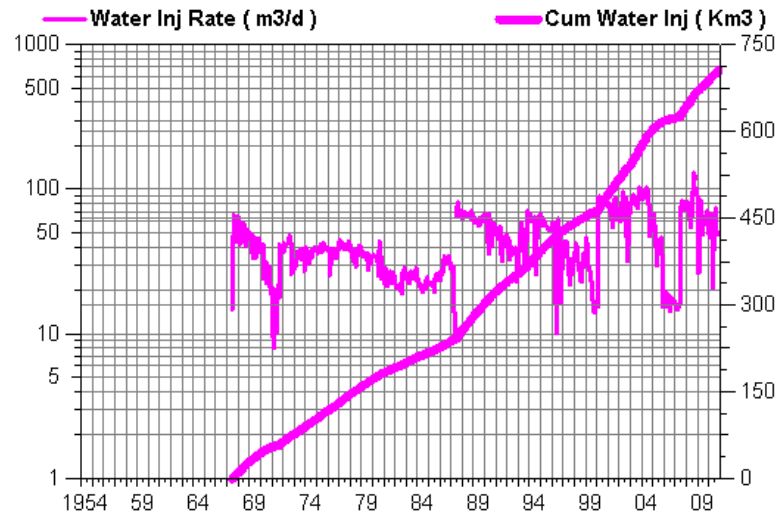
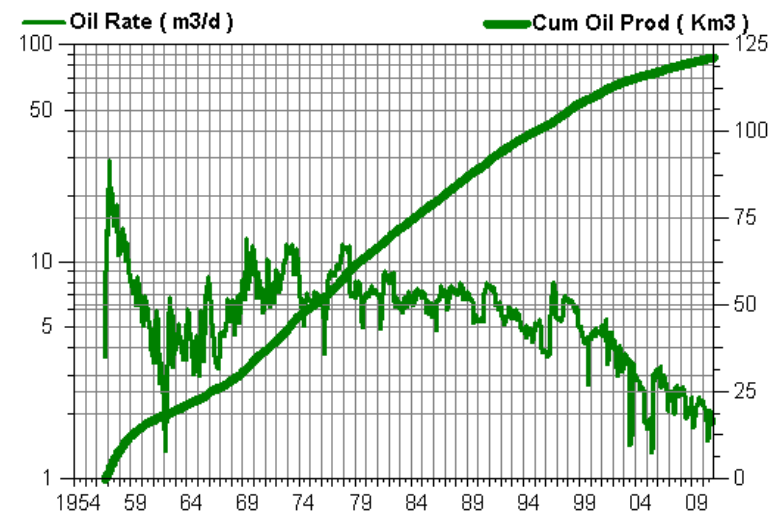
VRU3 Pattern: PAT 04-14



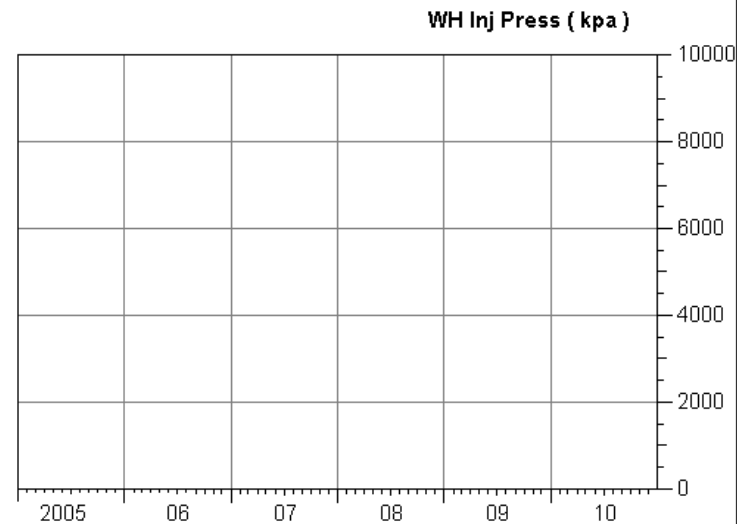
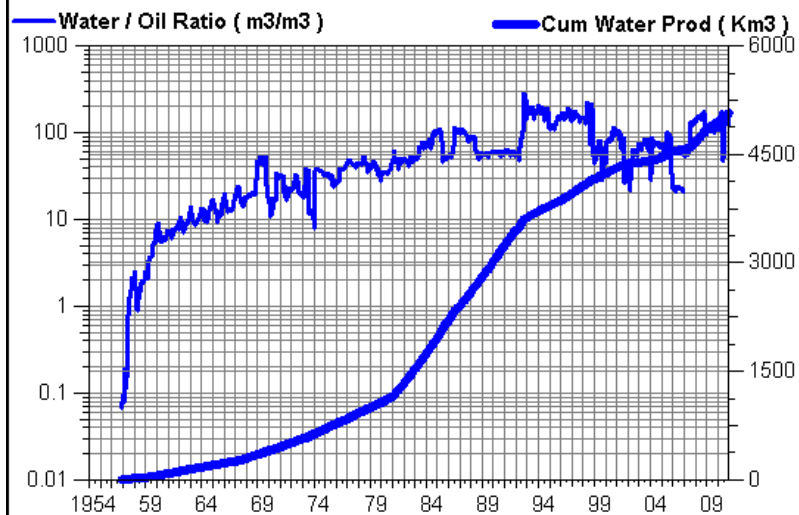
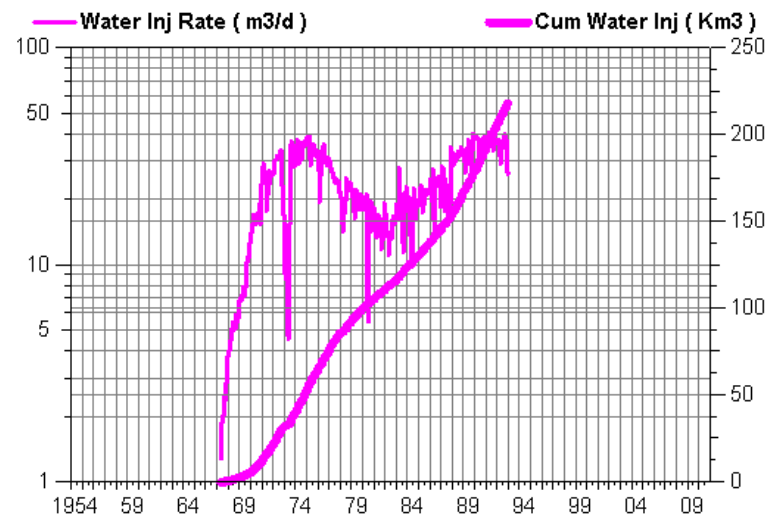
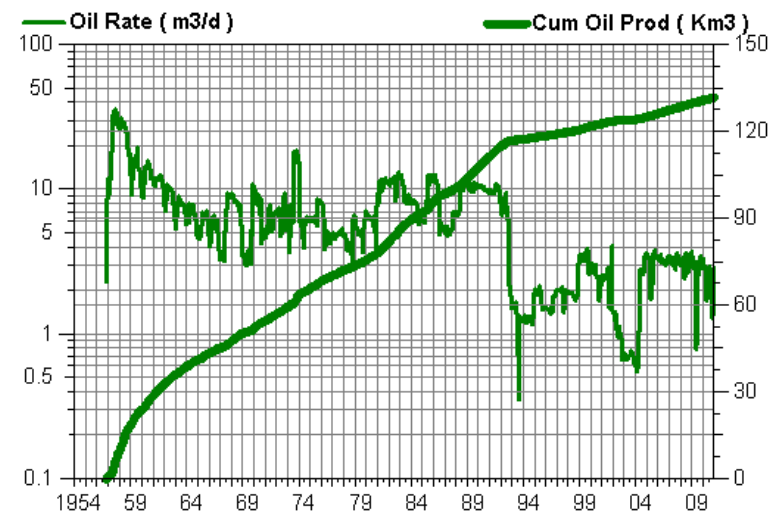
VRU3 Pattern: PAT 04-18



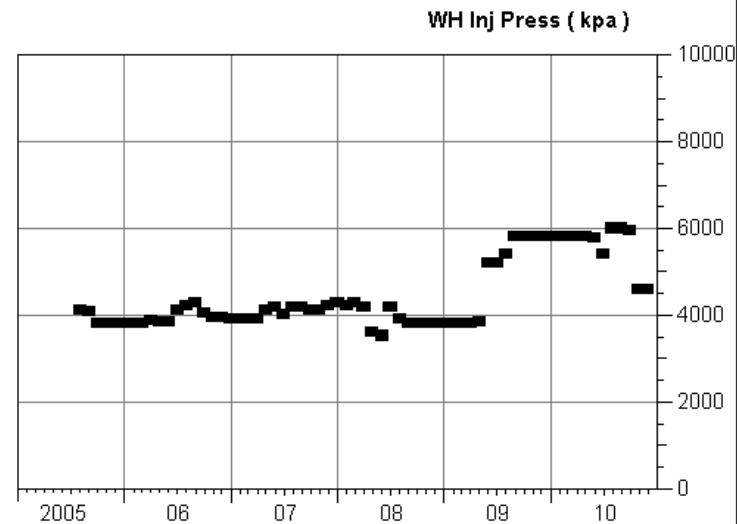
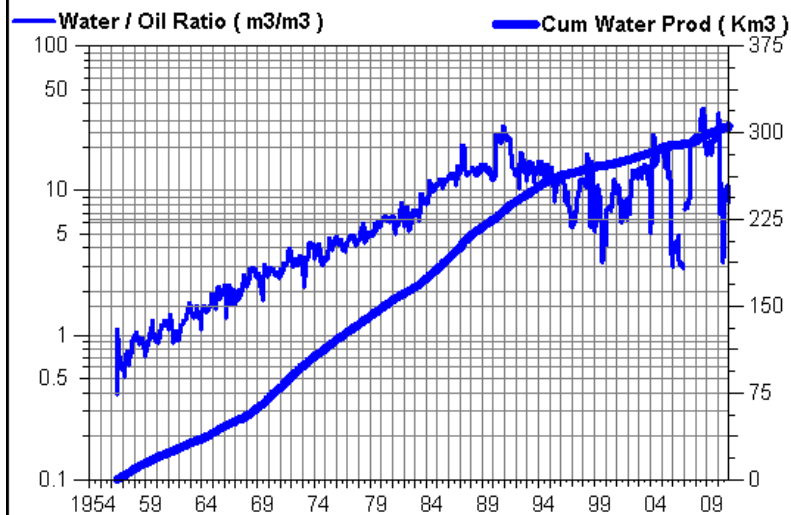
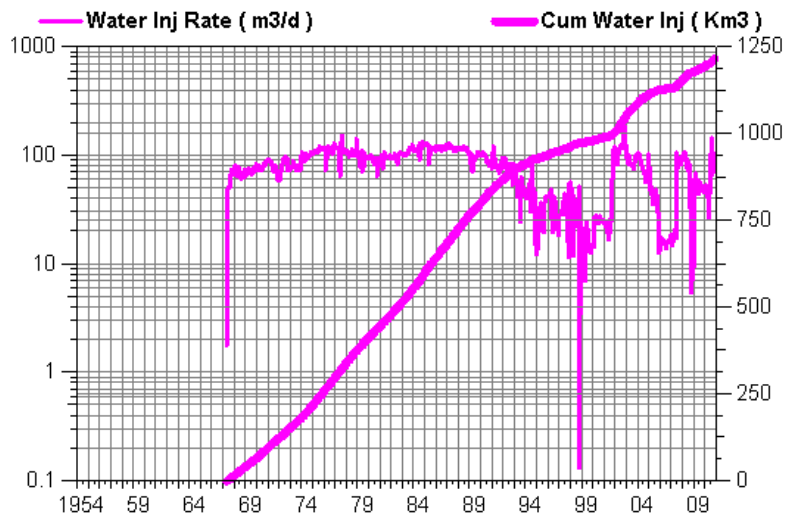
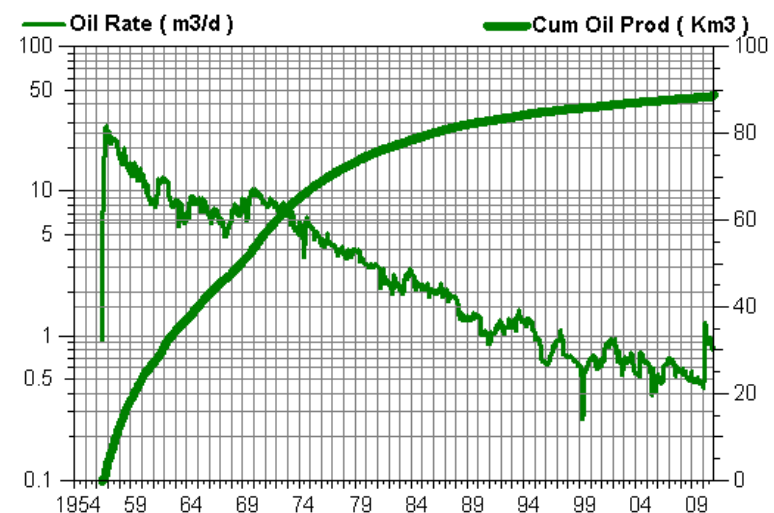
VRU3 Pattern: PAT 06-01



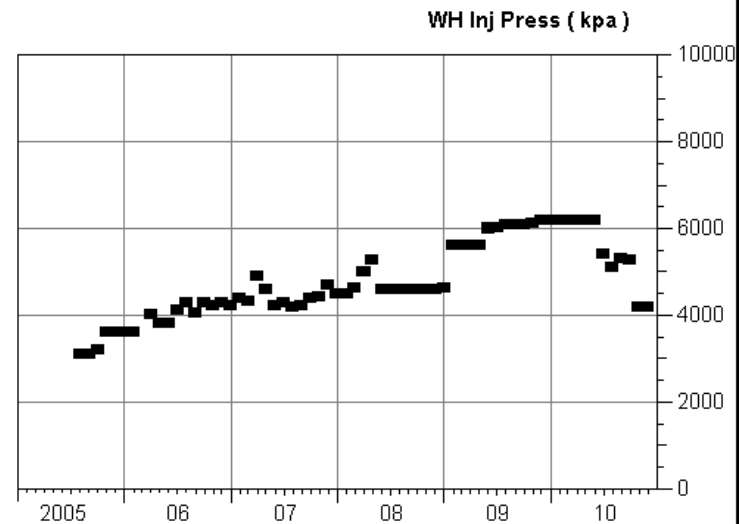
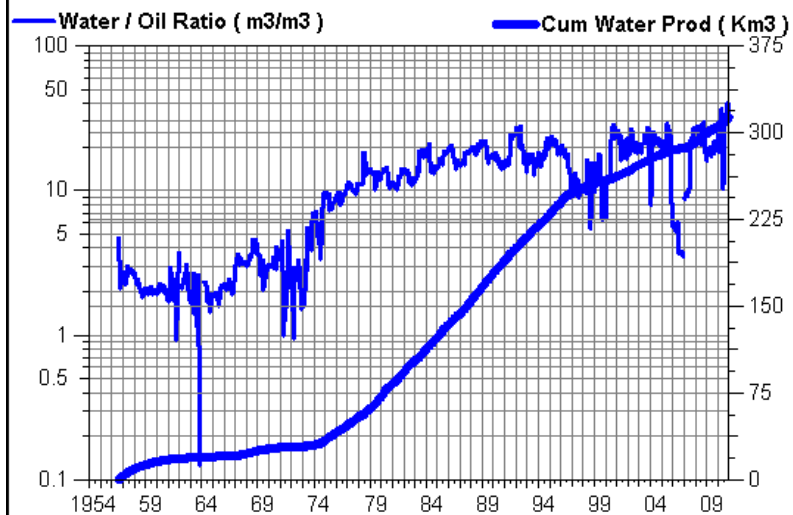
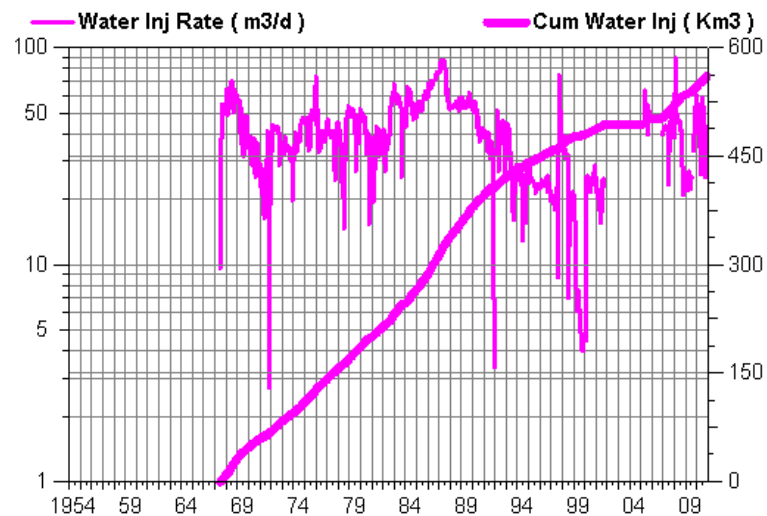
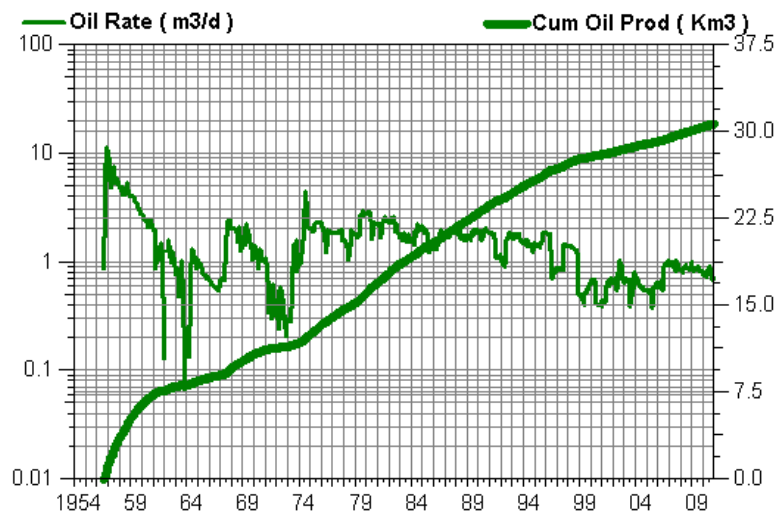
VRU3 Pattern: PAT 06-10



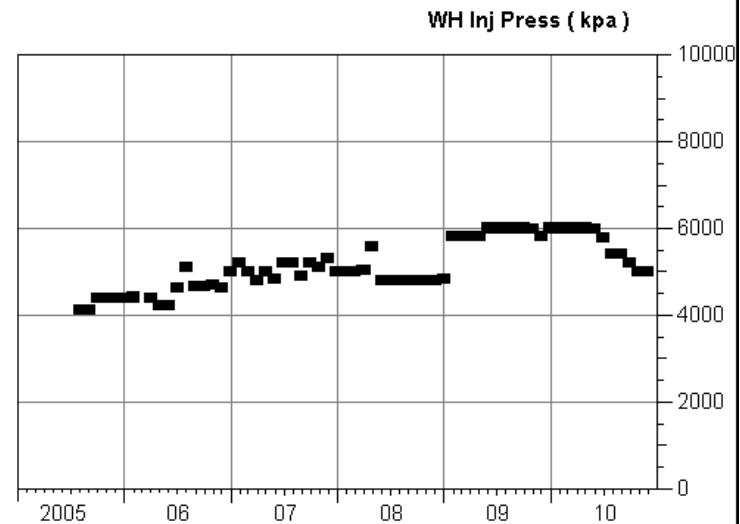
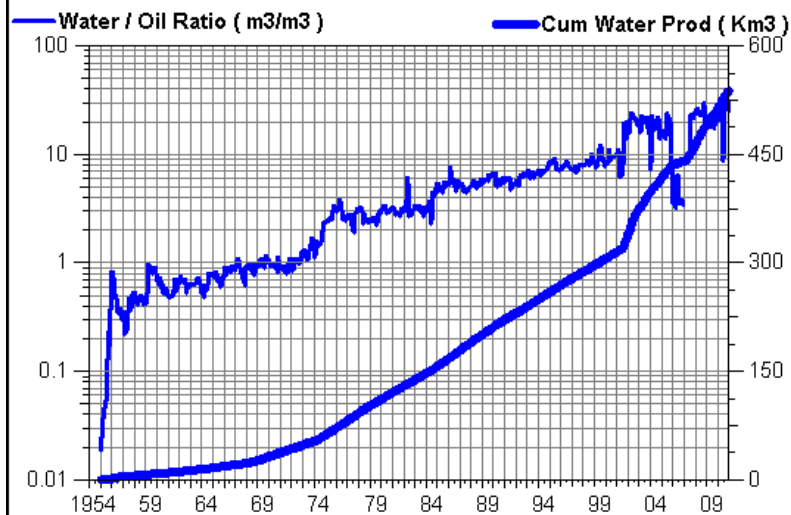
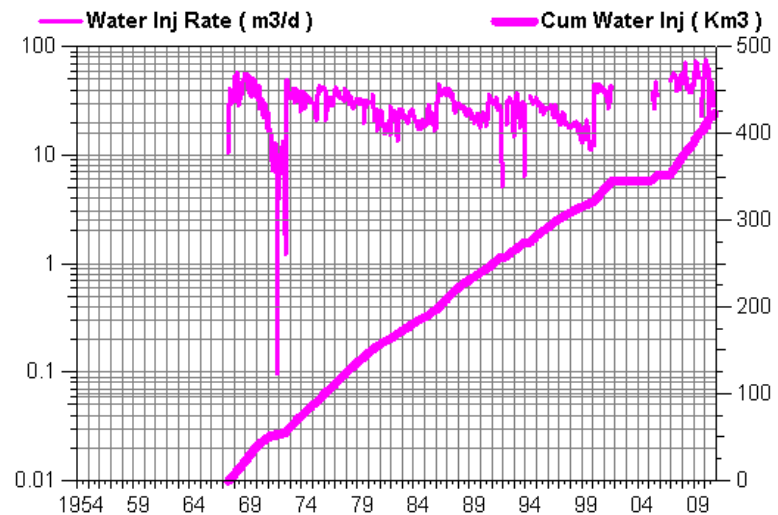
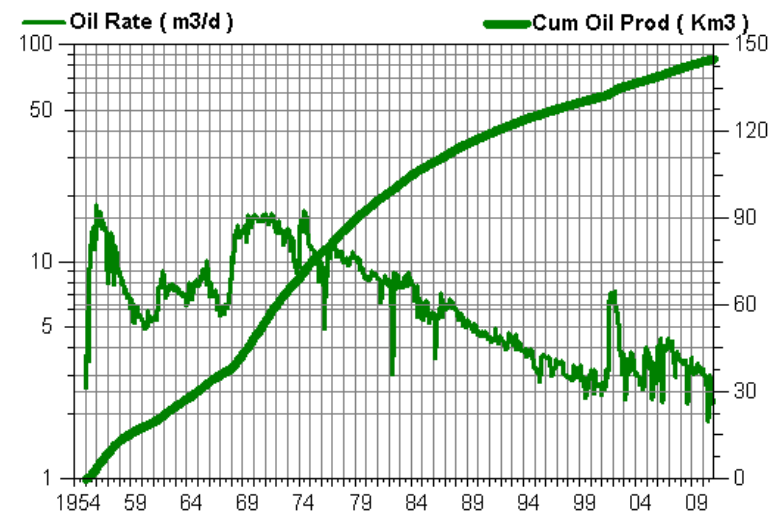
VRU3 Pattern: PAT 06-11



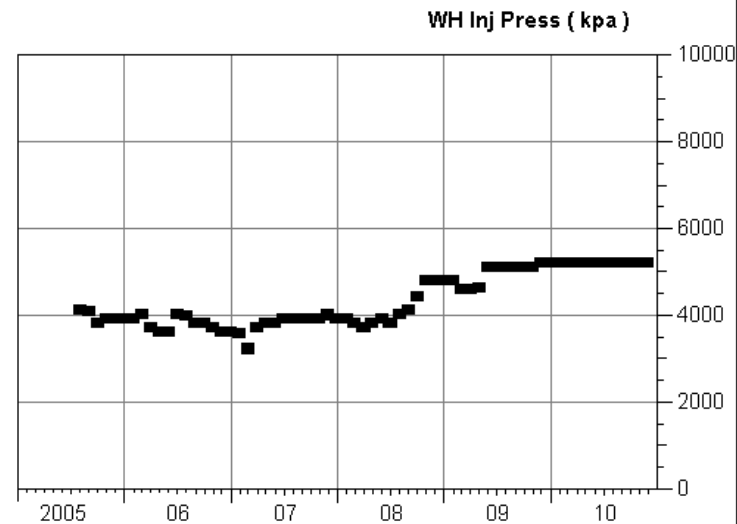
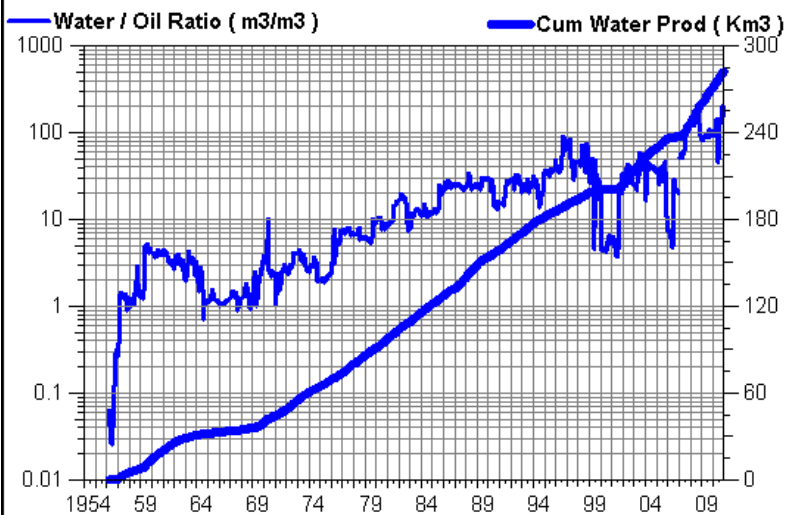
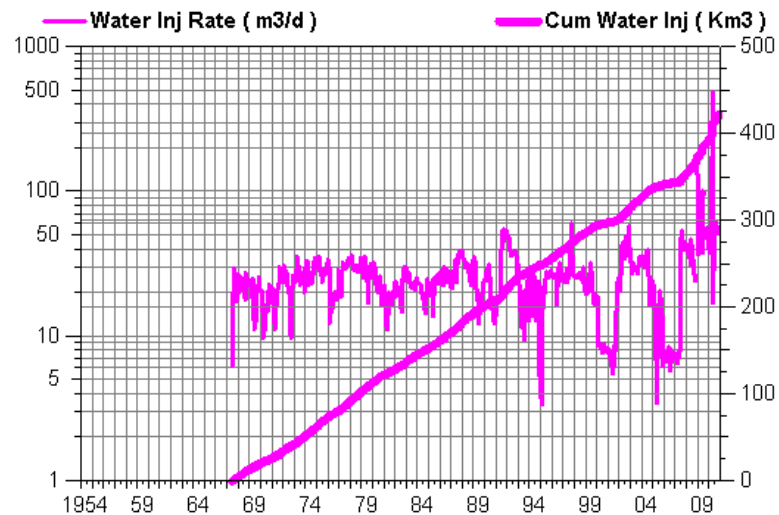
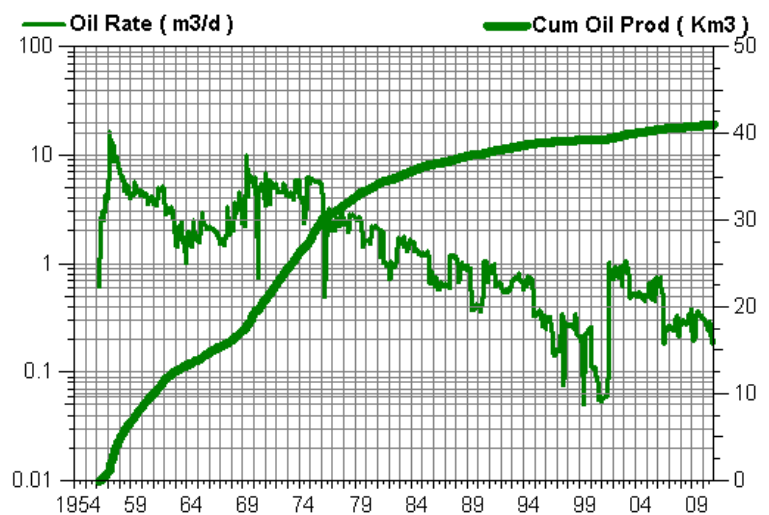
VRU3 Pattern: PAT 06-12



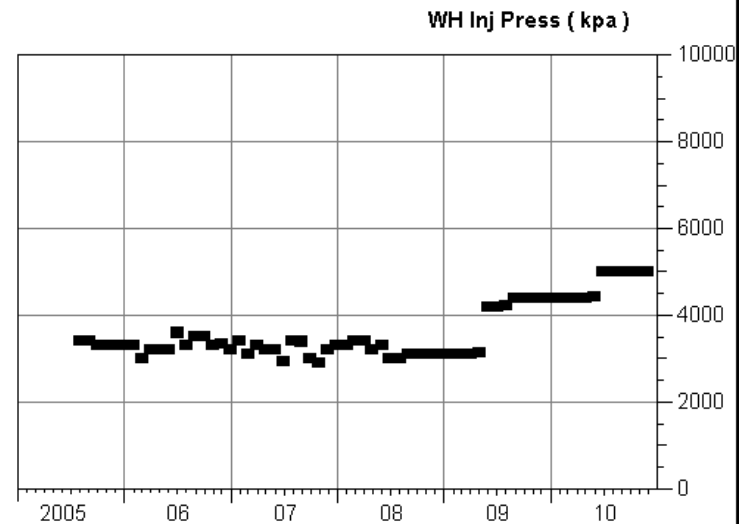
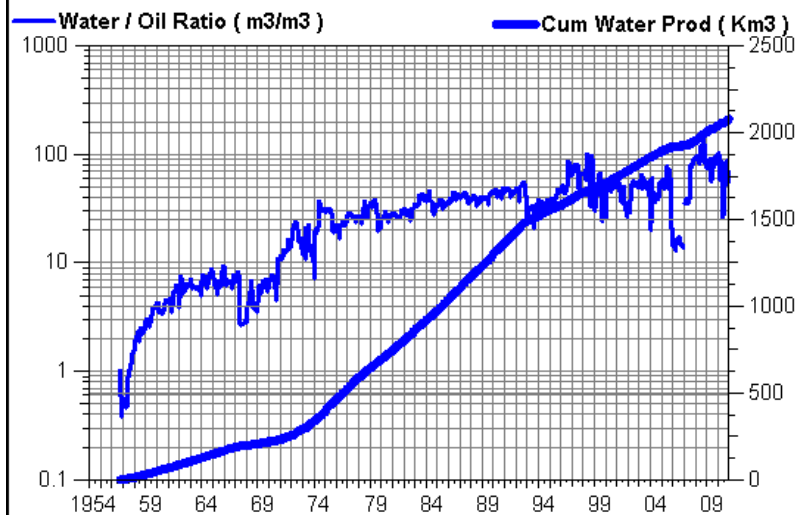
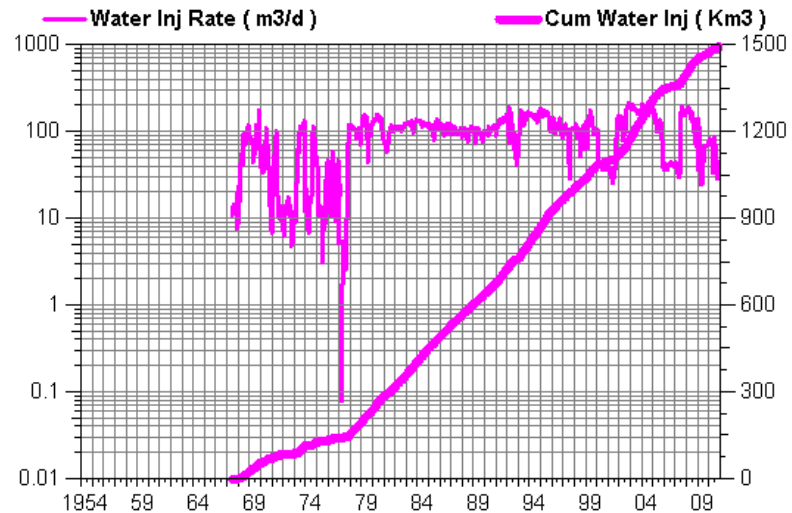
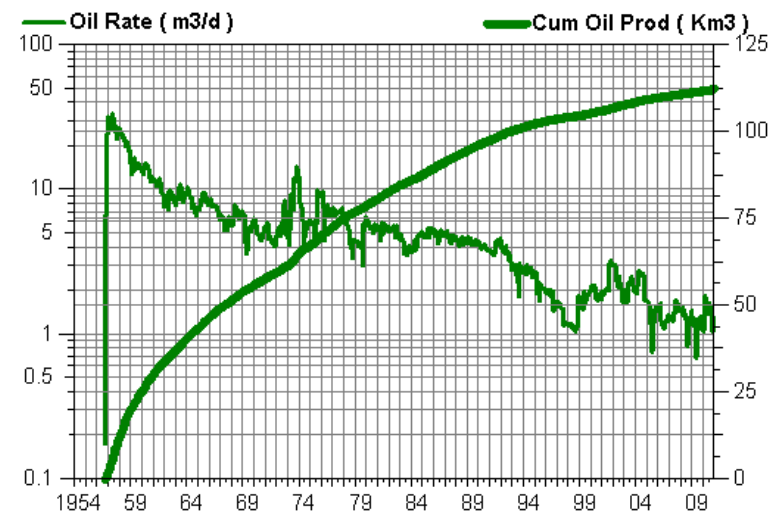
VRU3 Pattern: PAT 06-13



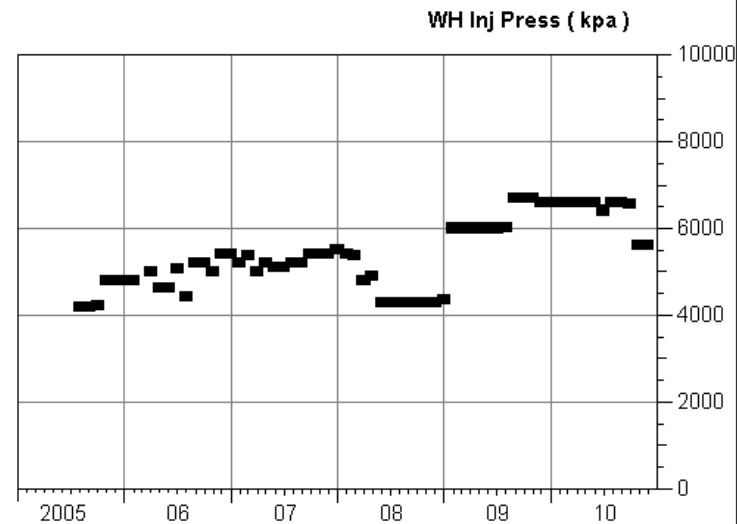
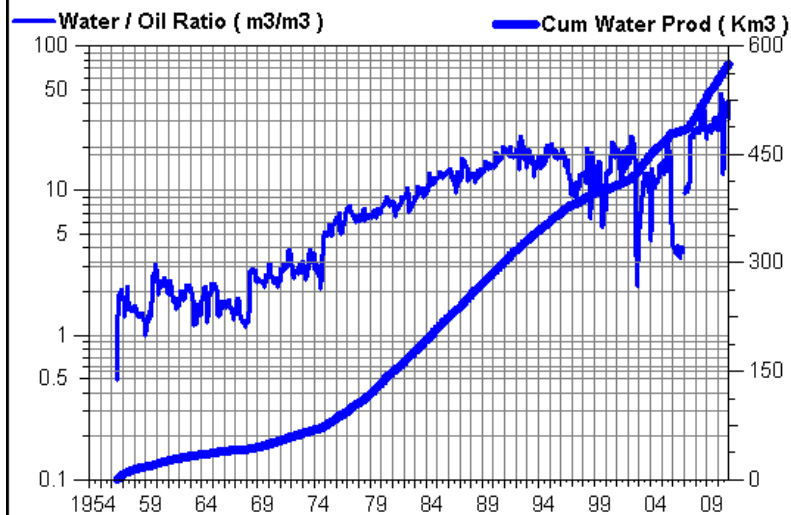
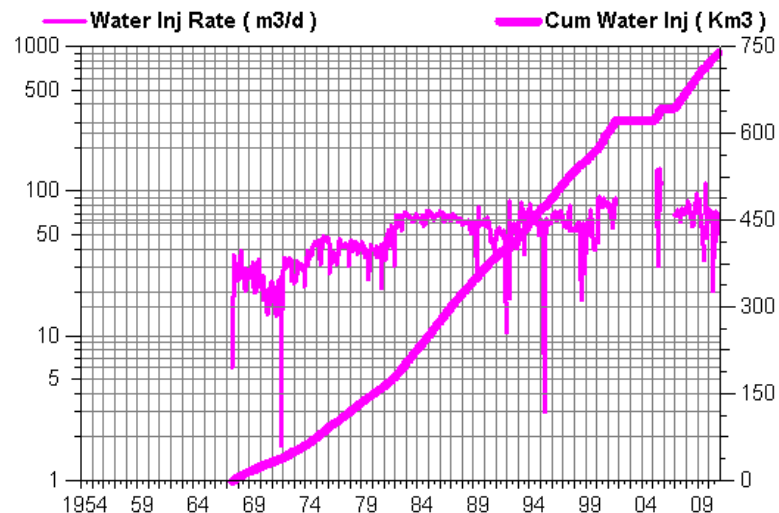
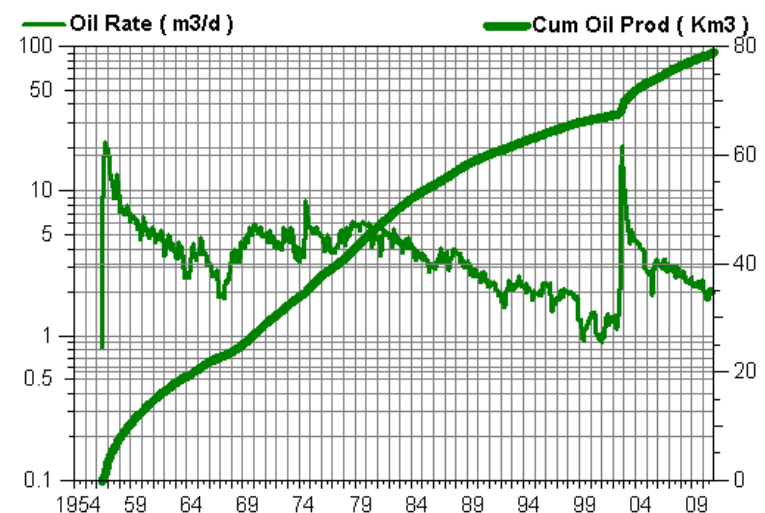
VRU3 Pattern: PAT 08-02



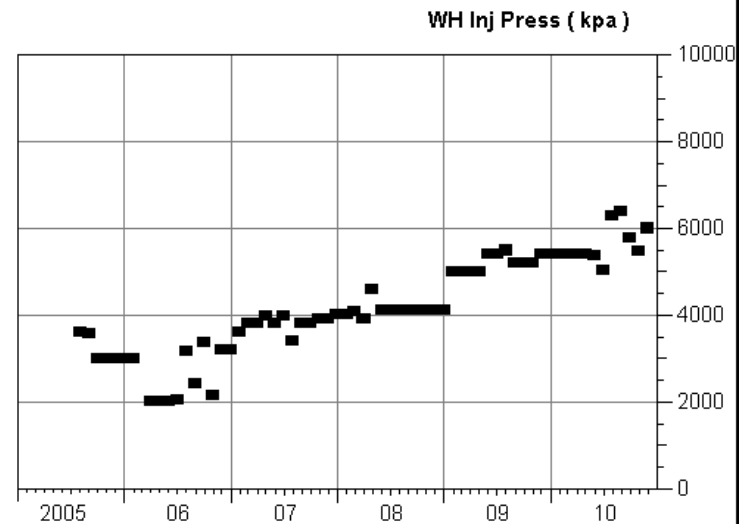
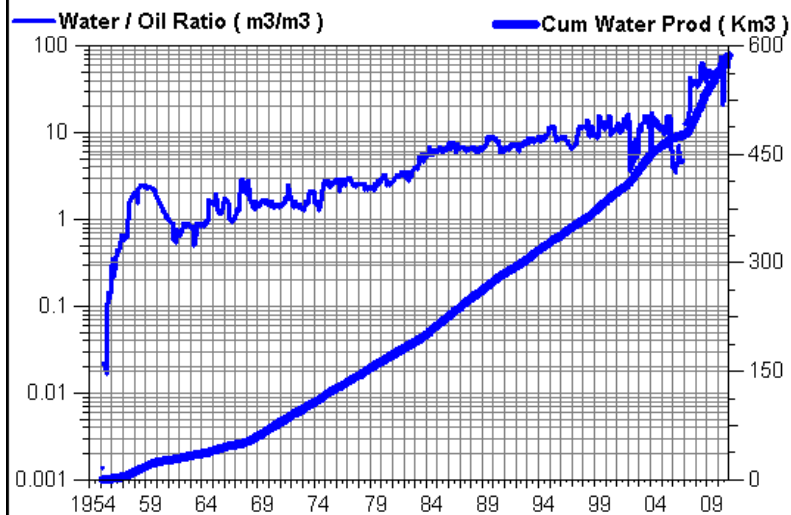
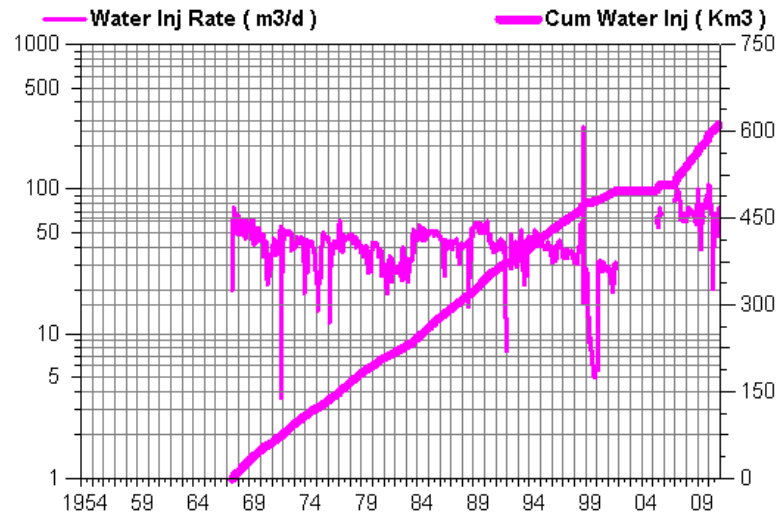
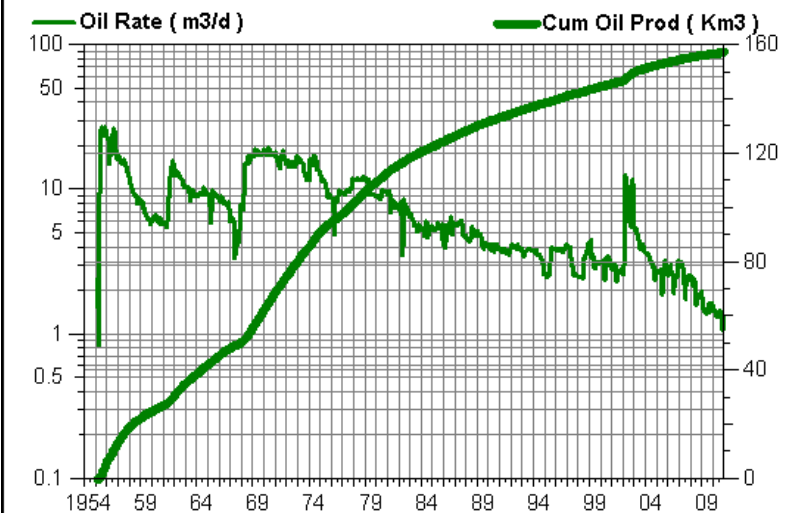
VRU3 Pattern: PAT 08-10



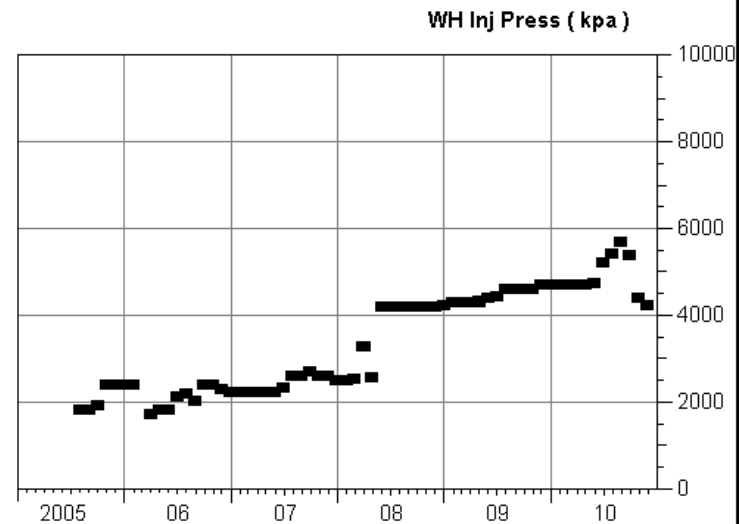
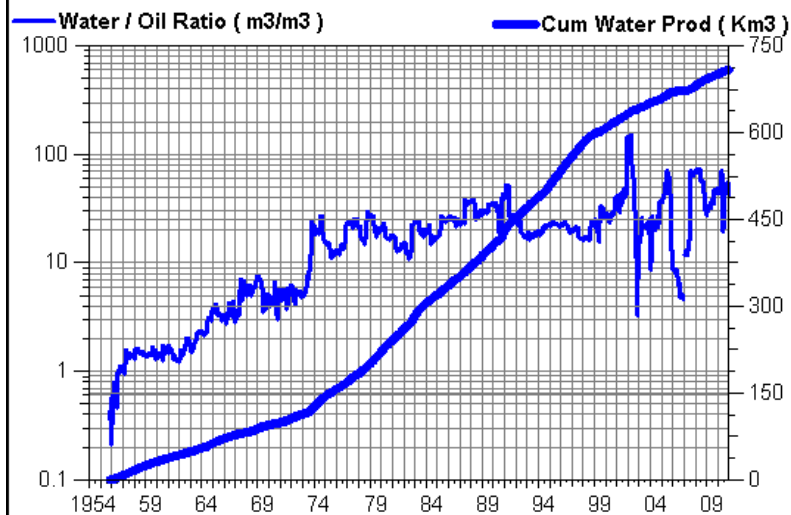
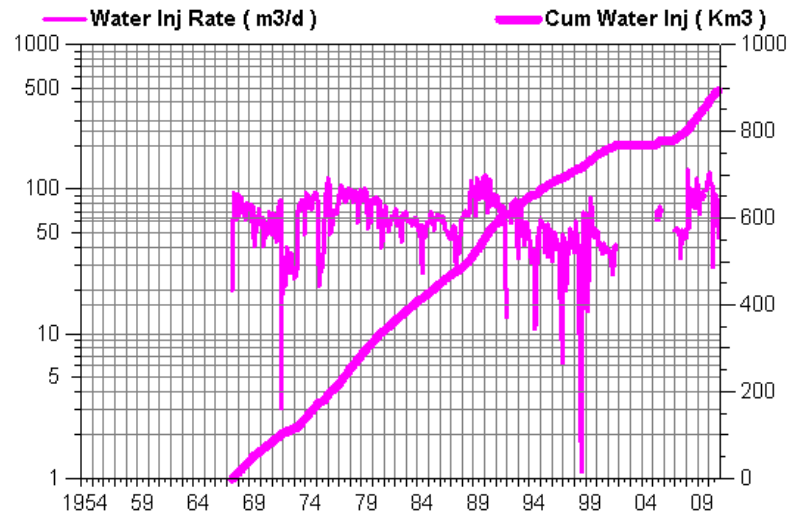
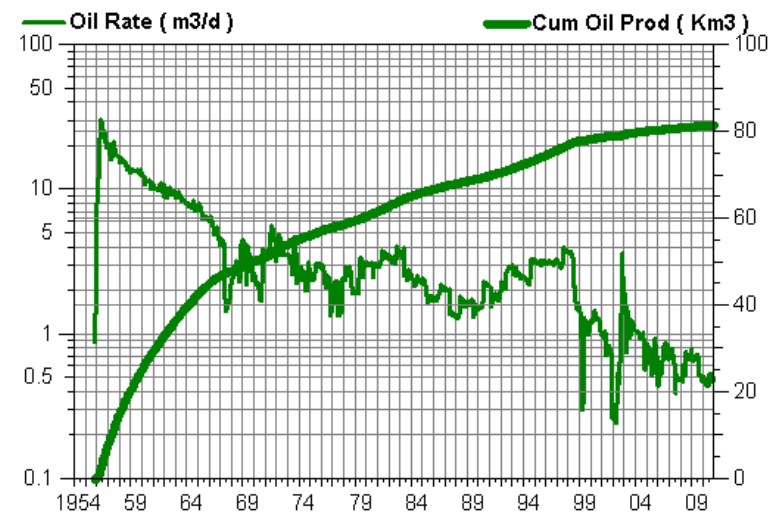
VRU3 Pattern: PAT 08-11



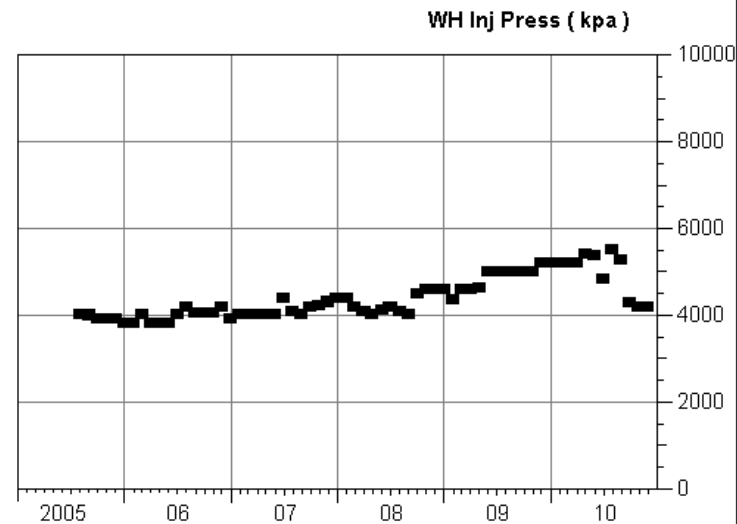
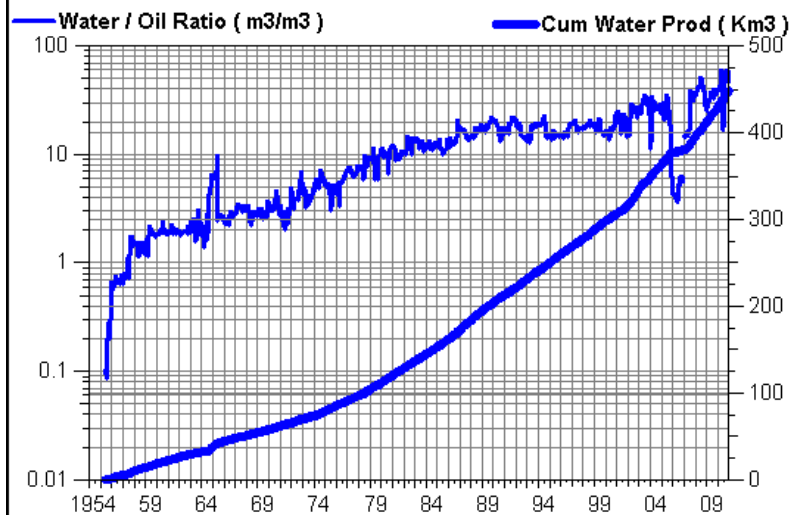
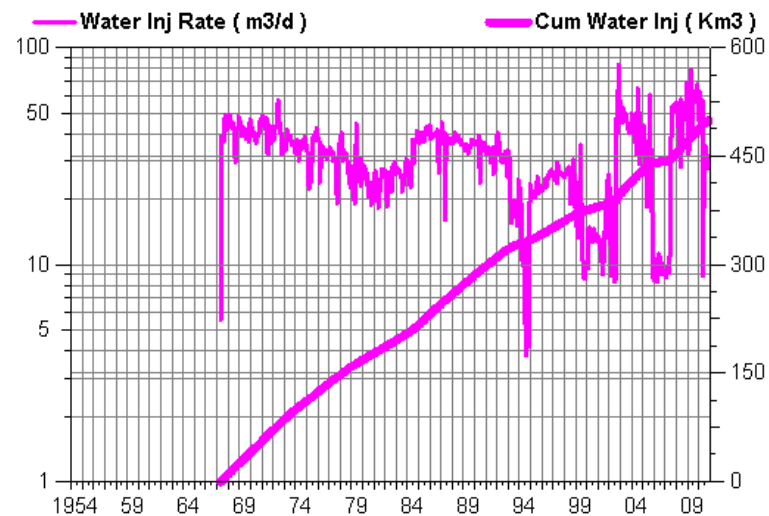
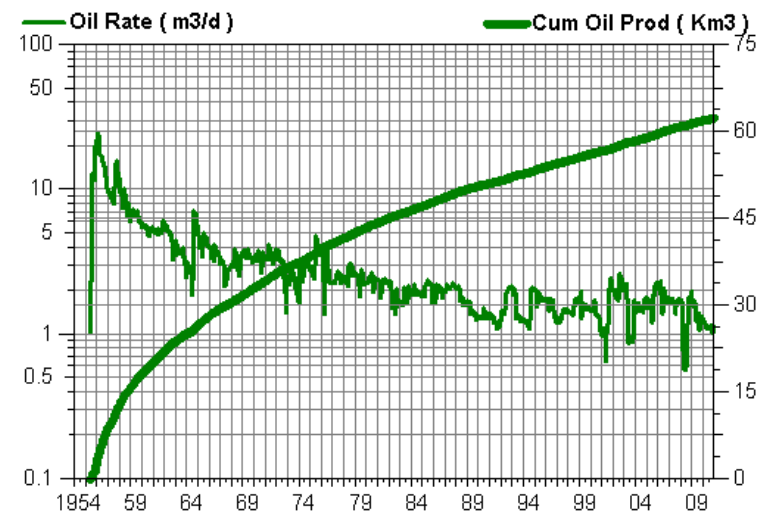
VRU3 Pattern: PAT 09-13



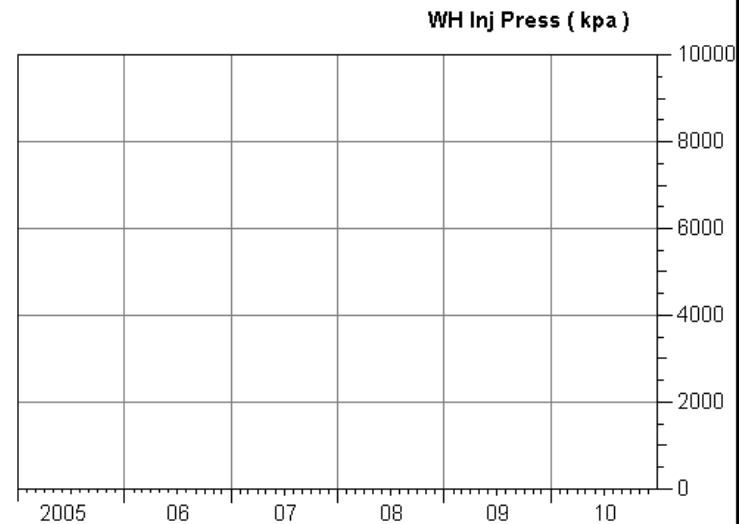
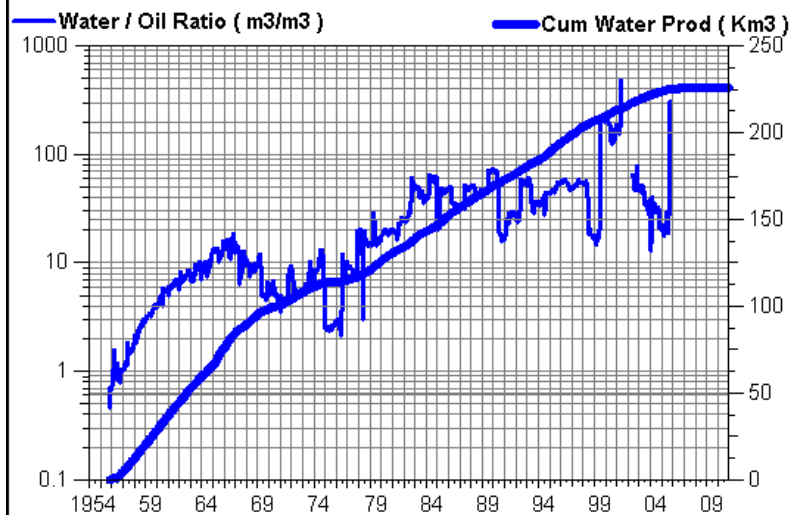
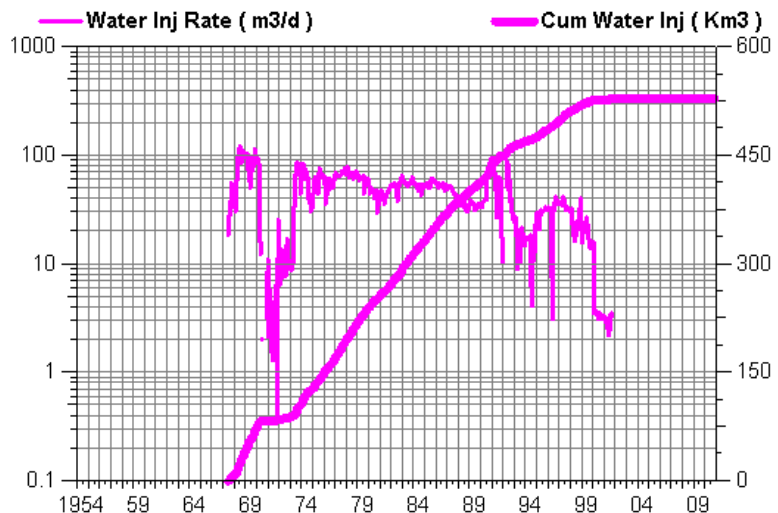
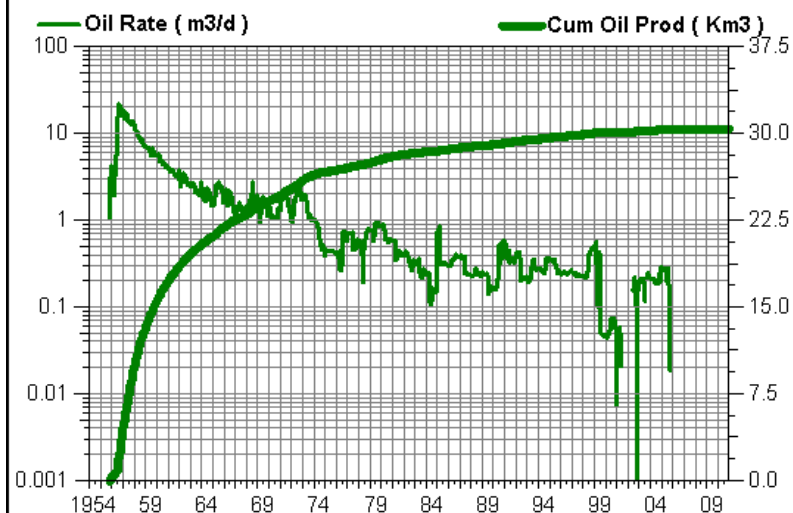
VRU3 Pattern: PAT 10-07



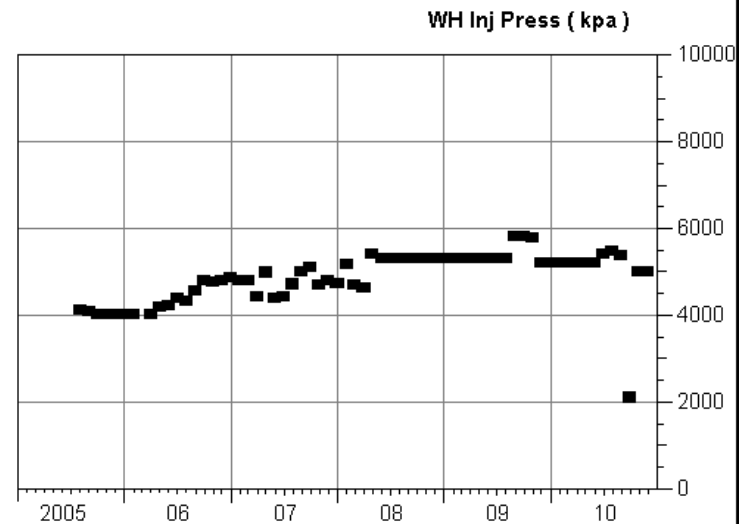
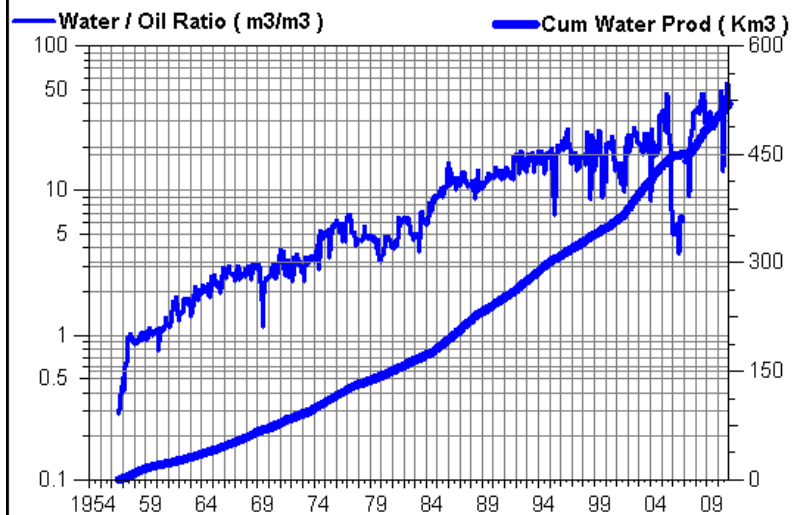
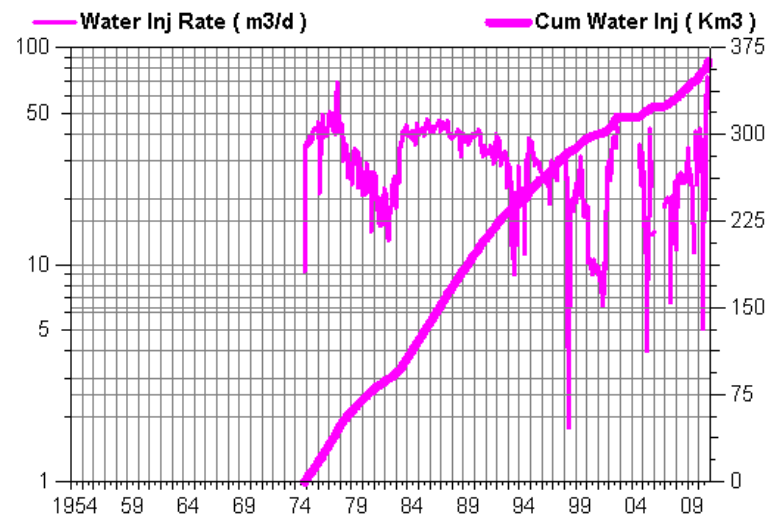
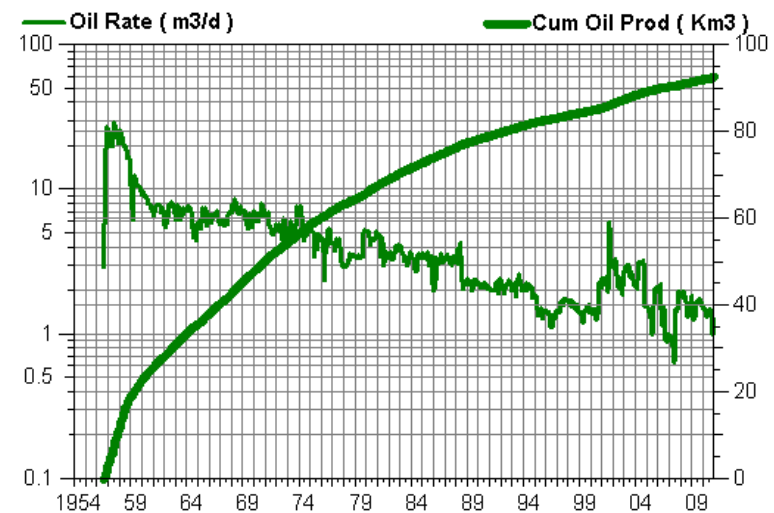
VRU3 Pattern: PAT 11-14



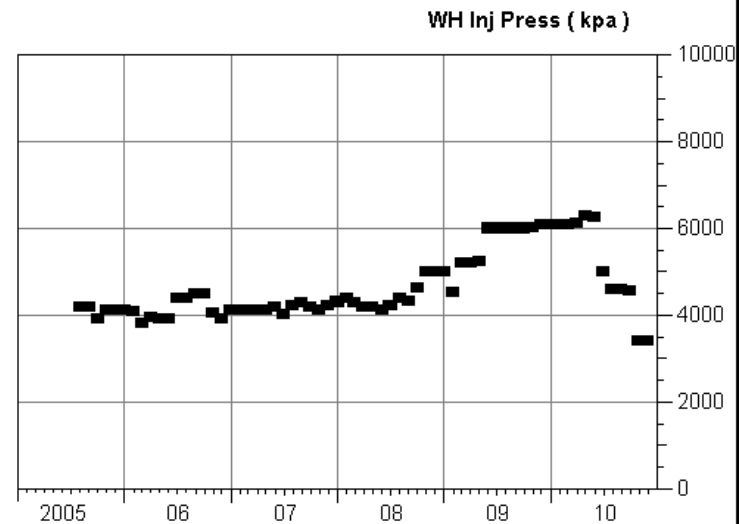
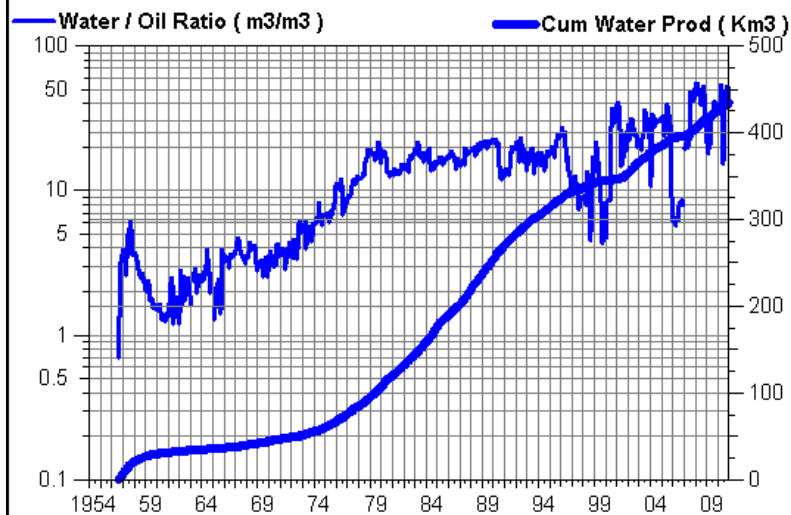
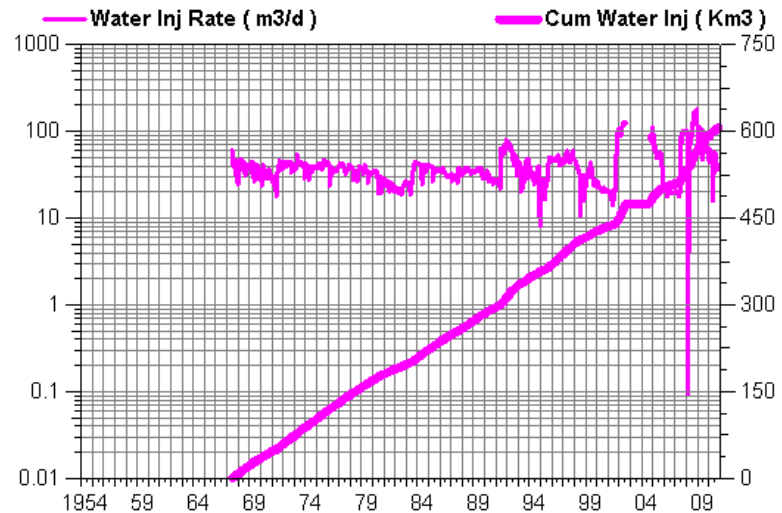
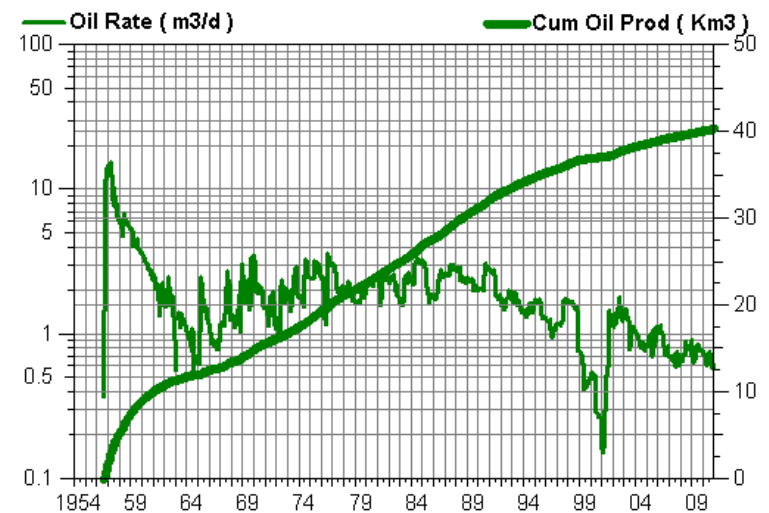
VRU3 Pattern: PAT 12-07



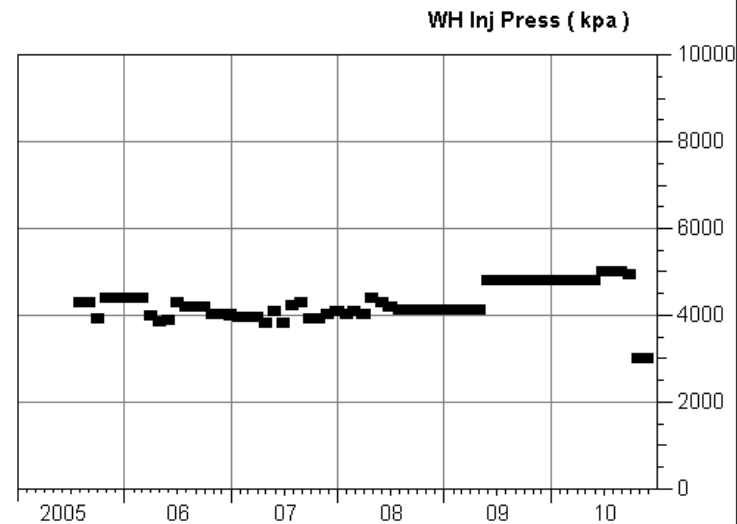
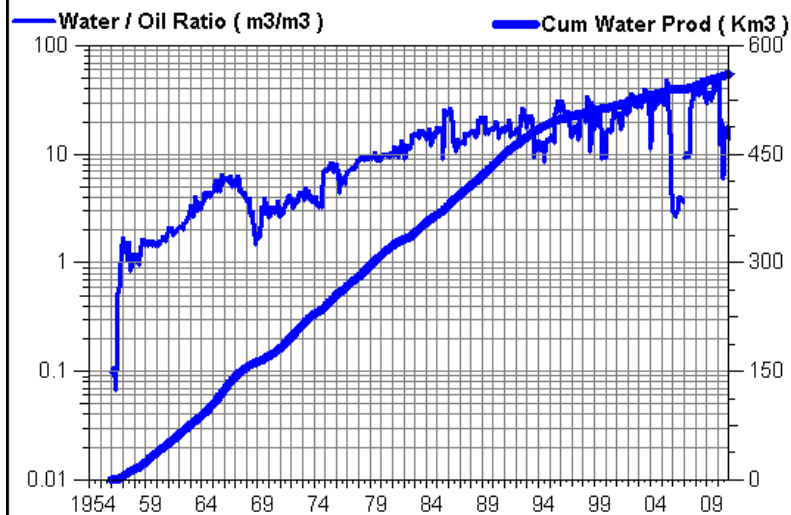
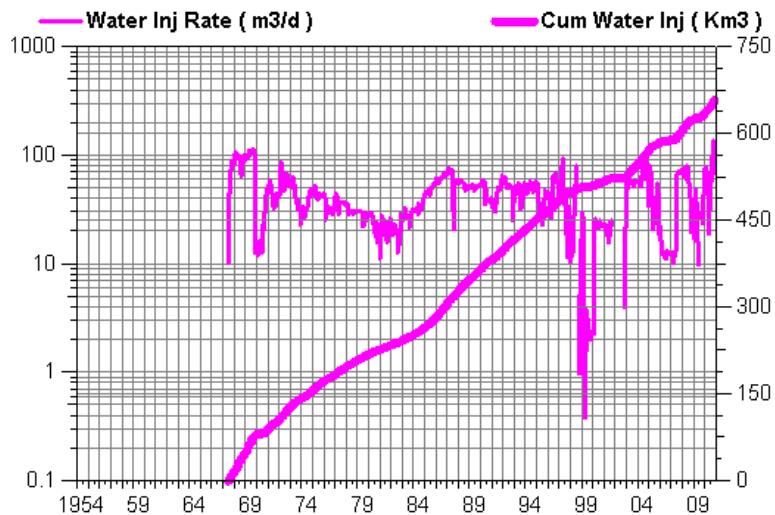
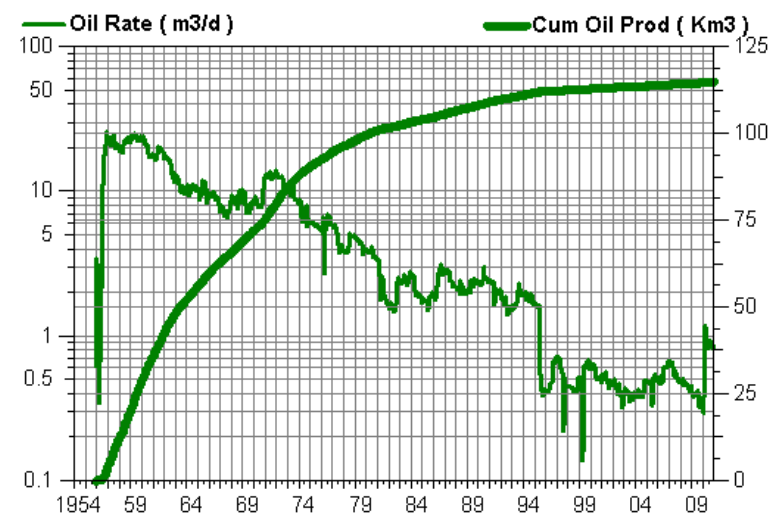
VRU3 Pattern: PAT 12-11



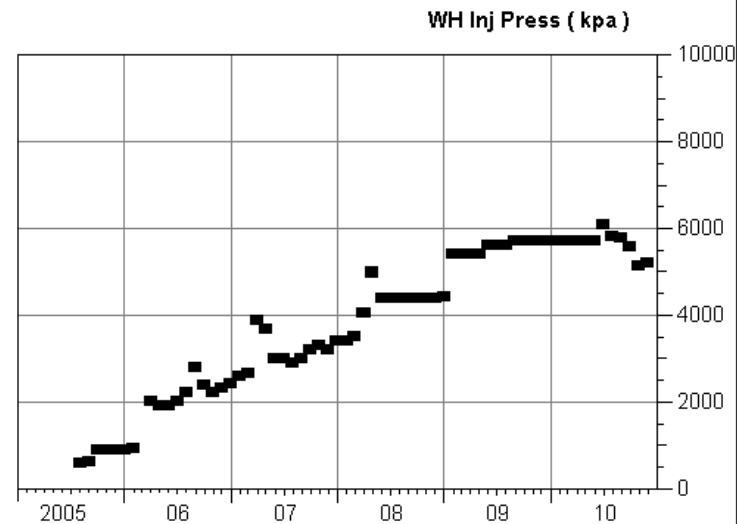
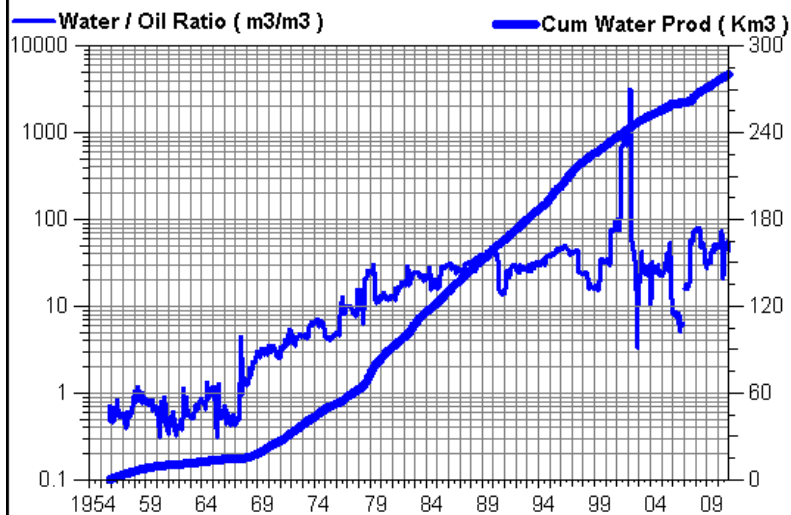
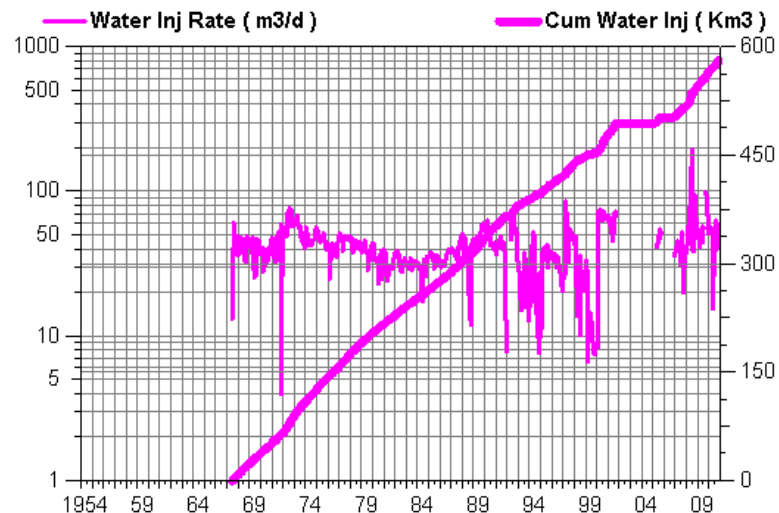
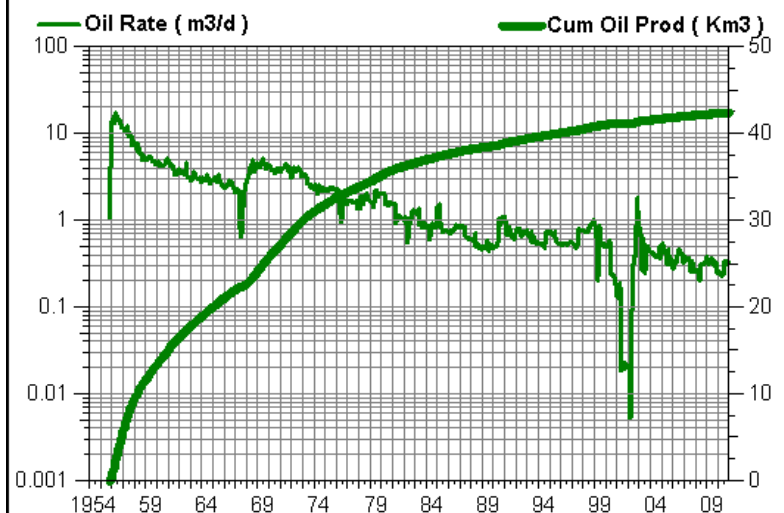
VRU3 Pattern: PAT 14-01



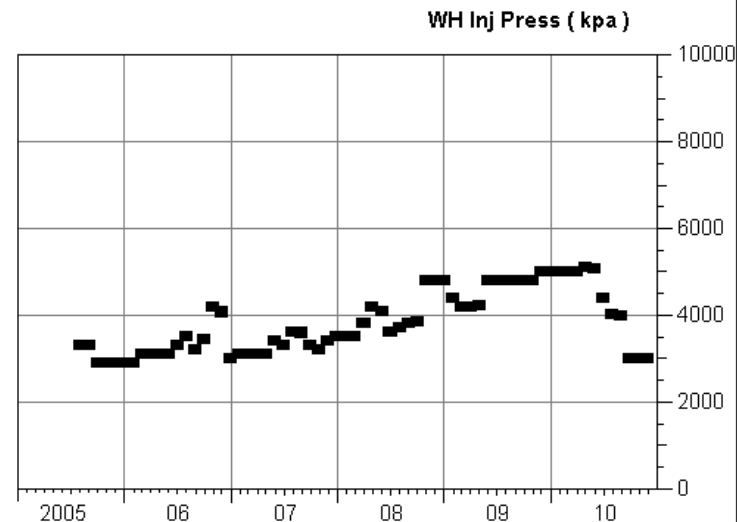
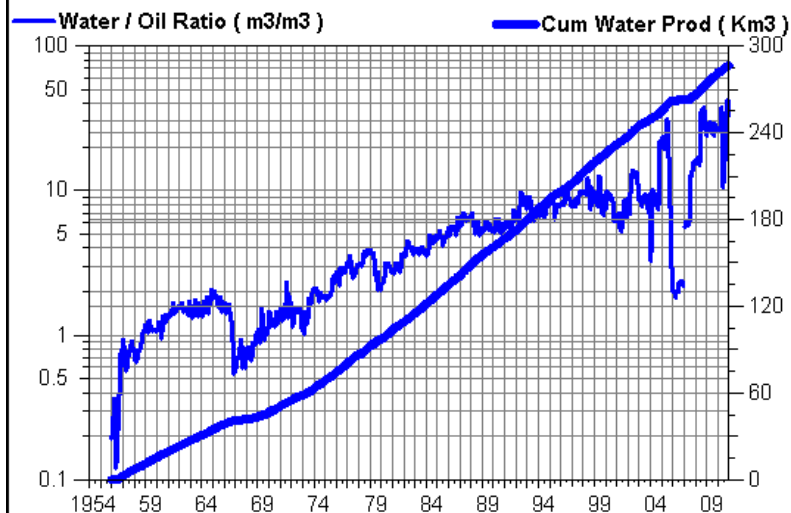
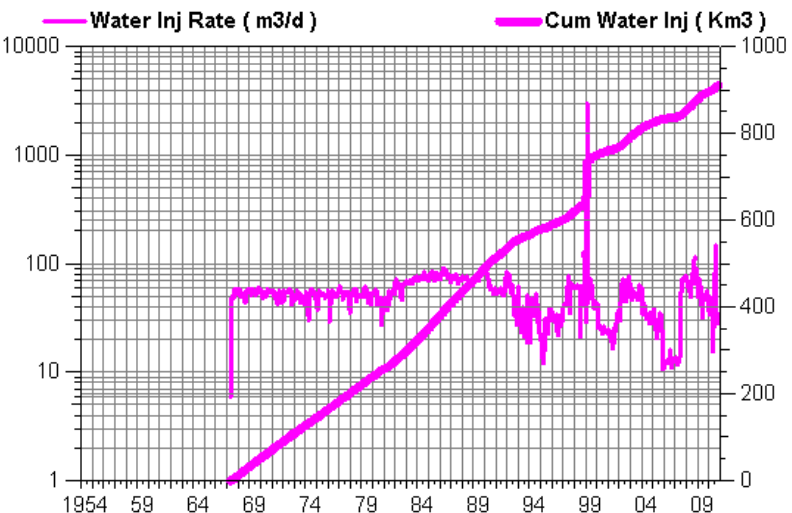
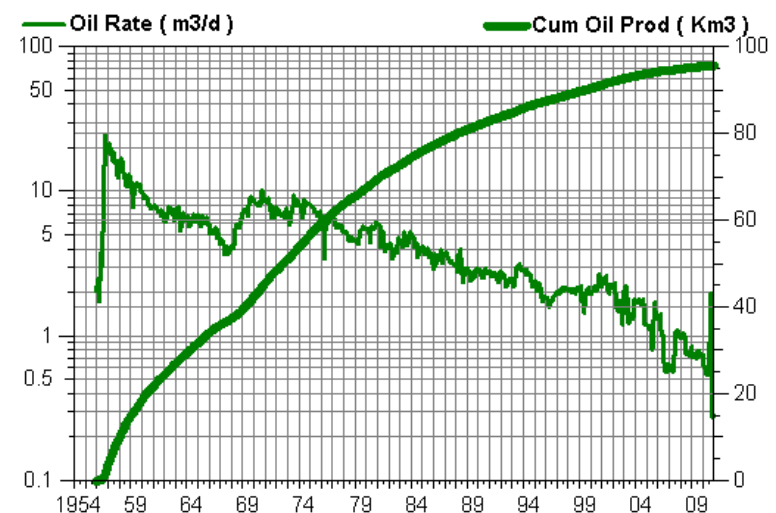
VRU3 Pattern: PAT 14-02



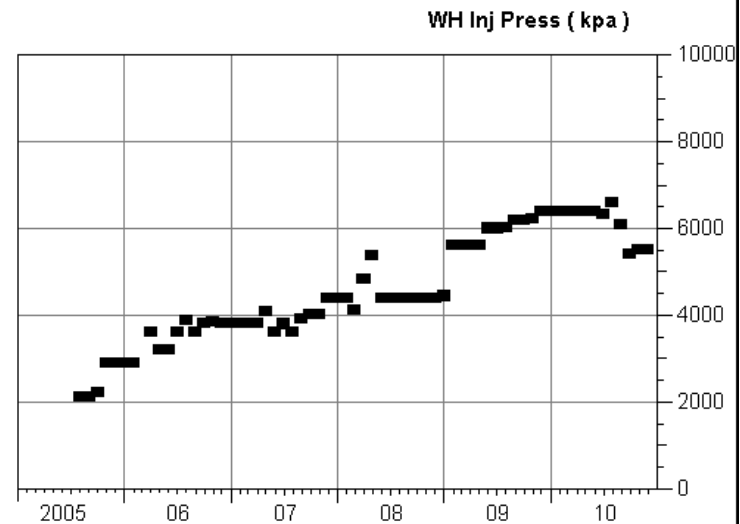
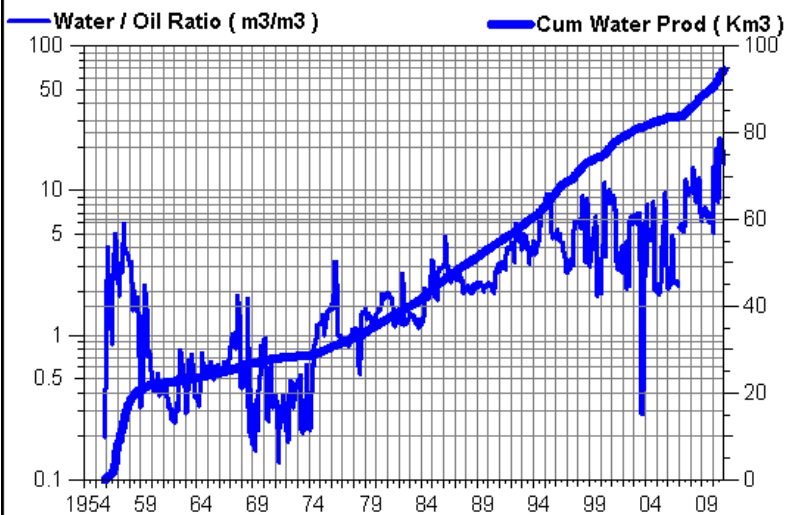
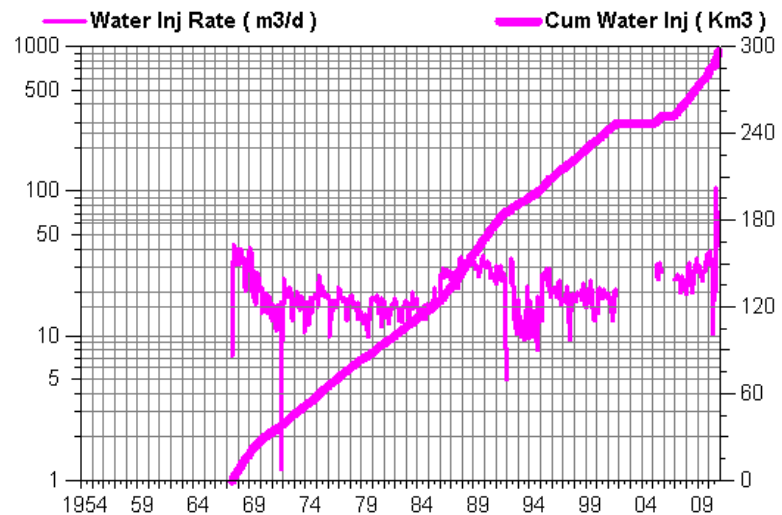
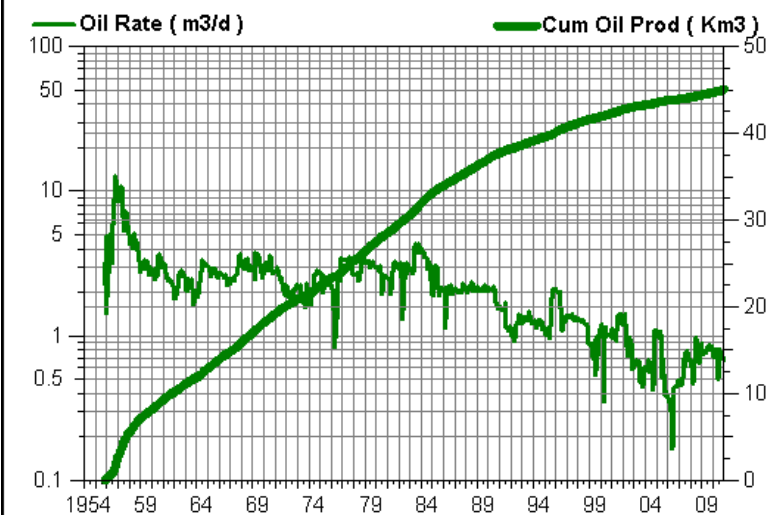
VRU3 Pattern: PAT 14-07



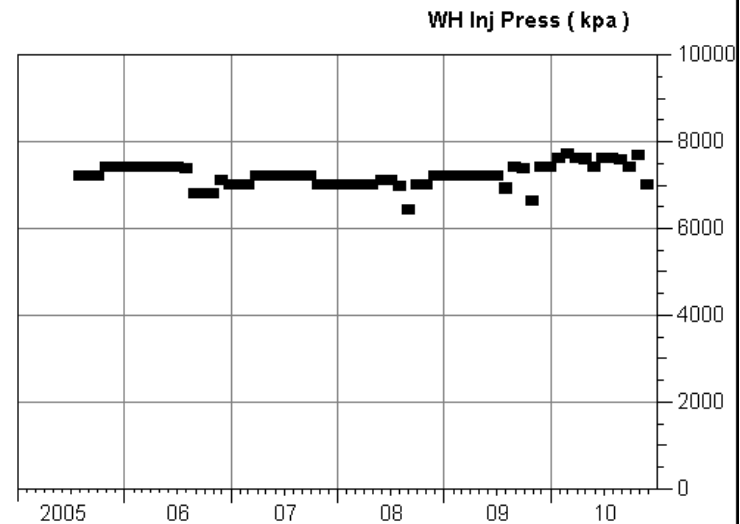
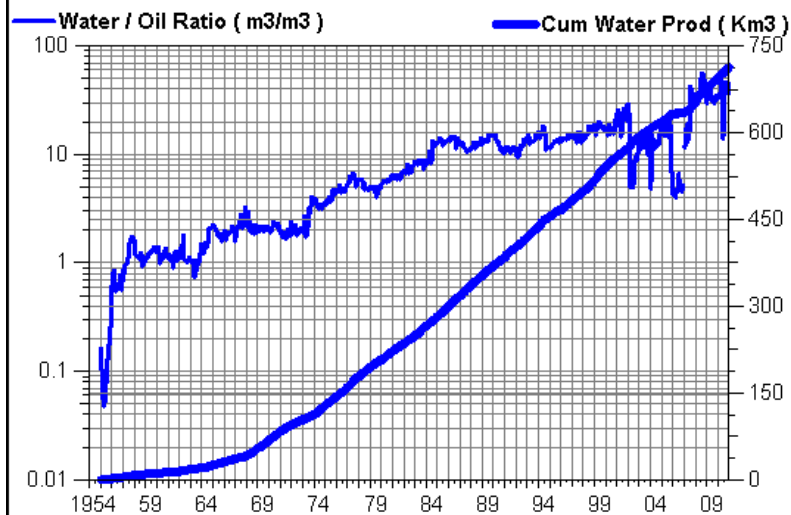
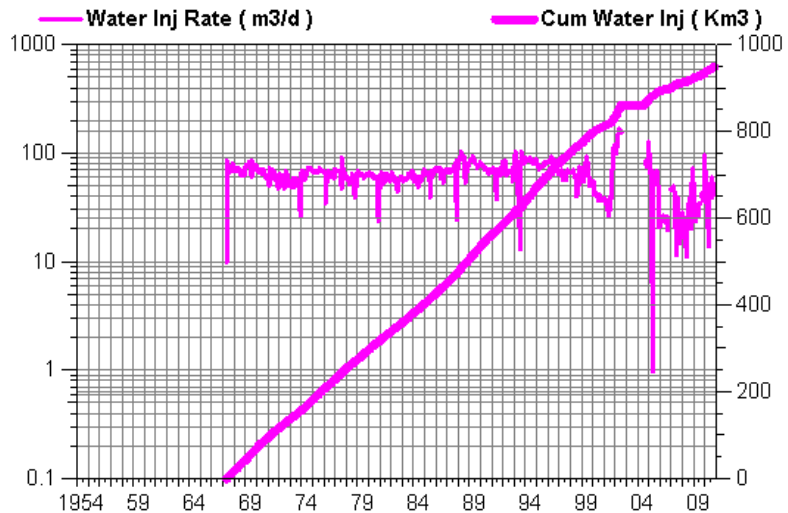
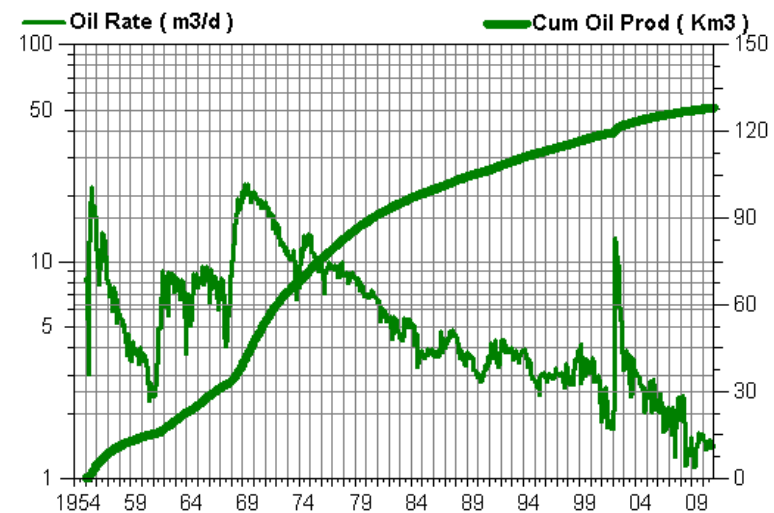
VRU3 Pattern: PAT 14-11



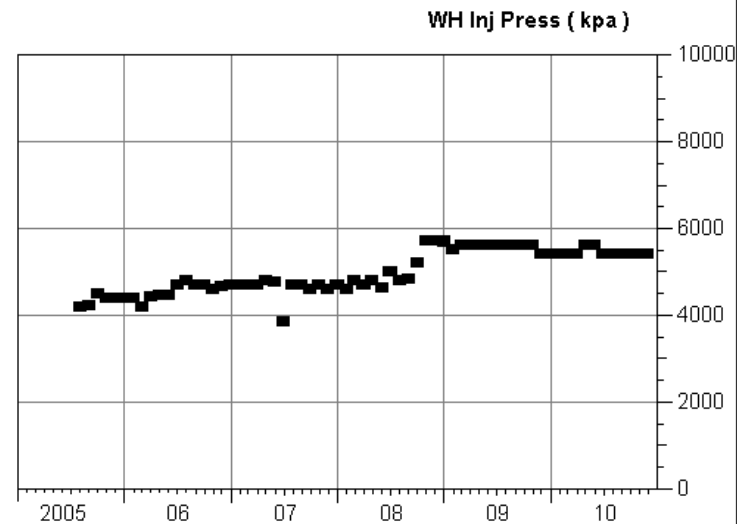
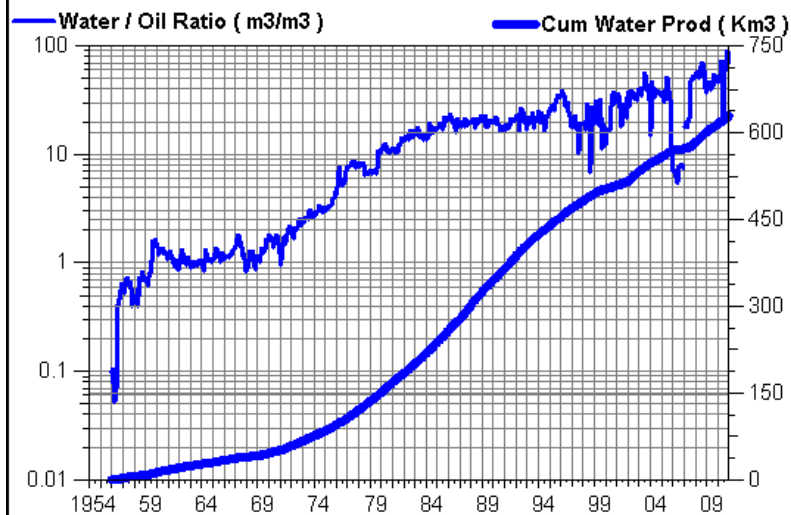
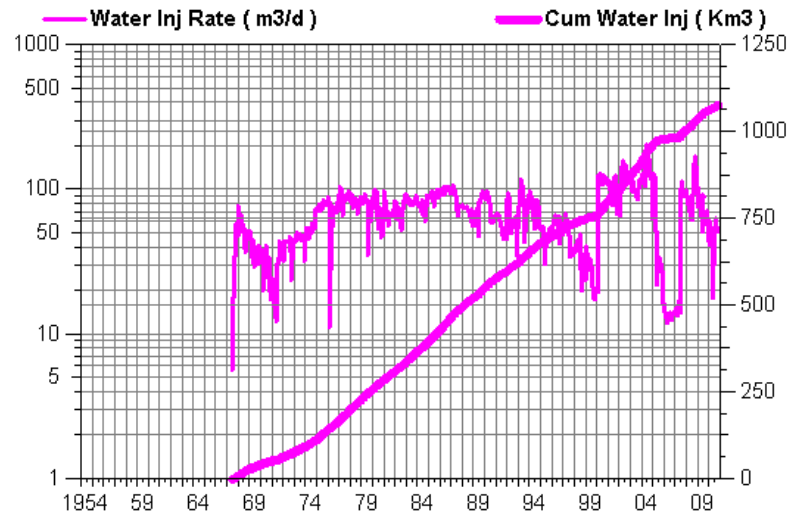
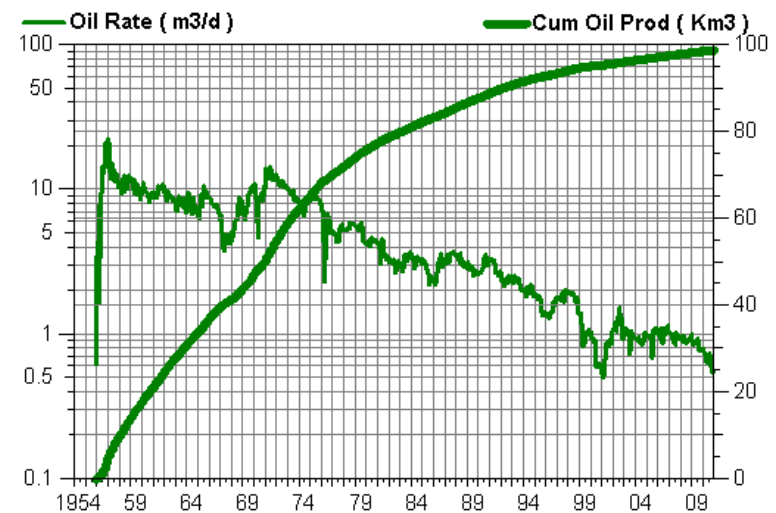
VRU3 Pattern: PAT 14-12



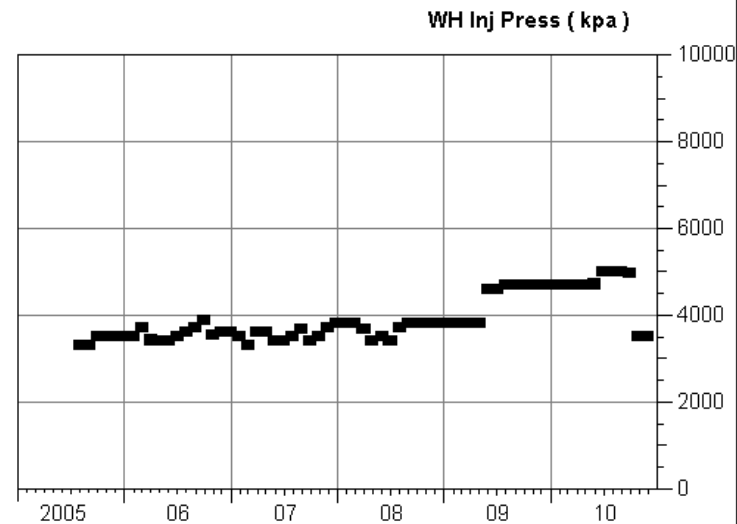
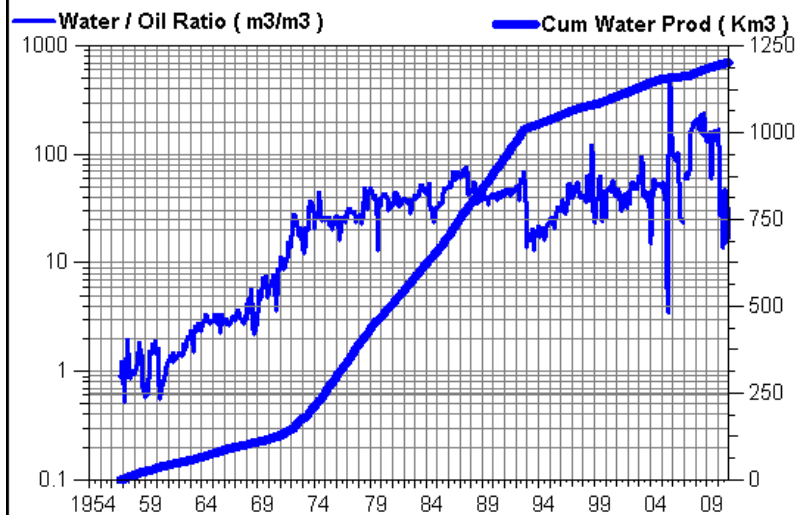
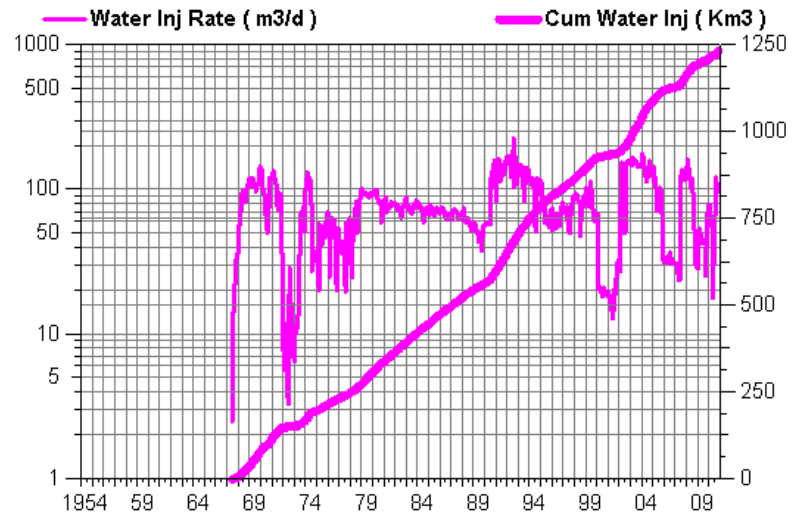
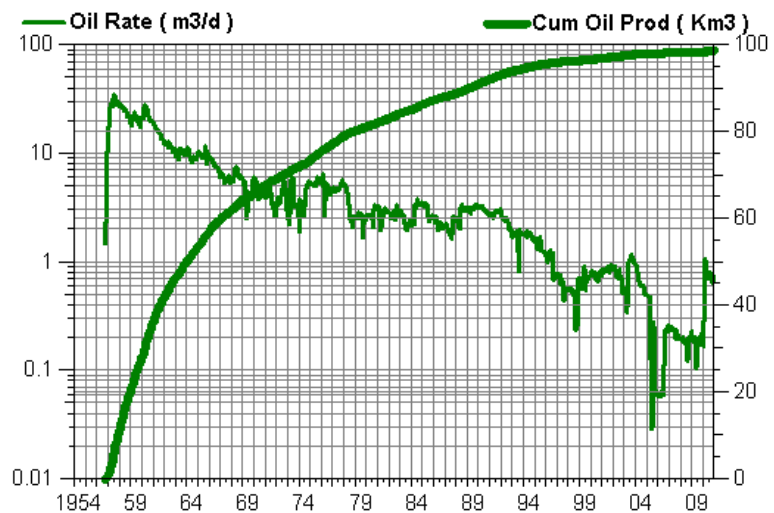
VRU3 Pattern: PAT 14-13



VRU3 Pattern: PAT 16-02



VRU3 Pattern: PAT 16-03



VRU3 Pattern: PAT 16-11

