

DALY UNIT No. 1
PROGRESS REPORT
January 1 to December 31, 2010

Enerplus Corporation
Manitoba Team
February 2011

Table of Contents

Table of Contents.....	2
List of Tables and Figures.....	2
Introduction.....	3
Discussion.....	3

List of Tables and Figures

Figure 1	Daly Unit No. 1 Map
Figure 2	Pattern Map
Table 1	Well Servicing Report
Table 2	2010 Pressure Surveys
Table 3	Waterflood Patterns and Corresponding Injectors
Table 4	Production, Injection Data and VRR for the Project
	Production, Injection Data and VRR for Patterns

Introduction

Daly Unit No. 1 became effective July, 1972. 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 Daly Unit No. 1 is shown in Figure 1.

Discussion

Oil Production

In 2010, oil production rate for the Unit averaged 19.3 m³/d with a WOR of 19.8 m³/ m³. A list of well servicing jobs in 2010 is shown in Table 1.

Total oil production in 2010 is 7,034 m³. Cumulative oil since commencement of production is 1,355 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 383 m³/d. There were no conversions in the Unit during 2010.

Cumulative water injected to December 31, 2010 is 10,207 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 146.8 E3m³, resulting in the voidage replacement ratio (VRR) of 0.952. It is important to note that there is an aquifer of moderate strength providing pressure support to the south side of the Unit, near the southern boundaries of Sections 4 and 05-010-28W1M. The VRR calculation does not account for the water influx as it is difficult to quantify. The total water produced is injected back into the reservoir (Daly Unit 1) and is included in the injection volume for voidage calculations.

Cumulative total voidage from commencement of production to December 31, 2010 is 10,440 E3m³ and the cumulative VRR is 0.984. Oil formation volume factor used in calculations is 1.05 m³/stm³. Detailed voidage calculations are shown in Table 4 (except for patterns that have been shut-in for long periods).

Reservoir Pressure

In 2010, reservoir pressure has been recorded in 6 wells. All 6 pressure tests were AWS (Acoustic Well Sounder) build-up measurements. The pressures range from 6450 kPa to 7890

kPa, depending on the well location and the length of shut-in as well as voidage replacement history. It should be noted that the initial reservoir pressure is estimated as 6,585 kPaa and the bubble point pressure as 1,517 kPaa.

Based on the available pressure tests, the average reservoir pressure in the Unit in 2010 is 7,889 kPa. A summary of the pressure data is given in Table 2.

Recovery

Based on the current estimated OOIP of 8,538 E3m³, recovery to year-end 2010 is 38.7%.

Waterflood Patterns

The Daly Unit No. 3 waterflood currently has assorted pattern shapes: 3 inverted 5-spot, 2 inverted 7-spot and one each of inverted 9-spot, inverted 8-spot and inverted 6-spot. 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.

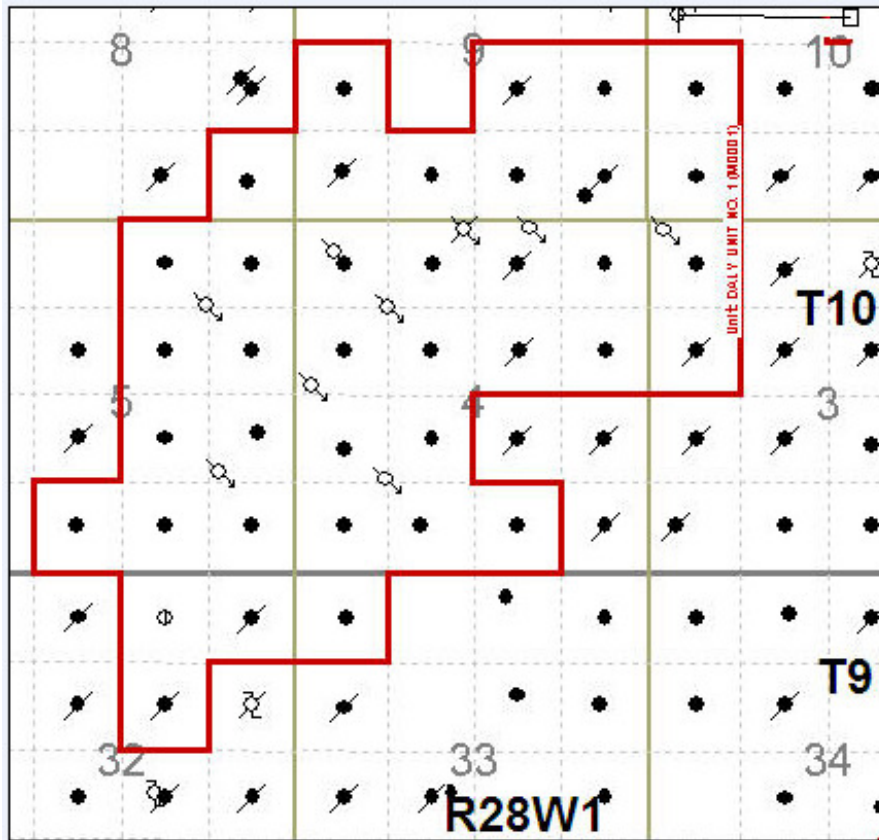


Figure 1: Daly Unit No. 1 Map

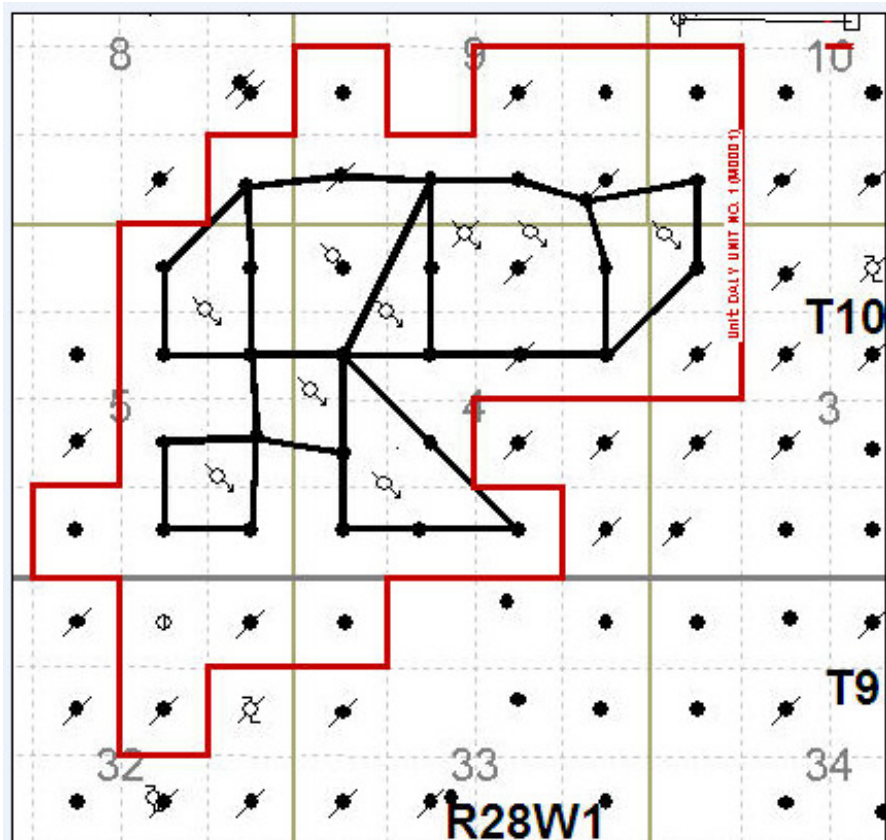


Figure 2: Pattern Map

Table 1: Well Servicing Report

UWI	Start Date	Type	Objective
100/09-05-010-28W1/00	1/7/2010	Maintenance	Pump change
100/05-04-010-28W1/00	3/25/2010	Maintenance	MOSR for pump change
100/12-04-010-28W1/00	4/26/2010	Maintenance	MOSR for suspected tubing leak
100/12-04-010-28W1/00	5/13/2010	Maintenance	Investigate well not pumping
102/12-04-010-28W1/00	5/17/2010	Maintenance	Annual annulus packer isolation test
102/05-04-010-28W1/00	5/17/2010	Maintenance	Annual annulus packer isolation test
102/08-05-010-28W1/00	5/17/2010	Maintenance	Annual annulus pressure test
102/15-05-010-28W1/00	5/17/2010	Maintenance	Annual annulus packer isolation test
103/12-04-010-28W1/00	5/17/2010	Maintenance	Annual annulus packer isolation test
102/13-04-010-28W1/00	5/17/2010	Maintenance	Annual annulus packer isolation test
102/15-04-010-28W1/00	5/17/2010	Maintenance	Annual annulus packer isolation test
102/13-03-010-28W1/00	5/17/2010	Maintenance	Annual annulus packer isolation test
100/02-05-010-28W1/00	8/25/2010	Maintenance	Change out rotary seal and packing on drive head
100/04-10-010-28W1/00	9/7/2010	Maintenance	Pump Change
103/12-04-010-28W1/00	12/9/2010	Maintenance	Flow back well and flow line to clean out debris from both to allow for increased injection volumes/reduced pressure
102/08-05-010-28W1/00	12/9/2010	Maintenance	Flow back well and flow line to clean up
102/05-04-010-28W1/00	12/9/2010	Maintenance	Flow back well and flow line to clean up

Table 2: 2010 Pressure Surveys

UWI	Test Date	Test Type	Shut-in since	Shut-in Period (days)	BH Pressure (kPaa)
100/05-04-010-28W1/00	November 10, 2010	AWS	October 20, 2010	21	8,635
100/12-04-010-28W1/00	November 10, 2010	AWS	October 20, 2010	21	8,645
100/08-05-010-28W1/00	November 9, 2010	AWS	October 20, 2010	20	8,990
100/09-05-10-28W1/00	November 10, 2010	AWS	October 20, 2010	21	6,249
100/16-05-010-28W1/00	November 9, 2010	AWS	February 14, 2010	268	8,364
100/01-08-010-28W1/00	November 9, 2010	AWS	February 14, 2010	268	6,451
AVERAGE RESERVOIR PRESSURE in 2010 -->					7889

Table 3: Waterflood Patterns and Corresponding Injectors

Pattern	Well
102/13-03	102/13-03-010-28W1/00
102/15-04	102/14-04-010-28W1/00
102/15-04	102/15-04-010-28W1/00
102/12-04	102/12-04-010-28W1/00
102/12/04	102/12-04-010-28W1/02
102/13-04	102/13-04-010-28W1/00
102/15-05	102/15-05-010-28W1/00
103/12-04	103/12-04-010-28W1/00
102/05-04	102/05-04-010-28W1/00
102/08-05	102/08-05-010-28W1/00

					Table 4					
					Daly Unit No. 1					
					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 Replacement Ratio
2010-01	720.51	23.24	14954.90	482.42	20.76	14985	483.39	7189	0.956	0.985
2010-02	627.69	22.42	10906.30	389.51	17.38	10915	389.82	7300	0.946	0.984
2010-03	688.83	22.22	14187.10	457.65	20.60	14226	458.90	7298	0.956	0.984
2010-04	676.37	22.55	13264.80	442.16	19.61	13286	442.87	7228	0.953	0.984
2010-05	693.26	22.36	13849.10	446.75	19.98	13892	448.13	7200	0.955	0.984
2010-06	647.43	21.58	13519.90	450.66	20.88	13538	451.27	7202	0.956	0.984
2010-07	649.86	20.96	12420.00	400.65	19.11	12443	401.39	7258	0.952	0.984
2010-08	635.92	20.51	19647.70	633.80	30.90	19728	636.39	7297	0.973	0.984
2010-09	637.19	21.24	11744.20	391.47	18.43	11723	390.76	7200	0.947	0.984
2010-10	635.08	20.49	12389.10	399.65	19.51	12434	401.10	7194	0.955	0.984
2010-11	574.25	19.14	8637.50	287.92	15.04	8669	288.95	7014	0.941	0.984
2010-12	568.02	18.93	8853.90	295.13	15.59	8888	296.26	7003	0.943	0.984
Cumulative Oil Produced (E3m3)			1355.382							
Cumulative Water Produced (E3m3)			9016.850							
Cumulative Water Injected (E3m3)			10207.417							

[illegible]

[illegible]

[illegible]

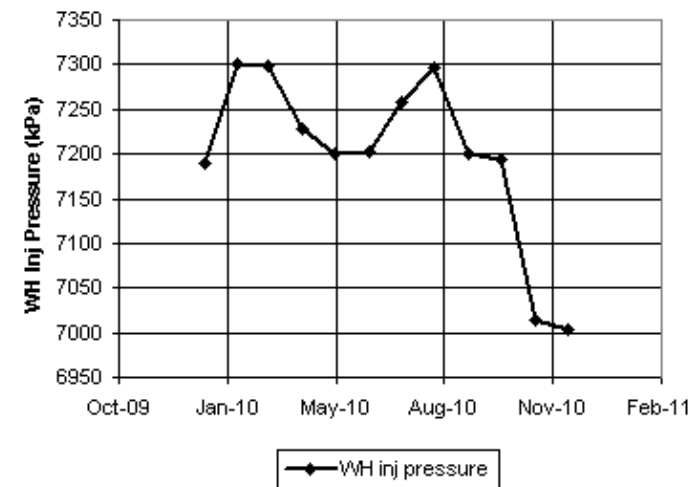
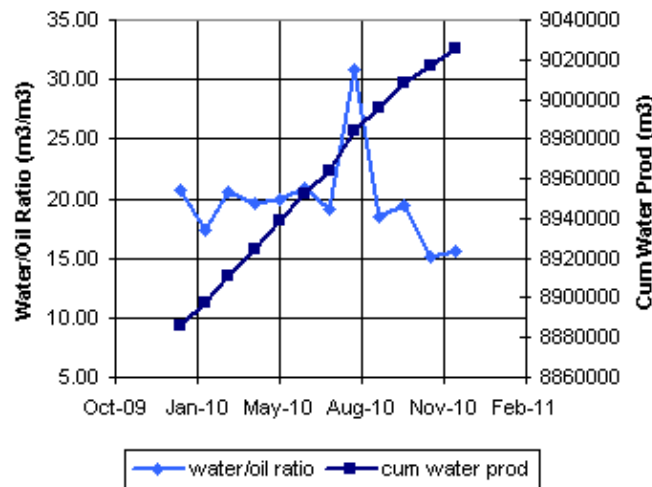
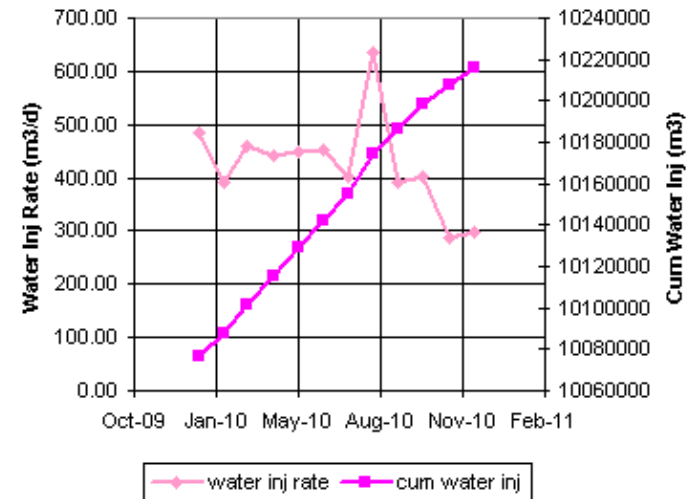
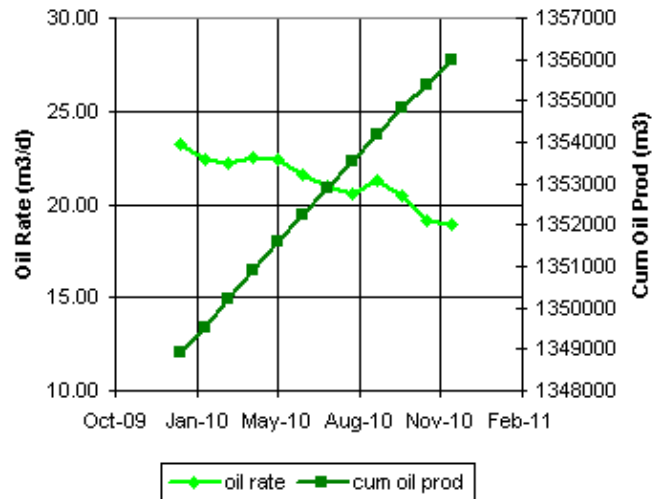
					Table 4						
					Daly Unit No. 1						
					Pattern: 102/13-04						
Date	Monthly Oil Prod m3	Oil Rate (CD) m3/d	Monthly Water Prod m3	Water Rate (CD) m3/d	Water Oil Ratio m3/m3	Monthly Water Inj m3	Water Inj Rate (CD) m3/d	Water Inj Press kPa	Voidage Replacement Ratio	Cum Voidage Replacement Ratio	
2010-01	71.23	2.30	1543.13	49.78	21.66	1874	60.45	6806	1.161	1.034	
2010-02	62.87	2.25	1334.66	47.67	21.23	1246	44.50	7000	0.892	1.034	
2010-03	60.39	1.95	1508.28	48.65	24.98	1889	60.94	7016	1.204	1.034	
2010-04	51.64	1.72	1051.42	35.05	20.36	1699	56.63	7490	1.540	1.035	
2010-05	49.85	1.61	941.36	30.37	18.88	1880	60.65	7200	1.897	1.036	
2010-06	57.22	1.91	1395.85	46.53	24.40	1767	58.90	7200	1.216	1.036	
2010-07	56.32	1.82	1315.89	42.45	23.36	1710	55.16	7200	1.246	1.036	
2010-08	58.80	1.90	2228.31	71.88	37.90	2706	87.29	7200	1.183	1.037	
2010-09	49.68	1.66	953.35	31.78	19.19	1851.6	61.72	7200	1.846	1.038	
2010-10	50.72	1.64	1058.43	34.14	20.87	1857	59.90	7197	1.674	1.039	
2010-11	36.26	1.21	333.46	11.12	9.20	1279.8	42.66	7100	3.462	1.040	
2010-12	35.74	1.19	340.73	11.36	9.53	1393.1	46.44	7103	3.700	1.041	
Cumulative Oil Produced (E3m3)			163.933								
Cumulative Water Produced (E3m3)			722.559								
Cumulative Water Injected (E3m3)			922.544								

Table 4										
Daly Unit No. 1										
Pattern: 103/12-04										
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 Replacement Ratio
2010-01	46.04	1.49	1852.23	59.75	40.23	702	22.65	7600	0.370	1.806
2010-02	38.65	1.38	1523.88	54.42	39.43	546	19.50	7600	0.349	1.804
2010-03	40.81	1.32	1686.35	54.40	41.32	751	24.23	7600	0.435	1.801
2010-04	40.26	1.34	1582.50	52.75	39.31	669	22.30	7593	0.412	1.799
2010-05	38.73	1.25	1564.33	50.46	40.39	688	22.19	7400	0.429	1.796
2010-06	34.21	1.14	1562.08	52.07	45.66	633	21.10	7403	0.397	1.794
2010-07	25.37	0.82	1135.30	36.62	44.75	651	21.00	7500	0.561	1.793
2010-08	29.57	0.95	2022.40	65.24	68.40	721	23.26	7497	0.351	1.790
2010-09	26.32	0.88	1101.55	36.72	41.85	0	0.00	7400	0.000	1.787
2010-10	26.37	0.85	1173.45	37.85	44.49	557.8	17.99	7394	0.465	1.786
2010-11	0.00	0.00	0.00	0.00	-	433.5	14.45	7197	-	1.786
2010-12	0.00	0.00	0.00	0.00	-	361.1	12.04	7103	-	1.787
Cumulative Oil Produced (E3m3)			73.626							
Cumulative Water Produced (E3m3)			886.149							
Cumulative Water Injected (E3m3)			1714.763							

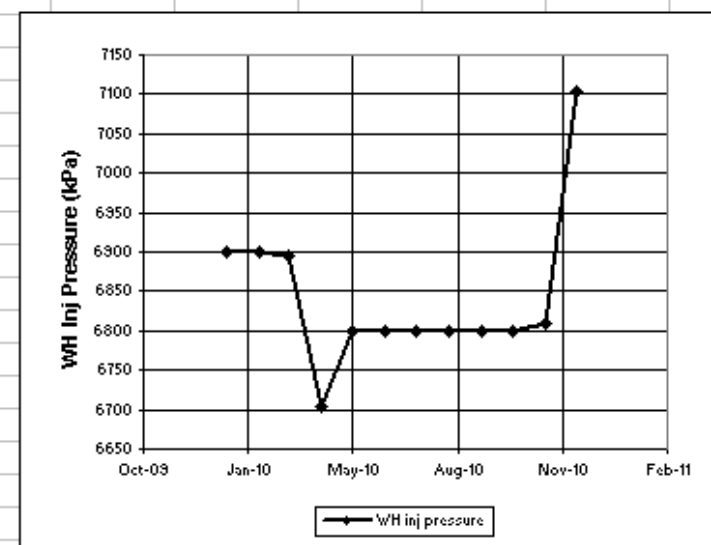
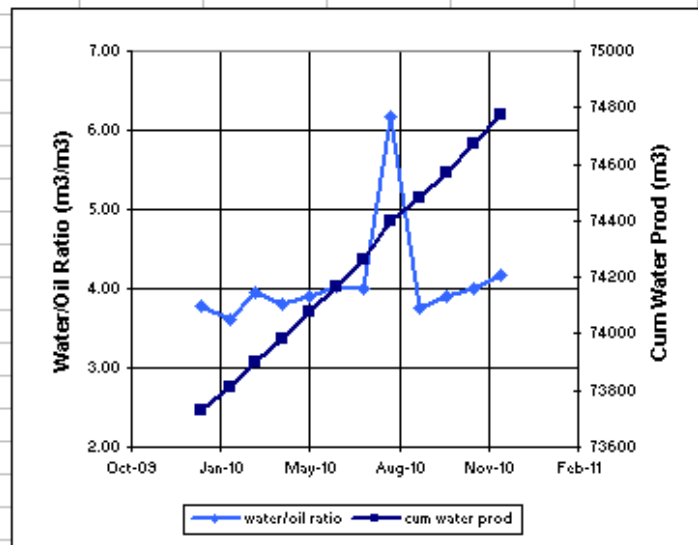
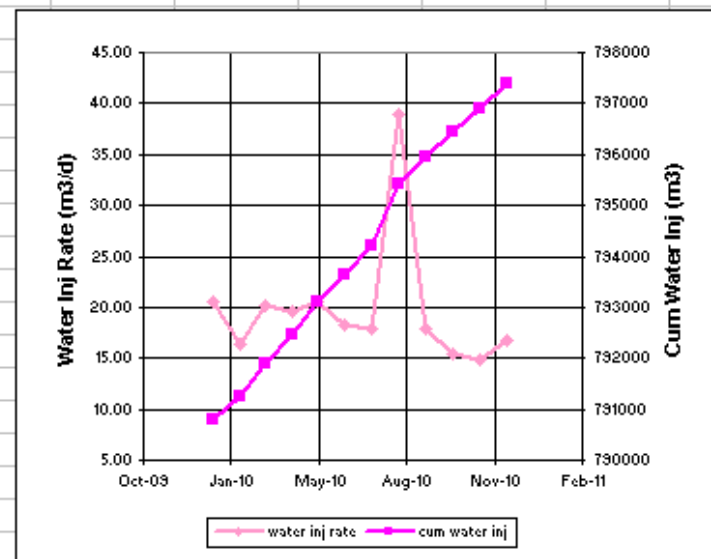
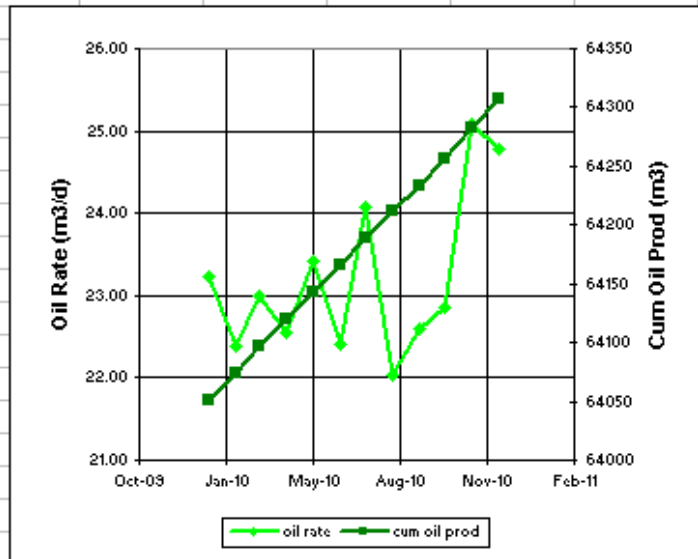
					Table 4					
					Daly Unit No. 1					
					Pattern: 102/05-04					
Date	Monthly Oil Prod m3	Oil Rate (CD) m3/d	Monthly Water Prod m3	Water Rate (CD) m3/d	Water Oil Ratio m3/m3	Monthly Water Inj m3	Water Inj Rate (CD) m3/d	Water Inj Press kPa	Voidage Replacement Ratio	Cum Voidage Replacement Ratio
2010-01	58.09	1.87	1470.70	47.44	25.32	1822	58.77	7606	1.192	1.054
2010-02	58.66	2.10	1400.46	50.02	23.87	1267	45.25	7800	0.868	1.054
2010-03	48.87	1.58	1045.03	33.71	21.39	1584	51.10	7787	1.448	1.054
2010-04	56.43	1.88	1351.54	45.05	23.95	1468	48.93	7407	1.043	1.054
2010-05	57.38	1.85	1385.28	44.69	24.14	1620	52.26	7600	1.123	1.054
2010-06	48.13	1.60	1060.04	35.33	22.03	1656	55.20	7603	1.494	1.055
2010-07	35.20	1.14	345.98	11.16	9.83	1362	43.94	7703	3.573	1.056
2010-08	38.28	1.23	879.46	28.37	22.97	3250	104.84	7794	3.541	1.059
2010-09	49.29	1.64	1013.30	33.78	20.56	1257.5	41.92	7600	1.183	1.059
2010-10	47.03	1.52	996.96	32.16	21.20	1433.6	46.25	7590	1.373	1.059
2010-11	29.16	0.97	75.21	2.51	2.58	608.8	20.29	7297	5.833	1.060
2010-12	28.67	0.96	76.85	2.56	2.68	443.4	14.78	7200	4.202	1.060
Cumulative Oil Produced (E3m3)			110.186							
Cumulative Water Produced (E3m3)			765.894							
Cumulative Water Injected (E3m3)			928.671							

[illegible]

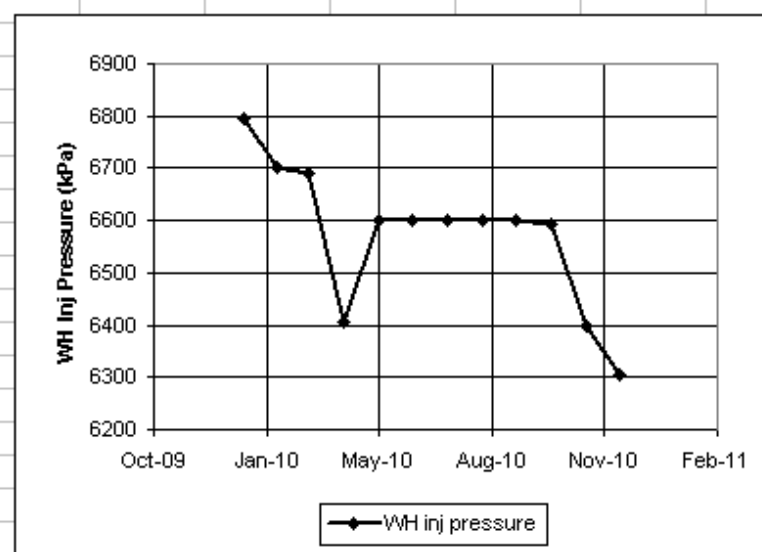
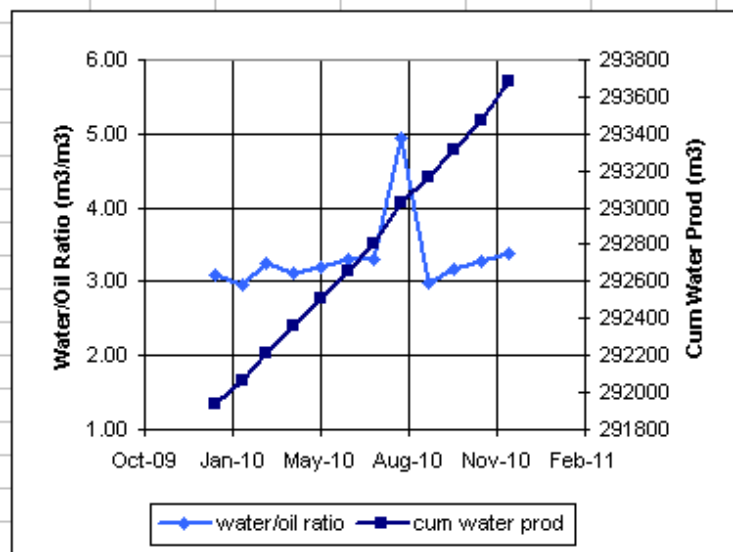
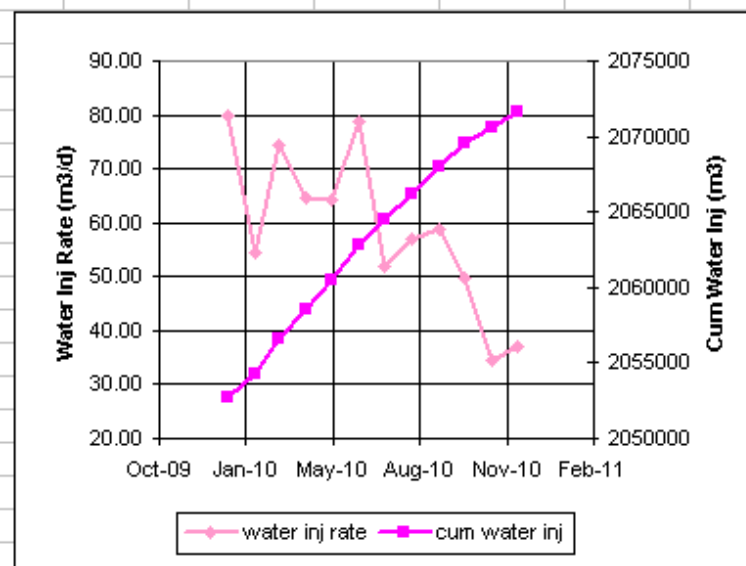
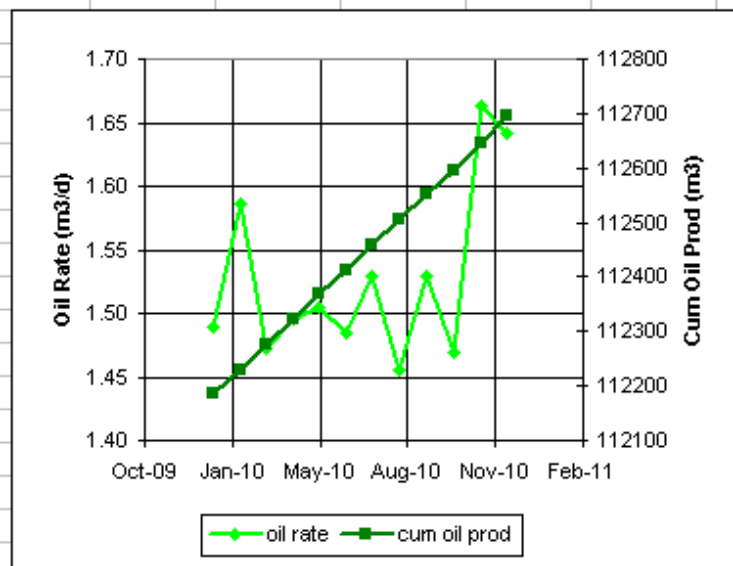
Daly Unit No. 1 Total for Project



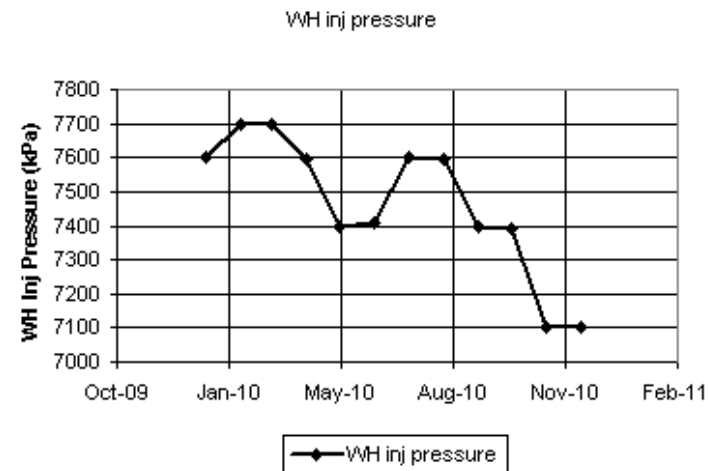
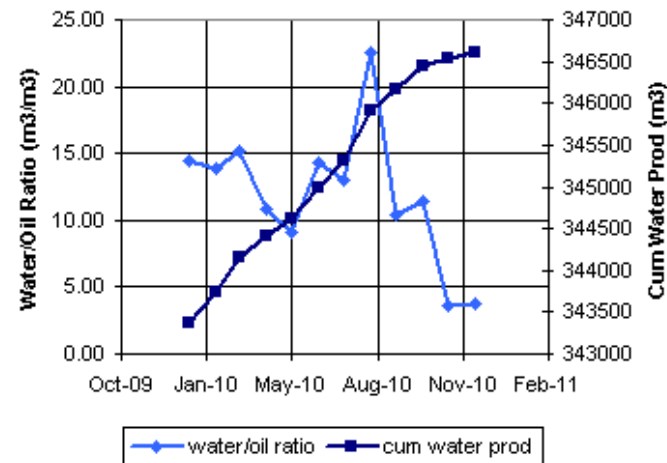
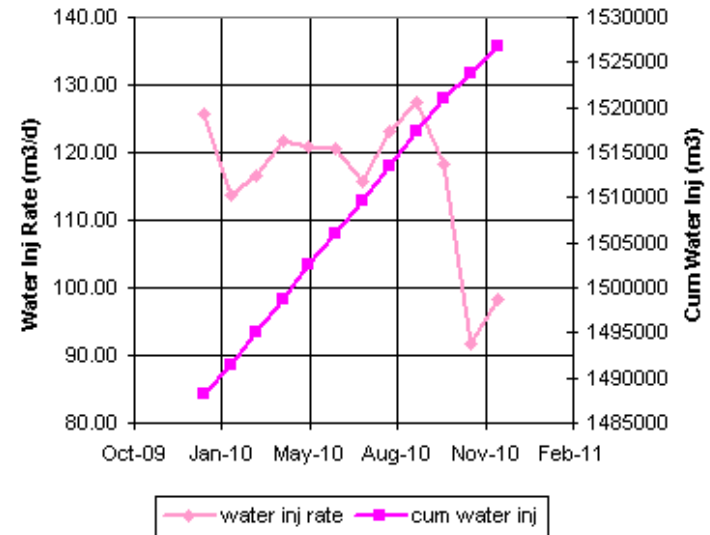
Daly Unit No. 1 Pattern 102/13-03



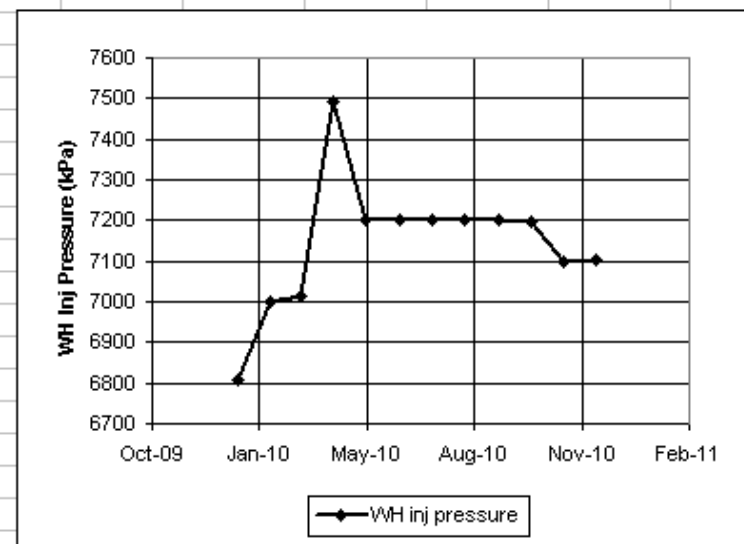
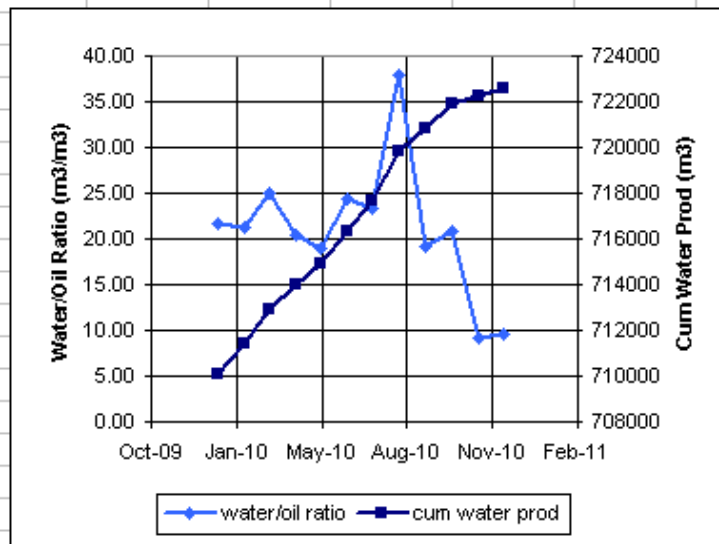
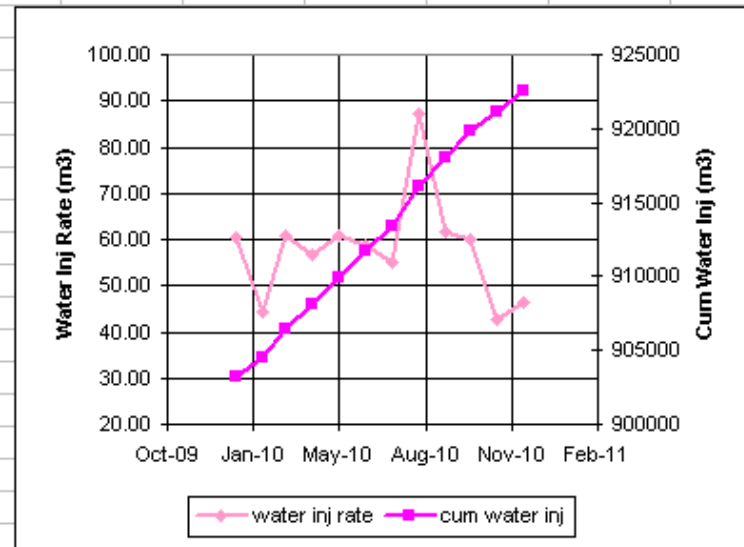
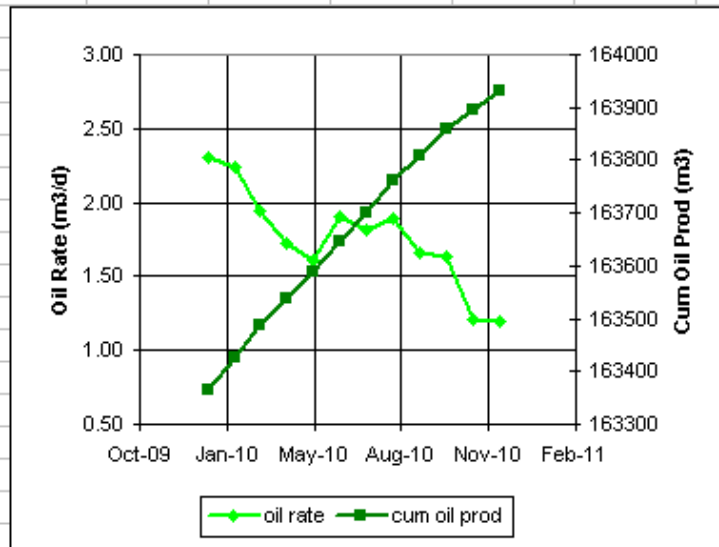
Daly Unit No. 1 Pattern 102/15-04



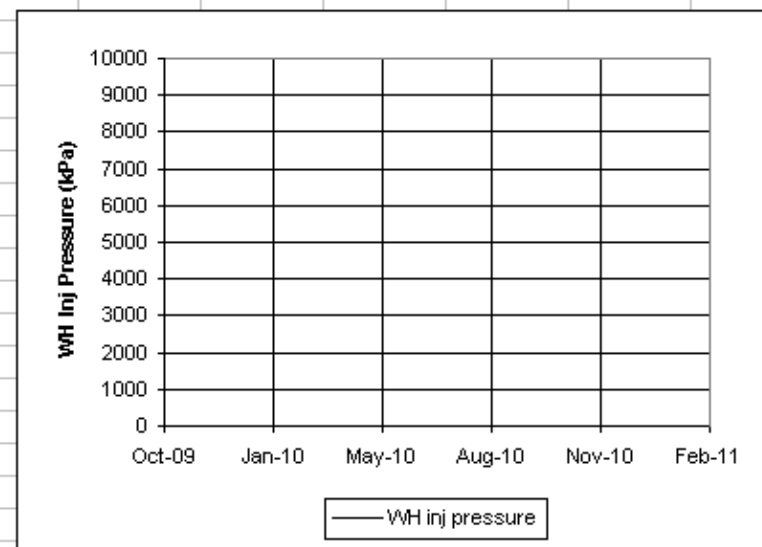
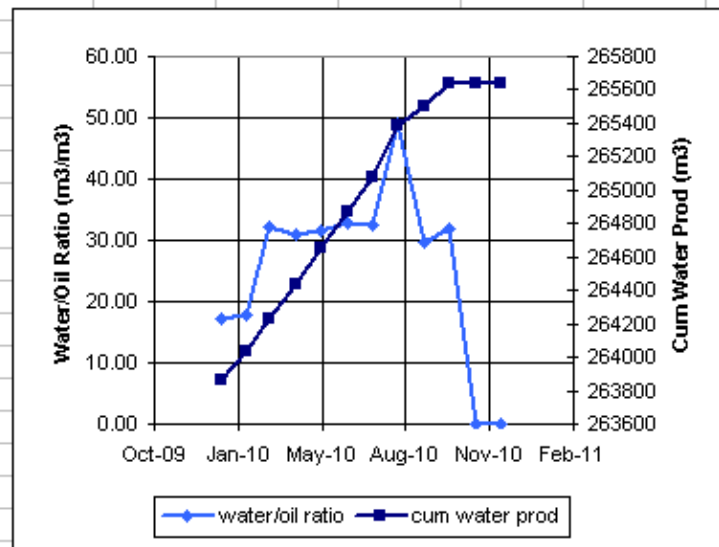
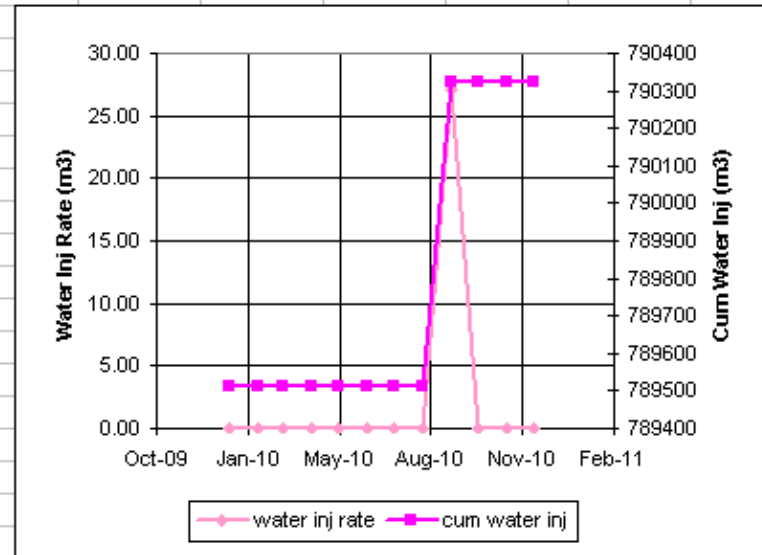
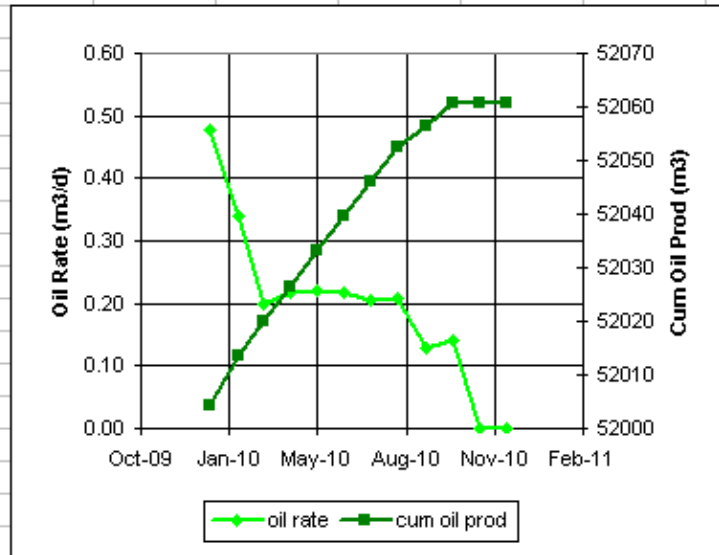
Daly Unit No. 1 Pattern 102/12-04



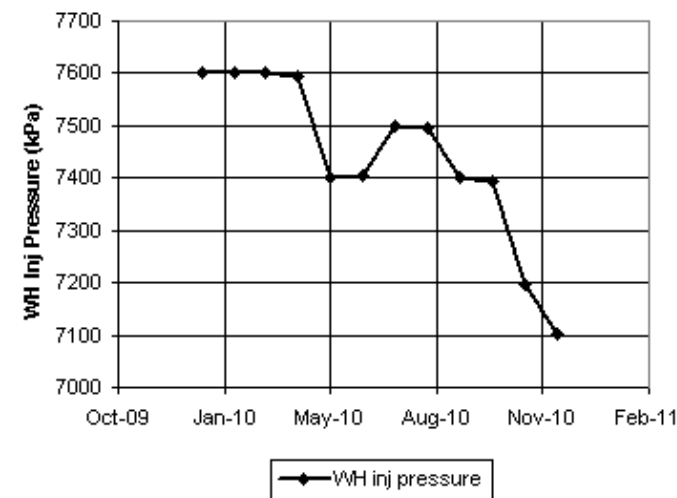
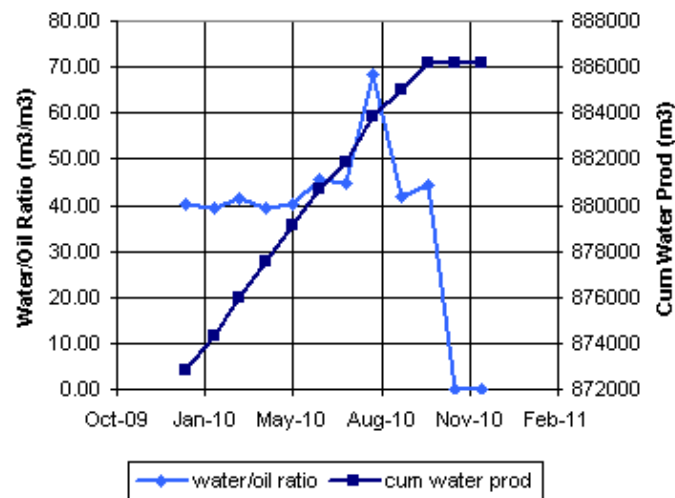
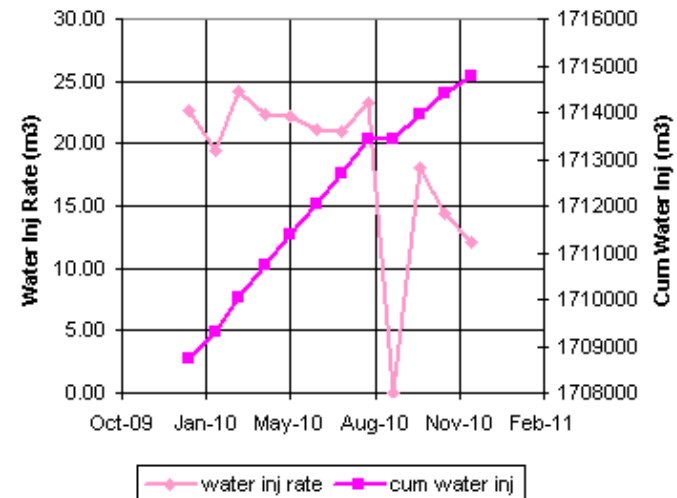
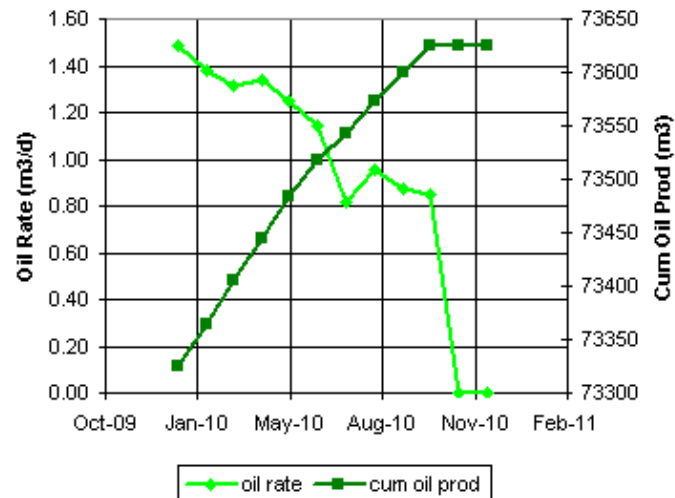
Daly Unit No. 1 Pattern 102/13-04



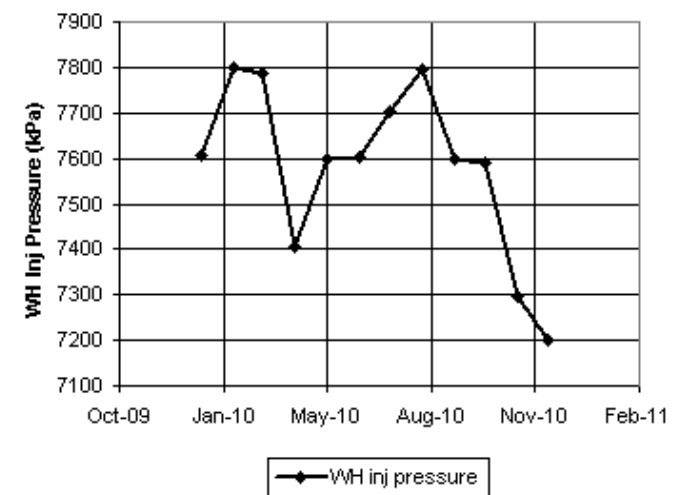
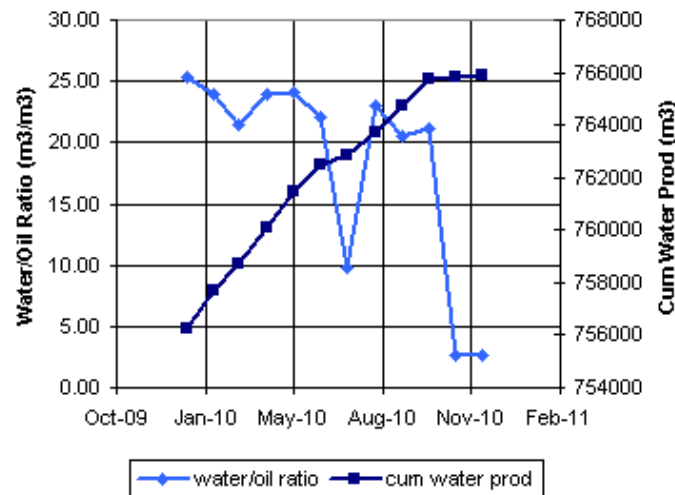
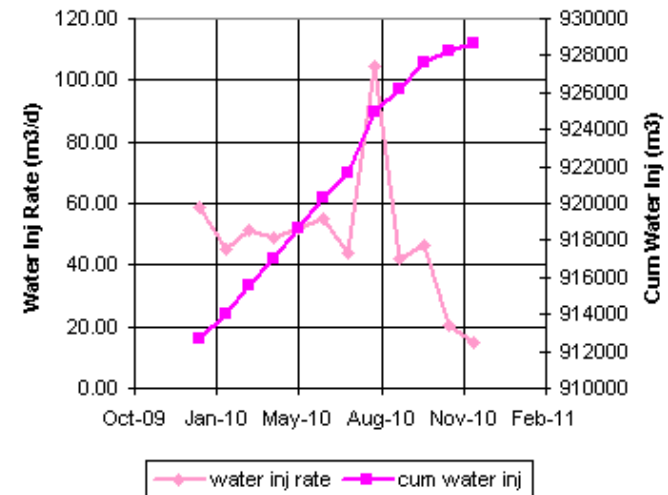
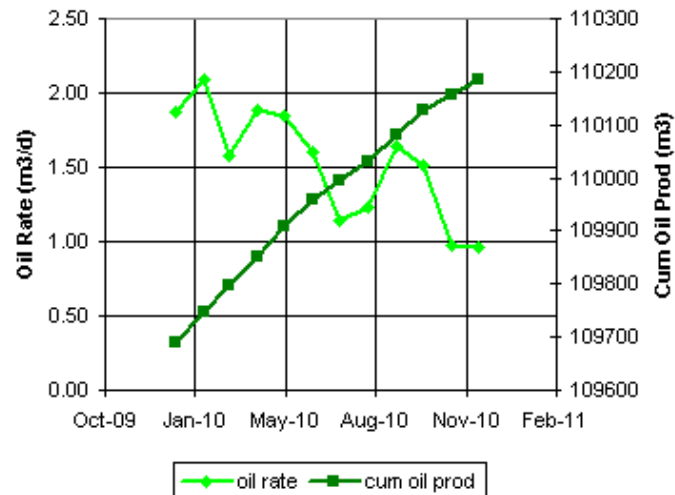
Daly Unit No. 1 Pattern 102/15-05



Daly Unit No. 1 Pattern 103/12-04



Daly Unit No. 1 Pattern 102/05-04



Daly Unit No. 1 Pattern 102/08-05

