

**TUNDRA OIL AND GAS LTD.**

1999-2000



**NORTH VIRDEN SCALLION UNIT NO. 2**  
#2

**PROGRESS REPORT**

**January 1, 1999 - July 31, 2000**

**OCTOBER, 2000**

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**NORTH VIRDEN SCALLION UNIT NO.2**

**INTRODUCTION**

The North Virden Scallion Unit No.2 was unitized in August of 1989 for the purposes of pressure maintenance. Water injection in the Unit commence in January, 1990. The Unit presently has 3 water injection wells, 3 horizontal production wells, and 10 vertical producing wells. Table No.1 outlines the Unit well list. The subject Progress Report covers the operating period from January 1, 1999 to July 31, 2000.

**DISCUSSION**

**1. Production Performance**

Oil production averaged 22.6 m<sup>3</sup>/day during the month of January, 1999 and increased to 46.4 m<sup>3</sup>/day by December 31, 1999 due to the drilling of the 3-32-11-26 horizontal. The average daily oil rate during 1999 was 23.1 m<sup>3</sup>/day. Total oil production during 1999 was 7,780.8 m<sup>3</sup>. Oil production during January, 2000 averaged 44.9 m<sup>3</sup>/day and increased to 47.4 m<sup>3</sup>/day by July 31, 2000. Oil production during the first seven months of 2000 has averaged 52.8 m<sup>3</sup>/day due to the drilling of the 15-30-11-26 horizontal during the first quarter of 2000. Cumulative oil production of 109,051.4 m<sup>3</sup> has been obtained in the Unit to 2000-07-31. Tables No.2 and No.3 summarize the 1999 and 2000 production statistics, respectively. Appendix A outlines the Unit's historical production record.

Water-cut averaged 64% during January, 1999 and decreased to 45% by year end. The average water-cut during 1999 was 64%. Similarly, water-cut averaged 46% during January, 2000 and increased to 62% by July 31, 2000. Water-cut averaged 51% during the first 7 months of 2000.

Remaining recoverable oil reserves of 563 M STB (89,553 m<sup>3</sup>) are estimated at 2000-07-31 from the Unit. Figure No.2 outlines the ultimate oil recovery prediction estimated from the Upper Cherty or Scallion formation in the Unit. Appendix C outlines the 2000 individual well production data.

## **2. Reserves**

The total oil-in-place in both the upper and lower Cherty formation is estimated at 4 MM STB (636,352 m<sup>3</sup>). However, the lower Cherty is not considered to be capable of oil production due to the high prevailing formation water saturation. On this basis, the total oil-in-place in the upper Cherty formation is estimated at 3.5 MM STB (555,818 m<sup>3</sup>). Tables No.4 and No.5 outline the individual well oil-in-place estimates for the upper and lower Cherty zones, respectively.

## **3. Recovery Profiles**

Current oil recovery to 2000-07-31 is estimated at 19.6% of oil-in-place (includes only upper Cherty formation). Ultimate oil recovery from the Unit is forecasted to be 35.7% of the oil-in-place or 1.25 MM STB (198,604 m<sup>3</sup>). This is considered to be approaching the upper spectrum with 16 hectare spacing and pressure maintenance. Table No.6 outlines the individual well recovery profiles. Appendix B outlines the individual well ultimate oil recovery predictions.

## **4. Injector Performance**

Tables No.7, No.8, and No.9 outline the Year 2000 injection performance of the Unit's 3 injection wells (12-29, 10-30, and 4-32-11-26). Total injection averaged 48 m<sup>3</sup>/day during the first 7 months of 2000. The individual injection rate per injector is quite low (16 m<sup>3</sup>/day), which is attributable to the low permeability of the upper Cherty formation.

In summary, total injection during the first 7 months of 2000 was 10,272 m<sup>3</sup>. Cumulative injection to 2000-07-31 was 98,945 m<sup>3</sup>.

## **5. Voidage Replacement**

Table No.10 outlines the voidage replacement calculations for the Unit. Total voidage in the Unit during the first 7 months of 2000 was 23,247 Rm<sup>3</sup>. Total injection during the same period equalled 10,271 Rm<sup>3</sup>. The resulting voidage replacement ratio in the Unit was 0.44 Rm<sup>3</sup>/Rm<sup>3</sup>. A cumulative voidage replacement ratio (VRR) of 0.42 Rm<sup>3</sup>/Rm<sup>3</sup> has been achieved in the Unit to 2000-07-31. As is obvious, withdrawals are significantly above injection, which has contributed to a low cumulative VRR after over 10 years of pressure maintenance. This situation is attributable to the low injection capacity of the existing injectors. As a result, more injectors are quite likely required to provide for more effective voidage replacement. This is especially more significant now with the recent drilling of three horizontal wells in the Unit. A review was also completed of the voidage replacement on a per Section basis. The results of this review are outlined here-after.

### **a. Voidage Replacement Section 29-11-26**

Table No.11 outlines the voidage replacement in Section 29-11-26. Total voidage in Section 29 during the first 7 months of 2000 was 6,524 Rm<sup>3</sup>. Total injection during the same period equalled 2,888 Rm<sup>3</sup>. The resulting voidage replacement ratio in Section 29 was 0.44 Rm<sup>3</sup>/Rm<sup>3</sup>. A cumulative VRR of 0.38 Rm<sup>3</sup>/Rm<sup>3</sup> has been achieved in Section 29 to 2000-07-31. As is obvious again, there is low cumulative voidage replacement in this area of the Unit with the existing injector at 12-29. This situation is further complicated by the fact that there are two horizontal wells impacting the voidage in this area of the Unit. Further consideration will have to be given as to whether another well should be converted to injection service in Section 29 to improve voidage replacement.

### **b. Voidage Replacement Section 30-11-26**

Table No.12 outlines the voidage replacement in Section 30-11-26. Total voidage in Section 30 during the first 7 months of 2000 was 7,592 Rm<sup>3</sup>. Total injection during the same period equalled 4,747 Rm<sup>3</sup>. The resulting voidage replacement ratio in the Unit was 0.63 Rm<sup>3</sup>/Rm<sup>3</sup>. A cumulative

VRR of 0.55 Rm<sup>3</sup>/Rm<sup>3</sup> has been achieved in Section 30 to 2000-07-31. Voidage replacement in Section 30 is better than in Section 29, however, with recent horizontal development in this sector of the Unit, further pressure maintenance will also have to be considered in Section 30. The Unit has also quite likely been impacted historically by SWD 8-30-11-26, based on it's close proximity to the Unit, and the large volume of produced water disposed into the Scallion formation in this area.

### **c. Voidage Replacement Section 32-11-26**

Table No.13 outlines the voidage replacement in Section 32-11-26. Total voidage in Section 32 during the first 7 months of 2000 equalled 9,263 Rm<sup>3</sup>. Total injection during the same period equalled 2,636 Rm<sup>3</sup>. The resulting voidage replacement ration in the Unit was 0.28 Rm<sup>3</sup>/Rm<sup>3</sup>. A cumulative VRR of 0.36 Rm<sup>3</sup>/Rm<sup>3</sup> has been achieved in Section 32 to 2000-07-31. Voidage replacement in Section 32 is the lowest in the Unit. The drilling of the 3-32-11-26 horizontal during 1999 will further place an additional load on voidage replacement in Section 32. Further pressure maintenance improvement will also have to be considered in this area of the Unit.

## **6. Pressure Surveys**

Three pressure surveys have been completed during the last 5 years in the Unit. The pressure survey included wells 11-19, 16-30, and 5-32-11-26. The conclusion from the pressure survey was that original static reservoir pressure conditions existed in the Unit during 1995. In comparison to pressure surveys completed prior to unitization (original pressure at time of unitization), there did not appear to be any decline in reservoir pressure in the Unit leading up to the surveys completed in 1995. This suggests that in addition to mechanical pressure maintenance support, there appears to be external aquifer pressure support also being provided to the Scallion formation. Current pressure surveys are required to determine how effective this natural aquifer support is in replacing voidage, especially with the addition of three horizontal wells in the Unit during the last 2 years. Appendix F outlines the historical pressure surveys completed in the Unit during the last 5 years. A Year 2000 program would include conducting

pressure surveys on the same wells that were surveyed in 1995. From there, an assessment can be made as to how many, and where these new injectors should be installed to improve voidage replacement and oil recovery.

## **7. Individual Well Performance**

A review of the production of each of the producing wells is presented hereafter. The analysis is referenced to the wells outlined in Appendices B, C, and G.

### **a. 6-29-11-26**

Oil production at the beginning of 1999 was 1.1 m<sup>3</sup>/day at a water-cut of 84%. By year end, oil production declined to 0.83 m<sup>3</sup>/day at a water-cut of 48%. The decrease in water-cut was accompanied with a significant decrease in the total fluid production. The decline in total fluid production is quite likely attributable to interference from the non-Unit horizontal at 16-19-11-26. Oil production at July 31, 2000 has further declined to 0.5 m<sup>3</sup>/day with an increase in water-cut to 60%. Total fluid has stabilized at 1.2 m<sup>3</sup>/day. No corrective action is planned during 2000.

### **b. 11-29-11-26**

Oil production at the beginning of 1999 was 0.98 m<sup>3</sup>/day at a water-cut of 61%. By year end, oil production has slightly increased to 1.1 m<sup>3</sup>/day with a decrease in water-cut to 51%. Oil production at July 31, 2000 was 1.1 m<sup>3</sup>/day at a water-cut of 59%. The total fluid production at 11-19 has not been impacted by the 16-30-11-26 horizontal, which offsets the 11-29 well to the north. The 12-29 injector appears to be providing suitable pressure maintenance to the 11-29 well. No corrective work is planned at the 11-29 well during 2000, except possible consideration for a pressure survey.

**c. 13-29-11-26**

Oil production at the beginning of 1999 was 0.45 m<sup>3</sup>/day at a water-cut of 46%. By year end, oil production had declined to 0.37 m<sup>3</sup>/day at a water-cut of 57%. Since the 16-30-11-26 horizontal commenced production in 1998, the total fluid production at 13-29 has declined by 60%. This is directly attributable to interference from the 16-30 horizontal. Oil production at July 31, 2000 was 0.28 m<sup>3</sup>/day at a water-cut of 63%. The 13-29 well may be a possible injector, or will be abandoned if production continues to further decline. No further corrective action is planned at this location during 2000.

**d. 14-29-11-26**

Oil production at the beginning of 1999 was 1.34 m<sup>3</sup>/day at a water-cut of 72%. By year end, oil production had declined slightly to 1.1 m<sup>3</sup>/day at a water-cut of 74%. The 14-29 well appears to be receiving very little interference from the 16-30 horizontal. Total fluid has declined by only 15%, since the 16-30 horizontal went on production in early 1998. Oil production at July 31, 2000 was 0.97 m<sup>3</sup>/day at a water-cut of 80%. No further work is planned at this location during 2000.

**e. 9-30-11-26**

Oil production at the beginning of 1999 was 0.8 m<sup>3</sup>/day at a water-cut of 70%. By year end, oil production was relatively unchanged at 0.83 m<sup>3</sup>/day at a water-cut of 66%. Oil production at 9-30 has been impacted by both horizontals 15-30 and 16-30-11-26. There has been a decline in total fluid production at 9-30 after each of the two aforementioned horizontals commenced production. Oil production at July 31, 2000 averaged 0.27 m<sup>3</sup>/day at a water-cut of 82%. The 9-30 well will be considered as a pressure survey candidate during 2000. No further work is planned at this location during 2000.

**f. 15-30-11-26**

Oil production at the beginning of 1999 was 0.27 m<sup>3</sup>/day at a water-cut of 59%. By year end, oil production was relatively unchanged at 0.28 m<sup>3</sup>/day at a water-cut of 64%. The 15-30 well is a pool edge well and has always been a marginal performer. Oil production at July 31, 2000 was 0.14 m<sup>3</sup>/day at a water-cut of 81%. The 15-30 well is at its economic limit, and will be considered either as a potential injector after the pressure survey program is completed or for abandonment operations.

**g. 15-30-11-26 Horizontal**

The 15-30 horizontal was drilled during the first quarter of 2000. Oil production during February, 2000 averaged 18.7 m<sup>3</sup>/day at a water-cut of 54%. By July 31, 2000, oil production had declined to 13.7 m<sup>3</sup>/day with an increase in water-cut to 68%. The decline in oil production is directly attributable to an increasing water-cut. The 15-30 horizontal is quite likely impacting the performance of the 16-30 vertical well. More production time is required at 15-30 horizontal to determine its impact on the offsetting wells. The 15-30 horizontal well would also benefit from improved voidage replacement in this area of the Unit.

**h. 16-30-11-26**

Oil production at the beginning of 1999 was 1.3 m<sup>3</sup>/day at a water-cut of 68%. By year end, oil production was relatively unchanged at 1.39 m<sup>3</sup>/day at a water-cut of 57%. The 16-30 vertical well seems to not have been impacted by the 16-30 horizontal well at this time. However, with the drilling of the 15-30-11-26 horizontal, the total fluid production at 16-30 vertical has declined by 50%. This confirms that there is interference occurring from the 15-30 horizontal well at this time. Oil production at July 31, 2000 was 0.64 m<sup>3</sup>/day at a water-cut of 68%. Production will be monitored at the 16-30 vertical well during 2000, and this location may be considered for pressure maintenance at a later date.

**i. 16-30-11-26 Horizontal**

Oil production at the beginning of 1999 was 13.2 m<sup>3</sup>/day at a water-cut of 39%. By year end, oil production had declined to 10.8 m<sup>3</sup>/day at a water-cut of 51%. Total fluid has not declined during 1999, but the decline in oil production has been attributable to an increasing water-cut. More recently, oil production declined to 8 m<sup>3</sup>/day at a water-cut of 59%. The more recent decline in oil production is attributable to a bottom-hole pump problem. Although there has not been a significant decline in total fluid production at the 16-30 horizontal, this well would also benefit from improved pressure maintenance in this area of the Unit. No further action is planned at this location during the balance of 2000.

**j. 1-31-11-26**

Oil production at the beginning of 1999 was 1.16 m<sup>3</sup>/day at a water-cut of 90%. By year end, oil production had increased slightly to 1.3 m<sup>3</sup>/day with a decline in water-cut to 27%. The decline in water-cut is attributable to resetting a packer up-hole where a casing leak was causing out of zone water inflow. Oil production at July 31, 2000 has declined to 0.6 m<sup>3</sup>/day with an increase in water-cut to 44%. The 1-31 well is probably being impacted by the 3-32-11-26 horizontal well that was drilled in late 1999. More production time is required to determine the long term impact of interference at 1-31 due to the 3-32 horizontal. No further work is planned at 1-31 during 2000.

**k. 3-32-11-26**

Oil production at the beginning of 1999 was 0.62 m<sup>3</sup>/day at a water-cut of 82%. By year end, oil production was relatively unchanged at 0.65 m<sup>3</sup>/day with a decrease in water-cut to 75%. At this time there does not appear to be any interference from the offsetting 3-32 horizontal, with one lateral extending into LSD 3-32. Oil production at July 31, 2000 was 0.67 m<sup>3</sup>/day at a water-cut of 77%. No further corrective work is planned at this location during the balance of 2000.

**l. 3-32-11-26 Horizontal**

Oil production at this new well commenced in December, 1999 at 26 m<sup>3</sup>/day at a water-cut of 34%. Oil production at July 31, 2000 was 19.9 m<sup>3</sup>/day with an increase in water-cut to 52%. The decline in oil productivity is directly related to the increase in water-cut. No corrective work is required at 3-32 horizontal during the balance of 2000.

**m. 5-32-11-26**

Oil production at January, 1999 was 1.2 m<sup>3</sup>/day at a water-cut of 43%. By year end, oil production had increased to 1.48 m<sup>3</sup>/day at a water-cut of 28%. The increase in oil production was directly related to the decrease in water-cut. By July 31, 2000 oil production had declined to 0.5 m<sup>3</sup>/day at a water-cut of 63%. The decline in oil productivity is attributable to both interference from the 3-32 horizontal and an increasing water-cut. The 5-32 well will be considered for a pressure buildup test during the balance of Year 2000. No further action is required at this location during the balance of the year.

**n. 6-32-11-26**

Oil production at January, 1999 was 0.27 m<sup>3</sup>/day at a water-cut of 64%. By year end, oil production increased to 0.4 m<sup>3</sup>/day at a water-cut of 68%. The 6-32 well is on the edge of the pool and has always been a marginal producer. There does not appear to be any interference at this time between the 6-32 vertical and the offsetting 3-32 horizontal. Oil production at July 31, 2000 averaged 0.18 m<sup>3</sup>/day at a water-cut of 73%. No corrective action is planned for this location during the balance of the year.

**8. Summary**

The North Virden Scallion Unit No.2 has been on waterflood operations for over 10 years. There appears to be both a lack of effective annual and cumulative voidage replacement with the existing injection wells. Historical pressure surveys suggest that the Upper Cherty or Scallion formation is receiving pressure support from the underlying aquifer. Current pressure

surveys are required to determine the degree to which injection should be increased in the Unit to more effectively replace voidage. The drilling of 3 horizontal wells during the period from 1998 to 2000 has placed further pressure on voidage replacement in the Unit with the existing injection wells. The remaining producing life of the Unit is forecasted to be 25 years.

## CONCLUSIONS

The following conclusions are offered by Tundra Oil and Gas Ltd. in our efforts to maximize oil recovery from the North Virden Scallion Unit No.2:

1. Waterflood response in the Unit has been characterized by an initial increase in oil production after injection commenced in 1990, with a flattening of the production profile until 1998, when production increased significantly with the drilling of the first horizontal well in the Unit.
2. Horizontal drilling has significantly increased oil production in the Unit. The addition of 3 horizontal wells in the Unit during the period from 1998 to 2000 has provided both incremental oil recovery and rate acceleration. Rate acceleration has been confirmed as a result of interference with several vertical wells.
3. Current pressure surveys in the Unit are required to determine whether further injectors are required to improve voidage replacement. There is a possibility that the underlying aquifer is supplying pressure support to the Scallion formation. The following wells will be considered for a pressure buildup during 2000: 11-29, 13-29, 9-30, 16-30, and 5-32-11-26.
4. Subject to the results from the pressure survey, additional injectors may be installed in the Unit to improve voidage replacement and oil recovery.
5. Further horizontal drilling is not being considered in the Unit at this time.

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**Table No.1: - Unit Well List**

**Table No.2: - 1999 Unit Production Data**

**Table No.3: - 2000 Unit Production Data**

**Table No.4: - Oil-in-Place Upper Cherty Zone**

**Table No.5: - Oil-in-Place Lower Cherty Zone**

**Table No.6: - Unit Recovery Profiles**

**Table No.7: - 2000 Water Injection Summary Well 12-29-11-26**

**Table No.8: - 2000 Water Injection Summary Well 10-30-11-26**

**Table No.9: - 2000 Water Injection Summary Well 4-32-11-26**

**Table No.10: - 2000 Unit Voidage Calculations**

**Table No.11: - 2000 Section 29-11-26 Voidage Calculations**

**Table No.12: - 2000 Section 30-11-26 Voidage Calculations**

**Table No.13: - 2000 Section 32-11-26 Voidage Calculations**

**TABLE NO.1**

**WELL LIST**

<b><u>WELL</u></b>	<b><u>STATUS</u></b>
6-29-11-26	PRODUCING
11-29-11-26	PRODUCING
12-29-11-26	INJECTOR
13-29-11-26	PRODUCING
14-29-11-26	PRODUCING
9-30-11-26	PRODUCING
10-30-11-26	INJECTOR
15-30-11-26	PRODUCING
15-30-11-26 Hz	PRODUCING
16-30-11-26	PRODUCING
16-30-11-26 Hz	PRODUCING
3-32-11-26	PRODUCING
3-32-11-26 Hz	PRODUCING
4-32-11-26	INJECTOR
5-32-11-26	PRODUCING
6-32-11-26	PRODUCING

TABLE NO.3												
NORTH VIRIDEN SCALLION UNIT NO.2												
2000 PRODUCTION DATA												
	JAN	FEB	MARCH	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
OIL (m3)	1393.1	1530.8	1835.0	1648.5	1,661.5	1552.0	1456.9	-	-	-	-	-
WATER (m3)	1,167.1	1,376.9	1,658.7	1,610.3	1,668.6	1,809.1	2,324.8	-	-	-	-	-
TOTAL FLUID (m3)	2560.2	2907.7	3493.7	3258.8	3330.1	3361.1	3781.7	-	-	-	-	-
DAILY OIL (m3/day)	44.9	57.8	59.2	54.9	53.6	51.7	47.4	-	-	-	-	-
WATER-CUT (%)	45.6	47.3	47.5	49.4	50.1	53.8	61.5	-	-	-	-	-
AVERAGE MONTHLY OIL =					1,582.5	m3						
AVERAGE MONTHLY WATER =					1,659.4	m3						
AVERAGE MONTHLY TOTAL FLUID =					3,241.9	m3						
AVERAGE ANNUAL DAILY OIL =					52.8	m3/day						
AVERAGE MONTHLY WATER-CUT =					51.2	%						
2000 CUM. OIL PRODUCTION (to 2000-7-31)					11,077.8	m3						
2000 CUM. WATER PRODUCTION (to 00-7-31)					11,615.5	m3						
CUM. OIL PRODUCTION TO 2000-07-31					109,051.4	m3						

TABLE NO.4										
NORTH VIRDEN SCALLION UNIT NO.2										
ORIGINAL OIL-IN-PLACE ESTIMATES										
UPPER CHERTY ZONE										
Well	Constant	Area (hectares)	Area Factor (fraction)	Net Pay (metres)	Porosity (fraction)	Sw (fraction)	So (fraction)	Boi (Rm3/m3)	OOIP (m3)	OOIP (STB)
6-29-11-26	10,000	16.19	0.85	2.44	0.16	0.6	0.4	1.05	20,467	128,735
11-29-11-26	10,000	16.19	0.95	4.2	0.191	0.5	0.5	1.05	58,418	367,448
12-29-11-26	10,000	16.19	1	3.2	0.219	0.5	0.5	1.05	54,028	339,838
13-29-11-26	10,000	16.19	1	3	0.17	0.5	0.5	1.05	39,319	247,314
14-29-11-26	10,000	16.19	0.75	4.3	0.195	0.5	0.5	1.05	48,145	302,832
9-30-11-26	10,000	16.19	1	3.7	0.23	0.5	0.5	1.05	64,899	408,213
10-30-11-26	10,000	16.19	1	3.0	0.23	0.6	0.4	1.05	42,415	266,789
15-30-11-26	10,000	16.19	0.75	1.5	0.165	0.66	0.34	1.05	9,731	61,210
16-30-11-26	10,000	16.19	1	3	0.22	0.5	0.5	1.05	50,883	320,053
1-31-11-26	10,000	16.19	0.95	2.5	0.195	0.5	0.5	1.05	35,705	224,583
3-32-11-26	10,000	16.19	0.45	3.1	0.175	0.6	0.4	1.05	15,057	94,707
4-32-11-26	10,000	16.19	1	4.11	0.2	0.5	0.5	1.05	63,372	398,612
5-32-11-26	10,000	16.19	1	3	0.2	0.5	0.5	1.05	46,257	290,957
6-32-11-26	10,000	16.19	0.4	2	0.165	0.65	0.35	1.05	7,124	44,807
<b>Total</b>									<b>555,818</b>	<b>3,496,098</b>

TABLE NO.5										
NORTH VIRDEN SCALLION UNIT NO.2										
ORIGINAL OIL-IN-PLACE ESTIMATES										
LOWER CHERTY ZONE										
Well	Constant	Area (hectares)	Net Pay (metres)	Porosity (fraction)	Sw (fraction)	So (fraction)	Boi (Rm3/m3)	OOIP (m3)	OOIP (STB)	
12-29-11-26	10,000	16.19	2	0.16	0.7	0.3	1.05	14,802	93,106	
14-29-11-26	10,000	16.19	2.6	0.165	0.7	0.3	1.05	19,844	124,821	
16-30-11-26	10,000	16.19	2.6	0.16	0.7	0.3	1.05	19,243	121,038	
3-32-11-26	10,000	16.19	3.6	0.16	0.7	0.3	1.05	26,644	167,591	
Total								80,534	506,557	

**TABLE NO.6**

NORTH VIRDEN SCALLION UNIT NO.2										NVSU#2RECP 2000.XLS	
CURRENT SCALLION RATES AND RECOVERY PROFILES											
Well	Oil Rate (m3/day) 2000-07-31	Water-cut (%) 2000-07-31	Total Rate (m3/day) 2000-07-31	Cum. Oil (m3) 2000-07-31	OOIP (m3)	Ultimate Rec. (m3)	Rem. Oil (m3) 2000-07-31	Cur. Rec. Fac. (% of OOIP) 2000-07-31	Ult. Rec. Fac (% of OOIP)		
6-29-11-26	0.51	60	1.3	6,099.7	20,467	10,000	3,900	29.8	48.9		
11-29-11-26	1.11	58	2.6	9,510.9	58,418	13,995	4,484	16.3	24.0		
12-29-11-26	-	-	-	2,132.3	54,028	2,132	0	3.9	3.9		
13-29-11-26	0.28	63	0.8	5,991.4	39,319	6,155	164	15.2	15.7		
14-29-11-26	0.97	81	5.1	12,348.8	48,145	18,160	5,811	25.6	37.7		
9-30-11-26	0.27	82	1.5	8,890.1	64,899	8,949	59	13.7	13.8		
10-30-11-26	-	-	-	2,888.7	42,415	2,889	0	6.8	6.8		
15-30-11-26	0.14	81	0.7	2,133.0	9,731	2,185	52	21.9	22.5		
15-30-11-26 Hz	13.7	68	42.8	2,683.6	-	18,750	16,066	-	-		
16-30-11-26	0.64	68	2.0	10,449.8	50,883	14,385	3,935	20.5	28.3		
16-30-11-26 Hz	8.1	59	19.6	11,975.8	-	34,920	22,944	-	-		
3-32-11-26	0.7	77	2.9	4,904.2	15,057	6,720	1,816	32.6	44.6		
3-32-11-26 Hz	20.16	52	42.0	5,462.6	-	27,430	21,967	-	-		
4-32-11-26	-	-	-	3,745.1	63,372	3,745	0	5.9	5.9		
5-32-11-26	0.48	63	1.3	6,724.6	46,257	10,270	3,545	14.5	22.2		
6-32-11-26	0.18	73	0.7	1,794.2	7,124	1,794	0	25.2	25.2		
1-31-11-26	0.58	44	1.0	11,316.6	35,705	16,125	4,808	31.7	45.2		
<b>TOTALS</b>	<b>47.7</b>	<b>61.6</b>	<b>124.4</b>	<b>109,051</b>	<b>555,820</b>	<b>198,604</b>	<b>89,553</b>	<b>19.6</b>	<b>35.7</b>		

TABLE NO.7												
NORTH VIRDEN SCALLION UNIT NO.2												
2000 WATER INJECTION SUMMARY												
12-29-11-26 INJECTION WELL												
	JAN.	FEB.	MAR.	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
TOTAL(m3)	309	289	443	465	475	461	446	-	-	-	-	-
DAILY(m3/day)	10	10	14	15	15	15	14	-	-	-	-	-
2000 AVERAGE ANNUAL DAILY INJECTION												
					14	m3/day						
CUMULATIVE INJECTION TO 99-12-31 =												
					34,732	m3						
TOTAL 2000 ANNUAL INJECTION (00.07.31)												
					2,888	m3						
CUMULATIVE INJECTION TO 2000-07-31												
					37,620	m3						

TABLE NO.8												
NORTH VIRDEN SCALLION UNIT NO.2												
2000 WATER INJECTION SUMMARY												
10-30-11-26 INJECTION WELL												
	JAN.	FEB.	MAR.	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
TOTAL(m3)	597	477	652	624	804	818	775	-	-	-	-	-
DAILY(m3/day)	19	16	21	21	26	27	25	-	-	-	-	-
2000 AVERAGE ANNUAL DAILY INJECTION												22
												m3/day
CUMULATIVE INJECTION TO 99-12-31 =												31,417
												m3
TOTAL 2000 ANNUAL INJECTION (00.07.31)												4,747
												m3
CUMULATIVE INJECTION TO 2000-07-31												36,164
												m3

TABLE NO.9												
NORTH VOIREDEN SCALLION UNIT NO.2												
2000 WATER INJECTION SUMMARY												
4-32-11-26 INJECTION WELL												
	JAN.	FEB.	MAR.	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
TOTAL(m3)	229	169	247	427	520	528	516	-	-	-	-	-
DAILY(m3/day)	7	6	8	14	17	18	17	-	-	-	-	-
2000 AVERAGE ANNUAL DAILY INJECTION 12 m3/day												
CUMULATIVE INJECTION TO 99-12-31 = 22,524 m3												
TOTAL 2000 ANNUAL INJECTION (00.07.31) 2,637 m3												
CUMULATIVE INJECTION TO 2000-07-31 25,161 m3												

TABLE NO.10										
NORTH VIRDEN SCALLION UNIT NO.2										
VOIDAGE CALCULATIONS										
FROM January 1, 2000 TO July 31, 2000										
OIL FORMATION VOLUME FACTOR = 1.05 Rm3										
MONTH	OIL PRODUCTION	WATER PRODUCTION	OIL VOIDAGE	TOTAL VOIDAGE	TOTAL INJECTION	NET VOIDAGE	VOIDAGE REPLACEMENT RATIO			
	m3	m3	Rm3	Rm3	Rm3	Rm3	VRR			
JAN.	1,393.1	1,167.1	1,462.76	2,629.9	1,135	1,494.86	0.43			
FEB.	1,530.8	1,376.9	1,607.34	2,984.2	935	2,049.24	0.31			
MAR.	1,835.0	1,658.7	1,926.75	3,585.5	1,342	2,243.45	0.37			
APRIL	1,648.5	1,610.3	1,730.93	3,341.2	1,516	1,825.23	0.45			
MAY	1,661.5	1,668.6	1,744.58	3,413.2	1,799	1,614.18	0.53			
JUNE	1,552.0	1,809.1	1,629.60	3,438.7	1,807	1,631.70	0.53			
JULY	1,456.9	2,324.8	1,529.75	3,854.5	1,737	2,117.55	0.45			
AUG.	-	-	-	-	-	-	-			
SEPT.	-	-	-	-	-	-	-			
OCT.	-	-	-	-	-	-	-			
NOV.	-	-	-	-	-	-	-			
DEC.	-	-	-	-	-	-	-			
TOTAL	11,077.8	11,615.5	11,631.7	23,247.2	10,271.0	12,976.2	0.44			
CUM. POOL VOIDAGE (00.07.31) = 235,270 Rm3										
CUM. POOL INJECTION (00.07.31) = 98,945 Rm3										
CUM. NET VOIDAGE (00.07.31) = 136,325 Rm3										
CUM. VRR (00.07.31) = 0.42 Rm3 / Rm3										

TABLE NO.11									
NORTH VIRDEN SCALLION UNIT NO.2									
VOIDAGE CALCULATIONS									
FROM January 1, 2000 TO July 31, 2000									
OIL FORMATION VOLUME FACTOR = 1.05 Rm3									
Section 29-11-26									
MONTH	OIL PRODUCTION	WATER PRODUCTION	OIL VOIDAGE	TOTAL VOIDAGE	TOTAL INJECTION	NET VOIDAGE	VOIDAGE REPLACEMENT RATIO		
	m3	m3	Rm3	Rm3	Rm3	Rm3	VRR		
JAN.	405.3	507.1	425.57	932.7	309	623.67	0.33		
FEB.	393.4	493.0	413.07	906.1	289	617.07	0.32		
MAR.	421.0	499.1	442.05	941.2	443	498.15	0.47		
APRIL	439.7	431.0	461.69	892.7	465	427.69	0.52		
MAY	451.4	457.7	473.97	931.7	475	456.67	0.51		
JUNE	415.1	496.7	435.86	932.6	461	471.56	0.49		
JULY	352.9	616.7	370.55	987.2	446	541.25	0.45		
AUG.	-	-	-	-	-	-	-		
SEPT.	-	-	-	-	-	-	-		
OCT.	-	-	-	-	-	-	-		
NOV.	-	-	-	-	-	-	-		
DEC.	-	-	-	-	-	-	-		
TOTAL	2,878.8	3,501.3	3,022.7	6,524.0	2,888.0	3,636.0	0.44		
CUM. POOL VOIDAGE (00.07.31) =			99,837	Rm3					
CUM. POOL INJECTION (00.07.31) =			37,620	Rm3					
CUM. NET VOIDAGE (00.07.31) =			62,217	Rm3					
CUM. VRR (00.07.31) =			0.38	Rm3 / Rm3					

TABLE NO.12										
NORTH VIRDEN SCALLION UNIT NO.2										
VOIDAGE CALCULATIONS										
FROM January 1, 2000 TO July 31, 2000										
OIL FORMATION VOLUME FACTOR = 1.05 Rm3										
Section 30-11-26										
MONTH	OIL PRODUCTION	WATER PRODUCTION	OIL VOIDAGE	TOTAL VOIDAGE	TOTAL INJECTION	NET VOIDAGE	VOIDAGE REPLACEMENT RATIO			
	m3	m3	Rm3	Rm3	Rm3	Rm3	VRR			
JAN.	109.9	165.1	115.40	280.5	597	-316.51	2.13			
FEB.	343.5	433.4	360.68	794.1	477	317.08	0.60			
MAR.	609.6	683.4	640.08	1,323.5	652	671.48	0.49			
APRIL	535.7	697.9	562.49	1,260.4	624	636.39	0.50			
MAY	495.3	805.6	520.07	1,325.7	804	521.67	0.61			
JUNE	456.9	750.2	479.75	1,229.9	818	411.95	0.67			
JULY	429.3	926.7	450.77	1,377.5	775	602.47	0.56			
AUG.	-	-	-	-	-	-	-			
SEPT.	-	-	-	-	-	-	-			
OCT.	-	-	-	-	-	-	-			
NOV.	-	-	-	-	-	-	-			
DEC.	-	-	-	-	-	-	-			
TOTAL	2,980.2	4,462.3	3,129.2	7,591.5	4,747.0	2,844.5	0.63			
CUM. POOL VOIDAGE (00.07.31) =			65,921	Rm3						
CUM. POOL INJECTION (00.07.31) =			36,164	Rm3						
CUM. NET VOIDAGE (00.07.31) =			29,757	Rm3						
CUM. VRR (00.07.31) =			0.55	Rm3 / Rm3						

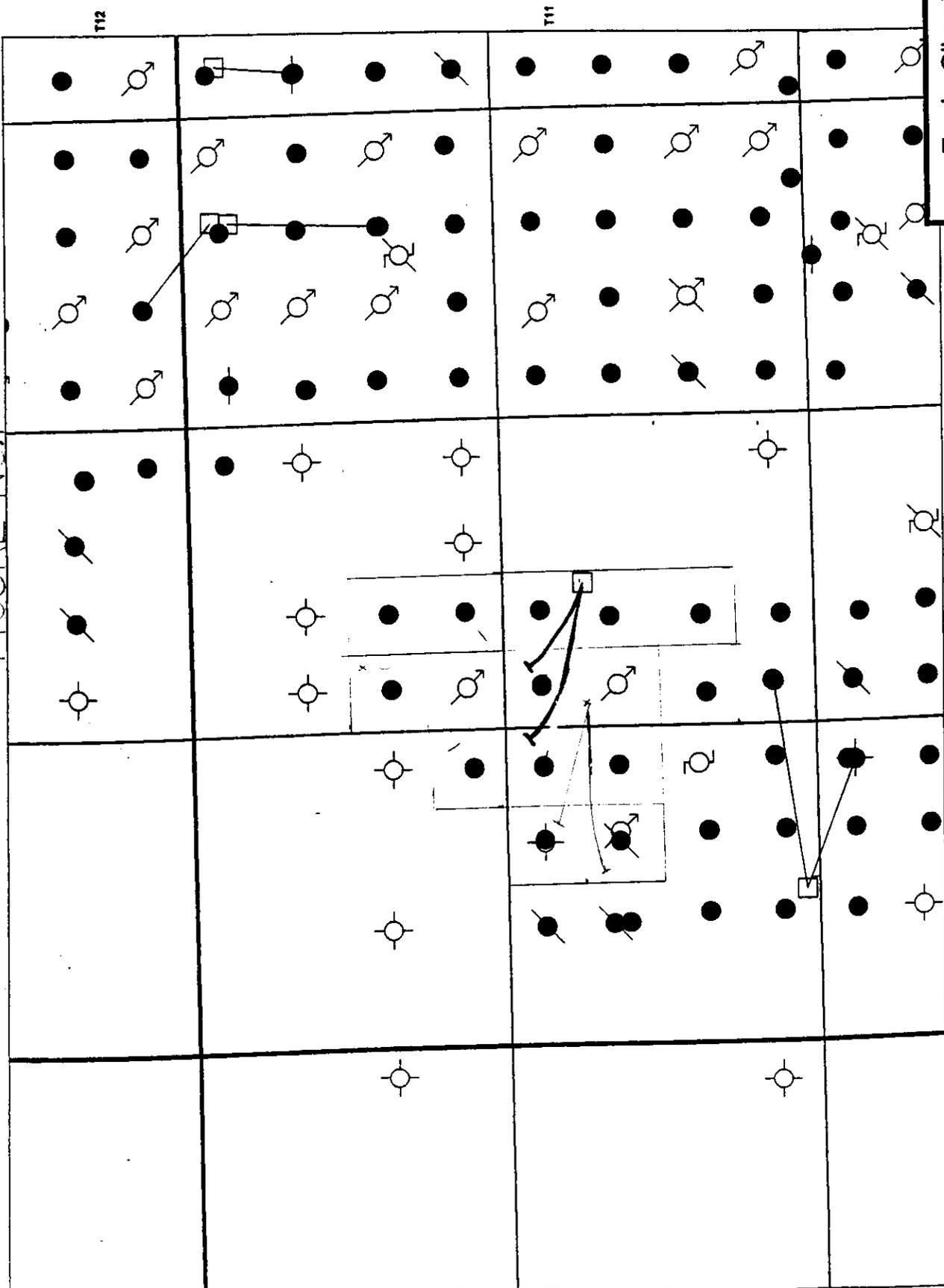
TABLE NO.13										
NORTH VRDEN SCALLION UNIT NO.2										
VOIDAGE CALCULATIONS										
FROM January 1, 2000 TO July 31, 2000										
OIL FORMATION VOLUME FACTOR = 1.05 Rm3										
Section 32-11-26										
MONTH	OIL PRODUCTION	WATER PRODUCTION	OIL VOIDAGE	TOTAL VOIDAGE	TOTAL INJECTION	NET VOIDAGE	VOIDAGE REPLACEMENT RATIO	VRR		
	m3	m3	Rm3	Rm3	Rm3	Rm3				
JAN.	877.7	495.4	921.59	1,417.0	229	1,187.99	0.16			
FEB.	793.6	450.5	833.28	1,283.8	169	1,114.78	0.13			
MAR.	804.1	477.1	844.31	1,321.4	247	1,074.41	0.19			
APRIL	672.8	481.7	706.44	1,188.1	427	761.14	0.36			
MAY	714.4	538.8	750.12	1,288.9	520	768.92	0.40			
JUNE	680.3	561.9	714.32	1,276.2	528	748.22	0.41			
JULY	674.2	780.0	707.91	1,487.9	516	971.91	0.35			
AUG.	-	-	-	-	-	-	-			
SEPT.	-	-	-	-	-	-	-			
OCT.	-	-	-	-	-	-	-			
NOV.	-	-	-	-	-	-	-			
DEC.	-	-	-	-	-	-	-			
TOTAL	5,217.1	3,785.4	5,478.0	9,263.4	2,636.0	6,627.4	0.28			
CUM. POOL VOIDAGE (00.07.31) =			69,512	Rm3						
CUM. POOL INJECTION (00.07.31) =			25,161	Rm3						
CUM. NET VOIDAGE (00.07.31) =			44,351	Rm3						
CUM. VRR (00.07.31) =			0.36	Rm3 / Rm3						

**LIST OF FIGURES**

**Figure No.1: - Unit Area Map**

**Figure No.2: - Unit Production History and Ultimate Recovery Forecast**

FIGURE NO.



Tundra Oil and Gas Ltd.

North Virden Scallion Unit #2

Licensed to: Tundra Oil & Gas  
 Date: 1999/07/29  
 By: [Signature]  
 Scale: 1:30000  
 Project: Dgthoams

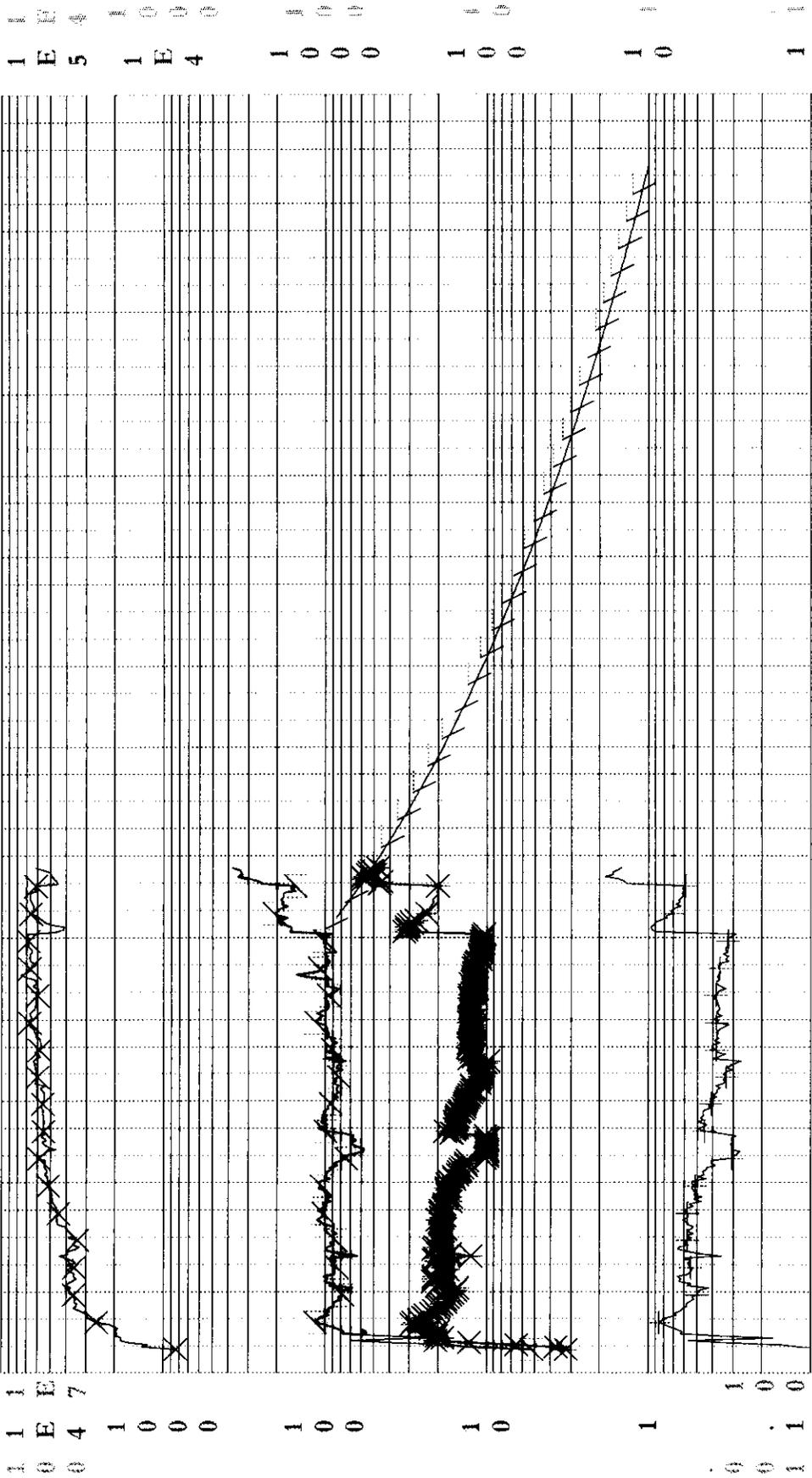
R26W1

R27

# FIGURE NC.2

Operator: NVSL NUSVELL, Inc. 11/82-07/00  
 Avg Daily Oil FIC1 (Case Line)  
 Field: q: 87,826 m3/d, Sep. 1996  
 Zone: q: 0.9271 m3/d, May. 2026  
 Type: Unknown d: 11/1/82  
 Group: NVSL#2 RR: 8052.8 m3 For 1984 m3

Production Cases  
 Gas: 10051 m3  
 Gas: 0.58 m3  
 Water: 20766 m3  
 Cond: 0 m3



1 1 1  
 0 E E  
 0 4 7  
 1 0 0 0  
 1 0 0 0  
 1 0 0 0  
 1 0

1982 1986 1990 1994 1998 2002 2006 2010 2014 2018 2022 2026

Year

Monthly Oil - m3  
 Avg Daily Oil - m3/d  
 Water Cut - %

Monthly Fluid - m3  
 Avg Daily Oil FIC1 - m3/d

## **LIST OF APPENDICES**

- Appendix A: Unit Production History**
- Appendix B: Individual Well Ultimate Recovery Predictions**
- Appendix C: Year 2000 Individual Well Production Data**
- Appendix D: Water Injector Historical Plots**
- Appendix E: Water Injector Historical Injection Data**
- Appendix F: Historical Pressure Surveys**
- Appendix G: Historical Well Production Data**

# APPENDIX A

## UNIT PRODUCTION HISTORY

## Production Report

Group	: NVSU#2	Date	: 3/1/6 5:50:13 am
Well	: NVSUN02WELL	User	: George
	: 000000002		
Hist.Data	: 11/82-07/00	On Prod	: 02/09
Operator	:	Status	: Unknown
Field	:	Zone	:

### Production Data from November, 1982 to July, 2000

Year	Avg Daily Oil m3/d	Monthly Oil m3	Cum Oil m3	Water Cut %	Monthly Water m3	Cum Water m3
Nov., 1982	3.21333	48.2	48.2	8.36164	4.4	4.4
Dec., 1982	3.7	114.7	162.9	13.5593	18	22.4
Jan., 1983	6.53578	147.6	310.5	12.5022	21.0993	43.4993
Feb., 1983	12.7658	323.401	633.901	16.4282	63.6008	107.1
Mar., 1983	20.6517	561.9	1195.8	18.4404	127.1	234.2
Apr., 1983	18.6679	171.9	1367.7	18.2137	38.2988	272.499
May., 1983	20.345	369.601	1737.3	19.7845	91.1995	363.698
Jun., 1983	20.8634	625.901	2363.2	19.3359	150.1	513.798
Jul., 1983	19.7709	612.899	2976.1	19.8229	151.6	665.398
Aug., 1983	22.2698	678.299	3654.4	19.1083	160.3	825.697
Sep., 1983	26.7294	738.401	4392.8	20.1227	186.1	1011.8
Oct., 1983	29.176	791.399	5184.2	21.465	216.399	1228.2
Nov., 1983	28.5233	855.699	6039.9	25.969	300.299	1528.49
Dec., 1983	26.0839	808.601	6848.5	27.6073	308.499	1836.99
Jan., 1984	24.6163	754.899	7603.4	29.6825	318.8	2155.79
Feb., 1984	23.7693	669.501	8272.9	29.2042	276.3	2432.09
Mar., 1984	22.1387	686.299	8959.2	30.4708	300.899	2732.99
Apr., 1984	21.0933	632.799	9592	32.4413	304	3036.99
May., 1984	20.0088	608.6	10200.6	35.8187	339.8	3376.79
Jun., 1984	19.5067	578.699	10779.3	34.3853	303.4	3680.19
Jul., 1984	18.8507	582.8	11362.1	34.0849	301.501	3981.69
Aug., 1984	17.9678	557	11919.1	35.5744	307.699	4289.39
Sep., 1984	17.7914	520.399	12439.5	34.7935	277.801	4567.19
Oct., 1984	17.2065	533.401	12972.9	35.8176	297.8	4864.99
Nov., 1984	16.6367	499.1	13472	35.9206	279.9	5144.9
Dec., 1984	16.2579	497.9	13969.9	38.3379	309.701	5454.6
Jan., 1985	15.5323	481.5	14451.4	37.6757	291.2	5745.8
Feb., 1985	15.1332	423.1	14874.5	37.3824	252.7	5998.5
Mar., 1985	20.1276	572.799	15447.3	39.1634	368.9	6367.4
Apr., 1985	19.7639	546.8	15994.1	39.0986	351.199	6718.59
May., 1985	21.3517	645	16639.1	36.6302	373	7091.59
Jun., 1985	21.2823	629.601	17268.7	34.5702	332.8	7424.4
Jul., 1985	21.2742	659.5	17928.2	35.6923	366.199	7790.59
Aug., 1985	18.9218	564.499	18492.7	35.5713	311.799	8102.39
Sep., 1985	18.3733	551.2	19043.9	36.5824	318.1	8420.49
Oct., 1985	17.3143	535.3	19579.2	39.769	353.6	8774.09
Nov., 1985	18.6613	547.399	20126.6	35.4837	301.2	9075.29

## Production Report

Group : NVSU#2 Date : 3/1/6 5:50:13 am  
 Well : NVSUN02WELL User : George  
 : 000000002

### Production Data from November, 1982 to July, 2000 (cont.)

Year	Avg Daily Oil m3/d	Monthly Oil m3	Cum Oil m3	Water Cut %	Monthly Water m3	Cum Water m3
Dec., 1985	18.5142	561.599	20688.2	38.9992	359.201	9434.49
Jan., 1986	18.5609	569.2	21257.4	34.9459	305.899	9740.39
Feb., 1986	20.8835	542.1	21799.5	36.1983	307.7	10048.1
Mar., 1986	20.8749	604.501	22404	36.0351	340.7	10388.8
Apr., 1986	12.5125	354	22758	43.9143	277.3	10666.1
May., 1986	16.6925	466	23224	39.1302	299.7	10965.8
Jun., 1986	19.5598	559.899	23783.9	39.4009	364.202	11330
Jul., 1986	21.1704	655.4	24439.3	34.646	347.6	11677.6
Aug., 1986	20.8108	643.4	25082.7	33.2615	320.802	11998.4
Sep., 1986	19.4527	569.801	25652.5	36.2681	324.402	12322.8
Oct., 1986	19.4032	601.501	26254	35.7683	335.101	12657.9
Nov., 1986	19.06	571.8	26825.8	33.9625	294.201	12952.1
Dec., 1986	18.6198	542.3	27368.1	37.977	332.2	13284.3
Jan., 1987	18.8506	577.3	27945.4	36.4036	330.601	13614.9
Feb., 1987	18.8536	527.9	28473.3	36.8967	308.8	13923.7
Mar., 1987	18.6516	578.199	29051.5	36.9776	339.4	14263.1
Apr., 1987	17.9266	537.799	29589.3	39.365	349.299	14612.4
May., 1987	18.2922	525.901	30115.2	40.0918	352.099	14964.5
Jun., 1987	18.8811	562.5	30677.7	44.4719	450.699	15415.2
Jul., 1987	19.1432	572.701	31250.4	45.5033	478.4	15893.6
Aug., 1987	20.087	616	31866.4	45.1801	507.902	16401.5
Sep., 1987	19.2168	570.899	32437.3	45.8549	483.701	16885.2
Oct., 1987	18.229	565.1	33002.4	44.3635	450.799	17336
Nov., 1987	19.4383	570.999	33573.4	44.4984	458	17794
Dec., 1987	19.3258	599.1	34172.5	46.4645	520.199	18314.2
Jan., 1988	18.4968	573.399	34745.9	45.3796	476.6	18790.8
Feb., 1988	18.3493	530.6	35276.5	46.2411	456.599	19247.4
Mar., 1988	18.1705	554.199	35830.7	46.2771	477.6	19725
Apr., 1988	16.6524	473.899	36304.6	48.3828	444.399	20169.4
May., 1988	17.2385	522.901	36827.5	48.0418	483.7	20653.1
Jun., 1988	16.4326	469.699	37297.2	49.462	459.901	21113
Jul., 1988	17.4277	519.202	37816.4	48.2294	483.9	21596.9
Aug., 1988	17.4436	509.499	38325.9	48.4984	480	22076.9
Sep., 1988	17.7321	509.799	38835.7	50.3687	517.601	22594.5
Oct., 1988	17.7416	538.901	39374.6	50.9757	560.599	23155.1
Nov., 1988	17.2485	515.299	39889.9	51.4308	545.899	23701
Dec., 1988	17.5047	539	40428.9	50.2795	545.3	24246.3
Jan., 1989	17.0649	528.301	40957.2	50.1305	531.3	24777.6
Feb., 1989	15.9004	441.899	41399.1	52.4577	487.801	25265.4
Mar., 1989	15.9106	486.6	41885.7	51.8823	524.902	25790.3
Apr., 1989	15.1452	451.2	42336.9	53.8068	525.8	26316.1





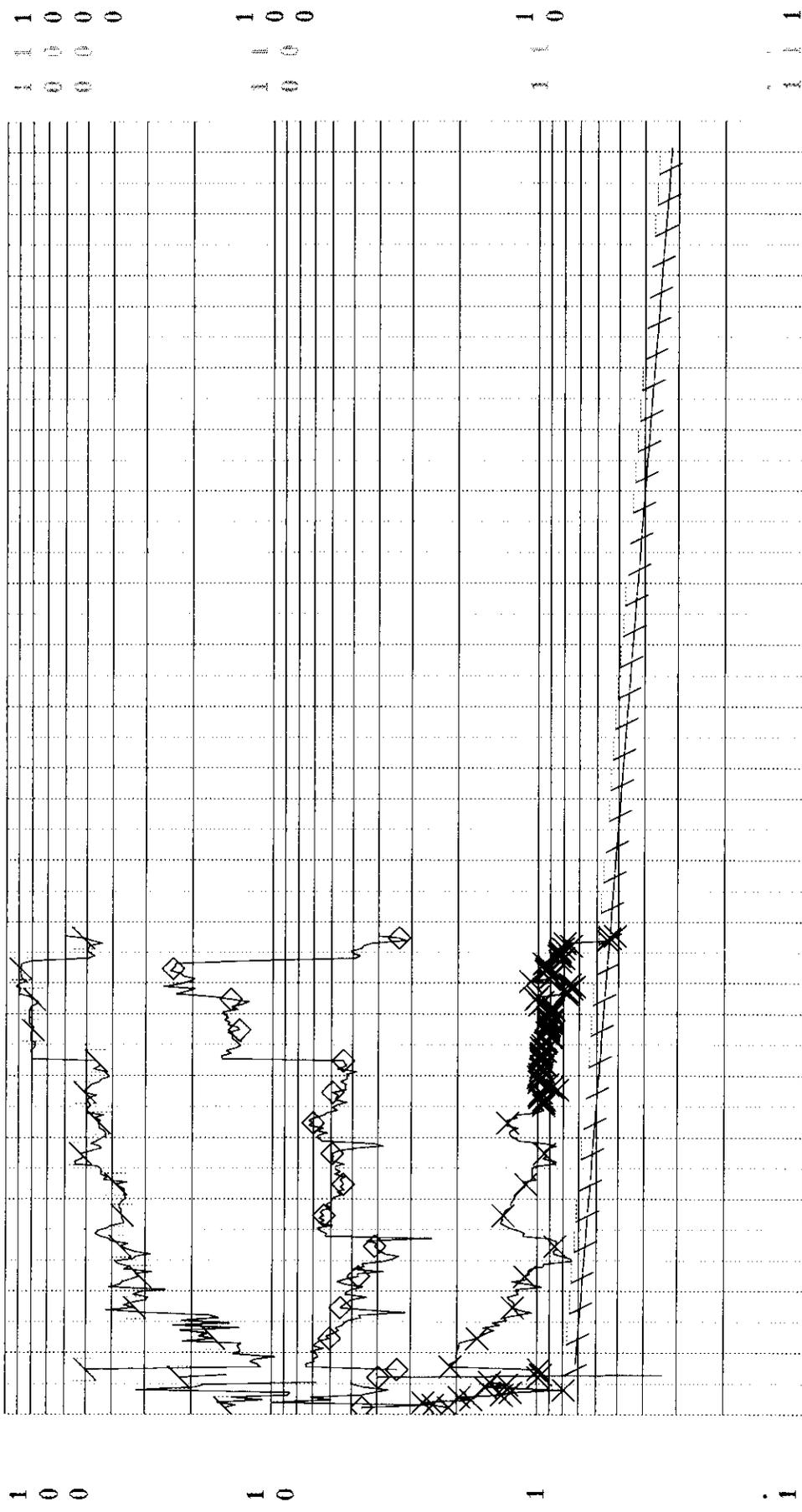




## APPENDIX B

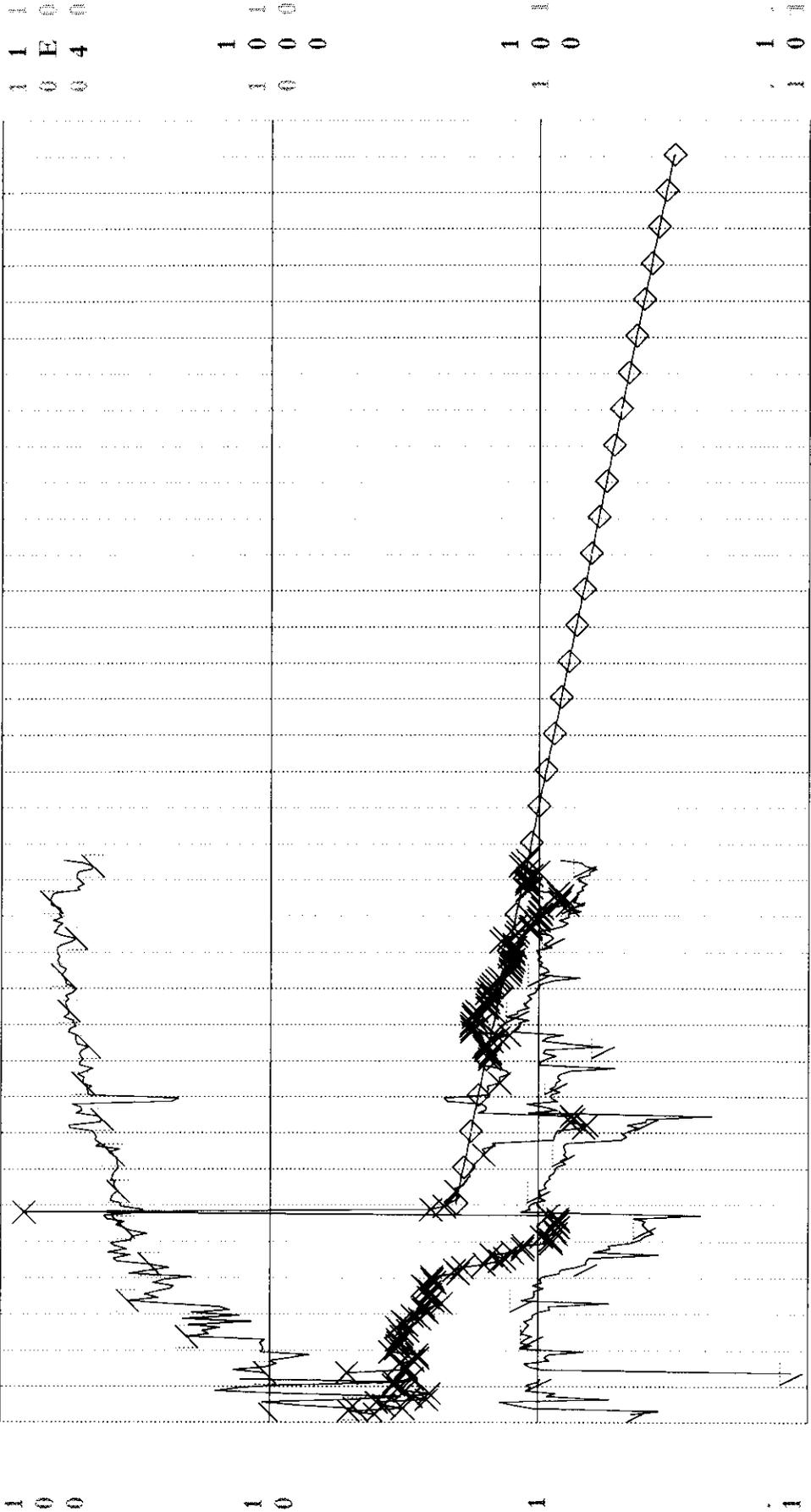
### INDIVIDUAL WELL ULTIMATE RECOVERY PREDICTIONS

Operator: 00/106-29-011-20001/4 (Abououkh NVS 1 - Oil No. 2 Proj. 46-29-11-26) Date: 05/25-07/10  
 Field: 5 Avg Daily Oil FCI (Bar-True) Production Units  
 Zone: 59A q: 0.71232 m3/d, Aug, 1994 Oil: 699.7 m3  
 Type: Unknown q: 0.317433 m3/d, Feb, 2026 Gas: 0 m3  
 Group: NVSE #2 d(Res): 2.0623 CID: 699.7 m3 Water: 8262 m3  
 RR: 3922.21 m3 Tot: 1001.9 m3 Unit: m3



Year	Avg Daily Oil - m3/d	Avg Daily Oil FCI - m3/d	Water Cut - %
1985	0.7	0.7	0
1986	0.7	0.7	0
1987	0.7	0.7	0
1988	0.7	0.7	0
1989	0.7	0.7	0
1990	0.7	0.7	0
1991	0.7	0.7	0
1992	0.7	0.7	0
1993	0.7	0.7	0
1994	0.7	0.7	0
1995	0.7	0.7	0
1996	0.7	0.7	0
1997	0.7	0.7	0
1998	0.7	0.7	0
1999	0.7	0.7	0
2000	0.7	0.7	0
2001	0.7	0.7	0
2002	0.7	0.7	0
2003	0.7	0.7	0
2004	0.7	0.7	0
2005	0.7	0.7	0
2006	0.7	0.7	0
2007	0.7	0.7	0
2008	0.7	0.7	0
2009	0.7	0.7	0
2010	0.7	0.7	0
2011	0.7	0.7	0
2012	0.7	0.7	0
2013	0.7	0.7	0
2014	0.7	0.7	0
2015	0.7	0.7	0
2016	0.7	0.7	0
2017	0.7	0.7	0
2018	0.7	0.7	0
2019	0.7	0.7	0
2020	0.7	0.7	0
2021	0.7	0.7	0
2022	0.7	0.7	0
2023	0.7	0.7	0
2024	0.7	0.7	0

Operator: 001120-111-001 (Montuoff NVS Unit No. 2 Proj. 11-20-1120) Date: 11/25/07/00  
 Production Units  
 Field: 3 Avg Daily Oil FC1 (Barrels) Oil: 9519 m3  
 Zone: 59A 45 0.31599 m3/d, Jan. 2001 Gas: 0.05m3  
 Type: Unknown dl(Exp): 0.19546 CIP: 95109 m3 Water: 6172.4 m3  
 Group: NVSE1W2 RR: 4482 m3 Tot: 13961 m3 Cond: 0 m3



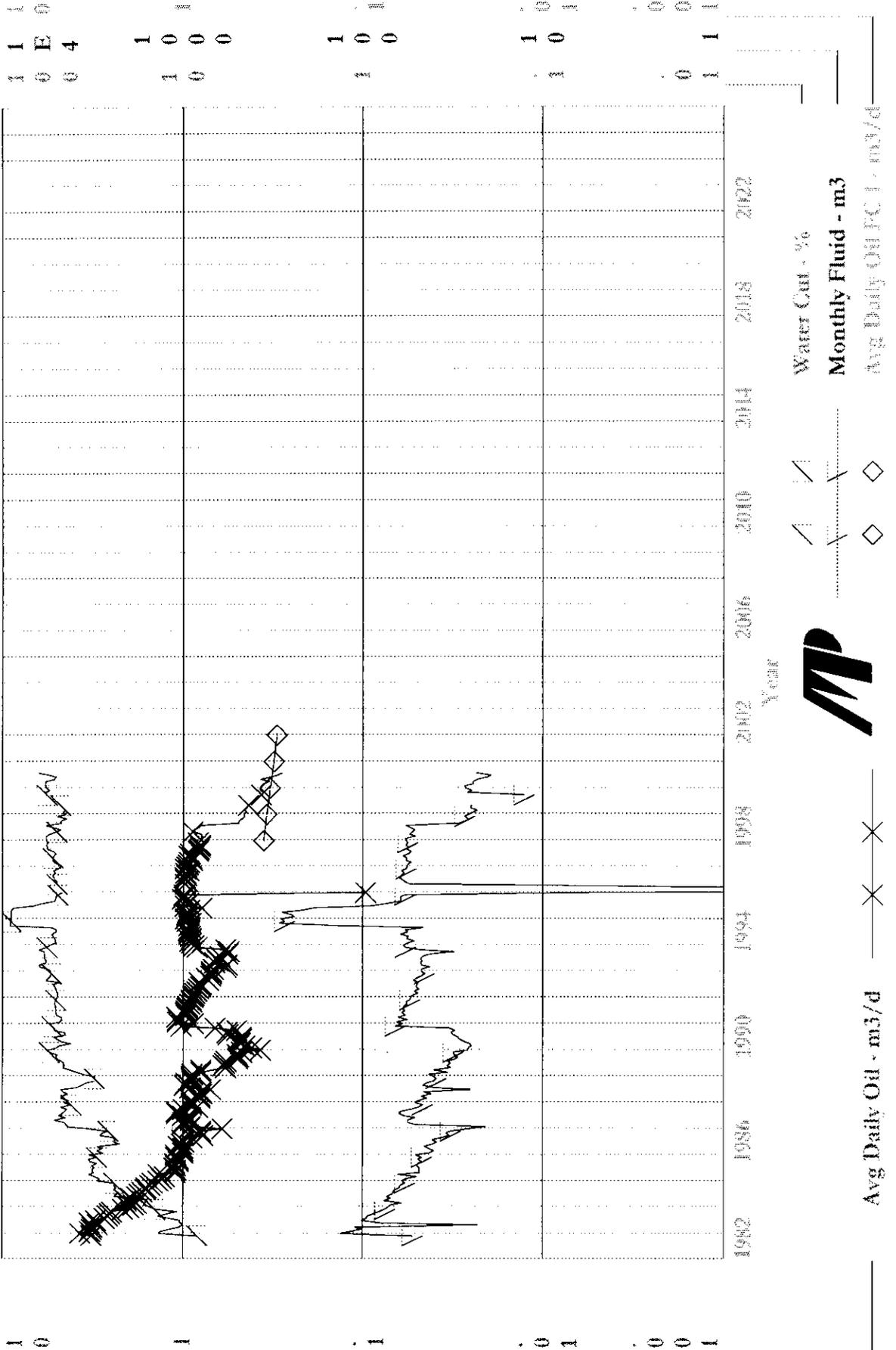
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Avg Daily Oil - m3/d    x    Water Cut - %    v    Monthly Fluid - m3    d  
 Avg Daily Oil FC1 - m3/d    d

40/14-29-011-26WT/0 (Mound#1 NYS Unit No. 3 Prod. U-29-11-36) Data 11/22/07/00

Operator: Production Cons  
 Field: 5991.4 m3  
 Zone: 50A  
 Type: Unknown  
 Group: NYSU#2  
 Avg Daily Oil (m3/d): 4.3547  
 Avg Daily Oil (m3/d): 4.2994  
 d(Exp): 4.19736  
 CRD: 5991.4 m3  
 IRL: 164.448 m3  
 TRC: 645.85 m3  
 Gas: 0.66m3  
 Water: 587.9 m3  
 Cond: 0 m3



Avg Daily Oil - m3/d

Water Cut - %

Monthly Fluid - m3

Avg Daily Oil (m3/d)

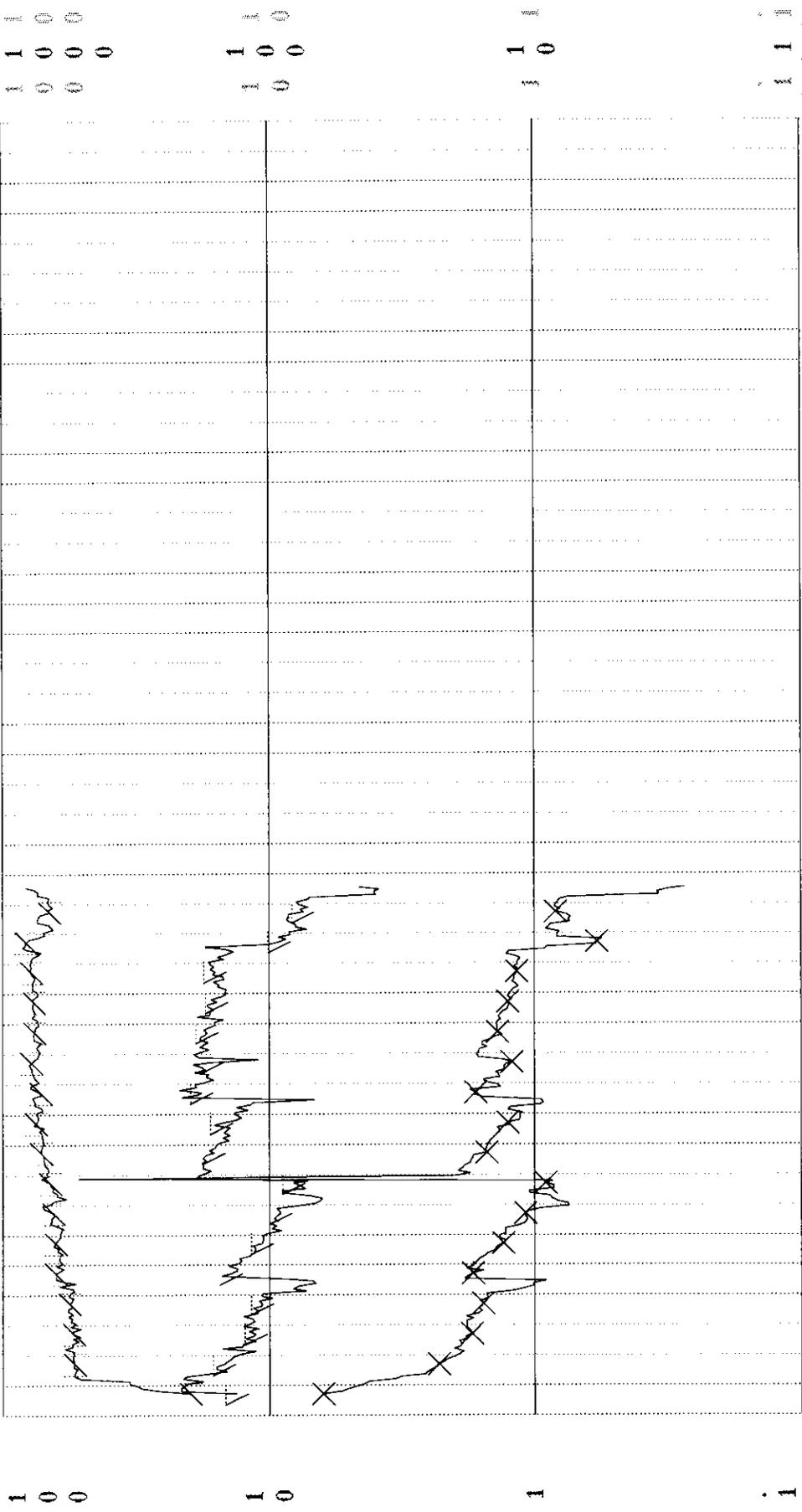
Year



Operator: MCV-94012001/0 (Aboureddi, NYS Unit 2, 05-2011-1-1-1-1) Data (1/1/1987-1/1/2022)

Production Cums  
 Oil: 3991.1 m3  
 Gas: 0 CBms  
 Water: 1797.5 m3  
 Cond: 0 m3

Zone: 39A  
 Type: Unknown  
 Group: NYS1 #2



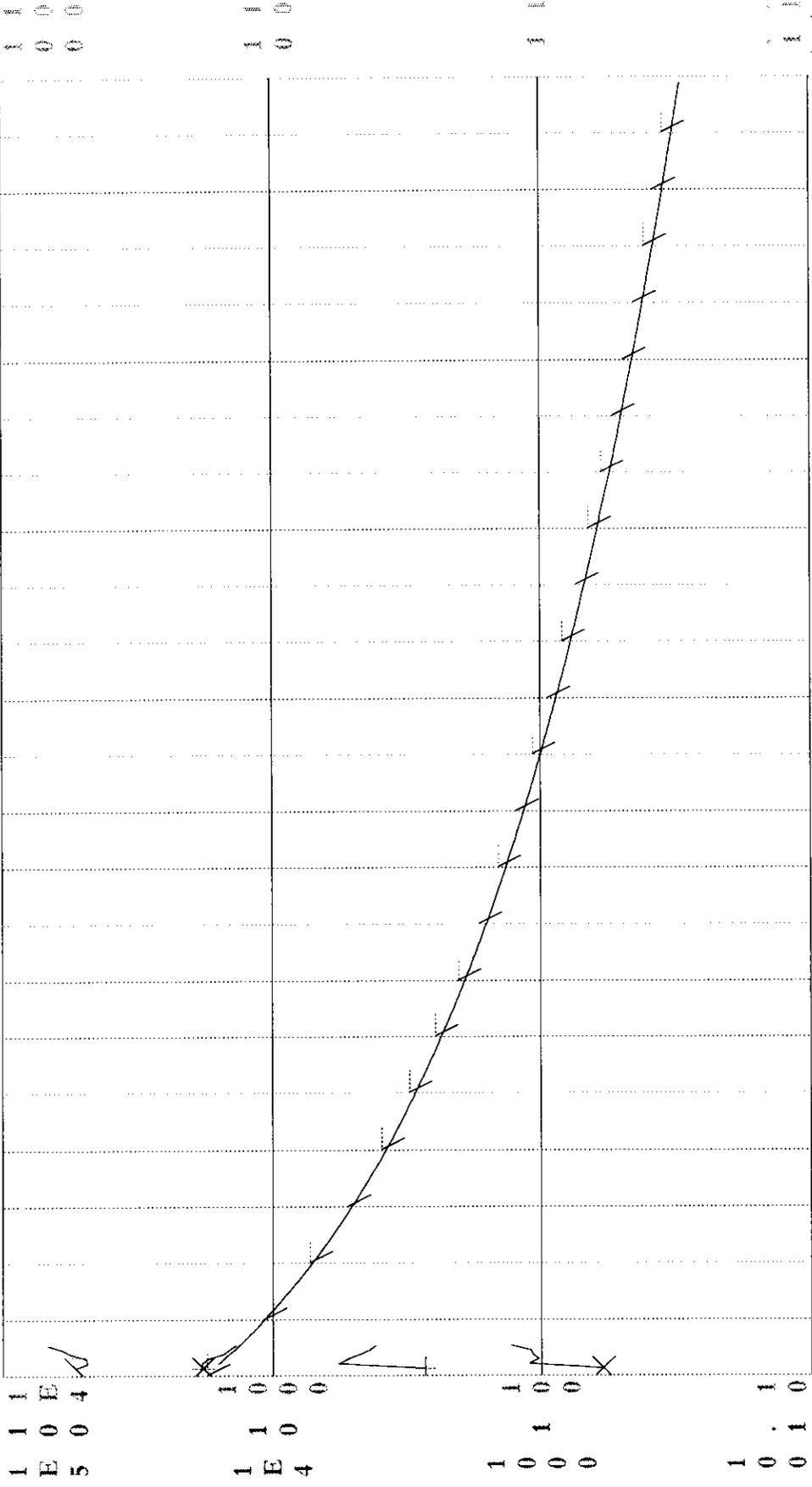
Avg Daily Oil - m3/d

Water Cut - %

Monthly Fluid - m3

Avg Daily Oil FC - m3/d

0743-30-01-2481/4 (NPS Unit No. 2112, Well, 15-40-11-26W1) Date: 02/09-07/10  
 Operator: Production Counts  
 Field: Avg Daily Oil FC 1 (Date-Time) Oil: 2685.6 m3  
 Zone: 39A qt: 16.682 m3/d, Mar, 2007 Gas: 0.56003  
 Type: Unknown drl typ: 39.473 CID: 2685.6 m3 Water: 350.7 m3  
 Group: NVSLW2 REC: 1608.2 m3 Tot: 18751.8 m3 Cond: 0 m3



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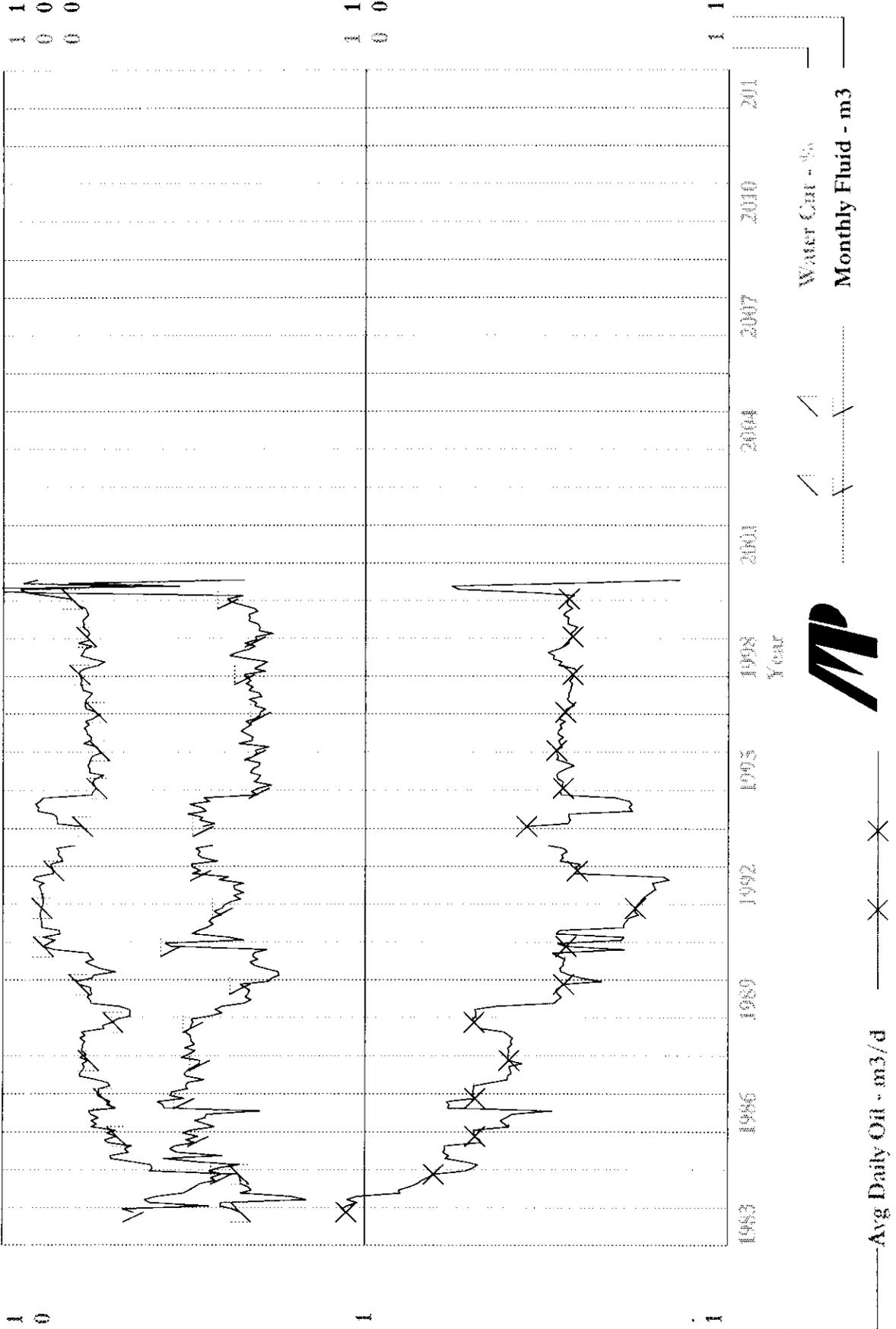
Year  
 2006 2008 2010 2012 2014 2016 2018 2020 2022

Monthly Oil - m3  
 Avg Daily Oil - m3/d  
 Monthly Fluid - m3  
 Water Cut - %  
 Avg Daily Oil FC 1 - m3/d



12/15/20-04-208174 (Alamogordo NYS Unit No. 2 A15-30 (1-2081)) Data 11/23/07/10

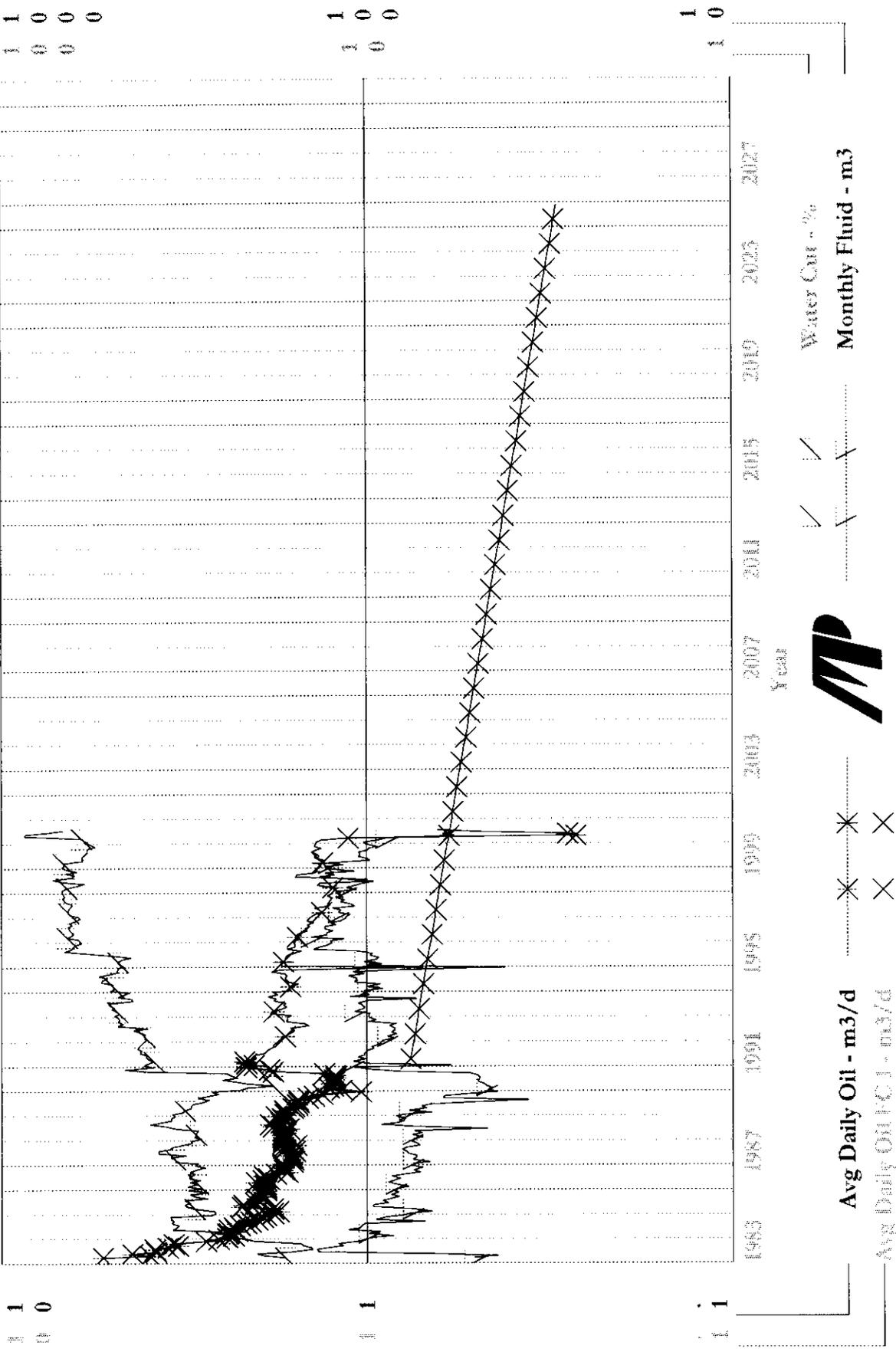
Operator: Production Curve  
Field: Oil 213 m3  
Zone: 50A Gas: 0.00 m3  
Type: Unknown Water: 3071.4 m3  
Group: NYSU#2 Cond: 1 m3



Well: 304-304120010 (Murchitt NY's Unit No. 2 10-40-1-20W) Date: 07/30/10  
 Operator: Production Curve  
 Field: S  
 Zone: 304  
 Type: Unknown  
 Group: NYSEL#2

Avg Daily Oil FC (Rate-Time)  
 dt: 0.760793 m3/d, Apr, 1991  
 qt: 0.290759 m3/d, Nov, 2025  
 ddsq: 2.6502 CID: 1049.8 m3  
 RR: 3936.76 m3 Top: 14386.0 m3

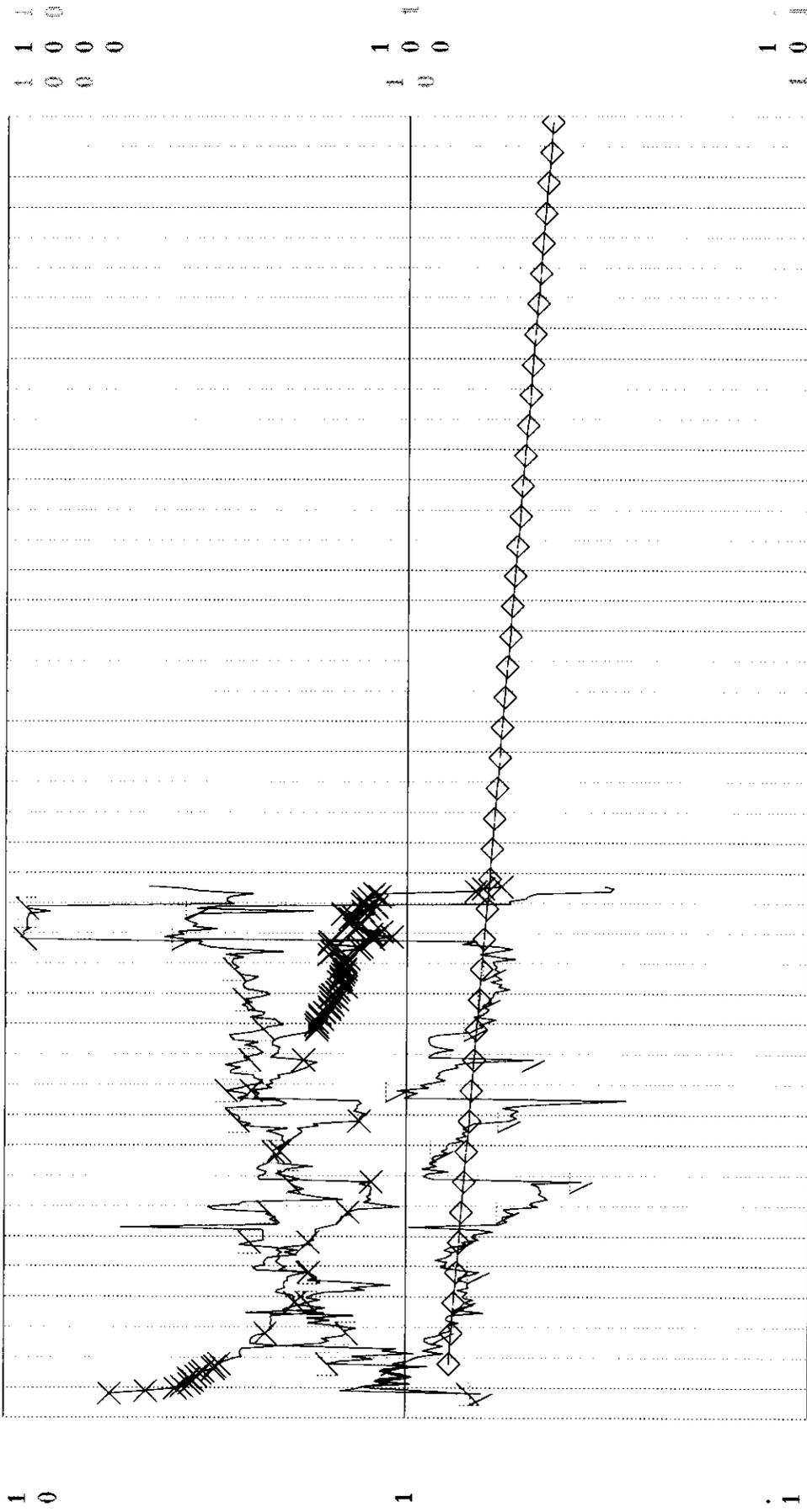
Production Curve  
 Oil: 1049.8 m3  
 Gas: 0.06m3  
 Water: 885.3 m3  
 Cond: 0 m3





40701-11011-20081/0 (Montwell NYS Unit No. 20-11-11-20081) Data ID: A-117/10

Operator: Production Curve  
 Field: 5 Avg Daily Oil FC (Barrels/Time) Oil: 1116.6 m3  
 Zone: 59A Oil: 78569 m3/d, Oct, 1984 Gas: 0 bbl/d  
 Type: Unknown Oil: 44877 m3/d, Oct, 2025 Water: 697.1 m3  
 Group: NYSU#2 RR: 488.7 m3 TD: 6125.3 m3 Cond: 1 m3



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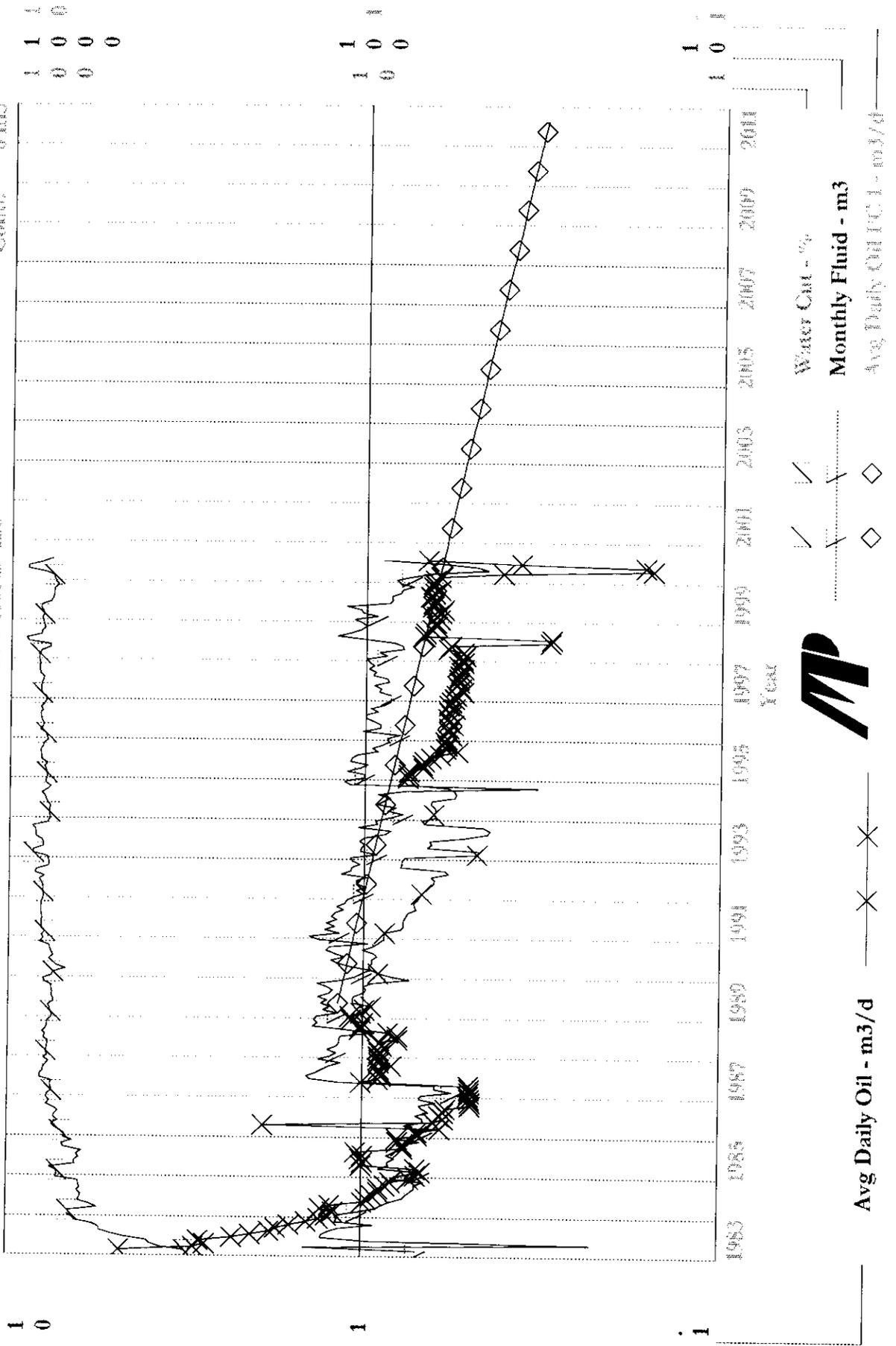
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Year

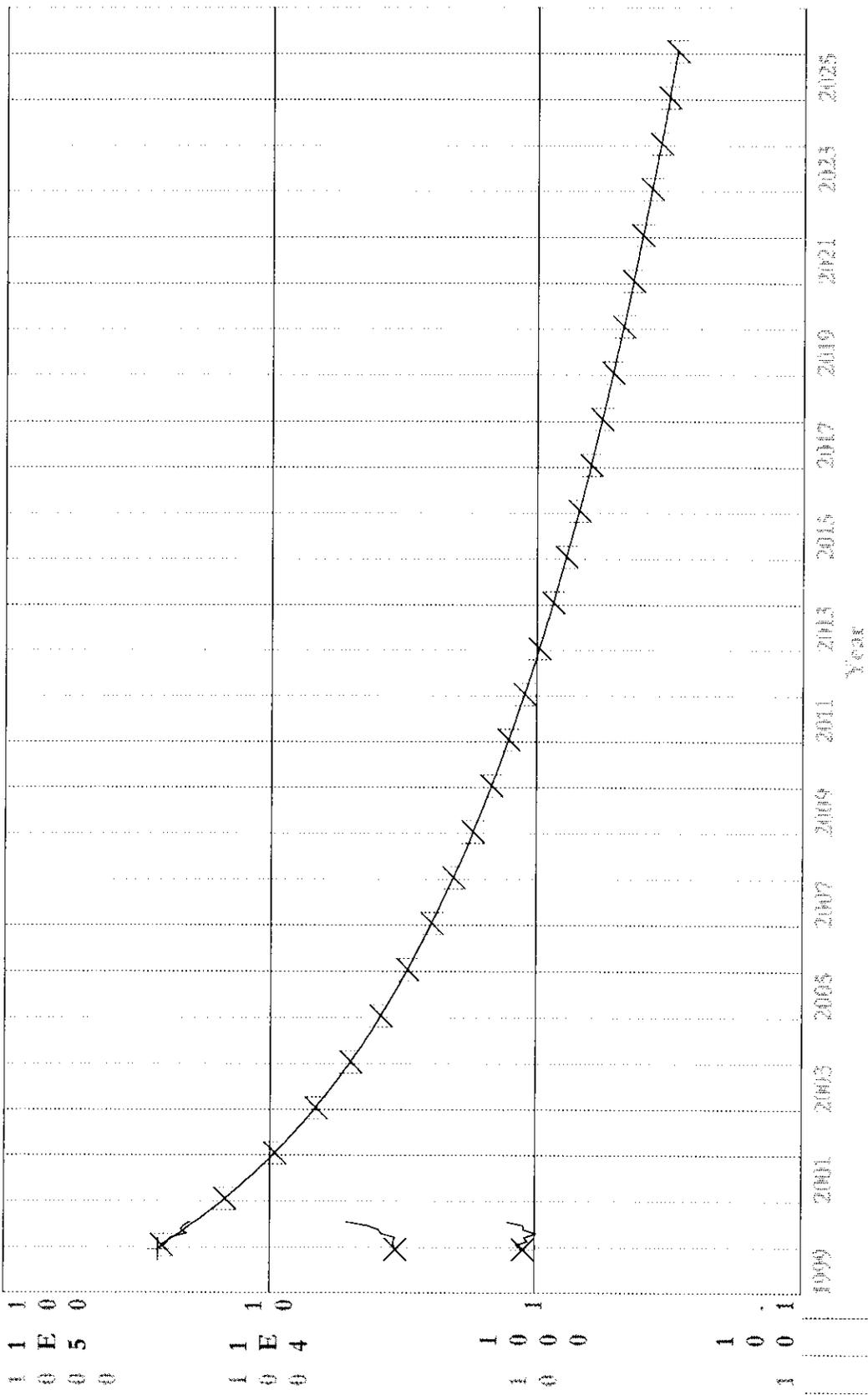
Water Cut - %  
 Monthly Fluid - m3  
 Avg Daily Oil FC - m3/d



00109132-011-2000176 (Aluminum NYS Unit No. 2 05-32-1-20001) 100412/3407/00  
 Operator: Production Co. Inc.  
 Well: 3  
 Zone: 30A  
 Type: Unknown  
 Comp: NYS1402  
 d: 1821 m3/d, May, 1989  
 q: 1765 m3/d, Aug, 2001  
 q(Exp): 5.2274 CID: 49042 m3  
 RR: 18105 m3 In: 677.26 m3  
 Card: 0 m3  
 Gas: 0.6003  
 Water: 1872.3 m3  
 Card: 0 m3



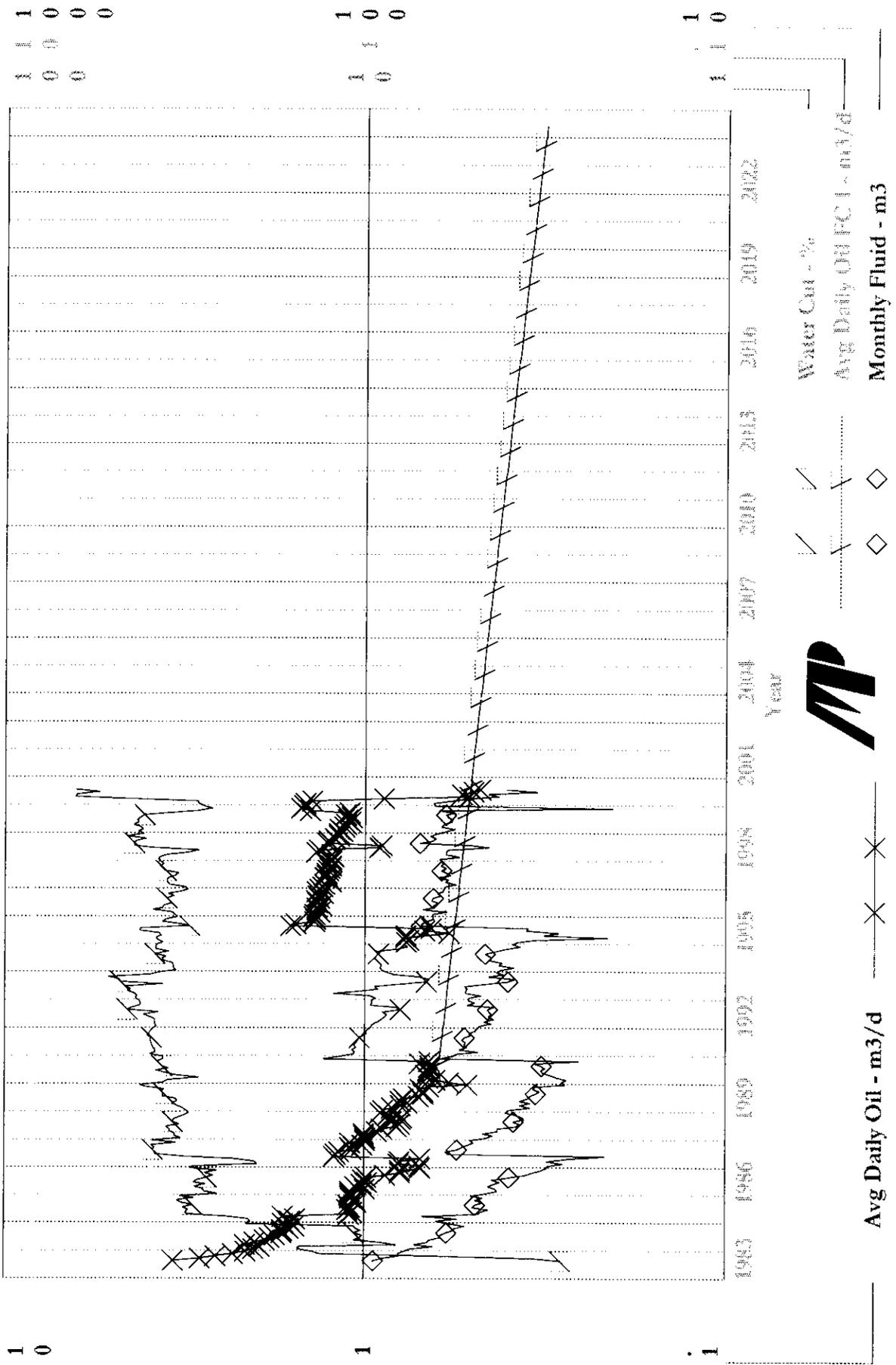
Operator: **CONOCOPhillips-2083170** (NYS Lic No: 2122N11105-02-11-2009) Perm: 01/94-17/00  
 Field: **5** Avg Daily OIL FC1 (Rat-Time) Production Cum  
 Zone: **59A** qt: 26,025 m3/d, Jan, 2008 Oil: 5462.6 m3  
 Type: **Unknown** qt: 12,999 m3/d, Jan, 2006 Gas: 0.16 m3  
 Group: **NYSU#2** d(Hyp): 436736 CID: 5462.6 m3 Water: 3424.4 m3  
 RB: 2007.7 m3 Tot: 27430.3 m3 Cmt: 0 m3



Legend:  
 Avg Daily Oil - m3/d: ————  
 Monthly Fluid - m3: .....  
 Water Cut - %: X X X



00705-52.m3-3481/2 (Montwell 2481 Core No. 2 04-32 (1-24W)) Data m3/3481.00  
 Operator:   
 Field:   
 Zone: 5A  
 Type: Unknown  
 Group: NYSU#2  
 Prodium Cums:   
 Oil: 6724.6 m3  
 Gas: 0.06 m3  
 Water: 335 m3  
 Cond: 0 m3  
 Avg Daily Oil - m3/d: 184.5  
 Avg Daily Cond - m3/d: 0.00017  
 Avg Daily Water - m3/d: 0.91  
 d(Exp): 1963M CIP: 6724.6 m3  
 RR: 34838 m3 Tot: 1006 m3



Avg Daily Oil - m3/d  
 Avg Daily Cond - m3/d  
 Avg Daily Water - m3/d

Water Cut - %  
 Monthly Fluid - m3

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## APPENDIX C

### YEAR 2000 INDIVIDUAL WELL PRODUCTION DATA

TUNDRA OIL AND GAS LTD.  
 Fluid Production Report  
 Year: 2000

WELL: 06291126W1 NVSC#2 6-29-11-26 WPM

MONTH	M3 OIL / DAY	M3 OIL / MTH	M3 H2O / MTH	M3 FLUID / MONTH	% H2O	HOURS ON PROD./MTH	M3 FLUID / DAY	PROD. OIL	WTR	HRS	DATE
01	0.83	25.6	25.0	50.6	49.41	744	1.63	0.9	0.8	24.0	1
02	0.8	23.3	22.8	46.1	49.46	696	1.59				
03	0.75	23.3	22.2	45.5	48.79	744	1.47				
04	0.8	23.8	18.5	42.3	43.74	712	1.43	1.74	1.86	72.0	28
05	0.56	16.4	14.9	31.3	47.6	706	1.06				
06	0.54	16.1	17.2	33.3	51.65	720	1.11				
07	0.51	15.9	24.0	39.9	60.15	742	1.29				
	0.68	144.4	144.6	289.0	50.03	5064	1.37				

WELL: 11291126M1 NVSC#2 11-29-11-26 WPM

MONTH	M3 OIL / DAY	M3 OIL / MTH	M3 H2O / MTH	M3 FLUID / MONTH	% H2O	HOURS ON PROD./MTH	M3 FLUID / DAY	PROD. TEST OIL	WTR	HRS	DATE
01	1.1	34.2	37.5	71.7	52.3	744	2.31	1.2	1.2	24.0	1
02	1.07	30.9	34.2	65.1	52.53	693	2.25				
03	1.01	31.2	33.2	64.4	51.55	744	2.08				
04	1.12	32.8	28.2	61.0	46.23	703	2.08	3.75	3.75	72.0	28
05	1.2	36.5	30.9	67.4	45.85	728	2.22				
06	1.16	34.7	34.6	69.3	49.93	718	2.32				
07	1.11	34.2	48.7	82.9	58.75	742	2.68				
	1.11	234.5	247.3	481.8	51.33	5072	2.28				

WELL: 13291126W1 NVSC#2 13-29-11-26 WPM

MONTH	M3 OIL / DAY	M3 OIL / MTH	M3 H2O / MTH	M3 FLUID / MONTH	% H2O	HOURS ON PROD./MTH	M3 FLUID / DAY	PROD. TEST OIL	WTR	HRS	DATE
01	0.37	11.4	15.6	27.0	57.78	744	0.87	0.4	0.5	24.0	1
02	0.36	10.3	14.1	24.4	57.79	690	0.85				
03	0.33	10.3	13.9	24.2	57.44	744	0.78				
04	0.37	11.1	11.9	23.0	51.74	720	0.77				
05	0.33	10.1	10.2	20.3	50.25	744	0.65	1.28	1.52	96.0	14
06	0.3	8.9	10.5	19.4	54.12	720	0.65				
07	0.28	8.7	14.7	23.4	62.82	742	0.76				
	0.33	70.8	90.9	161.7	56.22	5104	0.76				

TUNDRA OIL AND GAS LTD.  
 Fluid Production Report  
 Year: 2000

WELL: 14291126W1 NVSC#2 14-29-11-26 WPM

MONTH	M3 OIL / DAY	M3 OIL / MTH	M3 H2O / MTH	M3 FLUID / MONTH	% H2O	HOURS ON PROD./MTH	M3 FLUID / DAY	PROD. TEST OIL	WTR	HRS	DATE
01	1.1	34.1	100.0	134.1	74.57	744	4.33	1.2	3.2	24.0	1
02	1.07	30.9	90.9	121.8	74.63	693	4.22				
03	1.01	31.2	88.8	120.0	74.0	744	3.87				
04	1.11	33.0	75.4	108.4	69.56	711	3.66	4.8	12.8	96.0	22
05	1.08	33.4	80.7	114.1	70.73	742	3.69	1.1	3.2	24.0	8
06	1.02	30.4	88.4	118.8	74.41	718	3.97				
07	0.97	30.1	124.3	154.4	80.51	742	4.99				
	1.05	223.1	648.5	871.6	74.4	5094	4.11				

TUNDRA OIL AND GAS LIFT  
 Fluid Production Report  
 Year: 2000

WELL: 09301126W1 NVSC#2 9-30-11-26 WPM

MONTH	M3 OIL / DAY	M3 OIL / MTH	M3 H2O / MTH	M3 FLUID / MONTH	% H2O	HOURS ON PROD./MTH	M3 FLUID / DAY	PROD. TEST OIL	WTR	HRS	DATE
01	0.83	25.7	53.1	78.8	67.39	744	2.54	0.9	1.7	24.0	1
02	0.8	23.2	48.3	71.5	67.55	693	2.48				
03	0.75	23.2	46.8	70.0	66.86	740	2.27				
04	0.34	10.2	29.3	39.5	74.18	715	1.33	1.48	4.92	96.0	1
05	0.35	10.7	29.4	40.1	73.32	742	1.3	1.36	4.24	96.0	20
06	0.31	9.4	29.3	38.7	75.71	718	1.29				
07	0.27	8.4	37.2	45.6	81.58	742	1.47	0.58	1.82	48.0	11
	0.52	110.8	273.4	384.2	71.16	5094	1.81				

TUNDRA OIL AND GAS LTD  
 Fluid Production Report  
 Year: 2000

WELL: 15301126HZ NYSC NO. 2 HZ 15-30-11-26 WPM

MONTH	M3 OIL / DAY	M3 OIL / MTH	M3 H2O / MTH	M3 FLUID / MONTH	% H2O	HOURS ON PROD./MTH	M3 FLUID / DAY	PROD. TEST OIL	WTR	HRS	DATE
01	NO DATA										
02	18.71	271.3	315.8	587.1	53.79	348	40.49	65.4	58.0	72.0	25
03	18.38	568.3	538.6	1106.9	48.66	742	35.8	66.0	58.53	72.0	7
04	17.66	521.6	501.8	1023.4	49.03	709	34.64	36.0	44.0	48.0	9
05	15.38	471.7	606.3	1078.0	56.24	736	35.15	16.1	24.1	24.0	3
06	14.7	437.3	654.5	1091.8	59.95	714	36.7	31.0	46.6	48.0	20
07	13.7	413.4	883.7	1297.1	68.13	724	43.0				
	16.21	2683.6	3500.7	6184.3	56.61	3973	37.36				

TUNDRA OIL AND GAS LTD.  
Fluid Production Report  
Year: 2000

WELL: 15301126W1 NVSC#2 15-30-11-26 WPM

MONTH	M3 OIL / DAY	M3 OIL / MTH	M3 H2O / MTH	M3 FLUID / MONTH	% H2O	HOURS ON PROD./MTH	M3 FLUID / DAY	PROD. TEST OIL	WTR	HRS	DATE
01	0.27	8.5	15.6	24.1	64.73	744	0.78	0.3	0.5	24.0	1
02	0.27	7.7	14.1	21.8	64.68	693	0.75				
03	0.34	10.5	66.1	76.6	86.29	740	2.48	1.2	11.8	48.0	21
04	0.56	16.6	139.8	156.4	89.39	715	5.25				
05	0.58	17.9	148.8	166.7	89.26	742	5.39				
06	0.27	8.0	57.8	65.8	87.84	718	2.2	0.3	0.9	48.0	10
07	0.14	4.2	17.5	21.7	80.65	742	0.7				
	0.35	73.4	459.7	533.1	86.23	5094	2.51				

3-10-2-29 DATE: 06/30/00  
 TIME: 15.99

TUNDRA OIL AND GAS LTD.  
 Fluid Production Report  
 Year: 2000

WELL: 16301126W1 NVSC#2 16-30-11-26 WPM

MONTH	M3 OIL / DAY	M3 OIL / MTH	M3 H2O / MTH	M3 FLUID / MONTH	% H2O	HOURS ON PROD./MTH	M3 FLUID / DAY	PROD. TEST OIL	WTR	HRS	DATE
01	1.38	42.7	59.4	102.1	58.18	744	3.29	1.5	1.9	24.0	1
02	1.34	38.6	54.0	92.6	58.32	693	3.21				
03	1.13	34.9	53.5	88.4	60.52	744	2.85	0.87	6.33	72.0	28
04	0.27	7.9	49.8	57.7	86.31	711	1.95				
05	0.28	8.7	53.2	61.9	85.95	742	2.0				
06	0.48	14.5	43.1	57.6	74.83	718	1.93	2.16	3.24	72.0	15
07	0.64	19.7	42.0	61.7	68.07	742	2.0				
	0.79	167.0	355.0	522.0	68.01	5094	2.46				

TUNDRA OIL AND GAS LTD.  
Fluid Production Report  
Year: 2000

WELL: 16301126HZ NVSU#2 HZNTL 16-30-11-26 WPM

MONTH	M3 OIL / DAY	M3 OIL / MTH	M3 H2O / MTH	M3 FLUID / MONTH	% H2O	HOURS ON PROD./MTH	M3 FLUID / DAY	PROD. TEST OIL	WTR	HRS	DATE
01	10.75	333.2	365.5	698.7	52.31	744	22.54	11.7	11.7	24.0	1
02	10.42	301.0	332.2	633.2	52.46	693	21.93				
03	9.64	298.0	318.5	616.5	51.66	742	19.94	46.0	46.0	96.0	3
04	10.65	318.7	273.9	592.6	46.22	718	19.81				
05	11.08	341.7	289.4	631.1	45.86	740	20.47				
06	10.65	312.4	311.8	624.2	49.95	704	21.28				
07	8.05	248.1	352.7	600.8	58.71	740	19.49	36.4	36.4	96.0	1
	10.17	2153.1	2244.0	4397.1	51.03	5081	20.77				

TUNDRA OIL AND GAS LTD.  
Fluid Production Report  
Year: 2000

WELL: 01311126W1 NVSC#2 01-31-11-26 WPM

MONTH	M3 OIL / DAY	M3 OIL / MTH	M3 H2O / MTH	M3 FLUID / MONTH	% H2O	HOURS ON PROD./MTH	M3 FLUID / DAY	PROD. TEST OIL	WTR	HRS	DATE
01	1.29	39.9	15.6	55.5	28.11	744	1.79	1.4	0.5	24.0	1
02	1.25	36.2	14.2	50.4	28.17	696	1.74				
03	1.17	36.3	13.8	50.1	27.54	744	1.62				
04	1.21	36.3	11.6	47.9	24.22	720	1.6	2.1	1.2	72.0	27
05	0.67	20.9	10.2	31.1	32.8	744	1.0				
06	0.65	19.4	11.1	30.5	36.39	720	1.02				
07	0.58	18.0	14.1	32.1	43.93	742	1.04	1.3	0.7	48.0	7
	0.97	207.0	90.6	297.6	30.44	5110	1.4				

3.10.2.29 DATE: 06/30/00  
 TIME: 15.99

TUNDRA OIL AND GAS LTD.  
 Fluid Production Report  
 Year: 2000

WELL: 03321126H1 NVSC#2 3-32-11-26 WPM

MONTH	M3 OIL / DAY	M3 OIL / MTH	M3 H2O / MTH	M3 FLUID / MONTH	% H2O	HOURS ON PROD./MTH	M3 FLUID / DAY	PROD. OIL	WTR	HRS	DATE
01	0.64	19.9	62.5	82.4	75.85	744	2.66	0.7	2.0	24.0	1
02	0.62	18.0	56.8	74.8	75.94	693	2.59				
03	0.41	12.8	52.6	65.4	80.43	744	2.11	0.34	3.46	48.0	20
04	0.16	4.7	40.8	45.5	89.67	711	1.54				
05	0.16	5.1	43.6	48.7	89.53	742	1.58				
06	0.37	11.0	49.5	60.5	81.82	718	2.02	3.8	8.9	120.0	23
07	0.67	20.8	69.2	90.0	76.89	742	2.91				
	0.43	92.3	375.0	467.3	80.25	5094	2.2				

3.10.2.29 DATE: 08/30/00  
 TIME: 15.99

TUNDRA OIL AND GAS LTD  
 Fluid Production Report  
 Year: 2000

WELL: 03321126HZ NVSU#2 HZNTL 03-32-11-26 WPM

MONTH	M3 OIL / DAY	M3 OIL / MTH	M3 FLUID / MONTH	% H2O	HOURS ON PROD./MTH	M3 FLUID / DAY	PROD. TEST OIL	WTR	HRS	DATE
01	24.91	772.3	1170.9	34.04	744	37.77	54.61	25.69	48.0	30
02	24.33	698.6	1061.2	34.17	689	36.96				
03	23.5	726.6	1092.2	33.47	742	35.33	56.16	26.44	48.0	1
04	20.55	614.7	987.4	37.75	718	33.01	42.54	32.06	48.0	5
05	21.73	670.0	1095.9	38.86	740	35.54	45.6	34.2	48.0	6
06	21.11	629.7	1101.1	42.81	716	36.91				
07	20.16	614.9	1270.7	51.61	732	41.66				
	22.33	4726.8	7779.4	39.24	5081	36.75				

3.10.2.29 DATE: 09/30/00  
 TIME: 15.99

TUNDRA OIL AND GAS LTD  
 Fluid Production Report  
 Year: 2000

WELL: 05321126W1 NVSC#2 5-32-11-26

MONTH	M3 OIL / DAY	M3 OIL / MTH	M3 H2O / MTH	M3 FLUID / MONTH	% H2O	HOURS ON PROD./MTH	M3 FLUID / DAY	PROD. OIL	WTR	HRS	DATE
01	1.47	45.6	18.7	64.3	29.08	744	2.07	1.6	0.6	24.0	1
02	1.43	40.8	16.9	57.7	29.29	687	2.02				
03	0.89	27.5	24.2	51.7	46.81	738	1.68	1.68	3.42	72.0	16
04	0.52	15.4	27.1	42.5	63.76	715	1.43				
05	0.54	16.7	28.7	45.4	63.22	742	1.47				
06	0.5	15.0	18.2	33.2	54.82	718	1.11	1.62	1.98	72.0	1
07	0.48	14.8	25.7	40.5	63.46	742	1.31				
	0.83	175.8	159.5	335.3	47.57	5086	1.58				



## APPENDIX D

### WATER INJECTOR HISTORICAL PLOTS

Operator: W/12-28-04-2487/1 (Ammann, NYS Unit, Sol. Equip. W/12-24-04) Date: 01/23/06/W

Production Units  
 Oil: 2123 m3  
 Gas: 0 bblms  
 Water: 137.29 m3  
 Cond: 0 m3

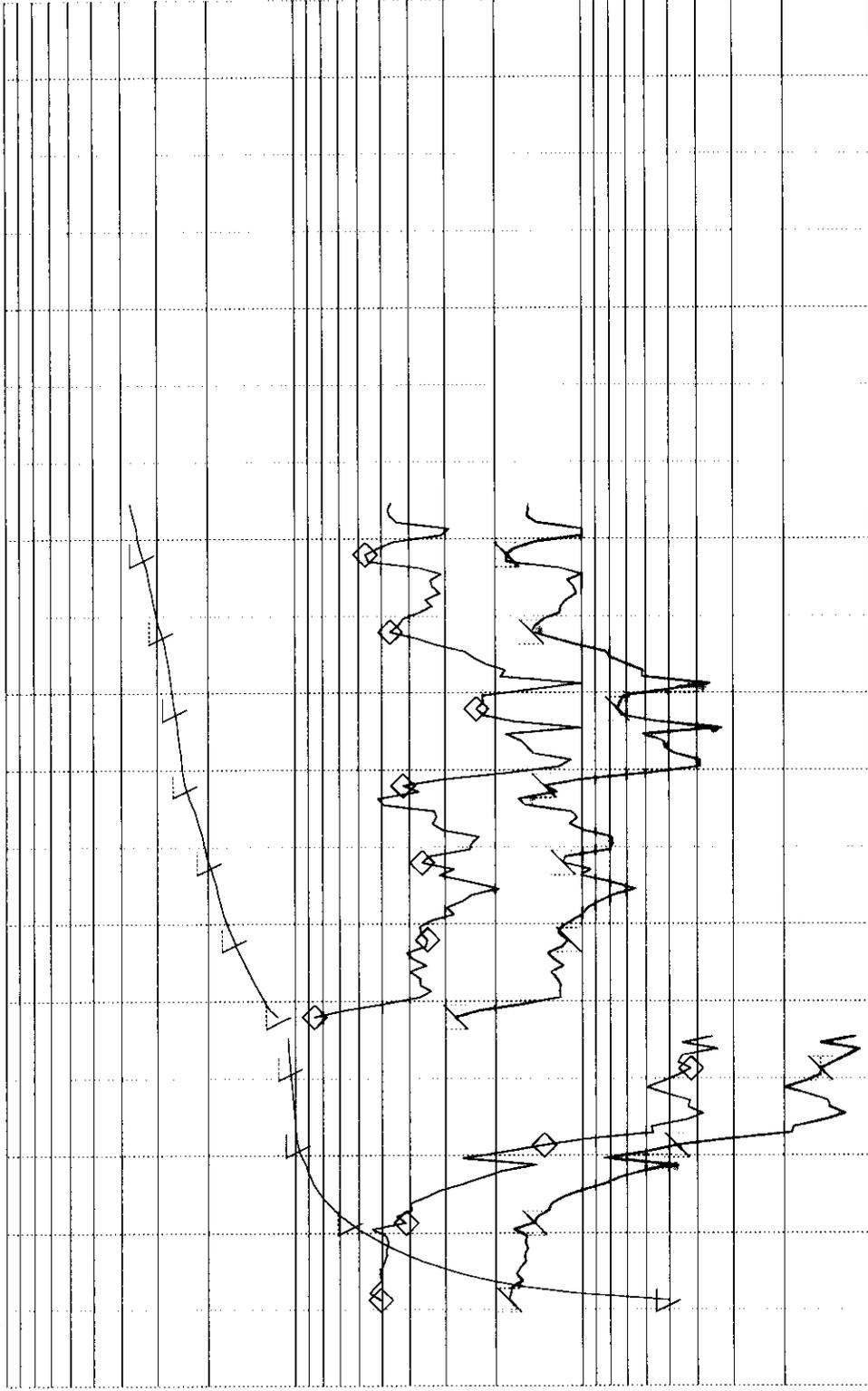
Operator: NVX1#2  
 Zone: 50A  
 Type: Unknown  
 Group: NVX1#2

1 1 1  
 0 E E  
 0 5 4  
 0

1 1 0  
 0 E 0  
 0 4 0

1 1  
 1 0 0  
 0 0 0  
 0

1  
 0 1  
 1 0 0



1980 1981 1985 1990 1997 2000 2003 2005

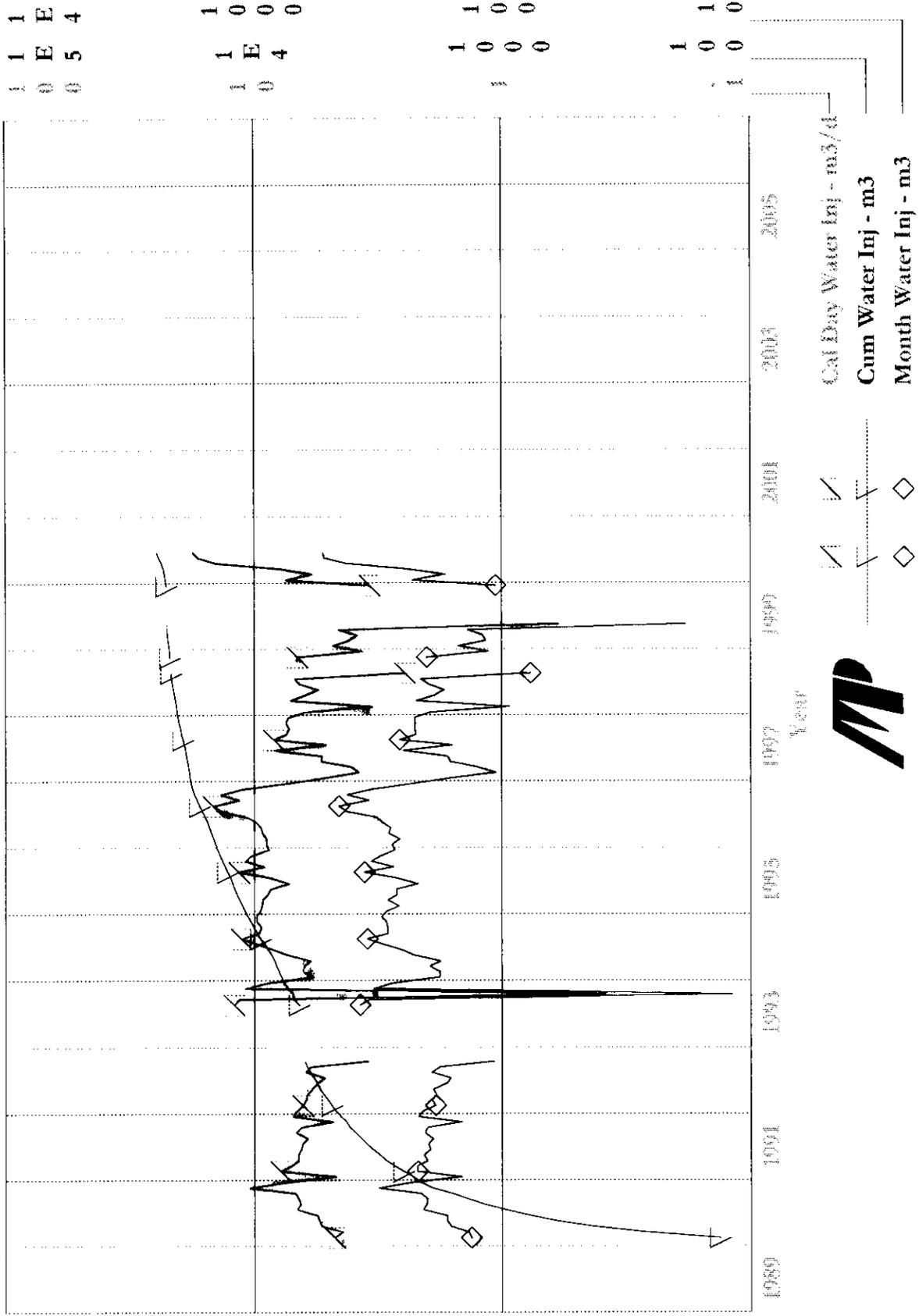
Year

Cal Day Water Inj - m3/d  
 Cum Water Inj - m3  
 Month Water Inj - m3



01/04-12/01-2001/01 (Aluminate NVZ Lim No. 2 W/9 (NLSL-2001)) Lim 01/04/01-01/01/01

Operator: Production Cumms  
 Field: 00 375.0 m3  
 Zone: 50A Gas: 0.0000  
 Type: Unknown Water: 1443.8 m3  
 Group: NVSE#2 Cond: 0 m3



Year

Cal Day Water Inj - m3/d  
 Cum Water Inj - m3  
 Month Water Inj - m3

1 1 1  
 0 E E  
 0 5 4

1 1 1  
 1 E 0  
 0 4 0

1 1 1  
 0 0 0  
 0 0 0

1 1 1  
 0 0 1  
 0 0 0

# APPENDIX E

## WATER INJECTOR HISTORICAL INJECTION DATA

## Production Report

Group : NVSU#2	Date : March 1, 2006 9:21:23 am
Well : Mountcliff NVS Unit No. 2 Prov. WIW 12-29-11	User : George
: 00/12-29-011-26W1/0	
Hist.Data : 01/83-06/00	On Prod : 02/09
Operator :	Status : Unknown
Field : 5	Zone : 59A

### Production Data from January, 1989 to June, 2000

Year	Cal Day Water Inj m3/d	Cum Water Inj m3	Month Water Inj m3
Jan., 1989			
Feb., 1989			
Mar., 1989			
Apr., 1989			
May., 1989			
Jun., 1989			
Jul., 1989			
Aug., 1989			
Sep., 1989			
Oct., 1989			
Nov., 1989			
Dec., 1989			
Jan., 1990			
Feb., 1990	17.9822	503.501	503.501
Mar., 1990	17.7451	1053.6	550.099
Apr., 1990	17.6067	1581.8	528.2
May., 1990	16.1323	2081.9	500.1
Jun., 1990	16.96	2590.7	508.8
Jul., 1990	16.3903	3098.8	508.1
Aug., 1990	15.758	3587.3	488.499
Sep., 1990	15.9267	4065.1	477.8
Oct., 1990	15.4903	4545.3	480.201
Nov., 1990	15.7333	5017.3	472
Dec., 1990	15.5742	5500.1	482.8
Jan., 1991	17.3807	6038.9	538.801
Feb., 1991	14.6893	6450.2	411.3
Mar., 1991	14.3129	6893.9	443.7
Apr., 1991	13.06	7285.7	391.8
May., 1991	12.771	7681.6	395.9
Jun., 1991	11.67	8031.7	350.099
Jul., 1991	10.0935	8344.6	312.9
Aug., 1991	8.42261	8605.7	261.101
Sep., 1991	7.39331	8827.5	221.799
Oct., 1991	6.15483	9018.3	190.8
Nov., 1991	4.80999	9162.6	144.3
Dec., 1991	8.43225	9424	261.4
Jan., 1992	6.12904	9614	190

## Production Report

Group : NVSU#2 Date : March 1, 2006 9:21:23 am  
 Well : Mountcliff NVS Unit No. 2 Prov. WIW 12-29-11 User : George  
 : 00/12-29-011-26W1/0

### Production Data from January, 1989 to June, 2000 (cont.)

Year	Cal Day Water Inj m3/d	Cum Water Inj m3	Month Water Inj m3
Feb., 1992	4.68964	9750	135.999
Mar., 1992	3.1097	9846.4	96.4007
Apr., 1992	1.89001	9903.1	56.7002
May., 1992	1.85483	9960.6	57.4999
Jun., 1992	1.43665	10003.7	43.0995
Jul., 1992	1.22902	10041.8	38.0996
Aug., 1992	1.38707	10084.8	42.9993
Sep., 1992	1.40999	10127.1	42.2998
Oct., 1992	1.63226	10177.7	50.6002
Nov., 1992	1.99668	10237.6	59.9005
Dec., 1992	1.68709	10289.9	52.2996
Jan., 1993	1.5	10336.4	46.5001
Feb., 1993	1.49998	10378.4	41.9993
Mar., 1993	1.5	10424.9	46.5001
Apr., 1993	1.49998	10469.9	44.9993
May., 1993	1.09676	10503.9	33.9995
Jun., 1993	1.49998	10548.9	44.9993
Jul., 1993	1.13548	10584.1	35.1998
Aug., 1993			
Sep., 1993			
Oct., 1993	27.671	11441.9	857.8
Nov., 1993	22.7833	12125.4	683.5
Dec., 1993	16.0226	12622.1	496.7
Jan., 1994	11.8484	12989.4	367.299
Feb., 1994	11.9678	13324.5	335.1
Mar., 1994	11.8839	13692.9	368.4
Apr., 1994	12.22	14059.5	366.6
May., 1994	12.8452	14457.7	398.2
Jun., 1994	11.59	14805.4	347.7
Jul., 1994	12.4839	15192.4	387
Aug., 1994	13.1935	15601.4	409
Sep., 1994	11.6967	15952.3	350.901
Oct., 1994	11.1742	16298.7	346.4
Nov., 1994	12.08	16661.1	362.4
Dec., 1994	11.8355	17028	366.9
Jan., 1995	10.8516	17364.4	336.4
Feb., 1995	10.0036	17644.5	280.1
Mar., 1995	9.55162	17940.6	296.1
Apr., 1995	8.69001	18201.3	260.7
May., 1995	7.81612	18443.6	242.3
Jun., 1995	6.50668	18638.8	195.2

## Production Report

Group : NVSU#2  
 Well : Mountcliff NVS Unit No. 2 Prov. WIW 12-29-11  
 : 00/12-29-011-26W1/0

Date : March 1, 2006 9:21:23 am  
 User : George

### Production Data from January, 1989 to June, 2000 (cont.)

Year	Cal Day Water Inj m3/d	Cum Water Inj m3	Month Water Inj m3
Jul., 1995	7.96131	18885.6	246.801
Aug., 1995	10.1387	19199.9	314.3
Sep., 1995	9.32667	19479.7	279.8
Oct., 1995	11.6548	19841	361.3
Nov., 1995	11.4333	20184	342.999
Dec., 1995	7.95162	20430.5	246.5
Jan., 1996	7.82905	20673.2	242.7
Feb., 1996	7.84829	20900.8	227.601
Mar., 1996	9.75809	21203.3	302.501
Apr., 1996	11.0767	21535.6	332.3
May., 1996	10.3839	21857.5	321.9
Jun., 1996	10.85	22183	325.5
Jul., 1996	15.7194	22670.3	487.301
Aug., 1996	16.6387	23186.1	515.799
Sep., 1996	12.2867	23554.7	368.6
Oct., 1996	13.5742	23975.5	420.799
Nov., 1996	10.17	24280.6	305.1
Dec., 1996	5.85805	24462.2	181.6
Jan., 1997	3.87742	24582.4	120.2
Feb., 1997	3.90358	24691.7	109.3
Mar., 1997	4.75807	24839.2	147.5
Apr., 1997	5.15	24993.7	154.5
May., 1997	5.22583	25155.7	162.001
Jun., 1997	6.15332	25340.3	184.6
Jul., 1997	3.27099	25441.7	101.401
Aug., 1997	5.55163	25613.8	172.101
Sep., 1997	7.31334	25833.2	219.4
Oct., 1997	7.54837	26067.2	233.999
Nov., 1997	7.35335	26287.8	220.601
Dec., 1997	7.16774	26510	222.2
Jan., 1998	7.15805	26731.9	221.9
Feb., 1998	3.59283	26832.5	100.599
Mar., 1998	6.19355	27024.5	192
Apr., 1998	6.14664	27208.9	184.399
May., 1998	6.99999	27425.9	217
Jun., 1998	7.91334	27663.3	237.4
Jul., 1998	8.25163	27919.1	255.8
Aug., 1998	10.4839	28244.1	325
Sep., 1998	12.46	28617.9	373.8
Oct., 1998	14.9903	29082.6	464.7
Nov., 1998	14.55	29519.1	436.5

## Production Report

Group : NVSU#2 Date : March 1, 2006 9:21:23 am  
Well : Mountcliff NVS Unit No. 2 Prov. WIW 12-29-11 User : George  
: 00/12-29-011-26W1/0

### Production Data from January, 1989 to June, 2000 (cont.)

Year	Cal Day Water Inj m3/d	Cum Water Inj m3	Month Water Inj m3
Dec., 1998	13.4871	29937.2	418.1
Jan., 1999	11.9097	30306.4	369.199
Feb., 1999	11.8357	30637.8	331.4
Mar., 1999	11.3258	30988.9	351.099
Apr., 1999	10.4067	31301.1	312.2
May., 1999	10.6645	31631.7	330.6
Jun., 1999	11.2133	31968.1	336.4
Jul., 1999	9.96128	32276.9	308.8
Aug., 1999	11.9355	32646.9	370.001
Sep., 1999	18.41	33199.2	552.3
Oct., 1999	18.2968	33766.4	567.199
Nov., 1999	17.09	34279.1	512.699
Dec., 1999	14.5935	34731.5	452.4
Jan., 2000	9.98066	35040.9	309.401
Feb., 2000	9.94826	35329.4	288.499
Mar., 2000	14.2935	35772.5	443.099
Apr., 2000	15.4933	36237.3	464.8
May., 2000	15.3291	36712.5	475.201
Jun., 2000	15.3633	37173.4	460.901

## Production Report

Group : NVSU#2	Date : March 1, 2006 9:53:15 am
Well : Mountcliff NVS Unit No. 2 WTW A10-30-11-26W1	User : George
: 02/10-30-011-26W1/0	
Hist.Data : 02/86-06/00	On Prod : 02/09
Operator :	Status : Unknown
Field : 5	Zone : 59A

### Production Data from January, 1989 to June, 2000

Year	Cum Water Inj m3	Cal Day Water Inj m3/d	Month Water Inj m3
Jan., 1989			
Feb., 1989			
Mar., 1989			
Apr., 1989			
May., 1989			
Jun., 1989			
Jul., 1989			
Aug., 1989			
Sep., 1989			
Oct., 1989			
Nov., 1989			
Dec., 1989			
Jan., 1990	341.5	11.0161	341.5
Feb., 1990	625.5	10.1429	284
Mar., 1990	836.5	6.80645	211
Apr., 1990	1041.4	6.82999	204.9
May., 1990	1260.7	7.0742	219.3
Jun., 1990	1460.8	6.67001	200.1
Jul., 1990	1680.9	7.1	220.1
Aug., 1990	1900	7.06774	219.1
Sep., 1990	2133.2	7.77333	233.2
Oct., 1990	2355.6	7.1742	222.4
Nov., 1990	2565	6.98002	209.401
Dec., 1990	2861.4	9.56131	296.401
Jan., 1991	3081.9	7.11292	220.5
Feb., 1991	3271.5	6.77141	189.6
Mar., 1991	3489.6	7.03548	218.1
Apr., 1991	3704.7	7.17	215.1
May., 1991	4004.2	9.66127	299.499
Jun., 1991	4301.9	9.92332	297.7
Jul., 1991	4609.1	9.90968	307.2
Aug., 1991	4921.3	10.071	312.2
Sep., 1991	5223.3	10.0667	302
Oct., 1991	5537.3	10.129	314
Nov., 1991	5865.2	10.93	327.899
Dec., 1991	6178	10.0903	312.799
Jan., 1992	6498.3	10.3323	320.3

## Production Report

Group : NVSU#2 Date : March 1, 2006 9:53:15 am  
 Well : Mountcliff NVS Unit No. 2 WIW A10-30-11-26W1 User : George  
 : 02/10-30-011-26W1/0

### Production Data from January, 1989 to June, 2000 (cont.)

Year	Cum Water Inj m3	Cal Day Water Inj m3/d	Month Water Inj m3
Feb., 1992	6837.3	11.6896	338.999
Mar., 1992	7200.9	11.729	363.6
Apr., 1992	7548.5	11.5867	347.6
May., 1992	7909.3	11.6387	360.8
Jun., 1992	8227.2	10.5967	317.9
Jul., 1992	8541.5	10.1387	314.3
Aug., 1992	8927.7	12.4581	386.201
Sep., 1992	9282.1	11.8133	354.4
Oct., 1992	9694.5	13.3032	412.4
Nov., 1992	10170.4	15.8633	475.9
Dec., 1992	10584.9	13.371	414.501
Jan., 1993	10972.7	12.5097	387.8
Feb., 1993	11322.2	12.4821	349.5
Mar., 1993	11709.1	12.4806	386.9
Apr., 1993	12088.9	12.66	379.8
May., 1993	12475.6	12.4742	386.7
Jun., 1993	12863.5	12.93	387.9
Jul., 1993	13204.1	10.9871	340.6
Aug., 1993	13592.2	12.5194	388.1
Sep., 1993	13971	12.6267	378.8
Oct., 1993	13975.9	0.158057	4.89976
Nov., 1993			
Dec., 1993			
Jan., 1994			
Feb., 1994			
Mar., 1994			
Apr., 1994			
May., 1994			
Jun., 1994			
Jul., 1994			
Aug., 1994			
Sep., 1994			
Oct., 1994			
Nov., 1994			
Dec., 1994			
Jan., 1995			
Feb., 1995			
Mar., 1995			
Apr., 1995			
May., 1995			
Jun., 1995			

## Production Report

Group : NVSU#2 Date : March 1, 2006 9:53:15 am  
 Well : Mountcliff NVS Unit No. 2 WIW A10-30-11-26W1 User : George  
 : 02/10-30-011-26W1/0

### Production Data from January, 1989 to June, 2000 (cont.)

Year	Cum Water Inj m3	Cal Day Water Inj m3/d	Month Water Inj m3
Jul., 1995			
Aug., 1995			
Sep., 1995			
Oct., 1995			
Nov., 1995			
Dec., 1995			
Jan., 1996			
Feb., 1996			
Mar., 1996			
Apr., 1996			
May., 1996			
Jun., 1996			
Jul., 1996			
Aug., 1996			
Sep., 1996			
Oct., 1996			
Nov., 1996			
Dec., 1996	14147.4	5.53225	171.5
Jan., 1997	14328.5	5.84195	181.1
Feb., 1997	14714	13.7678	385.499
Mar., 1997	15104.6	12.6	390.6
Apr., 1997	15474.5	12.33	369.9
May., 1997	15835.8	11.6548	361.3
Jun., 1997	16041.4	6.85331	205.599
Jul., 1997	16210.4	5.45163	169.001
Aug., 1997	16487.2	8.92903	276.8
Sep., 1997	16717.6	7.68001	230.4
Oct., 1997	16961.5	7.86777	243.901
Nov., 1997	17207.8	8.20999	246.3
Dec., 1997	17468.6	8.41291	260.8
Jan., 1998	17773	9.81937	304.401
Feb., 1998	18175.3	14.3679	402.3
Mar., 1998	18515.2	10.9645	339.899
Apr., 1998	18806.3	9.70334	291.1
May., 1998	19099.8	9.46772	293.499
Jun., 1998	19509.6	13.66	409.8
Jul., 1998	20087.9	18.6548	578.299
Aug., 1998	20733.6	20.829	645.7
Sep., 1998	21313.6	19.3333	580
Oct., 1998	22042.1	23.5	728.5
Nov., 1998	22803.5	25.38	761.4

## Production Report

Group : NVSU#2 Date : March 1, 2006 9:53:15 am  
 Well : Mountcliff NVS Unit No. 2 WIW A10-30-11-26W1 User : George  
 : 02/10-30-011-26W1/0

### Production Data from January, 1989 to June, 2000 (cont.)

Year	Cum Water Inj m3	Cal Day Water Inj m3/d	Month Water Inj m3
Dec., 1998	23500	22.4677	696.499
Jan., 1999	24201.4	22.6258	701.401
Feb., 1999	24831.3	22.4964	629.899
Mar., 1999	25559.5	23.4903	728.2
Apr., 1999	26301.7	24.74	742.2
May., 1999	27207.4	29.2161	905.7
Jun., 1999	28076.2	28.96	868.8
Jul., 1999	28951	28.2194	874.8
Aug., 1999	29781.1	26.7774	830.1
Sep., 1999	30146.9	12.1933	365.8
Oct., 1999	30608.8	14.9	461.9
Nov., 1999	31030	14.04	421.2
Dec., 1999	31416.8	12.4774	386.8
Jan., 2000	32013.8	19.2581	597
Feb., 2000	32491.1	16.4586	477.299
Mar., 2000	33142.9	21.0258	651.801
Apr., 2000	33767.1	20.8067	624.2
May., 2000	34571.5	25.9484	804.401
Jun., 2000	35389.3	27.26	817.799

## Production Report

Group : NVSU#2	Date : March 1, 2006 9:46:58 am
Well : Mountcliff NVS Unit No. 2 WIW 04-32-11-26W1	User : George
: 00/04-32-011-26W1/0	
Hist.Data : 01/83-06/00	On Prod : 02/09
Operator :	Status : Unknown
Field : 5	Zone : 59A

### Production Data from January, 1989 to June, 2000

Year	Cal Day Water Inj m3/d	Cum Water Inj m3	Month Water Inj m3
Jan., 1989			
Feb., 1989			
Mar., 1989			
Apr., 1989			
May., 1989			
Jun., 1989			
Jul., 1989			
Aug., 1989			
Sep., 1989			
Oct., 1989			
Nov., 1989			
Dec., 1989			
Jan., 1990			
Feb., 1990	4.73573	132.6	132.6
Mar., 1990	4.39031	268.7	136.1
Apr., 1990	5.34666	429.1	160.4
May., 1990	5.35163	595	165.9
Jun., 1990	5.55333	761.6	166.6
Jul., 1990	6.71937	969.9	208.3
Aug., 1990	6.4871	1171	201.1
Sep., 1990	6.63333	1370	199
Oct., 1990	6.8226	1581.5	211.501
Nov., 1990	10.48	1895.9	314.4
Dec., 1990	7.43872	2126.5	230.6
Jan., 1991	4.66776	2271.2	144.7
Feb., 1991	7.82857	2490.4	219.2
Mar., 1991	7.10646	2710.7	220.3
Apr., 1991	6.63333	2909.7	199
May., 1991	6.64839	3115.8	206.1
Jun., 1991	6.46333	3309.7	193.9
Jul., 1991	6.37741	3507.4	197.7
Aug., 1991	6.10001	3696.5	189.1
Sep., 1991	6.79666	3900.4	203.9
Oct., 1991	6.42582	4099.6	199.2
Nov., 1991	4.82001	4244.2	144.6
Dec., 1991	6.98712	4460.8	216.601
Jan., 1992	6.74516	4669.9	209.1

## Production Report

Group : NVSU#2 Date : March 1, 2006 9:46:58 am  
 Well : Mountcliff NVS Unit No. 2 WIW 04-32-11-26W1 User : George  
 : 00/04-32-011-26W1/0

### Production Data from January, 1989 to June, 2000 (cont.)

Year	Cal Day Water Inj m3/d	Cum Water Inj m3	Month Water Inj m3
Feb., 1992	6.38277	4855	185.1
Mar., 1992	6.17099	5046.31	191.301
Apr., 1992	6.11999	5229.91	183.6
May., 1992	6.11288	5419.4	189.499
Jun., 1992	5.56001	5586.21	166.8
Jul., 1992	5.18064	5746.81	160.6
Aug., 1992	6.20325	5939.11	192.301
Sep., 1992	5.91665	6116.6	177.5
Oct., 1992	3.48064	6224.5	107.9
Nov., 1992			
Dec., 1992			
Jan., 1993			
Feb., 1993			
Mar., 1993			
Apr., 1993			
May., 1993			
Jun., 1993			
Jul., 1993			
Aug., 1993	12.1064	6599.8	375.299
Sep., 1993	11.4767	6944.1	344.3
Oct., 1993	0.38386	6956	11.8997
Nov., 1993	10.9433	7284.3	328.3
Dec., 1993	8.91934	7560.8	276.5
Jan., 1994	5.76128	7739.4	178.6
Feb., 1994	6.34642	7917.1	177.7
Mar., 1994	6.28386	8111.9	194.8
Apr., 1994	5.90001	8288.9	177
May., 1994	7.33226	8516.2	227.3
Jun., 1994	8.43998	8769.4	253.199
Jul., 1994	9.73224	9071.1	301.7
Aug., 1994	11.2613	9420.2	349.099
Sep., 1994	9.59667	9708.1	287.9
Oct., 1994	9.31289	9996.8	288.7
Nov., 1994	9.71998	10288.4	291.6
Dec., 1994	9.83225	10593.2	304.8
Jan., 1995	9.47095	10886.8	293.599
Feb., 1995	9.29641	11147.1	260.3
Mar., 1995	9.2613	11434.2	287.1
Apr., 1995	8.83335	11699.2	265.001
May., 1995	8.58389	11965.3	266.101
Jun., 1995	7.24668	12182.7	217.4



## Production Report

Group : NVSU#2  
 Well : Mountcliff NVS Unit No. 2 WIW 04-32-11-26W1  
 : 00/04-32-011-26W1/0

Date : March 1, 2006 9:46:58 am  
 User : George

### Production Data from January, 1989 to June, 2000 (cont.)

Year	Cal Day Water Inj m3/d	Cum Water Inj m3	Month Water Inj m3
Dec., 1998	3.64839	21878.8	113.1
Jan., 1999	4.81612	22028.1	149.3
Feb., 1999	4.14285	22144.1	116
Mar., 1999	3.82583	22262.7	118.601
Apr., 1999	4.57332	22399.9	137.2
May., 1999	0.590329	22418.2	18.3002
Jun., 1999			
Jul., 1999			
Aug., 1999			
Sep., 1999			
Oct., 1999			
Nov., 1999			
Dec., 1999	3.41612	22524.1	105.9
Jan., 2000	7.38385	22753	228.899
Feb., 2000	5.83106	22922.1	169.101
Mar., 2000	7.97418	23169.3	247.2
Apr., 2000	14.23	23596.2	426.899
May., 2000	16.7806	24116.4	520.2
Jun., 2000	17.6067	24644.6	528.2

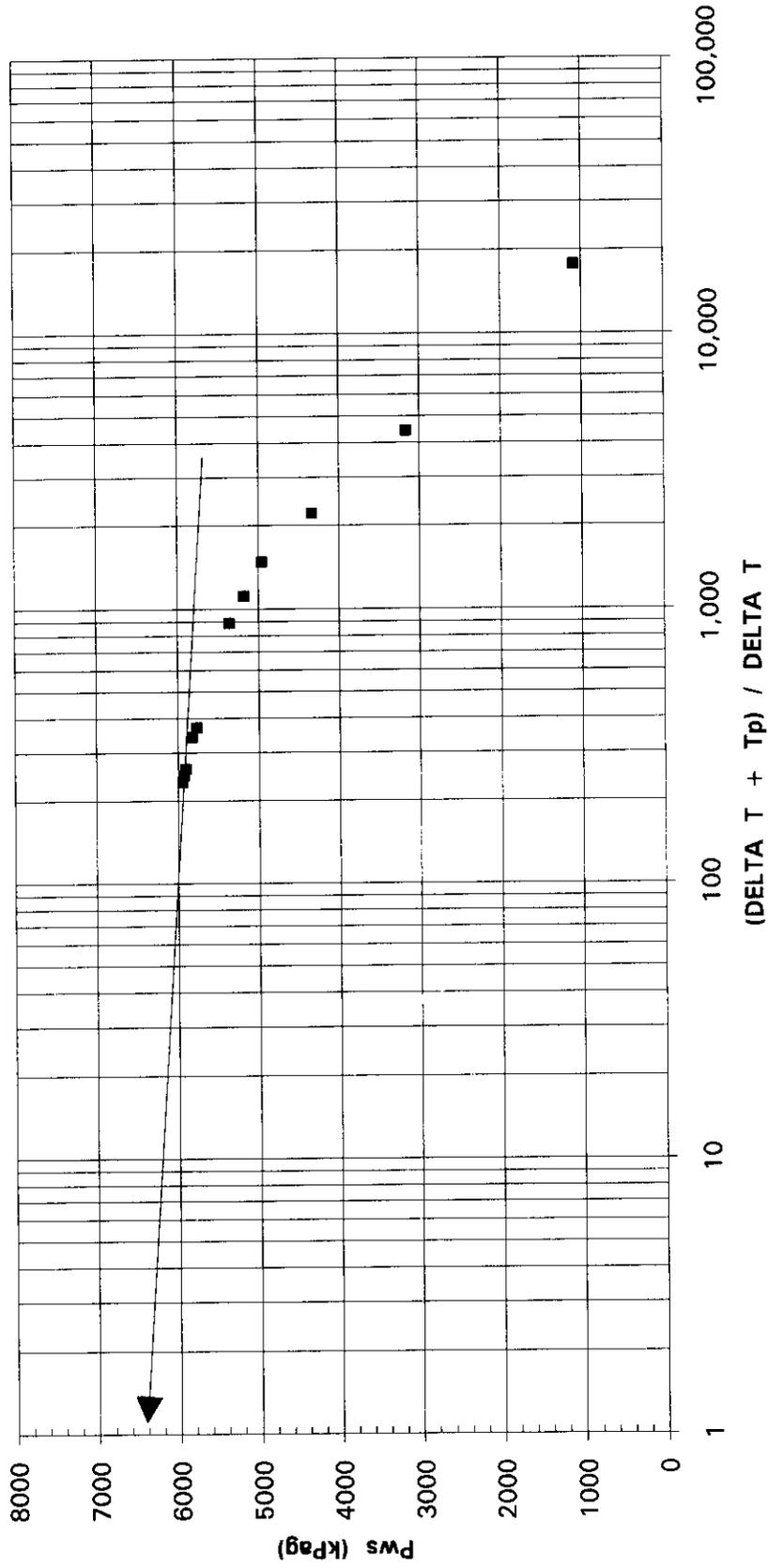
## APPENDIX F

### HISTORICAL PRESSURE SURVEYS



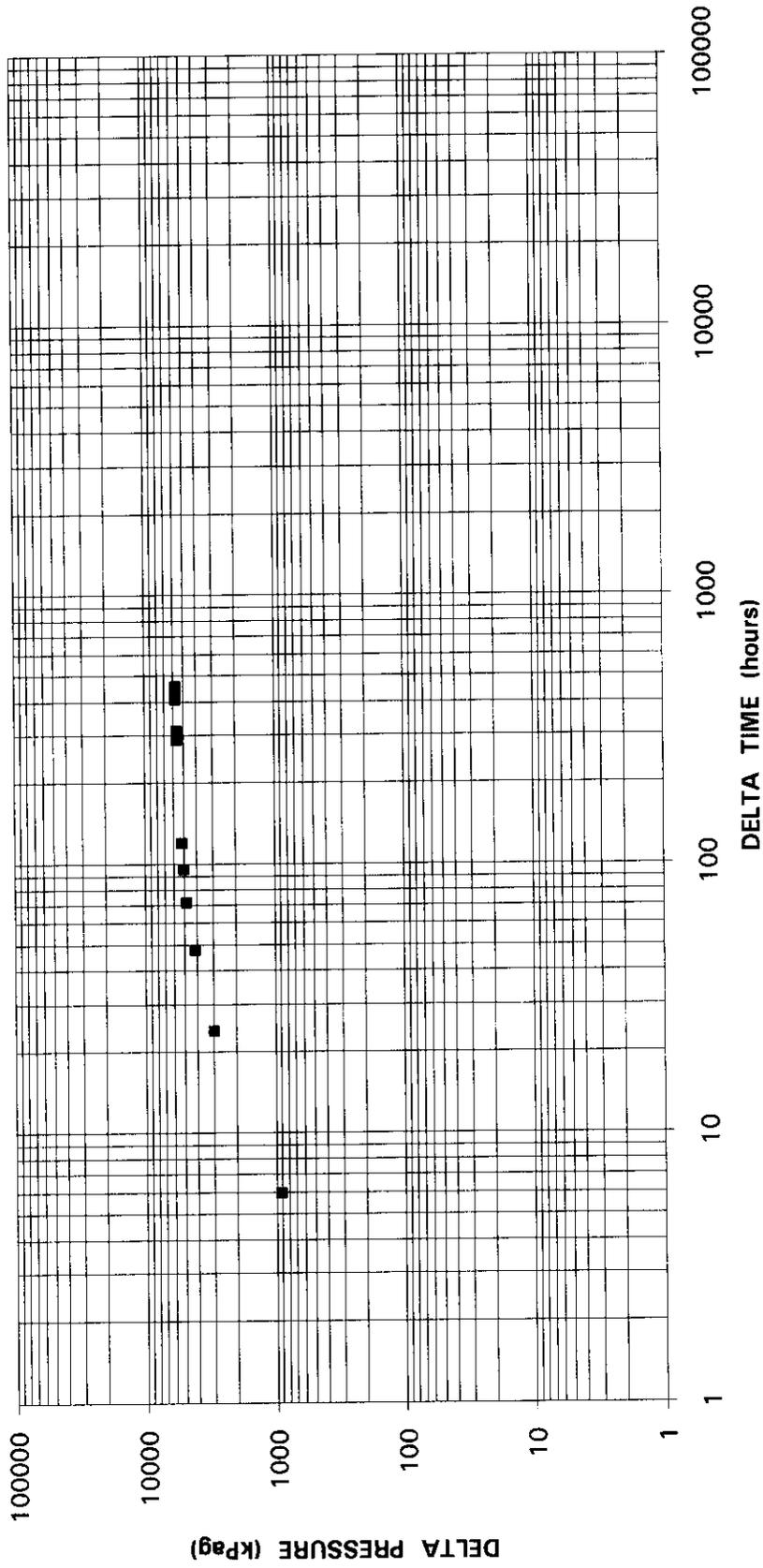
### HORNER PLOT PRESSURE BUILDUP TEST 11-29-11-26

Shut-in time = 19 days



LOG - LOG PLOT WELL 11-29-11-26 PRESSURE BUILDUP TEST

Shut-in time = 19 days



DATE	TIME	DELTA TIME (hours)	TIME (days)	(DELTA T + Tp) DELTA T	JOINTS TO FLUID	FLUID LEVEL (m)	FLUID PRESSURE (kPa)	CASING PRESSURE (kPa)	ADJ. CASING PRESSURE (kPa)	TOTAL PRESSURE (kPa)	TOTAL PRESSURE (psig)
NORTH VIRDEN SCALLION UNIT NO.2											
WELL 16-30-11-26											
PRESSURE BUILDUP DATA											
HORNER PLOT											
Nov. 25/94	9:00 AM	0	0.0	-	68	646	11	207	216	228	33
	10:00 AM	1	0.04	108,425	68	646	11	228	238	250	36
	11:00 AM	2	0.1	54,213	66	627	183	241	252	435	63
	4:00 PM	7	0.3	15,490	60	570	699	248	258	957	139
Nov. 26/94	9:00 AM	24	1.0	4,519	40	380	2419	345	354	2773	402
	3:00 PM	30	1.3	3,615	36	342	2763	310	317	3080	447
Nov. 27/94	9:00 AM	48	2.0	2,260	27.75	263.625	3472	207	211	3683	534
Nov. 28/94	9:00 AM	72	3.0	1,507	19.5	185.25	4181	34	34	4216	611
Dec. 8/94	9:00 AM	312	13.0	349	12	114	4826	34	34	4860	705
Dec. 12/94	9:00 AM	408	17.0	267	10.5	99.75	4955	34	34	4989	724
Dec. 15/94	9:00 AM	480	20.0	227	7.5	71.25	5213	34	34	5247	761
Dec. 16/94	9:00 AM	504	21.0	216	7.25	68.875	5234	34	34	5268	764
Dec. 17/94	9:00 AM	528	22.0	206	7	66.5	5256	34	34	5290	767

$$T_p = \{ (7,680) / 1.7 \} * 24 = 108,424 \text{ hrs}$$

# PRESSURE BUILDUP WELL 16-30-11-26 HORNER PLOT

SHUT-IN PERIOD = 22 days

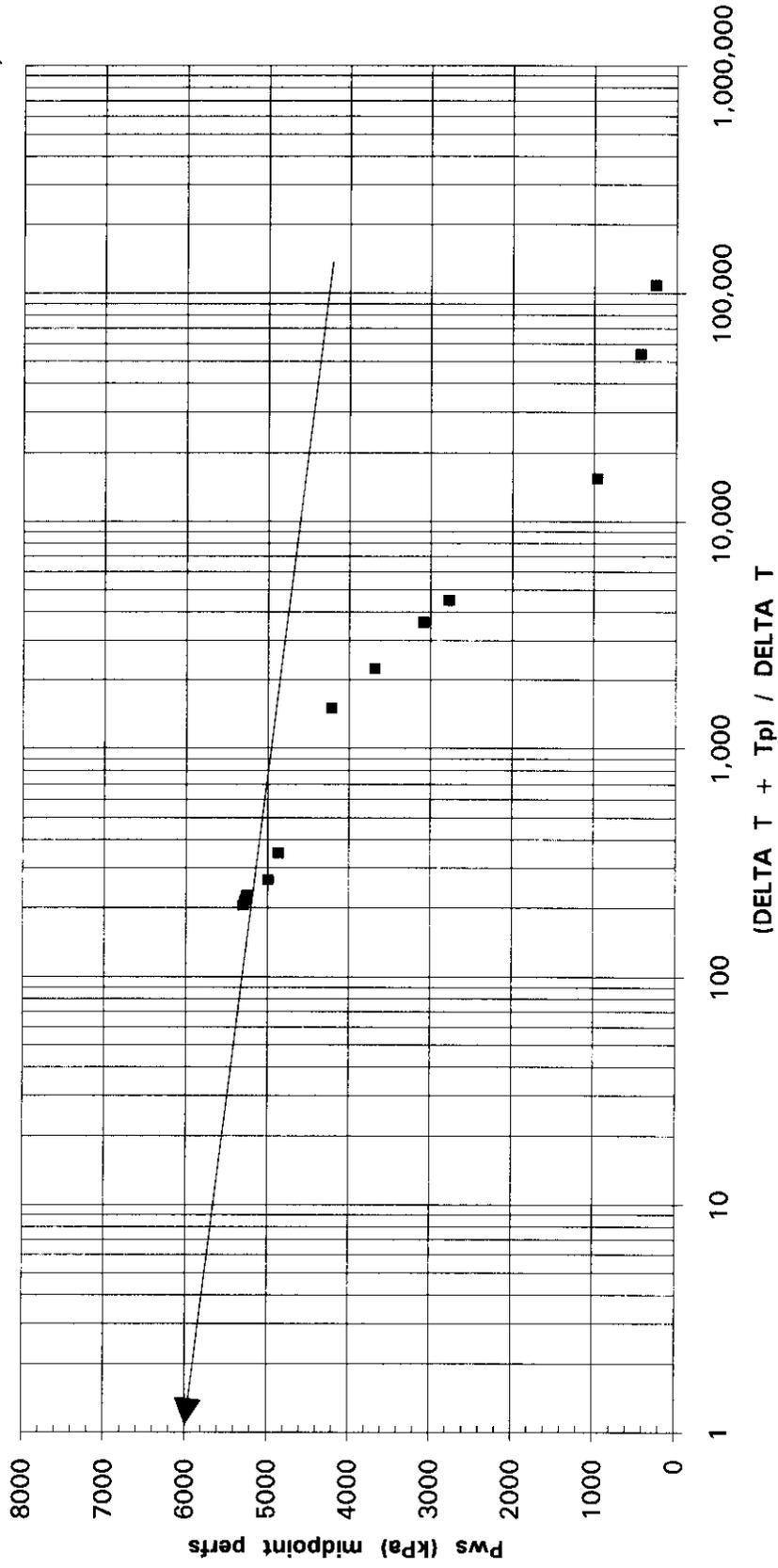
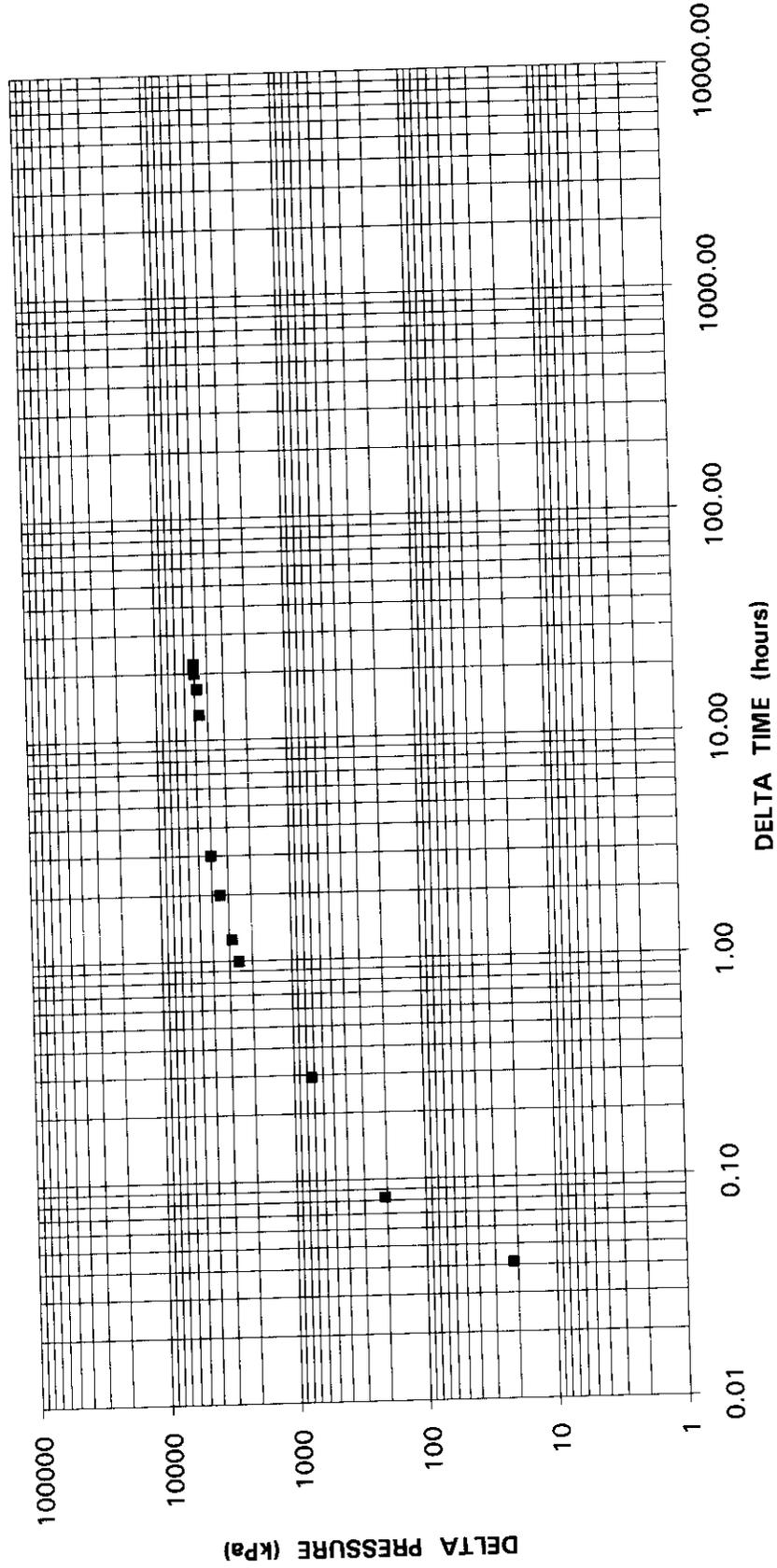


FIGURE NO.1

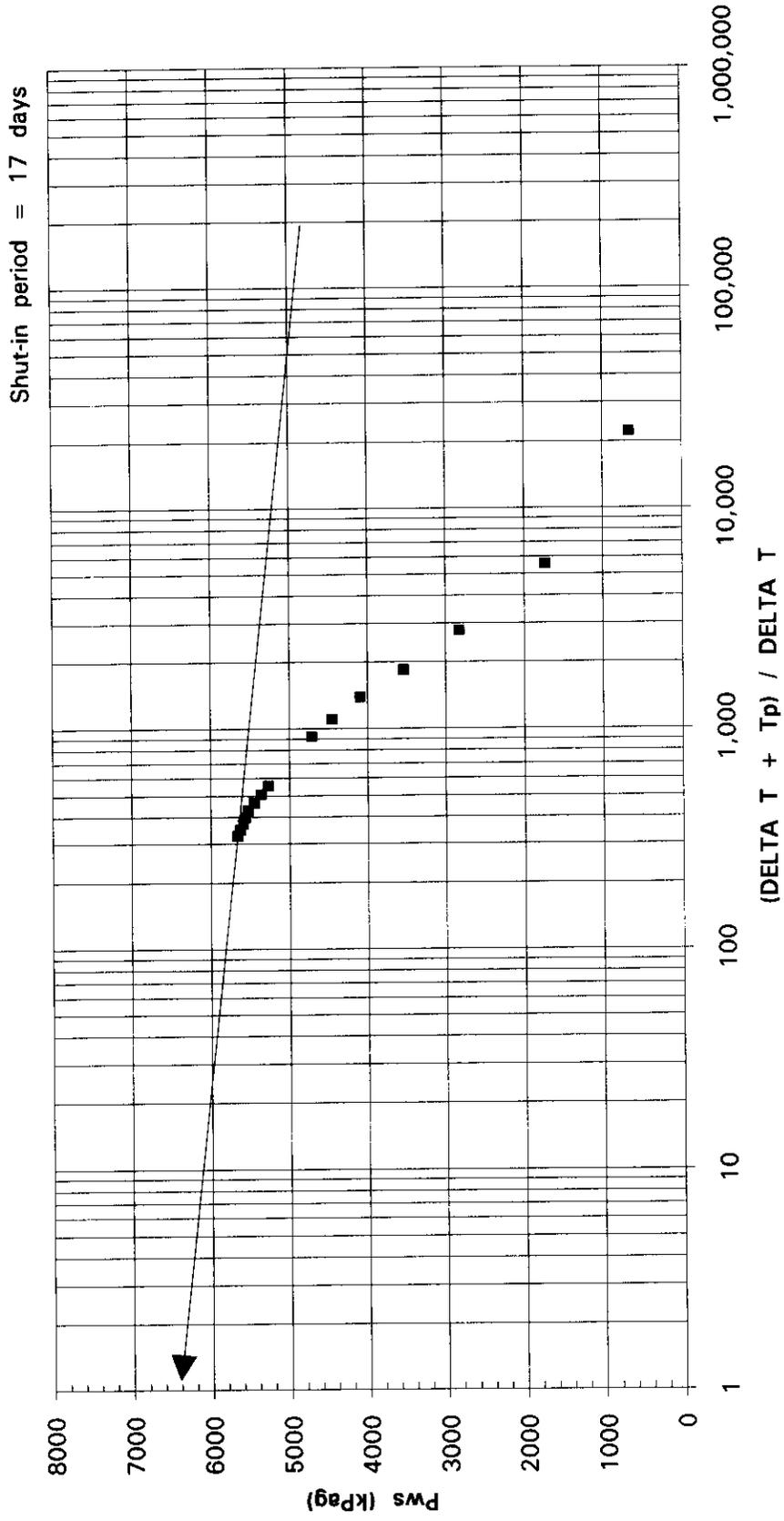
LOG - LOG PLOT 16-30-11-26

SHUT-IN PERIOD = 22 days



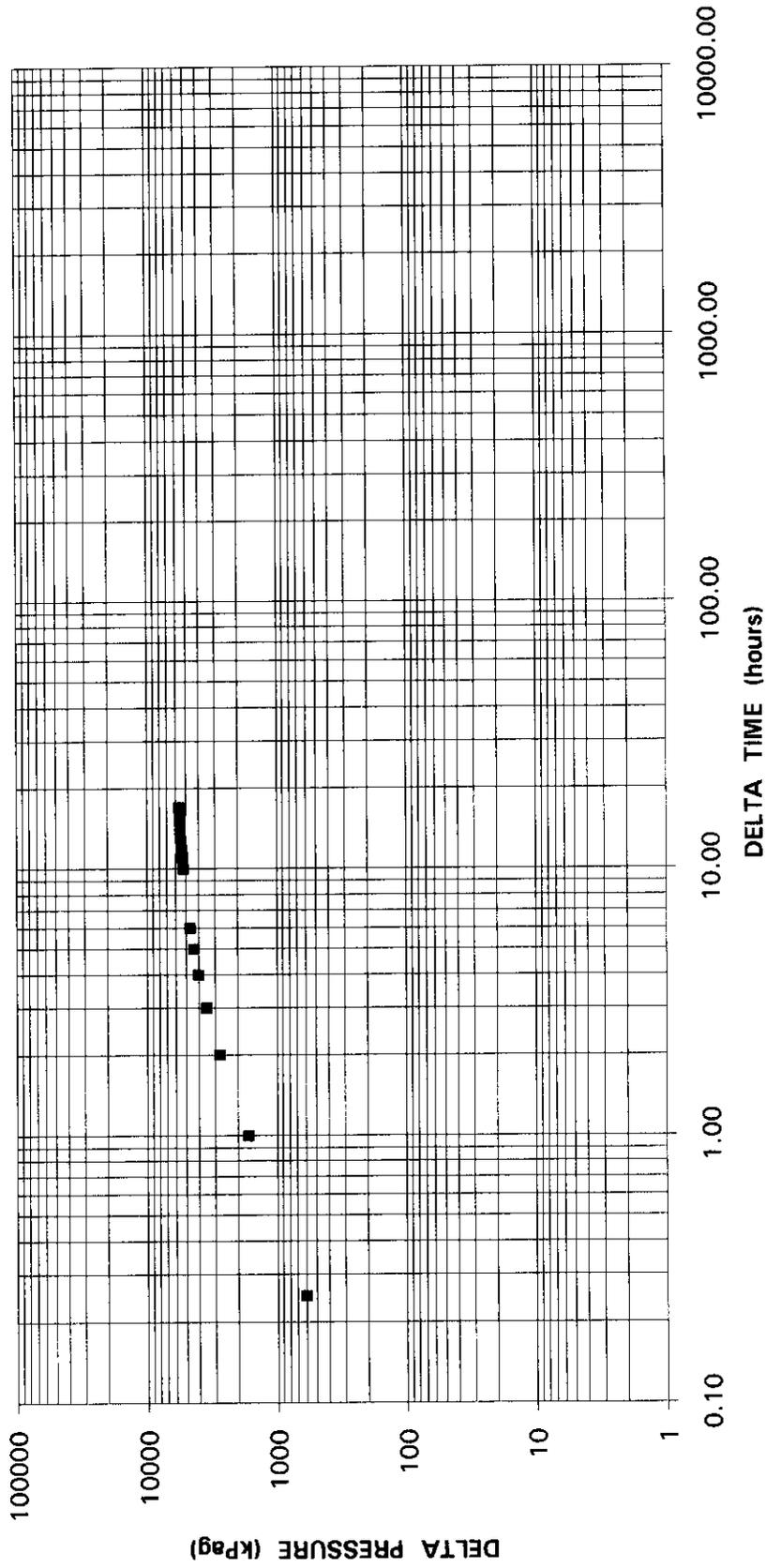


### HORNER PLOT PRESSURE BUILDUP TEST WELL 5-32-11-26



# LOG - LOG PLOT WELL 5-32-11-26 PRESSURE BUILDUP PLOT

Shut-in time = 17 days



## **APPENDIX G**

### **HISTORICAL WELL PRODUCTION DATA**

## Production Report

Group : NVSU#2	Date : March 8, 2006 8:26:14 am
Well : Mountcliff NVS Unit No. 2 Prov. 06-29-11-26	User : George
: 00/06-29-011-26W1/0	
Hist.Data : 03/85-07/00	On Prod : 02/09
Operator :	Status : Unknown
Field : 5	Zone : 59A

### Production Data from January, 1998 to July, 2000

Year	Monthly Oil m3	Cum Oil m3	Avg Daily Oil m3/d	Water Cut %	Monthly Water m3	Avg Daily Fluid m3/d
Jan., 1998	27.6	5342.2	0.890323	82.0481	126.2	4.96168
Feb., 1998	24.5	5366.7	0.875	81.8319	110.4	4.81824
Mar., 1998	27.4	5394.1	0.883871	80.7109	114.7	4.58426
Apr., 1998	29.4	5423.5	0.98	77.3769	100.6	4.33377
May., 1998	29.8	5453.3	0.96129	75.6852	92.8	3.95526
Jun., 1998	30.5	5483.8	1.01667	78.7531	113.1	4.78711
Jul., 1998	31	5514.8	1	81.6719	138.2	5.45851
Aug., 1998	24.3	5539.1	0.783871	89.4352	205.8	7.42293
Sep., 1998	22.6	5561.7	0.77931	89.2185	187.1	7.23138
Oct., 1998	23.2	5584.9	0.748387	88.1284	172.3	6.30678
Nov., 1998	21.9	5606.8	0.73	91.4752	235.1	8.56699
Dec., 1998	22.7	5629.5	0.756667	89.8439	200.9	7.45367
Jan., 1999	33.1	5662.6	1.06774	83.8477	171.9	6.61337
Feb., 1999	25.4	5688	0.907143	87.1082	171.7	7.03968
Mar., 1999	27.3	5715.3	0.880645	87.3796	189.1	6.98103
Apr., 1999	26.1	5741.4	0.87	88.1855	194.9	7.36705
May., 1999	28.9	5770.3	0.932258	88.068	213.4	7.81654
Jun., 1999	27.8	5798.1	0.926667	88.2754	209.4	7.90707
Jul., 1999	28.3	5826.4	0.912903	87.8023	203.8	7.4875
Aug., 1999	29.3	5855.7	0.945161	87.3385	202.2	7.46816
Sep., 1999	24	5879.7	0.827586	80.337	98.1	4.21071
Oct., 1999	24.8	5904.5	0.8	49.2732	24.1	1.57777
Nov., 1999	25	5929.5	0.833333	46.5702	21.8	1.56037
Dec., 1999	25.8	5955.3	0.832258	48.2856	24.1	1.61004
Jan., 2000	25.6	5980.9	0.825806	49.3961	25	1.63262
Feb., 2000	23.3	6004.2	0.803448	49.4467	22.8	1.59001
Mar., 2000	23.3	6027.5	0.751613	48.7802	22.2	1.46807
Apr., 2000	23.8	6051.3	0.793333	43.7244	18.5	1.41035
May., 2000	16.4	6067.7	0.546667	47.5928	14.9	1.04357
Jun., 2000	16.1	6083.8	0.536667	51.6407	17.2	1.11024
Jul., 2000	15.9	6099.7	0.514286	60.1398	24	1.29079

## Production Report

Group : NVSU#2	Date : March 8, 2006 8:28:22 am
Well : Mountcliff NVS Unit No. 2 Prov. 11-29-11-26	User : George
: 00/11-29-011-26W1/0	
Hist.Data : 03/85-07/00	On Prod : 02/09
Operator :	Status : Unknown
Field : 5	Zone : 59A

### Production Data from January, 1998 to July, 2000

Year	Monthly Oil m3	Cum Oil m3	Avg Daily Oil m3/d	Water Cut %	Monthly Water m3	Avg Daily Fluid m3/d
Jan., 1998	38.7	8540.4	1.24839	61.9739	63.1	3.28442
Feb., 1998	34.3	8574.7	1.225	61.6656	55.2	3.19697
Mar., 1998	38.4	8613.1	1.23871	59.864	57.3	3.08764
Apr., 1998	41.4	8654.5	1.38	54.8419	50.3	3.05727
May., 1998	41.7	8696.2	1.34516	52.6564	46.4	2.84253
Jun., 1998	36.6	8732.8	1.22	59.4129	53.6	3.0072
Jul., 1998	37.2	8770	1.2	63.7678	65.5	3.31343
Aug., 1998	33.4	8803.4	1.07742	62.0782	54.7	2.84241
Sep., 1998	31.1	8834.5	1.07241	61.5945	49.9	2.79358
Oct., 1998	31.9	8866.4	1.02903	59.0394	46	2.51336
Nov., 1998	30.1	8896.5	1.00333	64.071	53.7	2.79378
Dec., 1998	31.2	8927.7	1.00645	59.5225	45.9	2.48754
Jan., 1999	30.4	8958.1	0.980645	60.915	47.4	2.51011
Feb., 1999	27.9	8986	0.996429	59.8455	41.6	2.48258
Mar., 1999	30.1	9016.1	0.970968	60.332	45.8	2.44881
Apr., 1999	23.5	9039.6	0.783333	65.3293	44.3	2.26034
May., 1999	26	9065.6	0.83871	65.0907	48.5	2.4036
Jun., 1999	25	9090.6	0.833333	65.5548	47.6	2.42037
Jul., 1999	25.4	9116	0.819355	64.5645	46.3	2.31326
Aug., 1999	26.3	9142.3	0.848387	63.5632	45.9	2.32941
Sep., 1999	33.2	9175.5	1.10667	51.1655	34.8	2.26715
Oct., 1999	33.1	9208.6	1.06774	52.1566	36.1	2.23273
Nov., 1999	33.4	9242	1.11333	49.4595	32.7	2.20382
Dec., 1999	34.4	9276.4	1.10968	51.1947	36.1	2.27468
Jan., 2000	34.2	9310.6	1.10323	52.2903	37.5	2.31339
Feb., 2000	30.9	9341.5	1.06552	52.5236	34.2	2.2453
Mar., 2000	31.2	9372.7	1.00645	51.5418	33.2	2.07786
Apr., 2000	32.8	9405.5	1.09333	46.2186	28.2	2.03381
May., 2000	36.5	9442	1.17742	45.8348	30.9	2.17471
Jun., 2000	34.7	9476.7	1.15667	49.9168	34.6	2.31051
Jul., 2000	34.2	9510.9	1.1062	58.7348	48.7	2.68189

## Production Report

Group : NVSU#2	Date : March 8, 2006 8:44:43 am
Well : Mountcliff NVS Unit No. 2 Prov. 13-29-11-26	User : George
: 00/13-29-011-26W1/0	
Hist.Data : 11/82-07/00	On Prod : 02/09
Operator :	Status : Unknown
Field : 5	Zone : 59A

### Production Data from January, 1998 to July, 2000

Year	Monthly Oil m3	Cum Oil m3	Avg Daily Oil m3/d	Water Cut %	Monthly Water m3	Avg Daily Fluid m3/d
Jan., 1998	24.8	5607.5	0.8	57.2306	33.2	1.87132
Feb., 1998	22	5629.5	0.785714	56.9364	29.1	1.82535
Mar., 1998	24.7	5654.2	0.796774	54.9982	30.2	1.77132
Apr., 1998	26.4	5680.6	0.88	50.0835	26.5	1.76372
May., 1998	26.8	5707.4	0.864516	47.6453	24.4	1.65199
Jun., 1998	24.4	5731.8	0.813333	52.3328	26.8	1.70702
Jul., 1998	24.8	5756.6	0.8	56.8588	32.7	1.85519
Aug., 1998	15.2	5771.8	0.490323	47.3939	13.7	0.932474
Sep., 1998	14.1	5785.9	0.486207	46.9815	12.5	0.917455
Oct., 1998	14.5	5800.4	0.467742	44.2199	11.5	0.838916
Nov., 1998	13.7	5814.1	0.456667	49.4355	13.4	0.903534
Dec., 1998	14.2	5828.3	0.458064	44.7362	11.5	0.829234
Jan., 1999	13.8	5842.1	0.445161	46.2926	11.9	0.829228
Feb., 1999	12.7	5854.8	0.453571	45.0107	10.4	0.8252
Mar., 1999	13.7	5868.5	0.441935	45.624	11.5	0.813098
Apr., 1999	13	5881.5	0.433333	47.5697	11.8	0.826858
May., 1999						
Jun., 1999						
Jul., 1999						
Aug., 1999						
Sep., 1999	5.5	5887	0.366667	56.6821	7.2	0.846828
Oct., 1999	11	5898	0.354839	57.8437	15.1	0.842092
Nov., 1999	11.1	5909.1	0.37	55.0498	13.6	0.823496
Dec., 1999	11.5	5920.6	0.370968	56.593	15	0.855002
Jan., 2000	11.4	5932	0.367742	57.767	15.6	0.87113
Feb., 2000	10.3	5942.3	0.355172	57.7761	14.1	0.841536
Mar., 2000	10.3	5952.6	0.332258	57.4272	13.9	0.780791
Apr., 2000	11.1	5963.7	0.37	51.7281	11.9	0.76683
May., 2000	10.1	5973.8	0.325806	50.2353	10.2	0.654982
Jun., 2000	8.9	5982.7	0.296667	54.1128	10.5	0.646797
Jul., 2000	8.7	5991.4	0.281402	62.8102	14.7	0.756997

## Production Report

Group : NVSU#2	Date : March 8, 2006 8:46:21 am
Well : Mountcliff NVS Unit No. 2 Prov. 14-29-11-26	User : George
: 00/14-29-011-26W1/0	
Hist.Data : 03/83-07/00	On Prod : 02/09
Operator :	Status : Unknown
Field : 5	Zone : 59A

### Production Data from January, 1998 to July, 2000

Year	Monthly Oil m3	Cum Oil m3	Avg Daily Oil m3/d	Water Cut %	Monthly Water m3	Avg Daily Fluid m3/d
Jan., 1998	44.2	11348.8	1.42581	75.4907	136.2	5.81998
Feb., 1998	39.1	11387.9	1.39643	75.2919	119.2	5.65419
Mar., 1998	7	11394.9	1.4	74.0656	20	5.40062
Apr., 1998						
May., 1998	26.9	11421.8	1.79333	67.7748	56.6	5.56746
Jun., 1998	39.6	11461.4	1.32	74.5581	116.1	5.19058
Jul., 1998	40.3	11501.7	1.3	77.8617	141.8	5.87477
Aug., 1998	45.6	11547.3	1.47097	74.5736	133.8	5.78774
Sep., 1998	42.3	11589.6	1.45862	74.1832	121.6	5.65237
Oct., 1998	43.5	11633.1	1.40323	70.3788	103.4	4.73933
Nov., 1998	41	11674.1	1.36667	74.6674	120.9	5.39727
Dec., 1998	42.5	11716.6	1.37097	70.8414	103.3	4.70383
Jan., 1999	41.4	11758	1.33548	72.037	106.7	4.77801
Feb., 1999	38	11796	1.35714	71.1156	93.6	4.7006
Mar., 1999	35.5	11831.5	1.14516	72.0823	91.7	4.10373
Apr., 1999	33.9	11865.4	1.13	73.5896	94.5	4.2805
May., 1999	35.8	11901.2	1.19333	73.3347	98.5	4.47719
Jun., 1999	25.3	11926.5	1.20476	73.7467	71.1	4.59101
Jul., 1999	32	11958.5	1.18519	72.9185	86.2	4.3783
Aug., 1999	33.1	11991.6	1.22593	72.035	85.3	4.38573
Sep., 1999	33.2	12024.8	1.10667	73.6423	92.8	4.20049
Oct., 1999	33.1	12057.9	1.06774	74.412	96.3	4.17466
Nov., 1999	33.4	12091.3	1.11333	72.3193	87.3	4.02382
Dec., 1999	34.4	12125.7	1.10968	73.6716	96.3	4.21662
Jan., 2000	34.1	12159.8	1.1	74.5629	100	4.32629
Feb., 2000	30.9	12190.7	1.06552	74.6222	90.9	4.20047
Mar., 2000	31.2	12221.9	1.00645	73.9915	88.8	3.87141
Apr., 2000	33	12254.9	1.1	69.5479	75.4	3.61382
May., 2000	33.4	12288.3	1.07742	70.7183	80.7	3.68112
Jun., 2000	30.4	12318.7	1.01333	74.4024	88.4	3.96045
Jul., 2000	30.1	12348.8	0.973585	80.4983	124.3	4.9945

## Production Report

Group : NVSU#2	Date : March 8, 2006 8:48:13 am
Well : Mountcliff NVS Unit No. 2 09-30-11-26W1	User : George
: 00/09-30-011-26W1/0	
Hist.Data : 09/83-07/00	On Prod : 02/09
Operator :	Status : Unknown
Field : 5	Zone : 59A

### Production Data from January, 1998 to July, 2000

Year	Monthly Oil m3	Cum Oil m3	Avg Daily Oil m3/d	Water Cut %	Monthly Water m3	Avg Daily Fluid m3/d
Jan., 1998	35.9	8182.5	1.15806	78.7122	132.8	5.44245
Feb., 1998	31.8	8214.3	1.13571	78.5206	116.3	5.28979
Mar., 1998	35.6	8249.9	1.14839	77.2155	120.7	5.04244
Apr., 1998	38.2	8288.1	1.27333	73.482	105.9	4.80389
May., 1998	38.8	8326.9	1.25161	71.5661	97.7	4.40378
Jun., 1998	27.4	8354.3	0.913333	81.2902	119.1	4.88374
Jul., 1998	27.9	8382.2	0.9	83.9041	145.5	5.59395
Aug., 1998	18.2	8400.4	0.587097	81.884	82.3	3.24219
Sep., 1998	16.9	8417.3	0.582759	81.5637	74.8	3.16233
Oct., 1998	17.4	8434.7	0.56129	79.8307	68.9	2.78412
Nov., 1998	24.6	8459.3	0.82	73.194	67.2	3.06036
Dec., 1998	25.5	8484.8	0.822581	69.2307	57.4	2.67456
Jan., 1999	24.9	8509.7	0.803226	70.4184	59.3	2.71648
Feb., 1999	25.4	8535.1	0.907143	64.8099	46.8	2.57897
Mar., 1999	27.3	8562.4	0.880645	65.3893	51.6	2.54555
Apr., 1999	26.1	8588.5	0.87	67.0773	53.2	2.64372
May., 1999	22	8610.5	0.733333	73.6441	61.5	2.78366
Jun., 1999	22.3	8632.8	0.743333	74.0009	63.5	2.86033
Jul., 1999	22.6	8655.4	0.729032	73.2141	61.8	2.7229
Aug., 1999	23.4	8678.8	0.754839	72.3643	61.3	2.73259
Sep., 1999	24.9	8703.7	0.83	66.4322	49.3	2.4737
Oct., 1999	24.8	8728.5	0.8	67.3587	51.2	2.45197
Nov., 1999	25	8753.5	0.833333	64.976	46.4	2.38037
Dec., 1999	25.8	8779.3	0.832258	66.4401	51.1	2.48101
Jan., 2000	25.7	8805	0.829032	67.3761	53.1	2.5423
Feb., 2000	23.2	8828.2	0.8	67.5428	48.3	2.46587
Mar., 2000	23.2	8851.4	0.748387	66.8474	46.8	2.25839
Apr., 2000	10.2	8861.6	0.34	74.1688	29.3	1.31682
May., 2000	10.7	8872.3	0.345161	73.3081	29.4	1.2937
Jun., 2000	9.4	8881.7	0.313333	75.7025	29.3	1.29014
Jul., 2000	8.4	8890.1	0.271698	81.5723	37.2	1.47505

## Production Report

Group : NVSU#2	Date : March 8, 2006 8:49:16 am
Well : Mountcliff NVS Unit No. 2 A15-30-11-26W1	User : George
: 02/15-30-011-26W1/0	
Hist.Data : 11/83-07/00	On Prod : 02/09
Operator :	Status : Unknown
Field : 5	Zone : 59A

### Production Data from January, 1998 to July, 2000

Year	Monthly Oil m3	Cum Oil m3	Avg Daily Oil m3/d	Water Cut %	Monthly Water m3	Avg Daily Fluid m3/d
Jan., 1998	8.3	1866	0.267742	61.5637	13.3	0.696892
Feb., 1998	7.3	1873.3	0.260714	61.3652	11.6	0.675115
Mar., 1998	8.2	1881.5	0.264516	59.5953	12.1	0.654955
Apr., 1998	8.8	1890.3	0.293333	54.6283	10.6	0.646796
May., 1998	8.9	1899.2	0.287097	52.3954	9.8	0.603352
Jun., 1998	9.1	1908.3	0.303333	56.6559	11.9	0.700134
Jul., 1998	9.3	1917.6	0.3	60.9139	14.5	0.767874
Aug., 1998	9.1	1926.7	0.313793	60.0772	13.7	0.786345
Sep., 1998	8.5	1935.2	0.293103	59.5132	12.5	0.724267
Oct., 1998	8.7	1943.9	0.280645	56.9199	11.5	0.651736
Nov., 1998	8.2	1952.1	0.273333	62.0267	13.4	0.72012
Dec., 1998	8.5	1960.6	0.274194	57.4892	11.5	0.645282
Jan., 1999	8.3	1968.9	0.267742	58.9002	11.9	0.651731
Feb., 1999	7.6	1976.5	0.271429	57.767	10.4	0.642977
Mar., 1999	8.2	1984.7	0.264516	58.3649	11.5	0.6356
Apr., 1999	7.8	1992.5	0.26	60.1935	11.8	0.653448
May., 1999	8	2000.5	0.275862	59.7884	11.9	0.686328
Jun., 1999	8.3	2008.8	0.276667	60.4657	12.7	0.700122
Jul., 1999	8.5	2017.3	0.274194	59.3195	12.4	0.674314
Aug., 1999	8.8	2026.1	0.283871	58.2831	12.3	0.68077
Sep., 1999	8.3	2034.4	0.276667	58.2808	11.6	0.663455
Oct., 1999	8.3	2042.7	0.267742	59.1027	12	0.654957
Nov., 1999	8.3	2051	0.276667	62.0901	13.6	0.730122
Dec., 1999	8.6	2059.6	0.277419	63.5491	15	0.761413
Jan., 2000	8.5	2068.1	0.274194	64.7202	15.6	0.77754
Feb., 2000	7.7	2075.8	0.265517	64.6688	14.1	0.751841
Mar., 2000	10.5	2086.3	0.33871	86.2872	66.1	2.47112
Apr., 2000	16.6	2102.9	0.553333	89.382	139.8	5.21358
May., 2000	17.9	2120.8	0.577419	45.249	14.8	1.05509
Jun., 2000	8	2128.8	0.266667	87.8372	57.8	2.19345
Jul., 2000	4.2	2133	0.135849	80.6383	17.5	0.701947

## Production Report

Group : NVSU#2	Date : March 8, 2006 8:51:09 am
Well : Mountcliff NVS Unit No. 2 16-30-11-26W1	User : George
: 00/16-30-011-26W1/0	
Hist.Data : 03/83-07/00	On Prod : 02/09
Operator :	Status : Unknown
Field : 5	Zone : 59A

### Production Data from January, 1998 to July, 2000

Year	Monthly Oil m3	Avg Daily Oil m3/d	Cum Oil m3	Water Cut %	Monthly Water m3	Avg Daily Fluid m3/d
Jan., 1998	38.6	1.24516	9350.1	68.247	83	3.92313
Feb., 1998	34.3	1.225	9384.4	67.9343	72.7	3.82197
Mar., 1998	38.4	1.23871	9422.8	66.2467	75.4	3.67151
Apr., 1998	41.1	1.37	9463.9	61.6858	66.2	3.57727
May., 1998	41.7	1.34516	9505.6	59.4252	61.1	3.31672
Jun., 1998	30.5	1.01667	9536.1	68.2196	65.5	3.20045
Jul., 1998	31	1	9567.1	72.0632	80	3.58109
Aug., 1998	48.6	1.56774	9615.7	63.8022	85.7	4.33295
Sep., 1998	45.2	1.55862	9660.9	63.3015	78	4.24896
Oct., 1998	43.5	1.40323	9704.4	66.4512	86.2	4.18449
Nov., 1998	41	1.36667	9745.4	62.0968	67.2	3.60727
Dec., 1998	42.5	1.37097	9787.9	66.942	86.1	4.14899
Jan., 1999	41.4	1.33548	9829.3	68.2176	88.9	4.20381
Feb., 1999	38	1.35714	9867.3	67.2317	78	4.14346
Mar., 1999	41	1.32258	9908.3	67.7069	86	4.09736
Apr., 1999	39.1	1.30333	9947.4	60.1727	59.1	3.27391
May., 1999	39.9	1.37586	9987.3	59.8486	59.5	3.42819
Jun., 1999	41.7	1.39	10029	60.3507	63.5	3.50728
Jul., 1999	42.3	1.36452	10071.3	59.3554	61.8	3.35867
Aug., 1999	43.9	1.41613	10115.2	58.2593	61.3	3.39417
Sep., 1999	41.4	1.38	10156.6	58.3394	58	3.31394
Oct., 1999	41.4	1.33548	10198	58.0014	57.2	3.18123
Nov., 1999	41.7	1.39	10239.7	55.3902	51.8	3.11728
Dec., 1999	43.1	1.39032	10282.8	57.0181	57.2	3.2361
Jan., 2000	42.7	1.37742	10325.5	58.1675	59.4	3.29416
Feb., 2000	38.6	1.3368	10364.1	58.3046	54	3.20752
Mar., 2000	34.9	1.12581	10399	60.5098	53.5	2.85211
Apr., 2000	7.9	0.266667	10406.9	86.3033	49.8	1.9478
May., 2000	8.7	0.281402	10415.6	85.9398	53.2	2.00228
Jun., 2000	14.5	0.48468	10430.1	74.8181	43.1	1.92556
Jul., 2000	19.7	0.637197	10449.8	68.0617	42	1.99597

## Production Report

Group : NVSU#2	Date : March 8, 2006 8:53:34 am
Well : Mountcliff NVS Unit No. 2 HZNTL 16D-30-11-2	User : George
: 02/16-30-011-26W1/0	
Hist.Data : 03/98-07/00	On Prod : 02/09
Operator :	Status : Unknown
Field : 5	Zone : 59A

### Production Data from January, 1998 to July, 2000

Year	Avg Daily Oil m3/d	Cum Oil m3	Monthly Oil m3	Water Cut %	Monthly Water m3	Avg Daily Fluid m3/d
Jan., 1998						
Feb., 1998						
Mar., 1998	23.35	607.1	607.1	25.2349	205	31.2449
Apr., 1998	21.54	1253.3	646.2	23.5006	198.6	28.1695
May., 1998	20.3903	1885.4	632.1	22.0035	178.4	26.1541
Jun., 1998	21.0333	2516.4	631	26.6449	229.3	28.6859
Jul., 1998	19.971	3135.5	619.1	31.1405	280.1	29.0152
Aug., 1998	17.3484	3673.3	537.8	34.8653	288	26.6464
Sep., 1998	16.3517	4147.5	474.2	36.1159	268.2	25.6072
Oct., 1998	15.7258	4635	487.5	33.6185	247	23.7005
Nov., 1998	14.3	5064	429	41.8592	309	24.6063
Dec., 1998	14.071	5500.2	436.2	37.4431	261.2	22.503
Jan., 1999	13.1839	5908.9	408.7	39.162	263.2	21.68
Feb., 1999	12.8607	6269	360.1	41.6829	257.5	22.0628
Mar., 1999	12.5484	6658	389	42.1626	283.7	21.7055
Apr., 1999	12.3367	7028.1	370.1	44.125	292.4	22.0888
May., 1999	12.84	7413.3	385.2	44.6443	310.8	23.2057
Jun., 1999	12.43	7786.2	372.9	46.2106	320.5	23.1188
Jul., 1999	11.4839	8142.2	356	48.3574	333.5	22.247
Aug., 1999	11.4226	8496.3	354.1	48.7444	336.9	22.2954
Sep., 1999	10.96	8825.1	328.8	51.1911	345	22.4648
Oct., 1999	10.5065	9150.8	325.7	51.0777	340.2	21.4853
Nov., 1999	11.2033	9486.9	336.1	49.5084	329.7	22.1983
Dec., 1999	10.8323	9822.7	335.8	51.1667	352	22.1919
Jan., 2000	10.7484	10155.9	333.2	52.3004	365.5	22.5434
Feb., 2000	10.3793	10456.9	301	52.4527	332.2	21.8391
Mar., 2000	9.6129	10754.9	298	51.6516	318.5	19.8913
Apr., 2000	10.6233	11073.6	318.7	46.2091	273.9	19.758
May., 2000	11.0226	11415.3	341.7	45.8455	289.4	20.3629
Jun., 2000	10.4133	11727.7	312.4	49.9409	311.8	20.8113
Jul., 2000	8.04649	11975.8	248.1	58.6944	352.7	19.4889

## Production Report

Group : NVSU#2	Date : March 8, 2006 8:54:58 am
Well : Mountcliff NVS Unit No. 2 01-31-11-26W1	User : George
: 00/01-31-011-26W1/0	
Hist.Data : 10/83-07/00	On Prod : 02/09
Operator :	Status : Unknown
Field : 5	Zone : 59A

### Production Data from January, 1998 to July, 2000

Year	Monthly Oil	Cum Oil	Avg Daily Oil	Water Cut	Monthly Water	Avg Daily Fluid
	m3	m3	m3/d	%	m3	m3/d
Jan., 1998	44.2	10176.2	1.42581	27.2939	16.6	1.96192
Feb., 1998	39.1	10215.3	1.39643	27.0436	14.5	1.9149
Mar., 1998	43.9	10259.2	1.41613	25.5848	15.1	1.90385
Apr., 1998	47	10306.2	1.56667	28.2354	18.5	2.18402
May., 1998	47.7	10353.9	1.53871	20.3601	12.2	1.93294
Jun., 1998	39.6	10393.5	1.32	27.3307	14.9	1.81725
Jul., 1998	40.3	10433.8	1.3	31.1017	18.2	1.88767
Aug., 1998	48.6	10482.4	1.56774	33.0481	24	2.34263
Sep., 1998	45.2	10527.6	1.55862	32.5276	21.8	2.31103
Oct., 1998	37.7	10565.3	1.21613	89.5902	324.6	11.6876
Nov., 1998	32.8	10598.1	1.09333	91.8436	369.5	13.4105
Dec., 1998	36.8	10634.9	1.22667	89.8077	324.4	12.0405
Jan., 1999	35.9	10670.8	1.15806	90.3144	334.9	11.9618
Feb., 1999	38	10708.8	1.35714	87.2477	260.1	10.647
Mar., 1999	41	10749.8	1.32258	88.0035	300.9	11.0296
Apr., 1999	39.1	10788.9	1.30333	88.3029	295.3	11.1472
May., 1999	41.3	10830.2	1.37667	88.1616	307.7	11.6339
Jun., 1999	41.7	10871.9	1.39	88.3799	317.3	11.9673
Jul., 1999	42.3	10914.2	1.36452	87.8401	305.7	11.2264
Aug., 1999	42.1	10956.3	1.45172	87.3525	290.9	11.4834
Sep., 1999	38.7	10995	1.29	77.4923	133.3	5.7339
Oct., 1999	38.6	11033.6	1.24516	88.4248	295	10.7618
Nov., 1999	35.8	11069.4	1.19333	87.9698	261.9	9.92386
Dec., 1999	40.2	11109.6	1.29677	27.1652	15	1.78122
Jan., 2000	39.9	11149.5	1.2871	28.0992	15.6	1.79089
Feb., 2000	36.2	11185.7	1.24828	28.1657	14.2	1.73848
Mar., 2000	36.3	11222	1.17097	27.5361	13.8	1.61664
Apr., 2000	36.3	11258.3	1.21	24.209	11.6	1.5972
May., 2000	20.9	11279.2	0.674194	32.7877	10.2	1.00352
Jun., 2000	19.4	11298.6	0.646667	36.3833	11.1	1.01695
Jul., 2000	18	11316.6	0.58221	43.9144	14.1	1.03853

## Production Report

Group : NVSU#2	Date : March 8, 2006 8:55:52 am
Well : Mountcliff NVS Unit No. 2 03-32-11-26W1	User : George
: 00/03-32-011-26W1/0	
Hist.Data : 02/83-07/00	On Prod : 02/09
Operator :	Status : Unknown
Field : 5	Zone : 59A

### Production Data from January, 1998 to July, 2000

Year	Monthly Oil	Cum Oil	Avg Daily Oil	Water Cut	Monthly Water	Avg Daily Fluid
	m3	m3	m3/d	%	m3	m3/d
Jan., 1998	16.6	4393.9	0.535484	83.3272	83	3.21314
Feb., 1998	14.7	4408.6	0.525	83.1746	72.7	3.12166
Mar., 1998	16.5	4425.1	0.532258	82.0392	75.4	2.96475
Apr., 1998	17.6	4442.7	0.586667	77.572	60.9	2.61693
May., 1998	17.9	4460.6	0.577419	77.3341	61.1	2.54864
Jun., 1998	9.1	4469.7	0.303333	89.0975	74.4	2.78347
Jul., 1998	9.3	4479	0.3	90.7149	90.9	3.23239
Aug., 1998	21.3	4500.3	0.687097	82.3612	99.5	3.89708
Sep., 1998	19.8	4520.1	0.682759	82.0262	90.4	3.8003
Oct., 1998	20.3	4540.4	0.654839	80.3985	83.3	3.34222
Nov., 1998	19.1	4559.5	0.636667	80.8357	80.6	3.32361
Dec., 1998	19.8	4579.3	0.63871	80.7699	83.2	3.32286
Jan., 1999	19.3	4598.6	0.622581	82.1562	88.9	3.4906
Feb., 1999	17.8	4616.4	0.635714	80.8945	75.4	3.32885
Mar., 1999	19.1	4635.5	0.616129	81.3045	83.1	3.29705
Apr., 1999	18.2	4653.7	0.606667	82.4599	85.6	3.46027
May., 1999	20.2	4673.9	0.651613	82.2743	93.8	3.67771
Jun., 1999	19.5	4693.4	0.65	77.3442	66.6	2.87029
Jul., 1999	19.8	4713.2	0.63871	76.5324	64.6	2.72286
Aug., 1999	20.5	4733.7	0.66129	75.9026	64.6	2.74545
Sep., 1999	19.3	4753	0.643333	75.9271	60.9	2.67362
Oct., 1999	19.3	4772.3	0.622581	75.7152	60.2	2.56479
Nov., 1999	19.5	4791.8	0.65	73.6401	54.5	2.46695
Dec., 1999	20.1	4811.9	0.648387	74.9606	60.2	2.59061
Jan., 2000	19.9	4831.8	0.641935	75.8414	62.5	2.65835
Feb., 2000	18	4849.8	0.62069	75.9278	56.8	2.57958
Mar., 2000	12.8	4862.6	0.412903	80.4212	52.6	2.10986
Apr., 2000	4.7	4867.3	0.156667	89.6663	40.8	1.51674
May., 2000	5.1	4872.4	0.164516	89.5236	43.6	1.57104
Jun., 2000	11	4883.4	0.366667	81.8116	49.5	2.01683
Jul., 2000	20.8	4904.2	0.672776	76.8811	69.2	2.91135

## Production Report

Group : NVSU#2	Date : March 8, 2006 8:57:05 am
Well : NVS Unit No. 2 HZNTL 03-32-11-26W1	User : George
: 02/03-32-011-26W1/0	
Hist.Data : 01/99-07/00	On Prod : 02/09
Operator :	Status : Unknown
Field : 5	Zone : 59A

### Production Data from January, 1999 to July, 2000

Year	Avg Daily Oil m3/d	Monthly Oil m3	Cum Oil m3	Water Cut %	Monthly Water m3	Avg Daily Fluid m3/d
Jan., 1999						
Feb., 1999						
Mar., 1999						
Apr., 1999						
May., 1999						
Jun., 1999						
Jul., 1999						
Aug., 1999						
Sep., 1999						
Oct., 1999						
Nov., 1999						
Dec., 1999	26.2786	735.8	735.8	33.5583	371.8	39.5687
Jan., 2000	24.9129	772.3	1508.1	34.0323	398.6	37.7819
Feb., 2000	24.0897	698.6	2206.7	34.159	362.6	36.6037
Mar., 2000	23.4387	726.6	2933.3	33.4639	365.6	35.2426
Apr., 2000	20.49	614.7	3548	37.7352	372.7	32.9224
May., 2000	21.6129	670	4218	38.8526	425.9	35.3611
Jun., 2000	20.99	629.7	4847.7	42.801	471.4	36.7126
Jul., 2000	19.8889	614.9	5462.6	51.5984	655.8	41.1096

## Production Report

Group : NVSU#2	Date : March 8, 2006 8:57:53 am
Well : Mountcliff NVS Unit No. 2 05-32-11-26W1	User : George
: 00/05-32-011-26W1/0	
Hist.Data : 08/83-07/00	On Prod : 02/09
Operator :	Status : Unknown
Field : 5	Zone : 59A

### Production Data from January, 1998 to July, 2000

Year	Monthly Oil m3	Cum Oil m3	Avg Daily Oil m3/d	Water Cut %	Monthly Water m3	Avg Daily Fluid m3/d
Jan., 1998	38.6	5740.6	1.24516	37.5301	23.2	1.9941
Feb., 1998	34.3	5774.9	1.225	37.1692	20.3	1.95054
Mar., 1998	38.4	5813.3	1.23871	35.4521	21.1	1.9199
Apr., 1998	41.1	5854.4	1.37	31.0308	18.5	1.98727
May., 1998	41.7	5896.1	1.34516	29.0726	17.1	1.89737
Jun., 1998	27.4	5923.5	0.913333	39.5038	17.9	1.5104
Jul., 1998	27.9	5951.4	0.9	43.8523	21.8	1.60362
Aug., 1998	39.5	5990.9	1.27419	43.8812	30.9	2.27153
Sep., 1998	36.7	6027.6	1.26552	43.3534	28.1	2.23504
Oct., 1998	37.7	6065.3	1.21613	40.7126	25.9	2.05215
Nov., 1998	35.5	6100.8	1.18333	45.9556	30.2	2.19052
Dec., 1998	36.8	6137.6	1.1871	41.2034	25.8	2.01988
Jan., 1999	35.9	6173.5	1.15806	42.641	26.7	2.01987
Feb., 1999	33	6206.5	1.17857	41.4787	23.4	2.0148
Mar., 1999	35.5	6242	1.14516	42.0774	25.8	1.97792
Apr., 1999	33.9	6275.9	1.13	43.9561	26.6	2.01716
May., 1999	33	6308.9	1.1	42.6976	24.6	1.92048
Jun., 1999	32.5	6341.4	1.12069	43.0715	24.6	1.96946
Jul., 1999	33.9	6375.3	1.09355	42.1394	24.7	1.8908
Aug., 1999	35.1	6410.4	1.13226	41.0967	24.5	1.92308
Sep., 1999	33.2	6443.6	1.10667	41.1241	23.2	1.88049
Oct., 1999	44.2	6487.8	1.42581	29.0439	18.1	2.01031
Nov., 1999	15.1	6502.9	1.51	26.6904	5.5	2.06067
Dec., 1999	45.9	6548.8	1.48065	28.2723	18.1	2.06517
Jan., 2000	45.6	6594.4	1.47097	29.0733	18.7	2.07484
Feb., 2000	40.8	6635.2	1.4069	29.2803	16.9	1.99027
Mar., 2000	27.5	6662.7	0.887097	46.7975	24.2	1.66813
Apr., 2000	15.4	6678.1	0.513333	63.7545	27.1	1.41689
May., 2000	16.7	6694.8	0.53871	63.2056	28.7	1.46475
Jun., 2000	15	6709.8	0.5	54.8084	18.2	1.10689
Jul., 2000	14.8	6724.6	0.478706	63.4466	25.7	1.31018

## Production Report

Group : NVSU#2	Date : March 8, 2006 8:58:33 am
Well : Mountcliff NVS Unit No. 2 06-32-11-26W1	User : George
: 00/06-32-011-26W1/0	
Hist.Data : 09/83-07/00	On Prod : 02/09
Operator :	Status : Unknown
Field : 5	Zone : 59A

### Production Data from January, 1998 to July, 2000

Year	Monthly Oil m3	Cum Oil m3	Avg Daily Oil m3/d	Water Cut %	Monthly Water m3	Avg Daily Fluid m3/d
Jan., 1998	8.3	1611.1	0.267742	61.7407	13.4	0.700118
Feb., 1998	7.3	1618.4	0.260714	61.3652	11.6	0.675115
Mar., 1998	8.2	1626.6	0.264516	59.3953	12	0.651729
Apr., 1998	9	1635.6	0.3	54.5345	10.8	0.660132
May., 1998	9.1	1644.7	0.293548	51.8409	9.8	0.609807
Jun., 1998	9.3	1654	0.31	56.1212	11.9	0.706803
Jul., 1998	9.3	1663.3	0.3	60.9139	14.5	0.767874
Aug., 1998	9.2	1672.5	0.296774	59.8147	13.7	0.73884
Sep., 1998	8.4	1680.9	0.289655	15.1459	1.5	0.341507
Oct., 1998	8.9	1689.8	0.287097	61.6275	14.3	0.748513
Nov., 1998	8.1	1697.9	0.27	67.7195	17	0.836786
Dec., 1998	8.4	1706.3	0.270968	63.3086	14.5	0.738829
Jan., 1999	8.4	1714.7	0.270968	63.6262	14.7	0.745281
Feb., 1999	7.5	1722.2	0.267857	63.582	13.1	0.735832
Mar., 1999	7.5	1729.7	0.241935	65.4278	14.2	0.700107
Apr., 1999	7.7	1737.4	0.256667	65.7679	14.8	0.750113
May., 1999	8.2	1745.6	0.273333	65.2443	15.4	0.786787
Jun., 1999						
Jul., 1999						
Aug., 1999	2.8	1748.4	0.28	62.1518	4.6	0.740123
Sep., 1999	10.7	1759.1	0.368966	64.5595	19.5	1.04154
Oct., 1999	11.3	1770.4	0.364516	65.0055	21	1.0421
Nov., 1999	7.8	1778.2	0.278571	69.9908	18.2	0.928694
Dec., 1999	0.8	1779	0.4	67.9904	1.7	1.25018
Jan., 2000						
Feb., 2000						
Mar., 2000	0.9	1779.9	0.0473684	95.8698	20.9	1.14739
Apr., 2000	1.7	1781.6	0.0566667	94.549	29.5	1.04002
May., 2000	1.7	1783.3	0.0566667	94.7018	30.4	1.07002
Jun., 2000	5.2	1788.5	0.185714	69.2214	11.7	0.603653
Jul., 2000	5.7	1794.2	0.184367	72.7185	15.2	0.676092