

WEST BUTLER UNIT NO. 1
WATERFLOOD EOR PROJECT

ANNUAL REPORT FOR 2016

April 25, 2017

Tundra Oil and Gas Partnership

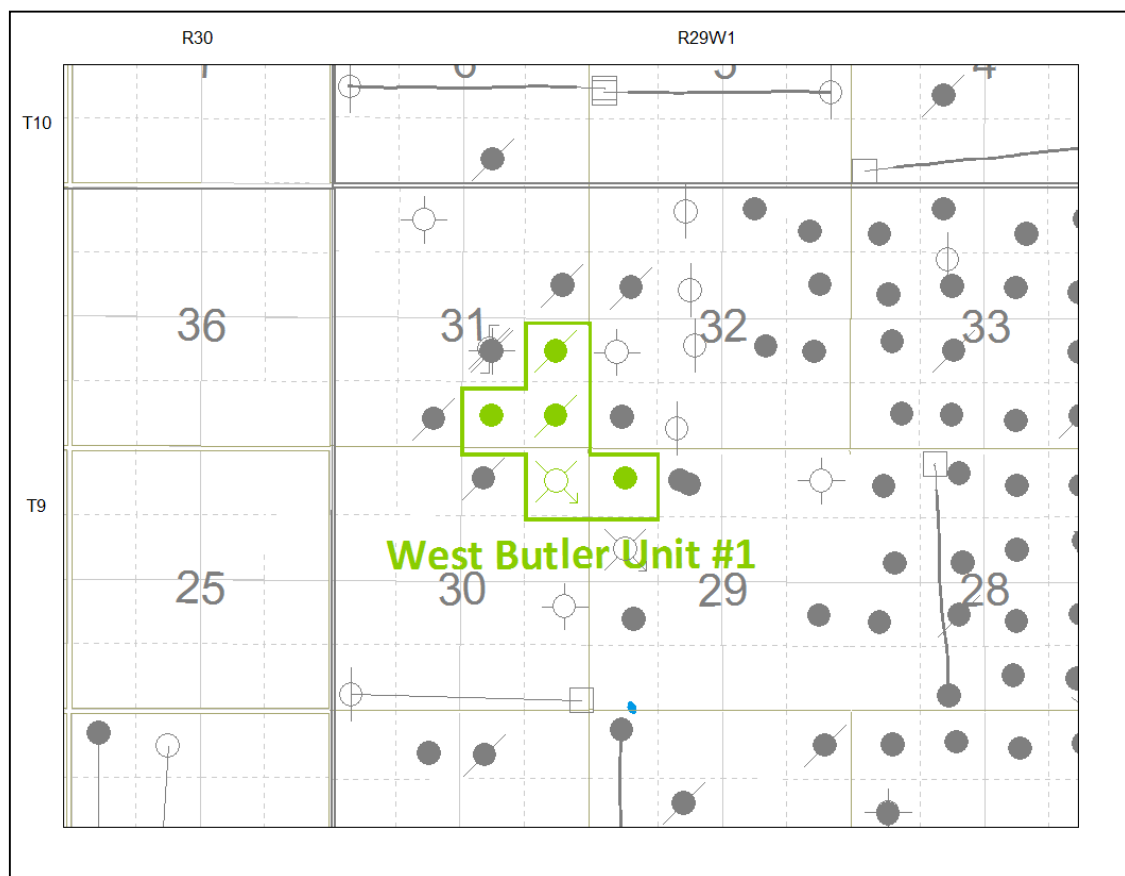
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INTRODUCTION

West Butler Unit No. 1 Enhanced Oil Recovery (EOR) Waterflood Project was approved under Unitization Order No. 14 effective September 1972 with Enerplus ECT Resources Ltd. as Operator. Rideau Petroleums Ltd. (Rideau) acquired the unit from Enerplus ECT Resources Ltd. and became operator in September 1985. Tundra acquired the unit from Rideau in 2007 and is the current operator of the unit. The EOR project area contains 5 wells in 5 LSDs in Township 9, Range 29 W1 as shown in the figure below. Well list and well status is available in Appendix A.

Figure 1: West Butler Unit No. 1 Area Outline



In accordance with Section 73 of the Manitoba Drilling and Production Regulation, Tundra hereby submits the 2016 Annual Progress Report for West Butler Unit No. 1 as required by Board Order No. PM 21.

DISCUSSION

Production History

For the wells included in West Butler Unit No. 1, production started November 1955 with the 00/01-13-009-29W1/0 well. Oil production peaked at 20.74 m³/d in May 1956, when all five wells were producing. Average production from Jan-June, 2014 was 0.19 m³/d of oil and 0.01 m³/d of water and a WOR of 0.05 m³/m³. The rates and WOR are plotted in Figure 2.

Figure 2: West Butler Unit No. 1 Production/Injection Rates and WOR vs. Time

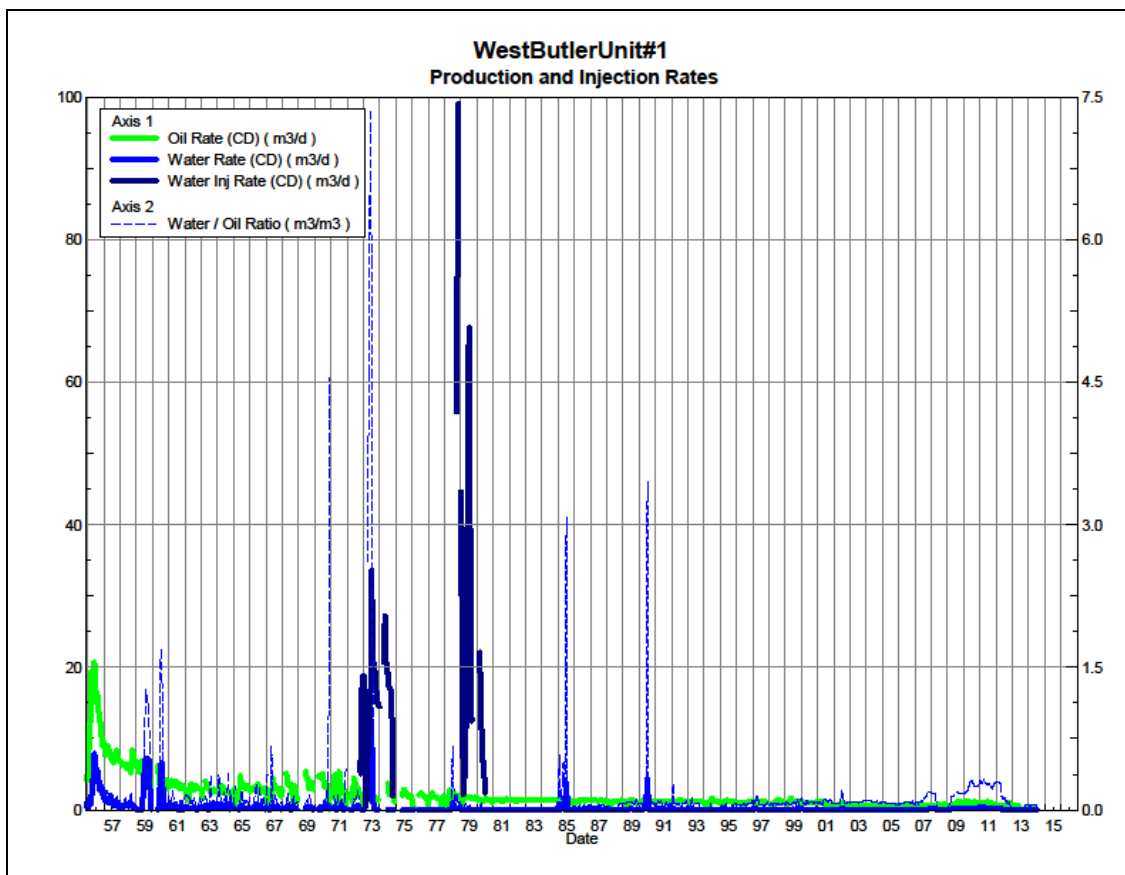
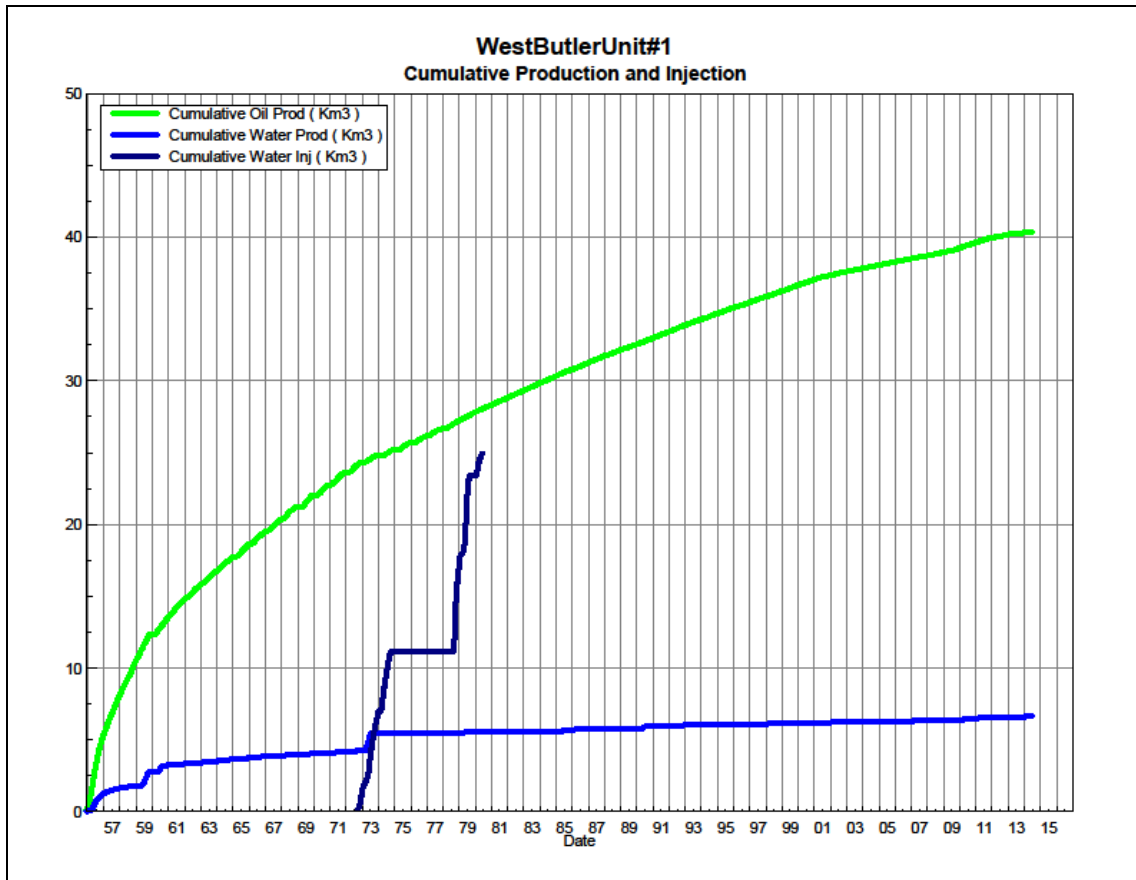


Figure 3 shows the cumulative production for West Butler Unit No. 1 to the end of December 2016 as 40.34 e³m³ of oil, and 6.62 e³m³ of water. The cumulative water injected is 24.98 e³m³. The cumulative volume of oil, and water produced and fluid injected for each injection pattern is presented in Appendix C.

Figure 3: West Butler Unit No. 1 Cum. Oil, Water and Water Injected vs. Time



Waterflood History

As of December 2016, West Butler Unit No. 1 has no active injector. Water was injected into the unit from June 1973 until June 1980.

Any future revisions to the waterflood development or surveillance plan would be based on new production or performance response data, technical studies, or observed reservoir behavior and reserves recovery interpretations.

Waterflood EOR Operating Strategy and Performance

Water Source and Quality

There is currently no injection in West Butler Unit No. 1.

Injection Wellhead Pressures

No injection wellhead pressure is available for this unit.

Reservoir Pressure

No reservoir pressure measurements were taken at West Butler Unit No. 1 in 2016.

Well Servicing

No maintenance was required on the 5 wells in West Butler Unit No. 1 in 2016.

Voidage Replacement

Cumulative voidage for the West Butler Unit No. 1 was 0.502 in June 2014. Plots and tables of the production and injection data along with the VRR on a monthly and cumulative basis for the single injection pattern is presented in Appendix C.

Waterflood Performance Discussion

The original oil-in-place (OOIP) of the Unit was estimated at 309.0 e³m³. In 2014, the recovery factor of the Unit was 13.0% based on 40.34 e³m³ of cumulative oil recovered to date. The ultimate expected recoverable reserve based on decline analysis is 40.0 e³m³ or an ultimate recovery factor of 12.9%.

The overall performance of this waterflood has been very poor due to lack of waterflood response and very low cumulative VRR. Currently no water injection is taking place. Trends in production are stable and extremely mature. No changes in trends are anticipated. The Unit may be located in very marginal reservoir. Optimization of the Unit and secondary recovery feasibility will be considered with future development of the area.

List of Appendices

Appendix A: Well List and Well Status

Appendix B: West Butler Unit No. 1 Injection Pattern Summary

Appendix C: Injector Pattern Production/Injection Rates, Cumulative and VRR Plot and Table

Appendix A

UWI	Well Status
100/13-29-009-29W1/00	ABD Producer
100/16-30-009-29W1/00	ABD WTR Injection
100/01-31-009-29W1/00	ABD Producer
100/02-31-009-29W1/00	Capable of OIL Prod
100/08-31-009-29W1/00	ABD Producer

Appendix B

West Butler Unit 1 Pattern Summary as of December 2016

Pattern Name	Injector Location (009-29W1)	Status	Supported Wells (009-29W1)	No. of Supported Wells	Allocation Factor	Pattern Prod Start Month	Inj Start Month	Inj End Month	Oil Rate (m³/d)	Water Rate (m³/d)	WOR (m³/m³)	Water Injection (m³/d)	Cum Oil (E³m³)	Cum Water (E³m³)	Cum Inj Water (E³m³)	Monthly VRR	Cum VRR
00/16-30-009-29W1 Injector	00/16-30	ABD WTR Injection	01-31, 02-31, 08-31, 13-29	4	1	Apr 1965	Sep 1972	Jun 1980	0.08	0.00	0.04	0.0	40.3	6.6	25.0	0.000	0.502

Appendix C
Rates and VRR
Plots and Tables

Pattern: 00/16-30-009-29Inj Set: WestButlerUnit#1

Oil Formation Vol. Factor : 1.0300 m3/m3

Water Formation Vol Factor : 1.0000 m3/m3

Water / Oil Ratio : 0.04 m3/m3

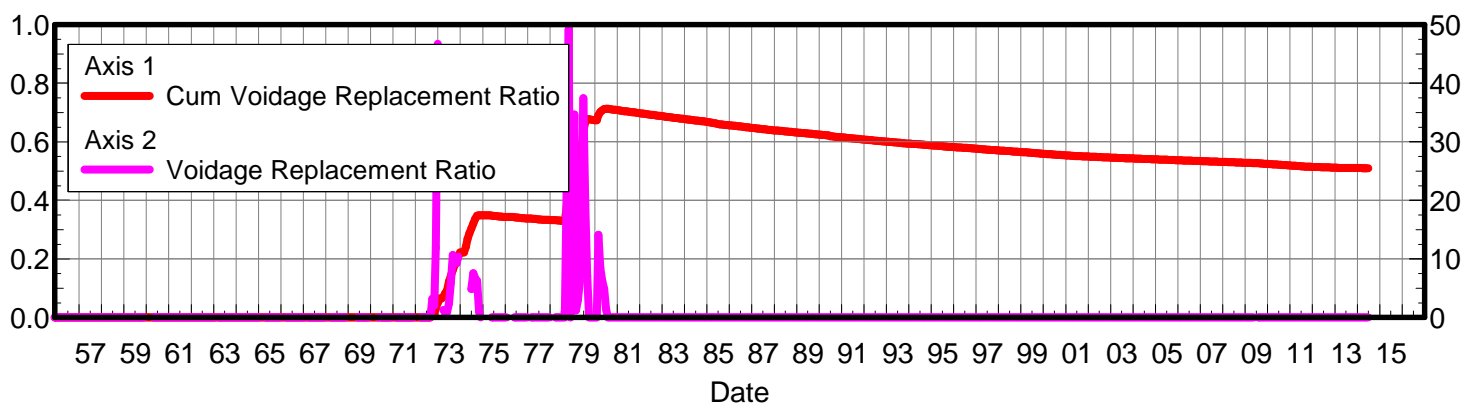
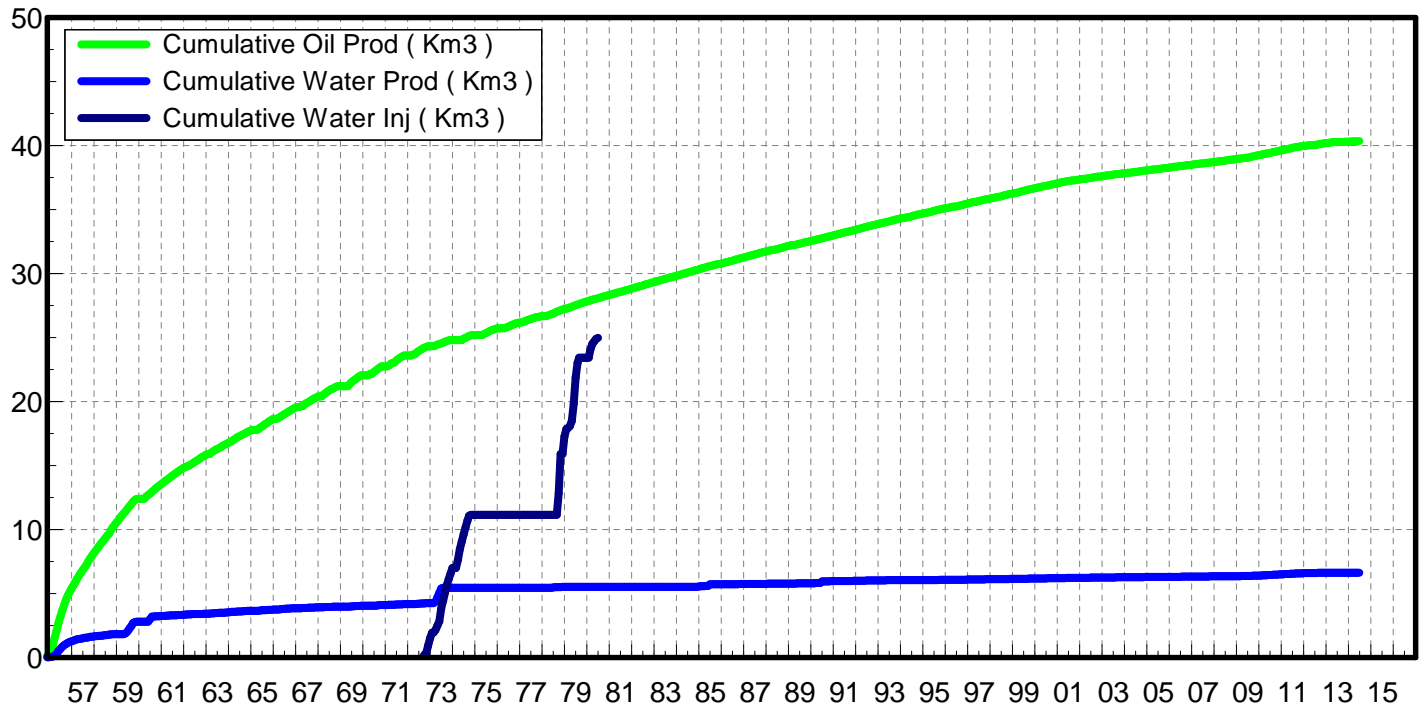
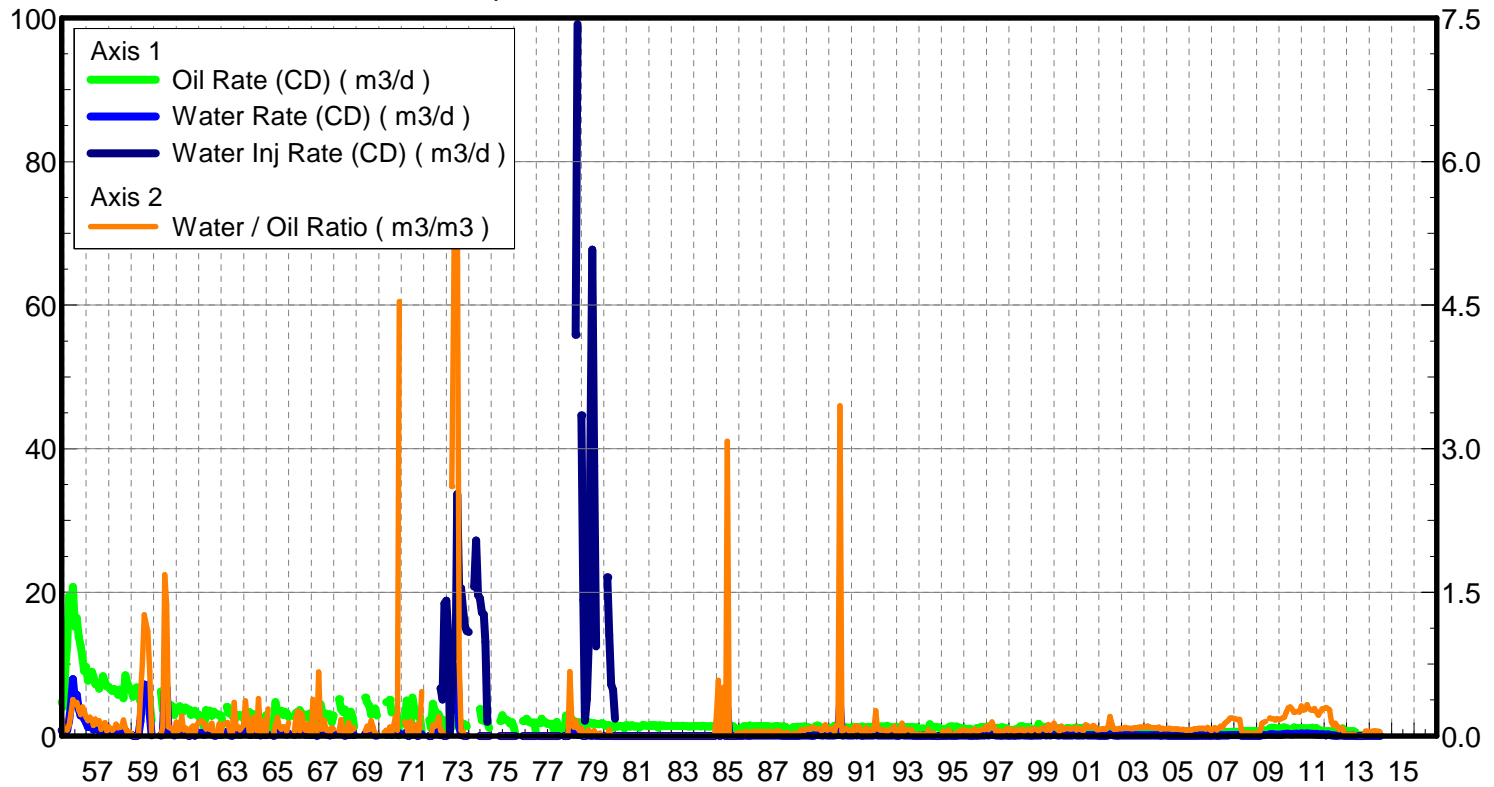
April 24, 2017

Operator: TUNDRA_OIL_&_GAS_LIMITED

Oil Rate (CD) : 0.08 m3/d

Water Rate (CD) : 0.00 m3/d

Water Inj Rate (CD) : 2.37 m3/d



Date	Oil Rate (CD) m3/d	Water Rate (CD) m3/d	Water Oil Ratio m3/m3	Water Inj Rate (CD) m3/d	Cum Oil Prod Km3	Cum Water Prod Km3	Cum Water Inj Km3	VRR	Cum VRR
11/30/1955	4.72	0.80	0.17		0.14	0.02	0.00	0.000	0.000
12/31/1955	4.09	0.25	0.06		0.27	0.03	0.00	0.000	0.000
1/31/1956	9.92	0.71	0.07		0.58	0.05	0.00	0.000	0.000
2/29/1956	12.54	0.77	0.06		0.94	0.08	0.00	0.000	0.000
3/31/1956	19.52	2.14	0.11		1.54	0.14	0.00	0.000	0.000
4/30/1956	18.20	4.31	0.24		2.09	0.27	0.00	0.000	0.000
5/31/1956	20.74	7.89	0.38		2.73	0.52	0.00	0.000	0.000
6/30/1956	15.23	5.00	0.33		3.19	0.67	0.00	0.000	0.000
7/31/1956	16.45	5.73	0.35		3.70	0.84	0.00	0.000	0.000
8/31/1956	13.83	3.82	0.28		4.13	0.96	0.00	0.000	0.000
9/30/1956	12.62	2.81	0.22		4.51	1.05	0.00	0.000	0.000
10/31/1956	10.85	3.28	0.30		4.84	1.15	0.00	0.000	0.000
11/30/1956	9.05	2.40	0.27		5.12	1.22	0.00	0.000	0.000
12/31/1956	9.60	1.88	0.20		5.41	1.28	0.00	0.000	0.000
1/31/1957	7.67	1.21	0.16		5.65	1.32	0.00	0.000	0.000
2/28/1957	8.24	1.63	0.20		5.88	1.36	0.00	0.000	0.000
3/31/1957	8.94	1.53	0.17		6.16	1.41	0.00	0.000	0.000
4/30/1957	8.29	0.89	0.11		6.41	1.44	0.00	0.000	0.000
5/31/1957	7.22	1.27	0.18		6.63	1.48	0.00	0.000	0.000
6/30/1957	7.29	0.92	0.13		6.85	1.50	0.00	0.000	0.000
7/31/1957	6.58	1.05	0.16		7.05	1.54	0.00	0.000	0.000
8/31/1957	7.16	0.49	0.07		7.28	1.55	0.00	0.000	0.000
9/30/1957	8.32	1.02	0.12		7.53	1.58	0.00	0.000	0.000
10/31/1957	7.52	1.04	0.14		7.76	1.61	0.00	0.000	0.000
11/30/1957	6.91	0.37	0.05		7.97	1.63	0.00	0.000	0.000
12/31/1957	6.86	0.66	0.10		8.18	1.65	0.00	0.000	0.000
1/31/1958	6.45	0.46	0.07		8.38	1.66	0.00	0.000	0.000
2/28/1958	6.25	0.37	0.06		8.55	1.67	0.00	0.000	0.000
3/31/1958	6.53	0.49	0.08		8.76	1.69	0.00	0.000	0.000
4/30/1958	6.37	0.78	0.12		8.95	1.71	0.00	0.000	0.000
5/31/1958	5.73	0.48	0.08		9.12	1.72	0.00	0.000	0.000
6/30/1958	6.46	0.57	0.09		9.32	1.74	0.00	0.000	0.000
7/31/1958	6.22	0.59	0.09		9.51	1.76	0.00	0.000	0.000
8/31/1958	5.24	0.87	0.17		9.67	1.79	0.00	0.000	0.000
9/30/1958	8.44	0.68	0.08		9.93	1.81	0.00	0.000	0.000
10/31/1958	7.38	0.27	0.04		10.16	1.81	0.00	0.000	0.000
11/30/1958	6.71	0.30	0.05		10.36	1.82	0.00	0.000	0.000
12/31/1958	6.45	0.16	0.03		10.56	1.83	0.00	0.000	0.000
1/31/1959	5.45	0.02	0.00		10.73	1.83	0.00	0.000	0.000
2/28/1959	5.79	0.00	0.00		10.89	1.83	0.00	0.000	0.000
3/31/1959	6.74	0.00	0.00		11.10	1.83	0.00	0.000	0.000
4/30/1959	6.22	0.09	0.02		11.28	1.83	0.00	0.000	0.000
5/31/1959	4.80	2.01	0.42		11.43	1.89	0.00	0.000	0.000
6/30/1959	7.12	5.35	0.75		11.64	2.06	0.00	0.000	0.000
7/31/1959	5.67	7.17	1.27		11.82	2.28	0.00	0.000	0.000
8/31/1959	5.47	6.38	1.17		11.99	2.48	0.00	0.000	0.000

Date	Oil Rate (CD) m3/d	Water Rate (CD) m3/d	Water Oil Ratio m3/m3	Water Inj Rate (CD) m3/d	Cum Oil Prod Km3	Cum Water Prod Km3	Cum Water Inj Km3	VRR	Cum VRR
9/30/1959	6.52	7.11	1.09		12.19	2.69	0.00	0.000	0.000
10/31/1959	4.53	3.05	0.67		12.33	2.78	0.00	0.000	0.000
11/30/1959	2.15	0.09	0.04		12.39	2.79	0.00	0.000	0.000
4/30/1960	6.16	0.08	0.01		12.58	2.79	0.00	0.000	0.000
5/31/1960	3.69	0.35	0.09		12.69	2.80	0.00	0.000	0.000
6/30/1960	3.69	6.21	1.68		12.80	2.99	0.00	0.000	0.000
7/31/1960	4.85	6.63	1.37		12.95	3.19	0.00	0.000	0.000
8/31/1960	4.08	0.37	0.09		13.08	3.20	0.00	0.000	0.000
9/30/1960	4.32	0.35	0.08		13.21	3.21	0.00	0.000	0.000
10/31/1960	4.13	0.29	0.07		13.33	3.22	0.00	0.000	0.000
11/30/1960	2.91	0.07	0.03		13.42	3.22	0.00	0.000	0.000
12/31/1960	3.75	0.53	0.14		13.54	3.24	0.00	0.000	0.000
1/31/1961	3.96	0.20	0.05		13.66	3.25	0.00	0.000	0.000
2/28/1961	4.13	0.30	0.07		13.78	3.25	0.00	0.000	0.000
3/31/1961	3.35	0.68	0.20		13.88	3.28	0.00	0.000	0.000
4/30/1961	3.47	0.22	0.06		13.98	3.28	0.00	0.000	0.000
5/31/1961	3.95	0.33	0.08		14.11	3.29	0.00	0.000	0.000
6/30/1961	3.60	0.25	0.07		14.22	3.30	0.00	0.000	0.000
7/31/1961	3.70	0.00	0.00		14.33	3.30	0.00	0.000	0.000
8/31/1961	2.92	0.24	0.08		14.42	3.31	0.00	0.000	0.000
9/30/1961	3.46	0.35	0.10		14.52	3.32	0.00	0.000	0.000
10/31/1961	3.51	0.04	0.01		14.63	3.32	0.00	0.000	0.000
11/30/1961	2.94	0.34	0.12		14.72	3.33	0.00	0.000	0.000
12/31/1961	2.97	0.41	0.14		14.81	3.34	0.00	0.000	0.000
1/31/1962	2.06	0.32	0.15		14.88	3.35	0.00	0.000	0.000
2/28/1962	2.59	0.39	0.15		14.95	3.36	0.00	0.000	0.000
3/31/1962	1.22	0.16	0.13		14.99	3.37	0.00	0.000	0.000
4/30/1962	3.58	0.25	0.07		15.10	3.38	0.00	0.000	0.000
5/31/1962	2.88	0.29	0.10		15.18	3.38	0.00	0.000	0.000
6/30/1962	3.51	0.24	0.07		15.29	3.39	0.00	0.000	0.000
7/31/1962	2.81	0.37	0.13		15.38	3.40	0.00	0.000	0.000
8/31/1962	3.37	0.06	0.02		15.48	3.41	0.00	0.000	0.000
9/30/1962	3.15	0.03	0.01		15.58	3.41	0.00	0.000	0.000
10/31/1962	2.98	0.10	0.03		15.67	3.41	0.00	0.000	0.000
11/30/1962	2.97	0.37	0.13		15.76	3.42	0.00	0.000	0.000
12/31/1962	2.82	0.09	0.03		15.84	3.42	0.00	0.000	0.000
1/31/1963	1.61	0.20	0.12		15.89	3.43	0.00	0.000	0.000
3/31/1963	4.04	0.56	0.14		16.02	3.45	0.00	0.000	0.000
4/30/1963	3.18	0.35	0.11		16.12	3.46	0.00	0.000	0.000
5/31/1963	3.20	0.09	0.03		16.21	3.46	0.00	0.000	0.000
6/30/1963	2.85	0.02	0.01		16.30	3.46	0.00	0.000	0.000
7/31/1963	2.39	0.83	0.35		16.37	3.49	0.00	0.000	0.000
8/31/1963	2.53	0.19	0.08		16.45	3.49	0.00	0.000	0.000
9/30/1963	2.94	0.28	0.10		16.54	3.50	0.00	0.000	0.000
10/31/1963	2.74	0.17	0.06		16.63	3.51	0.00	0.000	0.000
11/30/1963	2.87	0.25	0.09		16.71	3.51	0.00	0.000	0.000

Date	Oil Rate (CD) m3/d	Water Rate (CD) m3/d	Water Oil Ratio m3/m3	Water Inj Rate (CD) m3/d	Cum Oil Prod Km3	Cum Water Prod Km3	Cum Water Inj Km3	VRR	Cum VRR
12/31/1963	2.43	0.26	0.11		16.79	3.52	0.00	0.000	0.000
1/31/1964	2.39	0.88	0.37		16.86	3.55	0.00	0.000	0.000
2/29/1964	2.30	0.40	0.17		16.93	3.56	0.00	0.000	0.000
3/31/1964	3.31	0.15	0.04		17.03	3.56	0.00	0.000	0.000
4/30/1964	3.10	0.10	0.03		17.12	3.57	0.00	0.000	0.000
5/31/1964	3.00	0.57	0.19		17.22	3.59	0.00	0.000	0.000
6/30/1964	2.75	0.27	0.10		17.30	3.59	0.00	0.000	0.000
7/31/1964	2.55	0.14	0.06		17.38	3.60	0.00	0.000	0.000
8/31/1964	2.27	0.88	0.39		17.45	3.63	0.00	0.000	0.000
9/30/1964	2.50	0.07	0.03		17.52	3.63	0.00	0.000	0.000
10/31/1964	2.32	0.36	0.16		17.59	3.64	0.00	0.000	0.000
11/30/1964	2.45	0.10	0.04		17.67	3.64	0.00	0.000	0.000
12/31/1964	2.87	0.12	0.04		17.76	3.65	0.00	0.000	0.000
1/31/1965	0.62	0.17	0.28		17.78	3.65	0.00	0.000	0.000
4/30/1965	1.33	0.04	0.03		17.82	3.65	0.00	0.000	0.000
5/31/1965	4.72	0.51	0.11		17.96	3.67	0.00	0.000	0.000
6/30/1965	3.30	0.64	0.19		18.06	3.69	0.00	0.000	0.000
7/31/1965	3.30	0.32	0.10		18.16	3.70	0.00	0.000	0.000
8/31/1965	3.50	0.24	0.07		18.27	3.70	0.00	0.000	0.000
9/30/1965	2.92	0.28	0.10		18.36	3.71	0.00	0.000	0.000
10/31/1965	3.38	0.30	0.09		18.47	3.72	0.00	0.000	0.000
11/30/1965	3.17	0.15	0.05		18.56	3.73	0.00	0.000	0.000
12/31/1965	2.59	0.36	0.14		18.64	3.74	0.00	0.000	0.000
3/31/1966	2.75	0.15	0.05		18.73	3.74	0.00	0.000	0.000
4/30/1966	3.18	0.60	0.19		18.82	3.76	0.00	0.000	0.000
5/31/1966	3.37	0.88	0.26		18.93	3.79	0.00	0.000	0.000
6/30/1966	3.60	0.19	0.05		19.03	3.79	0.00	0.000	0.000
7/31/1966	2.44	0.57	0.24		19.11	3.81	0.00	0.000	0.000
8/31/1966	3.02	0.35	0.12		19.20	3.82	0.00	0.000	0.000
9/30/1966	2.79	0.16	0.06		19.29	3.83	0.00	0.000	0.000
10/31/1966	2.59	0.31	0.12		19.37	3.84	0.00	0.000	0.000
11/30/1966	3.09	0.14	0.05		19.46	3.84	0.00	0.000	0.000
12/31/1966	2.92	0.09	0.03		19.55	3.84	0.00	0.000	0.000
1/31/1967	0.45	0.17	0.38		19.56	3.85	0.00	0.000	0.000
3/31/1967	2.13	0.02	0.01		19.63	3.85	0.00	0.000	0.000
4/30/1967	0.75	0.50	0.67		19.65	3.86	0.00	0.000	0.000
5/31/1967	4.38	0.31	0.07		19.79	3.87	0.00	0.000	0.000
6/30/1967	3.39	0.24	0.07		19.89	3.88	0.00	0.000	0.000
7/31/1967	2.88	0.47	0.16		19.98	3.90	0.00	0.000	0.000
8/31/1967	3.09	0.19	0.06		20.08	3.90	0.00	0.000	0.000
9/30/1967	2.59	0.18	0.07		20.15	3.91	0.00	0.000	0.000
10/31/1967	3.02	0.06	0.02		20.25	3.91	0.00	0.000	0.000
11/30/1967	1.88	0.16	0.09		20.30	3.91	0.00	0.000	0.000
12/31/1967	2.84	0.20	0.07		20.39	3.92	0.00	0.000	0.000
3/31/1968	5.11	0.28	0.06		20.55	3.93	0.00	0.000	0.000
4/30/1968	3.74	0.63	0.17		20.66	3.95	0.00	0.000	0.000

Date	Oil Rate (CD) m3/d	Water Rate (CD) m3/d	Water Oil Ratio m3/m3	Water Inj Rate (CD) m3/d	Cum Oil Prod Km3	Cum Water Prod Km3	Cum Water Inj Km3	VRR	Cum VRR
5/31/1968	3.34	0.23	0.07		20.77	3.95	0.00	0.000	0.000
6/30/1968	3.67	0.01	0.00		20.88	3.95	0.00	0.000	0.000
7/31/1968	2.85	0.10	0.03		20.96	3.96	0.00	0.000	0.000
8/31/1968	0.94	0.13	0.14		20.99	3.96	0.00	0.000	0.000
9/30/1968	3.36	0.16	0.05		21.09	3.97	0.00	0.000	0.000
10/31/1968	2.61	0.17	0.07		21.17	3.97	0.00	0.000	0.000
11/30/1968	1.25	0.11	0.09		21.21	3.98	0.00	0.000	0.000
5/31/1969	5.32	0.30	0.06		21.38	3.98	0.00	0.000	0.000
6/30/1969	4.60	0.47	0.10		21.52	4.00	0.00	0.000	0.000
7/31/1969	4.20	0.27	0.06		21.65	4.01	0.00	0.000	0.000
8/31/1969	2.97	0.47	0.16		21.74	4.02	0.00	0.000	0.000
9/30/1969	3.45	0.32	0.09		21.84	4.03	0.00	0.000	0.000
10/31/1969	3.82	0.07	0.02		21.96	4.03	0.00	0.000	0.000
11/30/1969	2.84	0.05	0.02		22.04	4.03	0.00	0.000	0.000
4/30/1970	4.71	0.14	0.03		22.19	4.04	0.00	0.000	0.000
6/30/1970	5.04	0.46	0.09		22.34	4.05	0.00	0.000	0.000
7/31/1970	3.28	0.11	0.03		22.44	4.06	0.00	0.000	0.000
8/31/1970	3.61	0.36	0.10		22.55	4.07	0.00	0.000	0.000
9/30/1970	3.53	0.72	0.20		22.66	4.09	0.00	0.000	0.000
10/31/1970	2.78	0.16	0.06		22.74	4.09	0.00	0.000	0.000
11/30/1970	0.09	0.39	4.54		22.75	4.11	0.00	0.000	0.000
2/28/1971	1.66	0.24	0.14		22.79	4.11	0.00	0.000	0.000
3/31/1971	4.92	0.51	0.10		22.94	4.13	0.00	0.000	0.000
4/30/1971	2.74	0.00	0.00		23.03	4.13	0.00	0.000	0.000
5/31/1971	1.02	0.15	0.15		23.06	4.13	0.00	0.000	0.000
6/30/1971	5.35	0.26	0.05		23.22	4.14	0.00	0.000	0.000
7/31/1971	3.78	0.22	0.06		23.34	4.15	0.00	0.000	0.000
8/31/1971	2.95	0.35	0.12		23.43	4.16	0.00	0.000	0.000
9/30/1971	2.75	0.00	0.00		23.51	4.16	0.00	0.000	0.000
10/31/1971	2.77	0.25	0.09		23.60	4.17	0.00	0.000	0.000
11/30/1971	0.50	0.23	0.46		23.61	4.17	0.00	0.000	0.000
3/31/1972	2.20	0.00	0.00		23.68	4.17	0.00	0.000	0.000
4/30/1972	1.14	0.00	0.00		23.71	4.17	0.00	0.000	0.000
5/31/1972	4.48	0.51	0.11		23.85	4.19	0.00	0.000	0.000
6/30/1972	3.51	0.36	0.10		23.96	4.20	0.00	0.000	0.000
7/31/1972	3.06	0.36	0.12		24.05	4.21	0.00	0.000	0.000
8/31/1972	3.00	0.60	0.20		24.15	4.23	0.00	0.000	0.000
9/30/1972	1.88	0.11	0.06	6.64	24.20	4.23	0.20	3.184	0.007
10/31/1972	2.30	0.10	0.04	5.06	24.27	4.24	0.36	2.018	0.012
11/30/1972	1.47	0.00	0.00	18.44	24.32	4.24	0.91	11.918	0.031
12/31/1972	0.38	0.00	0.00	18.83	24.33	4.24	1.49	46.715	0.050
1/31/1973				13.92	24.33	4.24	1.92		0.065
2/28/1973				0.49	24.33	4.24	1.94		0.065
3/31/1973	1.37	3.57	2.61	6.43	24.37	4.35	2.14	1.282	0.071
4/30/1973	2.58	11.83	4.59	11.83	24.45	4.70	2.49	0.814	0.082
5/31/1973	1.46	10.75	7.35	10.75	24.49	5.04	2.83	0.875	0.092

Date	Oil Rate (CD) m3/d	Water Rate (CD) m3/d	Water Oil Ratio m3/m3	Water Inj Rate (CD) m3/d	Cum Oil Prod Km3	Cum Water Prod Km3	Cum Water Inj Km3	VRR	Cum VRR
6/30/1973	2.08	12.00	5.78	33.67	24.56	5.40	3.84	2.374	0.123
7/31/1973	1.84	1.43	0.78	20.06	24.61	5.44	4.46	5.984	0.142
8/31/1973	1.75	0.10	0.06	20.59	24.67	5.44	5.10	10.671	0.163
9/30/1973	1.73	0.08	0.05	17.68	24.72	5.44	5.63	9.305	0.179
10/31/1973	1.57	0.00	0.00	15.29	24.77	5.44	6.10	9.249	0.194
11/30/1973	1.34	0.00	0.00	14.58	24.81	5.44	6.54	10.388	0.208
12/31/1973				14.47	24.81	5.44	6.99		0.222
3/31/1974				20.81	24.81	5.44	7.63		0.242
4/30/1974				27.22	24.81	5.44	8.45		0.268
5/31/1974				19.64	24.81	5.44	9.06		0.288
6/30/1974	3.73	0.00	0.00	19.15	24.92	5.44	9.63	4.893	0.305
7/31/1974	2.16	0.00	0.00	17.19	24.99	5.44	10.16	7.562	0.321
8/31/1974	2.41	0.00	0.00	16.93	25.06	5.44	10.69	6.681	0.337
9/30/1974	1.99	0.00	0.00	13.06	25.12	5.44	11.08	6.241	0.348
10/31/1974	1.80	0.00	0.00	1.94	25.18	5.44	11.14	1.026	0.349
11/30/1974	1.10	0.00	0.00		25.21	5.44	11.14	0.000	0.349
5/31/1975	2.09	0.00	0.00		25.28	5.44	11.14	0.000	0.348
6/30/1975	2.88	0.00	0.00		25.36	5.44	11.14	0.000	0.347
7/31/1975	2.41	0.00	0.00		25.44	5.44	11.14	0.000	0.346
8/31/1975	2.24	0.00	0.00		25.51	5.44	11.14	0.000	0.346
9/30/1975	2.10	0.00	0.00		25.57	5.44	11.14	0.000	0.345
10/31/1975	1.73	0.00	0.00		25.62	5.44	11.14	0.000	0.344
11/30/1975	1.91	0.00	0.00		25.68	5.44	11.14	0.000	0.344
12/31/1975	1.30	0.00	0.00		25.72	5.44	11.14	0.000	0.343
1/31/1976	0.26	0.00	0.00		25.73	5.44	11.14	0.000	0.343
5/31/1976	2.09	0.00	0.00		25.79	5.44	11.14	0.000	0.342
6/30/1976	2.12	0.00	0.00		25.86	5.44	11.14	0.000	0.342
7/31/1976	2.37	0.00	0.00		25.93	5.44	11.14	0.000	0.341
8/31/1976	2.01	0.00	0.00		25.99	5.44	11.14	0.000	0.340
9/30/1976	1.86	0.00	0.00		26.05	5.44	11.14	0.000	0.340
10/31/1976	1.83	0.00	0.00		26.10	5.44	11.14	0.000	0.339
11/30/1976	1.85	0.00	0.00		26.16	5.44	11.14	0.000	0.338
12/31/1976	0.16	0.00	0.00		26.16	5.44	11.14	0.000	0.338
2/28/1977	1.78	0.00	0.00		26.21	5.44	11.14	0.000	0.338
3/31/1977	2.41	0.00	0.00		26.29	5.44	11.14	0.000	0.337
4/30/1977	1.90	0.00	0.00		26.35	5.44	11.14	0.000	0.336
5/31/1977	1.90	0.00	0.00		26.41	5.44	11.14	0.000	0.336
6/30/1977	1.68	0.00	0.00		26.46	5.44	11.14	0.000	0.335
7/31/1977	1.67	0.00	0.00		26.51	5.44	11.14	0.000	0.335
8/31/1977	1.69	0.00	0.00		26.56	5.44	11.14	0.000	0.334
9/30/1977	1.20	0.00	0.00		26.60	5.44	11.14	0.000	0.334
10/31/1977	0.12	0.00	0.00		26.60	5.44	11.14	0.000	0.334
11/30/1977	1.95	0.00	0.00		26.66	5.44	11.14	0.000	0.333
12/31/1977	0.33	0.00	0.00		26.67	5.44	11.14	0.000	0.333
3/31/1978	0.85	0.00	0.00		26.69	5.44	11.14	0.000	0.333
4/30/1978	2.83	0.00	0.00		26.78	5.44	11.14	0.000	0.332

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5/31/1978	1.79	0.00	0.00		26.84	5.44	11.14	0.000	0.331
6/30/1978	1.62	1.09	0.67		26.88	5.48	11.14	0.000	0.331
7/31/1978	2.36	0.35	0.15		26.96	5.49	11.14	0.000	0.330
8/31/1978	2.04	0.19	0.09		27.02	5.49	11.14	0.000	0.329
9/30/1978	2.00	0.32	0.16	55.89	27.08	5.50	12.82	23.092	0.378
10/31/1978	1.78	0.14	0.08	99.14	27.14	5.51	15.89	49.202	0.467
11/30/1978	1.91	0.11	0.06		27.19	5.51	15.89	0.000	0.466
12/31/1978	1.67	0.13	0.08	44.62	27.25	5.52	17.27	23.733	0.506
1/31/1979	0.52	0.00	0.00	18.90	27.26	5.52	17.86	34.664	0.523
2/28/1979	1.64	0.00	0.00	2.12	27.31	5.52	17.92	1.230	0.524
3/31/1979	1.58	0.06	0.04	5.12	27.36	5.52	18.08	2.981	0.528
4/30/1979	1.90	0.12	0.06	12.98	27.41	5.52	18.47	6.135	0.538
5/31/1979	1.80	0.05	0.03	44.14	27.47	5.52	19.84	22.807	0.577
6/30/1979	1.70	0.03	0.02	67.71	27.52	5.52	21.87	37.447	0.635
7/31/1979	1.76	0.10	0.05	37.60	27.57	5.53	23.03	19.285	0.668
8/31/1979	1.66	0.02	0.01	12.47	27.63	5.53	23.42	7.096	0.678
9/30/1979	1.64	0.03	0.02		27.68	5.53	23.42	0.000	0.677
10/31/1979	1.63	0.05	0.03		27.73	5.53	23.42	0.000	0.676
11/30/1979	1.78	0.00	0.00		27.78	5.53	23.42	0.000	0.675
12/31/1979	1.63	0.00	0.00		27.83	5.53	23.42	0.000	0.674
1/31/1980	1.36	0.00	0.00		27.87	5.53	23.42	0.000	0.673
2/29/1980	1.49	0.00	0.00	22.09	27.91	5.53	24.06	14.090	0.691
3/31/1980	1.50	0.09	0.06	14.05	27.96	5.53	24.49	8.437	0.702
4/30/1980	1.09	0.00	0.00	7.16	27.99	5.53	24.71	6.259	0.707
5/31/1980	1.24	0.00	0.00	6.39	28.03	5.53	24.91	4.903	0.712
6/30/1980	1.64	0.00	0.00	2.37	28.08	5.53	24.98	1.374	0.713
7/31/1980	1.28	0.00	0.00		28.12	5.53	24.98	0.000	0.712
8/31/1980	1.39	0.00	0.00		28.16	5.53	24.98	0.000	0.712
9/30/1980	1.34	0.00	0.00		28.20	5.53	24.98	0.000	0.711
10/31/1980	1.37	0.00	0.00		28.25	5.53	24.98	0.000	0.710
11/30/1980	1.04	0.00	0.00		28.28	5.53	24.98	0.000	0.709
12/31/1980	1.48	0.00	0.00		28.32	5.53	24.98	0.000	0.708
1/31/1981	1.47	0.00	0.00		28.37	5.53	24.98	0.000	0.707
2/28/1981	1.25	0.00	0.00		28.41	5.53	24.98	0.000	0.706
3/31/1981	1.51	0.00	0.00		28.45	5.53	24.98	0.000	0.705
4/30/1981	1.30	0.00	0.00		28.49	5.53	24.98	0.000	0.705
5/31/1981	1.30	0.00	0.00		28.53	5.53	24.98	0.000	0.704
6/30/1981	1.31	0.00	0.00		28.57	5.53	24.98	0.000	0.703
7/31/1981	1.13	0.00	0.00		28.61	5.53	24.98	0.000	0.702
8/31/1981	1.38	0.00	0.00		28.65	5.53	24.98	0.000	0.701
9/30/1981	1.54	0.00	0.00		28.69	5.53	24.98	0.000	0.700
10/31/1981	1.45	0.00	0.00		28.74	5.53	24.98	0.000	0.700
11/30/1981	1.40	0.00	0.00		28.78	5.53	24.98	0.000	0.699
12/31/1981	1.35	0.00	0.00		28.82	5.53	24.98	0.000	0.698
1/31/1982	1.55	0.00	0.00		28.87	5.53	24.98	0.000	0.697
2/28/1982	1.34	0.00	0.00		28.91	5.53	24.98	0.000	0.696

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3/31/1982	1.49	0.00	0.00		28.95	5.53	24.98	0.000	0.695
4/30/1982	1.44	0.00	0.00		29.00	5.53	24.98	0.000	0.694
5/31/1982	1.14	0.00	0.00		29.03	5.53	24.98	0.000	0.694
6/30/1982	1.51	0.00	0.00		29.08	5.53	24.98	0.000	0.693
7/31/1982	1.38	0.00	0.00		29.12	5.53	24.98	0.000	0.692
8/31/1982	1.45	0.00	0.00		29.17	5.53	24.98	0.000	0.691
9/30/1982	1.35	0.00	0.00		29.21	5.53	24.98	0.000	0.690
10/31/1982	1.37	0.00	0.00		29.25	5.53	24.98	0.000	0.689
11/30/1982	1.37	0.00	0.00		29.29	5.53	24.98	0.000	0.688
12/31/1982	1.37	0.00	0.00		29.33	5.53	24.98	0.000	0.688
1/31/1983	1.42	0.00	0.00		29.38	5.53	24.98	0.000	0.687
2/28/1983	1.36	0.00	0.00		29.42	5.53	24.98	0.000	0.686
3/31/1983	1.42	0.00	0.00		29.46	5.53	24.98	0.000	0.685
4/30/1983	1.36	0.00	0.00		29.50	5.53	24.98	0.000	0.684
5/31/1983	1.37	0.00	0.00		29.54	5.53	24.98	0.000	0.683
6/30/1983	1.39	0.00	0.00		29.58	5.53	24.98	0.000	0.683
7/31/1983	1.35	0.00	0.00		29.63	5.53	24.98	0.000	0.682
8/31/1983	1.37	0.00	0.00		29.67	5.53	24.98	0.000	0.681
9/30/1983	1.34	0.00	0.00		29.71	5.53	24.98	0.000	0.680
10/31/1983	1.32	0.00	0.00		29.75	5.53	24.98	0.000	0.679
11/30/1983	1.33	0.00	0.00		29.79	5.53	24.98	0.000	0.679
12/31/1983	1.37	0.00	0.00		29.83	5.53	24.98	0.000	0.678
1/31/1984	1.37	0.00	0.00		29.87	5.53	24.98	0.000	0.677
2/29/1984	1.38	0.00	0.00		29.91	5.53	24.98	0.000	0.676
3/31/1984	1.36	0.00	0.00		29.96	5.53	24.98	0.000	0.675
4/30/1984	1.31	0.00	0.00		30.00	5.53	24.98	0.000	0.675
5/31/1984	1.43	0.00	0.00		30.04	5.53	24.98	0.000	0.674
6/30/1984	1.36	0.00	0.00		30.08	5.53	24.98	0.000	0.673
7/31/1984	1.34	0.00	0.00		30.12	5.53	24.98	0.000	0.672
8/31/1984	1.31	0.00	0.00		30.16	5.53	24.98	0.000	0.671
9/30/1984	1.32	0.00	0.00		30.20	5.53	24.98	0.000	0.671
10/31/1984	1.37	0.00	0.00		30.25	5.53	24.98	0.000	0.670
11/30/1984	1.33	0.00	0.00		30.29	5.53	24.98	0.000	0.669
12/31/1984	1.56	0.33	0.21		30.33	5.54	24.98	0.000	0.668
1/31/1985	1.51	0.87	0.58		30.38	5.57	24.98	0.000	0.667
2/28/1985	1.31	0.00	0.00		30.42	5.57	24.98	0.000	0.666
3/31/1985	1.48	0.46	0.31		30.46	5.58	24.98	0.000	0.665
4/30/1985	1.49	0.76	0.51		30.51	5.61	24.98	0.000	0.664
5/31/1985	1.32	0.00	0.00		30.55	5.61	24.98	0.000	0.663
6/30/1985	1.23	3.79	3.08		30.59	5.72	24.98	0.000	0.660
7/31/1985	1.32	0.00	0.00		30.63	5.72	24.98	0.000	0.659
8/31/1985	0.97	0.00	0.00		30.66	5.72	24.98	0.000	0.659
9/30/1985	1.35	0.00	0.00		30.70	5.72	24.98	0.000	0.658
10/31/1985	1.06	0.00	0.00		30.73	5.72	24.98	0.000	0.658
11/30/1985	0.89	0.03	0.03		30.76	5.72	24.98	0.000	0.657
12/31/1985	0.99	0.03	0.03		30.79	5.72	24.98	0.000	0.657

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1/31/1986	1.01	0.03	0.03		30.82	5.72	24.98	0.000	0.656
2/28/1986	1.20	0.03	0.02		30.85	5.72	24.98	0.000	0.655
3/31/1986	1.34	0.05	0.04		30.89	5.72	24.98	0.000	0.655
4/30/1986	1.32	0.06	0.05		30.93	5.73	24.98	0.000	0.654
5/31/1986	1.27	0.03	0.03		30.97	5.73	24.98	0.000	0.653
6/30/1986	1.43	0.03	0.02		31.01	5.73	24.98	0.000	0.652
7/31/1986	1.25	0.06	0.05		31.05	5.73	24.98	0.000	0.652
8/31/1986	1.33	0.06	0.04		31.09	5.73	24.98	0.000	0.651
9/30/1986	1.34	0.06	0.04		31.14	5.73	24.98	0.000	0.650
10/31/1986	1.34	0.06	0.04		31.18	5.74	24.98	0.000	0.649
11/30/1986	1.34	0.07	0.05		31.22	5.74	24.98	0.000	0.649
12/31/1986	1.35	0.06	0.04		31.26	5.74	24.98	0.000	0.648
1/31/1987	1.34	0.06	0.04		31.30	5.74	24.98	0.000	0.647
2/28/1987	1.35	0.06	0.04		31.34	5.74	24.98	0.000	0.646
3/31/1987	1.34	0.06	0.04		31.38	5.74	24.98	0.000	0.646
4/30/1987	1.34	0.06	0.04		31.42	5.75	24.98	0.000	0.645
5/31/1987	1.29	0.06	0.04		31.46	5.75	24.98	0.000	0.644
6/30/1987	1.29	0.06	0.05		31.50	5.75	24.98	0.000	0.643
7/31/1987	1.31	0.06	0.04		31.54	5.75	24.98	0.000	0.643
8/31/1987	1.34	0.06	0.04		31.58	5.75	24.98	0.000	0.642
9/30/1987	1.36	0.07	0.05		31.62	5.76	24.98	0.000	0.641
10/31/1987	1.17	0.05	0.04		31.66	5.76	24.98	0.000	0.641
11/30/1987	1.31	0.03	0.03		31.70	5.76	24.98	0.000	0.640
12/31/1987	1.27	0.03	0.03		31.74	5.76	24.98	0.000	0.639
1/31/1988	1.25	0.04	0.03		31.78	5.76	24.98	0.000	0.638
2/29/1988	0.70	0.02	0.03		31.80	5.76	24.98	0.000	0.638
3/31/1988	0.91	0.02	0.02		31.82	5.76	24.98	0.000	0.638
4/30/1988	0.87	0.02	0.02		31.85	5.76	24.98	0.000	0.637
5/31/1988	1.22	0.03	0.03		31.89	5.76	24.98	0.000	0.636
6/30/1988	1.15	0.03	0.03		31.92	5.76	24.98	0.000	0.636
7/31/1988	1.29	0.03	0.02		31.96	5.77	24.98	0.000	0.635
8/31/1988	1.23	0.04	0.03		32.00	5.77	24.98	0.000	0.635
9/30/1988	1.28	0.08	0.06		32.04	5.77	24.98	0.000	0.634
10/31/1988	1.26	0.08	0.07		32.08	5.77	24.98	0.000	0.633
11/30/1988	1.33	0.08	0.06		32.12	5.77	24.98	0.000	0.632
12/31/1988	1.21	0.08	0.07		32.16	5.78	24.98	0.000	0.632
1/31/1989	1.17	0.08	0.07		32.19	5.78	24.98	0.000	0.631
2/28/1989	1.14	0.08	0.07		32.22	5.78	24.98	0.000	0.631
3/31/1989	0.50	0.04	0.08		32.24	5.78	24.98	0.000	0.630
4/30/1989	0.41	0.04	0.09		32.25	5.78	24.98	0.000	0.630
5/31/1989	1.35	0.10	0.08		32.29	5.79	24.98	0.000	0.629
6/30/1989	1.43	0.11	0.08		32.34	5.79	24.98	0.000	0.629
7/31/1989	1.31	0.10	0.07		32.38	5.79	24.98	0.000	0.628
8/31/1989	1.13	0.06	0.06		32.41	5.79	24.98	0.000	0.627
9/30/1989	1.09	0.07	0.07		32.44	5.80	24.98	0.000	0.627
10/31/1989	1.01	0.12	0.12		32.48	5.80	24.98	0.000	0.626

Date	Oil Rate (CD) m3/d	Water Rate (CD) m3/d	Water Oil Ratio m3/m3	Water Inj Rate (CD) m3/d	Cum Oil Prod Km3	Cum Water Prod Km3	Cum Water Inj Km3	VRR	Cum VRR
11/30/1989	1.04	0.06	0.06		32.51	5.80	24.98	0.000	0.625
12/31/1989	1.13	0.07	0.07		32.54	5.80	24.98	0.000	0.625
1/31/1990	0.99	0.07	0.08		32.57	5.81	24.98	0.000	0.624
2/28/1990	1.18	0.08	0.07		32.61	5.81	24.98	0.000	0.624
3/31/1990	1.40	0.05	0.04		32.65	5.81	24.98	0.000	0.623
4/30/1990	1.21	0.13	0.11		32.69	5.82	24.98	0.000	0.622
5/31/1990	1.16	0.13	0.11		32.72	5.82	24.98	0.000	0.622
6/30/1990	1.26	4.33	3.45		32.76	5.95	24.98	0.000	0.619
7/31/1990	1.36	0.07	0.05		32.80	5.95	24.98	0.000	0.618
8/31/1990	1.28	0.07	0.06		32.84	5.95	24.98	0.000	0.618
9/30/1990	1.21	0.09	0.08		32.88	5.96	24.98	0.000	0.617
10/31/1990	1.16	0.08	0.07		32.91	5.96	24.98	0.000	0.616
11/30/1990	1.13	0.05	0.05		32.95	5.96	24.98	0.000	0.616
12/31/1990	1.15	0.08	0.07		32.98	5.96	24.98	0.000	0.615
1/31/1991	1.27	0.07	0.05		33.02	5.96	24.98	0.000	0.615
2/28/1991	1.24	0.13	0.10		33.06	5.97	24.98	0.000	0.614
3/31/1991	1.23	0.08	0.06		33.09	5.97	24.98	0.000	0.613
4/30/1991	1.20	0.12	0.10		33.13	5.97	24.98	0.000	0.613
5/31/1991	1.20	0.07	0.06		33.17	5.98	24.98	0.000	0.612
6/30/1991	1.30	0.03	0.03		33.21	5.98	24.98	0.000	0.612
7/31/1991	1.25	0.05	0.04		33.25	5.98	24.98	0.000	0.611
8/31/1991	0.99	0.08	0.08		33.28	5.98	24.98	0.000	0.610
9/30/1991	1.27	0.06	0.05		33.31	5.98	24.98	0.000	0.610
10/31/1991	1.20	0.05	0.04		33.35	5.99	24.98	0.000	0.609
11/30/1991	1.28	0.09	0.07		33.39	5.99	24.98	0.000	0.609
12/31/1991	1.25	0.07	0.06		33.43	5.99	24.98	0.000	0.608
1/31/1992	1.24	0.33	0.26		33.47	6.00	24.98	0.000	0.607
2/29/1992	1.15	0.09	0.08		33.50	6.00	24.98	0.000	0.607
3/31/1992	1.25	0.08	0.06		33.54	6.01	24.98	0.000	0.606
4/30/1992	1.30	0.08	0.06		33.58	6.01	24.98	0.000	0.605
5/31/1992	1.27	0.08	0.06		33.62	6.01	24.98	0.000	0.605
6/30/1992	1.27	0.08	0.06		33.66	6.01	24.98	0.000	0.604
7/31/1992	1.39	0.05	0.04		33.70	6.01	24.98	0.000	0.603
8/31/1992	1.18	0.07	0.06		33.74	6.02	24.98	0.000	0.603
9/30/1992	1.21	0.08	0.07		33.77	6.02	24.98	0.000	0.602
10/31/1992	1.18	0.08	0.07		33.81	6.02	24.98	0.000	0.602
11/30/1992	1.06	0.10	0.10		33.84	6.02	24.98	0.000	0.601
12/31/1992	1.25	0.04	0.03		33.88	6.03	24.98	0.000	0.600
1/31/1993	0.91	0.03	0.04		33.91	6.03	24.98	0.000	0.600
2/28/1993	1.23	0.06	0.05		33.94	6.03	24.98	0.000	0.599
3/31/1993	1.13	0.15	0.13		33.98	6.03	24.98	0.000	0.599
4/30/1993	1.27	0.05	0.04		34.01	6.03	24.98	0.000	0.598
5/31/1993	1.23	0.08	0.07		34.05	6.04	24.98	0.000	0.598
6/30/1993	1.23	0.08	0.06		34.09	6.04	24.98	0.000	0.597
7/31/1993	1.15	0.08	0.07		34.13	6.04	24.98	0.000	0.597
8/31/1993	1.22	0.07	0.06		34.16	6.04	24.98	0.000	0.596

Date	Oil Rate (CD) m3/d	Water Rate (CD) m3/d	Water Oil Ratio m3/m3	Water Inj Rate (CD) m3/d	Cum Oil Prod Km3	Cum Water Prod Km3	Cum Water Inj Km3	VRR	Cum VRR
9/30/1993	1.21	0.01	0.01		34.20	6.04	24.98	0.000	0.595
10/31/1993	1.18	0.02	0.02		34.24	6.04	24.98	0.000	0.595
11/30/1993	1.16	0.03	0.02		34.27	6.05	24.98	0.000	0.594
12/31/1993	0.98	0.01	0.01		34.30	6.05	24.98	0.000	0.594
1/31/1994	0.72	0.01	0.02		34.32	6.05	24.98	0.000	0.594
2/28/1994	1.05	0.00	0.00		34.35	6.05	24.98	0.000	0.593
3/31/1994	0.94	0.01	0.01		34.38	6.05	24.98	0.000	0.593
4/30/1994	0.61	0.01	0.01		34.40	6.05	24.98	0.000	0.592
5/31/1994	1.03	0.06	0.06		34.43	6.05	24.98	0.000	0.592
6/30/1994	1.64	0.02	0.01		34.48	6.05	24.98	0.000	0.591
7/31/1994	1.23	0.02	0.01		34.52	6.05	24.98	0.000	0.591
8/31/1994	1.23	0.04	0.03		34.56	6.05	24.98	0.000	0.590
9/30/1994	1.16	0.00	0.00		34.59	6.05	24.98	0.000	0.589
10/31/1994	1.24	0.00	0.00		34.63	6.05	24.98	0.000	0.589
11/30/1994	1.15	0.00	0.00		34.67	6.05	24.98	0.000	0.588
12/31/1994	0.94	0.01	0.01		34.70	6.05	24.98	0.000	0.588
1/31/1995	0.87	0.04	0.05		34.72	6.05	24.98	0.000	0.588
2/28/1995	0.90	0.02	0.02		34.75	6.05	24.98	0.000	0.587
3/31/1995	0.89	0.03	0.04		34.77	6.05	24.98	0.000	0.587
4/30/1995	1.25	0.08	0.06		34.81	6.06	24.98	0.000	0.586
5/31/1995	1.31	0.02	0.02		34.85	6.06	24.98	0.000	0.586
6/30/1995	1.33	0.02	0.02		34.89	6.06	24.98	0.000	0.585
7/31/1995	1.22	0.02	0.02		34.93	6.06	24.98	0.000	0.584
8/31/1995	1.32	0.02	0.01		34.97	6.06	24.98	0.000	0.584
9/30/1995	1.18	0.05	0.05		35.01	6.06	24.98	0.000	0.583
10/31/1995	1.12	0.05	0.04		35.04	6.06	24.98	0.000	0.583
11/30/1995	0.89	0.06	0.06		35.07	6.06	24.98	0.000	0.582
12/31/1995	1.05	0.06	0.06		35.10	6.07	24.98	0.000	0.582
1/31/1996	0.98	0.05	0.05		35.13	6.07	24.98	0.000	0.581
2/29/1996	0.93	0.05	0.06		35.16	6.07	24.98	0.000	0.581
3/31/1996	0.99	0.04	0.04		35.19	6.07	24.98	0.000	0.581
4/30/1996	0.92	0.05	0.05		35.22	6.07	24.98	0.000	0.580
5/31/1996	0.63	0.04	0.06		35.24	6.07	24.98	0.000	0.580
6/30/1996	0.69	0.05	0.07		35.26	6.07	24.98	0.000	0.580
7/31/1996	1.08	0.04	0.04		35.29	6.08	24.98	0.000	0.579
8/31/1996	1.06	0.06	0.05		35.32	6.08	24.98	0.000	0.579
9/30/1996	1.21	0.08	0.06		35.36	6.08	24.98	0.000	0.578
10/31/1996	1.23	0.09	0.07		35.40	6.08	24.98	0.000	0.578
11/30/1996	1.22	0.08	0.07		35.43	6.08	24.98	0.000	0.577
12/31/1996	1.13	0.12	0.10		35.47	6.09	24.98	0.000	0.576
1/31/1997	1.34	0.09	0.07		35.51	6.09	24.98	0.000	0.576
2/28/1997	1.21	0.12	0.10		35.54	6.09	24.98	0.000	0.575
3/31/1997	0.97	0.14	0.15		35.57	6.10	24.98	0.000	0.575
4/30/1997	0.95	0.09	0.10		35.60	6.10	24.98	0.000	0.574
5/31/1997	1.10	0.05	0.05		35.64	6.10	24.98	0.000	0.574
6/30/1997	1.15	0.06	0.05		35.67	6.11	24.98	0.000	0.573

Date	Oil Rate (CD) m3/d	Water Rate (CD) m3/d	Water Oil Ratio m3/m3	Water Inj Rate (CD) m3/d	Cum Oil Prod Km3	Cum Water Prod Km3	Cum Water Inj Km3	VRR	Cum VRR
7/31/1997	1.02	0.06	0.06		35.70	6.11	24.98	0.000	0.573
8/31/1997	1.19	0.05	0.04		35.74	6.11	24.98	0.000	0.572
9/30/1997	1.19	0.05	0.04		35.78	6.11	24.98	0.000	0.572
10/31/1997	1.02	0.06	0.06		35.81	6.11	24.98	0.000	0.571
11/30/1997	1.05	0.08	0.08		35.84	6.11	24.98	0.000	0.571
12/31/1997	0.88	0.05	0.05		35.87	6.12	24.98	0.000	0.571
1/31/1998	0.85	0.06	0.07		35.89	6.12	24.98	0.000	0.570
2/28/1998	0.83	0.05	0.06		35.92	6.12	24.98	0.000	0.570
3/31/1998	0.85	0.04	0.04		35.94	6.12	24.98	0.000	0.570
4/30/1998	0.92	0.06	0.07		35.97	6.12	24.98	0.000	0.569
5/31/1998	0.90	0.05	0.06		36.00	6.12	24.98	0.000	0.569
6/30/1998	1.32	0.08	0.06		36.04	6.13	24.98	0.000	0.568
7/31/1998	1.38	0.09	0.07		36.08	6.13	24.98	0.000	0.568
8/31/1998	1.25	0.06	0.05		36.12	6.13	24.98	0.000	0.567
9/30/1998	1.21	0.07	0.06		36.16	6.13	24.98	0.000	0.566
10/31/1998	1.20	0.08	0.07		36.19	6.14	24.98	0.000	0.566
11/30/1998	1.17	0.08	0.07		36.23	6.14	24.98	0.000	0.565
12/31/1998	0.83	0.04	0.05		36.25	6.14	24.98	0.000	0.565
1/31/1999	0.88	0.07	0.08		36.28	6.14	24.98	0.000	0.565
2/28/1999	0.91	0.06	0.07		36.31	6.14	24.98	0.000	0.564
3/31/1999	0.87	0.05	0.06		36.33	6.14	24.98	0.000	0.564
4/30/1999	1.66	0.08	0.05		36.38	6.15	24.98	0.000	0.563
5/31/1999	1.33	0.09	0.07		36.42	6.15	24.98	0.000	0.563
6/30/1999	1.20	0.10	0.08		36.46	6.15	24.98	0.000	0.562
7/31/1999	1.29	0.09	0.07		36.50	6.16	24.98	0.000	0.562
8/31/1999	1.09	0.06	0.06		36.53	6.16	24.98	0.000	0.561
9/30/1999	1.13	0.13	0.12		36.57	6.16	24.98	0.000	0.561
10/31/1999	1.14	0.07	0.06		36.60	6.16	24.98	0.000	0.560
11/30/1999	1.08	0.10	0.10		36.64	6.17	24.98	0.000	0.560
12/31/1999	1.06	0.14	0.13		36.67	6.17	24.98	0.000	0.559
1/31/2000	1.12	0.10	0.09		36.70	6.17	24.98	0.000	0.559
2/29/2000	1.10	0.07	0.07		36.73	6.18	24.98	0.000	0.558
3/31/2000	1.00	0.05	0.05		36.77	6.18	24.98	0.000	0.558
4/30/2000	1.06	0.11	0.10		36.80	6.18	24.98	0.000	0.557
5/31/2000	0.97	0.06	0.07		36.83	6.18	24.98	0.000	0.557
6/30/2000	0.93	0.07	0.08		36.86	6.19	24.98	0.000	0.557
7/31/2000	1.09	0.09	0.08		36.89	6.19	24.98	0.000	0.556
8/31/2000	1.09	0.08	0.08		36.92	6.19	24.98	0.000	0.556
9/30/2000	0.92	0.07	0.07		36.95	6.19	24.98	0.000	0.555
10/31/2000	1.00	0.07	0.07		36.98	6.19	24.98	0.000	0.555
11/30/2000	1.11	0.10	0.09		37.02	6.20	24.98	0.000	0.554
12/31/2000	1.19	0.07	0.06		37.05	6.20	24.98	0.000	0.554
1/31/2001	1.10	0.09	0.08		37.09	6.20	24.98	0.000	0.553
2/28/2001	1.11	0.08	0.07		37.12	6.20	24.98	0.000	0.553
3/31/2001	1.12	0.07	0.06		37.15	6.21	24.98	0.000	0.552
4/30/2001	1.12	0.07	0.06		37.19	6.21	24.98	0.000	0.552

Date	Oil Rate (CD) m3/d	Water Rate (CD) m3/d	Water Oil Ratio m3/m3	Water Inj Rate (CD) m3/d	Cum Oil Prod Km3	Cum Water Prod Km3	Cum Water Inj Km3	VRR	Cum VRR
5/31/2001	0.81	0.09	0.12		37.21	6.21	24.98	0.000	0.552
6/30/2001	0.63	0.07	0.11		37.23	6.21	24.98	0.000	0.551
7/31/2001	0.69	0.06	0.08		37.25	6.22	24.98	0.000	0.551
8/31/2001	0.65	0.06	0.09		37.27	6.22	24.98	0.000	0.551
9/30/2001	0.62	0.07	0.11		37.29	6.22	24.98	0.000	0.551
10/31/2001	0.64	0.06	0.09		37.31	6.22	24.98	0.000	0.550
11/30/2001	0.76	0.05	0.07		37.33	6.22	24.98	0.000	0.550
12/31/2001	0.70	0.05	0.06		37.35	6.22	24.98	0.000	0.550
1/31/2002	0.67	0.05	0.07		37.37	6.23	24.98	0.000	0.549
2/28/2002	0.63	0.05	0.07		37.39	6.23	24.98	0.000	0.549
3/31/2002	0.61	0.04	0.07		37.41	6.23	24.98	0.000	0.549
4/30/2002	0.61	0.04	0.07		37.43	6.23	24.98	0.000	0.549
5/31/2002	0.78	0.08	0.10		37.45	6.23	24.98	0.000	0.548
6/30/2002	0.92	0.19	0.20		37.48	6.24	24.98	0.000	0.548
7/31/2002	0.94	0.11	0.12		37.51	6.24	24.98	0.000	0.547
8/31/2002	0.70	0.05	0.07		37.53	6.24	24.98	0.000	0.547
9/30/2002	0.69	0.05	0.07		37.55	6.24	24.98	0.000	0.547
10/31/2002	0.49	0.04	0.07		37.57	6.25	24.98	0.000	0.547
11/30/2002	0.67	0.05	0.08		37.59	6.25	24.98	0.000	0.546
12/31/2002	0.73	0.05	0.08		37.61	6.25	24.98	0.000	0.546
1/31/2003	0.69	0.05	0.08		37.63	6.25	24.98	0.000	0.546
2/28/2003	0.61	0.05	0.09		37.65	6.25	24.98	0.000	0.546
3/31/2003	0.63	0.05	0.08		37.67	6.25	24.98	0.000	0.545
4/30/2003	0.64	0.05	0.08		37.69	6.25	24.98	0.000	0.545
5/31/2003	0.65	0.05	0.08		37.71	6.26	24.98	0.000	0.545
6/30/2003	0.68	0.05	0.07		37.73	6.26	24.98	0.000	0.545
7/31/2003	0.65	0.05	0.08		37.75	6.26	24.98	0.000	0.544
8/31/2003	0.63	0.05	0.08		37.77	6.26	24.98	0.000	0.544
9/30/2003	0.56	0.05	0.09		37.79	6.26	24.98	0.000	0.544
10/31/2003	0.59	0.05	0.09		37.80	6.26	24.98	0.000	0.544
11/30/2003	0.61	0.06	0.09		37.82	6.27	24.98	0.000	0.543
12/31/2003	0.61	0.05	0.09		37.84	6.27	24.98	0.000	0.543
1/31/2004	0.57	0.05	0.10		37.86	6.27	24.98	0.000	0.543
2/29/2004	0.57	0.06	0.10		37.87	6.27	24.98	0.000	0.543
3/31/2004	0.55	0.05	0.09		37.89	6.27	24.98	0.000	0.542
4/30/2004	0.58	0.05	0.09		37.91	6.27	24.98	0.000	0.542
5/31/2004	0.60	0.05	0.09		37.93	6.28	24.98	0.000	0.542
6/30/2004	0.65	0.06	0.09		37.95	6.28	24.98	0.000	0.542
7/31/2004	0.62	0.05	0.08		37.97	6.28	24.98	0.000	0.541
8/31/2004	0.59	0.05	0.09		37.98	6.28	24.98	0.000	0.541
9/30/2004	0.58	0.04	0.07		38.00	6.28	24.98	0.000	0.541
10/31/2004	0.74	0.06	0.08		38.02	6.28	24.98	0.000	0.541
11/30/2004	0.72	0.05	0.07		38.05	6.29	24.98	0.000	0.540
12/31/2004	0.68	0.05	0.08		38.07	6.29	24.98	0.000	0.540
1/31/2005	0.54	0.04	0.08		38.08	6.29	24.98	0.000	0.540
2/28/2005	0.59	0.05	0.08		38.10	6.29	24.98	0.000	0.540

Date	Oil Rate (CD) m3/d	Water Rate (CD) m3/d	Water Oil Ratio m3/m3	Water Inj Rate (CD) m3/d	Cum Oil Prod Km3	Cum Water Prod Km3	Cum Water Inj Km3	VRR	Cum VRR
3/31/2005	0.56	0.04	0.07		38.12	6.29	24.98	0.000	0.539
4/30/2005	0.61	0.04	0.07		38.14	6.29	24.98	0.000	0.539
5/31/2005	0.58	0.04	0.07		38.15	6.29	24.98	0.000	0.539
6/30/2005	0.60	0.04	0.07		38.17	6.29	24.98	0.000	0.539
7/31/2005	0.60	0.04	0.07		38.19	6.30	24.98	0.000	0.538
8/31/2005	0.65	0.04	0.06		38.21	6.30	24.98	0.000	0.538
9/30/2005	0.63	0.04	0.07		38.23	6.30	24.98	0.000	0.538
10/31/2005	0.61	0.04	0.06		38.25	6.30	24.98	0.000	0.538
11/30/2005	0.63	0.04	0.06		38.27	6.30	24.98	0.000	0.537
12/31/2005	0.64	0.04	0.07		38.29	6.30	24.98	0.000	0.537
1/31/2006	0.71	0.04	0.06		38.31	6.30	24.98	0.000	0.537
2/28/2006	0.61	0.04	0.06		38.33	6.30	24.98	0.000	0.537
3/31/2006	0.57	0.04	0.07		38.34	6.31	24.98	0.000	0.536
4/30/2006	0.56	0.04	0.07		38.36	6.31	24.98	0.000	0.536
5/31/2006	0.56	0.05	0.08		38.38	6.31	24.98	0.000	0.536
6/30/2006	0.63	0.05	0.08		38.40	6.31	24.98	0.000	0.536
7/31/2006	0.58	0.05	0.08		38.41	6.31	24.98	0.000	0.535
8/31/2006	0.62	0.05	0.08		38.43	6.31	24.98	0.000	0.535
9/30/2006	0.64	0.05	0.07		38.45	6.31	24.98	0.000	0.535
10/31/2006	0.61	0.05	0.09		38.47	6.32	24.98	0.000	0.535
11/30/2006	0.67	0.05	0.07		38.49	6.32	24.98	0.000	0.534
12/31/2006	0.62	0.04	0.06		38.51	6.32	24.98	0.000	0.534
1/31/2007	0.61	0.05	0.08		38.53	6.32	24.98	0.000	0.534
2/28/2007	0.59	0.05	0.08		38.55	6.32	24.98	0.000	0.534
3/31/2007	0.59	0.04	0.06		38.57	6.32	24.98	0.000	0.534
4/30/2007	0.56	0.05	0.08		38.58	6.32	24.98	0.000	0.533
5/31/2007	0.53	0.05	0.10		38.60	6.33	24.98	0.000	0.533
6/30/2007	0.60	0.05	0.09		38.62	6.33	24.98	0.000	0.533
7/31/2007	0.53	0.07	0.13		38.63	6.33	24.98	0.000	0.533
8/31/2007	0.58	0.08	0.15		38.65	6.33	24.98	0.000	0.532
9/30/2007	0.50	0.08	0.16		38.67	6.33	24.98	0.000	0.532
10/31/2007	0.54	0.10	0.19		38.68	6.34	24.98	0.000	0.532
11/30/2007	0.56	0.10	0.18		38.70	6.34	24.98	0.000	0.532
12/31/2007	0.56	0.10	0.18		38.72	6.34	24.98	0.000	0.532
1/31/2008	0.55	0.10	0.17		38.73	6.35	24.98	0.000	0.531
2/29/2008	0.58	0.10	0.17		38.75	6.35	24.98	0.000	0.531
3/31/2008	0.58	0.10	0.17		38.77	6.35	24.98	0.000	0.531
4/30/2008	0.67	0.04	0.06		38.79	6.35	24.98	0.000	0.531
5/31/2008	0.69	0.02	0.03		38.81	6.35	24.98	0.000	0.530
6/30/2008	0.70	0.02	0.03		38.83	6.35	24.98	0.000	0.530
7/31/2008	0.65	0.02	0.03		38.85	6.36	24.98	0.000	0.530
8/31/2008	0.70	0.02	0.03		38.87	6.36	24.98	0.000	0.530
9/30/2008	0.71	0.02	0.03		38.89	6.36	24.98	0.000	0.529
10/31/2008	0.70	0.02	0.02		38.92	6.36	24.98	0.000	0.529
11/30/2008	0.72	0.02	0.03		38.94	6.36	24.98	0.000	0.529
12/31/2008	0.38	0.01	0.03		38.95	6.36	24.98	0.000	0.529

Date	Oil Rate (CD) m3/d	Water Rate (CD) m3/d	Water Oil Ratio m3/m3	Water Inj Rate (CD) m3/d	Cum Oil Prod Km3	Cum Water Prod Km3	Cum Water Inj Km3	VRR	Cum VRR
1/31/2009	0.67	0.02	0.03		38.97	6.36	24.98	0.000	0.528
2/28/2009	0.59	0.03	0.05		38.99	6.36	24.98	0.000	0.528
3/31/2009	0.76	0.10	0.13		39.01	6.36	24.98	0.000	0.528
4/30/2009	0.77	0.11	0.14		39.03	6.37	24.98	0.000	0.528
5/31/2009	0.65	0.10	0.15		39.05	6.37	24.98	0.000	0.527
7/31/2009	1.06	0.20	0.18		39.09	6.38	24.98	0.000	0.527
8/31/2009	1.15	0.21	0.18		39.12	6.38	24.98	0.000	0.526
9/30/2009	1.16	0.21	0.18		39.16	6.39	24.98	0.000	0.526
10/31/2009	1.08	0.18	0.17		39.19	6.39	24.98	0.000	0.525
11/30/2009	1.01	0.18	0.18		39.22	6.40	24.98	0.000	0.525
12/31/2009	1.06	0.18	0.17		39.25	6.40	24.98	0.000	0.525
1/31/2010	0.98	0.17	0.18		39.28	6.41	24.98	0.000	0.524
2/28/2010	1.15	0.21	0.19		39.32	6.42	24.98	0.000	0.524
3/31/2010	1.16	0.23	0.20		39.35	6.42	24.98	0.000	0.523
4/30/2010	1.11	0.28	0.25		39.39	6.43	24.98	0.000	0.523
5/31/2010	0.94	0.27	0.29		39.42	6.44	24.98	0.000	0.522
6/30/2010	0.83	0.25	0.30		39.44	6.45	24.98	0.000	0.522
7/31/2010	0.68	0.19	0.28		39.46	6.45	24.98	0.000	0.522
8/31/2010	1.17	0.29	0.25		39.50	6.46	24.98	0.000	0.521
9/30/2010	1.09	0.28	0.25		39.53	6.47	24.98	0.000	0.521
10/31/2010	1.09	0.28	0.26		39.56	6.48	24.98	0.000	0.520
11/30/2010	1.07	0.27	0.25		39.60	6.49	24.98	0.000	0.520
12/31/2010	1.08	0.34	0.31		39.63	6.50	24.98	0.000	0.519
1/31/2011	1.06	0.29	0.27		39.66	6.51	24.98	0.000	0.519
2/28/2011	1.06	0.29	0.28		39.69	6.51	24.98	0.000	0.518
3/31/2011	1.02	0.33	0.32		39.72	6.52	24.98	0.000	0.518
4/30/2011	1.04	0.30	0.29		39.76	6.53	24.98	0.000	0.517
5/31/2011	1.10	0.30	0.27		39.79	6.54	24.98	0.000	0.517
6/30/2011	1.13	0.30	0.27		39.82	6.55	24.98	0.000	0.516
7/31/2011	0.77	0.22	0.28		39.85	6.56	24.98	0.000	0.516
8/31/2011	1.11	0.28	0.25		39.88	6.57	24.98	0.000	0.516
9/30/2011	0.83	0.18	0.22		39.91	6.57	24.98	0.000	0.515
10/31/2011	0.79	0.20	0.25		39.93	6.58	24.98	0.000	0.515
11/30/2011	0.70	0.20	0.28		39.95	6.59	24.98	0.000	0.515
12/31/2011	0.70	0.20	0.29		39.97	6.59	24.98	0.000	0.514
1/31/2012	0.27	0.08	0.30		39.98	6.59	24.98	0.000	0.514
2/29/2012	0.65	0.19	0.29		40.00	6.60	24.98	0.000	0.514
3/31/2012	0.65	0.18	0.27		40.02	6.60	24.98	0.000	0.514
4/30/2012	0.58	0.08	0.14		40.04	6.61	24.98	0.000	0.513
5/31/2012	0.67	0.07	0.11		40.06	6.61	24.98	0.000	0.513
6/30/2012	0.05	0.01	0.13		40.06	6.61	24.98	0.000	0.513
7/31/2012	0.22	0.02	0.10		40.07	6.61	24.98	0.000	0.513
8/31/2012	1.03	0.07	0.07		40.10	6.61	24.98	0.000	0.513
9/30/2012	0.83	0.07	0.08		40.12	6.61	24.98	0.000	0.512
10/31/2012	1.05	0.08	0.08		40.16	6.62	24.98	0.000	0.512
11/30/2012	0.66	0.01	0.02		40.18	6.62	24.98	0.000	0.512

Date	Oil Rate (CD) m3/d	Water Rate (CD) m3/d	Water Oil Ratio m3/m3	Water Inj Rate (CD) m3/d	Cum Oil Prod Km3	Cum Water Prod Km3	Cum Water Inj Km3	VRR	Cum VRR
12/31/2012	0.64	0.01	0.02		40.20	6.62	24.98	0.000	0.512
1/31/2013	0.60	0.01	0.02		40.21	6.62	24.98	0.000	0.511
2/28/2013	0.63	0.01	0.02		40.23	6.62	24.98	0.000	0.511
3/31/2013	0.64	0.01	0.02		40.25	6.62	24.98	0.000	0.511
4/30/2013	0.65	0.01	0.02		40.27	6.62	24.98	0.000	0.511
5/31/2013	0.32	0.00	0.01		40.28	6.62	24.98	0.000	0.511
6/30/2013	0.10	0.00	0.00		40.28	6.62	24.98	0.000	0.511
7/31/2013	0.05	0.00	0.00		40.29	6.62	24.98	0.000	0.511
8/31/2013	0.09	0.00	0.00		40.29	6.62	24.98	0.000	0.511
9/30/2013	0.11	0.00	0.00		40.29	6.62	24.98	0.000	0.511
10/31/2013	0.20	0.01	0.05		40.30	6.62	24.98	0.000	0.510
11/30/2013	0.20	0.01	0.05		40.30	6.62	24.98	0.000	0.510
12/31/2013	0.21	0.01	0.05		40.31	6.62	24.98	0.000	0.510
1/31/2014	0.22	0.01	0.04		40.32	6.62	24.98	0.000	0.510
2/28/2014	0.22	0.01	0.05		40.32	6.62	24.98	0.000	0.510
3/31/2014	0.19	0.01	0.05		40.33	6.62	24.98	0.000	0.510
4/30/2014	0.21	0.01	0.05		40.34	6.62	24.98	0.000	0.510
5/31/2014	0.20	0.01	0.05		40.34	6.62	24.98	0.000	0.510
6/30/2014	0.08	0.00	0.04		40.34	6.62	24.98	0.000	0.510