

Mobil



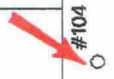
EXHIBITS

DOCKET # 11103

DOWNHOLE COMMINGLING
LEA COUNTY, NEW MEXICO

1. MAP OF AREA WITH OFFSETS
2. A. NORTH VACUUM ABO STRUCTURE MAP
B. UPPER PENN STRUCTURE MAP
C. WOLFCAMP STRUCTURE MAP
3. DATA SHEET (PRODUCTION TEST SUMMARY)
4. DATA SHEET (VALUE)
5. CURRENT WELLBORE SKETCH
6. PROPOSED WELLBORE SKETCH
7. NORTH VACUUM ABO PRODUCTION PLOT
8. VACUUM UPPER PENN PRODUCTION PLOT
9. VACUUM WOLFCAMP PRODUCTION PLOT
10. TOTAL COM MINGLED PRODUCTION PLOT
11. WELL HISTORY

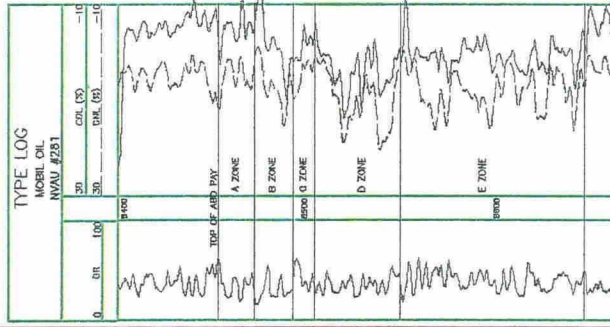
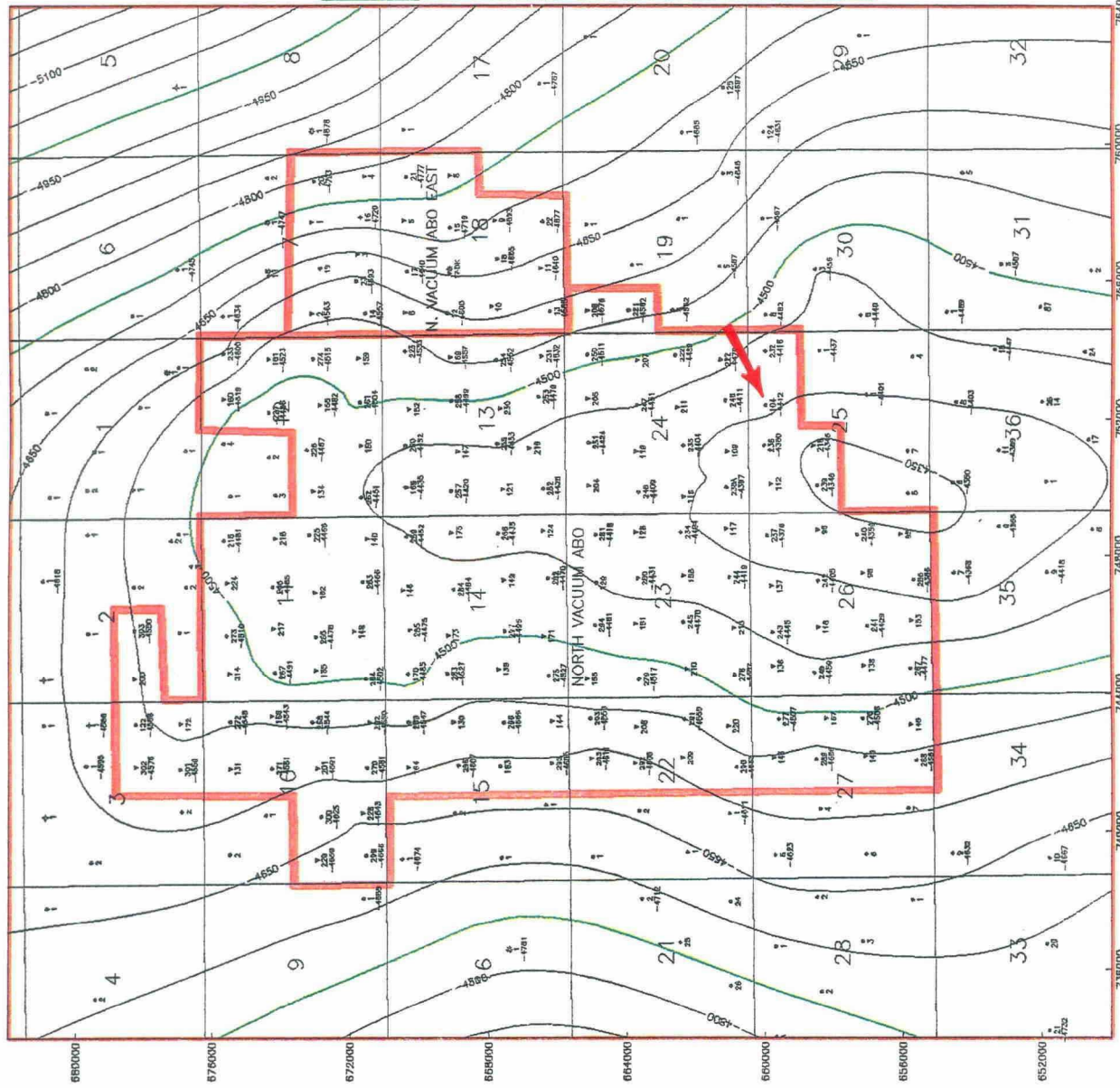
Mobil		Phillips		Mobil		Pennzoil		Phillips		Shell		Phillips		19	
		Amerado		Mobil		Mobil		-		Marathon		Arco		Shell	
Mobil		Mobil		Arco		Shell		Exxon		Marathon		Texaco		24	
		Mobil		Texaco		Shell		Texaco		Arco		Shell		25	
Mobil		Marathon		Texaco		Texaco		Mobil		Texaco		Shell		30	
		Phillips		Texaco		Texaco		Texaco		Marathon		Phillips		Shell	
Phillips		Conoco		Texaco		Texaco		Mobil		Texaco		Texaco		31	
		Texaco		Texaco		Texaco		Texaco		Texaco		Texaco		36	
Texaco		Phillips		Texaco		Texaco		Texaco		Texaco		Texaco		35	
		Texaco		Texaco		Texaco		Texaco		Texaco		Texaco		36	



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Midland

BRIDGE STATE #104
NORTH VACUUM ABO UNIT #104
VACUUM WOLF CAMP / UPPER PENN
NORTH VACUUM ABO FIELDS
TOWNSHIP 17S
RANGE 34E
SCALE 1" = 3000'

STRUCTURE MAP - TOP of ZONE A. (ASTR.PLT)



LEGEND

- Producer
- Injector
- ✱ Gas Wells
- Unit Boundary
- Polygon Area

0 2000' 4000' 8000'

0 2000' 4000' 8000'

CL = 50 FT.

8-88

EXHIBIT 2A

NORTH VACUUM ABO FIELD
Lao County, New Mexico
STRUCTURE MAP
TOP of ZONE A

Mobil Exploration & Producing U.S.
Midland Division

DATA SHEET

PRODUCTION TEST SUMMARY

Application for exception to Rule 303 (a) New Mexico Oil Conservation Commission's Rules & Regulations for downhole commingling of dually completed oil wells

1. Lease Name North Vacuum Abo Unit/Bridges State
2. Well Number 104/104
3. Well Location Unit B, 520 FNL & 2120 FEL
Sec. 25, Township 17S, Range 34E
Lea County, New Mexico
4. Upper Zone North Vacuum Abo
5. Completion Interval: 8444 to 9300
6. Lower Zone Wolfcamp/Upper Penn
7. Completion Interval: 9552 to 10116
8. Current Productivity Test Summary:

	Upper Zone <u>Abo</u>	Lower Zone <u>W/C//Penn</u>
Production Method	Pump	Pump
BOPD	60	37
MCFPD	30	50
BWPD	68	73
GOR	500	1351
GOR Limit	2000/1	2000/1

9. Fluid characteristics of Each Zone:
 - Both zones produce intermediate crude and we expect no problems in producing the commingled waters

DATA SHEET

COMPUTATION OF RELATIVE VALUES OF THE HYDROCARBON PRODUCTION BEFORE & AFTER DOWNHOLE COMMINGLING (STATEWIDE RULE 303-C-2-H)

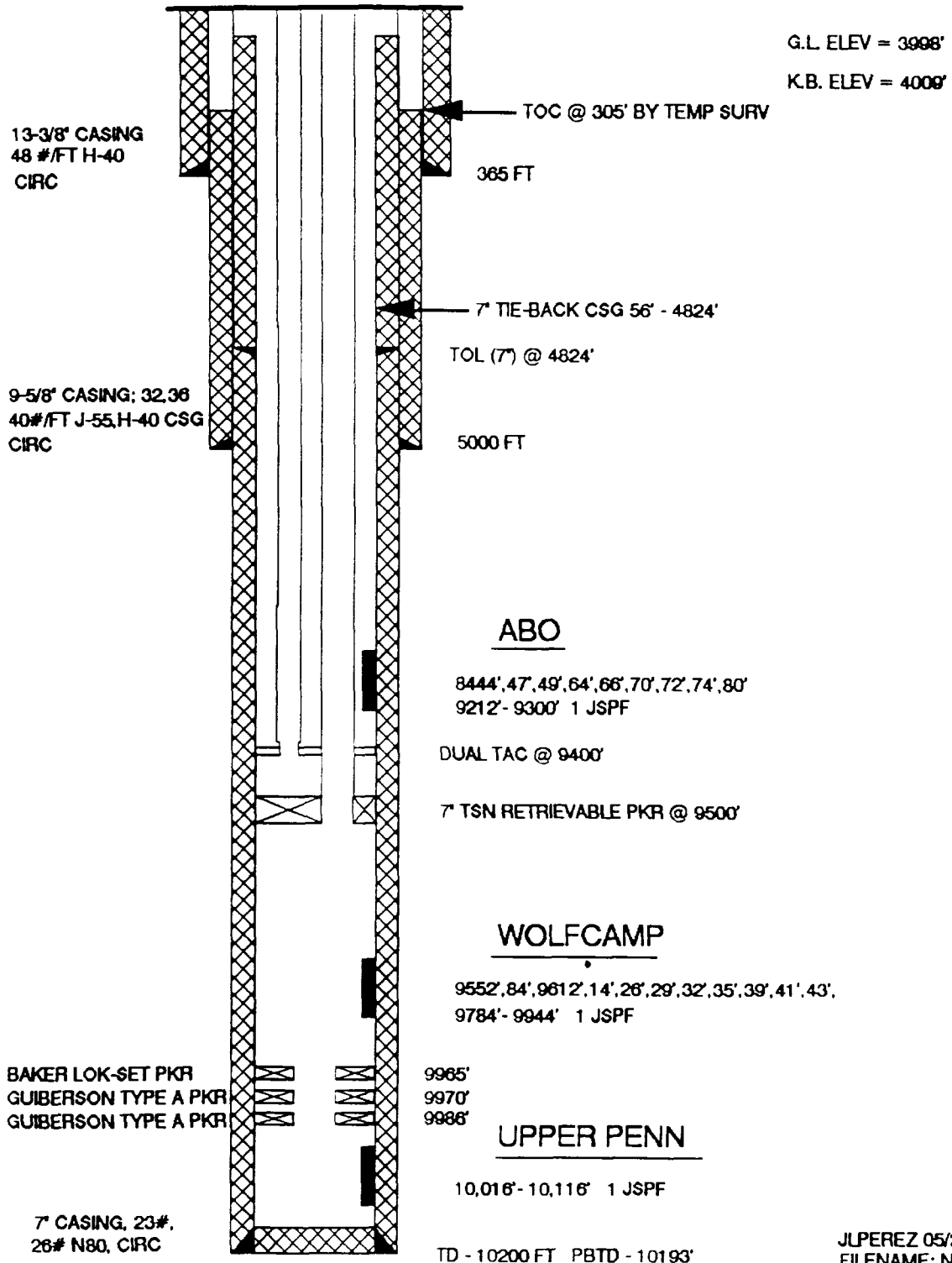
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Lease & Well Number	North Vacuum Abo Unit 104/Bridges State 104		
	<u>UPPER POOL</u> <u>ABO</u>	<u>LOWER POOL</u> <u>W/C//PENN</u>	<u>COMMINGLED</u>
Pool Name	North Vacuum	Bridges State	
Gravity, API	35.2	40.1	37.07
Selling Price/BO	16.75	16.75	16.75
Daily Production/BO	60	37	97
Daily Income	1,005.00	619.74	1,624.75
TOTAL DAILY INCOME (POOLS SEPARATED)	\$1,624.75		

Net difference from downhole commingling based upon current well tests = \$-0- /day gain

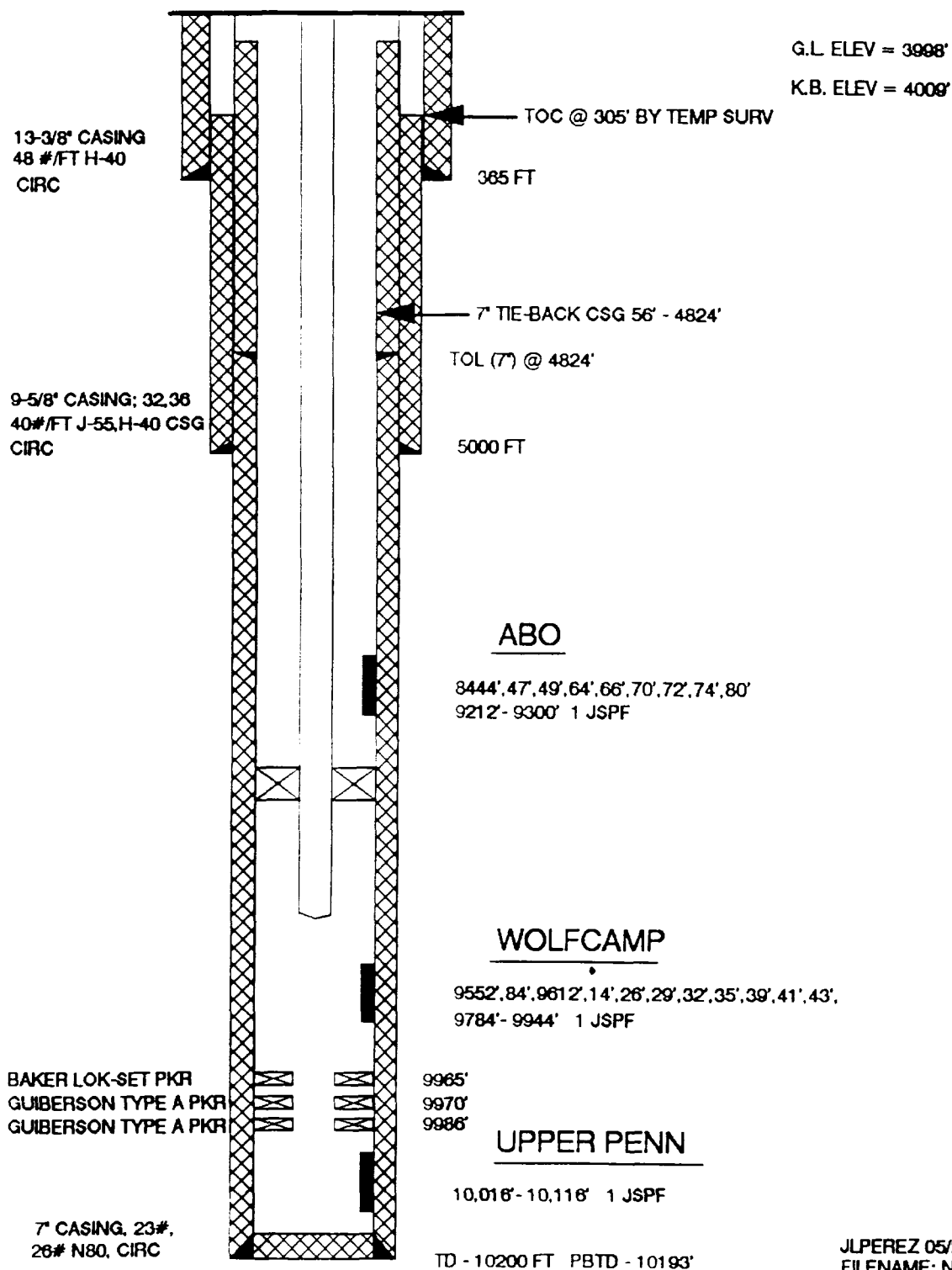
EXHIBIT #4

BRIDGES STATE/NORTH VACUUM ABO UNIT #104
VACUUM (ABO, WOLFCAMP, PENN) FIELDS
LEA COUNTY, NEW MEXICO
CURRENT COMPLETION

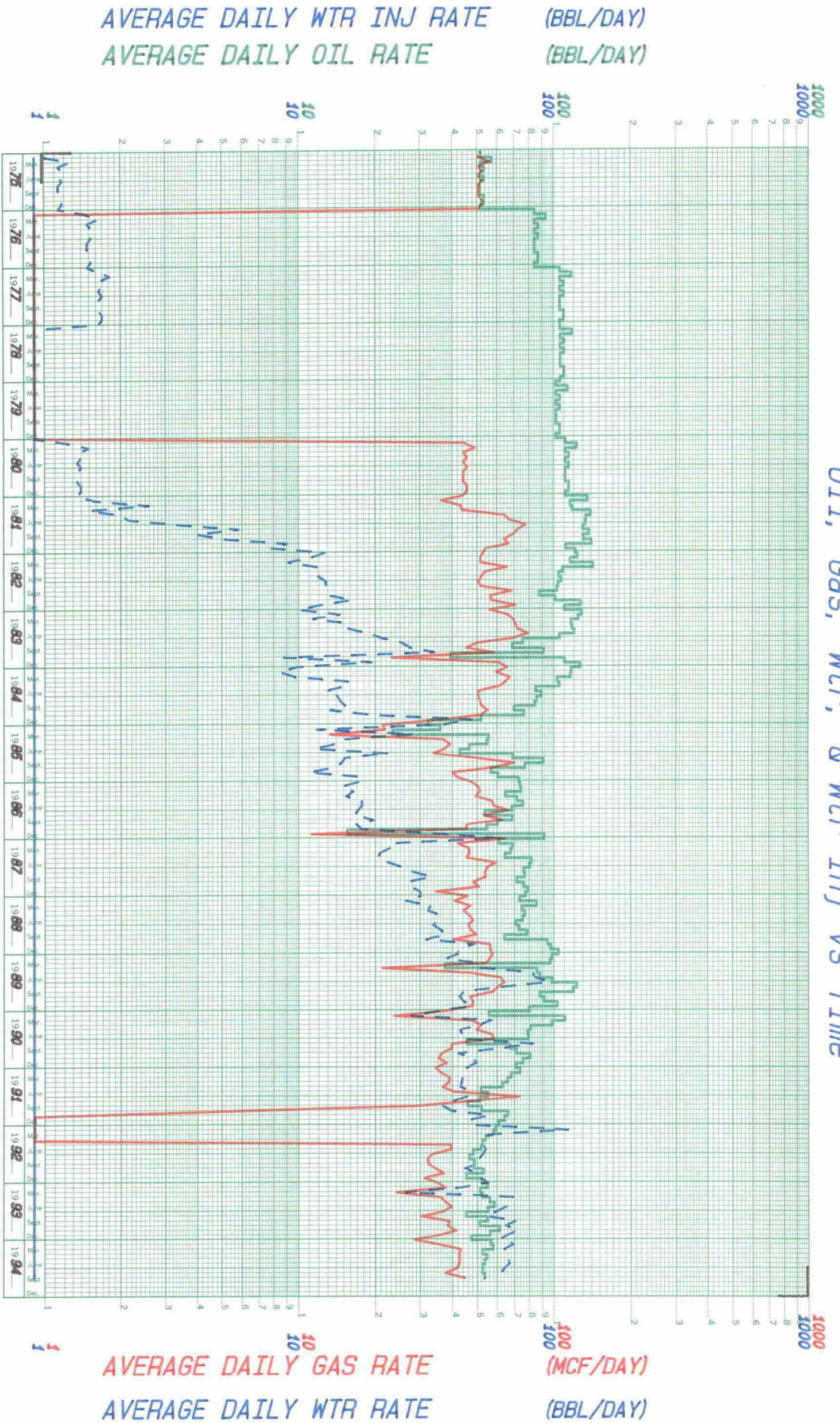


JLPEREZ 05/24/94
FILENAME: NVAU104C

BRIDGES STATE/NORTH VACUUM ABO UNIT #104
VACUUM (ABO, WOLFCAMP, PENN) FIELDS
LEA COUNTY, NEW MEXICO
PROPOSED COMPLETION



Oil, Gas, Wtr, & Wtr Inj vs Time



LEGEND

Oil
Gas
Wtr
Wtr Inj

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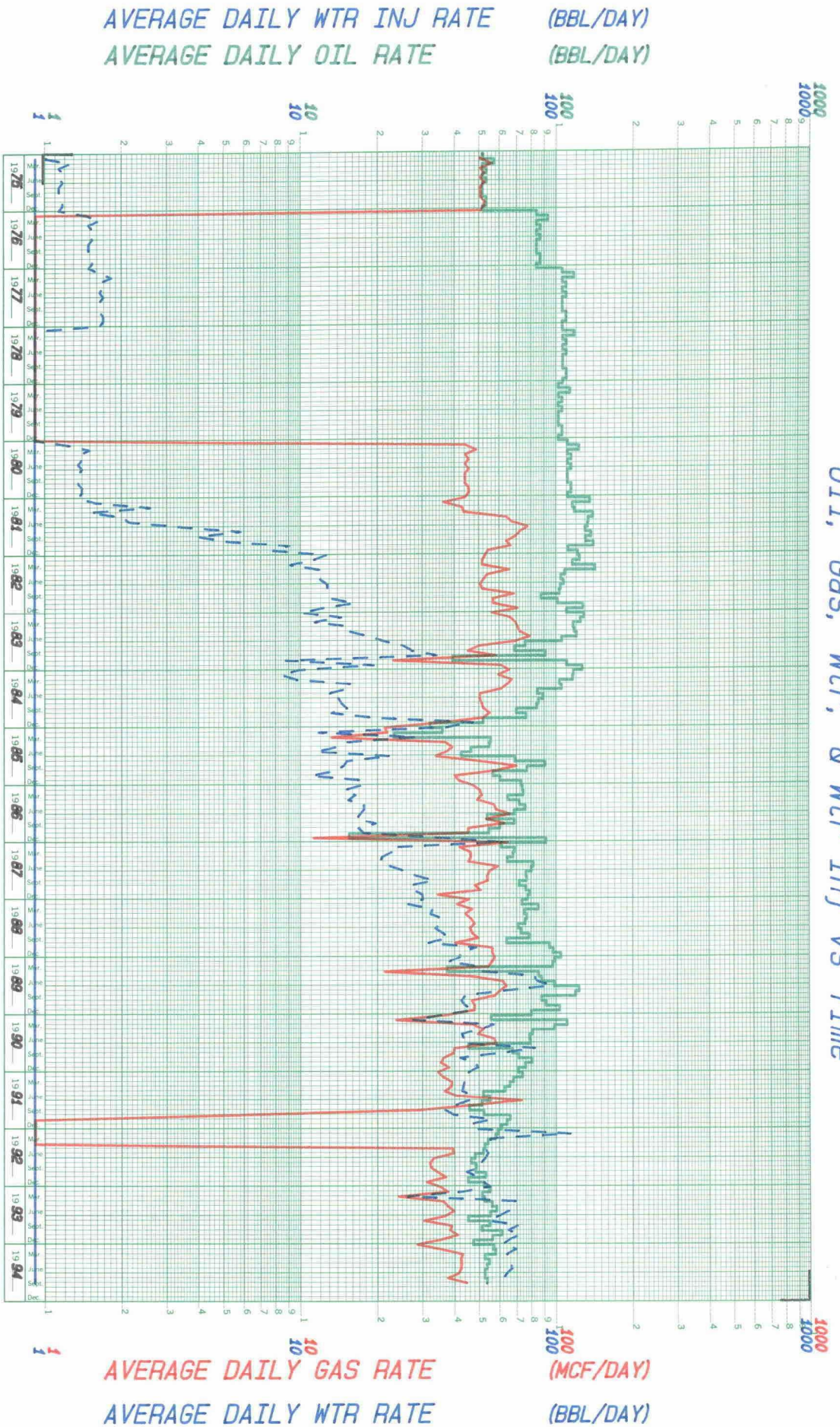
Field: VACUUM/ABQ, NORTH
Lease: NORTH VACUUM ABQ UNIT
Operator: MOBIL OPERATED
County:

State:

Current Date: 09-22-94

Code: 0620540056165

Oil, Gas, Wtr, & Wtr Inj vs Time



LEGEND

OIL
GAS
WTR
WTR INJ

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Field: VACUUM/ABQ, NORTH
Lease: NORTH VACUUM ABQ UNIT
Operator: MOBIL OPERATED
County:

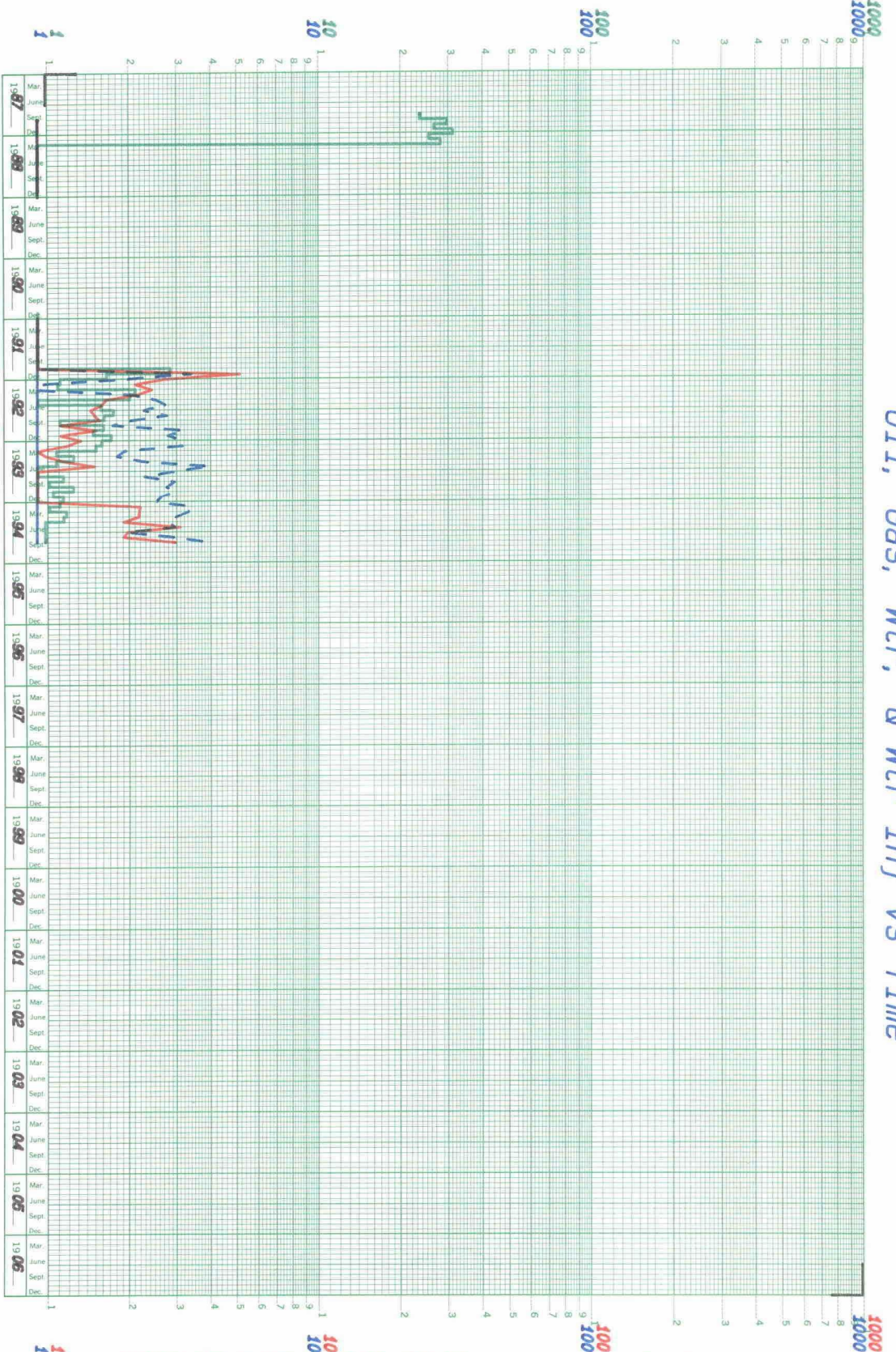
State: 104

Current Date: 09-22-94

Code: 0620540056165

Oil, Gas, Wtr, & Wtr Inj vs Time

AVERAGE DAILY WTR INJ RATE (BBL/DAY)
 AVERAGE DAILY OIL RATE (BBL/DAY)



AVERAGE DAILY GAS RATE (MCF/DAY)
 AVERAGE DAILY WTR RATE (BBL/DAY)

LEGEND

OIL
 GAS
 WTR
 WTR INJ

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Field: VACUUM WOLF CAMP
 Lease: BRIDGES STATE
 Operator: MOBIL OPERATED
 County:

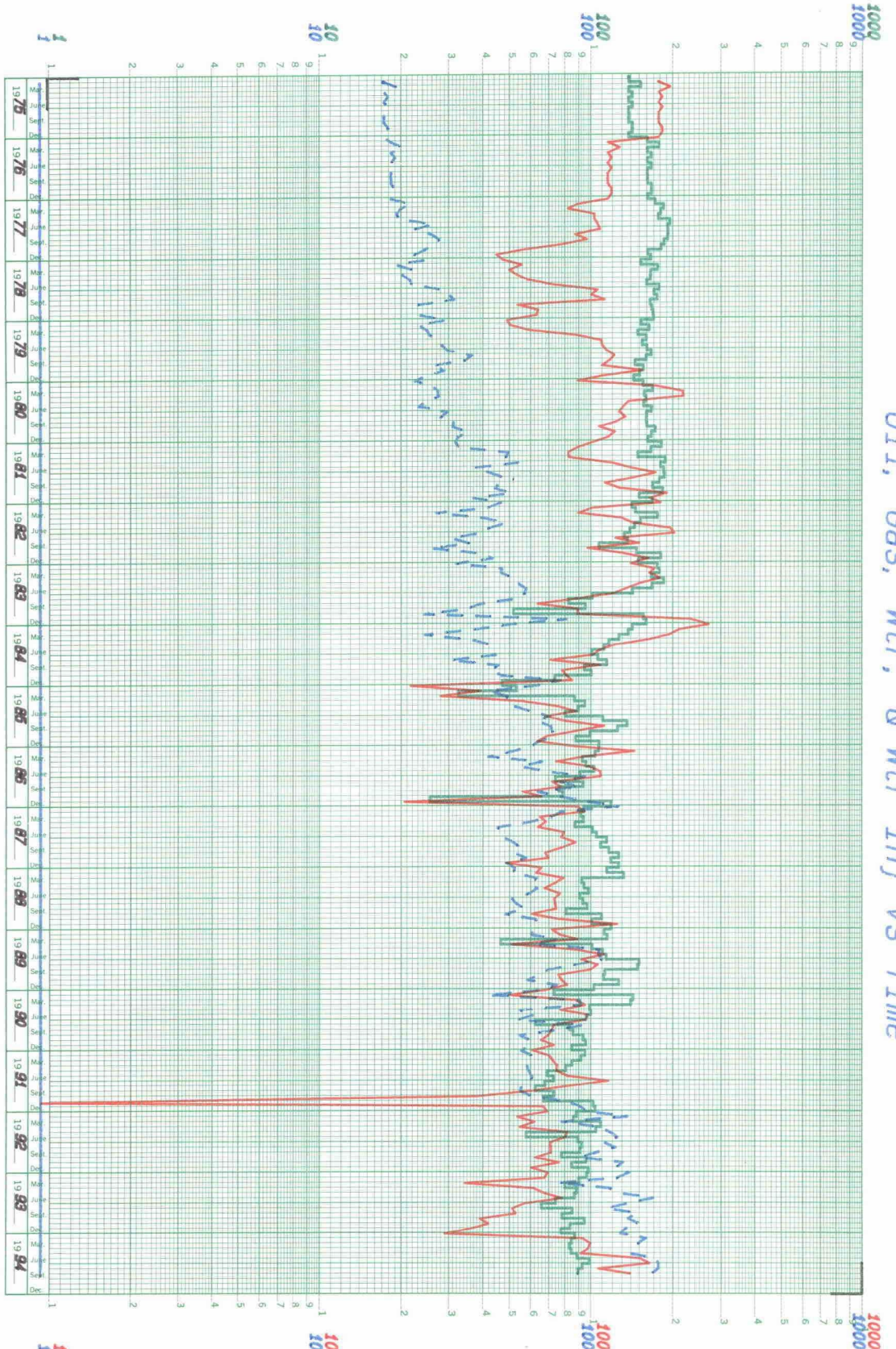
104 NT
 State:

Current Date: 09-22-94

Code: 0620050056222

Oil, Gas, Wtr, & Wtr Inj vs Time

AVERAGE DAILY WTR INJ RATE (BBL/DAY)
AVERAGE DAILY OIL RATE (BBL/DAY)



AVERAGE DAILY GAS RATE (MCF/DAY)
AVERAGE DAILY WTR RATE (BBL/DAY)

LEGEND

OIL
GAS
WTR
WTR INJ

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Midland Division

Field: NORTH VACUUM ABO UNIT # 104

Lease: Commingled Production

County:

State:

Current Date: 09-21-94

Code:

WELL HISTORY
BRIDGES STATE/NORTH VACUUM ABO UNIT #104

- 08-12-65: Well completed. DST Abo, Wolfcamp, Upper Penn.
Perf Upper Penn 10016'- 116' 1 jspf.
NMOCD Pot Upper Penn: F 264/0.
Perfed Wolfcamp 9784'- 9944' 1 jspf, acidized w/ 4000 gals 15%.
NMOCD Pot Wolfcamp: F 188/41
Perfed Abo 9212'- 9300' 1 jspf, acidized w/ 4000 gals 15%.
NMOCD Pot Abo: P 74/23
Triple Completion.
- 03-03-67: Attempt SWF Wolfcamp, communicated. Frac'd Wolfcamp w/ 12,000 gal gelled brine + 2000 lbs 20/40 sd + 5300 lbs glass beads. Added W/C perfs 9552, 84, 9612, 14, 26, 29, 32, 35, 39, 41, 43, 1 jspf 11 holes. Acidized 9552'- 9643' w/ 6000 gals 28% + 4000 gal 5% NE acid. Acidized Abo 9212'-9300 w/ 6000 gals 28% NE + 4000 gals 5% NE acid. Added Upper Abo perfs 8444', 47', 49', 64', 66', 70', 72', 74', 80, 1 jspf 9 holes. Acidized w/ 6000 gals 28% + 4000 gals 5%. Fished junk out of well. Pumped 50 bbls 9.4 ppg mud into Wolfcamp (Why?)
Test: Penn: F 317 80/ 0 8W
Abo: P 150 80/ 0 8W
Wolfcamp: TA'd
- 12-13-72: Fished stuck tbg. Swedged csg 2372'- 2402'. Ran 7" 23 lb/ft N-80 csg 56'- 4823', cmt circ. Acidized Abo w/ 10000 gals 15% acid. Ran dual equipment.
Test: Abo: P 80/1 (before 48/6)
Upper Penn: P 102/23
- 10-06-83: Fished tbg + pkr. Test: Abo: P 121/23
Upper Penn: P 41/67
- 11-11-86: Repaired tbg leak.
Abo: P 80/20
Upper Penn: P 26/47
- 03-08-89: Tbg leak across Wolfcamp perfs.
- 03-12-89: Acidize Penn 10,016'- 10,116' w/ 5500 gals DINE FE HCL.
Acidize Wolfcamp 9552'- 9944' w/ 3000 gals MCA + 7-1/2% HCL.
7" Baker Pkr stuck @ 9965'. Left in hole.
- 03-20-89: Commingle Wolfcamp and Upper Penn. Dual Completion w/ Abo.
- 06-15-89: Tbg leak on Penn/WC side. Pull tbg strings.

08-08-91: Tbg leak. Pull tbg strings.

11-05-91: Change out Polish Rod Liner.

07-13-92: Change out Polish Rod Liner.

10-02-92: Packer unset. Pull tbg strings.

03-02-93: Tbg leak on Abo side. Pull tubing strings.

07-31-93: Tbg leak on Penn/WC side. Pull tbg strings.

12-04-93: Tbg leak on Penn/WC side. Pull tbg strings.