| DATE 8/8/02 | SUSPENSE NA | ENGINEER WJ | LOGGED IN MM | TYPE PC | APP NO. 223136447 |
|---|---|---|---|---|---|

ABOVE THIS LINE FOR DIVISION USE ONLY

# NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

1220 South St. Francis Drive, Santa Fe, NM 87505

## ADMINISTRATIVE APPLICATION CHECKLIST

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

**Application Acronyms:**

**[NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]**
**[DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]**
**[PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]**
**[WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]**
**[SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]**
**[EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]**

[1] **TYPE OF APPLICATION** - Check Those Which Apply for [A]

[A] Location - Spacing Unit - Simultaneous Dedication
☐ NSL ☐ NSP ☐ SD

Check One Only for [B] or [C]

[B] Commingling - Storage - Measurement
☐ DHC ☐ CTB ☐ PLC ☒ PC ☐ OLS ☐ OLM

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery
☐ WFX ☐ PMX ☐ SWD ☐ IPI ☐ EOR ☐ PPR

[D] Other: Specify _____

02 AUG -8 PM 2:22

[2] **NOTIFICATION REQUIRED TO:** - Check Those Which Apply, or Does Not Apply

[A] ☐ Working, Royalty or Overriding Royalty Interest Owners

[B] ☐ Offset Operators, Leaseholders or Surface Owner

[C] ☐ Application is One Which Requires Published Legal Notice

[D] ☒ Notification and/or Concurrent Approval by BLM or SLO
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office

[E] ☐ For all of the above, Proof of Notification or Publication is Attached, and/or,

[F] ☐ Waivers are Attached

[3] **SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.**

[4] **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

**Note: Statement must be completed by an individual with managerial and/or supervisory capacity.**

| Yolanda Perez | Yolanda Perez | Sr. Regulatory Analyst | 8/8/02 |
|---|---|---|---|
| Print or Type Name | Signature | Title | Date |

yolanda.perez@conoco.com
e-mail Address

**Yolanda Perez**
Sr. Regulatory Analyst
San Juan Asset Team
Exploration-Production USSA

**Conoco Inc.**
P. O. Box 2197, DU 3084
Houston, TX 77252-2197
(281) 293-1613 fax (281) 293-5090

August 8, 2002

New Mexico Oil Conservation Division
1220 So. St. Francis Drive
Santa Fe, NM 87505

**RE: Application to surface commingle Conoco operated Jicarilla "B" 9A**
**API 30-039-06327, Section 26, T26N, R4W, Unit Ltr. D**
**Rio Arriba County, New Mexico**

Gentlemen:

By way of this application, Conoco respectfully requests approval to surface commingle all zones currently completed in the above mentioned well. The "B" 9A is currently a dual completion, with Tapacito Pictured Cliffs in combination with downhole commingled Blanco Mesaverde and Wild Horse Dakota. Working, net revenue, and royalty interests are identical for all producing horizons.

The following items are submitted in support of this application:

Exhibit A is a plat of the lease with the subject well identified.
Exhibit B contains production volume reports of zones completed in the well.
Exhibit C contains gas analysis reports for zones completed in subject well & offset wells.
Exhibit D is a schematic of the facilities for subject well.
Exhibit E is a wellbore diagram of the subject well. Completion information is included.
Exhibit F is a copy of administrative order DHC-1785 showing the proposed allocation of production.

The Mesaverde/Dakota producing intervals in the Jicarilla "B" 9A were shut-in in October 2000 following a sudden cessation of production. Through follow-up investigation, production in this well was found to have ceased due to liquid loading caused by the presence of drilling mud in the wellbore. In December 2001, a workover rig was brought in to locate the source of the mud, remediate the wellbore if possible, and re-establish production from the Mesaverde and Dakota. Following clean-up and testing of individual sets of Mesaverde and Dakota perforations, the source of mud inflow was determined to be the Dakota perforations located between depths of 7,840' and 7,925'. Following isolation of these perforations with a bridge plug (@ 7,820'), gas and oil production was successfully reestablished from all three producing horizons. The well was set backup as a dual completion, with Tapacito Pictured Cliffs in combination with downhole commingled Blanco Mesaverde and Wild Horse Dakota.

From February through June 2002, only the downhole commingled Mesaverde and Dakota intervals were produced to sales; the Pictured Cliffs has remained shut-in due to having only one meter on location. Pictured Cliffs production potential (~20 MCFPD) is insufficient to justify expenditures necessary to install an additional meter run and associated facilities at this location. In order to bring the Pictured Cliffs formation back online this year, Conoco will need to obtain

approval to surface commingle Pictured Cliffs production with the downhole commingled Mesaverde/Dakota flowstream.

In late June 2002, the Jicarilla "B" 9A failed a packer leakage test. Work to fix this problem will be conducted in August 2002, with a September 15th deadline to complete remediation activity and retest the well to show separation of the zones. The gas production rate for the commingled Mesaverde/Dakota flowstream at the end of June was 115 MCFPD. When brought online, the Pictured Cliffs formation is expected to produce an additional 15-20 MCFPD of gas. It is recommended that surface commingled Pictured Cliffs, Mesaverde, and Dakota gas and oil production be allocated based on the allocation percentages approved per Administrative Order DHC-1785 (Exhibit F). The DHC application for said order is also attached which contains supporting documentation for the allocation split between these three zones. The justification for this allocation has not been (and should not be) changes.

Note that Administrative Order DHC-1785 established an allocation based on all three zones being downhole commingled. The downhole commingling of these three zones in April 1998 resulted in lost production, and was therefore deemed unsuccessful. In July 1998, the wellbore was reconfigured as a dual completion, with Tapacito Pictured Cliffs in combination with downhole commingled Blanco Mesaverde and Wild Horse Dakota. Administrative Order DHC-1785 was never amended following the workover in 1998. Recommended amendments to Administrative Order DHC-1785 with allocations representative of Mesaverde/Dakota being the only zones downhole commingled, are attached. These recommended amendments split production that is not attributable to the Pictured Cliffs (84% of total gas and 100% of total oil) proportionately between the Mesaverde and Dakota, based on their allocation percentages (grossed up to 100).

If you have any questions or require any further information please feel free to contact me at (281) 293-1613.

Sincerely,

Yolanda Perez

Yolanda Perez
Sr. Regulatory Analyst
Lobo/San Juan Asset

CONOCO INC.
JICARILLA "B" 9A SURFACE COMMINGLE

# EXHIBIT A

**Lease Plat**

# Insert

# Color Page/Photo

# Here

CONOCO INC.
JICARILLA "B" 9A SURFACE COMMINGLE

# EXHIBIT B

Production Volume Reports

# Insert

# Color Page/Photo

# Here

# Insert

# Color Page/Photo

# Here

# Insert

# Color Page/Photo

# Here

# Well: JICARILLA B - 9A_PC

## Well Time Graph Report

| Date | WI Cal Day Oil | WI Cal Day Gas1 | WI Cal Day Water | WI Cal Day Gas FC 1 | WI Cum Gas1 |
|---|---|---|---|---|---|
| | Bbl/d | mcf/d | Bbl/d | mcf/d | MMSCF |
| 1970 01 | 0.00 | 104.48 | 0.00 | 166.56 | 454.73 |
| 1970 02 | 0.00 | 92.25 | 0.00 | 161.00 | 457.31 |
| 1970 03 | --- | 71.42 | --- | 155.72 | 459.53 |
| 1970 04 | --- | 39.07 | --- | 150.71 | 460.70 |
| 1970 05 | --- | 65.77 | --- | 145.95 | 462.74 |
| 1970 06 | --- | 98.27 | --- | 141.42 | 465.68 |
| 1970 07 | --- | 61.65 | --- | 137.11 | 467.60 |
| 1970 08 | --- | 86.68 | --- | 133.00 | 470.28 |
| 1970 09 | --- | 43.57 | --- | 129.08 | 471.59 |
| 1970 10 | --- | 101.16 | --- | 125.34 | 474.73 |
| 1970 11 | --- | 110.03 | --- | 121.77 | 478.03 |
| 1970 12 | --- | 116.97 | --- | 118.35 | 481.65 |
| 1971 01 | --- | 106.35 | --- | 115.09 | 484.95 |
| 1971 02 | --- | 123.57 | --- | 111.96 | 488.41 |
| 1971 03 | --- | 88.58 | --- | 108.96 | 491.16 |
| 1971 04 | --- | 102.13 | --- | 106.09 | 494.22 |
| 1971 05 | --- | 64.35 | --- | 103.34 | 496.21 |
| 1971 06 | --- | 48.03 | --- | 100.69 | 497.66 |
| 1971 07 | --- | 29.19 | --- | 98.16 | 498.56 |
| 1971 08 | --- | 7.74 | --- | 95.72 | 498.80 |
| 1971 09 | --- | 34.03 | --- | 93.37 | 499.82 |
| 1971 10 | --- | 87.74 | --- | 91.11 | 502.54 |
| 1971 11 | --- | 113.83 | --- | 88.94 | 505.96 |
| 1971 12 | --- | 119.61 | --- | 86.85 | 509.67 |
| 1972 01 | --- | 109.84 | --- | 84.83 | 513.07 |
| 1972 02 | --- | 100.21 | --- | 82.89 | 515.98 |
| 1972 03 | --- | 87.06 | --- | 81.02 | 518.67 |
| 1972 04 | --- | 75.57 | --- | 79.21 | 520.94 |
| 1972 05 | --- | 69.81 | --- | 77.46 | 523.11 |
| 1972 06 | --- | 80.90 | --- | 75.78 | 525.53 |
| 1972 07 | --- | 100.84 | --- | 74.15 | 528.66 |
| 1972 08 | --- | 101.55 | --- | 72.58 | 531.81 |
| 1972 09 | --- | 11.33 | --- | 71.05 | 532.15 |
| 1972 10 | --- | 78.03 | --- | 69.58 | 534.57 |
| 1972 11 | --- | 51.67 | --- | 68.15 | 536.12 |
| 1972 12 | --- | 97.77 | --- | 66.77 | 539.15 |
| 1973 01 | --- | 108.29 | --- | 65.44 | 542.50 |
| 1973 02 | --- | 109.82 | --- | 64.14 | 545.58 |
| 1973 03 | --- | 66.39 | --- | 62.89 | 547.64 |
| 1973 04 | --- | 48.43 | --- | 61.67 | 549.09 |
| 1973 05 | --- | 81.55 | --- | 60.49 | 551.62 |
| 1973 06 | --- | 102.60 | --- | 59.34 | 554.70 |
| 1973 07 | --- | 48.29 | --- | 58.23 | 556.19 |
| 1973 08 | --- | 40.00 | --- | 57.15 | 557.43 |
| 1973 09 | --- | 46.80 | --- | 56.11 | 558.84 |
| 1973 10 | --- | 87.39 | --- | 55.09 | 561.55 |
| 1973 11 | --- | 95.13 | --- | 54.10 | 564.40 |
| 1973 12 | --- | 70.42 | --- | 53.14 | 566.58 |
| 1974 01 | --- | 62.06 | --- | 52.20 | 568.51 |
| 1974 02 | --- | 69.36 | --- | 51.29 | 570.45 |
| 1974 03 | --- | 66.77 | --- | 50.41 | 572.52 |
| 1974 04 | --- | 80.27 | --- | 49.55 | 574.93 |
| 1974 05 | --- | 69.97 | --- | 48.71 | 577.10 |
| 1974 06 | --- | 72.73 | --- | 47.89 | 579.28 |
| 1974 07 | --- | 78.19 | --- | 47.10 | 581.70 |

# Well: JICARILLA B - 9A_PC

## Well Time Graph Report

| Date | WI Cal Day Oil | WI Cal Day Gas1 | WI Cal Day Water | WI Cal Day Gas FC 1 | WI Cum Gas1 |
|---|---|---|---|---|---|
| | Bbl/d | mcf/d | Bbl/d | mcf/d | MMSCF |
| 1974 08 | --- | 59.84 | --- | 46.32 | 583.56 |
| 1974 09 | --- | 67.53 | --- | 45.57 | 585.58 |
| 1974 10 | --- | 46.77 | --- | 44.83 | 587.03 |
| 1974 11 | --- | 52.63 | --- | 44.11 | 588.61 |
| 1974 12 | --- | 37.06 | --- | 43.42 | 589.76 |
| 1975 01 | --- | 29.39 | --- | 42.73 | 590.67 |
| 1975 02 | --- | 21.14 | --- | 42.07 | 591.26 |
| 1975 03 | --- | 6.58 | --- | 41.42 | 591.47 |
| 1975 04 | --- | 53.13 | --- | 40.79 | 593.06 |
| 1975 05 | --- | 29.00 | --- | 40.17 | 593.96 |
| 1975 06 | --- | 50.53 | --- | 39.56 | 595.48 |
| 1975 07 | --- | 38.90 | --- | 38.97 | 596.68 |
| 1975 08 | --- | 50.00 | --- | 38.40 | 598.23 |
| 1975 09 | --- | 46.80 | --- | 37.84 | 599.64 |
| 1975 10 | --- | 44.55 | --- | 37.29 | 601.02 |
| 1975 11 | --- | 48.57 | --- | 36.75 | 602.47 |
| 1975 12 | --- | 40.77 | --- | 36.22 | 603.74 |
| 1976 01 | --- | 20.97 | --- | 35.71 | 604.39 |
| 1976 02 | --- | 41.55 | --- | 35.21 | 605.59 |
| 1976 03 | --- | 51.42 | --- | 34.72 | 607.19 |
| 1976 04 | --- | 35.43 | --- | 34.24 | 608.25 |
| 1976 05 | --- | 33.10 | --- | 33.77 | 609.28 |
| 1976 06 | --- | 38.67 | --- | 33.31 | 610.44 |
| 1976 07 | --- | 39.10 | --- | 32.86 | 611.65 |
| 1976 08 | --- | 38.97 | --- | 32.42 | 612.86 |
| 1976 09 | --- | 20.07 | --- | 31.98 | 613.46 |
| 1976 10 | --- | 9.16 | --- | 31.56 | 613.74 |
| 1976 11 | --- | 1.40 | --- | 31.15 | 613.78 |
| 1976 12 | --- | 21.61 | --- | 30.74 | 614.45 |
| 1977 01 | --- | 28.19 | --- | 30.35 | 615.33 |
| 1977 02 | --- | 42.04 | --- | 29.96 | 616.51 |
| 1977 03 | --- | 26.58 | --- | 29.57 | 617.33 |
| 1977 04 | --- | 34.30 | --- | 29.20 | 618.36 |
| 1977 05 | --- | 45.19 | --- | 28.83 | 619.76 |
| 1977 06 | --- | 35.07 | --- | 28.48 | 620.81 |
| 1977 07 | --- | 29.32 | --- | 28.12 | 621.72 |
| 1977 08 | --- | 27.84 | --- | 27.78 | 622.58 |
| 1977 09 | --- | 33.60 | --- | 27.44 | 623.59 |
| 1977 10 | --- | 34.71 | --- | 27.11 | 624.67 |
| 1977 11 | --- | 35.77 | --- | 26.78 | 625.74 |
| 1977 12 | --- | 19.90 | --- | 26.46 | 626.36 |
| 1978 01 | --- | 4.61 | --- | 26.15 | 626.50 |
| 1978 02 | --- | 41.21 | --- | 25.84 | 627.65 |
| 1978 03 | --- | 33.48 | --- | 25.54 | 628.69 |
| 1978 04 | --- | 38.57 | --- | 25.24 | 629.85 |
| 1978 05 | --- | 28.94 | --- | 24.95 | 630.75 |
| 1978 06 | --- | 10.00 | --- | 24.66 | 631.05 |
| 1978 07 | --- | 3.90 | --- | 24.38 | 631.17 |
| 1978 08 | --- | --- | --- | 24.10 | 631.17 |
| 1978 09 | --- | --- | --- | 23.83 | 631.17 |
| 1978 10 | --- | --- | --- | 23.57 | 631.17 |
| 1978 11 | --- | 14.00 | --- | 23.30 | 631.59 |
| 1978 12 | --- | 28.52 | --- | 23.05 | 632.47 |
| 1979 01 | --- | 18.77 | --- | 22.79 | 633.05 |

# Well: JICARILLA B - 9A_PC

## Well Time Graph Report

| Date | WI Cal Day Oil | WI Cal Day Gas1 | WI Cal Day Water | WI Cal Day Gas FC 1 | WI Cum Gas1 |
|---|---|---|---|---|---|
| | Bbl/d | mcf/d | Bbl/d | mcf/d | MMSCF |
| 1979 02 | --- | 28.82 | --- | 22.54 | 633.86 |
| 1979 03 | --- | 13.68 | --- | 22.30 | 634.28 |
| 1979 04 | --- | 29.80 | --- | 22.06 | 635.18 |
| 1979 05 | --- | 37.32 | --- | 21.82 | 636.34 |
| 1979 06 | --- | 25.70 | --- | 21.59 | 637.11 |
| 1979 07 | --- | 8.61 | --- | 21.36 | 637.37 |
| 1979 08 | --- | --- | --- | 21.14 | 637.37 |
| 1979 09 | --- | 20.93 | --- | 20.92 | 638.00 |
| 1979 10 | --- | 19.39 | --- | 20.70 | 638.60 |
| 1979 11 | --- | 32.30 | --- | 20.49 | 639.57 |
| 1979 12 | --- | 23.74 | --- | 20.28 | 640.31 |
| 1980 01 | --- | 25.29 | --- | 20.07 | 641.09 |
| 1980 02 | --- | 27.14 | --- | 19.87 | 641.88 |
| 1980 03 | --- | 15.81 | --- | 19.67 | 642.37 |
| 1980 04 | --- | 12.67 | --- | 19.47 | 642.75 |
| 1980 05 | --- | 13.06 | --- | 19.27 | 643.15 |
| 1980 06 | --- | 3.87 | --- | 19.08 | 643.27 |
| 1980 07 | --- | --- | --- | 18.90 | 643.27 |
| 1980 08 | --- | --- | --- | 18.71 | 643.27 |
| 1980 09 | --- | --- | --- | 18.53 | 643.27 |
| 1980 10 | --- | 3.97 | --- | 18.35 | 643.39 |
| 1980 11 | --- | 33.97 | --- | 18.17 | 644.41 |
| 1980 12 | --- | 18.19 | --- | 18.00 | 644.98 |
| 1981 01 | --- | 15.84 | --- | 17.83 | 645.47 |
| 1981 02 | --- | 35.68 | --- | 17.66 | 646.47 |
| 1981 03 | --- | 16.74 | --- | 17.49 | 646.98 |
| 1981 04 | --- | 11.73 | --- | 17.33 | 647.34 |
| 1981 05 | --- | 1.32 | --- | 17.16 | 647.38 |
| 1981 06 | --- | --- | --- | 17.00 | 647.38 |
| 1981 07 | --- | --- | --- | 16.85 | 647.38 |
| 1981 08 | --- | --- | --- | 16.69 | 647.38 |
| 1981 09 | --- | --- | --- | 16.54 | 647.38 |
| 1981 10 | --- | --- | --- | 16.39 | 647.38 |
| 1981 11 | --- | --- | --- | 16.24 | 647.38 |
| 1981 12 | --- | 10.03 | --- | 16.10 | 647.69 |
| 1982 01 | --- | 20.10 | --- | 15.95 | 648.31 |
| 1982 02 | --- | 16.82 | --- | 15.81 | 648.78 |
| 1982 03 | --- | 2.45 | --- | 15.67 | 648.86 |
| 1982 04 | --- | --- | --- | 15.53 | 648.86 |
| 1982 05 | --- | --- | --- | 15.39 | 648.86 |
| 1982 06 | --- | --- | --- | 15.26 | 648.86 |
| 1982 07 | --- | --- | --- | 15.13 | 648.86 |
| 1982 08 | --- | --- | --- | 15.00 | 648.86 |
| 1982 09 | --- | --- | --- | 14.87 | 648.86 |
| 1982 10 | --- | --- | --- | 14.74 | 648.86 |
| 1982 11 | --- | 1.30 | --- | 14.62 | 648.90 |
| 1982 12 | --- | 5.77 | --- | 14.49 | 649.08 |
| 1983 01 | --- | 7.97 | --- | 14.37 | 649.32 |
| 1983 02 | --- | 9.96 | --- | 14.25 | 649.60 |
| 1983 03 | --- | 0.03 | --- | 14.13 | 649.60 |
| 1983 04 | --- | --- | --- | 14.01 | 649.60 |
| 1983 05 | --- | --- | --- | 13.90 | 649.60 |
| 1983 06 | --- | --- | --- | 13.78 | 649.60 |
| 1983 07 | --- | --- | --- | 13.67 | 649.60 |
| 1983 08 | --- | --- | --- | 13.56 | 649.60 |

# Well: JICARILLA B - 9A_PC

## Well Time Graph Report

| Date | WI Cal Day Oil | WI Cal Day Gas1 | WI Cal Day Water | WI Cal Day Gas FC 1 | WI Cum Gas1 |
|---|---|---|---|---|---|
| | Bbl/d | mcf/d | Bbl/d | mcf/d | MMSCF |
| 1983 09 | --- | --- | --- | 13.45 | 649.60 |
| 1983 10 | --- | 0.10 | --- | 13.34 | 649.61 |
| 1983 11 | --- | 7.07 | --- | 13.23 | 649.82 |
| 1983 12 | --- | 3.65 | --- | 13.13 | 649.93 |
| 1984 01 | --- | 5.03 | --- | 13.02 | 650.09 |
| 1984 02 | --- | 0.03 | --- | 12.92 | 650.09 |
| 1984 03 | --- | 68.16 | --- | 12.82 | 652.20 |
| 1984 04 | --- | 0.20 | --- | 12.71 | 652.21 |
| 1984 05 | --- | 0.03 | --- | 12.62 | 652.21 |
| 1984 06 | --- | --- | --- | 12.52 | 652.21 |
| 1984 07 | --- | --- | --- | 12.42 | 652.21 |
| 1984 08 | --- | --- | --- | 12.32 | 652.21 |
| 1984 09 | --- | --- | --- | 12.23 | 652.21 |
| 1984 10 | --- | 0.06 | --- | 12.14 | 652.21 |
| 1984 11 | --- | 10.83 | --- | 12.04 | 652.54 |
| 1984 12 | --- | 10.65 | --- | 11.95 | 652.87 |
| 1985 01 | --- | 11.45 | --- | 11.86 | 653.22 |
| 1985 02 | --- | 6.68 | --- | 11.77 | 653.41 |
| 1985 03 | --- | 0.74 | --- | 11.68 | 653.43 |
| 1985 04 | --- | 0.07 | --- | 11.60 | 653.43 |
| 1985 05 | --- | --- | --- | 11.51 | 653.43 |
| 1985 06 | --- | 1.70 | --- | 11.42 | 653.48 |
| 1985 07 | --- | 39.32 | --- | 11.34 | 654.70 |
| 1985 08 | --- | 10.45 | --- | 11.26 | 655.03 |
| 1985 09 | --- | 6.93 | --- | 11.18 | 655.23 |
| 1985 10 | --- | --- | --- | 11.09 | 655.23 |
| 1985 11 | --- | --- | --- | 11.01 | 655.23 |
| 1985 12 | --- | --- | --- | 10.93 | 655.23 |
| 1986 01 | --- | --- | --- | 10.86 | 655.23 |
| 1986 02 | --- | --- | --- | 10.78 | 655.23 |
| 1986 03 | --- | --- | --- | 10.70 | 655.23 |
| 1986 04 | --- | --- | --- | 10.63 | 655.23 |
| 1986 05 | --- | --- | --- | 10.55 | 655.23 |
| 1986 06 | --- | --- | --- | 10.48 | 655.23 |
| 1986 07 | --- | --- | --- | 10.40 | 655.23 |
| 1986 08 | --- | --- | --- | 10.33 | 655.23 |
| 1986 09 | --- | 1.73 | --- | 10.26 | 655.29 |
| 1986 10 | --- | 28.39 | --- | 10.19 | 656.17 |
| 1986 11 | --- | 52.10 | --- | 10.12 | 657.73 |
| 1986 12 | --- | 32.42 | --- | 10.05 | 658.73 |
| 1987 01 | --- | 23.13 | --- | 9.98 | 659.45 |
| 1987 02 | --- | --- | --- | 9.91 | 659.45 |
| 1987 03 | --- | --- | --- | 9.84 | 659.45 |
| 1987 04 | --- | --- | --- | 9.78 | 659.45 |
| 1987 05 | --- | --- | --- | 9.71 | 659.45 |
| 1987 06 | --- | --- | --- | 9.64 | 659.45 |
| 1987 07 | --- | --- | --- | 9.58 | 659.45 |
| 1987 08 | --- | --- | --- | 9.52 | 659.45 |
| 1987 09 | --- | --- | --- | 9.45 | 659.45 |
| 1987 10 | --- | --- | --- | 9.39 | 659.45 |
| 1987 11 | --- | --- | --- | 9.33 | 659.45 |
| 1987 12 | --- | 0.77 | --- | 9.27 | 659.48 |
| 1988 01 | --- | --- | --- | 9.21 | 659.48 |
| 1988 02 | --- | --- | --- | 9.15 | 659.48 |

# Well: JICARILLA B - 9A_PC

## Well Time Graph Report

| Date | WI Cal Day Oil | WI Cal Day Gas1 | WI Cal Day Water | WI Cal Day Gas FC 1 | WI Cum Gas1 |
|---|---|---|---|---|---|
| | Bbl/d | mcf/d | Bbl/d | mcf/d | MMSCF |
| 1988 03 | --- | --- | --- | 9.09 | 659.48 |
| 1988 04 | --- | 3.77 | --- | 9.03 | 659.59 |
| 1988 05 | --- | 8.06 | --- | 8.97 | 659.84 |
| 1988 06 | --- | --- | --- | 8.91 | 659.84 |
| 1988 07 | --- | 0.42 | --- | 8.86 | 659.85 |
| 1988 08 | --- | --- | --- | 8.80 | 659.85 |
| 1988 09 | --- | 1.43 | --- | 8.74 | 659.89 |
| 1988 10 | --- | 0.68 | --- | 8.69 | 659.92 |
| 1988 11 | --- | 2.40 | --- | 8.63 | 659.99 |
| 1988 12 | --- | --- | --- | 8.58 | 659.99 |
| 1989 01 | --- | --- | --- | 8.53 | 659.99 |
| 1989 02 | --- | --- | --- | 8.47 | 659.99 |
| 1989 03 | --- | --- | --- | 8.42 | 659.99 |
| 1989 04 | --- | --- | --- | 8.37 | 659.99 |
| 1989 05 | --- | --- | --- | 8.32 | 659.99 |
| 1989 06 | --- | --- | --- | 8.26 | 659.99 |
| 1989 07 | --- | 1.03 | --- | 8.21 | 660.02 |
| 1989 08 | --- | 1.68 | --- | 8.16 | 660.07 |
| 1989 09 | --- | 3.93 | --- | 8.11 | 660.19 |
| 1989 10 | --- | 0.48 | --- | 8.07 | 660.20 |
| 1989 11 | --- | 0.60 | --- | 8.02 | 660.22 |
| 1989 12 | --- | --- | --- | 7.97 | 660.22 |
| 1990 01 | --- | --- | --- | 7.92 | 660.22 |
| 1990 02 | --- | --- | --- | 7.87 | 660.22 |
| 1990 03 | --- | 0.39 | --- | 7.83 | 660.23 |
| 1990 04 | --- | --- | --- | 7.78 | 660.23 |
| 1990 05 | --- | --- | --- | 7.73 | 660.23 |
| 1990 06 | --- | --- | --- | 7.69 | 660.23 |
| 1990 07 | --- | 1.84 | --- | 7.64 | 660.29 |
| 1990 08 | --- | 8.61 | --- | 7.60 | 660.56 |
| 1990 09 | --- | 18.70 | --- | 7.55 | 661.12 |
| 1990 10 | --- | 2.45 | --- | 7.51 | 661.20 |
| 1990 11 | --- | 1.87 | --- | 7.47 | 661.25 |
| 1990 12 | --- | 7.61 | --- | 7.42 | 661.49 |
| 1991 01 | --- | 3.81 | --- | 7.38 | 661.61 |
| 1991 02 | --- | 3.82 | --- | 7.34 | 661.71 |
| 1991 03 | --- | --- | --- | 7.30 | 661.71 |
| 1991 04 | --- | --- | --- | 7.25 | 661.71 |
| 1991 05 | --- | --- | --- | 7.21 | 661.71 |
| 1991 06 | --- | --- | --- | 7.17 | 661.71 |
| 1991 07 | --- | 0.87 | --- | 7.13 | 661.74 |
| 1991 08 | --- | 0.10 | --- | 7.09 | 661.74 |
| 1991 09 | --- | 1.37 | --- | 7.05 | 661.78 |
| 1991 10 | --- | 0.29 | --- | 7.01 | 661.79 |
| 1991 11 | --- | 2.33 | --- | 6.97 | 661.86 |
| 1991 12 | --- | --- | --- | 6.93 | 661.86 |
| 1992 01 | --- | 1.97 | --- | 6.90 | 661.92 |
| 1992 02 | --- | 5.69 | --- | 6.86 | 662.09 |
| 1992 03 | --- | 5.39 | --- | 6.82 | 662.26 |
| 1992 04 | --- | 2.43 | --- | 6.78 | 662.33 |
| 1992 05 | --- | 1.90 | --- | 6.74 | 662.39 |
| 1992 06 | --- | 1.33 | --- | 6.71 | 662.43 |
| 1992 07 | --- | --- | --- | 6.67 | 662.43 |
| 1992 08 | --- | 3.23 | --- | 6.64 | 662.53 |
| 1992 09 | --- | 1.33 | --- | 6.60 | 662.57 |

# Well: JICARILLA B - 9A_PC

## Well Time Graph Report

| Date | WI Cal Day Oil | WI Cal Day Gas1 | WI Cal Day Water | WI Cal Day Gas FC 1 | WI Cum Gas1 |
|---|---|---|---|---|---|
| | Bbl/d | mcf/d | Bbl/d | mcf/d | MMSCF |
| 1992 10 | --- | --- | --- | 6.56 | 662.57 |
| 1992 11 | --- | 4.20 | --- | 6.53 | 662.69 |
| 1992 12 | --- | 7.39 | --- | 6.49 | 662.92 |
| 1993 01 | --- | --- | --- | 6.46 | 662.92 |
| 1993 02 | --- | 3.57 | --- | 6.42 | 663.02 |
| 1993 03 | --- | --- | --- | 6.39 | 663.02 |
| 1993 04 | --- | --- | --- | 6.36 | 663.02 |
| 1993 05 | --- | --- | --- | 6.32 | 663.02 |
| 1993 06 | --- | --- | --- | 39.57 | 663.02 |
| 1993 07 | --- | --- | --- | 39.17 | 663.02 |
| 1993 08 | --- | --- | --- | 38.77 | 663.02 |
| 1993 09 | --- | --- | --- | 38.38 | 663.02 |
| 1993 10 | --- | --- | --- | 37.99 | 663.02 |
| 1993 11 | --- | --- | --- | 37.61 | 663.02 |
| 1993 12 | --- | --- | --- | 37.24 | 663.02 |
| 1994 01 | --- | --- | --- | 36.87 | 663.02 |
| 1994 02 | --- | --- | --- | 36.51 | 663.02 |
| 1994 03 | --- | --- | --- | 36.15 | 663.02 |
| 1994 04 | --- | --- | --- | 35.80 | 663.02 |
| 1994 05 | --- | --- | --- | 35.46 | 663.02 |
| 1994 06 | --- | --- | --- | 35.12 | 663.02 |
| 1994 07 | --- | --- | --- | 34.78 | 663.02 |
| 1994 08 | --- | --- | --- | 34.45 | 663.02 |
| 1994 09 | --- | --- | --- | 34.12 | 663.02 |
| 1994 10 | --- | --- | --- | 33.80 | 663.02 |
| 1994 11 | --- | --- | --- | 33.49 | 663.02 |
| 1994 12 | --- | --- | --- | 33.18 | 663.02 |
| 1995 01 | --- | --- | --- | 32.87 | 663.02 |
| 1995 02 | --- | --- | --- | 32.57 | 663.02 |
| 1995 03 | --- | --- | --- | 32.27 | 663.02 |
| 1995 04 | --- | 68.93 | --- | 31.97 | 665.09 |
| 1995 05 | --- | --- | --- | 31.69 | 665.09 |
| 1995 06 | --- | --- | --- | 31.40 | 665.09 |
| 1995 07 | --- | --- | --- | 31.12 | 665.09 |
| 1995 08 | --- | --- | --- | 30.84 | 665.09 |
| 1995 09 | --- | --- | --- | 30.57 | 665.09 |
| 1995 10 | --- | --- | --- | 30.30 | 665.09 |
| 1995 11 | --- | --- | --- | 30.03 | 665.09 |
| 1995 12 | --- | --- | --- | 29.77 | 665.09 |
| 1996 01 | --- | --- | --- | 29.51 | 665.09 |
| 1996 02 | --- | --- | --- | 29.25 | 665.09 |
| 1996 03 | --- | --- | --- | 29.00 | 665.09 |
| 1996 04 | --- | --- | --- | 28.75 | 665.09 |
| 1996 05 | --- | --- | --- | 28.51 | 665.09 |
| 1996 06 | --- | --- | --- | 28.27 | 665.09 |
| 1996 07 | --- | --- | --- | 28.03 | 665.09 |
| 1996 08 | --- | --- | --- | 27.79 | 665.09 |
| 1996 09 | --- | --- | --- | 27.56 | 665.09 |
| 1996 10 | --- | --- | --- | 27.33 | 665.09 |
| 1996 11 | --- | --- | --- | 27.10 | 665.09 |
| 1996 12 | --- | --- | --- | 26.88 | 665.09 |
| 1997 01 | --- | --- | --- | 26.66 | 665.09 |
| 1997 02 | --- | --- | --- | 26.44 | 665.09 |
| 1997 03 | --- | --- | --- | 26.23 | 665.09 |

# Well: JICARILLA B - 9A_PC

## Well Time Graph Report

| Date | WI Cal Day Oil | WI Cal Day Gas1 | WI Cal Day Water | WI Cal Day Gas FC 1 | WI Cum Gas1 |
|---|---|---|---|---|---|
| | Bbl/d | mcf/d | Bbl/d | mcf/d | MMSCF |
| 1997 04 | --- | --- | --- | 26.01 | 665.09 |
| 1997 05 | --- | --- | --- | 25.80 | 665.09 |
| 1997 06 | --- | --- | --- | 25.60 | 665.09 |
| 1997 07 | --- | --- | --- | 25.39 | 665.09 |
| 1997 08 | --- | --- | --- | 25.19 | 665.09 |
| 1997 09 | --- | --- | --- | 24.99 | 665.09 |
| 1997 10 | --- | --- | --- | 24.80 | 665.09 |
| 1997 11 | --- | --- | --- | 24.60 | 665.09 |
| 1997 12 | --- | --- | --- | 24.41 | 665.09 |
| 1998 01 | --- | --- | --- | 24.22 | 665.09 |
| 1998 02 | --- | --- | --- | 24.03 | 665.09 |
| 1998 03 | --- | --- | --- | 23.85 | 665.09 |
| 1998 04 | --- | --- | --- | 23.66 | 665.09 |
| 1998 05 | --- | --- | --- | 23.48 | 665.09 |
| 1998 06 | --- | --- | --- | 23.30 | 665.09 |
| 1998 07 | --- | --- | --- | 23.13 | 665.09 |
| 1998 08 | --- | --- | --- | 22.95 | 665.09 |
| 1998 09 | --- | --- | --- | 22.78 | 665.09 |
| 1998 10 | --- | --- | --- | 22.61 | 665.09 |
| 1998 11 | --- | --- | --- | 22.44 | 665.09 |
| 1998 12 | --- | --- | --- | 22.28 | 665.09 |
| 1999 01 | --- | 9.97 | --- | 22.11 | 665.40 |
| 1999 02 | --- | 8.89 | --- | 21.95 | 665.65 |
| 1999 03 | --- | 4.42 | --- | 21.79 | 665.79 |
| 1999 04 | --- | 28.00 | --- | 21.63 | 666.63 |
| 1999 05 | --- | 24.10 | --- | 21.47 | 667.37 |
| 1999 06 | --- | 15.40 | --- | 21.32 | 667.83 |
| 1999 07 | --- | 4.61 | --- | 21.17 | 667.98 |
| 1999 08 | --- | 15.29 | --- | 21.01 | 668.45 |
| 1999 09 | --- | 24.77 | --- | 20.86 | 669.19 |
| 1999 10 | --- | 11.16 | --- | 20.72 | 669.54 |
| 1999 11 | --- | 9.43 | --- | 20.57 | 669.82 |
| 1999 12 | --- | 21.45 | --- | 20.42 | 670.49 |
| 2000 01 | --- | 25.58 | --- | 20.28 | 671.28 |
| 2000 02 | --- | 22.62 | --- | 20.14 | 671.94 |
| 2000 03 | --- | 21.52 | --- | 20.00 | 672.60 |
| 2000 04 | --- | 19.43 | --- | 19.86 | 673.19 |
| 2000 05 | --- | 21.74 | --- | 19.72 | 673.86 |
| 2000 06 | --- | 20.07 | --- | 19.59 | 674.46 |
| 2000 07 | --- | 17.55 | --- | 19.45 | 675.01 |
| 2000 08 | --- | 19.32 | --- | 19.32 | 675.61 |
| 2000 09 | --- | 16.93 | --- | 19.19 | 676.11 |
| 2000 10 | --- | 4.74 | --- | 19.06 | 676.26 |
| 2000 11 | --- | --- | --- | 18.93 | 676.26 |
| 2000 12 | --- | --- | --- | 18.80 | 676.26 |
| 2001 01 | --- | --- | --- | 18.68 | 676.26 |
| 2001 02 | --- | --- | --- | 1.00 | 676.26 |
| 2001 03 | --- | --- | --- | 0.99 | 676.26 |
| 2001 04 | --- | --- | --- | 0.98 | 676.26 |
| 2001 05 | --- | --- | --- | 0.98 | 676.26 |
| 2001 06 | --- | --- | --- | 0.97 | 676.26 |
| 2001 07 | --- | --- | --- | 0.96 | 676.26 |
| 2001 08 | --- | --- | --- | 0.96 | 676.26 |
| 2001 09 | --- | --- | --- | 0.95 | 676.26 |
| 2001 10 | --- | --- | --- | 0.94 | 676.26 |

# Well: JICARILLA B - 9A_PC

## Well Time Graph Report

| Date | WI Cal Day Oil | WI Cal Day Gas1 | WI Cal Day Water | WI Cal Day Gas FC 1 | WI Cum Gas1 |
|---|---|---|---|---|---|
| | Bbl/d | mcf/d | Bbl/d | mcf/d | MMSCF |
| 2001 11 | --- | --- | --- | 0.94 | 676.26 |
| 2001 12 | --- | --- | --- | 0.93 | 676.26 |
| 2002 01 | --- | --- | --- | 0.93 | 676.26 |
| 2002 02 | --- | --- | --- | 0.92 | 676.26 |
| 2002 03 | --- | --- | --- | 0.91 | 676.26 |
| 2002 04 | --- | --- | --- | 0.91 | 676.26 |
| 2002 05 | --- | --- | --- | 0.90 | 676.26 |
| 2002 06 | --- | --- | --- | 0.90 | --- |
| 2002 07 | --- | --- | --- | 0.89 | --- |
| 2002 08 | --- | --- | --- | 0.88 | --- |
| 2002 09 | --- | --- | --- | 0.88 | --- |
| 2002 10 | --- | --- | --- | 10.30 | --- |
| 2002 11 | --- | --- | --- | 16.54 | --- |
| 2002 12 | --- | --- | --- | 16.47 | --- |
| 2003 01 | --- | --- | --- | 16.40 | --- |
| 2003 02 | --- | --- | --- | 16.34 | --- |
| 2003 03 | --- | --- | --- | 16.27 | --- |
| 2003 04 | --- | --- | --- | 16.20 | --- |
| 2003 05 | --- | --- | --- | 16.14 | --- |
| 2003 06 | --- | --- | --- | 16.07 | --- |
| 2003 07 | --- | --- | --- | 16.00 | --- |
| 2003 08 | --- | --- | --- | 15.94 | --- |
| 2003 09 | --- | --- | --- | 15.87 | --- |
| 2003 10 | --- | --- | --- | 15.81 | --- |
| 2003 11 | --- | --- | --- | 15.74 | --- |
| 2003 12 | --- | --- | --- | 15.68 | --- |
| 2004 01 | --- | --- | --- | 15.61 | --- |
| 2004 02 | --- | --- | --- | 15.55 | --- |
| 2004 03 | --- | --- | --- | 15.49 | --- |
| 2004 04 | --- | --- | --- | 15.42 | --- |
| 2004 05 | --- | --- | --- | 15.36 | --- |
| 2004 06 | --- | --- | --- | 15.30 | --- |
| 2004 07 | --- | --- | --- | 15.23 | --- |
| 2004 08 | --- | --- | --- | 15.17 | --- |
| 2004 09 | --- | --- | --- | 15.11 | --- |
| 2004 10 | --- | --- | --- | 15.05 | --- |
| 2004 11 | --- | --- | --- | 14.99 | --- |
| 2004 12 | --- | --- | --- | 14.92 | --- |
| 2005 01 | --- | --- | --- | 14.86 | --- |
| 2005 02 | --- | --- | --- | 14.80 | --- |
| 2005 03 | --- | --- | --- | 14.74 | --- |
| 2005 04 | --- | --- | --- | 14.68 | --- |
| 2005 05 | --- | --- | --- | 14.62 | --- |
| 2005 06 | --- | --- | --- | 14.56 | --- |
| 2005 07 | --- | --- | --- | 14.50 | --- |
| 2005 08 | --- | --- | --- | 14.44 | --- |
| 2005 09 | --- | --- | --- | 14.38 | --- |
| 2005 10 | --- | --- | --- | 14.32 | --- |
| 2005 11 | --- | --- | --- | 14.26 | --- |
| 2005 12 | --- | --- | --- | 14.21 | --- |
| 2006 01 | --- | --- | --- | 14.15 | --- |
| 2006 02 | --- | --- | --- | 14.09 | --- |
| 2006 03 | --- | --- | --- | 14.03 | --- |
| 2006 04 | --- | --- | --- | 13.97 | --- |

# Well: JICARILLA B - 9A_MV

## Well Time Graph Report

| Date | WI Cal Day Oil | WI Cal Day Gas1 | WI Cal Day Water | WI Cal Day Gas FC 1 | WI Cum Gas1 |
|---|---|---|---|---|---|
| | Bbl/d | mcf/d | Bbl/d | mcf/d | MMSCF |
| 1995 01 | --- | --- | --- | --- | --- |
| 1995 02 | --- | --- | --- | --- | --- |
| 1995 03 | --- | --- | --- | --- | --- |
| 1995 04 | --- | --- | --- | --- | --- |
| 1995 05 | --- | --- | --- | --- | --- |
| 1995 06 | --- | 43.80 | --- | 72.36 | 1.31 |
| 1995 07 | 0.32 | 81.32 | --- | 71.01 | 3.84 |
| 1995 08 | --- | 86.97 | --- | 69.71 | 6.53 |
| 1995 09 | 1.83 | 74.67 | --- | 68.46 | 8.77 |
| 1995 10 | 0.48 | 69.58 | --- | 67.26 | 10.93 |
| 1995 11 | 0.07 | 71.83 | --- | 66.11 | 13.08 |
| 1995 12 | 1.58 | 81.68 | 0.06 | 65.00 | 15.61 |
| 1996 01 | --- | 65.23 | --- | 63.93 | 17.64 |
| 1996 02 | --- | 31.76 | --- | 62.90 | 18.56 |
| 1996 03 | --- | 31.87 | --- | 61.90 | 19.55 |
| 1996 04 | --- | 64.90 | --- | 60.94 | 21.49 |
| 1996 05 | 0.32 | 68.45 | --- | 60.01 | 23.61 |
| 1996 06 | 0.27 | 45.30 | --- | 59.11 | 24.97 |
| 1996 07 | --- | 5.84 | --- | 58.24 | 25.15 |
| 1996 08 | --- | 79.19 | --- | 57.40 | 27.61 |
| 1996 09 | --- | --- | --- | 56.58 | 27.61 |
| 1996 10 | --- | 58.90 | --- | 55.79 | 29.44 |
| 1996 11 | --- | 68.73 | --- | 55.02 | 31.50 |
| 1996 12 | --- | 52.13 | --- | 54.28 | 33.11 |
| 1997 01 | --- | 50.52 | --- | 53.56 | 34.68 |
| 1997 02 | --- | 43.14 | --- | 52.86 | 35.89 |
| 1997 03 | --- | 42.26 | --- | 52.17 | 37.20 |
| 1997 04 | --- | 43.60 | --- | 51.51 | 38.51 |
| 1997 05 | --- | 41.19 | --- | 50.87 | 39.78 |
| 1997 06 | --- | 44.60 | --- | 50.24 | 41.12 |
| 1997 07 | 2.58 | 41.94 | --- | 49.63 | 42.42 |
| 1997 08 | --- | 48.94 | --- | 49.04 | 43.94 |
| 1997 09 | --- | 55.53 | --- | 48.46 | 45.60 |
| 1997 10 | --- | 46.10 | --- | 47.89 | 47.03 |
| 1997 11 | --- | 57.20 | --- | 47.34 | 48.75 |
| 1997 12 | --- | 46.45 | --- | 46.81 | 50.19 |
| 1998 01 | --- | 43.81 | --- | 46.28 | 51.55 |
| 1998 02 | 0.39 | 6.71 | --- | 45.77 | 51.74 |
| 1998 03 | --- | 42.77 | --- | 45.28 | 53.06 |
| 1998 04 | 2.13 | --- | --- | 44.79 | 53.06 |
| 1998 05 | --- | --- | --- | 44.32 | 53.06 |
| 1998 06 | --- | --- | --- | 43.85 | 53.06 |
| 1998 07 | --- | --- | --- | 43.40 | 53.06 |
| 1998 08 | --- | --- | --- | 42.96 | 53.06 |
| 1998 09 | --- | --- | --- | 42.52 | 53.06 |
| 1998 10 | 0.26 | 71.32 | 0.26 | 42.10 | 55.27 |
| 1998 11 | 1.20 | 5.93 | 0.13 | 41.68 | 55.45 |
| 1998 12 | 0.35 | 16.35 | 0.35 | 41.28 | 55.96 |
| 1999 01 | 0.19 | 18.10 | 0.03 | 40.88 | 56.52 |
| 1999 02 | 0.00 | 16.11 | 0.00 | 40.49 | 56.97 |
| 1999 03 | 0.00 | 7.97 | 0.00 | 40.11 | 57.22 |
| 1999 04 | 0.30 | 50.77 | 0.03 | 39.74 | 58.74 |
| 1999 05 | 0.58 | 43.68 | 0.06 | 39.37 | 60.09 |
| 1999 06 | 0.03 | 27.93 | --- | 39.01 | 60.93 |
| 1999 07 | 0.10 | 8.32 | --- | 38.66 | 61.19 |

# Well: JICARILLA B - 9A_MV

## Well Time Graph Report

| Date | WI Cal Day Oil | WI Cal Day Gas1 | WI Cal Day Water | WI Cal Day Gas FC 1 | WI Cum Gas1 |
|---|---|---|---|---|---|
| | Bbl/d | mcf/d | Bbl/d | mcf/d | MMSCF |
| 1999 08 | 0.13 | 27.71 | --- | 38.32 | 62.05 |
| 1999 09 | 0.40 | 44.83 | 0.03 | 37.98 | 63.39 |
| 1999 10 | --- | 20.19 | --- | 37.65 | 64.02 |
| 1999 11 | 0.17 | 17.03 | 0.03 | 37.33 | 64.53 |
| 1999 12 | --- | 38.87 | --- | 37.01 | 65.74 |
| 2000 01 | 0.55 | 46.39 | 0.06 | 36.69 | 67.17 |
| 2000 02 | 0.14 | 41.00 | --- | 36.39 | 68.36 |
| 2000 03 | 0.16 | 39.00 | 0.03 | 36.09 | 69.57 |
| 2000 04 | --- | 35.23 | --- | 35.79 | 70.63 |
| 2000 05 | 0.39 | 39.42 | 0.03 | 35.50 | 71.85 |
| 2000 06 | 0.13 | 36.33 | --- | 35.21 | 72.94 |
| 2000 07 | 0.23 | 31.84 | 0.03 | 34.93 | 73.93 |
| 2000 08 | 0.23 | 34.97 | 0.03 | 34.66 | 75.01 |
| 2000 09 | 0.10 | 30.70 | 0.00 | 34.39 | 75.93 |
| 2000 10 | 0.00 | 8.61 | 0.94 | 34.12 | 76.20 |
| 2000 11 | --- | --- | --- | 33.86 | 76.20 |
| 2000 12 | --- | --- | --- | 1.00 | 76.20 |
| 2001 01 | --- | --- | --- | 0.99 | 76.20 |
| 2001 02 | --- | --- | --- | 0.98 | 76.20 |
| 2001 03 | --- | --- | --- | 0.97 | 76.20 |
| 2001 04 | --- | --- | --- | 0.97 | 76.20 |
| 2001 05 | --- | --- | --- | 0.96 | 76.20 |
| 2001 06 | --- | --- | --- | 0.95 | 76.20 |
| 2001 07 | --- | --- | --- | 0.94 | 76.20 |
| 2001 08 | --- | --- | --- | 0.94 | 76.20 |
| 2001 09 | --- | --- | --- | 0.93 | 76.20 |
| 2001 10 | --- | --- | --- | 0.92 | 76.20 |
| 2001 11 | --- | --- | --- | 0.92 | 76.20 |
| 2001 12 | --- | --- | --- | 0.91 | 76.20 |
| 2002 01 | --- | --- | --- | 0.90 | 76.20 |
| 2002 02 | 0.00 | 12.82 | 0.00 | 0.90 | 76.56 |
| 2002 03 | 0.00 | 33.00 | 0.00 | 34.89 | 77.58 |
| 2002 04 | 0.00 | 36.45 | 0.00 | 34.66 | 78.67 |
| 2002 05 | 0.06 | 39.41 | 0.00 | 34.44 | 79.90 |
| 2002 06 | --- | --- | --- | 34.22 | --- |
| 2002 07 | --- | --- | --- | 34.00 | --- |
| 2002 08 | --- | --- | --- | 33.79 | --- |
| 2002 09 | --- | --- | --- | 33.57 | --- |
| 2002 10 | --- | --- | --- | 33.36 | --- |
| 2002 11 | --- | --- | --- | 33.15 | --- |
| 2002 12 | --- | --- | --- | 32.94 | --- |
| 2003 01 | --- | --- | --- | 32.74 | --- |
| 2003 02 | --- | --- | --- | 32.53 | --- |
| 2003 03 | --- | --- | --- | 32.33 | --- |
| 2003 04 | --- | --- | --- | 32.13 | --- |
| 2003 05 | --- | --- | --- | 31.93 | --- |
| 2003 06 | --- | --- | --- | 31.74 | --- |
| 2003 07 | --- | --- | --- | 31.54 | --- |
| 2003 08 | --- | --- | --- | 31.35 | --- |
| 2003 09 | --- | --- | --- | 31.16 | --- |
| 2003 10 | --- | --- | --- | 30.97 | --- |
| 2003 11 | --- | --- | --- | 30.78 | --- |
| 2003 12 | --- | --- | --- | 30.59 | --- |
| 2004 01 | --- | --- | --- | 30.41 | --- |

# Well: JICARILLA B - 9A_DK

## Well Time Graph Report

| Date | WI Cal Day Oil | WI Cal Day Gas1 | WI Cal Day Water | WI Cal Day Gas FC 1 | WI Cum Gas1 |
|---|---|---|---|---|---|
| | Bbl/d | mcf/d | Bbl/d | mcf/d | MMSCF |
| 1970 01 | 8.48 | 145.61 | --- | 223.10 | 492.99 |
| 1970 02 | 6.64 | 145.04 | --- | 221.91 | 497.06 |
| 1970 03 | 8.10 | 126.84 | --- | 220.73 | 500.99 |
| 1970 04 | 5.37 | 127.70 | --- | 219.55 | 504.82 |
| 1970 05 | 5.97 | 132.10 | --- | 218.38 | 508.91 |
| 1970 06 | 8.60 | 136.77 | --- | 217.22 | 513.02 |
| 1970 07 | 3.55 | 74.42 | --- | 216.06 | 515.32 |
| 1970 08 | 5.32 | 114.55 | --- | 214.91 | 518.87 |
| 1970 09 | 3.63 | 121.43 | --- | 213.77 | 522.52 |
| 1970 10 | 7.42 | 114.16 | --- | 212.63 | 526.06 |
| 1970 11 | 9.97 | 147.93 | --- | 211.50 | 530.49 |
| 1970 12 | 6.77 | 136.81 | --- | 210.37 | 534.74 |
| 1971 01 | 1.19 | 60.58 | --- | 209.25 | 536.61 |
| 1971 02 | 5.32 | 183.39 | --- | 208.14 | 541.75 |
| 1971 03 | 4.00 | 136.48 | --- | 207.03 | 545.98 |
| 1971 04 | 4.60 | 145.53 | --- | 205.92 | 550.35 |
| 1971 05 | 4.90 | 80.90 | --- | 204.83 | 552.85 |
| 1971 06 | 8.60 | 177.43 | --- | 203.74 | 558.18 |
| 1971 07 | 7.42 | 148.74 | --- | 202.65 | 562.79 |
| 1971 08 | 4.29 | 126.10 | --- | 201.57 | 566.70 |
| 1971 09 | 6.53 | 139.70 | --- | 200.50 | 570.89 |
| 1971 10 | 7.68 | 141.58 | --- | 199.43 | 575.28 |
| 1971 11 | 5.43 | 160.30 | --- | 198.37 | 580.09 |
| 1971 12 | 5.06 | 134.84 | --- | 197.31 | 584.27 |
| 1972 01 | 4.19 | 157.90 | --- | 196.26 | 589.16 |
| 1972 02 | 6.66 | 162.76 | --- | 195.22 | 593.88 |
| 1972 03 | 5.10 | 111.61 | --- | 194.18 | 597.34 |
| 1972 04 | 4.13 | 118.80 | --- | 193.14 | 600.90 |
| 1972 05 | 7.58 | 160.19 | --- | 192.12 | 605.87 |
| 1972 06 | 7.27 | 157.47 | --- | 191.09 | 610.59 |
| 1972 07 | 7.13 | 12.68 | --- | 190.08 | 610.99 |
| 1972 08 | 7.19 | 165.77 | --- | 189.06 | 616.13 |
| 1972 09 | 6.80 | 156.90 | --- | 188.06 | 620.83 |
| 1972 10 | 4.90 | 152.26 | --- | 187.06 | 625.55 |
| 1972 11 | 5.03 | 163.43 | --- | 186.06 | 630.46 |
| 1972 12 | 6.87 | 133.39 | --- | 185.07 | 634.59 |
| 1973 01 | 5.32 | 136.84 | --- | 184.08 | 638.83 |
| 1973 02 | 0.00 | 150.57 | --- | 183.10 | 643.05 |
| 1973 03 | 0.00 | 118.94 | --- | 182.13 | 646.74 |
| 1973 04 | 11.70 | 116.93 | --- | 181.16 | 650.24 |
| 1973 05 | 8.45 | 198.52 | --- | 180.19 | 656.40 |
| 1973 06 | 5.53 | 173.73 | --- | 179.23 | 661.61 |
| 1973 07 | 6.94 | 148.48 | --- | 178.28 | 666.21 |
| 1973 08 | 3.55 | 150.48 | --- | 177.33 | 670.88 |
| 1973 09 | 6.63 | 173.37 | --- | 176.39 | 676.08 |
| 1973 10 | 2.13 | 128.03 | --- | 175.45 | 680.05 |
| 1973 11 | 8.53 | 207.07 | --- | 174.51 | 686.26 |
| 1973 12 | 6.42 | 170.32 | --- | 173.58 | 691.54 |
| 1974 01 | 4.90 | 169.81 | --- | 172.66 | 696.80 |
| 1974 02 | 3.93 | 163.71 | --- | 171.74 | 701.39 |
| 1974 03 | 0.00 | 147.03 | --- | 170.82 | 705.95 |
| 1974 04 | 5.53 | 165.33 | --- | 169.91 | 710.91 |
| 1974 05 | 3.68 | 161.52 | --- | 169.01 | 715.91 |
| 1974 06 | 5.93 | 165.17 | --- | 168.11 | 720.87 |
| 1974 07 | 5.16 | 169.58 | --- | 167.21 | 726.13 |

# Well: JICARILLA B - 9A_DK

## Well Time Graph Report

| Date | WI Cal Day Oil | WI Cal Day Gas1 | WI Cal Day Water | WI Cal Day Gas FC 1 | WI Cum Gas1 |
|---|---|---|---|---|---|
| | Bbl/d | mcf/d | Bbl/d | mcf/d | MMSCF |
| 1974 08 | 5.19 | 172.00 | --- | 166.32 | 731.46 |
| 1974 09 | 5.50 | 172.17 | --- | 165.44 | 736.62 |
| 1974 10 | 2.94 | 160.45 | --- | 164.56 | 741.60 |
| 1974 11 | 4.40 | 176.87 | --- | 163.68 | 746.90 |
| 1974 12 | 3.68 | 161.48 | --- | 162.81 | 751.91 |
| 1975 01 | 5.06 | 159.32 | --- | 161.94 | 756.85 |
| 1975 02 | 1.86 | 166.96 | --- | 161.08 | 761.52 |
| 1975 03 | 2.32 | 93.45 | --- | 160.22 | 764.42 |
| 1975 04 | 3.30 | 192.60 | --- | 159.37 | 770.20 |
| 1975 05 | 4.97 | 132.32 | --- | 158.52 | 774.30 |
| 1975 06 | 3.87 | 175.40 | --- | 157.68 | 779.56 |
| 1975 07 | 4.26 | 144.06 | --- | 156.84 | 784.03 |
| 1975 08 | 4.26 | 157.00 | --- | 156.00 | 788.89 |
| 1975 09 | 4.57 | 159.23 | --- | 155.17 | 793.67 |
| 1975 10 | 1.19 | 135.81 | --- | 154.34 | 797.88 |
| 1975 11 | 2.03 | 105.83 | --- | 153.52 | 801.06 |
| 1975 12 | 2.13 | 188.13 | --- | 152.71 | 806.89 |
| 1976 01 | 3.52 | 151.32 | --- | 151.89 | 811.58 |
| 1976 02 | 3.59 | 186.41 | --- | 151.08 | 816.99 |
| 1976 03 | 5.13 | 152.45 | --- | 150.28 | 821.71 |
| 1976 04 | 3.03 | 162.17 | --- | 149.48 | 826.58 |
| 1976 05 | 3.97 | 155.61 | --- | 148.68 | 831.40 |
| 1976 06 | 4.07 | 152.40 | --- | 147.89 | 835.97 |
| 1976 07 | 3.16 | 144.45 | --- | 147.10 | 840.45 |
| 1976 08 | 0.00 | 159.35 | --- | 146.32 | 845.39 |
| 1976 09 | 2.40 | 130.67 | --- | 145.54 | 849.31 |
| 1976 10 | 0.97 | 58.81 | --- | 144.77 | 851.13 |
| 1976 11 | 0.73 | 75.37 | --- | 143.99 | 853.39 |
| 1976 12 | 2.52 | 138.23 | --- | 143.23 | 857.68 |
| 1977 01 | 0.26 | 162.90 | --- | 142.47 | 862.73 |
| 1977 02 | 4.25 | 187.71 | --- | 141.71 | 867.98 |
| 1977 03 | 0.97 | 114.23 | --- | 140.95 | 871.53 |
| 1977 04 | 2.03 | 145.30 | --- | 140.20 | 875.89 |
| 1977 05 | 1.26 | 147.74 | --- | 139.45 | 880.47 |
| 1977 06 | 2.10 | 157.30 | --- | 138.71 | 885.18 |
| 1977 07 | 2.68 | 140.13 | --- | 137.97 | 889.53 |
| 1977 08 | 2.32 | 154.29 | --- | 137.24 | 894.31 |
| 1977 09 | 3.40 | 140.77 | --- | 136.51 | 898.53 |
| 1977 10 | 2.39 | 34.71 | --- | 135.78 | 899.61 |
| 1977 11 | 4.13 | 118.23 | --- | 135.06 | 903.16 |
| 1977 12 | 3.48 | 80.29 | --- | 134.34 | 905.65 |
| 1978 01 | 0.77 | 107.16 | --- | 133.62 | 908.97 |
| 1978 02 | 3.14 | 145.93 | --- | 132.91 | 913.05 |
| 1978 03 | 0.35 | 114.90 | --- | 132.20 | 916.62 |
| 1978 04 | 0.37 | 115.93 | --- | 131.50 | 920.09 |
| 1978 05 | 2.84 | 148.16 | --- | 130.80 | 924.69 |
| 1978 06 | 3.03 | 151.90 | --- | 130.10 | 929.24 |
| 1978 07 | 2.77 | 124.74 | --- | 129.41 | 933.11 |
| 1978 08 | 3.03 | 117.81 | --- | 128.72 | 936.76 |
| 1978 09 | 0.57 | 130.97 | --- | 128.04 | 940.69 |
| 1978 10 | 2.03 | 110.97 | --- | 127.35 | 944.13 |
| 1978 11 | 0.00 | 0.00 | --- | 126.68 | 944.13 |
| 1978 12 | 3.84 | 143.26 | --- | 126.00 | 948.57 |
| 1979 01 | 2.03 | 131.23 | --- | 125.33 | 952.64 |

# Well: JICARILLA B - 9A_DK

## Well Time Graph Report

| Date | WI Cal Day Oil | WI Cal Day Gas1 | WI Cal Day Water | WI Cal Day Gas FC 1 | WI Cum Gas1 |
|---|---|---|---|---|---|
| | Bbl/d | mcf/d | Bbl/d | mcf/d | MMSCF |
| 1979 02 | 3.86 | 165.50 | --- | 124.66 | 957.28 |
| 1979 03 | 1.32 | 60.97 | --- | 124.00 | 959.17 |
| 1979 04 | 1.83 | 178.17 | --- | 123.34 | 964.51 |
| 1979 05 | 3.26 | 130.16 | --- | 122.68 | 968.55 |
| 1979 06 | 2.20 | 101.70 | --- | 122.03 | 971.60 |
| 1979 07 | 4.32 | 139.00 | --- | 121.38 | 975.91 |
| 1979 08 | 4.10 | 108.35 | --- | 120.73 | 979.26 |
| 1979 09 | 1.10 | 148.10 | --- | 120.09 | 983.71 |
| 1979 10 | 2.84 | 103.26 | --- | 119.45 | 986.91 |
| 1979 11 | 1.73 | 146.27 | --- | 118.81 | 991.30 |
| 1979 12 | 1.68 | 129.13 | --- | 118.18 | 995.30 |
| 1980 01 | 3.39 | 135.77 | --- | 117.55 | 999.51 |
| 1980 02 | 2.28 | 115.14 | --- | 116.93 | 1,002.85 |
| 1980 03 | 2.13 | 101.77 | --- | 116.30 | 1,006.00 |
| 1980 04 | 12.77 | 104.00 | --- | 115.68 | 1,009.12 |
| 1980 05 | 0.71 | 60.97 | --- | 115.07 | 1,011.01 |
| 1980 06 | 0.37 | 17.33 | --- | 114.46 | 1,011.53 |
| 1980 07 | 0.45 | 23.55 | --- | 113.85 | 1,012.26 |
| 1980 08 | 0.71 | 34.58 | --- | 113.24 | 1,013.33 |
| 1980 09 | 2.50 | 72.13 | --- | 112.64 | 1,015.50 |
| 1980 10 | 3.74 | 114.94 | --- | 112.04 | 1,019.06 |
| 1980 11 | 4.33 | 152.50 | --- | 111.44 | 1,023.64 |
| 1980 12 | 2.23 | 132.35 | --- | 110.85 | 1,027.74 |
| 1981 01 | 0.00 | 0.00 | --- | 110.26 | 1,027.74 |
| 1981 02 | 0.00 | 136.93 | --- | 109.67 | 1,031.57 |
| 1981 03 | 0.00 | 103.23 | --- | 109.09 | 1,034.77 |
| 1981 04 | 7.73 | 135.07 | --- | 108.50 | 1,038.83 |
| 1981 05 | 7.19 | 112.55 | --- | 107.93 | 1,042.31 |
| 1981 06 | 0.00 | 103.10 | --- | 107.35 | 1,045.41 |
| 1981 07 | 0.00 | 94.90 | --- | 106.78 | 1,048.35 |
| 1981 08 | 0.00 | 86.74 | --- | 106.21 | 1,051.04 |
| 1981 09 | 7.63 | 117.43 | --- | 105.65 | 1,054.56 |
| 1981 10 | --- | 60.94 | --- | 105.08 | 1,056.45 |
| 1981 11 | --- | 48.33 | --- | 104.52 | 1,057.90 |
| 1981 12 | --- | 105.26 | --- | 103.97 | 1,061.16 |
| 1982 01 | 0.00 | 54.45 | --- | 103.41 | 1,062.85 |
| 1982 02 | 0.00 | 72.57 | --- | 102.86 | 1,064.88 |
| 1982 03 | 0.00 | 10.58 | --- | 102.32 | 1,065.21 |
| 1982 04 | 0.00 | 70.33 | --- | 101.77 | 1,067.32 |
| 1982 05 | 7.26 | 86.61 | --- | 101.23 | 1,070.01 |
| 1982 06 | 0.00 | 83.23 | --- | 100.69 | 1,072.50 |
| 1982 07 | 0.00 | 22.87 | --- | 100.15 | 1,073.21 |
| 1982 08 | 0.00 | 71.97 | --- | 99.62 | 1,075.44 |
| 1982 09 | 0.00 | 122.80 | --- | 99.09 | 1,079.13 |
| 1982 10 | 0.00 | 0.00 | --- | 98.56 | 1,079.13 |
| 1982 11 | 0.00 | 104.80 | --- | 98.04 | 1,082.27 |
| 1982 12 | 7.48 | 84.52 | --- | 97.51 | 1,084.89 |
| 1983 01 | 0.00 | 82.58 | --- | 97.00 | 1,087.45 |
| 1983 02 | 0.00 | 52.07 | --- | 96.48 | 1,088.91 |
| 1983 03 | 0.00 | 31.29 | --- | 95.97 | 1,089.88 |
| 1983 04 | 0.00 | 84.40 | --- | 95.45 | 1,092.41 |
| 1983 05 | 9.77 | 66.74 | --- | 94.95 | 1,094.48 |
| 1983 06 | 0.00 | 16.00 | --- | 94.44 | 1,094.96 |
| 1983 07 | 0.00 | 115.35 | --- | 93.94 | 1,098.54 |
| 1983 08 | 0.00 | 91.94 | --- | 93.44 | 1,101.39 |

# Well: JICARILLA B - 9A_DK

## Well Time Graph Report

| Date | WI Cal Day Oil | WI Cal Day Gas1 | WI Cal Day Water | WI Cal Day Gas FC 1 | WI Cum Gas1 |
|---|---|---|---|---|---|
| | Bbl/d | mcf/d | Bbl/d | mcf/d | MMSCF |
| 1983 09 | 0.00 | 100.10 | --- | 92.94 | 1,104.39 |
| 1983 10 | 0.00 | 89.45 | --- | 92.44 | 1,107.16 |
| 1983 11 | 7.77 | 104.00 | --- | 91.95 | 1,110.28 |
| 1983 12 | --- | 52.58 | --- | 91.46 | 1,111.91 |
| 1984 01 | 0.00 | 0.00 | --- | 90.98 | 1,111.91 |
| 1984 02 | 0.00 | 100.55 | --- | 90.49 | 1,114.83 |
| 1984 03 | 9.45 | 68.16 | --- | 90.01 | 1,116.94 |
| 1984 04 | 2.00 | 68.37 | --- | 89.53 | 1,118.99 |
| 1984 05 | 0.90 | 65.32 | --- | 89.05 | 1,121.02 |
| 1984 06 | 0.37 | 58.57 | --- | 88.58 | 1,122.77 |
| 1984 07 | 2.61 | 49.16 | --- | 88.11 | 1,124.30 |
| 1984 08 | 1.52 | 66.42 | --- | 87.64 | 1,126.36 |
| 1984 09 | 1.87 | 67.27 | --- | 87.17 | 1,128.37 |
| 1984 10 | 0.97 | 63.52 | --- | 86.71 | 1,130.34 |
| 1984 11 | 1.67 | 87.90 | --- | 86.25 | 1,132.98 |
| 1984 12 | 1.52 | 60.06 | --- | 85.79 | 1,134.84 |
| 1985 01 | 2.06 | 88.87 | --- | 85.33 | 1,137.60 |
| 1985 02 | 0.75 | 59.89 | --- | 84.88 | 1,139.27 |
| 1985 03 | 2.06 | 53.87 | --- | 84.42 | 1,140.94 |
| 1985 04 | 1.40 | 67.53 | --- | 83.97 | 1,142.97 |
| 1985 05 | 1.26 | 59.03 | --- | 83.53 | 1,144.80 |
| 1985 06 | 2.13 | 66.40 | --- | 83.08 | 1,146.79 |
| 1985 07 | 2.39 | 125.55 | --- | 82.64 | 1,150.68 |
| 1985 08 | 1.61 | 105.90 | --- | 82.20 | 1,153.97 |
| 1985 09 | 2.43 | 134.80 | --- | 81.76 | 1,158.01 |
| 1985 10 | 0.71 | 53.48 | --- | 81.33 | 1,159.67 |
| 1985 11 | 0.93 | 62.33 | --- | 80.89 | 1,161.54 |
| 1985 12 | 1.45 | 51.03 | --- | 15.29 | 1,163.12 |
| 1986 01 | 0.19 | 24.13 | --- | 15.23 | 1,163.87 |
| 1986 02 | 2.00 | 69.36 | --- | 15.18 | 1,165.81 |
| 1986 03 | 0.00 | 30.55 | --- | 15.12 | 1,166.76 |
| 1986 04 | 0.87 | 0.00 | --- | 15.06 | 1,166.76 |
| 1986 05 | 0.35 | 4.48 | --- | 15.00 | 1,166.90 |
| 1986 06 | 0.00 | 0.00 | --- | 14.95 | 1,166.90 |
| 1986 07 | 1.19 | 27.87 | --- | 14.89 | 1,167.76 |
| 1986 08 | 0.90 | 17.29 | --- | 14.83 | 1,168.30 |
| 1986 09 | 0.00 | 0.00 | --- | 14.78 | 1,168.30 |
| 1986 10 | 0.00 | 0.00 | --- | 14.72 | 1,168.30 |
| 1986 11 | 0.83 | 43.07 | --- | 14.67 | 1,169.59 |
| 1986 12 | 1.97 | 121.71 | --- | 14.61 | 1,173.36 |
| 1987 01 | 1.23 | 117.58 | 0.00 | 14.55 | 1,177.01 |
| 1987 02 | 0.29 | 30.07 | 0.14 | 14.50 | 1,177.85 |
| 1987 03 | 0.45 | 28.48 | 0.13 | 14.44 | 1,178.73 |
| 1987 04 | 0.57 | 21.10 | 0.07 | 14.39 | 1,179.37 |
| 1987 05 | --- | 0.00 | --- | 14.34 | 1,179.37 |
| 1987 06 | --- | 0.00 | --- | 14.28 | 1,179.37 |
| 1987 07 | --- | 0.00 | --- | 14.23 | 1,179.37 |
| 1987 08 | --- | 0.00 | --- | 14.17 | 1,179.37 |
| 1987 09 | --- | 2.60 | --- | 14.12 | 1,179.44 |
| 1987 10 | --- | 0.00 | --- | 14.07 | 1,179.44 |
| 1987 11 | --- | 2.60 | --- | 14.01 | 1,179.52 |
| 1987 12 | --- | --- | --- | 13.96 | 1,179.52 |
| 1988 01 | 0.00 | 0.03 | 0.00 | 13.91 | 1,179.52 |
| 1988 02 | 0.00 | 0.00 | 0.00 | 13.85 | 1,179.52 |

# Well: JICARILLA B - 9A_DK

## Well Time Graph Report

| Date | WI Cal Day Oil | WI Cal Day Gas1 | WI Cal Day Water | WI Cal Day Gas FC 1 | WI Cum Gas1 |
|---|---|---|---|---|---|
| | Bbl/d | mcf/d | Bbl/d | mcf/d | MMSCF |
| 1988 03 | 0.90 | 30.06 | 0.13 | 13.80 | 1,180.45 |
| 1988 04 | 2.50 | 126.70 | 0.53 | 13.75 | 1,184.26 |
| 1988 05 | 2.87 | 104.29 | 0.61 | 13.70 | 1,187.49 |
| 1988 06 | 0.00 | 37.93 | 0.00 | 13.64 | 1,188.63 |
| 1988 07 | 0.00 | 0.00 | 0.00 | 13.59 | 1,188.63 |
| 1988 08 | 0.00 | 0.00 | 0.00 | 13.54 | 1,188.63 |
| 1988 09 | 0.00 | 2.17 | 0.00 | 13.49 | 1,188.69 |
| 1988 10 | 0.45 | 36.74 | 0.13 | 13.44 | 1,189.83 |
| 1988 11 | 1.77 | 68.07 | 0.20 | 13.39 | 1,191.87 |
| 1988 12 | --- | 0.87 | --- | 13.34 | 1,191.90 |
| 1989 01 | 0.00 | 0.00 | --- | 13.28 | 1,191.90 |
| 1989 02 | 0.00 | 0.00 | --- | 13.23 | 1,191.90 |
| 1989 03 | 0.00 | 0.84 | --- | 13.18 | 1,191.93 |
| 1989 04 | 0.77 | 0.00 | --- | 13.13 | 1,191.93 |
| 1989 05 | 0.00 | 0.00 | --- | 13.08 | 1,191.93 |
| 1989 06 | 0.07 | 0.00 | --- | 13.03 | 1,191.93 |
| 1989 07 | 0.65 | 3.10 | --- | 12.99 | 1,192.02 |
| 1989 08 | 0.00 | 1.45 | --- | 12.94 | 1,192.07 |
| 1989 09 | 0.83 | 14.67 | --- | 12.89 | 1,192.51 |
| 1989 10 | 0.00 | 11.13 | --- | 12.84 | 1,192.85 |
| 1989 11 | 1.87 | 43.37 | --- | 12.79 | 1,194.15 |
| 1989 12 | 1.52 | 31.55 | --- | 12.74 | 1,195.13 |
| 1990 01 | 0.00 | 0.00 | --- | 12.69 | 1,195.13 |
| 1990 02 | 3.21 | 47.46 | --- | 12.64 | 1,196.46 |
| 1990 03 | 1.23 | 28.13 | --- | 12.60 | 1,197.33 |
| 1990 04 | --- | 0.00 | --- | 12.55 | 1,197.33 |
| 1990 05 | --- | 0.00 | --- | 12.50 | 1,197.33 |
| 1990 06 | --- | 0.00 | --- | 12.45 | 1,197.33 |
| 1990 07 | --- | 0.00 | --- | 12.41 | 1,197.33 |
| 1990 08 | --- | 0.06 | --- | 12.36 | 1,197.33 |
| 1990 09 | --- | 1.23 | --- | 12.31 | 1,197.37 |
| 1990 10 | --- | 1.61 | --- | 12.26 | 1,197.42 |
| 1990 11 | --- | 3.53 | --- | 12.22 | 1,197.53 |
| 1990 12 | --- | 2.90 | --- | 12.17 | 1,197.62 |
| 1991 01 | --- | 3.61 | 0.00 | 12.13 | 1,197.73 |
| 1991 02 | --- | 2.64 | 0.00 | 12.08 | 1,197.80 |
| 1991 03 | --- | 2.00 | 0.00 | 12.03 | 1,197.86 |
| 1991 04 | --- | 0.57 | 0.00 | 11.99 | 1,197.88 |
| 1991 05 | --- | 0.81 | 0.00 | 11.94 | 1,197.91 |
| 1991 06 | --- | 0.17 | 0.00 | 11.90 | 1,197.91 |
| 1991 07 | --- | 0.00 | 0.00 | 11.85 | 1,197.91 |
| 1991 08 | --- | 0.00 | 0.00 | 11.81 | 1,197.91 |
| 1991 09 | --- | 0.00 | 0.00 | 11.76 | 1,197.91 |
| 1991 10 | --- | 0.45 | 0.00 | 11.72 | 1,197.93 |
| 1991 11 | --- | 2.20 | 0.00 | 11.67 | 1,197.99 |
| 1991 12 | --- | 0.13 | 0.23 | 11.63 | 1,198.00 |
| 1992 01 | --- | 3.71 | --- | 11.58 | 1,198.11 |
| 1992 02 | --- | 5.93 | --- | 11.54 | 1,198.28 |
| 1992 03 | --- | 1.23 | --- | 11.50 | 1,198.32 |
| 1992 04 | --- | 5.10 | --- | 11.45 | 1,198.47 |
| 1992 05 | --- | 4.77 | --- | 11.41 | 1,198.62 |
| 1992 06 | --- | 6.77 | --- | 11.37 | 1,198.82 |
| 1992 07 | --- | 5.58 | --- | 11.32 | 1,199.00 |
| 1992 08 | --- | 5.35 | --- | 11.28 | 1,199.16 |
| 1992 09 | --- | 4.80 | --- | 11.24 | 1,199.31 |

# Well: JICARILLA B - 9A_DK

## Well Time Graph Report

| Date | WI Cal Day Oil | WI Cal Day Gas1 | WI Cal Day Water | WI Cal Day Gas FC 1 | WI Cum Gas1 |
|---|---|---|---|---|---|
| | Bbl/d | mcf/d | Bbl/d | mcf/d | MMSCF |
| 1992 10 | --- | 1.97 | --- | 11.19 | 1,199.37 |
| 1992 11 | --- | 3.23 | --- | 11.15 | 1,199.47 |
| 1992 12 | --- | 5.16 | --- | 11.11 | 1,199.63 |
| 1993 01 | 0.00 | 5.94 | --- | 11.07 | 1,199.81 |
| 1993 02 | 0.00 | 7.36 | --- | 11.03 | 1,200.02 |
| 1993 03 | 0.00 | 5.29 | --- | 10.98 | 1,200.18 |
| 1993 04 | 0.00 | 5.37 | --- | 10.94 | 1,200.34 |
| 1993 05 | 0.00 | 11.68 | --- | 10.90 | 1,200.70 |
| 1993 06 | 0.00 | 4.00 | --- | 10.86 | 1,200.82 |
| 1993 07 | 0.00 | 9.23 | --- | 10.82 | 1,201.11 |
| 1993 08 | 0.00 | 0.00 | --- | 10.78 | 1,201.11 |
| 1993 09 | 0.00 | 8.70 | --- | 10.74 | 1,201.37 |
| 1993 10 | 0.00 | 8.48 | --- | 10.70 | 1,201.63 |
| 1993 11 | 0.40 | 10.47 | --- | 10.65 | 1,201.95 |
| 1993 12 | --- | 9.48 | --- | 10.61 | 1,202.24 |
| 1994 01 | 0.00 | 1.13 | --- | 10.57 | 1,202.28 |
| 1994 02 | 0.00 | 10.25 | --- | 10.53 | 1,202.56 |
| 1994 03 | 0.00 | 9.74 | --- | 10.49 | 1,202.86 |
| 1994 04 | 0.00 | 6.47 | --- | 10.45 | 1,203.06 |
| 1994 05 | 0.00 | 4.74 | --- | 10.41 | 1,203.21 |
| 1994 06 | 0.00 | 4.27 | --- | 10.37 | 1,203.33 |
| 1994 07 | 0.00 | 2.74 | --- | 10.34 | 1,203.42 |
| 1994 08 | 0.00 | 1.74 | --- | 10.30 | 1,203.47 |
| 1994 09 | 1.77 | 24.13 | --- | 10.26 | 1,204.20 |
| 1994 10 | 5.74 | 63.13 | --- | 10.22 | 1,206.15 |
| 1994 11 | 3.97 | 85.67 | --- | 10.18 | 1,208.72 |
| 1994 12 | 4.52 | 90.29 | --- | 10.14 | 1,211.52 |
| 1995 01 | 4.32 | 102.29 | --- | 10.10 | 1,214.69 |
| 1995 02 | 3.29 | 94.04 | --- | 10.06 | 1,217.33 |
| 1995 03 | 3.35 | 117.81 | --- | 10.03 | 1,220.98 |
| 1995 04 | 3.47 | 215.03 | --- | 9.99 | 1,227.43 |
| 1995 05 | 2.74 | 112.58 | --- | 9.95 | 1,230.92 |
| 1995 06 | 1.10 | 40.70 | --- | 9.91 | 1,232.14 |
| 1995 07 | 0.00 | 0.42 | --- | 9.87 | 1,232.15 |
| 1995 08 | 1.26 | 75.39 | --- | 9.84 | 1,234.49 |
| 1995 09 | 3.53 | 118.97 | --- | 9.80 | 1,238.06 |
| 1995 10 | 2.45 | 107.84 | --- | 9.76 | 1,241.40 |
| 1995 11 | --- | 110.00 | --- | 9.72 | 1,244.70 |
| 1995 12 | --- | 91.48 | --- | 9.69 | 1,247.54 |
| 1996 01 | 1.29 | 109.06 | 1.00 | 9.65 | 1,250.92 |
| 1996 02 | 1.97 | 64.07 | 1.00 | 9.61 | 1,252.78 |
| 1996 03 | 0.00 | 0.00 | --- | 9.58 | 1,252.78 |
| 1996 04 | 0.00 | 0.00 | --- | 9.54 | 1,252.78 |
| 1996 05 | 0.00 | 26.97 | --- | 9.51 | 1,253.61 |
| 1996 06 | 0.00 | 21.97 | --- | 9.47 | 1,254.27 |
| 1996 07 | 0.03 | 4.84 | --- | 9.43 | 1,254.42 |
| 1996 08 | --- | 17.74 | --- | 9.40 | 1,254.97 |
| 1996 09 | --- | 5.13 | --- | 9.36 | 1,255.13 |
| 1996 10 | --- | 0.19 | --- | 9.33 | 1,255.13 |
| 1996 11 | --- | 1.50 | --- | 9.29 | 1,255.18 |
| 1996 12 | --- | --- | --- | 9.26 | 1,255.18 |
| 1997 01 | --- | 0.00 | --- | 9.22 | 1,255.18 |
| 1997 02 | --- | 3.75 | --- | 9.19 | 1,255.28 |
| 1997 03 | --- | 0.00 | --- | 9.15 | 1,255.28 |

# Well: JICARILLA B - 9A_DK

## Well Time Graph Report

| Date | WI Cal Day Oil | WI Cal Day Gas1 | WI Cal Day Water | WI Cal Day Gas FC 1 | WI Cum Gas1 |
|---|---|---|---|---|---|
| | Bbl/d | mcf/d | Bbl/d | mcf/d | MMSCF |
| 1997 04 | --- | 0.00 | --- | 9.12 | 1,255.28 |
| 1997 05 | --- | 0.00 | --- | 9.08 | 1,255.28 |
| 1997 06 | --- | 0.00 | --- | 9.05 | 1,255.28 |
| 1997 07 | --- | 0.03 | --- | 9.01 | 1,255.28 |
| 1997 08 | --- | --- | --- | 8.98 | 1,255.28 |
| 1997 09 | --- | --- | --- | 8.94 | 1,255.28 |
| 1997 10 | --- | --- | --- | 8.91 | 1,255.28 |
| 1997 11 | --- | --- | --- | 8.88 | 1,255.28 |
| 1997 12 | --- | --- | --- | 8.84 | 1,255.28 |
| 1998 01 | --- | --- | --- | 8.81 | 1,255.28 |
| 1998 02 | --- | --- | --- | 8.78 | 1,255.28 |
| 1998 03 | --- | --- | --- | 8.74 | 1,255.28 |
| 1998 04 | --- | --- | --- | 8.71 | 1,255.28 |
| 1998 05 | --- | --- | --- | 8.68 | 1,255.28 |
| 1998 06 | --- | --- | --- | 8.64 | 1,255.28 |
| 1998 07 | --- | --- | --- | 8.61 | 1,255.28 |
| 1998 08 | --- | --- | --- | 8.58 | 1,255.28 |
| 1998 09 | --- | --- | --- | 8.54 | 1,255.28 |
| 1998 10 | --- | --- | --- | 8.51 | 1,255.28 |
| 1998 11 | 0.00 | 11.27 | 0.00 | 76.19 | 1,255.62 |
| 1998 12 | 0.00 | 31.10 | 0.00 | 75.84 | 1,256.59 |
| 1999 01 | 1.61 | 34.35 | 0.00 | 75.50 | 1,257.65 |
| 1999 02 | 0.11 | 30.57 | 0.00 | 75.15 | 1,258.51 |
| 1999 03 | 0.00 | 15.16 | 0.00 | 74.81 | 1,258.98 |
| 1999 04 | 2.73 | 96.33 | --- | 74.47 | 1,261.87 |
| 1999 05 | 5.10 | 82.90 | --- | 74.14 | 1,264.44 |
| 1999 06 | 0.30 | 53.00 | --- | 73.80 | 1,266.03 |
| 1999 07 | 1.00 | 15.87 | --- | 73.47 | 1,266.52 |
| 1999 08 | 1.10 | 52.61 | --- | 73.13 | 1,268.15 |
| 1999 09 | 3.47 | 85.10 | --- | 72.80 | 1,270.70 |
| 1999 10 | --- | 38.39 | --- | 72.47 | 1,271.89 |
| 1999 11 | 1.40 | 32.37 | --- | 72.14 | 1,272.86 |
| 1999 12 | 0.10 | 73.77 | --- | 71.81 | 1,275.15 |
| 2000 01 | --- | 88.00 | --- | 71.49 | 1,277.88 |
| 2000 02 | --- | 77.83 | --- | 71.16 | 1,280.14 |
| 2000 03 | --- | 74.00 | --- | 70.84 | 1,282.43 |
| 2000 04 | --- | 66.83 | --- | 70.52 | 1,284.43 |
| 2000 05 | --- | 74.77 | --- | 70.20 | 1,286.75 |
| 2000 06 | --- | 68.93 | --- | 69.88 | 1,288.82 |
| 2000 07 | --- | 60.42 | --- | 69.56 | 1,290.69 |
| 2000 08 | 2.03 | 66.35 | 0.00 | 1.00 | 1,292.75 |
| 2000 09 | 1.20 | 67.33 | 0.00 | 0.99 | 1,294.77 |
| 2000 10 | 0.03 | 16.32 | 0.00 | 0.99 | 1,295.28 |
| 2000 11 | --- | --- | --- | 0.98 | 1,295.28 |
| 2000 12 | --- | --- | --- | 0.98 | 1,295.28 |
| 2001 01 | --- | --- | --- | 0.98 | 1,295.28 |
| 2001 02 | --- | --- | --- | 0.97 | 1,295.28 |
| 2001 03 | --- | --- | --- | 0.97 | 1,295.28 |
| 2001 04 | --- | --- | --- | 0.96 | 1,295.28 |
| 2001 05 | --- | --- | --- | 0.96 | 1,295.28 |
| 2001 06 | --- | --- | --- | 0.95 | 1,295.28 |
| 2001 07 | --- | --- | --- | 0.95 | 1,295.28 |
| 2001 08 | --- | --- | --- | 0.94 | 1,295.28 |
| 2001 09 | --- | --- | --- | 0.94 | 1,295.28 |
| 2001 10 | --- | --- | --- | 0.94 | 1,295.28 |

# Well: JICARILLA B - 9A_DK

## Well Time Graph Report

| Date | WI Cal Day Oil | WI Cal Day Gas1 | WI Cal Day Water | WI Cal Day Gas FC 1 | WI Cum Gas1 |
|---|---|---|---|---|---|
| | Bbl/d | mcf/d | Bbl/d | mcf/d | MMSCF |
| 2001 11 | --- | --- | --- | 0.93 | 1,295.28 |
| 2001 12 | --- | --- | --- | 0.93 | 1,295.28 |
| 2002 01 | --- | --- | --- | 0.92 | 1,295.28 |
| 2002 02 | 0.00 | 24.34 | 0.00 | 0.92 | 1,295.96 |
| 2002 03 | 0.00 | 62.64 | 0.00 | 69.85 | 1,297.90 |
| 2002 04 | 0.00 | 69.21 | 0.00 | 69.55 | 1,299.98 |
| 2002 05 | 0.58 | 74.82 | 0.00 | 69.26 | 1,302.30 |
| 2002 06 | --- | --- | --- | 68.96 | --- |
| 2002 07 | --- | --- | --- | 68.67 | --- |
| 2002 08 | --- | --- | --- | 68.37 | --- |
| 2002 09 | --- | --- | --- | 68.08 | --- |
| 2002 10 | --- | --- | --- | 67.79 | --- |
| 2002 11 | --- | --- | --- | 67.50 | --- |
| 2002 12 | --- | --- | --- | 67.21 | --- |
| 2003 01 | --- | --- | --- | 66.93 | --- |
| 2003 02 | --- | --- | --- | 66.64 | --- |
| 2003 03 | --- | --- | --- | 66.36 | --- |
| 2003 04 | --- | --- | --- | 66.08 | --- |
| 2003 05 | --- | --- | --- | 65.79 | --- |
| 2003 06 | --- | --- | --- | 65.51 | --- |
| 2003 07 | --- | --- | --- | 65.23 | --- |
| 2003 08 | --- | --- | --- | 64.95 | --- |
| 2003 09 | --- | --- | --- | 64.68 | --- |
| 2003 10 | --- | --- | --- | 64.40 | --- |
| 2003 11 | --- | --- | --- | 64.13 | --- |
| 2003 12 | --- | --- | --- | 63.85 | --- |
| 2004 01 | --- | --- | --- | 63.58 | --- |
| 2004 02 | --- | --- | --- | 63.31 | --- |
| 2004 03 | --- | --- | --- | 63.04 | --- |
| 2004 04 | --- | --- | --- | 62.77 | --- |
| 2004 05 | --- | --- | --- | 62.50 | --- |
| 2004 06 | --- | --- | --- | 62.24 | --- |
| 2004 07 | --- | --- | --- | 61.97 | --- |
| 2004 08 | --- | --- | --- | 61.71 | --- |
| 2004 09 | --- | --- | --- | 61.44 | --- |
| 2004 10 | --- | --- | --- | 61.18 | --- |
| 2004 11 | --- | --- | --- | 60.92 | --- |
| 2004 12 | --- | --- | --- | 60.66 | --- |
| 2005 01 | --- | --- | --- | 60.40 | --- |
| 2005 02 | --- | --- | --- | 60.14 | --- |
| 2005 03 | --- | --- | --- | 59.89 | --- |
| 2005 04 | --- | --- | --- | 59.63 | --- |
| 2005 05 | --- | --- | --- | 59.38 | --- |
| 2005 06 | --- | --- | --- | 59.13 | --- |
| 2005 07 | --- | --- | --- | 58.87 | --- |
| 2005 08 | --- | --- | --- | 58.62 | --- |
| 2005 09 | --- | --- | --- | 58.37 | --- |
| 2005 10 | --- | --- | --- | 58.12 | --- |
| 2005 11 | --- | --- | --- | 57.87 | --- |
| 2005 12 | --- | --- | --- | 57.63 | --- |
| 2006 01 | --- | --- | --- | 57.38 | --- |
| 2006 02 | --- | --- | --- | 57.14 | --- |
| 2006 03 | --- | --- | --- | 56.89 | --- |
| 2006 04 | --- | --- | --- | 56.65 | --- |

CONOCO INC.
JICARILLA "B" 9A SURFACE COMMINGLE

# EXHIBIT C

Gas Analysis Reports (w/BTU content)

ZONE - LIKELY PC
ONLY DK & PC COMPLETED IN '89.

SUNTERRA GAS GATHERING COMPANY

REPORT OF BTU TEST RESULTS

TO: SOUTHERN UNION EXPLORATION CO.

REF: JICARILLA B #5 (B 9A)
9149

DATE OF THIS TEST: 09-07-89

RESULTS: SPECIFIC GRAVITY: .726
BTU/CF @ 14.73/60F/DRY: 1248

SX-PRODUCTION OCT 10 1989

cc Engr
acctg

ZONE - LIKELY DK
ONLY DK & PC COMPLETED IN '88.

GAS COMPANY OF NEW MEXICO
REPORT OF BTU TEST RESULTS

TO: SOUTHERN UNION EXPLORATION CO (829)

REF: JICARILLA B 5 (B9A)
7071
NORTHWEST NEW MEXICO ( 70)

DATE OF THIS TEST: 8/29/88
DATE OF LAST TEST: 12/11/86
TEST FREQUENCY: NOT SPECIFIED

RESULTS: SPECIFIC GRAVITY: 0.7584
BTU/CF @ 14.73/60F/DRY: 1297.7

| | MOL % | G.P.M. |
|---|---|---|
| CARBON DIOXIDE | 0.737 | 0.0000 |
| NITROGEN | 0.919 | 0.0000 |
| METHANE | 74.200 | 0.0000 |
| ETHANE | 14.090 | 3.7740 |
| PROPANE | 6.654 | 1.8360 |
| ISOBUTANE | 0.794 | 0.2600 |
| N-BUTANE | 1.394 | 0.4400 |
| ISOPENTANE | 0.437 | 0.1600 |
| N-PENTANE | 0.383 | 0.1380 |
| HEXANE + | 0.418 | 0.1710 |
| TOTAL | 100.026 | 6.7790 |

cc Engr
Acctg

ZONE - LIKELY DK
ONLY DK & PC COMPLETED
IN '85.

GAS COMPANY OF NEW MEXICO
REPORT OF BTU TEST RESULTS

TO: SOUTHERN UNION EXPLORATION CO (829)

(B 9A)
REF: JICARILLA B 5 Rio Arriba
7071
NORTHWEST NEW MEXICO ( 70)

DATE OF THIS TEST: 5/29/85
DATE OF LAST TEST: 3/20/84
TEST FREQUENCY: NOT SPECIFIED

RESULTS: SPECIFIC GRAVITY: 0.7627
BTU/CF @ 14.73/60F/DRY: 1309.9

| | MOL % | G.P.M. |
|---|---|---|
| CARBON DIOXIDE | 0.712 | 0.0000 |
| NITROGEN | 0.613 | 0.0000 |
| METHANE | 74.330 | 0.0000 |
| ETHANE | 13.930 | 3.7310 |
| PROPANE | 6.470 | 1.7850 |
| ISOBUTANE | 0.844 | 0.2760 |
| N-BUTANE | 1.795 | 0.5660 |
| ISOPENTANE | 0.474 | 0.1730 |
| N-PENTANE | 0.388 | 0.1400 |
| HEXANE + | 0.455 | 0.1860 |
| TOTAL | 100.011 | 6.8570 |

cc: SR, MKTG, Res Eng
7/9/85

ZONE - LIKELY DK
ONLY DK & PC COMPLETED IN '84

GAS COMPANY OF NEW MEXICO
REPORT OF BTU TEST RESULTS

TO: SOUTHERN UNION EXPLORATION CO (82

REF: JICARILLA B 5 (B 9A) Rio Arriba NM
7071
NORTHWEST NEW MEXICO ( 7

DATE OF THIS TEST: 3/20/84
DATE OF LAST TEST: 12/07/82
TEST FREQUENCY: NOT SPECIFIED

RESULTS: SPECIFIC GRAVITY: 0.7436
BTU/CF @ 14.73/60F/DRY: 1286.2

| | MOL % | G.P.M. |
|---|---|---|
| CARBON DIOXIDE | 0.691 | 0.0000 |
| NITROGEN | 0.533 | 0.0000 |
| METHANE | 75.720 | 0.0000 |
| ETHANE | 13.540 | 3.6250 |
| PROPANE | 6.237 | 1.7190 |
| ISOBUTANE | 0.737 | 0.2410 |
| N-BUTANE | 1.586 | 0.5000 |
| ISOPENTANE | 0.371 | 0.1350 |
| N-PENTANE | 0.309 | 0.1120 |
| HEXANE + | 0.285 | 0.1250 |
| TOTAL | 100.009 | 6.4570 |

cc: SR, MLTG, RT, NTS, MD
4/24/84

Flw
Shts

ZONE - LIKELY DK
ONLY DK & PC COMPLETED IN '82

SOUTHERN UNION GAS COMPANY
REPORT OF BTU TEST RESULTS

TO: SOUTHERN UNION EXPLORATION CO (829)

REF: JICARILLA B 5 (B 9A)
7071
NORTHWEST NEW MEXICO ( 70)

DATE OF THIS TEST: 12/07/82
DATE OF LAST TEST: 9/03/81
TEST FREQUENCY: 12

RESULTS: SPECIFIC GRAVITY: 0.7388
BTU/CF @ 14.73/60F/DRY: 1277.9

| | MOL % | G.P.M. |
|---|---|---|
| CARBON DIOXIDE | 0.758 | 0.0000 |
| NITROGEN | 0.484 | 0.0000 |
| METHANE | 75.950 | 0.0000 |
| ETHANE | 13.540 | 3.6250 |
| PROPANE | 6.261 | 1.7250 |
| ISOBUTANE | 0.725 | 0.2370 |
| N-BUTANE | 1.558 | 0.4910 |
| ISOPENTANE | 0.309 | 0.1130 |
| N-PENTANE | 0.238 | 0.0860 |
| HEXANE + | 0.199 | 0.0870 |
| TOTAL | 100.022 | 6.3640 |

SOUTHERN UNION EXPLORATION CO

JAN 14 1983

cc J. Ellis

1115 Farmington Avenue
Farmington, N.M. 87401
(505) 325-6622

Analysis No. MRT50006
Cust. No. 52150-10045

## WELL/LEASE INFORMATION

| | | | |
|---|---|---|---|
| Company | : MERIT ENERGY COMPANY | Source | : METER RUN |
| Well Name | : JICARILLA B 5 (WELL # CHANGED TO 9A AFTER RECOMPLETION) | Pressure | : 134 PSIG |
| County | : RIO ARRIBA | Sample Temp. | : N/A DEG.F |
| State | : NM | Well Flowing | : YES |
| Location | : 26-26N-04W | Date Sampled | : 06/28/95 |
| Fld/Formation | : MESAVERDE | Sampled By | : BOB DURBIN |
| Cust.Stn.No. | : | Foreman/Engr | : |

Remarks:

NOTE: STILL CLEANING-UP AFTER FRAC (SEE P.2)

### ANALYSIS

| COMPONENT | MOLE % | GPM** | B.T.U.* | SP.GR.* |
|---|---|---|---|---|
| NITROGEN | 7.693 | 0.0000 | 0.00 | 0.0744 |
| CO2 | 0.385 | 0.0000 | 0.00 | 0.0059 |
| METHANE | 75.526 | 0.0000 | 764.55 | 0.4183 |
| ETHANE | 9.492 | 2.5391 | 168.36 | 0.0985 |
| PROPANE | 4.107 | 1.1319 | 103.57 | 0.0625 |
| I-BUTANE | 0.631 | 0.2064 | 20.57 | 0.0127 |
| N-BUTANE | 0.963 | 0.3036 | 31.49 | 0.0193 |
| I-PENTANE | 0.412 | 0.1508 | 16.52 | 0.0103 |
| N-PENTANE | 0.296 | 0.1072 | 11.89 | 0.0074 |
| HEXANES | 0.495 | 0.2159 | 25.45 | 0.0159 |
| TOTAL | 100.000 | 4.6549 | 1142.40 | 0.7251 |

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY
** @ 14.730 & 60 DEG. F

| | | |
|---|---|---|
| COMPRESSIBILITY FACTOR | (1/Z) | 1.0031 |
| BTU/CU.FT. (DRY) CORRECTED FOR | (1/Z) | 1145.9 |
| BTU/CU.FT. (WET) CORRECTED FOR | (1/Z) | 1126.0 |
| REAL SPECIFIC GRAVITY | | 0.7270 |

ANALYSIS RUN AT 14.730 PSIA & 60 DEGREES F

| | |
|---|---|
| CYLINDER # | : 008 |
| CYLINDER PRESSURE | : 119 PSIG |
| DATE RUN | : 06/28/95 |
| ANALYSIS RUN BY | : CHELLE DURBIN |

30-039-06321

GAS ANALYSIS SERVICE

MERIT ENERGY COMPANY
WELL ANALYSIS COMPARISON

LEASE : JICARILLA B 5 (9A) MESAVERDE 06/29/1995
STN.NO. : 52150-10045

| DATE | 06/28/95 | 06/23/95 | 06/20/95 |
|---|---|---|---|
| RUN NR. | MRT50006 | MRT50005 | MRT50004 |
| NITROGEN | 7.693 | 12.561 | 25.408 |
| CO2 | 0.385 | 0.374 | 0.296 |
| METHANE | 75.526 | 71.384 | 61.384 |
| ETHANE | 9.492 | 8.972 | 7.485 |
| PROPANE | 4.107 | 3.958 | 3.286 |
| I-BUTANE | 0.631 | 0.673 | 0.559 |
| N-BUTANE | 0.963 | 1.033 | 0.839 |
| I-PENTANE | 0.412 | 0.345 | 0.281 |
| N-PENTANE | 0.296 | 0.242 | 0.198 |
| HEXANES | 0.495 | 0.458 | 0.264 |
| BTU | 1145.9 | 1087.5 | 917.6 |
| GPM | 4.6549 | 4.4503 | 3.6448 |
| SP.GRAV. | 0.7270 | 0.7413 | 0.7676 |
| | 6/28/95 | 6/23/95 | 6/20/95 |

FILE COPY

← CLEANING-UP AFTER FRAC

API#30-039-07481

MOBILE ANALYTICAL LABORATORIES, INC.
P. O. BOX 69210
ODESSA, TEXAS 79769-9210
PHONE 915-337-4744 FAX 915-337-8781

# ANALYSIS REPORT

| | | | |
|---|---|---|---|
| COMPANY | BENHAM CONSULTING | LAB NUMBER | 7426 |
| LEASE | JICARILLA A #1 P.C. | DATE SAMPLED | 04/12/01 |
| STATION | 066-10-212 | DATE RUN | 04/19/01 |
| OPERATOR | CONOCO SAN JUAN | PRESS. PSIA | 57.5 |
| EFFECTIVE | 05/01/01 | TEMP. DEG. F | 53 |
| | | SAMPLE | SPOT |

| COMPONENT | MOL % | GPM |
|---|---|---|
| NITROGEN | 0.318 | 0.000 |
| CARBON DIOXIDE | 0.422 | 0.000 |
| METHANE | 83.339 | 0.000 |
| ETHANE | 7.038 | 1.881 |
| PROPANE | 4.555 | 1.254 |
| ISO-BUTANE | 1.021 | 0.334 |
| N-BUTANE | 1.422 | 0.448 |
| ISO-PENTANE | 0.554 | 0.203 |
| N-PENTANE | 0.408 | 0.148 |
| HEXANES PLUS | 0.923 | 0.403 |
| TOTALS | 100.000 | 4.671 |

ANALYSIS CALCULATED AT 14.73 PSIA & 60 DEG. F
GROSS DRY BTU/CU.FT. ..... 1253.72
GROSS WET BTU/CU.FT. ..... 1231.90
CALC. REAL SP.GR. ..... 0.7183
C5+ GPM ..... 0.754
WATER CONTENT LBS/MMSCF ...
H2S PPM .....

DISTRIBUTION:
STAN BENHAM

NOTES:

30-039-20117

MOBILE ANALYTICAL LABORATORIES, INC.
P. O. BOX 69210
ODESSA, TEXAS 79769-9210
PHONE 915-337-4744 FAX 915-337-8781

# ANALYSIS REPORT

| | | | |
|---|---|---|---|
| COMPANY | BENHAM CONSULTING | LAB NUMBER | 1312 |
| LEASE | JICARILLA A 10 PC | DATE SAMPLED | 03/11/02 |
| STATION | 066-10-215 | DATE RUN | 03/15/02 |
| OPERATOR | CONOCO SAN JUAN | PRESS. PSIA | 28.2 |
| EFFECTIVE | 04/01/02 | TEMP. DEG. F | 47 |
| CYLINDER | 085 | SAMPLE | SPOT |

| COMPONENT | MOL % | GPM |
|---|---|---|
| NITROGEN | 0.304 | 0.000 |
| CARBON DIOXIDE | 0.431 | 0.000 |
| METHANE | 82.650 | 0.000 |
| ETHANE | 7.172 | 1.917 |
| PROPANE | 4.811 | 1.325 |
| ISO-BUTANE | 1.095 | 0.358 |
| N-BUTANE | 1.524 | 0.480 |
| ISO-PENTANE | 0.575 | 0.210 |
| N-PENTANE | 0.419 | 0.152 |
| HEXANES PLUS | 1.019 | 0.445 |
| TOTALS | 100.000 | 4.887 |

ANALYSIS CALCULATED AT 14.73 PSIA & 60 DEG. F
GROSS DRY BTU/CU.FT. ..... 1268
GROSS WET BTU/CU.FT. ..... 1246
CALC. REAL SP.GR. ..... 0.7273
C5+ GPM ..... 0.807
WATER CONTENT LBS/MMSCF ....
H2S PPM .....

DISTRIBUTION:
STAN BENHAM

NOTES:

API # 30-039-20117


# MOBILE ANALYTICAL LABORATORIES, INC.
P. O. BOX 69210
ODESSA, TEXAS 79769-9210
PHONE 915-337-4744 FAX 915-337-8781


## ANALYSIS REPORT

COMPANY ..... BENHAM CONSULTING
LEASE ..... JICARILLA A 10 MV
STATION ..... 066-10-216
OPERATOR ..... CONOCO SAN JUAN
EFFECTIVE ..... 02/01/01

LAB NUMBER ..... 7190
DATE SAMPLED ..... 01/12/01
DATE RUN ..... 01/15/01
PRESS. PSIA ..... 47.0
TEMP. DEG. F ..... 45
SAMPLE ..... SPOT

| COMPONENT | MOL % | GPM |
|---|---|---|
| NITROGEN | 0.245 | 0.000 |
| CARBON DIOXIDE | 0.679 | 0.000 |
| METHANE | 79.347 | 0.000 |
| ETHANE | 11.301 | 3.021 |
| PROPANE | 4.176 | 1.150 |
| ISO-BUTANE | 0.991 | 0.324 |
| N-BUTANE | 1.464 | 0.462 |
| ISO-PENTANE | 0.598 | 0.219 |
| N-PENTANE | 0.385 | 0.139 |
| HEXANES PLUS | 0.814 | 0.355 |
| TOTALS | 100.000 | 5.670 |

ANALYSIS CALCULATED AT 14.73 PSIA & 60 DEG. F
GROSS DRY BTU/CU.FT. ..... 1275.30
GROSS WET BTU/CU.FT. ..... 1253.10
CALC. REAL SP.GR. ..... 0.7353
C5+ GPM ..... 0.713
WATER CONTENT LBS/MMSCF ....
H2S PPM .....

DISTRIBUTION:
STAN BENHAM

NOTES:

CUT ... NOTE: FILL IN DATA AS APPLICABLE TO PRODUCT TESTED

ALYSIS NO

DATE 1-24-80

ODUCT DESCRIPTION

Jupiter A-10 (DAK) Jicarilla A #10

7120-30 75%

| | | |
|---|---|---|
| POR PRESSURE | GRAVITY .755 (SP.GR.) (API) | CORROSION TEST (COPPER STRIP) |
| YNESS TEST-PROPANE | RESIDUE TEST-LPG | WEATHERING TEST-LPG °F @ 95% BP |
| AD ACETATE TEST | BTU 1302 /ft.³ (DRY) | DOCTOR TEST |
| DROGEN SULFIDE gr/100 ft.³ | MERCAPTANS gr/100 ft.³ | GRADE |
| | | |

## CHROMATOGRAPHIC ANALYSIS

| | MOLE % | G.P.M. | LIQUID VOLUME % |
|---|---|---|---|
| RBON DIOXIDE | .57 | | |
| ROGEN | .60 | | |
| THANE | 74.49 | | |
| IANE | 14.03 | 3.792 | |
| IPANE | 6.61 | 1.814 | |
| BUTANE | .96 | .281 | |
| UTANE | 2.03 | .638 | |
| ENTANE | .90 | .146 | |
| ENTANE | .29 | .105 | |
| ANE + | .16 | .641 | |
| $C_{7+}$ | .02 | .009 | |
| | | | |
| | | | |
| TOTAL | 100 | 6.776 | |

## COMMENTS

## DISTILLATION

| % | TEMPERATURE |
|---|---|
| IBP | |
| 5 | |
| 10 | |
| 20 | |
| 30 | |
| 40 | |
| 50 | |
| 60 | |
| 70 | |
| 80 | |
| 90 | |
| E.P. | |
| LOSS | RESIDUE |

TEMPERATURES, PRESSURES AND VOLUMES ARE ERTED TO INDUSTRY STANDARDS.

TESTED BY M. THUL

RKS AND ADDITIONS

30-039-2573

MOBILE ANALYTICAL LABORATORIES, INC.
P. O. BOX 69210
ODESSA, TEXAS 79769-9210
PHONE 915-337-4744 FAX 915-337-8781

# ANALYSIS REPORT

| | | | |
|---|---|---|---|
| COMPANY ..... | BENHAM CONSULTING | LAB NUMBER ..... | 1311 |
| LEASE ..... | JICARILLA A 8 M (MMGD MV/DK | DATE SAMPLED ..... | 03/11/02 |
| STATION ..... | 066-10-211 | DATE RUN ..... | 03/15/02 |
| OPERATOR ..... | CONOCO SAN JUAN | PRESS. PSIA ..... | 29.3 |
| EFFECTIVE ... | 04/01/02 | TEMP. DEG. F ..... | 54 |
| CYLINDER ..... | 185 | SAMPLE ..... | SPOT |

| COMPONENT | MOL % | GPM |
|---|---|---|
| NITROGEN ..... | 0.352 | 0.000 |
| CARBON DIOXIDE ..... | 0.686 | 0.000 |
| METHANE ..... | 77.198 | 0.000 |
| ETHANE ..... | 11.960 | 3.197 |
| PROPANE ..... | 5.472 | 1.507 |
| ISO-BUTANE ..... | 0.867 | 0.284 |
| N-BUTANE ..... | 1.530 | 0.482 |
| ISO-PENTANE ..... | 0.522 | 0.191 |
| N-PENTANE ..... | 0.431 | 0.156 |
| HEXANES PLUS ..... | 0.982 | 0.428 |
| TOTALS | 100.000 | 6.245 |

ANALYSIS CALCULATED AT 14.73 PSIA & 60 DEG. F
GROSS DRY BTU/CU.FT. ..... 1304
GROSS WET BTU/CU.FT. ..... 1281
CALC. REAL SP.GR. ..... 0.7549
C5+ GPM ..... 0.775
WATER CONTENT LBS/MMSCF ...
H2S PPM .....

DISTRIBUTION:
STAN BENHAM

NOTES:

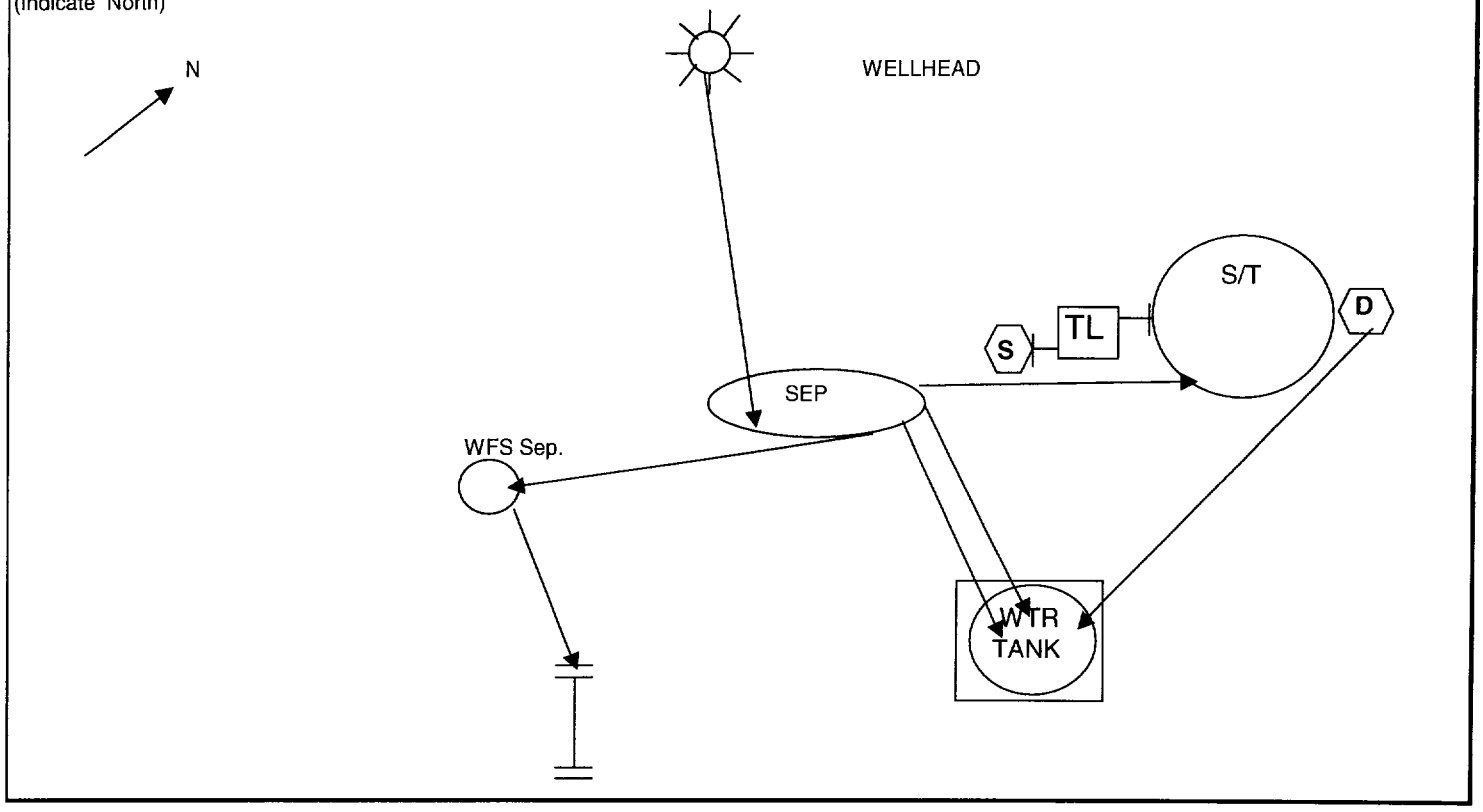
CONOCO INC.
JICARILLA "B" 9A SURFACE COMMINGLE

# EXHIBIT D

**Facility Schematic**

Lease Name: **Jicarilla B 9A** Operator: **CONOCO INC.** Date: 10/24/2000

Site Security
(Indicate North)




**Lease Name:** Jicarilla B 9A

**Federal/ Indian Lease No:** 121

**CA No.:**

**Unit :** D

**Legal Description:** SEC 26 26N 04W

**County:** SAN JUAN, NM

**Load line valves :**
**Sealed during Production**

**Drain line valves :**
**Sealed during Production**

**Production Line valve:**
**Sealed during sales**

**This lease is subject to the site security plan for San Juan Basin Operations. The plan is located at:**
**Conoco Inc.**
**3315 Bloomfield Hwy**
**Farmington, NM**

Lease Name: **Jicarilla B 9A** Operator: CONOCO INC. Date: 10/24/2000

| | # | | | | | | |
|---|---|---|---|---|---|---|---|
| Earthen pits: | | Type: (vent, sep, H2O etc) | | | Size: | | Oil Stained Yes No |
| Steel pits: | | Type: (vent, sep, H2O etc) | | | Size: | | |
| | 1 | Vent/h20 | | | 80bble | | |
| Storage Tanks: | | Water/Oil | Bbls. | Ht. Dia. | | Color: | |
| | 1 | Oil | 500 | 15' 16' | | Grey | |
| | | Avg. volume stored: | | Annual thruput: | | Sep Psi. Upstream: | |
| | | 180 | | 600bbls | | 150 | |
| | | Water/Oil | Bbls. | Ht. Dia. | | Color: | |
| | | Avg. volume stored: | | Annual thruput: | | Sep Psi. Upstream: | |
| Natural Gas Fired Vessels: (Htr/trt, Sep, Glycol Reb.) | 1 | Type/size: | | MFR: | | Vessel Size (btu/hr) | |
| Glycol Dehy's | | Glycol flowrate (gpm) Design | | | Actual | | |
| | | Natural gas rate (mmcfd): | | Design | | Glycol type (TEG, DEG, EG,Other) | |
| Compressor | | Engine description (include LxWxH) | | | | | |
| | | Ht of Ex Stack above Equip: | | | Comp Mfr: | | |
| | | Max RPM's run on sustained basis: | | | | | |
| SPCC | | Top | Bottom | Distance from water source | | | |
| Chem Storage (bulk) | | Chemical Vendor | | Chemical Name | | Quantity Stored | # of Bulk Containers |
| Asbestos | | Is tin on vessel torn, punctured, etc.? | | | | | |
| | | Insulation visable? | | | | | |
| | | Other | | | | | |
| H2S | | | PPM | | | | |

Remarks:

CONOCO INC.
JICARILLA "B" 9A SURFACE COMMINGLE

# EXHIBIT E

**Wellbore Diagram and Well Summary**

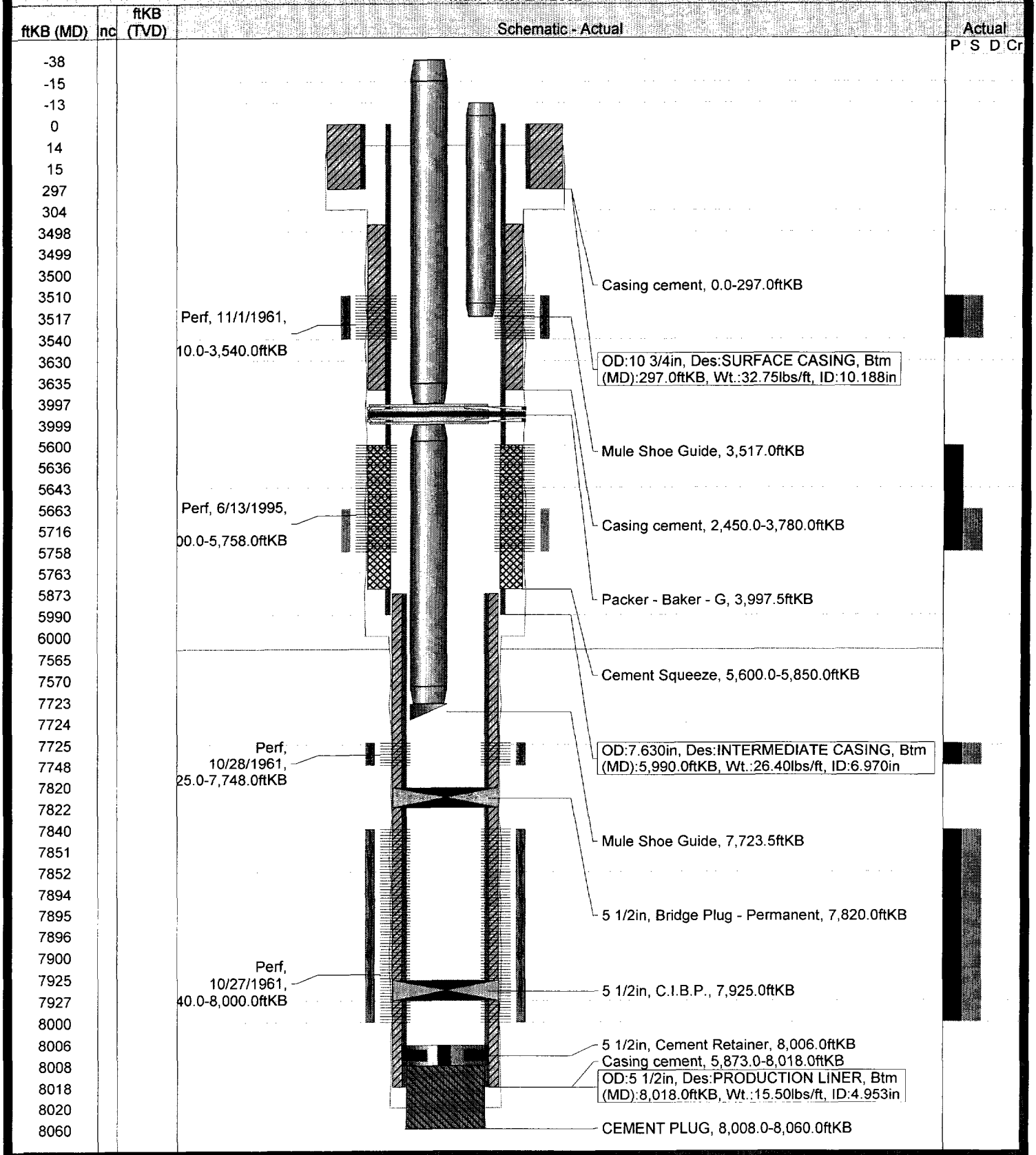
# JICARILLA B 9A

## Current Schematic

| API | Field Name | Area | Operator | County | State/Province |
|---|---|---|---|---|---|
| 300390632700 | TAPACITO PC/WILDHORSE DK/BLANCO MV | SOUTH | | RIO ARRIBA | NEW MEXICO |

| KB Elev (ft) | Ground Elev (ft) | Casing Flange Elev (ft) | KB-Ground Distance (ft) | KB-Casing Flange Distance (ft) | Spud Date |
|---|---|---|---|---|---|
| 6900.00 | 6886.00 | 0.00 | 14.00 | 6900.00 | 8/30/1961 |

Main Hole: 2/1/2002



# JICARILLA B 9A

## Well Summary

| API | Field Name | Area | Operator | County | State/Province |
|---|---|---|---|---|---|
| 300390632700 | TAPACITO PC/W/ILDHORSE DK/BLANCO MV | SOUTH | | RIO ARRIBA | NEW MEXICO |

| KB Elev (ft) | Ground Elev (ft) | Casing Flange Elev (ft) | KB-Ground Distance (ft) | KB-Casing Flange Distance (ft) | Spud Date |
|---|---|---|---|---|---|
| 6900.00 | 6886.00 | 0.00 | 14.00 | 6900.00 | 8/30/1961 |

### Location

| East-West Distance (ft) | From E or W Line | North-South Distance (ft) | From N or S Line |
|---|---|---|---|
| 1055.0 | W | 1130.0 | N |

| Latitude (DMS) | Longitude (DMS) |
|---|---|
| 36° 27' 41.94" N | 107° 13' 35.4" W |

| Legal Survey Type | Surface Legal Location |
|---|---|
| Dwight's | NMPM-26N-4W-26-D |

### Wellbore

| Name | Profile Type | VS Dir (°) |
|---|---|---|
| Main Hole | | |

| Sz (in) | Top (ftKB) | Btm (ftKB) | Start | End |
|---|---|---|---|---|
| 15 | 14.0 | 304.0 | | 8/30/1961 |
| 9 7/8 | 304.0 | 6,000.0 | | 9/24/1961 |
| 6 3/4 | 6,000.0 | 8,020.0 | | 10/5/1961 |
| 4 3/4 | 8,020.0 | 8,060.0 | | 10/25/1961 |

### Wellhead

| Section | Make | Model | Working Pressure (psi) | Service |
|---|---|---|---|---|
| | | | | |

| Top Connection Type | Top Sz (in) | Top WP (psi) | Bottom Connection Type | Btm Sz (in) | Btm WP (psi) |
|---|---|---|---|---|---|
| | | | | | |

### Zones

| Zone | Pool | Top (ftKB) | Bottom (ftKB) |
|---|---|---|---|
| Producing Zone | Dakota/Mesaverde/P Cliffs | 0.0 | |

### Casing Strings

| Des | Run | Btm (ftKB) | Com |
|---|---|---|---|
| SURFACE CASING | 8/31/1961 | 297.0 | |
| INTERMEDIATE CASING | 9/26/1961 | 5,990.0 | |
| PRODUCTION LINER | 10/7/1961 | 8,018.0 | |
| PRODUCTION LINER | 10/31/1961 | 7,570.0 | |

### Perforations

| Date | Top (ftKB) | Btm (ftKB) | Shot Dens (shots/ft) |
|---|---|---|---|
| 11/1/1961 | 3,510.0 | 3,540.0 | 1.2 |
| 6/13/1995 | 5,600.0 | 5,758.0 | 0.3 |
| 10/28/1961 | 7,725.0 | 7,748.0 | 1.2 |
| 10/27/1961 | 7,840.0 | 8,000.0 | 1.2 |

### Tubing Strings

| Des | Run | Pulled | Btm (ftKB) |
|---|---|---|---|
| Untitled | 7/11/1995 | 4/14/1998 11:01:00 AM | 7,900.0 |

### Rods

| Des | Run | Pulled | Btm (ftKB) |
|---|---|---|---|
| | | | |

### Other In Hole

| Des | Run | Pull | Top (ftKB) | OD (in) | ID (in) |
|---|---|---|---|---|---|
| Cement Retainer | 10/26/1961 | | 8,006.0 | 5 1/2 | |
| C.I.B.P. | 4/3/1998 | | 7,925.0 | 5 1/2 | |
| Bridge Plug - Permanent | 1/30/2002 | | 7,820.0 | 5 1/2 | |

### Logs

| Date | Type | Incr (ftKB) | Hole |
|---|---|---|---|
| | | | |

### Pumping Unit

| Type | Make | Model | Serial Number |
|---|---|---|---|
| | | | |

| Installation Date | Maximum Rod Load (100lbf) | Current Stroke Length (in) | Maximum Stroke Length (in) | Sheave Size (in) |
|---|---|---|---|---|
| | | | | |

| Gear Box Description | Gear Box SN | Gear Box Ratio | Max In Torq (1000in-lbs) | Last Overhaul Date |
|---|---|---|---|---|
| | | | | |

# JICARILLA B 9A

## Well Summary

| API | Field Name | Area | Operator | County | State/Province |
|---|---|---|---|---|---|
| 300390632700 | TAPACITO PC/WILDHORSE DK/BLANCO MV | SOUTH | | RIO ARRIBA | NEW MEXICO |

| KB Elev (ft) | Ground Elev (ft) | Casing Flange Elev (ft) | KB-Ground Distance (ft) | KB-Casing Flange Distance (ft) | Spud Date |
|---|---|---|---|---|---|
| 6900.00 | 6886.00 | 0.00 | 14.00 | 6900.00 | 8/30/1961 |

### Location

| East-West Distance (ft) | From E or W Line | North-South Distance (ft) | From N or S Line |
|---|---|---|---|
| 1055.0 | W | 1130.0 | N |

| Latitude (DMS) | Longitude (DMS) |
|---|---|
| 36° 27' 41.94" N | 107° 13' 35.4" W |

| Legal Survey Type | Surface Legal Location |
|---|---|
| Dwight's | NMPM-26N-4W-26-D |

### Wellbore

### Wellhead

| Section | Make | Model | Working Pressure (psi) | Service |
|---|---|---|---|---|
| | | | | |

| Top Connection Type | Top Sz (in) | Top WP (psi) | Bottom Connection Type | Btm Sz (in) | Btm WP (psi) |
|---|---|---|---|---|---|
| | | | | | |

### Zones

### Casing Strings

| Des | Run | Btm (ftKB) | Com |
|---|---|---|---|
| | | | |

### Perforations

| Date | Top (ftKB) | Btm (ftKB) | Shot Dens (shots/ft) |
|---|---|---|---|
| | | | |

### Tubing Strings

| Des | Run | Pulled | Btm (ftKB) |
|---|---|---|---|
| Tubing (DK), (MV), (PC) | 7/11/1995 | 4/14/1998 11:01:00 AM | 7,570.0 |

### Rods

| Des | Run | Pulled | Btm (ftKB) |
|---|---|---|---|
| | | | |

### Other In Hole

| Des | Run | Pull | Top (ftKB) | OD (in) | ID (in) |
|---|---|---|---|---|---|
| | | | | | |

### Logs

| Date | Type | Incr (ftKB) | Hole |
|---|---|---|---|
| | | | |

### Pumping Unit

| Type | Make | Model | Serial Number |
|---|---|---|---|
| | | | |

| Installation Date | Maximum Rod Load (100lbf) | Current Stroke Length (in) | Maximum Stroke Length (in) | Sheave Size (in) |
|---|---|---|---|---|
| | | | | |

| Gear Box Description | Gear Box SN | Gear Box Ratio | Max In Torq (1000in-lbs) | Last Overhaul Date |
|---|---|---|---|---|
| | | | | |

# JICARILLA B 9A

## Well Summary

| API | Field Name | Area | Operator | County | State/Province |
|---|---|---|---|---|---|
| 300390632700 | TAPACITO PC/WILDHORSE DK/BLANCO MV | SOUTH | | RIO ARRIBA | NEW MEXICO |

| KB Elev (ft) | Ground Elev (ft) | Casing Flange Elev (ft) | KB-Ground Distance (ft) | KB-Casing Flange Distance (ft) | Spud Date |
|---|---|---|---|---|---|
| 6900.00 | 6886.00 | 0.00 | 14.00 | 6900.00 | 8/30/1961 |

### Location

| East-West Distance (ft) | From E or W Line | North-South Distance (ft) | From N or S Line |
|---|---|---|---|
| 1055.0 | W | 1130.0 | N |

| Latitude (DMS) | Longitude (DMS) |
|---|---|
| 36° 27' 41.94" N | 107° 13' 35.4" W |

| Legal Survey Type | Surface Legal Location |
|---|---|
| Dwight's | NMPM-26N-4W-26-D |

### Wellbore

### Wellhead

| Section | Make | Model | Working Pressure (psi) | Service |
|---|---|---|---|---|
| | | | | |

| Top Connection Type | Top Sz (in) | Top WP (psi) | Bottom Connection Type | Btm Sz (in) | Btm WP (psi) |
|---|---|---|---|---|---|
| | | | | | |

### Zones

### Casing Strings

| Des | Run | Btm (ftKB) | Com |
|---|---|---|---|
| | | | |

### Perforations

| Date | Top (ftKB) | Btm (ftKB) | Shot Dens (shots/ft) |
|---|---|---|---|
| | | | |

### Tubing Strings

| Des | Run | Pulled | Btm (ftKB) |
|---|---|---|---|
| Untitled | 7/11/1995 | 4/14/1998 11:01:00 AM | 5,716.0 |
| Tubing (DK), (MV), (PC) | 4/4/1998 | 8/4/1998 | 7,852.0 |

### Rods

| Des | Run | Pulled | Btm (ftKB) |
|---|---|---|---|
| | | | |

### Other In Hole

| Des | Run | Pull | Top (ftKB) | OD (in) | ID (in) |
|---|---|---|---|---|---|
| | | | | | |

### Logs

| Date | Type | Incr (ftKB) | Hole |
|---|---|---|---|
| | | | |

### Pumping Unit

| Type | Make | Model | Serial Number |
|---|---|---|---|
| | | | |

| Installation Date | Maximum Rod Load (100lbf) | Current Stroke Length (in) | Maximum Stroke Length (in) | Sheave Size (in) |
|---|---|---|---|---|
| | | | | |

| Gear Box Description | Gear Box SN | Gear Box Ratio | Max In Torq (1000in-lbs) | Last Overhaul Date |
|---|---|---|---|---|
| | | | | |

# JICARILLA B 9A

## Well Summary

| API | Field Name | Area | Operator | County | State/Province |
|---|---|---|---|---|---|
| 300390632700 | TAPACITO PC/WILDHORSE DK/BLANCO MV | SOUTH | | RIO ARRIBA | NEW MEXICO |

| KB Elev (ft) | Ground Elev (ft) | Casing Flange Elev (ft) | KB-Ground Distance (ft) | KB-Casing Flange Distance (ft) | Spud Date |
|---|---|---|---|---|---|
| 6900.00 | 6886.00 | 0.00 | 14.00 | 6900.00 | 8/30/1961 |

### Location

| East-West Distance (ft) | From E or W Line | North-South Distance (ft) | From N or S Line |
|---|---|---|---|
| 1055.0 | W | 1130.0 | N |

| Latitude (DMS) | Longitude (DMS) |
|---|---|
| 36° 27' 41.94" N | 107° 13' 35.4" W |

| Legal Survey Type | Surface Legal Location |
|---|---|
| Dwight's | NMPM-26N-4W-26-D |

### Wellbore

### Wellhead

| Section | Make | Model | Working Pressure (psi) | Service |
|---|---|---|---|---|
| | | | | |

| Top Connection Type | Top Sz (in) | Top WP (psi) | Bottom Connection Type | Btm Sz (in) | Btm WP (psi) |
|---|---|---|---|---|---|
| | | | | | |

### Zones

### Casing Strings

| Des | Run | Btm (ftKB) | Com |
|---|---|---|---|
| | | | |

### Perforations

| Date | Top (ftKB) | Btm (ftKB) | Shot Dens (shots/ft) |
|---|---|---|---|
| | | | |

### Tubing Strings

| Des | Run | Pulled | Btm (ftKB) |
|---|---|---|---|
| short string | 8/4/1998 | 12/26/2001 | 3,500.0 |
| long string | 8/4/1998 | 12/27/2001 | 7,896.0 |
| Tubing - Production 2 3/3" LS | 1/31/2002 | | 7,724.0 |

### Rods

| Des | Run | Pulled | Btm (ftKB) |
|---|---|---|---|
| | | | |

### Other In Hole

| Des | Run | Pull | Top (ftKB) | OD (in) | ID (in) |
|---|---|---|---|---|---|
| | | | | | |

### Logs

| Date | Type | Incr (ftKB) | Hole |
|---|---|---|---|
| | | | |

### Pumping Unit

| Type | Make | Model | Serial Number |
|---|---|---|---|
| | | | |

| Installation Date | Maximum Rod Load (100lbf) | Current Stroke Length (in) | Maximum Stroke Length (in) | Sheave Size (in) |
|---|---|---|---|---|
| | | | | |

| Gear Box Description | Gear Box SN | Gear Box Ratio | Max In Torq (1000in-lbs) | Last Overhaul Date |
|---|---|---|---|---|
| | | | | |

# JICARILLA B 9A

## Well Summary

| API | Field Name | Area | Operator | County | State/Province |
|---|---|---|---|---|---|
| 300390632700 | TAPACITO PC/W/LD/HORSE DK/BLANCO MV | SOUTH | | RIO ARRIBA | NEW MEXICO |

| KB Elev (ft) | Ground Elev (ft) | Casing Flange Elev (ft) | KB-Ground Distance (ft) | KB-Casing Flange Distance (ft) | Spud Date |
|---|---|---|---|---|---|
| 6900.00 | 6886.00 | 0.00 | 14.00 | 6900.00 | 8/30/1961 |

### Location

| East-West Distance (ft) | From E or W Line | North-South Distance (ft) | From N or S Line |
|---|---|---|---|
| 1055.0 | W | 1130.0 | N |

| Latitude (DMS) | Longitude (DMS) |
|---|---|
| 36° 27' 41.94" N | 107° 13' 35.4" W |

| Legal Survey Type | Surface Legal Location |
|---|---|
| Dwight's | NMPM-26N-4W-26-D |

### Wellbore

### Wellhead

| Section | Make | Model | Working Pressure (psi) | Service |
|---|---|---|---|---|
| | | | | |

| Top Connection Type | Top Sz (in) | Top WP (psi) | Bottom Connection Type | Btm Sz (in) | Btm WP (psi) |
|---|---|---|---|---|---|
| | | | | | |

### Zones

### Casing Strings

| Des | Run | Btm (ftKB) | Com |
|---|---|---|---|
| | | | |

### Perforations

| Date | Top (ftKB) | Btm (ftKB) | Shot Dens (shots/ft) |
|---|---|---|---|
| | | | |

### Tubing Strings

| Des | Run | Pulled | Btm (ftKB) |
|---|---|---|---|
| Tubing - Secondary Production | 2/1/2002 | | 3,517.0 |

### Rods

| Des | Run | Pulled | Btm (ftKB) |
|---|---|---|---|
| | | | |

### Other In Hole

| Des | Run | Pull | Top (ftKB) | OD (in) | ID (in) |
|---|---|---|---|---|---|
| | | | | | |

### Logs

| Date | Type | Incr (ftKB) | Hole |
|---|---|---|---|
| | | | |

### Pumping Unit

| Type | Make | Model | Serial Number |
|---|---|---|---|
| | | | |

| Installation Date | Maximum Rod Load (100lbf) | Current Stroke Length (in) | Maximum Stroke Length (in) | Sheave Size (in) |
|---|---|---|---|---|
| | | | | |

| Gear Box Description | Gear Box SN | Gear Box Ratio | Max In Torq (1000in-lbs) | Last Overhaul Date |
|---|---|---|---|---|
| | | | | |

CONOCO INC.
JICARILLA "B" 9A SURFACE COMMINGLE

# EXHIBIT F

**Administrative order DHC-1785**
**Allocation percentages for all zones surface commingled**

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

DW

*ADMINISTRATIVE ORDER DHC-1785*

Conoco Inc.
10 Desta Drive
Suite 100W
Midland, Texas 79705-4500



Attention: Ms. Kay Maddox

*Jicarilla "B" Well No. 9A*
*API No. 30-039-06327*
*Unit D, Section 26, Township 26 North, Range 4 West, NMPM,*
*Rio Arriba County, New Mexico.*
*Blanco-Mesaverde (Prorated Gas - 72319),*
*Tapacito-Pictured Cliffs (Prorated Gas - 85920) and*
*Wildhorse-Dakota (Oil-64300) Pools*

Dear Ms. Maddox:

Reference is made to your recent application for an exception to Rule 303.A. of the Division Rules and Regulations to permit the above described well to commingle production from the subject pools in the wellbore.

It appearing that the subject well qualifies for approval for such exception pursuant to the provisions of Rule 303.C., and that reservoir damage or waste will not result from such downhole commingling, and correlative rights will not be violated thereby, you are hereby authorized to commingle the production as described above and any Division Order which authorized the dual completion and required separation of the zones is hereby placed in abeyance.

The maximum amount of gas which may be produced daily from the well shall be determined by Division Rules and Regulations or by the gas allowable for each respective prorated pool as printed in the Division's San Juan Basin Gas Proration Schedule.

Assignment of allowable to the well and allocation of production from the well shall be on the following basis:

| | | |
|---|---|---|
| Tapacito-Pictured Cliffs Gas Pool | Gas 16% | Oil 0% |
| Blanco-Mesaverde Gas Pool | Gas 29% | Oil 10% |
| Wildhorse-Dakota Pool | Gas 55% | Oil 90% |

REMARKS: The operator shall notify the Aztec District Office of the Division upon implementation of the commingling process.

Pursuant to Rule 303.H., the commingling authority granted herein may be rescinded by the Division Director if conservation is not being best served by such commingling.

Approved at Santa Fe, New Mexico on this 24th day of February, 1998.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

Lori Wrotenbery

LORI WROTENBERY
Director

S E A L

LW/DRC

cc: Oil Conservation Division - Aztec
Bureau of Land Management-Farmington

DISTRICT I
rO Box 1980, Hobbs, NM 88241 1980

DISTRICT II
811 Southl First St. Artesia NM 88210 2835

DISTRICT III
1000 Rio Brazos Rd. Aztec, NM 87410 1693

State of New Mexico
Energy, Minerals and Natural Rasources Department

# OIL CONSERVATION DIVISION

2040 S. Pacheco
Santa Fe, New Mexico 87505-6429

# APPLICATION FOR DOWNHOLE COMMINGLING

Form C-107-A
New 3-12-96

APPROVAL PROCESS:
☒ Administrative ☐ Hearing

EXISTING WELLBORE
☒ YES ☐ NO

Conoco Inc. (Operator) — 10 Desta Dr. Ste 100W, Midland, Tx. 79705-4500 (Address)

Jicarilla B (Lease) — #9A (Well No) — Section 26, T-26-N, R-4-W, D (Unit Ltr Sec Twp Rge) — Rio Arriba (County)

OGRID NO. 005073 Property Code 18018 API NO. 30-039-06327 Spacing Unit Lease Types: (check 1 or more) Federal ☒, State ☐ (and/or) Fee ☐

| The following facts ate submitted in support of downhole commingling: | Upper Zone | intermediate Zone | Lower Zone |
|---|---|---|---|
| 1. Pool Name and Pool Code | Tapicito Pictured Cliffs 85920 | Blanco Mesaverde 72319 | Wildhorse Dakota 64300 |
| 2. TOP and Bottom of Pay Section (Perforations) | 3510-3540' | 5663-5758' | 7725-8000' |
| 3. Type of production (Oil or Gas) | Gas | Gas | Gas |
| 4. Method of Production (Flowing or Artificial Lift) | Flowing | Flowing | Flowing |
| 5. Bottomhole Pressure<br>Oil Zones - Artilicial Lift: Estimated Current<br>Gas & Oil - Flowing: Measured Current<br>All Gas Zones: Estimated Or Measured Original | a (Current) 298 | a. 638 | a. 1084 |
| | b(Original) 1111 | b. 1312 | b. 2496 |
| 6. Oil Gravity (°API) or Gas BT Content | 1325 | 1245 | 1000 |
| 7. Producing or Shut-In? | Shut-in | Producing | Shut-in |
| Production Marginal? (yes or no) | Yes | Yes | Yes |
| • If Shut-In give date and oil/gas/ water rates of lsst production<br>Note For new zones with no production hlStory applicant shad be required to attach production estimates and supporting dara | Date December 1995<br>Rates 8 MCFD | Date<br>Rates | Date August 1996<br>Rates 17 MCFD |
| • If Producing, date and oil/gas/ water rates of recent test (within 60 days) | Date<br>Rates | Date October 1997<br>Rates 54 MCFD, 0 Oil, 0 water | Date<br>Rates |
| 8. Fixed Percentage Allocation Formula -% or each zone | Oil: % Gas % | Oil: % Gas % | Oil: % Gas |

9. If allocation formula is based upon something other than current or past production, or is based upon some other method, submit attachments with supporting data and/or explaining method and providing rate projections or other required data.

10. Are all working, overriding, and royalty interests identical in all commingled zones? X Yes ___ No
If not, have all working, overriding, and royalty interests been notified by certified mail? X Yes ___ No
Have all offset operators been given written notice of the proposed downhole commingling? X Yes ___ No

11. Will cross-flow occur? X Yes ___ No If yes, are fluids compatible, will the formations not be damaged, will any cross-flowed production be recovered, and will the allocation formula be reliable. X Yes ___ No (If No, attach explanation)

12. Are all produced fluids from all commingled zones compatible with each others X Yes ___ No

13. Will the value of production be decreased by commingling? ___Yes X No (If Yes, attach explanation)

14. If this well is on, or communitized with, state or federal lands, either the Commissioner of Public Lands or the United States Bureau of Land Management has been notified in writing of this application. X Yes ___ No

15. NMOCD Reference Cases for Rule 303(D) Exceptions: ORDER NO(S). _____

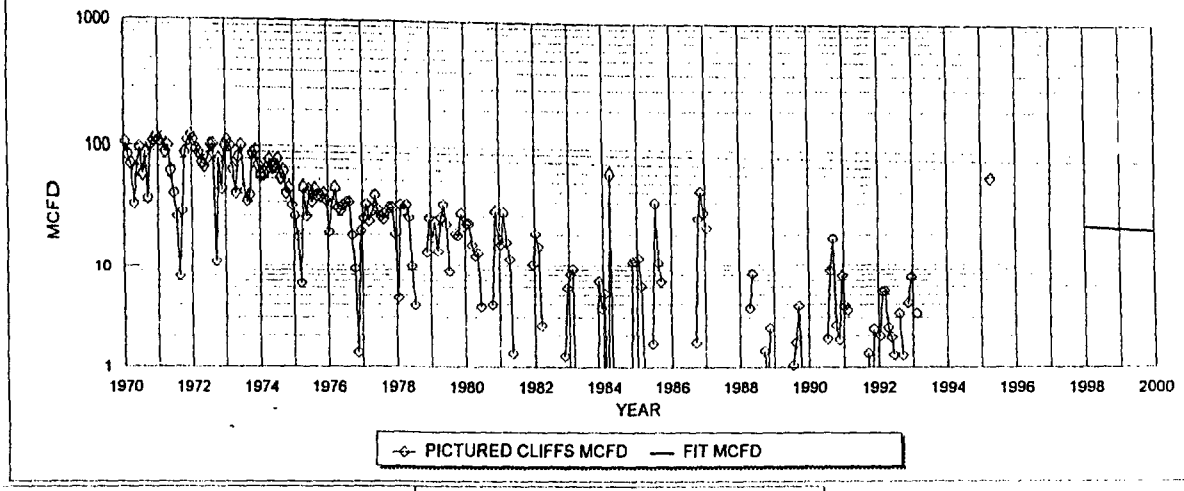
16. ATTACHMENTS
- C-102 for each zone to be commingled showing its spacing unit and acreage dedication.
- Production curve for each zone for at least one year. (If not available, attach explanation.)
- For zones with no production history, estimated production rates and supporting data.
- Data to support allocation method or formula.
- Notification list of all offset operators.
- Notification list of working, overriding and royalty interests for uncommon interest cases.
- Any additional statements, data, or documents required to support commingling.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Kay Maddox TITLE Regulatory Agent DATE 12/10/97

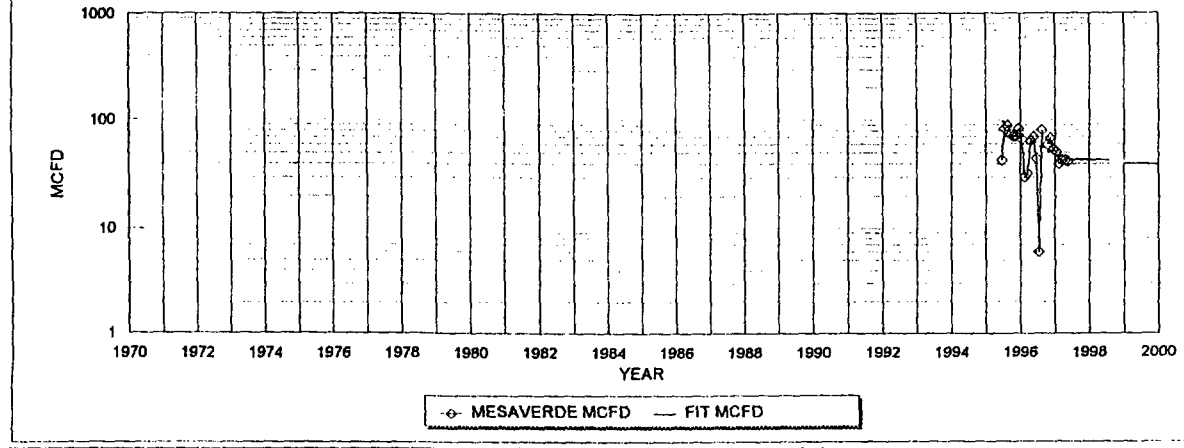
TYPE OR PRINT NAME Kay Maddox TELEPHONE NO. (915) 686-5798

JICARILLA B 9A PICTURED CLIFFS PRODUCTION
SECTION 26D-26N-04W



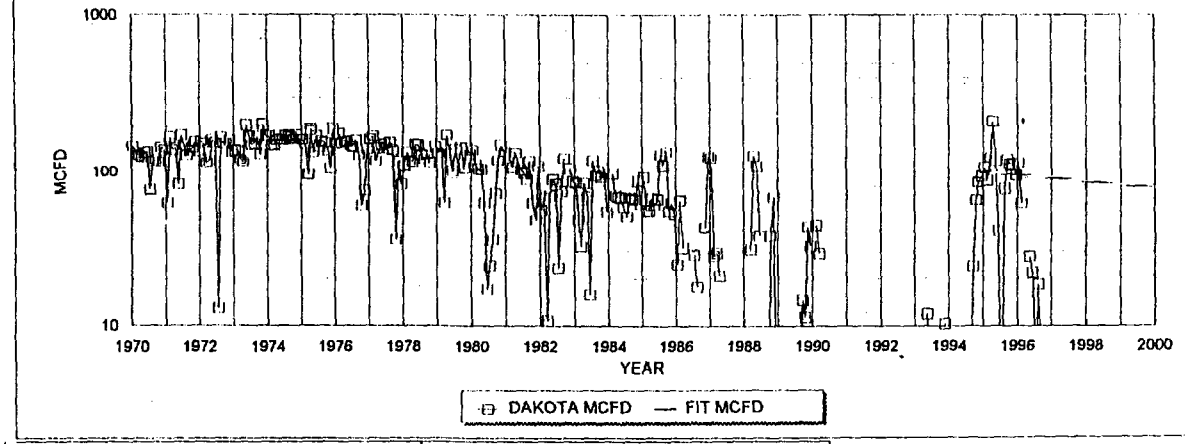

| HISTORICAL DATA: | 1ST PROD: 09/62 | PICTURED CLIFFS PROJECTED DATA | |
|---|---|---|---|
| OIL CUM: | 3.71 MBO | 10/1/97 QI: | 24 MCFD |
| GAS CUM: | 665.1 MMCF | DECLINE RATE: | 5.0% (EXPONENTIAL) |
| OIL YIELD: | 0.0056 BBL/MCF | | |

JICARILLA B 9A MESAVERDE PRODUCTION
SECTION 26D-26N-04W




| HISTORICAL DATA | 1ST PROD: 06/95 | MESAVERDE PROJECTED DATA | |
|---|---|---|---|
| OIL CUM: | 0.1 MBO | 2/1/98 QI: | 43 MCFD |
| GAS CUM: | 39.8 MMCF | DECLINE RATE: | 5.0% (EXPONENTIAL) |
| OIL YIELD: | 0.0037 BBL/MCF | | |

JICARILLA B 9A DAKOTA PRODUCTION
SECTION 26D-26N 04W




| HISTORICAL DATA | 1ST PROD: '62 | DAKOTA PROJECTED DATA | |
|---|---|---|---|
| OIL CUM: | 66.1 MBO | 02/1/98 QI: | 85 MCFD |
| GAS CUM: | 1255.0 MMCF | DECLINE RATE: | 5.0% (EXPONENTIAL) |
| OIL YIELD: | 0.0527 BBL/MCF | | |

| FIXED COMMINGLE ALLOCATION FACTORS: | | |
|---|---|---|
| | GAS | OIL |
| PICTURED CLIFFS | 16% | 0% |
| MESAVEREDE | 29% | 10% |
| DAKOTA: | 56% | 90% |

OIL ALLOCATION BASED ON WEIGHTED CUM OIL YIELDS FOR LAST 2 YRS OF PRODUCTION

District I
PO Box 1980, Hobbs. NM 88241-1980

District II
PO Drawer DD, Artesia, NM 88211-0719

District III
1000 Rio Brazos Rd. Aztec, NM 87410

District IV
PO Box 2088, Santa Fe. NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

Form C-102
Revised February 21, 1994
instructions on back
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State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

# WELL LOCATION AND ACREAGE DEDICATION PLAT

| API Number | 2 Pool Code | 3 Pool Name |
|---|---|---|
| 30-039-06327 | 72319 | Blanco Mesaverde |

| 4 Property Code | 5 Property Name | 6 Well Number |
|---|---|---|
| 18018 | Jicarilla B | #9A |

| 7 OGRID No. | 8 Operator Name | 9 Elevation |
|---|---|---|
| 005073 | Conoco Inc., 10 Desta Drive, Ste. 100W, Midland, TX 79705-4500 | 6886' |

## 10 Surface Location

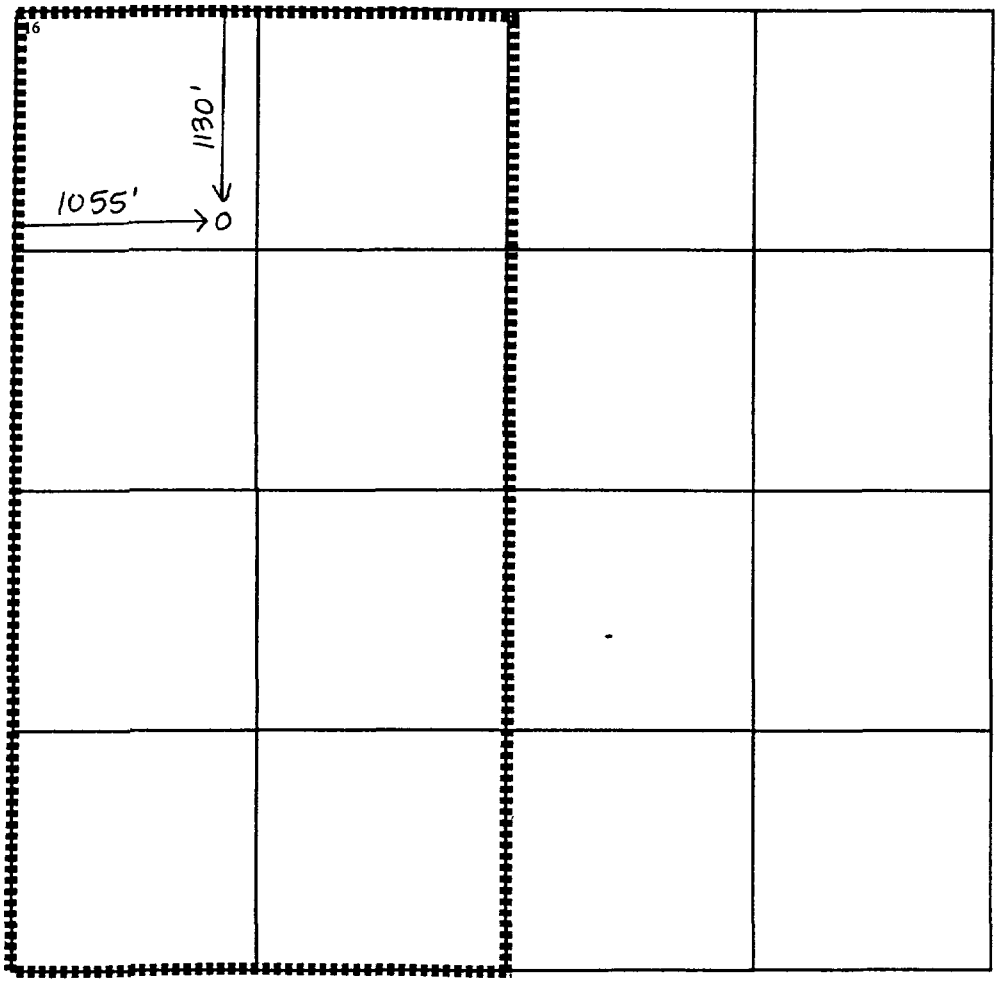
| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---|---|---|---|---|---|---|---|---|---|
| D | 26 | 26N | 4w | | 1130 | North | 1055 | West | Rio Arriba |

## 11 Bottom Hole Location If Different From Surface

| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |

| 12 Dedicated Acres | 13 Joint or Infil | 14 Consolidation Code | 15 Order No. |
|---|---|---|---|
| 320 | | | |

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION




## 17 OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief

Kay Maddox

Signature

Kay Maddox

Printed Name

Regulatory Agent

Title

December 8, 1997

Date

## 18 SURVEYOR CERTIFICATION

*I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.*

Date of Survey

Signature and Seal of Professional Surveyor:

Certificate Number

District I
PO Box 1980, Hobbs. NM 88241-1980

District II
PO Drawer DD, Artesia, NM 88211-0719

District III
1000 Rio Brazos Rd. Aztec, NM 87410

District IV
PO Box 2088, Santa Fe. NM 87504-2088

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# WELL LOCATION AND ACREAGE DEDICATION PLAT

| API Number | 2 Pool Code | 3 Pool Name |
|---|---|---|
| 30-039-06327 | 85920 | Tapicito Pictured Cliffs |

| 4 Property Code | 5 Property Name | 6 Well Number |
|---|---|---|
| 18018 | Jicarilla B | #9A |

| 7 OGRID No. | 8 Operator Name | 9 Elevation |
|---|---|---|
| 005073 | Conoco Inc., 10 Desta Drive, Ste. 100W, Midland, TX 79705-4500 | 6886' |

## 10 Surface Location

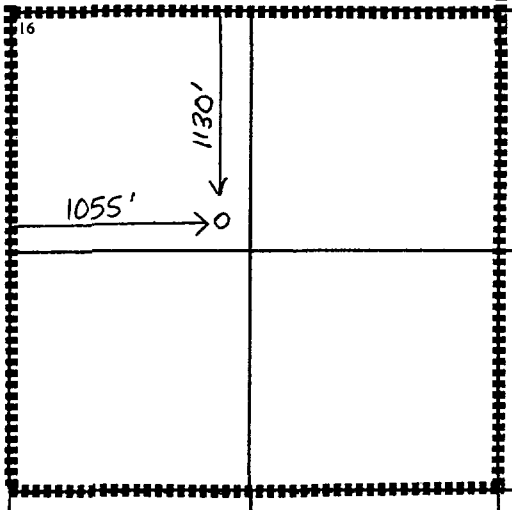
| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---|---|---|---|---|---|---|---|---|---|
| D | 26 | 26N | 4w | | 1130 | North | 1055 | West | Rio Arriba |

## 11 Bottom Hole Location If Different From Surface

| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |

| 12 Dedicated Acres | 13 Joint or Infil | 14 Consolidation Code | 15 Order No. |
|---|---|---|---|
| 160 | | | |

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

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Signature: Kay Maddox

Printed Name: Kay Maddox

Title: Regulatory Agent

Date: December 8, 1997

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# WELL LOCATION AND ACREAGE DEDICATION PLAT

| API Number | 2 Pool Code | 3 Pool Name |
|---|---|---|
| 30-039-06327 | 64300 | Wildhorse Dakota |

| 4 Property Code | 5 Property Name | 6 Well Number |
|---|---|---|
| 18018 | Jicarilla B | #9A |

| 7 OGRID No. | 8 Operator Name | 9 Elevation |
|---|---|---|
| 005073 | Conoco Inc., 10 Desta Drive, Ste. 100W, Midland, TX 79705-4500 | 6886' |

## 10 Surface Location

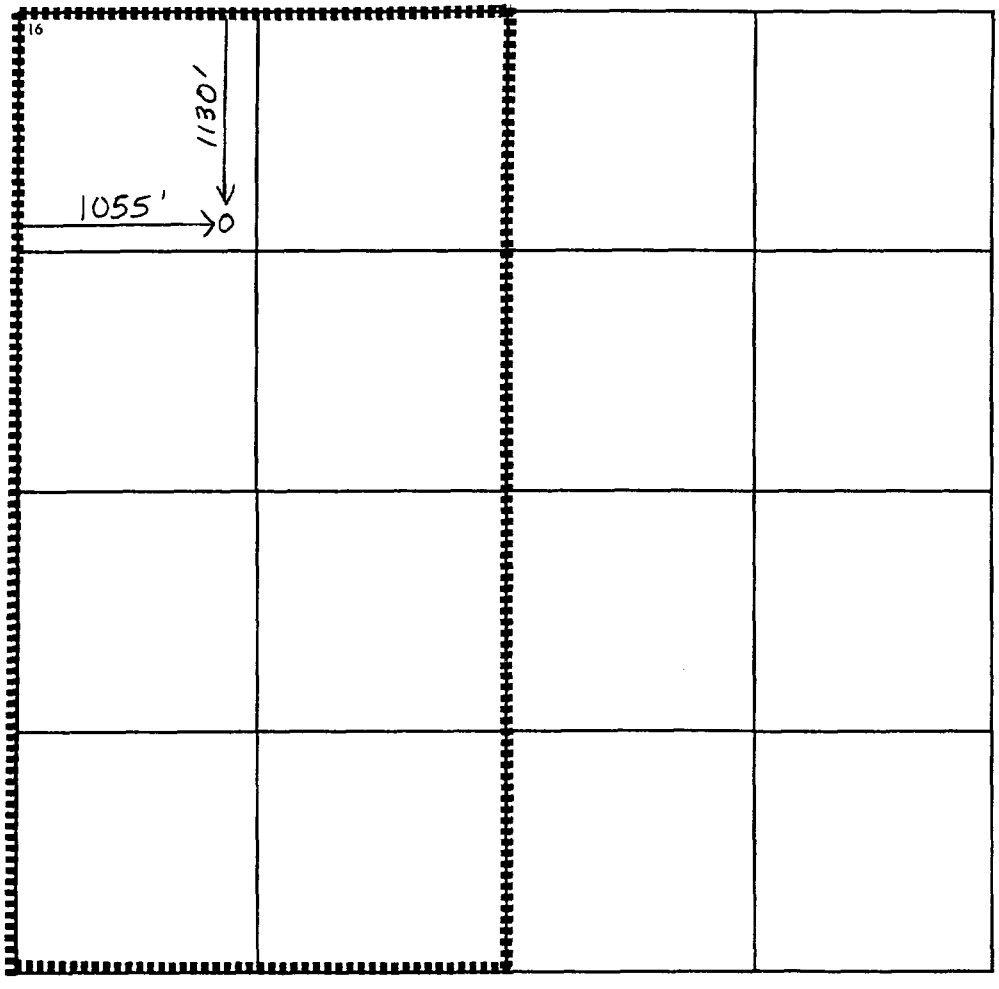
| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---|---|---|---|---|---|---|---|---|---|
| D | 26 | 26N | 4w | | 1130 | North | 1055 | West | Rio Arriba |

## 11 Bottom Hole Location If Different From Surface

| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |

| 12 Dedicated Acres | 13 Joint or Infill | 14 Consolidation Code | 15 Order No. |
|---|---|---|---|
| 320 | | | |

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

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Kay Maddox

Signature

Kay Maddox

Printed Name

Regulatory Agent

Title

December 8, 1997

Date

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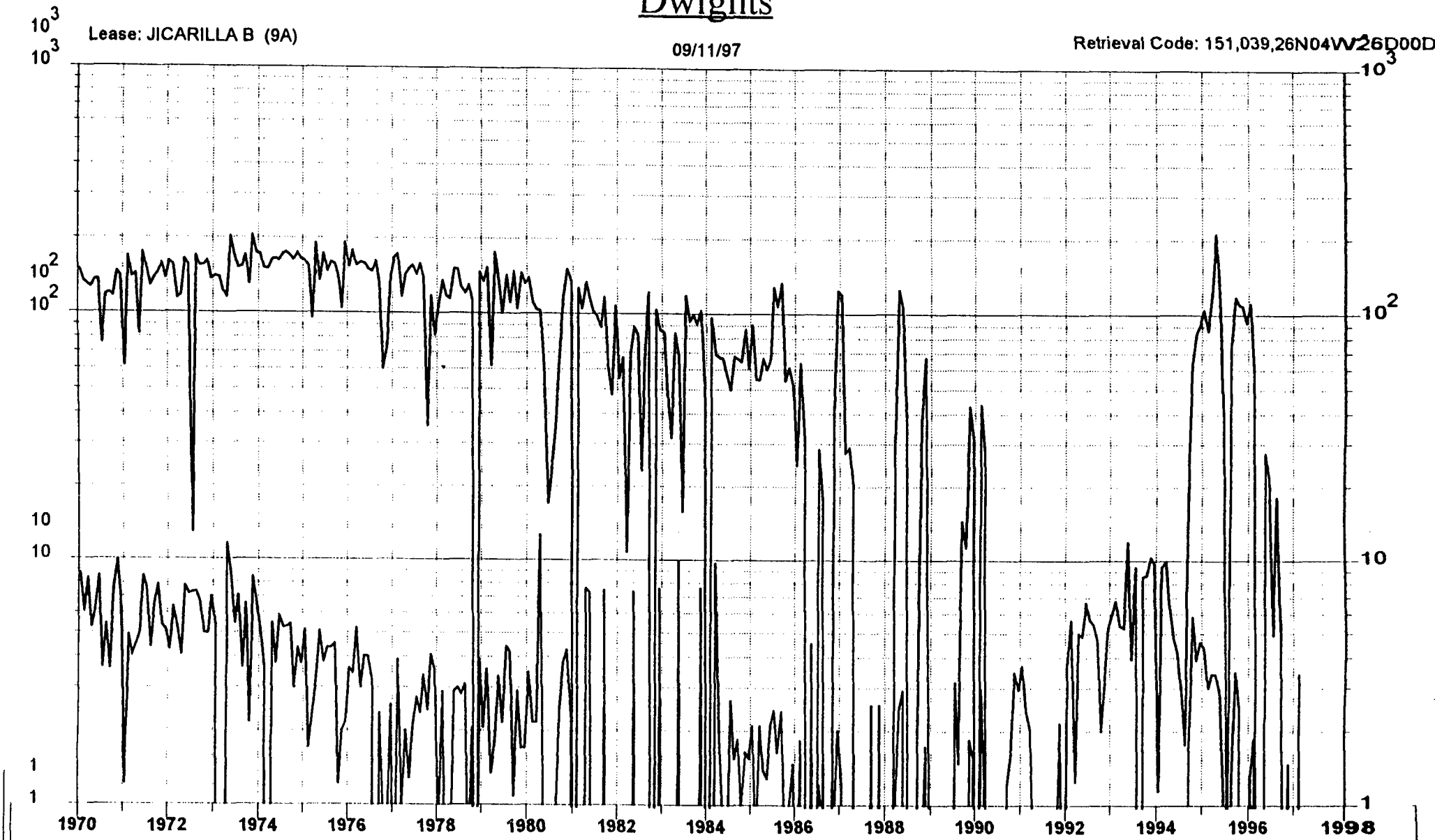
Date of Survey

Signature and Seal of Professional Surveyor:

Certificate Number

# Dwights




Oil (bbl/day) ——

Gas (mcf/day) ——

Water (bbl/day) ——

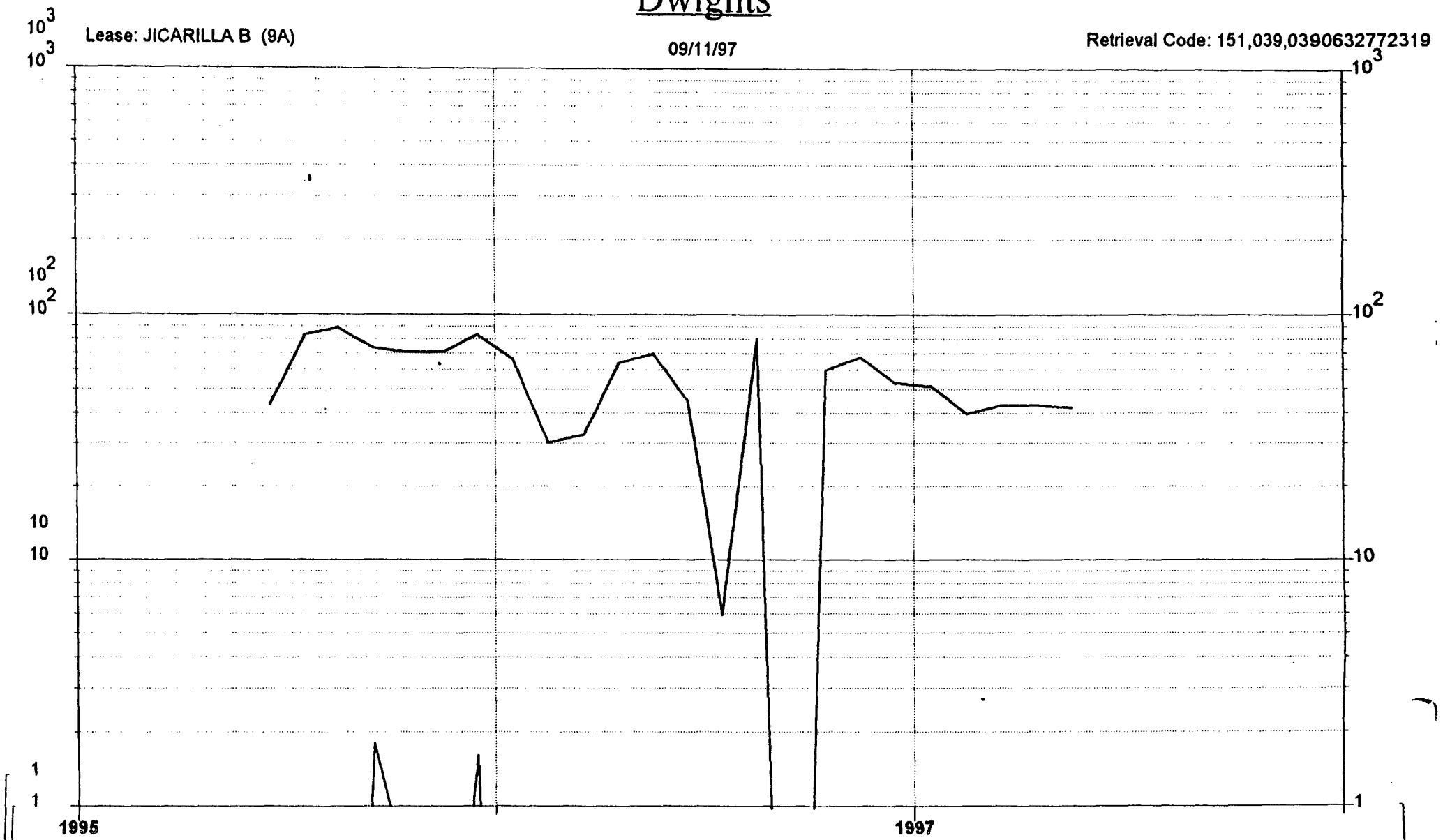
| | |
|---|---|
| County: RIO ARRIBA, NM | F.P. Date: N/A |
| Field: WILD HORSE (DAKOTA) DK | Oil Cum: 66.13 mbbl |
| Reservoir: DAKOTA | Gas Cum: 1255 mmcf |
| Operator: CONOCO INC | Location: 26D 26N 4W |

# Dwights

Lease: JICARILLA B (9A)

09/11/97

Retrieval Code: 151,039,0390632772319




Oil (bbl/day) ——

Gas (mcf/day) ——

Water (bbl/day) ——

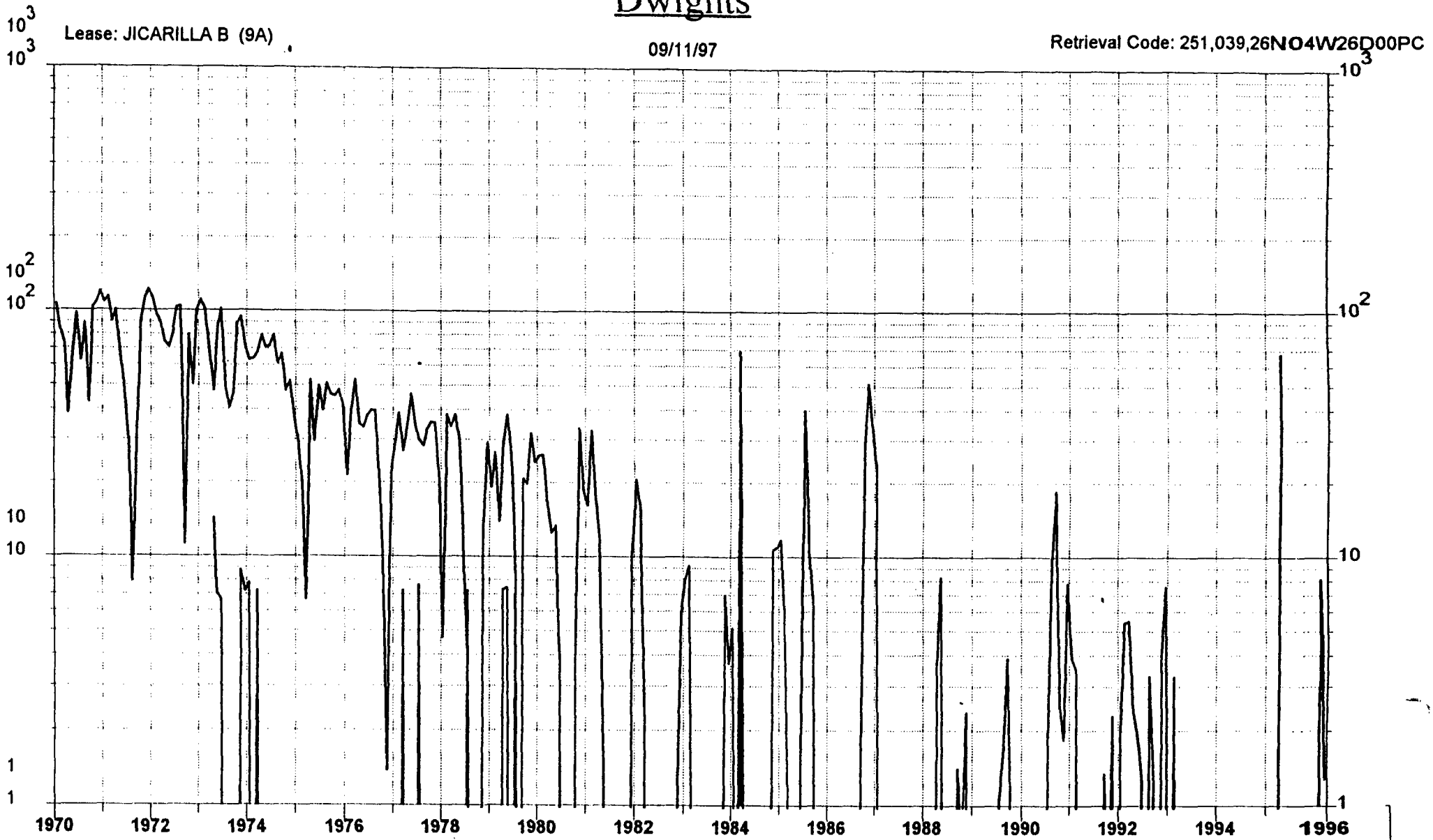
| | |
|---|---|
| County: RIO ARRIBA, NM | F.P. Date: 06/95 |
| Field: BLANCO (MESAVERDE) MV | Oil Cum: 149 bbl |
| Reservoir: MESAVERDE | Gas Cum: 39.78 mmcf |
| Operator: CONOCO INC | Location: 26D 26N 4W |

# Dwights

Lease: JICARILLA B (9A)

09/11/97

Retrieval Code: 251,039,26NO4W26D00PC




Oil (bbl/day) ——

Gas (mcf/day) ——

Water (bbl/day) ——

County: RIO ARRIBA, NM

Field: TAPACITO (PICTURED CLIFFS) PC

Reservoir: PICTURED CLIFFS

Operator: CONOCO INC

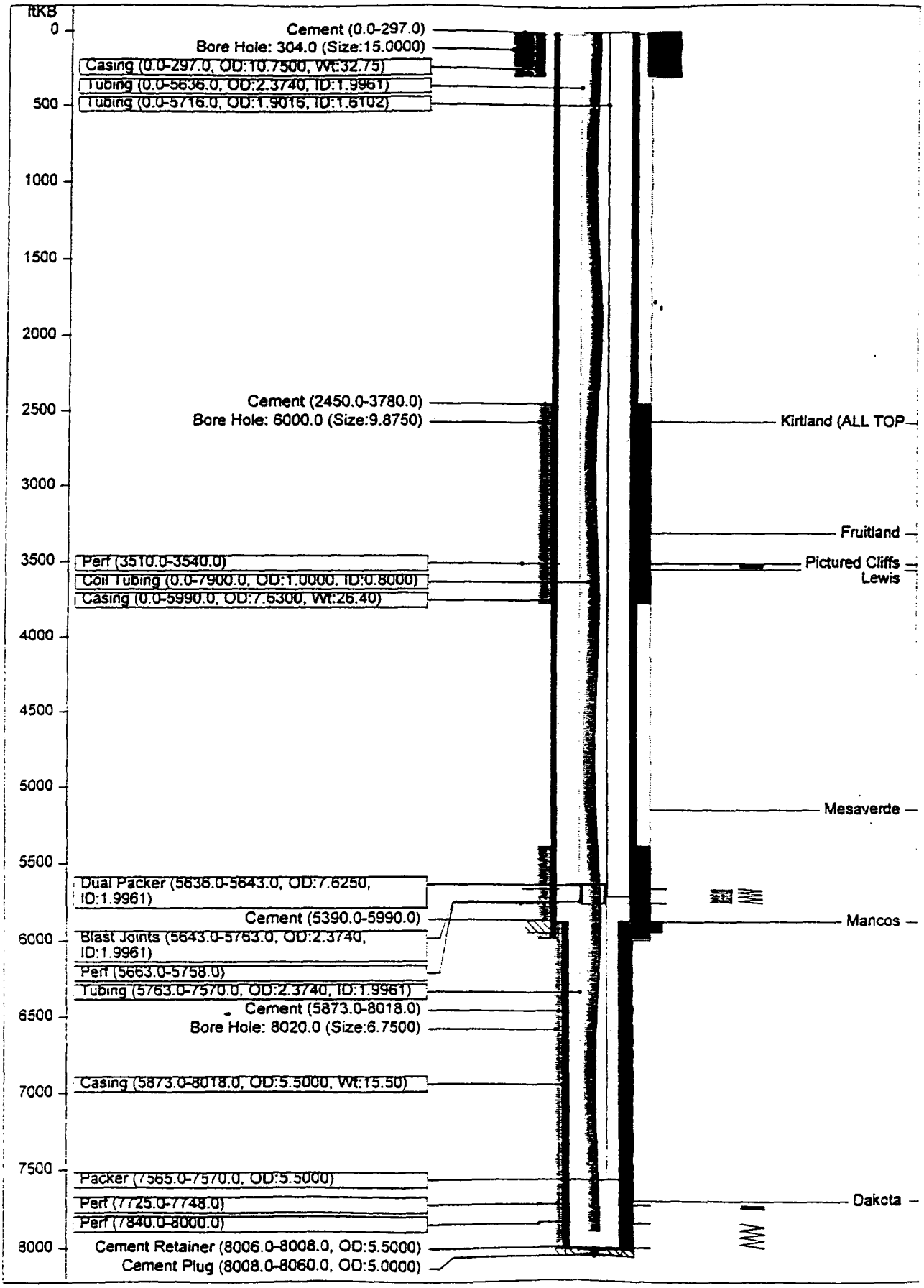
F.P. Date: 09/62

Oil Cum: 3710 bbl

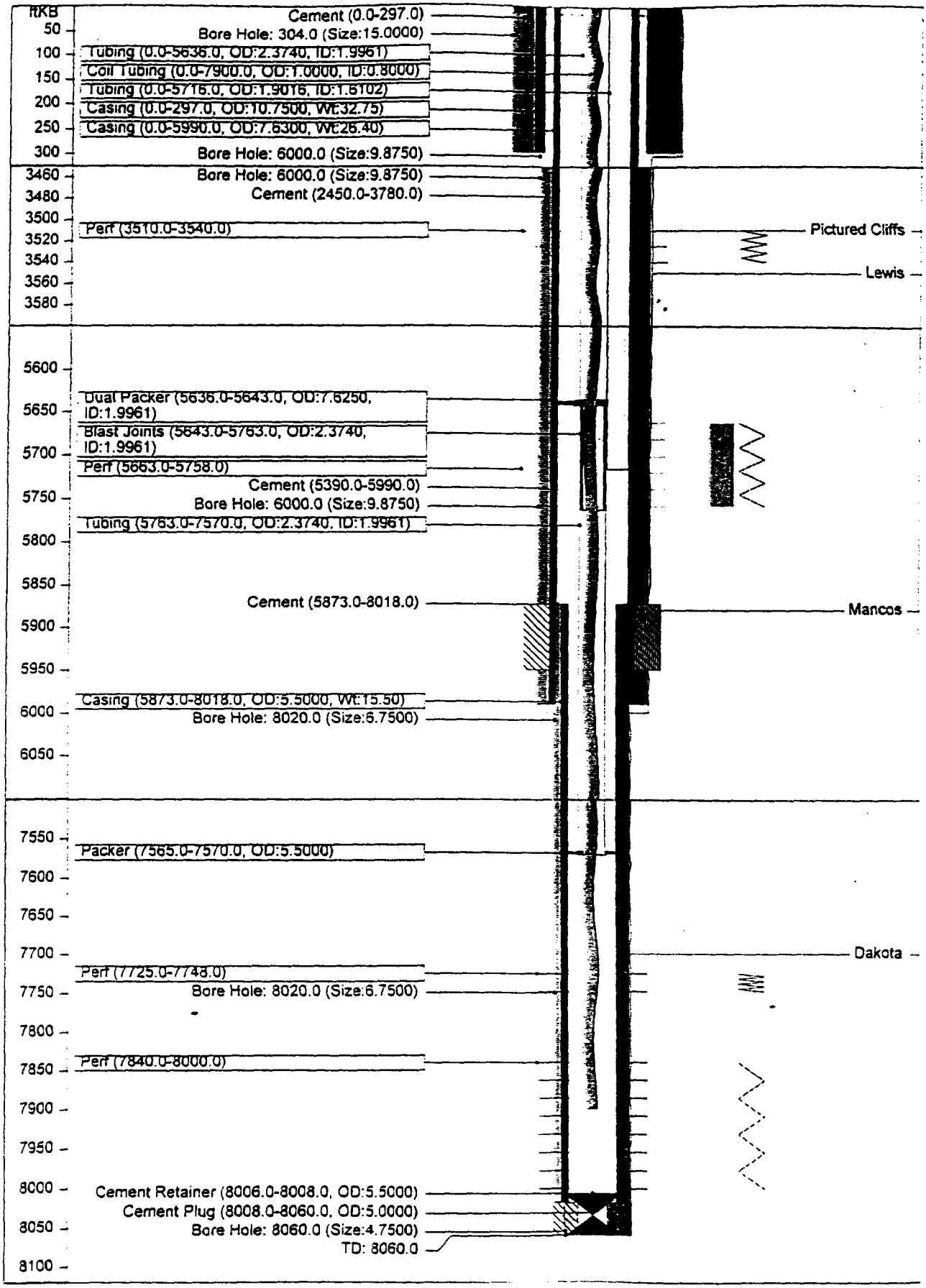
Gas Cum: 665.1 mmcf

Location: 26D 26N 4W

# JICARILLA B 9 A (GMH 9/9/97)



# JICARILLA B 9 A (GMH 9/9/97)



**Conoco, Inc**
**Jicarilla B Well # 9A**
**Section 26, T-26-N, R-4-W**
**Rio Arriba County, NM**

**RE: Downhole Commingle Application**

**Offset Operators:**

Chateau Oil & Gas, Inc.
2515 Mckinney Ave, STE 840
Dallas, TX 75201

Burlington Resources
PO Box 4289
Farmington, NM 87499

# Jicarilla B No. 9A

## Downhole Commingling Justification

The royalty interests of the Jicarilla Tribe in all leases operated by Conoco are identical across all producing formations and will in no way be affected by the commingling process or the allocation of production to the various pools. The production and revenue benefits to be gained through downhole commingling will be equally realized by Conoco and the Jicarilla Tribe. This is specifically true of the Jicarilla B No. 9A well which will benefit as described in the following justification.

The goal of any prudent operator, to the benefit of all interest owners, is to develop and produce the maximum volume of hydrocarbons in the most efficient manner and with the minimum costs possible. Downhole commingling of San Juan Basin gas wells provides several significant benefits to all of the interest owners involved in those wells such as:

1. More efficient rate of recovery
2. Greater ultimate recovery
3. Less expensive maintenance and operation
4. Development of otherwise uneconomical reserves

The continued production of multiple gas pools from the same wellbore in most San Juan Basin wells is inherently inefficient and not only results in restricted producing rates, but reduces their ultimate recovery. Separately producing multiple gas pools is currently accomplished either by using multiple tubing strings or by producing one zone up the casing behind a single tubing string.

One of the major problems associated with such operational schemes is related to the production of fluids (oil, condensate and/or water). Efficient recovery mandates that these fluids be continuously lifted to keep the wells from loading up and either killing the wells or severely restricting their flow rates. However, another major problem is associated with the fact that most of the gas pools in the San Juan Basin, and especially the large Mesaverde and Dakota pools, are largely depleted and are down to very low reservoir pressures as a recovery mechanism. Therefore, most of these wells do not have sufficient remaining reservoir energy to adequately lift these fluids and maintain efficient flow.

With low reservoir pressures, the only way to keep these wells unloaded and producing efficiently is to pump these fluids either by beam pump or downhole plungers. The major impediment to resolving this problem lies in the fact that these wells are typically completed with either 4 1/2" to 5 1/2" production casing. This restricts the size of tubing that can be utilized for multiple zones. Many of the tubing strings are only 1 1/16" and will not accomodate plunger installation. Plunger lift becomes increasingly less efficient in smaller than 2 3/8" tubing.

Through the use of plunger lift operations, to keep these low pressure wells unloaded, Conoco has experienced dramatic increases in production. Such increases in producing efficiency will result not only in higher current rates but will promote greater ultimate recoveries. However, these significant improvements in production cannot be accomplished in wells with small multiple tubing strings or with dualled production up the casing.

Downhole commingling to increase efficiency, development, and ultimate recovery from these mature gas reservoirs is the most important basin activity to occur in several years. The major emphasis of downhole commingling is, after all, on increasing produced volumes. Through this procedure

1. Many shut-in and abandoned zones are being reactivated
2. Many low rate completions are being revitalized or even doubled in rate
3. Even higher rate wells are benefiting from rate and recovery increases
4. Many new wells are being drilled initially as downhole commingled wells that could not be economically developed otherwise.

As a side light to production advantages, there are numerous additional benefits to be realized from reduced operational costs and maintenance. Reducing these costs are not only for the benefit of the operator. This results in longer well life and higher margins of income for all interest owners. However, operational costs savings are secondary to the benefits of improved recovery and should not be the focus of this program.