

Post
Petroleum
Company, Inc.

March 11, 1981

State of New Mexico
Oil and Gas Conservation Division
P.O. Box 1980
Hobbs, New Mexico 88240

Re: Request for Exception to
Statewide Rule 303-A
Llano 31 Federal #1
Lea County, New Mexico

Dear Sirs:

Post Petroleum Company, Inc. respectfully requests
an Exception to Statewide Rule 303-A to commingle
down-hole the oil production on the Post-Llano 31
Federal #1 located in Section 31-20S-39E, Lea County,
New Mexico.

Enclosed please find documents submitted for approval
of this down-hole commingling application.

If further information is needed, please advise.

Sincerely,

Betty Hollrah
Production Clerk

Enclosure

cc: United States Department of the Interior
Geological Survey
P. O. Box 1157
Hobbs, New Mexico 88240

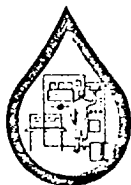
Attachment #1
Application to Commingle
Exception to Rule 303-A

PROGNOSTICATION OF FUTURE PRODUCTION
EFFECTIVE JANUARY 1, 1981

POST PETROLEUM COMPANY, INC.
15 North Robinson, Suite 1000
Oklahoma City, Oklahoma

LLANO 31 FEDERAL #1
Section 31-20S-39E
Lea County, New Mexico

| <u>BLINEBRY</u> | | <u>D-K ABO</u> |
|-----------------|--|----------------|
| 14.59BBLS | -Initial Rate of Production- (Oil Production Per Day) | 8.00BBLS |
| 30%/Year | -Annual Rate of Decline- | 30%/Year |
| | -Production Forecast- | |
| | YEAR | |
| 5325 | -1- | 2920 |
| 3727 | -2- | 2044 |
| 2606 | -3- | 1431 |
| 1821 | -4- | 1000 |
| 1274 | -5- | 697 |
| 891 | -6- | 485 |
| 621 | -7- | 339 |
| 16,265BBLS | -Total Ultimate Recovery- | 8,916BBLS |



WOLF PETRO LAB, INC.

DIAL 915/366-9701
DIAL 915/366-7171

2411 WEST 42ND STREET

P. O. BOX 643
ODESSA, TEXAS

79760

HYDROCARBON ANALYSIS

LABORATORY REPORT

Attachment #2
Application to Commingle
Exception to Rule 303-A

Post
Charge Petroleum
Test No. WPL-80-1064
Date of Run 10-24-80
Date Received 10-23-80

A Sample of Crude Oil from Llano 31-Federal Well No. 1 (the formation)
Secured from _____
At Lea County New Mexico
Purpose _____ Date 10-23-80 Secured by _____ Time 6 p.m.
Sampling Conditions _____

DISTILLATION

| | |
|---------------------------|--------|
| I B P | 112 °F |
| 5% | 167 °F |
| 10% | 230 °F |
| 20% | 286 °F |
| 30% | 360 °F |
| 40% | 450 °F |
| 50% | 515 °F |
| 60% | 607 °F |
| 70% | 656 °F |
| 75% | 684 °F |
| 80% | 697 °F |
| 85% | 720 °F |
| 90% | 731 °F |
| 95% | 738 °F |
| End Point | 742 °F |
| % Loss Residue | 3.25 |
| % Recovery | 96.75 |
| Color | |

YIELD

| | |
|-------------------|---------|
| Gasoline 300°F | 22.25 % |
| Gasoline 350°F | 6.00 % |
| Gasoline 400°F | 6.25 % |
| Total Gasoline | 34.50 % |
| Kerosene 525°F | 15.50 % |
| Diesel Fuel 650°F | 20.00 % |

ASTM OR SPECIAL TESTING

| | |
|-------------------------------|--------------------|
| Ash Content | |
| Acid or Base Numbers | |
| B. S. & W. (Centrifuge) | |
| Carbon Residue | |
| Carbon Residue on 10% Residue | |
| Cloud and Pour Point to | °F |
| Doctor Test | |
| Flash Point (open or closed) | |
| Fire Point | |
| Gravity, A. P. I. Hydrometer | 37.00 @ 60°F. |
| Hydrogen Sulfide (Crude Oil) | |
| Salt Content (Crude Oil) | |
| Sulfur (lamp method) | .60759 % By Weight |
| Vapor Pressure (Reid) | |
| Vapor Pressure (N.G.A.A.) | |
| Vapor Pressure (Lean Oil) | |
| Viscosity (Saybolt) 100°F | |
| Viscosity (Saybolt) 210°F | |
| Viscosity (Index No.) | |

Run by: J. Wolf Checked by: J. Wolf Approved: _____

Additional Data and Remarks

COPIES

1 - Mr. David Moore
Brockman and Associates
1007 Gihls Tower, West
Midland, Texas 79701

5 - Post Petroleum
Suite 730
Western United Life Building
Midland, Texas 79701
1 - File

A Report of the fluid characteristics of Blinbry formation is forthcoming.

March 11, 1981

APPLICATION TO COMMINGLE

(Exception to Rule 303-A)

OPERATOR: Post Petroleum Company, Inc. LEASE: LLANO 31 FEDERAL #1
WELL
ADDRESS: 15 North Robinson, Suite 1000 LOCATION: Unit F: 1980' FNL; 1980' FWL
Oklahoma City, Oklahoma 73102 Section 31-20S-39E
FEDERAL LEASE NO.: NM-17252 COUNTY/STATE: LEA COUNTY, NEW MEXICO

The following facts are submitted in this application to commingle:

| | UPPER ZONE BLINEBRY | LOWER ZONE D-K ABO |
|---|---|--|
| a) Name of Reservoir | | |
| b) Perforation record | 6055-6061'; 6067-6073'; 6077-6087'; 6101-6117'. (Perfed w/1HPF-Total of 38 holes) | 7450-7462'; 7468-7476'; 7482-7490'; 7498-7510'; (Perfed w/2HPF-Total 80 holes 7310', 7318', 7324', 7339', 7346', 7352', 7362', 7369', 7377', 7389', 7392', 7402', 7407'. (Perfed w/1HPF-Total 13 holes) |
| c) Description of Acid and Fracture Treatments | Acidized w/3000gals 15% HCl w/30 ball sealers from 6055-6087'. Fraced w/42,000gals Terra Frac w/ 20/40 sand & 20 ball sealers from 6055- 6087'. | Acidized w/2000gals 20% HCl & Acid- Fraced w/8000gals 20% HCl w/120 ball sealers from 7450-7510'. Acidized with 2000gals 20% HCl w/25 ball sealers and Fraced with 300 bbls Terra Frac w/ 20/40 sand and 10/20 sand from 7310-7407'. |
| d) Latest Test Data by Zone | 2-17-81: Pumping on 1" choke. Total 40.44BF (10.44BO & 30BSW) Gas TSTM. 24hr test. | 11-29-80: Total 24BF (8BO & 16BSW) Gas-TSTM. 24hr test. |
| e) Bottom-Hole Pressure | 2450psi | 2600psi |

Reason for Commingling:

Commingling of these two zones is required due to mechanical restrictions which will not allow us to conventionally dual both zones. Both zones are required to be pumped.

List of offset operators and others who have been notified of this application:

United States Department of the Interior
Geological Survey
P.O. Box 1157
Hobbs, New Mexico 88240

Other attachments made a part of this application:

1. Prognostication of future production from each zone.
2. Description of the fluid characteristics of each zone.
3. Computation that the value of the commingled production will not be less than the sum of the values of the individual streams.

March 11, 1981

Attachment #3-A
Application to Commingle
Exception to Rule 303-A

Computation that the value of the commingled production will not be less than the sum of the values of the individual streams.

In order to effectively deplete the reserves in both the Blinebry and D-K Abo formations, these two zones will require conventional beam-type pumping equipment. If these two zones are commingled at once, they can both be depleted under current pumping conditions without increasing operating expenses. However, if the Blinebry interval is produced separately to depletion (approximately 7 years), and then the well reworked to produce the D-K Abo to depletion, an additional 7 years of operating expenses will be incurred, which will make the discounted value of the commingled production greater than the sum of the discounted values of the individual streams. (See attached computations.)

Attachment #3-B
Application to Commingle
Exception to Rule 303-A

COMMINGLED PRODUCTION

| Year | Production (BBLs) | Oil Price (\$/BBL) | Oil Value (\$) | Oper. Exp. (\$) | Net Value (\$) | Discounted Net Value (\$) |
|-------|----------------------|-----------------------|-------------------|--------------------|-------------------|---------------------------------|
| 1 | 8,245 | 34.69 | 286,019 | 9,600 | 276,419 | 251,290 |
| 2 | 5,771 | 37.71 | 217,624 | 10,560 | 207,064 | 171,128 |
| 3 | 4,037 | 42.37 | 171,047 | 11,616 | 159,431 | 119,783 |
| 4 | 2,821 | 47.35 | 133,574 | 12,778 | 120,796 | 82,505 |
| 5 | 1,971 | 52.82 | 104,108 | 14,055 | 90,053 | 55,916 |
| 6 | 1,376 | 58.63 | 80,674 | 15,461 | 65,213 | 36,811 |
| 7 | 960 | 65.16 | 62,553 | 17,007 | 45,546 | 23,373 |
| Total | 25,181 | | | | | 740,806 |

SEPARATE PRODUCTION

| | | | | | | |
|-------|--------|--------|---------|--------|---------|---------|
| 1 | 5,325 | 34.69 | 184,724 | 9,600 | 175,124 | 159,203 |
| 2 | 3,727 | 37.71 | 140,545 | 10,560 | 129,985 | 107,426 |
| 3 | 2,606 | 42.37 | 110,416 | 11,616 | 98,800 | 74,229 |
| 4 | 1,821 | 47.35 | 86,224 | 12,778 | 73,446 | 50,164 |
| 5 | 1,274 | 52.82 | 67,292 | 14,055 | 53,237 | 33,057 |
| 6 | 891 | 58.63 | 52,239 | 15,461 | 36,778 | 22,836 |
| 7 | 621 | 65.16 | 40,464 | 17,007 | 23,451 | 12,037 |
| 8* | 2,920 | 72.35 | 211,262 | 18,708 | 192,554 | 89,828 |
| 9 | 2,044 | 80.36 | 164,255 | 20,578 | 143,677 | 60,934 |
| 10 | 1,431 | 89.28 | 127,759 | 22,636 | 105,123 | 40,530 |
| 11 | 1,000 | 99.16 | 99,160 | 24,900 | 74,260 | 26,027 |
| 12 | 697 | 109.93 | 76,621 | 27,390 | 49,231 | 15,684 |
| 13 | 485 | 121.64 | 58,995 | 30,129 | 28,866 | 8,361 |
| 14 | 339 | 134.37 | 45,551 | 33,142 | 12,409 | 3,268 |
| Total | 25,181 | | | | | 703,584 |