

12/15/97

DISTRICT I
P.O. Box 1980, Hobbs, NM 88241-1980
DISTRICT II
811 S. First St., Artesia, NM 88210-2835
DISTRICT III
1000 Rio Brazos Rd, Aztec, NM 87410-1693

State of New Mexico
Energy, Minerals and Natural Resources Department

NOV 25 OIL CONSERVATION DIVISION
2040 S. Pacheco
Santa Fe, New Mexico 875054-6429

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

APPROVAL PROCESS:

☒ Administrative ☐ Hearing

EXISTING WELLBORE

☒ YES ☐ NO

APPLICATION FOR DOWNHOLE COMMINGLING

BURLINGTON RESOURCES OIL & GAS COMPANY

P.O. Box 51810 Midland, TX 79710-1810

Operator

Address

CHECKERBOARD 23 FEDERAL

11

B,

23

T22S

R32E

LEA CO., NM

Lease

Well No.

Unit Ltr. - Sec - Twp - Rge

County

Spacing Unit Lease Types: (check 1 or more)

OGRID NO. 26485

Property Code 13136

API NO. 30-025-32628

Federal ☒ State ☐ (and/or) Fee ☐

The following facts are submitted in support of downhole commingling:	Upper Zone	Intermediate Zone	Lower Zone
1. Pool Name and Pool Code	WEST RED TANK DELAWARE 51689		RED TANK BONE SPRING 51683
2. Top and Bottom of Pay Section (Perforations)	8474' - 8524'		9825' - 9915'
3. Type of production (Oil or Gas)	OIL		OIL
4. Method of Production (Flowing or Artificial Lift)	ARTIFICIAL LIFT		ARTIFICIAL LIFT
5. Bottomhole Pressure	a. (Current) 1200 PSI EST.	a.	a. 3925 PSI EST.
Oil Zones - Artificial Lift: Estimated Current Gas & Oil - Flowing: Measured Current All Gas Zones: Estimated Or Measured Original	b. (Original) 3475 PSI EST.	b.	b.
6. Oil Gravity (°API) or Gas BTU Content)	40 DEG.		40 DEG
7. Producing or Shut-In?	PRODUCTION		TO BE COMPLETED
Production Marginal? (yes or no)	Yes		Yes
* If Shut-In, give date and oil/gas/water rates of last production Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data	Date: Rates:	Date: Rates:	Date: Rates:
* If Producing, give date and oil/gas/water rates of recent test (within 60 days)	Date: 10-20-97 Rates: 18 BOPD, 0 BWPD, 90 MCFPD	Date: Rates:	Date: TO BE COMPLETED Rates: SEE ATTACHED
8. Fixed Percentage Allocation Formula - % for each zone	Oil: 70 % Gas: 50 %	Oil: % Gas: %	Oil: 30 % Gas: 50 %

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? ☒ Yes ☐ No
If not, have all working, overriding, and royalty interests been notified by certified mail? ☒ Yes ☐ No
Have all offset operators been given written notice of the proposed downhole commingling? ☒ Yes ☐ No

11. Will cross-flow occur? ☐ 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. ☐ Yes ☐ No (If No, attach explanation)

12. Are all produced fluids from all commingled zones compatible with each other? ☒ Yes ☐ No

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

14. If this well in 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. ☒ Yes ☐ No

15. NMOC 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 Maria L. Perez TITLE REGULATORY REP. DATE 11-19-97

TYPE OR PRINT NAME MARIA L. PEREZ TELEPHONE NO. (915) 688-6906

District I
PO Box 1980, Hobbs, NM 88241-1980
District II
811 S. 1st Street, Artesia, NM 88210-2834
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1000 Rio Brazos Rd., Aztec, NM 87410
District IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

Form C-102
Revised October 18, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-025-32628	² Pool Code 51689	³ Pool Name WEST RED TANK DELAWARE
⁴ Property Code 13136	⁵ Property Name CHECKERBOARD 23 FEDERAL	⁶ Well Number 11
⁷ OGRID No. 26485	⁸ Operator Name BURLINGTON RESOURCES OIL & GAS COMPANY	⁹ Elevation 3739'

¹⁰ Surface Location

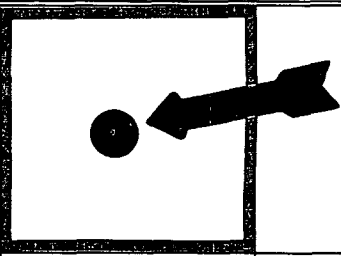
UL or lot no. B	Section 23	Township 22S	Range 32E	Lot. Idn	Feet from the 660	North/South Line NORTH	Feet from the 1980	East/West line EAST	County LEA
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¹¹ Bottom Hole Location If Different From Surface

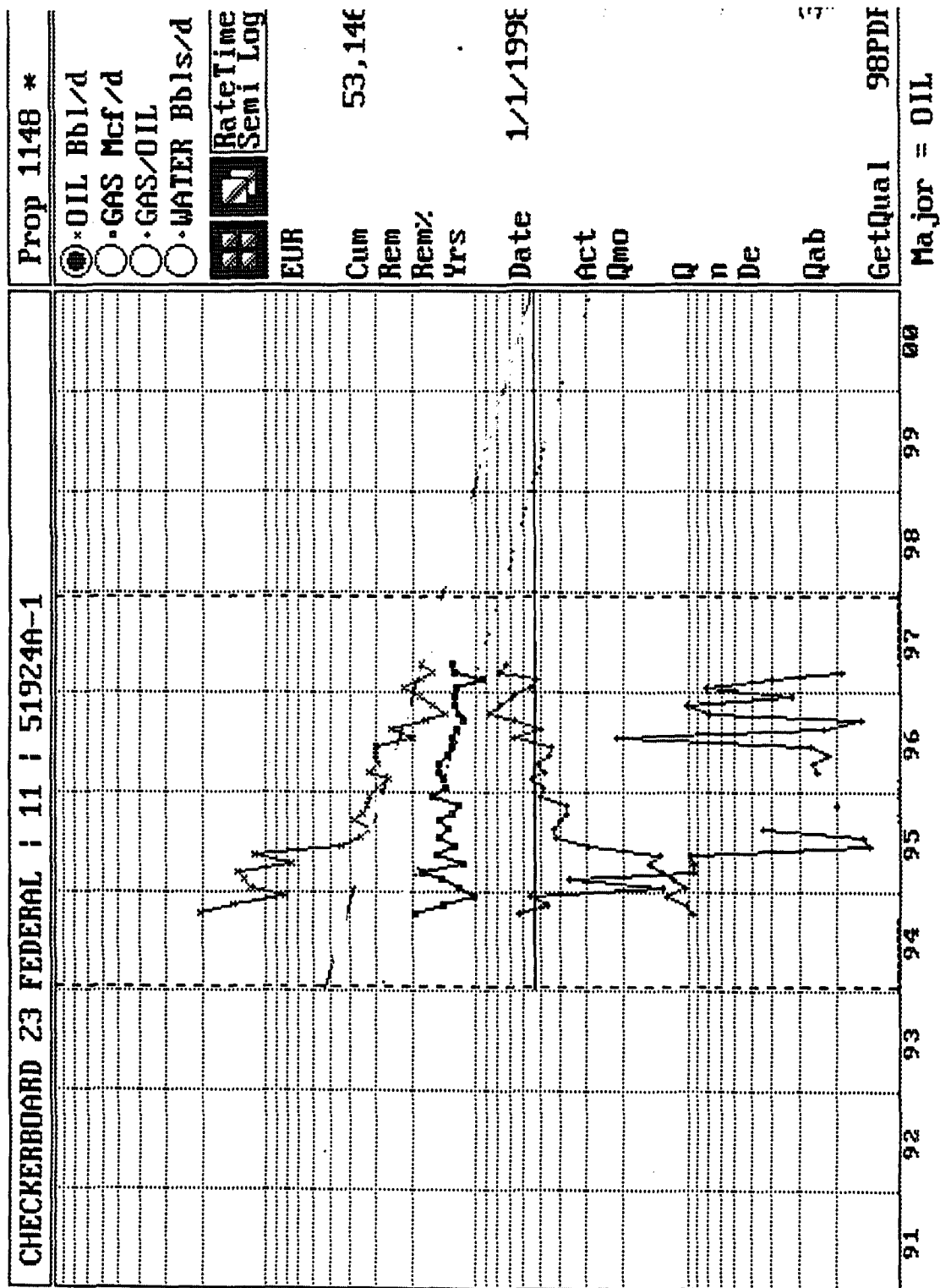
UL or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South Line	Feet from the	East/West line	County
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¹² Dedicated Acres 40	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON--STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

			<p>¹⁷ OPERATOR CERTIFICATION <i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</i></p> <p><u>Maria L. Perez</u> Signature MARIA L. PEREZ Printed Name REGULATORY REPRESENTATIVE Title 11-19-97 Date</p>
			<p>¹⁸ SURVEYOR CERTIFICATION <i>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.</i></p> <p>_____ Date of Survey _____ Signature and Seal of Professional Surveyor:</p>
			_____ Certificate Number

CHECKERBOARD 23 FEDERAL : 11 : 51924A-1



Major = OIL

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☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-025-32628	² Pool Code 51683	³ Pool Name RED TANK BONE SPRING
⁴ Property Code 13136	⁵ Property Name CHECKERBOARD 23 FEDERAL	⁶ Well Number 11
⁷ OGRID No. 26485	⁸ Operator Name BURLINGTON RESOURCES OIL & GAS COMPANY	⁹ Elevation 3739'

¹⁰ Surface Location									
UL or lot no. B	Section 23	Township 22S	Range 32E	Lot. Idn	Feet from the 660	North/South Line NORTH	Feet from the 1980	East/West line EAST	County LEA

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 40									
¹³ Joint or Infill									
¹⁴ Consolidation Code									
¹⁵ Order No.									

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				¹⁸ SURVEYOR CERTIFICATION <i>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.</i> Date of Survey Signature and Seal of Professional Surveyer: Certificate Number

* WATER
 * GAS/OIL
 * GAS
 * OIL

CHECKERBOARD 23 FEDERAL : 11 : 51924B-1

Prop 46

- ☒ OIL Bbl/d
- ☐ GAS Mcf/d
- ☐ GAS/OIL
- ☐ WATER Bbls/d

☒ RateTime
☒ Semi Log

EUR 32,813

Cum 0

Rem 32,813

Rem% 100.0%

Yrs 10.5

Date 12/1/1997

Act 0

Qmo 1,475

Q 50

n 0.75

De 70

Qab 2

GetQual PROD

10
 100
 1
 0.1

100
 1000
 10
 1

1000
 10000
 100
 10

10000
 100000
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 100

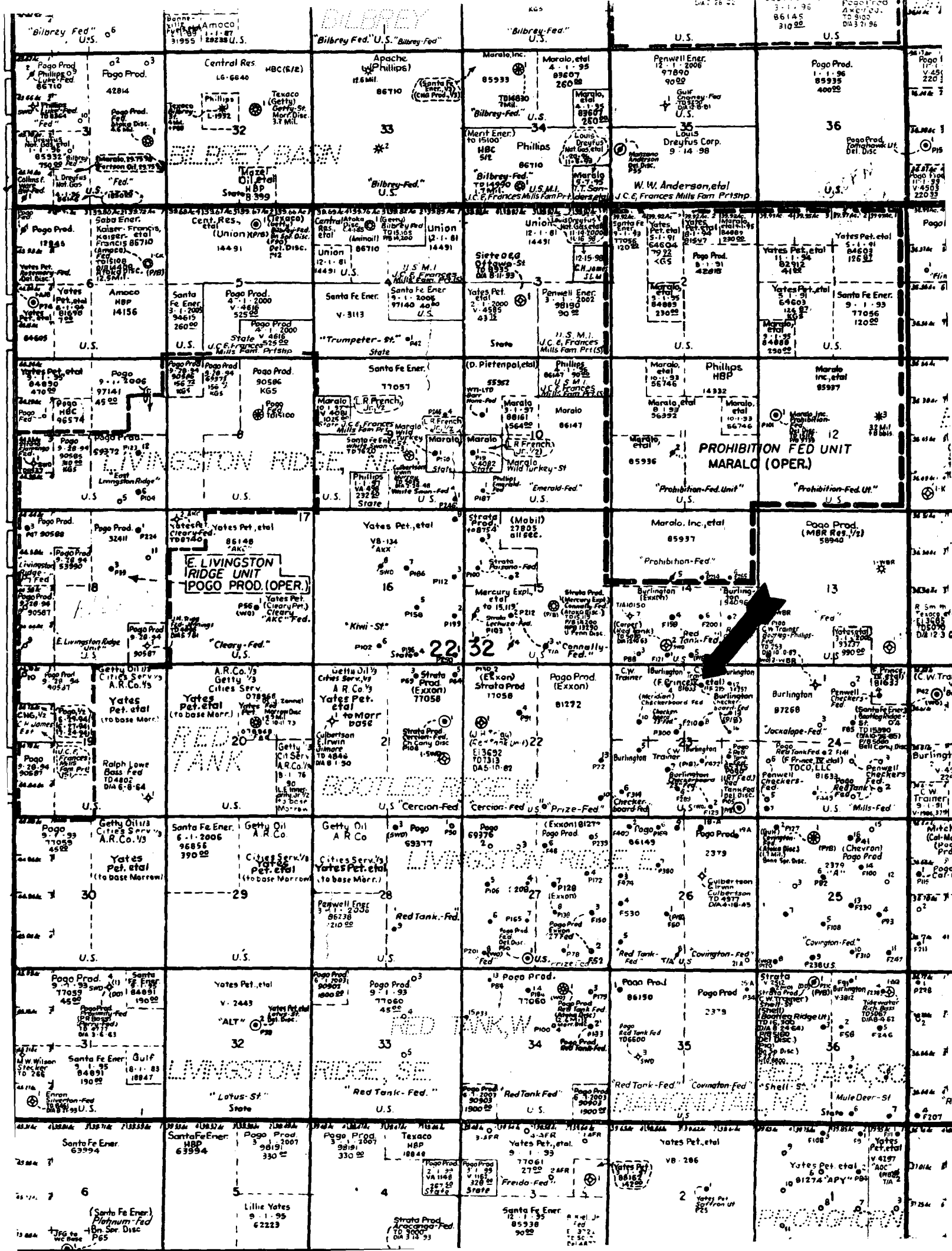
96
 97
 98
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 00
 01
 02
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Major = OIL

**BURLINGTON RESOURCES OIL & GAS COMPANY, OGRID NO. 26485
APPLICATION FOR ADMINISTRATIVE APPROVAL TO
DOWNHOLE COMMINGLE THE
CHECKERBOARD 23 FEDERAL #11, (PROPERTY CODE 13136)
B, 23, T22S, R32E
LEA COUNTY, NM**

OFFSET OPERATOR NOTIFICATION:

**POGO PRODUCING COMPANY
P. O. BOX 10340
MIDLAND, TEXAS 79702**



ADDITIONAL DATA FOR DOWNHOLE COMMINGLING
CHECKERBOARD 23 FEDERAL NO. 11

Burlington Resources Oil & Gas Company respectfully submits the following:

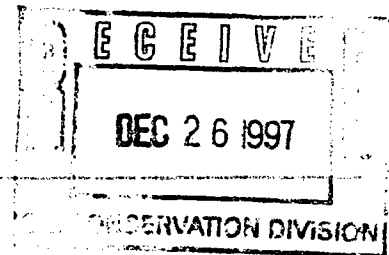
The estimated bottomhole pressures for the perforations in the Bone Spring for the above referenced well are calculated off the actual BHP for the Checkerboard 23 Federal well(s) no. 1, 2, & 3. As indicated on the application for the referenced Checkerboard wells, the original BHP is an average of 3900, and the current BHP today is approximately 2087. We anticipate the well to come in flowing but eventually will have to be put on artificial lift. The estimated gravity for the Delaware zone is +/- 41. Based off figures from the Bone Spring production in the # 1,2, & 3, we anticipate the Bone Spring perms in this well to be approximately 20 bbls oil, 25 mcf, and 86 water. This would make the allocation factors for the downhole commingling of the Checkerboard 23 Federal No. 11 to be as follows:

Delaware:	70% oil and 50% gas (based on average production of 37 oil, 90 mcf)
Bone Spring:	30% oil and 50% gas

We submit the production graph information for the number 11 based on current Delaware production and proposed Bone Spring production. The referenced Checkerboard wells are tracking the same trend geologically as this Checkerboard well, maybe even slightly updip, so the production figures are comparative.

BURLINGTON RESOURCES

MID-CONTINENT DIVISION
12-22-97



Mr. David Catanach, Petroleum Engineer
State of New Mexico
Energy, Minerals and Natural Resources Dept.
Oil Conserveation Division
2040 South Pacheco
Santa Fe, New Mexico 87505-

Re: Proof of Offset Operator Notification
Signed Certified Return Receipt Attached

(3) Applications for Downhole Commingling
Burlington Resources Oil & Gas Company

Checkerboard 23 Federal #8
G, Sec. 23, T22S, R32E, Lea Co., NM
API 30-025-32626
Red Tank Bone Spring & West Red Tank Delaware Pools

Checkerboard 23 Federal #11
B, Sec. 24, T23S, R32E, Lea Co., NM
API 30-025-32628
Red Tank Bone Spring & West Red Tank Delaware Pools

Redchecker 14 Federal #1
P, Sec. 14, T22S, R32E, Lea Co., NM
API 30-025-32764
Red Tank Bone Spring & West Red Tank Delaware Pools

Dear Mr. Catanach:

Enclosed is a copy of the signed certified return receipt # P 497-352-036 dated November 25, 1997 as proof of offset notification to Progo Prudicing Company who is the offset operator for all of the above applications to downhole commingle.

The originals applications were sent to you for administrative approval on November 19, 1997.

Sincerely,
Maria L. Perez
Maria L. Perez, Regulatory Rep.
A/C 915-688-6906

Is your RETURN ADDRESS completed on the reverse side?

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):

1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

Pogo Producing Company
P.O. Box 10340
Midland, Texas 79702

4a. Article Number

P 497 352 036

4b. Service Type

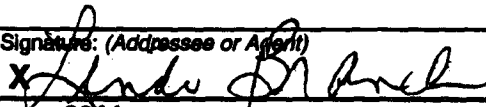
- | | |
|---|------------------------------------|
| <input type="checkbox"/> Registered | <input type="checkbox"/> Certified |
| <input type="checkbox"/> Express Mail | <input type="checkbox"/> Insured |
| <input type="checkbox"/> Return Receipt for Merchandise | <input type="checkbox"/> COD |

7. Date of Delivery

NOV 25 1997

5. Received By: (Print Name)

6. Signature: (Addressee or Agent)

X 

8. Addressee's Address (Only if requested and fee is paid)

PS Form 3811, December 1994

102595-97-B-0179

Domestic Return Receipt

Thank you for using Return Receipt Service.