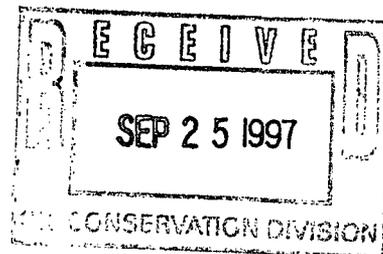


# BURLINGTON RESOURCES

MID-CONTINENT DIVISION

September 23, 1997

Mr. Michael E. Stogner, Engineer  
State of New Mexico  
Energy, Minerals and Natural Resources Dept.  
Oil Conservation Division  
2040 South Pacheco Street  
Santa Fe, New Mexico 87505



RE: Unorthodox Location-(Sidetracked-Lateral From Existing Vertical Hole)  
Burlington Resources Oil & Gas Co. (OGRID #26485)  
**Red Tank Federal #3H** (Property Code 14795)  
West Red Tank Delaware Pool (Pool Code 51689)-(40 ac. spacing)  
Surface Location: M, 330' FSL & 990' FWL  
Sec. 14, T22S, R32E  
Lea County, New Mexico  
Lease No. NM77058

Dear Mr. Stogner:

This sidetrack has been permitted and drilled. Originally the proposed sidetrack direction fell within the standard distances of the assigned horizontal project area. Because the direction of the lateral deviated to the northeast and did not go into the quarter-quarter section directly north of the surface location, we now have an obligation to re-assign to Exxon the NW/4 SW/4 of Section 14 as per agreement we currently have with Exxon.

Due to the re-assignment obligation, this lateral now falls within the setback distance of 330' and requires a location exception. The lateral is encroaching on the west boundary of the horizontal project area and the east boundary of the NW/4 SW/4 of Section 14.

Exxon is being notified today by certified mail of this unorthodox lateral location as they have reversionary rights to the acreage in the NW/4 SW/4 which is being encroached upon by the lateral borehole.

Burlington requests your approval to this unorthodox lateral hole and to the revised horizontal project area. Attached is Form C-102 showing the amended 200 acre project area.

Page -2- (Red Rank Federal #3H)

If you have any questions concerning this application, please contact me at  
A/C 915-688-6906.

Sincerely,

A handwritten signature in cursive script that reads "Maria L. Perez". The signature is written in black ink and is positioned above the typed name.

Maria L. Perez  
Regulatory Representative

(s:mlp1:redtank.doc)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
Budget Bureau No. 1004-0135  
Expires: March 31, 1993

**SUNDRY NOTICES AND REPORTS ON WELLS**

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.

Use "APPLICATION FOR PERMIT - " for such proposals

**SUBMIT IN TRIPLICATE**

1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other	5. Lease Designation and Serial No. <b>NM77058</b>
2. Name of Operator <b>Burlington Resources Oil &amp; Gas Company</b>	6. If Indian, Allottee or Tribe Name
3. Address and Telephone No. <b>P.O. Box 51810 Midland, TX 79710-1810      915-688-6943</b>	7. If Unit or CA, Agreement Designation
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) <b>Sec. 14, T22S, R32E M, 330' FSL &amp; 990' FWL</b>	8. Well Name and No. <b>Red Tank Federal      # 3H</b>
	9. API Well No. <b>30-025-32507</b>
	10. Field and Pool, or exploratory Area <b>West Red Tank Delaware</b>
	11. County or Parish, State <b>Lea      NM</b>

12. CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Abandonment
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Recompletion
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Plugging Back
	<input type="checkbox"/> Casing Repair
	<input type="checkbox"/> Altering Casing
	<input checked="" type="checkbox"/> Other <u>Amend Sidetrack wellbore</u>
	<input type="checkbox"/> Change of Plans
	<input type="checkbox"/> New Construction
	<input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Water Shut-Off
	<input type="checkbox"/> Conversion to Injection
	<input type="checkbox"/> Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

Previous approval to Sidetrack lateral was granted on July 23, 1997. Sidetrack has been drilled but deviated to the northeast instead of north.

Amending Horizontal Project Area as per C-102 enclosed.

Application for a Lateral unorthodox location has been requested. See attached letter to the OCD in Santa Fe, New Mexico.

A window has been cut in the existing wellbore and sidetracked with a lateral hole to an open 40 acre proration unit that is northeast of surface location.

Also requesting well number be changed from Well #3 to Well #3H.

Contact Person: Maria Perez, 915-688-6906

14. I hereby certify that the foregoing is true and correct.

Signed Maria I. Perez Title Regulatory Representative Date 9/23/97

(This space for Federal or State office use)

Approved by \_\_\_\_\_ Title \_\_\_\_\_ Date \_\_\_\_\_

Conditions of approval, if any:

District I  
 PO Box 1980, Hobbs, NM 88241-1980  
 District II  
 811 S. 1st Street, Artesia, NM 88210-2834  
 District III  
 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

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

OIL CONSERVATION DIVISION  
 2040 South Pacheco  
 Santa Fe, NM 87505

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number 30-025-32507		<sup>2</sup> Pool Code 51689		<sup>3</sup> Pool Name West Red Tank Delaware	
<sup>4</sup> Property Code 14795		<sup>5</sup> Property Name Red Tank Federal			<sup>6</sup> Well Number 3H
<sup>7</sup> OGRID No. 26485		<sup>8</sup> Operator Name Burlington Resources Oil & Gas Company			<sup>9</sup> Elevation 3748'

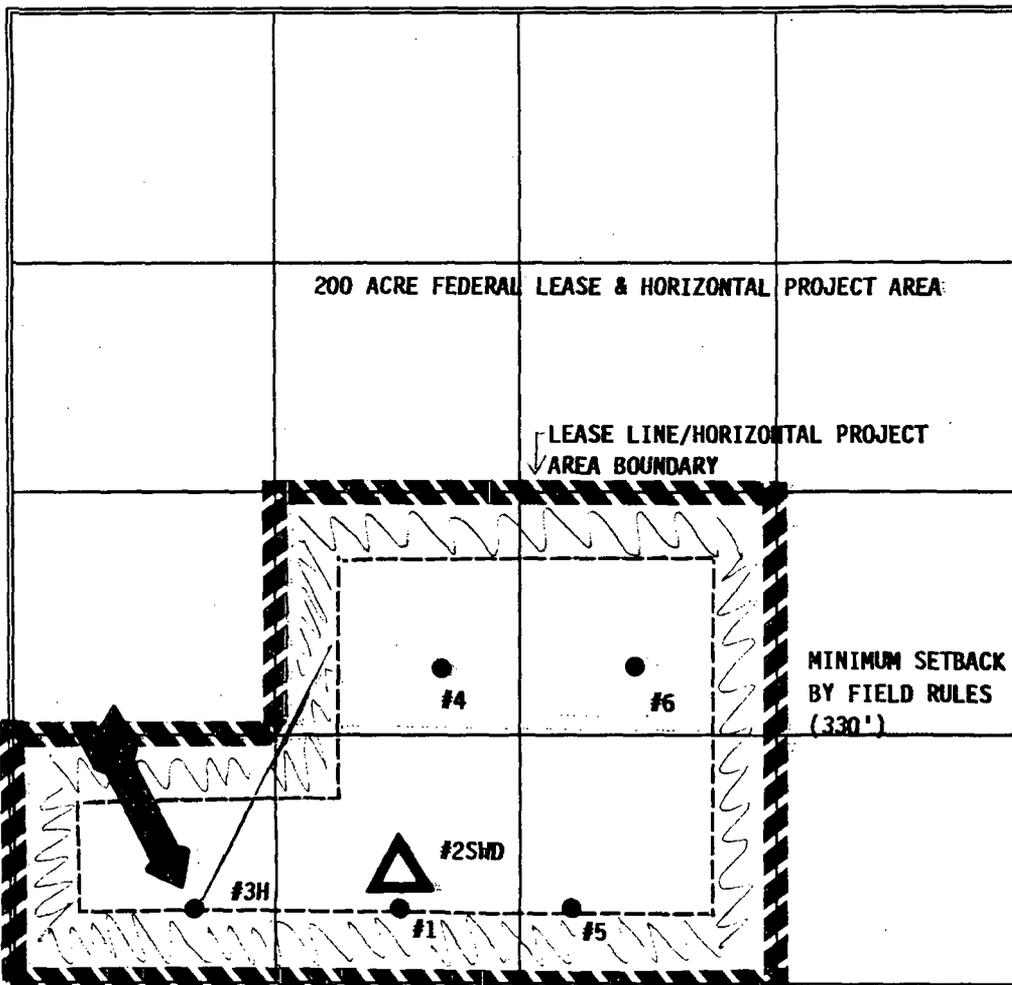
UL or lot no. M	Section 14	Township 22S	Range 32E	Lot. Idn	Feet from the 330'	North/South Line SOUTH	Feet from the 990'	East/West line WEST	County LEA
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<sup>11</sup> Bottom Hole Location If Different From Surface

UL or lot no. K	Section 14	Township 22S	Range 32E	Lot. Idn	Feet from the 1720	North/South Line SOUTH	Feet from the 1604	East/West line WEST	County LEA
--------------------	---------------	-----------------	--------------	----------	-----------------------	---------------------------	-----------------------	------------------------	---------------

<sup>12</sup> Dedicated Acres	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.
-------------------------------	-------------------------------	----------------------------------	-------------------------

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



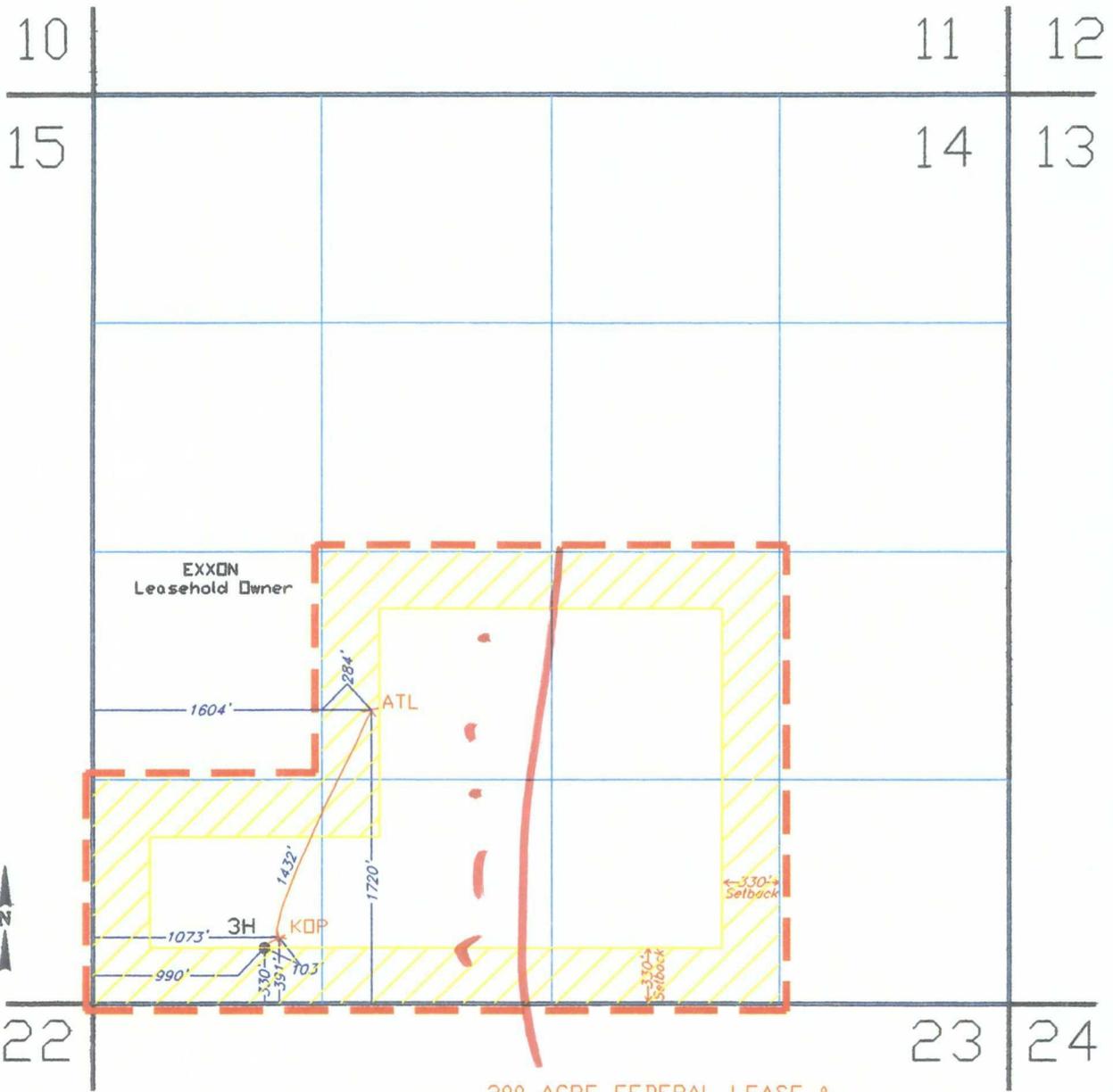
<sup>17</sup> OPERATOR CERTIFICATION  
 I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

*Maria L. Perez*  
 Signature  
 MARIA L. PEREZ  
 Printed Name  
 REGULATORY REPRESENTATIVE  
 Title  
 9-23-97  
 Date

<sup>18</sup> 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 Surveyer:  
 \_\_\_\_\_  
 Certificate Number

BURLINGTON RESOURCES OIL & GAS CO. (OGRID# 26485)  
 RED TANK FEDERAL #3H (PROPERTY CODE 14795)  
 LEASE# NM77058  
 RED TANK DELAWARE POOL (POOL CODE 51689)  
 UNIT LETER M, 330'FSL & 990'FWL, SEC.14,  
 T-22-S, R-32-E, LEA COUNTY, NEW MEXICO  
 SCALE: 1" = 1000'



-  200 ACRE FEDERAL LEASE & HORIZONTAL PROJECT AREA BOUNDARY
-  MINIMUM SETBACK DISTANCE BY FIELD RULES (330')
- SL: SURFACE LOCATION
- KOP: KICKOFF POINT
- ATL: ACTUAL TERMINUS LOCATION

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

*Maria L. Perez*  
 Signature  
 MARIA L. PEREZ  
 Printed Name  
 Regulatory Rep.  
 Position  
 Burlington Resources  
 Company  
 9-23-97  
 Date

DATE: 9/23/97  
 DWG.# NMLER102

# BURLINGTON RESOURCES

MID-CONTINENT DIVISION

September 23, 1997

Exxon Co., U. S. A  
P. O. Box 4697  
Houston, Texas 77210

RE: Notification of Unorthodox Lateral Location  
Burlington Resources Oil & Gas Co.  
Red Tank Federal #3H  
West Rant Tank Delaware Pool  
Surface Location: M, 330' FSL & 990' FWL  
Sec. 14, T22S, R32E  
Lea County, New Mexico  
Lease No. NM77058

Ladies and Gentlemen:

Burlington Resources has made application to the State of New Mexico Oil Conservation Division in Santa Fe, New Mexico for an unorthodox location application for the sidetrack lateral of an existing vertical wellbore for the captioned well.

This is your notice as a reversionary leasehold owner in the NW/4 SW/4 of Section 14, T22S, R32E, Lea County, New Mexico. See attached sundry notice and plat.

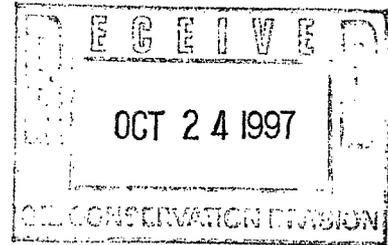
Any objections must be submitted in writing within twenty days from the date notice was sent to you to the Oil Conservation Division, 2040 South Pacheco Street, Santa Fe, New Mexico 87505.

Sincerely,

  
Maria L. Perez  
Regulatory Representative  
A/C 915-688-6906

(s:mlpl:redtank2)

10/22/97



Mike:

As per our conversation, the horizontal project area for the Red Tank Federal well no. 3 was defined due to the following: As per our agreement w/Exxon, in order to earn the 40 acre proration unit (NWNW), we had to be producing and/or be part of a proration unit. Since our lateral did not traverse said 40, this acreage reverted back to Exxon which subsequently meant we had to redefine the project area and request an unorthodox location.

Any questions, please contact me at 915-688-6943.

*llw*

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

OPERATOR'S COPY

FORM APPROVED  
Budget Bureau No. 1004-0135  
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.

Use "APPLICATION FOR PERMIT - " for such proposals

SUBMIT IN TRIPPLICATE

1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other	5. Lease Designation and Serial No. NM77058
2. Name of Operator Burlington Resources Oil & Gas Company	6. If Indian, Allottee or Tribe Name
3. Address and Telephone No. P.O. Box 51810 Midland, TX 79710-1810      915-688-6943	7. If Unit or CA, Agreement Designation
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec. 14, T22S, R32E 330' FSL & 990' FWL	8. Well Name and No. Red Tank Federal # 3
	9. API Well No. 30-025-32507
	10. Field and Pool, or exploratory Area West Red Tank Delaware
	11. County or Parish, State Lea NM

12. CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Abandonment
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Recompletion
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Plugging Back
	<input type="checkbox"/> Casing Repair
	<input type="checkbox"/> Altering Casing
	<input checked="" type="checkbox"/> Other <u>Sidetrack wellbore</u>
	<input type="checkbox"/> Change of Plans
	<input type="checkbox"/> New Construction
	<input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Water Shut-Off
	<input type="checkbox"/> Conversion to Injection
	<input type="checkbox"/> Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

Burlington Resources Oil and Gas Company respectfully request approval to cut a window in the existing wellbore and sidetrack with a lateral hole to an open 40 acre proration unit that is north of this well. Please see attached drilling plan. No surface use plan is required as work will utilize existing wellpad.

Contact Person: Donna Williams, 915-688-6943

RECEIVED  
 1991 JUL 22 A 9:08  
 BUREAU OF LAND MGMT.  
 ROSWELL OFFICE

14. I hereby certify that the foregoing is true and correct

Signed [Signature] Title Regulatory Compliance Date 7/17/97

(This space for Federal or State office use)

Approved by [Signature] Title PETROLEUM ENGINEER Date JUL 23 1997

Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

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

OIL CONSERVATION DIVISION  
2040 South Pacheco  
Santa Fe, NM 87505

Instructions on back  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number 30-025-32507		<sup>2</sup> Pool Code 51689		<sup>3</sup> Pool Name West Red Tank Delaware	
<sup>4</sup> Property Code 14795		<sup>5</sup> Property Name Red Tank Federal			<sup>6</sup> Well Number
<sup>7</sup> OGRID No. 26485		<sup>8</sup> Operator Name Burlington Resources Oil & Gas Company			<sup>9</sup> Elevation 3748'

<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South Line	Feet from the	East/West line	County
	14	22S	32E		330'	South	990'	West	Lea

<sup>11</sup> 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

<sup>12</sup> Dedicated Acres	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.

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

**240 ACRE FEDERAL LEASE & HORIZONTAL PROJECT AREA**

LC-030174-B

NM-85937

↓ Lease Line/Horizontal Project Area Boundary

Minimum Setback by Field Rules (330')

<sup>17</sup> OPERATOR CERTIFICATION

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



Signature  
Donna Williams

Printed Name  
Regulatory Compliance

Title  
7/21/97

Date

---

<sup>18</sup> 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 Surveyer:

Certificate Number

<b>OPERATORS NAME:</b>	<b>Burlington Resources Oil &amp; Gas Company</b>
<b>LEASE NAME AND WELL NO.:</b>	<b>Red Tank '24' Federal Well No. 3</b>
<b>LOCATION:</b>	<b>330' FSL &amp; 990' FWL, Sec. 14, T22S, R32E</b>
<b>FIELD NAME:</b>	<b>West Red Tank Delaware</b>
<b>COUNTY:</b>	<b>Lea County, New Mexico</b>
<b>LEASE NUMBER:</b>	<b>NM77058</b>

The following information is to supplement BLM form 3160-3 Application for permit to drill in accordance with Onshore Oil and Gas Order No. 1:

### 9 - POINT DRILLING PLAN

1. Name and estimated tops of important geologic formation/marker horizons.

<u>FORMATION</u>	<u>DEPTH</u>
Rustler	940'
Salado	1120'
Castille	4472'
Delaware	4777'
Bone Spring	8782'

2. Estimated depths at which the top and bottom of formations potentially containing usable water, oil, gas, or prospectively valuable deposits of other minerals are expected to be encountered and the operator's plans for protecting such resources.

Delaware

4777'

3. The operator's minimum specifications for Blowout Preventer (BOP) and related equipment to be used and schematic diagrams thereof showing sizes, pressure ratings, and the testing procedures and testing frequency. BOP and BOP - related equipment (BOPE) schematics shall include schematics of choke manifold equipment. Accumulator systems and remote controls shall be utilized.

7 1/16" BOP flange system. Tested to 3000 psi.

4. The proposed casing program including size, grade, weights, type of thread and coupling, and the setting depth of each string and its condition (new or acceptably reconditioned). For exploratory wells, or for wells as otherwise specified by the authorized officer, the operator shall include the minimum design factors for tensions, burst, and collapse that are incorporated into the casing design. In cases where tapered casing strings are utilized, the operator shall also include and/or setting depths of each portion.

EXISTING CASING:

17 1/2" hole, 13 3/8" 48# csg, set @ 851'

12 1/4" hole, 8 5/8" 28#/32# csg, set @ 4575'

7 7/8" hole, 5 1/2" 17# csg, set @ 8892'

OPEN HOLE LATERAL:

Top of whipstock is @ 8400'. Window will be cut from 8400'-8413'. Estimated KOP @ 8427' MD. Will use BUR 65 /100'. Length of lateral is to be an estimated 2051' @ N 20 E.

5. The amount and type(s) of cement, including anticipated additives to be used in setting each casing string, shall be described. If stage cementing techniques are to be employed, the setting depth of the stage collars and amount and type of cement, including additives, and preflush amounts to be used in each stage, shall be given. The expected linear fill-up of each cemented string, or each stage when utilizing stage-cementing techniques, shall also be given.

EXISTING CEMENT:

- a. 13 3/8" csg: Cmted w/600 sxs 'C' + 4% gel + 2% CaCl<sub>2</sub>, Tailed w/200 sxs 'C' + 2% CaCl<sub>2</sub>. Circ. to surface.
- b. 8 5/8" csg: Cmted in two stages: Lead w/400 sxs 'C' Lite + 6% Bentonite + 9 pps salt + 5 pps gilsonite + 1 pps econolite + .25 pps flocele, tail w/250 sxs 'C' + 2% CaCl<sub>2</sub>. Second Stage - Lead w/575 sxs 'C' Lite + 6% Bentonite + 9 pps salt + .25 pps flocele, tailed w/200 sxs 'C' + 2% CaCl<sub>2</sub>. Circ. to surface.

- c. 5 1/2" csg: Cmted in two stages: Lead w/500 sxs 'H' 50/50 Poz + 2% Bentonite + .6% Halad-9 + 3 pps KCL + .25 flocele. Second Stage: Led w/750 sxs 'H' Lite + .40 Halad-9, tail w/100 sxs 'H'. Ran temperature survey and TOC@ 3700'.

6. The anticipated characteristics, additives, use, and testing of drilling mud to be employed, along with the types and quantities of mud products to be maintained, shall be given. When air or gas drilling is proposed, the operator shall submit the following specific information:

Mud Program:

Open hole lateral section will be drilled w/fresh water and polymer system.

- 7. The anticipated testing, logging, and coring procedures to be used, including drill stem testing procedures, equipment, and safety measures.
  - a. DST Program: None
  - b. Core: None
  - c. Mud Logging: 2 Man unit, 10' samples from KOP to TD
  - d. Logs to be run: None

The expected bottom-hole pressure and any anticipated abnormal pressures, temperatures or potential hazards that are expected to be encountered, such as lost circulation zones and hydrogen sulfide. The operator's plans for mitigating such hazards shall be discussed. Should the potential to encounter hydrogen sulfide exist, the mitigation procedures shall comply with the provisions of Onshore Oil and Gas Order No. 6.

Bottom hole pressures at TD was an estimated 3250 psi. Bottom hole temperature 140 F. There is no anticipated Hydrogen Sulfide in this known drilling area. No abnormal pressures are anticipated.

- 9. Any other facets of the proposed operation which the operator wishes for BLM to consider in reviewing the application.

Anticipated time expected to be 15 days.

OPERATORS CERTIFICATION

I hereby certify that I, Jim Kramer, Sr. Staff Drilling Engineer, under my direct supervision, have inspected the proposed drill site and access route that I am familiar with the conditions that currently exist; that the statements made in the APD package are, to the best of my knowledge, true and correct, and that the work associated with operations proposed herein will be performed by **not yet determined** contractors and subcontractors in conformity with this APD package and the terms and conditions under which it is approved. I also certify responsibility for the operations conducted on that portion of the leased lands associated with this application, with bond coverage being provided under BLM **statewide** bond. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

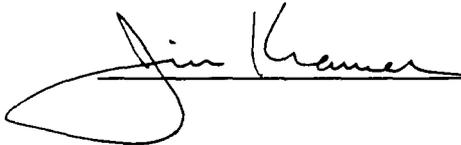
DATE:

7/21/97

---

NAME AND TITLE: Jim Kramer, Drilling Engineer

SIGNATURE:



---

**Schlumberger**

Anadrill

MDC Operations  
4607 South County Rd. #1310  
Odessa, Texas 77477  
Phone (915) 563-3057  
Fax (915) 563-3059

September 25, 1997

Bureau of Land Management  
414 W Taylor  
P.O. Box 1960  
Hobbs, New Mexico 88240

Re: Burlington Resources Oil & Gas Co.  
Red Tank Federal #3  
Sec. 14, T-22-S, R-32-E  
Lea County, New Mexico  
API # 30-025-32507

Enclosed, please find the original and one copy of the survey performed on the referenced well by Anadrill, a division of Schlumberger Technology Corporation. Other information required by your office is as follows:

<u>Name &amp; Title of Surveyor</u>	<u>Drainhole Number</u>	<u>Surveyed Depths</u>	<u>Dates Performed</u>	<u>Type of Survey</u>
Lex Barton MWD I	#01	8386' to 9919'	9/8/97 - 9/20/97	MWD/D&I

A certified plat on which the bottom hole is oriented both to the surface location and to the lease lines ( or unit lines in case of pooling) is attached to the survey report. If any other information is required, please contact the undersigned at the letterhead address and phone number.

Sincerely,



Tom Follis  
MWD Coordinator

Cc: Burlington Resources Oil & Gas Co.

Enclosures: 2

MDC Operations  
4607 South County Rd. #1310  
Odessa, Texas 77477  
Phone (915) 563-3057  
Fax (915) 563-3059

State of Texas  
County of Midland

I, Lex Barton, certify that; I am employed by Anadrill, a division of Schlumberger Technology Corporation; that I did on the days of 9/8/97 through 9/20/97 conduct or supervise the taking of MWD surveys from a depth of 8386 feet to a depth of 9919 feet; that the data is true, correct, complete and within the limitations of the tool as set forth by Anadrill, a division of Schlumberger Technology Corporation; that I am authorized and qualified to make this report; that this survey was conducted at the request of Burlington Resources Oil & Gas Co., for the Red Tank Federal #3, API No. 30-025-32507 in Lea County, New Mexico; and that I have reviewed this report and find that it conforms to the principles and procedures as set forth by Anadrill, a division of Schlumberger Technology Corporation.



Lex Barton,  
MWD I

## Anadrill Schlumberger Survey Report

Burlington Resources Oil & Gas Co.  
 Red Tank Federal #3  
 Lea County, New Mexico

**Magnetic Declination: 9.17 DEG**

**Tie In Point (TIP):**

Measured Depth	8200	FT.
True Vertical Depth	8196.19	FT.
Inclination	1	DEG
Azimuth	243	DEG
N/S Displacement(-ve for S)	53.24	FT.
E/W Displacement(-ve for W)	81.92	FT.

**Azim. From Rotary Table To Target 20.02 DEG**

## Accepted Survey Listing:

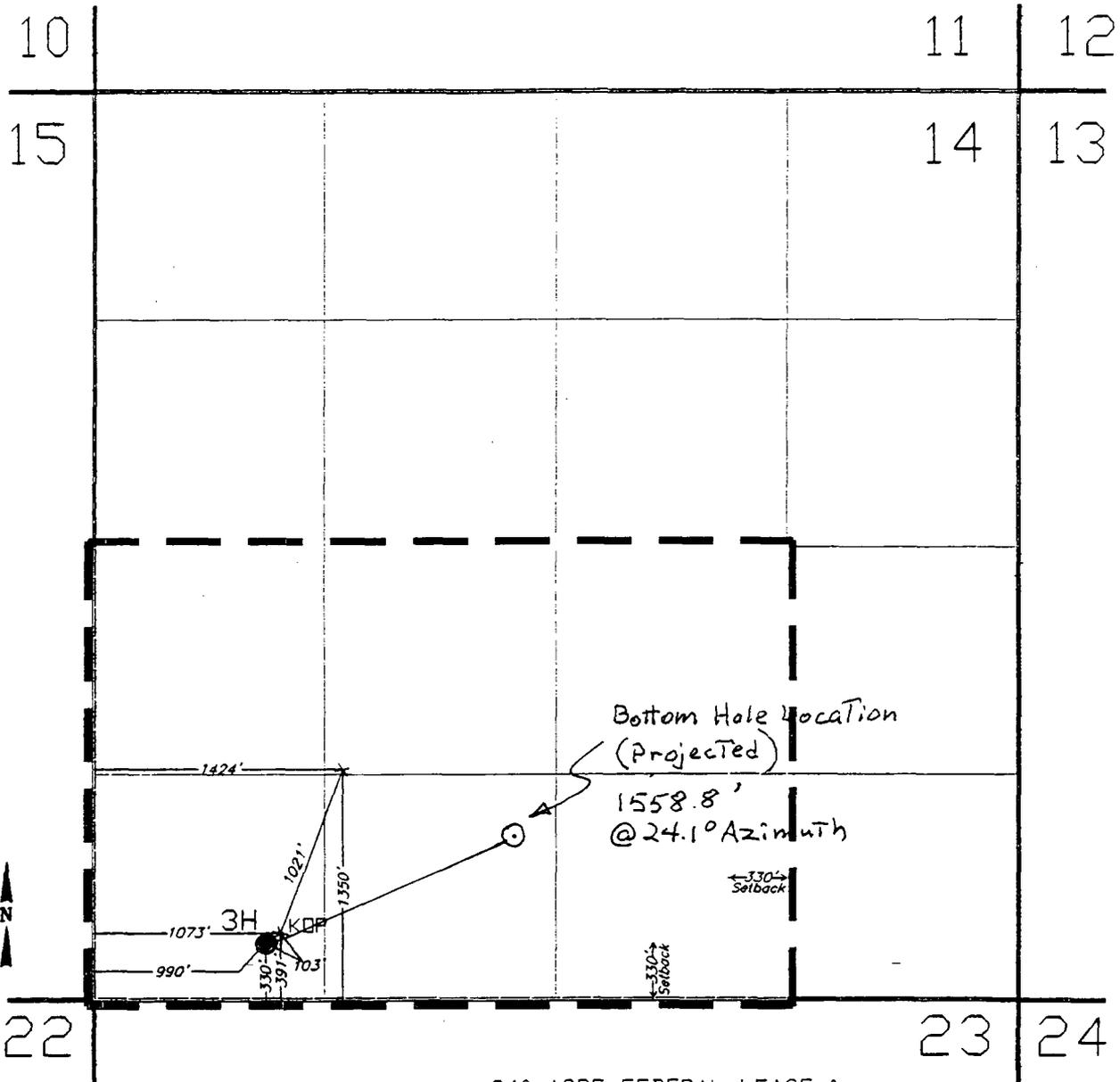
Depth (ft)	Int. (ft)	TVD (ft)	TargetS (ft)	Incl. (deg)	Azim (deg)	N.Disp (ft)	E.Disp (ft)	T.Disp (ft)	Clr.Ang (deg)	DLS (D/HF)
8386	186	8381.96	85.3	5.2	16.2	60.6	82.83	102.63	53.81	3.19
8419	33	8414.66	89.01	10.5	337.56	64.82	82.1	104.6	51.71	21.83
8451	32	8445.27	96.34	22.69	346.56	73.55	79.54	108.34	47.24	38.82
8482	31	8472.34	108.75	35.22	345.59	88.08	75.91	116.28	40.76	40.45
8511	29	8494.03	124.59	47.68	346	106.66	71.22	128.25	33.73	42.98
8542	60	8512.24	149.11	61.02	4.01	131.96	73.39	150.99	29.08	48.36
8573	31	8523.32	177.41	77.07	13.98	160.39	78.03	178.37	25.94	59.78
8591	18	8525.44	195.21	89.4	18.61	177.51	83.04	195.97	25.07	73.09
8623	32	8524.58	227.18	93.7	18.31	207.85	93.17	227.77	24.14	13.47
8655	32	8522.35	259.09	94.3	18.31	238.16	103.2	259.55	23.43	1.88
8686	31	8519.86	289.99	94.93	19.42	267.4	113.19	290.37	22.94	4.11
8718	32	8517.48	321.9	93.6	21.12	297.33	124.25	322.25	22.68	6.73
8749	31	8515.33	352.82	94.35	21.46	326.14	135.48	353.16	22.56	2.66
8780	31	8512.86	383.7	94.8	21.83	354.86	146.88	384.06	22.48	1.88
8812	32	8510.46	415.59	93.8	21.83	384.48	158.75	415.96	22.43	3.12
8844	32	8508.79	447.53	92.2	21.83	414.14	170.63	447.92	22.39	5
8875	31	8507.57	478.48	92.3	22.53	442.82	182.32	478.89	22.38	2.28
8902	27	8506.89	505.45	90.6	22.18	467.78	192.59	505.87	22.38	6.43
8934	32	8507.05	537.43	88.83	21.23	497.51	204.42	537.87	22.34	6.28
8965	31	8507.47	568.42	89.6	21.12	526.41	215.62	568.86	22.27	2.51
8997	32	8507.33	600.4	90.89	22.66	556.1	227.55	600.86	22.25	6.28
9029	32	8507.28	632.36	89.3	23.23	585.57	240.02	632.85	22.29	5.28
9061	32	8507.77	664.3	88.94	23.44	614.95	252.69	664.84	22.34	1.3
9092	31	8507.93	695.22	90.46	24.56	643.27	265.3	695.83	22.41	6.09
9124	32	8507.36	727.11	91.57	24.74	672.35	278.64	727.8	22.51	3.51
9155	31	8507.01	758	89.71	24.8	700.49	291.63	758.77	22.6	6
9187	32	8507.54	789.89	88.4	24.64	729.55	305.01	790.75	22.69	4.12
9219	32	8508.52	821.77	88.1	24.64	758.62	318.35	822.71	22.76	0.94

Depth (ft)	Int. (ft)	TVD (ft)	TargetS (ft)	Incl. (deg)	Azim (deg)	N.Disp (ft)	E.Disp (ft)	T.Disp (ft)	Clr.Ang (deg)	DLS (D/HF)
9251	32	8509.8	853.63	87.31	24.85	787.66	331.73	854.67	22.84	2.55
9282	31	8511.37	884.49	86.9	24.64	815.78	344.69	885.61	22.91	1.49
9319	37	8513.38	921.31	86.88	24.81	849.34	360.14	922.54	22.98	0.46
9349	30	8514.93	951.17	87.2	24.8	876.54	372.71	952.48	23.04	1.07
9381	32	8516.46	983.02	87.31	24.77	905.56	386.11	984.44	23.09	0.36
9413	32	8517.99	1014.87	87.2	25.04	934.55	399.57	1016.39	23.15	0.91
9444	31	8519.58	1045.71	86.94	25.28	962.57	412.73	1047.33	23.21	1.14
9475	31	8521.2	1076.52	87.08	25.68	990.52	426.05	1078.26	23.27	1.37
9507	32	8522.33	1108.33	88.88	26.24	1019.27	440.05	1110.21	23.35	5.89
9539	32	8522.24	1140.14	91.46	26.33	1047.96	454.22	1142.16	23.43	8.07
9570	31	8521.47	1170.93	91.4	26.51	1075.71	468.01	1173.11	23.51	0.61
9602	32	8520.69	1202.71	91.4	26.58	1104.33	482.31	1205.06	23.59	0.22
9634	32	8519.91	1234.49	91.4	26.75	1132.92	496.67	1237	23.67	0.53
9666	32	8519.55	1266.26	89.89	27.22	1161.43	511.19	1268.95	23.76	4.94
9697	31	8519.52	1297.02	90.23	26.91	1189.04	525.29	1299.9	23.84	1.48
9729	32	8519.4	1328.82	90.2	26.04	1217.68	539.56	1331.87	23.9	2.72
9760	31	8519.36	1359.66	89.94	25.58	1245.59	553.06	1362.85	23.94	1.7
9792	32	8519.43	1391.54	89.8	24.64	1274.57	566.64	1394.85	23.97	2.97
9856	64	8519.28	1455.35	90.46	24.3	1332.82	593.15	1458.85	23.99	1.16
9887	31	8518.73	1486.24	91.58	25.1	1360.98	606.1	1489.84	24.01	4.44
9919	32	8517.49	1518.08	92.87	25.45	1389.89	619.75	1521.81	24.03	4.18
<b>Projected:</b>										
9956	37	8515.64	1554.86	92.87	25.45	1423.26	635.63	1558.75	24.07	0

1820  
330  
990 N  
330 W

3026.05  
33  
96.05

BURLINGTON RESOURCES OIL & GAS CO. (GRID# 26485)  
 RED TANK FEDERAL #3H (PROPERTY CODE 14795)  
 LEASE# NM77058  
 RED TANK DELAWARE POOL (POOL CODE 51689)  
 UNIT LETER M, 330'FSL & 990'FWL, SEC.14,  
 T-22-S, R-32-E, LEA COUNTY, NEW MEXICO  
 SCALE: 1" = 1000'



--- 240 ACRE FEDERAL LEASE &  
 HORIZONTAL PROJECT AREA BOUNDARY  
 [ ] MINIMUM SETBACK DISTANCE  
 BY FIELD RULES (330')  
 SL: SURFACE LOCATION  
 KOP: KICKOFF POINT  
 ATL: ACTUAL TERMINUS LOCATION

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

\_\_\_\_\_  
 Signature  
 MARIA L. PEREZ  
 Printed Name  
 Regulatory Rep.  
 Position  
 Burlington Resources  
 Company  
 \_\_\_\_\_  
 Date

DATE: 9/19/97  
 DWG.# NMLER102

**Schlumberger**

Anadrill

MDC Operations  
4607 South County Rd. #1310  
Odessa, Texas 77477  
Phone (915) 563-3057  
Fax (915) 563-3059

September 25, 1997

Bureau of Land Management  
414 W Taylor  
P.O. Box 1960  
Hobbs, New Mexico 88240

Re: Burlington Resources Oil & Gas Co.  
Red Tank Federal #3  
Sec. 14, T-22-S, R-32-E  
Lea County, New Mexico  
API # 30-025-32507

Enclosed, please find the original and one copy of the survey performed on the referenced well by Anadrill, a division of Schlumberger Technology Corporation. Other information required by your office is as follows:

<u>Name &amp; Title of Surveyor</u>	<u>Drainhole Number</u>	<u>Surveved Depths</u>	<u>Dates Performed</u>	<u>Type of Survey</u>
Lex Barton MWD I	#01	8386' to 9919'	9/8/97 - 9/20/97	MWD/D&I

A certified plat on which the bottom hole is oriented both to the surface location and to the lease lines ( or unit lines in case of pooling) is attached to the survey report. If any other information is required, please contact the undersigned at the letterhead address and phone number.

Sincerely,



Tom Follis  
MWD Coordinator

Cc: Burlington Resources Oil & Gas Co.

Enclosures: 2

**Schlumberger**

Anadrill

MDC Operations  
4607 South County Rd. #1310  
Odessa, Texas 77477  
Phone (915) 563-3057  
Fax (915) 563-3059

State of Texas  
County of Midland

I, Lex Barton, certify that; I am employed by Anadrill, a division of Schlumberger Technology Corporation; that I did on the days of 9/8/97 through 9/20/97 conduct or supervise the taking of MWD surveys from a depth of 8386 feet to a depth of 9919 feet; that the data is true, correct, complete and within the limitations of the tool as set forth by Anadrill, a division of Schlumberger Technology Corporation; that I am authorized and qualified to make this report; that this survey was conducted at the request of Burlington Resources Oil & Gas Co., for the Red Tank Federal #3, API No. 30-025-32507 in Lea County, New Mexico; and that I have reviewed this report and find that it conforms to the principles and procedures as set forth by Anadrill, a division of Schlumberger Technology Corporation.



Lex Barton,  
MWD I

## Anadrill Schlumberger Survey Report

Burlington Resources Oil & Gas Co.  
 Red Tank Federal #3  
 Lea County, New Mexico

Magnetic Declination: 9.17 DEG

## Tie In Point (TIP):

Measured Depth	8200	FT.
True Vertical Depth	8196.19	FT.
Inclination	1	DEG
Azimuth	243	DEG
N/S Displacement(-ve for S)	53.24	FT.
E/W Displacement(-ve for W)	81.92	FT.

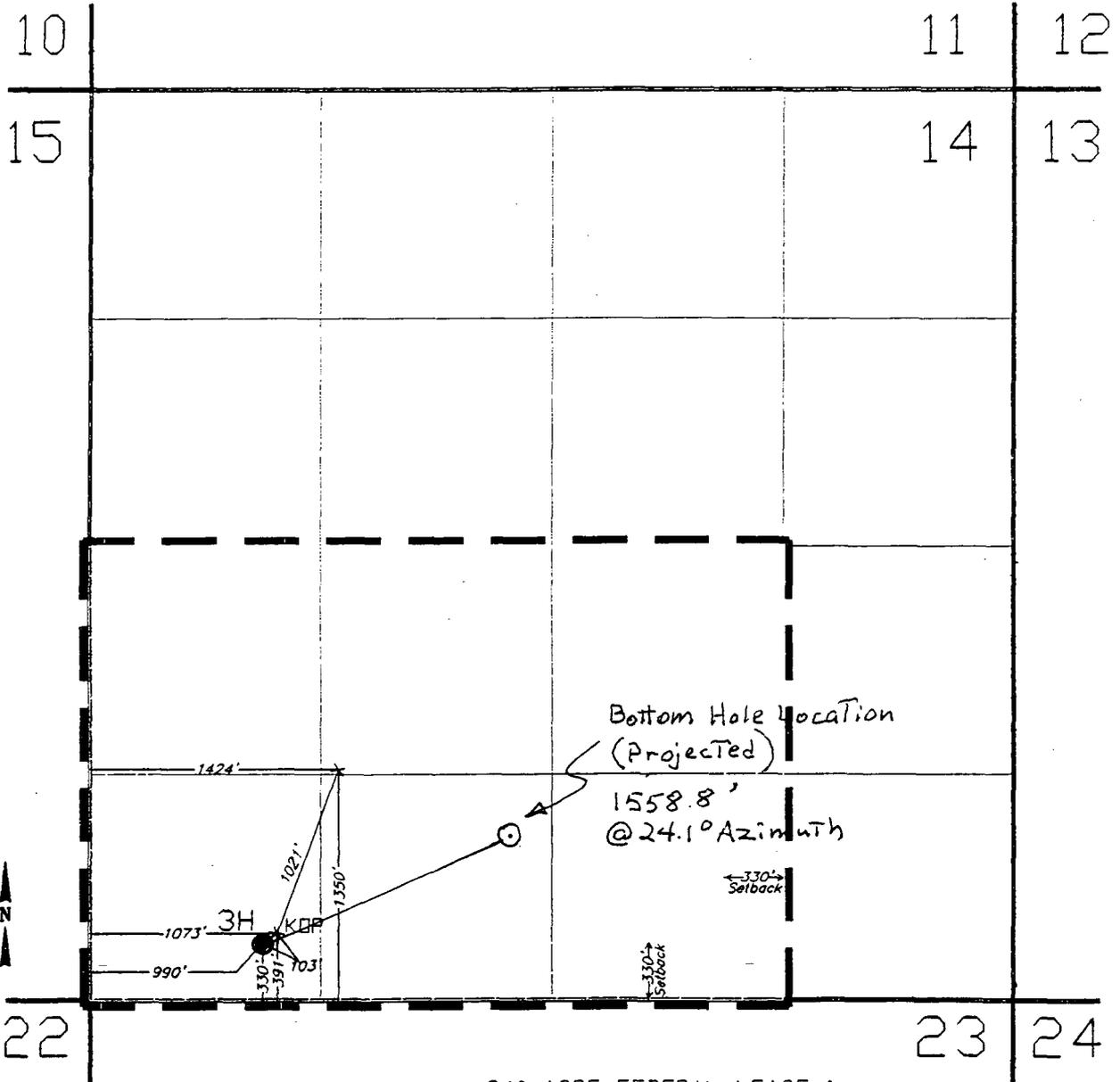
Azim. From Rotary Table To Target 20.02 DEG

## Accepted Survey Listing:

Depth (ft)	Int. (ft)	TVD (ft)	TargetS (ft)	Incl. (deg)	Azim (deg)	N.Disp (ft)	E.Disp (ft)	T.Disp (ft)	Clr.Ang (deg)	DLS (D/HF)
8386	186	8381.96	85.3	5.2	16.2	60.6	82.83	102.63	53.81	3.19
8419	33	8414.66	89.01	10.5	337.56	64.82	82.1	104.6	51.71	21.83
8451	32	8445.27	96.34	22.69	346.56	73.55	79.54	108.34	47.24	38.82
8482	31	8472.34	108.75	35.22	345.59	88.08	75.91	116.28	40.76	40.45
8511	29	8494.03	124.59	47.68	346	106.66	71.22	128.25	33.73	42.98
8542	60	8512.24	149.11	61.02	4.01	131.96	73.39	150.99	29.08	48.36
8573	31	8523.32	177.41	77.07	13.98	160.39	78.03	178.37	25.94	59.78
8591	18	8525.44	195.21	89.4	18.61	177.51	83.04	195.97	25.07	73.09
8623	32	8524.58	227.18	93.7	18.31	207.85	93.17	227.77	24.14	13.47
8655	32	8522.35	259.09	94.3	18.31	238.16	103.2	259.55	23.43	1.88
8686	31	8519.86	289.99	94.93	19.42	267.4	113.19	290.37	22.94	4.11
8718	32	8517.48	321.9	93.6	21.12	297.33	124.25	322.25	22.68	6.73
8749	31	8515.33	352.82	94.35	21.46	326.14	135.48	353.16	22.56	2.66
8780	31	8512.86	383.7	94.8	21.83	354.86	146.88	384.06	22.48	1.88
8812	32	8510.46	415.59	93.8	21.83	384.48	158.75	415.96	22.43	3.12
8844	32	8508.79	447.53	92.2	21.83	414.14	170.63	447.92	22.39	5
8875	31	8507.57	478.48	92.3	22.53	442.82	182.32	478.89	22.38	2.28
8902	27	8506.89	505.45	90.6	22.18	467.78	192.59	505.87	22.38	6.43
8934	32	8507.05	537.43	88.83	21.23	497.51	204.42	537.87	22.34	6.28
8965	31	8507.47	568.42	89.6	21.12	526.41	215.62	568.86	22.27	2.51
8997	32	8507.33	600.4	90.89	22.66	556.1	227.55	600.86	22.25	6.28
9029	32	8507.28	632.36	89.3	23.23	585.57	240.02	632.85	22.29	5.28
9061	32	8507.77	664.3	88.94	23.44	614.95	252.69	664.84	22.34	1.3
9092	31	8507.93	695.22	90.46	24.56	643.27	265.3	695.83	22.41	6.09
9124	32	8507.36	727.11	91.57	24.74	672.35	278.64	727.8	22.51	3.51
9155	31	8507.01	758	89.71	24.8	700.49	291.63	758.77	22.6	6
9187	32	8507.54	789.89	88.4	24.64	729.55	305.01	790.75	22.69	4.12
9219	32	8508.52	821.77	88.1	24.64	758.62	318.35	822.71	22.76	0.94

Depth (ft)	Int. (ft)	TVD (ft)	TargetS (ft)	Incl. (deg)	Azim (deg)	N.Disp (ft)	E.Disp (ft)	T.Disp (ft)	Clr.Ang (deg)	DLS (D/HF)
9251	32	8509.8	853.63	87.31	24.85	787.66	331.73	854.67	22.84	2.55
9282	31	8511.37	884.49	86.9	24.64	815.78	344.69	885.61	22.91	1.49
9319	37	8513.38	921.31	86.88	24.81	849.34	360.14	922.54	22.98	0.46
9349	30	8514.93	951.17	87.2	24.8	876.54	372.71	952.48	23.04	1.07
9381	32	8516.46	983.02	87.31	24.77	905.56	386.11	984.44	23.09	0.36
9413	32	8517.99	1014.87	87.2	25.04	934.55	399.57	1016.39	23.15	0.91
9444	31	8519.58	1045.71	86.94	25.28	962.57	412.73	1047.33	23.21	1.14
9475	31	8521.2	1076.52	87.08	25.68	990.52	426.05	1078.26	23.27	1.37
9507	32	8522.33	1108.33	88.88	26.24	1019.27	440.05	1110.21	23.35	5.89
9539	32	8522.24	1140.14	91.46	26.33	1047.96	454.22	1142.16	23.43	8.07
9570	31	8521.47	1170.93	91.4	26.51	1075.71	468.01	1173.11	23.51	0.61
9602	32	8520.69	1202.71	91.4	26.58	1104.33	482.31	1205.06	23.59	0.22
9634	32	8519.91	1234.49	91.4	26.75	1132.92	496.67	1237	23.67	0.53
9666	32	8519.55	1266.26	89.89	27.22	1161.43	511.19	1268.95	23.76	4.94
9697	31	8519.52	1297.02	90.23	26.91	1189.04	525.29	1299.9	23.84	1.48
9729	32	8519.4	1328.82	90.2	26.04	1217.68	539.56	1331.87	23.9	2.72
9760	31	8519.36	1359.66	89.94	25.58	1245.59	553.06	1362.85	23.94	1.7
9792	32	8519.43	1391.54	89.8	24.64	1274.57	566.64	1394.85	23.97	2.97
9856	64	8519.28	1455.35	90.46	24.3	1332.82	593.15	1458.85	23.99	1.16
9887	31	8518.73	1486.24	91.58	25.1	1360.98	606.1	1489.84	24.01	4.44
9919	32	8517.49	1518.08	92.87	25.45	1389.89	619.75	1521.81	24.03	4.18
<b>Projected:</b>										
9956	37	8515.64	1554.86	92.87	25.45	1423.26	635.63	1558.75	24.07	0

BURLINGTON RESOURCES OIL & GAS CO. (GRID# 26485)  
 RED TANK FEDERAL #3H (PROPERTY CODE 14795)  
 LEASE# NM77058  
 RED TANK DELAWARE POOL (POOL CODE 51689)  
 UNIT LETER M, 330'FSL & 990'FWL, SEC.14,  
 T-22-S, R-32-E, LEA COUNTY, NEW MEXICO  
 SCALE: 1" = 1000'



Bottom Hole Location  
 (Projected)  
 1558.8'  
 @ 24.1° Azimuth



22 23 24

--- 240 ACRE FEDERAL LEASE &  
 HORIZONTAL PROJECT AREA BOUNDARY  
 [ ] MINIMUM SETBACK DISTANCE  
 BY FIELD RULES (330')  
 SL: SURFACE LOCATION  
 KOP: KICKOFF POINT  
 ATL: ACTUAL TERMINUS LOCATION

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

Signature \_\_\_\_\_  
 MARIA L. PEREZ  
 Printed Name \_\_\_\_\_  
 Regulatory Rep.  
 Position \_\_\_\_\_  
 Burlington Resources  
 Company \_\_\_\_\_  
 Date \_\_\_\_\_

DATE: 9/19/97  
 DWG.# NMLR102