

Form 3160-3
(August 1999)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0136
Expires November 30, 2000

5. Lease Serial No.

NM81663-81633

6. If Indian, Allottee or Tribe Name

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work: ☒ DRILL

☐ REENTER

1b. Type of Well: ☐ Oil Well ☒ Gas Well ☒ Other ☐ Single Zone ☐ Multiple Zone

2. Name of Operator

EOG Resources, Inc.

3a. Address

P.O. Box 2267, Midland, TX 79702

3b. Phone No. (include area code)

(915)686-3714

4. Location of Well (Report location clearly and in accordance with any State requirements.)

At surface 1,980' FSL & 1,830' FEL (Unit Letter J)

At proposed prod. Zone Same

7. If Unit or CA Agreement, Name and No.

8. Lease Name and Well No.

Red Tank "23" Fed Com No. 1

9. API Well No.

30-02.5-35255

10. Field and Pool, or Exploratory

Red Tank Bootleg Ridge (Morrow) East

11. Sec., T., R., M., or Blk. And Survey or Area

Sec. 23, T22S, R32E

14. Distance in miles and direction from nearest town or post office*

12. County or Parish

Lea

13. State

NM

15. Distance from proposed*

location to nearest
property or lease line, ft. 1830

(Also to nearest drlg. Unit line, if any)

16. No. of Acres in lease

640

17. Spacing Unit dedicated to this well

S/2 320

18. Distance from proposed location*
to nearest well, drilling, completed
applied for, on this lease, ft. 150

19. Proposed Depth

15,400

20. BLM/BIA Bond No. on file

NM2308

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
GL3722

22. Approximate date work will start*

12/1/2000

23. Estimated duration

30 days

24. Attachments

The following completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office)

4. Bond to cover the operations unless covered by an existing bond on file (see item 20 above)
5. Operator certification.
6. Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature

Mike Francis

Name (Printed/Typed)

Mike Francis

Date

10/3/00

Title

Agent

Approved by (Signature)

LARRY D. BRAY

Name (Printed/Typed)

LARRY D. BRAY

Date

NOV 13 2000

Title

Assistant Field Manager,
Lands and Minerals

Office

ROSWELL FIELD OFFICE

RECEIVED FOR FILE

Application approval does not warrant or certify the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Conditions of approval, if any, are attached

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make 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.

*(Instructions on reverse)

OPER. OGRID NO. 7377
PROPERTY NO. 26897
POOL CODE 83730
EXP. DATE 11-15-00
API NO. 30-02.5-35255

8 mp

RECEIVED
OCT 07 2000
BLM
FISHING

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

'API Number 30.025-35255	'Pool Code 83730	'Pool Name Red Tank; Bootleg Ridge (Morrow), East
'Property Code 26897	'Property Name RED TANK "23" FEDERAL COM	'Well Number 1
'OGRID No. 7377	'Operator Name EOG RESOURCES INC.	'Elevation 3722

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
J	23	22	32		1980	SOUTH	1830	EAST	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
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¹² Dedicated Acres 320	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

<div>16</div>				<div>17 OPERATOR CERTIFICATION</div> <div>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</div> <div><div>Mike Francis</div><div>Signature</div><div>Mike Francis</div><div>Printed Name</div><div>Agent</div><div>Title</div><div>10/3/00</div><div>Date</div></div>
	<div>EOG RESOURCES, INC.</div> <div>RED TANK "23" FEDERAL COM No. 1</div> <div>ELEV.=3722'</div> <div>Y=500968.32</div> <div>X=713341.09</div> <div>LAT.=32°22'31.38"</div> <div>LONG.=103°38'32.29"</div>	<div>1980'</div>	<div>1830'</div>	<div>18 SURVEYOR CERTIFICATION</div> <div>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 best of my belief.</div> <div>SEPTEMBER 28, 2000</div> <div>Date of Survey</div> <div><div>James E. Tompkins</div><div>Signature and Seal of Professional Surveyor:</div><div><div>JAMES E. TOMPKINS</div><div>NEW MEXICO</div><div>REGISTERED PROFESSIONAL LAND SURVEYOR</div><div>14729</div></div></div> <div>Certificate Number</div> <div>14729</div>

DRILLING PROGRAM

EOG RESOURCES, INC.
RED TANK "23" FED COM NO. 1
1,980' FSL & 1,830' FEL
SEC. 23, T22S, R32E
LEA COUNTY, NM

1. GEOLOGIC NAME OF SURFACE FORMATION:

Permian

2. ESTIMATED TOPS OF IMPORTANT GEOLOGICAL MARKERS:

Rustler	900'
Delaware	4870'
Bone Spring	8480'
Wolfcamp	11925'
Strawn	13610'
Morrow "B-3" Ss	14550'
Morrow "C" Ss	14700'
Lower Morrow	15100'

3. ESTIMATED DEPTHS OF ANTICIPATED FRESH WATER, OIL OR GAS:

Triassic Sands	Above 680'	Fresh Water
Delaware	4900'	Oil
Bone Spring	8850'	Oil
Morrow "B-3" Ss	14550'	Gas
Morrow "C" Ss	14700'	Gas

4. CASING PROGRAM

Hole Size	Interval	OD Casing	Weight	Grade	Jt. Cond.	Type
17-1/2"	0- 750' 975'	13 3/8"	48#	J	LT&C	WITNESS
12-1/4"	0-4000'	9 5/8"	40#	J	LT&C	
	4000-5100'	9-5/8"	40#	HCK	LT&C	
8 3/4"	0-12200'	7"	26#	P/S	LT&C	
6 1/8"	12000-15400'	5" liner	18#	P	FL45	

Cementing Program:

13 3/8" Surface Casing: Cement to 750' with 415 sx Prem Plus, 3% Econolite (Extender), 2% Calcium Chloride, 0.25#/sx Flocele, 150 sx Prem Plus, 2% Calcium Chloride

9 5/8" Intermediate: Cement to 5100' with 1100 sx Interfill C, .25#/sx flocele, 250 sx Premium Plus, 2% Calcium Chloride

7" 2nd Intermediate: Cement to 12200 w/650 sx Premium, 3% Econolite, 5#/sx Salt, .25#/sx Flocele, .2% HR-5, 250 sx Prem 50/50 Poz, 2% Halliburton-Gel First 2%, 0.5% Halad-322. This is designed to bring TOC to 5100'.

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EOG RESOURCES, INC.
RED TANK "23" FED COM NO. 1
1,980' FSL & 1,830' FEL
SEC. 23, T22S, R32E
LEA COUNTY, NM

4. CASING PROGRAM CONTINUED

5" Production Liner: 300 sx Premium 50/50 Poz, 0.3% Halad-344, 0.3% Halad-322, 2#/sx Silicalite, .3% HR-5
This designed to bring TOC to 11800 +/-.

5. MINIMUM SPECIFICATIONS FOR PRESSURE CONTROL:

(SEE EXHIBIT #1)

The blowout preventer equipment (BOP) shown in Exhibit #1 will consist of a double ram-type (5000 psi WP) preventer and an annular preventer (5000-psi WP). Units will be hydraulically operated and the ram-type will be equipped with blind rams on top and drill pipe rams on bottom. All BOP's and accessory equipment will be tested to 600 psi before drilling out of surface casing. Before drilling out of intermediate casing, the ram-type BOP and accessory equipment will be tested to 5000/1000 psi and the annular to 3500/1000-psig pressure. The blowout preventer equipment (BOP) shown in Exhibit 2 will consist of a double ram-type (10,000 psi) preventer and an annular preventer (10,000 psi) from 12,200' to TD. Before drilling below 2nd Intermediate ram type BOP and accessory equipment will be tested to 10,000/1,000 psi and the annulus to 5000/1000. This equipment will be used from $\pm 12,200'$ to TD.

Pipe rams will be operationally checked each 24-hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets.

6. TYPES AND CHARACTERISTICS OF THE PROPOSED MUD SYSTEM:

The well will be drilled to TD with a combination of brine, cut brine, and polymer/KCL mud system. The applicable depths and properties of this system are as follows:

<u>Depth</u>	<u>Type</u>	<u>Wt (PPG)</u>	<u>Viscosity (sec)</u>	<u>Waterloss (cc)</u>
0-750'	Fresh Water (spud)	8.5	40-45	N.C.
750'-5200'	Brine Water	10.0	30	N.C.
5200'-12200'	Fresh Water	8.4	28	N.C.
12200'-15400'	Brine & Polymer xcd	10-14.0	28/45	0/<1 CC

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept at the wellsite at all times.

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**EOG RESOURCES, INC.
RED TANK "23" FED COM NO. 1
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SEC. 23, T22S, R32E
LEA COUNTY, NM**

7. AUXILIARY WELL CONTROL AND MONITORING EQUIPMENT:

- (A) A kelly cock will be kept in the drill string at all times.
- (B) A full opening drill pipe-stabbing valve (inside BOP) with proper drill pipe connections will be on the rig floor at all times.
- (C) A mud logging unit complete with H₂S detector will be continuously monitoring drilling penetration rate and hydrocarbon shows from 5000' to TD.

8. LOGGING, TESTING AND CORING PROGRAM:

Electric logging will consist of GR-Dual Induction Focused and GR-Compensated Density-Neutron from 5,000' to 12,200' and 12,200' to TD with a GR-Compensated Neutron run from intermediate casing to surface and optional Sonic from TD to 2nd Intermediate casing.

Possible sidewall cores based on shows.

9. ABNORMAL CONDITIONS, PRESSURES, TEMPERATURES AND POTENTIAL HAZARDS:

The estimated bottom hole temperature (BHT) at TD is 175 degrees F with an estimated maximum bottom-hole pressure (BHP) at TD of 9500 psig. No hydrogen sulfide or other hazardous gases or fluids have been encountered, reported or are known to exist at this depth in this area. No major loss circulation zones have been reported in offsetting wells.

10. ANTICIPATED STARTING DATE AND DURATION OF OPERATIONS:

The drilling operation should be finished in approximately two months. If the well is productive, an additional 30-60 days will be required for completion and testing before a decision is made to install permanent facilities.

DRILLING PROGRAM

**EOG RESOURCES, INC.
RED TANK "23" FED COM NO. 1
1,980' FSL & 1,830' FEL
SEC. 23, T22S, R32E
LEA COUNTY, NM**

SURFACE USE AND OPERATIONS PLAN

1. EXISTING ROADS:

Access to location will be made as shown on Exhibit #3

Routine grading and maintenance of existing roads will be conducted as necessary to maintain their condition as long as any operations continue on this lease.

2. PROPOSED ACCESS ROAD:

0' of new road is required

No turnouts necessary.

No culverts, cattleguards, gates, low-water crossings are necessary.

Surfacing material consists of native caliche to be obtained from the nearest BLM-approved caliche pit. Any additional materials required will be purchased from the dirt contractor.

3. LOCATION OF EXISTING WELLS:

Exhibit #4 shows all existing wells within a one-mile radius of this well.

4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES:

There are no existing production facilities. If production is encountered, a temporary facility will be established on the drill pad, and if warranted, a production facility would be built at a later date in the immediate area of the drill pad location. If the well is productive, the flowline would also be located on the drill-pad site and no additional disturbance will occur.

5. LOCATION AND TYPE OF WATER SUPPLY:

Fresh water and brine water for drilling will come from commercial sources and transported to the well site over the roads as shown on Exhibit #3.

DRILLING PROGRAM

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LEA COUNTY, NM**

6. PLANS FOR RESTORATION OF THE SURFACE:

After completion of drilling and/or completion operations, all equipment and other material not needed for operations will be removed. Location will be cleaned of all trash and junk to leave the well in an aesthetically pleasing condition as possible.

Any unguarded pits containing fluid will be fenced until they are dry and back filled.

After abandonment of the well, surface restoration will be in accordance with current federal laws and regulations. Location will be cleaned, and The wellpad removed to promote vegetation and disposal of human waste will be complied with. Trash, waste paper, garbage and junk will be hauled to an approved disposal site in an enclosed trash trailer.

All trash and debris will be removed from the well site within 30 days after finishing drilling and/or completion operations.

ANCILLARY FACILITIES:

No airstrip, campsite, or other facilities will be built.

WELL SITE LAYOUT:

Exhibit #5 shows the relative location and dimensions of the well pad.

DRILLING PROGRAM

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SEC. 23, T22S, R32E
LEA COUNTY, NM**

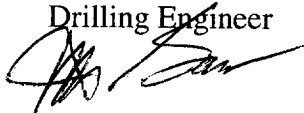
OTHER INFORMATION:

The area around the well site is grassland and the topsoil is duned and sandy. The vegetation is native scrub grasses with abundant oakbrush, sagebrush, yucca, and prickly pear.

CERTIFICATION:

I HEREBY CERTIFY that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by EOG Resources, Inc. and its contractors and sub-contractors in conformity with this plan and the terms and conditions under which it is approved.

Jeff Gordon
Drilling Engineer



Date: 10-3-00



DRILLING PROGRAM

**EOG RESOURCES, INC.
RED TANK "23" FED COM NO. 1
1,980' FSL & 1,830' FEL
SEC. 23, T22S, R32E
LEA COUNTY, NM**

ATTACHMENT TO EXHIBIT #1

1. Wear ring to be properly installed in head.
2. Blow out preventer and all fittings must be in good condition, 5000 psi W.P. minimum. Exhibit #1 and 10,000 psi WP minimum Exhibit #2
3. All fittings to be flanged
4. Safety valve must be available on rig floor at all times with proper connections, valve to be full bore 5000 psi W.P. minimum. Exhibit 1 and 10,000 psi WP minimum Exhibit 2
5. All choke and fill lines to be securely anchored especially ends of choke lines.
6. Equipment through which bit must pass shall be at least as large as the diameter of the casing being drilled through.
7. Upper and Lower Kelly cock, 10,000 psi WP.
8. Extension wrenches and hand wheels to be properly installed.
9. Blow out preventer control to be located as close to driller's position as feasible.
10. Blow out preventer closing equipment to include minimum 40-gallon accumulator, two independent sources of pump power on each closing unit installation, and meet all API specifications.

EOG Resources, Inc.

Red Tank "23" Fed Com No. 1

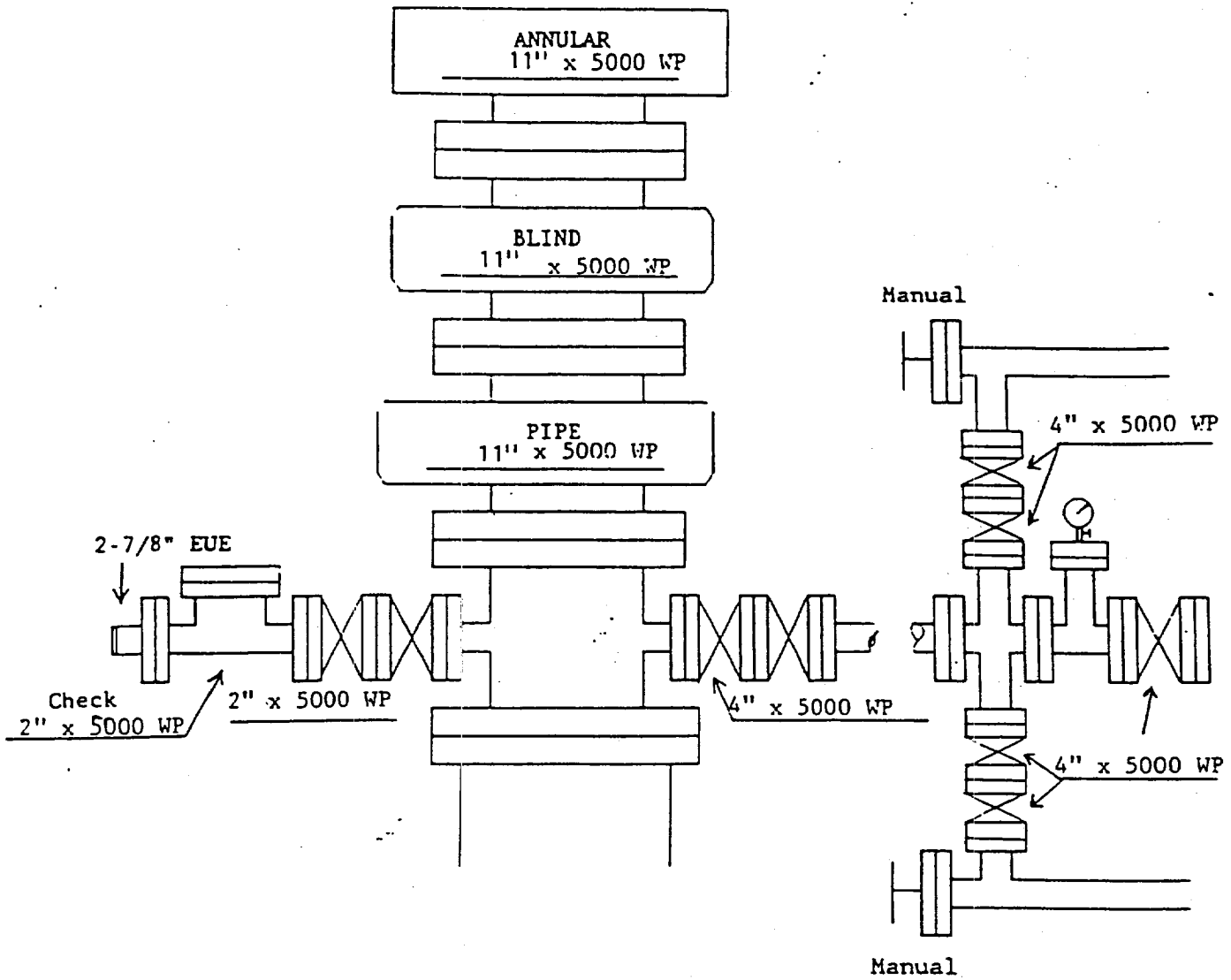


Exhibit 1

EOG Resources, Inc.

Red Tank "23" Fed Com No. 1

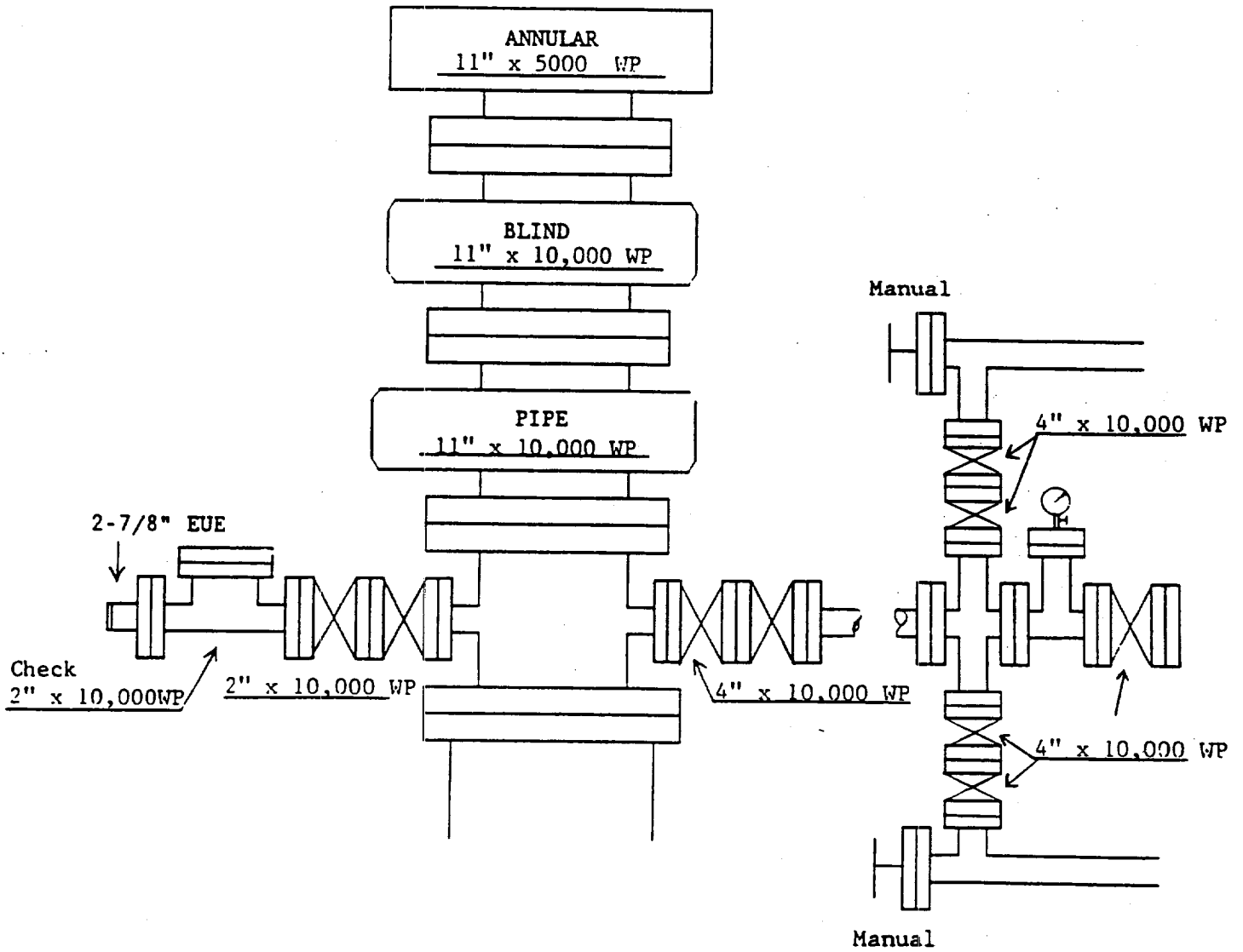


Exhibit 2

LOCATION VERIFICATION MAP

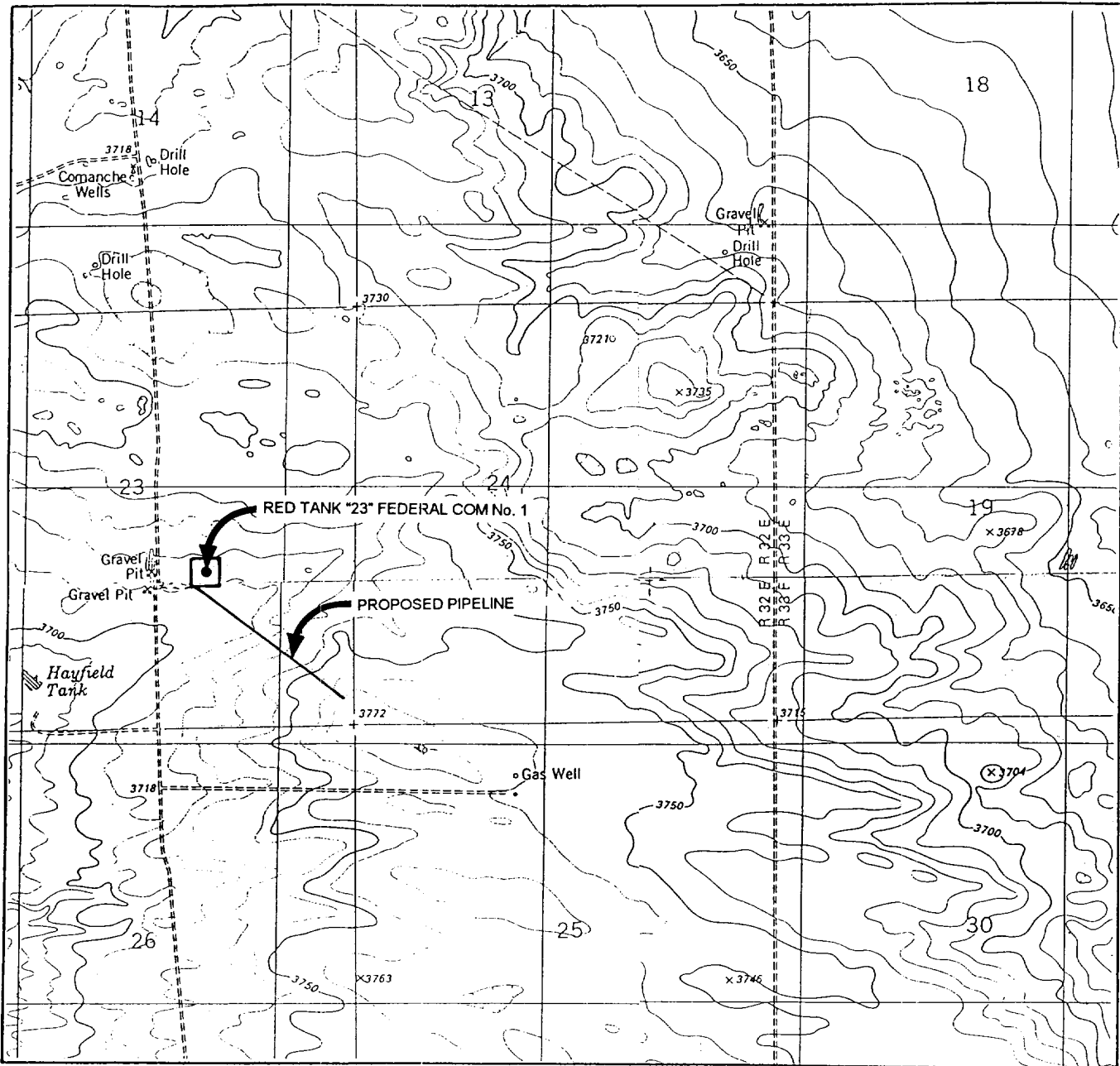


Exhibit 3

SCALE: 1" = 2000'
WTC 46028

SEC. 23 TWP. 22-S RGE. 32-E

SURVEY N.M.P.M

COUNTY LEA STATE NM

DESCRIPTION 1980' FSL & 1830' FEL

ELEVATION 3722'

OPERATOR EOG RESOURCES, INC.

LEASE RED TANK "23" FEDERAL COM No. 1

USGS TOPO MAP BOOTLEG RIDGE AND
THE DIVIDE, NEW MEXICO.

CONTOUR INTERVAL 10'

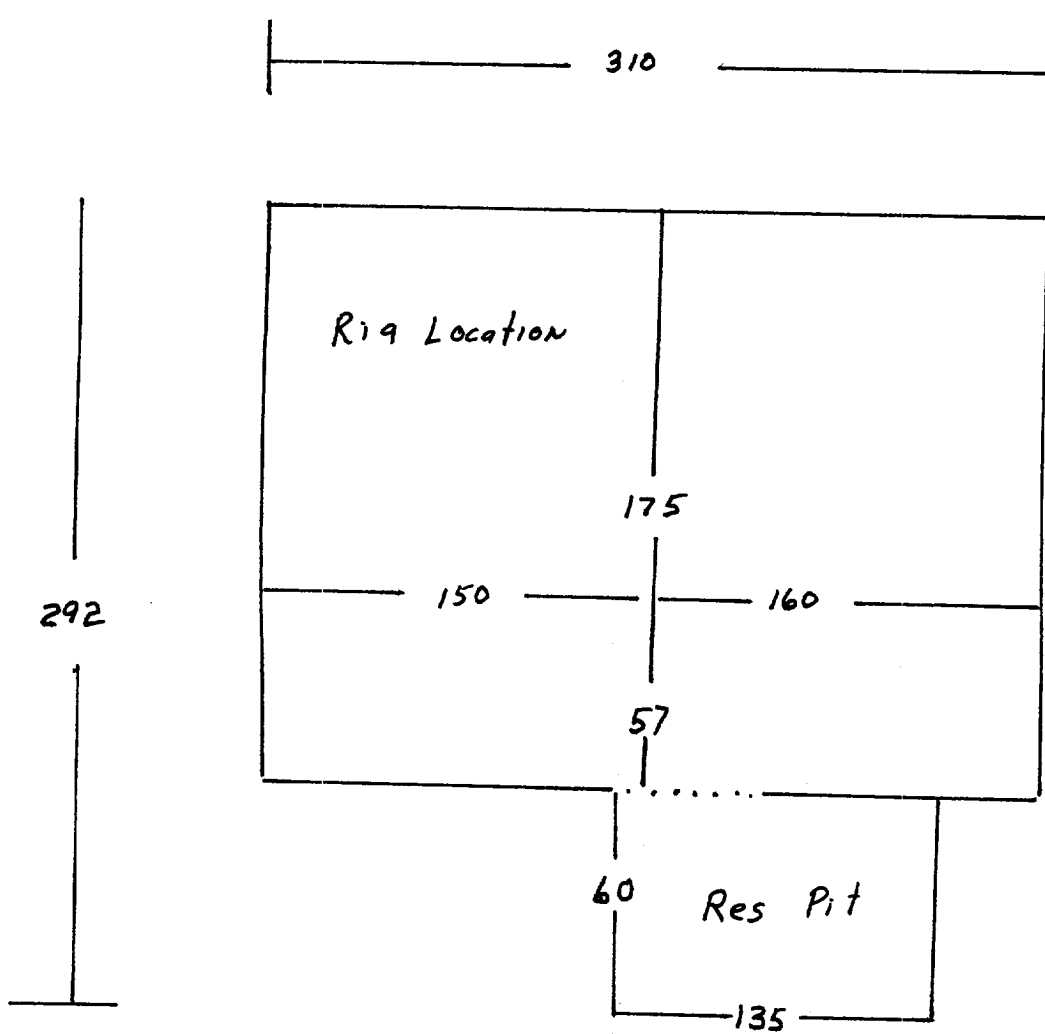
WEST TEXAS CONSULTANTS, INC.

ENGINEERS-PLANNERS-SURVEYORS

MIDLAND, TEXAS

915-685-3800

Exhibit 5



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Statement Accepting Responsibility For Operations

Operator Name: EOG Resources, Inc.
Street or Box: P.O. Box 2267
City, State: Midland, TX
Zip Code: 79702

The undersigned accepts all applicable terms, conditions, stipulations, and restrictions concerning operations conducted on the leased land or portion thereof, as described below:

Lease No.: NM81663

Legal Description of Land: Section 23, T22S, R32E, NMPM
Lea Co., NM

Formation(s) (if applicable):

Bond Coverage: (*State if individually bonded or another's bond*) Individually

BLM Bond File No.: NM2308 with endorsement to State of NM

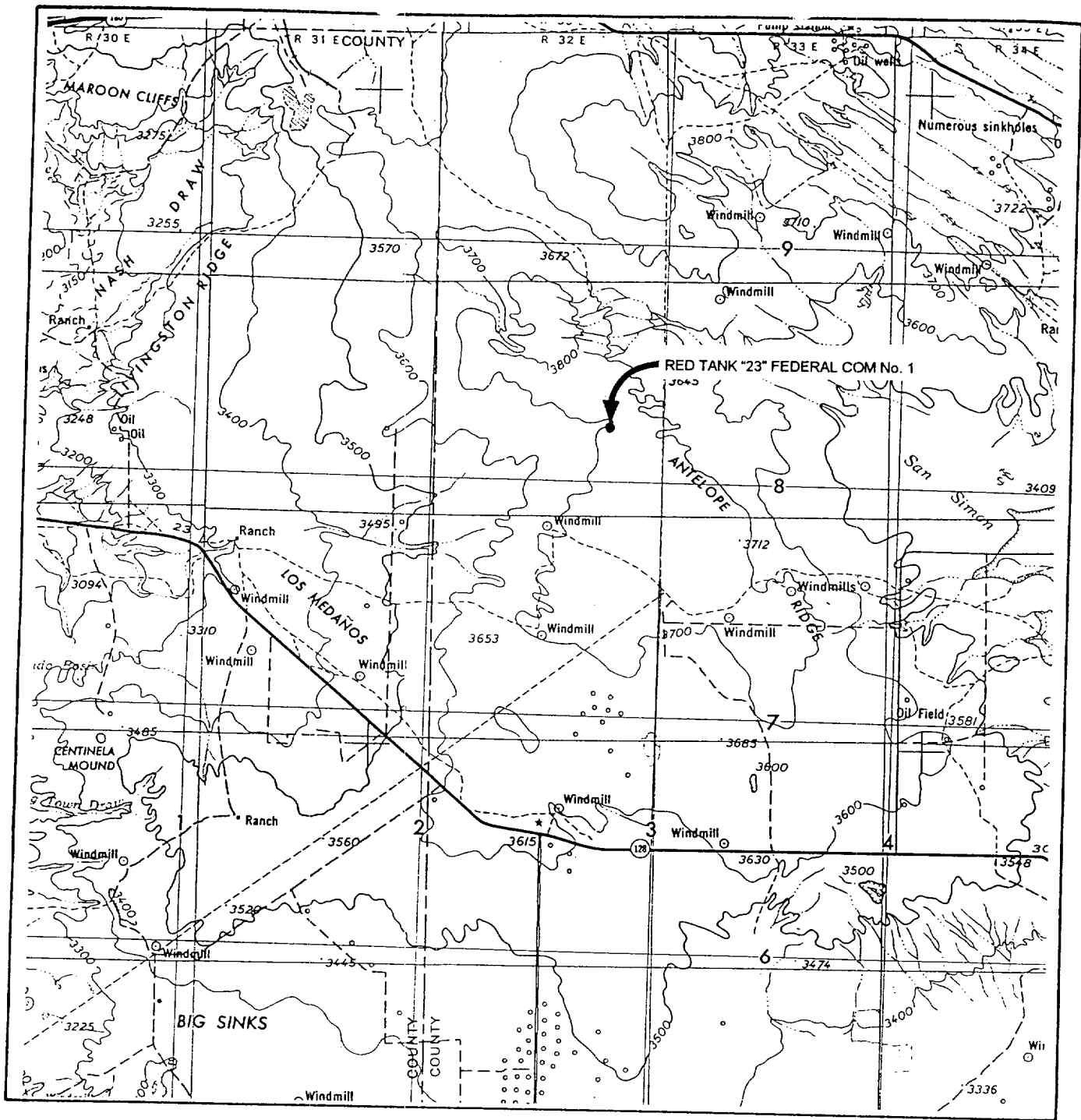
Authorized Signature: Mike Francis

Mike Francis

Title: Agent

Date: 10/3/00

VICINITY MAP



WTC 46028

SCALE: 1" = 4 MILES

SEC. 23 TWP. 22-S RGE. 32-E

SURVEY N.M.P.M.

COUNTY LEA STATE NM

DESCRIPTION 1980' FSL & 1830' FEL

ELEVATION 3722'

OPERATOR EOG RESOURCES, INC.

LEASE RED TANK "23" FEDERAL COM No. 1

WEST TEXAS CONSULTANTS, INC.

ENGINEERS-PLANNERS-SURVEYORS

MIDLAND, TEXAS

915-685-3800