

N.M. Oil Cons. DIV-Dist. 2
1301 W. Grand Avenue
Artesia, NM 88210

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

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NMNM 021096
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator EOG Resources, Inc.		7. If Unit or CA Agreement, Name and No.
3a. Address P.O. Box 2267, Midland, TX 79702	3b. Phone No. (include area code) (432)686-3714	8. Lease Name and Well No. Sand 12 Federal No.1
4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface 1700' FNL&330'FEL (U/LH) At proposed prod. Zone same as surface		9. API Well No. 30-015-33488
14. Distance in miles and direction from nearest town or post office*		10. Field and Pool, or Exploratory Shugart West Bone Spring, North
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drlg. Unit line, if any)	16. No. of Acres in lease 760	11. Sec., T., R., M., or Blk. And Survey or Area Sec 12 T-18-S;R-30-E
18. Distance from proposed location* to nearest well, drilling, completed applied for, on this lease, ft.	19. Proposed Depth 8500	12. County or Parish Eddy Co.
21. Elevations (Show whether DF, KDB, RT, GL, etc) GL 3551	20. BLM/BIA Bond No. on file NM 2308	13. State NM
22. Approximate date work will start* 6/1/2004		17. Spacing Unit dedicated to this well 40ac.SE/4NE/4
23. Estimated duration 20 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 <i>Mike Francis</i>	Name (Printed/Typed) Mike Francis	Date 5/3/2004
Title Agent		
Approved by (Signature) <i>151 Ron Duntion</i>	Name (Printed/Typed) <i>151 Ron Duntion</i>	Date 6/22/04
Title FOR! STATE DIRECTOR	Office NM STATE OFFICE	

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)

APPROVAL FOR 1 YEAR

Capitan Controlled Water Basin

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS
ATTACHED

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240

DISTRICT II
1301 W. Grand Avenue, Artesia, NM 88210

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

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico

Energy, Minerals, and Natural Resources Department

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.

Santa Fe, New Mexico 87505

Form C-102

Revised August 15, 2000

Submit to Appropriate District Office

State Lease - 4 copies

Fee Lease - 3 copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number		² Pool Code		³ Pool Name Shugart West Bone Spring	
⁴ Property Code		⁵ Property Name SAND "12" FEDERAL			⁶ Well Number 1
⁷ OGRID No. 7377		⁸ Operator Name EOG RESOURCES, INC.			⁹ Elevation 3551'

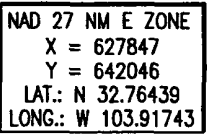
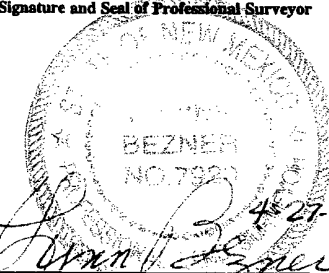
¹⁰ Surface Location

UL or lot no. H	Section 12	Township 18 SOUTH	Range 30 EAST, N.M.P.M.	Lot Idn	Feet from the 1700'	North/South line NORTH	Feet from the 330'	East/West line EAST	County EDDY
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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
¹² Dedicated Acres 40		¹³ Joint or Infill		¹⁴ Consolidation Code		¹⁵ Order No.			

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

<div><p>¹⁶</p></div>	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>	
	Signature <i>Mike Francis</i> Printed Name Mike Francis Title Agent Date 5/3/2004	
	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>	
	APRIL 20, 2004 Date of Survey Signature and Seal of Professional Surveyor  Certificate Number V. L. BEZNER R.P.S. #7920 JOB #94548 / 97NW / E.U.O.	

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-144
March 12, 2004

For drilling and production facilities, submit to appropriate NMOCD District Office.
For downstream facilities, submit to Santa Fe office

Pit or Below-Grade Tank Registration or Closure

Is pit or below-grade tank covered by a "general plan"? Yes ☐ No ☒

Type of action: Registration of a pit or below-grade tank ☒ Closure of a pit or below-grade tank ☐

Operator: EOG Resources, Inc. Telephone: 432 686-3714 e-mail address: mike.francis@eogresources.com
Address: P.O. Box 2267 Midland, Texas 79702
Facility or well name: No. 12 Federal API #: U/L or Qtr/Qtr H Sec 12 T18S R30E
County: Eddy Latitude: _____ Longitude: _____ NAD: 1927 ☐ 1983 ☐ Surface Owner Federal ☐ State ☐ Private ☐ Indian ☐

Pit Type: Drilling <input checked="" type="checkbox"/> Production <input type="checkbox"/> Disposal <input type="checkbox"/> Workover <input type="checkbox"/> Emergency <input type="checkbox"/> Lined <input checked="" type="checkbox"/> Unlined <input type="checkbox"/> Liner type: Synthetic <input checked="" type="checkbox"/> Thickness <u>12</u> mil Clay <input type="checkbox"/> Volume _____ bbl	Below-grade tank Volume: _____ bbl Type of fluid: _____ Construction material: _____ Double-walled, with leak detection? Yes <input type="checkbox"/> If not, explain why not. _____
Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.)	Less than 50 feet (20 points) 50 feet or more, but less than 100 feet (10 points) <u>100 feet or more</u> (0 points)
Wellhead protection area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.)	Yes (20 points) <u>No</u> (0 points)
Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)	Less than 200 feet (20 points) 200 feet or more, but less than 1000 feet (10 points) <u>1000 feet or more</u> (0 points)
Ranking Score (Total Points)	

If this is a pit closure: (1) attach a diagram of the facility showing the pit's relationship to other equipment and tanks. (2) Indicate disposal location:

onsite ☐ offsite ☐ If offsite, name of facility: _____ (3) Attach a general description of remedial action taken including remediation start date and end date. (4) Groundwater encountered: No ☐ Yes ☐ If yes, show depth below ground surface _____ ft. and attach sample results. (5) Attach soil sample results and a diagram of sample locations and excavations.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that the above-described pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☒, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.

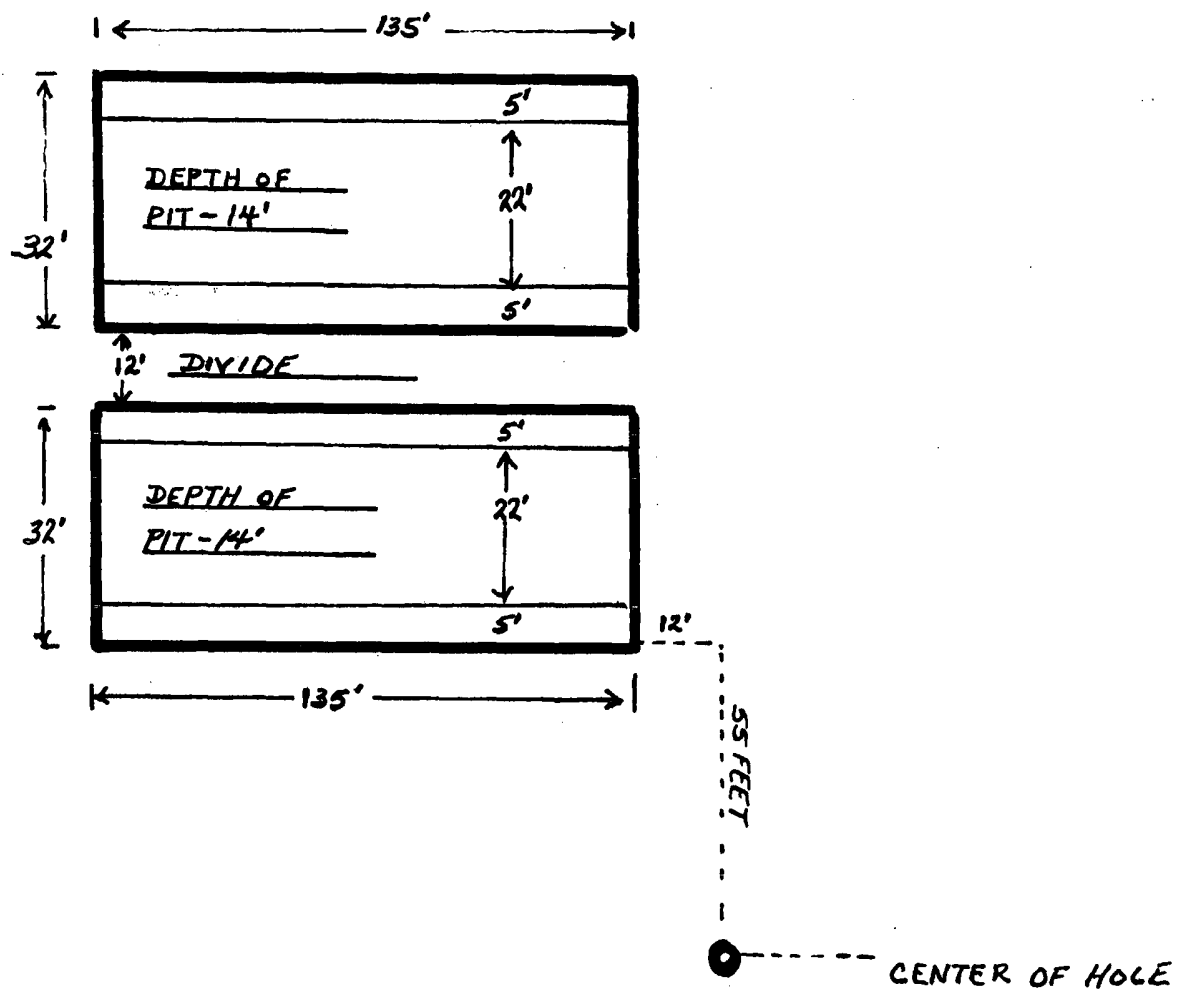
Date: 6/01/2004

Printed Name/Title Mike Francis Agent Signature Mike Francis

Your certification and NMOCD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or regulations.

Approval:

Date: 6/2/04
Printed Name/Title Mike Francis / Compliance Officer Signature Mike Francis



DRILLING PROGRAM

EOG RESOURCES, INC.
Sand "12" Federal No.1

1. GEOLOGIC NAME OF SURFACE FORMATION:

Permian

2. ESTIMATED TOPS OF IMPORTANT GEOLOGICAL MARKERS:

Rustler	500'
San Andres	3400'
1st Bone Spring	7600'
2 nd Bone Spring	8150
TD	8500

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

Upper Permian Sands	Above 250'	Fresh Water
Grayburg/San Andres	3000'	Oil
1st Bone Spring	7600	Oil
2 nd Bone Spring	8150	Oil

CASING PROGRAM

<u>Hole Size</u>	<u>Interval</u>	<u>OD Casing</u>	<u>Weight Grade Jt. Cond. Type</u>
14 3/4"	0-500'	11 3/4"	42# H-40 ST&C
11"	0-2500'	8 5/8"	32# J-55 LT&C
7 7/8"	0-8,500'	5 1/2"	17# N80/S95 LT&C

Cementing Program:

11 3/4" Surface Casing:	Cement to surface with 100 sx Prem Plus, 3% Econolite, 2% Calcium Chloride, 0.25#/sx Flocele, 215 sx Prem Plus, 2% Calcium Chloride
8 5/8" Intermediate:	Cement to surface with 500 sx Interfill C, .25#/sx flocele, 230 sx Premium Plus, 2% Calcium Chloride
5 1/2" Production:	Cement w/930 sx Premium, 3% Econolite, 5#/sx Salt (3%), 0.2% HR5, .25#/sk Flocele, 485sx 50/50 Poz with retarders.. This is designed to bring TOC to 2000'.

5. MINIMUM SPECIFICATIONS FOR PRESSURE CONTROL:

(SEE EXHIBIT #1)

DRILLING PROGRAM

EOG RESOURCES, INC. Sand "12" Federal No.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 in accordance with Onshore Oil & Gas order No. 2. EOG request authorization to use a 2M system, providing for an annular preventer to be used prior to drilling the surface casing shoe before drilling out of surface casing. Before drilling out of 1st intermediate casing, the ram-type BOP and accessory equipment will be tested to 5000/1000 psi and the annular to 3500/5000-psi pressure.

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>
0-500'	Fresh Water	8.5	40-45	N.C.
500'-2500'	Brine Water	10.0	30	N.C.
2500'- TD	Cut Brine + Polymer/KCL	8.8 - 9.2	32	10

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.

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:

DRILLING PROGRAM

EOG RESOURCES, INC.

Sand "12" Federal No.1

Electric logging will consist of GR-Dual Induction Focused and GR-Compensated Density-Neutron from TD to intermediate casing with a GR-Compensated Neutron run from intermediate casing to surface and optional Sonic from TD to 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 5000 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 one month. 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.
Sand "12" Federal No.1

SURFACE USE AND OPERATIONS PLAN

1. EXISTING ROADS:

Access to location will be made as shown on Exhibit #2

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:

1327' of new road is required. Exhibit #2a.

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 #3 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 #2.

6. PLANS FOR RESTORATION OF THE SURFACE:

DRILLING PROGRAM

EOG RESOURCES, INC. Sand "12" Federal No.1

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 well pad 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 #4 shows the relative location and dimensions of the well pad.

DRILLING PROGRAM

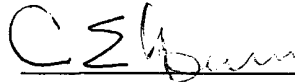
EOG RESOURCES, INC.
Sand "12" Federal No.1


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.



Craig Young
Drilling Engineer 

Date 5/3/2004

DRILLING PROGRAM

EOG RESOURCES, INC.
Sand "12" Federal No.1

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.
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.
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. Kelly cock on kelly.
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.

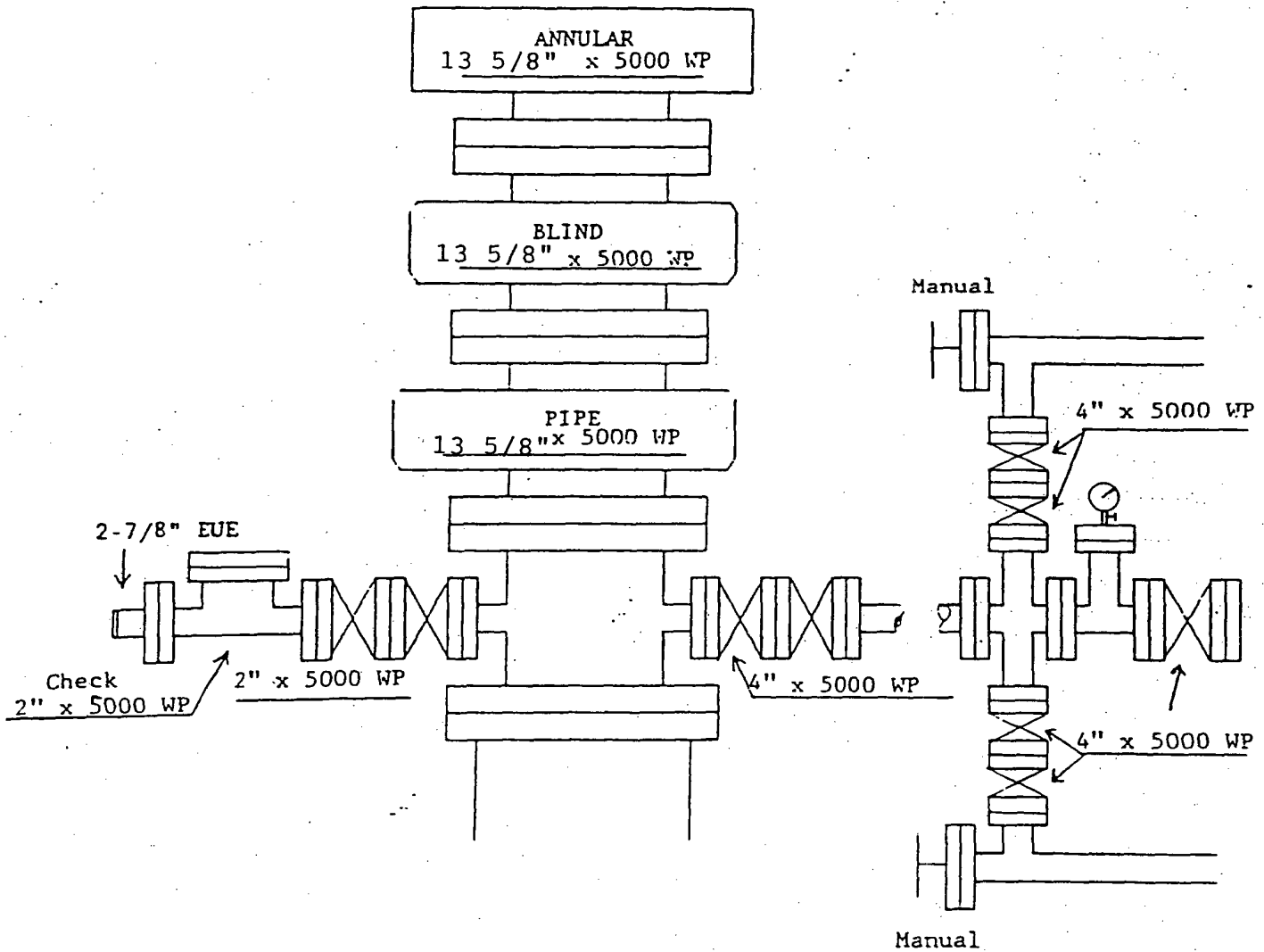
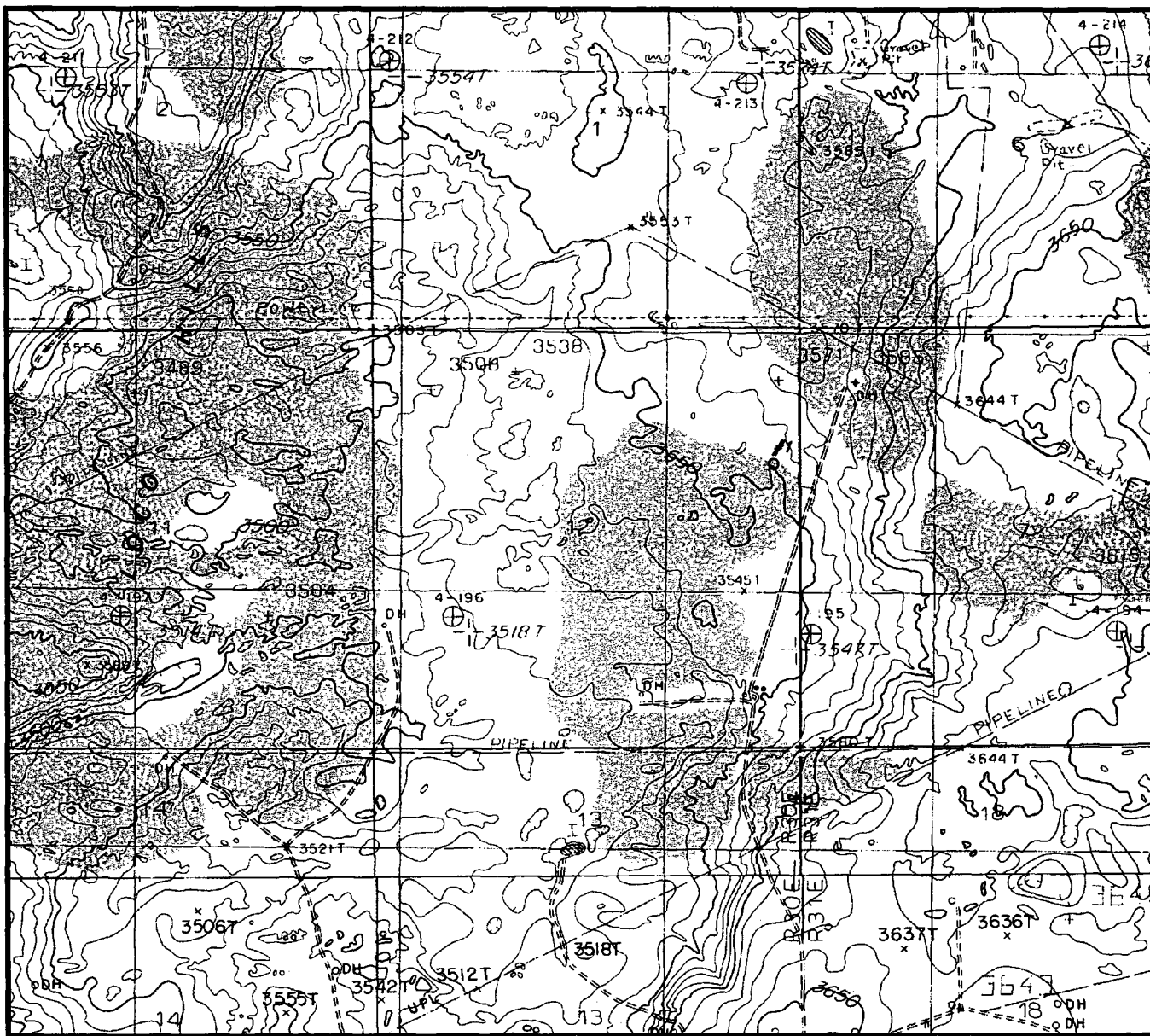


Exhibit 1

LOCATION & ELEVATION VERIFICATION MAP



SCALE : 1" = 2000' CONTOUR INTERVAL 5 FEET

SECTION 12 TWP 18-S RGE 30-E
SURVEY NEW MEXICO PRINCIPAL MERIDIAN
COUNTY EDDY STATE NM
DESCRIPTION 1700' FNL & 330' FEL
ELEVATION 3551'

OPERATOR EOG RESOURCES INC.
LEASE SAND "12" FEDERAL #1

U.S.G.S. TOPOGRAPHIC MAP
LOCO HILLS, NEW MEXICO

LAT. _____ LAT.: N 32.76439
LONG. _____ LONG.: W 103.91743

Exhibit 2



TOPOGRAPHIC LAND SURVEYORS

Surveying & Mapping for the Oil & Gas Industry

This location has been very carefully staked on the ground according to the best official survey records, maps, and other data available to us.

Review this plat and notify us immediately of any possible discrepancy.

1307 N. HOBART
PAMPA, TX. 79065
(800) 658-6382

6709 N. CLASSEN BLVD.
OKLAHOMA CITY, OK. 73116
(800) 654-3219

2903 N. BIG SPRING
MIDLAND, TX. 79705
(800) 767-1653

SECTION
EDDY COUNTY



0 1000
1" = 1000'

NO.	REVISION	DATE	BY
SURVEYED BY: R.J.O.			
DRAWN BY: E.U.O.			
APPROVED BY: V.L.B.			

SURVEYING AND MAPPING BY
TOPOGRAPHIC LAND SURVEYORS
MIDLAND, TEXAS

SCALE:	1" = 1000'
DATE:	APRIL 20, 2004
JOB NO.:	94548-F2
QUAD NO.: 97 NW	
SHEET :	1 OF 1

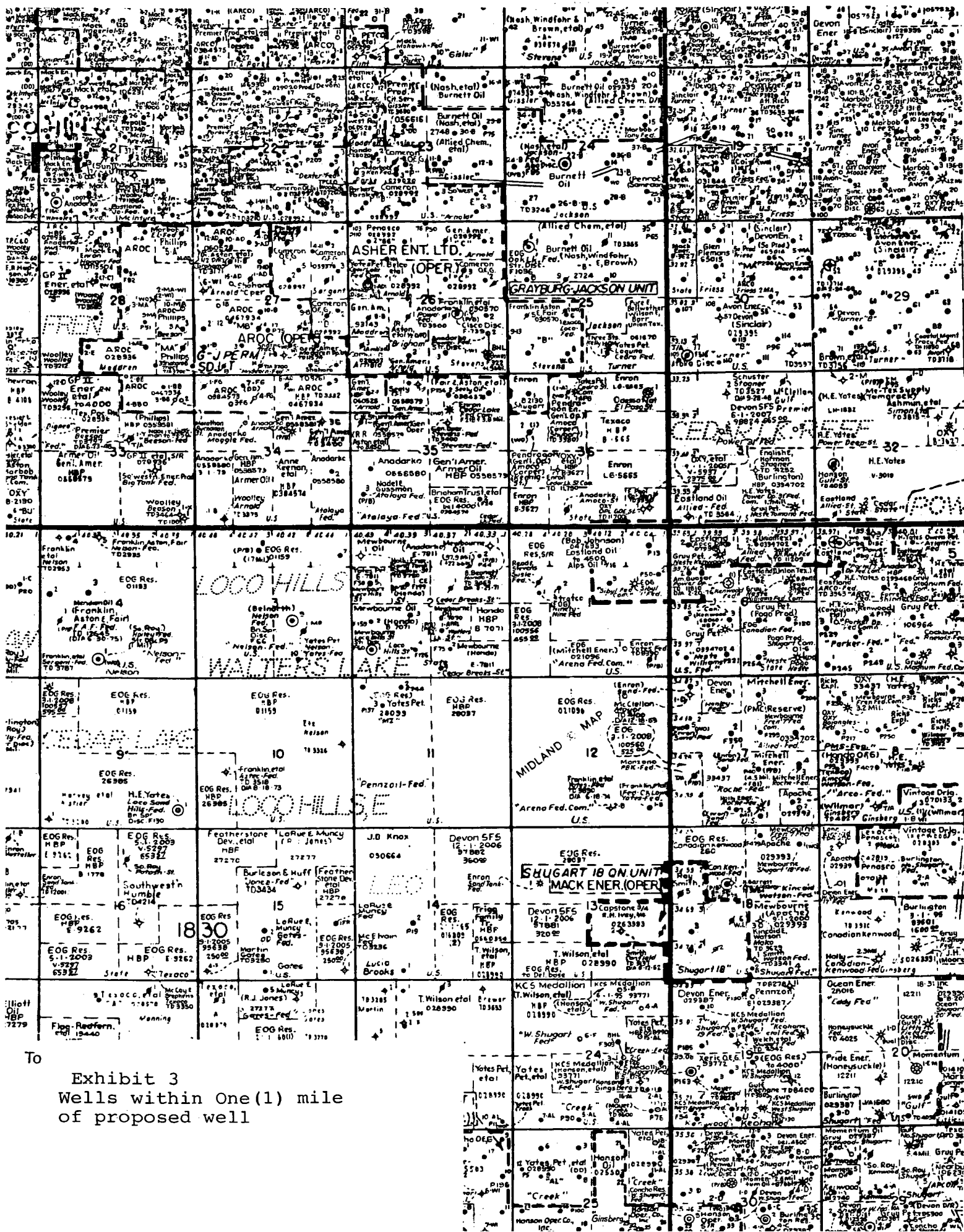
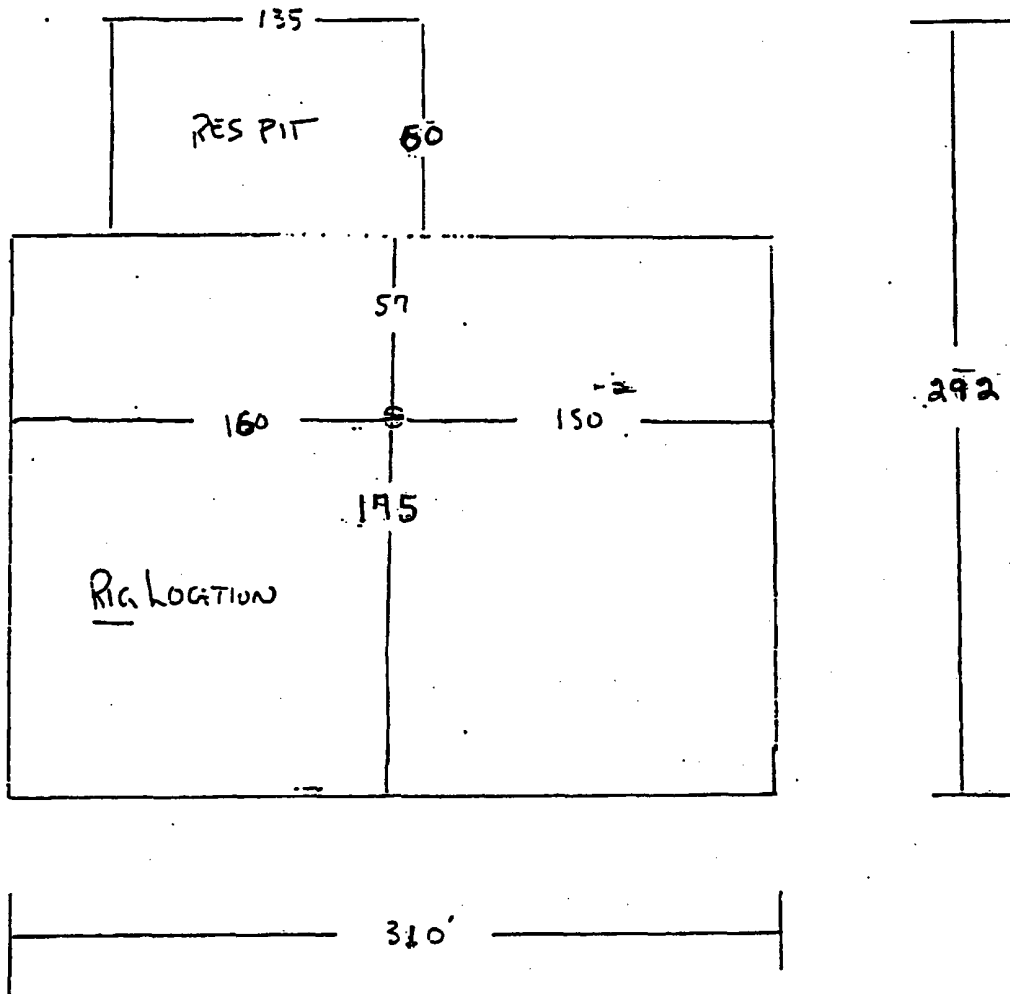


Exhibit 3
Wells within One(1) mile
of proposed well

Exhibit 4



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.: NMN^M021096

Legal Description of Land: Section 12, T-18-S;R-30-E NMPM
Eddy 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

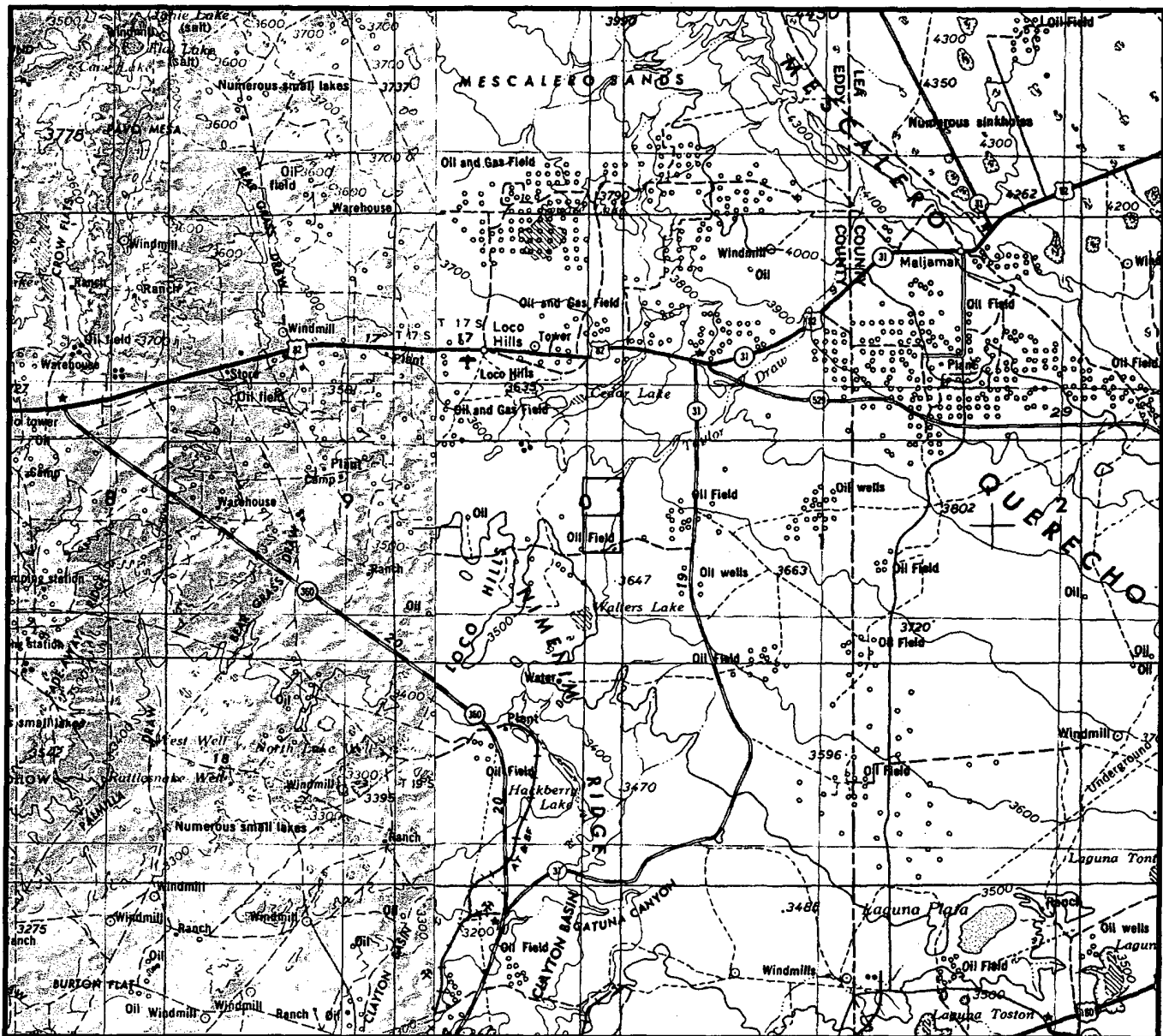
Authorized Signature:


Mike Francis

Title: Agent

Date: 5/3/2004

VICINITY MAP



SECTION 12 & 13 TWP 18-S RGE 30-E
 SURVEY NEW MEXICO PRINCIPAL MERIDIAN
 COUNTY EDDY STATE NM
 DESCRIPTION 1700' FNL & 330' FEL; 330' FSL & 990' FEL

OPERATOR EOG RESOURCES INC.
 LEASE SAND "12" & LOCO "13" FEDERAL #1

DISTANCE & DIRECTION FROM LOCO HILLS GO EAST 2.2
MILES ON COUNTY ROAD, THENCE SOUTHWEST 3.3 MILES
TO THE NORTHWEST CORNER OF SECTION 12.

-N-

TOPOGRAPHIC LAND SURVEYORS

Surveying & Mapping for the Oil & Gas Industry

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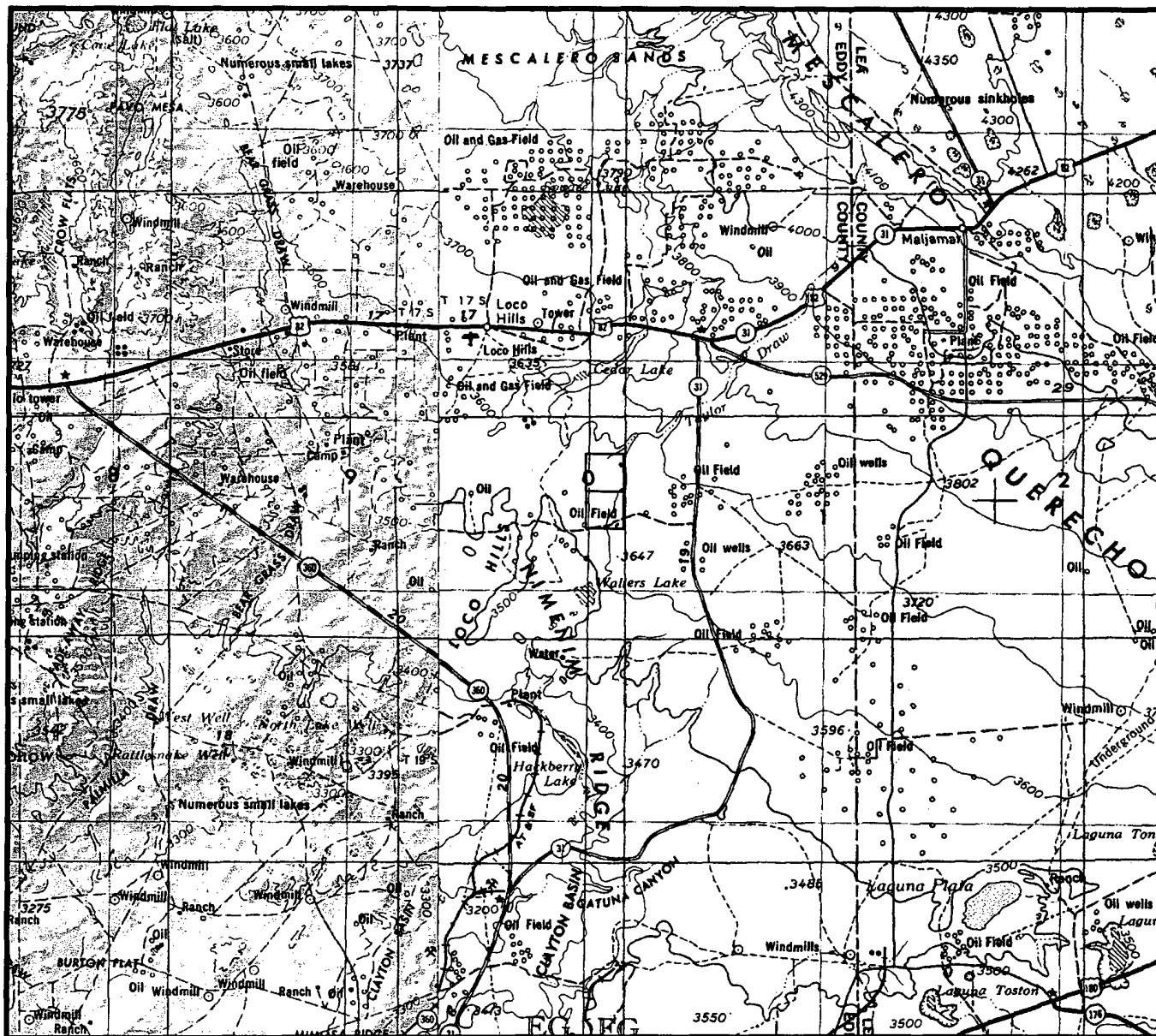
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6709 N. CLASSEN BLVD.
 OKLAHOMA CITY, OK. 73116
 (800) 654-3219

2903 N. BIG SPRING
 MIDLAND, TX. 79705
 (800) 767-1653

VICINITY MAP



SECTION 12 TWP 18-S RGE 30-E
 SURVEY NEW MEXICO PRINCIPAL MERIDIAN
 COUNTY EDDY STATE NM
 DESCRIPTION 1700' FNL & 330' FEL;

OPERATOR EOG RESOURCES INC.
 LEASE SAND "12"

DISTANCE & DIRECTION FROM LOCO HILLS GO EAST 2.2
MILES ON COUNTY ROAD, THENCE SOUTHWEST 3.3 MILES
TO THE NORTHWEST CORNER OF SECTION 12.



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