

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

11-405

FORM APPROVED
OMB NO 1004-0137
Expires July 31, 2010

OCD Artesia

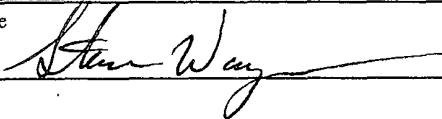
APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work ☒ DRILL ☐ REENTER		5. Lease Serial No NM 15303
1b. Type of Well ☒ Oil Well ☐ Gas Well ☐ Other ☐ Single Zone ☐ Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator BOG Resources Inc. (7377)		7. Unit or CA Agreement Name and No.
3a. Address P.O. Box 2267 Midland, Texas 79702		8. Lease Name and Well No. Herd Bull 14 Federal LH (38612)
3b. Phone No. (include area code) 432-686-3689		9. API Well No. 30-015- 39233
4. Location of Well (Report location clearly and in accordance with any State requirements)* At surface 170' FNL & 720' FEL, U/L (A) Surface UNORTHODOX LOCATION At proposed prod. zone 330' FSL & 330' FEL, U/L P		10. Field and Pool, or Exploratory Pierce Crossing; BS, East (96473)
11. Sec., T., R., M., or Blk. and Survey or Area Sec 14, T25S, R29E		12. County or Parish Eddy
13. State NM		14. Distance in miles and direction from nearest town or post office* +/- 5 Miles South East from Malaga, NM
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drg. unit line, if any) 170'	16. No. of Acres in lease 2560	17. Spacing Unit dedicated to this well 160
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 1590'	19. Proposed Depth Pilot hole 8400 12019 MD - 7430 TVD	20. BLM/BIA Bond No. on file NM 2308
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3122'	22. Approximate date work will start* 5/1/2011	23. Estimated duration 30 days

24. Attachments

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

- | | |
|--|---|
| 1. Well plat certified by a registered surveyor. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan. | 5. Operator certification. |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be required by the BLM |

25. Signature 	Name (Printed/Typed) Stan Wagner	Date 2/22/11
Title Regulatory Analyst		
Approved by (Signautre) /s/ James Stovall	Name (Printed/Typed) James Stovall	Date JUN 30 2011
Title FIELD MANAGER		
Office CARLSBAD FIELD OFFICE		

Application approval does not warrant or certify that 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.

APPROVAL FOR TWO YEARS

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

(Continued on page 2)

*(Instructions on page 2)

SEE ATTACHED FOR
CONDITIONS OF APPROVALCARLSBAD CONTROLLED WATER BASIN
APPROVAL SUBJECT TO
GENERAL REQUIREMENTS
AND SPECIAL STIPULATIONS
ATTACHED

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD-ARTESIA

FORM APPROVED
OMB NO. 1004-0137
Expires July 31, 2010

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on page 2

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

EOG Resources Inc.

3a. Address

P.O. Box 2267 Midland, Texas 79702

3b. Phone No. (include area code)

432-686-3689

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

170' FNL & 720' FEL, U/L A SHL

330' FSL & 330' FEL, U/L P BHL

Sec 14, T25S, R29E

5. Lease Serial No.

NM 15303

6. If Indian, Allottee or Tribe Name

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

8. Well Name and No.

Herd Bull 14 1H

Federal

9. API Well No.

30-015-

10. Field and Pool, or Exploratory Area

Pierce Crossing; BS, East

11. County or Parish, State

Eddy NM

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

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other _____
	☒ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the final site is ready for final inspection.)

EOG Resources, Inc. requests the APD location for our Herd Bull 14 Federal 1H be changed to:

**170' FNL & 1140' FEL, U/L A, (SHL) and 330' FSL & 330' FEL, U/L P, (BHL)
Sec 14, T25S, R29E, Eddy County, NM.**

Amended Surface Use Plan and Drill Plan are attached.



14. I hereby certify that the foregoing is true and correct
Name (Printed/Typed)

Stan Wagner

Title **Regulatory Analyst**

Signature

Date **5/31/2011**

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Title

Date

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

CARLSBAD FIELD OFFICE

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

Permit Information:

Well Name: Herd Bull 14 Federal No. 1H

Location:

SL: 170' FNL & ~~720'~~^{1140'} FEL, Section 14, T-25-S, R-29-E, Eddy Co., N.M.

BHL: 330' FSL & 330' FEL, Section 14, T-25-S, R-29-E, Eddy Co., N.M.

Casing Program:

Hole Size	Interval	Csg OD	Weight	Grade	Conn	DF _{min} Collapse	DF _{min} Burst	DF _{min} Tension
14.75"	0 - 700'	11.75"	42#	H40	STC	1.10	1.25	1.60
11.00"	0-3,200' ²²⁹⁰	8.625"	32#	J55	LTC	1.10	1.25	1.60
7.875"	0'-12,019'	5.5"	17#	N80	LTC	1.10	1.25	1.60

See
COA**Cement Program:** See COA

Depth	No. Sacks	Wt. ppg	Yld Ft ³ /ft	Slurry Description
700'	325	14.8	1.32	Class C + 0.005 pps Static Free + 2% CaCl ₂ + 0.25 pps CelloFlake + 0.005 gps FP-6L (TOC @ surface) (AHS = 15.75" + 25% excess)
3,200' ²²⁹⁰	475	12.7	2.01	Class C + 2% SMS + 0.8% R-3 + 0.25 pps CelloFlake + 0.005 pps Static Free (TOC @ surface) (AHS = 12.15" + 25% excess)
	200	14.8	1.32	Tail: Class 'C' + 0.25 lb/sk Cello Flake + 0.005 lb/sk Static Free (TOC @ 2,600') (AHS = 12.15" + 0% excess)
BH Plug 8400'-8200'	75	18.0	0.90	Class H + 0.005 lbs/sx Static Free + 5% Salt + 1.2% CD31 + 0.005 gps FP-6L (AHS = 8.00" + 0% excess)
KO Plug 600'	250	18.0	0.90	Class H + 0.005 lbs/sx Static Free + 5% Salt + 1.2% CD31 + 0.005 gps FP-6L (AHS = 8.50" + 0% excess)
12,019'	200	10.8	3.67	60:40:0 Class 'C' + 15.00 lb/sk BA-90 + 4.00% MPA-5 + 3.00% SMS + 5.00% A-10 + 1.00% BA-10A + 0.80% ASA-301 + 2.90% R-21 + 8.00 lb/sk LCM-1 + 0.005 lb/sk Static Free (TOC @ 2,700') (AHS = 8.85" + 25% excess)
	235	11.8	2.38	50:50:10 Class 'H' + 0.80% FL-52 + 0.45% ASA-301 + 0.40% SMS + 2.00% Salt + 3.00 lb/sx LCM-1 + 0.20% R-21 + 0.25 lb/sk Cello Flake + 0.005 lb/sk Static Free (TOC @ 5,200') (AHS = 8.85" + 25% excess)
	875	14.2	1.28	50:50:2 Class 'H' + 0.65% FL-52 + 0.20% CD-32 + 0.15% SMS + 2.00% Salt + 0.10% R-3 + 0.005 lb/sk Static Free (TOC @ 6,900') (AHS = 8.10" + 10% excess)

AHS = Average hole size (estimated)

Mud Program:

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0 – 700'	Fresh - Gel	8.6-8.8	28-34	N/c
700' – 3,200'	Brine	10.0-10.2	28-34	N/c
3,320' – 8,400'	Cut Brine	8.4-9.0	28-34	N/c
2nd KOP – TD Lateral	Cut Brine	9.0-9.5	28-34	N/c

**170' FNL
1140' FEL
Section 14
T-25-S, R-29-E**

API: 30-015-*****

Bit Size: 14-3/4"

11-3/4", 42#, H-40, ST&C 0' - 700'

Bit Size: 11"

8-5/8", 32#, J-55, LT&C 0' - 3,200'

TOC: 2,700'

KOP: 6,952'

Bit Size: 7-7/8"

5-1/2", 17#, N-80, LT&C @ 12,110'

Kick off Plug 6,600' - 7,200'
Dressed off to KOP @ ±6930'

200' Cement Plug On BTM

Pilot Hole TD 8,400'

Lateral: 12,110' MD, 7430' TVD

BH Location: 330' FSL & 330' FEL
Section 14
T-25-S, R-29-E

EOG RESOURCES, INC.
HERD 14 FEDERAL NO. 1H

1. GEOLOGIC NAME OF SURFACE FORMATION:

Permian

2. ESTIMATED TOPS OF IMPORTANT GEOLOGICAL MARKERS:

Rustler	640'
Top of Salt	650'
Salado	1,400'
Base of Salt	3,090'
Lamar	3,290'
Bell Canyon	3,319'
Cherry Canyon	4,200'
Brushy Canyon	5,460'
Bone Spring Lime	7,030'
1 st Bone Spring Sand	8,023'
Pilot hole TD	8,400'

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

Upper Permian Sands	0- 640'	Fresh Water
Bell Canyon	3,319'	Oil
Cherry Canyon	4,200'	Oil
Bone Spring Lime	7,030'	Oil
1 st Bone Spring Sand	8,023'	Oil

No other Formations are expected to give up oil, gas or fresh water in measurable quantities. Surface fresh water sands will be protected by setting 11.75" casing at 700' and circulating cement back to surface.

4. CASING PROGRAM - NEW

Hole Size	Interval	Csg OD	Weight	Grade	Conn	DF _{min} Collapse	DF _{min} Burst	DF _{min} Tension
14.75"	0 - 700'	11.75"	42#	H40	STC	1.125	1.25	1.60
11.00"	0-3,200'	8.625"	32#	J55	LTC	1.125	1.25	1.60
7.875"	0'-12,019'	5.5"	17#	N80	LTC	1.125	1.25	1.60

See COA

EOG RESOURCES, INC.
HERD 14 FEDERAL NO. 1H

Cementing Program: *See Cor*

Depth	No. Sacks	Wt. ppg	Yld Ft ³ /ft	Slurry Description
700'	325	14.8	1.32	Class C + 0.005 pps Static Free + 2% CaCl ₂ + 0.25 pps CelloFlake + 0.005 gps FP-6L (TOC @ surface) (AHS = 15.75" + 25% excess)
3,200'	475	12.7	2.01	Class C + 2% SMS + 0.8% R-3 + 0.25 pps CelloFlake + 0.005 pps Static Free (TOC @ surface) (AHS = 12.15" + 25% excess)
	200	14.8	1.32	Tail: Class 'C' + 0.25 lb/sk Cello Flake + 0.005 lb/sk Static Free (TOC @ 2,600') (AHS = 12.15" + 0% excess)
BH Plug 8400'-8200'	75	18.0	0.90	Class H + 0.005 lbs/sx Static Free + 5% Salt + 1.2% CD31 + 0.005 gps FP-6L (AHS = 8.00" + 0% excess)
KO Plug 600'	250	18.0	0.90	Class H + 0.005 lbs/sx Static Free + 5% Salt + 1.2% CD31 + 0.005 gps FP-6L (AHS = 8.50" + 0% excess)
12,019'	200	10.8	3.67	60:40:0 Class 'C' + 15.00 lb/sk BA-90 + 4.00% MPA-5 + 3.00% SMS + 5.00% A-10 + 1.00% BA-10A + 0.80% ASA-301 + 2.90% R-21 + 8.00 lb/sk LCM-1 + 0.005 lb/sk Static Free (TOC @ 2,700') (AHS = 8.85" + 25% excess)
	235	11.8	2.38	50:50:10 Class 'H' + 0.80% FL-52 + 0.45% ASA-301 + 0.40% SMS + 2.00% Salt + 3.00 lb/sx LCM-1 + 0.20% R-21 + 0.25 lb/sk Cello Flake + 0.005 lb/sk Static Free (TOC @ 5,200') (AHS = 8.85" + 25% excess)
	875	14.2	1.28	50:50:2 Class 'H' + 0.65% FL-52 + 0.20% CD-32 + 0.15% SMS + 2.00% Salt + 0.10% R-3 + 0.005 lb/sk Static Free (TOC @ 6,900') (AHS = 8.10" + 10% excess)

Cement volumes based on bit size + 25% excess.

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 bottom and drill pipe rams on top. All BOP's and accessory equipment will be tested in accordance with Onshore Oil & Gas order No. 2. Prior to drilling out of the surface casing, the BOP's will be tested to 2000/250 psig. Before drilling out of the intermediate casing, the ram-type BOP and accessory equipment will be tested to 5000/ 250 psig and the annular preventer to 2500/ 250 psig.

EOG RESOURCES, INC.
HERD 14 FEDERAL NO. 1H

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.

A hydraulically operated choke will not be installed prior to the setting and cementing of the intermediate casing string, but will be installed prior to drilling out of the intermediate casing shoe.

6. TYPES AND CHARACTERISTICS OF THE PROPOSED MUD SYSTEM:

The well will be drilled to TD with a combination of fresh water and brine water, with polymer sweeps. The applicable depths and properties of this system are as follows:

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0 – 700'	Fresh - Gel	8.6-8.8	28-34	N/c
700' – 3,200'	Brine	10.0-10.2	28-34	N/c
3,320' – 8,400' Pilot hole	Cut Brine	8.4-9.0	28-34	N/c
KOP – TD Lateral	Cut Brine	9.0-9.5	28-34	N/c

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.

6. 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 will be continuously monitoring drill penetration rate and hydrocarbon shows from intermediate casing point to TD.
- (D) H₂S monitoring and detection equipment will be utilized from surface casing point to TD.

**EOG RESOURCES, INC.
HERD 14 FEDERAL NO. 1H**

8. LOGGING, TESTING AND CORING PROGRAM: *See Co A*

Open-hole logging is anticipated in the 7-7/8" hole section. The anticipated logging suites scheduled for this hole section are listed below:

NGT-CNL-LDT w/ Pe	From TD to previous casing shoe. At casing pull GR – Neutron to surface.
HR Laterolog Array	From TD to previous casing shoe.
FMI	Possible in the production hole

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

The estimated bottom hole temperature (BHT) at TD is 145 degrees F with an estimated maximum bottom-hole pressure (BHP) at TD of 3700 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 60-90 days will be required for completion and testing before a decision is made to install permanent facilities.



A Schlumberger Company

EOG Resources, Inc.

Eddy County

Herd Bull 14 Federal

#1H

OH

Plan: Plan3

Pathfinder X&Y Report

27 May, 2011



A Schlumberger Company



A Schlumberger Company

Pathfinder
Pathfinder X&Y Report

A Schlumberger Company

Company:	EOG Resources, Inc.	Local Co-ordinate Reference:	Well #1H
Project:	Eddy County	TVD Reference:	Est KB = 19 @ 3134.90usft
Site:	Herd Bull 14 Federal	MD Reference:	Est KB = 19 @ 3134.90usft
Well:	#1H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan3	Database:	EDM 5000.1 Single User Db

Project	Eddy County		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site		Herd Bull 14 Federal			
Site Position:		Northing:	408,809.500 usft	Latitude:	32° 7' 24.197 N
From:	Map	Easting:	615,085.300 usft	Longitude:	103° 57' 41.711 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.20 °

Well	#1H					
Well Position	+N/-S	0.00 usft	Northing:	413,682.900 usft	Latitude:	32° 8' 12.299 N
	+E/-W	0.00 usft	Easting:	618,733.500 usft	Longitude:	103° 56' 59.087 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	3,115.90 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	1/27/2011	7.79	60.07	48,597

Design	Plan3			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth:From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	170.23

Survey Tool Program		Date 5/27/2011		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	12,109.50	Plan3 (OH)	MWD	MWD - Standard

Company:	EOG Resources, Inc.	Local Co-ordinate Reference:	Well #1H
Project:	Eddy County	TVD Reference:	Est KB = 19 @ 3134 90usft
Site:	Herd Bull 14 Federal	MD Reference:	Est KB = 19 @ 3134.90usft
Well:	#1H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan3	Database:	EDM 5000 1 Single User Db

Planned Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	
0.00	0.00	0.00	0.00	-3,134.90	0.00	0.00	0.00	0.00	413,682.90	618,733.50	
100.00	0.00	0.00	100.00	-3,034.90	0.00	0.00	0.00	0.00	413,682.90	618,733.50	
200.00	0.00	0.00	200.00	-2,934.90	0.00	0.00	0.00	0.00	413,682.90	618,733.50	
300.00	0.00	0.00	300.00	-2,834.90	0.00	0.00	0.00	0.00	413,682.90	618,733.50	
400.00	0.00	0.00	400.00	-2,734.90	0.00	0.00	0.00	0.00	413,682.90	618,733.50	
500.00	0.00	0.00	500.00	-2,634.90	0.00	0.00	0.00	0.00	413,682.90	618,733.50	
600.00	0.00	0.00	600.00	-2,534.90	0.00	0.00	0.00	0.00	413,682.90	618,733.50	
700.00	0.00	0.00	700.00	-2,434.90	0.00	0.00	0.00	0.00	413,682.90	618,733.50	
800.00	0.00	0.00	800.00	-2,334.90	0.00	0.00	0.00	0.00	413,682.90	618,733.50	
900.00	0.00	0.00	900.00	-2,234.90	0.00	0.00	0.00	0.00	413,682.90	618,733.50	
1,000.00	0.00	0.00	1,000.00	-2,134.90	0.00	0.00	0.00	0.00	413,682.90	618,733.50	
1,100.00	0.00	0.00	1,100.00	-2,034.90	0.00	0.00	0.00	0.00	413,682.90	618,733.50	
1,200.00	0.00	0.00	1,200.00	-1,934.90	0.00	0.00	0.00	0.00	413,682.90	618,733.50	
1,300.00	0.00	0.00	1,300.00	-1,834.90	0.00	0.00	0.00	0.00	413,682.90	618,733.50	
1,400.00	0.00	0.00	1,400.00	-1,734.90	0.00	0.00	0.00	0.00	413,682.90	618,733.50	
1,500.00	0.00	0.00	1,500.00	-1,634.90	0.00	0.00	0.00	0.00	413,682.90	618,733.50	
1,600.00	0.00	0.00	1,600.00	-1,534.90	0.00	0.00	0.00	0.00	413,682.90	618,733.50	
1,700.00	0.00	0.00	1,700.00	-1,434.90	0.00	0.00	0.00	0.00	413,682.90	618,733.50	
1,800.00	0.00	0.00	1,800.00	-1,334.90	0.00	0.00	0.00	0.00	413,682.90	618,733.50	
1,900.00	0.00	0.00	1,900.00	-1,234.90	0.00	0.00	0.00	0.00	413,682.90	618,733.50	
2,000.00	0.00	0.00	2,000.00	-1,134.90	0.00	0.00	0.00	0.00	413,682.90	618,733.50	
2,100.00	0.00	0.00	2,100.00	-1,034.90	0.00	0.00	0.00	0.00	413,682.90	618,733.50	
2,200.00	0.00	0.00	2,200.00	-934.90	0.00	0.00	0.00	0.00	413,682.90	618,733.50	
2,300.00	0.00	0.00	2,300.00	-834.90	0.00	0.00	0.00	0.00	413,682.90	618,733.50	
2,400.00	0.00	0.00	2,400.00	-734.90	0.00	0.00	0.00	0.00	413,682.90	618,733.50	
2,500.00	0.00	0.00	2,500.00	-634.90	0.00	0.00	0.00	0.00	413,682.90	618,733.50	
2,600.00	0.00	0.00	2,600.00	-534.90	0.00	0.00	0.00	0.00	413,682.90	618,733.50	



A Schlumberger Company

Pathfinder

Pathfinder X&Y Report



A Schlumberger Company

Company: EOG Resources, Inc.
Project: Eddy County
Site: Herd Bull 14 Federal
Well: #1H
Wellbore: OH
Design: Plan3

Local Co-ordinate Reference: Well #1H
TVD Reference: Est KB = 19 @ 3134.90usft
MD Reference: Est KB = 19 @ 3134.90usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)
2,700.00	0.00	0.00	2,700.00	-434.90	0.00	0.00	0.00	0.00	413,682.90	618,733.50
2,800.00	0.00	0.00	2,800.00	-334.90	0.00	0.00	0.00	0.00	413,682.90	618,733.50
2,900.00	0.00	0.00	2,900.00	-234.90	0.00	0.00	0.00	0.00	413,682.90	618,733.50
3,000.00	0.00	0.00	3,000.00	-134.90	0.00	0.00	0.00	0.00	413,682.90	618,733.50
3,100.00	0.00	0.00	3,100.00	-34.90	0.00	0.00	0.00	0.00	413,682.90	618,733.50
3,200.00	0.00	0.00	3,200.00	65.10	0.00	0.00	0.00	0.00	413,682.90	618,733.50
3,300.00	0.00	0.00	3,300.00	165.10	0.00	0.00	0.00	0.00	413,682.90	618,733.50
3,400.00	0.00	0.00	3,400.00	265.10	0.00	0.00	0.00	0.00	413,682.90	618,733.50
3,500.00	0.00	0.00	3,500.00	365.10	0.00	0.00	0.00	0.00	413,682.90	618,733.50
3,600.00	0.00	0.00	3,600.00	465.10	0.00	0.00	0.00	0.00	413,682.90	618,733.50
3,700.00	0.00	0.00	3,700.00	565.10	0.00	0.00	0.00	0.00	413,682.90	618,733.50
3,800.00	0.00	0.00	3,800.00	665.10	0.00	0.00	0.00	0.00	413,682.90	618,733.50
3,900.00	0.00	0.00	3,900.00	765.10	0.00	0.00	0.00	0.00	413,682.90	618,733.50
4,000.00	0.00	0.00	4,000.00	865.10	0.00	0.00	0.00	0.00	413,682.90	618,733.50
4,100.00	0.00	0.00	4,100.00	965.10	0.00	0.00	0.00	0.00	413,682.90	618,733.50
4,200.00	0.00	0.00	4,200.00	1,065.10	0.00	0.00	0.00	0.00	413,682.90	618,733.50
4,300.00	0.00	0.00	4,300.00	1,165.10	0.00	0.00	0.00	0.00	413,682.90	618,733.50
4,400.00	0.00	0.00	4,400.00	1,265.10	0.00	0.00	0.00	0.00	413,682.90	618,733.50
4,500.00	0.00	0.00	4,500.00	1,365.10	0.00	0.00	0.00	0.00	413,682.90	618,733.50
4,600.00	0.00	0.00	4,600.00	1,465.10	0.00	0.00	0.00	0.00	413,682.90	618,733.50
4,700.00	0.00	0.00	4,700.00	1,565.10	0.00	0.00	0.00	0.00	413,682.90	618,733.50
4,800.00	0.00	0.00	4,800.00	1,665.10	0.00	0.00	0.00	0.00	413,682.90	618,733.50
4,900.00	0.00	0.00	4,900.00	1,765.10	0.00	0.00	0.00	0.00	413,682.90	618,733.50
5,000.00	0.00	0.00	5,000.00	1,865.10	0.00	0.00	0.00	0.00	413,682.90	618,733.50
5,100.00	0.00	0.00	5,100.00	1,965.10	0.00	0.00	0.00	0.00	413,682.90	618,733.50
5,200.00	0.00	0.00	5,200.00	2,065.10	0.00	0.00	0.00	0.00	413,682.90	618,733.50
5,300.00	0.00	0.00	5,300.00	2,165.10	0.00	0.00	0.00	0.00	413,682.90	618,733.50



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Well:	#1H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan3	Database:	EDM 5000 1 Single User Db

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MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	
5,400.00	0.00	0.00	5,400.00	2,265.10	0.00	0.00	0.00	0.00	413,682.90	618,733.50	
5,500.00	0.00	0.00	5,500.00	2,365.10	0.00	0.00	0.00	0.00	413,682.90	618,733.50	
5,600.00	0.00	0.00	5,600.00	2,465.10	0.00	0.00	0.00	0.00	413,682.90	618,733.50	
5,700.00	0.00	0.00	5,700.00	2,565.10	0.00	0.00	0.00	0.00	413,682.90	618,733.50	
5,800.00	0.00	0.00	5,800.00	2,665.10	0.00	0.00	0.00	0.00	413,682.90	618,733.50	
5,900.00	0.00	0.00	5,900.00	2,765.10	0.00	0.00	0.00	0.00	413,682.90	618,733.50	
6,000.00	0.00	0.00	6,000.00	2,865.10	0.00	0.00	0.00	0.00	413,682.90	618,733.50	
6,100.00	0.00	0.00	6,100.00	2,965.10	0.00	0.00	0.00	0.00	413,682.90	618,733.50	
6,200.00	0.00	0.00	6,200.00	3,065.10	0.00	0.00	0.00	0.00	413,682.90	618,733.50	
6,300.00	0.00	0.00	6,300.00	3,165.10	0.00	0.00	0.00	0.00	413,682.90	618,733.50	
6,400.00	0.00	0.00	6,400.00	3,265.10	0.00	0.00	0.00	0.00	413,682.90	618,733.50	
6,500.00	0.00	0.00	6,500.00	3,365.10	0.00	0.00	0.00	0.00	413,682.90	618,733.50	
6,600.00	0.00	0.00	6,600.00	3,465.10	0.00	0.00	0.00	0.00	413,682.90	618,733.50	
6,700.00	0.00	0.00	6,700.00	3,565.10	0.00	0.00	0.00	0.00	413,682.90	618,733.50	
6,800.00	0.00	0.00	6,800.00	3,665.10	0.00	0.00	0.00	0.00	413,682.90	618,733.50	
6,900.00	0.00	0.00	6,900.00	3,765.10	0.00	0.00	0.00	0.00	413,682.90	618,733.50	
6,952.54	0.00	0.00	6,952.54	3,817.64	0.00	0.00	0.00	0.00	413,682.90	618,733.50	
6,975.00	2.70	161.00	6,974.99	3,840.09	-0.50	0.17	0.52	12.00	413,682.40	618,733.67	
7,000.00	5.70	161.00	6,999.92	3,865.02	-2.23	0.77	2.33	12.00	413,680.67	618,734.27	
7,025.00	8.70	161.00	7,024.72	3,889.82	-5.19	1.79	5.42	12.00	413,677.71	618,735.29	
7,050.00	11.70	161.00	7,049.32	3,914.42	-9.37	3.23	9.78	12.00	413,673.53	618,736.73	
7,075.00	14.70	161.00	7,073.66	3,938.76	-14.77	5.08	15.42	12.00	413,668.13	618,738.58	
7,100.00	17.70	161.00	7,097.67	3,962.77	-21.36	7.35	22.30	12.00	413,661.54	618,740.85	
7,125.00	20.70	161.00	7,121.27	3,986.37	-29.13	10.03	30.41	12.00	413,653.77	618,743.53	
7,150.00	23.70	161.00	7,144.42	4,009.52	-38.06	13.10	39.73	12.00	413,644.84	618,746.60	
7,175.00	26.70	161.00	7,167.04	4,032.14	-48.12	16.57	50.23	12.00	413,634.78	618,750.07	
7,200.00	29.70	161.00	7,189.07	4,054.17	-59.29	20.41	61.89	12.00	413,623.61	618,753.91	



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Site:	Herd Bull '14 Federal	MD Reference:	Est KB = 19 @ 3134.90usft
Well:	#1H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan3	Database:	EDM 5000.1 Single User Db

Planned Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	
7,225.00	32.70	161.00	7,210.45	4,075.55	-71.53	24.63	74.67	12.00	413,611.37	618,758.13	
7,250.00	35.70	161.00	7,231.13	4,096.23	-84.81	29.20	88.54	12.00	413,598.09	618,762.70	
7,275.00	38.70	161.00	7,251.04	4,116.14	-99.10	34.12	103.45	12.00	413,583.80	618,767.62	
7,300.00	41.70	161.00	7,270.13	4,135.23	-114.36	39.38	119.38	12.00	413,568.54	618,772.88	
7,325.00	44.70	161.00	7,288.36	4,153.46	-130.53	44.95	136.27	12.00	413,552.37	618,778.45	
7,350.00	47.70	161.00	7,305.66	4,170.76	-147.59	50.82	154.07	12.00	413,535.31	618,784.32	
7,375.00	50.70	161.00	7,322.00	4,187.10	-165.48	56.98	172.75	12.00	413,517.42	618,790.48	
7,400.00	53.70	161.00	7,337.32	4,202.42	-184.16	63.41	192.24	12.00	413,498.74	618,796.91	
7,425.00	56.70	161.00	7,351.59	4,216.69	-203.56	70.09	212.50	12.00	413,479.34	618,803.59	
7,450.00	59.70	161.00	7,364.76	4,229.86	-223.65	77.01	233.47	12.00	413,459.25	618,810.51	
7,475.00	62.70	161.00	7,376.80	4,241.90	-244.36	84.14	255.09	12.00	413,438.54	618,817.64	
7,500.00	65.70	161.00	7,387.68	4,252.78	-265.64	91.47	277.31	12.00	413,417.26	618,824.97	
7,525.00	68.70	161.00	7,397.37	4,262.47	-287.43	98.97	300.05	12.00	413,395.47	618,832.47	
7,550.00	71.70	161.00	7,405.84	4,270.94	-309.67	106.63	323.26	12.00	413,373.23	618,840.13	
7,575.00	74.70	161.00	7,413.07	4,278.17	-332.29	114.42	346.88	12.00	413,350.61	618,847.92	
7,600.00	77.70	161.00	7,419.03	4,284.13	-355.24	122.32	370.84	12.00	413,327.66	618,855.82	
7,625.00	80.70	161.00	7,423.72	4,288.82	-378.46	130.31	395.08	12.00	413,304.44	618,863.81	
7,650.00	83.70	161.00	7,427.11	4,292.21	-401.88	138.38	419.52	12.00	413,281.02	618,871.88	
7,675.00	86.70	161.00	7,429.21	4,294.31	-425.43	146.49	444.11	12.00	413,257.47	618,879.99	
7,700.00	89.70	161.00	7,429.99	4,295.09	-449.05	154.62	468.77	12.00	413,233.85	618,888.12	
7,702.53	90.00	161.00	7,430.00	4,295.10	-451.45	155.45	471.27	12.00	413,231.45	618,888.95	
7,800.00	90.00	163.92	7,430.00	4,295.10	-544.37	184.81	567.83	3.00	413,138.53	618,918.31	
7,900.00	90.00	166.92	7,430.00	4,295.10	-641.14	209.98	667.47	3.00	413,041.76	618,943.48	
8,000.00	90.00	169.92	7,430.00	4,295.10	-739.10	230.04	767.41	3.00	412,943.80	618,963.54	
8,057.87	90.00	171.66	7,430.00	4,295.10	-796.22	239.30	825.27	3.00	412,886.68	618,972.80	
8,100.00	90.00	171.66	7,430.00	4,295.10	-837.91	245.41	867.39	0.00	412,844.99	618,978.91	
8,200.00	90.00	171.66	7,430.00	4,295.10	-936.85	259.92	967.36	0.00	412,746.05	618,993.42	



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MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)
8,300.00	90.00	171.66	7,430.00	4,295.10	-1,035.79	274.42	1,067.33	0.00	412,647.11	619,007.92
8,400.00	90.00	171.66	7,430.00	4,295.10	-1,134.73	288.93	1,167.30	0.00	412,548.17	619,022.43
8,500.00	90.00	171.66	7,430.00	4,295.10	-1,233.68	303.43	1,267.27	0.00	412,449.22	619,036.93
8,600.00	90.00	171.66	7,430.00	4,295.10	-1,332.62	317.94	1,367.24	0.00	412,350.28	619,051.44
8,700.00	90.00	171.66	7,430.00	4,295.10	-1,431.56	332.44	1,467.20	0.00	412,251.34	619,065.94
8,800.00	90.00	171.66	7,430.00	4,295.10	-1,530.50	346.94	1,567.17	0.00	412,152.40	619,080.44
8,900.00	90.00	171.66	7,430.00	4,295.10	-1,629.45	361.45	1,667.14	0.00	412,053.45	619,094.95
9,000.00	90.00	171.66	7,430.00	4,295.10	-1,728.39	375.95	1,767.11	0.00	411,954.51	619,109.45
9,100.00	90.00	171.66	7,430.00	4,295.10	-1,827.33	390.46	1,867.08	0.00	411,855.57	619,123.96
9,200.00	90.00	171.66	7,430.00	4,295.10	-1,926.27	404.96	1,967.05	0.00	411,756.63	619,138.46
9,300.00	90.00	171.66	7,430.00	4,295.10	-2,025.22	419.47	2,067.02	0.00	411,657.68	619,152.97
9,400.00	90.00	171.66	7,430.00	4,295.10	-2,124.16	433.97	2,166.99	0.00	411,558.74	619,167.47
9,500.00	90.00	171.66	7,430.00	4,295.10	-2,223.10	448.48	2,266.96	0.00	411,459.80	619,181.98
9,600.00	90.00	171.66	7,430.00	4,295.10	-2,322.04	462.98	2,366.93	0.00	411,360.86	619,196.48
9,700.00	90.00	171.66	7,430.00	4,295.10	-2,420.99	477.49	2,466.90	0.00	411,261.91	619,210.99
9,800.00	90.00	171.66	7,430.00	4,295.10	-2,519.93	491.99	2,566.86	0.00	411,162.97	619,225.49
9,900.00	90.00	171.66	7,430.00	4,295.10	-2,618.87	506.50	2,666.83	0.00	411,064.03	619,240.00
10,000.00	90.00	171.66	7,430.00	4,295.10	-2,717.81	521.00	2,766.80	0.00	410,965.09	619,254.50
10,100.00	90.00	171.66	7,430.00	4,295.10	-2,816.76	535.51	2,866.77	0.00	410,866.14	619,269.01
10,200.00	90.00	171.66	7,430.00	4,295.10	-2,915.70	550.01	2,966.74	0.00	410,767.20	619,283.51
10,300.00	90.00	171.66	7,430.00	4,295.10	-3,014.64	564.52	3,066.71	0.00	410,668.26	619,298.02
10,400.00	90.00	171.66	7,430.00	4,295.10	-3,113.58	579.02	3,166.68	0.00	410,569.32	619,312.52
10,500.00	90.00	171.66	7,430.00	4,295.10	-3,212.53	593.52	3,266.65	0.00	410,470.37	619,327.02
10,600.00	90.00	171.66	7,430.00	4,295.10	-3,311.47	608.03	3,366.62	0.00	410,371.43	619,341.53
10,700.00	90.00	171.66	7,430.00	4,295.10	-3,410.41	622.53	3,466.59	0.00	410,272.49	619,356.03
10,800.00	90.00	171.66	7,430.00	4,295.10	-3,509.35	637.04	3,566.55	0.00	410,173.55	619,370.54
10,900.00	90.00	171.66	7,430.00	4,295.10	-3,608.30	651.54	3,666.52	0.00	410,074.60	619,385.04



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11,000.00	90.00	171.66	7,430.00	4,295.10	-3,707.24	666.05	3,766.49	0.00	409,975.66	619,399.55
11,100.00	90.00	171.66	7,430.00	4,295.10	-3,806.18	680.55	3,866.46	0.00	409,876.72	619,414.05
11,200.00	90.00	171.66	7,430.00	4,295.10	-3,905.12	695.06	3,966.43	0.00	409,777.78	619,428.56
11,300.00	90.00	171.66	7,430.00	4,295.10	-4,004.07	709.56	4,066.40	0.00	409,678.83	619,443.06
11,400.00	90.00	171.66	7,430.00	4,295.10	-4,103.01	724.07	4,166.37	0.00	409,579.89	619,457.57
11,500.00	90.00	171.66	7,430.00	4,295.10	-4,201.95	738.57	4,266.34	0.00	409,480.95	619,472.07
11,600.00	90.00	171.66	7,430.00	4,295.10	-4,300.89	753.08	4,366.31	0.00	409,382.01	619,486.58
11,700.00	90.00	171.66	7,430.00	4,295.10	-4,399.84	767.58	4,466.28	0.00	409,283.06	619,501.08
11,800.00	90.00	171.66	7,430.00	4,295.10	-4,498.78	782.09	4,566.25	0.00	409,184.12	619,515.59
11,900.00	90.00	171.66	7,430.00	4,295.10	-4,597.72	796.59	4,666.21	0.00	409,085.18	619,530.09
12,000.00	90.00	171.66	7,430.00	4,295.10	-4,696.66	811.10	4,766.18	0.00	408,986.24	619,544.60
12,100.00	90.00	171.66	7,430.00	4,295.10	-4,795.61	825.60	4,866.15	0.00	408,887.29	619,559.10
12,110.49	90.00	171.66	7,430.00	4,295.10	-4,805.98	827.12	4,876.64	0.00	408,876.92	619,560.62

Checked By: _____ Approved By: _____ Date: _____



Project: Eddy County
Site: Herd Bull 14 Federal
Well: #1H
Wellbore: OH
Plan: Plan3 (#1H/OH)

PATHFINDER
A Schlumberger Company



True North: -0.20°
Magnetic North: 7.58°

Magnetic Field
Strength: 48597.4snT
Dip Angle: 60.07°
Date: 1/27/2011
Model: IGRF200510

PROJECT DETAILS: Eddy County
Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico East 3001
System Datum: Mean Sea Level
Local North: Grid

WELL DETAILS: #1H

Ground Elevation 3115.90
RKB Elevation: Est KB = 19 @ 3134.90usft
Rig Name

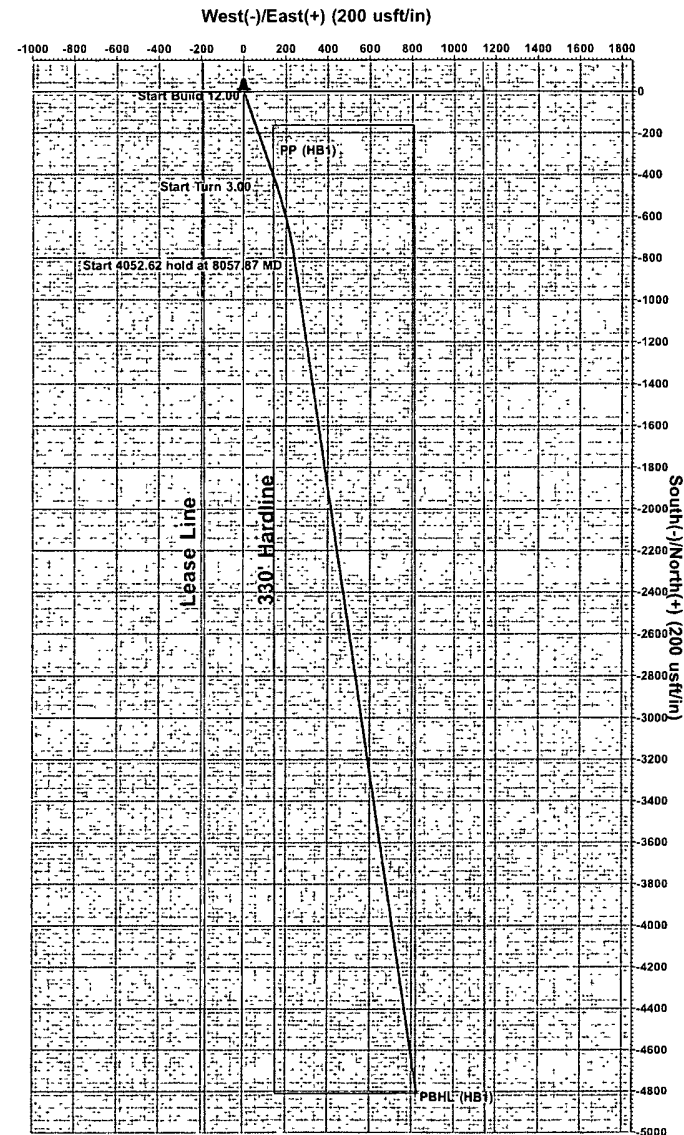
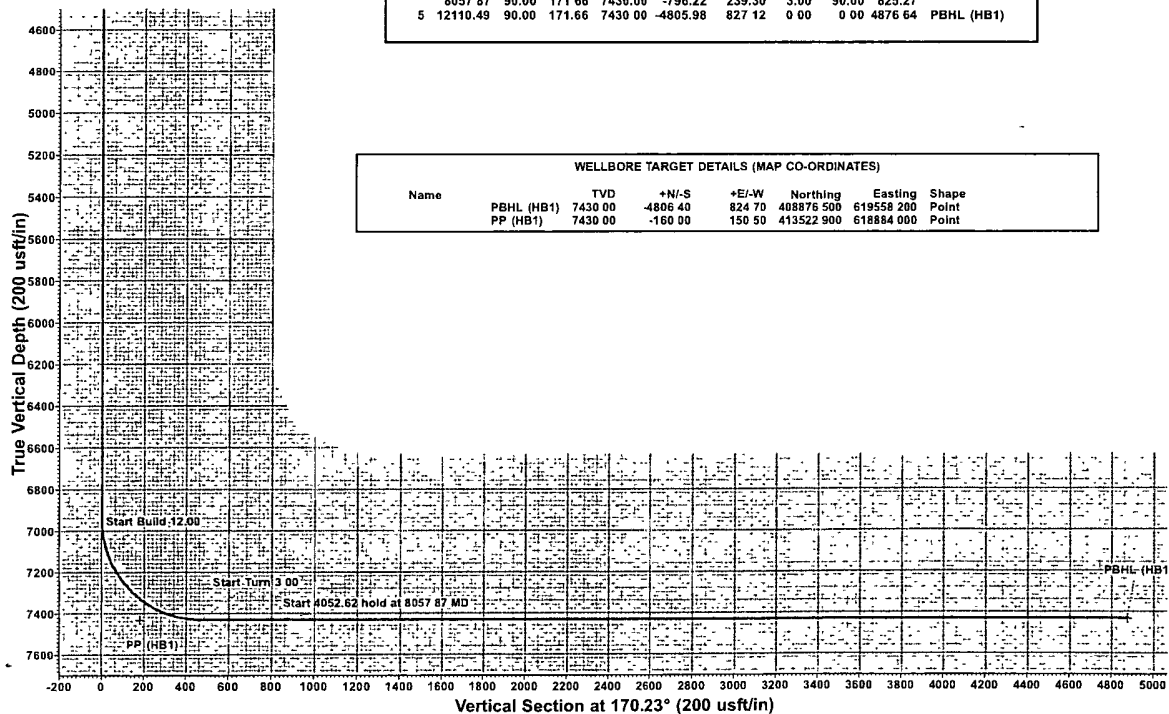
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	413682.900	618733.500	32° 8' 12.299 N	103° 56' 59.087 W	

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSecl	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
6952.54	0.00	0.00	6952.54	0.00	0.00	0.00	0.00	0.00	
7702.53	90.00	161.00	7430.00	-451.45	155.45	12.00	161.00	471.27	
8057.87	90.00	171.66	7430.00	-796.22	239.30	3.00	90.00	825.27	
5 12110.49	90.00	171.66	7430.00	-4805.98	827.12	0.00	0.00	4876.64	PBHL (HB1)

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
PBHL (HB1)	7430.00	-4806.40	824.70	408876.500	619558.200	Point
PP (HB1)	7430.00	-160.00	150.50	413522.900	618884.000	Point



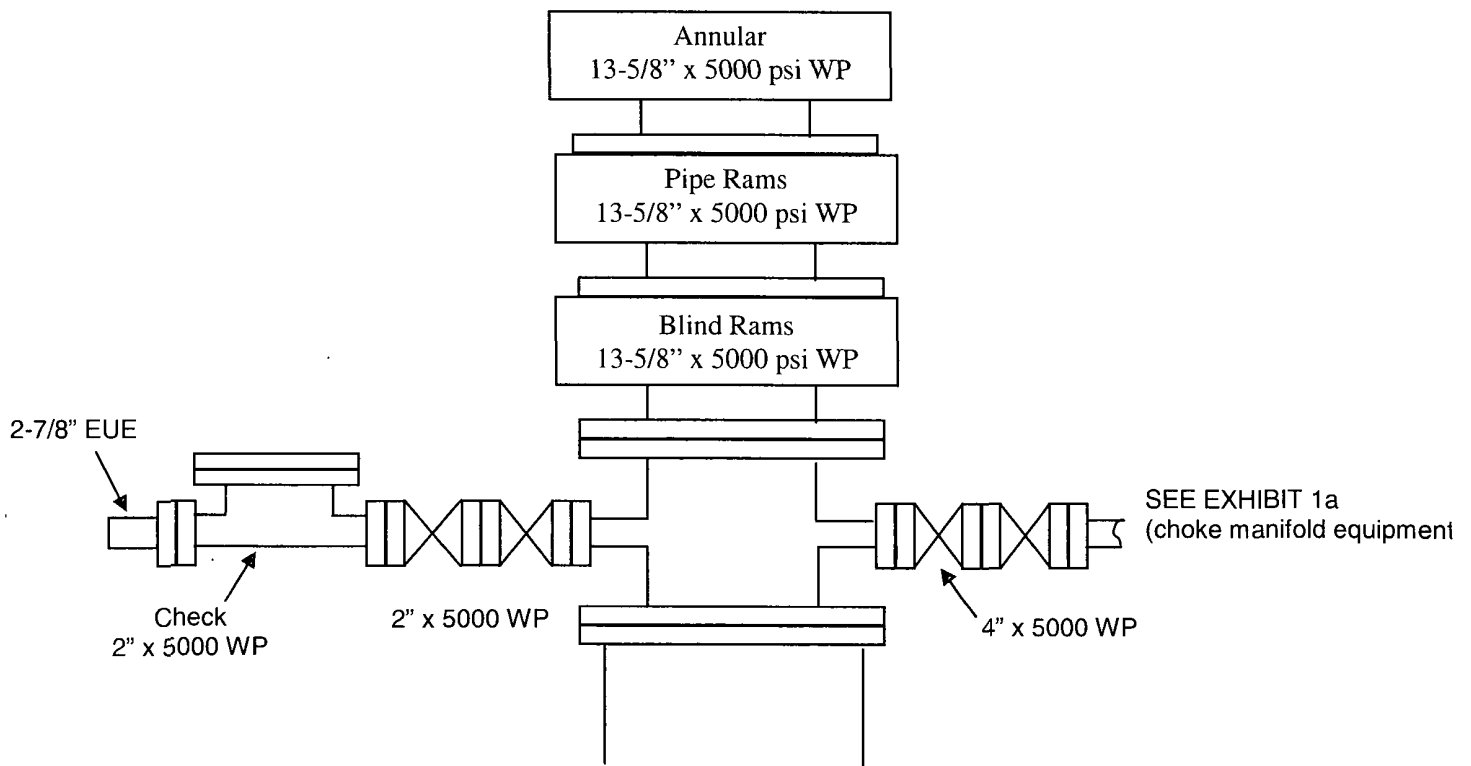
Plan: Plan3 (#1H/OH)

Created By Nate Bingham Date 11 00, May 27 2011

Checked _____ Date _____

EXHIBIT 1

EOG Resources
Herd 14 Federal No. 1H



EOG RESOURCES, INC.
HERD BULL 14 FEDERAL 1H

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.

DISTRICT I --- CHECKLIST FOR INTENTS TO DRILL

Operator EOG RESOURCES INC OGRID # 7377
 38612 Well Name & # HERD BULL #1H Surface Type (F) (S) (P)
 Location: UL A, Sect 14, Township 25 s, RNG 29 e, Sub-surface Type (F) (S) (P)
P-14-25s-29e

A. Date C101 rec'd 7/22/11 C101 reviewed 7/22/11

B. 1. Check mark, Information is OK on Forms:

OGRID X, BONDING FED, PROP CODE X, WELL # X, SIGNATURE 7/22/11

2. Inactive Well list as of: 7/22/11 # wells 432, # Inactive wells 3

a. District Grant APD but see number of inactive wells:

No letter required X; Sent Letter to Operator 7/22/11, to Santa Fe 7/22/11

3. Additional Bonding as of: 7/22/11

a. District Denial because operator needs addition bonding:

No Letter required X; Sent Letter to Operator 7/22/11, To Santa Fe 7/22/11

b. District Denial because of Inactive well list and Financial Assurance:

No Letter required X; Sent Letter to Operator 7/22/11, To Santa Fe 7/22/11

C. C102 YES 7/22/11, NO 7/22/11, Signature 7/22/11

1. Pool PIERCE CAPPING; DS, EAST, Code 96473

a. Dedicated acreage 160, What Units AHIP

b. SUR. Location Standard 7/22/11; Non-Standard Location X, PP STANDARD

c. Well shares acres: Yes 7/22/11, No X, # of wells 7/22/11 plus this well # 7/22/11

2. 2nd. Operator in same acreage, Yes 7/22/11, No X

Agreement Letter 7/22/11, Disagreement letter 7/22/11

3. Intent to Directional Drill Yes X, No 7/22/11

a. Dedicated acreage 160, What Units AHIP

b. Bottomhole Location Standard 7/22/11, Non-Standard Bottomhole X

4. Downhole Commingle: Yes 7/22/11, No X

a. Pool #2 7/22/11, Code 7/22/11, Acres 7/22/11

Pool #3 7/22/11, Code 7/22/11, Acres 7/22/11

Pool #4 7/22/11, Code 7/22/11, Acres 7/22/11

5. POTASH Area Yes 7/22/11, No FED

D. Blowout Preventer Yes X, No 7/22/11

E. H2S Yes X, No 7/22/11

F. C144 Pit Registration Yes 7/22/11, No 7/22/11, need

G. Does APD require Santa Fe Approval:

1. Non-Standard Location: Yes 7/22/11, No X, NSL # 7/22/11

2. Non-Standard Proration: Yes 7/22/11, No X, NSP # 7/22/11

3. Simultaneous Dedication: Yes 7/22/11, No X, SD # 7/22/11

Number of wells 7/22/11 Plus # 7/22/11

4. Injection order Yes 7/22/11, No X; PMX # 7/22/11 or WFX # 7/22/11

5. SWD order Yes 7/22/11, NO X; SWD # 7/22/11

6. DHC from SF 7/22/11; DHC-HOB 7/22/11; Holding 7/22/11

7. OCD Approval Date 7/22/11

API #30-015-- 39233

8. Reviewers 7/22/11