

OCD-ARTESIA

Form 3160-5
(February 2005)UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB No. 1004-0137
Expires: March 31, 2007

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 reverse** **Month - Year**1. Type of Well
☐ Oil Well ☒ Gas Well ☐ Other

MAY 3 2007

OCD - ARTESIA, NM

2. Name of Operator **EOG RESOURCES, INC.**3a. Address
P.O. Box 2267 Midland, Texas 797023b. Phone No. (include area code)
432 686 3642

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

760' FSL & 660' FEL of Section 22, T16S-R24E, N.M.P.M. SHL**760' FSL & 660' FEL BHL MAY 2/30/07**

5. Lease Serial No.

NMNM 108950

6. If Indian, Allottee or Tribe Name

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

8. Well Name and No.

Colorado B 22 Fed 2H

9. API Well No.

30-015-34713

10. Field and Pool, or Exploratory Area

Undes Cottonwood Creek; Wolfcamp

11. County or Parish, State

Eddy

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 recomple 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 must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recomple in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

EOG Resources, Inc. ("EOG") proposes to amend the Casing Program, Cementing Program and the Mud Program for the subject well.

Please see attached documents referencing the changes.

**SEE ATTACHED FOR
CONDITIONS OF APPROVAL**14. I hereby certify that the foregoing is true and correct
Name (Printed/Typed)**Donny G. Glanton**

Title Senior Lease Operations ROW Representative

Signature

Date

04/26/2007

APPROVED**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

APR 30 2007**WESLEY W. INGRAM
PETROLEUM ENGINEER**

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 page 2)

EOG RESOURCES, INC.
Colorado B22 Fed No. 2H
Eddy Co. NM

Quaternary Alluvium 0-200

San Andres	665'
Glorieta	2,035'
Tubb	3,326'
Abo Shale	4,015'
Wolfcamp Pay	5,065'

Quanterary Alluvium	0- 200'	Fresh Water
San Andres	665'	Oil
Glorieta	2,035'	Oil/Gas
Tubb	3,326'	Oil/Gas
Abo/Wolfcamp Pay	5,065'	Gas

CASING PROGRAM

<u>Hole Size</u>	<u>Interval</u>	<u>OD Casing</u>	<u>Weight</u>	<u>Grade</u>	<u>Jt. Conn. Type</u>
12.250"	0-900'	8.625"	32#	J-55	LT&C
7.875"	0-8,346'	5.5"	17#	N-80	LT&C

8.625" Surface Casing:

Lead:	Premium Plus + 2% CaCl ₂ + 3% Econolite + ¼ pps Flocele
Tail:	Premium Plus + 2% CaCl ₂ + ¼ pps Flocele

Lead: Interfill C + ¼ pps Flocele
Tail: Premium Cement + 100% Acid Soluble
 Additive + 0.6% Halad®- 344 +0.8%
 Econolite + 0.2% HR-55

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

<u>Depth</u>	<u>Type</u>	<u>Wt</u> <u>(PPG)</u>	<u>Viscosity</u> <u>(sec)</u>	<u>Waterloss</u> <u>(cc)</u>
0-900'	Fresh – Gel	8.6-8.8	28-34	N/c
900'-4083'	Cut Brine	8.8-9.2	28-34	N/c
4,083'-8,346'	Polymer (Lateral)	9.0-9.4	40-45	10-25

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.

30-015-34713

Permit Information:

Well Name: Colorado B 22 Fed #2H

Revised 4/24/07

Location:

SL: 760' FSL & 660' FEL, Section 22, T-16-S, R-24-E, Eddy Co., N.M.

BHL: 760' FSL & 660' FWL, Section 22, T-16-S, R-24-E, Eddy Co., N.M.

Casing Program:

Casing	Setting Depth	Hole Size	Casing Size	Casing Weight	Casing Grade	Desired TOC
Surface	900'	12-1/4"	8-5/8"	32#	J-55	Surface
Production	8,346'	7-7/8"	5 1/2"	17#	N-80	Surface

Cement Program:

Depth	No. Sacks	Slurries:
900'	150	Lead: Premium Plus + 2% CaCl ₂ + 3% Econolite + 1/4 pps Flocele
	175	Tail: Premium Plus + 2% CaCl ₂ + 1/4 pps Flocele
8,346'	400	Lead: Interfill C + 1/4 pps Flocele
	350	Tail: Premium Cement + 100% Acid Soluble Additive + 0.6% Halad®-344 + 0.8% Econolite + 0.2% HR-55

Mud Program:

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0 - 900'	Fresh - Gel	8.6-8.8	28-34	N/c
900' - 4,083'	Cut Brine	8.8-9.2	28-34	N/c
4,083' - 8,346'	Polymer (Lateral)	9.0-9.4	40-45	10-25

EOG RESOURCES INC.

Planning Report

Database:	EDM	Local Co-ordinate Reference:	Well Colorado B 22 Fed #2H
Company:	EOG - Midland (3)	TVD Reference:	WELL @ 3662.00ft (Original Well Elev)
Project:	Thames	MD Reference:	WELL @ 3662.00ft (Original Well Elev)
Site:	Colorado B 22 Fed #2H	North Reference:	Grid
Well:	Colorado B 22 Fed #2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Colorado B 22 Fed #2H		
Design:	Original Plan		

Project	Thames		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Ground Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site	Colorado B 22 Fed #2H		
Site Position:		Northing:	692,284.50ft
From:	Map	Easting:	427,445.40ft
Position Uncertainty:	0.00 ft	Slot Radius:	"
		Latitude:	32° 54' 10.604 N
		Longitude:	104° 34' 11.028 W
		Grid Convergence:	-0.13 °

Well	Colorado B 22 Fed #2H		
Well Position	+N/-S	0.00 ft	Northing: 692,284.50 ft
	+E/-W	0.00 ft	Easting: 427,445.40 ft
Position Uncertainty	0.00 ft	Wellhead Elevation:	ft
		Latitude:	32° 54' 10.604 N
		Longitude:	104° 34' 11.028 W
		Ground Level:	3,647.00ft

Wellbore	Colorado B 22 Fed #2H		
Magnetics	Model Name	Sample Date	Declination
	IGRF2000	12/31/2004	(°)
			9.08
			Dip Angle
			(°)
			60.87
			Field Strength
			(nT)
			49,708

Design	Original Plan		
Audit Notes:			
Version:	Phase:	PROTOTYPE	Tie On Depth: 0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(ft)	(ft)	(ft)
	0.00	0.00	0.00
			Direction
			(°)
			269.74

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4,083.00	0.00	0.00	4,083.00	0.00	0.00	0.00	0.00	0.00	0.00	
4,840.12	90.00	269.73	4,565.00	-2.27	-481.99	11.89	11.89	0.00	269.73	
6,340.12	90.00	269.73	4,565.00	-9.34	-1,981.98	0.00	0.00	0.00	0.00	
6,406.93	92.00	269.74	4,563.83	-9.65	-2,048.77	3.00	3.00	0.02	0.32	
8,346.32	92.00	269.74	4,496.01	-18.40	-3,986.95	0.00	0.00	0.00	0.00	
8,346.47	92.00	269.74	4,496.00	-18.40	-3,987.10	3.00	-2.87	-0.88	0.00	BHL (Colorado B 22)

EOG RESOURCES INC.

Planning Report

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Company:	EOG - Midland (3)	TVD Reference:	WELL @ 3662.00ft (Original Well Elev)
Project:	Thames	MD Reference:	WELL @ 3662.00ft (Original Well Elev)
Site:	Colorado B 22 Fed #2H	North Reference:	Grid
Well:	Colorado B 22 Fed #2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Colorado B 22 Fed #2H		
Design:	Original Plan		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00
4,083.00	0.00	0.00	4,083.00	0.00	0.00	0.00	0.00	0.00	0.00
4,100.00	2.02	269.73	4,100.00	0.00	-0.30	0.30	11.89	11.89	0.00
4,200.00	13.91	269.73	4,198.85	-0.07	-14.13	14.13	11.89	11.89	0.00
4,300.00	25.79	269.73	4,292.74	-0.23	-48.03	48.03	11.89	11.89	0.00
4,400.00	37.68	269.73	4,377.64	-0.47	-100.54	100.54	11.89	11.89	0.00
4,500.00	49.57	269.73	4,449.89	-0.80	-169.41	169.41	11.89	11.89	0.00
4,600.00	61.46	269.73	4,506.41	-1.19	-251.68	251.69	11.89	11.89	0.00
4,700.00	73.34	269.73	4,544.78	-1.62	-343.84	343.84	11.89	11.89	0.00
4,800.00	85.23	269.73	4,563.33	-2.08	-441.92	441.92	11.89	11.89	0.00
4,840.12	90.00	269.73	4,565.00	-2.27	-481.99	482.00	11.89	11.89	0.00
4,900.00	90.00	269.73	4,565.00	-2.55	-541.87	541.88	0.00	0.00	0.00
5,000.00	90.00	269.73	4,565.00	-3.02	-641.87	641.88	0.00	0.00	0.00
5,100.00	90.00	269.73	4,565.00	-3.50	-741.87	741.88	0.00	0.00	0.00

EOG RESOURCES INC.

Planning Report

Database:	EDM	Local Co-ordinate Reference:	Well Colorado B 22 Fed #2H
Company:	EOG - Midland (3)	TVD Reference:	WELL @ 3662.00ft (Original Well Elev)
Project:	Thames	MD Reference:	WELL @ 3662.00ft (Original Well Elev)
Site:	Colorado B 22 Fed #2H	North Reference:	Grid
Well:	Colorado B 22 Fed #2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Colorado B 22 Fed #2H		
Design:	Original Plan		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,200.00	90.00	269.73	4,565.00	-3.97	-841.87	841.88	0.00	0.00	0.00
5,300.00	90.00	269.73	4,565.00	-4.44	-941.87	941.88	0.00	0.00	0.00
5,400.00	90.00	269.73	4,565.00	-4.91	-1,041.86	1,041.88	0.00	0.00	0.00
5,500.00	90.00	269.73	4,565.00	-5.38	-1,141.86	1,141.88	0.00	0.00	0.00
5,600.00	90.00	269.73	4,565.00	-5.85	-1,241.86	1,241.88	0.00	0.00	0.00
5,700.00	90.00	269.73	4,565.00	-6.32	-1,341.86	1,341.88	0.00	0.00	0.00
5,800.00	90.00	269.73	4,565.00	-6.79	-1,441.86	1,441.88	0.00	0.00	0.00
5,900.00	90.00	269.73	4,565.00	-7.27	-1,541.86	1,541.88	0.00	0.00	0.00
6,000.00	90.00	269.73	4,565.00	-7.74	-1,641.86	1,641.88	0.00	0.00	0.00
6,100.00	90.00	269.73	4,565.00	-8.21	-1,741.86	1,741.88	0.00	0.00	0.00
6,200.00	90.00	269.73	4,565.00	-8.68	-1,841.86	1,841.88	0.00	0.00	0.00
6,300.00	90.00	269.73	4,565.00	-9.15	-1,941.85	1,941.88	0.00	0.00	0.00
6,340.12	90.00	269.73	4,565.00	-9.34	-1,981.98	1,982.00	0.00	0.00	0.00
6,400.00	91.80	269.74	4,564.06	-9.62	-2,041.84	2,041.87	3.00	3.00	0.02
6,406.93	92.00	269.74	4,563.83	-9.65	-2,048.77	2,048.79	3.00	3.00	0.02
6,500.00	92.00	269.74	4,560.58	-10.07	-2,141.78	2,141.81	0.00	0.00	0.00
6,600.00	92.00	269.74	4,557.08	-10.52	-2,241.72	2,241.74	0.00	0.00	0.00
6,700.00	92.00	269.74	4,553.58	-10.97	-2,341.66	2,341.68	0.00	0.00	0.00
6,800.00	92.00	269.74	4,550.08	-11.42	-2,441.60	2,441.62	0.00	0.00	0.00
6,900.00	92.00	269.74	4,546.59	-11.87	-2,541.53	2,541.56	0.00	0.00	0.00
7,000.00	92.00	269.74	4,543.09	-12.32	-2,641.47	2,641.50	0.00	0.00	0.00
7,100.00	92.00	269.74	4,539.59	-12.78	-2,741.41	2,741.44	0.00	0.00	0.00
7,200.00	92.00	269.74	4,536.10	-13.23	-2,841.35	2,841.38	0.00	0.00	0.00
7,300.00	92.00	269.74	4,532.60	-13.68	-2,941.28	2,941.32	0.00	0.00	0.00
7,400.00	92.00	269.74	4,529.10	-14.13	-3,041.22	3,041.26	0.00	0.00	0.00
7,500.00	92.00	269.74	4,525.60	-14.58	-3,141.16	3,141.19	0.00	0.00	0.00
7,600.00	92.00	269.74	4,522.11	-15.03	-3,241.10	3,241.13	0.00	0.00	0.00
7,700.00	92.00	269.74	4,518.61	-15.48	-3,341.04	3,341.07	0.00	0.00	0.00
7,800.00	92.00	269.74	4,515.11	-15.93	-3,440.97	3,441.01	0.00	0.00	0.00
7,900.00	92.00	269.74	4,511.61	-16.39	-3,540.91	3,540.95	0.00	0.00	0.00
8,000.00	92.00	269.74	4,508.12	-16.84	-3,640.85	3,640.89	0.00	0.00	0.00
8,100.00	92.00	269.74	4,504.62	-17.29	-3,740.79	3,740.83	0.00	0.00	0.00
8,200.00	92.00	269.74	4,501.12	-17.74	-3,840.72	3,840.77	0.00	0.00	0.00
8,300.00	92.00	269.74	4,497.63	-18.19	-3,940.66	3,940.70	0.00	0.00	0.00
8,346.32	92.00	269.74	4,496.01	-18.40	-3,986.95	3,987.00	0.00	0.00	0.00
8,346.47	92.00	269.74	4,496.00	-18.40	-3,987.10	3,987.14	3.00	-2.87	-0.88

BHL (Colorado B 22 Fed #2H)

Targets

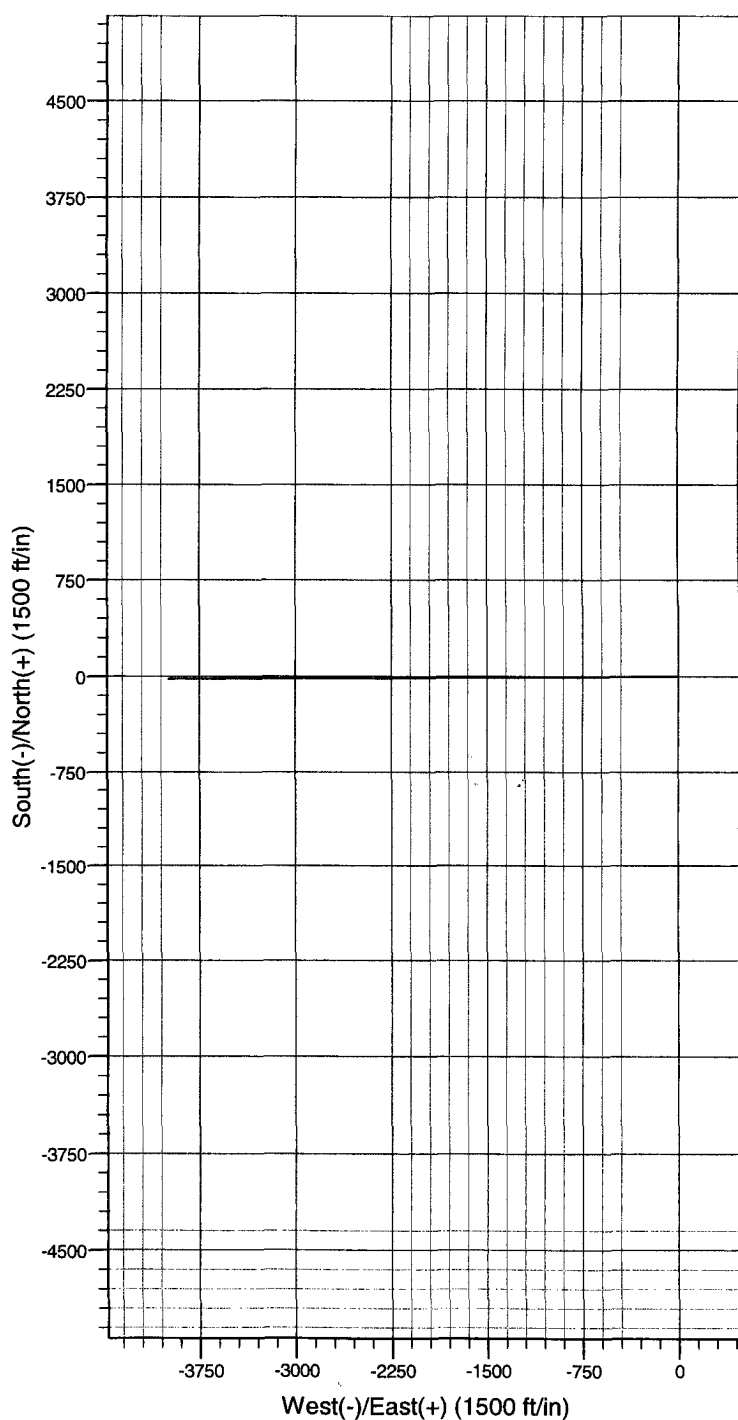
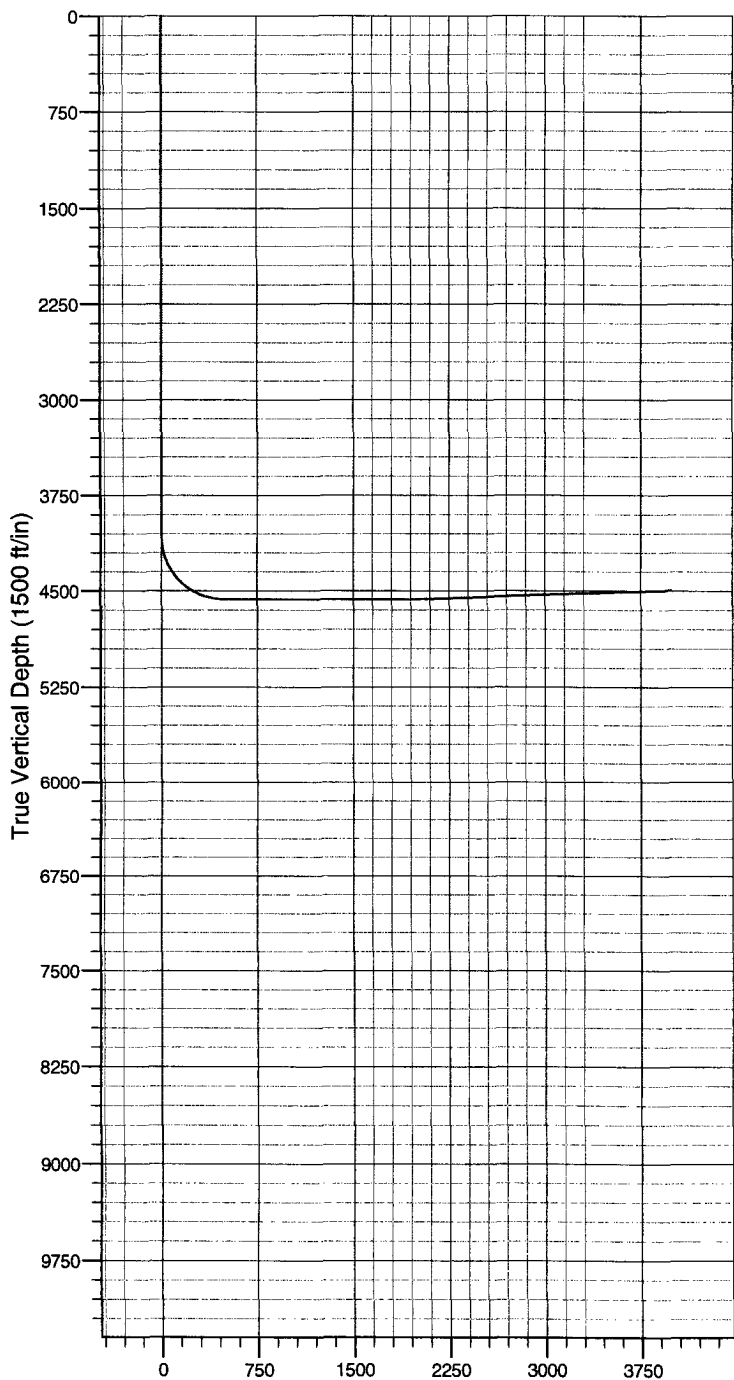
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- hit/miss target									
- Shape									
BHL (Colorado B 22 F	0.00	0.00	4,496.00	-18.40	-3,987.10	692,266.10	423,458.30	32° 54' 10.331 N	104° 34' 57.794 W
- plan hits target									
- Point									

WELL DETAILS: Colorado B 22 Fed #2H

+N/-S	+E/-W	Northing	Ground Level: 3647.00	Easting	Latitude	Longitude	Slot
0.00	0.00	692284.50		427445.40	32° 54' 10.604 N	104° 34' 11.028 W	

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	Target	Sec
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	4083.00	0.00	0.00	4083.00	0.00	0.00	0.00	0.00	0.00	
3	4840.12	90.00	269.73	4565.00	-2.27	-481.99	11.89	269.73	482.00	
4	6340.12	90.00	269.73	4565.00	-9.34	-1981.98	0.00	0.00	1982.00	
5	6406.93	92.00	269.74	4563.83	-9.65	-2048.77	3.00	0.32	2048.79	
6	8346.32	92.00	269.74	4496.01	-18.40	-3986.95	0.00	0.00	3987.00	
7	8346.47	92.00	269.74	4496.00	-18.40	-3987.14	0.00	0.00	3987.14	



CONDITIONS OF APPROVAL - DRILLING

Operator's Name: EOG Resources, Inc
Well Name & No. 2H-Colorado B 22 Fed
Location SHL: 0760FSL, 0660FEL, Sec. 22, T-16-S, R-24-E, Eddy County, NM
Location BHL: 0760FSL, 0660FWL, Sec. 22, T-16-S, R-24-E, Eddy County, NM
Lease: NM 108950

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I. DRILLING OPERATIONS REQUIREMENTS:

- A. The Bureau of Land Management (BLM) is to be notified a minimum of 4 hours in advance for a representative to witness:
1. Spudding well
 2. Setting and/or Cementing of all casing strings
 3. BOPE tests
- Eddy County call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (505) 361-2822
- B. **Although no Hydrogen Sulfide has been reported in T-16-S, R-24-E, it is always a potential hazard.**
- C. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
- D. If floor controls are required, (3M or Greater) controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

II. CASING:

- A. The 8-5/8 inch surface casing shall be set at approximately 900 feet and cemented to the surface.
1. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with a surface log readout will be used or a cement bond log shall be run to verify the top of the cement.
 2. Wait on cement (WOC) time for a primary cement job will be a minimum of 12 hours for a non-water basin, 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compression strength, whichever is greater. (This is to include the lead cement)
 3. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compression strength, whichever is greater.
 4. If cement falls back, remedial action will be done prior to drilling out that string.

Possible lost circulation in the Grayburg and San Andres formations.

- B. The minimum required fill of cement behind the 5-1/2 inch production casing is cement is to extend a minimum of 200 feet inside of the surface casing.**
- C. If hardband drill pipe is rotated inside casing; returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.**

III. PRESSURE CONTROL:

- A. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53.**
- B. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **3000 (3M) PSI**.**
- C. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.**
 - 1. The tests shall be done by an independent service company.**
 - 2. The results of the test shall be reported to the appropriate BLM office.**
 - 3. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.**
 - 4. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi in accordance with API RP 53. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug.**
 - 5. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.**

IV. DRILLING MUD:

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp formation, and shall be used until production casing is run and cemented.

- 1. Recording pit level indicator to indicate volume gains and losses.**
- 2. Mud measuring device for accurately determining the mud volumes necessary to fill the hole during trips.**
- 3. Flow-sensor on the flow line to warn of abnormal mud returns from the well**

Engineer on call phone: 505-706-2779

WWI 043007