

HOBBS OCD

DEC 08 2011

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 & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-402
Revised October 12, 2005
Submit to Appropriate District Office
State Lease- 4 Copies
Fee Lease- 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025- 40369	Pool Code 51020 97000	Pool Name Red Hills; Bone Spring
Property Code 38965	Property Name BLACK BEAR "36" STATE	Well Number 2H
OCRID No. 7377	Operator Name EOG RESOURCES, INC.	Elevation 3323.9'

Surface Location

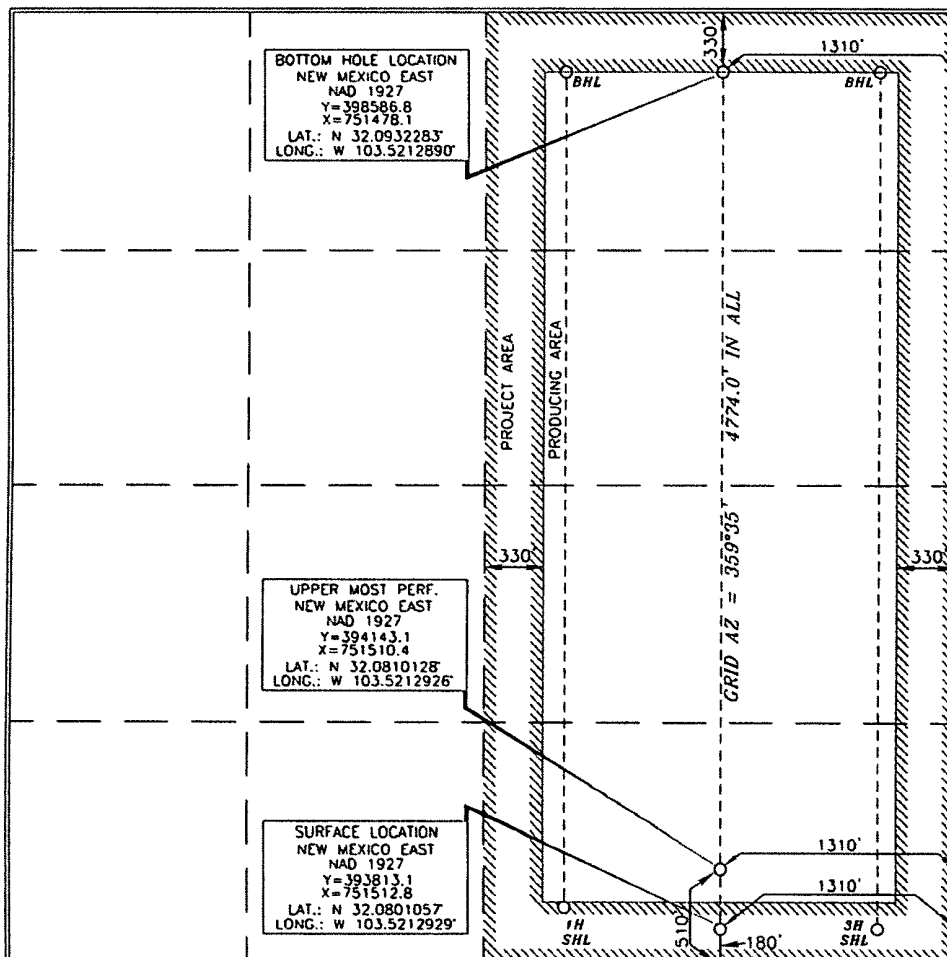
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	36	25 SOUTH	33 EAST, N.M.P.M.		180'	SOUTH	1310'	EAST	LEA

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
A	36	25 SOUTH	33 EAST, N.M.P.M.		330'	NORTH	1310'	EAST	LEA

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
320			

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.



OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Stan Wagner 12/7/11
Signature Date

Stan Wagner
Printed Name

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes or actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

15079
OCTOBER 18, 2011
Date of Survey

Signature and Seal of
Professional Surveyor

Terry D. Hall 11/14/2011
Certificate Number 15079

WO# 111018WL-b (KA)

ECG 12-14-2011
DEC 15 2011

Permit Information:

Well Name: Black Bear 36 State No. 2H

Location:

SL: 180' FSL & 1310' FEL, Section 36, T-25-S, R-33-E, Lea Co., N.M.

BHL: 330' FNL & 1310' FEL, Section 36, T-25-S, R-33-E, Lea Co., N.M.

Casing Program:

Hole Size	Interval	Csg OD	Weight	Grade	Conn	DF _{min} Collapse	DF _{min} Burst	DF _{min} Tension
17.5"	0 – 985'	13.375"	54.5#	J55	STC	1.125	1.25	1.60
12.25"	0-4000'	9.625"	40#	J55	LTC	1.125	1.25	1.60
12.25"	4000' – 5100'	9.625"	40#	HCK-55	LTC	1.125	1.25	1.60
8.75"	0'-14,109'	5.5"	17#	HCP-110	LTC	1.125	1.25	1.60

Cement Program:

Depth	No. Sacks	Wt. ppg	Yld Ft ³ /ft	Slurry Description
985'	575	13.5	1.73	Class C + 4.0% Bentonite + 0.6% CD-32 + 0.5% CaCl ₂ + 0.25 lb/sk Cello-Flake (TOC @ Surface)
	250	14.8	1.34	Class C + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium Metasilicate
5,100'	1325	12.7	2.22	Class 'C' + 1.50% R-3 + 0.25 lb/sk Cello-Flake + 2.0% Sodium Metasilicate + 10% Salt + 0.005 lb/sk Static Free
	200	14.8	1.32	Tail: Class 'C' + 0.25 lb/sk Cello Flake + 0.005 lb/sk Static Free
14,109'	150	10.8	3.67	60:40:0 Class C + 15.0 pps BA-90 + 4% MPA-5 + 3.0% SMS + 5.0% A-10 + 1.0% BA-10A + 0.80% ASA-301 + 2.55% R-21 + 8.0 pps LCM-1
	550	11.8	2.38	50:50:10 Class H + 0.80% FL-52 + 0.30% ASA-301 + 0.40% SMS + 2.0% Salt + 0.30% R-21 + 3.0 pps LCM-1 + 0.25 pps Celloflake
	1200	14.2	1.28	50:50:2 Class H + 0.65% FL-52 + 0.45% CD-32 + 0.10% SMS + 2.0% Salt

Mud Program:

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0 – 985'	Fresh - Gel	8.6-8.8	28-34	N/c
1000' – 5,100'	Brine	10.0-10.2	28-34	N/c
5,100' – 9,062'	Cut Brine	8.4-9.0	28-34	N/c
KOP – 14,109' Lateral	Cut Brine	9.0-9.5	40-42	8-10

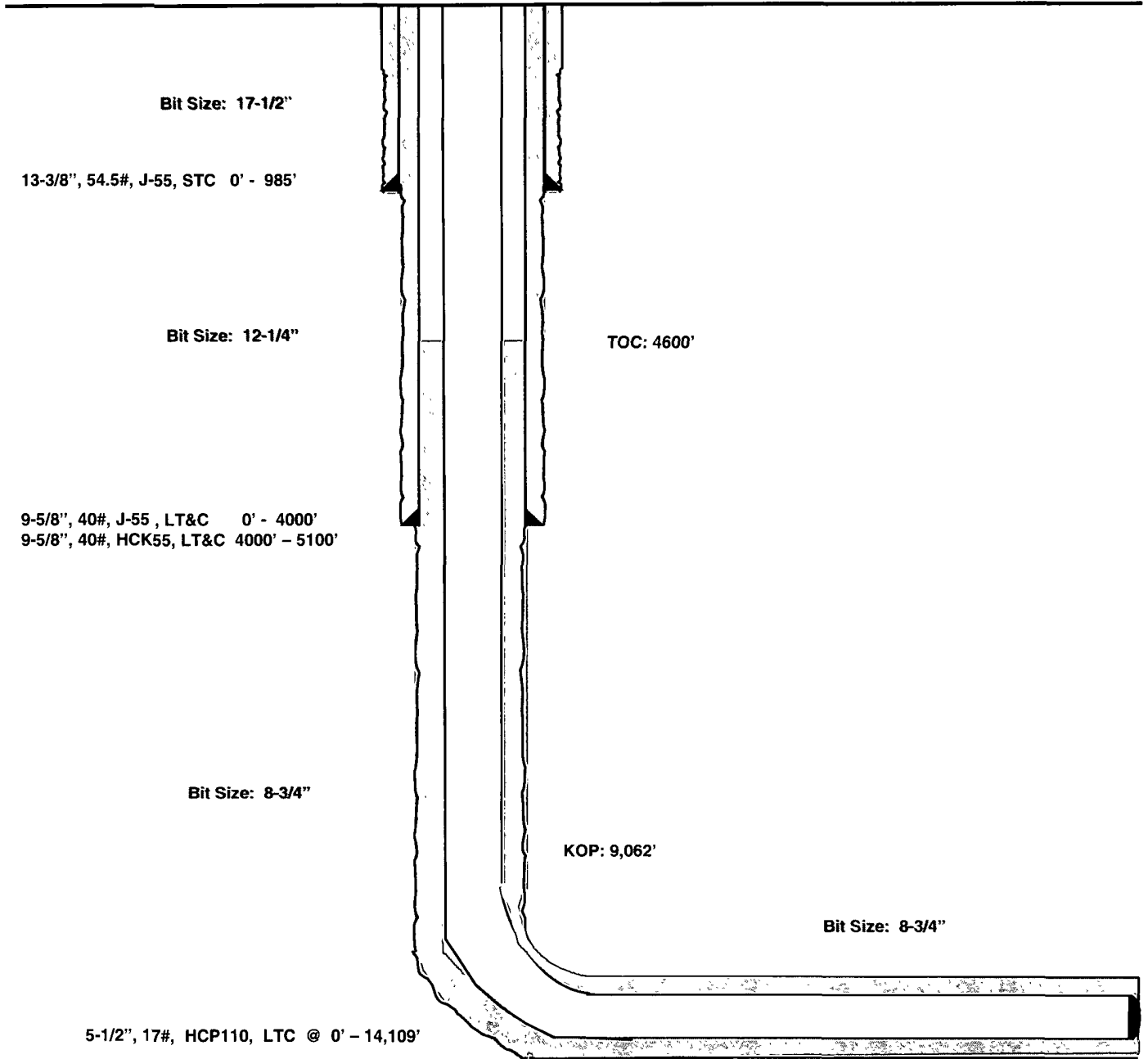
Black Bear 36 State #2H
Red Hills
Lea County, New Mexico

180' FSL
1310' FEL
Section 36
T-25-S, R-33-E

Proposed Wellbore

API: 30-025-

KB: 3,348.9'
GL: 3,323.9'



Lateral: 14,109' MD, 9,540' TVD

BH Location: 330' FNL & 1310' FEL
Section 36
T-25-S, R-33-E



Project: Lea County
Site: Black Bear "36" State
Well: #2H
Wellbore: OH
Plan: Plan #1 (#2H/OH)

PATHFINDER
A Schlumberger Company



Azimuths to Grid North
True North: -0.43°
Magnetic North: 7.06°

Magnetic Field
Strength: 48528.0snT
Dip Angle: 60.07°
Date: 11/30/2011
Model: IGRF200510

PROJECT DETAILS: Lea 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: #2H

Ground Elevation: 3323.9
RKB Elevation: KB = 25 @ 3348.9usft (Cactus 139)
Rig Name: Cactus 139

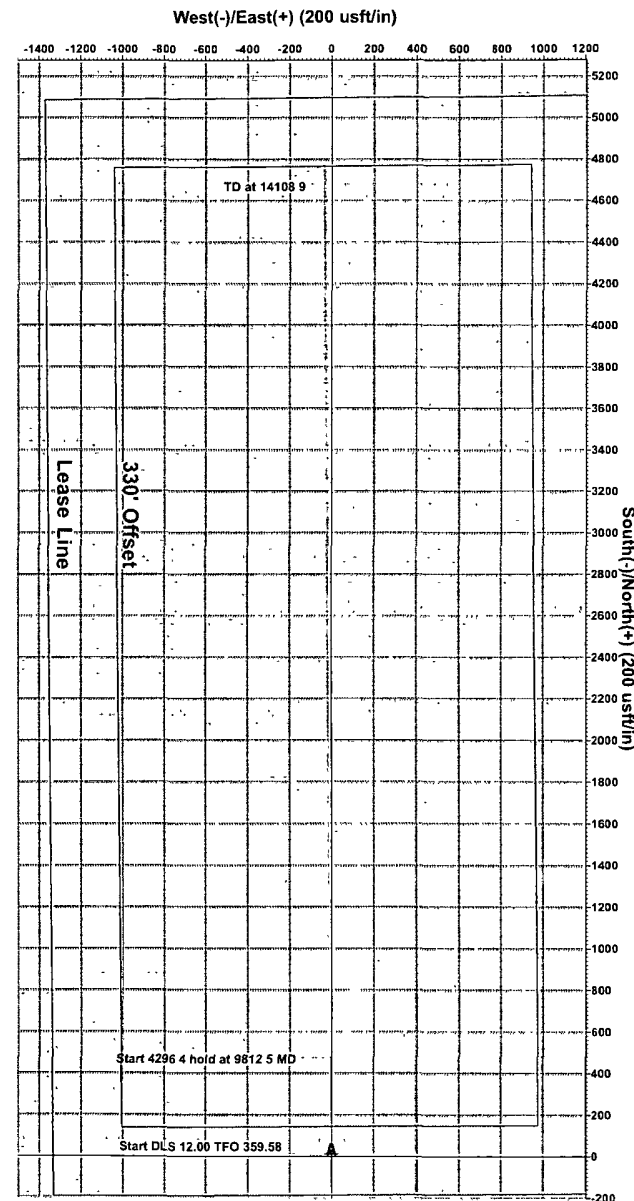
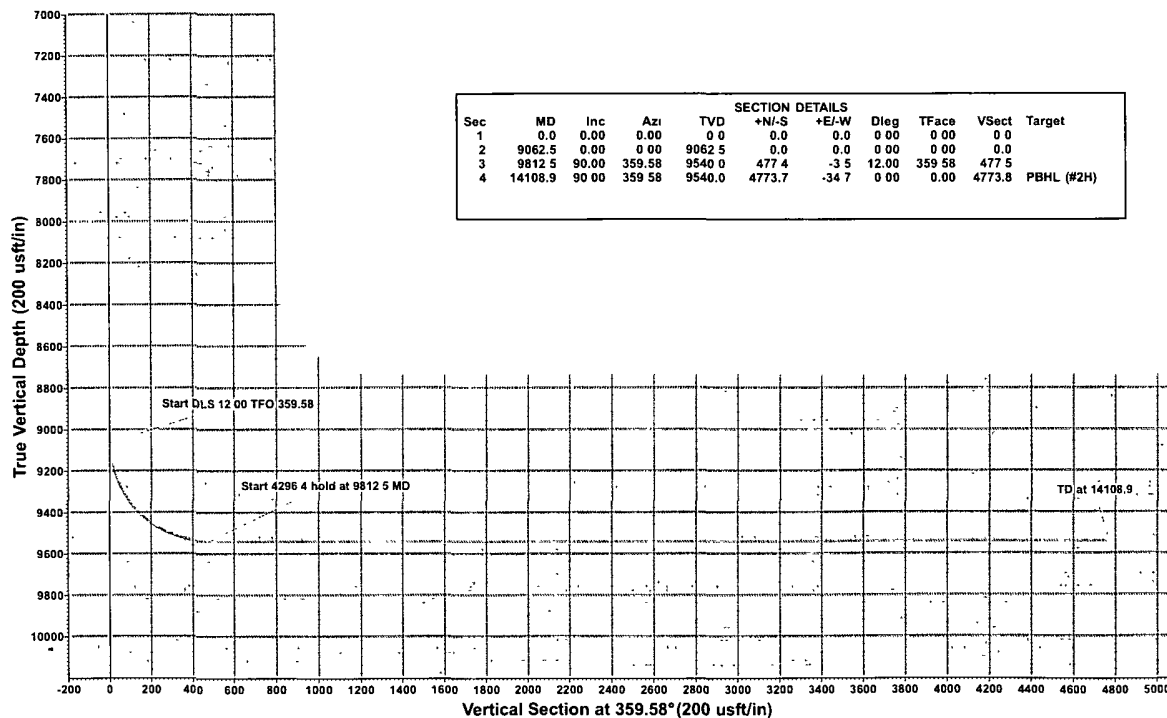
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	393813.100	751512.800	32°4'48.380"N	103°31'16.655"W	

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
PBHL (#2H)	9540.0	4773.7	-34.7	398586.800	751478.100	Point

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	9862.5	0.00	0.00	9862.5	0.0	0.0	0.00	0.00	0.0	
3	9812.5	90.00	359.58	9540.0	4773.7	-34.7	12.00	359.58	477.5	
4	14108.9	90.00	359.58	9540.0	4773.7	-34.7	0.00	0.00	4773.8	PBHL (#2H)



Plan Plan #1 (#2H/OH)

Created By: Sam Brille Date: 17.38, November 30 2011

Checked: _____ Date: _____



HOBBS OCD
DEC 08 2011
RECEIVED

EOG Resources, Inc.

Lea County
Black Bear "36" State
#2H
OH

Plan: Plan #1

Pathfinder X & Y Report

30 November, 2011

PATHFINDER[®]
A Schlumberger Company

Company:	EOG Resources, Inc	Local Co-ordinate Reference:	Well #2H
Project:	Lea County	TVD Reference:	KB = 25 @ 3348.9usft (Cactus 139)
Site:	Black Bear "36" State	MD Reference:	KB = 25 @ 3348.9usft (Cactus 139)
Well:	#2H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	EDM 5000.1 Single User Db

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

Site:	Black Bear "36" State		
Site Position:		Northing:	393,926.900 usft
From:	Map	Easting:	750,632.000 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 4' 49.572 N
		Longitude:	103° 31' 26.881 W
		Grid Convergence:	0.43 °

Well	#2H					
Well Position	+N/-S	0.0 usft	Northing:	393,813.100 usft	Latitude:	32° 4' 48.380 N
	+E/-W	0.0 usft	Easting:	751,512.800 usft	Longitude:	103° 31' 16.655 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	3,323.9 usft

Wellbore:	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	11/30/2011	7.49	60.07	48,528

Design:	Plan #1				
Audit Notes:					
Version:		Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.0	0.0	0.0	359.58	

Survey Tool Program	Date	11/30/2011			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.0	14,108.9	Plan #1 (OH)	MWD	MWD - Standard	

Company:	EOG Resources, Inc.	Local Co-ordinate Reference:	Well #2H
Project:	Lea County	TVD Reference:	KB = 25 @ 3348.9usft (Cactus 139)
Site:	Black Bear "36" State	MD Reference:	KB = 25 @ 3348.9usft (Cactus 139)
Well:	#2H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	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)	
0.0	0.00	0.00	0.0	-3,348.9	0.0	0.0	0.0	0.00	393,813.10	751,512.80	
100.0	0.00	0.00	100.0	-3,248.9	0.0	0.0	0.0	0.00	393,813.10	751,512.80	
200.0	0.00	0.00	200.0	-3,148.9	0.0	0.0	0.0	0.00	393,813.10	751,512.80	
300.0	0.00	0.00	300.0	-3,048.9	0.0	0.0	0.0	0.00	393,813.10	751,512.80	
400.0	0.00	0.00	400.0	-2,948.9	0.0	0.0	0.0	0.00	393,813.10	751,512.80	
500.0	0.00	0.00	500.0	-2,848.9	0.0	0.0	0.0	0.00	393,813.10	751,512.80	
600.0	0.00	0.00	600.0	-2,748.9	0.0	0.0	0.0	0.00	393,813.10	751,512.80	
700.0	0.00	0.00	700.0	-2,648.9	0.0	0.0	0.0	0.00	393,813.10	751,512.80	
800.0	0.00	0.00	800.0	-2,548.9	0.0	0.0	0.0	0.00	393,813.10	751,512.80	
900.0	0.00	0.00	900.0	-2,448.9	0.0	0.0	0.0	0.00	393,813.10	751,512.80	
1,000.0	0.00	0.00	1,000.0	-2,348.9	0.0	0.0	0.0	0.00	393,813.10	751,512.80	
1,100.0	0.00	0.00	1,100.0	-2,248.9	0.0	0.0	0.0	0.00	393,813.10	751,512.80	
1,200.0	0.00	0.00	1,200.0	-2,148.9	0.0	0.0	0.0	0.00	393,813.10	751,512.80	
1,300.0	0.00	0.00	1,300.0	-2,048.9	0.0	0.0	0.0	0.00	393,813.10	751,512.80	
1,400.0	0.00	0.00	1,400.0	-1,948.9	0.0	0.0	0.0	0.00	393,813.10	751,512.80	
1,500.0	0.00	0.00	1,500.0	-1,848.9	0.0	0.0	0.0	0.00	393,813.10	751,512.80	
1,600.0	0.00	0.00	1,600.0	-1,748.9	0.0	0.0	0.0	0.00	393,813.10	751,512.80	
1,700.0	0.00	0.00	1,700.0	-1,648.9	0.0	0.0	0.0	0.00	393,813.10	751,512.80	
1,800.0	0.00	0.00	1,800.0	-1,548.9	0.0	0.0	0.0	0.00	393,813.10	751,512.80	
1,900.0	0.00	0.00	1,900.0	-1,448.9	0.0	0.0	0.0	0.00	393,813.10	751,512.80	
2,000.0	0.00	0.00	2,000.0	-1,348.9	0.0	0.0	0.0	0.00	393,813.10	751,512.80	
2,100.0	0.00	0.00	2,100.0	-1,248.9	0.0	0.0	0.0	0.00	393,813.10	751,512.80	
2,200.0	0.00	0.00	2,200.0	-1,148.9	0.0	0.0	0.0	0.00	393,813.10	751,512.80	
2,300.0	0.00	0.00	2,300.0	-1,048.9	0.0	0.0	0.0	0.00	393,813.10	751,512.80	
2,400.0	0.00	0.00	2,400.0	-948.9	0.0	0.0	0.0	0.00	393,813.10	751,512.80	
2,500.0	0.00	0.00	2,500.0	-848.9	0.0	0.0	0.0	0.00	393,813.10	751,512.80	
2,600.0	0.00	0.00	2,600.0	-748.9	0.0	0.0	0.0	0.00	393,813.10	751,512.80	

Company:	EOG Resources, Inc.	Local Co-ordinate Reference:	Well #2H
Project:	Lea County	TVD Reference:	KB = 25 @ 3348.9usft (Cactus 139)
Site:	Black Bear "36" State	MD Reference:	KB = 25 @ 3348.9usft (Cactus 139)
Well:	#2H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	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)	
2,700.0	0.00	0.00	2,700.0	-648.9	0.0	0.0	0.0	0.00	393,813.10	751,512.80	
2,800.0	0.00	0.00	2,800.0	-548.9	0.0	0.0	0.0	0.00	393,813.10	751,512.80	
2,900.0	0.00	0.00	2,900.0	-448.9	0.0	0.0	0.0	0.00	393,813.10	751,512.80	
3,000.0	0.00	0.00	3,000.0	-348.9	0.0	0.0	0.0	0.00	393,813.10	751,512.80	
3,100.0	0.00	0.00	3,100.0	-248.9	0.0	0.0	0.0	0.00	393,813.10	751,512.80	
3,200.0	0.00	0.00	3,200.0	-148.9	0.0	0.0	0.0	0.00	393,813.10	751,512.80	
3,300.0	0.00	0.00	3,300.0	-48.9	0.0	0.0	0.0	0.00	393,813.10	751,512.80	
3,400.0	0.00	0.00	3,400.0	51.1	0.0	0.0	0.0	0.00	393,813.10	751,512.80	
3,500.0	0.00	0.00	3,500.0	151.1	0.0	0.0	0.0	0.00	393,813.10	751,512.80	
3,600.0	0.00	0.00	3,600.0	251.1	0.0	0.0	0.0	0.00	393,813.10	751,512.80	
3,700.0	0.00	0.00	3,700.0	351.1	0.0	0.0	0.0	0.00	393,813.10	751,512.80	
3,800.0	0.00	0.00	3,800.0	451.1	0.0	0.0	0.0	0.00	393,813.10	751,512.80	
3,900.0	0.00	0.00	3,900.0	551.1	0.0	0.0	0.0	0.00	393,813.10	751,512.80	
4,000.0	0.00	0.00	4,000.0	651.1	0.0	0.0	0.0	0.00	393,813.10	751,512.80	
4,100.0	0.00	0.00	4,100.0	751.1	0.0	0.0	0.0	0.00	393,813.10	751,512.80	
4,200.0	0.00	0.00	4,200.0	851.1	0.0	0.0	0.0	0.00	393,813.10	751,512.80	
4,300.0	0.00	0.00	4,300.0	951.1	0.0	0.0	0.0	0.00	393,813.10	751,512.80	
4,400.0	0.00	0.00	4,400.0	1,051.1	0.0	0.0	0.0	0.00	393,813.10	751,512.80	
4,500.0	0.00	0.00	4,500.0	1,151.1	0.0	0.0	0.0	0.00	393,813.10	751,512.80	
4,600.0	0.00	0.00	4,600.0	1,251.1	0.0	0.0	0.0	0.00	393,813.10	751,512.80	
4,700.0	0.00	0.00	4,700.0	1,351.1	0.0	0.0	0.0	0.00	393,813.10	751,512.80	
4,800.0	0.00	0.00	4,800.0	1,451.1	0.0	0.0	0.0	0.00	393,813.10	751,512.80	
4,900.0	0.00	0.00	4,900.0	1,551.1	0.0	0.0	0.0	0.00	393,813.10	751,512.80	
5,000.0	0.00	0.00	5,000.0	1,651.1	0.0	0.0	0.0	0.00	393,813.10	751,512.80	
5,100.0	0.00	0.00	5,100.0	1,751.1	0.0	0.0	0.0	0.00	393,813.10	751,512.80	
5,200.0	0.00	0.00	5,200.0	1,851.1	0.0	0.0	0.0	0.00	393,813.10	751,512.80	
5,300.0	0.00	0.00	5,300.0	1,951.1	0.0	0.0	0.0	0.00	393,813.10	751,512.80	

Company:	EOG Resources, Inc	Local Co-ordinate Reference:	Well #2H
Project:	Lea County	TVD Reference:	KB = 25 @ 3348.9usft (Cactus 139)
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Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	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)	
5,400.0	0.00	0.00	5,400.0	2,051.1	0.0	0.0	0.0	0.00	393,813.10	751,512.80	
5,500.0	0.00	0.00	5,500.0	2,151.1	0.0	0.0	0.0	0.00	393,813.10	751,512.80	
5,600.0	0.00	0.00	5,600.0	2,251.1	0.0	0.0	0.0	0.00	393,813.10	751,512.80	
5,700.0	0.00	0.00	5,700.0	2,351.1	0.0	0.0	0.0	0.00	393,813.10	751,512.80	
5,800.0	0.00	0.00	5,800.0	2,451.1	0.0	0.0	0.0	0.00	393,813.10	751,512.80	
5,900.0	0.00	0.00	5,900.0	2,551.1	0.0	0.0	0.0	0.00	393,813.10	751,512.80	
6,000.0	0.00	0.00	6,000.0	2,651.1	0.0	0.0	0.0	0.00	393,813.10	751,512.80	
6,100.0	0.00	0.00	6,100.0	2,751.1	0.0	0.0	0.0	0.00	393,813.10	751,512.80	
6,200.0	0.00	0.00	6,200.0	2,851.1	0.0	0.0	0.0	0.00	393,813.10	751,512.80	
6,300.0	0.00	0.00	6,300.0	2,951.1	0.0	0.0	0.0	0.00	393,813.10	751,512.80	
6,400.0	0.00	0.00	6,400.0	3,051.1	0.0	0.0	0.0	0.00	393,813.10	751,512.80	
6,500.0	0.00	0.00	6,500.0	3,151.1	0.0	0.0	0.0	0.00	393,813.10	751,512.80	
6,600.0	0.00	0.00	6,600.0	3,251.1	0.0	0.0	0.0	0.00	393,813.10	751,512.80	
6,700.0	0.00	0.00	6,700.0	3,351.1	0.0	0.0	0.0	0.00	393,813.10	751,512.80	
6,800.0	0.00	0.00	6,800.0	3,451.1	0.0	0.0	0.0	0.00	393,813.10	751,512.80	
6,900.0	0.00	0.00	6,900.0	3,551.1	0.0	0.0	0.0	0.00	393,813.10	751,512.80	
7,000.0	0.00	0.00	7,000.0	3,651.1	0.0	0.0	0.0	0.00	393,813.10	751,512.80	
7,100.0	0.00	0.00	7,100.0	3,751.1	0.0	0.0	0.0	0.00	393,813.10	751,512.80	
7,200.0	0.00	0.00	7,200.0	3,851.1	0.0	0.0	0.0	0.00	393,813.10	751,512.80	
7,300.0	0.00	0.00	7,300.0	3,951.1	0.0	0.0	0.0	0.00	393,813.10	751,512.80	
7,400.0	0.00	0.00	7,400.0	4,051.1	0.0	0.0	0.0	0.00	393,813.10	751,512.80	
7,500.0	0.00	0.00	7,500.0	4,151.1	0.0	0.0	0.0	0.00	393,813.10	751,512.80	
7,600.0	0.00	0.00	7,600.0	4,251.1	0.0	0.0	0.0	0.00	393,813.10	751,512.80	
7,700.0	0.00	0.00	7,700.0	4,351.1	0.0	0.0	0.0	0.00	393,813.10	751,512.80	
7,800.0	0.00	0.00	7,800.0	4,451.1	0.0	0.0	0.0	0.00	393,813.10	751,512.80	
7,900.0	0.00	0.00	7,900.0	4,551.1	0.0	0.0	0.0	0.00	393,813.10	751,512.80	
8,000.0	0.00	0.00	8,000.0	4,651.1	0.0	0.0	0.0	0.00	393,813.10	751,512.80	

Company:	EOG Resources, Inc.	Local Co-ordinate Reference:				Well #2H	
Project:	Lea County	TVD Reference:				KB = 25 @ 3348.9usft (Cactus 139)	
Site:	Black Bear "36" State	MD Reference:				KB = 25 @ 3348.9usft (Cactus 139)	
Well:	#2H	North Reference:				Grid	
Wellbore:	OH	Survey Calculation Method:				Minimum Curvature	
Design:	Plan #1	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)
8,100.0	0.00	0.00	8,100.0	4,751.1	0.0	0.0	0.0	0.00	393,813.10	751,512.80
8,200.0	0.00	0.00	8,200.0	4,851.1	0.0	0.0	0.0	0.00	393,813.10	751,512.80
8,300.0	0.00	0.00	8,300.0	4,951.1	0.0	0.0	0.0	0.00	393,813.10	751,512.80
8,400.0	0.00	0.00	8,400.0	5,051.1	0.0	0.0	0.0	0.00	393,813.10	751,512.80
8,500.0	0.00	0.00	8,500.0	5,151.1	0.0	0.0	0.0	0.00	393,813.10	751,512.80
8,600.0	0.00	0.00	8,600.0	5,251.1	0.0	0.0	0.0	0.00	393,813.10	751,512.80
8,700.0	0.00	0.00	8,700.0	5,351.1	0.0	0.0	0.0	0.00	393,813.10	751,512.80
8,800.0	0.00	0.00	8,800.0	5,451.1	0.0	0.0	0.0	0.00	393,813.10	751,512.80
8,900.0	0.00	0.00	8,900.0	5,551.1	0.0	0.0	0.0	0.00	393,813.10	751,512.80
9,000.0	0.00	0.00	9,000.0	5,651.1	0.0	0.0	0.0	0.00	393,813.10	751,512.80
9,062.5	0.00	0.00	9,062.5	5,713.6	0.0	0.0	0.0	0.00	393,813.10	751,512.80
9,075.0	1.50	359.58	9,075.0	5,726.1	0.2	0.0	0.2	12.00	393,813.26	751,512.80
9,100.0	4.50	359.58	9,100.0	5,751.1	1.5	0.0	1.5	12.00	393,814.57	751,512.79
9,125.0	7.50	359.58	9,124.8	5,775.9	4.1	0.0	4.1	12.00	393,817.18	751,512.77
9,150.0	10.50	359.58	9,149.5	5,800.6	8.0	-0.1	8.0	12.00	393,821.09	751,512.74
9,175.0	13.50	359.58	9,174.0	5,825.1	13.2	-0.1	13.2	12.00	393,826.29	751,512.70
9,200.0	16.50	359.58	9,198.1	5,849.2	19.7	-0.1	19.7	12.00	393,832.76	751,512.66
9,225.0	19.50	359.58	9,221.9	5,873.0	27.4	-0.2	27.4	12.00	393,840.49	751,512.60
9,250.0	22.50	359.58	9,245.2	5,896.3	36.3	-0.3	36.3	12.00	393,849.44	751,512.54
9,275.0	25.50	359.58	9,268.1	5,919.2	46.5	-0.3	46.5	12.00	393,859.61	751,512.46
9,300.0	28.50	359.58	9,290.3	5,941.4	57.9	-0.4	57.9	12.00	393,870.96	751,512.38
9,325.0	31.50	359.58	9,312.0	5,963.1	70.4	-0.5	70.4	12.00	393,883.46	751,512.29
9,350.0	34.50	359.58	9,332.9	5,984.0	84.0	-0.6	84.0	12.00	393,897.07	751,512.19
9,375.0	37.50	359.58	9,353.2	6,004.3	98.7	-0.7	98.7	12.00	393,911.76	751,512.08
9,400.0	40.50	359.58	9,372.6	6,023.7	114.4	-0.8	114.4	12.00	393,927.49	751,511.97
9,425.0	43.50	359.58	9,391.2	6,042.3	131.1	-1.0	131.1	12.00	393,944.22	751,511.85
9,450.0	46.50	359.58	9,408.8	6,059.9	148.8	-1.1	148.8	12.00	393,961.90	751,511.72

Company:	EOG Resources, Inc.	Local Co-ordinate Reference:	Well #2H
Project:	Lea County	TVD Reference:	KB = 25 @ 3348.9usft (Cactus 139)
Site:	Black Bear "36" State	MD Reference:	KB = 25 @ 3348.9usft (Cactus 139)
Well:	#2H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	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)	
9,475.0	49.50	359.58	9,425.6	6,076.7	167.4	-1.2	167.4	12.00	393,980.47	751,511.58	
9,500.0	52.50	359.58	9,441.3	6,092.4	186.8	-1.4	186.8	12.00	393,999.90	751,511.44	
9,525.0	55.50	359.58	9,456.0	6,107.1	207.0	-1.5	207.0	12.00	394,020.12	751,511.30	
9,550.0	58.50	359.58	9,469.6	6,120.7	228.0	-1.7	228.0	12.00	394,041.08	751,511.14	
9,575.0	61.50	359.58	9,482.1	6,133.2	249.6	-1.8	249.6	12.00	394,062.73	751,510.99	
9,600.0	64.50	359.58	9,493.5	6,144.6	271.9	-2.0	271.9	12.00	394,085.00	751,510.82	
9,625.0	67.50	359.58	9,503.6	6,154.7	294.7	-2.1	294.7	12.00	394,107.84	751,510.66	
9,650.0	70.50	359.58	9,512.6	6,163.7	318.1	-2.3	318.1	12.00	394,131.18	751,510.49	
9,675.0	73.50	359.58	9,520.3	6,171.4	341.8	-2.5	341.9	12.00	394,154.95	751,510.32	
9,700.0	76.50	359.58	9,526.8	6,177.9	366.0	-2.7	366.0	12.00	394,179.09	751,510.14	
9,725.0	79.50	359.58	9,532.0	6,183.1	390.4	-2.8	390.5	12.00	394,203.54	751,509.96	
9,750.0	82.50	359.58	9,535.9	6,187.0	415.1	-3.0	415.1	12.00	394,228.23	751,509.78	
9,775.0	85.50	359.58	9,538.5	6,189.6	440.0	-3.2	440.0	12.00	394,253.09	751,509.60	
9,800.0	88.50	359.58	9,539.8	6,190.9	465.0	-3.4	465.0	12.00	394,278.05	751,509.42	
9,812.5	90.00	359.58	9,540.0	6,191.1	477.4	-3.5	477.5	12.00	394,290.55	751,509.33	
9,900.0	90.00	359.58	9,540.0	6,191.1	564.9	-4.1	565.0	0.00	394,378.05	751,508.69	
10,000.0	90.00	359.58	9,540.0	6,191.1	664.9	-4.8	665.0	0.00	394,478.05	751,507.97	
10,100.0	90.00	359.58	9,540.0	6,191.1	764.9	-5.6	765.0	0.00	394,578.04	751,507.24	
10,200.0	90.00	359.58	9,540.0	6,191.1	864.9	-6.3	865.0	0.00	394,678.04	751,506.51	
10,300.0	90.00	359.58	9,540.0	6,191.1	964.9	-7.0	965.0	0.00	394,778.04	751,505.79	
10,400.0	90.00	359.58	9,540.0	6,191.1	1,064.9	-7.7	1,065.0	0.00	394,878.04	751,505.06	
10,500.0	90.00	359.58	9,540.0	6,191.1	1,164.9	-8.5	1,165.0	0.00	394,978.03	751,504.33	
10,600.0	90.00	359.58	9,540.0	6,191.1	1,264.9	-9.2	1,265.0	0.00	395,078.03	751,503.61	
10,700.0	90.00	359.58	9,540.0	6,191.1	1,364.9	-9.9	1,365.0	0.00	395,178.03	751,502.88	
10,800.0	90.00	359.58	9,540.0	6,191.1	1,464.9	-10.6	1,465.0	0.00	395,278.03	751,502.15	
10,900.0	90.00	359.58	9,540.0	6,191.1	1,564.9	-11.4	1,565.0	0.00	395,378.02	751,501.42	
11,000.0	90.00	359.58	9,540.0	6,191.1	1,664.9	-12.1	1,665.0	0.00	395,478.02	751,500.70	

Company:	EOG Resources, Inc.	Local Co-ordinate Reference:	Well #2H
Project:	Lea County	TVD Reference:	KB = 25 @ 3348.9usft (Cactus 139)
Site:	Black Bear "36" State	MD Reference:	KB = 25 @ 3348.9usft (Cactus 139)
Well:	#2H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	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)	
11,100.0	90.00	359.58	9,540.0	6,191.1	1,764.9	-12.8	1,765.0	0.00	395,578.02	751,499.97	
11,200.0	90.00	359.58	9,540.0	6,191.1	1,864.9	-13.6	1,865.0	0.00	395,678.02	751,499.24	
11,300.0	90.00	359.58	9,540.0	6,191.1	1,964.9	-14.3	1,965.0	0.00	395,778.01	751,498.52	
11,400.0	90.00	359.58	9,540.0	6,191.1	2,064.9	-15.0	2,065.0	0.00	395,878.01	751,497.79	
11,500.0	90.00	359.58	9,540.0	6,191.1	2,164.9	-15.7	2,165.0	0.00	395,978.01	751,497.06	
11,600.0	90.00	359.58	9,540.0	6,191.1	2,264.9	-16.5	2,265.0	0.00	396,078.00	751,496.34	
11,700.0	90.00	359.58	9,540.0	6,191.1	2,364.9	-17.2	2,365.0	0.00	396,178.00	751,495.61	
11,800.0	90.00	359.58	9,540.0	6,191.1	2,464.9	-17.9	2,465.0	0.00	396,278.00	751,494.88	
11,900.0	90.00	359.58	9,540.0	6,191.1	2,564.9	-18.6	2,565.0	0.00	396,378.00	751,494.16	
12,000.0	90.00	359.58	9,540.0	6,191.1	2,664.9	-19.4	2,665.0	0.00	396,477.99	751,493.43	
12,100.0	90.00	359.58	9,540.0	6,191.1	2,764.9	-20.1	2,765.0	0.00	396,577.99	751,492.70	
12,200.0	90.00	359.58	9,540.0	6,191.1	2,864.9	-20.8	2,865.0	0.00	396,677.99	751,491.98	
12,300.0	90.00	359.58	9,540.0	6,191.1	2,964.9	-21.6	2,965.0	0.00	396,777.99	751,491.25	
12,400.0	90.00	359.58	9,540.0	6,191.1	3,064.9	-22.3	3,065.0	0.00	396,877.98	751,490.52	
12,500.0	90.00	359.58	9,540.0	6,191.1	3,164.9	-23.0	3,165.0	0.00	396,977.98	751,489.79	
12,600.0	90.00	359.58	9,540.0	6,191.1	3,264.9	-23.7	3,265.0	0.00	397,077.98	751,489.07	
12,700.0	90.00	359.58	9,540.0	6,191.1	3,364.9	-24.5	3,365.0	0.00	397,177.98	751,488.34	
12,800.0	90.00	359.58	9,540.0	6,191.1	3,464.9	-25.2	3,465.0	0.00	397,277.97	751,487.61	
12,900.0	90.00	359.58	9,540.0	6,191.1	3,564.9	-25.9	3,565.0	0.00	397,377.97	751,486.89	
13,000.0	90.00	359.58	9,540.0	6,191.1	3,664.9	-26.6	3,665.0	0.00	397,477.97	751,486.16	
13,100.0	90.00	359.58	9,540.0	6,191.1	3,764.9	-27.4	3,765.0	0.00	397,577.97	751,485.43	
13,200.0	90.00	359.58	9,540.0	6,191.1	3,864.9	-28.1	3,865.0	0.00	397,677.96	751,484.71	
13,300.0	90.00	359.58	9,540.0	6,191.1	3,964.9	-28.8	3,965.0	0.00	397,777.96	751,483.98	
13,400.0	90.00	359.58	9,540.0	6,191.1	4,064.9	-29.5	4,065.0	0.00	397,877.96	751,483.25	
13,500.0	90.00	359.58	9,540.0	6,191.1	4,164.9	-30.3	4,165.0	0.00	397,977.95	751,482.53	
13,600.0	90.00	359.58	9,540.0	6,191.1	4,264.9	-31.0	4,265.0	0.00	398,077.95	751,481.80	
13,700.0	90.00	359.58	9,540.0	6,191.1	4,364.8	-31.7	4,365.0	0.00	398,177.95	751,481.07	

Company:	EOG Resources, Inc	Local Co-ordinate Reference:	Well #2H
Project:	Lea County	TVD Reference:	KB = 25 @ 3348.9usft (Cactus 139)
Site:	Black Bear "36" State	MD Reference:	KB = 25 @ 3348.9usft (Cactus 139)
Well:	#2H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	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)	
13,800.0	90.00	359.58	9,540.0	6,191.1	4,464.8	-32.5	4,465.0	0.00	398,277.95	751,480.35	
13,900.0	90.00	359.58	9,540.0	6,191.1	4,564.8	-33.2	4,565.0	0.00	398,377.94	751,479.62	
14,000.0	90.00	359.58	9,540.0	6,191.1	4,664.8	-33.9	4,665.0	0.00	398,477.94	751,478.89	
14,108.9	90.00	359.58	9,540.0	6,191.1	4,773.7	-34.7	4,773.8	0.00	398,586.80	751,478.10	

Checked By: _____ Approved By: _____ Date: _____