

Submit 1 Copy To Appropriate District Office

District I - (575) 393-6161
1625 N. French Dr., Hobbs, NM 88240
District II - (575) 748-1111
811 S. First St., Aztec, NM 88210
District III - (505) 344-6178
1000 Rio Brazos Rd., Aztec, NM 87410
District IV - (505) 476-3460
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

Form C-103
Revised July 18, 2013

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

WELL API NO. 30-025-46753
5. Indicate Type of Lease STATE ☒ FEE ☐
6. State Oil & Gas Lease No. 320561
7. Lease Name or Unit Agreement Name HEMLOCK 32 STATE
8. Well Number 202H
9. OGRID Number 7377
10. Pool name or Wildcat 59900 TRIPLE X; BONE SPRING

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)	
1. Type of Well: Oil Well ☒ Gas Well ☐ Other ☐	
2. Name of Operator EOG RESOURCES	
3. Address of Operator P O BOX 2267, MIDLAND TX 79702	
4. Well Location Unit Letter <u>M</u> : <u>304</u> feet from the <u>SOUTH</u> line and <u>534</u> feet from the <u>WEST</u> line Section <u>32</u> Township <u>23S</u> Range <u>33E</u> NMPM County <u>LEA CO, NM</u>	
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3661 GL	

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK ☐	PLUG AND ABANDON ☐	REMEDIAL WORK ☐	ALTERING CASING ☐
TEMPORARILY ABANDON ☐	CHANGE PLANS ☒	COMMENCE DRILLING OPNS. ☒	P AND A ☐
PULL OR ALTER CASING ☐	MULTIPLE COMPL ☐	CASING/CEMENT JOB ☒	
DOWNHOLE COMMINGLE ☐			
CLOSED-LOOP SYSTEM ☐			
OTHER: ☐		OTHER: CEMENT CHANGE ☒	

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

EOG respectfully requests an amendment to our approved APD for this well to reflect the following changes:
Updated cement design to reflect R-111-P and ensure cement integrity in production string

Spud Date:

Rig Release Date:

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Emily Follis TITLE Sr. Regulatory Administrator DATE 01/30/2020

Type or print name Emily Follis E-mail address: emily_follis@eogresources.com PHONE: 432-848-9163
For State Use Only

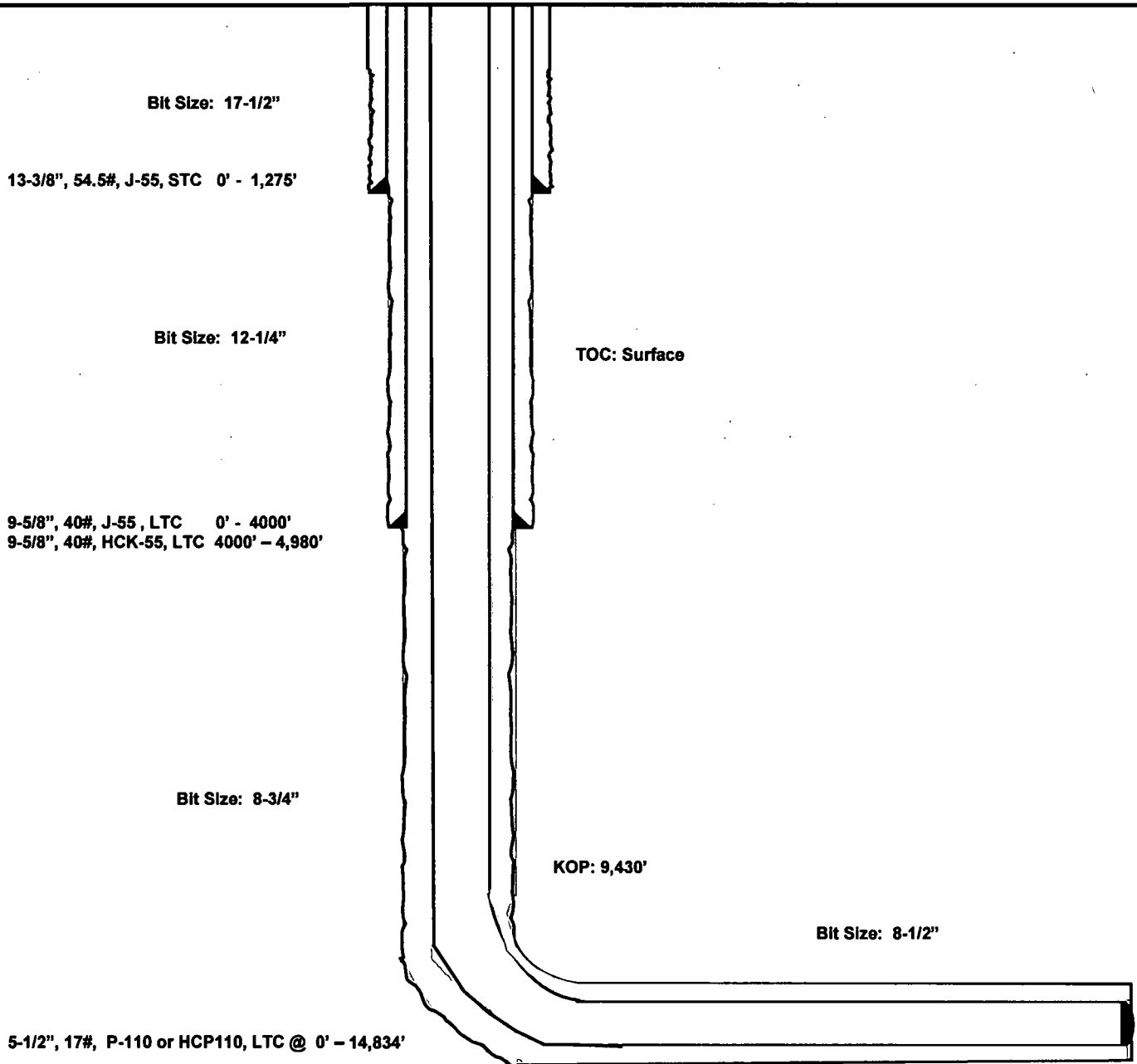
APPROVED BY: [Signature] TITLE Petroleum Engineer DATE 02/09/2020
Conditions of Approval (if any):

Hemlock 32 State #202H
Lea County, New Mexico

304' FSL
534' FWL
Section 32
T-23-S, R-33-E

Revised Wellbore
1/30/2020
API: 30-025-46753

KB: 3,686'
GL: 3,661'



Lateral: 14,834' MD, 9,885' TVD
BH Location: 100' FNL & 990' FWL
Section 32
T-23-S, R-33-E

EOG RESOURCES, INC.
HEMLOCK 32 STATE #202H

Revised Permit Information:

Well Name: Hemlock 32 State #202H

Location:

SHL: 304' FSL & 534' FWL, Section 32, T-23-S, R-33-E, Lea Co., N.M.

BHL: 100' FNL & 990' FWL, Section 32, T-23-S, R-33-E, Lea Co., N.M.

Cement Program:

Depth	No. Sacks	Wt. ppg	Yld Ft ³ /ft	Slurry Description
1,275'	790	13.5	1.73	Lead: Class C + 4.0% Bentonite + 0.5% CaCl ₂ + 0.25 lb/sk Cello-Flake (TOC @ Surface)
	160	14.8	1.34	Tail: Class C + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium Metasilicate
4,980'	500	9.0	3.5	Lead: Class C + 10% NaCl + 6% Bentonite Gel + 3% MagOx (TOC @ Surface)
	350	14.4	1.20	Tail: Class C + 10% NaCl + 3% MagOx
14,834'	1,800	14.4	1.31	1 st Stage (Tail): Class H + 5% Salt (TOC @ 7,400')
	1,400	12.7	3.21	2 nd Stage (Bradenhead squeeze): Class C + 3% Salt + 1% PreMag-M + 6% Bentonite Gel (TOC @ Surface)



EOG Resources - Midland

Lea County, NM (NAD 83 NME)

Hemlock 32 State

#202H

OH

Plan: Plan #0.1

Standard Planning Report

13 January, 2020



Planning Report

Database:	EDM	Local Co-ordinate Reference:	Well #202H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25 @ 3686.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25 @ 3686.0usft
Site:	Hemlock 32 State	North Reference:	Grid
Well:	#202H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1		

Project	Lea County, NM (NAD 83 NME)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Hemlock 32 State				
Site Position:		Northing:	457,257.00 usft	Latitude:	32° 15' 17.825 N
From:	Map	Easting:	767,769.00 usft	Longitude:	103° 36' 3.080 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.39 °

Well		#202H				
Well Position	+N/-S	-60.0 usft	Northing:	457,197.00 usft	Latitude:	32° 15' 17.237 N
	+E/-W	-93.0 usft	Easting:	767,676.00 usft	Longitude:	103° 36' 4.168 W
Position Uncertainty		0.0 usft	Wellhead Elevation:		Ground Level:	3,661.0 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	1/13/2020	6.69	60.05	47,686.71300641

Design	Plan #0.1			
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	4.96

Plan Survey Tool Program	Date	1/13/2020		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	14,834.0 Plan #0.1 (OH)	EOG MWD+IFR1	
			MWD + IFR1	

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,654.2	5.08	118.82	1,653.9	-5.4	9.9	2.00	2.00	0.00	118.82	
7,298.7	5.08	118.82	7,276.1	-246.6	448.1	0.00	0.00	0.00	0.00	
7,552.9	0.00	0.00	7,530.0	-252.0	458.0	2.00	-2.00	0.00	180.00	
9,430.4	0.00	0.00	9,407.5	-252.0	458.0	0.00	0.00	0.00	0.00	KOP(Hemlock 32 Sta
10,180.4	90.00	359.61	9,885.0	225.5	454.7	12.00	12.00	-0.05	359.61	
14,834.0	90.00	359.61	9,885.0	4,879.0	423.0	0.00	0.00	0.00	0.00	PBHL(Hemlock 32 St



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Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25 @ 3686.0usft
Site:	Hemlock 32 State	North Reference:	Grid
Well:	#202H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	2.00	118.82	1,500.0	-0.8	1.5	-0.7	2.00	2.00	0.00
1,600.0	4.00	118.82	1,599.8	-3.4	6.1	-2.8	2.00	2.00	0.00
1,654.2	5.08	118.82	1,653.9	-5.4	9.9	-4.6	2.00	2.00	0.00
1,700.0	5.08	118.82	1,699.5	-7.4	13.4	-6.2	0.00	0.00	0.00
1,800.0	5.08	118.82	1,799.1	-11.7	21.2	-9.8	0.00	0.00	0.00
1,900.0	5.08	118.82	1,898.7	-15.9	29.0	-13.4	0.00	0.00	0.00
2,000.0	5.08	118.82	1,998.3	-20.2	36.7	-17.0	0.00	0.00	0.00
2,100.0	5.08	118.82	2,097.9	-24.5	44.5	-20.5	0.00	0.00	0.00
2,200.0	5.08	118.82	2,197.5	-28.7	52.3	-24.1	0.00	0.00	0.00
2,300.0	5.08	118.82	2,297.1	-33.0	60.0	-27.7	0.00	0.00	0.00
2,400.0	5.08	118.82	2,396.7	-37.3	67.8	-31.3	0.00	0.00	0.00
2,500.0	5.08	118.82	2,496.3	-41.6	75.5	-34.9	0.00	0.00	0.00
2,600.0	5.08	118.82	2,595.9	-45.8	83.3	-38.5	0.00	0.00	0.00
2,700.0	5.08	118.82	2,695.6	-50.1	91.1	-42.1	0.00	0.00	0.00
2,800.0	5.08	118.82	2,795.2	-54.4	98.8	-45.6	0.00	0.00	0.00
2,900.0	5.08	118.82	2,894.8	-58.7	106.6	-49.2	0.00	0.00	0.00
3,000.0	5.08	118.82	2,994.4	-62.9	114.4	-52.8	0.00	0.00	0.00
3,100.0	5.08	118.82	3,094.0	-67.2	122.1	-56.4	0.00	0.00	0.00
3,200.0	5.08	118.82	3,193.6	-71.5	129.9	-60.0	0.00	0.00	0.00
3,300.0	5.08	118.82	3,293.2	-75.7	137.7	-63.6	0.00	0.00	0.00
3,400.0	5.08	118.82	3,392.8	-80.0	145.4	-67.2	0.00	0.00	0.00
3,500.0	5.08	118.82	3,492.4	-84.3	153.2	-70.7	0.00	0.00	0.00
3,600.0	5.08	118.82	3,592.0	-88.6	161.0	-74.3	0.00	0.00	0.00
3,700.0	5.08	118.82	3,691.6	-92.8	168.7	-77.9	0.00	0.00	0.00
3,800.0	5.08	118.82	3,791.2	-97.1	176.5	-81.5	0.00	0.00	0.00
3,900.0	5.08	118.82	3,890.8	-101.4	184.2	-85.1	0.00	0.00	0.00
4,000.0	5.08	118.82	3,990.4	-105.6	192.0	-88.7	0.00	0.00	0.00
4,100.0	5.08	118.82	4,090.0	-109.9	199.8	-92.3	0.00	0.00	0.00
4,200.0	5.08	118.82	4,189.7	-114.2	207.5	-95.8	0.00	0.00	0.00
4,300.0	5.08	118.82	4,289.3	-118.5	215.3	-99.4	0.00	0.00	0.00
4,400.0	5.08	118.82	4,388.9	-122.7	223.1	-103.0	0.00	0.00	0.00
4,500.0	5.08	118.82	4,488.5	-127.0	230.8	-106.6	0.00	0.00	0.00
4,600.0	5.08	118.82	4,588.1	-131.3	238.6	-110.2	0.00	0.00	0.00
4,700.0	5.08	118.82	4,687.7	-135.6	246.4	-113.8	0.00	0.00	0.00
4,800.0	5.08	118.82	4,787.3	-139.8	254.1	-117.4	0.00	0.00	0.00
4,900.0	5.08	118.82	4,886.9	-144.1	261.9	-120.9	0.00	0.00	0.00
5,000.0	5.08	118.82	4,986.5	-148.4	269.7	-124.5	0.00	0.00	0.00
5,100.0	5.08	118.82	5,086.1	-152.6	277.4	-128.1	0.00	0.00	0.00
5,200.0	5.08	118.82	5,185.7	-156.9	285.2	-131.7	0.00	0.00	0.00



Planning Report

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Site:	Hemlock 32 State	North Reference:	Grid
Well:	#202H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,300.0	5.08	118.82	5,285.3	-161.2	292.9	-135.3	0.00	0.00	0.00
5,400.0	5.08	118.82	5,384.9	-165.5	300.7	-138.9	0.00	0.00	0.00
5,500.0	5.08	118.82	5,484.5	-169.7	308.5	-142.4	0.00	0.00	0.00
5,600.0	5.08	118.82	5,584.1	-174.0	316.2	-146.0	0.00	0.00	0.00
5,700.0	5.08	118.82	5,683.7	-178.3	324.0	-149.6	0.00	0.00	0.00
5,800.0	5.08	118.82	5,783.4	-182.5	331.8	-153.2	0.00	0.00	0.00
5,900.0	5.08	118.82	5,883.0	-186.8	339.5	-156.8	0.00	0.00	0.00
6,000.0	5.08	118.82	5,982.6	-191.1	347.3	-160.4	0.00	0.00	0.00
6,100.0	5.08	118.82	6,082.2	-195.4	355.1	-164.0	0.00	0.00	0.00
6,200.0	5.08	118.82	6,181.8	-199.6	362.8	-167.5	0.00	0.00	0.00
6,300.0	5.08	118.82	6,281.4	-203.9	370.6	-171.1	0.00	0.00	0.00
6,400.0	5.08	118.82	6,381.0	-208.2	378.4	-174.7	0.00	0.00	0.00
6,500.0	5.08	118.82	6,480.6	-212.4	386.1	-178.3	0.00	0.00	0.00
6,600.0	5.08	118.82	6,580.2	-216.7	393.9	-181.9	0.00	0.00	0.00
6,700.0	5.08	118.82	6,679.8	-221.0	401.6	-185.5	0.00	0.00	0.00
6,800.0	5.08	118.82	6,779.4	-225.3	409.4	-189.1	0.00	0.00	0.00
6,900.0	5.08	118.82	6,879.0	-229.5	417.2	-192.6	0.00	0.00	0.00
7,000.0	5.08	118.82	6,978.6	-233.8	424.9	-196.2	0.00	0.00	0.00
7,100.0	5.08	118.82	7,078.2	-238.1	432.7	-199.8	0.00	0.00	0.00
7,200.0	5.08	118.82	7,177.8	-242.4	440.5	-203.4	0.00	0.00	0.00
7,298.7	5.08	118.82	7,276.1	-246.6	448.1	-206.9	0.00	0.00	0.00
7,300.0	5.06	118.82	7,277.5	-246.6	448.2	-207.0	2.00	-2.00	0.00
7,400.0	3.06	118.82	7,377.2	-250.0	454.4	-209.8	2.00	-2.00	0.00
7,500.0	1.06	118.82	7,477.1	-251.8	457.6	-211.3	2.00	-2.00	0.00
7,552.9	0.00	0.00	7,530.0	-252.0	458.0	-211.5	2.00	-2.00	0.00
7,600.0	0.00	0.00	7,577.1	-252.0	458.0	-211.5	0.00	0.00	0.00
7,700.0	0.00	0.00	7,677.1	-252.0	458.0	-211.5	0.00	0.00	0.00
7,800.0	0.00	0.00	7,777.1	-252.0	458.0	-211.5	0.00	0.00	0.00
7,900.0	0.00	0.00	7,877.1	-252.0	458.0	-211.5	0.00	0.00	0.00
8,000.0	0.00	0.00	7,977.1	-252.0	458.0	-211.5	0.00	0.00	0.00
8,100.0	0.00	0.00	8,077.1	-252.0	458.0	-211.5	0.00	0.00	0.00
8,200.0	0.00	0.00	8,177.1	-252.0	458.0	-211.5	0.00	0.00	0.00
8,300.0	0.00	0.00	8,277.1	-252.0	458.0	-211.5	0.00	0.00	0.00
8,400.0	0.00	0.00	8,377.1	-252.0	458.0	-211.5	0.00	0.00	0.00
8,500.0	0.00	0.00	8,477.1	-252.0	458.0	-211.5	0.00	0.00	0.00
8,600.0	0.00	0.00	8,577.1	-252.0	458.0	-211.5	0.00	0.00	0.00
8,700.0	0.00	0.00	8,677.1	-252.0	458.0	-211.5	0.00	0.00	0.00
8,800.0	0.00	0.00	8,777.1	-252.0	458.0	-211.5	0.00	0.00	0.00
8,900.0	0.00	0.00	8,877.1	-252.0	458.0	-211.5	0.00	0.00	0.00
9,000.0	0.00	0.00	8,977.1	-252.0	458.0	-211.5	0.00	0.00	0.00
9,100.0	0.00	0.00	9,077.1	-252.0	458.0	-211.5	0.00	0.00	0.00
9,200.0	0.00	0.00	9,177.1	-252.0	458.0	-211.5	0.00	0.00	0.00
9,300.0	0.00	0.00	9,277.1	-252.0	458.0	-211.5	0.00	0.00	0.00
9,400.0	0.00	0.00	9,377.1	-252.0	458.0	-211.5	0.00	0.00	0.00
9,430.4	0.00	0.00	9,407.5	-252.0	458.0	-211.5	0.00	0.00	0.00
9,450.0	2.36	359.61	9,427.1	-251.6	458.0	-211.1	12.00	12.00	0.00
9,475.0	5.36	359.61	9,452.1	-249.9	458.0	-209.4	12.00	12.00	0.00
9,500.0	8.36	359.61	9,476.9	-246.9	458.0	-206.5	12.00	12.00	0.00
9,525.0	11.36	359.61	9,501.5	-242.7	457.9	-202.2	12.00	12.00	0.00
9,550.0	14.36	359.61	9,525.9	-237.1	457.9	-196.7	12.00	12.00	0.00
9,575.0	17.36	359.61	9,549.9	-230.3	457.9	-189.9	12.00	12.00	0.00
9,600.0	20.36	359.61	9,573.6	-222.2	457.8	-181.8	12.00	12.00	0.00
9,625.0	23.36	359.61	9,596.8	-212.9	457.7	-172.5	12.00	12.00	0.00
9,650.0	26.36	359.61	9,619.5	-202.4	457.7	-162.1	12.00	12.00	0.00



Planning Report

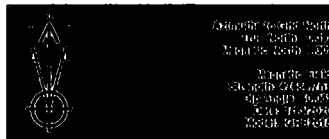
Database:	EDM	Local Co-ordinate Reference:	Well #202H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25 @ 3686.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25 @ 3686.0usft
Site:	Hemlock 32 State	North Reference:	Grid
Well:	#202H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,675.0	29.36	359.61	9,641.6	-190.7	457.6	-150.5	12.00	12.00	0.00
9,700.0	32.36	359.61	9,663.0	-177.9	457.5	-137.7	12.00	12.00	0.00
9,725.0	35.36	359.61	9,683.8	-163.9	457.4	-123.8	12.00	12.00	0.00
9,750.0	38.36	359.61	9,703.8	-149.0	457.3	-108.9	12.00	12.00	0.00
9,775.0	41.36	359.61	9,723.0	-132.9	457.2	-93.0	12.00	12.00	0.00
9,800.0	44.36	359.61	9,741.3	-115.9	457.1	-76.0	12.00	12.00	0.00
9,825.0	47.36	359.61	9,758.7	-98.0	456.9	-58.2	12.00	12.00	0.00
9,850.0	50.36	359.61	9,775.2	-79.2	456.8	-39.4	12.00	12.00	0.00
9,875.0	53.36	359.61	9,790.6	-59.5	456.7	-19.8	12.00	12.00	0.00
9,900.0	56.36	359.61	9,805.0	-39.1	456.5	0.5	12.00	12.00	0.00
9,925.0	59.36	359.61	9,818.3	-17.9	456.4	21.6	12.00	12.00	0.00
9,950.0	62.36	359.61	9,830.5	3.9	456.3	43.3	12.00	12.00	0.00
9,975.0	65.36	359.61	9,841.5	26.4	456.1	65.7	12.00	12.00	0.00
10,000.0	68.36	359.61	9,851.3	49.3	455.9	88.5	12.00	12.00	0.00
10,025.0	71.36	359.61	9,859.9	72.8	455.8	111.9	12.00	12.00	0.00
10,050.0	74.36	359.61	9,867.3	96.7	455.6	135.7	12.00	12.00	0.00
10,075.0	77.36	359.61	9,873.4	120.9	455.5	159.8	12.00	12.00	0.00
10,100.0	80.36	359.61	9,878.2	145.5	455.3	184.2	12.00	12.00	0.00
10,125.0	83.36	359.61	9,881.8	170.2	455.1	208.9	12.00	12.00	0.00
10,150.0	86.36	359.61	9,884.0	195.1	455.0	233.7	12.00	12.00	0.00
10,175.0	89.36	359.61	9,884.9	220.1	454.8	258.5	12.00	12.00	0.00
10,180.4	90.00	359.61	9,885.0	225.5	454.7	263.9	12.00	12.00	0.00
10,200.0	90.00	359.61	9,885.0	245.1	454.6	283.4	0.00	0.00	0.00
10,300.0	90.00	359.61	9,885.0	345.1	453.9	383.0	0.00	0.00	0.00
10,400.0	90.00	359.61	9,885.0	445.1	453.2	482.6	0.00	0.00	0.00
10,500.0	90.00	359.61	9,885.0	545.1	452.6	582.1	0.00	0.00	0.00
10,600.0	90.00	359.61	9,885.0	645.1	451.9	681.7	0.00	0.00	0.00
10,700.0	90.00	359.61	9,885.0	745.1	451.2	781.3	0.00	0.00	0.00
10,800.0	90.00	359.61	9,885.0	845.1	450.5	880.8	0.00	0.00	0.00
10,900.0	90.00	359.61	9,885.0	945.1	449.8	980.4	0.00	0.00	0.00
11,000.0	90.00	359.61	9,885.0	1,045.1	449.2	1,079.9	0.00	0.00	0.00
11,100.0	90.00	359.61	9,885.0	1,145.1	448.5	1,179.5	0.00	0.00	0.00
11,200.0	90.00	359.61	9,885.0	1,245.1	447.8	1,279.1	0.00	0.00	0.00
11,300.0	90.00	359.61	9,885.0	1,345.1	447.1	1,378.6	0.00	0.00	0.00
11,400.0	90.00	359.61	9,885.0	1,445.1	446.4	1,478.2	0.00	0.00	0.00
11,500.0	90.00	359.61	9,885.0	1,545.0	445.7	1,577.8	0.00	0.00	0.00
11,600.0	90.00	359.61	9,885.0	1,645.0	445.1	1,677.3	0.00	0.00	0.00
11,700.0	90.00	359.61	9,885.0	1,745.0	444.4	1,776.9	0.00	0.00	0.00
11,800.0	90.00	359.61	9,885.0	1,845.0	443.7	1,876.5	0.00	0.00	0.00
11,900.0	90.00	359.61	9,885.0	1,945.0	443.0	1,976.0	0.00	0.00	0.00
12,000.0	90.00	359.61	9,885.0	2,045.0	442.3	2,075.6	0.00	0.00	0.00
12,100.0	90.00	359.61	9,885.0	2,145.0	441.6	2,175.2	0.00	0.00	0.00
12,200.0	90.00	359.61	9,885.0	2,245.0	441.0	2,274.7	0.00	0.00	0.00
12,300.0	90.00	359.61	9,885.0	2,345.0	440.3	2,374.3	0.00	0.00	0.00
12,400.0	90.00	359.61	9,885.0	2,445.0	439.6	2,473.9	0.00	0.00	0.00
12,500.0	90.00	359.61	9,885.0	2,545.0	438.9	2,573.4	0.00	0.00	0.00
12,600.0	90.00	359.61	9,885.0	2,645.0	438.2	2,673.0	0.00	0.00	0.00
12,700.0	90.00	359.61	9,885.0	2,745.0	437.6	2,772.6	0.00	0.00	0.00
12,800.0	90.00	359.61	9,885.0	2,845.0	436.9	2,872.1	0.00	0.00	0.00
12,900.0	90.00	359.61	9,885.0	2,945.0	436.2	2,971.7	0.00	0.00	0.00
13,000.0	90.00	359.61	9,885.0	3,045.0	435.5	3,071.3	0.00	0.00	0.00
13,100.0	90.00	359.61	9,885.0	3,145.0	434.8	3,170.8	0.00	0.00	0.00
13,200.0	90.00	359.61	9,885.0	3,245.0	434.1	3,270.4	0.00	0.00	0.00
13,300.0	90.00	359.61	9,885.0	3,345.0	433.5	3,369.9	0.00	0.00	0.00

Database:	EDM	Local Co-ordinate Reference:	Well #202H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25 @ 3686.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25 @ 3686.0usft
Site:	Hemlock 32 State	North Reference:	Grid
Well:	#202H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
13,400.0	90.00	359.61	9,885.0	3,445.0	432.8	3,469.5	0.00	0.00	0.00	
13,500.0	90.00	359.61	9,885.0	3,545.0	432.1	3,569.1	0.00	0.00	0.00	
13,600.0	90.00	359.61	9,885.0	3,645.0	431.4	3,668.6	0.00	0.00	0.00	
13,700.0	90.00	359.61	9,885.0	3,745.0	430.7	3,768.2	0.00	0.00	0.00	
13,800.0	90.00	359.61	9,885.0	3,845.0	430.1	3,867.8	0.00	0.00	0.00	
13,900.0	90.00	359.61	9,885.0	3,945.0	429.4	3,967.3	0.00	0.00	0.00	
14,000.0	90.00	359.61	9,885.0	4,045.0	428.7	4,066.9	0.00	0.00	0.00	
14,100.0	90.00	359.61	9,885.0	4,145.0	428.0	4,166.5	0.00	0.00	0.00	
14,200.0	90.00	359.61	9,885.0	4,245.0	427.3	4,266.0	0.00	0.00	0.00	
14,300.0	90.00	359.61	9,885.0	4,345.0	426.6	4,365.6	0.00	0.00	0.00	
14,400.0	90.00	359.61	9,885.0	4,445.0	426.0	4,465.2	0.00	0.00	0.00	
14,500.0	90.00	359.61	9,885.0	4,545.0	425.3	4,564.7	0.00	0.00	0.00	
14,600.0	90.00	359.61	9,885.0	4,645.0	424.6	4,664.3	0.00	0.00	0.00	
14,700.0	90.00	359.61	9,885.0	4,745.0	423.9	4,763.9	0.00	0.00	0.00	
14,800.0	90.00	359.61	9,885.0	4,845.0	423.2	4,863.4	0.00	0.00	0.00	
14,834.0	90.00	359.61	9,885.0	4,879.0	423.0	4,897.3	0.00	0.00	0.00	

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
KOP(Hemlock 32 State #1) - hit/miss target - plan hits target center - Point	0.00	0.00	9,407.5	-252.0	458.0	456,945.00	768,134.00	32° 15' 14.713 N	103° 35' 58.855 W	
FTP(Hemlock 32 State #2) - plan misses target center by 163.4usft at 9829.8usft MD (9761.9 TVD, -94.5 N, 456.9 E) - Point	0.00	0.00	9,885.0	-202.0	458.0	456,995.00	768,134.00	32° 15' 15.207 N	103° 35' 58.851 W	
PBHL(Hemlock 32 State #3) - plan hits target center - Point	0.00	0.00	9,885.0	4,879.0	423.0	462,076.00	768,099.00	32° 16' 5.487 N	103° 35' 58.854 W	



To convert a Magnetic Direction to a Grid Direction, Add 0.30°
To convert a Magnetic Direction to a True Direction, Add 0.60° East
To convert a True Direction to a Grid Direction, Subtract 0.30°

Lea County, NM (NAD 83 NME)

Hemlock 32 State #202H

Plan #0.1

PROJECT DETAILS: Lea County, NM (NAD 83 NME)

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone
System Datum: Mean Sea Level

WELL DETAILS: #202H

KB = 25 @ 3688.0usR 3581.0
Northing 457197.00 Easting 787676.00 Latitude 32° 15' 17.237 N Longitude 103° 38' 4.188 W

SECTION DETAILS

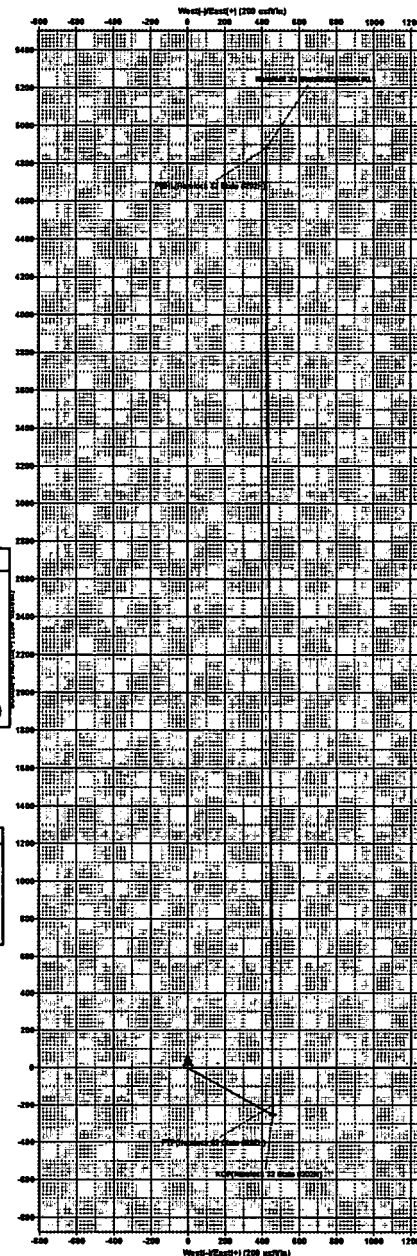
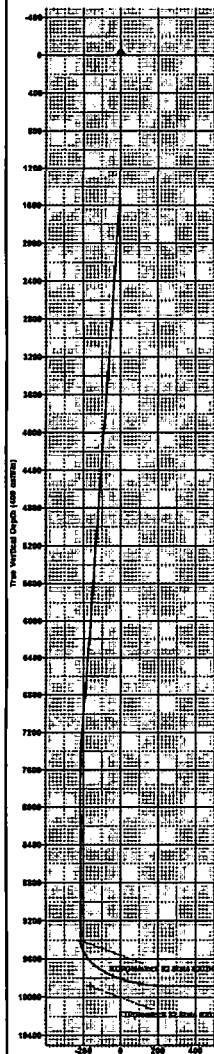
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Diag	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	1400.0	0.00	0.00	1400.0	0.0	0.0	0.00	0.00	0.0	
3	1854.2	5.08	118.82	1853.9	-5.4	9.9	2.00	118.82	-4.6	
4	7298.7	5.08	118.82	7278.1	-248.6	448.1	0.00	0.00	-206.9	
5	7552.9	0.00	0.00	7530.0	-252.0	458.0	2.00	180.00	-211.5	
6	9430.4	0.00	0.00	9407.5	-252.0	458.0	0.00	0.00	-211.5	KOP(Hemlock 32 State #202H)
7	10180.4	90.00	359.61	9885.0	225.5	454.7	12.00	359.61	283.9	
8	14834.0	90.00	359.61	9885.0	4879.0	423.0	0.00	0.00	4897.3	PBHL(Hemlock 32 State #202H)

CASING DETAILS

No casing data is available

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting
KOP(Hemlock 32 State #202H)	9407.5	-252.0	458.0	458945.00	788134.00
PBHL(Hemlock 32 State #202H)	9885.0	4879.0	423.0	482278.00	788289.00
FTP(Hemlock 32 State #202H)	9885.0	-202.0	458.0	458945.00	788134.00



Vertical Section at 4.50° (200 units)

Lea County, NM (NAD 83 NME)
Hemlock 32 State #202H
Plan #0.1