

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources
Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

FORM C-102

Revised August 1, 2011

Submit one copy to appropriate

District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-025-46754		² Pool Code 59900		³ Pool Name TRIPLE X; BONE SPRING	
⁴ Property Code 320561		⁵ Property Name HEMLOCK 32 STATE			⁶ Well Number 203H
⁷ OGRID No. 7377		⁸ Operator Name EOG RESOURCES, INC.			⁹ Elevation 3666'

¹⁰Surface Location

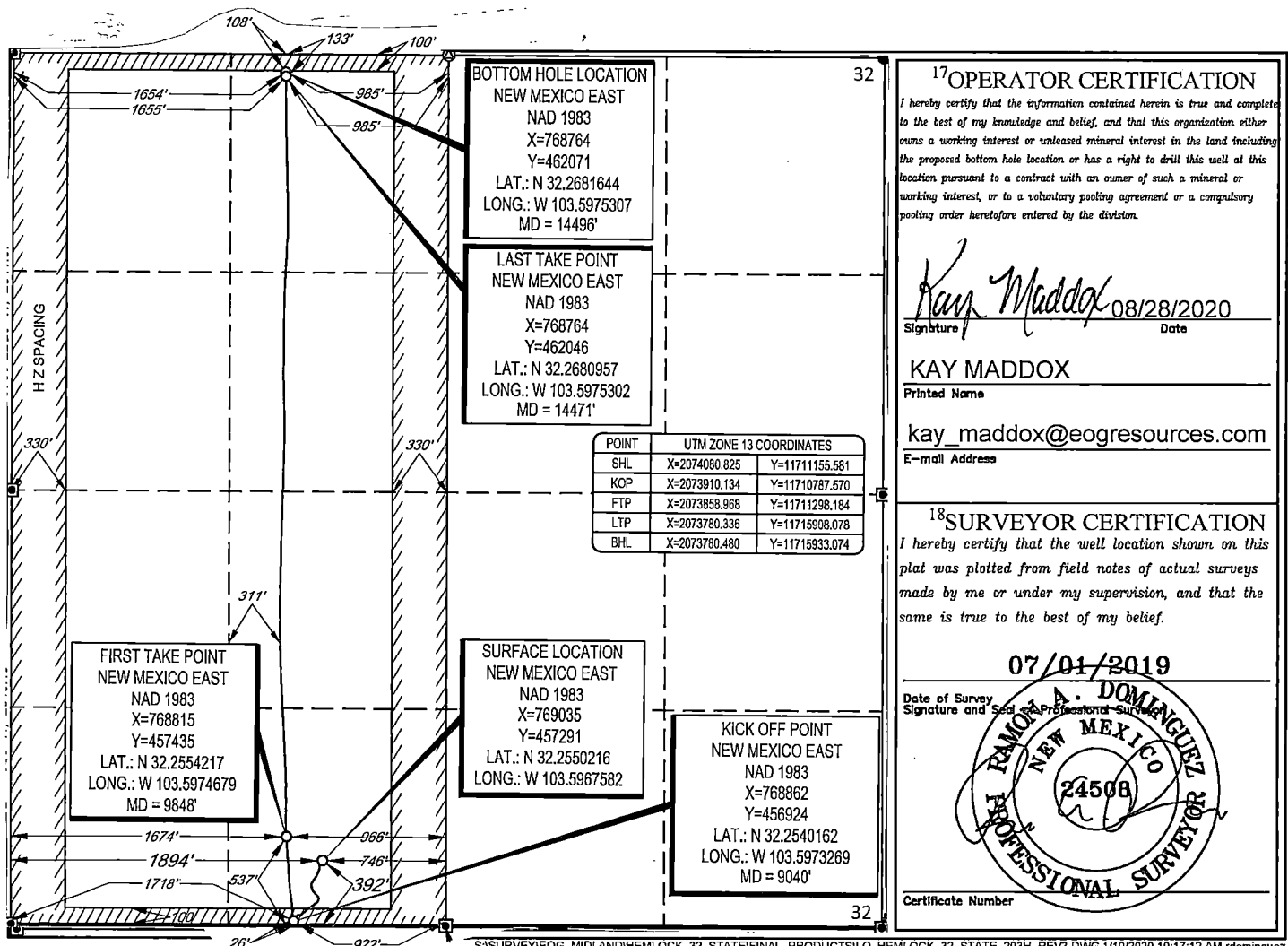
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	32	23-S	33-E	-	392'	SOUTH	1894'	WEST	LEA

¹¹Bottom 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
C	32	23-S	33-E	-	108'	NORTH	1654'	WEST	LEA

¹² Dedicated Acres 320	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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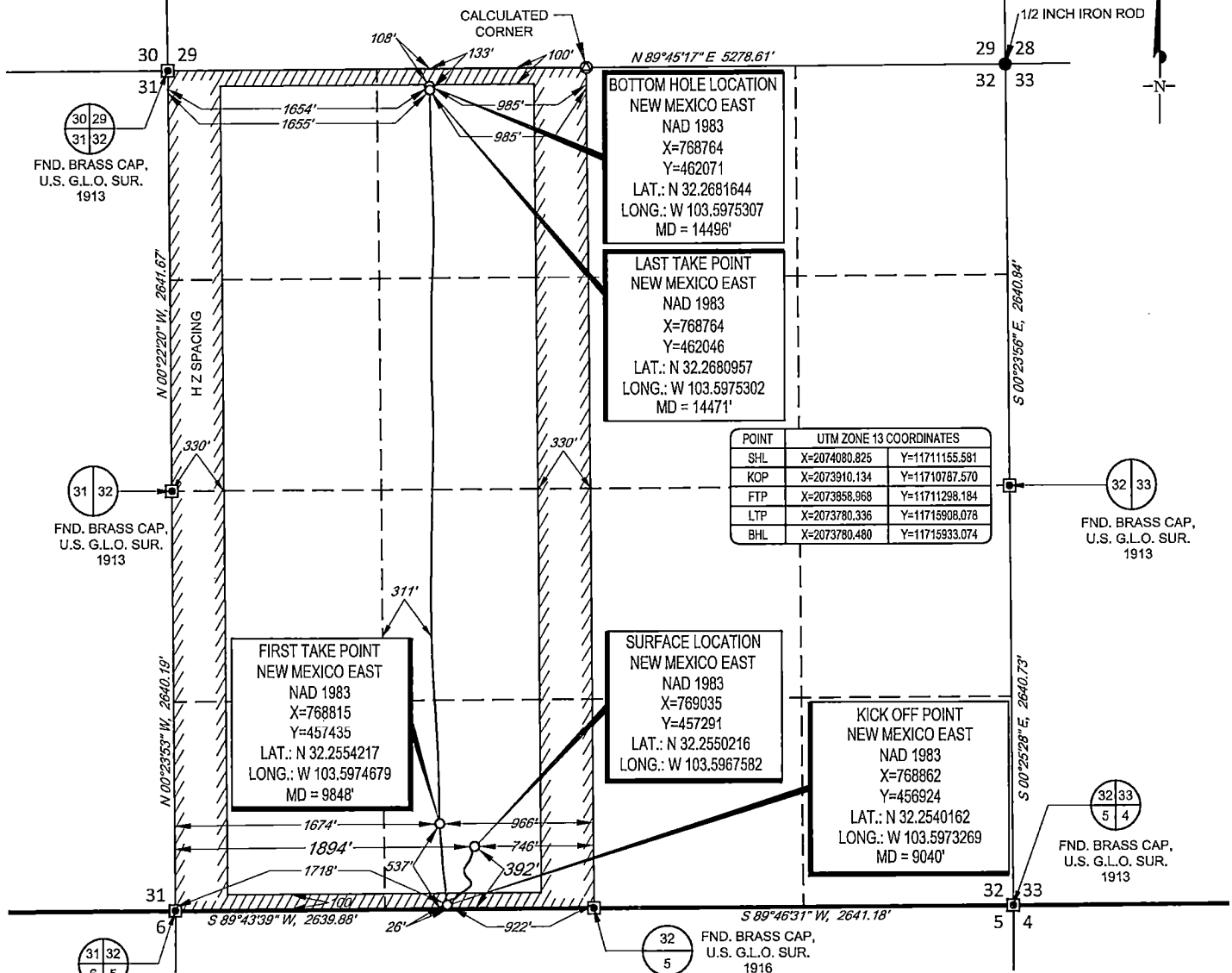
No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



SCALE: 1" = 1000'

0' 500' 1000'

SECTION 32, TOWNSHIP 23-S, RANGE 33-E, N.M.P.M.
LEA COUNTY, NEW MEXICO



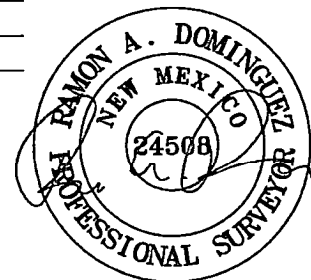
POINT	UTM ZONE 13 COORDINATES	
SHL	X=2074080.825	Y=11711155.581
KOP	X=2073910.134	Y=11710787.570
FTP	X=2073858.968	Y=11711298.184
LTP	X=2073780.336	Y=11715908.078
BHL	X=2073780.480	Y=11715933.074

LEASE NAME & WELL NO.: HEMLOCK 32 STATE #203H
 SECTION 32 TWP 23-S RGE 33-E SURVEY N.M.P.M.
 COUNTY LEA STATE NM ELEVATION 3666'
 DESCRIPTION 392' FSL & 1894' FWL



TOPOGRAPHIC
LOYALTY INNOVATION LEGACY

1400 EVERMAN PARKWAY, Ste. 146 • FT. WORTH, TEXAS 76140
 TELEPHONE: (817) 744-7512 • FAX (817) 744-7554
 2903 NORTH BIG SPRING • MIDLAND, TEXAS 79705
 TELEPHONE: (432) 682-1653 OR (800) 767-1653 • FAX (432) 682-1743
 WWW.TOPOGRAPHIC.COM



Ramon A. Dominguez, P.S. No. 24508
MAY 6, 2020



HEMLOCK 32 STATE #203H AS-COMPLETED	REVISION:	NOTES: 1. ORIGINAL DOCUMENT SIZE: 8.5" X 11" 2. ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREIN ARE GRID BASED UPON THE NEW MEXICO COORDINATE SYSTEM OF 1983, EAST ZONE, U.S. SURVEY FEET. 3. THIS WELL LOCATION SHOWN HEREON HAS BEEN SURVEYED BY THE GROUND UNDER MY SUPERVISION AND PREPARED ACCORDING TO THE EVIDENCE FOUND AT THE TIME OF SURVEY, AND DATA PROVIDED BY EOG RESOURCES, INC. THIS CERTIFICATION IS MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE. THIS SURVEY IS CERTIFIED FOR THIS TRANSACTION ONLY.
DATE: 05/06/2020		
FILE:AD_HEMLOCK_32_STATE_203H		
DRAWN BY: A.V.F.		
SHEET: 1 OF 1		

Intent ☐ As Drilled ☒ XXXAPI #
30-025-46754Operator Name:
EOG RESOURCES, INCProperty Name:
HEMLOCK 32 STATEWell Number
203H

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
N	32	23S	33E		26	SOUTH	1718	WEST	LEA
Latitude					Longitude				NAD
32.2540162					103.5973269				1983

First Take Point (FTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
N	32	23S	33E		537	SOUTH	1674	WEST	LEA
Latitude					Longitude				NAD
32.2554217					103.5974679				1983

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
C	32	23S	33E		133	NORTH	1655	WEST	LEA
Latitude					Longitude				NAD
32.2680957					103.5975302				1983

Is this well the defining well for the Horizontal Spacing Unit?

☐ NO

Is this well an infill well?

☐ YES

If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

API #
30-025-46756Operator Name:
EOG RESOURCES, INCProperty Name:
HEMLOCK 32 STATEWell Number
#503H



EOG Resources - Midland

Lea County, NM (NAD 83 NME)

Hemlock 32 State

#203H

OH

Design: OH

Midland PVA

23 March, 2020



EOG Resources
Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #203H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3691.0usft
Site:	Hemlock 32 State	MD Reference:	KB = 25 @ 3691.0usft
Well:	#203H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM

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	#203H					
Well Position	+N-S	0.0 usft	Northing:	457,291.00 usft	Latitude:	32° 15' 18.075 N
	+E-W	0.0 usft	Easting:	769,035.00 usft	Longitude:	103° 35' 48.335 W
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft	Ground Level:	3,666.0 usft	

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	1/13/2020	6.69	60.05	47,687.26870157

Design	OH				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N-S (usft)	+E-W (usft)	Direction (°)	
	0.0	0.0	0.0	358.70	

Survey Program	Date	3/23/2020			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
191.0	14,496.0	Driltech MWD (OH)	EOG MWD+IFR1	MWD + IFR1	



EOG Resources
Midland PVA

Company: EOG Resources - Midland
Project: Lea County, NM (NAD 83 NME)
Site: Hemlock 32 State
Well: #203H
Wellbore: OH
Design: OH
Database: EDM
Survey Calculation Method: Minimum Curvature
North Reference: Gnd
MD Reference: KB = 25 @ 3691.0usft
TVD Reference: KB = 25 @ 3691.0usft
Local Co-ordinate Reference: Well #203H

Survey	MD (usft)	Inc (")	Azi (azimuth)	TVD (usft)	N/S (usft)	E/W (usft)	Dleg (usft)	Build (usft)	Turn (usft)	High to Plan (usft)	Right to Plan (usft)
	0.0	0.00	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.0
	191.0	0.44	229.22	191.0	-0.5	-0.6	0.23	0.23	0.00	0.00	0.0
	220.0	0.26	226.49	220.0	-0.6	-0.7	0.62	-0.62	-9.41	-0.9	0.0
	382.0	0.18	214.98	382.0	-1.1	-1.1	0.05	-0.05	-6.89	-1.5	-0.3
	566.0	0.26	164.79	566.0	-1.7	-1.2	0.12	0.05	-28.84	-1.3	-1.6
	663.0	0.26	160.57	663.0	-2.1	-1.0	0.02	0.00	-4.35	-1.6	-1.7
	758.0	0.18	208.47	758.0	-2.4	-1.0	0.20	-0.08	50.42	-2.6	0.2
	852.0	0.26	194.41	852.0	-2.8	-1.2	0.10	0.09	-14.96	-3.0	-0.4
	947.0	0.26	244.60	947.0	-3.1	-1.4	0.23	0.00	52.83	-2.6	2.2
	1,135.0	0.44	202.59	1,135.0	-3.9	-2.1	0.16	0.10	-22.35	-4.4	-0.4
	1,230.0	0.79	215.94	1,230.0	-4.8	-2.6	0.40	0.37	14.05	-5.4	0.7
	1,324.0	1.06	248.90	1,324.0	-5.6	-3.6	0.62	0.29	35.06	-5.6	3.9
	1,517.0	1.14	260.51	1,516.9	-6.6	-7.4	0.12	0.04	6.02	-8.3	5.3
	1,612.0	1.14	270.88	1,611.9	-6.7	-9.2	0.22	0.00	10.92	-9.1	6.9
	1,706.0	1.08	277.47	1,705.9	-6.6	-11.0	0.16	-0.09	7.01	-10.1	8.0
	1,800.0	0.97	265.69	1,799.9	-6.6	-12.7	0.24	-0.10	-12.53	-13.1	5.6
	1,893.0	1.14	270.09	1,892.9	-6.6	-14.4	0.20	0.18	4.73	-14.4	6.6
	1,988.0	1.06	264.64	1,987.9	-6.7	-16.2	0.14	-0.08	-5.74	-16.8	5.2
	2,083.0	1.23	276.41	2,082.8	-6.7	-18.1	0.30	0.18	12.39	-17.2	8.6
	2,176.0	1.14	275.89	2,175.8	-6.5	-20.0	0.10	-0.10	-0.56	-19.2	8.5
	2,272.0	1.23	287.31	2,271.8	-6.1	-22.0	0.26	0.09	11.90	-19.2	12.3
	2,366.0	1.23	285.47	2,365.8	-5.5	-23.9	0.04	0.00	-1.96	-21.6	11.7
	2,460.0	1.32	288.37	2,459.7	-4.9	-25.9	0.12	0.10	3.09	-23.0	12.8
	2,555.0	1.14	299.88	2,554.7	-4.1	-27.7	0.32	-0.19	12.12	-22.0	17.3
	2,649.0	0.18	237.74	2,648.7	-3.7	-28.7	1.14	-1.02	-66.11	-26.2	-12.2
	2,744.0	1.32	159.34	2,743.7	-4.8	-28.4	1.36	1.20	-82.53	-26.3	-26.3
	2,839.0	3.08	150.99	2,838.6	-8.0	-26.8	1.88	1.85	-8.79	6.6	-26.3



EOG Resources
Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #203H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3691.0usft
Site:	Hemlock 32 State	MD Reference:	KB = 25 @ 3691.0usft
Well:	#203H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)	
2,933.0	4.31	148.01	2,932.4	-13.2	-23.7	1.32	1.31	-3.17	3.9	-22.3	
3,027.0	3.87	150.03	3,026.2	-19.0	-20.2	0.49	-0.47	2.15	0.3	-15.9	
3,121.0	5.19	162.60	3,119.9	-25.8	-17.4	1.75	1.40	13.37	-3.9	-7.9	
3,214.0	6.77	180.79	3,212.4	-35.3	-16.2	2.63	1.70	19.56	-7.0	-0.4	
3,308.0	7.56	195.20	3,305.7	-46.8	-17.9	2.08	0.84	15.33	-8.9	5.1	
3,403.0	7.39	199.42	3,399.9	-58.6	-21.6	0.60	-0.18	4.44	-11.1	7.9	
3,498.0	6.95	199.07	3,494.1	-69.8	-25.5	0.47	-0.46	-0.37	-13.2	9.5	
3,592.0	6.60	201.44	3,587.5	-80.2	-29.3	0.48	-0.37	2.52	-14.2	11.6	
3,688.0	6.68	213.84	3,682.8	-90.0	-34.4	1.49	0.08	12.92	-12.4	14.7	
3,782.0	5.89	213.92	3,776.3	-98.5	-40.2	0.84	-0.84	0.09	-12.8	13.9	
3,877.0	5.89	215.86	3,870.8	-106.5	-45.8	0.21	0.00	2.04	-12.2	13.4	
3,972.0	5.80	215.86	3,965.3	-114.3	-51.4	0.09	-0.09	0.00	-12.0	12.2	
4,067.0	5.19	215.15	4,059.8	-121.7	-56.7	0.65	-0.64	-0.75	-11.4	10.9	
4,255.0	4.31	209.97	4,247.2	-134.8	-65.1	0.52	-0.47	-2.76	-8.2	8.8	
4,350.0	4.04	196.61	4,341.9	-141.1	-67.9	1.06	-0.28	-14.06	-7.1	8.0	
4,445.0	4.13	173.41	4,436.7	-147.7	-68.4	1.73	0.09	-24.42	-8.1	9.0	
4,540.0	4.40	170.94	4,531.4	-154.7	-67.5	0.34	0.28	-2.60	-7.7	14.7	
4,633.0	4.48	165.67	4,624.2	-161.8	-66.0	0.45	0.09	-5.67	-9.2	20.3	
4,728.0	5.28	156.88	4,718.8	-169.4	-63.4	1.15	0.84	-9.25	-14.1	25.9	
4,823.0	5.89	148.53	4,813.4	-177.5	-59.1	1.07	0.64	-8.79	-22.0	31.6	
4,918.0	6.33	142.29	4,907.8	-185.8	-53.4	0.84	0.46	-6.57	-31.4	37.7	
4,993.0	5.72	140.71	4,982.4	-192.0	-48.5	0.84	-0.81	-2.11	-37.4	43.9	
5,087.0	5.45	141.24	5,076.0	-199.1	-42.7	0.29	-0.29	0.56	-42.4	53.4	
5,182.0	5.01	132.45	5,170.6	-205.4	-36.8	0.96	-0.46	-9.25	-56.4	55.2	
5,277.0	5.01	139.22	5,265.2	-211.4	-31.1	0.62	0.00	7.13	-54.3	71.3	
5,369.0	5.28	149.06	5,356.8	-218.0	-26.3	1.00	0.29	10.70	-44.7	88.6	
5,464.0	6.07	170.51	5,451.4	-226.8	-23.2	2.37	0.83	22.58	-10.5	106.6	



EOG Resources
Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #203H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3691.0usft
Site:	Hemlock 32 State	MD Reference:	KB = 25 @ 3691.0usft
Well:	#203H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)	
5,559.0	5.89	189.49	5,545.9	-236.5	-23.1	2.08	-0.19	19.98	24.3	109.2	
5,651.0	5.28	201.97	5,637.4	-245.1	-25.5	1.47	-0.66	13.57	47.9	103.7	
5,748.0	4.66	222.01	5,732.1	-252.0	-29.7	1.93	-0.65	21.09	82.1	80.4	
5,841.0	4.57	231.24	5,826.8	-257.3	-35.3	0.79	-0.09	9.72	95.5	63.1	
5,935.0	5.63	235.63	5,920.4	-262.2	-42.0	1.20	1.13	4.67	100.5	51.5	
6,030.0	5.10	237.48	6,015.0	-267.1	-49.4	0.59	-0.56	1.95	102.0	43.7	
6,125.0	4.66	236.95	6,109.7	-271.5	-56.2	0.47	-0.46	-0.56	102.3	40.0	
6,220.0	6.33	235.63	6,204.2	-276.5	-63.8	1.76	1.76	-1.39	101.1	37.8	
6,315.0	8.09	233.26	6,298.5	-283.5	-73.4	1.88	1.85	-2.49	96.6	37.7	
6,409.0	9.23	230.71	6,391.4	-292.2	-84.6	1.28	1.21	-2.71	89.8	38.1	
6,503.0	9.85	228.51	6,484.1	-302.3	-95.4	0.77	0.66	-2.34	81.9	38.0	
6,598.0	9.94	228.95	6,577.7	-313.1	-108.7	0.12	0.09	0.46	74.0	34.5	
6,693.0	8.71	232.29	6,671.4	-322.9	-120.6	1.41	-1.29	3.52	65.6	28.3	
6,787.0	5.89	245.83	6,764.7	-329.2	-130.6	3.49	-3.00	14.40	60.6	12.3	
6,882.0	2.55	264.11	6,859.4	-331.4	-137.2	3.75	-3.52	19.24	54.8	-6.0	
6,977.0	2.11	273.76	6,954.3	-331.5	-141.0	0.62	-0.46	10.18	49.1	-14.8	
7,069.0	2.02	268.42	7,046.2	-331.5	-144.3	0.23	-0.10	-5.83	47.0	-10.3	
7,164.0	1.93	270.79	7,141.2	-331.5	-147.6	0.13	-0.09	2.49	43.3	-12.1	
7,258.0	1.67	229.22	7,235.1	-332.4	-150.2	1.38	-0.28	-44.22	37.8	18.6	
7,352.0	1.85	216.03	7,329.1	-334.5	-152.1	0.47	0.19	-14.03	29.7	26.4	
7,447.0	1.76	217.97	7,424.1	-336.9	-153.9	0.11	-0.09	2.04	27.6	25.5	
7,540.0	1.85	210.32	7,517.0	-339.3	-155.6	0.28	0.10	-8.23	21.1	28.7	
7,634.0	1.85	197.58	7,611.0	-342.0	-156.8	0.44	0.00	-13.55	11.2	32.3	
7,729.0	1.85	195.20	7,705.9	-345.0	-157.7	0.08	0.00	-2.51	6.8	32.7	
7,824.0	1.76	195.73	7,800.9	-347.9	-158.5	0.10	-0.09	0.56	4.1	32.6	
7,919.0	1.67	184.57	7,895.8	-350.7	-159.0	0.36	-0.09	-11.75	-5.1	32.5	
8,013.0	1.76	180.52	7,989.8	-353.5	-159.1	0.16	0.10	-4.31	-10.2	32.0	



EOG Resources
Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #203H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3691.0usft
Site:	Hemlock 32 State	MD Reference:	KB = 25 @ 3691.0usft
Well:	#203H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM

Survey											
MD (usft)	Inc (")	Azi (azimuth) (")	TVD (usft)	N/S (usft)	E/W (usft)	DLeg ("/100usft)	Build ("/100usft)	Turn ("/100usft)	High to Plan (usft)	Right to Plan (usft)	
8,108.0	1.67	183.69	8,084.7	-356.3	-159.2	0.14	-0.09	3.34	-11.2	32.6	
8,202.0	2.11	182.72	8,178.7	-359.4	-159.4	0.47	0.47	-1.03	-14.9	32.4	
8,297.0	2.29	173.32	8,273.6	-363.0	-159.2	0.42	0.19	-9.89	-23.6	29.2	
8,391.0	2.73	176.13	8,367.5	-367.1	-158.9	0.49	0.47	2.99	-26.2	30.5	
8,486.0	1.58	243.02	8,462.5	-370.0	-159.9	2.70	-1.21	70.41	15.5	38.2	
8,580.0	2.02	296.98	8,556.4	-369.8	-162.5	1.79	0.47	57.40	37.6	11.0	
8,673.0	1.58	286.17	8,649.4	-368.7	-165.2	0.60	-0.47	-11.62	31.9	17.5	
8,768.0	1.41	275.89	8,744.4	-368.2	-167.6	0.33	-0.18	-10.82	25.9	22.7	
8,862.0	1.14	274.83	8,838.3	-368.0	-169.7	0.29	-0.29	-1.13	23.3	23.2	
8,940.0	1.14	269.21	8,916.3	-368.0	-171.2	0.14	0.00	-7.21	19.4	25.3	
9,003.0	1.06	253.63	8,979.3	-368.2	-172.4	0.49	-0.13	-24.73	10.7	29.4	
9,040.0	4.27	336.90	9,016.3	-367.0	-173.3	11.57	8.68	225.06	29.0	-6.9	
KOP, MD:9040.0', TVD:9016.3', N/S:-367.0', E/W:-173.3', INC:4.27											
9,086.1	9.53	344.84	9,062.0	-361.7	-175.0	11.57	11.41	17.23	22.2	-10.7	
KOP (Hemlock 32 State #203H)											
9,098.0	10.90	345.65	9,073.7	-359.7	-175.5	11.57	11.50	6.78	20.1	-11.0	
9,191.0	21.19	354.97	9,163.0	-334.3	-179.2	11.37	11.06	10.02	1.9	-12.5	
9,285.0	28.67	356.64	9,248.2	-294.8	-182.0	7.99	7.96	1.78	-14.4	-12.8	
9,288.8	29.07	356.35	9,251.5	-293.0	-182.1	11.26	10.63	-7.69	-15.0	-12.9	
FTP Crossing, MD:9288.8', TVD:9251.5', N/S:-293.0', E/W:-182.1', INC:29.07											
9,378.0	38.69	351.10	9,325.5	-243.7	-187.8	11.26	10.78	-5.88	-28.1	-13.5	
9,473.0	47.22	353.03	9,395.0	-179.7	-196.6	9.08	8.98	2.03	-42.8	-9.6	
9,538.2	52.20	355.99	9,437.1	-130.2	-201.4	8.39	7.65	4.54	-50.9	-7.4	
FTP (Hemlock 32 State #203H)											
9,567.0	54.43	357.17	9,454.3	-107.1	-202.7	8.39	7.72	4.10	-53.7	-7.3	
9,662.0	62.08	354.97	9,504.3	-26.6	-208.3	8.29	8.05	-2.32	-59.2	-9.9	
9,754.0	66.92	355.76	9,543.9	56.2	-215.0	5.32	5.26	0.86	-58.1	-10.0	
9,848.0	70.08	356.37	9,578.3	143.4	-221.0	3.42	3.36	0.65	-46.6	-11.7	



EOG Resources
Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #203H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3691.0usft
Site:	Hemlock 32 State	MD Reference:	KB = 25 @ 3691.0usft
Well:	#203H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)
9,943.0	73.69	358.22	9,607.8	233.6	-225.3	4.23	3.80	1.95	-23.9	-15.6
10,037.0	82.39	0.42	9,627.3	325.4	-226.3	9.53	9.26	2.34	-3.9	-19.0
10,094.0	91.89	359.54	9,630.1	382.3	-226.3	16.74	16.67	-1.54	-0.6	-19.6
10,187.0	91.63	358.13	9,627.3	475.2	-228.2	1.54	-0.28	-1.52	-2.7	-18.3
10,281.0	89.96	357.52	9,626.0	569.1	-231.8	1.89	-1.78	-0.65	-3.3	-15.4
10,376.0	89.25	356.90	9,626.6	664.0	-236.4	0.99	-0.75	-0.65	-1.8	-11.4
10,468.0	89.60	356.81	9,627.6	755.9	-241.5	0.39	0.38	-0.10	-0.2	-7.0
10,564.0	89.96	356.90	9,627.9	851.7	-246.7	0.39	0.37	0.09	0.9	-2.4
10,658.0	90.92	356.29	9,627.2	945.6	-252.3	1.21	1.02	-0.65	1.0	2.6
10,753.0	91.28	356.20	9,625.4	1,040.3	-258.5	0.39	0.38	-0.09	-0.1	8.1
10,848.0	91.63	358.04	9,623.0	1,135.2	-263.3	1.97	0.37	1.94	-1.7	12.3
10,940.0	91.63	357.87	9,620.4	1,227.1	-266.6	0.18	0.00	-0.18	-3.6	14.9
11,034.0	92.07	357.60	9,617.3	1,321.0	-270.3	0.55	0.47	-0.29	-5.9	18.0
11,129.0	90.75	359.27	9,615.0	1,415.9	-272.9	2.24	-1.39	1.76	-7.5	19.9
11,189.6	91.31	359.55	9,613.9	1,476.5	-273.5	1.04	0.93	0.46	-8.1	20.1
TGT 1 (Hemlock 32 State #203H)										
11,224.0	91.63	359.71	9,613.0	1,510.9	-273.7	1.04	0.93	0.46	-8.6	20.1
11,317.0	92.77	0.07	9,609.4	1,603.8	-273.9	1.29	1.23	0.39	-10.8	19.7
11,412.0	89.87	0.77	9,607.3	1,698.8	-273.2	3.14	-3.05	0.74	-11.6	18.3
11,507.0	88.90	0.94	9,608.3	1,793.7	-271.8	1.04	-1.02	0.18	-9.2	16.3
11,601.0	88.46	0.94	9,610.4	1,887.7	-270.3	0.47	-0.47	0.00	-5.6	14.1
11,695.0	88.81	0.94	9,612.7	1,981.7	-268.7	0.37	0.37	0.00	-2.0	11.9
11,788.0	92.68	1.65	9,611.5	2,074.6	-266.6	4.23	4.16	0.76	-1.9	9.1
11,879.1	92.77	1.31	9,607.1	2,165.6	-264.3	0.38	0.10	-0.37	-4.9	6.2
TGT 2 (Hemlock 32 State #203H)										
11,882.0	92.77	1.30	9,607.0	2,168.5	-264.2	0.38	0.10	-0.37	-5.0	6.1
11,977.0	93.12	1.64	9,602.1	2,263.3	-261.8	0.51	0.37	0.36	-8.5	3.0



EOG Resources
Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #203H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3691.0usft
Site:	Hemlock 32 State	MD Reference:	KB = 25 @ 3691.0usft
Well:	#203H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)	
12,072.0	92.68	1.20	9,597.3	2,358.2	-259.4	0.65	-0.46	-0.46	-12.0	0.0	
12,165.0	95.14	1.02	9,591.0	2,450.9	-257.6	2.65	2.65	-0.19	-17.0	-2.4	
12,260.0	95.67	0.85	9,582.0	2,545.5	-256.1	0.59	0.56	-0.18	-24.6	-4.6	
12,354.0	93.56	359.18	9,574.5	2,639.2	-256.1	2.86	-2.24	-1.78	-30.8	-5.3	
12,449.0	93.30	358.39	9,568.8	2,734.0	-258.1	0.87	-0.27	-0.83	-35.1	-3.9	
12,542.0	93.65	357.95	9,563.1	2,826.8	-261.0	0.60	0.38	-0.47	-39.5	-1.5	
12,581.9	94.13	358.10	9,560.4	2,866.5	-262.4	1.25	1.20	0.37	-41.6	-0.4	
TGT 3 (Hemlock 32 State #203H)											
12,637.0	94.79	358.30	9,556.1	2,921.5	-264.1	1.25	1.20	0.37	-45.2	0.9	
12,732.0	95.85	359.00	9,547.3	3,016.0	-266.4	1.34	1.12	0.74	-52.9	2.5	
12,827.0	92.86	359.18	9,540.1	3,110.7	-267.9	3.15	-3.15	0.19	-59.1	3.3	
12,922.0	91.01	0.85	9,536.9	3,205.7	-267.8	2.62	-1.95	1.76	-61.2	2.6	
13,017.0	91.10	0.14	9,535.2	3,300.6	-267.0	0.75	0.09	-0.75	-61.8	1.2	
13,112.0	89.16	1.46	9,535.0	3,395.6	-265.7	2.47	-2.04	1.39	-60.9	-0.8	
13,206.0	89.52	1.90	9,536.0	3,489.6	-262.9	0.60	0.38	0.47	-58.7	-4.2	
13,300.0	90.57	2.69	9,536.0	3,583.5	-259.2	1.40	1.12	0.84	-57.7	-8.6	
13,395.0	89.52	2.96	9,535.9	3,678.4	-254.5	1.14	-1.11	0.28	-56.7	-13.9	
13,448.2	88.26	2.30	9,536.9	3,731.5	-252.1	2.67	-2.37	-1.24	-55.0	-16.7	
TGT 4 (Hemlock 32 State #203H)											
13,488.0	87.32	1.81	9,538.5	3,771.3	-250.6	2.67	-2.37	-1.24	-53.0	-18.4	
13,583.0	87.23	359.35	9,543.0	3,866.1	-249.7	2.59	-0.09	-2.59	-47.4	-20.0	
13,677.0	88.72	359.18	9,546.3	3,960.1	-250.9	1.60	1.59	-0.18	-43.1	-19.5	
13,773.0	88.81	358.65	9,548.4	4,056.0	-252.7	0.56	0.09	-0.55	-39.9	-18.3	
13,867.0	89.69	357.86	9,549.6	4,150.0	-255.6	1.26	0.94	-0.84	-37.6	-16.1	
13,962.0	90.66	357.86	9,549.3	4,244.9	-259.1	1.02	1.02	0.00	-36.8	-13.1	
14,056.0	91.98	357.42	9,547.1	4,338.8	-263.0	1.48	1.40	-0.47	-37.9	-9.9	
14,151.0	89.69	358.47	9,545.8	4,433.7	-266.4	2.65	-2.41	1.11	-38.2	-7.2	



EOG Resources
Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #203H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3691.0usft
Site:	Hemlock 32 State	MD Reference:	KB = 25 @ 3691.0usft
Well:	#203H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)
14,245.0	88.72	359.18	9,547.1	4,527.7	-268.3	1.28	-1.03	0.76	-35.8	-5.9
14,340.0	88.90	359.35	9,549.0	4,622.7	-269.5	0.26	0.19	0.18	-32.7	-5.3
14,435.0	89.96	359.18	9,550.0	4,717.7	-270.7	1.13	1.12	-0.18	-30.7	-4.7
Last MWD Survey (MD=14435.0')										
14,495.4	89.96	359.18	9,550.0	4,778.1	-271.6	0.00	0.00	0.00	-30.0	-4.3
PBHL (Hemlock 32 State #203H)										
14,496.0	89.96	359.18	9,550.0	4,778.7	-271.6	0.00	0.00	0.00	-30.0	-4.3
Projection to Bit (MD=14496.0')										

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
9,040.0	9,016.3	-367.0	-173.3	KOP, MD:9040.0', TVD:9016.3', N/S:-367.0', E/W:-173.3', INC:4.27
9,288.8	9,251.5	-293.0	-182.1	FTP Crossing, MD:9288.8', TVD:9251.5', N/S:-293.0', E/W:-182.1', INC:29.07
14,435.0	9,550.0	4,717.7	-270.7	Last MWD Survey (MD=14435.0')
14,496.0	9,550.0	4,778.7	-271.6	Projection to Bit (MD=14496.0')

Checked By: _____ Approved By: _____ Date: _____

I certify this survey to be true and correct to the best of my belief and knowledge.

Kay Maddox
Signed

8/28/2020
Date



Lea County, NM (NAD 83 NME)

Hemlock 32 State #203H

Plan #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



Azimuths to Grid North
True North: -0.33°
Magnetic North: 6.29°

Magnetic Field
Strength: 47687.5nT
Dip Angle: 60.05°
Date: 1/13/2020
Model: IGRF2015

To convert a Magnetic Direction to a Grid Direction, Add 6.29°
To convert a Magnetic Direction to a True Direction, Add 6.69° East
To convert a True Direction to a Grid Direction, Subtract 0.39°

WELL DETAILS: #203H

KB = 25 @ 3691.0usft
Northing 659291.00 Easting 769355.00
Latitude 32° 15' 18.075 N Longitude 103° 35' 48.335 W

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	Tface	V/Sect	Target	Annotation
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0		
2	2765.0	0.00	0.00	2765.0	0.0	0.0	0.00	0.00	0.0		
3	3055.0	6.00	209.11	3054.5	-13.7	-7.6	2.00	209.11	-13.3		
4	6510.0	6.00	209.11	6499.5	-229.3	-183.4	0.00	0.00	-318.2		
5	6810.0	0.00	359.61	6760.0	-343.0	-101.0	2.00	180.00	-321.4		
6	9079.0	0.00	359.61	9059.0	-343.0	-191.0	0.00	0.00	-331.4		
7	9583.6	9.46	355.09	9531.9	232.4	-240.4	10.00	355.09	245.9		
8	10098.6	9.46	359.61	9831.0	345.2	-245.7	4.00	50.01	258.8		
9	11229.2	9.46	359.61	9822.0	1476.9	-253.4	0.00	0.00	1469.0		
10	11247.2	9.84	359.61	9521.8	1495.8	-253.5	2.00	0.27	1507.9		
11	11917.2	9.84	359.61	9612.0	2165.7	-269.1	0.00	0.00	2177.0		
12	11916.3	9.81	359.61	9512.0	2166.9	-269.1	2.00	-179.94	2176.1		
13	12621.2	9.81	359.61	9502.0	2659.6	-262.9	0.00	0.00	2680.0		
14	12626.6	9.67	359.61	9601.9	2877.0	-262.9	2.00	180.00	2687.3		
15	13462.4	9.67	359.61	9592.0	3730.7	-268.0	0.00	0.00	3740.0		
16	13482.9	9.65	359.61	9592.0	3731.3	-268.0	2.00	-180.00	3740.6		
17	14529.8	9.65	359.61	9580.0	4778.0	-275.9	0.00	0.00	4786.0		

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting
KOP (Hemlock 32 State #203H)	9559.0	-343.0	-191.0	456948.00	768944.00
TGT 1 (Hemlock 32 State #203H)	9622.0	-1478.0	-253.4	458057.00	768791.60
TGT 2 (Hemlock 32 State #203H)	9612.0	2165.7	-258.1	459456.70	768776.90
TGT 3 (Hemlock 32 State #203H)	9592.0	2659.6	-262.9	460160.60	768772.11
TGT 4 (Hemlock 32 State #203H)	9592.0	3730.7	-262.9	461021.70	768766.24
PBHL (Hemlock 32 State #203H)	9580.0	4778.0	-275.9	462069.00	768759.10
FTP (Hemlock 32 State #203H)	9532.0	-293.0	-241.0	456998.00	768794.00

