



Lea County, NM (NAD 83 NME)

Hunter 21 State Com #602H

H&P 473

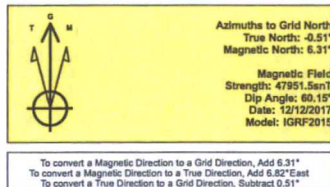
Plan #1

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

WELL DETAILS: #602H

KB = 25 @ 3434.0usft (H&P 473)
Northing 473030.00 Easting 836285.00 Latitude 32° 17' 48.567 N Longitude 103° 22' 43.623 W

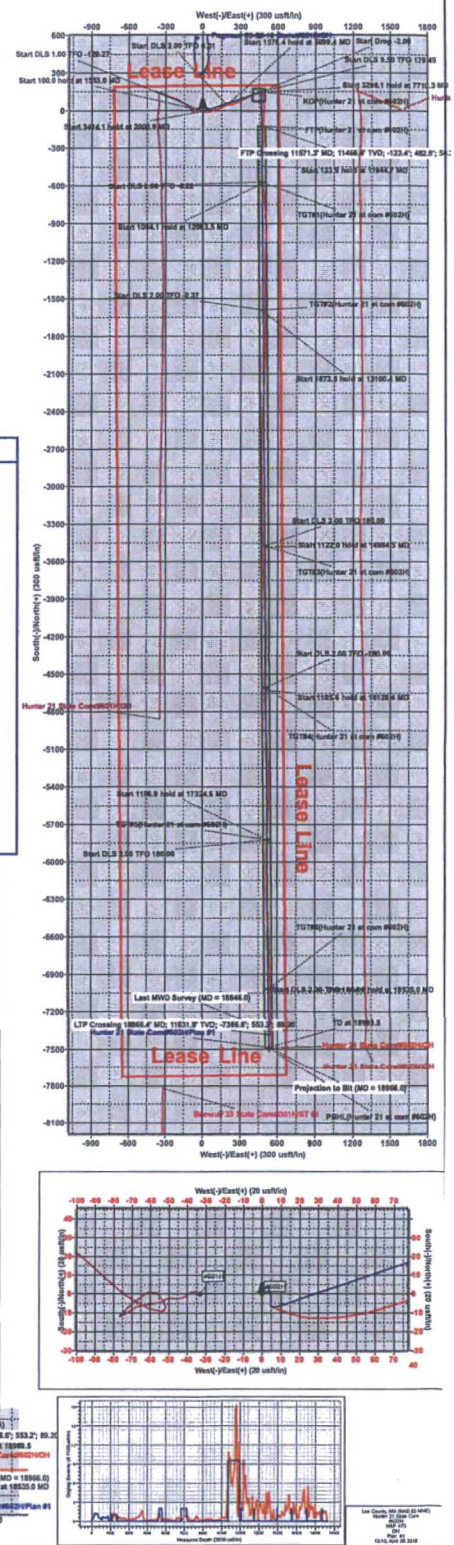


SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect
1553.0	0.88	187.22	1552.9	-4.1	4.7	0.00	0.00	4.4
1653.0	0.88	187.22	1652.9	-5.6	4.5	0.00	0.00	5.9
2000.9	3.00	71.06	2000.6	-5.3	12.8	1.00	-129.27	6.2
5414.9	3.00	71.06	5410.0	52.7	181.8	0.00	0.00	-39.6
5699.4	8.69	71.07	5692.9	62.1	209.2	2.00	0.01	-47.0
7275.8	8.69	71.07	7251.2	139.3	434.5	0.00	0.00	-108.1
7710.3	0.00	0.00	7684.0	150.0	465.6	2.00	180.00	-116.5
11006.4	0.00	0.00	10980.1	150.0	465.6	0.00	0.00	-116.5
11944.7	89.14	179.49	11583.1	-444.1	470.9	9.50	179.49	476.4
12068.6	89.14	179.49	11585.0	-567.9	472.0	0.00	0.00	600.0
12083.5	89.44	179.49	11585.2	-582.8	472.1	2.00	-0.22	614.9
13087.6	89.44	179.49	11595.0	-1586.8	481.1	0.00	0.00	1617.0
13100.4	89.70	179.49	11595.1	-1599.7	481.2	2.00	-0.37	1629.8
14974.3	89.70	179.49	11605.0	-3473.4	498.0	0.00	0.00	3500.0
14984.5	89.49	179.49	11605.1	-3483.6	498.1	2.00	180.00	3510.2
16106.5	89.49	179.49	11615.0	-4605.5	508.2	0.00	0.00	4630.0
16128.4	89.05	179.49	11615.3	-4627.4	508.4	2.00	-180.00	4651.8
17324.0	89.05	179.49	11635.0	-5822.8	519.1	0.00	0.00	5845.0
17324.6	89.04	179.49	11635.0	-5823.4	519.1	2.00	180.00	5845.6
18521.5	89.04	179.49	11655.0	-7020.1	529.8	0.00	0.00	7040.0
18535.0	88.77	179.49	11655.3	-7033.7	529.9	2.00	-180.00	7053.5
18989.5	88.77	179.49	11665.0	-7488.0	534.0	0.00	0.00	7507.0

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting
KOP(Hunter 21 st com #602H)	10980.1	150.0	465.6	473188.00	836750.00
FTP(Hunter 21 st com #602H)	11575.0	-125.9	469.0	472005.00	836753.00
TGTW1(Hunter 21 st com #602H)	11585.0	-567.9	472.0	472462.10	836757.00
TGTW2(Hunter 21 st com #602H)	11595.0	-1598.8	481.1	471443.20	836766.10
TGTW3(Hunter 21 st com #602H)	11605.0	-3473.4	498.0	469556.60	836783.91
TGTW4(Hunter 21 st com #602H)	11615.0	-4605.5	508.2	468424.50	836793.16
TGTW5(Hunter 21 st com #602H)	11635.0	-5822.8	519.1	467207.20	836804.07
TGTW6(Hunter 21 st com #602H)	11655.0	-7020.1	529.8	466009.90	836814.81
PBHL(Hunter 21 st com #602H)	11665.0	-7488.0	534.0	465542.00	836819.00

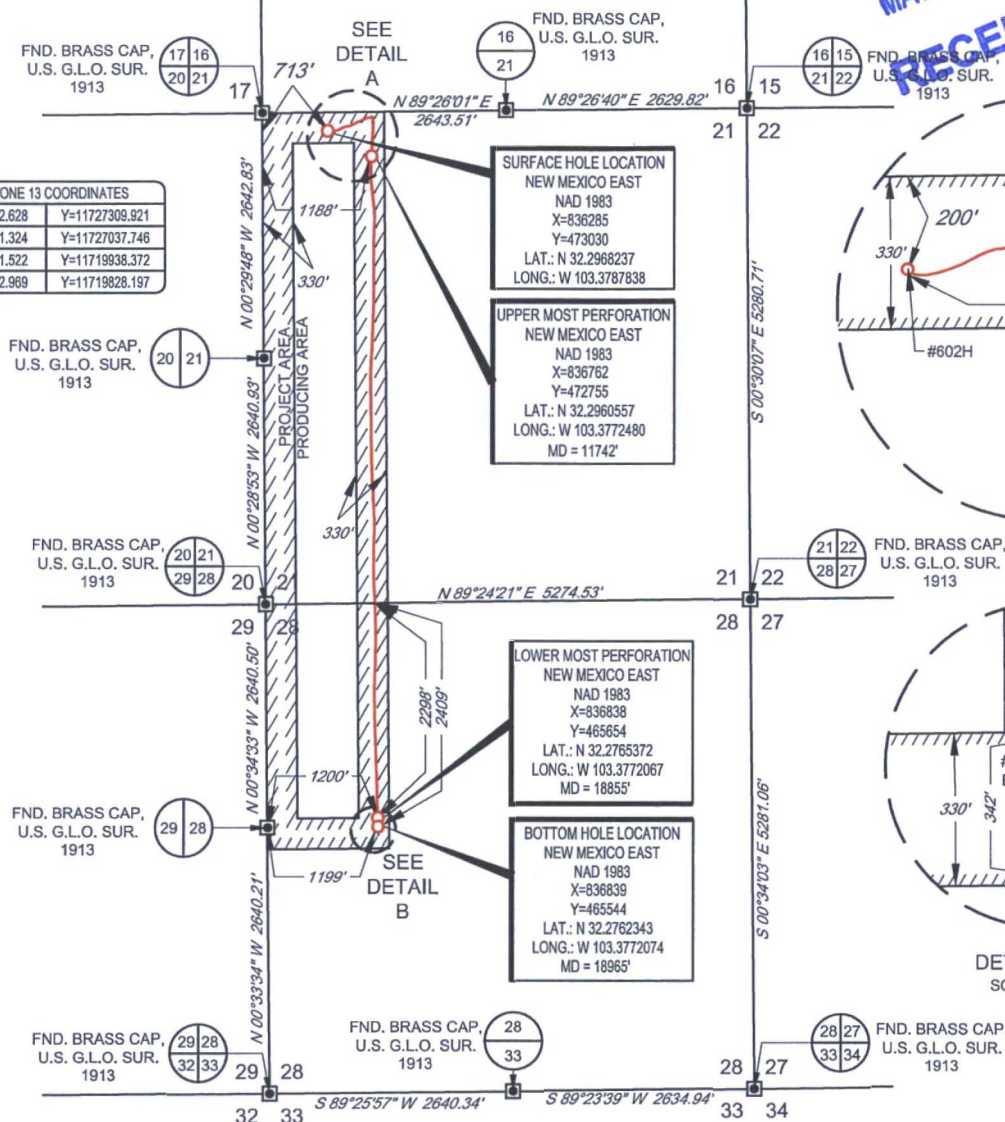


SCALE: 1" = 2000'

SECTION 21, TOWNSHIP 23-S, RANGE 35-E, N.M.P.M.
LEA COUNTY, NEW MEXICO

HOBBS OCD
MAY 11 2018
RECEIVED

POINT	UTM ZONE 13 COORDINATES
SHL	X=2141222.628 Y=11727309.921
UMP	X=2141701.324 Y=11727037.746
LMP	X=2141821.522 Y=11719938.372
BHL	X=2141822.969 Y=11719828.197

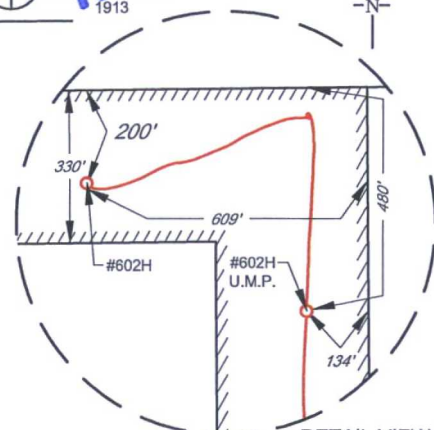


SURFACE HOLE LOCATION
NEW MEXICO EAST
NAD 1983
X=836285
Y=473030
LAT.: N 32.2968237
LONG.: W 103.3787838

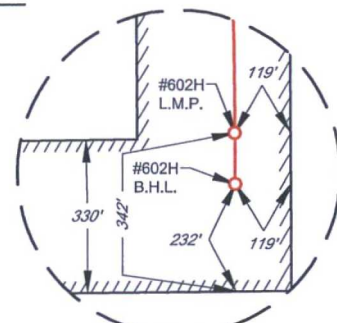
UPPER MOST PERFORATION
NEW MEXICO EAST
NAD 1983
X=836762
Y=472755
LAT.: N 32.2960557
LONG.: W 103.3772480
MD = 11742'

LOWER MOST PERFORATION
NEW MEXICO EAST
NAD 1983
X=836838
Y=465654
LAT.: N 32.2765372
LONG.: W 103.3772067
MD = 18855'

BOTTOM HOLE LOCATION
NEW MEXICO EAST
NAD 1983
X=836839
Y=465544
LAT.: N 32.2762343
LONG.: W 103.3772074
MD = 18965'



DETAIL VIEW A
SCALE: 1" = 400'



DETAIL VIEW B
SCALE: 1" = 400'

LEASE NAME & WELL NO.: HUNTER 21 STATE COM #602H
SECTION 21 TWP 23-S RGE 35-E SURVEY N.M.P.M.
COUNTY LEA STATE NM ELEVATION 3410'
DESCRIPTION 200' FNL & 713' FWL



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



Michael Blake Brown, P.S. No. 18329
APRIL 26, 2018



HUNTER 21 STATE COM #602H AS-COMPLETED	REVISION:
DATE: 04/26/2018	
FILE: AD_HUNTER_21_STATE_COM_602H	
DRAWN BY: MML	
SHEET: 1 OF 1	

- 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 ON 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.



EOG Resources - Midland

Lea County, NM (NAD 83 NME)

Hunter 21 State Com

#602H

OH

Survey: Intrepid MWD

Midland PVA

05 April, 2018



Midland PVA

Company: EOG Resources - Midland Project: Lea County, NM (NAD 83 NME) Site: Hunter 21 State Com Well: #602H Wellbore: OH Design: OH		Local Co-ordinate Reference: Well #602H TVD Reference: KB = 25 @ 3434.0usft (H&P 473) MD Reference: KB = 25 @ 3434.0usft (H&P 473) North Reference: Grid Survey Calculation Method: Minimum Curvature Database: EDM 5000.14	
Project Lea County, NM (NAD 83 NME)			
Map System: US State Plane 1983 Geo Datum: North American Datum 1983 Map Zone: New Mexico Eastern Zone		System Datum: Mean Sea Level	
Site Hunter 21 State Com			
Site Position: From: Map Position Uncertainty: 0.0 usft		Northing: 473,030.00 usft Easting: 836,252.00 usft Slot Radius: 13-3/16 "	
		Latitude: 32° 17' 48.570 N Longitude: 103° 22' 44.008 W Grid Convergence: 0.51 °	
Well #602H			
Well Position +N/-S 0.0 usft +E/-W 0.0 usft Position Uncertainty 0.0 usft		Northing: 473,030.00 usft Easting: 836,285.00 usft Wellhead Elevation: usft	
		Latitude: 32° 17' 48.567 N Longitude: 103° 22' 43.623 W Ground Level: 3,409.0 usft	
Wellbore OH			
Magnetics			
Model Name	Sample Date	Declination (°)	Dip Angle (°)
IGRF2015	12/12/2017	6.82	60.15
Field Strength (nT) 47,951.48808845			
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	175.92



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #602H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3434.0usft (H&P 473)
Site:	Hunter 21 State Com	MD Reference:	KB = 25 @ 3434.0usft (H&P 473)
Well:	#602H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

Survey Program		Date	4/5/2018		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
171.0	1,553.0	OleBrook MWD #1 (OH)	MWD	OWSG MWD - Standard	
1,654.0	18,966.0	Intrepid MWD (OH)	MWD	OWSG MWD - Standard	

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)	
1,553.0	0.88	187.22	1,552.9	-4.1	4.7	0.00	0.00	0.00	0.0	0.0	0.0
1,654.0	0.70	185.60	1,653.9	-5.5	4.6	0.18	-0.18	-1.60	0.2	0.0	0.0
1,843.0	2.70	109.50	1,842.8	-8.1	8.7	1.39	1.06	-40.26	-2.1	-0.6	-0.6
2,032.0	2.90	108.40	2,031.6	-11.1	17.4	0.11	0.11	-0.58	-4.9	-5.0	-5.0
2,221.0	3.80	92.10	2,220.3	-12.9	28.2	0.69	0.48	-8.62	-4.9	-11.1	-11.1
2,410.0	4.00	85.00	2,408.8	-12.5	41.0	0.28	0.11	-3.76	-6.7	-14.8	-14.8
2,598.0	4.70	77.40	2,596.3	-10.3	55.1	0.48	0.37	-4.04	-9.1	-17.5	-17.5
2,787.0	4.70	72.00	2,784.7	-6.2	70.0	0.23	0.00	-2.86	-13.0	-19.2	-19.2
2,976.0	5.20	71.70	2,973.0	-1.1	85.5	0.26	0.26	-0.16	-19.3	-19.4	-19.4
3,165.0	5.80	70.50	3,161.1	4.8	102.6	0.32	0.32	-0.63	-27.2	-19.9	-19.9
3,355.0	6.20	66.60	3,350.1	12.1	121.1	0.30	0.21	-2.05	-35.7	-21.6	-21.6
3,544.0	6.10	60.70	3,538.0	21.0	139.2	0.34	-0.05	-3.12	-43.8	-24.4	-24.4
3,732.0	7.30	64.00	3,724.7	31.2	158.7	0.67	0.64	1.76	-57.3	-20.1	-20.1
3,921.0	6.30	73.70	3,912.4	39.3	179.4	0.80	-0.53	5.13	-72.2	-8.5	-8.5
4,109.0	3.20	80.90	4,099.7	43.1	194.5	1.68	-1.65	3.83	-78.5	0.2	0.2
4,298.0	3.20	81.10	4,288.4	44.7	204.9	0.01	0.00	0.11	-79.3	-1.2	-1.2
4,487.0	3.10	78.10	4,477.1	46.6	215.1	0.10	-0.05	-1.59	-79.7	-6.9	-6.9
4,675.0	3.30	77.10	4,664.8	48.8	225.4	0.11	0.11	-0.53	-80.3	-9.4	-9.4
4,863.0	3.60	71.70	4,852.5	51.9	236.2	0.24	0.16	-2.87	-80.5	-17.5	-17.5
5,052.0	3.50	67.90	5,041.1	55.9	247.2	0.14	-0.05	-2.01	-81.0	-22.6	-22.6
5,241.0	2.90	66.30	5,229.8	60.0	257.0	0.32	-0.32	-0.85	-81.0	-24.2	-24.2



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #602H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3434.0usft (H&P 473)
Site:	Hunter 21 State Corn	MD Reference:	KB = 25 @ 3434.0usft (H&P 473)
Well:	#602H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

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)
5,336.0	2.90	64.90	64.90	5,324.7	62.0	261.3	0.07	0.00	-1.47	-80.3	-25.7
5,515.0	5.10	66.70	66.70	5,503.2	67.1	272.7	1.23	1.23	1.01	-82.5	-22.2
5,703.0	5.30	69.30	69.30	5,690.5	73.4	288.5	0.16	0.11	1.38	-77.7	-17.4
5,892.0	4.70	66.20	66.20	5,878.8	79.7	303.8	0.35	-0.32	-1.64	-64.6	-19.6
6,080.0	4.70	58.50	58.50	6,066.1	86.8	317.4	0.34	0.00	-4.10	-48.9	-22.8
6,269.0	4.20	59.50	59.50	6,254.6	94.3	330.0	0.27	-0.26	0.53	-35.9	-16.1
6,458.0	4.40	64.60	64.60	6,443.0	101.0	342.5	0.23	0.11	2.70	-22.9	-9.1
6,646.0	4.50	64.20	64.20	6,630.5	107.3	355.6	0.06	0.05	-0.21	-9.1	-5.9
6,835.0	4.40	65.80	65.80	6,818.9	113.5	368.9	0.08	-0.05	0.85	4.6	-2.8
7,024.0	5.50	68.70	68.70	7,007.2	119.7	384.0	0.60	0.58	1.53	16.7	-1.5
7,213.0	6.20	69.70	69.70	7,195.2	126.6	402.0	0.37	0.37	0.53	26.1	-0.9
7,402.0	5.80	66.70	66.70	7,383.2	133.9	420.3	0.27	-0.21	-1.59	32.0	1.9
7,591.0	4.70	83.00	83.00	7,571.4	138.6	436.8	0.97	-0.58	8.62	27.8	-7.3
7,779.0	3.10	87.10	87.10	7,758.9	139.8	449.5	0.86	-0.85	2.18	16.6	-9.4
7,968.0	2.50	87.80	87.80	7,947.7	140.2	458.7	0.32	-0.32	0.37	7.2	-9.5
8,156.0	2.20	88.20	88.20	8,135.5	140.5	466.4	0.16	-0.16	0.21	-0.5	-9.5
8,345.0	2.00	84.80	84.80	8,324.4	140.9	473.3	0.12	-0.11	-1.80	-6.9	-9.8
8,534.0	0.70	125.40	125.40	8,513.4	140.5	477.6	0.81	-0.69	21.48	-15.2	-0.8
8,723.0	0.50	95.10	95.10	8,702.4	139.8	479.3	0.19	-0.11	-16.03	-14.6	-9.0
8,911.0	0.20	97.80	97.80	8,890.4	139.7	480.5	0.16	-0.16	1.44	-16.1	-8.2
9,100.0	0.40	118.70	118.70	9,079.3	139.3	481.4	0.12	0.11	11.06	-19.0	-1.8
9,287.0	0.30	233.30	233.30	9,266.3	138.7	481.6	0.32	-0.05	61.28	6.0	18.6
9,475.0	0.30	49.50	49.50	9,454.3	138.7	481.5	0.32	0.00	93.72	-4.8	-18.9
9,664.0	0.60	324.20	324.20	9,643.3	139.9	481.3	0.34	0.16	-45.13	17.4	-6.8
9,852.0	0.50	330.20	330.20	9,831.3	141.4	480.4	0.06	-0.05	3.19	14.8	-8.5
10,040.0	0.30	302.50	302.50	10,019.3	142.3	479.5	0.15	-0.11	-14.73	15.9	-1.0
10,228.0	0.70	323.20	323.20	10,207.3	143.5	478.4	0.23	0.21	11.01	12.9	-6.4



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #602H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3434.0usft (H&P 473)
Site:	Hunter 21 State Com	MD Reference:	KB = 25 @ 3434.0usft (H&P 473)
Well:	#602H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Buile (°/100usft)	Turn (°/100usft)	High to Plan (usft)	Right to Plan (usft)	
10,416.0	0.90	298.90	10,395.3	145.2	476.4	0.21	0.11	-12.93	11.8	-1.0	
10,606.0	1.00	18.60	10,585.3	147.4	475.7	0.64	0.05	41.95	-0.8	-10.4	
10,795.0	1.10	67.20	10,774.3	149.7	477.9	0.46	0.05	25.71	-11.2	-5.0	
10,889.0	1.50	72.20	10,668.2	150.4	479.9	0.44	0.43	5.32	-13.7	-3.9	
10,983.0	3.30	137.30	10,962.2	148.8	482.9	3.19	1.91	69.26	-12.6	11.9	
11,078.0	13.10	166.80	11,056.1	136.3	487.2	10.90	10.32	31.05	-13.4	19.1	
11,125.0	17.80	171.00	11,101.4	124.0	489.5	10.27	10.00	8.94	-16.8	21.6	
11,172.0	22.30	174.90	11,145.5	108.0	491.5	9.98	9.57	8.30	-20.1	24.1	
11,219.0	26.50	179.70	11,188.3	88.6	492.3	9.88	8.94	10.21	-22.8	26.3	
11,267.0	29.30	182.50	11,230.7	66.2	491.9	6.44	5.83	5.83	-25.4	26.7	
11,314.0	32.10	181.60	11,271.2	42.2	491.0	6.04	5.96	-1.91	-28.0	25.3	
11,361.0	35.20	181.90	11,310.3	16.2	490.2	6.61	6.60	0.64	-28.7	24.4	
11,408.0	37.60	183.60	11,348.1	-11.7	488.9	5.54	5.11	3.62	-27.3	23.4	
11,455.0	40.60	182.70	11,384.6	-41.3	487.2	6.50	6.38	-1.91	-25.1	21.0	
11,502.0	44.20	182.30	11,419.3	-72.9	485.9	7.68	7.66	-0.85	-21.7	19.0	
11,547.0	47.50	184.30	11,450.6	-105.1	484.0	8.00	7.33	4.44	-17.1	17.1	
11,571.3	50.24	183.12	11,466.6	-123.4	482.8	11.83	11.26	-4.86	-14.9	15.4	
FTP Crossing 11571.3' MD; 11466.6' TVD; -123.4°; 482.8°; 50.24											
11,594.0	52.80	182.10	11,480.7	-141.1	482.0	11.83	11.30	-4.49	-12.9	14.2	
11,641.0	61.00	180.80	11,506.4	-180.5	481.0	17.60	17.45	-2.77	-10.3	12.6	
11,688.0	69.10	182.70	11,526.2	-223.0	479.7	17.62	17.23	4.04	-10.4	11.0	
11,715.0	74.00	182.90	11,534.7	-248.6	478.4	18.16	18.15	0.74	-11.8	9.5	
11,762.0	79.10	183.10	11,545.7	-294.2	476.1	10.86	10.85	0.43	-15.6	6.8	
11,809.0	79.80	182.90	11,554.3	-340.4	473.6	1.55	1.49	-0.43	-18.0	3.9	
11,856.0	80.00	182.60	11,562.5	-386.6	471.4	0.76	0.43	-0.64	-16.9	1.1	
11,902.0	79.70	180.60	11,570.6	-431.9	470.2	4.33	-0.65	-4.35	-12.2	-0.6	
11,949.0	84.80	177.80	11,576.9	-478.4	470.8	12.35	10.85	-5.96	-6.7	-0.4	



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #602H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3434.0usft (H&P 473)
Site:	Hunter 21 State Com	MD Reference:	KB = 25 @ 3434.0usft (H&P 473)
Well:	#602H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

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)	
12,044.0	86.10	175.30	11,584.5	-572.9	476.5	2.96	1.37	-2.63	-0.6	4.5	
12,138.0	84.20	173.40	11,592.4	-666.1	485.7	2.85	-2.02	-2.02	6.3	12.9	
12,233.0	85.80	173.40	11,600.7	-760.1	496.6	1.68	1.68	0.00	13.7	22.9	
12,264.0	87.10	172.90	11,602.6	-790.8	500.3	4.49	4.19	-1.61	15.4	26.3	
12,296.0	89.00	175.30	11,603.7	-822.7	503.6	9.56	5.94	7.50	16.2	29.3	
12,327.0	90.10	176.70	11,604.0	-853.6	505.7	5.74	3.55	4.52	16.1	31.2	
12,358.0	91.60	177.20	11,603.5	-884.5	507.4	5.10	4.84	1.61	15.4	32.5	
12,390.0	93.30	178.00	11,602.1	-916.5	508.7	5.87	5.31	2.50	13.7	33.6	
12,422.0	93.40	180.30	11,600.3	-948.4	509.2	7.18	0.31	7.19	11.5	33.8	
12,516.0	92.10	182.60	11,595.8	-1,042.3	506.8	2.81	-1.38	2.45	6.0	30.6	
12,610.0	88.70	182.20	11,595.1	-1,136.2	502.9	3.64	-3.62	-0.43	4.5	25.8	
12,704.0	91.60	180.80	11,594.9	-1,230.1	500.4	3.43	3.09	-1.49	3.3	22.5	
12,799.0	91.60	180.00	11,592.2	-1,325.1	499.8	0.84	0.00	-0.84	-0.2	21.0	
12,893.0	90.70	180.60	11,590.3	-1,419.1	499.3	1.15	-0.96	0.64	-3.1	19.7	
12,988.0	87.30	179.40	11,592.0	-1,514.0	499.3	3.80	-3.58	-1.26	-2.3	18.8	
13,082.0	86.60	179.30	11,597.0	-1,607.9	500.3	0.75	-0.74	-0.11	1.8	19.0	
13,177.0	87.50	180.00	11,601.9	-1,702.8	500.9	1.20	0.95	0.74	6.2	18.8	
13,271.0	89.80	180.60	11,604.1	-1,796.7	500.4	2.53	2.45	0.64	7.9	17.4	
13,365.0	92.90	181.40	11,601.9	-1,890.7	498.8	3.41	3.30	0.85	5.2	15.0	
13,460.0	93.00	181.60	11,597.0	-1,985.5	496.3	0.24	0.11	0.21	-0.2	11.6	
13,554.0	90.90	182.00	11,593.8	-2,079.4	493.4	2.27	-2.23	0.43	-3.9	7.8	
13,648.0	88.20	181.80	11,594.5	-2,173.3	490.2	2.88	-2.87	-0.21	-3.6	3.9	
13,743.0	89.80	182.10	11,596.2	-2,268.3	487.0	1.71	1.68	0.32	-2.5	-0.2	
13,837.0	89.30	183.10	11,596.9	-2,362.2	482.7	1.19	-0.53	1.06	-2.2	-5.3	
13,931.0	86.70	182.90	11,600.2	-2,456.0	477.8	2.77	-2.77	-0.21	0.5	-11.1	
14,026.0	86.90	183.20	11,605.5	-2,550.7	472.8	0.38	0.21	0.32	5.3	-17.0	
14,120.0	89.70	180.10	11,608.3	-2,644.6	470.1	4.44	2.98	-3.30	7.7	-20.5	



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #602H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3434.0usft (H&P 473)
Site:	Hunter 21 State Corn	MD Reference:	KB = 25 @ 3434.0usft (H&P 473)
Well:	#602H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

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)	
14,215.0	88.90	179.30	11,609.4	-2,739.6	470.6	1.19	-0.84	-0.84	8.3	-20.9	
14,310.0	93.20	178.60	11,607.7	-2,834.5	472.3	4.59	4.53	-0.74	6.1	-20.0	
14,406.0	90.70	179.40	11,604.4	-2,930.4	474.0	2.73	-2.60	0.83	2.3	-19.2	
14,500.0	90.50	179.50	11,603.5	-3,024.4	474.9	0.24	-0.21	0.11	0.8	-19.1	
14,594.0	90.90	179.20	11,602.3	-3,118.4	476.0	0.53	0.43	-0.32	-0.8	-18.9	
14,689.0	89.30	179.50	11,602.1	-3,213.4	477.0	1.71	-1.68	0.32	-1.5	-18.7	
14,783.0	89.20	179.20	11,603.4	-3,307.4	478.1	0.34	-0.11	-0.32	-0.8	-18.4	
14,877.0	89.30	179.20	11,604.6	-3,401.4	479.4	0.11	0.11	0.00	0.0	-18.0	
14,972.0	89.50	179.00	11,605.6	-3,496.4	480.9	0.30	0.21	-0.21	0.4	-17.3	
15,066.0	89.80	178.10	11,606.2	-3,590.3	483.3	1.01	0.32	-0.96	0.2	-15.8	
15,160.0	89.30	177.80	11,606.9	-3,684.3	486.6	0.62	-0.53	-0.32	0.1	-13.3	
15,254.0	88.70	177.40	11,608.5	-3,778.2	490.6	0.77	-0.64	-0.43	0.9	-10.2	
15,349.0	89.90	176.70	11,609.7	-3,873.0	495.5	1.46	1.26	-0.74	1.2	-6.1	
15,443.0	90.90	177.10	11,609.0	-3,966.9	500.6	1.15	1.06	0.43	-0.3	-1.9	
15,538.0	90.80	176.30	11,607.6	-4,061.7	506.0	0.85	-0.11	-0.84	-2.5	2.7	
15,632.0	91.30	178.80	11,605.9	-4,155.6	510.0	2.71	0.53	2.66	-5.1	5.9	
15,727.0	90.90	180.21	11,604.1	-4,250.6	510.9	1.54	-0.42	1.48	-7.8	5.9	
15,822.0	90.00	182.10	11,603.3	-4,345.6	508.9	2.20	-0.95	1.99	-9.4	3.1	
15,916.0	86.20	182.20	11,606.5	-4,439.4	505.4	4.04	-4.04	0.11	-7.1	-1.3	
16,011.0	86.50	181.10	11,612.5	-4,534.2	502.7	1.20	0.32	-1.16	-1.9	-4.8	
16,105.0	87.40	179.60	11,617.5	-4,628.1	502.1	1.86	0.96	-1.60	2.2	-6.2	
16,199.0	87.00	178.50	11,622.1	-4,721.9	503.7	1.24	-0.43	-1.17	5.3	-5.5	
16,293.0	89.80	178.00	11,624.7	-4,815.8	506.5	3.03	2.98	-0.53	6.3	-3.5	
16,388.0	89.70	177.00	11,625.1	-4,910.8	510.7	1.08	-0.11	-1.05	5.2	-0.2	
16,483.0	92.00	177.20	11,623.7	-5,005.6	515.5	2.43	2.42	0.21	2.2	3.7	
16,577.0	92.40	177.40	11,620.1	-5,099.4	519.9	0.48	0.43	0.21	-2.9	7.3	
16,672.0	92.00	177.20	11,616.5	-5,194.3	524.4	0.47	-0.42	-0.21	-8.1	11.0	



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #602H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3434.0usft (H&P 473)
Site:	Hunter 21 State Com	MD Reference:	KB = 25 @ 3434.0usft (H&P 473)
Well:	#602H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

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)	
16,767.0	92.90	179.20	11,612.4	-5,289.1	527.4	2.31	0.95	2.11	-13.8	13.1	
16,861.0	91.30	179.70	11,609.0	-5,383.1	528.3	1.78	-1.70	0.53	-18.8	13.1	
16,956.0	89.10	180.70	11,608.6	-5,478.0	527.9	2.54	-2.32	1.05	-20.7	12.0	
17,051.0	84.90	180.80	11,613.6	-5,572.9	526.7	4.42	-4.42	0.11	-17.2	9.9	
17,145.0	89.50	181.80	11,618.2	-5,666.7	524.6	5.01	4.89	1.06	-14.2	6.9	
17,240.0	90.60	181.90	11,618.1	-5,761.7	521.5	1.16	1.16	0.11	-15.9	3.0	
17,335.0	91.70	182.30	11,616.2	-5,856.6	518.0	1.23	1.16	0.42	-19.3	-1.3	
17,429.0	86.90	180.80	11,617.4	-5,950.5	515.5	5.35	-5.11	-1.60	-19.8	-4.7	
17,523.0	86.50	180.20	11,622.8	-6,044.4	514.7	0.77	-0.43	-0.64	-15.9	-6.4	
17,618.0	88.80	179.20	11,626.7	-6,139.3	515.2	2.64	2.42	-1.05	-13.6	-6.8	
17,713.0	87.20	178.50	11,630.0	-6,234.2	517.1	1.84	-1.68	-0.74	-11.9	-5.7	
17,807.0	89.40	178.30	11,632.8	-6,328.1	519.7	2.35	2.34	-0.21	-10.7	-3.9	
17,901.0	89.60	177.80	11,633.6	-6,422.0	522.9	0.57	0.21	-0.53	-11.4	-1.6	
17,996.0	92.00	177.10	11,632.3	-6,516.9	527.1	2.63	2.53	-0.74	-14.3	1.8	
18,090.0	92.50	177.40	11,628.6	-6,610.8	531.6	0.62	0.53	0.32	-19.6	5.5	
18,185.0	91.40	178.20	11,625.3	-6,705.6	535.3	1.43	-1.16	0.84	-24.4	8.3	
18,279.0	90.60	177.60	11,623.7	-6,799.5	538.7	1.06	-0.85	-0.64	-27.6	10.9	
18,373.0	89.40	178.50	11,623.7	-6,893.5	541.9	1.60	-1.28	0.96	-29.2	13.2	
18,468.0	89.50	178.30	11,624.6	-6,988.4	544.6	0.24	0.11	-0.21	-29.9	15.0	
18,563.0	89.90	177.60	11,625.1	-7,083.4	548.0	0.85	0.42	-0.74	-31.2	17.6	
18,657.0	88.80	178.90	11,626.2	-7,177.3	550.8	1.81	-1.17	1.38	-32.2	19.6	
18,751.0	87.70	179.40	11,629.0	-7,271.3	552.2	1.29	-1.17	0.53	-31.3	20.2	
18,846.0	89.20	179.60	11,631.6	-7,366.2	553.0	1.59	1.58	0.21	-30.8	20.1	
Last MWD Survey (MD = 18846.0)											
18,866.4	89.20	179.60	11,631.9	-7,386.6	553.2	0.00	0.00	0.00	-30.9	20.1	
LTP Crossing 18866.4' MD; 11631.9' TVD; -7386.6'; 553.2'; 89.20											



Midland PVA

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #602H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB = 25 @ 3434.0usft (H&P 473)
Site:	Hunter 21 State Com	MD Reference:	KB = 25 @ 3434.0usft (H&P 473)
Well:	#602H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.14

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)
18,966.0	89.20	179.60	11,633.3	-7,486.2	553.9	0.00	0.00	0.00	-31.7	19.9
Projection to Bit (MD = 18966.0)										

Survey Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
11,571.3	11,466.6	-123.4	482.8	FTP Crossing 11571.3' MD; 11466.6' TVD; -123.4'; 482.8'; 50.24
18,846.0	11,631.6	-7,366.2	553.0	Last MWD Survey (MD = 18846.0)
18,866.4	11,631.9	-7,386.6	553.2	LTP Crossing 18866.4' MD; 11631.9' TVD; -7386.6'; 553.2'; 89.20
18,966.0	11,633.3	-7,486.2	553.9	Projection to Bit (MD = 18966.0)

Checked By: _____ Approved By: _____ Date: _____