



Matador Resources

Eddy County, NM

SST State 06-19S-29E AH

124H

30-015-44324

OH

Design: OH Surveys 134.38'-12169' PTB 12250'

Standard Survey Report

07 March, 2018





Pro Directional Survey Report



Company: Matador Resources
Project: Eddy County, NM
Site: SST State 06-19S-29E AH
Well: 124H
Wellbore: OH
Design: OH Surveys 134.38'-12169' PTB 12250'

Local Co-ordinate Reference: Well 124H
TVD Reference: GL:3386' + KB:28.5' @ 3414.50usft (Patterson 809)
MD Reference: GL:3386' + KB:28.5' @ 3414.50usft (Patterson 809)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: WellPlanner1

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

Site SST State 06-19S-29E AH
Site Position: **From:** Map
Position Uncertainty: 0.00 usft
Northing: 612,596.00 usft
Easting: 570,065.00 usft
Slot Radius: 13-3/16 "
Latitude: 32.6839191
Longitude: -104.1056071
Grid Convergence: 0.12 °

Well 124H
Well Position **+N/-S** 0.00 usft **Northing:** 612,596.00 usft **Latitude:** 32.6839191
+E/-W 0.00 usft **Easting:** 570,065.00 usft **Longitude:** -104.1056071
Position Uncertainty 0.00 usft **Wellhead Elevation:** usft **Ground Level:** 3,386.00 usft

Wellbore OH
Magnetics **Model Name** **Sample Date** **Declination (°)** **Dip Angle (°)** **Field Strength (nT)**
 HDGM 2/20/2018 7.42 60.50 48,115.30

Design OH Surveys 134.38'-12169' PTB 12250'
Audit Notes:
Version: 1.0 **Phase:** ACTUAL **Tie On Depth:** 0.00
Vertical Section: **Depth From (TVD) (usft)** **+N/-S (usft)** **+E/-W (usft)** **Direction (°)**
 0.00 0.00 0.00 270.46

Survey Program **Date** 3/7/2018
From (usft) **To (usft)** **Survey (Wellbore)** **Tool Name** **Description**
 134.38 2,218.00 Survey #2 (OH) GYRO-NS-CT OWSG XYZ Accel with XY Static and Continuous
 2,370.00 12,250.00 ProMWD #2 (OH) MWD+HDGM OWSG MWD + HRGM

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)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
134.38	0.55	58.74	134.38	0.33	0.55	-0.55	0.41	0.41	0.00
229.09	1.01	34.76	229.08	1.26	1.42	-1.41	0.59	0.49	-25.32
323.80	0.96	1.60	323.78	2.74	1.91	-1.89	0.60	-0.05	-35.01
418.51	1.14	2.30	418.47	4.47	1.97	-1.94	0.19	0.19	0.74
513.22	1.18	14.53	513.16	6.36	2.26	-2.21	0.26	0.04	12.91
607.93	1.17	53.17	607.85	7.88	3.27	-3.21	0.82	-0.01	40.80
702.64	1.46	84.16	702.54	8.58	5.25	-5.18	0.80	0.31	32.72



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Site: SST State 06-19S-29E AH

MD Reference: GL:3386' + KB:28.5' @ 3414.50usft (Patterson 809)

Well: 124H

North Reference: Grid

Wellbore: OH

Survey Calculation Method: Minimum Curvature

Design: OH Surveys 134.38'-12169' PTB 12250'

Database: WellPlanner1

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)
797.35	1.52	96.75	797.22	8.56	7.70	-7.63	0.35	0.06	13.29
892.06	2.04	115.68	891.88	7.68	10.46	-10.40	0.82	0.55	19.99
986.77	3.08	124.41	986.50	5.51	14.08	-14.04	1.17	1.10	9.22
1,081.48	4.06	133.90	1,081.02	1.75	18.60	-18.58	1.20	1.03	10.02
1,176.19	4.87	135.84	1,175.44	-3.46	23.81	-23.84	0.87	0.86	2.05
1,270.90	4.54	136.54	1,269.83	-9.07	29.19	-29.26	0.35	-0.35	0.74
1,365.61	5.06	136.57	1,364.21	-14.82	34.64	-34.76	0.55	0.55	0.03
1,460.32	6.24	141.95	1,458.46	-21.91	40.69	-40.86	1.36	1.25	5.68
1,555.03	5.83	136.57	1,552.65	-29.45	47.17	-47.40	0.74	-0.43	-5.68
1,649.74	5.48	134.92	1,646.90	-36.14	53.68	-53.96	0.41	-0.37	-1.74
1,744.45	5.26	135.16	1,741.19	-42.41	59.94	-60.28	0.23	-0.23	0.25
1,839.16	5.06	135.48	1,835.52	-48.47	65.93	-66.32	0.21	-0.21	0.34
1,933.87	4.80	136.09	1,929.88	-54.30	71.60	-72.04	0.28	-0.27	0.64
2,028.58	4.59	138.20	2,024.27	-59.98	76.88	-77.36	0.29	-0.22	2.23
2,123.29	5.53	141.86	2,118.61	-66.40	82.22	-82.75	1.05	0.99	3.86
2,218.00	4.45	137.21	2,212.96	-72.68	87.54	-88.12	1.22	-1.14	-4.91
2,370.00	5.30	145.00	2,364.41	-82.76	95.57	-96.23	0.71	0.56	5.13
2,460.00	4.80	145.00	2,454.06	-89.25	100.11	-100.83	0.56	-0.56	0.00
2,554.00	4.70	142.30	2,547.74	-95.52	104.73	-105.49	0.26	-0.11	-2.87
2,647.00	4.40	137.10	2,640.44	-101.15	109.48	-110.29	0.55	-0.32	-5.59
2,740.00	4.30	135.50	2,733.18	-106.25	114.36	-115.21	0.17	-0.11	-1.72
2,834.00	4.20	131.40	2,826.92	-111.04	119.41	-120.30	0.34	-0.11	-4.36
2,927.00	5.40	152.80	2,919.60	-117.18	123.96	-124.90	2.30	1.29	23.01
3,020.00	5.80	155.40	3,012.15	-125.35	127.92	-128.92	0.51	0.43	2.80
3,114.00	5.40	153.70	3,105.70	-133.63	131.86	-132.93	0.46	-0.43	-1.81
3,207.00	5.10	151.40	3,198.31	-141.18	135.77	-136.90	0.39	-0.32	-2.47
3,301.00	4.10	153.50	3,292.01	-147.86	139.27	-140.46	1.08	-1.06	2.23
3,395.00	3.60	155.80	3,385.80	-153.56	141.98	-143.21	0.56	-0.53	2.45
3,488.00	2.60	152.10	3,478.66	-158.08	144.17	-145.43	1.10	-1.08	-3.98
3,582.00	2.10	152.70	3,572.58	-161.50	145.95	-147.25	0.53	-0.53	0.64
3,676.00	2.10	153.30	3,666.52	-164.57	147.52	-148.83	0.02	0.00	0.64
3,769.00	1.90	156.00	3,759.46	-167.50	148.91	-150.25	0.24	-0.22	2.90
3,863.00	1.70	166.30	3,853.41	-170.28	149.88	-151.24	0.40	-0.21	10.96
3,956.00	1.40	169.70	3,946.38	-172.73	150.40	-151.79	0.34	-0.32	3.66
4,050.00	1.20	180.40	4,040.36	-174.85	150.60	-152.00	0.33	-0.21	11.38
4,143.00	1.00	199.90	4,133.34	-176.59	150.32	-151.73	0.45	-0.22	20.97
4,237.00	1.00	213.00	4,227.33	-178.04	149.59	-151.02	0.24	0.00	13.94
4,330.00	1.10	219.30	4,320.31	-179.42	148.59	-150.02	0.16	0.11	6.77
4,424.00	1.10	230.30	4,414.29	-180.69	147.32	-148.77	0.22	0.00	11.70
4,517.00	1.10	234.20	4,507.28	-181.78	145.91	-147.37	0.08	0.00	4.19
4,611.00	1.00	232.20	4,601.26	-182.81	144.53	-145.99	0.11	-0.11	-2.13
4,704.00	1.00	232.30	4,694.25	-183.81	143.25	-144.72	0.00	0.00	0.11



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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)
4,798.00	1.10	230.30	4,788.23	-184.89	141.90	-143.38	0.11	0.11	-2.13
4,891.00	1.20	225.50	4,881.21	-186.14	140.52	-142.01	0.15	0.11	-5.16
4,984.00	1.80	303.30	4,974.19	-186.02	138.61	-140.10	2.09	0.65	83.66
5,078.00	2.50	307.80	5,068.12	-183.95	135.75	-137.23	0.77	0.74	4.79
5,171.00	2.50	308.50	5,161.03	-181.45	132.56	-134.02	0.03	0.00	0.75
5,265.00	2.60	307.40	5,254.94	-178.87	129.26	-130.70	0.12	0.11	-1.17
5,359.00	2.80	304.30	5,348.83	-176.29	125.67	-127.09	0.26	0.21	-3.30
5,452.00	1.10	282.00	5,441.78	-174.82	122.92	-124.32	1.97	-1.83	-23.98
5,546.00	1.00	248.00	5,535.76	-174.94	121.28	-122.68	0.66	-0.11	-36.17
5,639.00	1.50	252.80	5,628.74	-175.60	119.37	-120.77	0.55	0.54	5.16
5,733.00	1.80	258.30	5,722.70	-176.27	116.75	-118.16	0.36	0.32	5.85
5,826.00	2.40	268.90	5,815.64	-176.60	113.37	-114.78	0.77	0.65	11.40
5,920.00	1.80	287.40	5,909.58	-176.20	109.99	-111.40	0.96	-0.64	19.68
6,013.00	2.20	289.10	6,002.52	-175.18	106.91	-108.31	0.43	0.43	1.83
6,106.00	1.30	330.20	6,095.48	-173.68	104.70	-106.09	1.60	-0.97	44.19
6,200.00	1.20	348.60	6,189.46	-171.79	103.98	-105.35	0.44	-0.11	19.57
6,293.00	1.40	310.30	6,282.43	-170.10	102.92	-104.28	0.94	0.22	-41.18
6,386.00	0.40	270.90	6,375.42	-169.36	101.73	-103.08	1.20	-1.08	-42.37
6,480.00	0.70	200.90	6,469.42	-169.89	101.19	-102.55	0.72	0.32	-74.47
6,574.00	0.50	136.40	6,563.41	-170.72	101.27	-102.64	0.70	-0.21	-68.62
6,667.00	0.30	210.80	6,656.41	-171.22	101.43	-102.80	0.55	-0.22	80.00
6,761.00	0.40	234.00	6,750.41	-171.63	101.03	-102.41	0.18	0.11	24.68
6,854.00	1.00	237.50	6,843.40	-172.26	100.09	-101.47	0.65	0.65	3.76
6,948.00	1.80	219.00	6,937.38	-173.84	98.47	-99.86	0.97	0.85	-19.68
7,041.00	2.00	213.90	7,030.32	-176.33	96.64	-98.05	0.28	0.22	-5.48
7,135.00	2.00	213.70	7,124.27	-179.05	94.82	-96.25	0.01	0.00	-0.21
7,214.00	5.00	247.50	7,203.12	-181.52	90.87	-92.32	4.45	3.80	42.78
7,261.00	10.80	261.60	7,249.66	-182.95	84.62	-86.08	12.92	12.34	30.00
7,307.00	15.60	271.60	7,294.43	-183.40	74.16	-75.63	11.52	10.43	21.74
7,354.00	20.60	277.20	7,339.10	-182.19	59.63	-61.09	11.25	10.64	11.91
7,400.00	25.10	279.80	7,381.48	-179.51	41.98	-43.42	10.02	9.78	5.65
7,447.00	27.80	277.80	7,423.55	-176.33	21.29	-22.71	6.05	5.74	-4.26
7,493.00	29.50	277.50	7,463.92	-173.39	-0.57	-0.83	3.71	3.70	-0.65
7,540.00	31.10	276.70	7,504.50	-170.47	-24.10	22.73	3.51	3.40	-1.70
7,587.00	34.20	276.00	7,544.07	-167.67	-49.29	47.95	6.64	6.60	-1.49
7,634.00	39.40	273.90	7,581.69	-165.27	-77.33	76.00	11.38	11.06	-4.47
7,680.00	44.20	272.50	7,615.97	-163.58	-107.94	106.62	10.63	10.43	-3.04
7,727.00	48.70	272.30	7,648.35	-162.15	-141.96	140.65	9.58	9.57	-0.43
7,730.58	49.08	272.27	7,650.70	-162.05	-144.66	143.35	10.66	10.64	-0.91
FPP: 7730.58' MD									
7,774.00	53.70	271.90	7,677.79	-160.82	-178.55	177.26	10.66	10.64	-0.85
7,821.00	61.00	271.60	7,703.13	-159.61	-218.08	216.79	15.54	15.53	-0.64



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Well: 124H

Wellbore: OH

Design: OH Surveys 134.38'-12169' PTB 12250'

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Survey Calculation Method:

Database:

GL:3386' + KB:28.5' @ 3414.50usft (Patterson 809)

GL:3386' + KB:28.5' @ 3414.50usft (Patterson 809)

Grid

Minimum Curvature

WellPlanner1

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)
7,868.00	65.20	272.70	7,724.39	-158.03	-259.96	258.68	9.18	8.94	2.34
7,961.00	76.30	274.80	7,755.00	-152.25	-347.42	346.19	12.12	11.94	2.26
8,055.00	88.20	273.80	7,767.66	-145.29	-440.13	438.95	12.70	12.66	-1.06
8,150.00	92.50	271.10	7,767.08	-141.23	-535.01	533.86	5.34	4.53	-2.84
8,243.00	93.30	268.90	7,762.37	-141.23	-627.89	626.73	2.51	0.86	-2.37
8,337.00	93.80	268.80	7,756.55	-143.11	-721.69	720.52	0.54	0.53	-0.11
8,431.00	93.90	268.40	7,750.24	-145.40	-815.45	814.26	0.44	0.11	-0.43
8,524.00	93.30	268.10	7,744.40	-148.24	-908.22	907.00	0.72	-0.65	-0.32
8,617.00	92.90	268.00	7,739.37	-151.40	-1,001.03	999.78	0.44	-0.43	-0.11
8,711.00	92.60	269.90	7,734.86	-153.12	-1,094.90	1,093.64	2.04	-0.32	2.02
8,804.00	93.10	270.20	7,730.24	-153.03	-1,187.79	1,186.52	0.63	0.54	0.32
8,898.00	94.10	270.30	7,724.33	-152.63	-1,281.60	1,280.33	1.07	1.06	0.11
8,991.00	93.00	270.80	7,718.58	-151.73	-1,374.42	1,373.15	1.30	-1.18	0.54
9,085.00	93.00	271.70	7,713.66	-149.69	-1,468.26	1,467.01	0.96	0.00	0.96
9,178.00	92.30	272.50	7,709.36	-146.28	-1,561.10	1,559.88	1.14	-0.75	0.86
9,272.00	91.30	272.70	7,706.40	-142.02	-1,654.96	1,653.76	1.08	-1.06	0.21
9,365.00	92.60	272.60	7,703.24	-137.72	-1,747.80	1,746.64	1.40	1.40	-0.11
9,458.00	91.60	272.40	7,699.83	-133.67	-1,840.65	1,839.52	1.10	-1.08	-0.22
9,552.00	91.90	272.20	7,696.96	-129.90	-1,934.53	1,933.42	0.38	0.32	-0.21
9,645.00	93.00	271.80	7,692.99	-126.66	-2,027.39	2,026.30	1.26	1.18	-0.43
9,739.00	93.40	271.60	7,687.74	-123.87	-2,121.20	2,120.13	0.48	0.43	-0.21
9,832.00	94.00	271.80	7,681.74	-121.12	-2,213.96	2,212.92	0.68	0.65	0.22
9,926.00	92.10	271.90	7,676.74	-118.09	-2,307.78	2,306.75	2.02	-2.02	0.11
10,020.00	92.30	271.50	7,673.13	-115.30	-2,401.67	2,400.66	0.48	0.21	-0.43
10,113.00	90.40	271.30	7,670.94	-113.03	-2,494.61	2,493.62	2.05	-2.04	-0.22
10,207.00	89.80	271.10	7,670.77	-111.06	-2,588.59	2,587.61	0.67	-0.64	-0.21
10,300.00	90.50	271.60	7,670.53	-108.87	-2,681.56	2,680.60	0.92	0.75	0.54
10,394.00	90.80	271.60	7,669.46	-106.25	-2,775.52	2,774.57	0.32	0.32	0.00
10,487.00	90.90	271.60	7,668.08	-103.65	-2,868.47	2,867.55	0.11	0.11	0.00
10,581.00	90.90	270.70	7,666.61	-101.76	-2,962.44	2,961.53	0.96	0.00	-0.96
10,674.00	91.00	270.20	7,665.06	-101.03	-3,055.42	3,054.51	0.55	0.11	-0.54
10,767.00	91.50	270.40	7,663.03	-100.55	-3,148.40	3,147.49	0.58	0.54	0.22
10,860.00	90.50	270.20	7,661.41	-100.06	-3,241.38	3,240.47	1.10	-1.08	-0.22
10,954.00	90.20	269.90	7,660.84	-99.98	-3,335.38	3,334.47	0.45	-0.32	-0.32
11,047.00	90.50	271.00	7,660.27	-99.25	-3,428.37	3,427.47	1.23	0.32	1.18
11,141.00	90.40	271.50	7,659.53	-97.20	-3,522.35	3,521.45	0.54	-0.11	0.53
11,234.00	91.30	271.40	7,658.15	-94.84	-3,615.31	3,614.43	0.97	0.97	-0.11
11,328.00	90.70	269.30	7,656.51	-94.27	-3,709.29	3,708.41	2.32	-0.64	-2.23
11,422.00	91.50	268.60	7,654.71	-95.99	-3,803.25	3,802.36	1.13	0.85	-0.74
11,515.00	92.50	269.40	7,651.46	-97.61	-3,896.18	3,895.27	1.38	1.08	0.86
11,609.00	92.40	269.60	7,647.44	-98.43	-3,990.09	3,989.17	0.24	-0.11	0.21
11,702.00	93.10	268.80	7,642.98	-99.73	-4,082.97	4,082.04	1.14	0.75	-0.86



Pro Directional Survey Report



Company:	Matador Resources	Local Co-ordinate Reference:	Well 124H
Project:	Eddy County, NM	TVD Reference:	GL:3386' + KB:28.5' @ 3414.50usft (Patterson 809)
Site:	SST State 06-19S-29E AH	MD Reference:	GL:3386' + KB:28.5' @ 3414.50usft (Patterson 809)
Well:	124H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH Surveys 134.38'-12169' PTB 12250'	Database:	WellPlanner1

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)
11,796.00	94.10	268.60	7,637.08	-101.86	-4,176.76	4,175.81	1.08	1.06	-0.21
11,889.00	93.50	267.50	7,630.91	-105.02	-4,269.50	4,268.52	1.35	-0.65	-1.18
11,982.00	93.50	267.50	7,625.24	-109.07	-4,362.24	4,361.22	0.00	0.00	0.00
12,075.00	95.80	267.30	7,617.70	-113.27	-4,454.83	4,453.78	2.48	2.47	-0.22
12,167.81	95.31	267.10	7,608.72	-117.78	-4,547.09	4,546.00	0.57	-0.53	-0.21
LPP: 12167.81' MD									
12,169.00	95.30	267.10	7,608.61	-117.84	-4,548.28	4,547.19	0.57	-0.53	-0.21
Last Survey: 12169.00' MD, 7608.61' TVD									
12,250.00	95.30	267.10	7,601.12	-121.92	-4,628.83	4,627.70	0.00	0.00	0.00
PTB: 12250.00' MD, 7601.12' TVD									

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
7,730.58	7,650.70	-162.05	-144.66	FPP: 7730.58' MD
12,167.81	7,608.72	-117.78	-4,547.09	LPP: 12167.81' MD
12,169.00	7,608.61	-117.84	-4,548.28	Last Survey: 12169.00' MD, 7608.61' TVD
12,250.00	7,601.12	-121.92	-4,628.83	PTB: 12250.00' MD, 7601.12' TVD

Checked By: _____ Approved By: _____ Date: _____