

30-015-43756



Matador Resources

Eddy County, NM

Janie Conner

No. 221H

ST01

Survey: ProDirectional

Survey Report

28 June, 2016





ProDirectional
Survey Report



Company:	Matador Resources	Local Co-ordinate Reference:	Well No. 221H
Project:	Eddy County, NM	TVD Reference:	Well @ 3004.50usft (GL: 2976' + KB: 28.5' (Patt809))
Site:	Janie Conner 201-221-121	MD Reference:	Well @ 3004.50usft (GL: 2976' + KB: 28.5' (Patt809))
Well:	No. 221H	North Reference:	Grid
Wellbore:	ST01	Survey Calculation Method:	Minimum Curvature
Design:	ST01-14662'-15918', Proj. 16043'	Database:	Well_Planner1

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	Janie Conner 201-221-121		
Site Position:		Northing:	445,277.00 usft
From:	Map	Easting:	587,635.00 usft
Position Uncertainty:	3.30 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 13' 25.917 N
		Longitude:	104° 2' 59.801 W
		Grid Convergence:	0.15 °

Well		No. 221H				
Well Position	+N/-S	0.00 usft	Northing:	445,277.00 usft	Latitude:	32° 13' 25.918 N
	+E/-W	0.00 usft	Easting:	587,605.00 usft	Longitude:	104° 3' 0.150 W
Position Uncertainty		1.10 usft	Wellhead Elevation:	0.00 usft	Ground Level:	2,976.00 usft

Wellbore		ST01			
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	HDGM	6/18/2016	7.35	60.07	48,219

Design	ST01-14662'-15918', Proj. 16043'				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	14,578.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction	
	(usft)	(usft)	(usft)	(°)	
	0.00	0.00	0.00	89.36	



ProDirectional
Survey Report



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Project: Eddy County, NM
Site: Janie Conner 201-221-121
Well: No. 221H
Wellbore: ST01
Design: ST01-14662-15918", Proj. 16043'

Local Co-ordinate Reference: Well No. 221H
TVD Reference: Well @ 3004.50usft (GL: 2976' + KB: 28.5' (Patt809))
MD Reference: Well @ 3004.50usft (GL: 2976' + KB: 28.5' (Patt809))
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Well Planner1

Survey Program		Date: 6/28/2016		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
100.00	532.00	Gyro (OH)	GYD_DP_MS	Gyrodatta gyro-compassing and drop
697.00	14,578.00	MWD (OH)	MWD - OWSG	MWD - OWSG
14,662.00	16,043.00	Survey #1 (ST01)	MWD - OWSG	MWD - OWSG

MD (usft)	Inc (")	Azi (azimuth) (")	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (")	Northing (usft)	Easting (usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	445,277.00	587,605.00
100.00	0.45	142.75	100.00	0.23	-0.31	0.24	0.39	142.75	445,276.69	587,605.24
200.00	0.74	101.90	199.99	1.10	-0.76	1.11	1.34	124.41	445,276.24	587,606.11
300.00	1.51	123.52	299.97	2.82	-1.62	2.84	3.27	119.71	445,275.38	587,607.84
400.00	2.12	125.02	399.92	5.41	-3.41	5.45	6.43	122.02	445,273.59	587,610.45
500.00	3.02	124.96	499.82	9.06	-5.98	9.12	10.91	123.24	445,271.02	587,614.12
532.00	3.23	122.81	531.77	10.49	-6.95	10.57	12.65	123.32	445,270.05	587,615.57
697.00	4.30	121.50	696.42	19.61	-12.70	19.75	23.49	122.74	445,264.30	587,624.75
791.00	2.60	151.80	790.25	23.58	-16.42	23.77	28.89	124.64	445,260.58	587,628.77
884.00	2.20	232.60	883.19	23.13	-19.37	23.35	30.33	129.68	445,257.63	587,628.35
978.00	4.80	268.20	977.02	17.75	-20.59	17.98	27.33	138.87	445,256.41	587,622.98
1,072.00	6.40	295.70	1,070.58	9.12	-18.44	9.33	20.66	153.17	445,258.56	587,614.33
1,166.00	6.70	306.00	1,163.97	0.02	-12.94	0.17	12.94	179.25	445,264.06	587,605.17
1,259.00	6.20	307.10	1,256.38	-8.30	-6.72	-8.23	10.62	230.74	445,270.28	587,596.77
1,352.00	5.50	289.80	1,348.90	-16.45	-2.18	-16.43	16.57	262.43	445,274.82	587,588.57
1,446.00	5.80	266.40	1,442.46	-25.41	-0.96	-25.40	25.42	267.84	445,276.04	587,579.60
1,540.00	6.00	259.10	1,535.96	-34.99	-2.18	-34.97	35.04	266.43	445,274.82	587,570.03
1,633.00	4.30	268.20	1,628.59	-43.26	-3.21	-43.23	43.35	265.75	445,273.79	587,561.77
1,727.00	4.00	269.50	1,722.34	-50.06	-3.35	-50.03	50.14	266.17	445,273.65	587,554.97
1,821.00	4.00	265.20	1,816.11	-56.61	-3.65	-56.57	56.69	266.30	445,273.35	587,548.43



ProDirectional
Survey Report



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Site:	Janie Conner 201-221-121	MD Reference:	Well @ 3004.50usft (GL: 2976' + KB: 28.5' (Patt809))
Well:	No. 221H	North Reference:	Grid
Wellbore:	ST01	Survey Calculation Method:	Minimum Curvature
Design:	ST01-14662'-15918', Proj. 16043'	Database:	Well Planner1

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)	
1,915.00	3.30	262.90	1,909.92	-62.57	-4.26	-62.53	62.67	266.10	445,272.74	587,542.47	
2,008.00	2.70	252.70	2,002.79	-67.33	-5.25	-67.27	67.48	265.54	445,271.75	587,537.73	
2,102.00	2.70	250.50	2,096.69	-71.54	-6.64	-71.47	71.78	264.69	445,270.36	587,533.53	
2,196.00	2.20	247.00	2,190.60	-75.31	-8.09	-75.22	75.66	263.86	445,268.91	587,529.78	
2,289.00	2.10	258.60	2,283.54	-78.63	-9.12	-78.54	79.06	263.38	445,267.88	587,526.46	
2,383.00	2.10	267.10	2,377.47	-82.05	-9.55	-81.94	82.50	263.35	445,267.45	587,523.06	
2,477.00	1.80	265.60	2,471.42	-85.24	-9.75	-85.14	85.69	263.47	445,267.25	587,519.86	
2,570.00	2.90	277.20	2,564.34	-89.03	-9.57	-88.93	89.44	263.86	445,267.43	587,516.07	
2,664.00	3.30	277.60	2,658.20	-94.06	-8.91	-93.97	94.39	264.58	445,268.09	587,511.03	
2,699.00	3.20	279.00	2,693.15	-96.02	-8.62	-95.93	96.32	264.86	445,268.38	587,509.07	
2,850.00	3.30	274.80	2,843.90	-104.50	-7.60	-104.42	104.70	265.84	445,269.40	587,500.58	
2,944.00	3.00	271.50	2,937.76	-109.65	-7.31	-109.58	109.82	266.18	445,269.69	587,495.42	
3,037.00	2.80	269.30	3,030.64	-114.44	-7.28	-114.36	114.60	266.36	445,269.72	587,490.64	
3,131.00	2.50	295.20	3,124.54	-118.66	-6.43	-118.60	118.77	266.90	445,270.57	587,486.40	
3,224.00	2.60	300.00	3,217.44	-122.30	-4.51	-122.26	122.34	267.89	445,272.49	587,482.74	
3,318.00	2.70	300.90	3,311.34	-126.02	-2.31	-126.01	126.03	268.95	445,274.69	587,478.99	
3,411.00	2.70	298.20	3,404.24	-129.81	-0.15	-129.82	129.82	269.93	445,276.85	587,475.18	
3,505.00	2.70	300.70	3,498.14	-133.64	2.03	-133.67	133.69	270.87	445,279.03	587,471.33	
3,598.00	2.70	297.60	3,591.03	-137.44	4.16	-137.50	137.56	271.73	445,281.16	587,467.50	
3,692.00	2.80	299.50	3,684.93	-141.38	6.32	-141.46	141.60	272.56	445,283.32	587,463.54	
3,786.00	2.30	291.00	3,778.83	-145.12	8.12	-145.21	145.44	273.20	445,285.12	587,459.79	
3,879.00	1.90	283.90	3,871.77	-148.34	9.16	-148.45	148.74	273.53	445,286.16	587,456.55	
3,973.00	1.80	283.50	3,965.72	-151.28	9.88	-151.40	151.72	273.73	445,286.88	587,453.60	
4,067.00	1.90	284.10	4,059.67	-154.22	10.60	-154.35	154.71	273.93	445,287.60	587,450.65	
4,160.00	1.90	283.30	4,152.62	-157.21	11.33	-157.34	157.75	274.12	445,288.33	587,447.66	
4,254.00	1.90	279.70	4,246.57	-160.25	11.96	-160.40	160.84	274.26	445,288.96	587,444.60	
4,348.00	1.90	278.50	4,340.52	-163.32	12.45	-163.47	163.95	274.35	445,289.45	587,441.53	



ProDirectional
Survey Report



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Wellbore:	ST01	Survey Calculation Method:	Minimum Curvature
Design:	ST01-14662-15918', Proj. 16043'	Database:	Well Planner1

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)	
4,442.00	1.90	276.90	4,434.47	-166.41	12.87	-166.56	167.06	274.42	445,289.87	587,438.44	
4,535.00	2.00	273.90	4,527.41	-169.55	13.16	-169.71	170.22	274.43	445,290.16	587,435.29	
4,629.00	2.10	276.60	4,621.35	-172.90	13.47	-173.06	173.58	274.45	445,290.47	587,431.94	
4,722.00	2.20	274.80	4,714.29	-176.37	13.82	-176.53	177.07	274.48	445,290.82	587,428.47	
4,816.00	1.30	277.40	4,808.24	-179.22	14.10	-179.39	179.94	274.50	445,291.10	587,425.61	
4,910.00	0.60	271.90	4,902.23	-180.76	14.26	-180.94	181.50	274.51	445,291.26	587,424.06	
5,003.00	1.00	262.60	4,995.22	-182.06	14.17	-182.23	182.78	274.45	445,291.17	587,422.77	
5,097.00	1.00	260.70	5,089.20	-183.68	13.93	-183.85	184.38	274.33	445,290.93	587,421.15	
5,191.00	0.90	270.90	5,183.19	-185.23	13.81	-185.40	185.91	274.26	445,290.81	587,419.60	
5,284.00	0.90	262.10	5,276.18	-186.69	13.72	-186.86	187.35	274.20	445,290.72	587,418.15	
5,378.00	1.00	248.40	5,370.17	-188.18	13.32	-188.34	188.82	274.04	445,290.32	587,416.66	
5,472.00	1.00	250.00	5,464.15	-189.72	12.74	-189.88	190.31	273.84	445,289.74	587,415.12	
5,565.00	0.80	242.70	5,557.14	-191.07	12.16	-191.22	191.60	273.64	445,289.16	587,413.78	
5,659.00	0.80	247.60	5,651.13	-192.27	11.61	-192.41	192.76	273.45	445,288.61	587,412.59	
5,752.00	1.00	231.00	5,744.12	-193.51	10.85	-193.64	193.94	273.21	445,287.85	587,411.36	
5,846.00	1.00	221.00	5,838.11	-194.69	9.72	-194.81	195.06	272.86	445,286.72	587,410.19	
5,939.00	1.00	245.20	5,931.09	-195.97	8.76	-196.08	196.28	272.56	445,285.76	587,408.92	
6,033.00	1.30	224.30	6,025.07	-197.47	7.66	-197.57	197.72	272.22	445,284.66	587,407.43	
6,126.00	1.30	288.20	6,118.05	-199.22	7.23	-199.31	199.44	272.08	445,284.23	587,405.69	
6,219.00	1.80	300.30	6,211.02	-201.47	8.30	-201.58	201.75	272.36	445,285.30	587,403.42	
6,313.00	1.60	286.00	6,304.98	-203.99	9.40	-204.11	204.33	272.64	445,286.40	587,400.89	
6,406.00	1.90	267.50	6,397.94	-206.78	9.69	-206.90	207.13	272.68	445,286.69	587,398.10	
6,500.00	2.10	254.80	6,491.88	-210.00	9.17	-210.12	210.32	272.50	445,286.17	587,394.88	
6,593.00	1.80	266.60	6,584.83	-213.11	8.64	-213.22	213.40	272.32	445,285.64	587,391.78	
6,687.00	1.30	264.50	6,678.79	-215.65	8.45	-215.76	215.92	272.24	445,285.45	587,389.24	
6,781.00	1.70	271.20	6,772.76	-218.10	8.38	-218.21	218.37	272.20	445,285.38	587,386.79	
6,874.00	1.20	284.20	6,865.73	-220.42	8.65	-220.53	220.70	272.25	445,285.65	587,384.47	



ProDirectional
Survey Report



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Wellbore:	ST01	Survey Calculation Method:	Minimum Curvature
Design:	ST01-14662-15918', Proj: 16043'	Database:	Well_Planner1

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)	
6,968.00	1.00	260.70	6,959.71	-222.19	8.76	-222.30	222.47	272.26	445,285.76	587,382.70	
7,061.00	1.20	259.90	7,052.70	-223.95	8.45	-224.06	224.22	272.16	445,285.45	587,380.94	
7,155.00	1.30	255.70	7,146.67	-225.96	8.02	-226.06	226.20	272.03	445,285.02	587,378.94	
7,248.00	1.00	221.10	7,239.66	-227.52	7.15	-227.62	227.73	271.80	445,284.15	587,377.38	
7,342.00	1.00	188.60	7,333.64	-228.20	5.72	-228.28	228.35	271.43	445,282.72	587,376.72	
7,436.00	1.20	174.50	7,427.62	-228.25	3.93	-228.31	228.34	270.98	445,280.93	587,376.69	
7,529.00	1.60	165.80	7,520.60	-227.86	1.70	-227.89	227.90	270.43	445,278.70	587,377.11	
7,623.00	2.00	169.90	7,614.55	-227.28	-1.19	-227.28	227.29	269.70	445,275.81	587,377.72	
7,716.00	0.40	65.50	7,707.53	-226.72	-2.65	-226.70	226.72	269.33	445,274.35	587,378.30	
7,810.00	1.10	35.40	7,801.52	-225.89	-1.78	-225.88	225.89	269.55	445,275.22	587,379.12	
7,903.00	1.00	331.30	7,894.51	-225.75	-0.34	-225.76	225.76	269.91	445,276.66	587,379.24	
7,997.00	3.80	298.90	7,988.42	-228.84	1.88	-228.88	228.89	270.47	445,278.88	587,376.12	
8,090.00	3.30	289.50	8,081.24	-234.04	4.27	-234.10	234.14	271.04	445,281.27	587,370.90	
8,184.00	1.60	251.30	8,175.16	-237.82	4.75	-237.89	237.94	271.14	445,281.75	587,367.11	
8,277.00	1.10	142.80	8,268.14	-238.53	3.62	-238.58	238.61	270.87	445,280.62	587,366.42	
8,371.00	1.50	120.00	8,362.12	-236.93	2.29	-236.97	236.98	270.55	445,279.29	587,368.03	
8,465.00	1.50	101.20	8,456.09	-234.67	1.43	-234.70	234.70	270.35	445,278.43	587,370.30	
8,558.00	0.60	103.80	8,549.07	-233.01	1.08	-233.03	233.04	270.27	445,278.08	587,371.97	
8,652.00	1.60	196.20	8,643.06	-232.91	-0.30	-232.92	232.92	269.93	445,276.70	587,372.08	
8,746.00	2.00	204.60	8,737.01	-233.99	-3.05	-233.97	233.99	269.25	445,273.95	587,371.03	
8,839.00	2.10	214.40	8,829.95	-235.66	-5.93	-235.61	235.68	268.56	445,271.07	587,369.39	
8,933.00	1.20	227.10	8,923.91	-237.38	-8.02	-237.30	237.44	268.06	445,268.98	587,367.70	
9,026.00	1.10	269.30	9,016.90	-238.99	-8.70	-238.91	239.07	267.92	445,268.30	587,366.09	
9,120.00	2.10	266.10	9,110.86	-241.61	-8.82	-241.53	241.69	267.91	445,268.18	587,363.47	
9,214.00	0.90	312.10	9,204.83	-243.87	-8.45	-243.79	243.94	268.02	445,268.55	587,361.21	
9,307.00	1.40	31.00	9,297.81	-243.81	-6.98	-243.75	243.85	268.36	445,270.02	587,361.25	
9,401.00	0.70	25.70	9,391.80	-242.96	-5.48	-242.91	242.97	268.71	445,271.52	587,362.09	



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Survey Report



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Wellbore:	ST01	Survey Calculation Method:	Minimum Curvature
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9,495.00	0.50	15.10	9,485.79	-242.59	-4.57	-242.56	242.60	268.92	445,272.43	587,362.44	
9,588.00	0.30	28.00	9,578.79	-242.36	-3.96	-242.34	242.37	269.06	445,273.04	587,362.66	
9,682.00	0.20	11.90	9,672.79	-242.21	-3.58	-242.19	242.21	269.15	445,273.42	587,362.81	
9,775.00	0.30	140.90	9,765.79	-242.02	-3.61	-242.00	242.03	269.14	445,273.39	587,363.00	
9,869.00	0.60	151.70	9,859.79	-241.64	-4.24	-241.61	241.65	269.00	445,272.76	587,363.39	
9,962.00	0.90	152.20	9,952.78	-241.08	-5.31	-241.04	241.10	268.74	445,271.69	587,363.96	
9,986.00	1.00	157.80	9,976.77	-240.92	-5.67	-240.87	240.94	268.65	445,271.33	587,364.13	
10,080.00	4.10	85.70	10,070.68	-237.26	-6.18	-237.21	237.29	268.51	445,270.82	587,367.79	
10,111.00	8.40	81.80	10,101.49	-233.91	-5.77	-233.86	233.93	268.59	445,271.23	587,371.14	
10,142.00	11.90	80.30	10,132.00	-228.51	-4.91	-228.47	228.52	268.77	445,272.09	587,376.53	
10,173.00	15.10	77.80	10,162.14	-221.39	-3.52	-221.37	221.40	269.09	445,273.48	587,383.63	
10,220.00	19.80	83.80	10,206.97	-207.47	-1.37	-207.46	207.47	269.62	445,275.63	587,397.54	
10,267.00	24.70	88.20	10,250.46	-189.71	-0.20	-189.72	189.72	269.94	445,276.80	587,415.28	
10,314.00	30.40	90.10	10,292.11	-167.99	0.09	-168.00	168.00	270.03	445,277.09	587,437.00	
10,361.00	36.00	89.80	10,331.43	-142.26	0.12	-142.27	142.27	270.05	445,277.12	587,462.73	
10,408.00	39.90	88.30	10,368.48	-113.37	0.61	-113.38	113.38	270.31	445,277.61	587,491.62	
10,454.00	41.90	87.00	10,403.25	-83.26	1.86	-83.29	83.31	271.28	445,278.86	587,521.71	
10,501.00	44.20	85.50	10,437.59	-51.23	3.96	-51.28	51.43	274.42	445,280.96	587,553.72	
10,548.00	46.60	85.10	10,470.59	-17.85	6.71	-17.93	19.14	290.51	445,283.71	587,587.07	
10,595.00	50.20	87.70	10,501.80	17.24	8.89	17.14	19.31	62.58	445,285.89	587,622.14	
10,642.00	55.10	89.70	10,530.30	54.58	9.72	54.48	55.34	79.89	445,286.72	587,659.48	
10,689.00	59.60	90.70	10,555.65	94.14	9.57	94.04	94.52	84.19	445,286.57	587,699.04	
10,735.00	61.70	91.10	10,578.20	134.22	8.94	134.13	134.42	86.19	445,285.94	587,739.13	
10,782.00	63.30	88.80	10,599.90	175.90	8.98	175.81	176.04	87.08	445,285.98	587,780.81	
10,829.00	66.50	86.00	10,619.84	218.42	10.93	218.32	218.59	87.13	445,287.93	587,823.32	
10,876.00	71.50	85.40	10,636.68	262.20	14.22	262.06	262.44	86.89	445,291.22	587,867.06	
10,917.00	76.10	84.10	10,648.11	301.43	17.83	301.25	301.78	86.61	445,294.83	587,906.25	



ProDirectional
Survey Report



Company:	Matador Resources	Local Co-ordinate Reference:	Well No. 221H
Project:	Eddy County, NM	TVD Reference:	Well @ 3004.50usft (GL: 2976' + KB: 28.5' (Patt809))
Site:	Janie Conner 201-221-121	MD Reference:	Well @ 3004.50usft (GL: 2976' + KB: 28.5' (Patt809))
Well:	No. 221H	North Reference:	Grid
Wellbore:	ST01	Survey Calculation Method:	Minimum Curvature
Design:	ST01-14662'-15918', Proj. 16043'	Database:	Well_Planner1

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)
11,023.00	81.10	85.20	10,669.06	404.96	27.50	404.67	405.61	86.11	445,304.50	588,009.67
11,055.00	82.20	84.90	10,673.71	436.53	30.23	436.22	437.26	86.04	445,307.23	588,041.22
11,086.00	84.60	85.30	10,677.27	467.23	32.86	466.90	468.05	85.97	445,309.86	588,071.90
11,181.00	88.20	89.10	10,683.24	561.95	37.49	561.56	562.81	86.18	445,314.49	588,166.56
11,274.00	90.50	91.80	10,684.29	654.91	36.76	654.54	655.57	86.79	445,313.76	588,259.54
11,369.00	90.50	90.10	10,683.46	749.86	35.18	749.52	750.34	87.31	445,312.18	588,354.52
11,464.00	89.30	92.50	10,683.63	844.80	33.03	844.49	845.13	87.76	445,310.03	588,449.49
11,559.00	91.00	92.20	10,683.38	939.67	29.13	939.40	939.85	88.22	445,306.13	588,544.40
11,653.00	90.80	93.20	10,681.90	1,033.50	24.70	1,033.28	1,033.58	88.63	445,301.70	588,638.28
11,747.00	88.30	92.40	10,682.64	1,127.32	20.11	1,127.16	1,127.34	88.98	445,297.11	588,732.16
11,841.00	86.60	90.20	10,686.82	1,221.16	17.98	1,221.03	1,221.17	89.16	445,294.98	588,826.03
11,936.00	89.70	92.20	10,689.89	1,316.04	15.99	1,315.95	1,316.04	89.30	445,292.99	588,920.95
12,031.00	88.60	92.00	10,691.30	1,410.92	12.51	1,410.87	1,410.93	89.49	445,289.51	589,015.87
12,125.00	84.80	88.60	10,696.71	1,504.72	12.01	1,504.68	1,504.73	89.54	445,289.01	589,109.68
12,219.00	88.40	89.10	10,702.29	1,598.54	13.90	1,598.48	1,598.54	89.50	445,290.90	589,203.48
12,314.00	89.50	88.90	10,704.03	1,693.52	15.55	1,693.45	1,693.52	89.47	445,292.55	589,298.45
12,408.00	89.00	88.20	10,705.26	1,787.50	17.93	1,787.41	1,787.50	89.43	445,294.93	589,392.41
12,503.00	86.70	89.40	10,708.82	1,882.42	19.92	1,882.32	1,882.42	89.39	445,296.92	589,487.32
12,597.00	92.10	92.20	10,709.80	1,976.34	18.61	1,976.26	1,976.35	89.46	445,295.61	589,581.26
12,692.00	89.50	89.80	10,708.48	2,071.28	16.95	2,071.22	2,071.29	89.53	445,293.95	589,676.22
12,786.00	86.30	89.20	10,711.92	2,165.20	17.77	2,165.14	2,165.21	89.53	445,294.77	589,770.14
12,880.00	85.80	89.10	10,718.40	2,258.98	19.16	2,258.91	2,258.99	89.51	445,296.16	589,863.91
12,975.00	90.50	90.40	10,721.46	2,353.90	19.57	2,353.83	2,353.91	89.52	445,296.57	589,958.83
13,070.00	86.40	87.20	10,724.03	2,448.83	21.56	2,448.74	2,448.83	89.50	445,298.56	590,053.74
13,164.00	86.20	87.40	10,730.10	2,542.57	25.98	2,542.44	2,542.57	89.41	445,302.98	590,147.44
13,258.00	86.40	88.00	10,736.17	2,636.33	29.74	2,636.17	2,636.33	89.35	445,306.74	590,241.17
13,352.00	88.00	87.90	10,740.76	2,730.19	33.10	2,729.99	2,730.19	89.31	445,310.10	590,334.99



ProDirectional
Survey Report



Company:	Matador Resources	Local Co-ordinate Reference:	Well No. 221H
Project:	Eddy County, NM	TVD Reference:	Well @ 3004.50usft (GL: 2976' + KB: 28.5' (Patt809))
Site:	Janie Conner 201-221-121	MD Reference:	Well @ 3004.50usft (GL: 2976' + KB: 28.5' (Patt809))
Well:	No. 221H	North Reference:	Grid
Wellbore:	ST01	Survey Calculation Method:	Minimum Curvature
Design:	ST01-14662'-15918', Proj. 16043'	Database:	Well Planner1

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)
13,446.00	88.30	88.20	10,743.79	2,824.12	36.30	2,823.89	2,824.12	89.26	445,313.30	590,428.89
13,540.00	90.60	88.40	10,744.69	2,918.09	39.09	2,917.84	2,918.10	89.23	445,316.09	590,522.84
13,635.00	91.90	90.70	10,742.62	3,013.06	39.83	3,012.80	3,013.07	89.24	445,316.83	590,617.80
13,728.00	90.40	92.40	10,740.75	3,105.97	37.32	3,105.74	3,105.97	89.31	445,314.32	590,710.74
13,823.00	90.90	92.30	10,739.68	3,200.83	33.42	3,200.66	3,200.83	89.40	445,310.42	590,805.66
13,917.00	89.70	90.80	10,739.18	3,294.76	30.88	3,294.62	3,294.76	89.46	445,307.88	590,899.62
14,011.00	90.80	92.10	10,738.77	3,388.69	28.50	3,388.58	3,388.70	89.52	445,305.50	590,993.58
14,106.00	90.10	90.20	10,738.03	3,483.63	26.60	3,483.56	3,483.66	89.56	445,303.60	591,088.56
14,200.00	89.10	88.70	10,738.68	3,577.63	27.50	3,577.54	3,577.65	89.56	445,304.50	591,182.54
14,295.00	89.20	88.20	10,740.09	3,672.61	30.07	3,672.50	3,672.62	89.53	445,307.07	591,277.50
14,389.00	90.50	89.50	10,740.34	3,766.60	31.95	3,766.48	3,766.61	89.51	445,308.95	591,371.48
14,483.00	89.20	90.60	10,740.59	3,860.59	31.87	3,860.47	3,860.60	89.53	445,308.87	591,465.47
14,578.00	87.80	90.10	10,743.07	3,955.54	31.29	3,955.44	3,955.56	89.55	445,308.29	591,560.44
14,662.00	87.70	90.40	10,746.37	4,039.46	30.93	4,039.37	4,039.49	89.56	445,307.93	591,644.37
First ST01 Survey: 14662' MD										
14,694.00	87.20	92.50	10,747.79	4,071.41	30.12	4,071.33	4,071.44	89.58	445,307.12	591,676.33
14,789.00	90.30	89.50	10,749.87	4,166.32	28.46	4,166.27	4,166.36	89.61	445,305.46	591,771.27
14,883.00	93.10	89.20	10,747.08	4,260.27	29.53	4,260.21	4,260.31	89.60	445,306.53	591,865.21
14,977.00	95.30	92.30	10,740.19	4,353.98	28.30	4,353.93	4,354.02	89.63	445,305.30	591,958.93
15,072.00	90.20	93.10	10,735.64	4,448.67	23.83	4,448.68	4,448.75	89.69	445,300.83	592,053.68
15,166.00	87.30	89.50	10,737.69	4,542.57	21.70	4,542.61	4,542.66	89.73	445,298.70	592,147.61
15,260.00	90.20	90.30	10,739.74	4,636.53	21.86	4,636.58	4,636.63	89.73	445,298.86	592,241.58
15,354.00	90.30	89.30	10,739.33	4,730.53	22.19	4,730.58	4,730.63	89.73	445,299.19	592,335.58
15,449.00	90.00	88.80	10,739.08	4,825.53	23.77	4,825.56	4,825.62	89.72	445,300.77	592,430.56
15,543.00	90.90	87.70	10,738.34	4,919.50	26.64	4,919.51	4,919.59	89.69	445,303.64	592,524.51
15,637.00	92.80	92.40	10,735.31	5,013.42	26.56	5,013.43	5,013.50	89.70	445,303.56	592,618.43
15,732.00	85.80	90.20	10,736.47	5,108.29	24.40	5,108.34	5,108.40	89.73	445,301.40	592,713.34



ProDirectional
Survey Report



Company: Matador Resources
Project: Eddy County, NM
Site: Janie Conner 201-221-121
Well: No. 221H
Wellbore: ST01
Design: ST01-14662'-15918' Proj. 16043'

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:
Database:
Well No. 221H
Well @ 3004.50usft (GL: 2976' + KB: 28.5' (Patt809))
Well @ 3004.50usft (GL: 2976' + KB: 28.5' (Patt809))
Grid
Minimum Curvature
Well_Planner1

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)
15,826.00	87.50	89.50	10,741.96	5,202.12	24.65	5,202.17	5,202.23	89.73	445,301.65	592,807.17
15,846.00	88.10	89.60	10,742.73	5,222.11	24.81	5,222.16	5,222.22	89.73	445,301.81	592,827.16
15,918.00	90.50	90.70	10,743.61	5,294.09	24.62	5,294.14	5,294.20	89.73	445,301.62	592,899.14
Last Survey(ST01): 15918' MD, 10743.61' TVD										
15,942.00	90.50	90.70	10,743.40	5,318.08	24.32	5,318.14	5,318.20	89.74	445,301.32	592,923.14
HL Xing: 15942' MD										
16,043.00	90.50	90.70	10,742.51	5,419.05	23.09	5,419.13	5,419.18	89.76	445,300.09	593,024.13
PTB: 16043' MD, 10742.51' TVD										

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
14,662.00	10,746.37	30.93	4,039.37	First ST01 Survey: 14662' MD
15,918.00	10,743.61	24.62	5,294.14	Last Survey(ST01): 15918' MD, 10743.61' TVD
15,942.00	10,743.40	24.32	5,318.14	HL Xing: 15942' MD
16,043.00	10,742.51	23.09	5,419.13	PTB: 16043' MD, 10742.51' TVD