



PRODIRECTIONAL



Brantley State Com No. 221H(ST01)

Eddy County, NM

May 01, 2017

Job No. LNM5130717

NM OIL CONSERVATION
ARTESIA DISTRICT

MAY 05 2017

RECEIVED

ORIGINAL
C-PTB

Survey Completion Report



ProDirectional

Survey Certification Letter

May 01, 2017



Operator Name: Matador Resources
Well Name: Brantley State Com 13-24S-27E RB No. 221H(ST01)
County/Parish: Eddy County,
State: NM
Rig Name: Patterson 274
Job Number: LNM5130717

This is to certify the surveys performed on the referenced well by Professional Directional Ent., Inc. are true and correct MWD Surveys, data provided as follows:

Surveyor	Surveyed Depths	Projection to Bit	Dates Performed	Type of Survey
ProDirectional	12,280' MD – 15,278' MD	15,362' MD	01/24/17 – 01/29/17	MWD-OWSG

Sincerely,

Mike Coats
Well Planning
Professional Directional

850 Conroe Park West Drive | Conroe, TX 77303 | Phone: 936.441.7266

prodirectional.com



Matador Resources

Eddy County, NM

Brantley State Com

No. 221H

ST01

Survey: ProDirectional

Survey Report

01 May, 2017





ProDirectional Survey Report



Company:	Matador Resources	Local Co-ordinate Reference:	Well No. 221H
Project:	Eddy County, NM	TVD Reference:	Well @ 3118.00usft (GL: 3089' + KB: 29' (Pat274))
Site:	Brantley State Com	MD Reference:	Well @ 3118.00usft (GL: 3089' + KB: 29' (Pat274))
Well:	No. 221H	North Reference:	Grid
Wellbore:	ST01	Survey Calculation Method:	Minimum Curvature
Design:	ST01-12280'-15278', Proj. 15362'	Database:	WellPlanner1

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

Site	Brantley State Com		
Site Position:			
From:	Map	Northings:	444,957.00 usft
Position Uncertainty:	0.00 usft	Easting:	561,517.00 usft
		Slot Radius:	13-3/16 "
		Latitude:	32° 13' 23.330 N
		Longitude:	104° 8' 3.858 W
		Grid Convergence:	0.11 °

Well	No. 221H		
Well Position	+N/-S	0.00 usft	Latitude:
	+E/-W	0.00 usft	Longitude:
Position Uncertainty	0.00 usft	Wellhead Elevation:	Ground Level:
			3,089.00 usft

Wellbore	ST01		
Magnetics			
Model Name	HDGM	Sample Date	12/31/2016
		Declination	7.42
		Dip Angle	60.05
		Field Strength	48,144.00
			(nT)

Design	ST01-12280'-15278', Proj. 15362'		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
Vertical Section:		Tie On Depth:	12,257.00
		+N/-S	Direction
		(usft)	(°)
		0.00	269.64
		Depth From (TVD)	
		(usft)	
		0.00	



Well No. 221H
Well @ 3118.00usft (GL: 3089' + KB: 29' (Pat274))
Well @ 3118.00usft (GL: 3089' + KB: 29' (Pat274))
Grid
Minimum Curvature
WellPlanner1

5/1/2017 11:46:06AM



ProDirectional Survey Report



Company: Matador Resources
Project: Eddy County, NM
Site: Brantley State Com
Well: No. 221H
Wellbore: ST01
Design: ST01-12280-15278', Proj. 15362'

Local Co-ordinate Reference:
TVD Reference: Well @ 3118.00ust (GL: 3089' + KB: 29' (Pat274))
MD Reference: Well @ 3118.00ust (GL: 3089' + KB: 29' (Pat274))
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: WellPlanner1

Well No. 221H

MD (ust)	Inc (°)	Azi (azimuth) (°)	TVD (ust)	V. Sec (ust)	N/S (ust)	E/W (ust)	Closure Distance (ust)	Closure Azimuth (°)	Northing (ust)	Easting (ust)
2,000.00	2.30	69.94	1,999.59	-29.05	-9.81	29.11	30.72	108.63	444,947.19	561,546.11
2,100.00	2.31	46.18	2,099.51	-32.40	-7.73	32.45	33.36	103.40	444,949.27	561,549.45
2,200.00	1.89	11.86	2,199.44	-34.21	-4.72	34.24	34.56	97.85	444,952.28	561,551.24
2,300.00	2.35	339.78	2,299.38	-33.86	-1.18	33.87	33.89	92.00	444,955.82	561,550.87
2,400.00	1.88	340.49	2,399.31	-32.63	2.29	32.61	32.69	85.99	444,959.29	561,549.61
2,500.00	1.78	343.50	2,499.26	-31.66	5.32	31.63	32.07	80.45	444,962.32	561,548.63
2,600.00	2.19	345.92	2,599.20	-30.77	8.67	30.72	31.92	74.25	444,965.67	561,547.72
2,700.00	4.42	349.46	2,699.03	-29.64	14.31	29.55	32.83	64.16	444,971.31	561,546.55
2,800.00	5.93	355.97	2,798.62	-28.63	23.25	28.48	36.77	50.78	444,980.25	561,545.48
2,900.00	5.92	354.93	2,898.08	-27.87	33.54	27.66	43.48	39.52	444,990.54	561,544.66
3,000.00	5.53	342.69	2,997.59	-26.04	43.28	25.77	50.37	30.78	445,000.28	561,542.77
3,100.00	5.20	335.82	3,097.15	-22.81	52.01	22.48	56.66	23.38	445,009.01	561,539.48
3,200.00	5.28	332.56	3,196.73	-18.88	60.23	18.51	63.01	17.08	445,017.23	561,535.51
3,300.00	5.13	326.85	3,296.32	-14.37	68.06	13.94	69.47	11.58	445,025.06	561,530.94
3,400.00	5.35	325.93	3,395.90	-9.36	75.66	8.89	76.18	6.70	445,032.66	561,525.89
3,500.00	5.47	326.82	3,495.46	-4.19	83.51	3.67	83.59	2.51	445,040.51	561,520.67
3,600.00	5.50	319.87	3,595.00	1.46	91.16	-2.03	91.19	358.72	445,048.16	561,514.97
3,700.00	5.45	317.17	3,694.54	7.73	98.31	-8.35	98.66	355.15	445,055.31	561,508.65
3,800.00	5.57	316.31	3,794.08	14.27	105.30	-14.93	106.36	351.93	445,062.30	561,502.07
3,900.00	5.61	326.62	3,893.61	20.26	112.89	-20.97	114.83	349.48	445,069.89	561,496.03
4,000.00	5.77	340.08	3,993.12	24.61	121.70	-25.37	124.32	348.22	445,078.70	561,491.63
4,100.00	4.71	358.28	4,092.71	26.39	130.53	-27.21	133.34	348.23	445,087.53	561,489.79
4,200.00	2.94	26.28	4,192.49	25.34	136.94	-26.20	139.42	349.17	445,093.94	561,490.80
4,300.00	2.83	21.75	4,292.36	23.26	141.53	-24.15	143.57	350.32	445,098.53	561,492.85
4,400.00	2.54	20.48	4,392.25	21.54	145.90	-22.46	147.62	351.25	445,102.90	561,494.54
4,500.00	3.21	22.22	4,492.13	19.68	150.57	-20.62	151.97	352.20	445,107.57	561,496.38
4,600.00	3.31	350.22	4,591.97	19.07	156.00	-20.05	157.29	352.67	445,113.00	561,496.95



ProDirectional Survey Report



Company: Matador Resources
Project: Eddy County, NM
Site: Brantley State Com
Well: No. 221H
Wellbore: ST01
Design: ST01-12280'-15278', Proj. 15362'

Local Co-ordinate Reference: Well No. 221H
TVD Reference: Well @ 3118.00usft (GL: 3089' + KB: 29' (Pat274))
MD Reference: Well @ 3118.00usft (GL: 3089' + KB: 29' (Pat274))
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: WellPlanner1

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)
	4,700.00	3.53	353.12	4,691.80	19.90	161.90	-20.91	163.25	352.64	445,118.90	561,496.09
	4,800.00	5.33	338.24	4,791.50	21.94	169.27	-23.00	170.83	352.26	445,126.27	561,494.00
	4,900.00	5.02	340.71	4,891.09	25.05	177.72	-26.17	179.63	351.62	445,134.72	561,490.83
	5,000.00	4.62	334.22	4,990.73	28.20	185.47	-29.37	187.79	351.00	445,142.47	561,487.63
	5,100.00	4.27	328.35	5,090.43	31.86	192.27	-33.07	195.09	350.24	445,149.27	561,483.93
	5,200.00	4.13	331.90	5,190.17	35.47	198.62	-36.72	201.98	349.52	445,155.62	561,480.28
	5,300.00	3.93	334.13	5,289.92	38.63	204.88	-39.91	208.73	348.98	445,161.88	561,477.09
	5,400.00	3.72	324.85	5,389.70	41.95	210.61	-43.28	215.01	348.39	445,167.61	561,473.72
	5,500.00	2.74	332.86	5,489.54	44.88	215.39	-46.24	220.30	347.88	445,172.39	561,470.76
	5,600.00	2.27	353.27	5,589.44	46.18	219.49	-47.56	224.58	347.77	445,176.49	561,469.44
	5,700.00	2.10	341.51	5,689.37	46.97	223.19	-48.37	228.37	347.77	445,180.19	561,468.63
	5,800.00	1.55	349.84	5,789.32	47.77	226.26	-49.19	231.54	347.73	445,183.26	561,467.81
	5,900.00	1.74	332.91	5,889.28	48.68	228.94	-50.12	234.36	347.65	445,185.94	561,466.88
	6,000.00	1.33	335.26	5,989.24	49.84	231.35	-51.30	236.97	347.50	445,188.35	561,465.70
	6,100.00	1.33	324.26	6,089.22	50.99	233.34	-52.46	239.17	347.33	445,190.34	561,464.54
	6,200.00	0.94	298.32	6,189.20	52.39	234.67	-53.86	240.78	347.07	445,191.67	561,463.14
	6,300.00	0.70	302.75	6,289.19	53.62	235.39	-55.10	241.76	346.83	445,192.39	561,461.90
	6,400.00	0.35	242.63	6,389.18	54.40	235.58	-55.88	242.12	346.66	445,192.58	561,461.12
	6,500.00	0.42	220.70	6,489.18	54.91	235.17	-56.39	241.83	346.52	445,192.17	561,460.61
	6,600.00	0.12	325.59	6,589.18	55.21	234.97	-56.69	241.72	346.44	445,191.97	561,460.31
	6,700.00	1.46	15.58	6,689.17	54.92	236.29	-56.41	242.93	346.57	445,193.29	561,460.59
	6,800.00	1.47	15.07	6,789.14	54.23	238.75	-55.73	245.17	346.86	445,195.75	561,461.27
	6,900.00	1.47	21.03	6,889.10	53.42	241.19	-54.94	247.37	347.17	445,198.19	561,462.06
	7,000.00	1.39	15.57	6,989.07	52.62	243.55	-54.15	249.50	347.46	445,200.55	561,462.85
	7,100.00	1.31	13.42	7,089.04	52.02	245.84	-53.56	251.60	347.71	445,202.84	561,463.44
	7,200.00	1.94	356.91	7,189.00	51.82	248.64	-53.39	254.30	347.88	445,205.64	561,463.61
	7,300.00	1.93	353.71	7,288.95	52.08	252.00	-53.66	257.65	347.98	445,209.00	561,463.34



ProDirectional Survey Report



Company: Matador Resources
Project: Eddy County, NM
Site: Branley State Com
Well: No. 221H
Wellbore: ST01
Design: ST01-12280'-15278', Proj. 15362'

Local Co-ordinate Reference:
TVD Reference: Well @ 3118.00usft (GL: 3089' + KB: 29' (Pat274))
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North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: WellPlanner1

Well No. 221H

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)
	7,400.00	2.23	321.91	7,388.88	53.44	255.21	-55.05	261.08	347.83	445,212.21	561,461.95
	7,500.00	2.15	326.78	7,488.81	55.65	258.31	-57.28	264.58	347.50	445,215.31	561,459.72
	7,600.00	1.81	341.74	7,588.75	57.15	261.38	-58.80	267.91	347.32	445,218.38	561,458.20
	7,700.00	1.60	332.16	7,688.71	58.28	264.11	-59.95	270.83	347.21	445,221.11	561,457.05
	7,800.00	1.31	321.73	7,788.68	59.63	266.24	-61.31	273.21	347.03	445,223.24	561,455.69
	7,900.00	0.68	285.56	7,888.66	60.90	267.30	-62.58	274.53	346.82	445,224.30	561,454.42
	8,000.00	0.94	269.74	7,988.65	62.29	267.45	-63.98	275.00	346.55	445,224.45	561,453.02
	8,100.00	0.80	185.35	8,088.64	63.18	266.76	-64.86	274.53	346.33	445,223.76	561,452.14
	8,200.00	1.25	187.28	8,188.63	63.40	264.98	-65.07	272.85	346.20	445,221.98	561,451.93
	8,300.00	2.13	117.14	8,288.59	61.90	263.05	-63.55	270.62	346.42	445,220.05	561,453.45
	8,400.00	2.34	128.72	8,388.52	58.66	260.92	-60.30	267.80	346.99	445,217.92	561,456.70
	8,500.00	2.70	129.37	8,488.42	55.27	258.15	-56.89	264.35	347.57	445,215.15	561,460.11
	8,600.00	2.76	134.28	8,588.31	51.74	254.98	-53.35	260.50	348.18	445,211.98	561,463.65
	8,700.00	2.26	125.04	8,688.21	48.42	252.16	-50.01	257.08	348.78	445,209.16	561,466.99
	8,800.00	1.56	123.49	8,788.15	45.68	250.28	-47.26	254.70	349.31	445,207.28	561,469.74
	8,900.00	0.79	108.99	8,888.13	43.90	249.31	-45.47	253.42	349.66	445,206.31	561,471.53
	9,000.00	0.56	89.97	8,988.13	42.76	249.08	-44.33	253.00	349.91	445,206.08	561,472.67
	9,100.00	0.64	91.79	9,088.12	41.72	249.06	-43.28	252.80	350.14	445,206.06	561,473.72
	9,200.00	0.28	136.13	9,188.12	40.99	248.87	-42.56	252.48	350.30	445,205.87	561,474.44
	9,300.00	0.68	160.76	9,288.11	40.63	248.13	-42.19	251.70	350.35	445,205.13	561,474.81
	9,400.00	1.17	149.52	9,388.10	39.93	246.69	-41.48	250.16	350.46	445,203.69	561,475.52
	9,500.00	1.36	148.14	9,488.08	38.79	244.81	-40.33	248.11	350.64	445,201.81	561,476.67
	9,600.00	1.35	150.07	9,588.05	37.59	242.78	-39.12	245.91	350.85	445,199.78	561,477.88
	9,660.00	0.99	176.22	9,648.04	37.21	241.65	-38.73	244.73	350.89	445,198.65	561,478.27
	9,704.00	6.10	278.30	9,691.95	39.50	241.61	-41.02	245.06	350.36	445,198.61	561,475.98
	9,736.00	10.00	280.70	9,723.63	43.91	242.37	-45.44	246.59	349.38	445,199.37	561,471.56
	9,768.00	13.60	281.80	9,754.95	50.32	243.65	-51.85	249.11	347.99	445,200.65	561,465.15



ProDirectional Survey Report



Company: Matador Resources
Project: Eddy County, NM
Site: Brantley State Com
Well: No. 221H
Wellbore: ST01
Design: ST01-12280'-15278', Proj. 15362'

Local Co-ordinate Reference:
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Well No. 221H

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)
	9,799.00	17.00	281.50	9,784.85	58.32	245.30	-59.86	252.50	346.29	445,202.30	561,457.14
	9,831.00	20.30	280.30	9,815.16	68.36	247.23	-69.91	256.92	344.21	445,204.23	561,447.09
	9,863.00	23.80	279.50	9,844.82	80.18	249.29	-81.74	262.35	341.85	445,206.29	561,435.26
	9,895.00	28.00	278.90	9,873.60	93.96	251.52	-95.54	269.05	339.20	445,208.52	561,421.46
	9,926.00	30.90	277.70	9,900.59	109.02	253.71	-110.62	276.78	336.44	445,210.71	561,406.38
	9,958.00	31.30	276.00	9,927.99	125.42	255.68	-127.03	285.50	333.58	445,212.68	561,389.97
	9,990.00	32.60	272.60	9,955.14	142.29	256.94	-143.91	294.50	330.75	445,213.94	561,373.09
	10,021.00	32.80	269.30	9,981.23	159.03	257.22	-160.65	303.26	328.01	445,214.22	561,356.35
	10,053.00	35.00	268.20	10,007.79	176.87	256.82	-178.49	312.76	325.20	445,213.82	561,338.51
	10,085.00	38.80	267.70	10,033.38	196.08	256.13	-197.69	323.55	322.34	445,213.13	561,319.31
	10,117.00	43.30	267.10	10,057.50	217.07	255.17	-218.68	336.05	319.40	445,212.17	561,298.32
	10,148.00	45.50	268.10	10,079.65	238.74	254.27	-240.35	349.88	316.61	445,211.27	561,276.65
	10,195.00	47.30	269.00	10,112.06	272.77	253.41	-274.37	373.49	312.73	445,210.41	561,242.63
	10,243.00	50.50	268.80	10,143.61	308.93	252.71	-310.53	400.37	309.14	445,209.71	561,206.47
	10,291.00	53.00	265.90	10,173.33	346.59	250.96	-348.17	429.19	305.78	445,207.96	561,168.83
	10,339.00	56.20	264.70	10,201.13	385.60	247.74	-387.16	459.64	302.62	445,204.74	561,129.84
	10,386.00	61.00	264.90	10,225.61	425.56	244.11	-427.10	491.94	299.75	445,201.11	561,089.90
	10,434.00	64.90	266.00	10,247.44	468.18	240.73	-469.71	527.80	297.14	445,197.73	561,047.29
	10,481.00	69.10	266.20	10,265.80	511.36	237.79	-512.86	565.30	294.87	445,194.79	561,004.14
	10,529.00	71.40	266.40	10,282.02	556.45	234.87	-557.94	605.36	292.83	445,191.87	560,959.06
	10,544.00	72.40	266.70	10,286.68	570.69	234.01	-572.17	618.18	292.24	445,191.01	560,944.83
	10,649.00	81.80	268.40	10,310.09	672.85	229.67	-674.31	712.35	288.81	445,186.67	560,842.69
	10,681.00	85.70	266.80	10,313.58	704.64	228.34	-706.08	742.09	287.92	445,185.34	560,810.92
	10,712.00	88.00	266.70	10,315.28	735.55	226.58	-736.99	771.03	287.09	445,183.58	560,780.01
	10,744.00	88.80	267.40	10,316.17	767.50	224.94	-768.93	801.16	286.31	445,181.94	560,748.07
	10,839.00	92.10	270.10	10,315.43	862.47	222.86	-863.88	892.17	284.47	445,179.86	560,663.12
	10,933.00	94.00	271.80	10,310.43	956.30	224.42	-957.73	983.67	283.19	445,181.42	560,559.27



ProDirectional Survey Report



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Project: Eddy County, NM
Site: Brantley State Com
Well: No. 221H
Wellbore: ST01
Design: ST01-12280'-15278', Proj. 15362'

Local Co-ordinate Reference:
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MD Reference: Well @ 3118.00usft (GL: 3089' + KB: 29' (Pat274))
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Survey Calculation Method: Minimum Curvature
Database: WellPlanner1

Well No. 221H

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	EW (usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Easting (usft)	
11,028.00	92.70	271.90	10,304.87	1,051.07	227.48	-1,052.52	1,076.82	282.20	445,184.48	560,464.48	
11,123.00	88.00	269.30	10,304.29	1,146.02	228.47	-1,147.47	1,170.00	281.26	445,185.47	560,369.53	
11,217.00	87.00	267.10	10,308.40	1,239.89	225.53	-1,241.33	1,261.65	280.30	445,182.53	560,275.67	
11,312.00	87.70	265.40	10,312.79	1,334.62	219.32	-1,336.02	1,353.90	279.32	445,176.32	560,180.98	
11,406.00	94.10	264.70	10,311.31	1,428.26	211.21	-1,429.61	1,445.13	278.40	445,168.21	560,087.39	
11,501.00	98.00	264.50	10,301.30	1,522.34	202.33	-1,523.64	1,537.02	277.56	445,159.33	559,993.36	
11,596.00	97.60	265.60	10,288.41	1,616.16	194.21	-1,617.41	1,629.03	276.85	445,151.21	559,899.59	
11,690.00	95.40	269.40	10,277.76	1,709.47	190.14	-1,710.70	1,721.23	276.34	445,147.14	559,806.30	
11,785.00	93.80	270.20	10,270.14	1,804.16	189.81	-1,805.39	1,815.34	276.00	445,146.81	559,711.61	
11,879.00	92.10	270.70	10,265.31	1,898.02	190.55	-1,899.25	1,908.79	275.73	445,147.55	559,617.75	
11,974.00	92.00	271.50	10,261.91	1,992.93	192.37	-1,994.18	2,003.43	275.51	445,149.37	559,522.82	
12,068.00	93.40	277.00	10,257.48	2,086.48	199.32	-2,087.77	2,097.27	275.45	445,156.32	559,429.23	
12,163.00	86.90	274.80	10,257.23	2,180.86	209.08	-2,182.21	2,192.21	275.47	445,166.08	559,334.79	
12,257.00	86.50	271.70	10,262.64	2,274.50	214.40	-2,275.90	2,285.97	275.38	445,171.40	559,241.10	
12,280.00	85.00	271.50	10,264.35	2,297.43	215.04	-2,298.82	2,308.86	275.34	445,172.04	559,218.18	
First ST01 Survey: 12280' MD											
12,295.00	83.50	273.00	10,265.85	2,312.34	215.63	-2,313.74	2,323.76	275.32	445,172.63	559,203.26	
12,310.00	84.00	274.80	10,267.48	2,327.20	216.64	-2,328.61	2,338.67	275.32	445,173.64	559,188.39	
12,349.00	87.30	278.10	10,270.44	2,365.81	221.01	-2,367.24	2,377.54	275.33	445,178.01	559,149.76	
12,444.00	88.10	277.20	10,274.25	2,459.80	233.65	-2,461.32	2,472.38	275.42	445,190.65	559,055.68	
12,538.00	91.00	273.60	10,274.99	2,553.30	242.49	-2,554.87	2,566.36	275.42	445,199.49	558,962.13	
12,632.00	92.80	271.00	10,271.87	2,647.13	246.26	-2,648.73	2,660.16	275.31	445,203.26	558,868.27	
12,727.00	93.70	269.20	10,266.49	2,741.97	246.43	-2,743.58	2,754.62	275.13	445,203.43	558,773.42	
12,821.00	93.80	268.10	10,260.34	2,835.76	244.22	-2,837.35	2,847.84	274.92	445,201.22	558,679.65	
12,915.00	92.10	267.10	10,255.50	2,929.57	240.29	-2,931.14	2,940.97	274.69	445,197.29	558,585.86	
13,010.00	95.40	268.80	10,249.29	3,024.31	236.89	-3,025.85	3,035.11	274.48	445,193.89	558,491.15	
13,104.00	93.70	269.00	10,241.83	3,118.00	235.09	-3,119.54	3,128.38	274.31	445,192.09	558,397.46	



ProDirectional Survey Report



Company: Matador Resources
Project: Eddy County, NM
Site: Brantley State Com
Well: No. 221H
Wellbore: ST01
Design: ST01-12280'-15278', Proj. 15362'

Local Co-ordinate Reference:
TVD Reference: Well @ 3118.00usft (GL: 3089' + KB: 29' (Pat274))
MD Reference: Well @ 3118.00usft (GL: 3089' + KB: 29' (Pat274))
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: WellPlanner1

Well No. 221H

Well @ 3118.00usft (GL: 3089' + KB: 29' (Pat274))

Well @ 3118.00usft (GL: 3089' + KB: 29' (Pat274))

Grid

Minimum Curvature

WellPlanner1

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)
13,199.00	93.80	271.00	10,235.62	3,212.79	235.09	-3,214.33	3,222.92	274.18	445,192.09	558,302.67
13,293.00	93.20	271.40	10,229.88	3,306.58	237.06	-3,308.13	3,316.62	274.10	445,194.06	558,208.87
13,387.00	91.90	270.20	10,225.70	3,400.46	238.37	-3,402.03	3,410.37	274.01	445,195.37	558,114.97
13,482.00	94.70	270.10	10,220.23	3,495.29	238.62	-3,496.86	3,504.99	273.90	445,195.62	558,020.14
13,576.00	94.20	270.90	10,212.94	3,589.00	239.44	-3,590.57	3,598.55	273.82	445,196.44	557,926.43
13,670.00	92.30	272.20	10,207.61	3,682.79	241.98	-3,684.38	3,692.32	273.76	445,198.98	557,832.62
13,765.00	89.10	272.30	10,206.45	3,777.67	245.70	-3,779.29	3,787.27	273.72	445,202.70	557,737.71
13,859.00	89.60	272.90	10,207.51	3,871.54	249.97	-3,873.18	3,881.24	273.69	445,206.97	557,643.82
13,954.00	91.60	271.90	10,206.52	3,966.42	253.95	-3,968.09	3,976.21	273.66	445,210.95	557,548.91
14,048.00	90.20	270.40	10,205.04	4,060.37	255.83	-4,062.05	4,070.10	273.60	445,212.83	557,454.95
14,143.00	93.10	266.70	10,202.31	4,155.28	253.43	-4,156.96	4,164.68	273.49	445,210.43	557,360.04
14,237.00	90.70	267.80	10,199.19	4,249.14	248.93	-4,250.79	4,258.07	273.35	445,205.93	557,266.21
14,332.00	90.80	264.10	10,197.95	4,343.92	242.22	-4,345.53	4,352.27	273.19	445,199.22	557,171.47
14,427.00	88.80	265.40	10,198.28	4,438.57	233.53	-4,440.12	4,446.26	273.01	445,190.53	557,076.88
14,521.00	92.30	263.80	10,197.38	4,532.18	224.68	-4,533.68	4,539.25	272.84	445,181.68	556,983.32
14,616.00	94.30	264.70	10,191.91	4,626.60	215.18	-4,628.04	4,633.04	272.66	445,172.18	556,888.96
14,710.00	96.80	266.90	10,182.82	4,719.93	208.33	-4,721.34	4,725.93	272.53	445,165.33	556,795.66
14,805.00	97.70	269.20	10,170.82	4,814.13	205.12	-4,815.51	4,819.88	272.44	445,162.12	556,701.49
14,900.00	96.50	270.10	10,159.08	4,908.40	204.54	-4,909.78	4,914.04	272.39	445,161.54	556,607.22
14,994.00	94.40	270.90	10,150.16	5,001.96	205.36	-5,003.35	5,007.56	272.35	445,162.36	556,513.65
15,089.00	94.80	271.20	10,142.54	5,096.62	207.10	-5,098.02	5,102.23	272.33	445,164.10	556,418.98
15,183.00	93.20	271.80	10,135.98	5,190.34	209.55	-5,191.76	5,195.99	272.31	445,166.55	556,325.24
15,222.00	93.73	271.72	10,133.62	5,229.24	210.75	-5,230.67	5,234.91	272.31	445,167.75	556,286.33
HL Xing: 15222' MD, 10134' TVD 15,278.00	94.50	271.60	10,129.80	5,285.06	212.36	-5,286.50	5,290.77	272.30	445,169.36	556,230.50
Last Survey(ST01): 15278' MD, 10130' TVD										



ProDirectional Survey Report



Company: Matador Resources
Project: Eddy County, NM
Site: Brantley State Com
Well: No. 221H
Wellbore: ST01
Design: ST01-12280'-15278', Proj. 15362'

Local Co-ordinate Reference: Well No. 221H
TVD Reference: Well @ 3118.00usft (GL: 3089' + KB: 29' (Pat274))
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North Reference: Grid
Survey Calculation Method: Minimum Curvature
Databases: WellPlanner1

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)
15,362.00	94.50	271.60	10,123.01	5,368.76	214.70	-5,370.21	5,374.50	272.29	445,171.70	556,146.79
PTB: 15362' MD, 10123.01' TVD										

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/S (usft)	+E/W (usft)	
12,280.00	10,264.35	215.04	-2,298.82	First ST01 Survey: 12280' MD HL Xing: 15222' MD, 10134' TVD Last Survey(ST01): 15278' MD, 10130' TVD PTB: 15362' MD, 10123.01' TVD
15,222.00	10,133.62	210.75	-5,230.67	
15,278.00	10,129.60	212.36	-5,286.50	
15,362.00	10,123.01	214.70	-5,370.21	