

Energy Services.

3335 Pollok Drive
Conroe, TX 77303
Phone: 936.442.2500
Toll Free: 844.266.6737
msenergyservices.com

Matador Resources

Airstrip 31-18S-35E RN State COM #201H
Lea County, New Mexico
Patterson 297

This document contains MS Energy Services' proprietary and confidential information and is not to be distributed outside of MS Energy Services' employees and its agents. It is intended for use only by those who need to know. If you are not an employee or agent of MS Energy Services, you should not have received this document. If you have received this document, you should not disseminate it to others.

MS Energy Services and its agents are not responsible for any loss or damage resulting from the use of this information. MS Energy Services and its agents are not responsible for any loss or damage resulting from the use of this information.

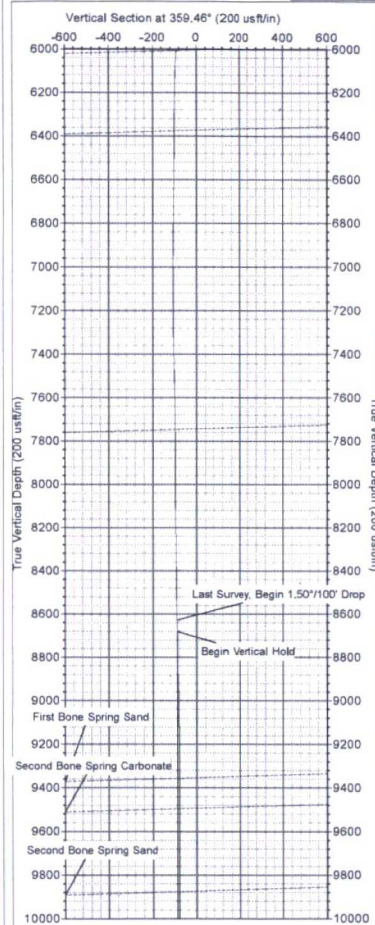
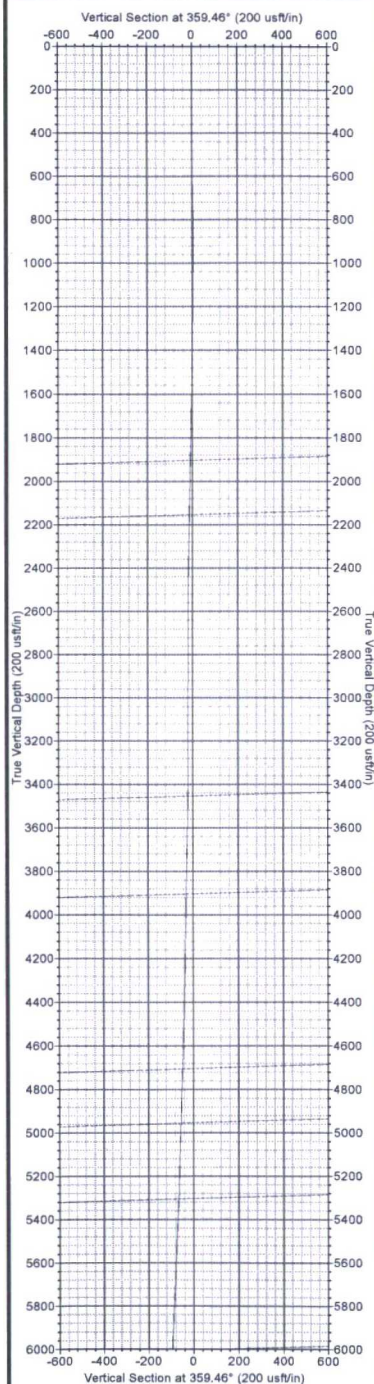
MS Energy Services and its agents are not responsible for any loss or damage resulting from the use of this information.

Prepared by:
Vanessa Scott



Company: Matador Resources
Site: Airstrip 31-18S-35E RN State COM
Well: #201H
Project: Lea County, New Mexico (NAD 27)
Rig: Patterson 297

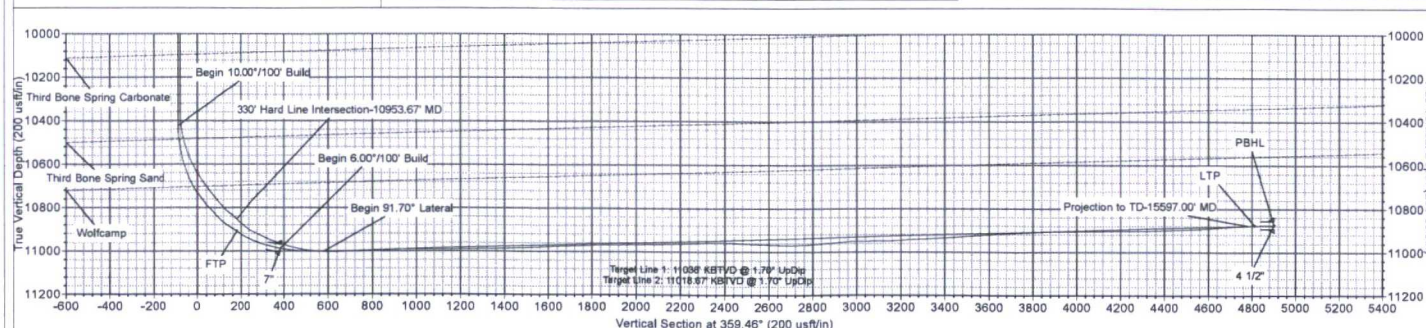
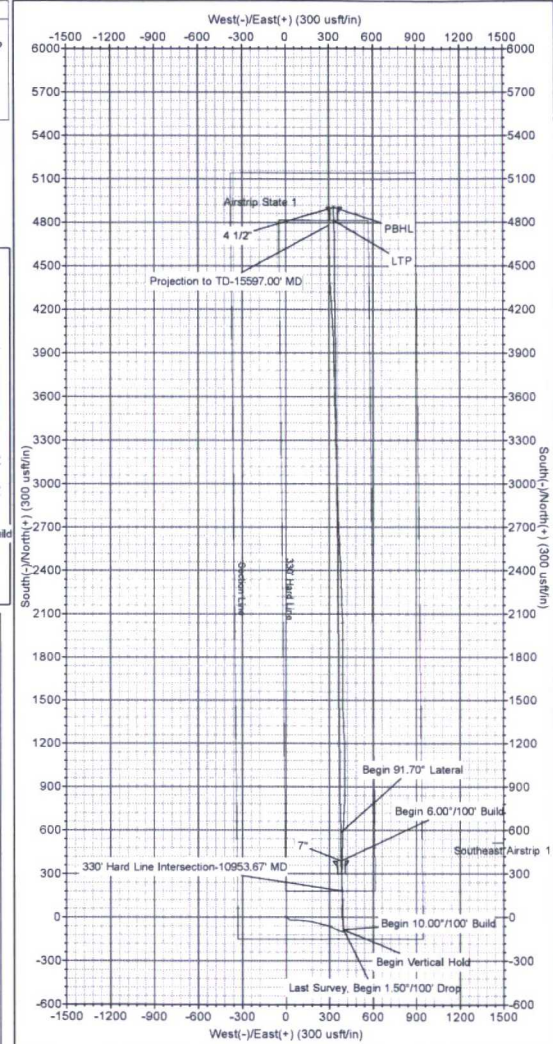
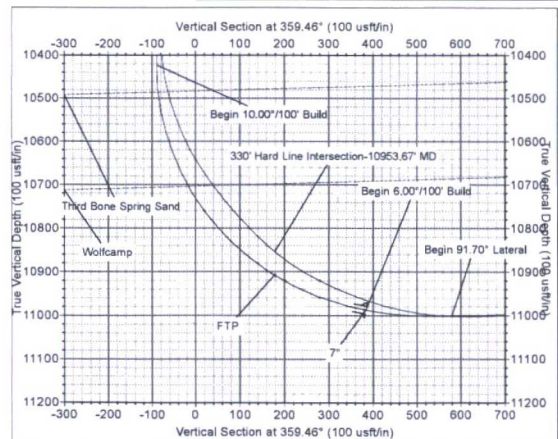
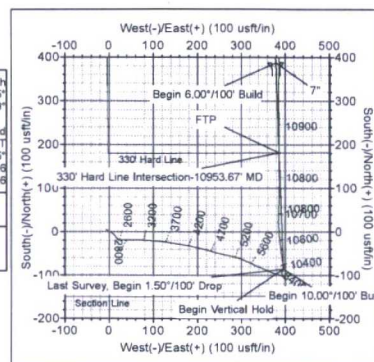
MS Energy Services.
WWW.MSENGYSERVICES.COM



ANNOTATIONS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	V/Sect	Departure	Annotation	
8648.00	0.80	14.50	8628.39	-85.94	395.79	-89.67	0.00	Last Survey, Begin 1.50°/100' Drop	
8701.33	0.00	0.00	8681.72	-85.58	395.88	-89.31	0.37	Begin Vertical Hold	
10442.61	0.00	0.00	10423.00	-85.58	395.88	-89.31	0.37	Begin 10.00°/100' Build	
11242.61	80.00	357.89	10987.25	387.57	378.49	363.98	473.84	Begin 6.00°/100' Build	
11439.33	91.70	359.46	11001.46	583.37	373.99	579.82	669.70	Begin 91.70° Lateral	
15762.78	91.70	359.46	10873.20	4904.73	333.30	4901.37	4991.25	PBHL	

WELL DETAILS: #201H				
3947.75	Latitude			
0.00	+N/-S	0.00	+E/-W	0.00
618375.17	Northing			
755233.30	Easting			
32° 41' 50.162 N	Longitude			
103° 30' 13.170 W				

Azimuths to Grid North
True North: -0.45°
Magnetic North: 6.59°
Magnetic Field
Strength: 48371.2nT
Dip Angle: 60.55°
Date: 10/25/2016
Model: BGGN2016
US State Plane 1927 (Exact solution)
New Mexico East 3001
Created By: CAD
Date: 17-12-2016
Plan: Design #3



The customer should only rely on this document after independently verifying all paths, targets, coordinates, lease and hard lines represented. Any decisions made or wells drilled utilizing this or any other information supplied by MS Energy are at the sole risk and responsibility of the customer. MS Energy is not responsible for the accuracy of this schematic or the information contained herein.



Matador Resources

Lea County, New Mexico (NAD 27)
Airstrip 31-18S-35E RN State COM
#201H

HOBBS OCD

JAN 25 2017

REC

Wellbore #1

Survey: MS MWD

Standard Survey Report

21 November, 2016



MS Energy Services
Survey Report



Company:	Matador Resources	Local Co-ordinate Reference:	Well #201H
Project:	Lea County, New Mexico (NAD 27)	TVD Reference:	WELL @ 3976.75usft (Patterson 297)
Site:	Airstrip 31-18S-35E RN State COM	MD Reference:	WELL @ 3976.75usft (Patterson 297)
Well:	#201H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Surveys	Database:	Conroe Server

Project	Lea County, New Mexico (NAD 27)		
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		

Well	#201H			
Well Position	+N/-S	0.00 usft	Northing:	618,375.17 usft
	+E/-W	0.00 usft	Easting:	755,233.30 usft
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft
			Latitude:	32° 41' 50.162 N
			Longitude:	103° 30' 13.170 W
			Ground Level:	3,947.75 usft

Wellbore	Wellbore #1			
----------	-------------	--	--	--

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2016	10/25/16	7.04	60.55	48,371

Design	Surveys			
--------	---------	--	--	--

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	359.46

Survey Program	Date 11/21/16			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
199.00	15,597.00	MS MWD (Wellbore #1)	MWD	OWSG MWD - Standard

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
199.00	0.50	325.80	199.00	0.72	-0.49	0.72	0.25	0.25	0.00
394.00	0.60	301.30	393.99	1.95	-1.84	1.97	0.13	0.05	-12.56
579.00	0.80	303.70	578.97	3.17	-3.74	3.21	0.11	0.11	1.30
760.00	0.60	321.50	759.96	4.61	-5.38	4.67	0.16	-0.11	9.83
941.00	0.40	264.70	940.96	5.30	-6.60	5.36	0.28	-0.11	-31.38
1,129.00	0.50	127.40	1,128.95	4.74	-6.60	4.80	0.45	0.05	-73.03
1,316.00	1.40	119.10	1,315.93	3.13	-3.96	3.17	0.49	0.48	-4.44
1,504.00	2.00	116.20	1,503.84	0.57	0.99	0.56	0.32	0.32	-1.54
1,691.00	2.20	123.60	1,690.72	-2.86	6.91	-2.92	0.18	0.11	3.96
1,856.00	1.90	137.90	1,855.61	-6.64	11.38	-6.75	0.36	-0.18	8.67
2,064.00	1.40	152.50	2,063.53	-11.45	14.87	-11.59	0.31	-0.24	7.02
2,251.00	1.20	146.80	2,250.48	-15.12	16.99	-15.28	0.13	-0.11	-3.05
2,438.00	0.70	137.30	2,437.45	-17.60	18.84	-17.77	0.28	-0.27	-5.08
2,626.00	3.60	89.20	2,625.31	-18.36	25.52	-18.60	1.69	1.54	-25.59



MS Energy Services Survey Report



Company:	Matador Resources	Local Co-ordinate Reference:	Well #201H
Project:	Lea County, New Mexico (NAD 27)	TVD Reference:	WELL @ 3976.75usft (Patterson 297)
Site:	Airstrip 31-18S-35E RN State COM	MD Reference:	WELL @ 3976.75usft (Patterson 297)
Well:	#201H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Surveys	Database:	Conroe Server

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)
2,813.00	5.30	89.30	2,811.74	-18.17	40.03	-18.55	0.91	0.91	0.05
3,001.00	5.60	91.00	2,998.89	-18.23	57.88	-18.77	0.18	0.16	0.90
3,188.00	5.60	92.50	3,184.99	-18.78	76.12	-19.50	0.08	0.00	0.80
3,376.00	5.20	93.70	3,372.16	-19.73	93.79	-20.62	0.22	-0.21	0.64
3,563.00	6.50	97.50	3,558.18	-21.66	112.74	-22.72	0.73	0.70	2.03
3,750.00	5.90	99.70	3,744.09	-24.66	132.71	-25.91	0.35	-0.32	1.18
3,937.00	6.00	98.30	3,930.08	-27.69	151.85	-29.12	0.09	0.05	-0.75
4,061.00	6.00	99.70	4,053.40	-29.72	164.65	-31.27	0.12	0.00	1.13
4,248.00	5.90	101.00	4,239.39	-33.20	183.72	-34.93	0.09	-0.05	0.70
4,435.00	5.30	103.00	4,425.50	-36.98	201.57	-38.87	0.34	-0.32	1.07
4,623.00	6.60	105.50	4,612.48	-41.82	220.44	-43.89	0.70	0.69	1.33
4,810.00	6.80	105.20	4,798.21	-47.59	241.48	-49.87	0.11	0.11	-0.16
4,997.00	6.40	103.20	4,983.97	-52.87	262.31	-55.34	0.25	-0.21	-1.07
5,185.00	6.20	101.00	5,170.83	-57.20	282.48	-59.86	0.17	-0.11	-1.17
5,372.00	5.60	115.00	5,356.85	-62.99	300.66	-65.82	0.83	-0.32	7.49
5,559.00	5.80	114.70	5,542.93	-70.79	317.51	-73.78	0.11	0.11	-0.16
5,746.00	5.90	113.70	5,728.95	-78.60	334.90	-81.76	0.08	0.05	-0.53
5,933.00	6.20	113.50	5,914.91	-86.49	352.96	-89.82	0.16	0.16	-0.11
6,121.00	4.20	113.40	6,102.13	-93.28	368.59	-96.75	1.06	-1.06	-0.05
6,308.00	2.70	100.50	6,288.79	-96.80	379.21	-100.37	0.90	-0.80	-6.90
6,494.00	1.10	111.30	6,474.68	-98.25	385.18	-101.87	0.88	-0.86	5.81
6,681.00	1.10	116.30	6,661.64	-99.69	388.46	-103.35	0.05	0.00	2.67
6,869.00	0.90	119.40	6,849.62	-101.22	391.36	-104.90	0.11	-0.11	1.65
7,056.00	1.30	116.30	7,036.58	-102.88	394.54	-106.59	0.22	0.21	-1.66
7,244.00	1.00	318.60	7,224.57	-102.59	395.37	-106.31	1.20	-0.16	-83.88
7,431.00	1.40	332.80	7,411.53	-99.34	393.25	-103.04	0.26	0.21	7.59
7,618.00	1.60	346.30	7,598.46	-94.77	391.59	-98.45	0.22	0.11	7.22
7,712.00	0.30	302.00	7,692.45	-93.36	391.07	-97.04	1.49	-1.38	-47.13
7,805.00	0.20	327.90	7,785.45	-93.10	390.77	-96.77	0.16	-0.11	27.85
7,899.00	0.30	26.20	7,879.45	-92.74	390.80	-96.42	0.28	0.11	62.02
7,993.00	0.40	42.80	7,973.44	-92.27	391.13	-95.96	0.15	0.11	17.66
8,086.00	0.40	53.60	8,066.44	-91.84	391.61	-95.53	0.08	0.00	11.61
8,180.00	0.60	60.30	8,160.44	-91.41	392.30	-95.10	0.22	0.21	7.13
8,274.00	0.60	47.70	8,254.43	-90.83	393.09	-94.53	0.14	0.00	-13.40
8,367.00	0.90	39.80	8,347.42	-89.94	393.92	-93.65	0.34	0.32	-8.49
8,461.00	0.90	33.70	8,441.41	-88.76	394.80	-92.48	0.10	0.00	-6.49
8,555.00	1.00	14.80	8,535.40	-87.35	395.42	-91.08	0.35	0.11	-20.11
8,648.00	0.80	14.50	8,628.39	-85.94	395.79	-89.67	0.22	-0.22	-0.32
8,742.00	0.80	10.30	8,722.38	-84.66	396.07	-88.39	0.06	0.00	-4.47
8,835.00	1.10	350.60	8,815.37	-83.14	396.04	-86.87	0.47	0.32	-21.18
8,929.00	1.50	2.10	8,909.34	-81.02	395.94	-84.75	0.51	0.43	12.23
9,023.00	1.60	2.80	9,003.31	-78.48	396.05	-82.21	0.11	0.11	0.74
9,116.00	0.30	30.70	9,096.29	-76.97	396.24	-80.70	1.44	-1.40	30.00
9,210.00	1.00	28.70	9,190.29	-76.04	396.76	-79.78	0.74	0.74	-2.13



MS Energy Services Survey Report



Company:	Matador Resources	Local Co-ordinate Reference:	Well #201H
Project:	Lea County, New Mexico (NAD 27)	TVD Reference:	WELL @ 3976.75usft (Patterson 297)
Site:	Airstrip 31-18S-35E RN State COM	MD Reference:	WELL @ 3976.75usft (Patterson 297)
Well:	#201H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Surveys	Database:	Conroe Server

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)
9,303.00	1.20	255.10	9,283.28	-75.58	396.21	-79.31	2.18	0.22	-143.66
9,397.00	2.20	259.00	9,377.24	-76.18	393.48	-79.88	1.07	1.06	4.15
9,490.00	0.70	279.20	9,470.21	-76.43	391.17	-80.11	1.68	-1.61	21.72
9,584.00	0.20	23.60	9,564.20	-76.19	390.67	-79.86	0.82	-0.53	111.06
9,677.00	0.30	55.10	9,657.20	-75.90	390.93	-79.58	0.18	0.11	33.87
9,771.00	0.10	86.70	9,751.20	-75.75	391.22	-79.44	0.24	-0.21	33.62
9,865.00	0.40	104.30	9,845.20	-75.83	391.62	-79.52	0.33	0.32	18.72
9,959.00	0.50	116.50	9,939.20	-76.09	392.30	-79.79	0.15	0.11	12.98
10,052.00	0.30	98.50	10,032.20	-76.31	392.91	-80.01	0.25	-0.22	-19.35
10,146.00	0.50	107.70	10,126.19	-76.47	393.54	-80.18	0.22	0.21	9.79
10,240.00	0.30	119.70	10,220.19	-76.72	394.14	-80.43	0.23	-0.21	12.77
10,333.00	0.50	120.00	10,313.19	-77.04	394.71	-80.76	0.22	0.22	0.32
10,425.00	4.90	352.40	10,405.08	-73.34	394.54	-77.06	5.67	4.78	-138.70
10,472.00	10.30	351.60	10,451.65	-67.19	393.66	-70.90	11.49	11.49	-1.70
10,519.00	15.40	352.30	10,497.46	-56.85	392.20	-60.54	10.86	10.85	1.49
10,565.00	20.00	352.90	10,541.27	-42.98	390.41	-46.66	10.01	10.00	1.30
10,612.00	24.60	352.70	10,584.74	-25.29	388.18	-28.95	9.79	9.79	-0.43
10,659.00	29.00	355.30	10,626.69	-4.22	386.00	-7.86	9.69	9.36	5.53
10,706.00	32.50	359.40	10,667.08	19.77	384.93	16.14	8.68	7.45	8.72
10,752.00	36.40	0.90	10,705.00	45.78	385.02	42.15	8.68	8.48	3.26
10,799.00	39.50	1.20	10,742.06	74.68	385.55	71.04	6.61	6.60	0.64
10,846.00	41.30	2.80	10,777.85	105.12	386.62	101.47	4.42	3.83	3.40
10,893.00	44.80	359.70	10,812.20	137.18	387.29	133.53	8.70	7.45	-6.60
10,939.00	48.60	358.90	10,843.74	170.65	386.87	167.00	8.36	8.26	-1.74
10,953.67	49.91	359.00	10,853.31	181.76	386.67	178.11	8.95	8.94	0.67
330' Hard Line Intersection-10953.67' MD									
10,986.00	52.80	359.20	10,873.50	207.01	386.27	203.36	8.95	8.94	0.63
11,033.00	58.90	358.90	10,899.87	245.88	385.63	242.24	12.99	12.98	-0.64
11,080.00	63.70	359.10	10,922.44	287.09	384.91	283.45	10.22	10.21	0.43
11,127.00	66.20	1.10	10,942.34	329.66	384.99	326.02	6.57	5.32	4.26
11,174.00	70.00	1.00	10,959.86	373.25	385.79	369.60	8.09	8.09	-0.21
11,220.00	73.70	1.40	10,974.19	416.95	386.71	413.28	8.09	8.04	0.87
11,267.00	77.40	1.20	10,985.92	462.44	387.74	458.77	7.88	7.87	-0.43
11,335.00	82.70	1.40	10,997.66	529.38	389.26	525.69	7.80	7.79	0.29
11,429.00	91.00	4.30	11,002.82	623.03	393.93	619.29	9.35	8.83	3.09
11,523.00	92.30	1.90	11,000.12	716.84	399.01	713.05	2.90	1.38	-2.55
11,618.00	94.70	2.90	10,994.32	811.57	402.98	807.74	2.74	2.53	1.05
11,712.00	89.20	1.60	10,991.12	905.41	406.66	901.54	6.01	-5.85	-1.38
11,806.00	89.70	0.10	10,992.02	999.39	408.06	995.50	1.68	0.53	-1.60
11,900.00	91.20	357.70	10,991.28	1,093.36	406.25	1,089.48	3.01	1.60	-2.55
11,994.00	90.50	357.70	10,989.89	1,187.27	402.48	1,183.43	0.74	-0.74	0.00
12,089.00	91.10	357.40	10,988.56	1,282.18	398.42	1,278.37	0.71	0.63	-0.32
12,183.00	91.00	357.40	10,986.84	1,376.06	394.16	1,372.29	0.11	-0.11	0.00



MS Energy Services Survey Report



Company:	Matador Resources	Local Co-ordinate Reference:	Well #201H
Project:	Lea County, New Mexico (NAD 27)	TVD Reference:	WELL @ 3976.75usft (Patterson 297)
Site:	Airstrip 31-18S-35E RN State COM	MD Reference:	WELL @ 3976.75usft (Patterson 297)
Well:	#201H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Surveys	Database:	Conroe Server

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)
12,277.00	92.30	358.60	10,984.13	1,469.96	390.88	1,466.22	1.88	1.38	1.28
12,371.00	93.60	0.70	10,979.30	1,563.83	390.31	1,560.08	2.62	1.38	2.23
12,464.00	91.10	0.00	10,975.48	1,656.74	390.87	1,652.99	2.79	-2.69	-0.75
12,559.00	92.90	0.90	10,972.17	1,751.68	391.62	1,747.91	2.12	1.89	0.95
12,653.00	91.40	359.20	10,968.64	1,845.61	391.70	1,841.83	2.41	-1.60	-1.81
12,747.00	90.10	359.10	10,967.41	1,939.58	390.30	1,935.82	1.39	-1.38	-0.11
12,841.00	90.30	358.80	10,967.08	2,033.57	388.58	2,029.82	0.38	0.21	-0.32
12,935.00	91.80	358.90	10,965.36	2,127.53	386.70	2,123.79	1.60	1.60	0.11
13,029.00	92.20	358.20	10,962.08	2,221.44	384.32	2,217.72	0.86	0.43	-0.74
13,123.00	93.00	357.90	10,957.81	2,315.29	381.12	2,311.60	0.91	0.85	-0.32
13,217.00	87.70	357.30	10,957.24	2,409.17	377.19	2,405.51	5.67	-5.64	-0.64
13,311.00	86.40	357.10	10,962.08	2,502.93	372.60	2,499.31	1.40	-1.38	-0.21
13,405.00	87.90	357.20	10,966.75	2,596.70	367.93	2,593.12	1.60	1.60	0.11
13,500.00	89.40	357.40	10,968.99	2,691.56	363.46	2,688.02	1.59	1.58	0.21
13,595.00	93.30	357.90	10,966.75	2,786.44	359.57	2,782.93	4.14	4.11	0.53
13,688.00	96.00	357.80	10,959.21	2,879.06	356.09	2,875.58	2.91	2.90	-0.11
13,783.00	94.30	358.10	10,950.69	2,973.61	352.71	2,970.16	1.82	-1.79	0.32
13,877.00	88.00	358.40	10,948.80	3,067.50	349.84	3,064.07	6.71	-6.70	0.32
13,975.00	93.40	359.50	10,947.60	3,165.44	348.04	3,162.02	5.62	5.51	1.12
14,065.00	94.00	359.00	10,941.80	3,255.24	346.87	3,251.83	0.87	0.67	-0.56
14,160.00	92.10	357.70	10,936.74	3,350.06	344.13	3,346.67	2.42	-2.00	-1.37
14,254.00	94.10	358.70	10,931.66	3,443.87	341.19	3,440.51	2.38	2.13	1.06
14,349.00	95.60	358.40	10,923.63	3,538.50	338.79	3,535.15	1.61	1.58	-0.32
14,443.00	93.60	359.20	10,916.09	3,632.17	336.83	3,628.84	2.29	-2.13	0.85
14,539.00	93.00	358.70	10,910.56	3,728.00	335.07	3,724.67	0.81	-0.63	-0.52
14,634.00	92.30	358.20	10,906.17	3,822.86	332.51	3,819.56	0.91	-0.74	-0.53
14,728.00	91.10	359.00	10,903.38	3,916.79	330.21	3,913.50	1.53	-1.28	0.85
14,823.00	90.40	358.40	10,902.14	4,011.75	328.06	4,008.48	0.97	-0.74	-0.63
14,917.00	90.30	356.60	10,901.56	4,105.66	323.96	4,102.42	1.92	-0.11	-1.91
15,012.00	88.70	356.40	10,902.39	4,200.47	318.16	4,197.29	1.70	-1.68	-0.21
15,108.00	91.50	356.30	10,902.22	4,296.27	312.05	4,293.14	2.92	2.92	-0.10
15,202.00	91.90	356.70	10,899.44	4,390.05	306.31	4,386.97	0.60	0.43	0.43
15,296.00	92.40	359.40	10,895.91	4,483.92	303.11	4,480.87	2.92	0.53	2.87
15,388.00	93.30	0.00	10,891.33	4,575.81	302.63	4,572.75	1.18	0.98	0.65
15,482.00	95.00	0.40	10,884.53	4,669.56	302.96	4,666.49	1.86	1.81	0.43
15,543.00	93.60	359.00	10,879.96	4,730.38	302.64	4,727.32	3.24	-2.30	-2.30
15,597.00	93.60	359.00	10,876.57	4,784.27	301.70	4,781.21	0.00	0.00	0.00

Projection to TD-15597.00' MD



MS Energy Services
Survey Report



Company:	Matador Resources	Local Co-ordinate Reference:	Well #201H
Project:	Lea County, New Mexico (NAD 27)	TVD Reference:	WELL @ 3976.75usft (Patterson 297)
Site:	Airstrip 31-18S-35E RN State COM	MD Reference:	WELL @ 3976.75usft (Patterson 297)
Well:	#201H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Surveys	Database:	Conroe Server

Survey Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
10,953.67	10,853.31	181.76	386.67	330' Hard Line Intersection-10953.67' MD
15,597.00	10,876.57	4,784.27	301.70	Projection to TD-15597.00' MD