

Company: MATADOR RESOURCES
Lease/Well: RUSTLER BREAKS 12 24 27 No. /204H

GTI

GYRO TECHNOLOGIES AND

30-015-43194

Rig Name: PATTERSON 274
State/County: NEW MEXICO/EDDY
VS-Azimuth: 269.64 Degrees

Latitude: 32.22592, Longitude: -104.13598

Grid North = True North -0.11 degs (NAD 27)

Grid Correction Applied = -0.11 degs

VES SURVEY

JNM OIL CONSERVATION
ARTESIA DISTRICT
MAR 30 2017

RECEIVED

Depth Reference : RKB=28.5 FEET

DRILL LOG MS GYRO SURVEY CALCULATIONS

Filename: run-1-01-de_01.ut

Minimum Curvature Method

Report Date/Time: 2/27/2017 / 09:06

VES Survey International

Midland, Texas

432-563-5444

Surveyor: Michael Cook

Rustler Breaks 12 24 27 No. 204H / API 30-015-43194

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/S FT	+E/W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	*****
109.06	0.82	125.05	109.06	-0.45	0.64	-0.64	0.78	125.05	0.75
203.80	0.87	95.79	203.79	-0.91	1.92	-1.91	2.12	115.48	0.46
298.54	0.74	127.58	298.52	-1.36	3.12	-3.11	3.41	113.54	0.49
393.28	2.14	149.46	393.23	-3.26	4.50	-4.48	5.56	125.86	1.56
488.02	2.70	158.84	487.88	-6.86	6.21	-6.16	9.25	137.85	0.72
582.76	3.40	152.44	582.49	-11.43	8.31	-8.24	14.13	143.97	0.82
677.50	3.81	121.22	677.05	-15.55	12.30	-12.20	19.83	141.65	2.09
772.24	5.60	90.86	771.48	-17.25	19.62	-19.51	26.12	131.32	3.18
866.98	7.17	81.87	865.63	-16.48	30.10	-30.00	34.32	118.70	1.96
961.72	7.62	77.24	959.58	-14.26	42.08	-41.99	44.43	108.72	0.78
1056.46	7.51	76.92	1053.50	-11.47	54.23	-54.16	55.43	101.94	0.12
1151.20	7.36	71.21	1147.44	-8.11	66.01	-65.96	66.50	97.01	0.79
1245.94	6.93	71.83	1241.45	-4.37	77.18	-77.16	77.31	93.24	0.47
1340.68	6.47	69.50	1335.54	-0.72	87.61	-87.60	87.61	90.47	0.57
1435.42	6.03	66.43	1429.72	3.13	97.16	-97.18	97.22	88.15	0.58
1530.16	5.51	65.95	1523.98	6.97	105.88	-105.92	106.11	86.23	0.55

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/S FT	+E/W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
1624.90	5.50	68.34	1618.28	10.50	114.25	-114.31	114.73	84.75	0.24
1719.64	5.94	69.36	1712.55	13.91	123.05	-123.14	123.83	83.55	0.48
1814.38	7.07	61.80	1806.68	18.39	132.78	-132.89	134.05	82.11	1.50
1909.12	7.26	59.02	1900.68	24.23	143.05	-143.20	145.09	80.39	0.42
2003.86	7.62	73.21	1994.63	29.13	154.21	-154.39	156.93	79.30	1.97
2098.60	7.82	74.98	2088.51	32.61	166.44	-166.65	169.61	78.92	0.33
2193.34	7.15	72.40	2182.44	36.06	178.29	-178.51	181.90	78.57	0.79
2288.08	6.13	67.17	2276.55	39.81	188.58	-188.82	192.73	78.08	1.25
2382.82	5.07	61.33	2370.83	43.78	196.91	-197.18	201.72	77.47	1.27
2477.56	4.54	59.30	2465.24	47.70	203.81	-204.10	209.32	76.83	0.58
2572.30	4.35	59.80	2559.70	51.43	210.14	-210.46	216.34	76.25	0.20
2667.04	4.49	57.99	2654.15	55.20	216.39	-216.74	223.32	75.69	0.21
2761.78	4.31	57.91	2748.62	59.06	222.55	-222.92	230.26	75.14	0.19
2856.52	3.77	52.08	2843.12	62.86	228.03	-228.42	236.53	74.59	0.71
2951.26	2.46	29.92	2937.72	66.54	231.50	-231.91	240.87	73.96	1.85
3046.00	2.67	22.89	3032.37	70.33	233.37	-233.81	243.74	73.23	0.40
3140.74	2.53	23.19	3127.01	74.29	235.05	-235.51	246.51	72.46	0.15
3235.48	2.49	25.06	3221.66	78.08	236.75	-237.24	249.29	71.75	0.09
3330.22	2.49	25.75	3316.31	81.81	238.52	-239.03	252.16	71.07	0.03
3424.96	2.38	21.08	3410.96	85.49	240.12	-240.65	254.89	70.40	0.24
3519.70	1.71	29.42	3505.64	88.56	241.52	-242.07	257.25	69.86	0.77
3614.44	0.53	63.10	3600.36	90.00	242.61	-243.17	258.77	69.65	1.37
3709.18	0.43	57.91	3695.10	90.38	243.31	-243.87	259.55	69.62	0.12
3803.92	0.36	352.48	3789.84	90.87	243.57	-244.14	259.97	69.54	0.45
3898.66	0.40	33.60	3884.58	91.45	243.39	-243.95	260.00	69.41	0.14
3993.40	0.47	302.45	3979.31	91.96	242.91	-243.48	259.73	69.26	0.26
4088.14	0.50	308.59	4074.05	92.43	242.26	-242.83	259.29	69.12	0.06
4182.88	0.55	318.65	4168.79	93.02	241.64	-242.22	258.92	68.95	0.11
4277.62	0.58	311.21	4263.52	93.67	240.98	-241.56	258.55	68.76	0.08
4372.36	0.57	313.10	4358.26	94.31	240.28	-240.87	258.12	68.57	0.02
4467.10	0.65	317.76	4452.99	95.03	239.57	-240.17	257.73	68.36	0.10
4561.84	0.57	314.25	4547.73	95.75	238.87	-239.47	257.35	68.16	0.09
4656.58	0.54	336.08	4642.46	96.49	238.35	-238.96	257.15	67.96	0.22
4751.32	0.60	329.47	4737.20	97.33	237.92	-238.53	257.06	67.75	0.09
4846.06	0.70	308.90	4831.93	98.12	237.22	-237.83	256.71	67.53	0.27
4940.80	0.74	309.37	4926.66	98.88	236.29	-236.91	256.14	67.29	0.04
5035.54	0.93	292.93	5021.39	99.57	235.10	-235.73	255.32	67.05	0.32
5130.28	1.04	284.23	5116.12	100.08	233.56	-234.18	254.10	66.81	0.19
5225.02	1.25	282.78	5210.84	100.52	231.72	-232.34	252.58	66.55	0.22

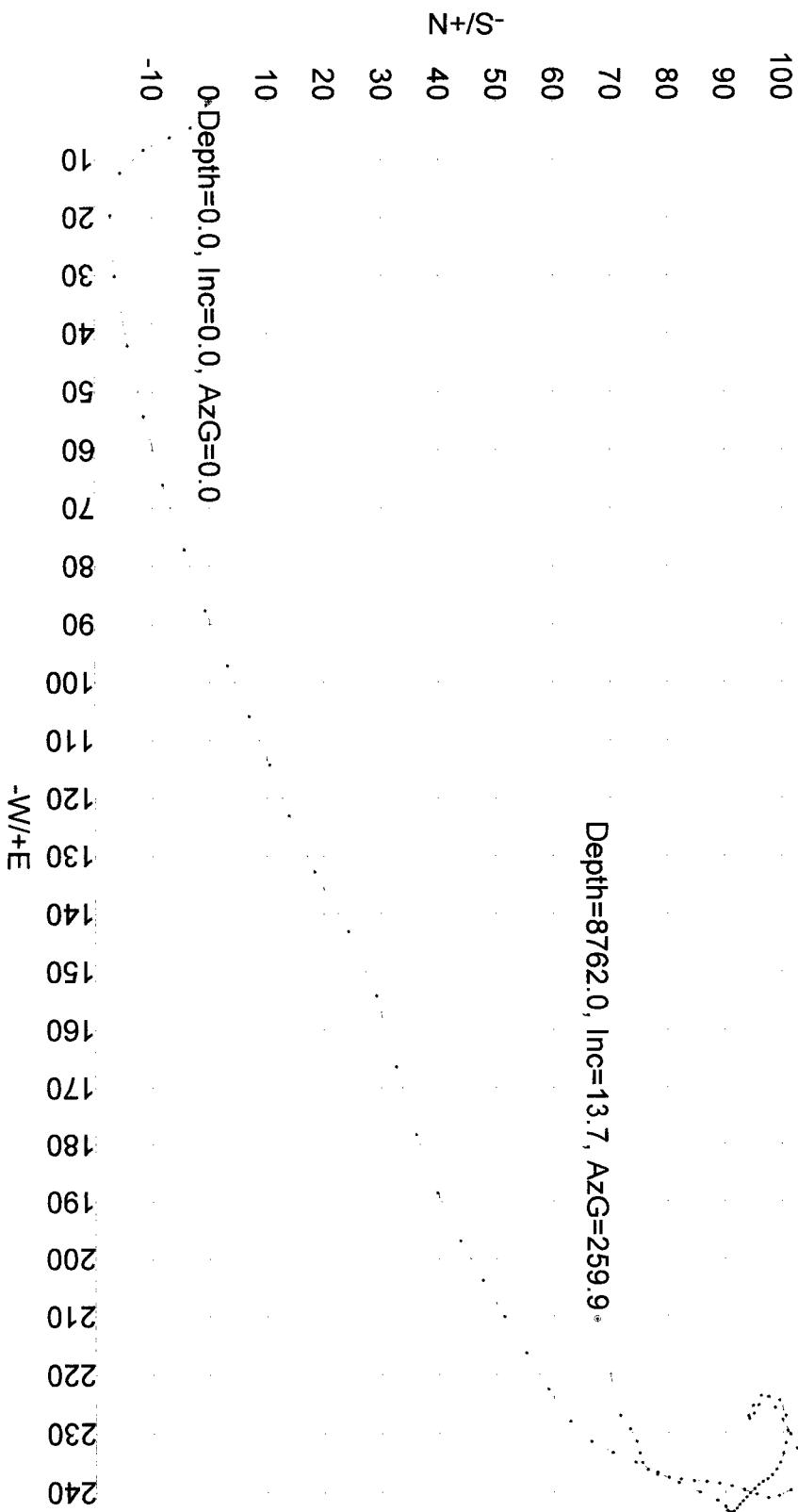
Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/S FT	+E/W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
5319.76	1.37	274.36	5305.56	100.83	229.58	-230.21	250.75	66.29	0.24
5414.50	1.73	252.98	5400.26	100.50	227.09	-227.72	248.33	66.13	0.71
5509.24	1.68	241.18	5494.96	99.41	224.51	-225.13	245.53	66.12	0.37
5603.98	1.70	154.09	5588.67	97.48	223.90	-224.51	244.20	66.47	2.46
5698.72	1.07	118.71	5684.39	95.80	225.29	-225.89	244.81	66.96	1.09
5793.46	0.92	122.05	5779.11	94.97	226.71	-227.31	245.80	67.27	0.17
5888.20	0.60	148.24	5873.84	94.14	227.14	-227.72	246.32	67.53	0.49
5982.94	0.95	288.59	5968.58	93.97	227.82	-228.44	245.81	67.52	1.54
6077.68	1.40	299.41	6063.30	94.79	225.39	-225.98	244.51	67.19	0.53
6172.42	1.33	321.00	6158.01	96.21	223.69	-224.29	243.50	66.73	0.54
6267.16	1.24	61.81	6252.74	97.55	223.90	-224.51	244.23	66.46	2.09
6361.90	1.35	56.91	6347.45	98.65	225.75	-226.36	246.36	66.40	0.16
6456.64	1.62	57.43	6442.16	99.98	227.82	-228.44	248.79	66.31	0.28
6551.38	1.75	64.56	6536.86	101.33	230.26	-230.89	251.57	66.25	0.26
6646.12	1.49	64.42	6631.56	102.48	232.68	-233.32	254.25	66.23	0.27
6740.86	1.42	77.32	6726.27	103.54	234.84	-235.48	256.65	66.21	0.09
6835.60	1.40	6620.98	104.32	237.01	-237.66	258.95	66.24	0.36	
6930.34	1.48	151.31	6915.70	103.50	238.73	-239.37	260.20	66.56	1.83
7025.08	1.45	155.48	7010.41	101.34	239.81	-240.44	260.34	67.09	0.12
7119.82	1.26	151.83	7105.12	99.34	240.80	-241.42	260.48	67.58	0.22
7214.56	1.16	188.68	7199.84	97.47	241.15	-241.75	260.10	67.99	0.81
7309.30	1.45	203.98	7294.56	95.43	240.51	-241.11	258.76	68.36	0.48
7404.04	1.38	196.31	7389.27	93.24	239.71	-240.29	257.20	68.74	0.22
7498.78	1.38	194.21	7483.98	91.04	239.11	-239.67	255.85	69.16	0.05
7593.52	1.30	191.23	7578.70	88.88	238.62	-239.17	254.63	69.57	0.12
7688.26	1.37	182.84	7673.41	86.69	238.35	-238.89	253.63	70.01	0.22
7783.00	1.36	184.90	7768.12	84.44	238.20	-238.72	252.72	70.48	0.05
7877.74	1.39	187.64	7862.84	82.18	237.95	-238.46	251.74	70.95	0.08
7972.48	1.26	189.92	7957.55	80.02	237.62	-238.12	250.73	71.39	0.15
8067.22	1.20	200.27	8052.27	78.06	237.10	-237.58	249.62	71.78	0.24
8161.96	1.05	213.17	8146.99	76.41	236.28	-236.75	248.33	72.08	0.31
8256.70	0.94	248.33	8241.72	75.39	235.08	-235.55	246.87	72.22	0.65
8351.44	1.10	262.42	8336.44	74.99	233.45	-233.92	245.20	72.19	0.31
8446.18	1.42	249.07	8431.16	74.45	231.45	-231.92	243.13	72.17	0.46
8540.92	1.49	234.44	8525.87	73.31	229.35	-229.80	240.78	72.27	0.40
8635.66	1.98	231.27	8620.57	71.56	227.07	-227.51	238.08	72.51	0.52
8762.00	13.69	259.95	8745.53	67.57	210.58	-211.00	221.16	72.21	9.49



VES Survey International
Midland, Texas
432-563-5444
Surveyor: Michael Cook
Rustler Breaks 12 24 27 No. 204H / API 30-015-43194

VES SURVEY
INTERNATIONAL

Depth=8762.0, Inc=13.7, AzG=259.9



Michael Cook

Service Technician
VES Survey International

M.Cook

I, Michael Cook, certify that I am employed by VES Survey International. That I did on the day(s) of 02/14/17 through 02/14/17 conduct or supervise the taking of a Rate Gyro survey from a depth of 0.00 feet to a depth of 8,762.00 feet; that the data is true, correct, complete and within the limitations of the tool as set forth by Vaughn Energy Services, that I am authorized and to make this report; that this survey was conducted at the request of Matador Resources for the Rustler Breaks 12-24S-27E RB Well # 204H API # 30-015-43194 in Eddy County / Parish New Mexico; and that I have reviewed this report and find that it conforms to the principles and procedures as set forth by VES Survey International.





Matador Resources

Eddy County, NM
Rustler Breaks 12-24S-27E
No. 204H
OH

Survey: ProDirectional

Survey Report

23 February, 2017



NM OIL CONSERVATION
ARTESSA DISTRICT
MAR 30 2017

RECEIVED



ProDirectional
Survey Report



Company: Matador Resources
Project: Eddy County, NM
Site: Rustler Breaks 12-24S-27E
Well: No. 204H
Wellbore: OH
Design: MWD

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

Site Rustler Breaks 12-24S-27E

Site Position:
From: Map
Position Uncertainty: 0.00 usft

Slot Radius:
13-3/16 "

445,964.00 usft
561,028.00 usft
13-3/16 "

Latitude:
Longitude:
Grid Convergence:

32° 13' 33.305 N
104° 8' 9.529 W
0.11 °

Well No. 204H
Well Position +N+S
+E/W
0.00 usft
0.00 usft
0.00 usft

Northing:
Easting:
Wellhead Elevation:

445,964.00 usft
561,028.00 usft
0.00 usft

Latitude:
Longitude:
Ground Level:

32° 13' 33.305 N
104° 8' 9.529 W
3,091.00 usft

Wellbore OH

Magnetics Model Name HDGM Sample Date 2/10/2017 Declination (°) 7.40 Dip Angle (°) 60.05 Field Strength (nT) 48,132.20

Design MWD

Audit Notes:
Version: 1.0
Vertical Section:
Depth From (TVD)
(usft)
0.00

Phase: ACTUAL
+N+S
(usft)
0.00

Tie On Depth:
+E/W
(usft)
0.00

Direction (°)
269.64

Local Co-ordinate Reference: Well No. 204H
TVD Reference: Well @ 3120.00usft (GL: 3091' + KB: 29' (Patt274))
MD Reference: North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: WellPlanner1



ProDirectional

Survey Report



Company: Matador Resources
Project: Eddy County, NM
Site: Rustler Breaks 12-24S-27E
Well: No. 204H
Wellbore: OH
Design: MWD

Local Co-ordinate Reference: Well No. 204H
TVD Reference: Well @ 3120.00usft (GL: 3091' + KB: 29' (Pat1274))
MD Reference: Well @ 3120.00usft (GL: 3091' + KB: 29' (Pat1274))
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: WellPlanner®

Survey Program	Date	2/23/2017									
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description							
109.06	8,762.00	Survey #1 (OH)	GVD_DP_MS	Gyrodata gyro-compassing and drop							
8,773.00 14,064.00 Survey #2 (OH)											
Survey	MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Eastng (usft)
393.28	2.14	149.46	393.23	-4.47	-3.25	4.49	5.55	125.90	445.960.75	561.032.49	
488.02	2.70	158.84	487.88	-6.16	-6.86	6.20	9.24	137.89	445.957.14	561.034.20	
582.76	3.40	152.44	582.49	-8.23	-11.43	8.30	14.13	144.00	445.952.57	561.036.30	
677.50	3.81	121.22	677.05	-12.20	-15.55	12.30	19.82	141.67	445.948.45	561.040.30	
772.24	5.60	90.86	771.48	-19.50	-17.25	19.61	26.12	131.34	445.946.75	561.047.61	
866.98	7.17	81.87	865.63	-29.98	-16.49	30.09	34.31	118.72	445.947.51	561.058.09	
961.72	7.62	77.24	959.58	-41.98	-14.26	42.07	44.42	108.73	445.949.74	561.070.07	
1,056.46	7.51	76.92	1,053.50	-54.15	-11.47	54.22	55.42	101.95	445.952.53	561.082.22	
1,151.20	7.36	71.21	1,147.44	-65.95	-8.12	66.00	66.50	97.01	445.955.88	561.094.00	
1,245.94	6.93	71.83	1,241.45	-77.15	-4.38	77.17	77.30	93.25	445.959.62	561.105.17	
1,340.68	6.47	69.50	1,335.54	-87.60	-0.73	87.60	87.61	90.48	445.963.27	561.115.60	
1,435.42	6.03	66.43	1,429.72	-97.18	3.13	97.17	97.22	88.15	445.967.13	561.125.17	
1,530.16	5.51	65.95	1,523.98	-105.92	6.97	105.88	106.11	86.23	445.970.97	561.133.88	
1,624.90	5.50	68.34	1,618.28	-114.32	10.50	114.25	114.73	84.75	445.974.50	561.142.25	
1,719.64	5.94	69.36	1,712.55	-123.14	13.91	123.06	123.84	83.55	445.977.91	561.151.06	
1,814.38	7.07	61.80	1,806.68	-132.90	18.39	132.79	134.05	82.12	445.982.39	561.160.79	
1,909.12	7.26	59.02	1,900.68	-143.20	24.23	143.06	145.09	80.39	445.988.23	561.171.06	



ProDirectional
Survey Report



Company: Matador Resources
Project: Eddy County, NM
Site: Rustler Breaks 12-24S-27E
Well: No. 204H
Wellbore: OH
Design: MWD

Local Co-ordinate Reference: Well No. 204H
TVD Reference: Well @ 3120.00usft (GL: 3091' + KB: 29' (Patt274))
MID Reference: Grid
North Reference: Minimum Curvature
Survey Calculation Method: WellPlanner1

Survey										
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	Northling (usft)	Easting (usft)
2,003.86	7.62	73.21	1,994.63	-154.38	29.12	154.20	156.93	79.31	445,993.12	561,182.20
2,098.60	7.82	74.98	2,088.51	-166.64	32.61	166.44	169.61	78.92	445,996.61	561,194.44
2,193.34	7.15	72.40	2,182.44	-178.51	36.06	178.29	181.90	78.57	446,000.06	561,206.29
2,288.08	6.13	67.17	2,276.55	-188.81	39.81	188.57	192.73	78.08	446,003.81	561,216.57
2,382.82	5.07	61.33	2,370.83	-197.17	43.78	196.91	201.71	77.47	446,007.78	561,224.91
2,477.56	4.54	59.30	2,465.24	-204.10	47.70	203.80	209.31	76.83	446,011.70	561,231.80
2,572.30	4.35	59.80	2,569.70	-210.45	51.42	210.13	216.33	76.25	446,015.42	561,238.13
2,667.04	4.49	57.99	2,654.15	-216.72	55.20	216.38	223.31	75.69	446,019.20	561,244.38
2,761.78	4.31	57.91	2,748.62	-222.91	59.05	222.54	230.24	75.14	446,023.05	561,250.54
2,856.52	3.77	52.08	2,843.12	-228.40	62.86	228.02	236.52	74.59	446,026.86	561,256.02
2,951.26	2.46	29.92	2,937.72	-231.90	66.53	231.49	240.86	73.96	446,030.53	561,259.49
3,046.00	2.67	22.89	3,032.37	-233.79	70.33	233.36	243.73	73.23	446,034.33	561,261.36
3,140.74	2.53	23.19	3,127.01	-235.50	74.28	235.04	246.50	72.46	446,038.28	561,263.04
3,235.48	2.49	25.06	3,221.66	-237.22	78.07	236.74	249.28	71.75	446,042.07	561,264.74
3,330.22	2.49	25.75	3,316.31	-239.01	81.79	238.50	252.14	71.07	446,045.79	561,266.50
3,424.96	2.38	21.08	3,410.96	-240.63	85.48	240.10	254.87	70.40	446,049.48	561,268.10
3,519.70	1.71	29.42	3,505.64	-242.05	88.54	241.51	257.23	69.87	446,052.54	561,269.51
3,614.44	0.53	63.10	3,600.36	-243.15	89.97	242.59	258.74	69.65	446,053.97	561,270.59
3,709.18	0.43	57.91	3,685.10	-243.84	90.36	243.28	259.52	69.62	446,054.36	561,271.28
3,803.92	0.36	352.48	3,799.84	-244.10	90.84	243.55	259.94	69.54	446,054.84	561,271.55
3,898.66	0.40	333.60	3,894.58	-243.92	91.44	243.36	259.97	69.41	446,055.44	561,271.36
3,993.40	0.47	302.45	3,979.31	-243.45	91.94	242.88	259.70	69.27	446,055.94	561,270.88
4,088.14	0.50	308.59	4,074.05	-242.80	92.41	242.23	259.26	69.12	446,056.41	561,270.23
4,182.88	0.55	318.65	4,168.79	-242.18	93.01	241.61	258.89	68.95	446,057.01	561,269.61
4,277.62	0.58	311.21	4,263.52	-241.53	93.66	240.95	258.51	68.76	446,057.66	561,268.95
4,372.36	0.57	313.10	4,358.26	-240.82	94.30	240.24	258.09	68.57	446,058.30	561,268.24
4,467.10	0.65	317.76	4,452.99	-240.12	95.02	239.54	257.70	68.36	446,059.02	561,267.54



ProDirectional
Survey Report



Company: Matador Resources
Project: Eddy County, NM
Site: Ruster Breaks 12-24S-27E
Well: No. 204H
Wellbore: OH
Design: MWD

Local Co-ordinate Reference: Well No. 204H
TVD Reference: Well @ 3120.00usft (GL: 3091' + KB: 29' (Patt274))
MD Reference: Grid
North Reference: Minimum Curvature
Survey Calculation Method: WellPlanner!

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)
4,561.84	0.57	314.25	4,547.73	-239.43	95.75	238.84	257.32	68.15	446,059.75	561,266.84
4,666.58	0.54	336.08	4,642.46	-238.92	96.49	238.32	257.11	67.96	446,060.49	561,266.32
4,751.32	0.60	329.47	4,737.20	-238.49	97.32	237.89	257.03	67.75	446,061.32	561,265.89
4,846.06	0.70	308.90	4,831.93	-237.79	98.11	237.19	256.68	67.53	446,062.11	561,265.19
4,940.80	0.74	309.37	4,926.66	-236.87	98.86	236.26	256.11	67.29	446,062.86	561,264.26
5,035.54	0.93	292.93	5,021.39	-235.70	99.55	235.08	255.29	67.05	446,063.55	561,263.08
5,130.28	1.04	284.23	5,116.12	-234.16	100.06	233.54	254.07	66.81	446,064.06	561,261.54
5,225.02	1.25	282.78	5,210.84	-232.32	100.50	231.70	252.56	66.55	446,064.50	561,259.70
5,319.76	1.37	274.36	5,305.56	-230.18	100.82	229.56	250.72	66.29	446,064.82	561,257.56
5,414.50	1.73	252.98	5,400.26	-227.68	100.48	227.07	248.31	66.13	446,064.48	561,255.07
5,509.24	1.68	241.18	5,494.96	-225.09	99.40	224.48	245.50	66.12	446,063.40	561,252.48
5,603.98	1.70	154.09	5,589.67	-224.48	97.46	223.88	244.17	66.47	446,061.46	561,251.88
5,698.72	1.07	118.71	5,684.39	-225.86	95.77	225.27	244.78	66.97	446,059.77	561,253.27
5,793.46	0.92	122.05	5,779.11	-227.27	94.94	226.69	245.77	67.27	446,058.94	561,254.69
5,888.20	0.60	148.24	5,873.84	-228.17	94.12	227.59	246.29	67.53	446,058.12	561,255.59
5,982.94	0.95	288.59	5,968.58	-227.69	93.95	227.11	245.78	67.53	446,057.95	561,255.11
6,077.68	1.40	299.41	6,063.30	-225.94	94.77	225.36	244.47	67.19	446,058.77	561,253.36
6,172.42	1.33	321.00	6,158.01	-224.25	96.19	223.66	243.47	66.73	446,060.19	561,251.66
6,267.16	1.24	61.81	6,252.74	-224.47	97.53	223.87	244.19	66.46	446,061.53	561,251.87
6,361.90	1.35	56.91	6,347.45	-226.32	98.62	225.71	246.31	66.40	446,062.62	561,253.71
6,456.64	1.62	57.43	6,442.16	-228.39	99.95	227.77	248.74	66.31	446,063.95	561,255.77
6,551.38	1.75	64.56	6,536.86	-230.83	101.29	230.21	251.51	66.25	446,065.29	561,258.21
6,646.12	1.49	64.42	6,631.56	-233.26	102.45	232.62	254.18	66.23	446,066.45	561,260.62
6,740.86	1.42	63.36	6,726.27	-235.42	103.51	234.78	256.59	66.21	446,067.51	561,262.78
6,835.60	1.40	77.32	6,820.98	-237.61	104.29	236.96	258.90	66.25	446,068.29	561,264.96
6,930.34	1.48	151.31	6,915.70	-239.32	103.47	238.68	260.14	66.56	446,067.47	561,266.68
7,025.08	1.45	155.48	7,010.41	-240.39	101.30	239.76	260.29	67.10	446,065.30	561,267.76



ProDirectional

Survey Report



Company: Matador Resources
Project: Eddy County, NM
Site: Ruster Breaks 12-24S-27E
Well: No. 204H
Wellbore: OH
Design: MWD

Local Co-ordinate Reference: Well No. 204H
TVD Reference: Well @ 3120.00usft (GL: 3091' + KB: 29' (Patt274))
MD Reference: Grid
North Reference: Minimum Curvature
Survey Calculation Method: 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)
7,119.82	1.26	151.83	7,105.12	-241.37	99.29	240.75	260.43	67.59	446,063.29	561,268.75
7,214.56	1.16	188.68	7,199.84	-241.70	97.43	241.10	260.04	68.00	446,061.43	561,269.10
7,309.30	1.45	203.98	7,294.56	-241.06	95.38	240.47	258.70	68.36	446,059.38	561,268.47
7,404.04	1.38	196.31	7,389.27	-240.24	93.19	239.66	257.14	68.75	446,057.19	561,267.66
7,498.78	1.38	194.21	7,483.98	-239.62	90.99	239.06	255.79	69.16	446,054.99	561,267.06
7,593.52	1.30	191.23	7,578.70	-239.12	88.83	238.57	254.57	69.58	446,052.83	561,266.57
7,688.26	1.37	182.84	7,673.41	-238.84	86.65	238.31	253.57	70.02	446,050.65	561,266.31
7,783.00	1.36	184.90	7,768.13	-238.67	84.40	238.15	252.67	70.49	446,048.40	561,265.91
7,877.74	1.39	187.64	7,862.84	-238.41	82.14	237.91	251.68	70.95	446,046.14	561,265.57
7,972.48	1.26	189.92	7,957.55	-238.06	79.97	237.57	250.67	71.40	446,043.97	561,265.57
8,067.22	1.20	200.27	8,052.27	-237.53	78.02	237.05	249.56	71.78	446,042.02	561,265.05
8,161.96	1.05	213.17	8,146.99	-236.70	76.36	236.23	248.27	72.09	446,040.36	561,264.23
8,256.70	0.94	248.33	8,241.72	-235.50	75.34	235.03	246.82	72.23	446,039.34	561,263.03
8,351.44	1.10	262.42	8,336.44	-233.87	74.94	233.41	245.14	72.20	446,038.94	561,261.41
8,446.18	1.42	249.07	8,431.16	-231.87	74.40	231.41	243.08	72.18	446,038.40	561,259.41
8,540.92	1.49	234.44	8,525.87	-229.76	73.26	229.31	240.73	72.28	446,037.26	561,257.31
8,635.66	1.98	231.27	8,620.57	-227.47	71.52	227.04	238.03	72.51	446,035.52	561,255.04
8,762.00	13.69	259.95	8,745.53	-210.97	67.53	210.55	221.12	72.22	446,031.53	561,238.55
8,773.00	14.20	263.60	8,756.21	-208.34	67.16	207.93	218.50	72.10	446,031.16	561,235.93
Pro MWD First Survey: 8773' MD										
8,820.00	21.40	267.40	8,800.93	-194.02	66.12	193.61	204.59	71.14	446,030.12	561,221.61
8,868.00	27.10	266.30	8,844.68	-174.34	65.02	173.94	185.70	69.50	446,029.02	561,201.94
8,916.00	29.80	265.80	8,886.88	-151.52	63.44	151.13	163.91	67.23	446,027.44	561,179.13
8,963.00	31.70	268.10	8,927.27	-127.52	62.18	127.14	141.53	63.94	446,026.18	561,155.14
9,011.00	34.60	268.30	8,967.45	-101.28	61.35	100.91	118.09	58.70	446,025.35	561,128.91
9,059.00	36.80	268.30	9,006.43	-73.28	60.52	72.91	94.76	50.30	446,024.52	561,100.91
9,107.00	38.70	268.70	9,044.38	-43.90	59.75	43.53	73.93	36.08	446,023.75	561,071.53



ProDirectional
Survey Report



Company: Metador Resources
Project: Eddy County, NM
Site: Ruster Breaks 12-24S-27E
Well: No. 204H
Wellbore: OH
Design: MWD

Local Co-ordinate Reference: Well No. 204H
TVD Reference: Well @ 3120.00usft (GL: 3091' + KB: 29' (Pat274))
MD Reference: Well @ 3120.00usft (GL: 3091' + KB: 29' (Pat274))
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: WellPlanner[®]

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)
9,154.00	41.70	270.30	9,080.28	-13.57	59.50	13.21	60.95	12.51	446,023.50	561,041.21
9,201.00	44.60	268.30	9,114.56	18.56	59.10	-18.93	62.05	342.24	446,023.10	561,009.07
9,216.00	46.60	267.21	9,125.06	29.27	58.67	-29.64	65.73	333.20	446,022.67	560,998.36
HL Xing: 9216 MD										
9,248.00	50.90	265.10	9,146.15	53.28	57.05	-53.63	78.30	316.77	446,021.05	560,974.37
9,297.00	53.70	263.00	9,176.12	91.85	53.01	-92.19	106.34	299.90	446,017.01	560,935.81
9,344.00	59.80	263.60	9,201.87	130.90	48.44	-131.20	139.86	290.26	446,012.44	560,896.80
9,392.00	67.10	266.30	9,223.32	173.66	44.69	-173.94	179.59	284.41	446,008.69	560,854.06
9,439.00	73.10	267.20	9,239.31	217.78	42.20	-218.05	222.09	280.95	446,006.20	560,809.95
9,487.00	76.90	268.00	9,251.73	264.11	40.26	-264.36	267.41	278.66	446,004.26	560,763.64
9,507.00	78.50	267.70	9,255.99	283.64	39.52	-283.89	286.63	277.93	446,003.52	560,744.11
9,591.00	83.30	267.20	9,269.27	366.49	35.83	-366.72	368.47	275.58	445,999.83	560,661.28
9,622.00	83.70	267.70	9,272.78	397.27	34.46	-397.49	398.98	274.96	445,998.46	560,630.51
9,654.00	83.70	267.60	9,276.29	429.06	33.16	-429.27	430.55	274.42	445,997.16	560,598.73
9,685.00	84.30	267.70	9,279.53	459.87	31.89	-460.08	461.18	273.97	445,995.89	560,567.92
9,717.00	84.40	267.50	9,282.68	491.70	30.56	-491.89	492.84	273.56	445,994.56	560,536.11
9,748.00	85.20	267.30	9,285.49	522.54	29.16	-522.73	523.55	273.19	445,993.16	560,505.27
9,780.00	85.90	267.80	9,287.98	554.43	27.80	-554.61	555.31	272.87	445,991.80	560,473.39
9,811.00	85.80	267.60	9,290.22	585.33	26.56	-585.50	586.10	272.60	445,990.56	560,442.50
9,843.00	85.90	267.50	9,292.54	617.22	25.19	-617.39	617.90	272.34	445,989.19	560,410.61
9,874.00	87.90	266.90	9,294.21	648.15	23.68	-648.31	648.74	272.09	445,987.68	560,379.69
9,905.00	89.50	266.60	9,294.92	679.10	21.92	-679.25	679.60	271.85	445,985.92	560,348.75
9,937.00	90.20	266.50	9,295.00	711.05	20.00	-711.19	711.47	271.61	445,984.00	560,316.81
9,968.00	92.10	267.10	9,294.38	742.00	18.27	-742.13	742.36	271.41	445,982.27	560,285.87
10,063.00	91.90	266.90	9,291.06	836.85	13.30	-836.94	837.05	270.91	445,977.30	560,191.06
10,157.00	94.10	267.50	9,286.14	930.63	8.71	-930.70	930.74	270.54	445,972.71	560,097.30
10,252.00	93.00	268.40	9,280.26	1,025.40	5.32	-1,025.45	1,025.47	270.30	445,969.32	560,002.55



ProDirectional
Survey Report



Company: Matador Resources
Project: Eddy County, NM
Site: Ruster Breaks 12-24S-27E
Well: No. 204H
Wellbore: OH
Design: MWD

Survey

Survey	MD (ft)	Inc (°)	Azi (azimuth) (°)	TVD (ft)	V. Sec (ft)	N/S (ft)	EW (ft)	Closure Distance (ft)	Closure Azimuth (°)	Northing (ft)	Eastng (ft)
	10,345.00	93.20	268.20	9,275.23	1,118.24	2.57	-1,118.27	1,118.28	270.13	445,966.57	559,909.73
	10,440.00	94.40	269.60	9,268.93	1,213.02	0.74	-1,213.04	1,213.04	270.04	445,964.74	559,814.96
	10,534.00	90.70	268.50	9,264.75	1,306.90	-0.81	-1,306.92	1,306.92	269.96	445,963.19	559,721.08
	10,629.00	89.70	268.30	9,264.42	1,401.88	-3.47	-1,401.88	1,401.89	269.86	445,960.53	559,626.12
	10,724.00	91.40	268.90	9,263.51	1,496.85	-5.79	-1,496.84	1,496.86	269.78	445,958.21	559,531.16
	10,818.00	92.40	270.40	9,260.39	1,590.80	-6.36	-1,590.79	1,590.80	269.77	445,957.64	559,437.21
	10,912.00	92.00	270.80	9,256.78	1,684.71	-5.38	-1,684.71	1,684.72	269.82	445,958.62	559,343.29
	11,007.00	92.10	270.10	9,253.39	1,779.64	-4.63	-1,779.65	1,779.65	269.85	445,959.37	559,248.35
	11,101.00	92.10	270.40	9,249.94	1,873.57	-4.22	-1,873.58	1,873.59	269.87	445,959.78	559,154.42
	11,196.00	91.70	270.20	9,246.79	1,968.52	-3.72	-1,968.53	1,968.53	269.89	445,960.28	559,059.47
	11,280.00	91.90	270.40	9,243.84	2,062.46	-3.23	-2,062.48	2,062.49	269.91	445,960.77	558,965.52
	11,385.00	93.20	270.20	9,239.61	2,157.36	-2.74	-2,157.39	2,157.39	269.93	445,961.26	558,870.61
	11,479.00	93.40	270.40	9,234.20	2,251.20	-2.24	-2,251.23	2,251.23	269.94	445,961.76	558,776.77
	11,574.00	91.60	270.70	9,230.06	2,346.09	-1.33	-2,346.13	2,346.13	269.97	445,962.67	558,681.87
	11,669.00	91.50	271.10	9,227.49	2,441.03	0.16	-2,441.08	2,441.08	270.00	445,964.16	558,586.92
	11,764.00	89.90	270.80	9,226.33	2,536.00	1.73	-2,536.06	2,536.06	270.04	445,965.73	558,491.94
	11,858.00	89.50	271.00	9,226.82	2,629.98	3.21	-2,630.05	2,630.05	270.07	445,967.21	558,397.95
	11,953.00	89.80	271.20	9,227.40	2,724.94	5.03	-2,725.03	2,725.03	270.11	445,969.03	558,302.97
	12,047.00	89.80	271.70	9,227.73	2,818.90	7.41	-2,819.00	2,819.01	270.15	445,971.41	558,209.00
	12,142.00	89.10	270.60	9,228.64	2,913.86	9.32	-2,913.97	2,913.99	270.18	445,973.32	558,114.03
	12,236.00	89.30	269.00	9,229.95	3,007.84	8.99	-3,007.96	3,007.97	270.17	445,972.99	558,020.04
	12,330.00	90.40	269.20	9,230.20	3,101.84	7.51	-3,101.94	3,101.95	270.14	445,971.51	557,926.06
	12,424.00	91.60	269.60	9,228.56	3,195.82	6.53	-3,195.92	3,195.93	270.12	445,970.53	557,832.08
	12,518.00	91.70	269.60	9,225.85	3,289.78	5.87	-3,289.88	3,289.89	270.10	445,969.87	557,738.12
	12,614.00	91.20	269.60	9,223.42	3,385.75	5.20	-3,385.85	3,385.85	270.09	445,969.20	557,642.15
	12,709.00	93.30	268.90	9,219.69	3,480.67	3.96	-3,480.76	3,480.76	270.07	445,967.96	557,547.24
	12,803.00	92.90	268.40	9,214.61	3,574.52	1.75	-3,574.60	3,574.60	270.03	445,965.75	557,453.40

Local Co-ordinate Reference: Well No. 204H
TVD Reference: Well @ 3120.00ft (GL: 3091' + KB: 29' (Pat4274))
MD Reference: Grid
North Reference: Minimum Curvature
Survey Calculation Method: WellPlanner1



ProDirectional

Survey Report



Company: Matador Resources
Project: Eddy County, NM
Site: Rustler Breaks 12-24S-27E
Well: No. 204H
Wellbore: OH
Design: MWD

Local Co-ordinate Reference: Well No. 204H
TVD Reference: Well @ 3120.00usft (GL: 3091' + KB: 29' (Part274))
MD Reference: Grid
North Reference: Minimum Curvature
Survey Calculation Method: WellPlanner1

Survey

Survey	MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V_Sec (usft)	N/S (usft)	EW (usft)	Closure Distance (usft)	Closure Azimuth (°)	Northing (usft)	Eastings (usft)
	12,897.00	92.30	269.10	9,210.34	3,668.41	-0.30	-3,668.48	3,668.48	270.00	445,963.70	557,359.52
	12,991.00	93.30	269.60	9,205.75	3,762.29	-1.36	-3,762.36	3,762.36	269.98	445,962.64	557,265.64
	13,086.00	95.70	270.20	9,198.30	3,856.99	-1.53	-3,857.06	3,857.06	269.98	445,962.47	557,170.94
	13,180.00	93.90	269.90	9,190.43	3,950.66	-1.45	-3,950.72	3,950.72	269.98	445,962.55	557,077.28
	13,275.00	93.20	269.50	9,194.55	4,045.47	-1.94	-4,045.54	4,045.54	269.97	445,962.06	556,982.46
	13,369.00	92.80	269.20	9,179.63	4,139.34	-3.01	-4,139.40	4,139.40	269.96	445,960.99	556,888.60
	13,463.00	90.60	268.00	9,176.84	4,233.28	-5.31	-4,233.33	4,233.33	269.93	445,958.69	556,794.67
	13,557.00	90.00	267.70	9,176.35	4,327.23	-8.83	-4,327.26	4,327.27	269.88	445,955.17	556,700.74
	13,652.00	92.50	267.70	9,174.28	4,422.14	-12.64	-4,422.15	4,422.17	269.84	445,951.36	556,605.85
	13,746.00	92.30	267.40	9,170.34	4,516.00	-16.66	-4,515.98	4,516.01	269.79	445,947.34	556,512.02
	13,840.00	90.80	266.00	9,167.80	4,609.84	-22.07	-4,609.79	4,609.84	269.73	445,941.93	556,418.21
	13,935.00	92.10	267.90	9,165.40	4,704.69	-27.12	-4,704.62	4,704.69	269.67	445,936.88	556,323.38
	13,973.00	92.10	267.80	9,164.00	4,742.65	-28.51	-4,742.57	4,742.65	269.66	445,935.49	556,285.43
HL Xing: 13973' MD	13,991.00	92.10	267.90	9,163.34	4,760.63	-29.17	-4,760.54	4,760.63	269.65	445,934.83	556,267.46
Last Survey: 13991' MD, 9163.34' TVD	14,064.00	92.10	267.90	9,160.67	4,833.55	-31.84	-4,833.44	4,833.55	269.62	445,932.16	556,194.56
PTB: 14064' MD, 9160.67' TVD											

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/S (usft)	Local Coordinates +E/W (usft)	Comment
8,773.00	8,756.21	67.16	207.93	Pro MWD First Survey: 8773' MD
9,216.00	9,125.06	58.67	-29.64	HL Xing: 9216' MD
13,973.00	9,164.00	-28.51	-4,742.57	HL Xing: 13973' MD
13,991.00	9,163.34	-29.17	-4,760.54	Last Survey: 13991' MD, 9163.34' TVD
14,064.00	9,160.67	-31.84	-4,833.44	PTB: 14064' MD, 9160.67' TVD