

30015 42660

Phoenix Technology Services SURVEY DATA CERTIFICATION



PHOENIX JOB NUMBER

1411820

ENERGY COMPANY

Matador Resources

WELL NAME

Guitar 10-24S-28E RB 202H

COUNTY & STATE

Eddy County New Mexico

API WELL NUMBER

30-015-42660

PROPOSED DIRECTION

264.72

TIE-IN DATA						
MEASURED	VERTICAL			N-S	E-W	DATA
DEPTH	DEPTH	INCLIN	AZIMUTH	COORD	COORD	SOURCE
8700	8678.09	2.52	223.29	209.99 S	43.31 E	Gyro

FIRST SURVEY DATE	FIRST SURVEY DEPTH	INCLIN	AZIMUTH
14-Dec-14	8775	2.80	187.40

SURVEY INSTRUMENT TYPE
Phoenix MWD

LAST SURVEY DATE	LAST SURVEY DEPTH	INCLIN	AZIMUTH
26-Dec-14	14080	91.40	268.50

TO THE BEST OF MY KNOWLEDGE I
CERTIFY THIS SURVEY DATA TO BE
TRUE AND CORRECT.

PROJECTED TD SURVEY DATE	PROJECTED TD SURVEY DEPTH	INCLIN	AZIMUTH
26-Dec-14	14150	90.50	268.50

Tyler Landers

PRINT YOUR NAME ABOVE

Tyler Landers

SIGN YOUR NAME ABOVE

MAGNETIC DECLINATION OR TOTAL GRID

TOTAL CORRECTION USED	
	7.42
DECLINATION OR GRID	GRID

12/27/2014

TODAY'S DATE

MWD SUPERVISOR 1

Tyler Landers / John Nivens

DIRECTIONAL DRILLER 1

Van Johnson

MWD SUPERVISOR 2

Alex Boggess

DIRECTIONAL DRILLER 2

Skip Smith

12329 Cutten Rd., Houston, Texas 777066

(713)337-0600 (Voice), (713)337-0599 (Fax)



Matador Resources

Eddy County, New Mexico (NAD27)

Guitar 10-24S-28E RB

#202H

Wellbore #1 Job #1411820

Survey: Phoenix MWD Surveys

Standard Survey Report

04 March, 2015

30-015-42660



Survey Report

Company:	Matador Resources	Local Co-ordinate Reference:	Well #202H
Project:	Eddy County, New Mexico (NAD27)	TVD Reference:	KB: 25' @ 3018.00usft (Patterson 203)
Site:	Guitar 10-24S-28E RB	MD Reference:	KB: 25' @ 3018.00usft (Patterson 203)
Well:	#202H	North Reference:	Grid
Wellbore:	Wellbore #1 Job #1411820	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Patterson 203)	Database:	Compass 5000 GCR

Project	Eddy County, New Mexico (NAD27)		
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	Guitar 10-24S-28E RB		
Site Position:		Northing:	449,226.00 usft
From:	Map	Easting:	582,320.00 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 14' 5.13204 N
		Longitude:	104° 4' 1.56093 W
		Grid Convergence:	0.14 °

Well	#202H		
Well Position	+N/-S	0.00 usft	Northing: 449,226.00 usft
	+E/-W	0.00 usft	Easting: 582,320.00 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	0.00 usft
		Latitude:	32° 14' 5.13204 N
		Longitude:	104° 4' 1.56093 W
		Ground Level:	2,993.00 usft

Wellbore	Wellbore #1 Job #1411820		
Magnetics	Model Name	Sample Date	Declination
	BGGM2014	12/5/2014	7.56
		Dip Angle	60.02
		Field Strength	48,174

Design	Surveys (Patterson 203)		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.00	0.00	0.00
		Direction	264.72
		(°)	

Survey Program	Date 12/27/2014		
From	To	Survey (Wellbore)	Tool Name
(usft)	(usft)		
100.00	8,700.00	MS Gyro Surveys (Wellbore #1 Job #1411	NS-GYRO-MS
8,775.00	14,150.00	Phoenix MWD Surveys (Wellbore #1 Job #	PHX+MWD+BGGM
			Description
			North sensing gyrocompassing m/s
			PHX+MWD+BGGM v3:standard declination

Survey										
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Vertical	Dogleg	Build	Turn	
Depth	(°)	(°)	Depth	(usft)	(usft)	Section	Rate	Rate	Rate	
(usft)			(usft)			(usft)	(°/100usft)	(°/100usft)	(°/100usft)	
8,700.00	2.52	223.29	8,678.09	-209.99	43.31	-23.80	0.00	0.00	0.00	
Tie-In to MS Gyro										
8,775.00	2.80	187.40	8,753.02	-213.01	41.94	-22.16	2.21	0.37	-47.85	
First Phoenix MWD Survey										
8,807.00	3.80	219.60	8,784.96	-214.60	41.17	-21.24	6.46	3.13	100.63	
8,839.00	7.00	232.90	8,816.82	-216.60	38.93	-18.84	10.67	10.00	41.56	
8,870.00	8.40	250.40	8,847.54	-218.49	35.29	-15.04	8.76	4.52	56.45	
8,902.00	12.70	259.00	8,879.00	-219.95	29.64	-9.27	14.27	13.44	26.88	
8,933.00	16.40	263.10	8,909.00	-221.13	21.94	-1.50	12.38	11.94	13.23	



Survey Report

Company:	Matador Resources	Local Co-ordinate Reference:	Well #202H
Project:	Eddy County, New Mexico (NAD27)	TVD Reference:	KB: 25' @ 3018.00usft (Patterson 203)
Site:	Guitar 10-24S-28E RB	MD Reference:	KB: 25' @ 3018.00usft (Patterson 203)
Well:	#202H	North Reference:	Grid
Wellbore:	Wellbore #1 Job #1411820	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Patterson 203)	Database:	Compass 5000 GCR

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)
8,965.00	18.10	264.20	8,939.56	-222.17	12.51	7.98	5.41	5.31	3.44
8,997.00	17.40	262.30	8,970.04	-223.32	2.83	17.74	2.84	-2.19	-5.94
9,028.00	18.20	269.90	8,999.55	-223.95	-6.61	27.19	7.92	2.58	24.52
9,060.00	21.40	268.50	9,029.66	-224.11	-17.45	37.99	10.11	10.00	-4.38
9,091.00	24.20	271.10	9,058.23	-224.13	-29.45	49.96	9.60	9.03	8.39
9,123.00	28.00	274.20	9,086.97	-223.46	-43.51	63.89	12.61	11.88	9.69
9,155.00	30.90	274.30	9,114.83	-222.29	-59.20	79.40	9.06	9.06	0.31
9,186.00	32.90	274.90	9,141.15	-220.97	-75.53	95.54	6.53	6.45	1.94
9,217.00	35.10	272.40	9,166.85	-219.88	-92.82	112.66	8.41	7.10	-8.06
9,249.00	37.90	271.20	9,192.57	-219.29	-111.84	131.55	9.03	8.75	-3.75
9,280.00	39.60	270.70	9,216.74	-218.97	-131.24	150.84	5.58	5.48	-1.61
9,312.00	40.00	270.60	9,241.33	-218.74	-151.73	171.21	1.27	1.25	-0.31
9,344.00	41.40	269.80	9,265.59	-218.67	-172.59	191.98	4.67	4.38	-2.50
9,375.00	42.30	267.00	9,288.68	-219.25	-193.26	212.62	6.69	2.90	-9.03
9,407.00	44.60	265.40	9,311.91	-220.71	-215.22	234.62	7.97	7.19	-5.00
9,439.00	46.80	263.50	9,334.26	-222.94	-238.01	257.51	8.08	6.88	-5.94
9,471.00	49.00	262.40	9,355.71	-225.85	-261.57	281.24	7.33	6.88	-3.44
9,502.00	50.10	262.20	9,375.83	-229.01	-284.95	304.81	3.58	3.55	-0.65
9,534.00	51.90	261.90	9,395.96	-232.45	-309.58	329.65	5.67	5.63	-0.94
9,566.00	55.30	261.20	9,414.95	-236.24	-335.05	355.37	10.77	10.63	-2.19
9,598.00	58.50	261.10	9,432.42	-240.37	-361.53	382.12	10.00	10.00	-0.31
9,629.00	61.40	261.40	9,447.95	-244.45	-388.05	408.90	9.39	9.35	0.97
9,661.00	64.40	262.30	9,462.52	-248.48	-416.25	437.35	9.70	9.38	2.81
9,692.00	68.10	263.10	9,475.00	-252.08	-444.39	465.70	12.17	11.94	2.58
9,746.00	69.70	264.10	9,494.44	-257.70	-494.45	516.07	3.43	2.96	1.85
9,778.00	72.50	265.00	9,504.81	-260.57	-524.58	546.34	9.15	8.75	2.81
9,809.00	72.70	264.20	9,514.08	-263.35	-554.03	575.92	2.55	0.65	-2.58
9,841.00	72.80	263.90	9,523.57	-266.52	-584.43	606.48	0.95	0.31	-0.94
9,870.00	72.60	263.20	9,532.19	-269.63	-611.94	634.16	2.41	-0.69	-2.41
9,902.00	72.20	261.50	9,541.87	-273.69	-642.17	664.63	5.22	-1.25	-5.31
9,933.00	73.30	261.50	9,551.06	-278.07	-671.45	694.19	3.55	3.55	0.00
9,962.00	74.10	259.80	9,559.20	-282.59	-698.91	721.95	6.27	2.76	-5.86
9,994.00	75.20	260.30	9,567.67	-287.92	-729.31	752.71	3.75	3.44	1.56
10,026.00	81.30	260.80	9,574.19	-293.06	-760.20	783.94	19.12	19.06	1.56
10,057.00	88.60	260.90	9,576.91	-297.97	-790.66	814.73	23.55	23.55	0.32
10,089.00	93.60	261.70	9,576.30	-302.81	-822.28	846.66	15.82	15.63	2.50
10,125.00	93.50	262.40	9,574.07	-307.78	-857.87	882.55	1.96	-0.28	1.94
10,219.00	93.70	262.50	9,568.17	-320.10	-950.87	976.29	0.24	0.21	0.11
10,313.00	93.70	262.50	9,562.10	-332.35	-1,043.87	1,070.02	0.00	0.00	0.00
10,403.00	93.00	263.40	9,556.84	-343.37	-1,133.03	1,159.82	1.27	-0.78	1.00
10,497.00	92.00	265.70	9,552.74	-352.29	-1,226.51	1,253.73	2.67	-1.06	2.45
10,591.00	89.70	267.70	9,551.35	-357.70	-1,320.34	1,347.65	3.24	-2.45	2.13
10,685.00	90.80	268.60	9,550.94	-360.74	-1,414.28	1,441.48	1.51	1.17	0.96



Survey Report

Company:	Matador Resources	Local Co-ordinate Reference:	Well #202H
Project:	Eddy County, New Mexico (NAD27)	TVD Reference:	KB: 25' @ 3018.00usft (Patterson 203)
Site:	Guitar 10-24S-28E RB	MD Reference:	KB: 25' @ 3018.00usft (Patterson 203)
Well:	#202H	North Reference:	Grid
Wellbore:	Wellbore #1 Job #1411820	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Patterson 203)	Database:	Compass 5000 GCR

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)
10,779.00	89.40	270.60	9,550.77	-361.39	-1,508.27	1,535.13	2.60	-1.49	2.13
10,874.00	88.80	271.50	9,552.26	-359.65	-1,603.24	1,629.54	1.14	-0.63	0.95
10,968.00	88.10	271.60	9,554.81	-357.11	-1,697.17	1,722.84	0.75	-0.74	0.11
11,062.00	88.40	272.30	9,557.68	-353.91	-1,791.08	1,816.04	0.81	0.32	0.74
11,156.00	88.80	273.10	9,559.97	-349.49	-1,884.94	1,909.11	0.95	0.43	0.85
11,250.00	90.20	271.00	9,560.79	-346.12	-1,978.87	2,002.33	2.68	1.49	-2.23
11,346.00	90.60	270.90	9,560.12	-344.53	-2,074.86	2,097.76	0.43	0.42	-0.10
11,440.00	92.50	270.00	9,557.58	-343.79	-2,168.81	2,191.25	2.24	2.02	-0.96
11,535.00	91.40	270.20	9,554.35	-343.63	-2,263.76	2,285.77	1.18	-1.16	0.21
11,629.00	92.50	268.90	9,551.15	-344.37	-2,357.70	2,379.38	1.81	1.17	-1.38
11,723.00	91.00	268.30	9,548.28	-346.66	-2,451.62	2,473.12	1.72	-1.60	-0.64
11,817.00	93.70	267.40	9,544.43	-350.18	-2,545.47	2,566.89	3.03	2.87	-0.96
11,912.00	93.80	267.30	9,538.21	-354.57	-2,640.16	2,661.59	0.15	0.11	-0.11
12,007.00	93.30	267.80	9,532.33	-358.62	-2,734.89	2,756.29	0.74	-0.53	0.53
12,101.00	93.10	269.10	9,527.08	-361.16	-2,828.71	2,849.94	1.40	-0.21	1.38
12,195.00	90.80	269.60	9,523.88	-362.22	-2,922.64	2,943.57	2.50	-2.45	0.53
12,289.00	90.40	269.40	9,522.90	-363.04	-3,016.63	3,037.24	0.48	-0.43	-0.21
12,383.00	88.00	268.60	9,524.21	-364.68	-3,110.60	3,130.96	2.69	-2.55	-0.85
12,477.00	90.00	267.80	9,525.85	-367.64	-3,204.53	3,224.77	2.29	2.13	-0.85
12,571.00	91.00	267.80	9,525.03	-371.24	-3,298.46	3,318.63	1.06	1.06	0.00
12,666.00	94.90	269.50	9,520.14	-373.48	-3,393.29	3,413.26	4.48	4.11	1.79
12,760.00	93.40	269.40	9,513.34	-374.38	-3,487.03	3,506.69	1.60	-1.60	-0.11
12,854.00	91.30	269.10	9,509.49	-375.61	-3,580.94	3,600.31	2.26	-2.23	-0.32
12,949.00	90.70	269.20	9,507.83	-377.02	-3,675.92	3,695.01	0.64	-0.63	0.11
13,043.00	90.30	268.20	9,507.01	-379.15	-3,769.89	3,788.78	1.15	-0.43	-1.06
13,137.00	91.00	268.60	9,505.94	-381.78	-3,863.84	3,882.58	0.86	0.74	0.43
13,232.00	90.80	269.30	9,504.45	-383.52	-3,958.81	3,977.31	0.77	-0.21	0.74
13,326.00	90.50	269.10	9,503.38	-384.83	-4,052.80	4,071.02	0.38	-0.32	-0.21
13,420.00	90.30	268.80	9,502.73	-386.55	-4,146.78	4,164.76	0.38	-0.21	-0.32
13,514.00	91.50	267.90	9,501.25	-389.26	-4,240.73	4,258.55	1.60	1.28	-0.96
13,609.00	92.50	266.90	9,497.94	-393.56	-4,335.57	4,353.39	1.49	1.05	-1.05
13,703.00	93.10	267.00	9,493.34	-398.56	-4,429.32	4,447.21	0.65	0.64	0.11
13,797.00	93.30	267.10	9,488.10	-403.39	-4,523.05	4,540.98	0.24	0.21	0.11
13,892.00	92.40	267.50	9,483.37	-407.86	-4,617.83	4,635.77	1.04	-0.95	0.42
13,986.00	92.40	268.10	9,479.44	-411.47	-4,711.68	4,729.55	0.64	0.00	0.64
14,080.00	91.40	268.50	9,476.32	-414.25	-4,805.58	4,823.31	1.15	-1.06	0.43
Final Phoenix MWD Survey									
14,150.00	90.50	268.50	9,475.16	-416.08	-4,875.55	4,893.15	1.29	-1.29	0.00
Projection to TD									



Survey Report

Company:	Matador Resources	Local Co-ordinate Reference:	Well #202H
Project:	Eddy County, New Mexico (NAD27)	TVD Reference:	KB: 25' @ 3018.00usft (Patterson 203)
Site:	Guilar 10-24S-28E RB	MD Reference:	KB: 25' @ 3018.00usft (Patterson 203)
Well:	#202H	North Reference:	Grid
Wellbore:	Wellbore #1 Job #1411820	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Patterson 203)	Database:	Compass 5000 GCR

Survey Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
8,700.00	8,678.09	-209.99	43.31	Tie-In to MS Gyro
8,775.00	8,753.02	-213.01	41.94	First Phoenix MWD Survey
14,080.00	9,476.32	-414.25	-4,805.58	Final Phoenix MWD Survey
14,150.00	9,475.16	-416.08	-4,875.55	Projection to TD

Checked By: _____	Approved By: _____	Date: _____
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Division I
1635 N. French Dr., Hobbs, NM 88240
Phone (575) 393-6161 Fax: (575) 393-0720
Division II
511 S. First St., Artesia, NM 88210
Phone (575) 748-1253 Fax: (575) 748-9720
Division III
1000 Rio Brazos Road, Arree, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
Division IV
1230 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources
Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

FORM C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number		Pool Code	Pool Name	
		75750	Culebra Bluff; Wolfcamp, South (Gas)	
Property Code	Property Name		Well Number	
	GUITAR 10-24S-28E RB		#202H	
OGRID No.	Operator Name		Elevation	
228937	MATADOR PRODUCTION COMPANY		2993'	

Surface Location									
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	10	24-S	28-E	-	1733'	NORTH	204'	EAST	EDDY

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	10	24-S	28-E	-	2305'	NORTH	240'	WEST	EDDY
Dedicated Acres		Joles or Infill		Consolidation Code		Order No.			
320.00						R-13667			

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

BOTTOM HOLE LOCATION
NEW MEXICO EAST
NAD 1927
X=577542
Y=445728
LAT: N 32.2334160
LONG: W 104.0828495

SURFACE LOCATION
NEW MEXICO EAST
NAD 1927
X=582229
Y=448228
LAT: N 32.2347569
LONG: W 104.0871001

LAST PERFORATION POINT
NEW MEXICO EAST
NAD 1927
X=577542
Y=445728
LAT: N 32.2334156
LONG: W 104.0828570

FIRST PERFORATION POINT
NEW MEXICO EAST
NAD 1927
X=582195
Y=448730
LAT: N 32.2333993
LONG: W 104.0873590

17 OPERATOR CERTIFICATION
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this representation shall constitute a binding contract on the part of the operator and the landowner. The operator shall be responsible for the accuracy of the information provided and the landowner shall be responsible for the accuracy of the information provided.

Signature: *Clayton Sporch* Date: 9/18/14
Printed Name: Clayton Sporch
E-mail Address: csporch@matadorresources.com

18 SURVEYOR CERTIFICATION
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true to the best of my belief.

Date of Survey: 09/15/2014
Signature: *Michael J. Sporch*
Professional Surveyor
Certificate Number: 18329