

30-015-43654



Matador Resources



Location: Eddy County, NM

Slot: Zack McCormick Fed Com 18-24S-29E No. 1

Field: Culbra Bluff, Wolfcamp, South (Gas) Eddy Co, NM

Well: Zach McCormick Fed Com 18-24S-29E No. 001

Facility: Zack McCormick Fed Com 18-24S-29E No. 1

Wellbore: Zack McCormick Fed Com 18-24S-29E No. 1 (PWB)

Well Profile Data

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	25.00	0.000	90.000	25.00	0.00	0.00	0.00	0.00
KOP	5356.37	0.000	90.000	5356.37	0.00	0.00	0.00	0.00
EOB/SOH	5856.37	5.000	90.000	5855.73	0.00	21.80	1.00	21.80
EOH/SOD	8912.90	5.000	90.000	8900.63	0.00	288.20	0.00	288.20
Drop to Zero	9412.90	0.000	90.000	9400.00	0.00	310.00	1.00	310.00
TD 690' West of Lease Line	11212.90	0.000	90.000	11200.00	0.00	310.00	0.00	310.00

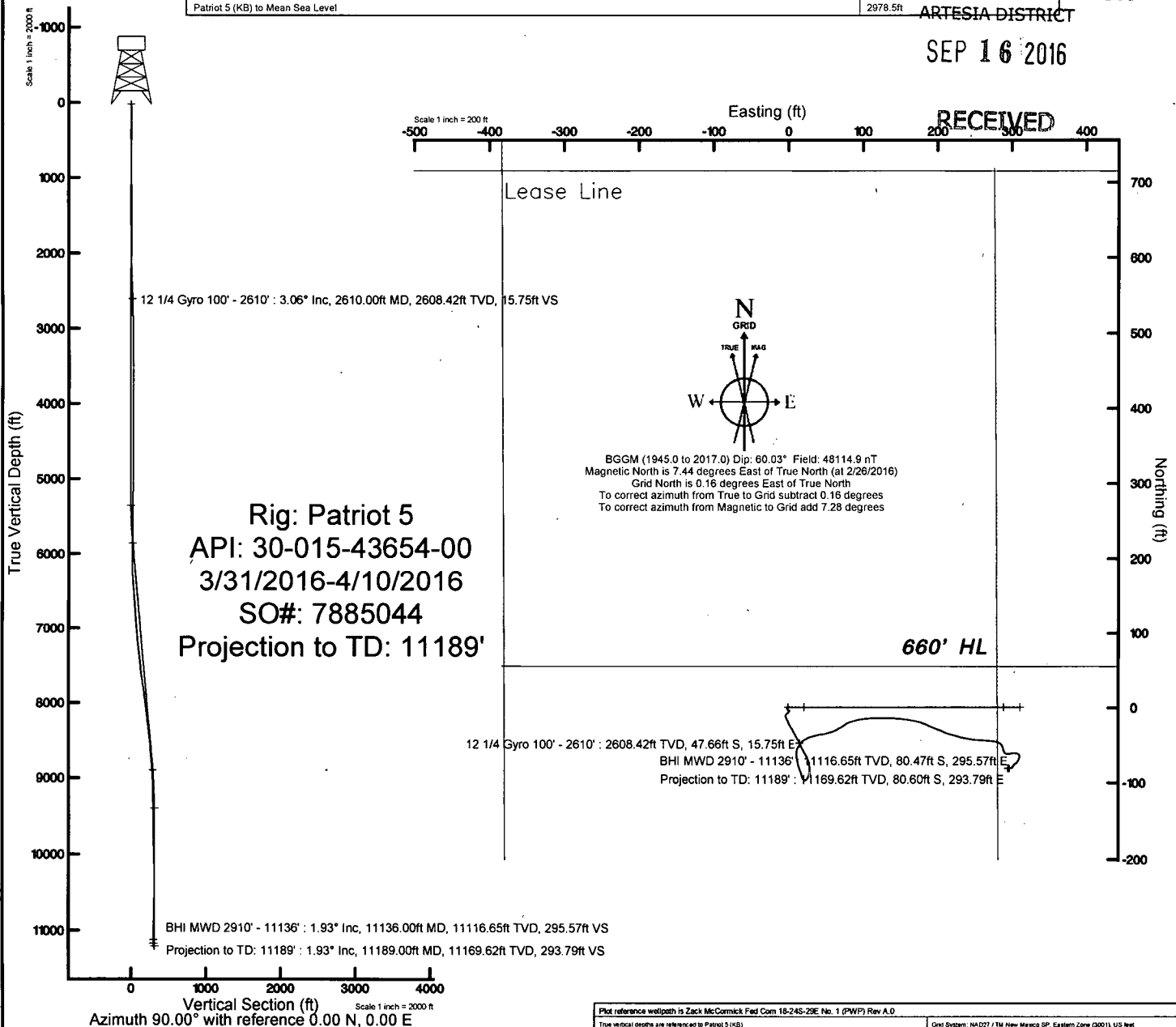
Location Information

Facility Name			Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
Zack McCormick Fed Com 18-24S-29E No. 1			593636.000	444952.000	32°13'22.539"N	104°01'49.952"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
Zack McCormick Fed Com 18-24S-29E No. 1	0.00	0.00	593636.000	444952.000	32°13'22.539"N	104°01'49.952"W
Patriot 5 (KB) to Mud line (At Slot: Zack McCormick Fed Com 18-24S-29E No. 1)					25ft	
Mean Sea Level to Mud line (At Slot: Zack McCormick Fed Com 18-24S-29E No. 1)					2978.5ft	
Patriot 5 (KB) to Mean Sea Level					2978.5ft	

NM OIL CONSERVATION
ARTESIA DISTRICT
SEP 16 2016

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ARTESIA DISTRICT
SEP 16 2016



Plot reference wellpath is Zack McCormick Fed Com 18-24S-29E No. 1 (PWB) Rev A.0

True vertical depths are referenced to Patriot 5 (KB)	Grid System: NAD83 / T1 New Mexico SP, Eastern Zone (2011), US feet
Measured depths are referenced to Patriot 5 (KB)	North Reference: Grid north
Patriot 5 (KB) to Mean Sea Level: 2978.5 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: Zack McCormick Fed Com 18-24S-29E No. 1): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: Fortale on 2/29/2016

ACTUAL WELLPATH REPORT (CSV version)

Prepared by Baker Hughes

Software System: WellArchitect® 5.0

REFERENCE WELLPATH IDENTIFICATION

Operator Matador Resources
Area Eddy County, NM
Field Culebra Bluff; Wolfcamp, South (Gas) Eddy Co., NM
Facility Zack McCormick Fed Com 18-24S-29E No. 1
Slot Zack McCormick Fed Com 18-24S-29E No. 1
Well Zach McCormick Fed Com 18-24S-29E No. 001
Wellbore Zack McCormick Fed Com 18-24S-29E No. 1 (AWB)
Wellpath Zach McCormick Fed Com 18-24S-29E No. 001 awp 100' - 11136' Proj: 11189'
Sidetrack (none)

REPORT SETUP INFORMATION

Projection : NAD27 / TM New Mexico SP, Eastern Zone (3001), US feet

North Refe Grid

Scale 0.999919

Convergen 0.17° East

Software S WellArchitect® 5.0

User Tranlam

Report Ger 4/20/2016 at 4:10:25 PM

DataBase/S WA_Midland/ev11.xml

WELLPATH	Local North [ft]	Local East [ft]	Easting [US ft]	Northing [US ft]	Latitude	Longitude
Slot Locatic	0	0	593636	444952	32°13'22.5	104°01'49.952"W
Facility Ref			593636	444952	32°13'22.5	104°01'49.952"W
Field Refer			152400.3		0 30°59'42.8	105°26'33.659"W

WELLPATH DATUM

Calculation Minimum curvature

Horizontal Slot

Vertical Re Patriot 5 (KB)

MD Refere Patriot 5 (KB)

Field Vertic Mean Sea Level

Patriot 5 (K 2978.50ft

Patriot 5 (K 2978.50ft

Patriot 5 (K 25.00ft

Section Ori N 0.00, E 0.00 ft

Section Azi 90.00°

WELLPATH DATA † = interpolated/extrapolated station

MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grid East
[ft]	[°]	[°]	[ft]	[ft]	[ft]	[ft]	[US ft]

+

0	0	340.34	0	0	0	0	593636
25	0	340.34	25	0	0	0	593636
100	0.13	340.34	100	-0.03	0.08	-0.03	593636
200	0.12	170.73	200	-0.05	0.08	-0.05	593636
300	0.21	55.1	300	0.12	0.09	0.12	593636.1
400	0.09	79.85	400	0.34	0.2	0.34	593636.3
500	0.27	242.87	500	0.21	0.11	0.21	593636.2
600	0.66	239.64	600	-0.49	-0.29	-0.49	593635.5
700	0.71	203.09	699.99	-1.23	-1.15	-1.23	593634.8
800	0.32	170.34	799.98	-1.43	-1.99	-1.43	593634.6
900	0.33	120.16	899.98	-1.13	-2.41	-1.13	593634.9
1000	0.58	127.02	999.98	-0.48	-2.86	-0.48	593635.5
1100	0.64	139.7	1099.97	0.28	-3.59	0.28	593636.3
1200	0.82	100.48	1199.97	1.35	-4.15	1.35	593637.4
1300	0.54	109.46	1299.96	2.5	-4.44	2.5	593638.5
1400	0.54	240.78	1399.96	2.53	-4.83	2.53	593638.5
1500	0.84	217.51	1499.95	1.67	-5.64	1.67	593637.7
1600	0.94	224.35	1599.94	0.65	-6.8	0.65	593636.7
1700	0.58	228.74	1699.93	-0.3	-7.72	-0.3	593635.7
1800	1.07	226.04	1799.92	-1.35	-8.71	-1.35	593634.7
1900	0.81	205.85	1899.91	-2.33	-9.99	-2.33	593633.7
2000	1.16	182.65	1999.89	-2.69	-11.64	-2.69	593633.3
2100	2.85	156.67	2099.83	-1.75	-14.93	-1.75	593634.3
2200	3.23	153.29	2199.69	0.5	-19.73	0.5	593636.5
2300	4.41	151.66	2299.46	3.59	-25.63	3.59	593639.6
2400	5.62	150.56	2399.08	7.82	-33.28	7.82	593643.8
2500	4.69	150.41	2498.67	12.25	-41.1	12.25	593648.3
2610	3.06	154.23	2608.42	15.75	-47.66	15.75	593651.7
2910	1.54	150.52	2908.17	21.21	-58.38	21.21	593657.2
3100	1.34	153.12	3098.11	23.47	-62.58	23.47	593659.5
3290	1.49	151.49	3288.05	25.66	-66.73	25.66	593661.7
3480	1.45	160.12	3477.99	27.65	-71.16	27.65	593663.7
3670	1.14	175.23	3667.94	28.63	-75.31	28.63	593664.6
3860	0.9	174	3857.91	28.94	-78.68	28.94	593664.9
4050	0.72	173.16	4047.89	29.24	-81.35	29.24	593665.2
4239	0.65	191.83	4236.88	29.16	-83.57	29.16	593665.2
4429	0.81	181.85	4426.86	28.9	-85.97	28.9	593664.9
4619	0.87	195.85	4616.84	28.46	-88.7	28.46	593664.5
4810	0.72	204.17	4807.82	27.57	-91.19	27.57	593663.6
5000	1.08	219.47	4997.8	25.94	-93.66	25.94	593661.9
5190	1.24	229.78	5187.76	23.24	-96.37	23.24	593659.2
5380	2.6	338.87	5377.69	20.11	-93.68	20.11	593656.1
5569	2.2	338.55	5566.52	17.24	-86.3	17.24	593653.2
5759	3.61	344.07	5756.28	14.26	-77.16	14.26	593650.3
5949	3.3	352.12	5945.93	11.87	-65.99	11.87	593647.9
6139	2.97	17.41	6135.66	12.6	-55.87	12.6	593648.6
6329	4.2	43.75	6325.29	18.88	-46.15	18.88	593654.9

6519	5.71	76.22	6514.61	32.87	-38.87	32.87	593668.9
6709	3.7	79.26	6703.96	48.08	-35.48	48.08	593684.1
6899	3.7	71	6893.57	59.9	-32.34	59.9	593695.9
7090	6.09	56.03	7083.87	74.13	-24.67	74.13	593710.1
7280	6.3	78.31	7272.78	92.7	-16.92	92.7	593728.7
7470	6.48	88.23	7461.61	113.63	-14.48	113.63	593749.6
7660	8.4	91.86	7650	138.22	-14.6	138.22	593774.2
7850	7.34	100.09	7838.22	164.04	-17.18	164.04	593800
8040	7.08	114.01	8026.73	186.68	-24.07	186.68	593822.7
8230	7.61	110.07	8215.17	209.2	-33.15	209.2	593845.2
8420	6.87	102.14	8403.66	232.12	-39.86	232.12	593868.1
8610	4.59	94.24	8592.7	250.82	-42.81	250.82	593886.8
8801	4.3	93.29	8783.12	265.59	-43.79	265.59	593901.6
8990	3.24	105.71	8971.72	277.8	-45.64	277.8	593913.8
9180	1.59	134.58	9161.55	284.85	-48.94	284.85	593920.8
9371	2.48	170.66	9352.43	287.41	-54.88	287.41	593923.4
9562	1.76	123.9	9543.31	290.52	-60.6	290.52	593926.5
9752	1.71	72.56	9733.24	295.64	-61.37	295.64	593931.6
9942	1.74	85.35	9923.15	301.22	-60.29	301.22	593937.2
10132	1.51	111.04	10113.08	306.43	-60.95	306.43	593942.4
10323	1.02	157.41	10304.03	309.43	-63.43	309.43	593945.4
10513	2.37	202.51	10493.95	308.58	-68.62	308.58	593944.6
10703	2.36	233.38	10683.8	303.94	-74.58	303.94	593939.9
10893	0.93	196.97	10873.72	300.35	-78.39	300.35	593936.3
11083	1.64	261.17	11063.68	297.21	-80.28	297.21	593933.2
11136	1.93	265.67	11116.65	295.57	-80.47	295.57	593931.6
11189	1.93	265.67	11169.62	293.79	-80.6	293.79	593929.8

TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [ft]	Grid North [US ft]	Latitude [US ft]	Longitude	Shape
Zach McCo	14153.5	55	280.02	593916	445007	32°13'23.0"	104°01'46.0"	point

WELLPATH COMPOSITION Ref Wellbore: Zack McCormick Fed Com 18-24S-29E No. 1 (AWB) Ref Wellbore

Log Name/	Start MD [ft]	End MD [ft]	Pos	Unc	Model
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12 1/4 Gyr	25	2610	BHI	Generic gyro - northseeking (Standard)
BHI MWD	2610	11136	BHI	NaviTrak (Standard)
Projection	11136	11189	Blind Drilling (std)	

COMMENTS

Wellpath general comments

Well:Zach McCormick Fed Com 18-24S-29E No. 001

Field:Culebra Bluff; Wolfcamp, South (Gas)

Rig:Patriot 5

Location:Eddy Co., NM

API: 30-015-43654-00

Vertical Datum to DDZ: 25 feet

Proposed Direction: 90.00°

PBHL: 11189 feet

Duration: 3/31/2016-4/10/2016

FSE's: V. Dinh

SO#: 7885044

12 1/4 Gyro 100' - 2610'

BHI MWD 2910' - 11136'

Projection to TD: 11189'

Grid North Latitude [US ft]	Longitude	DLS [°/100ft]	Comments
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444952	32°13'22.5	104°01'49.	0
444952	32°13'22.5	104°01'49.	0
444952.1	32°13'22.5	104°01'49.	0.17
444952.1	32°13'22.5	104°01'49.	0.25
444952.1	32°13'22.5	104°01'49.	0.28
444952.2	32°13'22.5	104°01'49.	0.13
444952.1	32°13'22.5	104°01'49.	0.36
444951.7	32°13'22.5	104°01'49.	0.39
444950.9	32°13'22.5	104°01'49.	0.43
444950	32°13'22.5	104°01'49.	0.47
444949.6	32°13'22.5	104°01'49.	0.28
444949.1	32°13'22.5	104°01'49.	0.26
444948.4	32°13'22.5	104°01'49.	0.15
444947.9	32°13'22.4	104°01'49.	0.52
444947.6	32°13'22.4	104°01'49.	0.3
444947.2	32°13'22.4	104°01'49.	0.98
444946.4	32°13'22.4	104°01'49.	0.4
444945.2	32°13'22.4	104°01'49.	0.15
444944.3	32°13'22.4	104°01'49.	0.36
444943.3	32°13'22.4	104°01'49.	0.49
444942	32°13'22.4	104°01'49.	0.42
444940.4	32°13'22.4	104°01'49.	0.52
444937.1	32°13'22.3	104°01'49.	1.88
444932.3	32°13'22.3	104°01'49.	0.42
444926.4	32°13'22.2	104°01'49.	1.18
444918.7	32°13'22.2	104°01'49.	1.21
444910.9	32°13'22.1	104°01'49.	0.93
444904.4	32°13'22.0	104°01'49.	1.5 12 1/4 Gyro 100' - 2610'
444893.6	32°13'21.9	104°01'49.	0.51
444889.4	32°13'21.9	104°01'49.	0.11
444885.3	32°13'21.8	104°01'49.	0.08
444880.8	32°13'21.8	104°01'49.	0.12
444876.7	32°13'21.7	104°01'49.	0.24
444873.3	32°13'21.7	104°01'49.	0.13
444870.7	32°13'21.7	104°01'49.	0.09
444868.4	32°13'21.7	104°01'49.	0.12
444866	32°13'21.6	104°01'49.	0.11
444863.3	32°13'21.6	104°01'49.	0.11
444860.8	32°13'21.6	104°01'49.	0.1
444858.4	32°13'21.6	104°01'49.	0.23
444855.6	32°13'21.5	104°01'49.	0.14
444858.3	32°13'21.6	104°01'49.	1.7
444865.7	32°13'21.6	104°01'49.	0.21
444874.9	32°13'21.7	104°01'49.	0.76
444886	32°13'21.8	104°01'49.	0.3
444896.1	32°13'21.9	104°01'49.	0.74
444905.9	32°13'22.0	104°01'49.	1.07

444913.1	32°13'22.1	104°01'49..	1.64
444916.5	32°13'22.1	104°01'49..	1.07
444919.7	32°13'22.2	104°01'49..	0.28
444927.3	32°13'22.2	104°01'49..	1.41
444935.1	32°13'22.3	104°01'48..	1.26
444937.5	32°13'22.3	104°01'48..	0.59
444937.4	32°13'22.3	104°01'48..	1.04
444934.8	32°13'22.3	104°01'48..	0.81
444927.9	32°13'22.2	104°01'47..	0.93
444918.9	32°13'22.2	104°01'47..	0.38
444912.2	32°13'22.1	104°01'47..	0.65
444909.2	32°13'22.1	104°01'47..	1.27
444908.2	32°13'22.0	104°01'46..	0.16
444906.4	32°13'22.0	104°01'46..	0.7
444903.1	32°13'22.0	104°01'46..	1.05
444897.1	32°13'21.9	104°01'46..	0.79
444891.4	32°13'21.9	104°01'46..	0.95
444890.6	32°13'21.9	104°01'46..	0.79
444891.7	32°13'21.9	104°01'46..	0.2
444891.1	32°13'21.9	104°01'46..	0.4
444888.6	32°13'21.9	104°01'46..	0.57
444883.4	32°13'21.8	104°01'46..	0.95
444877.4	32°13'21.7	104°01'46..	0.66
444873.6	32°13'21.7	104°01'46..	0.9
444871.7	32°13'21.7	104°01'46..	0.79
444871.5	32°13'21.7	104°01'46..	0.61 BHI MWD 2910' - 11136'
444871.4	32°13'21.7	104°01'46..	0 Projection to TD: 11189'

Comment

path: Zach McCormick Fed Com 18-24S-29E No. 001 awp 100' - 11136' Proj: 11189'



Matador Production Co

Eddy County, NM (NAD 27 NME)

Zach McCormick Fed Com 18-24S-29E #1

Zach McCormick Fed Com 18-24S-29E #1

OH

Design: OH

Regulatory Report (Grid North)

02 May, 2016

This survey is correct to the best of my knowledge and is supported by actual field data.

A handwritten signature in cursive script, appearing to read "Sherry Stewart", written over a horizontal line.

Notarized this date 2nd of May, 2016.

A handwritten signature in cursive script, appearing to read "Sherry Stewart", written over a horizontal line.

Notary Signature
County of Midland
State of Texas



Scientific Drilling



Regulatory Report (Grid North)



Company:	Matador Production Co	Local Co-ordinate Reference:	Well Zach McCormick Fed Com 18-24S-29E #1
Project:	Eddy County, NM (NAD 27 NME)	TVD Reference:	KB=27' @ 2982.00usft
Site:	Zach McCormick Fed Com 18-24S-29E #1	MD Reference:	KB=27' @ 2982.00usft
Well:	Zach McCormick Fed Com 18-24S-29E #1	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Midland District

Project: Eddy County, NM (NAD 27 NME)			
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 Zach McCormick Fed Com 18-24S-29E #1					
Site Position:		Northing:	444,952.00 usft	Latitude:	32° 13' 22.539 N
From:	Map	Easting:	593,636.00 usft	Longitude:	104° 1' 49.952 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16"	Grid Convergence:	0.16 °

Well:	Zach McCormick Fed Com 18-24S-29E #1					
Well Position	+N/-S	0.00 usft	Northing:	444,952.00 usft	Latitude:	32° 13' 22.539 N
	+E/-W	0.00 usft	Easting:	593,636.00 usft	Longitude:	104° 1' 49.952 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	2,955.00 usft

Wellbore						OH
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength	
			(°)	(°)	(nT)	
	HDGM	5/2/2016	7.33	60.08	48,236	

Design: OH				
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 (bearing)
	0.00	0.00	0.00	105.43

Survey Program		Date: 5/2/2016		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
125.00	11,091.00	SDI Gyro (OH)	Keeper	Keeper Standard Rate Gyro

Survey	MD	Inc	Azi (azimuth)	TVD	N/S	E/W	Closure Azimuth	Closure Distance
	(usft)	(°)	(bearing)	(usft)	(usft)	(usft)	(bearing)	(usft)
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	125.00	0.11	320.71	125.00	0.09	-0.08	320.71	0.12
	150.00	0.10	35.76	150.00	0.13	-0.08	328.73	0.15
	175.00	0.19	52.43	175.00	0.17	-0.03	349.20	0.18
	200.00	0.23	58.26	200.00	0.22	0.04	10.80	0.23
	225.00	0.18	44.09	225.00	0.28	0.11	22.04	0.30
	250.00	0.13	34.40	250.00	0.33	0.16	25.31	0.37
	275.00	0.09	353.71	275.00	0.37	0.17	24.50	0.41
	300.00	0.12	296.89	300.00	0.40	0.14	19.66	0.43
	325.00	0.13	303.42	325.00	0.43	0.10	12.71	0.44
	350.00	0.18	310.84	350.00	0.47	0.04	5.32	0.48
	375.00	0.26	297.39	375.00	0.52	-0.04	356.07	0.53



Company:	Matador Production Co.	Local Co-ordinate Reference:	Well Zach McCormick Fed Com 18-24S-29E #1
Project:	Eddy County, NM (NAD 27 NME)	TVD Reference:	KB=27' @ 2982.00usft
Site:	Zach McCormick Fed Com 18-24S-29E #1	MD Reference:	KB=27' @ 2982.00usft
Well:	Zach McCormick Fed Com 18-24S-29E #1	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Midland District

Survey								
MD (usft)	Inc (°)	Azi (azimuth) (bearing)	TVD (usft)	N/S (usft)	E/W (usft)	Closure Azimuth (bearing)	Closure Distance (usft)	
400.00	0.28	275.23	400.00	0.56	-0.15	345.18	0.58	
425.00	0.46	255.43	425.00	0.54	-0.31	330.38	0.62	
450.00	0.50	237.62	450.00	0.45	-0.49	312.50	0.67	
475.00	0.55	228.68	475.00	0.32	-0.68	295.00	0.75	
500.00	0.58	228.40	500.00	0.15	-0.86	280.02	0.87	
525.00	0.67	213.66	524.99	-0.05	-1.04	267.05	1.04	
550.00	0.66	212.72	549.99	-0.30	-1.20	256.09	1.23	
575.00	0.68	212.74	574.99	-0.54	-1.35	248.18	1.46	
600.00	0.67	215.87	599.99	-0.79	-1.52	242.67	1.71	
625.00	0.66	221.04	624.99	-1.01	-1.70	239.23	1.98	
650.00	0.64	219.08	649.99	-1.23	-1.88	236.85	2.25	
675.00	0.82	182.26	674.98	-1.52	-1.98	232.52	2.49	
700.00	0.64	203.14	699.98	-1.82	-2.04	228.20	2.74	
725.00	0.67	198.97	724.98	-2.09	-2.14	225.70	2.99	
750.00	0.57	203.67	749.98	-2.34	-2.24	223.71	3.24	
775.00	0.54	191.18	774.98	-2.57	-2.31	221.96	3.46	
800.00	0.45	180.79	799.98	-2.79	-2.34	219.99	3.64	
825.00	0.42	165.90	824.98	-2.97	-2.32	217.92	3.77	
850.00	0.46	146.11	849.97	-3.14	-2.24	215.43	3.86	
875.00	0.49	137.28	874.97	-3.31	-2.11	212.53	3.92	
900.00	0.56	133.41	899.97	-3.47	-1.95	209.31	3.98	
925.00	0.60	134.15	924.97	-3.64	-1.76	205.84	4.05	
950.00	0.57	127.86	949.97	-3.81	-1.57	202.42	4.12	
975.00	0.69	128.94	974.97	-3.98	-1.36	198.82	4.21	
1,000.00	0.66	127.79	999.97	-4.17	-1.13	195.13	4.32	
1,025.00	0.62	124.37	1,024.97	-4.33	-0.90	191.75	4.42	
1,050.00	0.61	119.11	1,049.96	-4.47	-0.67	188.56	4.52	
1,075.00	0.66	115.79	1,074.96	-4.60	-0.43	185.31	4.62	
1,100.00	0.66	112.42	1,099.96	-4.72	-0.16	182.00	4.72	
1,125.00	0.72	110.03	1,124.96	-4.82	0.12	178.62	4.83	
1,150.00	0.64	105.09	1,149.96	-4.92	0.40	175.36	4.93	
1,175.00	0.68	106.26	1,174.96	-4.99	0.68	172.29	5.04	
1,200.00	0.68	107.63	1,199.95	-5.08	0.96	169.30	5.17	
1,225.00	0.65	106.59	1,224.95	-5.16	1.24	166.53	5.31	
1,250.00	0.53	103.13	1,249.95	-5.23	1.49	164.15	5.44	
1,275.00	0.46	103.65	1,274.95	-5.28	1.70	162.20	5.55	
1,300.00	0.33	146.97	1,299.95	-5.37	1.83	161.15	5.67	
1,325.00	0.38	185.82	1,324.95	-5.51	1.86	161.31	5.81	
1,350.00	0.52	192.69	1,349.95	-5.70	1.83	162.21	5.99	
1,375.00	0.63	232.80	1,374.95	-5.90	1.70	163.96	6.13	
1,400.00	0.72	235.84	1,399.95	-6.07	1.46	166.50	6.24	
1,425.00	0.82	243.16	1,424.94	-6.24	1.17	169.41	6.34	
1,450.00	0.92	242.08	1,449.94	-6.41	0.83	172.63	6.46	
1,475.00	0.97	236.44	1,474.94	-6.62	0.48	175.89	6.64	



Company:	Matador Production Co	Local Co-ordinate Reference:	Well Zach McCormick Fed Com 18-24S-29E #1
Project:	Eddy County, NM (NAD 27 NME)	TVD Reference:	KB-27 @ 2982.00usft
Site:	Zach McCormick Fed Com 18-24S-29E #1	MD Reference:	KB-27 @ 2982.00usft
Well:	Zach McCormick Fed Com 18-24S-29E #1	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Midland District

Survey								
MD (usft)	Inc (°)	Azi (azimuth) (bearing)	TVD (usft)	N/S (usft)	E/W (usft)	Closure Azimuth (bearing)	Closure Distance (usft)	
1,500.00	1.01	231.64	1,499.93	-6.88	0.13	178.95	6.88	
1,525.00	1.05	228.25	1,524.93	-7.16	-0.22	181.74	7.17	
1,550.00	1.04	226.25	1,549.92	-7.47	-0.55	184.22	7.49	
1,575.00	0.99	221.74	1,574.92	-7.79	-0.86	186.29	7.84	
1,600.00	0.98	224.27	1,599.92	-8.11	-1.15	188.09	8.19	
1,625.00	0.89	219.92	1,624.91	-8.41	-1.43	189.63	8.53	
1,650.00	0.88	212.15	1,649.91	-8.72	-1.65	190.74	8.87	
1,675.00	0.89	214.26	1,674.91	-9.04	-1.86	191.65	9.23	
1,700.00	0.91	216.47	1,699.90	-9.36	-2.09	192.59	9.59	
1,725.00	0.91	216.27	1,724.90	-9.68	-2.33	193.52	9.96	
1,750.00	0.94	220.13	1,749.90	-10.00	-2.58	194.45	10.33	
1,775.00	0.97	220.22	1,774.89	-10.32	-2.85	195.42	10.70	
1,800.00	0.99	220.13	1,799.89	-10.64	-3.12	196.34	11.09	
1,825.00	0.99	225.97	1,824.89	-10.96	-3.42	197.31	11.48	
1,850.00	0.99	223.47	1,849.88	-11.27	-3.72	198.27	11.86	
1,875.00	0.98	216.03	1,874.88	-11.60	-3.99	199.01	12.26	
1,900.00	0.95	216.18	1,899.88	-11.94	-4.24	199.57	12.67	
1,925.00	0.95	210.09	1,924.87	-12.28	-4.47	199.99	13.07	
1,950.00	0.96	202.45	1,949.87	-12.66	-4.65	200.18	13.48	
1,975.00	1.13	187.93	1,974.87	-13.09	-4.77	200.00	13.93	
2,000.00	1.43	173.08	1,999.86	-13.65	-4.76	199.24	14.45	
2,025.00	1.85	164.03	2,024.85	-14.34	-4.61	197.83	15.07	
2,050.00	2.14	160.52	2,049.83	-15.17	-4.35	195.99	15.78	
2,075.00	2.65	155.02	2,074.81	-16.14	-3.95	193.75	16.61	
2,100.00	2.74	154.91	2,099.78	-17.20	-3.45	191.34	17.54	
2,125.00	2.94	154.47	2,124.75	-18.32	-2.92	189.06	18.55	
2,150.00	2.97	154.88	2,149.72	-19.49	-2.37	186.93	19.63	
2,175.00	2.89	155.66	2,174.69	-20.65	-1.83	185.08	20.73	
2,200.00	3.13	154.07	2,199.65	-21.84	-1.28	183.35	21.87	
2,225.00	3.46	151.29	2,224.61	-23.11	-0.62	181.53	23.12	
2,250.00	3.80	148.29	2,249.56	-24.48	0.18	179.57	24.48	
2,275.00	4.08	146.44	2,274.50	-25.92	1.11	177.55	25.95	
2,300.00	4.44	145.44	2,299.43	-27.46	2.15	175.52	27.54	
2,325.00	4.76	145.48	2,324.35	-29.11	3.29	173.56	29.30	
2,350.00	5.30	145.61	2,349.26	-30.92	4.53	171.67	31.25	
2,375.00	5.58	146.53	2,374.14	-32.89	5.85	169.92	33.40	
2,400.00	5.92	147.31	2,399.02	-34.99	7.22	168.35	35.72	
2,425.00	5.92	147.44	2,423.88	-37.16	8.61	166.96	38.14	
2,450.00	5.77	147.81	2,448.75	-39.31	9.97	165.77	40.55	
2,475.00	5.18	148.84	2,473.64	-41.34	11.22	164.81	42.83	
2,500.00	4.74	150.06	2,498.55	-43.20	12.32	164.08	44.92	
2,525.00	4.24	151.68	2,523.47	-44.91	13.28	163.53	46.83	
2,550.00	3.90	153.10	2,548.41	-46.48	14.10	163.12	48.57	
2,575.00	3.45	154.06	2,573.36	-47.91	14.81	162.82	50.15	



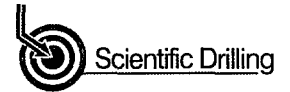
Company:	Matador Production Co.	Local Co-ordinate Reference:	Well Zach McCormick Fed.Com 18-24S-29E #1
Project:	Eddy County, NM (NAD 27 NME)	TVD Reference:	KB=27' @ 2982.00usft
Site:	Zach McCormick Fed.Com 18-24S-29E #1	MD Reference:	KB=27' @ 2982.00usft
Well:	Zach McCormick Fed.Com 18-24S-29E #1	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Midland District

Survey								
MD (usft)	Inc (°)	Azi (azimuth) (bearing)	TVD (usft)	N/S (usft)	E/W (usft)	Closure Azimuth (bearing)	Closure Distance (usft)	
2,600.00	3.19	154.25	2,598.31	-49.22	15.44	162.58	51.58	
2,625.00	2.87	153.26	2,623.28	-50.40	16.03	162.36	52.89	
2,650.00	2.65	153.30	2,648.25	-51.48	16.57	162.16	54.08	
2,675.00	2.47	154.83	2,673.22	-52.48	17.06	161.99	55.18	
2,700.00	2.29	156.50	2,698.20	-53.43	17.49	161.88	56.21	
2,725.00	2.17	157.90	2,723.18	-54.32	17.86	161.80	57.18	
2,750.00	2.04	157.82	2,748.17	-55.17	18.21	161.73	58.10	
2,775.00	1.94	156.76	2,773.15	-55.97	18.54	161.67	58.97	
2,800.00	1.72	152.28	2,798.14	-56.69	18.89	161.58	59.76	
2,825.00	1.58	151.00	2,823.13	-57.33	19.23	161.46	60.47	
2,850.00	1.54	150.03	2,848.12	-57.92	19.56	161.34	61.13	
2,875.00	1.54	149.10	2,873.11	-58.50	19.90	161.21	61.79	
2,900.00	1.53	148.85	2,898.10	-59.07	20.25	161.08	62.45	
2,925.00	1.55	147.74	2,923.09	-59.65	20.60	160.95	63.10	
2,950.00	1.55	149.40	2,948.08	-60.22	20.95	160.82	63.76	
2,975.00	1.58	149.25	2,973.07	-60.81	21.30	160.69	64.43	
3,000.00	1.60	148.41	2,998.06	-61.40	21.66	160.57	65.11	
3,025.00	1.39	155.66	3,023.06	-61.98	21.97	160.48	65.76	
3,050.00	1.35	160.49	3,048.05	-62.53	22.19	160.46	66.35	
3,075.00	1.46	152.13	3,073.04	-63.09	22.44	160.42	66.96	
3,100.00	1.48	151.87	3,098.03	-63.66	22.74	160.34	67.60	
3,125.00	1.47	151.05	3,123.02	-64.22	23.05	160.26	68.23	
3,150.00	1.45	150.69	3,148.02	-64.78	23.36	160.17	68.86	
3,175.00	1.37	154.39	3,173.01	-65.32	23.64	160.10	69.47	
3,200.00	1.35	153.42	3,198.00	-65.86	23.90	160.05	70.06	
3,225.00	1.32	153.42	3,223.00	-66.38	24.16	160.00	70.64	
3,250.00	1.32	150.13	3,247.99	-66.88	24.44	159.93	71.21	
3,275.00	1.39	148.07	3,272.98	-67.39	24.74	159.84	71.79	
3,300.00	1.39	147.23	3,297.97	-67.90	25.06	159.74	72.38	
3,325.00	1.41	147.36	3,322.97	-68.42	25.39	159.64	72.98	
3,350.00	1.40	151.69	3,347.96	-68.95	25.70	159.55	73.58	
3,375.00	1.40	153.89	3,372.95	-69.49	25.98	159.50	74.19	
3,400.00	1.42	157.18	3,397.94	-70.05	26.24	159.47	74.80	
3,425.00	1.47	155.11	3,422.94	-70.62	26.49	159.44	75.43	
3,450.00	1.49	155.53	3,447.93	-71.21	26.76	159.40	76.07	
3,475.00	1.39	158.51	3,472.92	-71.79	27.01	159.38	76.70	
3,500.00	1.34	162.97	3,497.91	-72.35	27.21	159.39	77.30	
3,525.00	1.24	164.56	3,522.91	-72.89	27.36	159.42	77.86	
3,550.00	1.15	166.49	3,547.90	-73.40	27.49	159.46	78.38	
3,575.00	1.19	160.56	3,572.90	-73.88	27.64	159.49	78.88	
3,600.00	1.14	164.10	3,597.89	-74.37	27.79	159.51	79.39	
3,625.00	1.10	164.08	3,622.89	-74.84	27.93	159.54	79.88	
3,650.00	1.09	163.88	3,647.88	-75.30	28.06	159.56	80.36	
3,675.00	1.08	166.69	3,672.88	-75.76	28.18	159.60	80.83	
3,700.00	1.08	167.33	3,697.87	-76.21	28.29	159.64	81.29	



Company:	Matador Production Co.	Local Co-ordinate Reference:	Well Zach McCormick Fed Com 18-24S-29E #1
Project:	Eddy County, NM (NAD 27 NME)	TVD Reference:	KB=27' @ 2982.00usft
Site:	Zach McCormick Fed Com 18-24S-29E #1	MD Reference:	KB=27' @ 2982.00usft
Well:	Zach McCormick Fed Com 18-24S-29E #1	North Reference:	Grid:
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Midland District

Survey							
MD (usft)	Inc (°)	Azi (azimuth) (bearing)	TVD (usft)	N/S (usft)	E/W (usft)	Closure Azimuth (bearing)	Closure Distance (usft)
3,725.00	1.12	165.11	3,722.87	-76.68	28.40	159.68	81.77
3,750.00	1.12	168.91	3,747.86	-77.16	28.51	159.72	82.26
3,775.00	1.11	170.49	3,772.86	-77.63	28.60	159.78	82.73
3,800.00	1.00	175.43	3,797.85	-78.09	28.65	159.85	83.18
3,825.00	0.96	177.81	3,822.85	-78.52	28.68	159.93	83.59
3,850.00	0.90	176.64	3,847.85	-78.92	28.70	160.02	83.98
3,875.00	0.84	175.30	3,872.84	-79.30	28.73	160.09	84.34
3,900.00	0.77	178.82	3,897.84	-79.65	28.74	160.16	84.68
3,925.00	0.73	173.76	3,922.84	-79.98	28.76	160.22	84.99
3,950.00	0.71	176.21	3,947.84	-80.29	28.79	160.27	85.30
3,975.00	0.73	172.64	3,972.84	-80.60	28.82	160.32	85.60
4,000.00	0.75	167.26	3,997.83	-80.92	28.88	160.36	85.92
4,025.00	0.75	166.91	4,022.83	-81.24	28.95	160.38	86.25
4,050.00	0.76	166.72	4,047.83	-81.56	29.03	160.41	86.57
4,075.00	0.75	170.90	4,072.83	-81.88	29.09	160.44	86.90
4,100.00	0.76	174.04	4,097.83	-82.21	29.13	160.49	87.22
4,125.00	0.72	181.07	4,122.82	-82.53	29.15	160.55	87.53
4,150.00	0.69	184.41	4,147.82	-82.84	29.13	160.62	87.81
4,175.00	0.65	188.63	4,172.82	-83.13	29.10	160.71	88.08
4,200.00	0.62	194.45	4,197.82	-83.40	29.05	160.80	88.31
4,225.00	0.59	192.35	4,222.82	-83.66	28.99	160.89	88.54
4,250.00	0.61	191.83	4,247.82	-83.91	28.93	160.98	88.76
4,275.00	0.58	189.65	4,272.81	-84.17	28.88	161.06	88.99
4,300.00	0.57	185.89	4,297.81	-84.42	28.85	161.13	89.21
4,325.00	0.57	182.01	4,322.81	-84.67	28.83	161.19	89.44
4,350.00	0.60	186.49	4,347.81	-84.92	28.81	161.26	89.67
4,375.00	0.64	180.22	4,372.81	-85.19	28.80	161.32	89.92
4,400.00	0.66	185.25	4,397.81	-85.47	28.78	161.39	90.19
4,425.00	0.68	182.81	4,422.81	-85.76	28.76	161.46	90.46
4,450.00	0.71	184.35	4,447.80	-86.07	28.74	161.53	90.74
4,475.00	0.83	158.27	4,472.80	-86.39	28.80	161.56	91.06
4,500.00	0.70	182.51	4,497.80	-86.71	28.86	161.59	91.39
4,525.00	0.72	185.50	4,522.80	-87.02	28.84	161.67	91.67
4,550.00	0.73	189.54	4,547.80	-87.33	28.80	161.75	91.96
4,575.00	0.70	200.52	4,572.79	-87.63	28.72	161.86	92.22
4,600.00	0.74	198.27	4,597.79	-87.93	28.61	161.98	92.47
4,625.00	0.71	198.85	4,622.79	-88.23	28.51	162.09	92.72
4,650.00	0.67	191.29	4,647.79	-88.52	28.43	162.19	92.97
4,675.00	0.63	191.38	4,672.79	-88.80	28.38	162.28	93.22
4,700.00	0.65	197.47	4,697.78	-89.07	28.31	162.37	93.46
4,725.00	0.64	202.18	4,722.78	-89.33	28.21	162.47	93.68
4,750.00	0.62	199.94	4,747.78	-89.59	28.11	162.58	93.89
4,775.00	0.62	189.52	4,772.78	-89.85	28.04	162.67	94.12
4,800.00	0.64	188.87	4,797.78	-90.12	28.00	162.74	94.37



Company:	Matador Production Co	Local Co-ordinate Reference:	Well: Zach McCormick Fed Com 18-24S-29E #1
Project:	Eddy County, NM (NAD 27 NME)	TVD Reference:	KB=27' @ 2982.00usft
Site:	Zach McCormick Fed Com 18-24S-29E #1	MD Reference:	KB=27' @ 2982.00usft
Well:	Zach McCormick Fed Com 18-24S-29E #1	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Midland District

MD (usft)	Inc (°)	Azi (azimuth) (bearing)	TVD (usft)	N/S (usft)	E/W (usft)	Closure Azimuth (bearing)	Closure Distance (usft)
4,825.00	0.67	174.64	4,822.78	-90.40	27.99	162.80	94.64
4,850.00	0.66	185.35	4,847.78	-90.69	27.99	162.85	94.91
4,875.00	0.72	200.98	4,872.77	-90.98	27.92	162.94	95.17
4,900.00	0.76	208.23	4,897.77	-91.27	27.79	163.07	95.41
4,925.00	0.83	214.86	4,922.77	-91.57	27.61	163.22	95.64
4,950.00	0.82	208.06	4,947.77	-91.88	27.42	163.38	95.88
4,975.00	0.86	207.66	4,972.76	-92.20	27.25	163.54	96.14
5,000.00	0.87	206.90	4,997.76	-92.54	27.07	163.69	96.41
5,025.00	0.95	210.77	5,022.76	-92.88	26.88	163.86	96.69
5,050.00	0.92	206.21	5,047.75	-93.24	26.69	164.03	96.98
5,075.00	0.97	212.98	5,072.75	-93.60	26.48	164.20	97.27
5,100.00	0.98	214.29	5,097.75	-93.95	26.25	164.39	97.55
5,125.00	1.01	216.97	5,122.74	-94.30	26.00	164.59	97.82
5,150.00	1.07	221.85	5,147.74	-94.65	25.71	164.81	98.08
5,175.00	1.07	222.50	5,172.73	-95.00	25.39	165.03	98.34
5,200.00	1.06	225.29	5,197.73	-95.34	25.07	165.27	98.58
5,225.00	1.06	229.79	5,222.73	-95.65	24.73	165.50	98.79
5,250.00	1.10	232.09	5,247.72	-95.94	24.37	165.75	98.99
5,275.00	1.06	234.08	5,272.72	-96.23	23.99	166.00	99.17
5,300.00	1.09	237.83	5,297.71	-96.49	23.60	166.26	99.33
5,325.00	0.88	263.64	5,322.71	-96.64	23.21	166.50	99.39
5,350.00	1.56	325.84	5,347.70	-96.38	22.83	166.68	99.04
5,375.00	2.12	334.86	5,372.69	-95.68	22.44	166.80	98.27
5,400.00	2.21	336.42	5,397.67	-94.82	22.05	166.91	97.35
5,425.00	2.24	335.81	5,422.65	-93.93	21.66	167.02	96.39
5,450.00	2.15	338.47	5,447.64	-93.05	21.28	167.12	95.45
5,475.00	2.12	339.26	5,472.62	-92.18	20.95	167.20	94.53
5,500.00	2.03	339.47	5,497.60	-91.33	20.63	167.27	93.63
5,525.00	2.07	337.73	5,522.59	-90.50	20.30	167.36	92.75
5,550.00	2.00	338.79	5,547.57	-89.67	19.97	167.44	91.87
5,575.00	2.01	338.49	5,572.56	-88.86	19.66	167.53	91.01
5,600.00	2.01	339.53	5,597.54	-88.04	19.34	167.61	90.14
5,625.00	2.12	339.25	5,622.52	-87.20	19.02	167.69	89.25
5,650.00	2.86	339.79	5,647.50	-86.18	18.64	167.79	88.17
5,675.00	3.48	344.35	5,672.46	-84.86	18.22	167.88	86.80
5,700.00	3.70	344.66	5,697.41	-83.36	17.81	167.94	85.24
5,725.00	3.76	343.40	5,722.36	-81.79	17.36	168.02	83.61
5,750.00	3.70	345.68	5,747.31	-80.23	16.93	168.09	81.99
5,775.00	3.57	344.55	5,772.26	-78.69	16.52	168.15	80.41
5,800.00	3.46	342.34	5,797.21	-77.22	16.08	168.24	78.88
5,825.00	3.30	344.11	5,822.17	-75.81	15.66	168.33	77.41
5,850.00	3.28	342.50	5,847.13	-74.44	15.24	168.43	75.98
5,875.00	3.26	342.86	5,872.08	-73.08	14.82	168.54	74.57
5,900.00	3.27	342.97	5,897.04	-71.72	14.40	168.65	73.15



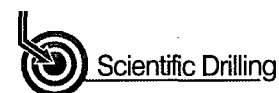
Company:	Matador Production Co	Local Co-ordinate Reference:	Well Zach McCormick Fed Com 18-24S-29E #1
Project:	Eddy County, NM (NAD 27 NME)	TVD Reference:	KB=27' @ 2982.00usft
Site:	Zach McCormick Fed Com 18-24S-29E #1	MD Reference:	KB=27' @ 2982.00usft
Well:	Zach McCormick Fed Com 18-24S-29E #1	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Midland District

MD (usft)	Inc (°)	Azi (azimuth) (bearing)	TVD (usft)	N/S (usft)	E/W (usft)	Closure Azimuth (bearing)	Closure Distance (usft)
5,925.00	3.26	344.83	5,922.00	-70.35	14.01	168.74	71.73
5,950.00	3.18	349.34	5,946.96	-68.98	13.69	168.77	70.33
5,975.00	3.12	352.59	5,971.93	-67.63	13.48	168.73	68.96
6,000.00	3.12	352.86	5,996.89	-66.28	13.30	168.65	67.60
6,025.00	3.06	354.71	6,021.85	-64.94	13.16	168.55	66.26
6,050.00	3.04	354.90	6,046.82	-63.61	13.04	168.42	64.93
6,075.00	3.08	355.94	6,071.78	-62.28	12.93	168.27	63.61
6,100.00	3.14	359.71	6,096.74	-60.93	12.88	168.06	62.27
6,125.00	3.18	3.01	6,121.71	-59.55	12.91	167.77	60.93
6,150.00	3.13	11.26	6,146.67	-58.19	13.08	167.33	59.64
6,175.00	3.09	26.37	6,171.63	-56.91	13.51	166.64	58.50
6,200.00	3.16	33.35	6,196.60	-55.74	14.19	165.71	57.51
6,225.00	3.57	36.52	6,221.55	-54.53	15.04	164.59	56.57
6,250.00	4.30	41.84	6,246.49	-53.21	16.12	163.14	55.60
6,275.00	4.42	42.42	6,271.42	-51.80	17.40	161.43	54.64
6,300.00	4.39	42.75	6,296.35	-50.39	18.70	159.64	53.74
6,325.00	4.25	43.30	6,321.28	-49.01	19.98	157.82	52.93
6,350.00	4.05	43.82	6,346.21	-47.70	21.23	156.01	52.21
6,375.00	3.99	44.35	6,371.15	-46.44	22.45	154.20	51.58
6,400.00	4.33	50.26	6,396.08	-45.22	23.78	152.26	51.09
6,425.00	4.25	46.34	6,421.01	-43.97	25.18	150.21	50.67
6,450.00	5.18	51.44	6,445.93	-42.63	26.73	147.91	50.32
6,475.00	5.78	55.03	6,470.81	-41.20	28.64	145.19	50.18
6,500.00	5.83	59.53	6,495.69	-39.84	30.77	142.32	50.34
6,525.00	5.80	72.03	6,520.56	-38.81	33.07	139.56	50.98
6,550.00	5.62	77.34	6,545.43	-38.15	35.46	137.09	52.08
6,575.00	5.35	79.92	6,570.32	-37.67	37.80	134.90	53.37
6,600.00	5.21	81.51	6,595.21	-37.30	40.07	132.95	54.75
6,625.00	4.95	81.70	6,620.12	-36.98	42.26	131.18	56.16
6,650.00	4.44	80.49	6,645.03	-36.66	44.29	129.62	57.49
6,675.00	4.35	80.53	6,669.96	-36.35	46.18	128.21	58.77
6,700.00	3.91	78.74	6,694.89	-36.03	47.95	126.92	59.97
6,725.00	3.68	78.79	6,719.84	-35.70	49.57	125.76	61.09
6,750.00	3.39	79.50	6,744.79	-35.41	51.08	124.73	62.16
6,775.00	3.17	80.04	6,769.75	-35.16	52.49	123.81	63.18
6,800.00	2.82	78.94	6,794.72	-34.92	53.78	123.00	64.12
6,825.00	3.15	79.13	6,819.68	-34.67	55.05	122.20	65.06
6,850.00	3.61	79.38	6,844.64	-34.40	56.50	121.33	66.15
6,875.00	3.72	79.35	6,869.59	-34.10	58.07	120.42	67.35
6,900.00	3.75	77.66	6,894.53	-33.78	59.67	119.52	68.57
6,925.00	3.86	70.78	6,919.48	-33.33	61.26	118.55	69.74
6,950.00	3.84	64.08	6,944.42	-32.69	62.81	117.49	70.80
6,975.00	3.93	61.85	6,969.37	-31.91	64.32	116.39	71.80
7,000.00	4.49	60.00	6,994.30	-31.02	65.92	115.20	72.85



Company:	Matador Production Co	Local Co-ordinate Reference:	Well Zach McCormick Fed.Com 18-24S-29E #1
Project:	Eddy County, NM (NAD 27 NME)	TVD Reference:	KB=27' @ 2982.00usft
Site:	Zach McCormick Fed.Com 18-24S-29E #1	MD Reference:	KB=27' @ 2982.00usft
Well:	Zach McCormick Fed.Com 18-24S-29E #1	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Midland District

Survey								
MD (usft)	Inc (°)	Azi (azimuth) (bearing)	TVD (usft)	N/S (usft)	E/W (usft)	Closure Azimuth (bearing)	Closure Distance (usft)	
7,025.00	4.75	59.04	7,019.22	-30.00	67.66	113.91	74.01	
7,050.00	5.19	58.16	7,044.12	-28.87	69.50	112.56	75.26	
7,075.00	5.84	56.33	7,069.01	-27.57	71.52	111.08	76.65	
7,100.00	6.02	55.84	7,093.87	-26.13	73.67	109.53	78.16	
7,125.00	6.01	55.67	7,118.74	-24.65	75.83	108.01	79.74	
7,150.00	5.77	53.97	7,143.60	-23.18	77.93	106.56	81.30	
7,175.00	5.80	54.68	7,168.48	-21.71	79.98	105.19	82.87	
7,200.00	6.13	61.23	7,193.34	-20.33	82.18	103.90	84.65	
7,225.00	6.13	64.08	7,218.20	-19.11	84.55	102.74	86.68	
7,250.00	6.04	64.92	7,243.06	-17.97	86.94	101.68	88.78	
7,275.00	6.20	69.45	7,267.91	-16.94	89.39	100.73	90.98	
7,300.00	6.43	76.42	7,292.76	-16.13	92.02	99.94	93.42	
7,325.00	6.32	80.43	7,317.61	-15.58	94.74	99.34	96.01	
7,350.00	6.17	81.92	7,342.46	-15.16	97.42	98.84	98.60	
7,375.00	6.00	82.60	7,367.32	-14.80	100.05	98.42	101.14	
7,400.00	5.93	82.40	7,392.18	-14.46	102.63	98.02	103.64	
7,425.00	5.69	83.09	7,417.06	-14.14	105.14	97.66	106.08	
7,450.00	5.56	83.32	7,441.94	-13.85	107.57	97.34	108.46	
7,475.00	5.74	84.94	7,466.81	-13.60	110.02	97.05	110.85	
7,500.00	6.39	89.31	7,491.67	-13.47	112.65	96.82	113.46	
7,525.00	7.22	92.71	7,516.50	-13.53	115.61	96.68	116.40	
7,550.00	7.54	93.71	7,541.29	-13.71	118.82	96.58	119.61	
7,575.00	7.62	93.03	7,566.07	-13.91	122.11	96.50	122.90	
7,600.00	7.61	92.32	7,590.85	-14.06	125.42	96.40	126.21	
7,625.00	7.86	92.03	7,615.62	-14.19	128.78	96.29	129.56	
7,650.00	8.17	92.19	7,640.38	-14.32	132.27	96.18	133.04	
7,675.00	8.17	92.40	7,665.13	-14.46	135.82	96.08	136.58	
7,700.00	8.17	92.56	7,689.87	-14.61	139.37	95.99	140.13	
7,725.00	8.01	92.91	7,714.62	-14.78	142.88	95.91	143.64	
7,750.00	7.82	93.68	7,739.39	-14.98	146.32	95.84	147.08	
7,775.00	7.67	93.47	7,764.16	-15.19	149.68	95.79	150.45	
7,800.00	7.59	93.14	7,788.94	-15.38	152.99	95.74	153.76	
7,825.00	7.55	93.83	7,813.72	-15.58	156.28	95.69	157.06	
7,850.00	7.44	95.30	7,838.50	-15.84	159.53	95.67	160.32	
7,875.00	7.24	99.57	7,863.30	-16.25	162.70	95.70	163.51	
7,900.00	7.16	102.55	7,888.10	-16.85	165.77	95.80	166.63	
7,925.00	7.08	106.51	7,912.91	-17.63	168.77	95.96	169.69	
7,950.00	6.83	109.71	7,937.73	-18.57	171.65	96.17	172.65	
7,975.00	6.67	112.44	7,962.55	-19.62	174.39	96.42	175.49	
8,000.00	6.67	112.84	7,987.38	-20.74	177.07	96.68	178.28	
8,025.00	6.93	112.34	8,012.21	-21.88	179.80	96.94	181.13	
8,050.00	6.93	113.57	8,037.03	-23.05	182.58	97.20	184.03	
8,075.00	6.92	114.41	8,061.84	-24.28	185.33	97.46	186.91	
8,100.00	6.93	115.62	8,086.66	-25.55	188.06	97.74	189.79	



Company:	Matador Production Co	Local Co-ordinate Reference:	Well Zach McCormick Fed Com 18-24S-29E #1
Project:	Eddy County - NM (NAD 27 NME)	TVD Reference:	KB=27' @ 2982.00usft
Site:	Zach McCormick Fed Com 18-24S-29E #1	MD Reference:	KB=27' @ 2982.00usft
Well:	Zach McCormick Fed Com 18-24S-29E #1	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Midland District

Survey								
MD (usft)	Inc (°)	Azi (azimuth) (bearing)	TVD (usft)	N/S (usft)	E/W (usft)	Closure Azimuth (bearing)	Closure Distance (usft)	
8,125.00	7.24	114.77	8,111.47	-26.86	190.85	98.01	192.73	
8,150.00	8.12	108.75	8,136.25	-28.09	193.96	98.24	195.98	
8,175.00	8.16	106.46	8,160.99	-29.16	197.33	98.41	199.47	
8,200.00	7.85	107.17	8,185.75	-30.17	200.66	98.55	202.92	
8,225.00	7.70	108.49	8,210.52	-31.20	203.88	98.70	206.25	
8,250.00	7.62	109.18	8,235.30	-32.28	207.03	98.86	209.54	
8,275.00	7.46	109.71	8,260.08	-33.37	210.13	99.02	212.76	
8,300.00	7.38	109.44	8,284.87	-34.45	213.17	99.18	215.94	
8,325.00	7.30	107.71	8,309.67	-35.47	216.20	99.32	219.09	
8,350.00	7.36	103.67	8,334.46	-36.33	219.27	99.41	222.26	
8,375.00	7.25	102.22	8,359.26	-37.05	222.36	99.46	225.43	
8,400.00	7.05	101.86	8,384.07	-37.69	225.41	99.49	228.54	
8,425.00	7.02	101.82	8,408.88	-38.32	228.40	99.52	231.60	
8,450.00	6.98	101.75	8,433.69	-38.94	231.39	99.55	234.64	
8,475.00	6.72	101.95	8,458.51	-39.56	234.30	99.58	237.62	
8,500.00	6.41	102.00	8,483.35	-40.15	237.10	99.61	240.48	
8,525.00	6.10	102.50	8,508.20	-40.73	239.76	99.64	243.20	
8,550.00	5.74	104.39	8,533.07	-41.33	242.27	99.68	245.77	
8,575.00	5.40	106.78	8,557.95	-41.98	244.61	99.74	248.18	
8,600.00	5.10	103.60	8,582.84	-42.58	246.81	99.79	250.46	
8,625.00	4.83	97.94	8,607.75	-42.98	248.94	99.80	252.62	
8,650.00	4.42	96.38	8,632.67	-43.24	250.94	99.78	254.63	
8,675.00	4.06	97.63	8,657.60	-43.46	252.77	99.76	256.48	
8,700.00	3.65	101.95	8,682.54	-43.74	254.43	99.76	258.16	
8,725.00	3.52	105.21	8,707.49	-44.11	255.95	99.78	259.72	
8,750.00	3.36	104.66	8,732.45	-44.50	257.39	99.81	261.21	
8,775.00	3.48	101.00	8,757.41	-44.83	258.85	99.82	262.70	
8,800.00	3.80	93.42	8,782.35	-45.02	260.42	99.81	264.28	
8,825.00	4.15	92.16	8,807.29	-45.10	262.15	99.76	266.00	
8,850.00	4.34	95.49	8,832.23	-45.23	264.00	99.72	267.84	
8,875.00	4.48	98.81	8,857.15	-45.47	265.90	99.70	269.76	
8,900.00	4.54	100.85	8,882.07	-45.80	267.84	99.70	271.73	
8,925.00	4.45	102.44	8,907.00	-46.20	269.76	99.72	273.69	
8,950.00	4.17	102.01	8,931.93	-46.60	271.59	99.74	275.56	
8,975.00	3.88	102.17	8,956.87	-46.96	273.31	99.75	277.32	
9,000.00	3.52	103.35	8,981.81	-47.32	274.88	99.77	278.93	
9,025.00	3.18	105.93	9,006.77	-47.69	276.30	99.79	280.38	
9,050.00	2.99	108.04	9,031.73	-48.08	277.58	99.83	281.72	
9,075.00	3.22	107.90	9,056.70	-48.50	278.87	99.87	283.06	
9,100.00	2.41	114.34	9,081.67	-48.93	280.02	99.91	284.26	
9,125.00	2.20	113.11	9,106.65	-49.34	280.94	99.96	285.24	
9,150.00	1.88	118.53	9,131.63	-49.72	281.74	100.01	286.09	
9,175.00	1.76	121.91	9,156.62	-50.12	282.43	100.06	286.84	
9,200.00	1.64	128.24	9,181.61	-50.54	283.03	100.12	287.51	



Company:	Matador Production Co.	Local Co-ordinate Reference:	Well: Zach McCormick Fed Com 18-24S-29E #1
Project:	Eddy County, NM (NAD 27 NME)	TVD Reference:	KB=27' @ 2982.00usft
Site:	Zach McCormick Fed Com 18-24S-29E #1	MD Reference:	KB=27' @ 2982.00usft
Well:	Zach McCormick Fed Com 18-24S-29E #1	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Midland District

MD (usft)	Inc (°)	Azi (azimuth) (bearing)	TVD (usft)	N/S (usft)	E/W (usft)	Closure Azimuth (bearing)	Closure Distance (usft)
9,225.00	1.60	137.26	9,206.60	-51.02	283.55	100.20	288.11
9,250.00	1.60	145.53	9,231.59	-51.56	283.99	100.29	288.63
9,275.00	1.54	160.59	9,256.58	-52.17	284.30	100.40	289.04
9,300.00	1.58	172.87	9,281.57	-52.83	284.45	100.52	289.31
9,325.00	1.81	177.68	9,306.56	-53.56	284.51	100.66	289.51
9,350.00	2.08	176.23	9,331.54	-54.41	284.55	100.83	289.71
9,375.00	2.28	172.58	9,356.53	-55.36	284.65	101.01	289.98
9,400.00	2.34	170.82	9,381.51	-56.35	284.79	101.19	290.32
9,425.00	2.36	170.22	9,406.48	-57.37	284.96	101.38	290.68
9,450.00	2.38	172.98	9,431.46	-58.39	285.11	101.57	291.03
9,475.00	2.41	175.12	9,456.44	-59.43	285.22	101.77	291.35
9,500.00	2.48	175.67	9,481.42	-60.49	285.31	101.97	291.65
9,525.00	2.42	173.57	9,506.40	-61.55	285.41	102.17	291.97
9,550.00	2.11	163.92	9,531.38	-62.52	285.59	102.35	292.36
9,575.00	1.80	141.68	9,556.36	-63.27	285.97	102.48	292.88
9,600.00	1.79	131.97	9,581.35	-63.84	286.50	102.56	293.53
9,625.00	1.74	123.48	9,606.34	-64.31	287.11	102.63	294.22
9,650.00	1.51	98.16	9,631.33	-64.57	287.75	102.65	294.90
9,675.00	1.71	75.20	9,656.32	-64.52	288.44	102.61	295.56
9,700.00	1.82	66.23	9,681.31	-64.26	289.16	102.53	296.21
9,725.00	1.75	62.66	9,706.29	-63.93	289.86	102.44	296.83
9,750.00	1.65	64.99	9,731.28	-63.60	290.53	102.35	297.41
9,775.00	1.45	70.41	9,756.27	-63.34	291.15	102.27	297.96
9,800.00	1.42	78.65	9,781.27	-63.17	291.75	102.22	298.51
9,825.00	1.44	82.42	9,806.26	-63.07	292.37	102.17	299.09
9,850.00	1.52	81.31	9,831.25	-62.98	293.01	102.13	299.70
9,875.00	1.42	82.43	9,856.24	-62.89	293.64	102.09	300.30
9,900.00	1.46	80.48	9,881.23	-62.80	294.26	102.05	300.89
9,925.00	1.50	79.52	9,906.23	-62.68	294.90	102.00	301.49
9,950.00	1.57	80.53	9,931.22	-62.57	295.56	101.95	302.11
9,975.00	1.68	85.40	9,956.21	-62.48	296.26	101.91	302.78
10,000.00	1.73	87.13	9,981.20	-62.43	297.00	101.87	303.50
10,025.00	1.70	91.62	10,006.19	-62.43	297.75	101.84	304.22
10,050.00	1.59	98.47	10,031.17	-62.49	298.47	101.82	304.94
10,075.00	1.65	100.09	10,056.16	-62.60	299.16	101.82	305.64
10,100.00	1.63	103.90	10,081.15	-62.75	299.86	101.82	306.36
10,125.00	1.71	100.80	10,106.14	-62.91	300.57	101.82	307.09
10,150.00	1.52	103.68	10,131.13	-63.05	301.26	101.82	307.79
10,175.00	1.43	108.13	10,156.13	-63.23	301.88	101.83	308.43
10,200.00	1.49	110.03	10,181.12	-63.44	302.48	101.84	309.06
10,225.00	1.41	109.17	10,206.11	-63.65	303.08	101.86	309.69
10,250.00	1.34	103.63	10,231.10	-63.82	303.65	101.87	310.29
10,275.00	1.17	109.97	10,256.10	-63.98	304.18	101.88	310.83
10,300.00	1.14	121.23	10,281.09	-64.19	304.63	101.90	311.32
10,325.00	1.08	134.68	10,306.09	-64.49	305.01	101.94	311.75



Company:	Matador Production Co	Local Co-ordinate Reference:	Well Zach McCormick Fed Com 18-24S-29E #1
Project:	Eddy County NM (NAD 27 NME)	TVD Reference:	KB=27' @ 2982.00usft
Site:	Zach McCormick Fed Com 18-24S-29E #1	MD Reference:	KB=27' @ 2982.00usft
Well:	Zach McCormick Fed Com 18-24S-29E #1	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Midland District

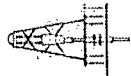
MD (usft)	Inc (°)	Azi (azimuth) (bearing)	TVD (usft)	N/S (usft)	E/W (usft)	Closure Azimuth (bearing)	Closure Distance (usft)
10,350.00	1.00	148.62	10,331.08	-64.84	305.29	101.99	312.10
10,375.00	1.01	167.09	10,356.08	-65.24	305.45	102.06	312.34
10,400.00	1.27	186.15	10,381.07	-65.73	305.47	102.14	312.46
10,425.00	1.50	187.83	10,406.07	-66.33	305.40	102.25	312.52
10,450.00	1.65	190.56	10,431.06	-67.01	305.29	102.38	312.56
10,475.00	1.60	188.50	10,456.05	-67.71	305.17	102.51	312.59
10,500.00	1.74	194.50	10,481.04	-68.42	305.02	102.64	312.60
10,525.00	2.03	201.28	10,506.02	-69.20	304.77	102.79	312.53
10,550.00	2.26	204.53	10,531.01	-70.06	304.40	102.96	312.36
10,575.00	2.39	210.61	10,555.98	-70.96	303.93	103.14	312.11
10,600.00	2.33	213.31	10,580.96	-71.83	303.39	103.32	311.78
10,625.00	2.21	217.51	10,605.94	-72.64	302.82	103.49	311.41
10,650.00	2.16	223.67	10,630.93	-73.36	302.20	103.65	310.97
10,675.00	2.19	227.87	10,655.91	-74.02	301.52	103.79	310.47
10,700.00	2.21	229.17	10,680.89	-74.66	300.80	103.94	309.93
10,725.00	2.20	232.96	10,705.87	-75.26	300.05	104.08	309.35
10,750.00	2.30	236.60	10,730.85	-75.83	299.25	104.22	308.71
10,775.00	2.08	234.77	10,755.83	-76.36	298.46	104.35	308.07
10,800.00	1.40	212.44	10,780.82	-76.88	297.93	104.47	307.69
10,825.00	0.90	196.50	10,805.82	-77.33	297.71	104.56	307.59
10,850.00	0.61	186.03	10,830.81	-77.65	297.64	104.62	307.60
10,875.00	0.66	181.60	10,855.81	-77.93	297.62	104.67	307.65
10,900.00	0.81	191.16	10,880.81	-78.24	297.58	104.73	307.69
10,925.00	0.93	198.88	10,905.81	-78.61	297.48	104.80	307.69
10,950.00	1.00	198.64	10,930.80	-79.01	297.34	104.88	307.66
10,975.00	1.13	210.24	10,955.80	-79.43	297.15	104.97	307.58
11,000.00	1.30	216.11	10,980.79	-79.87	296.86	105.06	307.42
11,025.00	1.64	223.72	11,005.79	-80.36	296.45	105.17	307.14
11,050.00	1.55	229.86	11,030.78	-80.83	295.94	105.28	306.78
11,075.00	1.47	235.47	11,055.77	-81.23	295.42	105.38	306.38
11,091.00	1.43	239.23	11,071.76	-81.45	295.08	105.43	306.11

Checked By: _____ Approved By: _____ Date: _____



Azimuths to Grid North:
True North: -0.16°
Magnetic North: 7.17°
Magnetic Field
Strength: 48236.0snT
Dip Angle: 60.08°
Date: 5/2/2018
Model: HDGM

KB=27 @ 2982.00usft
Gr @ 2955.00



Zach McCormick Fed Com 18-24S-29E #1
Eddy County, NM (NAD 27 NME)
Northing: 444952.00
Easting: 593636.00
OH

To convert Magnetic North to Grid, Add 7.17°
To convert True North to Grid, Subtract 0.16°

SITE DETAILS:

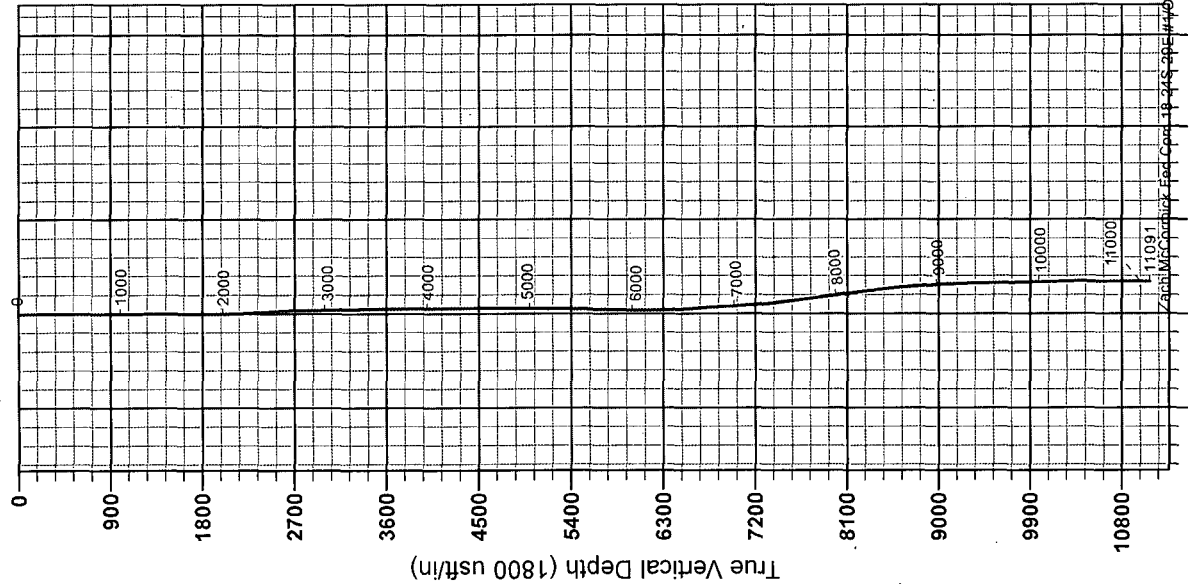
Zach McCormick Fed Com 18-24S-29E #1
Site Centre Northing: 444952.00
Easting: 593636.00
Positional Uncertainty: 0.00
Convergence: 0.16
Local North: Grid

PROJECT DETAILS:

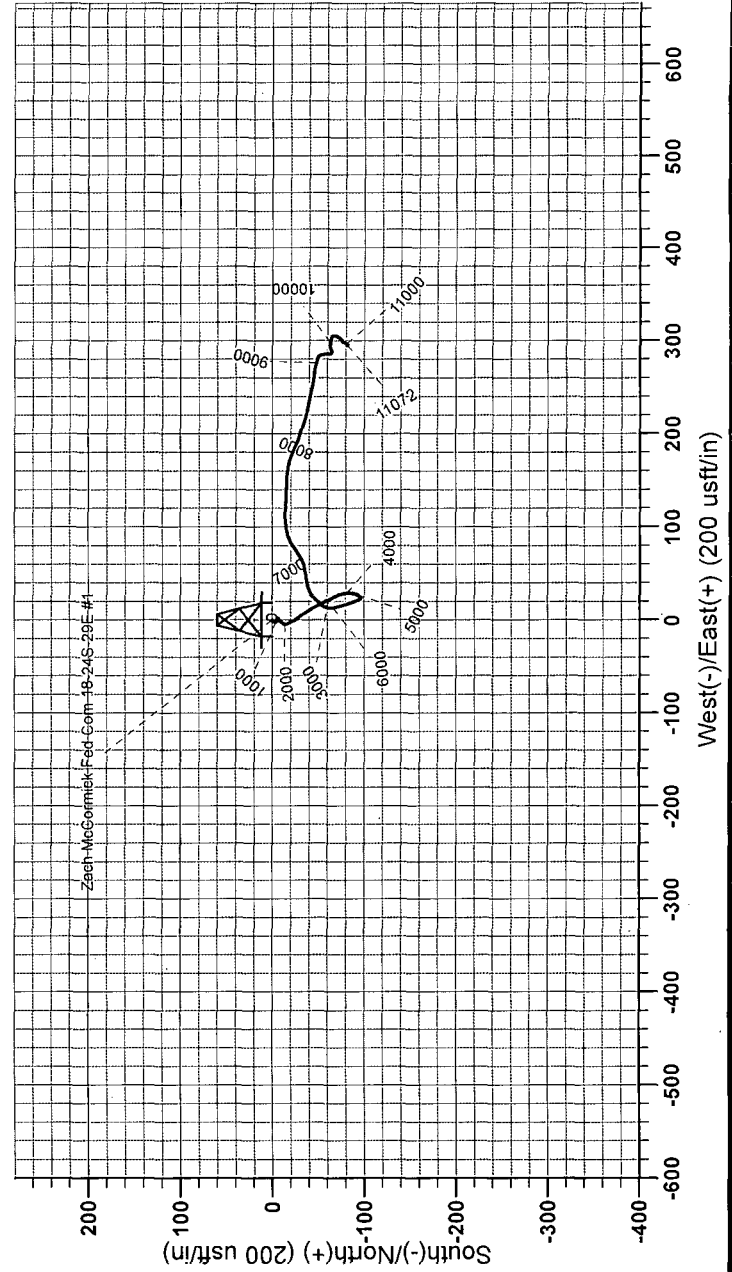
Eddy County, NM (NAD 27 NME)
Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico East 3001
System Datum: Mean Sea Level

WELL DETAILS: Zach McCormick Fed Com 18-24S-29E #1

+N/-S 0.00
Ground Level: 2955.00
+E/-W Northing Easting 0.00 444952.00 593636.00
Latitude Longitude 32° 13' 22.539 N 104° 1' 49.952 W



Vertical Section at 105.43bearing (1800 usft/in)



SECRET//NOFORN RESOURCE STATE MCCORMICK INITIAL PRODUCT/SEL JACK MCCORMICK 1 REV1 05/03 20170101 17 19 33 PM EDT