



Weatherford®

Evaluation, Drilling & Intervention
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Devon Energy
333 W. Sheridan Ave
Oklahoma City, OK, 73102

Date: September 17, 2015

Attention: Art Alarcon

Re: Devon Energy
Well: Mizar 11 Fed Com 21H
Eddy County, New Mexico

NM OIL CONSERVATION
ARTESIA DISTRICT
JAN 21 2016
RECEIVED

30 015 43273

Enclosed, please find the original survey performed on the referenced well by Precision Energy Services, Inc. (P-5 No. 676004), a Weatherford company. Other information required by your office is as follows:

Name & Title Of Surveyor	Well Number	Surveyed Depths	Dates Performed	Type of Survey
Justin Nguyen MWD Supervisor	21H	4664 MD 14010 MD	8/24/2015 9/4/2015	Measurement While Drilling

A notarized plan vs. actual is attached to the survey report. If any other information is required, please contact the undersigned at the letterhead address and phone number.

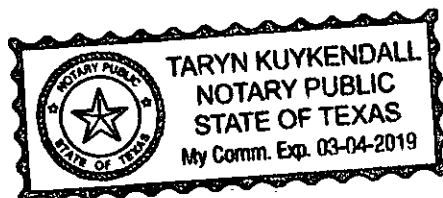
JL

Jonathan Leger
MWD Ops Coordinator

On this, the 21st day of November, 2015, before me a notary public, the undersigned officer, personally appeared Jonathan Leger, known to me (or satisfactorily proven) to be the person whose name is subscribed to the within instrument, and acknowledged that he executed the same for the purposes therein contained.

In witness hereof, I hereunto set my hand and official seal.

Notary Public



**5D Survey Report****Devon Energy**

Field Name: *Eddy Co, NM (Nad 83 NME)*
Site Name: *Hadar 10 Fed Com 21H.Mizar 11 Fed Com 21H Pad*
Well Name: *Mizar 11 Fed Com 21H*
Survey: *Definitive survey*

4 September 2015





Mizar 11 Fed Com 21H

Field Name: Eddy Co, NM (Nad 83 NME)	Map Units: US ft		Company Name: Devon Energy	
	Vertical Reference Datum (VRD): Mean Sea Level			
	Projected Coordinate System: NAD83 / New Mexico East (ftUS)			
	Comment:			
Site: Hadar 10 Fed Com 21H.Mizar 11 Fed Com 21H Pad	Units: US ft	North Reference: Grid	Convergence Angle: 0.26	
	Position:	Northing: 610900.08US ft	Latitude: 32° 40' 42.50"	
		Easting: 690599.42US ft	Longitude: -103° 50' 53.60"	
	Elevation above MSL: 3587.00 US ft			
Comment:				
Slot: Mizar 11 Fed Com 21H	Position (Relative to Site Centre)			
	+N/-S: -49.96US ft	Northing: 610850.12US ft	Latitude: 32°40'42.00"	
	+E/-W: 0.40US ft	Easting: 690599.82US ft	Longitude: -103°50'53.59"	
	Slot TVD Reference: Ground Elevation			
	Elevation above MSL: 3586.00US ft			
Comment:				
Well: Mizar 11 Fed Com 21H	Type: Main well		UWI:	
	File Number:	Comment:		
	Closure Distance: 4870.95US ft		Closure Azimuth: 88.74°	
	Vertical Section: Position of Origin (Relative to Slot centre)			
	+N/-S: 0.00US ft	+E/-W: 0.00US ft	Az: 89.50°	

Drill floor: Survey Name: Definitive Survey

Rig Height (Kelly Bushing): 25.00us ft
Elevation above MSL: 3611.00us ft
Inclination: 0.00°
Azimuth: 0.00°

Survey Name: Definitive Survey

Date: 16/Jan/2015
Survey Tool: See Survey Tool Ranges below.
Comment:
Company:

Magnetic Model:

Model Name: BGGM
Date: 15/Jul/2015
Field Strength: 48481.1nT
Declination: 7.42°
Dip: 60.51°

Tie Point:

MD: 0.00 US ft
Inclination: 0.00°
Azimuth: 0.00°
TVD: 0.00 US ft
North Offset: 0.00 US ft
East Offset: 0.00 US ft

Survey Tool Ranges:

Name	Start MD(usft)	End MD(usft)	Source Survey
MWD	0.00	4551.00	Teledrift MWD
MWD	4551.00	14010.00	WR MWD Svys

5D Survey Report

Wellpath created using minimum curvature.

Survey Points: (Relative to Slot centre)(TVD relative to Kelly Bushing)										
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	VS (US ft)	DLS (°/100US ft)	Northing (US ft)	Easting (US ft)	Comment
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	610850.12	690599.82	
128.29	0.00	0.00	128.29	0.00	0.00	0.00	0.00	610850.12	690599.82	
308.00	0.50	147.00	308.00	-0.66	0.43	0.42	0.28	610849.46	690600.25	
399.00	0.10	147.00	399.00	-1.06	0.69	0.68	0.44	610849.06	690600.51	
556.00	0.50	184.00	555.99	-1.86	0.71	0.70	0.27	610848.26	690600.53	
648.00	0.40	166.00	647.99	-2.57	0.76	0.74	0.19	610847.55	690600.58	
702.00	0.20	176.00	701.99	-2.84	0.82	0.79	0.38	610847.28	690600.64	
800.00	0.50	241.00	799.99	-3.22	0.45	0.43	0.46	610846.90	690600.27	
892.00	0.30	254.00	891.99	-3.48	-0.13	-0.16	0.24	610846.64	690599.69	
985.00	0.60	199.00	984.98	-4.01	-0.52	-0.56	0.53	610846.11	690599.30	
1077.00	0.10	227.00	1076.98	-4.52	-0.74	-0.78	0.56	610845.60	690599.08	
1169.59	0.20	214.00	1169.57	-4.71	-0.89	-0.93	0.11	610845.41	690598.93	
1261.75	0.40	208.00	1261.73	-5.13	-1.13	-1.17	0.22	610844.99	690598.69	
1353.97	0.40	173.00	1353.95	-5.73	-1.24	-1.29	0.26	610844.39	690598.58	
1449.52	0.40	161.00	1449.50	-6.38	-1.09	-1.15	0.09	610843.74	690598.73	
1544.40	0.30	98.00	1544.37	-6.73	-0.74	-0.80	0.40	610843.39	690599.08	
1639.88	0.50	128.00	1639.85	-7.02	-0.16	-0.22	0.30	610843.10	690599.66	
1734.58	0.30	82.00	1734.55	-7.24	0.41	0.35	0.38	610842.88	690600.23	
1829.31	1.00	98.00	1829.27	-7.32	1.47	1.41	0.76	610842.80	690601.29	
1924.19	0.90	78.00	1924.14	-7.28	3.02	2.96	0.36	610842.84	690602.84	
2019.05	1.40	94.00	2018.98	-7.20	4.91	4.84	0.62	610842.92	690604.73	
2114.45	1.50	89.00	2114.35	-7.26	7.32	7.26	0.17	610842.86	690607.14	
2209.96	1.10	83.00	2209.84	-7.13	9.48	9.42	0.44	610842.99	690609.30	
2304.40	1.60	91.00	2304.25	-7.04	11.70	11.63	0.56	610843.08	690611.52	
2399.31	1.40	92.00	2399.13	-7.11	14.18	14.12	0.21	610843.01	690614.00	
2494.39	0.80	92.00	2494.19	-7.17	16.00	15.94	0.63	610842.95	690615.82	
2589.00	0.70	92.00	2588.79	-7.21	17.24	17.18	0.11	610842.91	690617.06	
2684.00	1.00	80.00	2683.78	-7.09	18.64	18.58	0.37	610843.03	690618.46	
2780.00	0.90	101.00	2779.77	-7.09	20.20	20.14	0.37	610843.03	690620.02	
2875.00	0.80	104.00	2874.76	-7.39	21.58	21.51	0.12	610842.73	690621.40	
2970.00	0.70	106.00	2969.75	-7.71	22.78	22.71	0.11	610842.41	690622.60	
3066.00	0.70	78.00	3065.74	-7.75	23.92	23.85	0.35	610842.37	690623.74	
3160.00	1.00	102.00	3159.73	-7.80	25.28	25.21	0.49	610842.32	690625.10	
3255.00	0.70	82.00	3254.72	-7.89	26.67	26.60	0.44	610842.23	690626.49	
3350.00	0.70	80.00	3349.71	-7.71	27.81	27.75	0.03	610842.41	690627.63	
3445.00	0.60	86.00	3444.71	-7.58	28.88	28.81	0.13	610842.54	690628.70	
3540.54	0.80	105.00	3540.24	-7.71	30.02	29.96	0.32	610842.41	690629.84	
3634.91	0.70	102.00	3634.60	-8.00	31.22	31.15	0.11	610842.12	690631.04	
3730.12	0.80	70.00	3729.81	-7.90	32.42	32.35	0.45	610842.22	690632.24	
3824.76	0.60	62.00	3824.44	-7.44	33.48	33.41	0.23	610842.68	690633.30	
3920.31	0.80	80.00	3919.98	-7.09	34.58	34.51	0.31	610843.03	690634.40	
4015.42	1.00	64.00	4015.08	-6.61	35.98	35.92	0.34	610843.51	690635.80	
4109.29	0.60	48.00	4108.94	-5.92	37.08	37.02	0.48	610844.20	690636.90	
4204.00	0.90	77.00	4203.64	-5.42	38.17	38.12	0.50	610844.70	690637.99	
4300.00	0.50	43.00	4299.64	-4.95	39.19	39.15	0.58	610845.17	690639.01	
4395.82	0.90	70.00	4395.45	-4.38	40.18	40.14	0.53	610845.74	690640.00	
4491.43	0.90	57.00	4491.05	-3.72	41.52	41.48	0.21	610846.40	690641.34	
4551.00	0.50	42.00	4550.61	-3.27	42.08	42.05	0.73	610846.85	690641.90	Tie-on Rig Svys
4664.00	0.63	35.48	4663.61	-2.40	42.77	42.75	0.13	610847.72	690642.59	First Wft Svys
4759.00	0.66	282.94	4758.60	-1.85	42.54	42.53	1.13	610848.27	690642.36	
4854.00	1.53	258.75	4853.59	-1.97	40.77	40.75	1.02	610848.15	690640.59	
4950.00	2.72	252.89	4949.52	-2.89	37.33	37.31	1.26	610847.23	690637.15	
5046.00	3.53	247.97	5045.37	-4.67	32.42	32.37	0.89	610845.45	690632.24	
5141.00	4.42	244.96	5140.15	-7.32	26.39	26.32	0.96	610842.80	690626.21	
5235.00	4.46	245.94	5233.86	-10.34	19.77	19.68	0.09	610839.78	690619.59	
5329.00	5.10	249.54	5327.54	-13.29	12.52	12.40	0.75	610836.83	690612.34	

5D Survey Report

Survey Points: (Relative to Slot centre)(TVD relative to Kelly Bushing)										
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	VS (US ft)	DLS (°/100US ft)	Northing (US ft)	Easting (US ft)	Comment
5425.00	5.98	249.97	5423.09	-16.50	3.82	3.68	0.92	610833.62	690603.64	
5520.00	6.50	250.97	5517.52	-19.95	-5.91	-6.08	0.56	610830.17	690593.91	
5615.00	6.61	252.37	5611.90	-23.35	-16.21	-16.41	0.20	610826.77	690583.61	
5710.00	6.47	252.07	5706.28	-26.66	-26.51	-26.74	0.15	610823.46	690573.31	
5803.00	6.47	252.18	5798.69	-29.88	-36.48	-36.74	0.01	610820.24	690563.34	
5898.00	6.38	254.19	5893.10	-32.95	-46.66	-46.94	0.25	610817.17	690553.16	
5994.00	6.33	254.12	5988.51	-35.85	-56.88	-57.19	0.05	610814.27	690542.94	
6089.00	6.29	256.09	6082.93	-38.54	-66.97	-67.30	0.23	610811.58	690532.85	
6182.00	6.16	256.43	6175.38	-40.93	-76.76	-77.12	0.15	610809.19	690523.06	
6277.00	5.89	256.75	6269.86	-43.25	-86.46	-86.84	0.29	610806.87	690513.36	
6373.00	6.03	256.67	6365.34	-45.54	-96.16	-96.56	0.15	610804.58	690503.66	
6468.00	6.02	253.44	6459.81	-48.11	-105.79	-106.21	0.36	610802.01	690494.03	
6563.00	5.76	249.51	6554.31	-51.20	-115.03	-115.48	0.50	610798.92	690484.79	
6658.00	5.97	247.27	6648.81	-54.77	-124.06	-124.53	0.33	610795.35	690475.76	
6753.00	6.46	246.00	6743.26	-58.86	-133.50	-134.00	0.54	610791.26	690466.32	
6847.00	6.29	245.88	6836.68	-63.11	-143.03	-143.57	0.18	610787.01	690456.79	
6943.00	6.65	247.08	6932.06	-67.42	-152.95	-153.53	0.40	610782.70	690446.87	
7038.00	6.53	246.60	7026.44	-71.71	-162.97	-163.59	0.14	610778.41	690436.85	
7133.00	5.77	246.74	7120.89	-75.74	-172.32	-172.97	0.80	610774.38	690427.50	
7228.00	5.83	249.52	7215.40	-79.32	-181.22	-181.91	0.30	610770.80	690418.60	
7323.00	6.01	249.26	7309.90	-82.77	-190.39	-191.11	0.19	610767.35	690409.43	
7418.00	6.34	248.84	7404.34	-86.42	-199.94	-200.68	0.35	610763.70	690399.88	
7514.00	6.72	252.33	7499.72	-90.04	-210.23	-211.01	0.57	610760.08	690389.59	
7609.00	6.25	252.45	7594.11	-93.29	-220.46	-221.26	0.49	610756.83	690379.36	
7705.00	5.51	252.06	7689.61	-96.28	-229.83	-230.66	0.77	610753.84	690369.99	
7800.00	4.97	252.43	7784.21	-98.93	-238.09	-238.94	0.57	610751.19	690361.73	
7895.00	4.68	251.00	7878.87	-101.43	-245.68	-246.55	0.33	610748.69	690354.14	
7990.00	4.87	250.05	7973.54	-104.07	-253.13	-254.03	0.22	610746.05	690346.69	
8084.00	3.46	253.98	8067.29	-106.21	-259.61	-260.52	1.53	610743.91	690340.21	
8180.00	2.35	259.43	8163.17	-107.38	-264.33	-265.25	1.19	610742.74	690335.49	
8276.00	1.61	266.68	8259.11	-107.81	-267.61	-268.54	0.81	610742.31	690332.21	
8371.00	0.79	273.60	8354.09	-107.85	-269.59	-270.52	0.87	610742.27	690330.23	
8454.00	0.56	301.26	8437.08	-107.60	-270.51	-271.44	0.47	610742.52	690329.31	
8556.00	4.77	72.77	8538.97	-106.09	-266.88	-267.80	5.06	610744.03	690332.94	
8588.00	8.79	73.54	8570.74	-105.00	-263.27	-264.17	12.57	610745.12	690336.55	
8620.00	12.18	74.58	8602.20	-103.41	-257.67	-258.56	10.61	610746.71	690342.15	
8652.00	12.81	77.19	8633.45	-101.73	-250.95	-251.83	2.64	610748.39	690348.87	
8684.00	14.97	78.54	8664.51	-100.12	-243.44	-244.31	6.83	610750.00	690356.38	
8716.00	18.20	76.99	8695.17	-98.17	-234.52	-235.37	10.19	610751.95	690365.30	
8747.00	21.37	74.36	8724.34	-95.56	-224.36	-225.19	10.62	610754.56	690375.46	
8779.00	24.88	72.22	8753.77	-91.93	-212.33	-213.13	11.28	610758.19	690387.49	
8811.00	27.46	72.00	8782.48	-87.59	-198.90	-199.66	8.07	610762.53	690400.92	
8843.00	30.02	71.82	8810.54	-82.82	-184.28	-185.00	8.00	610767.30	690415.54	
8874.00	33.64	71.92	8836.87	-77.73	-168.74	-169.42	11.68	610772.39	690431.08	
8906.00	37.42	72.42	8862.91	-72.04	-151.04	-151.67	11.85	610778.08	690448.78	
8938.00	40.93	73.29	8887.71	-66.09	-131.73	-132.30	11.10	610784.03	690468.09	
8969.00	44.11	73.68	8910.56	-60.13	-111.64	-112.17	10.29	610789.99	690488.18	
9001.00	47.49	74.10	8932.86	-53.77	-89.61	-90.07	10.60	610796.35	690510.21	
9033.00	51.38	73.36	8953.67	-46.96	-66.28	-66.68	12.28	610803.16	690533.54	
9065.00	54.64	72.85	8972.92	-39.53	-41.82	-42.17	10.27	610810.59	690558.00	
9097.00	57.53	72.26	8990.77	-31.57	-16.49	-16.77	9.16	610818.55	690583.33	
9129.00	61.10	72.30	9007.10	-23.19	9.72	9.51	11.16	610826.93	690609.54	
9160.00	64.56	71.63	9021.26	-14.65	35.93	35.81	11.33	610835.47	690635.75	
9191.00	68.23	71.72	9033.67	-5.72	62.90	62.84	11.84	610844.40	690662.72	
9223.00	72.30	72.65	9044.47	3.49	91.57	91.59	13.01	610853.61	690691.39	
9254.00	75.88	75.69	9052.97	11.61	120.24	120.34	14.91	610861.73	690720.06	
9286.00	79.74	78.06	9059.73	18.71	150.70	150.85	14.07	610868.83	690750.52	
9318.00	82.08	78.91	9064.78	25.01	181.66	181.87	7.77	610875.13	690781.48	
9349.00	83.13	79.80	9068.77	30.69	211.87	212.13	4.42	610880.81	690811.69	

5D Survey Report

Survey Points: (Relative to Slot centre)(TVD relative to Kelly Bushing)										
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N. Offset (US ft)	E. Offset (US ft)	VS (US ft)	DLS (°/100US ft)	Northing (US ft)	Easting (US ft)	Comment
9358.00	83.63	80.50	9069.81	32.22	220.69	220.95	9.52	610882.34	690820.50	
9390.00	86.50	82.91	9072.56	36.82	252.22	252.53	11.69	610886.94	690852.04	
9421.00	88.39	85.45	9073.94	39.96	283.02	283.36	10.21	610890.08	690882.84	
9453.00	89.79	87.40	9074.45	41.95	314.96	315.31	7.50	610892.07	690914.78	
9485.00	90.00	88.64	9074.51	43.06	346.94	347.30	3.93	610893.18	690946.76	
9579.00	91.26	89.79	9073.48	44.35	440.92	441.29	1.81	610894.47	691040.74	
9674.00	91.89	90.66	9070.87	43.97	535.88	536.24	1.13	610894.09	691135.70	
9770.00	90.84	90.70	9068.58	42.83	631.84	632.19	1.09	610892.95	691231.66	
9866.00	90.21	89.60	9067.70	42.58	727.84	728.18	1.32	610892.70	691327.66	
9961.00	89.30	91.12	9068.10	41.99	822.83	823.17	1.86	610892.11	691422.65	
10056.00	91.19	88.87	9067.70	41.99	917.82	918.15	3.09	610892.11	691517.64	
10152.00	91.54	88.61	9065.41	44.10	1013.77	1014.12	0.45	610894.22	691613.59	
10247.00	90.63	88.90	9063.61	46.17	1108.73	1109.09	1.01	610896.29	691708.55	
10343.00	91.05	89.12	9062.21	47.83	1204.70	1205.08	0.49	610897.95	691804.52	
10437.00	89.86	88.89	9061.46	49.46	1298.69	1299.07	1.29	610899.58	691898.51	
10532.00	89.72	89.09	9061.81	51.13	1393.67	1394.06	0.26	610901.25	691993.49	
10626.00	90.56	89.00	9061.58	52.70	1487.66	1488.06	0.90	610902.82	692087.48	
10722.00	91.40	89.21	9059.94	54.20	1583.63	1584.04	0.90	610904.32	692183.45	
10817.00	91.68	87.67	9057.38	56.78	1678.56	1678.99	1.65	610906.90	692278.38	
10912.00	88.88	89.84	9056.92	58.85	1773.52	1773.96	3.73	610908.97	692373.34	
11006.00	89.30	89.75	9058.41	59.18	1867.51	1867.95	0.46	610909.30	692467.33	
11100.00	89.65	89.33	9059.27	59.94	1961.50	1961.95	0.58	610910.06	692561.32	
11195.00	90.07	89.89	9059.50	60.59	2056.50	2056.95	0.74	610910.71	692656.32	
11290.00	90.49	89.62	9059.04	60.99	2151.49	2151.94	0.53	610911.11	692751.31	
11386.00	89.65	89.50	9058.92	61.73	2247.49	2247.94	0.88	610911.85	692847.31	
11479.00	89.79	89.05	9059.38	62.91	2340.48	2340.94	0.51	610913.03	692940.30	
11574.00	89.79	89.04	9059.73	64.49	2435.47	2435.94	0.01	610914.61	693035.29	
11669.00	89.58	88.55	9060.25	66.49	2530.44	2530.93	0.56	610916.61	693130.26	
11765.00	89.65	88.40	9060.89	69.04	2626.41	2626.91	0.17	610919.16	693226.23	
11860.00	90.35	89.02	9060.89	71.18	2721.38	2721.90	0.98	610921.30	693321.20	
11955.00	90.63	89.09	9060.08	72.75	2816.37	2816.89	0.30	610922.87	693416.19	
12050.00	90.98	89.47	9058.75	73.94	2911.35	2911.88	0.54	610924.06	693511.17	
12144.00	89.72	89.72	9058.17	74.60	3005.34	3005.88	1.37	610924.72	693605.16	
12240.00	88.39	89.69	9059.75	75.10	3101.33	3101.86	1.39	610925.22	693701.15	
12335.00	87.76	89.98	9062.95	75.37	3196.27	3196.81	0.73	610925.49	693796.09	
12430.00	88.25	89.76	9066.25	75.59	3291.21	3291.75	0.57	610925.71	693891.03	
12525.00	87.90	90.23	9069.44	75.60	3386.16	3386.69	0.62	610925.72	693985.98	
12620.00	88.67	90.08	9072.29	75.34	3481.12	3481.64	0.83	610925.46	694080.94	
12715.00	89.65	90.13	9073.68	75.17	3576.10	3576.62	1.03	610925.29	694175.92	
12811.00	90.42	89.93	9073.62	75.12	3672.10	3672.62	0.83	610925.24	694271.92	
12906.00	91.40	89.53	9072.11	75.56	3767.09	3767.60	1.11	610925.68	694366.91	
13001.00	91.12	88.54	9070.02	77.16	3862.05	3862.58	1.08	610927.28	694461.87	
13096.00	91.47	88.42	9067.88	79.68	3956.99	3957.54	0.39	610929.80	694556.81	
13192.00	89.23	89.20	9067.29	81.67	4052.96	4053.52	2.47	610931.79	694652.78	
13286.00	89.86	88.96	9068.04	83.18	4146.95	4147.52	0.72	610933.30	694746.77	
13381.00	91.82	88.59	9066.64	85.21	4241.91	4242.49	2.10	610935.33	694841.73	
13477.00	93.64	88.04	9062.07	88.03	4337.76	4338.36	1.98	610938.15	694937.58	
13572.00	93.57	87.59	9056.10	91.65	4432.50	4433.13	0.48	610941.77	695032.32	
13668.00	94.27	88.22	9049.54	95.15	4528.21	4528.87	0.98	610945.27	695128.03	
13763.00	92.38	88.42	9044.03	97.93	4623.00	4623.68	2.00	610948.05	695222.82	
13858.00	90.84	87.82	9041.36	101.05	4717.91	4718.62	1.74	610951.17	695317.73	
13929.00	91.05	87.78	9040.19	103.77	4788.85	4789.57	0.30	610953.89	695388.67	Last Wft Svy
13963.44	91.05	87.78	9039.55	105.10	4823.26	4823.99	0.00	610955.22	695423.08	Cross Prod Box
14010.00	91.05	87.78	9038.70	106.91	4869.78	4870.52	0.00	610957.03	695469.60	Proj to Bit