

**5D Plan Report**

Devon Energy

Field Name: *Lea Co, NM Nad 83 NMEZ*
Site Name: *Thistle Unit 254H*
Well Name: *Thistle Unit 254H*
Plan: *P1:V1*

6 November 2016

HOBBS COO
NOV 14 2016
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Thistle Unit 254H

Field Name: Lea Co, NM Nad 83 NMEZ	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: Thistle Unit 254H	Units: US ft	North Reference: Grid	Convergence Angle: 0.41	
	Position:	Northing: 457211.47 US ft	Latitude: 32° 15' 16.45"	
		Easting: 781015.05 US ft	Longitude: -103° 33' 28.84"	
	Elevation above MSL:3643.30 US ft			
Comment:				
Slot: Thistle Unit 254H	Position (Relative to Site Centre)			
	+N/-S: 0.00 US ft	Northing: 457211.47 US ft	Latitude: 32°15'16.45"	
	+E/-W: 0.00 US ft	Easting: 781015.05 US ft	Longitude: -103°33'28.84"	
	Slot TVD Reference: Ground Elevation			
	Elevation above MSL: 3643.30 US ft			
	Comment:			
Well: Thistle Unit 254H	Type:Main well		UWI:	Plan:P1:V1
	File Number:	Comment:		
	Closure Distance:7672.37US ft		Closure Azimuth:1.12°	
	Vertical Section: Position of Origin (Relative to Slot centre)			
	+N/-S: 0.00 US ft		+E/-W: 0.00 US ft	Az: 1.12°
	Magnetic Parameters:			
	Model: bggm2016	Field Strength:	Declination: 7.06°	Dip: 60.11°
	48111.1nT		Date: 30/Nov/2016	

Drill floor: Plan: P1:V1

Rig Height (Drill Floor): 23.50us ft	Elevation above MSL: 3666.80us ft	Inclination: 0.00°	Azimuth: 0.00°
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Target set: Thistle Unit 254H Tgts Comment:

Target Name:	Shape:	TVD (US ft)	N. Offset (US ft)	E. Offset (US ft)	Northing (USFt)	Easting (USFt)	Comment
LP	Point	9500.00	0.00	0.00	457211.47	781015.05	
BHL 254H	Point	9552.00	7670.91	149.85	464882.38	781164.90	

Wellpath created using minimum curvature.**Tie Point:**

MD: 0.00USFt	Inclination: 0.00°	Azimuth: 0.00°	TVD: 0.00USFt	North Offset: 0.00USFt	East Offset: - 0.00USFt
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5D Plan Report

Salient Points: (Relative to Slot centre)(TVD relative to Drill Floor)											
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	VS (US ft)	DLS (°/100US ft)	B.Rate (°/100US ft)	T.Rate (°/100US ft)	T.Face (°)	Comment
0.00	0.00	0.00	0.00	0.00	-0.00	0.00	0.00	0.00	0.00	0.00	
8927.06	0.00	0.00	8927.06	0.00	-0.00	0.00	0.00	0.00	0.00	0.00	KOP
9822.87	89.58	1.12	9500.00	568.66	11.11	568.76	10.00	10.00	0.00	1.12	LP
16926.67	89.58	1.12	9552.00	7670.91	149.85	7672.37	0.00	0.00	0.00	0.00	BHL 254H

Interpolated Points: (Relative to Slot centre)(TVD relative to Drill Floor)											
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	457211.47	781015.05		
100.00	0.00	0.00	100.00	0.00	-0.00	0.00	0.00	457211.47	781015.05		
200.00	0.00	0.00	200.00	0.00	-0.00	0.00	0.00	457211.47	781015.05		
300.00	0.00	0.00	300.00	0.00	-0.00	0.00	0.00	457211.47	781015.05		
400.00	0.00	0.00	400.00	0.00	-0.00	0.00	0.00	457211.47	781015.05		
500.00	0.00	0.00	500.00	0.00	-0.00	0.00	0.00	457211.47	781015.05		
600.00	0.00	0.00	600.00	0.00	-0.00	0.00	0.00	457211.47	781015.05		
700.00	0.00	0.00	700.00	0.00	-0.00	0.00	0.00	457211.47	781015.05		
800.00	0.00	0.00	800.00	0.00	-0.00	0.00	0.00	457211.47	781015.05		
900.00	0.00	0.00	900.00	0.00	-0.00	0.00	0.00	457211.47	781015.05		
1000.00	0.00	0.00	1000.00	0.00	-0.00	0.00	0.00	457211.47	781015.05		
1100.00	0.00	0.00	1100.00	0.00	-0.00	0.00	0.00	457211.47	781015.05		
1200.00	0.00	0.00	1200.00	0.00	-0.00	0.00	0.00	457211.47	781015.05		
1300.00	0.00	0.00	1300.00	0.00	-0.00	0.00	0.00	457211.47	781015.05		
1400.00	0.00	0.00	1400.00	0.00	-0.00	0.00	0.00	457211.47	781015.05		
1500.00	0.00	0.00	1500.00	0.00	-0.00	0.00	0.00	457211.47	781015.05		
1600.00	0.00	0.00	1600.00	0.00	-0.00	0.00	0.00	457211.47	781015.05		
1700.00	0.00	0.00	1700.00	0.00	-0.00	0.00	0.00	457211.47	781015.05		
1800.00	0.00	0.00	1800.00	0.00	-0.00	0.00	0.00	457211.47	781015.05		
1900.00	0.00	0.00	1900.00	0.00	-0.00	0.00	0.00	457211.47	781015.05		
2000.00	0.00	0.00	2000.00	0.00	-0.00	0.00	0.00	457211.47	781015.05		
2100.00	0.00	0.00	2100.00	0.00	-0.00	0.00	0.00	457211.47	781015.05		
2200.00	0.00	0.00	2200.00	0.00	-0.00	0.00	0.00	457211.47	781015.05		
2300.00	0.00	0.00	2300.00	0.00	-0.00	0.00	0.00	457211.47	781015.05		
2400.00	0.00	0.00	2400.00	0.00	-0.00	0.00	0.00	457211.47	781015.05		
2500.00	0.00	0.00	2500.00	0.00	-0.00	0.00	0.00	457211.47	781015.05		
2600.00	0.00	0.00	2600.00	0.00	-0.00	0.00	0.00	457211.47	781015.05		
2700.00	0.00	0.00	2700.00	0.00	-0.00	0.00	0.00	457211.47	781015.05		
2800.00	0.00	0.00	2800.00	0.00	-0.00	0.00	0.00	457211.47	781015.05		
2900.00	0.00	0.00	2900.00	0.00	-0.00	0.00	0.00	457211.47	781015.05		
3000.00	0.00	0.00	3000.00	0.00	-0.00	0.00	0.00	457211.47	781015.05		
3100.00	0.00	0.00	3100.00	0.00	-0.00	0.00	0.00	457211.47	781015.05		
3200.00	0.00	0.00	3200.00	0.00	-0.00	0.00	0.00	457211.47	781015.05		
3300.00	0.00	0.00	3300.00	0.00	-0.00	0.00	0.00	457211.47	781015.05		
3400.00	0.00	0.00	3400.00	0.00	-0.00	0.00	0.00	457211.47	781015.05		
3500.00	0.00	0.00	3500.00	0.00	-0.00	0.00	0.00	457211.47	781015.05		
3600.00	0.00	0.00	3600.00	0.00	-0.00	0.00	0.00	457211.47	781015.05		
3700.00	0.00	0.00	3700.00	0.00	-0.00	0.00	0.00	457211.47	781015.05		
3800.00	0.00	0.00	3800.00	0.00	-0.00	0.00	0.00	457211.47	781015.05		
3900.00	0.00	0.00	3900.00	0.00	-0.00	0.00	0.00	457211.47	781015.05		
4000.00	0.00	0.00	4000.00	0.00	-0.00	0.00	0.00	457211.47	781015.05		
4100.00	0.00	0.00	4100.00	0.00	-0.00	0.00	0.00	457211.47	781015.05		
4200.00	0.00	0.00	4200.00	0.00	-0.00	0.00	0.00	457211.47	781015.05		
4300.00	0.00	0.00	4300.00	0.00	-0.00	0.00	0.00	457211.47	781015.05		
4400.00	0.00	0.00	4400.00	0.00	-0.00	0.00	0.00	457211.47	781015.05		
4500.00	0.00	0.00	4500.00	0.00	-0.00	0.00	0.00	457211.47	781015.05		
4600.00	0.00	0.00	4600.00	0.00	-0.00	0.00	0.00	457211.47	781015.05		
4700.00	0.00	0.00	4700.00	0.00	-0.00	0.00	0.00	457211.47	781015.05		
4800.00	0.00	0.00	4800.00	0.00	-0.00	0.00	0.00	457211.47	781015.05		
4900.00	0.00	0.00	4900.00	0.00	-0.00	0.00	0.00	457211.47	781015.05		
5000.00	0.00	0.00	5000.00	0.00	-0.00	0.00	0.00	457211.47	781015.05		

5D Plan Report

Interpolated Points: (Relative to Slot centre)(TVD relative to Drill Floor)										
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
5100.00	0.00	0.00	5100.00	0.00	-0.00	0.00	0.00	457211.47	781015.05	
5200.00	0.00	0.00	5200.00	0.00	-0.00	0.00	0.00	457211.47	781015.05	
5300.00	0.00	0.00	5300.00	0.00	-0.00	0.00	0.00	457211.47	781015.05	
5400.00	0.00	0.00	5400.00	0.00	-0.00	0.00	0.00	457211.47	781015.05	
5500.00	0.00	0.00	5500.00	0.00	-0.00	0.00	0.00	457211.47	781015.05	
5600.00	0.00	0.00	5600.00	0.00	-0.00	0.00	0.00	457211.47	781015.05	
5700.00	0.00	0.00	5700.00	0.00	-0.00	0.00	0.00	457211.47	781015.05	
5800.00	0.00	0.00	5800.00	0.00	-0.00	0.00	0.00	457211.47	781015.05	
5900.00	0.00	0.00	5900.00	0.00	-0.00	0.00	0.00	457211.47	781015.05	
6000.00	0.00	0.00	6000.00	0.00	-0.00	0.00	0.00	457211.47	781015.05	
6100.00	0.00	0.00	6100.00	0.00	-0.00	0.00	0.00	457211.47	781015.05	
6200.00	0.00	0.00	6200.00	0.00	-0.00	0.00	0.00	457211.47	781015.05	
6300.00	0.00	0.00	6300.00	0.00	-0.00	0.00	0.00	457211.47	781015.05	
6400.00	0.00	0.00	6400.00	0.00	-0.00	0.00	0.00	457211.47	781015.05	
6500.00	0.00	0.00	6500.00	0.00	-0.00	0.00	0.00	457211.47	781015.05	
6600.00	0.00	0.00	6600.00	0.00	-0.00	0.00	0.00	457211.47	781015.05	
6700.00	0.00	0.00	6700.00	0.00	-0.00	0.00	0.00	457211.47	781015.05	
6800.00	0.00	0.00	6800.00	0.00	-0.00	0.00	0.00	457211.47	781015.05	
6900.00	0.00	0.00	6900.00	0.00	-0.00	0.00	0.00	457211.47	781015.05	
7000.00	0.00	0.00	7000.00	0.00	-0.00	0.00	0.00	457211.47	781015.05	
7100.00	0.00	0.00	7100.00	0.00	-0.00	0.00	0.00	457211.47	781015.05	
7200.00	0.00	0.00	7200.00	0.00	-0.00	0.00	0.00	457211.47	781015.05	
7300.00	0.00	0.00	7300.00	0.00	-0.00	0.00	0.00	457211.47	781015.05	
7400.00	0.00	0.00	7400.00	0.00	-0.00	0.00	0.00	457211.47	781015.05	
7500.00	0.00	0.00	7500.00	0.00	-0.00	0.00	0.00	457211.47	781015.05	
7600.00	0.00	0.00	7600.00	0.00	-0.00	0.00	0.00	457211.47	781015.05	
7700.00	0.00	0.00	7700.00	0.00	-0.00	0.00	0.00	457211.47	781015.05	
7800.00	0.00	0.00	7800.00	0.00	-0.00	0.00	0.00	457211.47	781015.05	
7900.00	0.00	0.00	7900.00	0.00	-0.00	0.00	0.00	457211.47	781015.05	
8000.00	0.00	0.00	8000.00	0.00	-0.00	0.00	0.00	457211.47	781015.05	
8100.00	0.00	0.00	8100.00	0.00	-0.00	0.00	0.00	457211.47	781015.05	
8200.00	0.00	0.00	8200.00	0.00	-0.00	0.00	0.00	457211.47	781015.05	
8300.00	0.00	0.00	8300.00	0.00	-0.00	0.00	0.00	457211.47	781015.05	
8400.00	0.00	0.00	8400.00	0.00	-0.00	0.00	0.00	457211.47	781015.05	
8500.00	0.00	0.00	8500.00	0.00	-0.00	0.00	0.00	457211.47	781015.05	
8600.00	0.00	0.00	8600.00	0.00	-0.00	0.00	0.00	457211.47	781015.05	
8700.00	0.00	0.00	8700.00	0.00	-0.00	0.00	0.00	457211.47	781015.05	
8800.00	0.00	0.00	8800.00	0.00	-0.00	0.00	0.00	457211.47	781015.05	
8900.00	0.00	0.00	8900.00	0.00	-0.00	0.00	0.00	457211.47	781015.05	
8927.06	0.00	0.00	8927.06	0.00	-0.00	0.00	0.00	457211.47	781015.05	KOP
9000.00	7.29	1.12	8999.80	4.64	0.09	4.64	10.00	457216.11	781015.14	
9100.00	17.29	1.12	9097.39	25.90	0.51	25.90	10.00	457237.37	781015.56	
9200.00	27.29	1.12	9189.79	63.78	1.25	63.79	10.00	457275.25	781016.30	
9300.00	37.29	1.12	9274.22	117.13	2.29	117.15	10.00	457328.60	781017.34	
9400.00	47.29	1.12	9348.09	184.32	3.60	184.36	10.00	457395.79	781018.65	
9500.00	57.29	1.12	9409.18	263.32	5.14	263.37	10.00	457474.79	781020.19	
9600.00	67.29	1.12	9455.61	351.73	6.87	351.79	10.00	457563.20	781021.92	
9700.00	77.29	1.12	9485.99	446.85	8.73	446.94	10.00	457658.32	781023.78	
9800.00	87.29	1.12	9499.38	545.80	10.66	545.91	10.00	457757.27	781025.71	
9822.87	89.58	1.12	9500.00	568.66	11.11	568.76	10.00	457780.13	781026.16	LP
9900.00	89.58	1.12	9500.57	645.77	12.62	645.90	0.00	457857.24	781027.67	
10000.00	89.58	1.12	9501.30	745.75	14.57	745.89	0.00	457957.22	781029.62	
10100.00	89.58	1.12	9502.03	845.73	16.52	845.89	0.00	458057.20	781031.57	
10200.00	89.58	1.12	9502.76	945.71	18.47	945.89	0.00	458157.18	781033.52	
10300.00	89.58	1.12	9503.49	1045.69	20.43	1045.89	0.00	458257.16	781035.48	
10400.00	89.58	1.12	9504.23	1145.66	22.38	1145.88	0.00	458357.13	781037.43	
10500.00	89.58	1.12	9504.96	1245.64	24.33	1245.88	0.00	458457.11	781039.38	
10600.00	89.58	1.12	9505.69	1345.62	26.29	1345.88	0.00	458557.09	781041.34	
10700.00	89.58	1.12	9506.42	1445.60	28.24	1445.87	0.00	458657.07	781043.29	

5D Plan Report

Interpolated Points: (Relative to Slot centre)(TVD relative to Drill Floor)										
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
10800.00	89.58	1.12	9507.15	1545.58	30.19	1545.87	0.00	458757.05	781045.24	
10900.00	89.58	1.12	9507.89	1645.56	32.15	1645.87	0.00	458857.03	781047.20	
11000.00	89.58	1.12	9508.62	1745.53	34.10	1745.87	0.00	458957.00	781049.15	
11100.00	89.58	1.12	9509.35	1845.51	36.05	1845.86	0.00	459056.98	781051.10	
11200.00	89.58	1.12	9510.08	1945.49	38.00	1945.86	0.00	459156.96	781053.05	
11300.00	89.58	1.12	9510.81	2045.47	39.96	2045.86	0.00	459256.94	781055.01	
11400.00	89.58	1.12	9511.55	2145.45	41.91	2145.86	0.00	459356.92	781056.96	
11500.00	89.58	1.12	9512.28	2245.42	43.86	2245.85	0.00	459456.89	781058.91	
11600.00	89.58	1.12	9513.01	2345.40	45.82	2345.85	0.00	459556.87	781060.87	
11700.00	89.58	1.12	9513.74	2445.38	47.77	2445.85	0.00	459656.85	781062.82	
11800.00	89.58	1.12	9514.47	2545.36	49.72	2545.84	0.00	459756.83	781064.77	
11900.00	89.58	1.12	9515.21	2645.34	51.68	2645.84	0.00	459856.81	781066.73	
12000.00	89.58	1.12	9515.94	2745.32	53.63	2745.84	0.00	459956.79	781068.68	
12100.00	89.58	1.12	9516.67	2845.29	55.58	2845.84	0.00	460056.76	781070.63	
12200.00	89.58	1.12	9517.40	2945.27	57.54	2945.83	0.00	460156.74	781072.59	
12300.00	89.58	1.12	9518.13	3045.25	59.49	3045.83	0.00	460256.72	781074.54	
12400.00	89.58	1.12	9518.87	3145.23	61.44	3145.83	0.00	460356.70	781076.49	
12500.00	89.58	1.12	9519.60	3245.21	63.39	3245.83	0.00	460456.68	781078.44	
12600.00	89.58	1.12	9520.33	3345.19	65.35	3345.82	0.00	460556.66	781080.40	
12700.00	89.58	1.12	9521.06	3445.16	67.30	3445.82	0.00	460656.63	781082.35	
12800.00	89.58	1.12	9521.79	3545.14	69.25	3545.82	0.00	460756.61	781084.30	
12900.00	89.58	1.12	9522.53	3645.12	71.21	3645.82	0.00	460856.59	781086.26	
13000.00	89.58	1.12	9523.26	3745.10	73.16	3745.81	0.00	460956.57	781088.21	
13100.00	89.58	1.12	9523.99	3845.08	75.11	3845.81	0.00	461056.55	781090.16	
13200.00	89.58	1.12	9524.72	3945.05	77.07	3945.81	0.00	461156.52	781092.12	
13300.00	89.58	1.12	9525.45	4045.03	79.02	4045.80	0.00	461256.50	781094.07	
13400.00	89.58	1.12	9526.19	4145.01	80.97	4145.80	0.00	461356.48	781096.02	
13500.00	89.58	1.12	9526.92	4244.99	82.93	4245.80	0.00	461456.46	781097.98	
13600.00	89.58	1.12	9527.65	4344.97	84.88	4345.80	0.00	461556.44	781099.93	
13700.00	89.58	1.12	9528.38	4444.95	86.83	4445.79	0.00	461656.42	781101.88	
13800.00	89.58	1.12	9529.11	4544.92	88.78	4545.79	0.00	461756.39	781103.83	
13900.00	89.58	1.12	9529.85	4644.90	90.74	4645.79	0.00	461856.37	781105.79	
14000.00	89.58	1.12	9530.58	4744.88	92.69	4745.79	0.00	461956.35	781107.74	
14100.00	89.58	1.12	9531.31	4844.86	94.64	4845.78	0.00	462056.33	781109.69	
14200.00	89.58	1.12	9532.04	4944.84	96.60	4945.78	0.00	462156.31	781111.65	
14300.00	89.58	1.12	9532.77	5044.82	98.55	5045.78	0.00	462256.29	781113.60	
14400.00	89.58	1.12	9533.51	5144.79	100.50	5145.78	0.00	462356.26	781115.55	
14500.00	89.58	1.12	9534.24	5244.77	102.46	5245.77	0.00	462456.24	781117.51	
14600.00	89.58	1.12	9534.97	5344.75	104.41	5345.77	0.00	462556.22	781119.46	
14700.00	89.58	1.12	9535.70	5444.73	106.36	5445.77	0.00	462656.20	781121.41	
14800.00	89.58	1.12	9536.43	5544.71	108.31	5545.76	0.00	462756.18	781123.36	
14900.00	89.58	1.12	9537.17	5644.68	110.27	5645.76	0.00	462856.15	781125.32	
15000.00	89.58	1.12	9537.90	5744.66	112.22	5745.76	0.00	462956.13	781127.27	
15100.00	89.58	1.12	9538.63	5844.64	114.17	5845.76	0.00	463056.11	781129.22	
15200.00	89.58	1.12	9539.36	5944.62	116.13	5945.75	0.00	463156.09	781131.18	
15300.00	89.58	1.12	9540.09	6044.60	118.08	6045.75	0.00	463256.07	781133.13	
15400.00	89.58	1.12	9540.83	6144.58	120.03	6145.75	0.00	463356.05	781135.08	
15500.00	89.58	1.12	9541.56	6244.55	121.99	6245.75	0.00	463456.02	781137.04	
15600.00	89.58	1.12	9542.29	6344.53	123.94	6345.74	0.00	463556.00	781138.99	
15700.00	89.58	1.12	9543.02	6444.51	125.89	6445.74	0.00	463655.98	781140.94	
15800.00	89.58	1.12	9543.75	6544.49	127.85	6545.74	0.00	463755.96	781142.90	
15900.00	89.58	1.12	9544.49	6644.47	129.80	6645.74	0.00	463855.94	781144.85	
16000.00	89.58	1.12	9545.22	6744.45	131.75	6745.73	0.00	463955.92	781146.80	
16100.00	89.58	1.12	9545.95	6844.42	133.70	6845.73	0.00	464055.89	781148.75	
16200.00	89.58	1.12	9546.68	6944.40	135.66	6945.73	0.00	464155.87	781150.71	
16300.00	89.58	1.12	9547.41	7044.38	137.61	7045.72	0.00	464255.85	781152.66	
16400.00	89.58	1.12	9548.14	7144.36	139.56	7145.72	0.00	464355.83	781154.61	
16500.00	89.58	1.12	9548.88	7244.34	141.52	7245.72	0.00	464455.81	781156.57	
16600.00	89.58	1.12	9549.61	7344.32	143.47	7345.72	0.00	464555.79	781158.52	

5D Plan Report

Interpolated Points: (Relative to Slot centre)(TVD relative to Drill Floor)										
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
16700.00	89.58	1.12	9550.34	7444.29	145.42	7445.71	0.00	464655.76	781160.47	
16800.00	89.58	1.12	9551.07	7544.27	147.38	7545.71	0.00	464755.74	781162.43	
16900.00	89.58	1.12	9551.80	7644.25	149.33	7645.71	0.00	464855.72	781164.38	
16926.67	89.58	1.12	9552.00	7670.91	149.85	7672.37	0.00	464882.38	781164.90	BHL 254H