

HOBBS OCD

NOV 26 2013

5D Plan Report

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Devon Energy**Field Name:** *Lea Co, NM Nad 83 NM***Site Name:** *Bell Lake 19 State 2,3,4H Pad***Well Name:** *Bell Lake 19 State 4H***Plan:** *P1:V1*

20 November 2013

**Weatherford®**

DEC 02 2013



Bell Lake 19 State 3H
Lea Co, NM

Plan Data for Bell Lake 19 State 4H

Plan Point Information:									
DogLeg Severity Unit: °/100.00ft				Position offsets from Slot centre					
MD	Inc	Az	TVD	+N/-S	+E/-W	Northing	Easting	VSec	DLS
(USft)	(°)	(°)	(USft)	(USft)	(USft)	(USft)	(USft)	(USft)	(DLSU)
0.00	0.00	0.00	0.00	0.00	0.00	435963.55	765474.32	0.00	0.00
10295.99	0.00	0.00	10295.99	0.00	0.00	435963.55	765474.32	0.00	0.00
10855.54	67.15	134.89	10735.97	-206.11	206.88	435757.44	765681.20	-195.79	12.00
11924.67	90.27	2.79	11114.00	137.23	898.05	436100.78	766372.37	180.78	12.00
16548.81	90.27	2.79	11092.00	4755.85	1122.81	440719.40	766597.13	4804.87	0.00

Plan Data for Bell Lake 19 State 4H

Target Set Information:							
Name: Bell Lake 19 State 4H							
Position offsets from Slot centre							
Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape	Comment
(USft)	(USft)	(USft)	(USft)	(USft)	(USft)		
LP Tgt	11114.00	137.23	898.05	436100.78	766372.37	Cuboid	
PBHL 4H	11092.00	4755.85	1122.81	440719.40	766597.13	Cuboid	

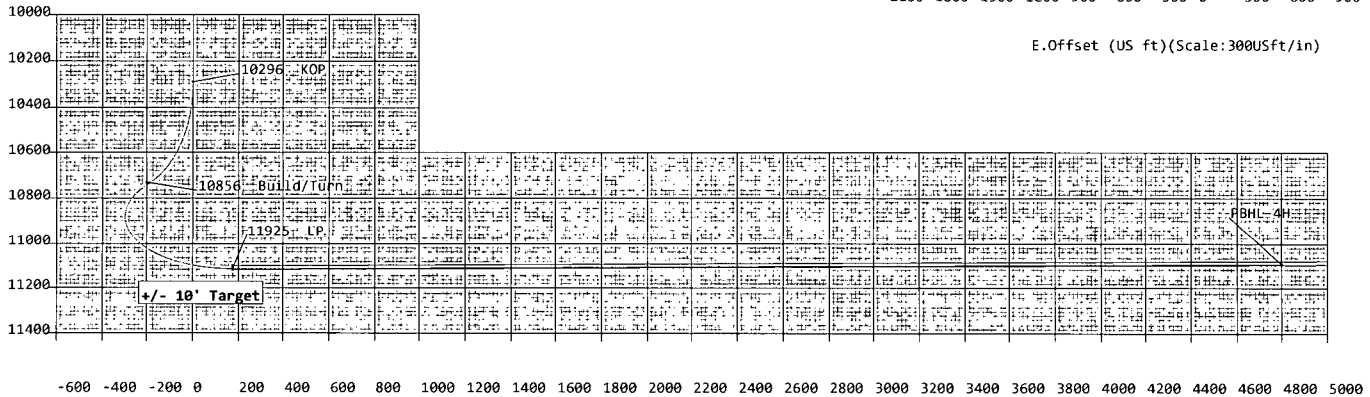
Plan Data for Bell Lake 19 State 4H

Slot: Bell Lake 19 State 4H
Position:
Offset is from Site centre
+N/-S: 0.76USft Northing: 435963.55USft Latitude: 32°11'47.3"
+E/-W: 99.97USft Easting: 765474.32USft Longitude: -103°36'31.5"
Elevation Above VRD: 3548.00USft

Bell Lake 19 State 2H _____
Bell Lake 19 State 3H _____
Bell Lake 19 State 4H _____



KB-3573
GL-3548



VS (US ft)(Bearing:2.79° Scale:200USft/in)

Sign Off: Russell Joyner



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Bell Lake 19 State 4H

Field Name Lea Co, NM Nad 83 NM	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 Name Bell Lake 19 State 2,3,4H Pad	Units : US ft	North Reference : Grid	Convergence Angle : 0.39	
	Position	Northing : 435962.79 US ft	Latitude : 32° 11' 47.27"	
		Easting : 765374.35 US ft	Longitude : -103° 36' 32.64"	
	Elevation above Mean Sea Level: 3548.00 US ft			
Comment :				
Slot Name Bell Lake 19 State 4H	Position (Offsets relative to Site Centre)			
	+N / -S : 0.76 US ft	Northing : 435963.55 US ft	Latitude : 32°11'47.27"	
	+E / -W : 99.97 US ft	Easting : 765474.32 US ft	Longitude : -103°36'31.47"	
	Slot TVD Reference : Ground Elevation			
Elevation above Mean Sea Level : 3548.00 US ft				
Comment :				
Well Name Bell Lake 19 State 4H	Type : Main well		UWI :	Plan : P1:V1
	Rig Height Drill Floor : 25.00 US ft		Comment :	
	Relative to Mean Sea Level: 3573.00 US ft			
	Closure Distance : 4886.6 US ft		Closure Azimuth : 13.2837°	
	Vertical Section (Position of Origin Relative to Slot)			
	+N / -S : 0.00 US ft		+E / -W : 0.00 US ft	Az : 2.79°
	Magnetic Parameters			
	Model : BGGM	Field Strength : 48311.6nT	Dec : 7.36°	Dip : 60.07°
				Date : 30/Apr/2014

Target Set

Name : Bell Lake 19 State **Number of Targets :** 2

4H

Comment :

Target Name: LP Tgt Shape: Cuboid	Position (Relative to Slot centre)		
	+N / -S : 137.23US ft	Northing : 436100.78 US ft	Latitude : 32°11'48.57"
	+E / -W : 898.05 US ft	Easting : 766372.37US ft	Longitude : -103°36'21.01"
	TVD (Drill Floor) : 11114.00 US ft		
Orientation Azimuth : 0.00°		Inclination : 0.00°	
Dimensions Length : 0.00 US ft	Breadth : 0.00 US ft	Height : 0.00 US ft	

5D Plan Report

Target Name:	Position (Relative to Slot centre)		
PBHL 4H	+N / -S : 4755.85US ft	Northing : 440719.40 US ft	Latitude : 32°12'34.26"
Shape:	+E / -W : 1122.81 US ft	Easting : 766597.13US ft	Longitude : -103°36'18.03"
Cuboid	TVD (Drill Floor) : 11092.00 US ft		
	Orientation Azimuth : 0.00°	Inclination : 0.00°	
	Dimensions Length : 20.00 US ft	Breadth : 20.00 US ft	Height : 20.00 US ft

Well path created using minimum curvature

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 (°/100 US ft)	Northing (US ft)	Easting (US ft)	Comment
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	435963.55	765474.32	
10295.99	0.00	0.00	10295.99	0.00	0.00	0.00	0.00	435963.55	765474.32	KOP
10855.54	67.15	134.89	10735.97	-206.11	206.88	-195.79	12.00	435757.44	765681.20	Build/Turn
11924.67	90.27	2.79	11114.00	137.23	898.05	180.78	12.00	436100.78	766372.37	LP
16548.81	90.27	2.79	11092.00	4755.85	1122.81	4804.87	0.00	440719.40	766597.13	Bell Lake 19 State 4H PBHL 4H

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 (°/100 US ft)	Northing (US ft)	Easting (US ft)	Comment
10200.00	0.00	0.00	10200.00	0.00	0.00	0.00	0.00	435963.55	765474.32	
10295.99	0.00	0.00	10295.99	0.00	0.00	0.00	0.00	435963.55	765474.32	KOP
10300.00	0.48	134.89	10300.00	-0.01	0.01	-0.01	12.00	435963.54	765474.33	
10400.00	12.48	134.89	10399.18	-7.96	7.99	-7.57	12.00	435955.59	765482.31	
10500.00	24.48	134.89	10493.85	-30.30	30.41	-28.78	12.00	435933.25	765504.73	
10600.00	36.48	134.89	10579.87	-66.03	66.28	-62.73	12.00	435897.52	765540.60	
10700.00	48.48	134.89	10653.49	-113.61	114.03	-107.92	12.00	435849.94	765588.35	
10800.00	60.48	134.89	10711.48	-170.95	171.59	-162.40	12.00	435792.60	765645.91	
10855.54	67.15	134.89	10735.97	-206.11	206.88	-195.79	12.00	435757.44	765681.20	Build/Turn
10900.00	65.50	129.35	10753.84	-233.41	237.05	-221.60	12.00	435730.14	765711.37	
11000.00	62.59	116.40	10797.75	-282.17	312.27	-266.64	12.00	435681.38	765786.59	
11100.00	60.93	102.90	10845.23	-311.77	394.93	-292.17	12.00	435651.78	765869.25	
11200.00	60.65	89.15	10894.21	-320.91	481.42	-297.09	12.00	435642.64	765955.74	
11300.00	61.77	75.50	10942.55	-309.19	567.97	-281.17	12.00	435654.36	766042.29	
11400.00	64.20	62.31	10988.13	-277.12	650.78	-245.12	12.00	435686.43	766125.10	
11500.00	67.76	49.75	11028.97	-226.11	726.23	-190.49	12.00	435737.44	766200.55	
11600.00	72.24	37.90	11063.27	-158.39	791.04	-119.70	12.00	435805.16	766265.36	
11700.00	77.38	26.66	11089.54	-76.91	842.37	-35.82	12.00	435886.64	766316.69	
11800.00	82.98	15.88	11106.64	14.76	877.97	57.48	12.00	435978.31	766352.29	
11900.00	88.82	5.37	11113.80	112.62	896.30	156.11	12.00	436076.17	766370.62	
11924.67	90.27	2.79	11114.00	137.23	898.05	180.78	12.00	436100.78	766372.37	LP
12000.00	90.27	2.79	11113.64	212.46	901.71	256.10	0.00	436176.01	766376.03	
12100.00	90.27	2.79	11113.17	312.34	906.57	356.10	0.00	436275.89	766380.89	
12200.00	90.27	2.79	11112.69	412.22	911.43	456.10	0.00	436375.77	766385.75	
12300.00	90.27	2.79	11112.21	512.10	916.29	556.10	0.00	436475.65	766390.61	
12400.00	90.27	2.79	11111.74	611.99	921.15	656.10	0.00	436575.54	766395.47	
12500.00	90.27	2.79	11111.26	711.87	926.01	756.10	0.00	436675.42	766400.33	
12600.00	90.27	2.79	11110.79	811.75	930.87	856.09	0.00	436775.30	766405.19	
12700.00	90.27	2.79	11110.31	911.63	935.74	956.09	0.00	436875.18	766410.06	
12799.99	90.27	2.79	11109.84	1011.51	940.60	1056.09	0.00	436975.06	766414.92	
12899.99	90.27	2.79	11109.36	1111.39	945.46	1156.09	0.00	437074.94	766419.78	
12999.99	90.27	2.79	11108.88	1211.27	950.32	1256.09	0.00	437174.82	766424.64	
13099.99	90.27	2.79	11108.41	1311.15	955.18	1356.09	0.00	437274.70	766429.50	
13199.99	90.27	2.79	11107.93	1411.03	960.04	1456.09	0.00	437374.58	766434.36	

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5D Anti-Collision Report

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Devon Energy**Field Name:** *Lea Co, NM Nad 83 NM***Site Name:** *Bell Lake 19 State 2,3,4H Pad***Well Name:** *Bell Lake 19 State 4H*

20 November 2013





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Bell Lake 19 State 4H

Field Name Lea Co, NM Nad 83 NM	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 Name Bell Lake 19 State 2,3,4H Pad	Units : US ft	North Reference : Grid	Convergence Angle : 0.39	
	Position	Northing : 435962.79 US ft	Latitude : 32° 11' 47.27"	
		Easting : 765374.35 US ft	Longitude : -103° 36' 32.64"	
	Elevation above Mean Sea Level: 3548.00 US ft			
Comment :				
Slot Name Bell Lake 19 State 4H	Position (Offsets relative to Site Centre)			
	+N / -S : 0.76 US ft	Northing : 435963.55 US ft	Latitude : 32°11'47.27"	
	+E / -W : 99.97 US ft	Easting : 765474.32 US ft	Longitude : -103°36'31.47"	
	Slot TVD Reference : Ground Elevation			
Elevation above Mean Sea Level : 3548.00 US ft				
Comment :				
Well Name Bell Lake 19 State 4H	Type : Main well		UWI :	Plan : Working Plan
	Rig Height Drill Floor : 25.00 US ft		Comment :	
	Relative to Mean Sea Level: 3573.00 US ft			
	Closure Distance : 4886.6 US ft		Closure Azimuth : 13.2837°	
	Vertical Section (Position of Origin Relative to Slot)			
	+N / -S : 0.00 US ft		+E / -W : 0.00 US ft	Az : 2.79°
	Magnetic Parameters			
	Model : BGGM	Field Strength : 48311.6nT	Dec : 7.36°	Dip : 60.07°
				Date : 30/Apr/2014

Collision / Uncertainty Analysis

Primary Well	Start MD (US ft)	End MD (US ft)	Collision Risk Interval	No. of Std Deviations in Error Computation
Bell Lake 19 State 4H (p)	0.00	16548.81	100.00	2

Secondary Well Names

Bell Lake 19 State 2H (p)
Bell Lake 19 State 3H (p)

Anti Collision Report Terminology

S.Minor, S.Major : Radii of the ellipse of uncertainty at the current location as seen in the along hole direction.

PHI : Angle between high-side vector and semi-minor axis

TVD Spread : Total TVD range of the ellipsoid of uncertainty at the current location

ES : Distance between the extremities of the primary and secondary uncertainty ellipsoids in the direction Cr-Cr

T.Face to Sec : Angle between the Hi-Side vector of the primary well at the current location and line of closest approach between the two wells

Separation factors calculated using Pedal Curve (Independent Uncertainty). Well path created using minimum curvature.

5D Anti-Collision Report

Anti Collision Proximity Summary (TVD relative to)

Secondary Well Name	Pri MD (US ft)	Sec MD (US ft)	TVD (US ft)	CC (US ft)	ES (US ft)	SF	Risk
Bell Lake 19 State 3H (p)	9952.15	9952.05	9952.15	50.01	4.87	1.11	SF (Med)
Bell Lake 19 State 2H (p)	10301.76	10301.76	10301.76	100.00	53.26	2.14	

Secondary Well : Bell Lake 19 State 2H (p) (TVD Relative to Drill Floor (Primary)) ; All Azimuth Relative to GRID NORTH)

Pri MD (US ft)	Sec MD (US ft)	TVD (US ft)	S.Major (US ft)	S.Minor (US ft)	TVD Spread (US ft)	CC (US ft)	SF	ES (US ft)	T.Face to Sec (°)	Survey Tool	Risk
0.00	0.00	0.00	0.00	0.00	0.00	99.97	136.33	99.24	269.56	MWD	
100.00	100.00	100.00	0.12	0.12	4.60	99.97	103.69	99.01	269.56	MWD	
200.00	200.00	200.00	0.34	0.34	4.62	99.97	70.83	98.56	269.56	MWD	
300.00	300.00	300.00	0.57	0.57	4.65	99.97	53.73	98.11	269.56	MWD	
400.00	400.00	400.00	0.79	0.79	4.70	99.97	43.28	97.66	269.56	MWD	
500.00	500.00	500.00	1.02	1.02	4.75	99.97	36.23	97.21	269.56	MWD	
600.00	600.00	600.00	1.24	1.24	4.82	99.97	31.16	96.76	269.56	MWD	
700.00	700.00	700.00	1.46	1.46	4.89	99.97	27.33	96.31	269.56	MWD	
800.00	800.00	800.00	1.69	1.69	4.98	99.97	24.34	95.87	269.56	MWD	
900.00	900.00	900.00	1.91	1.91	5.07	99.97	21.94	95.42	269.56	MWD	
1000.00	1000.00	1000.00	2.14	2.14	5.17	99.97	19.97	94.97	269.56	MWD	
1100.00	1100.00	1100.00	2.36	2.36	5.28	99.97	18.32	94.52	269.56	MWD	
1200.00	1200.00	1200.00	2.59	2.59	5.39	99.97	16.93	94.07	269.56	MWD	
1300.00	1300.00	1300.00	2.81	2.81	5.51	99.97	15.73	93.62	269.56	MWD	
1400.00	1400.00	1400.00	3.04	3.04	5.64	99.97	14.69	93.17	269.56	MWD	
1500.00	1500.00	1500.00	3.26	3.26	5.77	99.97	13.78	92.72	269.56	MWD	
1600.00	1600.00	1600.00	3.49	3.49	5.91	99.97	12.98	92.27	269.56	MWD	
1700.00	1700.00	1700.00	3.71	3.71	6.05	99.97	12.26	91.82	269.56	MWD	
1800.00	1800.00	1800.00	3.94	3.94	6.19	99.97	11.62	91.37	269.56	MWD	
1900.00	1900.00	1900.00	4.16	4.16	6.34	99.97	11.04	90.92	269.56	MWD	
2000.00	2000.00	2000.00	4.39	4.39	6.49	99.97	10.52	90.47	269.56	MWD	
2100.00	2100.00	2100.00	4.61	4.61	6.64	99.97	10.05	90.02	269.56	MWD	
2200.00	2200.00	2200.00	4.84	4.84	6.80	99.97	9.61	89.57	269.56	MWD	
2300.00	2300.00	2300.00	5.06	5.06	6.96	99.97	9.21	89.12	269.56	MWD	
2400.00	2400.00	2400.00	5.29	5.29	7.12	99.97	8.85	88.67	269.56	MWD	
2500.00	2500.00	2500.00	5.51	5.51	7.29	99.97	8.51	88.22	269.56	MWD	
2600.00	2600.00	2600.00	5.73	5.73	7.46	99.97	8.20	87.77	269.56	MWD	
2700.00	2700.00	2700.00	5.96	5.96	7.63	99.97	7.90	87.32	269.56	MWD	
2800.00	2800.00	2800.00	6.18	6.18	7.80	99.97	7.63	86.88	269.56	MWD	
2900.00	2900.00	2900.00	6.41	6.41	7.98	99.97	7.38	86.43	269.56	MWD	
3000.00	3000.00	3000.00	6.63	6.63	8.16	99.97	7.14	85.98	269.56	MWD	
3100.00	3100.00	3100.00	6.86	6.86	8.34	99.97	6.92	85.53	269.56	MWD	
3200.00	3200.00	3200.00	7.08	7.08	8.52	99.97	6.71	85.08	269.56	MWD	
3300.00	3300.00	3300.00	7.31	7.31	8.71	99.97	6.51	84.63	269.56	MWD	
3400.00	3400.00	3400.00	7.53	7.53	8.90	99.97	6.33	84.18	269.56	MWD	
3500.00	3500.00	3500.00	7.76	7.76	9.09	99.97	6.15	83.73	269.56	MWD	
3600.00	3600.00	3600.00	7.98	7.98	9.28	99.97	5.99	83.28	269.56	MWD	
3700.00	3700.00	3700.00	8.21	8.21	9.48	99.97	5.83	82.83	269.56	MWD	
3800.00	3800.00	3800.00	8.43	8.43	9.68	99.97	5.68	82.38	269.56	MWD	
3900.00	3900.00	3900.00	8.66	8.66	9.88	99.97	5.54	81.93	269.56	MWD	
4000.00	4000.00	4000.00	8.88	8.88	10.08	99.97	5.41	81.48	269.56	MWD	
4100.00	4100.00	4100.00	9.11	9.11	10.29	99.97	5.28	81.03	269.56	MWD	
4200.00	4200.00	4200.00	9.33	9.33	10.50	99.97	5.16	80.58	269.56	MWD	
4300.00	4300.00	4300.00	9.56	9.56	10.71	99.97	5.04	80.13	269.56	MWD	
4400.00	4400.00	4400.00	9.78	9.78	10.93	99.97	4.93	79.68	269.56	MWD	
4500.00	4500.00	4500.00	10.01	10.01	11.15	99.97	4.82	79.23	269.56	MWD	
4600.00	4600.00	4600.00	10.23	10.23	11.37	99.97	4.72	78.78	269.56	MWD	
4700.00	4700.00	4700.00	10.45	10.45	11.60	99.97	4.62	78.33	269.56	MWD	
4800.00	4800.00	4800.00	10.68	10.68	11.83	99.97	4.53	77.89	269.56	MWD	
4900.00	4900.00	4900.00	10.90	10.90	12.06	99.97	4.44	77.44	269.56	MWD	

SD Anti-Collision Report

Secondary Well : Bell Lake 19 State 2H (p) (TVD Relative to Drill Floor (Primary)) ; All Azimuth Relative to GRID NORTH)											
Pri MD (US ft)	Sec MD (US ft)	TVD (US ft)	S.Major (US ft)	S.Minor (US ft)	TVD Spread (US ft)	CC (US ft)	SF	ES (US ft)	T.Face to Sec (°)	Survey Tool	Risk
5000.00	5000.00	5000.00	11.13	11.13	12.30	99.97	4.35	76.99	269.56	MWD	
5100.00	5100.00	5100.00	11.35	11.35	12.54	99.97	4.27	76.54	269.56	MWD	
5200.00	5200.00	5200.00	11.58	11.58	12.78	99.97	4.19	76.09	269.56	MWD	
5300.00	5300.00	5300.00	11.80	11.80	13.03	99.97	4.11	75.64	269.56	MWD	
5400.00	5400.00	5400.00	12.03	12.03	13.28	99.97	4.03	75.19	269.56	MWD	
5500.00	5500.00	5500.00	12.25	12.25	13.54	99.97	3.96	74.74	269.56	MWD	
5600.00	5600.00	5600.00	12.48	12.48	13.80	99.97	3.89	74.29	269.56	MWD	
5700.00	5700.00	5700.00	12.70	12.70	14.06	99.97	3.83	73.84	269.56	MWD	
5800.00	5800.00	5800.00	12.93	12.93	14.33	99.97	3.76	73.39	269.56	MWD	
5900.00	5900.00	5900.00	13.15	13.15	14.60	99.97	3.70	72.94	269.56	MWD	
6000.00	6000.00	6000.00	13.38	13.38	14.88	99.97	3.64	72.49	269.56	MWD	
6100.00	6100.00	6100.00	13.60	13.60	15.16	99.97	3.58	72.04	269.56	MWD	
6200.00	6200.00	6200.00	13.83	13.83	15.45	99.97	3.52	71.59	269.56	MWD	
6300.00	6300.00	6300.00	14.05	14.05	15.74	99.97	3.47	71.14	269.56	MWD	
6400.00	6400.00	6400.00	14.28	14.28	16.03	99.97	3.41	70.69	269.56	MWD	
6500.00	6500.00	6500.00	14.50	14.50	16.33	99.97	3.36	70.24	269.56	MWD	
6600.00	6600.00	6600.00	14.73	14.73	16.64	99.97	3.31	69.79	269.56	MWD	
6700.00	6700.00	6700.00	14.95	14.95	16.94	99.97	3.26	69.34	269.56	MWD	
6800.00	6800.00	6800.00	15.17	15.17	17.26	99.97	3.22	68.89	269.56	MWD	
6900.00	6900.00	6900.00	15.40	15.40	17.58	99.97	3.17	68.45	269.56	MWD	
7000.00	7000.00	7000.00	15.62	15.62	17.90	99.97	3.13	68.00	269.56	MWD	
7100.00	7100.00	7100.00	15.85	15.85	18.23	99.97	3.08	67.55	269.56	MWD	
7200.00	7200.00	7200.00	16.07	16.07	18.56	99.97	3.04	67.10	269.56	MWD	
7300.00	7300.00	7300.00	16.30	16.30	18.90	99.97	3.00	66.65	269.56	MWD	
7400.00	7400.00	7400.00	16.52	16.52	19.25	99.97	2.96	66.20	269.56	MWD	
7500.00	7500.00	7500.00	16.75	16.75	19.59	99.97	2.92	65.75	269.56	MWD	
7600.00	7600.00	7600.00	16.97	16.97	19.95	99.97	2.88	65.30	269.56	MWD	
7700.00	7700.00	7700.00	17.20	17.20	20.31	99.97	2.85	64.85	269.56	MWD	
7800.00	7800.00	7800.00	17.42	17.42	20.67	99.97	2.81	64.40	269.56	MWD	
7900.00	7900.00	7900.00	17.65	17.65	21.04	99.97	2.78	63.95	269.56	MWD	
8000.00	8000.00	8000.00	17.87	17.87	21.42	99.97	2.74	63.50	269.56	MWD	
8100.00	8100.00	8100.00	18.10	18.10	21.80	99.97	2.71	63.05	269.56	MWD	
8200.00	8200.00	8200.00	18.32	18.32	22.19	99.97	2.68	62.60	269.56	MWD	
8300.00	8300.00	8300.00	18.55	18.55	22.58	99.97	2.64	62.15	269.56	MWD	
8400.00	8400.00	8400.00	18.77	18.77	22.98	99.97	2.61	61.70	269.56	MWD	
8500.00	8500.00	8500.00	19.00	19.00	23.38	99.97	2.58	61.25	269.56	MWD	
8600.00	8600.00	8600.00	19.22	19.22	23.79	99.97	2.55	60.80	269.56	MWD	
8700.00	8700.00	8700.00	19.45	19.45	24.20	99.97	2.52	60.35	269.56	MWD	
8800.00	8800.00	8800.00	19.67	19.67	24.62	99.97	2.49	59.90	269.56	MWD	
8900.00	8900.00	8900.00	19.90	19.90	25.05	99.97	2.47	59.45	269.56	MWD	
9000.00	9000.00	9000.00	20.12	20.12	25.48	99.97	2.44	59.00	269.56	MWD	
9100.00	9100.00	9100.00	20.35	20.35	25.92	99.97	2.41	58.55	269.56	MWD	
9200.00	9200.00	9200.00	20.57	20.57	26.36	99.97	2.39	58.10	269.56	MWD	
9300.00	9300.00	9300.00	20.79	20.79	26.81	99.97	2.36	57.66	269.56	MWD	
9400.00	9400.00	9400.00	21.02	21.02	27.26	99.97	2.34	57.21	269.56	MWD	
9500.00	9500.00	9500.00	21.24	21.24	27.72	99.97	2.31	56.76	269.56	MWD	
9600.00	9600.00	9600.00	21.47	21.47	28.19	99.97	2.29	56.31	269.56	MWD	
9700.00	9700.00	9700.00	21.69	21.69	28.66	99.97	2.27	55.86	269.56	MWD	
9800.00	9800.00	9800.00	21.92	21.92	29.14	99.97	2.24	55.41	269.56	MWD	
9900.00	9900.00	9900.00	22.14	22.14	29.62	99.97	2.22	54.96	269.56	MWD	
10000.00	10000.00	10000.00	22.37	22.37	30.11	99.97	2.20	54.51	269.56	MWD	
10100.00	10100.00	10100.00	22.59	22.59	30.61	99.97	2.18	54.06	269.56	MWD	
10200.00	10200.00	10200.00	22.82	22.82	31.11	99.97	2.16	53.61	269.56	MWD	
10300.00	10300.00	10300.00	23.04	23.04	31.62	99.98	2.14	53.25	134.68	MWD	
10400.00	10399.18	10399.18	23.27	23.27	32.12	108.20	2.29	61.04	138.24	MWD	
10500.00	10493.85	10493.85	23.48	23.48	32.62	133.68	2.81	86.12	145.39	MWD	
10600.00	10574.53	10574.51	23.65	23.62	33.04	179.06	3.75	131.28	150.85	MWD	
10700.00	10632.82	10632.39	23.77	23.55	33.33	246.31	5.13	198.29	150.49	MWD	

5D Anti-Collision Report

Secondary Well : Bell Lake 19 State 2H (p) (TVD Relative to Drill Floor (Primary)) ; All Azimuth Relative to GRID NORTH											
Pri MD (US ft)	Sec MD (US ft)	TVD (US ft)	S.Major (US ft)	S.Minor (US ft)	TVD Spread (US ft)	CC (US ft)	SF	ES (US ft)	T.Face to Sec (°)	Survey Tool	Risk
10800.00	10674.54	10673.09	23.84	23.42	33.54	329.53	6.86	281.49	144.44	MWD	
10900.00	10700.93	10698.38	23.89	23.25	33.66	422.24	8.77	374.09	154.93	MWD	
11000.00	10722.07	10718.31	23.92	23.06	33.76	517.19	10.72	468.94	194.25	MWD	
11100.00	10738.45	10733.52	23.96	22.98	33.84	610.36	12.64	562.08	222.15	MWD	
11200.00	10749.57	10743.73	23.99	22.91	33.88	699.58	14.50	651.34	241.16	MWD	
11300.00	10755.89	10749.48	24.00	22.87	33.91	783.22	16.28	735.10	255.22	MWD	
11400.00	10758.26	10751.62	24.00	22.85	33.92	859.91	17.97	812.04	266.11	MWD	
11500.00	10757.55	10750.99	24.00	22.86	33.92	928.47	19.42	880.67	274.58	MWD	
11600.00	10754.54	10748.25	24.00	22.88	33.90	987.86	20.75	940.24	281.02	MWD	
11700.00	10749.82	10743.95	23.99	22.91	33.88	1037.22	21.76	989.56	285.69	MWD	
11800.00	10743.82	10738.45	23.98	22.95	33.86	1075.83	22.57	1028.15	288.80	MWD	
11900.00	10736.84	10732.03	23.96	22.99	33.83	1103.14	23.09	1055.36	290.48	MWD	
12000.00	10729.46	10725.19	23.93	23.03	33.80	1124.51	23.39	1076.45	290.97	MWD	
12100.00	10722.56	10718.76	23.92	23.06	33.77	1153.45	23.85	1105.09	291.33	MWD	
12200.00	10716.14	10712.75	23.91	23.11	33.74	1189.98	24.47	1141.34	291.65	MWD	
12300.00	10710.15	10707.11	23.90	23.17	33.71	1233.45	25.16	1184.42	291.96	MWD	
12400.00	10704.55	10701.82	23.89	23.22	33.68	1283.16	25.97	1233.75	292.25	MWD	
12500.00	10699.31	10696.84	23.89	23.26	33.66	1338.43	26.89	1288.67	292.51	MWD	
12600.00	10694.39	10692.15	23.88	23.30	33.63	1398.61	27.87	1348.42	292.76	MWD	
12700.00	10689.76	10687.73	23.87	23.33	33.61	1463.09	28.97	1412.59	293.00	MWD	
12800.00	10685.41	10683.56	23.86	23.36	33.59	1531.33	30.13	1480.51	293.22	MWD	
12900.00	10681.30	10679.61	23.86	23.38	33.57	1602.87	31.32	1551.70	293.43	MWD	
13000.00	10677.42	10675.88	23.85	23.41	33.55	1677.28	32.60	1625.83	293.63	MWD	
13100.00	10673.75	10672.34	23.84	23.43	33.53	1754.20	33.92	1702.48	293.81	MWD	
13200.00	10670.28	10668.98	23.84	23.44	33.52	1833.31	35.33	1781.42	293.99	MWD	
13300.00	10666.98	10665.78	23.83	23.46	33.50	1914.36	36.74	1862.25	294.15	MWD	
13400.00	10663.85	10662.75	23.83	23.47	33.48	1997.09	38.13	1944.72	294.31	MWD	
13500.00	10660.87	10659.85	23.82	23.49	33.47	2081.33	39.59	2028.75	294.46	MWD	
13600.00	10658.04	10657.09	23.82	23.50	33.46	2166.88	41.15	2114.22	294.60	MWD	
13700.00	10655.34	10654.46	23.81	23.51	33.44	2253.60	42.71	2200.84	294.74	MWD	
13800.00	14003.63	11105.68	43.52	28.62	57.09	2291.65	26.33	2204.60	270.02	MWD	
13900.00	14103.02	11105.21	45.03	29.10	58.09	2302.68	25.58	2212.66	270.02	MWD	
14000.00	14202.41	11104.73	46.51	29.75	59.39	2313.70	24.85	2220.60	270.02	MWD	
14100.00	14301.80	11104.26	48.00	30.36	60.60	2324.73	24.19	2228.61	270.02	MWD	
14200.00	14401.19	11103.79	49.60	30.95	61.71	2335.76	23.54	2236.53	270.02	MWD	
14300.00	14500.58	11103.32	51.21	31.52	62.78	2346.78	22.93	2244.44	270.02	MWD	
14400.00	14599.98	11102.84	52.83	32.16	64.10	2357.81	22.35	2252.32	270.02	MWD	
14500.00	14699.37	11102.37	54.51	32.79	65.40	2368.84	21.79	2260.13	270.02	MWD	
14600.00	14798.76	11101.90	56.19	33.41	66.67	2379.86	21.25	2267.86	270.02	MWD	
14700.00	14898.15	11101.43	57.87	34.02	67.93	2390.89	20.73	2275.55	270.02	MWD	
14800.00	14997.54	11100.95	59.55	34.64	69.19	2401.92	20.24	2283.24	270.02	MWD	
14900.00	15096.93	11100.48	61.24	35.26	70.44	2412.94	19.78	2290.93	270.02	MWD	
15000.00	15196.32	11100.01	62.92	35.88	71.70	2423.97	19.34	2298.61	270.02	MWD	
15100.00	15295.71	11099.54	64.61	36.51	72.95	2434.99	18.92	2306.29	270.02	MWD	
15200.00	15395.10	11099.06	66.30	37.13	74.21	2446.02	18.52	2313.97	270.02	MWD	
15300.00	15494.49	11098.59	67.99	37.76	75.47	2457.05	18.14	2321.63	270.02	MWD	
15400.00	15593.88	11098.12	69.68	38.39	76.74	2468.07	17.78	2329.29	270.02	MWD	
15500.00	15693.27	11097.65	71.38	39.02	78.01	2479.10	17.44	2336.95	270.02	MWD	
15600.00	15792.66	11097.17	73.09	39.66	79.29	2490.13	17.11	2344.60	270.01	MWD	
15700.00	15892.05	11096.70	74.79	40.30	80.57	2501.15	16.80	2352.24	270.01	MWD	
15800.00	15991.44	11096.23	76.50	40.94	81.86	2512.18	16.49	2359.87	270.01	MWD	
15900.00	16090.83	11095.75	78.21	41.59	83.15	2523.20	16.21	2367.50	270.01	MWD	
16000.00	16190.22	11095.28	79.93	42.26	84.44	2534.23	15.93	2375.12	270.01	MWD	
16100.00	16289.61	11094.81	81.64	42.93	85.74	2545.26	15.66	2382.74	270.01	MWD	
16200.00	16389.00	11094.34	83.36	43.61	87.09	2556.28	15.41	2390.35	270.01	MWD	
16300.00	16488.39	11093.86	85.12	44.28	88.44	2567.31	15.16	2397.91	270.01	MWD	
16400.00	16587.78	11093.39	86.90	44.95	89.80	2578.34	14.91	2405.46	270.01	MWD	
16500.00	16687.17	11092.92	88.68	45.63	91.16	2589.36	14.68	2413.00	270.01	MWD	

5D Anti-Collision Report

Secondary Well : Bell Lake 19 State 2H (p) (TVD Relative to Drill Floor (Primary)) ; All Azimuth Relative to GRID NORTH											
Pri MD (US ft)	Sec MD (US ft)	TVD (US ft)	S.Major (US ft)	S.Minor (US ft)	TVD Spread (US ft)	CC (US ft)	SF	ES (US ft)	T.Face to Sec (°)	Survey Tool	Risk
16548.81	16735.68	11092.69	89.54	45.96	91.82	2594.74	14.57	2416.69	270.01	MWD	

Secondary Well : Bell Lake 19 State 3H (p) (TVD Relative to Drill Floor (Primary)) ; All Azimuth Relative to GRID NORTH											
Pri MD (US ft)	Sec MD (US ft)	TVD (US ft)	S.Major (US ft)	S.Minor (US ft)	TVD Spread (US ft)	CC (US ft)	SF	ES (US ft)	T.Face to Sec (°)	Survey Tool	Risk
0.00	0.00	0.00	0.00	0.00	0.00	49.99	68.17	49.26	269.56	MWD	
100.00	100.00	100.00	0.12	0.12	4.60	49.99	51.85	49.03	269.56	MWD	
200.00	200.00	200.00	0.34	0.34	4.62	49.99	35.42	48.58	269.56	MWD	
300.00	300.00	300.00	0.57	0.57	4.65	49.99	26.87	48.13	269.56	MWD	
400.00	400.00	400.00	0.79	0.79	4.70	49.99	21.64	47.68	269.56	MWD	
500.00	500.00	500.00	1.02	1.02	4.75	49.99	18.12	47.23	269.56	MWD	
600.00	600.00	600.00	1.24	1.24	4.82	49.99	15.58	46.78	269.56	MWD	
700.00	700.00	700.00	1.46	1.46	4.89	49.99	13.67	46.33	269.56	MWD	
800.00	800.00	800.00	1.69	1.69	4.98	49.99	12.17	45.88	269.56	MWD	
900.00	900.00	900.00	1.91	1.91	5.07	49.99	10.97	45.43	269.56	MWD	
1000.00	1000.00	1000.00	2.14	2.14	5.17	49.99	9.99	44.98	269.56	MWD	
1100.00	1100.00	1100.00	2.36	2.36	5.28	49.99	9.16	44.54	269.56	MWD	
1200.00	1200.00	1200.00	2.59	2.59	5.39	49.99	8.47	44.09	269.56	MWD	
1300.00	1300.00	1300.00	2.81	2.81	5.51	49.99	7.87	43.64	269.56	MWD	
1400.00	1400.00	1400.00	3.04	3.04	5.64	49.99	7.35	43.19	269.56	MWD	
1500.00	1500.00	1500.00	3.26	3.26	5.77	49.99	6.89	42.74	269.56	MWD	
1600.00	1600.00	1600.00	3.49	3.49	5.91	49.99	6.49	42.29	269.56	MWD	
1700.00	1700.00	1700.00	3.71	3.71	6.05	49.99	6.13	41.84	269.56	MWD	
1800.00	1800.00	1800.00	3.94	3.94	6.19	49.99	5.81	41.39	269.56	MWD	
1900.00	1900.00	1900.00	4.16	4.16	6.34	49.99	5.52	40.94	269.56	MWD	
2000.00	2000.00	2000.00	4.39	4.39	6.49	49.99	5.26	40.49	269.56	MWD	
2100.00	2100.00	2100.00	4.61	4.61	6.64	49.99	5.02	40.04	269.56	MWD	
2200.00	2200.00	2200.00	4.84	4.84	6.80	49.99	4.81	39.59	269.56	MWD	
2300.00	2300.00	2300.00	5.06	5.06	6.96	49.99	4.61	39.14	269.56	MWD	
2400.00	2400.00	2400.00	5.29	5.29	7.12	49.99	4.42	38.69	269.56	MWD	
2500.00	2500.00	2500.00	5.51	5.51	7.29	49.99	4.25	38.24	269.56	MWD	
2600.00	2600.00	2600.00	5.73	5.73	7.46	49.99	4.10	37.79	269.56	MWD	
2700.00	2700.00	2700.00	5.96	5.96	7.63	49.99	3.95	37.34	269.56	MWD	
2800.00	2800.00	2800.00	6.18	6.18	7.80	49.99	3.82	36.89	269.56	MWD	
2900.00	2900.00	2900.00	6.41	6.41	7.98	49.99	3.69	36.44	269.56	MWD	
3000.00	3000.00	3000.00	6.63	6.63	8.16	49.99	3.57	35.99	269.56	MWD	
3100.00	3100.00	3100.00	6.86	6.86	8.34	49.99	3.46	35.55	269.56	MWD	
3200.00	3200.00	3200.00	7.08	7.08	8.52	49.99	3.36	35.10	269.56	MWD	
3300.00	3300.00	3300.00	7.31	7.31	8.71	49.99	3.26	34.65	269.56	MWD	
3400.00	3400.00	3400.00	7.53	7.53	8.90	49.99	3.17	34.20	269.56	MWD	
3500.00	3500.00	3500.00	7.76	7.76	9.09	49.99	3.08	33.75	269.56	MWD	
3600.00	3600.00	3600.00	7.98	7.98	9.28	49.99	2.99	33.30	269.56	MWD	
3700.00	3700.00	3700.00	8.21	8.21	9.48	49.99	2.92	32.85	269.56	MWD	
3800.00	3800.00	3800.00	8.43	8.43	9.68	49.99	2.84	32.40	269.56	MWD	
3900.00	3900.00	3900.00	8.66	8.66	9.88	49.99	2.77	31.95	269.56	MWD	
4000.00	4000.00	4000.00	8.88	8.88	10.08	49.99	2.70	31.50	269.56	MWD	
4100.00	4100.00	4100.00	9.11	9.11	10.29	49.99	2.64	31.05	269.56	MWD	
4200.00	4200.00	4200.00	9.33	9.33	10.50	49.99	2.58	30.60	269.56	MWD	
4300.00	4300.00	4300.00	9.56	9.56	10.71	49.99	2.52	30.15	269.56	MWD	
4400.00	4400.00	4400.00	9.78	9.78	10.93	49.99	2.46	29.70	269.56	MWD	
4500.00	4500.00	4500.00	10.01	10.01	11.15	49.99	2.41	29.25	269.56	MWD	
4600.00	4600.00	4600.00	10.23	10.23	11.37	49.99	2.36	28.80	269.56	MWD	
4700.00	4700.00	4700.00	10.45	10.45	11.60	49.99	2.31	28.35	269.56	MWD	
4800.00	4800.00	4800.00	10.68	10.68	11.83	49.99	2.26	27.90	269.56	MWD	
4900.00	4900.00	4900.00	10.90	10.90	12.06	49.99	2.22	27.45	269.56	MWD	
5000.00	5000.00	5000.00	11.13	11.13	12.30	49.99	2.17	27.00	269.56	MWD	
5100.00	5100.00	5100.00	11.35	11.35	12.54	49.99	2.13	26.56	269.56	MWD	
5200.00	5200.00	5200.00	11.58	11.58	12.78	49.99	2.09	26.11	269.56	MWD	

5D Anti-Collision Report

Secondary Well : Ball Lake 19 State 3H (p) (TVD Relative to Drill Floor (Primary) ; All Azimuth Relative to GRID NORTH)											
Pri MD (US ft)	Sec MD (US ft)	TVD (US ft)	S.Major (US ft)	S.Minor (US ft)	TVD Spread (US ft)	CC (US ft)	SF	ES (US ft)	T.Face to Sec (°)	Survey Tool	Risk
5300.00	5300.00	5300.00	11.80	11.80	13.03	49.99	2.05	25.66	269.56	MWD	
5400.00	5400.00	5400.00	12.03	12.03	13.28	49.99	2.02	25.21	269.56	MWD	
5500.00	5500.00	5500.00	12.25	12.25	13.54	49.99	1.98	24.76	269.56	MWD	SF (Lo)
5600.00	5600.00	5600.00	12.48	12.48	13.80	49.99	1.95	24.31	269.56	MWD	SF (Lo)
5700.00	5700.00	5700.00	12.70	12.70	14.06	49.99	1.91	23.86	269.56	MWD	SF (Lo)
5800.00	5800.00	5800.00	12.93	12.93	14.33	49.99	1.88	23.41	269.56	MWD	SF (Lo)
5900.00	5900.00	5900.00	13.15	13.15	14.60	49.99	1.85	22.96	269.56	MWD	SF (Lo)
6000.00	6000.00	6000.00	13.38	13.38	14.88	49.99	1.82	22.51	269.56	MWD	SF (Lo)
6100.00	6100.00	6100.00	13.60	13.60	15.16	49.99	1.79	22.06	269.56	MWD	SF (Lo)
6200.00	6200.00	6200.00	13.83	13.83	15.45	49.99	1.76	21.61	269.56	MWD	SF (Lo)
6300.00	6300.00	6300.00	14.05	14.05	15.74	49.99	1.73	21.16	269.56	MWD	SF (Lo)
6400.00	6400.00	6400.00	14.28	14.28	16.03	49.99	1.71	20.71	269.56	MWD	SF (Lo)
6500.00	6500.00	6500.00	14.50	14.50	16.33	49.99	1.68	20.26	269.56	MWD	SF (Lo)
6600.00	6600.00	6600.00	14.73	14.73	16.64	49.99	1.66	19.81	269.56	MWD	SF (Lo)
6700.00	6700.00	6700.00	14.95	14.95	16.94	49.99	1.63	19.36	269.56	MWD	SF (Lo)
6800.00	6800.00	6800.00	15.17	15.17	17.26	49.99	1.61	18.91	269.56	MWD	SF (Lo)
6900.00	6900.00	6900.00	15.40	15.40	17.58	49.99	1.59	18.46	269.56	MWD	SF (Lo)
7000.00	7000.00	7000.00	15.62	15.62	17.90	49.99	1.56	18.01	269.56	MWD	SF (Lo)
7100.00	7100.00	7100.00	15.85	15.85	18.23	49.99	1.54	17.56	269.56	MWD	SF (Lo)
7200.00	7200.00	7200.00	16.07	16.07	18.56	49.99	1.52	17.11	269.56	MWD	SF (Lo)
7300.00	7300.00	7300.00	16.30	16.30	18.90	49.99	1.50	16.67	269.56	MWD	SF (Lo)
7400.00	7400.00	7400.00	16.52	16.52	19.25	49.99	1.48	16.22	269.56	MWD	SF (Med)
7500.00	7500.00	7500.00	16.75	16.75	19.59	49.99	1.46	15.77	269.56	MWD	SF (Med)
7600.00	7600.00	7600.00	16.97	16.97	19.95	49.99	1.44	15.32	269.56	MWD	SF (Med)
7700.00	7700.00	7700.00	17.20	17.20	20.31	49.99	1.42	14.87	269.56	MWD	SF (Med)
7800.00	7800.00	7800.00	17.42	17.42	20.67	49.99	1.41	14.42	269.56	MWD	SF (Med)
7900.00	7900.00	7900.00	17.65	17.65	21.04	49.99	1.39	13.97	269.56	MWD	SF (Med)
8000.00	8000.00	8000.00	17.87	17.87	21.42	49.99	1.37	13.52	269.56	MWD	SF (Med)
8100.00	8100.00	8100.00	18.10	18.10	21.80	49.99	1.35	13.07	269.56	MWD	SF (Med)
8200.00	8200.00	8200.00	18.32	18.32	22.19	49.99	1.34	12.62	269.56	MWD	SF (Med)
8300.00	8300.00	8300.00	18.55	18.55	22.58	49.99	1.32	12.17	269.56	MWD	SF (Med)
8400.00	8400.00	8400.00	18.77	18.77	22.98	49.99	1.31	11.72	269.56	MWD	SF (Med)
8500.00	8500.00	8500.00	19.00	19.00	23.38	49.99	1.29	11.27	269.56	MWD	SF (Med)
8600.00	8600.00	8600.00	19.22	19.22	23.79	49.99	1.28	10.82	269.56	MWD	SF (Med)
8700.00	8700.00	8700.00	19.45	19.45	24.20	49.99	1.26	10.37	269.56	MWD	SF (Med)
8800.00	8800.00	8800.00	19.67	19.67	24.62	49.99	1.25	9.92	269.56	MWD	SF (Med)
8900.00	8900.00	8900.00	19.90	19.90	25.05	49.99	1.23	9.47	269.56	MWD	SF (Med)
9000.00	9000.00	9000.00	20.12	20.12	25.48	49.99	1.22	9.02	269.56	MWD	SF (Med)
9100.00	9100.00	9100.00	20.35	20.35	25.92	49.99	1.21	8.57	269.56	MWD	SF (Med)
9200.00	9200.00	9200.00	20.57	20.57	26.36	49.99	1.19	8.12	269.56	MWD	SF (Med)
9300.00	9300.00	9300.00	20.79	20.79	26.81	49.99	1.18	7.67	269.56	MWD	SF (Med)
9400.00	9400.00	9400.00	21.02	21.02	27.26	49.99	1.17	7.22	269.56	MWD	SF (Med)
9500.00	9500.00	9500.00	21.24	21.24	27.72	49.99	1.16	6.77	269.56	MWD	SF (Med)
9600.00	9600.00	9600.00	21.47	21.47	28.19	49.99	1.14	6.33	269.56	MWD	SF (Med)
9700.00	9700.00	9700.00	21.69	21.69	28.66	49.99	1.13	5.88	269.56	MWD	SF (Med)
9800.00	9800.00	9800.00	21.92	21.92	29.14	49.99	1.12	5.43	269.56	MWD	SF (Med)
9900.00	9900.00	9900.00	22.14	22.14	29.62	49.99	1.11	5.00	269.56	MWD	SF (Med)
10000.00	9998.75	9998.02	22.31	22.04	30.09	50.88	1.12	5.59	257.68	MWD	SF (Med)
10100.00	10089.60	10084.54	22.45	21.46	30.48	63.82	1.42	18.81	232.05	MWD	SF (Med)
10200.00	10167.97	10153.90	22.58	20.70	30.77	99.65	2.30	56.26	212.68	MWD	
10300.00	10232.94	10206.27	22.68	19.96	30.99	153.79	3.70	112.19	67.20	MWD	
10400.00	10289.58	10247.31	22.80	19.17	31.15	215.77	5.39	175.73	55.74	MWD	
10500.00	10395.69	10319.79	23.17	20.01	31.51	274.13	6.56	232.34	51.62	MWD	
10600.00	10608.77	10505.02	23.96	22.82	32.60	294.75	6.29	247.91	62.89	MWD	
10700.00	10774.75	10669.25	24.38	23.57	33.51	280.49	5.80	232.15	84.61	MWD	
10800.00	10856.72	10750.15	24.51	23.45	33.93	270.47	5.54	221.65	100.70	MWD	
10900.00	10888.46	10780.70	24.54	23.26	34.08	293.51	5.92	243.90	109.69	MWD	
11000.00	10916.46	10807.13	24.56	23.06	34.22	354.35	7.08	304.30	127.84	MWD	

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 (°/100 US ft)	Northing (US ft)	Easting (US ft)	Comment
13299.99	90.27	2.79	11107.46	1510.91	964.90	1556.09	0.00	437474.46	766439.22	
13399.99	90.27	2.79	11106.98	1610.79	969.76	1656.08	0.00	437574.34	766444.08	
13499.99	90.27	2.79	11106.51	1710.67	974.62	1756.08	0.00	437674.22	766448.94	
13599.99	90.27	2.79	11106.03	1810.55	979.48	1856.08	0.00	437774.10	766453.80	
13699.99	90.27	2.79	11105.55	1910.43	984.34	1956.08	0.00	437873.98	766458.66	
13799.99	90.27	2.79	11105.08	2010.31	989.20	2056.08	0.00	437973.86	766463.52	
13899.99	90.27	2.79	11104.60	2110.19	994.06	2156.08	0.00	438073.74	766468.38	
13999.99	90.27	2.79	11104.13	2210.07	998.92	2256.08	0.00	438173.62	766473.24	
14099.99	90.27	2.79	11103.65	2309.95	1003.78	2356.07	0.00	438273.50	766478.10	
14199.99	90.27	2.79	11103.17	2409.83	1008.64	2456.07	0.00	438373.38	766482.96	
14299.99	90.27	2.79	11102.70	2509.71	1013.50	2556.07	0.00	438473.26	766487.82	
14399.99	90.27	2.79	11102.22	2609.59	1018.36	2656.07	0.00	438573.14	766492.68	
14499.99	90.27	2.79	11101.75	2709.48	1023.23	2756.07	0.00	438673.03	766497.55	
14599.99	90.27	2.79	11101.27	2809.36	1028.09	2856.07	0.00	438772.91	766502.41	
14699.99	90.27	2.79	11100.80	2909.24	1032.95	2956.07	0.00	438872.79	766507.27	
14799.99	90.27	2.79	11100.32	3009.12	1037.81	3056.07	0.00	438972.67	766512.13	
14899.99	90.27	2.79	11099.84	3109.00	1042.67	3156.06	0.00	439072.55	766516.99	
14999.99	90.27	2.79	11099.37	3208.88	1047.53	3256.06	0.00	439172.43	766521.85	
15099.99	90.27	2.79	11098.89	3308.76	1052.39	3356.06	0.00	439272.31	766526.71	
15199.99	90.27	2.79	11098.42	3408.64	1057.25	3456.06	0.00	439372.19	766531.57	
15299.99	90.27	2.79	11097.94	3508.52	1062.11	3556.06	0.00	439472.07	766536.43	
15399.99	90.27	2.79	11097.47	3608.40	1066.97	3656.06	0.00	439571.95	766541.29	
15499.99	90.27	2.79	11096.99	3708.28	1071.83	3756.06	0.00	439671.83	766546.15	
15599.99	90.27	2.79	11096.51	3808.16	1076.69	3856.05	0.00	439771.71	766551.01	
15699.99	90.27	2.79	11096.04	3908.04	1081.55	3956.05	0.00	439871.59	766555.87	
15799.99	90.27	2.79	11095.56	4007.92	1086.41	4056.05	0.00	439971.47	766560.73	
15899.99	90.27	2.79	11095.09	4107.80	1091.27	4156.05	0.00	440071.35	766565.59	
15999.99	90.27	2.79	11094.61	4207.68	1096.13	4256.05	0.00	440171.23	766570.45	
16099.99	90.27	2.79	11094.14	4307.56	1100.99	4356.05	0.00	440271.11	766575.31	
16199.99	90.27	2.79	11093.66	4407.44	1105.86	4456.05	0.00	440370.99	766580.18	
16299.99	90.27	2.79	11093.18	4507.32	1110.72	4556.05	0.00	440470.87	766585.04	
16399.99	90.27	2.79	11092.71	4607.20	1115.58	4656.04	0.00	440570.75	766589.90	
16499.99	90.27	2.79	11092.23	4707.08	1120.44	4756.04	0.00	440670.63	766594.76	
16548.81	90.27	2.79	11092.00	4755.85	1122.81	4804.87	0.00	440719.40	766597.13	Bell Lake 19 State 4H PBHL 4H

5D Anti-Collision Report

Secondary Well: Bell Lake 19 State SH (p) (TVD Relative to Drill Floor (Primary)) : All Azimuth Relative to GRID NORTH											
Pri MD (US ft)	Sec MD (US ft)	TVD (US ft)	S.Major (US ft)	S.Minor (US ft)	TVD Spread (US ft)	CC (US ft)	SF	ES (US ft)	T.Face to Sec (°)	Survey Tool	Risk
11100.00	10947.91	10836.12	24.57	22.88	34.36	435.63	8.68	385.43	155.42	MWD	
11200.00	10983.45	10867.82	24.58	22.55	34.52	524.09	10.47	474.02	189.58	MWD	
11300.00	11024.06	10902.46	24.59	22.11	34.69	612.36	12.25	562.38	218.80	MWD	
11400.00	11071.00	10940.10	24.58	21.61	34.87	695.98	13.95	646.10	238.61	MWD	
11500.00	11125.83	10980.34	24.56	20.93	35.08	771.83	15.48	721.99	251.56	MWD	
11600.00	11190.21	11021.75	24.55	20.07	35.30	837.33	16.83	787.57	260.06	MWD	
11700.00	11265.48	11061.26	24.54	19.20	35.54	890.14	17.87	840.33	265.50	MWD	
11800.00	11351.83	11093.57	24.57	18.47	35.81	928.09	18.64	878.29	268.64	MWD	
11900.00	11447.24	11111.91	24.68	18.05	36.11	949.33	18.94	899.22	269.97	MWD	
12000.00	11546.76	11113.75	24.91	18.22	36.45	957.83	18.99	907.38	270.02	MWD	
12100.00	11646.44	11113.28	25.25	18.40	36.81	965.78	18.88	914.62	270.02	MWD	
12200.00	11746.13	11112.80	25.71	18.60	37.22	973.73	18.74	921.78	270.02	MWD	
12300.00	11845.81	11112.33	26.29	18.84	37.66	981.68	18.47	928.54	270.02	MWD	
12400.00	11945.50	11111.85	26.98	19.14	38.26	989.63	18.20	935.25	270.02	MWD	
12500.00	12045.18	11111.38	27.78	19.46	38.90	997.57	17.81	941.56	270.02	MWD	
12600.00	12144.86	11110.90	28.67	19.79	39.56	1005.52	17.44	947.87	270.02	MWD	
12700.00	12244.55	11110.43	29.65	20.13	40.26	1013.47	16.99	953.80	270.02	MWD	
12800.00	12344.23	11109.95	30.70	20.48	40.96	1021.42	16.57	959.79	270.02	MWD	
12900.00	12443.91	11109.48	31.83	20.83	41.65	1029.37	16.10	965.42	270.02	MWD	
13000.00	12543.60	11109.00	33.02	21.23	42.42	1037.31	15.66	971.07	270.02	MWD	
13100.00	12643.28	11108.53	34.27	21.69	43.35	1045.26	15.22	976.58	270.02	MWD	
13200.00	12742.96	11108.05	35.56	22.11	44.21	1053.21	14.77	981.92	270.02	MWD	
13300.00	12842.65	11107.58	36.90	22.50	44.97	1061.16	14.36	987.26	270.02	MWD	
13400.00	12942.33	11107.10	38.29	23.03	46.05	1069.11	13.97	992.60	270.02	MWD	
13500.00	13042.02	11106.63	39.70	23.42	46.83	1077.06	13.57	997.70	270.02	MWD	
13600.00	13141.70	11106.15	41.16	24.00	47.97	1085.00	13.20	1002.80	270.02	MWD	
13700.00	13241.38	11105.68	42.64	24.46	48.88	1092.95	12.84	1007.80	270.02	MWD	
13800.00	13341.07	11105.21	44.14	24.99	49.97	1100.90	12.49	1012.79	270.02	MWD	
13900.00	13440.75	11104.73	45.67	25.51	50.98	1108.85	12.16	1017.67	270.02	MWD	
14000.00	13540.43	11104.26	47.22	26.06	52.10	1116.80	11.84	1022.49	270.02	MWD	
14100.00	13640.12	11103.78	48.80	26.52	53.00	1124.74	11.55	1027.34	270.02	MWD	
14200.00	13739.80	11103.31	50.38	27.15	54.26	1132.69	11.27	1032.18	270.02	MWD	
14300.00	13839.48	11102.83	51.99	27.72	55.41	1140.64	11.01	1037.00	270.02	MWD	
14400.00	13939.17	11102.36	53.61	28.26	56.50	1148.59	10.75	1041.79	270.02	MWD	
14500.00	14038.85	11101.88	55.24	28.78	57.55	1156.54	10.51	1046.54	270.02	MWD	
14600.00	14138.54	11101.41	56.88	29.37	58.69	1164.48	10.28	1051.19	270.02	MWD	
14700.00	14238.22	11100.93	58.54	29.99	59.94	1172.43	10.06	1055.84	270.02	MWD	
14800.00	14337.90	11100.46	60.20	30.61	61.18	1180.38	9.84	1060.48	270.02	MWD	
14900.00	14437.59	11099.98	61.88	31.22	62.41	1188.33	9.64	1065.10	270.02	MWD	
15000.00	14537.27	11099.51	63.56	31.83	63.63	1196.28	9.45	1069.71	270.02	MWD	
15100.00	14636.95	11099.03	65.25	32.44	64.86	1204.23	9.27	1074.31	270.02	MWD	
15200.00	14736.64	11098.56	66.95	33.05	66.08	1212.17	9.10	1078.90	270.02	MWD	
15300.00	14836.32	11098.08	68.66	33.67	67.31	1220.12	8.93	1083.47	270.02	MWD	
15400.00	14936.00	11097.61	70.37	34.28	68.54	1228.07	8.77	1088.04	270.01	MWD	
15500.00	15035.69	11097.13	72.09	34.90	69.78	1236.02	8.62	1092.60	270.01	MWD	
15600.00	15135.37	11096.66	73.81	35.52	71.02	1243.97	8.47	1097.15	270.01	MWD	
15700.00	15235.06	11096.19	75.54	36.14	72.26	1251.91	8.33	1101.69	270.01	MWD	
15800.00	15334.74	11095.71	77.27	36.77	73.52	1259.86	8.20	1106.22	270.01	MWD	
15900.00	15434.42	11095.24	79.01	37.40	74.77	1267.81	8.07	1110.74	270.01	MWD	
16000.00	15534.11	11094.76	80.75	38.03	76.04	1275.76	7.95	1115.26	270.01	MWD	
16100.00	15633.79	11094.29	82.49	38.66	77.31	1283.71	7.83	1119.77	270.01	MWD	
16200.00	15733.47	11093.81	84.24	39.30	78.58	1291.65	7.72	1124.27	270.01	MWD	
16300.00	15833.16	11093.34	85.99	39.94	79.86	1299.60	7.61	1128.74	270.01	MWD	
16400.00	15932.84	11092.86	87.75	40.60	81.15	1307.55	7.50	1133.19	270.01	MWD	
16500.00	16032.52	11092.39	89.51	41.27	82.49	1315.50	7.40	1137.63	270.01	MWD	
16548.81	16081.18	11092.16	90.37	41.60	83.15	1319.38	7.35	1139.80	270.01	MWD	

**Weatherford®****Weatherford Drilling Services**

GeoDec v5.03

Report Date: November 20, 2013
Job Number: _____
Customer: Devon Energy
Well Name: Bell Lake 19 State 4H
API Number: _____
Rig Name: _____
Location: Lea County, NM
Block: _____
Engineer: RWJ

HOBBS OCD

NOV 26 2013

RECEIVED

US State Plane 1983	Geodetic Latitude / Longitude
System: New Mexico Eastern Zone	System: Latitude / Longitude
Projection: Transverse Mercator/Gauss Kruger	Projection: Geodetic Latitude and Longitude
Datum: North American Datum 1983	Datum: North American Datum 1983
Ellipsoid: GRS 1980	Ellipsoid: GRS 1980
North/South 435963.550 USFT	Latitude 32.1964651 DEG
East/West 765474.320 USFT	Longitude -103.6087426 DEG
Grid Convergence: .39°	
Total Correction: +6.97°	

Geodetic Location WGS84	Elevation =	0.0 Meters
Latitude =	32.19647° N	32° 11 min 47.274 sec
Longitude =	103.60874° W	103° 36 min 31.473 sec

Magnetic Declination =	7.36°	[True North Offset]
Local Gravity =	.9988 g	Checksum = 6632
Local Field Strength =	48312 nT	Magnetic Vector X = 23908 nT
Magnetic Dip =	60.07°	Magnetic Vector Y = 3089 nT
Magnetic Model =	bggm2013	Magnetic Vector Z = 41868 nT
Spud Date =	Apr 30, 2014	Magnetic Vector H = 24106 nT

Signed: _____

Date: _____