

HOBBS OCD

NOV 26 2013

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5D Plan Report

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 2H***Plan:** *P1:V1*

20 November 2013





Bell Lake 19 State 2H
Lea Co, NM



Weatherford

Plan Data for Bell Lake 19 State 2H

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	435962.79	765374.35	0.00	0.00
10549.00	0.00	0.00	10549.00	0.00	0.00	435962.79	765374.35	0.00	0.00
11245.40	83.57	235.27	11023.46	-241.57	-348.43	435721.22	765025.92	-219.59	12.00
12253.85	90.27	356.46	11114.00	122.99	-1089.92	436085.78	764284.43	190.05	12.00
16880.45	90.27	356.46	11092.00	4740.68	-1375.95	440703.47	763998.40	4816.59	0.00

Plan Data for Bell Lake 19 State 2H

Target Set Information:

Name: Bell Lake 19 State 2

Position offsets from Slot centre

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape	Comment
	(USft)	(USft)	(USft)	(USft)	(USft)		
LP Tgt	11114.00	122.99	-1089.92	436085.78	764284.43	Cuboid	
PBHL 2H	11092.00	4740.68	-1375.95	440703.47	763998.40	Cuboid	

Plan Data for Bell Lake 19 State 2H

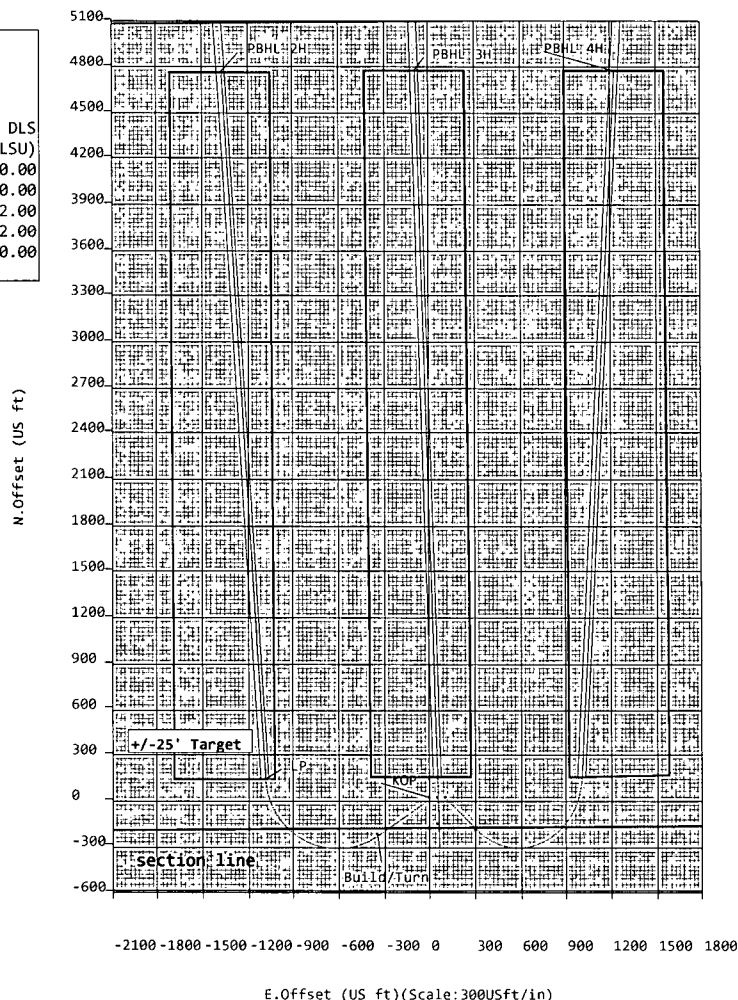
Slot: Bell Lake 19 State 2H

Position:

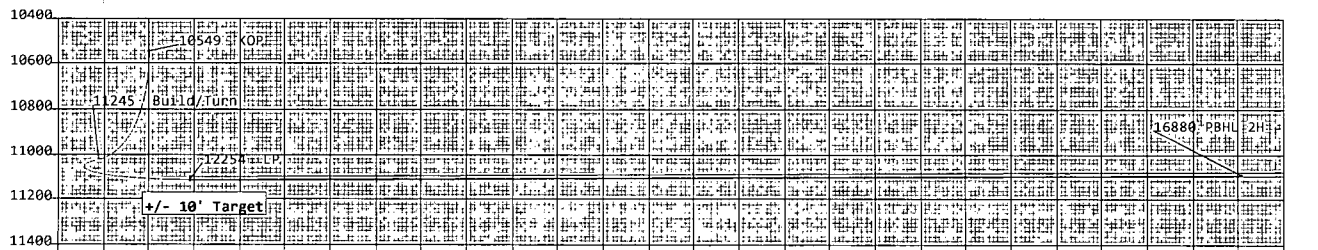
Offset is from Site centre

+N/-S: 0.00USft	Northing: 435962.79USft	Latitude: 32°11'47.3"
+E/-W: 0.00USft	Easting: 765374.35USft	Longitude: -103°36'32.6"
Elevation Above VRD: 3548.00USft		

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



KB-3573
GL-3548



-400 -200 0 200 400 600 800 1000 1200 1400 1600 1800 2000 2200 2400 2600 2800 3000 3200 3400 3600 3800 4000 4200 4400 4600 4800 5000

VS (US ft)(Bearing:356.46° Scale:200USft/in)

Sign Off: Russell Joyner



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Bell Lake 19 State 2H

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 2H	Position (Offsets relative to Site Centre)			
	+N / -S : 0.00 US ft	Northing : 435962.79 US ft	Latitude : 32°11'47.27"	
	+E / -W : 0.00 US ft	Easting : 765374.35 US ft	Longitude : -103°36'32.64"	
	Slot TVD Reference : Ground Elevation			
Elevation above Mean Sea Level : 3548.00 US ft				
Comment :				
Well Name Bell Lake 19 State 2H	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 : 4936.32 US ft		Closure Azimuth : 343.815°	
	Vertical Section (Position of Origin Relative to Slot)			
	+N / -S : 0.00 US ft		+E / -W : 0.00 US ft	Az : 356.46°
	Magnetic Parameters			
	Model : BGGM	Field Strength : 48320.8nT	Dec : 7.37°	Dip : 60.07°
				Date : 01/Apr/2014

Target Set

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

Comment :

Target Name: LP Tgt Shape: Cuboid	Position (Relative to Slot centre)			
	+N / -S : 122.99US ft	Northing : 436085.78 US ft	Latitude : 32°11'48.56"	
	+E / -W : -1089.92 US ft	Easting : 764284.43US ft	Longitude : -103°36'45.31"	
	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 2H	+N / -S : 4740.68US ft	Northing : 440703.47 US ft	Latitude : 32°12'34.28"
Shape:	+E / -W : -1375.95 US ft	Easting : 763998.40US ft	Longitude : -103°36'48.28"
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	435962.79	765374.35	
10549.00	0.00	0.00	10549.00	0.00	0.00	0.00	0.00	435962.79	765374.35	KOP
11245.40	83.57	235.27	11023.46	-241.57	-348.43	-219.59	12.00	435721.22	765025.92	Build/Turn
12253.85	90.27	356.46	11114.00	122.99	-1089.92	190.05	12.00	436085.78	764284.43	LP
16880.45	90.27	356.46	11092.00	4740.68	-1375.95	4816.59	0.00	440703.47	763998.40	Bell Lake 19 State 2 PBHL 2H

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
10500.00	0.00	0.00	10500.00	0.00	0.00	0.00	0.00	435962.79	765374.35	
10549.00	0.00	0.00	10549.00	0.00	0.00	0.00	0.00	435962.79	765374.35	KOP
10600.00	6.12	235.27	10599.90	-1.55	-2.24	-1.41	12.00	435961.24	765372.11	
10700.00	18.12	235.27	10697.50	-13.49	-19.46	-12.26	12.00	435949.30	765354.89	
10800.00	30.12	235.27	10788.60	-36.73	-52.98	-33.39	12.00	435926.06	765321.37	
10900.00	42.12	235.27	10869.23	-70.26	-101.34	-63.87	12.00	435892.53	765273.01	
11000.00	54.12	235.27	10935.86	-112.60	-162.41	-102.36	12.00	435850.19	765211.94	
11100.00	66.12	235.27	10985.59	-161.91	-233.54	-147.18	12.00	435800.88	765140.81	
11200.00	78.12	235.27	11016.24	-216.04	-311.61	-196.39	12.00	435746.75	765062.74	
11245.40	83.57	235.27	11023.46	-241.57	-348.43	-219.59	12.00	435721.22	765025.92	Build/Turn
11300.00	83.20	241.85	11029.75	-269.84	-394.67	-244.96	12.00	435692.95	764979.68	
11400.00	82.77	253.93	11042.01	-307.13	-486.45	-276.51	12.00	435655.66	764887.90	
11500.00	82.65	266.03	11054.74	-324.35	-583.94	-287.68	12.00	435638.44	764790.41	
11600.00	82.86	278.12	11067.40	-320.76	-682.89	-277.98	12.00	435642.03	764691.46	
11700.00	83.38	290.20	11079.42	-296.51	-778.97	-247.85	12.00	435666.28	764595.38	
11800.00	84.19	302.24	11090.29	-252.66	-867.98	-198.59	12.00	435710.13	764506.37	
11900.00	85.25	314.25	11099.52	-191.13	-946.03	-132.36	12.00	435771.66	764428.32	
12000.00	86.52	326.21	11106.73	-114.61	-1009.71	-52.05	12.00	435848.18	764364.64	
12100.00	87.94	338.14	11111.58	-26.44	-1056.25	38.83	12.00	435936.35	764318.10	
12200.00	89.45	350.05	11113.87	69.54	-1083.59	136.31	12.00	436032.33	764290.76	
12253.85	90.27	356.46	11114.00	122.99	-1089.92	190.05	12.00	436085.78	764284.43	LP
12300.00	90.27	356.46	11113.78	169.04	-1092.77	236.20	0.00	436131.83	764281.58	
12400.00	90.27	356.46	11113.31	268.85	-1098.96	336.19	0.00	436231.64	764275.39	
12500.00	90.27	356.46	11112.83	368.66	-1105.14	436.19	0.00	436331.45	764269.21	
12600.00	90.27	356.46	11112.35	468.47	-1111.32	536.19	0.00	436431.26	764263.03	
12700.00	90.27	356.46	11111.88	568.27	-1117.50	636.19	0.00	436531.06	764256.85	
12800.00	90.27	356.46	11111.40	668.08	-1123.68	736.19	0.00	436630.87	764250.67	
12900.00	90.27	356.46	11110.93	767.89	-1129.87	836.19	0.00	436730.68	764244.48	
13000.00	90.27	356.46	11110.45	867.70	-1136.05	936.19	0.00	436830.49	764238.30	
13099.99	90.27	356.46	11109.98	967.50	-1142.23	1036.18	0.00	436930.29	764232.12	
13199.99	90.27	356.46	11109.50	1067.31	-1148.41	1136.18	0.00	437030.10	764225.94	
13299.99	90.27	356.46	11109.03	1167.12	-1154.60	1236.18	0.00	437129.91	764219.75	
13399.99	90.27	356.46	11108.55	1266.93	-1160.78	1336.18	0.00	437229.72	764213.57	
13499.99	90.27	356.46	11108.07	1366.73	-1166.96	1436.18	0.00	437329.52	764207.39	

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
13599.99	90.27	356.46	11107.60	1466.54	-1173.14	1536.18	0.00	437429.33	764201.21	
13699.99	90.27	356.46	11107.12	1566.35	-1179.32	1636.18	0.00	437529.14	764195.03	
13799.99	90.27	356.46	11106.65	1666.16	-1185.51	1736.18	0.00	437628.95	764188.84	
13899.99	90.27	356.46	11106.17	1765.96	-1191.69	1836.17	0.00	437728.75	764182.66	
13999.99	90.27	356.46	11105.70	1865.77	-1197.87	1936.17	0.00	437828.56	764176.48	
14099.99	90.27	356.46	11105.22	1965.58	-1204.05	2036.17	0.00	437928.37	764170.30	
14199.99	90.27	356.46	11104.75	2065.38	-1210.24	2136.17	0.00	438028.17	764164.11	
14299.99	90.27	356.46	11104.27	2165.19	-1216.42	2236.17	0.00	438127.98	764157.93	
14399.99	90.27	356.46	11103.79	2265.00	-1222.60	2336.17	0.00	438227.79	764151.75	
14499.99	90.27	356.46	11103.32	2364.81	-1228.78	2436.17	0.00	438327.60	764145.57	
14599.99	90.27	356.46	11102.84	2464.61	-1234.97	2536.16	0.00	438427.40	764139.38	
14699.99	90.27	356.46	11102.37	2564.42	-1241.15	2636.16	0.00	438527.21	764133.20	
14799.99	90.27	356.46	11101.89	2664.23	-1247.33	2736.16	0.00	438627.02	764127.02	
14899.99	90.27	356.46	11101.42	2764.04	-1253.51	2836.16	0.00	438726.83	764120.84	
14999.99	90.27	356.46	11100.94	2863.84	-1259.69	2936.16	0.00	438826.63	764114.66	
15099.99	90.27	356.46	11100.47	2963.65	-1265.88	3036.16	0.00	438926.44	764108.47	
15199.99	90.27	356.46	11099.99	3063.46	-1272.06	3136.16	0.00	439026.25	764102.29	
15299.99	90.27	356.46	11099.52	3163.27	-1278.24	3236.16	0.00	439126.06	764096.11	
15399.99	90.27	356.46	11099.04	3263.07	-1284.42	3336.15	0.00	439225.86	764089.93	
15499.99	90.27	356.46	11098.56	3362.88	-1290.61	3436.15	0.00	439325.67	764083.74	
15599.99	90.27	356.46	11098.09	3462.69	-1296.79	3536.15	0.00	439425.48	764077.56	
15699.99	90.27	356.46	11097.61	3562.50	-1302.97	3636.15	0.00	439525.29	764071.38	
15799.99	90.27	356.46	11097.14	3662.30	-1309.15	3736.15	0.00	439625.09	764065.20	
15899.99	90.27	356.46	11096.66	3762.11	-1315.34	3836.15	0.00	439724.90	764059.01	
15999.99	90.27	356.46	11096.19	3861.92	-1321.52	3936.15	0.00	439824.71	764052.83	
16099.99	90.27	356.46	11095.71	3961.72	-1327.70	4036.14	0.00	439924.51	764046.65	
16199.99	90.27	356.46	11095.24	4061.53	-1333.88	4136.14	0.00	440024.32	764040.47	
16299.99	90.27	356.46	11094.76	4161.34	-1340.06	4236.14	0.00	440124.13	764034.29	
16399.99	90.27	356.46	11094.28	4261.15	-1346.25	4336.14	0.00	440223.94	764028.10	
16499.99	90.27	356.46	11093.81	4360.95	-1352.43	4436.14	0.00	440323.74	764021.92	
16599.99	90.27	356.46	11093.33	4460.76	-1358.61	4536.14	0.00	440423.55	764015.74	
16699.99	90.27	356.46	11092.86	4560.57	-1364.79	4636.14	0.00	440523.36	764009.56	
16799.99	90.27	356.46	11092.38	4660.38	-1370.98	4736.14	0.00	440623.17	764003.37	
16880.45	90.27	356.46	11092.00	4740.68	-1375.95	4816.59	0.00	440703.47	763998.40	Bell Lake 19 State 2 PBHL 2H

5D Anti-Collision Report**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 2H*

20 November 2013

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Bell Lake 19 State 2H

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 2H	Position (Offsets relative to Site Centre)			
	+N / -S : 0.00 US ft	Northing : 435962.79 US ft	Latitude : 32° 11' 47.27"	
	+E / -W : 0.00 US ft	Easting : 765374.35 US ft	Longitude : -103° 36' 32.64"	
	Slot TVD Reference : Ground Elevation			
Elevation above Mean Sea Level : 3548.00 US ft				
Comment :				
Well Name Bell Lake 19 State 2H	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 : 4936.32 US ft		Closure Azimuth : 343.815°	
	Vertical Section (Position of Origin Relative to Slot)			
	+N / -S : 0.00 US ft		+E / -W : 0.00 US ft	Az : 356.46°
	Magnetic Parameters			
	Model : BGGM	Field Strength : 48320.8nT	Dec : 7.37°	Dip : 60.07°
				Date : 01/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 2H (p)	0.00	16880.45	100.00	2

Secondary Well Names

Bell Lake 19 State 4H (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)	9937.30	9937.13	9937.30	50.04	4.88	1.11	SF (Med)
Bell Lake 19 State 4H (p)	10301.56	10300.85	10301.56	99.99	53.25	2.14	

Secondary Well: Bell Lake 19 State 4H (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	89.56	MWD	
100.00	100.00	100.00	0.12	0.12	4.60	99.97	103.69	99.01	89.56	MWD	
200.00	200.00	200.00	0.34	0.34	4.62	99.97	70.83	98.56	89.56	MWD	
300.00	300.00	300.00	0.57	0.57	4.65	99.97	53.73	98.11	89.56	MWD	
400.00	400.00	400.00	0.79	0.79	4.70	99.97	43.28	97.66	89.56	MWD	
500.00	500.00	500.00	1.02	1.02	4.75	99.97	36.23	97.21	89.56	MWD	
600.00	600.00	600.00	1.24	1.24	4.82	99.97	31.16	96.76	89.56	MWD	
700.00	700.00	700.00	1.46	1.46	4.89	99.97	27.33	96.31	89.56	MWD	
800.00	800.00	800.00	1.69	1.69	4.98	99.97	24.34	95.87	89.56	MWD	
900.00	900.00	900.00	1.91	1.91	5.07	99.97	21.94	95.42	89.56	MWD	
1000.00	1000.00	1000.00	2.14	2.14	5.17	99.97	19.97	94.97	89.56	MWD	
1100.00	1100.00	1100.00	2.36	2.36	5.28	99.97	18.32	94.52	89.56	MWD	
1200.00	1200.00	1200.00	2.59	2.59	5.39	99.97	16.93	94.07	89.56	MWD	
1300.00	1300.00	1300.00	2.81	2.81	5.51	99.97	15.73	93.62	89.56	MWD	
1400.00	1400.00	1400.00	3.04	3.04	5.64	99.97	14.69	93.17	89.56	MWD	
1500.00	1500.00	1500.00	3.26	3.26	5.77	99.97	13.78	92.72	89.56	MWD	
1600.00	1600.00	1600.00	3.49	3.49	5.91	99.97	12.98	92.27	89.56	MWD	
1700.00	1700.00	1700.00	3.71	3.71	6.05	99.97	12.26	91.82	89.56	MWD	
1800.00	1800.00	1800.00	3.94	3.94	6.19	99.97	11.62	91.37	89.56	MWD	
1900.00	1900.00	1900.00	4.16	4.16	6.34	99.97	11.04	90.92	89.56	MWD	
2000.00	2000.00	2000.00	4.39	4.39	6.49	99.97	10.52	90.47	89.56	MWD	
2100.00	2100.00	2100.00	4.61	4.61	6.64	99.97	10.05	90.02	89.56	MWD	
2200.00	2200.00	2200.00	4.84	4.84	6.80	99.97	9.61	89.57	89.56	MWD	
2300.00	2300.00	2300.00	5.06	5.06	6.96	99.97	9.21	89.12	89.56	MWD	
2400.00	2400.00	2400.00	5.29	5.29	7.12	99.97	8.85	88.67	89.56	MWD	
2500.00	2500.00	2500.00	5.51	5.51	7.29	99.97	8.51	88.22	89.56	MWD	
2600.00	2600.00	2600.00	5.73	5.73	7.46	99.97	8.20	87.77	89.56	MWD	
2700.00	2700.00	2700.00	5.96	5.96	7.63	99.97	7.90	87.32	89.56	MWD	
2800.00	2800.00	2800.00	6.18	6.18	7.80	99.97	7.63	86.88	89.56	MWD	
2900.00	2900.00	2900.00	6.41	6.41	7.98	99.97	7.38	86.43	89.56	MWD	
3000.00	3000.00	3000.00	6.63	6.63	8.16	99.97	7.14	85.98	89.56	MWD	
3100.00	3100.00	3100.00	6.86	6.86	8.34	99.97	6.92	85.53	89.56	MWD	
3200.00	3200.00	3200.00	7.08	7.08	8.52	99.97	6.71	85.08	89.56	MWD	
3300.00	3300.00	3300.00	7.31	7.31	8.71	99.97	6.51	84.63	89.56	MWD	
3400.00	3400.00	3400.00	7.53	7.53	8.90	99.97	6.33	84.18	89.56	MWD	
3500.00	3500.00	3500.00	7.76	7.76	9.09	99.97	6.15	83.73	89.56	MWD	
3600.00	3600.00	3600.00	7.98	7.98	9.28	99.97	5.99	83.28	89.56	MWD	
3700.00	3700.00	3700.00	8.21	8.21	9.48	99.97	5.83	82.83	89.56	MWD	
3800.00	3800.00	3800.00	8.43	8.43	9.68	99.97	5.68	82.38	89.56	MWD	
3900.00	3900.00	3900.00	8.66	8.66	9.88	99.97	5.54	81.93	89.56	MWD	
4000.00	4000.00	4000.00	8.88	8.88	10.08	99.97	5.41	81.48	89.56	MWD	
4100.00	4100.00	4100.00	9.11	9.11	10.29	99.97	5.28	81.03	89.56	MWD	
4200.00	4200.00	4200.00	9.33	9.33	10.50	99.97	5.16	80.58	89.56	MWD	
4300.00	4300.00	4300.00	9.56	9.56	10.71	99.97	5.04	80.13	89.56	MWD	
4400.00	4400.00	4400.00	9.78	9.78	10.93	99.97	4.93	79.68	89.56	MWD	
4500.00	4500.00	4500.00	10.01	10.01	11.15	99.97	4.82	79.23	89.56	MWD	
4600.00	4600.00	4600.00	10.23	10.23	11.37	99.97	4.72	78.78	89.56	MWD	
4700.00	4700.00	4700.00	10.45	10.45	11.60	99.97	4.62	78.33	89.56	MWD	
4800.00	4800.00	4800.00	10.68	10.68	11.83	99.97	4.53	77.89	89.56	MWD	
4900.00	4900.00	4900.00	10.90	10.90	12.06	99.97	4.44	77.44	89.56	MWD	

5D Anti-Collision Report

Secondary Well : Bell Lake 19 State 4H (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	89.56	MWD	
5100.00	5100.00	5100.00	11.35	11.35	12.54	99.97	4.27	76.54	89.56	MWD	
5200.00	5200.00	5200.00	11.58	11.58	12.78	99.97	4.19	76.09	89.56	MWD	
5300.00	5300.00	5300.00	11.80	11.80	13.03	99.97	4.11	75.64	89.56	MWD	
5400.00	5400.00	5400.00	12.03	12.03	13.28	99.97	4.03	75.19	89.56	MWD	
5500.00	5500.00	5500.00	12.25	12.25	13.54	99.97	3.96	74.74	89.56	MWD	
5600.00	5600.00	5600.00	12.48	12.48	13.80	99.97	3.89	74.29	89.56	MWD	
5700.00	5700.00	5700.00	12.70	12.70	14.06	99.97	3.83	73.84	89.56	MWD	
5800.00	5800.00	5800.00	12.93	12.93	14.33	99.97	3.76	73.39	89.56	MWD	
5900.00	5900.00	5900.00	13.15	13.15	14.60	99.97	3.70	72.94	89.56	MWD	
6000.00	6000.00	6000.00	13.38	13.38	14.88	99.97	3.64	72.49	89.56	MWD	
6100.00	6100.00	6100.00	13.60	13.60	15.16	99.97	3.58	72.04	89.56	MWD	
6200.00	6200.00	6200.00	13.83	13.83	15.45	99.97	3.52	71.59	89.56	MWD	
6300.00	6300.00	6300.00	14.05	14.05	15.74	99.97	3.47	71.14	89.56	MWD	
6400.00	6400.00	6400.00	14.28	14.28	16.03	99.97	3.41	70.69	89.56	MWD	
6500.00	6500.00	6500.00	14.50	14.50	16.33	99.97	3.36	70.24	89.56	MWD	
6600.00	6600.00	6600.00	14.73	14.73	16.64	99.97	3.31	69.79	89.56	MWD	
6700.00	6700.00	6700.00	14.95	14.95	16.94	99.97	3.26	69.34	89.56	MWD	
6800.00	6800.00	6800.00	15.17	15.17	17.26	99.97	3.22	68.89	89.56	MWD	
6900.00	6900.00	6900.00	15.40	15.40	17.58	99.97	3.17	68.45	89.56	MWD	
7000.00	7000.00	7000.00	15.62	15.62	17.90	99.97	3.13	68.00	89.56	MWD	
7100.00	7100.00	7100.00	15.85	15.85	18.23	99.97	3.08	67.55	89.56	MWD	
7200.00	7200.00	7200.00	16.07	16.07	18.56	99.97	3.04	67.10	89.56	MWD	
7300.00	7300.00	7300.00	16.30	16.30	18.90	99.97	3.00	66.65	89.56	MWD	
7400.00	7400.00	7400.00	16.52	16.52	19.25	99.97	2.96	66.20	89.56	MWD	
7500.00	7500.00	7500.00	16.75	16.75	19.59	99.97	2.92	65.75	89.56	MWD	
7600.00	7600.00	7600.00	16.97	16.97	19.95	99.97	2.88	65.30	89.56	MWD	
7700.00	7700.00	7700.00	17.20	17.20	20.31	99.97	2.85	64.85	89.56	MWD	
7800.00	7800.00	7800.00	17.42	17.42	20.67	99.97	2.81	64.40	89.56	MWD	
7900.00	7900.00	7900.00	17.65	17.65	21.04	99.97	2.78	63.95	89.56	MWD	
8000.00	8000.00	8000.00	17.87	17.87	21.42	99.97	2.74	63.50	89.56	MWD	
8100.00	8100.00	8100.00	18.10	18.10	21.80	99.97	2.71	63.05	89.56	MWD	
8200.00	8200.00	8200.00	18.32	18.32	22.19	99.97	2.68	62.60	89.56	MWD	
8300.00	8300.00	8300.00	18.55	18.55	22.58	99.97	2.64	62.15	89.56	MWD	
8400.00	8400.00	8400.00	18.77	18.77	22.98	99.97	2.61	61.70	89.56	MWD	
8500.00	8500.00	8500.00	19.00	19.00	23.38	99.97	2.58	61.25	89.56	MWD	
8600.00	8600.00	8600.00	19.22	19.22	23.79	99.97	2.55	60.80	89.56	MWD	
8700.00	8700.00	8700.00	19.45	19.45	24.20	99.97	2.52	60.35	89.56	MWD	
8800.00	8800.00	8800.00	19.67	19.67	24.62	99.97	2.49	59.90	89.56	MWD	
8900.00	8900.00	8900.00	19.90	19.90	25.05	99.97	2.47	59.45	89.56	MWD	
9000.00	9000.00	9000.00	20.12	20.12	25.48	99.97	2.44	59.00	89.56	MWD	
9100.00	9100.00	9100.00	20.35	20.35	25.92	99.97	2.41	58.55	89.56	MWD	
9200.00	9200.00	9200.00	20.57	20.57	26.36	99.97	2.39	58.10	89.56	MWD	
9300.00	9300.00	9300.00	20.79	20.79	26.81	99.97	2.36	57.66	89.56	MWD	
9400.00	9400.00	9400.00	21.02	21.02	27.26	99.97	2.34	57.21	89.56	MWD	
9500.00	9500.00	9500.00	21.24	21.24	27.72	99.97	2.31	56.76	89.56	MWD	
9600.00	9600.00	9600.00	21.47	21.47	28.19	99.97	2.29	56.31	89.56	MWD	
9700.00	9700.00	9700.00	21.69	21.69	28.66	99.97	2.27	55.86	89.56	MWD	
9800.00	9800.00	9800.00	21.92	21.92	29.14	99.97	2.24	55.41	89.56	MWD	
9900.00	9900.00	9900.00	22.14	22.14	29.62	99.97	2.22	54.96	89.56	MWD	
10000.00	10000.00	10000.00	22.37	22.37	30.11	99.97	2.20	54.51	89.56	MWD	
10100.00	10100.00	10100.00	22.59	22.59	30.61	99.97	2.18	54.06	89.56	MWD	
10200.00	10200.00	10200.00	22.82	22.82	31.11	99.97	2.16	53.61	89.56	MWD	
10300.00	10299.49	10299.49	23.04	23.04	31.61	99.98	2.14	53.25	89.57	MWD	
10400.00	10385.59	10385.06	23.20	22.96	32.04	107.08	2.29	60.29	92.79	MWD	
10500.00	10466.22	10462.64	23.34	22.50	32.41	128.50	2.77	82.03	99.57	MWD	
10600.00	10537.67	10527.48	23.47	21.96	32.71	166.60	3.66	121.12	232.69	MWD	
10700.00	10596.24	10576.84	23.60	21.29	32.92	225.80	5.09	181.40	241.58	MWD	

5D Anti-Collision Report

Secondary Well : Bell Lake 19 State 4H (pi) (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	10640.73	10611.55	23.70	20.75	33.08	299.76	6.82	255.82	251.84	MWD	
10900.00	10672.36	10634.58	23.82	20.28	33.17	382.76	8.73	338.91	265.85	MWD	
11000.00	10693.04	10648.84	23.89	20.05	33.23	470.47	10.68	426.40	283.91	MWD	
11100.00	10704.54	10656.48	23.92	19.91	33.26	559.42	12.55	514.85	302.79	MWD	
11200.00	10708.16	10658.84	23.93	19.86	33.27	646.82	14.32	601.66	318.39	MWD	
11300.00	10704.68	10656.57	23.92	19.91	33.26	732.58	15.93	686.60	332.97	MWD	
11400.00	10694.62	10649.90	23.89	20.03	33.23	824.18	17.75	777.75	359.30	MWD	
11500.00	10679.39	10639.50	23.84	20.21	33.19	917.35	19.63	870.62	28.38	MWD	
11600.00	10660.78	10626.31	23.78	20.44	33.13	1007.66	21.50	960.79	46.32	MWD	
11700.00	10640.54	10611.41	23.70	20.75	33.07	1091.96	23.31	1045.12	55.28	MWD	
11800.00	10620.17	10595.83	23.64	21.03	33.01	1167.98	24.93	1121.13	59.77	MWD	
11900.00	10600.76	10580.48	23.61	21.25	32.94	1234.12	26.35	1187.28	62.11	MWD	
12000.00	10583.01	10566.04	23.58	21.41	32.88	1289.20	27.46	1242.25	63.36	MWD	
12100.00	10567.31	10552.94	23.55	21.58	32.82	1332.41	28.38	1285.46	64.06	MWD	
12200.00	10553.81	10541.47	23.51	21.76	32.77	1363.21	28.99	1316.18	64.49	MWD	
12300.00	10542.42	10531.63	23.47	21.91	32.73	1383.33	29.36	1336.22	64.46	MWD	
12400.00	10532.07	10522.57	23.47	22.01	32.69	1407.24	29.77	1359.96	64.06	MWD	
12500.00	10522.48	10514.08	23.45	22.11	32.65	1437.47	30.26	1389.96	63.68	MWD	
12600.00	10513.57	10506.12	23.43	22.19	32.61	1473.66	30.85	1425.89	63.33	MWD	
12700.00	10505.29	10498.65	23.42	22.25	32.58	1515.40	31.51	1467.31	63.00	MWD	
12800.00	10497.56	10491.63	23.40	22.31	32.55	1562.27	32.33	1513.95	62.70	MWD	
12900.00	10490.35	10485.03	23.39	22.36	32.52	1613.85	33.14	1565.15	62.42	MWD	
13000.00	10483.60	10478.81	23.38	22.39	32.49	1669.69	34.09	1620.71	62.15	MWD	
13100.00	10477.28	10472.96	23.36	22.43	32.46	1729.41	35.06	1680.09	61.90	MWD	
13200.00	10471.34	10467.43	23.35	22.45	32.43	1792.63	36.05	1742.90	61.67	MWD	
13300.00	10465.76	10462.20	23.34	22.50	32.41	1859.00	37.17	1808.98	61.45	MWD	
13400.00	10460.50	10457.27	23.33	22.56	32.39	1928.19	38.39	1877.96	61.24	MWD	
13500.00	10455.54	10452.59	23.32	22.60	32.37	1999.93	39.50	1949.30	61.05	MWD	
13600.00	10450.86	10448.15	23.31	22.64	32.34	2073.95	40.75	2023.05	60.87	MWD	
13700.00	10446.42	10443.95	23.30	22.67	32.33	2150.02	42.11	2098.96	60.70	MWD	
13800.00	10442.23	10439.95	23.30	22.71	32.31	2227.94	43.46	2176.67	60.53	MWD	
13900.00	13444.31	11106.77	39.13	25.97	51.98	2266.25	28.37	2186.37	89.98	MWD	
14000.00	13543.70	11106.30	40.50	26.60	53.16	2277.28	27.56	2194.65	89.98	MWD	
14100.00	13643.09	11105.82	41.84	27.16	54.17	2288.30	26.77	2202.83	89.98	MWD	
14200.00	13742.48	11105.35	43.41	27.62	55.40	2299.33	26.01	2210.92	89.98	MWD	
14300.00	13841.88	11104.88	44.98	28.21	56.53	2310.36	25.22	2218.74	89.98	MWD	
14400.00	13941.27	11104.41	46.50	28.78	57.64	2321.38	24.50	2226.65	89.98	MWD	
14500.00	14040.66	11103.93	47.99	29.36	58.75	2332.41	23.85	2234.63	89.98	MWD	
14600.00	14140.05	11103.46	49.49	29.84	59.67	2343.44	23.25	2242.64	89.98	MWD	
14700.00	14239.44	11102.99	51.06	30.58	61.03	2354.46	22.68	2250.64	89.98	MWD	
14800.00	14338.83	11102.51	52.67	31.13	62.19	2365.49	22.13	2258.60	89.98	MWD	
14900.00	14438.22	11102.04	54.28	31.71	63.27	2376.51	21.56	2266.31	89.98	MWD	
15000.00	14537.61	11101.57	55.89	32.38	64.54	2387.54	21.03	2274.00	89.98	MWD	
15100.00	14637.00	11101.10	57.50	33.02	65.86	2398.57	20.52	2281.68	89.98	MWD	
15200.00	14736.39	11100.62	59.11	33.65	67.15	2409.59	20.04	2289.37	89.98	MWD	
15300.00	14835.78	11100.15	60.74	34.27	68.42	2420.62	19.59	2297.05	89.98	MWD	
15400.00	14935.17	11099.68	62.36	34.89	69.68	2431.65	19.16	2304.73	89.98	MWD	
15500.00	15034.56	11099.20	64.00	35.51	70.94	2442.67	18.75	2312.40	89.98	MWD	
15600.00	15133.95	11098.73	65.64	36.14	72.20	2453.70	18.36	2320.06	89.98	MWD	
15700.00	15233.34	11098.26	67.28	36.76	73.46	2464.72	17.99	2327.72	89.98	MWD	
15800.00	15332.73	11097.79	68.93	37.39	74.72	2475.75	17.64	2335.37	89.98	MWD	
15900.00	15432.12	11097.31	70.59	38.02	75.98	2486.78	17.29	2342.98	89.98	MWD	
16000.00	15531.51	11096.84	72.30	38.65	77.25	2497.80	16.96	2350.57	89.98	MWD	
16100.00	15630.90	11096.37	74.01	39.29	78.53	2508.83	16.65	2358.15	89.98	MWD	
16200.00	15730.29	11095.89	75.73	39.92	79.81	2519.86	16.35	2365.73	89.98	MWD	
16300.00	15829.68	11095.42	77.45	40.56	81.09	2530.88	16.06	2373.30	89.98	MWD	
16400.00	15929.07	11094.95	79.17	41.22	82.38	2541.91	15.78	2380.87	89.98	MWD	
16500.00	16028.46	11094.48	80.90	41.89	83.67	2552.94	15.52	2388.43	89.98	MWD	

5D Anti-Collision Report

Secondary Well : Bell Lake 19 State 4H (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
16600.00	16127.85	11094.00	82.63	42.56	85.00	2563.96	15.26	2395.99	89.98	MWD	
16700.00	16227.24	11093.53	84.36	43.24	86.36	2574.99	15.02	2403.54	89.98	MWD	
16800.00	16326.63	11093.06	86.10	43.92	87.71	2586.01	14.78	2411.09	89.98	MWD	
16880.45	16406.59	11092.68	87.50	44.46	88.81	2594.88	14.60	2417.16	89.98	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	49.98	68.16	49.25	89.56	MWD	
100.00	100.00	100.00	0.12	0.12	4.60	49.98	51.84	49.02	89.56	MWD	
200.00	200.00	200.00	0.34	0.34	4.62	49.98	35.41	48.57	89.56	MWD	
300.00	300.00	300.00	0.57	0.57	4.65	49.98	26.86	48.12	89.56	MWD	
400.00	400.00	400.00	0.79	0.79	4.70	49.98	21.64	47.67	89.56	MWD	
500.00	500.00	500.00	1.02	1.02	4.75	49.98	18.11	47.22	89.56	MWD	
600.00	600.00	600.00	1.24	1.24	4.82	49.98	15.58	46.77	89.56	MWD	
700.00	700.00	700.00	1.46	1.46	4.89	49.98	13.66	46.32	89.56	MWD	
800.00	800.00	800.00	1.69	1.69	4.98	49.98	12.17	45.87	89.56	MWD	
900.00	900.00	900.00	1.91	1.91	5.07	49.98	10.97	45.42	89.56	MWD	
1000.00	1000.00	1000.00	2.14	2.14	5.17	49.98	9.98	44.97	89.56	MWD	
1100.00	1100.00	1100.00	2.36	2.36	5.28	49.98	9.16	44.53	89.56	MWD	
1200.00	1200.00	1200.00	2.59	2.59	5.39	49.98	8.46	44.08	89.56	MWD	
1300.00	1300.00	1300.00	2.81	2.81	5.51	49.98	7.86	43.63	89.56	MWD	
1400.00	1400.00	1400.00	3.04	3.04	5.64	49.98	7.35	43.18	89.56	MWD	
1500.00	1500.00	1500.00	3.26	3.26	5.77	49.98	6.89	42.73	89.56	MWD	
1600.00	1600.00	1600.00	3.49	3.49	5.91	49.98	6.49	42.28	89.56	MWD	
1700.00	1700.00	1700.00	3.71	3.71	6.05	49.98	6.13	41.83	89.56	MWD	
1800.00	1800.00	1800.00	3.94	3.94	6.19	49.98	5.81	41.38	89.56	MWD	
1900.00	1900.00	1900.00	4.16	4.16	6.34	49.98	5.52	40.93	89.56	MWD	
2000.00	2000.00	2000.00	4.39	4.39	6.49	49.98	5.26	40.48	89.56	MWD	
2100.00	2100.00	2100.00	4.61	4.61	6.64	49.98	5.02	40.03	89.56	MWD	
2200.00	2200.00	2200.00	4.84	4.84	6.80	49.98	4.81	39.58	89.56	MWD	
2300.00	2300.00	2300.00	5.06	5.06	6.96	49.98	4.61	39.13	89.56	MWD	
2400.00	2400.00	2400.00	5.29	5.29	7.12	49.98	4.42	38.68	89.56	MWD	
2500.00	2500.00	2500.00	5.51	5.51	7.29	49.98	4.25	38.23	89.56	MWD	
2600.00	2600.00	2600.00	5.73	5.73	7.46	49.98	4.10	37.78	89.56	MWD	
2700.00	2700.00	2700.00	5.96	5.96	7.63	49.98	3.95	37.33	89.56	MWD	
2800.00	2800.00	2800.00	6.18	6.18	7.80	49.98	3.82	36.88	89.56	MWD	
2900.00	2900.00	2900.00	6.41	6.41	7.98	49.98	3.69	36.43	89.56	MWD	
3000.00	3000.00	3000.00	6.63	6.63	8.16	49.98	3.57	35.98	89.56	MWD	
3100.00	3100.00	3100.00	6.86	6.86	8.34	49.98	3.46	35.54	89.56	MWD	
3200.00	3200.00	3200.00	7.08	7.08	8.52	49.98	3.36	35.09	89.56	MWD	
3300.00	3300.00	3300.00	7.31	7.31	8.71	49.98	3.26	34.64	89.56	MWD	
3400.00	3400.00	3400.00	7.53	7.53	8.90	49.98	3.16	34.19	89.56	MWD	
3500.00	3500.00	3500.00	7.76	7.76	9.09	49.98	3.08	33.74	89.56	MWD	
3600.00	3600.00	3600.00	7.98	7.98	9.28	49.98	2.99	33.29	89.56	MWD	
3700.00	3700.00	3700.00	8.21	8.21	9.48	49.98	2.92	32.84	89.56	MWD	
3800.00	3800.00	3800.00	8.43	8.43	9.68	49.98	2.84	32.39	89.56	MWD	
3900.00	3900.00	3900.00	8.66	8.66	9.88	49.98	2.77	31.94	89.56	MWD	
4000.00	4000.00	4000.00	8.88	8.88	10.08	49.98	2.70	31.49	89.56	MWD	
4100.00	4100.00	4100.00	9.11	9.11	10.29	49.98	2.64	31.04	89.56	MWD	
4200.00	4200.00	4200.00	9.33	9.33	10.50	49.98	2.58	30.59	89.56	MWD	
4300.00	4300.00	4300.00	9.56	9.56	10.71	49.98	2.52	30.14	89.56	MWD	
4400.00	4400.00	4400.00	9.78	9.78	10.93	49.98	2.46	29.69	89.56	MWD	
4500.00	4500.00	4500.00	10.01	10.01	11.15	49.98	2.41	29.24	89.56	MWD	
4600.00	4600.00	4600.00	10.23	10.23	11.37	49.98	2.36	28.79	89.56	MWD	
4700.00	4700.00	4700.00	10.45	10.45	11.60	49.98	2.31	28.34	89.56	MWD	
4800.00	4800.00	4800.00	10.68	10.68	11.83	49.98	2.26	27.89	89.56	MWD	
4900.00	4900.00	4900.00	10.90	10.90	12.06	49.98	2.22	27.44	89.56	MWD	

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
5000.00	5000.00	5000.00	11.13	11.13	12.30	49.98	2.17	26.99	89.56	MWD	
5100.00	5100.00	5100.00	11.35	11.35	12.54	49.98	2.13	26.55	89.56	MWD	
5200.00	5200.00	5200.00	11.58	11.58	12.78	49.98	2.09	26.10	89.56	MWD	
5300.00	5300.00	5300.00	11.80	11.80	13.03	49.98	2.05	25.65	89.56	MWD	
5400.00	5400.00	5400.00	12.03	12.03	13.28	49.98	2.02	25.20	89.56	MWD	
5500.00	5500.00	5500.00	12.25	12.25	13.54	49.98	1.98	24.75	89.56	MWD	SF (Lo)
5600.00	5600.00	5600.00	12.48	12.48	13.80	49.98	1.95	24.30	89.56	MWD	SF (Lo)
5700.00	5700.00	5700.00	12.70	12.70	14.06	49.98	1.91	23.85	89.56	MWD	SF (Lo)
5800.00	5800.00	5800.00	12.93	12.93	14.33	49.98	1.88	23.40	89.56	MWD	SF (Lo)
5900.00	5900.00	5900.00	13.15	13.15	14.60	49.98	1.85	22.95	89.56	MWD	SF (Lo)
6000.00	6000.00	6000.00	13.38	13.38	14.88	49.98	1.82	22.50	89.56	MWD	SF (Lo)
6100.00	6100.00	6100.00	13.60	13.60	15.16	49.98	1.79	22.05	89.56	MWD	SF (Lo)
6200.00	6200.00	6200.00	13.83	13.83	15.45	49.98	1.76	21.60	89.56	MWD	SF (Lo)
6300.00	6300.00	6300.00	14.05	14.05	15.74	49.98	1.73	21.15	89.56	MWD	SF (Lo)
6400.00	6400.00	6400.00	14.28	14.28	16.03	49.98	1.71	20.70	89.56	MWD	SF (Lo)
6500.00	6500.00	6500.00	14.50	14.50	16.33	49.98	1.68	20.25	89.56	MWD	SF (Lo)
6600.00	6600.00	6600.00	14.73	14.73	16.64	49.98	1.66	19.80	89.56	MWD	SF (Lo)
6700.00	6700.00	6700.00	14.95	14.95	16.94	49.98	1.63	19.35	89.56	MWD	SF (Lo)
6800.00	6800.00	6800.00	15.17	15.17	17.26	49.98	1.61	18.90	89.56	MWD	SF (Lo)
6900.00	6900.00	6900.00	15.40	15.40	17.58	49.98	1.59	18.45	89.56	MWD	SF (Lo)
7000.00	7000.00	7000.00	15.62	15.62	17.90	49.98	1.56	18.00	89.56	MWD	SF (Lo)
7100.00	7100.00	7100.00	15.85	15.85	18.23	49.98	1.54	17.55	89.56	MWD	SF (Lo)
7200.00	7200.00	7200.00	16.07	16.07	18.56	49.98	1.52	17.10	89.56	MWD	SF (Lo)
7300.00	7300.00	7300.00	16.30	16.30	18.90	49.98	1.50	16.66	89.56	MWD	SF (Med)
7400.00	7400.00	7400.00	16.52	16.52	19.25	49.98	1.48	16.21	89.56	MWD	SF (Med)
7500.00	7500.00	7500.00	16.75	16.75	19.59	49.98	1.46	15.76	89.56	MWD	SF (Med)
7600.00	7600.00	7600.00	16.97	16.97	19.95	49.98	1.44	15.31	89.56	MWD	SF (Med)
7700.00	7700.00	7700.00	17.20	17.20	20.31	49.98	1.42	14.86	89.56	MWD	SF (Med)
7800.00	7800.00	7800.00	17.42	17.42	20.67	49.98	1.40	14.41	89.56	MWD	SF (Med)
7900.00	7900.00	7900.00	17.65	17.65	21.04	49.98	1.39	13.96	89.56	MWD	SF (Med)
8000.00	8000.00	8000.00	17.87	17.87	21.42	49.98	1.37	13.51	89.56	MWD	SF (Med)
8100.00	8100.00	8100.00	18.10	18.10	21.80	49.98	1.35	13.06	89.56	MWD	SF (Med)
8200.00	8200.00	8200.00	18.32	18.32	22.19	49.98	1.34	12.61	89.56	MWD	SF (Med)
8300.00	8300.00	8300.00	18.55	18.55	22.58	49.98	1.32	12.16	89.56	MWD	SF (Med)
8400.00	8400.00	8400.00	18.77	18.77	22.98	49.98	1.31	11.71	89.56	MWD	SF (Med)
8500.00	8500.00	8500.00	19.00	19.00	23.38	49.98	1.29	11.26	89.56	MWD	SF (Med)
8600.00	8600.00	8600.00	19.22	19.22	23.79	49.98	1.28	10.81	89.56	MWD	SF (Med)
8700.00	8700.00	8700.00	19.45	19.45	24.20	49.98	1.26	10.36	89.56	MWD	SF (Med)
8800.00	8800.00	8800.00	19.67	19.67	24.62	49.98	1.25	9.91	89.56	MWD	SF (Med)
8900.00	8900.00	8900.00	19.90	19.90	25.05	49.98	1.23	9.46	89.56	MWD	SF (Med)
9000.00	9000.00	9000.00	20.12	20.12	25.48	49.98	1.22	9.01	89.56	MWD	SF (Med)
9100.00	9100.00	9100.00	20.35	20.35	25.92	49.98	1.21	8.56	89.56	MWD	SF (Med)
9200.00	9200.00	9200.00	20.57	20.57	26.36	49.98	1.19	8.11	89.56	MWD	SF (Med)
9300.00	9300.00	9300.00	20.79	20.79	26.81	49.98	1.18	7.66	89.56	MWD	SF (Med)
9400.00	9400.00	9400.00	21.02	21.02	27.26	49.98	1.17	7.21	89.56	MWD	SF (Med)
9500.00	9500.00	9500.00	21.24	21.24	27.72	49.98	1.16	6.76	89.56	MWD	SF (Med)
9600.00	9600.00	9600.00	21.47	21.47	28.19	49.98	1.14	6.32	89.56	MWD	SF (Med)
9700.00	9700.00	9700.00	21.69	21.69	28.66	49.98	1.13	5.87	89.56	MWD	SF (Med)
9800.00	9800.00	9800.00	21.92	21.92	29.14	49.98	1.12	5.42	89.56	MWD	SF (Med)
9900.00	9900.00	9900.00	22.14	22.14	29.62	49.98	1.11	5.00	89.57	MWD	SF (Med)
10000.00	9998.28	9997.55	22.31	22.04	30.08	51.34	1.13	6.00	101.23	MWD	SF (Med)
10100.00	10088.76	10083.77	22.45	21.46	30.47	65.17	1.45	20.21	125.88	MWD	SF (Med)
10200.00	10166.91	10153.00	22.58	20.72	30.77	101.36	2.34	58.06	144.42	MWD	
10300.00	10231.79	10205.38	22.68	19.98	30.99	155.48	3.74	113.90	154.34	MWD	
10400.00	10284.67	10243.94	22.79	19.23	31.13	221.45	5.53	181.42	159.68	MWD	
10500.00	10350.47	10287.43	23.00	19.25	31.32	294.99	7.36	254.92	164.09	MWD	
10600.00	10609.77	10505.98	23.96	22.83	32.61	347.44	7.42	300.62	295.40	MWD	
10700.00	10937.74	10826.83	24.57	22.95	34.32	331.95	7.13	285.36	281.40	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
10800.00	11101.22	10962.81	24.57	21.18	34.99	275.36	6.25	231.32	250.50	MWD	
10900.00	11159.61	11002.89	24.56	20.51	35.20	232.14	5.14	186.99	231.68	MWD	
11000.00	11174.30	11012.14	24.55	20.29	35.24	236.57	4.90	188.30	228.40	MWD	
11100.00	11167.55	11007.94	24.55	20.39	35.22	289.83	5.84	240.18	236.38	MWD	
11200.00	11147.77	10995.19	24.56	20.67	35.15	369.17	7.40	319.26	256.29	MWD	
11300.00	11122.12	10977.75	24.57	20.97	35.07	458.61	9.23	408.94	270.35	MWD	
11400.00	11108.99	10968.44	24.57	21.10	35.02	555.85	11.16	506.07	273.82	MWD	
11500.00	11108.43	10968.03	24.57	21.10	35.02	655.67	13.15	605.83	87.09	MWD	
11600.00	11119.23	10975.72	24.57	21.00	35.06	753.58	15.13	703.78	89.48	MWD	
11700.00	11141.49	10991.01	24.56	20.75	35.13	846.16	17.01	796.41	89.75	MWD	
11800.00	11176.28	11013.36	24.55	20.26	35.25	930.46	18.66	880.60	89.77	MWD	
11900.00	11225.45	11041.51	24.54	19.71	35.42	1003.79	20.14	953.95	89.82	MWD	
12000.00	11290.86	11072.25	24.54	18.99	35.62	1063.41	21.34	1013.57	89.94	MWD	
12100.00	11372.80	11099.20	24.59	18.33	35.88	1106.60	22.16	1056.67	90.07	MWD	
12200.00	11467.66	11113.38	24.72	18.09	36.18	1130.89	22.52	1080.67	90.05	MWD	
12300.00	11567.40	11113.65	24.97	18.26	36.52	1136.99	22.41	1086.25	89.99	MWD	
12400.00	11667.35	11113.18	25.33	18.44	36.89	1140.08	22.17	1088.66	89.99	MWD	
12500.00	11767.30	11112.70	25.82	18.65	37.31	1143.17	21.82	1090.77	89.99	MWD	
12600.00	11867.25	11112.22	26.43	18.91	37.79	1146.26	21.42	1092.74	89.99	MWD	
12700.00	11967.20	11111.75	27.15	19.21	38.39	1149.35	20.89	1094.34	89.99	MWD	
12800.00	12067.16	11111.27	27.97	19.53	39.04	1152.44	20.37	1095.88	89.99	MWD	
12900.00	12167.11	11110.80	28.88	19.87	39.72	1155.54	19.78	1097.11	89.99	MWD	
13000.00	12267.06	11110.32	29.88	20.21	40.41	1158.63	19.18	1098.23	89.99	MWD	
13100.00	12367.01	11109.84	30.96	20.56	41.12	1161.72	18.61	1099.29	89.99	MWD	
13200.00	12466.96	11109.37	32.10	20.91	41.81	1164.81	17.99	1100.05	89.99	MWD	
13300.00	12566.92	11108.89	33.31	21.34	42.64	1167.90	17.39	1100.73	89.99	MWD	
13400.00	12666.87	11108.42	34.57	21.79	43.56	1170.99	16.81	1101.34	89.99	MWD	
13500.00	12766.82	11107.94	35.88	22.21	44.40	1174.09	16.21	1101.68	89.99	MWD	
13600.00	12866.77	11107.46	37.23	22.64	45.25	1177.18	15.67	1102.07	89.98	MWD	
13700.00	12966.73	11106.99	38.63	23.14	46.27	1180.27	15.18	1102.54	89.98	MWD	
13800.00	13066.68	11106.51	40.06	23.58	47.13	1183.36	14.67	1102.67	89.98	MWD	
13900.00	13166.63	11106.04	41.52	24.10	48.19	1186.45	14.19	1102.83	89.98	MWD	
14000.00	13266.58	11105.56	43.01	24.61	49.20	1189.54	13.74	1102.96	89.98	MWD	
14100.00	13366.53	11105.08	44.53	25.09	50.18	1192.64	13.30	1102.95	89.98	MWD	
14200.00	13466.49	11104.61	46.07	25.66	51.29	1195.73	12.89	1102.97	89.98	MWD	
14300.00	13566.44	11104.13	47.63	26.18	52.34	1198.82	12.51	1102.99	89.98	MWD	
14400.00	13666.39	11103.66	49.21	26.69	53.34	1201.91	12.15	1103.01	89.98	MWD	
14500.00	13766.34	11103.18	50.81	27.30	54.58	1205.00	11.80	1102.93	89.98	MWD	
14600.00	13866.30	11102.70	52.42	27.87	55.71	1208.10	11.47	1102.79	89.98	MWD	
14700.00	13966.25	11102.23	54.04	28.40	56.78	1211.19	11.16	1102.62	89.98	MWD	
14800.00	14066.20	11101.75	55.68	28.92	57.83	1214.28	10.85	1102.36	89.98	MWD	
14900.00	14166.15	11101.28	57.34	29.54	59.03	1217.37	10.56	1102.10	89.98	MWD	
15000.00	14266.10	11100.80	59.00	30.16	60.29	1220.46	10.29	1101.82	89.98	MWD	
15100.00	14366.06	11100.32	60.67	30.78	61.53	1223.55	10.03	1101.54	89.98	MWD	
15200.00	14466.01	11099.85	62.35	31.40	62.76	1226.65	9.78	1101.24	89.98	MWD	
15300.00	14565.96	11099.37	64.04	32.01	63.98	1229.74	9.55	1100.94	89.98	MWD	
15400.00	14665.91	11098.90	65.74	32.62	65.21	1232.83	9.32	1100.62	89.98	MWD	
15500.00	14765.87	11098.42	67.45	33.23	66.44	1235.92	9.11	1100.30	89.98	MWD	
15600.00	14865.82	11097.94	69.16	33.85	67.67	1239.01	8.91	1099.96	89.98	MWD	
15700.00	14965.77	11097.47	70.88	34.46	68.91	1242.10	8.72	1099.62	89.98	MWD	
15800.00	15065.72	11096.99	72.60	35.08	70.15	1245.20	8.53	1099.27	89.98	MWD	
15900.00	15165.67	11096.52	74.33	35.71	71.39	1248.29	8.36	1098.91	89.98	MWD	
16000.00	15265.63	11096.04	76.07	36.33	72.65	1251.38	8.19	1098.54	89.98	MWD	
16100.00	15365.58	11095.56	77.80	36.96	73.90	1254.47	8.03	1098.17	89.98	MWD	
16200.00	15465.53	11095.09	79.55	37.59	75.17	1257.56	7.87	1097.78	89.98	MWD	
16300.00	15565.48	11094.61	81.30	38.23	76.44	1260.65	7.72	1097.40	89.98	MWD	
16400.00	15665.44	11094.14	83.05	38.86	77.71	1263.75	7.58	1097.00	89.98	MWD	
16500.00	15765.39	11093.66	84.80	39.50	78.99	1266.84	7.44	1096.60	89.98	MWD	

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
16600.00	15865.34	11093.18	86.56	40.15	80.27	1269.93	7.31	1096.19	89.98	MWD	
16700.00	15965.29	11092.71	88.32	40.82	81.59	1273.02	7.18	1095.78	89.98	MWD	
16800.00	16065.24	11092.23	90.08	41.49	82.93	1276.11	7.06	1095.32	89.98	MWD	
16880.45	16113.92	11092.00	90.94	41.82	83.59	1278.99	7.01	1096.50	89.98	MWD	

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

GeoDec v5.03

Report Date:	November 20, 2013	
Job Number:		HOBBS OCD
Customer:	Devon Energy	
Well Name:	Bell Lake 19 State 2H	NOV 26 2013
API Number:		
Rig Name:		RECEIVED
Location:	Lea County, NM	
Block:		
Engineer:	RWJ	

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 435962.790 USFT	Latitude 32.1964649 DEG
East/West 765374.350 USFT	Longitude -103.6090658 DEG
Grid Convergence: .39°	
Total Correction: +6.98°	

Geodetic Location WGS84	Elevation =	0.0 Meters
Latitude =	32.19646° N	32° 11 min 47.274 sec
Longitude =	103.60907° W	103° 36 min 32.637 sec

Magnetic Declination =	7.37°	[True North Offset]
Local Gravity =	.9988 g	Checksum = 6641
Local Field Strength =	48321 nT	Magnetic Vector X = 23910 nT
Magnetic Dip =	60.07°	Magnetic Vector Y = 3093 nT
Magnetic Model =	bggm2013	Magnetic Vector Z = 41877 nT
Spud Date =	Apr 01, 2014	Magnetic Vector H = 24109 nT

Signed: _____

Date: _____