

Bayswater Exploration & Production, LLC

Well Name: **Ward S-20-19HN**

Surface Location: Ward 20-M Pad Sec. 20-T6N-R66W

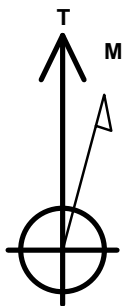
North American Datum 1983 , US State Plane 1983, Colorado Northern Zone

Ground Elevation: 4728.0

+N/-S +E/-W Northing Easting Latitude Longitude Slot
0.0 0.0 1413867.05 3196665.82 40.467315 -104.793156
RKB - 23' WELL @ 4751.0ft (RKB - 23')

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
SHL 334'FSL, 213'FEL, SEC.20	1.0	0.0	0.0	Point
BHL 1129'FSL, 470'FWL, SEC.19	7000.0	472.6	-10478.2	Point
Boreline Vertex 1140'FSL	7022.0	625.0	-7805.4	Point
Boreline Vertex 1145'FSL	7034.0	702.9	-5107.9	Point
LPL 1150'FSL, 470'FEL, SEC.20	7050.0	812.8	-257.9	Point



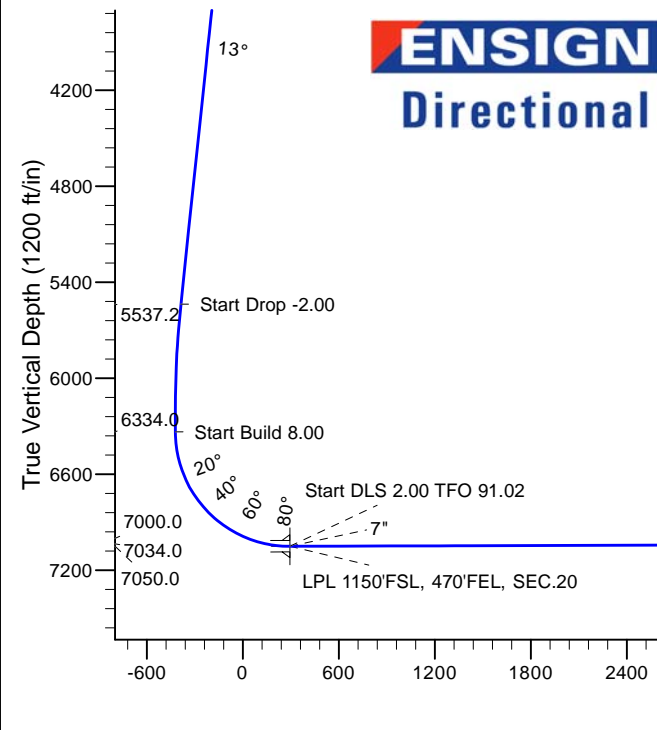
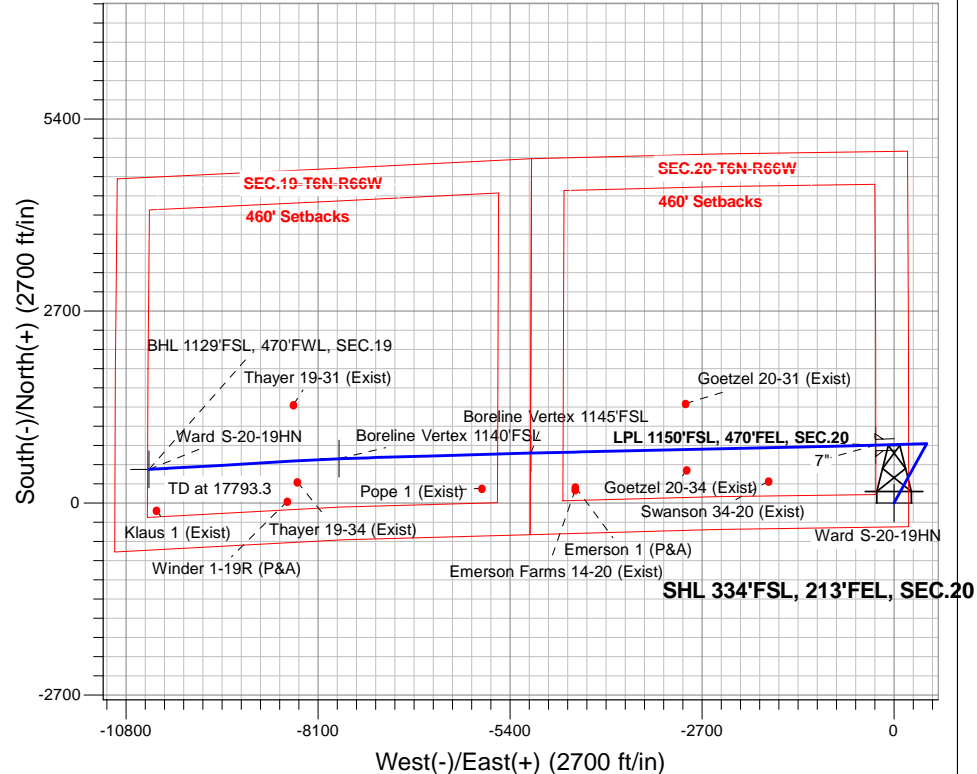
Azimuths to True North
Magnetic North: 8.21°

Magnetic Field
Strength: 52637.2snT
Dip Angle: 66.93°
Date: 6/16/2016
Model: IGRF2010

Ward 20-M Pad Sec. 20-T6N-R66W
Ward S-20-19HN
Plan #2 (6-14-16)
9:55, June 16 2016

ANNOTATIONS

TVD	MD	Annotation
1400.0	1400.0	KOP - Start Build 1.50
5537.2	5636.0	Start Drop -2.00
6334.0	6438.9	Start Build 8.00
7050.0	7566.2	Start DLS 2.00 TFO 91.02
7034.0	12417.4	Start DLS 2.00 TFO -79.65
7000.0	17793.3	TD at 17793.3



SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	1400.0	0.00	0.00	1400.0	0.0	0.0	0.00	0.00	0.0	
3	2291.8	13.38	28.81	2283.7	90.8	49.9	1.50	28.81	-45.8	
4	5636.0	13.38	28.81	5537.2	768.7	422.8	0.00	0.00	-387.8	
5	6304.9	0.00	0.00	6200.0	836.8	460.3	2.00	180.00	-422.1	
6	6438.9	0.00	0.00	6334.0	836.8	460.3	0.00	0.00	-422.1	
7	7566.1	90.20	268.09	7050.0	812.8	-257.8	8.00	268.09	294.2	
8	7566.2	90.20	268.09	7050.0	812.8	-257.9	0.00	0.00	294.3	LPL 1150'FSL, 470'FEL, SEC.20
9	7597.1	90.19	268.70	7049.9	811.9	-288.9	2.00	91.02	325.2	
10	12417.4	90.19	268.70	7034.0	702.9	-5107.9	0.00	0.00	5134.3	Boreline Vertex 1145'FSL
11	12435.8	90.25	268.34	7033.9	702.5	-5126.2	2.00	-79.65	5152.7	
12	15116.1	90.25	268.34	7022.0	625.0	-7805.4	0.00	0.00	7825.6	Boreline Vertex 1140'FSL
13	15198.4	90.47	266.71	7021.5	621.4	-7887.6	2.00	-82.34	7907.6	
14	17793.3	90.47	266.71	7000.0	472.6	-10478.2	0.00	0.00	10488.9	BHL 1129'FSL, 470'FWL, SEC.19



Bayswater Exploration & Production, LLC

SEC.20-T6N-R66W

Ward 20-M Pad Sec. 20-T6N-R66W

Ward S-20-19HN

Wellbore #1

Plan: Plan #2 (6-14-16)

Standard Planning Report

16 June, 2016



BAYSWATER
EXPLORATION & PRODUCTION, LLC

Database:	US_EDM	Local Co-ordinate Reference:	Well Ward S-20-19HN
Company:	Bayswater Exploration & Production, LLC	TVD Reference:	WELL @ 4751.0ft (RKB - 23')
Project:	SEC.20-T6N-R66W	MD Reference:	WELL @ 4751.0ft (RKB - 23')
Site:	Ward 20-M Pad Sec. 20-T6N-R66W	North Reference:	True
Well:	Ward S-20-19HN	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2 (6-14-16)		

Project	SEC.20-T6N-R66W, Weld County, Colorado		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		Using Well Reference Point
Map Zone:	Colorado Northern Zone		Using geodetic scale factor

Site	Ward 20-M Pad Sec. 20-T6N-R66W				
Site Position:		Northing:	1,413,957.04 usft	Latitude:	40.467562
From:	Lat/Long	Easting:	3,196,665.10 usft	Longitude:	-104.793156
Position Uncertainty:	0.0 ft	Slot Radius:	13-3/16 "	Grid Convergence:	0.46

Well	Ward S-20-19HN					
Well Position	+N/-S	-90.0 ft	Northing:	1,413,867.05 usft	Latitude:	40.467315
	+E/-W	0.0 ft	Easting:	3,196,665.82 usft	Longitude:	-104.793156
Position Uncertainty		0.0 ft	Wellhead Elevation:	0.0 ft	Ground Level:	4,728.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	6/16/2016	8.21	66.93	52,637

Design	Plan #2 (6-14-16)			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(ft)	(ft)	(ft)	(°)
	0.0	0.0	0.0	272.58

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,291.8	13.38	28.81	2,283.7	90.8	49.9	1.50	1.50	0.00	28.81	
5,636.0	13.38	28.81	5,537.2	768.7	422.8	0.00	0.00	0.00	0.00	
6,304.9	0.00	0.00	6,200.0	836.8	460.3	2.00	-2.00	0.00	180.00	
6,438.9	0.00	0.00	6,334.0	836.8	460.3	0.00	0.00	0.00	0.00	
7,566.1	90.20	268.09	7,050.0	812.8	-257.8	8.00	8.00	0.00	268.09	
7,566.2	90.20	268.09	7,050.0	812.8	-257.9	0.00	0.00	0.00	0.00	LPL 1150'FSL, 470'FE
7,597.1	90.19	268.70	7,049.9	811.9	-288.9	2.00	-0.04	2.00	91.02	
12,417.4	90.19	268.70	7,034.0	702.9	-5,107.9	0.00	0.00	0.00	0.00	Boreline Vertex 1145'I
12,435.8	90.26	268.34	7,033.9	702.5	-5,126.2	2.00	0.36	-1.97	-79.65	
15,116.1	90.26	268.34	7,022.0	625.0	-7,805.4	0.00	0.00	0.00	0.00	Boreline Vertex 1140'I
15,198.4	90.47	266.71	7,021.5	621.4	-7,887.6	2.00	0.27	-1.98	-82.34	
17,793.3	90.47	266.71	7,000.0	472.6	-10,478.2	0.00	0.00	0.00	0.00	BHL 1129'FSL, 470'FI

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Project:	SEC.20-T6N-R66W	MD Reference:	WELL @ 4751.0ft (RKB - 23')
Site:	Ward 20-M Pad Sec. 20-T6N-R66W	North Reference:	True
Well:	Ward S-20-19HN	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2 (6-14-16)		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
KOP - Start Build 1.50									
1,500.0	1.50	28.81	1,500.0	1.1	0.6	-0.6	1.50	1.50	0.00
1,600.0	3.00	28.81	1,599.9	4.6	2.5	-2.3	1.50	1.50	0.00
1,700.0	4.50	28.81	1,699.7	10.3	5.7	-5.2	1.50	1.50	0.00
1,800.0	6.00	28.81	1,799.3	18.3	10.1	-9.2	1.50	1.50	0.00
1,900.0	7.50	28.81	1,898.6	28.6	15.7	-14.4	1.50	1.50	0.00
2,000.0	9.00	28.81	1,997.5	41.2	22.7	-20.8	1.50	1.50	0.00
2,100.0	10.50	28.81	2,096.1	56.0	30.8	-28.3	1.50	1.50	0.00
2,200.0	12.00	28.81	2,194.2	73.1	40.2	-36.9	1.50	1.50	0.00
2,291.8	13.38	28.81	2,283.7	90.8	49.9	-45.8	1.50	1.50	0.00
2,300.0	13.38	28.81	2,291.7	92.5	50.9	-46.6	0.00	0.00	0.00
2,400.0	13.38	28.81	2,389.0	112.7	62.0	-56.9	0.00	0.00	0.00
2,500.0	13.38	28.81	2,486.3	133.0	73.2	-67.1	0.00	0.00	0.00
2,600.0	13.38	28.81	2,583.6	153.3	84.3	-77.3	0.00	0.00	0.00
2,700.0	13.38	28.81	2,680.8	173.5	95.5	-87.5	0.00	0.00	0.00
2,800.0	13.38	28.81	2,778.1	193.8	106.6	-97.8	0.00	0.00	0.00
2,900.0	13.38	28.81	2,875.4	214.1	117.8	-108.0	0.00	0.00	0.00
3,000.0	13.38	28.81	2,972.7	234.4	128.9	-118.2	0.00	0.00	0.00
3,100.0	13.38	28.81	3,070.0	254.6	140.1	-128.5	0.00	0.00	0.00
3,200.0	13.38	28.81	3,167.3	274.9	151.2	-138.7	0.00	0.00	0.00
3,300.0	13.38	28.81	3,264.6	295.2	162.4	-148.9	0.00	0.00	0.00
3,400.0	13.38	28.81	3,361.9	315.4	173.5	-159.1	0.00	0.00	0.00
3,500.0	13.38	28.81	3,459.1	335.7	184.7	-169.4	0.00	0.00	0.00
3,600.0	13.38	28.81	3,556.4	356.0	195.8	-179.6	0.00	0.00	0.00
3,700.0	13.38	28.81	3,653.7	376.3	207.0	-189.8	0.00	0.00	0.00
3,800.0	13.38	28.81	3,751.0	396.5	218.1	-200.0	0.00	0.00	0.00
3,900.0	13.38	28.81	3,848.3	416.8	229.3	-210.3	0.00	0.00	0.00
4,000.0	13.38	28.81	3,945.6	437.1	240.4	-220.5	0.00	0.00	0.00
4,100.0	13.38	28.81	4,042.9	457.3	251.6	-230.7	0.00	0.00	0.00
4,200.0	13.38	28.81	4,140.2	477.6	262.7	-240.9	0.00	0.00	0.00
4,300.0	13.38	28.81	4,237.4	497.9	273.9	-251.2	0.00	0.00	0.00
4,400.0	13.38	28.81	4,334.7	518.1	285.0	-261.4	0.00	0.00	0.00
4,500.0	13.38	28.81	4,432.0	538.4	296.2	-271.6	0.00	0.00	0.00
4,600.0	13.38	28.81	4,529.3	558.7	307.3	-281.8	0.00	0.00	0.00
4,700.0	13.38	28.81	4,626.6	579.0	318.5	-292.1	0.00	0.00	0.00
4,800.0	13.38	28.81	4,723.9	599.2	329.6	-302.3	0.00	0.00	0.00
4,900.0	13.38	28.81	4,821.2	619.5	340.8	-312.5	0.00	0.00	0.00
5,000.0	13.38	28.81	4,918.4	639.8	351.9	-322.7	0.00	0.00	0.00
5,100.0	13.38	28.81	5,015.7	660.0	363.1	-333.0	0.00	0.00	0.00

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Project:	SEC.20-T6N-R66W	MD Reference:	WELL @ 4751.0ft (RKB - 23')
Site:	Ward 20-M Pad Sec. 20-T6N-R66W	North Reference:	True
Well:	Ward S-20-19HN	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2 (6-14-16)		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,200.0	13.38	28.81	5,113.0	680.3	374.2	-343.2	0.00	0.00	0.00
5,300.0	13.38	28.81	5,210.3	700.6	385.4	-353.4	0.00	0.00	0.00
5,400.0	13.38	28.81	5,307.6	720.9	396.5	-363.6	0.00	0.00	0.00
5,500.0	13.38	28.81	5,404.9	741.1	407.7	-373.9	0.00	0.00	0.00
5,600.0	13.38	28.81	5,502.2	761.4	418.8	-384.1	0.00	0.00	0.00
5,636.0	13.38	28.81	5,537.2	768.7	422.8	-387.8	0.00	0.00	0.00
Start Drop -2.00									
5,700.0	12.10	28.81	5,599.6	781.1	429.6	-394.0	2.00	-2.00	0.00
5,800.0	10.10	28.81	5,697.7	797.9	438.9	-402.5	2.00	-2.00	0.00
5,900.0	8.10	28.81	5,796.5	811.8	446.5	-409.5	2.00	-2.00	0.00
6,000.0	6.10	28.81	5,895.7	822.6	452.5	-415.0	2.00	-2.00	0.00
6,100.0	4.10	28.81	5,995.3	830.4	456.8	-418.9	2.00	-2.00	0.00
6,200.0	2.10	28.81	6,095.2	835.1	459.4	-421.3	2.00	-2.00	0.00
6,300.0	0.10	28.81	6,195.1	836.8	460.3	-422.1	2.00	-2.00	0.00
6,304.9	0.00	0.00	6,200.0	836.8	460.3	-422.1	2.00	-2.00	0.00
6,400.0	0.00	0.00	6,295.1	836.8	460.3	-422.1	0.00	0.00	0.00
6,438.9	0.00	0.00	6,334.0	836.8	460.3	-422.1	0.00	0.00	0.00
Start Build 8.00									
6,500.0	4.89	268.09	6,395.1	836.7	457.7	-419.5	8.01	8.01	0.00
6,600.0	12.89	268.09	6,493.8	836.2	442.3	-404.1	8.00	8.00	0.00
6,700.0	20.90	268.09	6,589.4	835.2	413.2	-375.2	8.00	8.00	0.00
6,800.0	28.90	268.09	6,680.0	833.8	371.2	-333.2	8.00	8.00	0.00
6,900.0	36.90	268.09	6,763.9	832.0	317.0	-279.1	8.00	8.00	0.00
7,000.0	44.90	268.09	6,839.4	829.8	251.6	-213.9	8.00	8.00	0.00
7,100.0	52.90	268.09	6,905.1	827.3	176.3	-138.9	8.00	8.00	0.00
7,200.0	60.91	268.09	6,959.7	824.5	92.6	-55.4	8.00	8.00	0.00
7,300.0	68.91	268.09	7,002.0	821.5	2.2	34.8	8.00	8.00	0.00
7,400.0	76.91	268.09	7,031.4	818.3	-93.2	130.0	8.00	8.00	0.00
7,500.0	84.91	268.09	7,047.2	815.0	-191.9	228.4	8.00	8.00	0.00
7,566.1	90.20	268.09	7,050.0	812.8	-257.8	294.2	8.00	8.00	0.00
7,566.2	90.20	268.09	7,050.0	812.8	-257.9	294.3	0.00	0.00	0.00
Start DLS 2.00 TFO 91.02									
7,597.1	90.19	268.70	7,049.9	811.9	-288.9	325.2	2.00	-0.04	2.00
7,600.0	90.19	268.70	7,049.9	811.9	-291.7	328.0	0.00	0.00	0.00
7,700.0	90.19	268.70	7,049.6	809.6	-391.7	427.8	0.00	0.00	0.00
7,800.0	90.19	268.70	7,049.2	807.3	-491.7	527.5	0.00	0.00	0.00
7,900.0	90.19	268.70	7,048.9	805.1	-591.6	627.3	0.00	0.00	0.00
8,000.0	90.19	268.70	7,048.6	802.8	-691.6	727.1	0.00	0.00	0.00
8,100.0	90.19	268.70	7,048.2	800.6	-791.6	826.9	0.00	0.00	0.00
8,200.0	90.19	268.70	7,047.9	798.3	-891.6	926.6	0.00	0.00	0.00
8,300.0	90.19	268.70	7,047.6	796.0	-991.5	1,026.4	0.00	0.00	0.00
8,400.0	90.19	268.70	7,047.2	793.8	-1,091.5	1,126.2	0.00	0.00	0.00
8,500.0	90.19	268.70	7,046.9	791.5	-1,191.5	1,225.9	0.00	0.00	0.00
8,600.0	90.19	268.70	7,046.6	789.2	-1,291.5	1,325.7	0.00	0.00	0.00
8,700.0	90.19	268.70	7,046.3	787.0	-1,391.4	1,425.5	0.00	0.00	0.00
8,800.0	90.19	268.70	7,045.9	784.7	-1,491.4	1,525.3	0.00	0.00	0.00
8,900.0	90.19	268.70	7,045.6	782.5	-1,591.4	1,625.0	0.00	0.00	0.00
9,000.0	90.19	268.70	7,045.3	780.2	-1,691.4	1,724.8	0.00	0.00	0.00
9,100.0	90.19	268.70	7,044.9	777.9	-1,791.3	1,824.6	0.00	0.00	0.00
9,200.0	90.19	268.70	7,044.6	775.7	-1,891.3	1,924.3	0.00	0.00	0.00
9,300.0	90.19	268.70	7,044.3	773.4	-1,991.3	2,024.1	0.00	0.00	0.00
9,400.0	90.19	268.70	7,043.9	771.2	-2,091.3	2,123.9	0.00	0.00	0.00
9,500.0	90.19	268.70	7,043.6	768.9	-2,191.2	2,223.6	0.00	0.00	0.00

Database:	US_EDM	Local Co-ordinate Reference:	Well Ward S-20-19HN
Company:	Bayswater Exploration & Production, LLC	TVD Reference:	WELL @ 4751.0ft (RKB - 23')
Project:	SEC.20-T6N-R66W	MD Reference:	WELL @ 4751.0ft (RKB - 23')
Site:	Ward 20-M Pad Sec. 20-T6N-R66W	North Reference:	True
Well:	Ward S-20-19HN	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2 (6-14-16)		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,600.0	90.19	268.70	7,043.3	766.6	-2,291.2	2,323.4	0.00	0.00	0.00
9,700.0	90.19	268.70	7,043.0	764.4	-2,391.2	2,423.2	0.00	0.00	0.00
9,800.0	90.19	268.70	7,042.6	762.1	-2,491.1	2,523.0	0.00	0.00	0.00
9,900.0	90.19	268.70	7,042.3	759.9	-2,591.1	2,622.7	0.00	0.00	0.00
10,000.0	90.19	268.70	7,042.0	757.6	-2,691.1	2,722.5	0.00	0.00	0.00
10,100.0	90.19	268.70	7,041.6	755.3	-2,791.1	2,822.3	0.00	0.00	0.00
10,200.0	90.19	268.70	7,041.3	753.1	-2,891.0	2,922.0	0.00	0.00	0.00
10,300.0	90.19	268.70	7,041.0	750.8	-2,991.0	3,021.8	0.00	0.00	0.00
10,400.0	90.19	268.70	7,040.7	748.6	-3,091.0	3,121.6	0.00	0.00	0.00
10,500.0	90.19	268.70	7,040.3	746.3	-3,191.0	3,221.4	0.00	0.00	0.00
10,600.0	90.19	268.70	7,040.0	744.0	-3,290.9	3,321.1	0.00	0.00	0.00
10,700.0	90.19	268.70	7,039.7	741.8	-3,390.9	3,420.9	0.00	0.00	0.00
10,800.0	90.19	268.70	7,039.3	739.5	-3,490.9	3,520.7	0.00	0.00	0.00
10,900.0	90.19	268.70	7,039.0	737.2	-3,590.9	3,620.4	0.00	0.00	0.00
11,000.0	90.19	268.70	7,038.7	735.0	-3,690.8	3,720.2	0.00	0.00	0.00
11,100.0	90.19	268.70	7,038.3	732.7	-3,790.8	3,820.0	0.00	0.00	0.00
11,200.0	90.19	268.70	7,038.0	730.5	-3,890.8	3,919.7	0.00	0.00	0.00
11,300.0	90.19	268.70	7,037.7	728.2	-3,990.8	4,019.5	0.00	0.00	0.00
11,400.0	90.19	268.70	7,037.4	725.9	-4,090.7	4,119.3	0.00	0.00	0.00
11,500.0	90.19	268.70	7,037.0	723.7	-4,190.7	4,219.1	0.00	0.00	0.00
11,600.0	90.19	268.70	7,036.7	721.4	-4,290.7	4,318.8	0.00	0.00	0.00
11,700.0	90.19	268.70	7,036.4	719.2	-4,390.7	4,418.6	0.00	0.00	0.00
11,800.0	90.19	268.70	7,036.0	716.9	-4,490.6	4,518.4	0.00	0.00	0.00
11,900.0	90.19	268.70	7,035.7	714.6	-4,590.6	4,618.1	0.00	0.00	0.00
12,000.0	90.19	268.70	7,035.4	712.4	-4,690.6	4,717.9	0.00	0.00	0.00
12,100.0	90.19	268.70	7,035.0	710.1	-4,790.5	4,817.7	0.00	0.00	0.00
12,200.0	90.19	268.70	7,034.7	707.9	-4,890.5	4,917.4	0.00	0.00	0.00
12,300.0	90.19	268.70	7,034.4	705.6	-4,990.5	5,017.2	0.00	0.00	0.00
12,400.0	90.19	268.70	7,034.1	703.3	-5,090.5	5,117.0	0.00	0.00	0.00
12,417.4	90.19	268.70	7,034.0	702.9	-5,107.9	5,134.3	0.00	0.00	0.00
Start DLS 2.00 TFO -79.65									
12,435.8	90.26	268.34	7,033.9	702.5	-5,126.2	5,152.7	2.00	0.36	-1.97
12,500.0	90.26	268.34	7,033.6	700.6	-5,190.4	5,216.7	0.00	0.00	0.00
12,600.0	90.26	268.34	7,033.2	697.7	-5,290.4	5,316.5	0.00	0.00	0.00
12,700.0	90.26	268.34	7,032.8	694.8	-5,390.3	5,416.2	0.00	0.00	0.00
12,800.0	90.26	268.34	7,032.3	691.9	-5,490.3	5,515.9	0.00	0.00	0.00
12,900.0	90.26	268.34	7,031.9	689.0	-5,590.3	5,615.6	0.00	0.00	0.00
13,000.0	90.26	268.34	7,031.4	686.1	-5,690.2	5,715.4	0.00	0.00	0.00
13,100.0	90.26	268.34	7,031.0	683.3	-5,790.2	5,815.1	0.00	0.00	0.00
13,200.0	90.26	268.34	7,030.5	680.4	-5,890.1	5,914.8	0.00	0.00	0.00
13,300.0	90.26	268.34	7,030.1	677.5	-5,990.1	6,014.5	0.00	0.00	0.00
13,400.0	90.26	268.34	7,029.6	674.6	-6,090.0	6,114.3	0.00	0.00	0.00
13,500.0	90.26	268.34	7,029.2	671.7	-6,190.0	6,214.0	0.00	0.00	0.00
13,600.0	90.26	268.34	7,028.7	668.8	-6,290.0	6,313.7	0.00	0.00	0.00
13,700.0	90.26	268.34	7,028.3	665.9	-6,389.9	6,413.4	0.00	0.00	0.00
13,800.0	90.26	268.34	7,027.9	663.0	-6,489.9	6,513.2	0.00	0.00	0.00
13,900.0	90.26	268.34	7,027.4	660.1	-6,589.8	6,612.9	0.00	0.00	0.00
14,000.0	90.26	268.34	7,027.0	657.2	-6,689.8	6,712.6	0.00	0.00	0.00
14,100.0	90.26	268.34	7,026.5	654.3	-6,789.7	6,812.3	0.00	0.00	0.00
14,200.0	90.26	268.34	7,026.1	651.4	-6,889.7	6,912.1	0.00	0.00	0.00
14,300.0	90.26	268.34	7,025.6	648.6	-6,989.7	7,011.8	0.00	0.00	0.00
14,400.0	90.26	268.34	7,025.2	645.7	-7,089.6	7,111.5	0.00	0.00	0.00
14,500.0	90.26	268.34	7,024.7	642.8	-7,189.6	7,211.2	0.00	0.00	0.00

Database:	US_EDM	Local Co-ordinate Reference:	Well Ward S-20-19HN
Company:	Bayswater Exploration & Production, LLC	TVD Reference:	WELL @ 4751.0ft (RKB - 23')
Project:	SEC.20-T6N-R66W	MD Reference:	WELL @ 4751.0ft (RKB - 23')
Site:	Ward 20-M Pad Sec. 20-T6N-R66W	North Reference:	True
Well:	Ward S-20-19HN	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2 (6-14-16)		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
14,600.0	90.26	268.34	7,024.3	639.9	-7,289.5	7,311.0	0.00	0.00	0.00	
14,700.0	90.26	268.34	7,023.9	637.0	-7,389.5	7,410.7	0.00	0.00	0.00	
14,800.0	90.26	268.34	7,023.4	634.1	-7,489.4	7,510.4	0.00	0.00	0.00	
14,900.0	90.26	268.34	7,023.0	631.2	-7,589.4	7,610.1	0.00	0.00	0.00	
15,000.0	90.26	268.34	7,022.5	628.3	-7,689.4	7,709.9	0.00	0.00	0.00	
15,100.0	90.26	268.34	7,022.1	625.4	-7,789.3	7,809.6	0.00	0.00	0.00	
15,116.1	90.26	268.34	7,022.0	625.0	-7,805.4	7,825.6	0.00	0.00	0.00	
15,198.4	90.47	266.71	7,021.5	621.4	-7,887.6	7,907.6	2.00	0.27	-1.98	
15,200.0	90.47	266.71	7,021.5	621.3	-7,889.2	7,909.2	0.00	0.00	0.00	
15,300.0	90.47	266.71	7,020.6	615.6	-7,989.1	8,008.7	0.00	0.00	0.00	
15,400.0	90.47	266.71	7,019.8	609.8	-8,088.9	8,108.2	0.00	0.00	0.00	
15,500.0	90.47	266.71	7,019.0	604.1	-8,188.7	8,207.6	0.00	0.00	0.00	
15,600.0	90.47	266.71	7,018.2	598.4	-8,288.6	8,307.1	0.00	0.00	0.00	
15,700.0	90.47	266.71	7,017.3	592.6	-8,388.4	8,406.6	0.00	0.00	0.00	
15,800.0	90.47	266.71	7,016.5	586.9	-8,488.2	8,506.0	0.00	0.00	0.00	
15,900.0	90.47	266.71	7,015.7	581.2	-8,588.1	8,605.5	0.00	0.00	0.00	
16,000.0	90.47	266.71	7,014.8	575.4	-8,687.9	8,705.0	0.00	0.00	0.00	
16,100.0	90.47	266.71	7,014.0	569.7	-8,787.7	8,804.5	0.00	0.00	0.00	
16,200.0	90.47	266.71	7,013.2	564.0	-8,887.5	8,903.9	0.00	0.00	0.00	
16,300.0	90.47	266.71	7,012.4	558.2	-8,987.4	9,003.4	0.00	0.00	0.00	
16,400.0	90.47	266.71	7,011.5	552.5	-9,087.2	9,102.9	0.00	0.00	0.00	
16,500.0	90.47	266.71	7,010.7	546.7	-9,187.0	9,202.3	0.00	0.00	0.00	
16,600.0	90.47	266.71	7,009.9	541.0	-9,286.9	9,301.8	0.00	0.00	0.00	
16,700.0	90.47	266.71	7,009.0	535.3	-9,386.7	9,401.3	0.00	0.00	0.00	
16,800.0	90.47	266.71	7,008.2	529.5	-9,486.5	9,500.8	0.00	0.00	0.00	
16,900.0	90.47	266.71	7,007.4	523.8	-9,586.4	9,600.2	0.00	0.00	0.00	
17,000.0	90.47	266.71	7,006.6	518.1	-9,686.2	9,699.7	0.00	0.00	0.00	
17,100.0	90.47	266.71	7,005.7	512.3	-9,786.0	9,799.2	0.00	0.00	0.00	
17,200.0	90.47	266.71	7,004.9	506.6	-9,885.9	9,898.7	0.00	0.00	0.00	
17,300.0	90.47	266.71	7,004.1	500.9	-9,985.7	9,998.1	0.00	0.00	0.00	
17,400.0	90.47	266.71	7,003.3	495.1	-10,085.5	10,097.6	0.00	0.00	0.00	
17,500.0	90.47	266.71	7,002.4	489.4	-10,185.4	10,197.1	0.00	0.00	0.00	
17,600.0	90.47	266.71	7,001.6	483.7	-10,285.2	10,296.5	0.00	0.00	0.00	
17,700.0	90.47	266.71	7,000.8	477.9	-10,385.0	10,396.0	0.00	0.00	0.00	
17,793.3	90.47	266.71	7,000.0	472.6	-10,478.2	10,488.8	0.00	0.00	0.00	
TD at 17793.3										

Database:	US_EDM	Local Co-ordinate Reference:	Well Ward S-20-19HN
Company:	Bayswater Exploration & Production, LLC	TVD Reference:	WELL @ 4751.0ft (RKB - 23')
Project:	SEC.20-T6N-R66W	MD Reference:	WELL @ 4751.0ft (RKB - 23')
Site:	Ward 20-M Pad Sec. 20-T6N-R66W	North Reference:	True
Well:	Ward S-20-19HN	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2 (6-14-16)		

Design Targets										
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
SHL 334'FSL, 213'FEL, : - plan hits target center - Point	0.00	0.00	1.0	0.0	0.0	1,413,867.06	3,196,665.82	40.467315	-104.793156	
BHL 1129'FSL, 470'FWL - plan hits target center - Point	0.00	0.00	7,000.0	472.6	-10,478.2	1,414,256.06	3,186,184.58	40.468606	-104.830815	
Boreline Vertex 1140'FS - plan hits target center - Point	0.00	0.00	7,022.0	625.0	-7,805.4	1,414,429.74	3,188,855.99	40.469027	-104.821209	
Boreline Vertex 1145'FS - plan hits target center - Point	0.00	0.00	7,034.0	702.9	-5,107.9	1,414,529.23	3,191,552.71	40.469243	-104.811514	
LPL 1150'FSL, 470'FEL, - plan hits target center - Point	0.00	0.00	7,050.0	812.8	-257.9	1,414,677.73	3,196,401.43	40.469546	-104.794083	

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
7,566.2	7,050.0	7"	7	8-3/4	

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
1,400.0	1,400.0	0.0	0.0	KOP - Start Build 1.50	
5,636.0	5,537.2	90.8	49.9	Start Drop -2.00	
6,438.9	6,334.0	768.7	422.8	Start Build 8.00	
7,566.2	7,050.0	836.8	460.3	Start DLS 2.00 TFO 91.02	
12,417.4	7,034.0	836.8	460.3	Start DLS 2.00 TFO -79.65	
17,793.3	7,000.0	812.8	-257.9	TD at 17793.3	