

# Bayswater Exploration & Production, LLC

Well Name: **Ward X-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: 4727.0

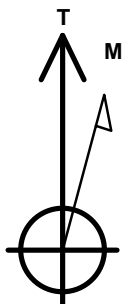
+N/-S +E/-W Northing Easting Longitude Slot

0.0 10.1 18792.0 3196666.41 40.467109 -104.793156

RKB - 23' WELL @ 4750.0ft (RKB - 23')

## DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
SHL 259'FSL, 213'FEL, SEC.20	1.0	0.0	0.0	Point
BHL 157'FSL, 470'FWL, SEC.19	6920.0	-425.8	-10481.7	Point
Boreline Vertex 159' FSL	6940.0	-280.0	-7757.8	Point
Boreline Vertex 159'FSL	6950.0	-208.2	-5112.0	Point
LPL 160'FSL, 470'FEL, SEC.20	6965.0	-102.4	-256.5	Point



Azimuths to True North  
Magnetic North: 8.21°

Magnetic Field  
Strength: 52636.8snT  
Dip Angle: 66.93°  
Date: 6/17/2016  
Model: IGRF2010

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

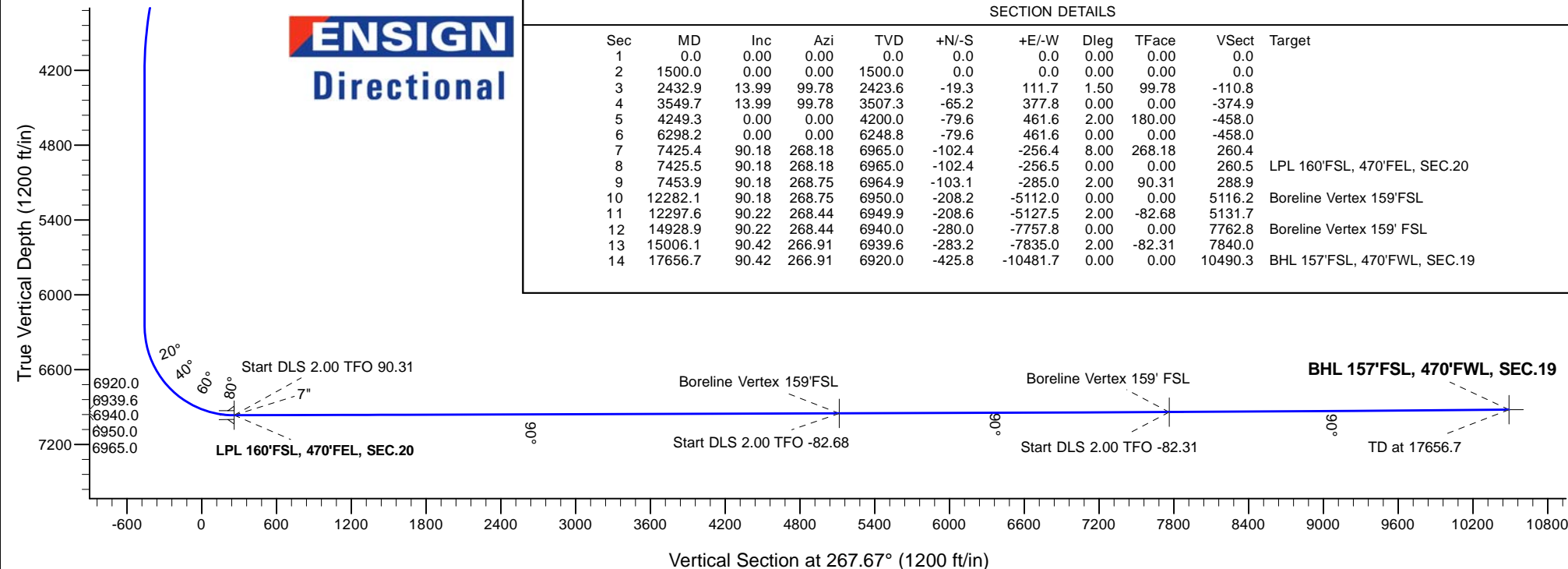
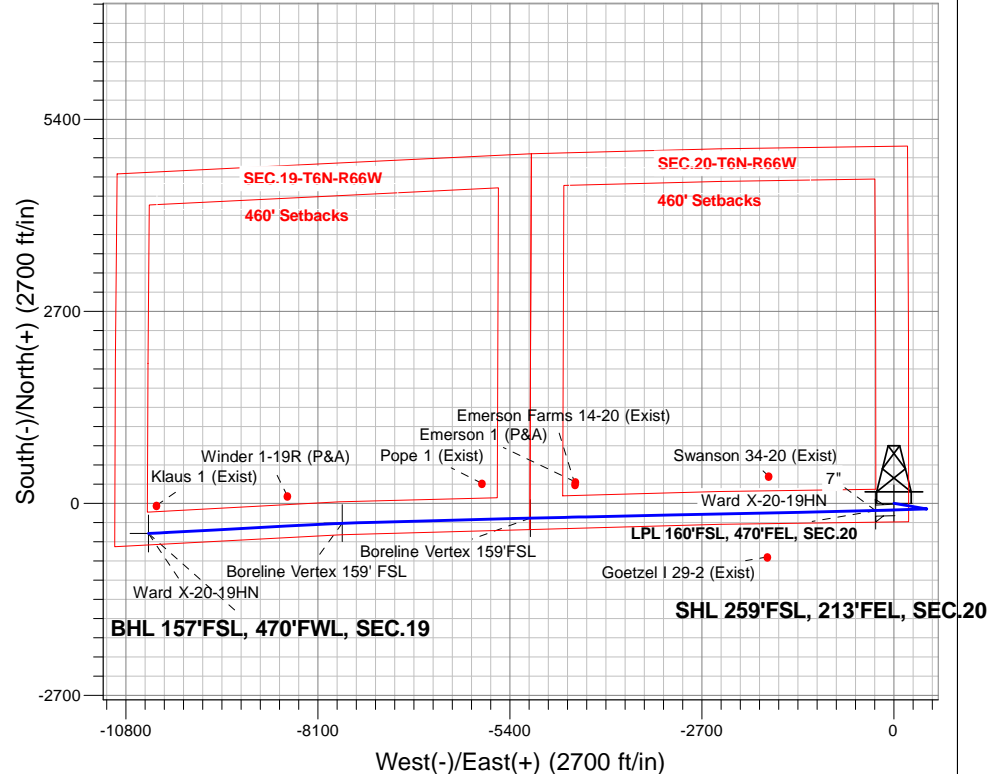
Ward X-20-19HN

Plan #2 (6-14-16)

9:57, June 17 2016

## ANNOTATIONS

TVD	MD	Annotation
1500.0	1500.0	KOP - Start Build 1.50
6965.0	7425.5	Start DLS 2.00 TFO 90.31
6950.0	12282.1	Start DLS 2.00 TFO -82.68
6940.0	14928.9	Start DLS 2.00 TFO -82.31
6939.6	15006.1	Start 2650.6 hold at 15006.1 MD
6920.0	17656.7	TD at 17656.7





# **Bayswater Exploration & Production, LLC**

**SEC.20-T6N-R66W**

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

**Ward X-20-19HN**

**Wellbore #1**

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

## **Standard Planning Report**

**17 June, 2016**



**BAYSWATER**  
**EXPLORATION & PRODUCTION, LLC**

<b>Database:</b>	US_EDM	<b>Local Co-ordinate Reference:</b>	Well Ward X-20-19HN
<b>Company:</b>	Bayswater Exploration & Production, LLC	<b>TVD Reference:</b>	WELL @ 4750.0ft (RKB - 23')
<b>Project:</b>	SEC.20-T6N-R66W	<b>MD Reference:</b>	WELL @ 4750.0ft (RKB - 23')
<b>Site:</b>	Ward 20-M Pad Sec. 20-T6N-R66W	<b>North Reference:</b>	True
<b>Well:</b>	Ward X-20-19HN	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #2 (6-14-16)		

<b>Project</b>	SEC.20-T6N-R66W, Weld County, Colorado		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		Using Well Reference Point
<b>Map Zone:</b>	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 X-20-19HN					
Well Position	+N/-S	-165.0 ft	Northing:	1,413,792.01 usft	Latitude:	40.467109
	+E/-W	0.0 ft	Easting:	3,196,666.42 usft	Longitude:	-104.793156
Position Uncertainty		0.0 ft	Wellhead Elevation:	0.0 ft	Ground Level:	4,727.0 ft

<b>Wellbore</b>	Wellbore #1				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	6/17/2016	8.21	66.93	52,637

<b>Design</b>	Plan #2 (6-14-16)			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PROTOTYPE	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD)</b>	<b>+N/-S</b>	<b>+E/-W</b>	<b>Direction</b>
	(ft)	(ft)	(ft)	(°)
	0.0	0.0	0.0	267.67

<b>Plan Sections</b>										
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	
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,432.9	13.99	99.78	2,423.6	-19.3	111.7	1.50	1.50	0.00	99.78	
3,549.7	13.99	99.78	3,507.3	-65.2	377.8	0.00	0.00	0.00	0.00	
4,249.3	0.00	0.00	4,200.0	-79.6	461.6	2.00	-2.00	0.00	180.00	
6,298.2	0.00	0.00	6,248.8	-79.6	461.6	0.00	0.00	0.00	0.00	
7,425.4	90.18	268.18	6,965.0	-102.4	-256.4	8.00	8.00	0.00	268.18	
7,425.5	90.18	268.18	6,965.0	-102.4	-256.5	0.00	0.00	0.00	0.00	LPL 160'FSL, 470'FEI
7,453.9	90.18	268.75	6,964.9	-103.1	-285.0	2.00	-0.01	2.00	90.31	
12,282.1	90.18	268.75	6,950.0	-208.2	-5,112.0	0.00	0.00	0.00	0.00	Boreline Vertex 159'F
12,297.6	90.22	268.44	6,949.9	-208.6	-5,127.5	2.00	0.25	-1.98	-82.68	
14,928.9	90.22	268.44	6,940.0	-280.0	-7,757.8	0.00	0.00	0.00	0.00	Boreline Vertex 159' F
15,006.1	90.42	266.91	6,939.6	-283.2	-7,835.0	2.00	0.27	-1.98	-82.31	
17,656.7	90.42	266.91	6,920.0	-425.8	-10,481.7	0.00	0.00	0.00	0.00	BHL 157'FSL, 470'FW

<b>Database:</b>	US_EDM	<b>Local Co-ordinate Reference:</b>	Well Ward X-20-19HN
<b>Company:</b>	Bayswater Exploration & Production, LLC	<b>TVD Reference:</b>	WELL @ 4750.0ft (RKB - 23')
<b>Project:</b>	SEC.20-T6N-R66W	<b>MD Reference:</b>	WELL @ 4750.0ft (RKB - 23')
<b>Site:</b>	Ward 20-M Pad Sec. 20-T6N-R66W	<b>North Reference:</b>	True
<b>Well:</b>	Ward X-20-19HN	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	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
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
KOP - Start Build 1.50									
1,600.0	1.50	99.78	1,600.0	-0.2	1.3	-1.3	1.50	1.50	0.00
1,700.0	3.00	99.78	1,699.9	-0.9	5.2	-5.1	1.50	1.50	0.00
1,800.0	4.50	99.78	1,799.7	-2.0	11.6	-11.5	1.50	1.50	0.00
1,900.0	6.00	99.78	1,899.3	-3.6	20.6	-20.5	1.50	1.50	0.00
2,000.0	7.50	99.78	1,998.6	-5.6	32.2	-32.0	1.50	1.50	0.00
2,100.0	9.00	99.78	2,097.5	-8.0	46.3	-46.0	1.50	1.50	0.00
2,200.0	10.50	99.78	2,196.1	-10.9	63.0	-62.5	1.50	1.50	0.00
2,300.0	12.00	99.78	2,294.2	-14.2	82.3	-81.6	1.50	1.50	0.00
2,400.0	13.50	99.78	2,391.7	-17.9	104.0	-103.2	1.50	1.50	0.00
2,432.9	13.99	99.78	2,423.6	-19.3	111.7	-110.8	1.50	1.50	0.00
2,500.0	13.99	99.78	2,488.8	-22.0	127.7	-126.7	0.00	0.00	0.00
2,600.0	13.99	99.78	2,585.8	-26.1	151.5	-150.3	0.00	0.00	0.00
2,700.0	13.99	99.78	2,682.8	-30.2	175.4	-174.0	0.00	0.00	0.00
2,800.0	13.99	99.78	2,779.9	-34.3	199.2	-197.6	0.00	0.00	0.00
2,900.0	13.99	99.78	2,876.9	-38.5	223.0	-221.3	0.00	0.00	0.00
3,000.0	13.99	99.78	2,973.9	-42.6	246.8	-244.9	0.00	0.00	0.00
3,100.0	13.99	99.78	3,071.0	-46.7	270.7	-268.6	0.00	0.00	0.00
3,200.0	13.99	99.78	3,168.0	-50.8	294.5	-292.2	0.00	0.00	0.00
3,300.0	13.99	99.78	3,265.0	-54.9	318.3	-315.8	0.00	0.00	0.00
3,400.0	13.99	99.78	3,362.1	-59.0	342.2	-339.5	0.00	0.00	0.00
3,500.0	13.99	99.78	3,459.1	-63.1	366.0	-363.1	0.00	0.00	0.00
3,549.7	13.99	99.78	3,507.3	-65.2	377.8	-374.9	0.00	0.00	0.00
3,600.0	12.99	99.78	3,556.2	-67.1	389.4	-386.3	2.00	-2.00	0.00
3,700.0	10.99	99.78	3,654.0	-70.7	409.9	-406.7	2.00	-2.00	0.00
3,800.0	8.99	99.78	3,752.5	-73.6	426.9	-423.6	2.00	-2.00	0.00
3,900.0	6.99	99.78	3,851.5	-76.0	440.6	-437.2	2.00	-2.00	0.00
4,000.0	4.99	99.78	3,951.0	-77.8	450.9	-447.4	2.00	-2.00	0.00
4,100.0	2.99	99.78	4,050.7	-78.9	457.8	-454.2	2.00	-2.00	0.00
4,200.0	0.99	99.78	4,150.7	-79.5	461.2	-457.6	2.00	-2.00	0.00
4,249.3	0.00	0.00	4,200.0	-79.6	461.6	-458.0	2.00	-2.00	0.00
4,300.0	0.00	0.00	4,250.7	-79.6	461.6	-458.0	0.00	0.00	0.00
4,400.0	0.00	0.00	4,350.7	-79.6	461.6	-458.0	0.00	0.00	0.00
4,500.0	0.00	0.00	4,450.7	-79.6	461.6	-458.0	0.00	0.00	0.00
4,600.0	0.00	0.00	4,550.7	-79.6	461.6	-458.0	0.00	0.00	0.00
4,700.0	0.00	0.00	4,650.7	-79.6	461.6	-458.0	0.00	0.00	0.00
4,800.0	0.00	0.00	4,750.7	-79.6	461.6	-458.0	0.00	0.00	0.00
4,900.0	0.00	0.00	4,850.7	-79.6	461.6	-458.0	0.00	0.00	0.00

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<b>Site:</b>	Ward 20-M Pad Sec. 20-T6N-R66W	<b>North Reference:</b>	True
<b>Well:</b>	Ward X-20-19HN	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	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)
5,000.0	0.00	0.00	4,950.7	-79.6	461.6	-458.0	0.00	0.00	0.00
5,100.0	0.00	0.00	5,050.7	-79.6	461.6	-458.0	0.00	0.00	0.00
5,200.0	0.00	0.00	5,150.7	-79.6	461.6	-458.0	0.00	0.00	0.00
5,300.0	0.00	0.00	5,250.7	-79.6	461.6	-458.0	0.00	0.00	0.00
5,400.0	0.00	0.00	5,350.7	-79.6	461.6	-458.0	0.00	0.00	0.00
5,500.0	0.00	0.00	5,450.7	-79.6	461.6	-458.0	0.00	0.00	0.00
5,600.0	0.00	0.00	5,550.7	-79.6	461.6	-458.0	0.00	0.00	0.00
5,700.0	0.00	0.00	5,650.7	-79.6	461.6	-458.0	0.00	0.00	0.00
5,800.0	0.00	0.00	5,750.7	-79.6	461.6	-458.0	0.00	0.00	0.00
5,900.0	0.00	0.00	5,850.7	-79.6	461.6	-458.0	0.00	0.00	0.00
6,000.0	0.00	0.00	5,950.7	-79.6	461.6	-458.0	0.00	0.00	0.00
6,100.0	0.00	0.00	6,050.7	-79.6	461.6	-458.0	0.00	0.00	0.00
6,200.0	0.00	0.00	6,150.7	-79.6	461.6	-458.0	0.00	0.00	0.00
6,298.2	0.00	0.00	6,248.8	-79.6	461.6	-458.0	0.00	0.00	0.00
6,300.0	0.15	268.18	6,250.7	-79.6	461.6	-458.0	8.00	8.00	0.00
6,400.0	8.15	268.18	6,350.3	-79.8	454.4	-450.8	8.00	8.00	0.00
6,500.0	16.15	268.18	6,448.0	-80.5	433.4	-429.7	8.00	8.00	0.00
6,600.0	24.15	268.18	6,541.8	-81.6	399.0	-395.3	8.00	8.00	0.00
6,700.0	32.15	268.18	6,629.9	-83.1	351.9	-348.2	8.00	8.00	0.00
6,800.0	40.15	268.18	6,710.6	-84.9	292.9	-289.3	8.00	8.00	0.00
6,900.0	48.15	268.18	6,782.3	-87.2	223.4	-219.7	8.00	8.00	0.00
7,000.0	56.15	268.18	6,843.6	-89.7	144.5	-140.8	8.00	8.00	0.00
7,100.0	64.15	268.18	6,893.3	-92.4	57.9	-54.1	8.00	8.00	0.00
7,200.0	72.15	268.18	6,930.5	-95.3	-34.8	38.6	8.00	8.00	0.00
7,300.0	80.15	268.18	6,954.4	-98.4	-131.8	135.6	8.00	8.00	0.00
7,400.0	88.15	268.18	6,964.6	-101.6	-231.1	235.0	8.00	8.00	0.00
7,425.4	90.18	268.18	6,965.0	-102.4	-256.4	260.4	8.00	8.00	0.00
7,425.5	90.18	268.18	6,965.0	-102.4	-256.6	260.5	0.00	0.00	0.00
Start DLS 2.00 TFO 90.31									
7,453.9	90.18	268.75	6,964.9	-103.1	-285.0	288.9	2.00	-0.01	2.00
7,500.0	90.18	268.75	6,964.8	-104.1	-331.1	335.0	0.00	0.00	0.00
7,600.0	90.18	268.75	6,964.5	-106.3	-431.0	435.0	0.00	0.00	0.00
7,700.0	90.18	268.75	6,964.2	-108.5	-531.0	535.0	0.00	0.00	0.00
7,800.0	90.18	268.75	6,963.8	-110.7	-631.0	635.0	0.00	0.00	0.00
7,900.0	90.18	268.75	6,963.5	-112.8	-731.0	734.9	0.00	0.00	0.00
8,000.0	90.18	268.75	6,963.2	-115.0	-830.9	834.9	0.00	0.00	0.00
8,100.0	90.18	268.75	6,962.9	-117.2	-930.9	934.9	0.00	0.00	0.00
8,200.0	90.18	268.75	6,962.6	-119.4	-1,030.9	1,034.9	0.00	0.00	0.00
8,300.0	90.18	268.75	6,962.3	-121.5	-1,130.9	1,134.9	0.00	0.00	0.00
8,400.0	90.18	268.75	6,962.0	-123.7	-1,230.8	1,234.9	0.00	0.00	0.00
8,500.0	90.18	268.75	6,961.7	-125.9	-1,330.8	1,334.8	0.00	0.00	0.00
8,600.0	90.18	268.75	6,961.4	-128.1	-1,430.8	1,434.8	0.00	0.00	0.00
8,700.0	90.18	268.75	6,961.1	-130.3	-1,530.8	1,534.8	0.00	0.00	0.00
8,800.0	90.18	268.75	6,960.8	-132.4	-1,630.8	1,634.8	0.00	0.00	0.00
8,900.0	90.18	268.75	6,960.4	-134.6	-1,730.7	1,734.8	0.00	0.00	0.00
9,000.0	90.18	268.75	6,960.1	-136.8	-1,830.7	1,834.7	0.00	0.00	0.00
9,100.0	90.18	268.75	6,959.8	-139.0	-1,930.7	1,934.7	0.00	0.00	0.00
9,200.0	90.18	268.75	6,959.5	-141.1	-2,030.7	2,034.7	0.00	0.00	0.00
9,300.0	90.18	268.75	6,959.2	-143.3	-2,130.6	2,134.7	0.00	0.00	0.00
9,400.0	90.18	268.75	6,958.9	-145.5	-2,230.6	2,234.7	0.00	0.00	0.00
9,500.0	90.18	268.75	6,958.6	-147.7	-2,330.6	2,334.7	0.00	0.00	0.00
9,600.0	90.18	268.75	6,958.3	-149.8	-2,430.6	2,434.6	0.00	0.00	0.00
9,700.0	90.18	268.75	6,958.0	-152.0	-2,530.5	2,534.6	0.00	0.00	0.00

<b>Database:</b>	US_EDM	<b>Local Co-ordinate Reference:</b>	Well Ward X-20-19HN
<b>Company:</b>	Bayswater Exploration & Production, LLC	<b>TVD Reference:</b>	WELL @ 4750.0ft (RKB - 23')
<b>Project:</b>	SEC.20-T6N-R66W	<b>MD Reference:</b>	WELL @ 4750.0ft (RKB - 23')
<b>Site:</b>	Ward 20-M Pad Sec. 20-T6N-R66W	<b>North Reference:</b>	True
<b>Well:</b>	Ward X-20-19HN	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	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)
9,800.0	90.18	268.75	6,957.7	-154.2	-2,630.5	2,634.6	0.00	0.00	0.00
9,900.0	90.18	268.75	6,957.4	-156.4	-2,730.5	2,734.6	0.00	0.00	0.00
10,000.0	90.18	268.75	6,957.0	-158.5	-2,830.5	2,834.6	0.00	0.00	0.00
10,100.0	90.18	268.75	6,956.7	-160.7	-2,930.4	2,934.5	0.00	0.00	0.00
10,200.0	90.18	268.75	6,956.4	-162.9	-3,030.4	3,034.5	0.00	0.00	0.00
10,300.0	90.18	268.75	6,956.1	-165.1	-3,130.4	3,134.5	0.00	0.00	0.00
10,400.0	90.18	268.75	6,955.8	-167.3	-3,230.4	3,234.5	0.00	0.00	0.00
10,500.0	90.18	268.75	6,955.5	-169.4	-3,330.3	3,334.5	0.00	0.00	0.00
10,600.0	90.18	268.75	6,955.2	-171.6	-3,430.3	3,434.5	0.00	0.00	0.00
10,700.0	90.18	268.75	6,954.9	-173.8	-3,530.3	3,534.4	0.00	0.00	0.00
10,800.0	90.18	268.75	6,954.6	-176.0	-3,630.3	3,634.4	0.00	0.00	0.00
10,900.0	90.18	268.75	6,954.3	-178.1	-3,730.2	3,734.4	0.00	0.00	0.00
11,000.0	90.18	268.75	6,954.0	-180.3	-3,830.2	3,834.4	0.00	0.00	0.00
11,100.0	90.18	268.75	6,953.7	-182.5	-3,930.2	3,934.4	0.00	0.00	0.00
11,200.0	90.18	268.75	6,953.3	-184.7	-4,030.2	4,034.3	0.00	0.00	0.00
11,300.0	90.18	268.75	6,953.0	-186.8	-4,130.1	4,134.3	0.00	0.00	0.00
11,400.0	90.18	268.75	6,952.7	-189.0	-4,230.1	4,234.3	0.00	0.00	0.00
11,500.0	90.18	268.75	6,952.4	-191.2	-4,330.1	4,334.3	0.00	0.00	0.00
11,600.0	90.18	268.75	6,952.1	-193.4	-4,430.1	4,434.3	0.00	0.00	0.00
11,700.0	90.18	268.75	6,951.8	-195.5	-4,530.1	4,534.3	0.00	0.00	0.00
11,800.0	90.18	268.75	6,951.5	-197.7	-4,630.0	4,634.2	0.00	0.00	0.00
11,900.0	90.18	268.75	6,951.2	-199.9	-4,730.0	4,734.2	0.00	0.00	0.00
12,000.0	90.18	268.75	6,950.9	-202.1	-4,830.0	4,834.2	0.00	0.00	0.00
12,100.0	90.18	268.75	6,950.6	-204.3	-4,930.0	4,934.2	0.00	0.00	0.00
12,200.0	90.18	268.75	6,950.3	-206.4	-5,029.9	5,034.2	0.00	0.00	0.00
12,282.1	90.18	268.75	6,950.0	-208.2	-5,112.0	5,116.3	0.00	0.00	0.00
<b>Start DLS 2.00 TFO -82.68</b>									
12,297.6	90.22	268.44	6,949.9	-208.6	-5,127.5	5,131.7	2.01	0.26	-1.99
12,300.0	90.22	268.44	6,949.9	-208.7	-5,129.9	5,134.1	0.00	0.00	0.00
12,400.0	90.22	268.44	6,949.6	-211.4	-5,229.9	5,234.1	0.00	0.00	0.00
12,500.0	90.22	268.44	6,949.2	-214.1	-5,329.8	5,334.1	0.00	0.00	0.00
12,600.0	90.22	268.44	6,948.8	-216.8	-5,429.8	5,434.1	0.00	0.00	0.00
12,700.0	90.22	268.44	6,948.4	-219.5	-5,529.8	5,534.1	0.00	0.00	0.00
12,800.0	90.22	268.44	6,948.0	-222.2	-5,629.7	5,634.1	0.00	0.00	0.00
12,900.0	90.22	268.44	6,947.7	-224.9	-5,729.7	5,734.1	0.00	0.00	0.00
13,000.0	90.22	268.44	6,947.3	-227.7	-5,829.6	5,834.1	0.00	0.00	0.00
13,100.0	90.22	268.44	6,946.9	-230.4	-5,929.6	5,934.1	0.00	0.00	0.00
13,200.0	90.22	268.44	6,946.5	-233.1	-6,029.6	6,034.1	0.00	0.00	0.00
13,300.0	90.22	268.44	6,946.2	-235.8	-6,129.5	6,134.1	0.00	0.00	0.00
13,400.0	90.22	268.44	6,945.8	-238.5	-6,229.5	6,234.0	0.00	0.00	0.00
13,500.0	90.22	268.44	6,945.4	-241.2	-6,329.5	6,334.0	0.00	0.00	0.00
13,600.0	90.22	268.44	6,945.0	-244.0	-6,429.4	6,434.0	0.00	0.00	0.00
13,700.0	90.22	268.44	6,944.6	-246.7	-6,529.4	6,534.0	0.00	0.00	0.00
13,800.0	90.22	268.44	6,944.3	-249.4	-6,629.3	6,634.0	0.00	0.00	0.00
13,900.0	90.22	268.44	6,943.9	-252.1	-6,729.3	6,734.0	0.00	0.00	0.00
14,000.0	90.22	268.44	6,943.5	-254.8	-6,829.3	6,834.0	0.00	0.00	0.00
14,100.0	90.22	268.44	6,943.1	-257.5	-6,929.2	6,934.0	0.00	0.00	0.00
14,200.0	90.22	268.44	6,942.8	-260.2	-7,029.2	7,034.0	0.00	0.00	0.00
14,300.0	90.22	268.44	6,942.4	-263.0	-7,129.2	7,134.0	0.00	0.00	0.00
14,400.0	90.22	268.44	6,942.0	-265.7	-7,229.1	7,233.9	0.00	0.00	0.00
14,500.0	90.22	268.44	6,941.6	-268.4	-7,329.1	7,333.9	0.00	0.00	0.00
14,600.0	90.22	268.44	6,941.2	-271.1	-7,429.0	7,433.9	0.00	0.00	0.00
14,700.0	90.22	268.44	6,940.9	-273.8	-7,529.0	7,533.9	0.00	0.00	0.00
14,800.0	90.22	268.44	6,940.5	-276.5	-7,629.0	7,633.9	0.00	0.00	0.00

<b>Database:</b>	US_EDM	<b>Local Co-ordinate Reference:</b>	Well Ward X-20-19HN
<b>Company:</b>	Bayswater Exploration & Production, LLC	<b>TVD Reference:</b>	WELL @ 4750.0ft (RKB - 23')
<b>Project:</b>	SEC.20-T6N-R66W	<b>MD Reference:</b>	WELL @ 4750.0ft (RKB - 23')
<b>Site:</b>	Ward 20-M Pad Sec. 20-T6N-R66W	<b>North Reference:</b>	True
<b>Well:</b>	Ward X-20-19HN	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	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)	
14,900.0	90.22	268.44	6,940.1	-279.2	-7,728.9	7,733.9	0.00	0.00	0.00	
14,928.9	90.22	268.44	6,940.0	-280.0	-7,757.8	7,762.8	0.00	0.00	0.00	
Start DLS 2.00 TFO -82.31										
15,000.0	90.41	267.04	6,939.6	-282.8	-7,828.9	7,833.9	2.00	0.27	-1.98	
15,006.1	90.42	266.91	6,939.6	-283.1	-7,835.0	7,840.0	2.00	0.27	-1.98	
Start 2650.6 hold at 15006.1 MD										
15,100.0	90.42	266.91	6,938.9	-288.2	-7,928.7	7,933.9	0.00	0.00	0.00	
15,200.0	90.42	266.91	6,938.1	-293.6	-8,028.6	8,033.9	0.00	0.00	0.00	
15,300.0	90.42	266.91	6,937.4	-299.0	-8,128.4	8,133.9	0.00	0.00	0.00	
15,400.0	90.42	266.91	6,936.7	-304.4	-8,228.3	8,233.8	0.00	0.00	0.00	
15,500.0	90.42	266.91	6,935.9	-309.7	-8,328.1	8,333.8	0.00	0.00	0.00	
15,600.0	90.42	266.91	6,935.2	-315.1	-8,428.0	8,433.8	0.00	0.00	0.00	
15,700.0	90.42	266.91	6,934.4	-320.5	-8,527.8	8,533.8	0.00	0.00	0.00	
15,800.0	90.42	266.91	6,933.7	-325.9	-8,627.7	8,633.8	0.00	0.00	0.00	
15,900.0	90.42	266.91	6,933.0	-331.3	-8,727.5	8,733.8	0.00	0.00	0.00	
16,000.0	90.42	266.91	6,932.2	-336.7	-8,827.4	8,833.8	0.00	0.00	0.00	
16,100.0	90.42	266.91	6,931.5	-342.0	-8,927.2	8,933.8	0.00	0.00	0.00	
16,200.0	90.42	266.91	6,930.8	-347.4	-9,027.1	9,033.8	0.00	0.00	0.00	
16,300.0	90.42	266.91	6,930.0	-352.8	-9,126.9	9,133.7	0.00	0.00	0.00	
16,400.0	90.42	266.91	6,929.3	-358.2	-9,226.8	9,233.7	0.00	0.00	0.00	
16,500.0	90.42	266.91	6,928.5	-363.6	-9,326.6	9,333.7	0.00	0.00	0.00	
16,600.0	90.42	266.91	6,927.8	-369.0	-9,426.5	9,433.7	0.00	0.00	0.00	
16,700.0	90.42	266.91	6,927.1	-374.3	-9,526.3	9,533.7	0.00	0.00	0.00	
16,800.0	90.42	266.91	6,926.3	-379.7	-9,626.2	9,633.7	0.00	0.00	0.00	
16,900.0	90.42	266.91	6,925.6	-385.1	-9,726.1	9,733.7	0.00	0.00	0.00	
17,000.0	90.42	266.91	6,924.8	-390.5	-9,825.9	9,833.7	0.00	0.00	0.00	
17,100.0	90.42	266.91	6,924.1	-395.9	-9,925.8	9,933.6	0.00	0.00	0.00	
17,200.0	90.42	266.91	6,923.4	-401.2	-10,025.6	10,033.6	0.00	0.00	0.00	
17,300.0	90.42	266.91	6,922.6	-406.6	-10,125.5	10,133.6	0.00	0.00	0.00	
17,400.0	90.42	266.91	6,921.9	-412.0	-10,225.3	10,233.6	0.00	0.00	0.00	
17,500.0	90.42	266.91	6,921.2	-417.4	-10,325.2	10,333.6	0.00	0.00	0.00	
17,600.0	90.42	266.91	6,920.4	-422.8	-10,425.0	10,433.6	0.00	0.00	0.00	
17,656.7	90.42	266.91	6,920.0	-425.8	-10,481.6	10,490.3	0.00	0.00	0.00	
TD at 17656.7										

<b>Database:</b>	US_EDM	<b>Local Co-ordinate Reference:</b>	Well Ward X-20-19HN
<b>Company:</b>	Bayswater Exploration & Production, LLC	<b>TVD Reference:</b>	WELL @ 4750.0ft (RKB - 23')
<b>Project:</b>	SEC.20-T6N-R66W	<b>MD Reference:</b>	WELL @ 4750.0ft (RKB - 23')
<b>Site:</b>	Ward 20-M Pad Sec. 20-T6N-R66W	<b>North Reference:</b>	True
<b>Well:</b>	Ward X-20-19HN	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	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 259'FSL, 213'FEL, : - plan hits target center - Point	0.00	0.00	1.0	0.0	0.0	1,413,792.01	3,196,666.42	40.467109	-104.793156	
BHL 157'FSL, 470'FWL, - plan hits target center - Point	0.00	0.00	6,920.0	-425.8	-10,481.7	1,413,282.65	3,186,188.86	40.465934	-104.830826	
Boreline Vertex 159' FSL - plan hits target center - Point	0.00	0.00	6,940.0	-280.0	-7,757.8	1,413,450.17	3,188,911.35	40.466337	-104.821037	
Boreline Vertex 159'FSL - plan hits target center - Point	0.00	0.00	6,950.0	-208.2	-5,112.0	1,413,543.06	3,191,556.47	40.466536	-104.811528	
LPL 160'FSL, 470'FEL, : - plan hits target center - Point	0.00	0.00	6,965.0	-102.4	-256.5	1,413,687.60	3,196,410.71	40.466828	-104.794078	

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
7,425.5	6,965.0	7"	7	8-3/4	

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
1,500.0	1,500.0	0.0	0.0	KOP - Start Build 1.50	
7,425.5	6,965.0	-19.3	111.7	Start DLS 2.00 TFO 90.31	
12,282.1	6,950.0	-65.2	377.8	Start DLS 2.00 TFO -82.68	
14,928.9	6,940.0	-79.6	461.6	Start DLS 2.00 TFO -82.31	
15,006.1	6,939.6	-79.6	461.6	Start 2650.6 hold at 15006.1 MD	
17,656.7	6,920.0	-102.4	-256.5	TD at 17656.7	