

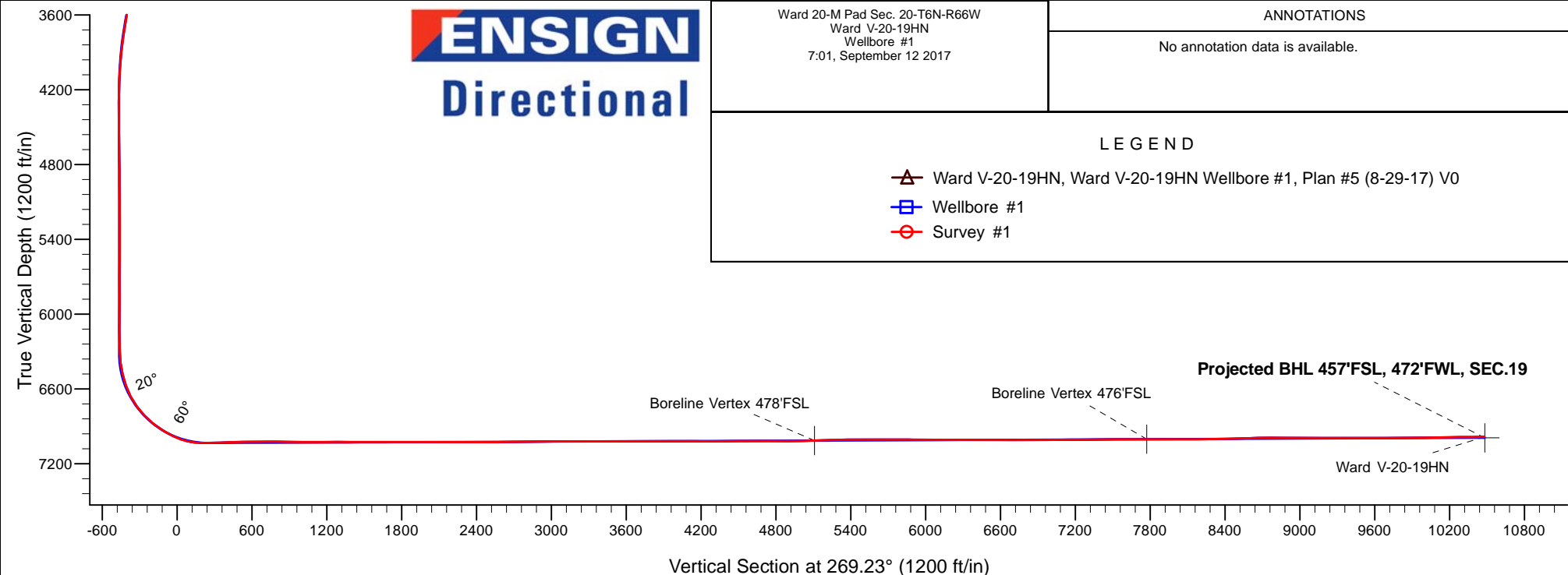
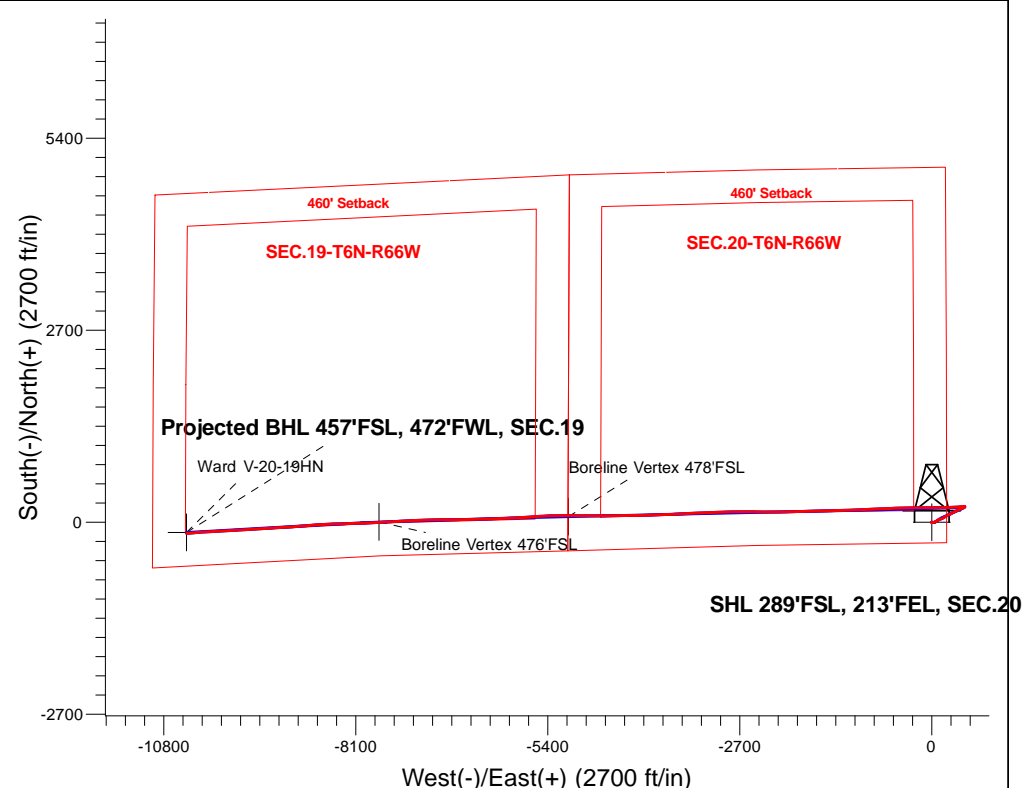
# Bayswater Exploration & Production, LLC

Well Name: **Ward V-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 1413822.233196666.17 40.467192 -104.793156  
RKB - 25' WELL @ 4753.0ft (RKB - 25')

## FINAL SURVEY

**Projected Bottom Hole Location**  
**17,716'MD 6985'TVD 156'S & 10478'W of SHL**  
**91.1 degree Incl @ 265.60 degree AZM**



**ENSIGN**  
**Directional**

Ward 20-M Pad Sec. 20-T6N-R66W  
Ward V-20-19HN  
Wellbore #1  
7:01, September 12 2017

### ANNOTATIONS

No annotation data is available.

### LEGEND

- Ward V-20-19HN, Ward V-20-19HN Wellbore #1, Plan #5 (8-29-17) V0
- Wellbore #1
- Survey #1



## **Bayswater Exploration & Production, LLC**

**SEC.20-T6N-R66W**

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

**Ward V-20-19HN**

**Ward V-20-19HN Wellbore #1**

**Survey: Survey #1**

## **Standard Survey Report**

**12 September, 2017**



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

<b>Company:</b>	Bayswater Exploration & Production, LLC	<b>Local Co-ordinate Reference:</b>	Well Ward V-20-19HN
<b>Project:</b>	SEC.20-T6N-R66W	<b>TVD Reference:</b>	WELL @ 4753.0ft (RKB - 25')
<b>Site:</b>	Ward 20-M Pad Sec. 20-T6N-R66W	<b>MD Reference:</b>	WELL @ 4753.0ft (RKB - 25')
<b>Well:</b>	Ward V-20-19HN	<b>North Reference:</b>	True
<b>Wellbore:</b>	Ward V-20-19HN Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	US_EDM

<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 V-20-19HN					
Well Position	+N/-S	0.0 ft	Northing:	1,413,822.23 usft	Latitude:	40.467192
	+E/-W	0.0 ft	Easting:	3,196,666.17 usft	Longitude:	-104.793156
Position Uncertainty		0.0 ft	Wellhead Elevation:	0.0 ft	Ground Level:	4,728.0 ft

<b>Wellbore</b>	Ward V-20-19HN 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	8/29/2017	8.05	66.88	52,511

<b>Design</b>	Wellbore #1				
<b>Audit Notes:</b>					
<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>	
	0.0	0.0	0.0	269.23	

<b>Survey Program</b>	<b>Date</b>	9/12/2017			
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
146.0	17,716.0	Survey #1 (Ward V-20-19HN Wellbore #1)	MWD	MWD - Standard	

<b>Survey</b>										
<b>Measured Depth (ft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Vertical Section (ft)</b>	<b>Dogleg Rate (°/100usft)</b>	<b>Build Rate (°/100usft)</b>	<b>Turn Rate (°/100usft)</b>	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00	
146.0	1.80	281.20	146.0	0.4	-2.2	2.2	1.23	1.23	0.00	
241.0	0.50	266.30	241.0	0.7	-4.1	4.1	1.39	-1.37	-15.68	
336.0	1.30	97.00	335.9	0.6	-3.5	3.5	1.89	0.84	-178.21	
430.0	2.60	98.10	429.9	0.1	-0.3	0.3	1.38	1.38	1.17	
525.0	3.60	93.50	524.8	-0.4	4.8	-4.8	1.08	1.05	-4.84	
620.0	4.40	94.40	619.5	-0.8	11.4	-11.4	0.84	0.84	0.95	
715.0	4.80	92.10	714.2	-1.3	19.0	-19.0	0.46	0.42	-2.42	
809.0	5.50	93.30	807.8	-1.7	27.5	-27.4	0.75	0.74	1.28	
904.0	4.90	74.20	902.4	-0.8	35.9	-35.9	1.92	-0.63	-20.11	

<b>Company:</b>	Bayswater Exploration & Production, LLC	<b>Local Co-ordinate Reference:</b>	Well Ward V-20-19HN
<b>Project:</b>	SEC.20-T6N-R66W	<b>TVD Reference:</b>	WELL @ 4753.0ft (RKB - 25')
<b>Site:</b>	Ward 20-M Pad Sec. 20-T6N-R66W	<b>MD Reference:</b>	WELL @ 4753.0ft (RKB - 25')
<b>Well:</b>	Ward V-20-19HN	<b>North Reference:</b>	True
<b>Wellbore:</b>	Ward V-20-19HN Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	US_EDM

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)
999.0	4.00	48.90	997.2	2.5	42.3	-42.3	2.25	-0.95	-26.63
1,094.0	3.40	61.20	1,092.0	6.0	47.3	-47.3	1.04	-0.63	12.95
1,189.0	3.30	53.40	1,186.8	9.0	51.9	-52.1	0.49	-0.11	-8.21
1,283.0	4.30	56.10	1,280.6	12.6	57.0	-57.2	1.08	1.06	2.87
1,378.0	5.50	64.20	1,375.3	16.5	64.1	-64.3	1.46	1.26	8.53
1,473.0	6.00	60.60	1,469.8	21.0	72.5	-72.8	0.65	0.53	-3.79
1,495.0	5.60	56.10	1,491.7	22.1	74.4	-74.7	2.75	-1.82	-20.45
1,572.0	5.60	47.60	1,568.3	26.8	80.3	-80.6	1.08	0.00	-11.04
1,667.0	6.50	60.80	1,662.8	32.5	88.4	-88.8	1.74	0.95	13.89
1,762.0	6.90	70.60	1,757.1	37.0	98.5	-99.0	1.27	0.42	10.32
1,857.0	9.00	72.90	1,851.2	41.1	111.0	-111.5	2.24	2.21	2.42
1,952.0	9.40	70.60	1,945.0	45.9	125.4	-126.0	0.57	0.42	-2.42
2,046.0	10.30	62.40	2,037.6	52.3	140.1	-140.8	1.77	0.96	-8.72
2,140.0	11.40	60.40	2,129.9	60.8	155.6	-156.4	1.24	1.17	-2.13
2,234.0	11.00	59.20	2,222.1	70.0	171.4	-172.3	0.49	-0.43	-1.28
2,329.0	10.50	57.60	2,315.5	79.2	186.5	-187.5	0.61	-0.53	-1.68
2,424.0	11.30	65.40	2,408.8	87.8	202.3	-203.4	1.76	0.84	8.21
2,519.0	10.90	63.80	2,502.0	95.6	218.8	-220.1	0.53	-0.42	-1.68
2,614.0	10.70	63.20	2,595.3	103.5	234.7	-236.1	0.24	-0.21	-0.63
2,708.0	10.30	61.30	2,687.7	111.5	249.9	-251.4	0.56	-0.43	-2.02
2,803.0	11.60	61.80	2,781.0	120.1	265.7	-267.3	1.37	1.37	0.53
2,899.0	11.10	60.60	2,875.1	129.2	282.3	-284.0	0.58	-0.52	-1.25
2,993.0	12.00	66.40	2,967.2	137.6	299.1	-301.0	1.56	0.96	6.17
3,088.0	11.40	64.10	3,060.2	145.6	316.6	-318.6	0.80	-0.63	-2.42
3,183.0	10.70	61.80	3,153.5	153.9	332.8	-334.9	0.87	-0.74	-2.42
3,277.0	10.30	60.60	3,245.9	162.1	347.9	-350.0	0.48	-0.43	-1.28
3,372.0	9.80	65.00	3,339.4	169.7	362.6	-364.8	0.96	-0.53	4.63
3,466.0	9.10	62.40	3,432.2	176.5	376.4	-378.8	0.87	-0.74	-2.77
3,561.0	9.10	64.70	3,526.0	183.2	389.9	-392.3	0.38	0.00	2.42
3,655.0	9.50	68.50	3,618.7	189.3	403.8	-406.3	0.78	0.43	4.04
3,750.0	9.20	67.80	3,712.5	195.0	418.1	-420.7	0.34	-0.32	-0.74
3,847.0	8.90	64.10	3,808.3	201.2	432.1	-434.7	0.67	-0.31	-3.81
3,942.0	6.80	60.60	3,902.4	207.2	443.6	-446.3	2.27	-2.21	-3.68
4,037.0	5.50	63.20	3,996.8	212.0	452.5	-455.4	1.40	-1.37	2.74
4,131.0	3.10	71.00	4,090.6	214.8	459.0	-461.8	2.62	-2.55	8.30
4,225.0	1.80	49.90	4,184.5	216.6	462.5	-465.4	1.66	-1.38	-22.45
4,319.0	0.40	340.10	4,278.5	217.9	463.5	-466.4	1.81	-1.49	-74.26
4,413.0	0.40	8.20	4,372.5	218.5	463.5	-466.4	0.21	0.00	29.89
4,508.0	0.40	314.60	4,467.5	219.1	463.3	-466.2	0.38	0.00	-56.42
4,603.0	0.70	286.70	4,562.4	219.5	462.5	-465.4	0.41	0.32	-29.37
4,698.0	0.50	283.50	4,657.4	219.7	461.5	-464.4	0.21	-0.21	-3.37
4,793.0	0.80	286.80	4,752.4	220.0	460.5	-463.4	0.32	0.32	3.47
4,887.0	0.70	303.90	4,846.4	220.5	459.4	-462.3	0.26	-0.11	18.19
4,982.0	0.50	239.20	4,941.4	220.7	458.5	-461.5	0.70	-0.21	-68.11

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<b>Well:</b>	Ward V-20-19HN	<b>North Reference:</b>	True
<b>Wellbore:</b>	Ward V-20-19HN Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	US_EDM

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)
5,076.0	0.40	280.30	5,035.4	220.5	457.9	-460.8	0.35	-0.11	43.72
5,170.0	0.30	270.50	5,129.4	220.6	457.3	-460.2	0.12	-0.11	-10.43
5,265.0	0.40	339.90	5,224.4	220.9	456.9	-459.9	0.43	0.11	73.05
5,359.0	0.60	346.40	5,318.4	221.7	456.7	-459.7	0.22	0.21	6.91
5,454.0	0.10	27.40	5,413.4	222.2	456.6	-459.6	0.56	-0.53	43.16
5,549.0	0.60	132.50	5,508.4	222.0	457.0	-460.0	0.67	0.53	110.63
5,644.0	0.50	128.10	5,603.4	221.4	457.7	-460.7	0.11	-0.11	-4.63
5,738.0	0.30	82.80	5,697.4	221.1	458.3	-461.2	0.38	-0.21	-48.19
5,833.0	0.30	77.80	5,792.4	221.2	458.8	-461.7	0.03	0.00	-5.26
5,928.0	1.00	175.00	5,887.4	220.5	459.1	-462.0	1.14	0.74	102.32
6,053.0	0.40	210.00	6,012.4	219.0	459.0	-461.9	0.57	-0.48	28.00
6,147.0	0.10	218.60	6,106.4	218.6	458.8	-461.7	0.32	-0.32	9.15
6,242.0	0.30	228.50	6,201.4	218.4	458.5	-461.4	0.21	0.21	10.42
6,336.0	0.90	275.20	6,295.4	218.3	457.6	-460.5	0.77	0.64	49.68
6,430.0	7.70	269.10	6,389.1	218.3	450.6	-453.5	7.24	7.23	-6.49
6,525.0	13.50	273.10	6,482.4	218.8	433.1	-436.0	6.15	6.11	4.21
6,619.0	19.20	267.30	6,572.6	218.6	406.7	-409.6	6.30	6.06	-6.17
6,713.0	27.30	263.60	6,658.9	215.5	369.8	-372.6	8.75	8.62	-3.94
6,808.0	35.20	267.00	6,740.0	211.6	320.7	-323.5	8.52	8.32	3.58
6,903.0	43.40	270.30	6,813.5	210.4	260.6	-263.4	8.91	8.63	3.47
6,998.0	51.60	268.90	6,877.6	209.8	190.6	-193.4	8.70	8.63	-1.47
7,092.0	57.80	270.10	6,931.9	209.2	113.9	-116.8	6.68	6.60	1.28
7,187.0	64.40	268.40	6,977.8	208.1	30.8	-33.6	7.12	6.95	-1.79
7,282.0	72.80	268.20	7,012.4	205.4	-57.5	54.7	8.84	8.84	-0.21
7,376.0	85.20	268.90	7,030.3	203.1	-149.6	146.8	13.21	13.19	0.74
7,470.0	90.80	271.00	7,033.6	203.0	-243.5	240.7	6.36	5.96	2.23
7,565.0	92.10	269.40	7,031.2	203.4	-338.4	335.6	2.17	1.37	-1.68
7,660.0	92.00	268.60	7,027.8	201.7	-433.3	430.6	0.85	-0.11	-0.84
7,755.0	91.10	267.70	7,025.2	198.7	-528.3	525.5	1.34	-0.95	-0.95
7,851.0	90.60	266.80	7,023.8	194.0	-624.1	621.5	1.07	-0.52	-0.94
7,946.0	89.80	267.50	7,023.5	189.3	-719.0	716.4	1.12	-0.84	0.74
8,040.0	89.40	266.80	7,024.1	184.7	-812.9	810.3	0.86	-0.43	-0.74
8,135.0	89.00	267.50	7,025.5	179.9	-907.8	905.3	0.85	-0.42	0.74
8,230.0	89.30	267.70	7,026.9	176.0	-1,002.7	1,000.2	0.38	0.32	0.21
8,325.0	90.70	268.90	7,026.9	173.1	-1,097.6	1,095.2	1.94	1.47	1.26
8,419.0	90.20	268.00	7,026.1	170.6	-1,191.6	1,189.2	1.10	-0.53	-0.96
8,514.0	90.00	267.90	7,026.0	167.2	-1,286.5	1,284.2	0.24	-0.21	-0.11
8,609.0	89.20	267.50	7,026.6	163.4	-1,381.5	1,379.1	0.94	-0.84	-0.42
8,707.0	90.10	269.30	7,027.2	160.6	-1,479.4	1,477.1	2.05	0.92	1.84
8,802.0	89.40	268.60	7,027.6	158.9	-1,574.4	1,572.1	1.04	-0.74	-0.74
8,897.0	91.00	268.90	7,027.3	156.8	-1,669.4	1,667.1	1.71	1.68	0.32
8,991.0	90.70	268.90	7,025.9	155.0	-1,763.3	1,761.1	0.32	-0.32	0.00
9,086.0	89.90	268.00	7,025.4	152.5	-1,858.3	1,856.1	1.27	-0.84	-0.95

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<b>Well:</b>	Ward V-20-19HN	<b>North Reference:</b>	True
<b>Wellbore:</b>	Ward V-20-19HN Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	US_EDM

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)
9,181.0	89.00	267.50	7,026.3	148.7	-1,953.2	1,951.0	1.08	-0.95	-0.53
9,275.0	90.00	269.30	7,027.2	146.1	-2,047.2	2,045.0	2.19	1.06	1.91
9,370.0	89.30	269.30	7,027.7	144.9	-2,142.2	2,140.0	0.74	-0.74	0.00
9,465.0	90.30	269.60	7,028.1	144.0	-2,237.2	2,235.0	1.10	1.05	0.32
9,560.0	89.40	269.60	7,028.3	143.4	-2,332.2	2,330.0	0.95	-0.95	0.00
9,654.0	90.70	271.00	7,028.2	143.9	-2,426.2	2,424.0	2.03	1.38	1.49
9,749.0	89.60	270.70	7,028.0	145.3	-2,521.1	2,518.9	1.20	-1.16	-0.32
9,844.0	91.50	271.20	7,027.1	146.8	-2,616.1	2,613.9	2.07	2.00	0.53
9,938.0	91.00	270.80	7,025.0	148.5	-2,710.1	2,707.8	0.68	-0.53	-0.43
10,033.0	91.40	269.10	7,023.0	148.4	-2,805.1	2,802.8	1.84	0.42	-1.79
10,127.0	90.70	269.30	7,021.3	147.1	-2,899.0	2,896.8	0.77	-0.74	0.21
10,222.0	89.40	268.40	7,021.2	145.2	-2,994.0	2,991.8	1.66	-1.37	-0.95
10,317.0	88.60	267.00	7,022.9	141.4	-3,088.9	3,086.7	1.70	-0.84	-1.47
10,412.0	90.90	265.40	7,023.3	135.1	-3,183.7	3,181.6	2.95	2.42	-1.68
10,507.0	90.90	267.00	7,021.8	128.8	-3,278.5	3,276.4	1.68	0.00	1.68
10,602.0	90.70	268.20	7,020.5	124.8	-3,373.4	3,371.4	1.28	-0.21	1.26
10,697.0	90.20	267.30	7,019.7	121.1	-3,468.3	3,466.3	1.08	-0.53	-0.95
10,791.0	89.20	267.20	7,020.2	116.6	-3,562.2	3,560.3	1.07	-1.06	-0.11
10,886.0	91.00	268.20	7,020.1	112.7	-3,657.1	3,655.2	2.17	1.89	1.05
10,981.0	90.50	267.90	7,018.8	109.5	-3,752.0	3,750.2	0.61	-0.53	-0.32
11,076.0	89.90	267.70	7,018.5	105.9	-3,847.0	3,845.2	0.67	-0.63	-0.21
11,170.0	89.40	267.90	7,019.1	102.3	-3,940.9	3,939.2	0.57	-0.53	0.21
11,265.0	90.20	268.90	7,019.4	99.6	-4,035.9	4,034.1	1.35	0.84	1.05
11,360.0	89.70	268.70	7,019.5	97.6	-4,130.8	4,129.1	0.57	-0.53	-0.21
11,455.0	88.90	268.90	7,020.6	95.6	-4,225.8	4,224.1	0.87	-0.84	0.21
11,549.0	91.30	269.60	7,020.5	94.4	-4,319.8	4,318.1	2.66	2.55	0.74
11,644.0	90.50	269.80	7,019.0	93.9	-4,414.8	4,413.1	0.87	-0.84	0.21
11,739.0	90.20	269.30	7,018.4	93.2	-4,509.8	4,508.1	0.61	-0.32	-0.53
11,834.0	89.80	268.90	7,018.4	91.7	-4,604.8	4,603.1	0.60	-0.42	-0.42
11,929.0	90.20	270.10	7,018.4	90.8	-4,699.8	4,698.1	1.33	0.42	1.26
12,024.0	90.00	270.10	7,018.2	91.0	-4,794.8	4,793.1	0.21	-0.21	0.00
12,118.0	89.10	270.80	7,019.0	91.7	-4,888.7	4,887.1	1.21	-0.96	0.74
12,213.0	92.00	271.20	7,018.1	93.4	-4,983.7	4,982.0	3.08	3.05	0.42
12,308.0	91.30	271.90	7,015.3	96.0	-5,078.6	5,076.9	1.04	-0.74	0.74
12,403.0	92.00	268.70	7,012.6	96.5	-5,173.6	5,171.8	3.45	0.74	-3.37
12,497.0	91.90	268.70	7,009.4	94.3	-5,267.5	5,265.8	0.11	-0.11	0.00
12,592.0	91.20	268.60	7,006.8	92.1	-5,362.5	5,360.7	0.74	-0.74	-0.11
12,687.0	90.20	266.40	7,005.7	88.0	-5,457.3	5,455.7	2.54	-1.05	-2.32
12,782.0	89.80	266.10	7,005.7	81.7	-5,552.1	5,550.5	0.53	-0.42	-0.32
12,877.0	89.80	266.60	7,006.0	75.7	-5,646.9	5,645.4	0.53	0.00	0.53
12,972.0	89.80	265.90	7,006.3	69.5	-5,741.7	5,740.3	0.74	0.00	-0.74
13,066.0	90.00	265.60	7,006.5	62.5	-5,835.5	5,834.1	0.38	0.21	-0.32
13,161.0	88.50	268.00	7,007.7	57.2	-5,930.3	5,929.0	2.98	-1.58	2.53

<b>Company:</b>	Bayswater Exploration & Production, LLC	<b>Local Co-ordinate Reference:</b>	Well Ward V-20-19HN
<b>Project:</b>	SEC.20-T6N-R66W	<b>TVD Reference:</b>	WELL @ 4753.0ft (RKB - 25')
<b>Site:</b>	Ward 20-M Pad Sec. 20-T6N-R66W	<b>MD Reference:</b>	WELL @ 4753.0ft (RKB - 25')
<b>Well:</b>	Ward V-20-19HN	<b>North Reference:</b>	True
<b>Wellbore:</b>	Ward V-20-19HN Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	US_EDM

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)	
13,256.0	90.00	268.20	7,009.0	54.1	-6,025.3	6,024.0	1.59	1.58	0.21	
13,351.0	89.70	267.30	7,009.2	50.3	-6,120.2	6,118.9	1.00	-0.32	-0.95	
13,445.0	90.40	268.60	7,009.1	47.0	-6,214.1	6,212.9	1.57	0.74	1.38	
13,540.0	90.00	269.30	7,008.8	45.2	-6,309.1	6,307.9	0.85	-0.42	0.74	
13,635.0	89.60	268.60	7,009.1	43.5	-6,404.1	6,402.9	0.85	-0.42	-0.74	
13,729.0	88.90	268.00	7,010.4	40.7	-6,498.0	6,496.9	0.98	-0.74	-0.64	
13,824.0	90.30	269.10	7,011.0	38.3	-6,593.0	6,591.9	1.87	1.47	1.16	
13,919.0	89.50	268.70	7,011.2	36.5	-6,688.0	6,686.9	0.94	-0.84	-0.42	
14,014.0	90.80	269.80	7,011.0	35.2	-6,783.0	6,781.9	1.79	1.37	1.16	
14,109.0	90.60	270.00	7,009.8	35.1	-6,878.0	6,876.9	0.30	-0.21	0.21	
14,204.0	89.70	270.10	7,009.5	35.1	-6,973.0	6,971.8	0.95	-0.95	0.11	
14,299.0	91.10	268.20	7,008.9	33.7	-7,067.9	7,066.8	2.48	1.47	-2.00	
14,393.0	90.40	267.70	7,007.6	30.4	-7,161.9	7,160.8	0.92	-0.74	-0.53	
14,488.0	89.70	267.90	7,007.6	26.7	-7,256.8	7,255.8	0.77	-0.74	0.21	
14,583.0	91.50	267.20	7,006.6	22.7	-7,351.7	7,350.7	2.03	1.89	-0.74	
14,678.0	90.60	267.30	7,004.8	18.1	-7,446.6	7,445.7	0.95	-0.95	0.11	
14,773.0	90.00	266.80	7,004.3	13.2	-7,541.4	7,540.6	0.82	-0.63	-0.53	
14,867.0	89.10	266.30	7,005.1	7.6	-7,635.3	7,634.5	1.10	-0.96	-0.53	
14,962.0	90.60	266.60	7,005.3	1.7	-7,730.1	7,729.4	1.61	1.58	0.32	
15,057.0	90.10	266.60	7,004.7	-4.0	-7,824.9	7,824.3	0.53	-0.53	0.00	
15,152.0	89.60	266.80	7,005.0	-9.4	-7,919.8	7,919.2	0.57	-0.53	0.21	
15,246.0	90.70	268.90	7,004.7	-12.9	-8,013.7	8,013.1	2.52	1.17	2.23	
15,341.0	90.40	268.90	7,003.8	-14.8	-8,108.7	8,108.1	0.32	-0.32	0.00	
15,435.0	89.90	268.60	7,003.6	-16.8	-8,202.6	8,202.1	0.62	-0.53	-0.32	
15,530.0	89.80	268.20	7,003.8	-19.5	-8,297.6	8,297.1	0.43	-0.11	-0.42	
15,625.0	92.40	267.70	7,002.0	-22.9	-8,392.5	8,392.1	2.79	2.74	-0.53	
15,720.0	92.20	267.70	6,998.2	-26.7	-8,487.4	8,487.0	0.21	-0.21	0.00	
15,814.0	91.60	266.60	6,995.1	-31.4	-8,581.2	8,580.8	1.33	-0.64	-1.17	
15,907.0	91.20	266.10	6,992.8	-37.3	-8,674.0	8,673.7	0.69	-0.43	-0.54	
16,002.0	89.70	264.90	6,992.1	-44.7	-8,768.7	8,768.5	2.02	-1.58	-1.26	
16,096.0	89.30	264.90	6,992.9	-53.1	-8,862.3	8,862.2	0.43	-0.43	0.00	
16,191.0	88.90	266.10	6,994.4	-60.5	-8,957.0	8,957.0	1.33	-0.42	1.26	
16,286.0	91.20	267.00	6,994.3	-66.2	-9,051.8	9,051.9	2.60	2.42	0.95	
16,381.0	90.30	266.40	6,993.0	-71.7	-9,146.6	9,146.8	1.14	-0.95	-0.63	
16,475.0	89.80	265.60	6,993.0	-78.3	-9,240.4	9,240.6	1.00	-0.53	-0.85	
16,570.0	89.70	267.30	6,993.4	-84.2	-9,335.2	9,335.5	1.79	-0.11	1.79	
16,665.0	89.70	266.80	6,993.9	-89.0	-9,430.1	9,430.4	0.53	0.00	-0.53	
16,760.0	89.70	266.30	6,994.4	-94.8	-9,524.9	9,525.3	0.53	0.00	-0.53	
16,855.0	89.70	266.10	6,994.9	-101.1	-9,619.7	9,620.2	0.21	0.00	-0.21	
16,950.0	90.70	267.00	6,994.5	-106.8	-9,714.5	9,715.1	1.42	1.05	0.95	
17,045.0	90.70	265.60	6,993.4	-112.9	-9,809.3	9,810.0	1.47	0.00	-1.47	
17,139.0	90.80	268.20	6,992.1	-118.0	-9,903.2	9,903.9	2.77	0.11	2.77	
17,234.0	91.00	267.00	6,990.7	-122.0	-9,998.1	9,998.8	1.28	0.21	-1.26	
17,329.0	90.60	266.40	6,989.3	-127.4	-10,092.9	10,093.7	0.76	-0.42	-0.63	

<b>Company:</b>	Bayswater Exploration & Production, LLC	<b>Local Co-ordinate Reference:</b>	Well Ward V-20-19HN
<b>Project:</b>	SEC.20-T6N-R66W	<b>TVD Reference:</b>	WELL @ 4753.0ft (RKB - 25')
<b>Site:</b>	Ward 20-M Pad Sec. 20-T6N-R66W	<b>MD Reference:</b>	WELL @ 4753.0ft (RKB - 25')
<b>Well:</b>	Ward V-20-19HN	<b>North Reference:</b>	True
<b>Wellbore:</b>	Ward V-20-19HN Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	US_EDM

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)	
17,424.0	90.60	266.30	6,988.3	-133.5	-10,187.7	10,188.6	0.11	0.00	-0.11	
17,519.0	90.30	265.60	6,987.6	-140.2	-10,282.5	10,283.4	0.80	-0.32	-0.74	
17,613.0	90.70	265.00	6,986.8	-147.9	-10,376.2	10,377.2	0.77	0.43	-0.64	
17,661.0	91.10	265.60	6,986.0	-151.8	-10,424.0	10,425.1	1.50	0.83	1.25	
17,716.0	91.10	265.60	6,985.0	-156.0	-10,478.8	10,480.0	0.00	0.00	0.00	

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 289'FSL, 213'FEL, : - survey hits target center - Point	0.00	0.00	1.0	0.0	0.0	1,413,822.25	3,196,666.17	40.467192	-104.793156	
BHL 471'FSL, 470'FWL, - survey misses target center by 16.6ft at 17716.0ft MD (6985.0 TVD, -156.0 N, -10478.8 E) - Point	0.00	0.00	6,993.0	-141.7	-10,480.7	1,413,597.04	3,186,187.32	40.466797	-104.830823	
Boreline Vertex 476'FSL - survey misses target center by 7.6ft at 15004.9ft MD (7005.0 TVD, -0.9 N, -7772.9 E) - Point	0.00	0.00	7,004.0	6.7	-7,773.3	1,413,766.98	3,188,893.34	40.467207	-104.821093	
Boreline Vertex 478'FSL - survey misses target center by 16.0ft at 12340.1ft MD (7014.5 TVD, 96.7 N, -5110.7 E) - Point	0.00	0.00	7,015.0	80.7	-5,110.8	1,413,862.19	3,191,555.10	40.467412	-104.811524	

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_