

Bonanza Creek Energy Inc.



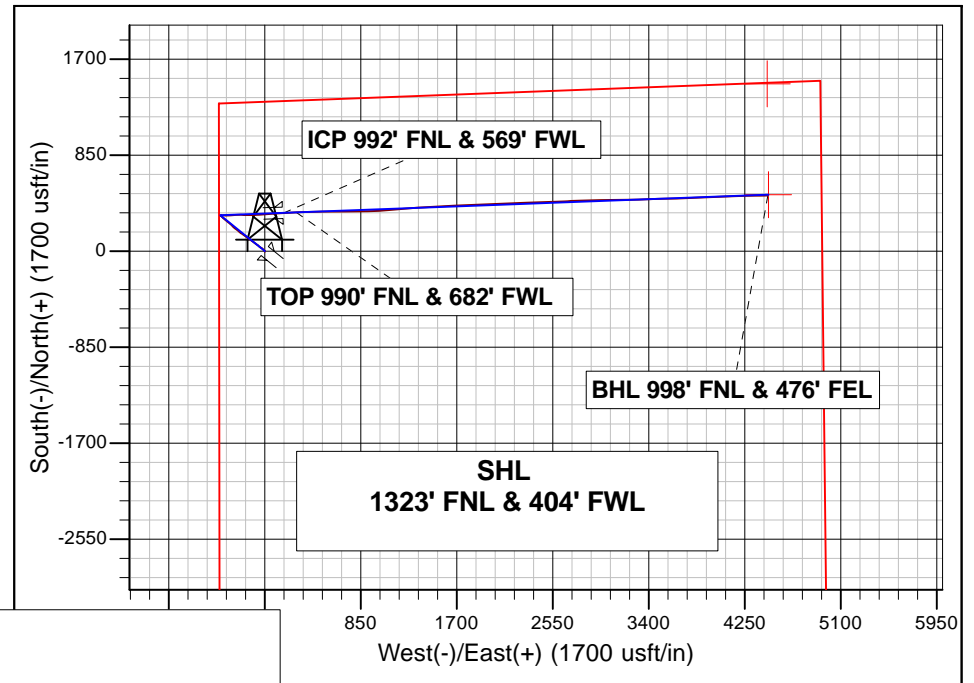
Bonanza Creek Energy Inc.
 Project: Weld Co., CO
 Site: Sec.2-T5N-R62W
 Well: State Antelope B11-V41-2HNC
 Wellbore: Wellbore #1
 Design: Design #4
 Lat: 40° 25' 59.311 N
 Long: 104° 17' 54.899 W
 Pad GL: 4649.0
 KB: WELL @ 4666.0usft (Original Well Elev)

PROJECT DETAILS: Weld Co., CO

Geodetic System: US State Plane 1983
 Datum: North American Datum 1983
 Ellipsoid: GRS 1980
 Zone: Colorado Northern Zone

System Datum: Mean Sea Level

Projected Bottom Hole Location
 10905.00'MD 6270.01'TVD 492.15'N & 4453.69'E OF SHL
 90.20 degree Incl @ 89.60 degree AZM

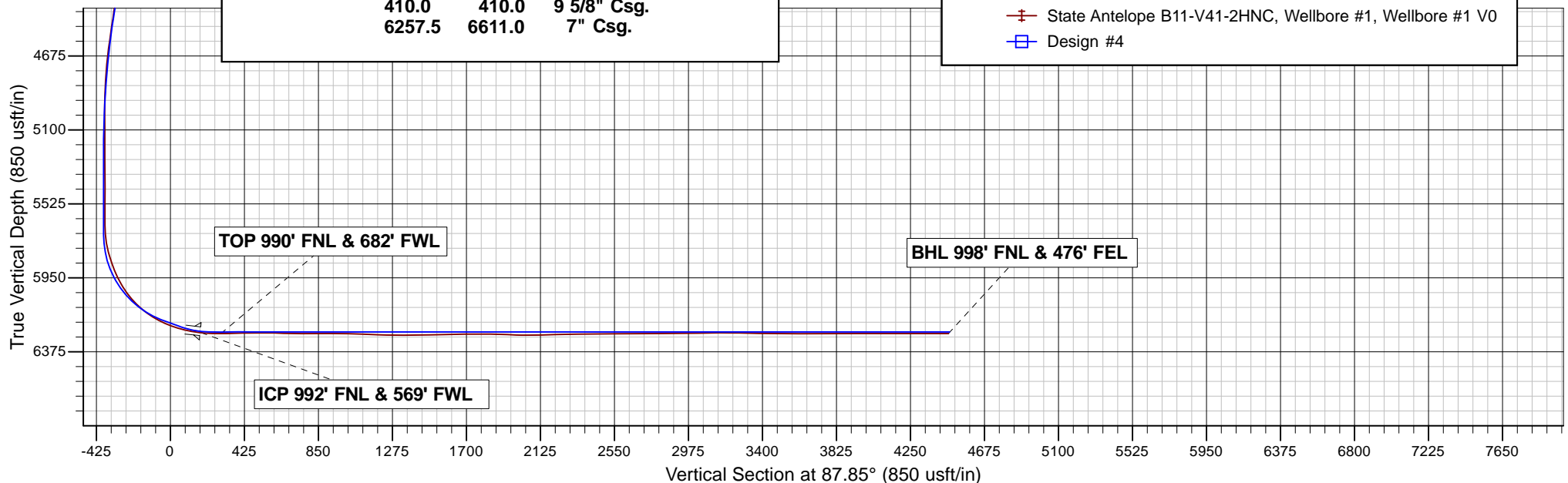


CASING DETAILS

TVD	MD	Name
410.0	410.0	9 5/8" Csg.
6257.5	6611.0	7" Csg.

LEGEND

- State Antelope B11-V41-2HNC, Wellbore #1, Wellbore #1 V0
- Design #4



Bonanza Creek Energy Inc.

Weld Co., CO

Sec.2-T5N-R62W

State Antelope B11-V41-2HNC

Wellbore #1

Survey: Survey #1

Standard Survey Report

05 May, 2015

Archer

Company:	Bonanza Creek Energy Inc.	Local Co-ordinate Reference:	Well State Antelope B11-V41-2HNC
Project:	Weld Co., CO	TVD Reference:	WELL @ 4666.0usft (Original Well Elev)
Site:	Sec.2-T5N-R62W	MD Reference:	WELL @ 4666.0usft (Original Well Elev)
Well:	State Antelope B11-V41-2HNC	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDMDBBW

Project	Weld Co., CO		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site	Sec.2-T5N-R62W				
Site Position:		Northing:	1,402,901.96 usft	Latitude:	40° 25' 59.318 N
From:	Lat/Long	Easting:	3,334,557.68 usft	Longitude:	104° 17' 53.290 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16"	Grid Convergence:	0.78 °

Well	State Antelope B11-V41-2HNC					
Well Position	+N/-S	0.0 usft	Northing:	1,402,899.54 usft	Latitude:	40° 25' 59.311 N
	+E/-W	0.0 usft	Easting:	3,334,433.27 usft	Longitude:	104° 17' 54.899 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	4,649.0 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	2015/03/11	8.11	67.02	52,804

Design	Wellbore #1				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.0	0.0	0.0	87.85	

Survey Program	Date	2015/05/05			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
504.0	10,905.0	Survey #1 (Wellbore #1)	MWD	MWD - Standard	

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	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	
First Archer Survey										
504.0	0.20	298.40	504.0	0.4	-0.8	-0.8	0.04	0.04	0.00	
597.0	0.10	202.80	597.0	0.4	-0.9	-0.9	0.25	-0.11	-102.80	
689.0	0.60	279.70	689.0	0.4	-1.5	-1.4	0.64	0.54	83.59	
780.0	0.80	299.20	780.0	0.8	-2.5	-2.4	0.34	0.22	21.43	
872.0	0.70	102.50	872.0	1.0	-2.5	-2.5	1.61	-0.11	177.50	
963.0	0.60	119.20	963.0	0.7	-1.5	-1.5	0.23	-0.11	18.35	
1,055.0	0.60	133.00	1,055.0	0.1	-0.8	-0.8	0.16	0.00	15.00	
1,147.0	0.70	131.90	1,147.0	-0.6	0.0	0.0	0.11	0.11	-1.20	
1,238.0	0.50	143.70	1,238.0	-1.3	0.7	0.6	0.26	-0.22	12.97	
1,330.0	0.50	149.20	1,330.0	-2.0	1.1	1.0	0.05	0.00	5.98	
1,422.0	0.40	167.50	1,422.0	-2.6	1.4	1.3	0.19	-0.11	19.89	

Company:	Bonanza Creek Energy Inc.	Local Co-ordinate Reference:	Well State Antelope B11-V41-2HNC
Project:	Weld Co., CO	TVD Reference:	WELL @ 4666.0usft (Original Well Elev)
Site:	Sec.2-T5N-R62W	MD Reference:	WELL @ 4666.0usft (Original Well Elev)
Well:	State Antelope B11-V41-2HNC	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDMDBBW

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
1,514.0	0.60	165.40	1,514.0	-3.4	1.6	1.4	0.22	0.22	-2.28	
1,605.0	0.60	168.70	1,605.0	-4.3	1.8	1.6	0.04	0.00	3.63	
1,696.0	0.70	190.80	1,695.9	-5.3	1.8	1.6	0.29	0.11	24.29	
1,788.0	0.50	315.50	1,787.9	-5.6	1.4	1.2	1.16	-0.22	135.54	
1,880.0	0.40	249.00	1,879.9	-5.4	0.8	0.6	0.54	-0.11	-72.28	
1,964.0	0.10	307.90	1,963.9	-5.5	0.5	0.3	0.43	-0.36	70.12	
2,051.0	1.50	349.00	2,050.9	-4.3	0.2	0.0	1.64	1.61	47.24	
2,136.0	3.30	329.70	2,135.9	-1.1	-1.3	-1.3	2.29	2.12	-22.71	
2,223.0	4.10	320.90	2,222.7	3.4	-4.5	-4.3	1.13	0.92	-10.11	
2,312.0	4.90	322.70	2,311.4	8.9	-8.8	-8.4	0.91	0.90	2.02	
2,401.0	6.00	312.60	2,400.0	15.1	-14.5	-13.9	1.64	1.24	-11.35	
2,489.0	6.20	304.00	2,487.5	20.9	-21.8	-21.0	1.06	0.23	-9.77	
2,576.0	6.50	307.40	2,574.0	26.5	-29.6	-28.6	0.55	0.34	3.91	
2,665.0	9.10	305.70	2,662.1	33.7	-39.4	-38.1	2.93	2.92	-1.91	
2,750.0	10.40	305.90	2,745.9	42.1	-51.0	-49.4	1.53	1.53	0.24	
2,835.0	12.10	307.10	2,829.3	52.0	-64.4	-62.4	2.02	2.00	1.41	
2,922.0	10.70	305.90	2,914.5	62.2	-78.2	-75.8	1.63	-1.61	-1.38	
3,007.0	11.20	309.70	2,998.0	72.1	-90.9	-88.2	1.03	0.59	4.47	
3,093.0	11.60	304.90	3,082.3	82.4	-104.4	-101.3	1.20	0.47	-5.58	
3,178.0	12.90	305.30	3,165.4	92.7	-119.2	-115.6	1.53	1.53	0.47	
3,263.0	11.00	305.80	3,248.5	103.0	-133.5	-129.6	2.24	-2.24	0.59	
3,348.0	13.60	306.90	3,331.6	113.7	-148.1	-143.7	3.07	3.06	1.29	
3,433.0	15.90	305.50	3,413.8	126.5	-165.6	-160.7	2.74	2.71	-1.65	
3,518.0	16.30	305.20	3,495.4	140.1	-184.8	-179.4	0.48	0.47	-0.35	
3,603.0	15.60	305.50	3,577.2	153.6	-203.8	-197.9	0.83	-0.82	0.35	
3,688.0	14.20	308.60	3,659.3	166.8	-221.3	-214.9	1.89	-1.65	3.65	
3,773.0	12.90	308.00	3,741.9	179.1	-236.9	-230.0	1.54	-1.53	-0.71	
3,860.0	11.20	309.00	3,827.0	190.4	-251.1	-243.8	1.97	-1.95	1.15	
3,946.0	11.10	308.20	3,911.4	200.8	-264.1	-256.4	0.21	-0.12	-0.93	
4,031.0	9.70	313.40	3,995.0	210.8	-275.8	-267.7	1.98	-1.65	6.12	
4,116.0	10.10	318.20	4,078.7	221.3	-285.9	-277.4	1.08	0.47	5.65	
4,203.0	11.90	310.40	4,164.1	232.8	-297.9	-288.9	2.68	2.07	-8.97	
4,288.0	10.00	313.80	4,247.6	243.5	-309.9	-300.5	2.36	-2.24	4.00	
4,373.0	10.80	308.40	4,331.2	253.6	-321.4	-311.7	1.48	0.94	-6.35	
4,460.0	10.00	307.00	4,416.7	263.2	-333.8	-323.7	0.96	-0.92	-1.61	
4,547.0	11.40	308.30	4,502.2	273.1	-346.6	-336.1	1.63	1.61	1.49	
4,632.0	10.70	309.20	4,585.7	283.3	-359.3	-348.5	0.85	-0.82	1.06	
4,717.0	9.60	314.50	4,669.3	293.2	-370.5	-359.2	1.70	-1.29	6.24	
4,802.0	7.10	319.20	4,753.4	302.2	-379.0	-367.4	3.05	-2.94	5.53	
4,887.0	4.50	317.20	4,838.0	308.6	-384.7	-372.8	3.07	-3.06	-2.35	
4,972.0	2.20	297.00	4,922.8	311.8	-388.4	-376.4	3.00	-2.71	-23.76	
5,057.0	1.00	42.70	5,007.8	313.1	-389.4	-377.3	3.12	-1.41	124.35	
5,143.0	1.40	14.70	5,093.8	314.6	-388.6	-376.5	0.81	0.47	-32.56	
5,228.0	0.30	162.60	5,178.8	315.4	-388.3	-376.1	1.96	-1.29	174.00	
5,313.0	0.40	147.90	5,263.8	315.0	-388.0	-375.9	0.16	0.12	-17.29	
5,397.0	0.90	111.10	5,347.8	314.5	-387.3	-375.2	0.75	0.60	-43.81	
5,482.0	0.60	257.10	5,432.8	314.1	-387.1	-375.0	1.69	-0.35	171.76	
5,567.0	0.30	286.50	5,517.8	314.1	-387.7	-375.7	0.43	-0.35	34.59	
5,652.0	0.40	35.80	5,602.8	314.4	-387.8	-375.7	0.68	0.12	128.59	
5,668.0	0.50	61.20	5,618.8	314.5	-387.7	-375.6	1.38	0.62	158.75	
5,711.0	1.10	66.30	5,661.8	314.8	-387.1	-375.0	1.40	1.40	11.86	
5,753.0	4.60	89.40	5,703.7	314.9	-385.1	-373.0	8.60	8.33	55.00	
5,796.0	9.80	89.40	5,746.4	315.0	-379.7	-367.6	12.09	12.09	0.00	
5,838.0	14.00	89.80	5,787.4	315.0	-371.0	-358.9	10.00	10.00	0.95	

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Site:	Sec.2-T5N-R62W	MD Reference:	WELL @ 4666.0usft (Original Well Elev)
Well:	State Antelope B11-V41-2HNC	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDMDBBW

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
5,881.0	15.50	90.20	5,829.0	315.0	-360.1	-348.0	3.50	3.49	0.93	
5,922.0	19.60	90.90	5,868.1	314.9	-347.7	-335.7	10.01	10.00	1.71	
5,965.0	22.90	89.30	5,908.2	314.9	-332.1	-320.1	7.79	7.67	-3.72	
6,007.0	25.70	85.90	5,946.5	315.7	-314.9	-302.8	7.45	6.67	-8.10	
6,050.0	29.80	82.80	5,984.5	317.7	-295.0	-282.8	10.11	9.53	-7.21	
6,092.0	34.00	85.60	6,020.2	319.9	-272.9	-260.7	10.60	10.00	6.67	
6,135.0	38.90	90.10	6,054.7	320.8	-247.4	-235.2	12.97	11.40	10.47	
6,179.0	42.30	91.30	6,088.1	320.4	-218.8	-206.6	7.93	7.73	2.73	
6,222.0	47.70	91.70	6,118.5	319.6	-188.4	-176.2	12.58	12.56	0.93	
6,264.0	53.70	90.60	6,145.1	319.0	-155.9	-143.8	14.43	14.29	-2.62	
6,307.0	57.60	88.60	6,169.4	319.2	-120.4	-108.3	9.85	9.07	-4.65	
6,349.0	60.40	86.70	6,191.0	320.7	-84.4	-72.3	7.71	6.67	-4.52	
6,392.0	64.60	86.70	6,210.9	322.9	-46.4	-34.2	9.77	9.77	0.00	
6,434.0	70.20	86.80	6,227.0	325.1	-7.7	4.5	13.34	13.33	0.24	
6,477.0	74.00	85.80	6,240.2	327.8	33.2	45.4	9.11	8.84	-2.33	
6,519.0	77.50	85.40	6,250.6	330.9	73.7	86.1	8.38	8.33	-0.95	
6,562.0	80.70	86.20	6,258.7	334.0	115.8	128.3	7.66	7.44	1.86	
6,604.0	83.60	86.80	6,264.4	336.5	157.4	169.9	7.05	6.90	1.43	
ICP 992' FNL & 569' FWL										
6,611.0	84.30	86.58	6,265.2	336.9	164.3	176.8	10.47	10.00	-3.13	
6,620.0	85.20	86.30	6,266.0	337.5	173.3	185.8	10.47	10.00	-3.12	
TOP 990' FNL & 682' FWL										
6,724.0	89.83	87.21	6,270.5	343.3	277.0	289.7	4.54	4.45	0.88	
6,757.0	91.30	87.50	6,270.2	344.9	309.9	322.6	4.54	4.45	0.87	
6,848.0	91.30	89.20	6,268.1	347.5	400.9	413.6	1.87	0.00	1.87	
6,940.0	90.30	90.30	6,266.8	347.9	492.9	505.6	1.62	-1.09	1.20	
7,031.0	89.10	89.50	6,267.3	348.0	583.8	596.5	1.58	-1.32	-0.88	
7,116.0	87.90	87.70	6,269.5	350.1	668.8	681.5	2.54	-1.41	-2.12	
7,201.0	89.90	90.50	6,271.1	351.5	753.7	766.4	4.05	2.35	3.29	
7,285.0	90.90	89.90	6,270.6	351.2	837.7	850.3	1.39	1.19	-0.71	
7,370.0	89.70	87.90	6,270.1	352.8	922.7	935.3	2.74	-1.41	-2.35	
7,455.0	88.70	86.00	6,271.3	357.3	1,007.6	1,020.3	2.53	-1.18	-2.24	
7,543.0	88.10	85.70	6,273.8	363.7	1,095.3	1,108.2	0.76	-0.68	-0.34	
7,628.0	87.70	85.30	6,276.9	370.3	1,180.0	1,193.1	0.67	-0.47	-0.47	
7,713.0	88.40	85.40	6,279.8	377.2	1,264.7	1,277.9	0.83	0.82	0.12	
7,798.0	90.20	85.60	6,280.8	383.9	1,349.4	1,362.9	2.13	2.12	0.24	
7,883.0	91.70	86.50	6,279.4	389.8	1,434.2	1,447.8	2.06	1.76	1.06	
7,968.0	91.80	86.50	6,276.8	394.9	1,519.0	1,532.7	0.12	0.12	0.00	
8,053.0	91.70	88.30	6,274.2	398.8	1,603.9	1,617.7	2.12	-0.12	2.12	
8,138.0	90.20	88.10	6,272.8	401.5	1,688.8	1,702.7	1.78	-1.76	-0.24	
8,223.0	88.40	87.30	6,273.8	404.9	1,773.7	1,787.7	2.32	-2.12	-0.94	
8,308.0	89.10	87.50	6,275.7	408.7	1,858.6	1,872.6	0.86	0.82	0.24	
8,393.0	87.60	86.40	6,278.1	413.2	1,943.5	1,957.6	2.19	-1.76	-1.29	
8,478.0	89.70	87.10	6,280.1	418.1	2,028.3	2,042.5	2.60	2.47	0.82	
8,563.0	92.00	88.20	6,278.9	421.6	2,113.2	2,127.5	3.00	2.71	1.29	
8,648.0	91.80	88.50	6,276.1	424.0	2,198.1	2,212.5	0.42	-0.24	0.35	
8,733.0	90.80	89.10	6,274.1	425.8	2,283.1	2,297.4	1.37	-1.18	0.71	
8,818.0	90.00	87.30	6,273.5	428.4	2,368.0	2,382.4	2.32	-0.94	-2.12	
8,903.0	90.70	86.90	6,273.0	432.7	2,452.9	2,467.4	0.95	0.82	-0.47	
8,988.0	91.20	87.90	6,271.6	436.6	2,537.8	2,552.4	1.32	0.59	1.18	
9,073.0	90.20	88.30	6,270.6	439.4	2,622.8	2,637.4	1.27	-1.18	0.47	
9,159.0	88.30	87.30	6,271.7	442.7	2,708.7	2,723.4	2.50	-2.21	-1.16	
9,244.0	91.80	88.10	6,271.6	446.1	2,793.6	2,808.4	4.22	4.12	0.94	
9,330.0	90.50	87.90	6,269.9	449.1	2,879.5	2,894.4	1.53	-1.51	-0.23	

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Well:	State Antelope B11-V41-2HNC	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDMDBBW

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
9,417.0	91.30	89.10	6,268.5	451.4	2,966.5	2,981.3	1.66	0.92	1.38	
9,502.0	91.10	89.80	6,266.7	452.2	3,051.5	3,066.3	0.86	-0.24	0.82	
9,587.0	89.40	89.50	6,266.4	452.7	3,136.5	3,151.2	2.03	-2.00	-0.35	
9,672.0	90.10	88.70	6,266.7	454.1	3,221.4	3,236.2	1.25	0.82	-0.94	
9,757.0	88.10	88.00	6,268.1	456.5	3,306.4	3,321.2	2.49	-2.35	-0.82	
9,842.0	88.20	88.40	6,270.8	459.2	3,391.3	3,406.2	0.48	0.12	0.47	
9,927.0	90.90	88.20	6,271.5	461.7	3,476.3	3,491.1	3.19	3.18	-0.24	
10,015.0	90.50	88.40	6,270.4	464.3	3,564.2	3,579.1	0.51	-0.45	0.23	
10,100.0	89.50	89.10	6,270.4	466.2	3,649.2	3,664.1	1.44	-1.18	0.82	
10,185.0	89.90	88.00	6,270.9	468.3	3,734.2	3,749.1	1.38	0.47	-1.29	
10,274.0	89.80	87.70	6,271.1	471.7	3,823.1	3,838.1	0.36	-0.11	-0.34	
10,361.0	90.20	86.40	6,271.1	476.1	3,910.0	3,925.1	1.56	0.46	-1.49	
10,448.0	91.10	87.90	6,270.1	480.5	3,996.9	4,012.1	2.01	1.03	1.72	
10,534.0	89.70	88.40	6,269.5	483.2	4,082.8	4,098.1	1.73	-1.63	0.58	
10,619.0	89.50	88.00	6,270.1	485.9	4,167.8	4,183.1	0.53	-0.24	-0.47	
10,704.0	90.10	88.20	6,270.4	488.7	4,252.7	4,268.1	0.74	0.71	0.24	
10,790.0	90.00	88.80	6,270.3	491.0	4,338.7	4,354.1	0.71	-0.12	0.70	
Last Archer Survey										
10,841.0	90.20	89.60	6,270.2	491.7	4,389.7	4,405.0	1.62	0.39	1.57	
BHL 998' FNL & 476' FEL - State Antelope B11-V41-2HNC tgt										
10,905.0	90.20	89.60	6,270.0	492.1	4,453.7	4,469.0	0.00	0.00	0.00	

Survey Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
504.0	504.0	0.4	-0.8	First Archer Survey	
6,611.0	6,265.2	336.9	164.3	ICP 992' FNL & 569' FWL	
6,724.0	6,270.5	343.3	277.0	TOP 990' FNL & 682' FWL	
10,841.0	6,270.2	491.7	4,389.7	Last Archer Survey	
10,905.0	6,270.0	492.1	4,453.7	BHL 998' FNL & 476' FEL	

Checked By: _____ Approved By: _____ Date: _____