

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	1500.0	0.00	0.00	1500.0	0.0	0.0	0.00	0.00	0.0	
3	1659.3	1.59	351.48	1659.2	2.2	-0.3	1.00	351.48	2.2	
4	9002.9	1.59	351.48	9000.0	204.0	-30.6	0.00	0.00	206.3	TARGET BHL 1950/FSL, 705/FEL



Directional

NOBLE ENERGY INC WELD COUNTY CO

SEC.17-T7N-R63W

Walcker AC17-09 Pad Sec.17-T7N-R63W

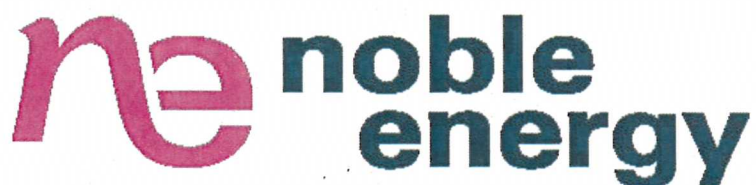
Walcker AC17-09

Wellbore #1

Plan: Noble Walcker AC17-09 Plan #1 (1-10-12)

Standard Planning Report

08 February, 2012



Database: Landmark
Company: NOBLE ENERGY INC WELD COUNTY CO
Project: SEC.17-T7N-R63W
Site: Walcker AC17-09 Pad Sec.17-T7N-R63W
Well: Walcker AC17-09
Wellbore: Wellbore #1
Design: Noble Walcker AC17-09 Plan #1 (1-10-12)

Local Co-ordinate Reference: Well Walcker AC17-09
TVD Reference: WELL @ 4811.0ft (Original Well Elev)
MD Reference: WELL @ 4811.0ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature

Project	SEC.17-T7N-R63W, 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		

Site		Walcker AC17-09 Pad Sec.17-T7N-R63W			
Site Position:		Northing:	1,452,793.30 ft	Latitude:	40.571610
From:	Lat/Long	Easting:	3,290,647.08 ft	Longitude:	-104.453750
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.68 °

Well	Walcker AC17-09					
Well Position	+N/-S	0.0 ft	Northing:	1,452,793.29 ft	Latitude:	40.571610
	+E/-W	0.0 ft	Easting:	3,290,647.08 ft	Longitude:	-104.453750
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,798.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	2/8/2012	8.62	67.22	53,186

Design	Noble Walcker AC17-09 Plan #1 (1-10-12)			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	351.48

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	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	
1,659.3	1.59	351.48	1,659.2	2.2	-0.3	1.00	1.00	0.00	351.48	
9,002.9	1.59	351.48	9,000.0	204.0	-30.6	0.00	0.00	0.00	0.00	TARGET BHL 195C

Database: Landmark
 Company: NOBLE ENERGY INC WELD COUNTY CO
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 MD Reference: WELL @ 4811.0ft (Original Well Elev)
 North Reference: True
 Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
40.0	0.00	0.00	40.0	0.0	0.0	0.0	0.00	0.00	0.00
80.0	0.00	0.00	80.0	0.0	0.0	0.0	0.00	0.00	0.00
120.0	0.00	0.00	120.0	0.0	0.0	0.0	0.00	0.00	0.00
160.0	0.00	0.00	160.0	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
240.0	0.00	0.00	240.0	0.0	0.0	0.0	0.00	0.00	0.00
280.0	0.00	0.00	280.0	0.0	0.0	0.0	0.00	0.00	0.00
320.0	0.00	0.00	320.0	0.0	0.0	0.0	0.00	0.00	0.00
360.0	0.00	0.00	360.0	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
440.0	0.00	0.00	440.0	0.0	0.0	0.0	0.00	0.00	0.00
480.0	0.00	0.00	480.0	0.0	0.0	0.0	0.00	0.00	0.00
520.0	0.00	0.00	520.0	0.0	0.0	0.0	0.00	0.00	0.00
550.0	0.00	0.00	550.0	0.0	0.0	0.0	0.00	0.00	0.00
8 5/8"									
560.0	0.00	0.00	560.0	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
640.0	0.00	0.00	640.0	0.0	0.0	0.0	0.00	0.00	0.00
680.0	0.00	0.00	680.0	0.0	0.0	0.0	0.00	0.00	0.00
720.0	0.00	0.00	720.0	0.0	0.0	0.0	0.00	0.00	0.00
760.0	0.00	0.00	760.0	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
840.0	0.00	0.00	840.0	0.0	0.0	0.0	0.00	0.00	0.00
880.0	0.00	0.00	880.0	0.0	0.0	0.0	0.00	0.00	0.00
920.0	0.00	0.00	920.0	0.0	0.0	0.0	0.00	0.00	0.00
960.0	0.00	0.00	960.0	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
1,040.0	0.00	0.00	1,040.0	0.0	0.0	0.0	0.00	0.00	0.00
1,080.0	0.00	0.00	1,080.0	0.0	0.0	0.0	0.00	0.00	0.00
1,120.0	0.00	0.00	1,120.0	0.0	0.0	0.0	0.00	0.00	0.00
1,160.0	0.00	0.00	1,160.0	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
1,240.0	0.00	0.00	1,240.0	0.0	0.0	0.0	0.00	0.00	0.00
1,280.0	0.00	0.00	1,280.0	0.0	0.0	0.0	0.00	0.00	0.00
1,320.0	0.00	0.00	1,320.0	0.0	0.0	0.0	0.00	0.00	0.00
1,360.0	0.00	0.00	1,360.0	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
1,440.0	0.00	0.00	1,440.0	0.0	0.0	0.0	0.00	0.00	0.00
1,480.0	0.00	0.00	1,480.0	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
1,520.0	0.20	351.48	1,520.0	0.0	0.0	0.0	1.00	1.00	0.00
1,560.0	0.60	351.48	1,560.0	0.3	0.0	0.3	1.00	1.00	0.00
1,600.0	1.00	351.48	1,600.0	0.9	-0.1	0.9	1.00	1.00	0.00
1,640.0	1.40	351.48	1,640.0	1.7	-0.3	1.7	1.00	1.00	0.00
1,659.3	1.59	351.48	1,659.2	2.2	-0.3	2.2	1.00	1.00	0.00
1,680.0	1.59	351.48	1,680.0	2.8	-0.4	2.8	0.00	0.00	0.00
1,720.0	1.59	351.48	1,720.0	3.9	-0.6	3.9	0.00	0.00	0.00
1,760.0	1.59	351.48	1,759.9	5.0	-0.7	5.0	0.00	0.00	0.00
1,800.0	1.59	351.48	1,799.9	6.1	-0.9	6.1	0.00	0.00	0.00
1,840.0	1.59	351.48	1,839.9	7.2	-1.1	7.2	0.00	0.00	0.00
1,880.0	1.59	351.48	1,879.9	8.3	-1.2	8.3	0.00	0.00	0.00
1,920.0	1.59	351.48	1,919.9	9.4	-1.4	9.5	0.00	0.00	0.00
1,960.0	1.59	351.48	1,959.9	10.5	-1.6	10.6	0.00	0.00	0.00

Database: Landmark
Company: NOBLE ENERGY INC WELD COUNTY CO
Project: SEC.17-T7N-R63W
Site: Walcker AC17-09 Pad Sec.17-T7N-R63W
Well: Walcker AC17-09
Wellbore: Wellbore #1
Design: Noble Walcker AC17-09 Plan #1 (1-10-12)

Local Co-ordinate Reference: Well Walcker AC17-09
TVD Reference: WELL @ 4811.0ft (Original Well Elev)
MD Reference: WELL @ 4811.0ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
2,000.0	1.59	351.48	1,999.8	11.6	-1.7	11.7	0.00	0.00	0.00
2,040.0	1.59	351.48	2,039.8	12.7	-1.9	12.8	0.00	0.00	0.00
2,080.0	1.59	351.48	2,079.8	13.8	-2.1	13.9	0.00	0.00	0.00
2,120.0	1.59	351.48	2,119.8	14.9	-2.2	15.0	0.00	0.00	0.00
2,160.0	1.59	351.48	2,159.8	16.0	-2.4	16.1	0.00	0.00	0.00
2,200.0	1.59	351.48	2,199.8	17.1	-2.6	17.2	0.00	0.00	0.00
2,240.0	1.59	351.48	2,239.8	18.2	-2.7	18.4	0.00	0.00	0.00
2,280.0	1.59	351.48	2,279.7	19.2	-2.9	19.5	0.00	0.00	0.00
2,320.0	1.59	351.48	2,319.7	20.3	-3.0	20.6	0.00	0.00	0.00
2,360.0	1.59	351.48	2,359.7	21.4	-3.2	21.7	0.00	0.00	0.00
2,400.0	1.59	351.48	2,399.7	22.5	-3.4	22.8	0.00	0.00	0.00
2,440.0	1.59	351.48	2,439.7	23.6	-3.5	23.9	0.00	0.00	0.00
2,480.0	1.59	351.48	2,479.7	24.7	-3.7	25.0	0.00	0.00	0.00
2,520.0	1.59	351.48	2,519.6	25.8	-3.9	26.1	0.00	0.00	0.00
2,560.0	1.59	351.48	2,559.6	26.9	-4.0	27.2	0.00	0.00	0.00
2,600.0	1.59	351.48	2,599.6	28.0	-4.2	28.4	0.00	0.00	0.00
2,640.0	1.59	351.48	2,639.6	29.1	-4.4	29.5	0.00	0.00	0.00
2,680.0	1.59	351.48	2,679.6	30.2	-4.5	30.6	0.00	0.00	0.00
2,720.0	1.59	351.48	2,719.6	31.3	-4.7	31.7	0.00	0.00	0.00
2,760.0	1.59	351.48	2,759.6	32.4	-4.9	32.8	0.00	0.00	0.00
2,800.0	1.59	351.48	2,799.5	33.5	-5.0	33.9	0.00	0.00	0.00
2,840.0	1.59	351.48	2,839.5	34.6	-5.2	35.0	0.00	0.00	0.00
2,880.0	1.59	351.48	2,879.5	35.7	-5.4	36.1	0.00	0.00	0.00
2,920.0	1.59	351.48	2,919.5	36.8	-5.5	37.3	0.00	0.00	0.00
2,960.0	1.59	351.48	2,959.5	37.9	-5.7	38.4	0.00	0.00	0.00
3,000.0	1.59	351.48	2,999.5	39.0	-5.8	39.5	0.00	0.00	0.00
3,040.0	1.59	351.48	3,039.4	40.1	-6.0	40.6	0.00	0.00	0.00
3,080.0	1.59	351.48	3,079.4	41.2	-6.2	41.7	0.00	0.00	0.00
3,120.0	1.59	351.48	3,119.4	42.3	-6.3	42.8	0.00	0.00	0.00
3,160.0	1.59	351.48	3,159.4	43.4	-6.5	43.9	0.00	0.00	0.00
3,200.0	1.59	351.48	3,199.4	44.5	-6.7	45.0	0.00	0.00	0.00
3,240.0	1.59	351.48	3,239.4	45.6	-6.8	46.1	0.00	0.00	0.00
3,280.0	1.59	351.48	3,279.4	46.7	-7.0	47.3	0.00	0.00	0.00
3,320.0	1.59	351.48	3,319.3	47.8	-7.2	48.4	0.00	0.00	0.00
3,360.0	1.59	351.48	3,359.3	48.9	-7.3	49.5	0.00	0.00	0.00
3,400.0	1.59	351.48	3,399.3	50.0	-7.5	50.6	0.00	0.00	0.00
3,440.0	1.59	351.48	3,439.3	51.1	-7.7	51.7	0.00	0.00	0.00
3,480.0	1.59	351.48	3,479.3	52.2	-7.8	52.8	0.00	0.00	0.00
3,520.0	1.59	351.48	3,519.3	53.3	-8.0	53.9	0.00	0.00	0.00
3,560.0	1.59	351.48	3,559.2	54.4	-8.2	55.0	0.00	0.00	0.00
3,600.0	1.59	351.48	3,599.2	55.5	-8.3	56.1	0.00	0.00	0.00
3,640.0	1.59	351.48	3,639.2	56.6	-8.5	57.3	0.00	0.00	0.00
3,680.0	1.59	351.48	3,679.2	57.7	-8.6	58.4	0.00	0.00	0.00
3,720.0	1.59	351.48	3,719.2	58.8	-8.8	59.5	0.00	0.00	0.00
3,760.0	1.59	351.48	3,759.2	59.9	-9.0	60.6	0.00	0.00	0.00
3,800.0	1.59	351.48	3,799.2	61.0	-9.1	61.7	0.00	0.00	0.00
3,840.0	1.59	351.48	3,839.1	62.1	-9.3	62.8	0.00	0.00	0.00
3,880.0	1.59	351.48	3,879.1	63.2	-9.5	63.9	0.00	0.00	0.00
3,920.0	1.59	351.48	3,919.1	64.3	-9.6	65.0	0.00	0.00	0.00
3,960.0	1.59	351.48	3,959.1	65.4	-9.8	66.2	0.00	0.00	0.00
4,000.0	1.59	351.48	3,999.1	66.5	-10.0	67.3	0.00	0.00	0.00
4,040.0	1.59	351.48	4,039.1	67.6	-10.1	68.4	0.00	0.00	0.00
4,080.0	1.59	351.48	4,079.0	68.7	-10.3	69.5	0.00	0.00	0.00
4,120.0	1.59	351.48	4,119.0	69.8	-10.5	70.6	0.00	0.00	0.00

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 North Reference: True
 Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,160.0	1.59	351.48	4,159.0	70.9	-10.6	71.7	0.00	0.00	0.00
4,200.0	1.59	351.48	4,199.0	72.0	-10.8	72.8	0.00	0.00	0.00
4,240.0	1.59	351.48	4,239.0	73.1	-11.0	73.9	0.00	0.00	0.00
4,280.0	1.59	351.48	4,279.0	74.2	-11.1	75.0	0.00	0.00	0.00
4,320.0	1.59	351.48	4,319.0	75.3	-11.3	76.2	0.00	0.00	0.00
4,360.0	1.59	351.48	4,358.9	76.4	-11.4	77.3	0.00	0.00	0.00
4,400.0	1.59	351.48	4,398.9	77.5	-11.6	78.4	0.00	0.00	0.00
4,440.0	1.59	351.48	4,438.9	78.6	-11.8	79.5	0.00	0.00	0.00
4,480.0	1.59	351.48	4,478.9	79.7	-11.9	80.6	0.00	0.00	0.00
4,520.0	1.59	351.48	4,518.9	80.8	-12.1	81.7	0.00	0.00	0.00
4,560.0	1.59	351.48	4,558.9	81.9	-12.3	82.8	0.00	0.00	0.00
4,600.0	1.59	351.48	4,598.8	83.0	-12.4	83.9	0.00	0.00	0.00
4,640.0	1.59	351.48	4,638.8	84.1	-12.6	85.1	0.00	0.00	0.00
4,680.0	1.59	351.48	4,678.8	85.2	-12.8	86.2	0.00	0.00	0.00
4,720.0	1.59	351.48	4,718.8	86.3	-12.9	87.3	0.00	0.00	0.00
4,760.0	1.59	351.48	4,758.8	87.4	-13.1	88.4	0.00	0.00	0.00
4,800.0	1.59	351.48	4,798.8	88.5	-13.3	89.5	0.00	0.00	0.00
4,840.0	1.59	351.48	4,838.8	89.6	-13.4	90.6	0.00	0.00	0.00
4,880.0	1.59	351.48	4,878.7	90.7	-13.6	91.7	0.00	0.00	0.00
4,920.0	1.59	351.48	4,918.7	91.8	-13.8	92.8	0.00	0.00	0.00
4,960.0	1.59	351.48	4,958.7	92.9	-13.9	93.9	0.00	0.00	0.00
5,000.0	1.59	351.48	4,998.7	94.0	-14.1	95.1	0.00	0.00	0.00
5,040.0	1.59	351.48	5,038.7	95.1	-14.2	96.2	0.00	0.00	0.00
5,080.0	1.59	351.48	5,078.7	96.2	-14.4	97.3	0.00	0.00	0.00
5,120.0	1.59	351.48	5,118.6	97.3	-14.6	98.4	0.00	0.00	0.00
5,160.0	1.59	351.48	5,158.6	98.4	-14.7	99.5	0.00	0.00	0.00
5,200.0	1.59	351.48	5,198.6	99.5	-14.9	100.6	0.00	0.00	0.00
5,240.0	1.59	351.48	5,238.6	100.6	-15.1	101.7	0.00	0.00	0.00
5,280.0	1.59	351.48	5,278.6	101.7	-15.2	102.8	0.00	0.00	0.00
5,320.0	1.59	351.48	5,318.6	102.8	-15.4	104.0	0.00	0.00	0.00
5,360.0	1.59	351.48	5,358.6	103.9	-15.6	105.1	0.00	0.00	0.00
5,400.0	1.59	351.48	5,398.5	105.0	-15.7	106.2	0.00	0.00	0.00
5,440.0	1.59	351.48	5,438.5	106.1	-15.9	107.3	0.00	0.00	0.00
5,480.0	1.59	351.48	5,478.5	107.2	-16.1	108.4	0.00	0.00	0.00
5,520.0	1.59	351.48	5,518.5	108.3	-16.2	109.5	0.00	0.00	0.00
5,560.0	1.59	351.48	5,558.5	109.4	-16.4	110.6	0.00	0.00	0.00
5,600.0	1.59	351.48	5,598.5	110.5	-16.6	111.7	0.00	0.00	0.00
5,640.0	1.59	351.48	5,638.4	111.6	-16.7	112.8	0.00	0.00	0.00
5,680.0	1.59	351.48	5,678.4	112.7	-16.9	114.0	0.00	0.00	0.00
5,720.0	1.59	351.48	5,718.4	113.8	-17.0	115.1	0.00	0.00	0.00
5,760.0	1.59	351.48	5,758.4	114.9	-17.2	116.2	0.00	0.00	0.00
5,800.0	1.59	351.48	5,798.4	116.0	-17.4	117.3	0.00	0.00	0.00
5,840.0	1.59	351.48	5,838.4	117.1	-17.5	118.4	0.00	0.00	0.00
5,880.0	1.59	351.48	5,878.3	118.2	-17.7	119.5	0.00	0.00	0.00
5,920.0	1.59	351.48	5,918.3	119.3	-17.9	120.6	0.00	0.00	0.00
5,960.0	1.59	351.48	5,958.3	120.4	-18.0	121.7	0.00	0.00	0.00
6,000.0	1.59	351.48	5,998.3	121.5	-18.2	122.8	0.00	0.00	0.00
6,040.0	1.59	351.48	6,038.3	122.6	-18.4	124.0	0.00	0.00	0.00
6,080.0	1.59	351.48	6,078.3	123.7	-18.5	125.1	0.00	0.00	0.00
6,120.0	1.59	351.48	6,118.3	124.8	-18.7	126.2	0.00	0.00	0.00
6,160.0	1.59	351.48	6,158.2	125.9	-18.9	127.3	0.00	0.00	0.00
6,200.0	1.59	351.48	6,198.2	127.0	-19.0	128.4	0.00	0.00	0.00
6,240.0	1.59	351.48	6,238.2	128.1	-19.2	129.5	0.00	0.00	0.00
6,280.0	1.59	351.48	6,278.2	129.2	-19.3	130.6	0.00	0.00	0.00

Database: Landmark
Company: NOBLE ENERGY INC WELD COUNTY CO
Project: SEC.17-T7N-R63W
Site: Walcker AC17-09 Pad Sec.17-T7N-R63W
Well: Walcker AC17-09
Wellbore: Wellbore #1
Design: Noble Walcker AC17-09 Plan #1 (1-10-12)

Local Co-ordinate Reference: Well Walcker AC17-09
TVD Reference: WELL @ 4811.0ft (Original Well Elev)
MD Reference: WELL @ 4811.0ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
6,320.0	1.59	351.48	6,318.2	130.3	-19.5	131.7	0.00	0.00	0.00
6,360.0	1.59	351.48	6,358.2	131.4	-19.7	132.9	0.00	0.00	0.00
6,400.0	1.59	351.48	6,398.1	132.5	-19.8	134.0	0.00	0.00	0.00
6,440.0	1.59	351.48	6,438.1	133.6	-20.0	135.1	0.00	0.00	0.00
6,480.0	1.59	351.48	6,478.1	134.7	-20.2	136.2	0.00	0.00	0.00
6,520.0	1.59	351.48	6,518.1	135.8	-20.3	137.3	0.00	0.00	0.00
6,560.0	1.59	351.48	6,558.1	136.9	-20.5	138.4	0.00	0.00	0.00
6,596.9	1.59	351.48	6,595.0	137.9	-20.7	139.4	0.00	0.00	0.00
NIOBRARA									
6,598.8	1.59	351.48	6,596.9	138.0	-20.7	139.5	0.00	0.00	0.00
TARGET CIRCLE 1950'FSL & 705'FEL									
6,600.0	1.59	351.48	6,598.1	138.0	-20.7	139.5	0.00	0.00	0.00
6,600.1	1.59	351.48	6,598.1	138.0	-20.7	139.5	0.00	0.00	0.00
LEGAL BOX 400' X 400' 2002'FSL & 665'FEL									
6,640.0	1.59	351.48	6,638.1	139.1	-20.8	140.6	0.00	0.00	0.00
6,680.0	1.59	351.48	6,678.0	140.2	-21.0	141.7	0.00	0.00	0.00
6,720.0	1.59	351.48	6,718.0	141.3	-21.2	142.9	0.00	0.00	0.00
6,760.0	1.59	351.48	6,758.0	142.4	-21.3	144.0	0.00	0.00	0.00
6,800.0	1.59	351.48	6,798.0	143.5	-21.5	145.1	0.00	0.00	0.00
6,840.0	1.59	351.48	6,838.0	144.6	-21.7	146.2	0.00	0.00	0.00
6,880.0	1.59	351.48	6,878.0	145.7	-21.8	147.3	0.00	0.00	0.00
6,913.0	1.59	351.48	6,911.0	146.6	-22.0	148.2	0.00	0.00	0.00
CODELL									
6,920.0	1.59	351.48	6,917.9	146.8	-22.0	148.4	0.00	0.00	0.00
6,960.0	1.59	351.48	6,957.9	147.9	-22.1	149.5	0.00	0.00	0.00
7,000.0	1.59	351.48	6,997.9	149.0	-22.3	150.6	0.00	0.00	0.00
7,040.0	1.59	351.48	7,037.9	150.1	-22.5	151.8	0.00	0.00	0.00
7,080.0	1.59	351.48	7,077.9	151.2	-22.6	152.9	0.00	0.00	0.00
7,120.0	1.59	351.48	7,117.9	152.3	-22.8	154.0	0.00	0.00	0.00
7,160.0	1.59	351.48	7,157.9	153.4	-23.0	155.1	0.00	0.00	0.00
7,200.0	1.59	351.48	7,197.8	154.5	-23.1	156.2	0.00	0.00	0.00
7,240.0	1.59	351.48	7,237.8	155.6	-23.3	157.3	0.00	0.00	0.00
7,273.2	1.59	351.48	7,271.0	156.5	-23.4	158.2	0.00	0.00	0.00
D-SAND									
7,280.0	1.59	351.48	7,277.8	156.7	-23.5	158.4	0.00	0.00	0.00
7,320.0	1.59	351.48	7,317.8	157.8	-23.6	159.5	0.00	0.00	0.00
7,344.2	1.59	351.48	7,342.0	158.4	-23.7	160.2	0.00	0.00	0.00
J-SAND									
7,360.0	1.59	351.48	7,357.8	158.9	-23.8	160.6	0.00	0.00	0.00
7,400.0	1.59	351.48	7,397.8	160.0	-24.0	161.8	0.00	0.00	0.00
7,440.0	1.59	351.48	7,437.7	161.1	-24.1	162.9	0.00	0.00	0.00
7,480.0	1.59	351.48	7,477.7	162.2	-24.3	164.0	0.00	0.00	0.00
7,520.0	1.59	351.48	7,517.7	163.3	-24.5	165.1	0.00	0.00	0.00
7,560.0	1.59	351.48	7,557.7	164.4	-24.6	166.2	0.00	0.00	0.00
7,600.0	1.59	351.48	7,597.7	165.5	-24.8	167.3	0.00	0.00	0.00
7,603.3	1.59	351.48	7,601.0	165.6	-24.8	167.4	0.00	0.00	0.00
DAKOTA									
7,640.0	1.59	351.48	7,637.7	166.6	-24.9	168.4	0.00	0.00	0.00
7,680.0	1.59	351.48	7,677.7	167.7	-25.1	169.5	0.00	0.00	0.00
7,720.0	1.59	351.48	7,717.6	168.8	-25.3	170.7	0.00	0.00	0.00
7,760.0	1.59	351.48	7,757.6	169.9	-25.4	171.8	0.00	0.00	0.00
7,800.0	1.59	351.48	7,797.6	171.0	-25.6	172.9	0.00	0.00	0.00
7,840.0	1.59	351.48	7,837.6	172.1	-25.8	174.0	0.00	0.00	0.00

Database: Landmark
Company: NOBLE ENERGY INC WELD COUNTY CO
Project: SEC.17-T7N-R63W
Site: Walcker AC17-09 Pad Sec.17-T7N-R63W
Well: Walcker AC17-09
Wellbore: Wellbore #1
Design: Noble Walcker AC17-09 Plan #1 (1-10-12)

Local Co-ordinate Reference: Well Walcker AC17-09
TVD Reference: WELL @ 4811.0ft (Original Well Elev)
MD Reference: WELL @ 4811.0ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
7,880.0	1.59	351.48	7,877.6	173.2	-25.9	175.1	0.00	0.00	0.00
7,920.0	1.59	351.48	7,917.6	174.3	-26.1	176.2	0.00	0.00	0.00
7,960.0	1.59	351.48	7,957.5	175.4	-26.3	177.3	0.00	0.00	0.00
8,000.0	1.59	351.48	7,997.5	176.5	-26.4	178.4	0.00	0.00	0.00
8,040.0	1.59	351.48	8,037.5	177.6	-26.6	179.5	0.00	0.00	0.00
8,080.0	1.59	351.48	8,077.5	178.7	-26.8	180.7	0.00	0.00	0.00
8,120.0	1.59	351.48	8,117.5	179.8	-26.9	181.8	0.00	0.00	0.00
8,160.0	1.59	351.48	8,157.5	180.9	-27.1	182.9	0.00	0.00	0.00
8,200.0	1.59	351.48	8,197.5	182.0	-27.3	184.0	0.00	0.00	0.00
8,240.0	1.59	351.48	8,237.4	183.1	-27.4	185.1	0.00	0.00	0.00
8,280.0	1.59	351.48	8,277.4	184.2	-27.6	186.2	0.00	0.00	0.00
8,320.0	1.59	351.48	8,317.4	185.3	-27.7	187.3	0.00	0.00	0.00
8,360.0	1.59	351.48	8,357.4	186.4	-27.9	188.4	0.00	0.00	0.00
8,400.0	1.59	351.48	8,397.4	187.5	-28.1	189.5	0.00	0.00	0.00
8,440.0	1.59	351.48	8,437.4	188.6	-28.2	190.7	0.00	0.00	0.00
8,480.0	1.59	351.48	8,477.3	189.7	-28.4	191.8	0.00	0.00	0.00
8,520.0	1.59	351.48	8,517.3	190.8	-28.6	192.9	0.00	0.00	0.00
8,560.0	1.59	351.48	8,557.3	191.9	-28.7	194.0	0.00	0.00	0.00
8,600.0	1.59	351.48	8,597.3	193.0	-28.9	195.1	0.00	0.00	0.00
8,640.0	1.59	351.48	8,637.3	194.1	-29.1	196.2	0.00	0.00	0.00
8,680.0	1.59	351.48	8,677.3	195.2	-29.2	197.3	0.00	0.00	0.00
8,720.0	1.59	351.48	8,717.3	196.3	-29.4	198.4	0.00	0.00	0.00
8,760.0	1.59	351.48	8,757.2	197.4	-29.6	199.6	0.00	0.00	0.00
8,800.0	1.59	351.48	8,797.2	198.5	-29.7	200.7	0.00	0.00	0.00
8,840.0	1.59	351.48	8,837.2	199.6	-29.9	201.8	0.00	0.00	0.00
8,880.0	1.59	351.48	8,877.2	200.7	-30.1	202.9	0.00	0.00	0.00
8,920.0	1.59	351.48	8,917.2	201.8	-30.2	204.0	0.00	0.00	0.00
8,960.0	1.59	351.48	8,957.2	202.8	-30.4	205.1	0.00	0.00	0.00
9,000.0	1.59	351.48	8,997.1	203.9	-30.5	206.2	0.00	0.00	0.00
9,002.9	1.59	351.48	9,000.0	204.0	-30.6	206.3	0.00	0.00	0.00

TARGET BHL 1950'FSL, 705'FEL

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
550.0	550.0	8 5/8"	8-5/8	12-1/4

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
6,596.9	6,595.0	NIOBRARA		0.00	
6,913.0	6,911.0	CODELL		0.00	
7,273.2	7,271.0	D-SAND		0.00	
7,344.2	7,342.0	J-SAND		0.00	
7,603.3	7,601.0	DAKOTA		0.00	