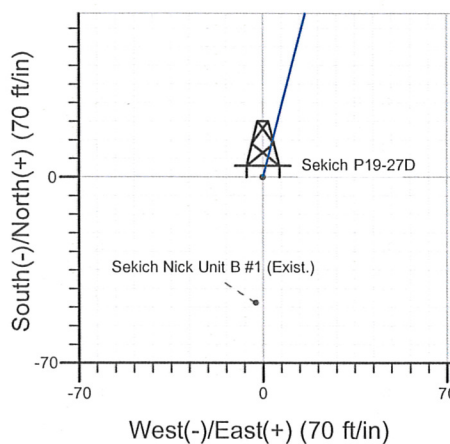
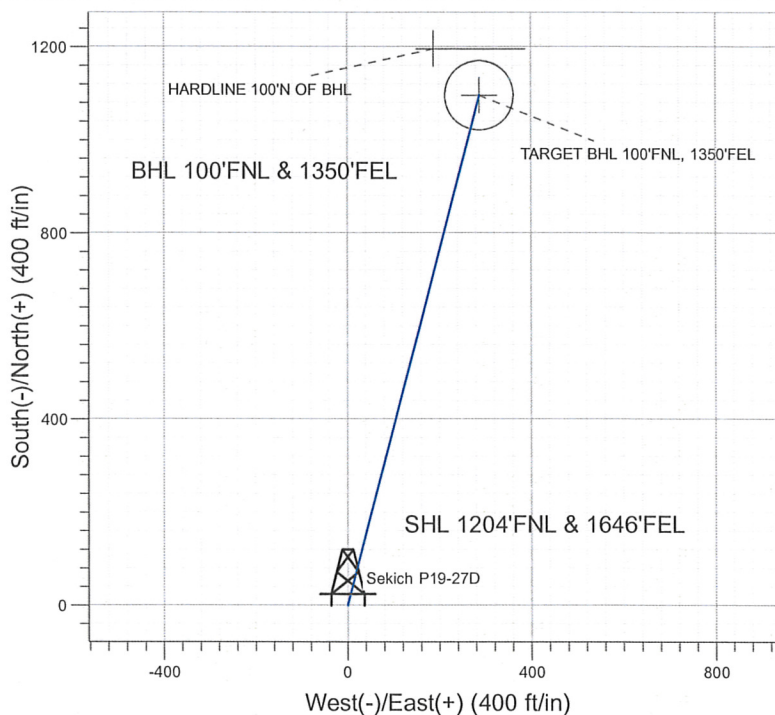
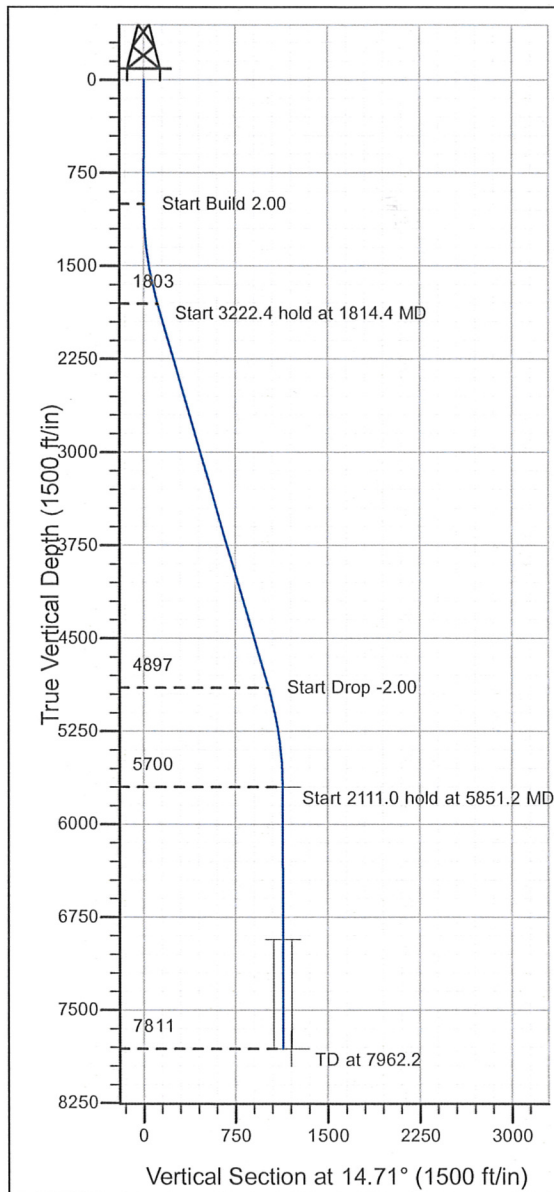


Well Name: Sekich P19-27D

Surface Location: Sekich P19-27D Sec. 19-T3N-R67W
 North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone
 Ground Elevation: 4898.0
 -S+E/-W Northing Easting Latitude Longitude S
 0.0 1321851.02 3159413.70 40° 12' 55.692 N 104° 55' 45.012 W
 Original Well Elev WELL @ 4911.0ft (Original Well Elev)

Slot

NOBLE ENERGY INC WELD COUNTY CO



Sekich P19-27D Sec. 19-T3N-R67W
 Sekich P19-27D
 Noble Sekich P19-27D Plan #1 (03-30-10
 11:23, March 30 2010



Azimuths to True North
Magnetic North: 9.09°

Magnetic Field
Strength: 53188.7snT
Dip Angle: 66.93°
Date: 12/31/2009
Model: IGRF200510

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
TARGET BHL 100'FNL, 1350'FEL	5700.0	1096.6	287.9	40° 13' 6.528 N	104° 55' 41.301 W	Point
TARGET CIRCLE 100'FNL, 1350'FEL	6931.0	1096.6	287.9	40° 13' 6.528 N	104° 55' 41.301 W	Circle (Radius: 75.0)
HARDWARE 100'N OF BHL	7811.0	1196.6	187.9	40° 13' 7.517 N	104° 55' 42.590 W	Polygon

SECTION DETAILS

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	1000.0	0.00	0.00	1000.0	0.0	0.0	0.00	0.00	0.0	
3	1814.4	16.29	14.71	1803.5	111.2	29.2	2.00	14.71	115.0	
4	5036.8	16.29	14.71	4896.5	985.4	258.7	0.00	0.00	1018.7	
5	5851.2	0.00	0.00	5700.0	1096.6	287.9	2.00	180.00	1133.7	TARGET BHL 100'FNL, 1350'FEL
6	7962.2	0.00	0.00	7811.0	1096.6	287.9	0.00	0.00	1133.7	



Directional

**NOBLE ENERGY INC WELD
COUNTY CO**

SEC.19-T3N-R67W

Sekich P19-27D Sec. 19-T3N-R67W

Sekich P19-27D

Wellbore #1

Plan: Noble Sekich P19-27D Plan #1 (03-30-10)

Standard Planning Report

30 March, 2010



Database: EDM den0-adp01 Server Data
Company: NOBLE ENERGY INC WELD COUNTY CO
Project: SEC.19-T3N-R67W
Site: Sekich P19-27D Sec. 19-T3N-R67W
Well: Sekich P19-27D
Wellbore: Wellbore #1
Design: Noble Sekich P19-27D Plan #1 (03-30-10)

Local Co-ordinate Reference: Well Sekich P19-27D
TVD Reference: WELL @ 4911.0ft (Original Well Elev)
MD Reference: WELL @ 4911.0ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature

Project	SEC.19-T3N-R67W, Weld County, Colorado		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		Using geodetic scale factor

Site	Sekich P19-27D Sec. 19-T3N-R67W				
Site Position:		Northing:	1,321,851.03ft	Latitude:	40° 12' 55.692 N
From:	Lat/Long	Easting:	3,159,413.70ft	Longitude:	104° 55' 45.012 W
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.37 °

Well	Sekich P19-27D					
Well Position	+N/-S	0.0 ft	Northing:	1,321,851.02 ft	Latitude:	40° 12' 55.692 N
	+E/-W	0.0 ft	Easting:	3,159,413.70 ft	Longitude:	104° 55' 45.012 W
Position Uncertainty	0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,898.0 ft	

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	12/31/2009	9.09	66.93	53,189

Design	Noble Sekich P19-27D Plan #1 (03-30-10)			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	14.71

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	
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,814.4	16.29	14.71	1,803.5	111.2	29.2	2.00	2.00	0.00	14.71	
5,036.8	16.29	14.71	4,896.5	985.4	258.7	0.00	0.00	0.00	0.00	
5,851.2	0.00	0.00	5,700.0	1,096.6	287.9	2.00	-2.00	0.00	180.00	TARGET BHL 100'I
7,962.2	0.00	0.00	7,811.0	1,096.6	287.9	0.00	0.00	0.00	0.00	

Database: EDM den0-adp01 Server Data
Company: NOBLE ENERGY INC WELD COUNTY CO
Project: SEC.19-T3N-R67W
Site: Sekich P19-27D Sec. 19-T3N-R67W
Well: Sekich P19-27D
Wellbore: Wellbore #1
Design: Noble Sekich P19-27D Plan #1 (03-30-10)

Local Co-ordinate Reference: Well Sekich P19-27D
TVD Reference: WELL @ 4911.0ft (Original Well Elev)
MD Reference: WELL @ 4911.0ft (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
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	0.80	14.71	1,040.0	0.3	0.1	0.3	2.00	2.00	0.00
1,080.0	1.60	14.71	1,080.0	1.1	0.3	1.1	2.00	2.00	0.00
1,120.0	2.40	14.71	1,120.0	2.4	0.6	2.5	2.00	2.00	0.00
1,160.0	3.20	14.71	1,159.9	4.3	1.1	4.5	2.00	2.00	0.00
1,200.0	4.00	14.71	1,199.8	6.7	1.8	7.0	2.00	2.00	0.00
1,240.0	4.80	14.71	1,239.7	9.7	2.6	10.0	2.00	2.00	0.00
1,280.0	5.60	14.71	1,279.6	13.2	3.5	13.7	2.00	2.00	0.00
1,320.0	6.40	14.71	1,319.3	17.3	4.5	17.9	2.00	2.00	0.00
1,360.0	7.20	14.71	1,359.1	21.8	5.7	22.6	2.00	2.00	0.00
1,400.0	8.00	14.71	1,398.7	27.0	7.1	27.9	2.00	2.00	0.00
1,440.0	8.80	14.71	1,438.3	32.6	8.6	33.7	2.00	2.00	0.00
1,480.0	9.60	14.71	1,477.8	38.8	10.2	40.1	2.00	2.00	0.00
1,520.0	10.40	14.71	1,517.1	45.5	12.0	47.1	2.00	2.00	0.00
1,560.0	11.20	14.71	1,556.4	52.8	13.9	54.6	2.00	2.00	0.00
1,600.0	12.00	14.71	1,595.6	60.6	15.9	62.6	2.00	2.00	0.00
1,640.0	12.80	14.71	1,634.7	68.9	18.1	71.2	2.00	2.00	0.00
1,680.0	13.60	14.71	1,673.6	77.7	20.4	80.3	2.00	2.00	0.00
1,720.0	14.40	14.71	1,712.4	87.1	22.9	90.0	2.00	2.00	0.00
1,760.0	15.20	14.71	1,751.1	96.9	25.4	100.2	2.00	2.00	0.00
1,800.0	16.00	14.71	1,789.6	107.3	28.2	111.0	2.00	2.00	0.00
1,814.4	16.29	14.71	1,803.5	111.2	29.2	115.0	2.00	2.00	0.00
1,840.0	16.29	14.71	1,828.0	118.2	31.0	122.2	0.00	0.00	0.00
1,880.0	16.29	14.71	1,866.4	129.0	33.9	133.4	0.00	0.00	0.00
1,920.0	16.29	14.71	1,904.8	139.9	36.7	144.6	0.00	0.00	0.00
1,960.0	16.29	14.71	1,943.2	150.7	39.6	155.8	0.00	0.00	0.00
2,000.0	16.29	14.71	1,981.6	161.6	42.4	167.0	0.00	0.00	0.00
2,040.0	16.29	14.71	2,020.0	172.4	45.3	178.3	0.00	0.00	0.00
2,080.0	16.29	14.71	2,058.4	183.3	48.1	189.5	0.00	0.00	0.00

Database: EDM den0-adp01 Server Data
Company: NOBLE ENERGY INC WELD COUNTY CO
Project: SEC.19-T3N-R67W
Site: Sekich P19-27D Sec. 19-T3N-R67W
Well: Sekich P19-27D
Wellbore: Wellbore #1
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MD Reference: WELL @ 4911.0ft (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)
2,120.0	16.29	14.71	2,096.8	194.1	51.0	200.7	0.00	0.00	0.00
2,160.0	16.29	14.71	2,135.2	205.0	53.8	211.9	0.00	0.00	0.00
2,200.0	16.29	14.71	2,173.6	215.8	56.7	223.1	0.00	0.00	0.00
2,240.0	16.29	14.71	2,212.0	226.7	59.5	234.3	0.00	0.00	0.00
2,280.0	16.29	14.71	2,250.4	237.5	62.4	245.6	0.00	0.00	0.00
2,320.0	16.29	14.71	2,288.8	248.4	65.2	256.8	0.00	0.00	0.00
2,360.0	16.29	14.71	2,327.2	259.2	68.1	268.0	0.00	0.00	0.00
2,400.0	16.29	14.71	2,365.6	270.1	70.9	279.2	0.00	0.00	0.00
2,440.0	16.29	14.71	2,404.0	280.9	73.8	290.4	0.00	0.00	0.00
2,480.0	16.29	14.71	2,442.4	291.8	76.6	301.7	0.00	0.00	0.00
2,520.0	16.29	14.71	2,480.8	302.6	79.4	312.9	0.00	0.00	0.00
2,560.0	16.29	14.71	2,519.2	313.5	82.3	324.1	0.00	0.00	0.00
2,600.0	16.29	14.71	2,557.5	324.3	85.1	335.3	0.00	0.00	0.00
2,640.0	16.29	14.71	2,595.9	335.2	88.0	346.5	0.00	0.00	0.00
2,680.0	16.29	14.71	2,634.3	346.0	90.8	357.7	0.00	0.00	0.00
2,720.0	16.29	14.71	2,672.7	356.9	93.7	369.0	0.00	0.00	0.00
2,760.0	16.29	14.71	2,711.1	367.7	96.5	380.2	0.00	0.00	0.00
2,800.0	16.29	14.71	2,749.5	378.6	99.4	391.4	0.00	0.00	0.00
2,840.0	16.29	14.71	2,787.9	389.4	102.2	402.6	0.00	0.00	0.00
2,880.0	16.29	14.71	2,826.3	400.3	105.1	413.8	0.00	0.00	0.00
2,920.0	16.29	14.71	2,864.7	411.1	107.9	425.1	0.00	0.00	0.00
2,960.0	16.29	14.71	2,903.1	422.0	110.8	436.3	0.00	0.00	0.00
3,000.0	16.29	14.71	2,941.5	432.8	113.6	447.5	0.00	0.00	0.00
3,040.0	16.29	14.71	2,979.9	443.7	116.5	458.7	0.00	0.00	0.00
3,080.0	16.29	14.71	3,018.3	454.5	119.3	469.9	0.00	0.00	0.00
3,120.0	16.29	14.71	3,056.7	465.4	122.2	481.2	0.00	0.00	0.00
3,160.0	16.29	14.71	3,095.1	476.2	125.0	492.4	0.00	0.00	0.00
3,200.0	16.29	14.71	3,133.5	487.1	127.9	503.6	0.00	0.00	0.00
3,240.0	16.29	14.71	3,171.9	497.9	130.7	514.8	0.00	0.00	0.00
3,280.0	16.29	14.71	3,210.3	508.8	133.6	526.0	0.00	0.00	0.00
3,320.0	16.29	14.71	3,248.6	519.6	136.4	537.2	0.00	0.00	0.00
3,360.0	16.29	14.71	3,287.0	530.5	139.3	548.5	0.00	0.00	0.00
3,400.0	16.29	14.71	3,325.4	541.3	142.1	559.7	0.00	0.00	0.00
3,440.0	16.29	14.71	3,363.8	552.2	145.0	570.9	0.00	0.00	0.00
3,480.0	16.29	14.71	3,402.2	563.0	147.8	582.1	0.00	0.00	0.00
3,520.0	16.29	14.71	3,440.6	573.9	150.7	593.3	0.00	0.00	0.00
3,560.0	16.29	14.71	3,479.0	584.7	153.5	604.6	0.00	0.00	0.00
3,600.0	16.29	14.71	3,517.4	595.6	156.4	615.8	0.00	0.00	0.00
3,640.0	16.29	14.71	3,555.8	606.4	159.2	627.0	0.00	0.00	0.00
3,680.0	16.29	14.71	3,594.2	617.3	162.1	638.2	0.00	0.00	0.00
3,720.0	16.29	14.71	3,632.6	628.1	164.9	649.4	0.00	0.00	0.00
3,760.0	16.29	14.71	3,671.0	639.0	167.8	660.6	0.00	0.00	0.00
3,800.0	16.29	14.71	3,709.4	649.8	170.6	671.9	0.00	0.00	0.00
3,840.0	16.29	14.71	3,747.8	660.7	173.5	683.1	0.00	0.00	0.00
3,880.0	16.29	14.71	3,786.2	671.5	176.3	694.3	0.00	0.00	0.00
3,920.0	16.29	14.71	3,824.6	682.4	179.2	705.5	0.00	0.00	0.00
3,960.0	16.29	14.71	3,863.0	693.2	182.0	716.7	0.00	0.00	0.00
4,000.0	16.29	14.71	3,901.4	704.1	184.8	728.0	0.00	0.00	0.00
4,040.0	16.29	14.71	3,939.8	715.0	187.7	739.2	0.00	0.00	0.00
4,080.0	16.29	14.71	3,978.1	725.8	190.5	750.4	0.00	0.00	0.00
4,120.0	16.29	14.71	4,016.5	736.7	193.4	761.6	0.00	0.00	0.00
4,160.0	16.29	14.71	4,054.9	747.5	196.2	772.8	0.00	0.00	0.00
4,200.0	16.29	14.71	4,093.3	758.4	199.1	784.1	0.00	0.00	0.00
4,240.0	16.29	14.71	4,131.7	769.2	201.9	795.3	0.00	0.00	0.00

Database: EDM den0-adp01 Server Data
Company: NOBLE ENERGY INC WELD COUNTY CO
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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)
4,280.0	16.29	14.71	4,170.1	780.1	204.8	806.5	0.00	0.00	0.00
4,320.0	16.29	14.71	4,208.5	790.9	207.6	817.7	0.00	0.00	0.00
4,360.0	16.29	14.71	4,246.9	801.8	210.5	828.9	0.00	0.00	0.00
4,400.0	16.29	14.71	4,285.3	812.6	213.3	840.1	0.00	0.00	0.00
4,440.0	16.29	14.71	4,323.7	823.5	216.2	851.4	0.00	0.00	0.00
4,480.0	16.29	14.71	4,362.1	834.3	219.0	862.6	0.00	0.00	0.00
4,520.0	16.29	14.71	4,400.5	845.2	221.9	873.8	0.00	0.00	0.00
4,560.0	16.29	14.71	4,438.9	856.0	224.7	885.0	0.00	0.00	0.00
4,600.0	16.29	14.71	4,477.3	866.9	227.6	896.2	0.00	0.00	0.00
4,640.0	16.29	14.71	4,515.7	877.7	230.4	907.5	0.00	0.00	0.00
4,680.0	16.29	14.71	4,554.1	888.6	233.3	918.7	0.00	0.00	0.00
4,720.0	16.29	14.71	4,592.5	899.4	236.1	929.9	0.00	0.00	0.00
4,760.0	16.29	14.71	4,630.9	910.3	239.0	941.1	0.00	0.00	0.00
4,800.0	16.29	14.71	4,669.2	921.1	241.8	952.3	0.00	0.00	0.00
4,840.0	16.29	14.71	4,707.6	932.0	244.7	963.5	0.00	0.00	0.00
4,880.0	16.29	14.71	4,746.0	942.8	247.5	974.8	0.00	0.00	0.00
4,920.0	16.29	14.71	4,784.4	953.7	250.4	986.0	0.00	0.00	0.00
4,960.0	16.29	14.71	4,822.8	964.5	253.2	997.2	0.00	0.00	0.00
5,000.0	16.29	14.71	4,861.2	975.4	256.1	1,008.4	0.00	0.00	0.00
5,036.8	16.29	14.71	4,896.5	985.4	258.7	1,018.7	0.00	0.00	0.00
5,040.0	16.22	14.71	4,899.6	986.2	258.9	1,019.6	2.00	-2.00	0.00
5,080.0	15.42	14.71	4,938.1	996.8	261.7	1,030.5	2.00	-2.00	0.00
5,120.0	14.62	14.71	4,976.7	1,006.8	264.3	1,040.9	2.00	-2.00	0.00
5,160.0	13.82	14.71	5,015.5	1,016.3	266.8	1,050.7	2.00	-2.00	0.00
5,200.0	13.02	14.71	5,054.4	1,025.3	269.2	1,060.0	2.00	-2.00	0.00
5,240.0	12.22	14.71	5,093.4	1,033.7	271.4	1,068.8	2.00	-2.00	0.00
5,280.0	11.42	14.71	5,132.6	1,041.7	273.5	1,077.0	2.00	-2.00	0.00
5,320.0	10.62	14.71	5,171.9	1,049.1	275.4	1,084.6	2.00	-2.00	0.00
5,360.0	9.82	14.71	5,211.2	1,055.9	277.2	1,091.7	2.00	-2.00	0.00
5,400.0	9.02	14.71	5,250.7	1,062.3	278.9	1,098.3	2.00	-2.00	0.00
5,440.0	8.22	14.71	5,290.2	1,068.1	280.4	1,104.3	2.00	-2.00	0.00
5,480.0	7.42	14.71	5,329.9	1,073.3	281.8	1,109.7	2.00	-2.00	0.00
5,520.0	6.62	14.71	5,369.6	1,078.1	283.0	1,114.6	2.00	-2.00	0.00
5,560.0	5.82	14.71	5,409.3	1,082.3	284.1	1,118.9	2.00	-2.00	0.00
5,600.0	5.02	14.71	5,449.1	1,085.9	285.1	1,122.7	2.00	-2.00	0.00
5,640.0	4.22	14.71	5,489.0	1,089.0	285.9	1,125.9	2.00	-2.00	0.00
5,680.0	3.42	14.71	5,528.9	1,091.6	286.6	1,128.6	2.00	-2.00	0.00
5,720.0	2.62	14.71	5,568.9	1,093.7	287.1	1,130.7	2.00	-2.00	0.00
5,760.0	1.82	14.71	5,608.8	1,095.2	287.5	1,132.3	2.00	-2.00	0.00
5,800.0	1.02	14.71	5,648.8	1,096.1	287.8	1,133.3	2.00	-2.00	0.00
5,840.0	0.22	14.71	5,688.8	1,096.5	287.9	1,133.7	2.00	-2.00	0.00
5,851.2	0.00	0.00	5,700.0	1,096.6	287.9	1,133.7	2.00	-2.00	-131.57
TARGET BHL 100'FNL, 1350'FEL									
5,880.0	0.00	0.00	5,728.8	1,096.6	287.9	1,133.7	0.00	0.00	0.00
5,920.0	0.00	0.00	5,768.8	1,096.6	287.9	1,133.7	0.00	0.00	0.00
5,960.0	0.00	0.00	5,808.8	1,096.6	287.9	1,133.7	0.00	0.00	0.00
6,000.0	0.00	0.00	5,848.8	1,096.6	287.9	1,133.7	0.00	0.00	0.00
6,040.0	0.00	0.00	5,888.8	1,096.6	287.9	1,133.7	0.00	0.00	0.00
6,080.0	0.00	0.00	5,928.8	1,096.6	287.9	1,133.7	0.00	0.00	0.00
6,120.0	0.00	0.00	5,968.8	1,096.6	287.9	1,133.7	0.00	0.00	0.00
6,160.0	0.00	0.00	6,008.8	1,096.6	287.9	1,133.7	0.00	0.00	0.00
6,200.0	0.00	0.00	6,048.8	1,096.6	287.9	1,133.7	0.00	0.00	0.00
6,240.0	0.00	0.00	6,088.8	1,096.6	287.9	1,133.7	0.00	0.00	0.00

Database: EDM den0-adp01 Server Data
Company: NOBLE ENERGY INC WELD COUNTY CO
Project: SEC.19-T3N-R67W
Site: Sekich P19-27D Sec. 19-T3N-R67W
Well: Sekich P19-27D
Wellbore: Wellbore #1
Design: Noble Sekich P19-27D Plan #1 (03-30-10)

Local Co-ordinate Reference: Well Sekich P19-27D
TVD Reference: WELL @ 4911.0ft (Original Well Elev)
MD Reference: WELL @ 4911.0ft (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)
6,280.0	0.00	0.00	6,128.8	1,096.6	287.9	1,133.7	0.00	0.00	0.00
6,320.0	0.00	0.00	6,168.8	1,096.6	287.9	1,133.7	0.00	0.00	0.00
6,360.0	0.00	0.00	6,208.8	1,096.6	287.9	1,133.7	0.00	0.00	0.00
6,400.0	0.00	0.00	6,248.8	1,096.6	287.9	1,133.7	0.00	0.00	0.00
6,440.0	0.00	0.00	6,288.8	1,096.6	287.9	1,133.7	0.00	0.00	0.00
6,480.0	0.00	0.00	6,328.8	1,096.6	287.9	1,133.7	0.00	0.00	0.00
6,520.0	0.00	0.00	6,368.8	1,096.6	287.9	1,133.7	0.00	0.00	0.00
6,560.0	0.00	0.00	6,408.8	1,096.6	287.9	1,133.7	0.00	0.00	0.00
6,600.0	0.00	0.00	6,448.8	1,096.6	287.9	1,133.7	0.00	0.00	0.00
6,640.0	0.00	0.00	6,488.8	1,096.6	287.9	1,133.7	0.00	0.00	0.00
6,680.0	0.00	0.00	6,528.8	1,096.6	287.9	1,133.7	0.00	0.00	0.00
6,720.0	0.00	0.00	6,568.8	1,096.6	287.9	1,133.7	0.00	0.00	0.00
6,760.0	0.00	0.00	6,608.8	1,096.6	287.9	1,133.7	0.00	0.00	0.00
6,800.0	0.00	0.00	6,648.8	1,096.6	287.9	1,133.7	0.00	0.00	0.00
6,840.0	0.00	0.00	6,688.8	1,096.6	287.9	1,133.7	0.00	0.00	0.00
6,880.0	0.00	0.00	6,728.8	1,096.6	287.9	1,133.7	0.00	0.00	0.00
6,920.0	0.00	0.00	6,768.8	1,096.6	287.9	1,133.7	0.00	0.00	0.00
6,960.0	0.00	0.00	6,808.8	1,096.6	287.9	1,133.7	0.00	0.00	0.00
7,000.0	0.00	0.00	6,848.8	1,096.6	287.9	1,133.7	0.00	0.00	0.00
7,040.0	0.00	0.00	6,888.8	1,096.6	287.9	1,133.7	0.00	0.00	0.00
7,080.0	0.00	0.00	6,928.8	1,096.6	287.9	1,133.7	0.00	0.00	0.00
7,082.2	0.00	0.00	6,931.0	1,096.6	287.9	1,133.7	0.00	0.00	0.00
NIOBRARA - TARGET CIRCLE 100'FNL, 1350'FEL									
7,120.0	0.00	0.00	6,968.8	1,096.6	287.9	1,133.7	0.00	0.00	0.00
7,160.0	0.00	0.00	7,008.8	1,096.6	287.9	1,133.7	0.00	0.00	0.00
7,200.0	0.00	0.00	7,048.8	1,096.6	287.9	1,133.7	0.00	0.00	0.00
7,240.0	0.00	0.00	7,088.8	1,096.6	287.9	1,133.7	0.00	0.00	0.00
7,280.0	0.00	0.00	7,128.8	1,096.6	287.9	1,133.7	0.00	0.00	0.00
7,320.0	0.00	0.00	7,168.8	1,096.6	287.9	1,133.7	0.00	0.00	0.00
7,360.0	0.00	0.00	7,208.8	1,096.6	287.9	1,133.7	0.00	0.00	0.00
7,372.2	0.00	0.00	7,221.0	1,096.6	287.9	1,133.7	0.00	0.00	0.00
CODELL									
7,400.0	0.00	0.00	7,248.8	1,096.6	287.9	1,133.7	0.00	0.00	0.00
7,440.0	0.00	0.00	7,288.8	1,096.6	287.9	1,133.7	0.00	0.00	0.00
7,480.0	0.00	0.00	7,328.8	1,096.6	287.9	1,133.7	0.00	0.00	0.00
7,520.0	0.00	0.00	7,368.8	1,096.6	287.9	1,133.7	0.00	0.00	0.00
7,560.0	0.00	0.00	7,408.8	1,096.6	287.9	1,133.7	0.00	0.00	0.00
7,600.0	0.00	0.00	7,448.8	1,096.6	287.9	1,133.7	0.00	0.00	0.00
7,640.0	0.00	0.00	7,488.8	1,096.6	287.9	1,133.7	0.00	0.00	0.00
7,680.0	0.00	0.00	7,528.8	1,096.6	287.9	1,133.7	0.00	0.00	0.00
7,692.2	0.00	0.00	7,541.0	1,096.6	287.9	1,133.7	0.00	0.00	0.00
D-SAND									
7,720.0	0.00	0.00	7,568.8	1,096.6	287.9	1,133.7	0.00	0.00	0.00
7,760.0	0.00	0.00	7,608.8	1,096.6	287.9	1,133.7	0.00	0.00	0.00
7,800.0	0.00	0.00	7,648.8	1,096.6	287.9	1,133.7	0.00	0.00	0.00
7,812.2	0.00	0.00	7,661.0	1,096.6	287.9	1,133.7	0.00	0.00	0.00
J-SAND									
7,840.0	0.00	0.00	7,688.8	1,096.6	287.9	1,133.7	0.00	0.00	0.00
7,880.0	0.00	0.00	7,728.8	1,096.6	287.9	1,133.7	0.00	0.00	0.00
7,920.0	0.00	0.00	7,768.8	1,096.6	287.9	1,133.7	0.00	0.00	0.00
7,960.0	0.00	0.00	7,808.8	1,096.6	287.9	1,133.7	0.00	0.00	0.00
7,962.2	0.00	0.00	7,811.0	1,096.6	287.9	1,133.7	0.00	0.00	0.00
HARDLINE 100'N OF BHL									

Database: EDM den0-adp01 Server Data
Company: NOBLE ENERGY INC WELD COUNTY CO
Project: SEC.19-T3N-R67W
Site: Sekich P19-27D Sec. 19-T3N-R67W
Well: Sekich P19-27D
Wellbore: Wellbore #1
Design: Noble Sekich P19-27D Plan #1 (03-30-10)

Local Co-ordinate Reference: Well Sekich P19-27D
TVD Reference: WELL @ 4911.0ft (Original Well Elev)
MD Reference: WELL @ 4911.0ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature

Targets

Target Name

- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- Shape									
HARDLINE 100'N OF	0.00	0.00	7,811.0	1,196.6	187.9	1,323,048.75	3,159,593.89	40° 13' 7.517 N	104° 55' 42.590 W
- plan misses target center by 141.4ft at 7962.2ft MD (7811.0 TVD, 1096.6 N, 287.9 E)									
- Polygon									
Point 1			7,811.0	0.0	0.0	1,323,048.75	3,159,593.89		
Point 2			7,811.0	0.0	200.0	1,323,050.04	3,159,793.87		
TARGET BHL 100'FN	0.00	0.00	5,700.0	1,096.6	287.9	1,322,949.36	3,159,694.50	40° 13' 6.528 N	104° 55' 41.301 W
- plan hits target center									
- Point									
TARGET CIRCLE 100'	0.00	0.00	6,931.0	1,096.6	287.9	1,322,949.40	3,159,694.52	40° 13' 6.528 N	104° 55' 41.301 W
- plan hits target center									
- Circle (radius 75.0)									

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
7,082.2	6,931.0	NIORARA		0.00	
7,372.2	7,221.0	CODELL		0.00	
7,692.2	7,541.0	D-SAND		0.00	
7,812.2	7,661.0	J-SAND		0.00	