

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	700.0	0.00	0.00	700.0	0.0	0.0	0.00	0.00	0.0	
3	950.0	5.00	270.00	949.7	0.0	-10.9	2.00	270.00	6.7	
4	1508.6	13.39	323.76	1501.4	52.3	-73.7	2.00	74.56	86.7	
5	4423.1	13.39	323.76	4336.7	596.6	-472.6	0.00	0.00	761.1	
6	5092.5	0.00	0.00	5000.0	659.4	-518.7	2.00	180.00	839.0	TARGET BHL 150'FSL, 2490'FEL
7	7018.5	0.00	0.00	6926.0	659.4	-518.7	0.00	0.00	839.0	



Directional

NOBLE ENERGY INC WELD COUNTY CO

SEC.14-T4N-R64W

Stinar C14-28D Pad Sec.14-T4N-R64W

Stinar C14-28D

Wellbore #1

Plan: Noble Stinar C14-28D Plan #1 (11-15-10)

Standard Planning Report

19 November, 2010



Database: Landmark
Company: NOBLE ENERGY INC WELD COUNTY CO
Project: SEC.14-T4N-R64W
Site: Stinar C14-28D Pad Sec.14-T4N-R64W
Well: Stinar C14-28D
Wellbore: Wellbore #1
Design: Noble Stinar C14-28D Plan #1 (11-15-10)

Local Co-ordinate Reference: Well Stinar C14-28D
TVD Reference: WELL @ 4651.0ft (Original Well Elev)
MD Reference: WELL @ 4651.0ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature

Project	SEC.14-T4N-R64W, 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		Using geodetic scale factor

Site	Stinar C14-28D Pad Sec.14-T4N-R64W				
Site Position:		Northing:	1,360,318.14 ft	Latitude:	40° 19' 5.844 N
From:	Lat/Long	Easting:	3,274,543.38 ft	Longitude:	104° 30' 55.476 W
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.64 °

Well	Stinar C14-28D					
Well Position	+N/-S	0.0 ft	Northing:	1,360,318.12 ft	Latitude:	40° 19' 5.844 N
	+E/-W	0.0 ft	Easting:	3,274,543.38 ft	Longitude:	104° 30' 55.476 W
Position Uncertainty	0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,638.0 ft	

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	11/16/2010	8.80	67.05	53,180

Design Noble Stinar C14-28D Plan #1 (11-15-10)

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	321.81

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	
700.0	0.00	0.00	700.0	0.0	0.0	0.00	0.00	0.00	0.00	
950.0	5.00	270.00	949.7	0.0	-10.9	2.00	2.00	0.00	270.00	
1,508.6	13.39	323.76	1,501.4	52.3	-73.7	2.00	1.50	9.62	74.56	
4,423.1	13.39	323.76	4,336.7	596.6	-472.6	0.00	0.00	0.00	0.00	
5,092.5	0.00	0.00	5,000.0	659.4	-518.7	2.00	-2.00	0.00	180.00	TARGET BHL 150'
7,018.5	0.00	0.00	6,926.0	659.4	-518.7	0.00	0.00	0.00	0.00	

Database: Landmark
Company: NOBLE ENERGY INC WELD COUNTY CO
Project: SEC.14-T4N-R64W
Site: Stinar C14-28D Pad Sec.14-T4N-R64W
Well: Stinar C14-28D
Wellbore: Wellbore #1
Design: Noble Stinar C14-28D Plan #1 (11-15-10)

Local Co-ordinate Reference: Well Stinar C14-28D
TVD Reference: WELL @ 4651.0ft (Original Well Elev)
MD Reference: WELL @ 4651.0ft (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
8 5/8"									
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
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
720.0	0.40	270.00	720.0	0.0	-0.1	0.0	2.00	2.00	0.00
760.0	1.20	270.00	760.0	0.0	-0.6	0.4	2.00	2.00	0.00
800.0	2.00	270.00	800.0	0.0	-1.7	1.1	2.00	2.00	0.00
840.0	2.80	270.00	839.9	0.0	-3.4	2.1	2.00	2.00	0.00
880.0	3.60	270.00	879.9	0.0	-5.7	3.5	2.00	2.00	0.00
920.0	4.40	270.00	919.8	0.0	-8.4	5.2	2.00	2.00	0.00
950.0	5.00	270.00	949.7	0.0	-10.9	6.7	2.00	2.00	0.00
960.0	5.06	272.19	959.6	0.0	-11.8	7.3	2.00	0.57	21.88
1,000.0	5.35	280.39	999.5	0.4	-15.4	9.8	2.00	0.74	20.50
1,040.0	5.75	287.60	1,039.3	1.4	-19.1	12.9	2.00	0.98	18.03
1,080.0	6.22	293.81	1,079.1	2.8	-23.0	16.5	2.00	1.18	15.52
1,120.0	6.75	299.09	1,118.8	4.9	-27.0	20.5	2.00	1.33	13.21
1,160.0	7.33	303.58	1,158.5	7.4	-31.2	25.1	2.00	1.45	11.21
1,200.0	7.95	307.39	1,198.2	10.5	-35.6	30.2	2.00	1.55	9.52
1,240.0	8.60	310.63	1,237.7	14.1	-40.0	35.9	2.00	1.62	8.12
1,280.0	9.28	313.42	1,277.3	18.3	-44.6	42.0	2.00	1.68	6.97
1,320.0	9.97	315.83	1,316.7	23.0	-49.4	48.6	2.00	1.73	6.02
1,360.0	10.67	317.93	1,356.1	28.2	-54.3	55.7	2.00	1.77	5.24
1,400.0	11.39	319.77	1,395.3	34.0	-59.3	63.4	2.00	1.80	4.59
1,440.0	12.12	321.39	1,434.5	40.3	-64.5	71.5	2.00	1.82	4.05
1,480.0	12.86	322.83	1,473.5	47.1	-69.8	80.2	2.00	1.84	3.60
1,508.6	13.39	323.76	1,501.4	52.3	-73.7	86.7	2.00	1.86	3.26
1,520.0	13.39	323.76	1,512.5	54.5	-75.2	89.3	0.00	0.00	0.00
1,560.0	13.39	323.76	1,551.4	61.9	-80.7	98.6	0.00	0.00	0.00
1,600.0	13.39	323.76	1,590.3	69.4	-86.2	107.8	0.00	0.00	0.00
1,640.0	13.39	323.76	1,629.2	76.9	-91.7	117.1	0.00	0.00	0.00
1,680.0	13.39	323.76	1,668.1	84.3	-97.1	126.3	0.00	0.00	0.00
1,720.0	13.39	323.76	1,707.0	91.8	-102.6	135.6	0.00	0.00	0.00
1,760.0	13.39	323.76	1,745.9	99.3	-108.1	144.9	0.00	0.00	0.00
1,800.0	13.39	323.76	1,784.9	106.7	-113.6	154.1	0.00	0.00	0.00
1,840.0	13.39	323.76	1,823.8	114.2	-119.0	163.4	0.00	0.00	0.00
1,880.0	13.39	323.76	1,862.7	121.7	-124.5	172.6	0.00	0.00	0.00
1,920.0	13.39	323.76	1,901.6	129.2	-130.0	181.9	0.00	0.00	0.00
1,960.0	13.39	323.76	1,940.5	136.6	-135.5	191.1	0.00	0.00	0.00

Database: Landmark
Company: NOBLE ENERGY INC WELD COUNTY CO
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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	13.39	323.76	1,979.4	144.1	-140.9	200.4	0.00	0.00	0.00
2,040.0	13.39	323.76	2,018.3	151.6	-146.4	209.7	0.00	0.00	0.00
2,080.0	13.39	323.76	2,057.2	159.0	-151.9	218.9	0.00	0.00	0.00
2,120.0	13.39	323.76	2,096.2	166.5	-157.4	228.2	0.00	0.00	0.00
2,160.0	13.39	323.76	2,135.1	174.0	-162.8	237.4	0.00	0.00	0.00
2,200.0	13.39	323.76	2,174.0	181.4	-168.3	246.7	0.00	0.00	0.00
2,240.0	13.39	323.76	2,212.9	188.9	-173.8	255.9	0.00	0.00	0.00
2,280.0	13.39	323.76	2,251.8	196.4	-179.3	265.2	0.00	0.00	0.00
2,320.0	13.39	323.76	2,290.7	203.9	-184.7	274.5	0.00	0.00	0.00
2,360.0	13.39	323.76	2,329.6	211.3	-190.2	283.7	0.00	0.00	0.00
2,400.0	13.39	323.76	2,368.6	218.8	-195.7	293.0	0.00	0.00	0.00
2,440.0	13.39	323.76	2,407.5	226.3	-201.2	302.2	0.00	0.00	0.00
2,480.0	13.39	323.76	2,446.4	233.7	-206.6	311.5	0.00	0.00	0.00
2,520.0	13.39	323.76	2,485.3	241.2	-212.1	320.7	0.00	0.00	0.00
2,560.0	13.39	323.76	2,524.2	248.7	-217.6	330.0	0.00	0.00	0.00
2,600.0	13.39	323.76	2,563.1	256.2	-223.1	339.2	0.00	0.00	0.00
2,640.0	13.39	323.76	2,602.0	263.6	-228.6	348.5	0.00	0.00	0.00
2,680.0	13.39	323.76	2,640.9	271.1	-234.0	357.8	0.00	0.00	0.00
2,720.0	13.39	323.76	2,679.9	278.6	-239.5	367.0	0.00	0.00	0.00
2,760.0	13.39	323.76	2,718.8	286.0	-245.0	376.3	0.00	0.00	0.00
2,800.0	13.39	323.76	2,757.7	293.5	-250.5	385.5	0.00	0.00	0.00
2,840.0	13.39	323.76	2,796.6	301.0	-255.9	394.8	0.00	0.00	0.00
2,880.0	13.39	323.76	2,835.5	308.4	-261.4	404.0	0.00	0.00	0.00
2,920.0	13.39	323.76	2,874.4	315.9	-266.9	413.3	0.00	0.00	0.00
2,960.0	13.39	323.76	2,913.3	323.4	-272.4	422.6	0.00	0.00	0.00
3,000.0	13.39	323.76	2,952.2	330.9	-277.8	431.8	0.00	0.00	0.00
3,040.0	13.39	323.76	2,991.2	338.3	-283.3	441.1	0.00	0.00	0.00
3,080.0	13.39	323.76	3,030.1	345.8	-288.8	450.3	0.00	0.00	0.00
3,120.0	13.39	323.76	3,069.0	353.3	-294.3	459.6	0.00	0.00	0.00
3,160.0	13.39	323.76	3,107.9	360.7	-299.7	468.8	0.00	0.00	0.00
3,200.0	13.39	323.76	3,146.8	368.2	-305.2	478.1	0.00	0.00	0.00
3,240.0	13.39	323.76	3,185.7	375.7	-310.7	487.4	0.00	0.00	0.00
3,280.0	13.39	323.76	3,224.6	383.1	-316.2	496.6	0.00	0.00	0.00
3,320.0	13.39	323.76	3,263.5	390.6	-321.6	505.9	0.00	0.00	0.00
3,360.0	13.39	323.76	3,302.5	398.1	-327.1	515.1	0.00	0.00	0.00
3,400.0	13.39	323.76	3,341.4	405.6	-332.6	524.4	0.00	0.00	0.00
3,440.0	13.39	323.76	3,380.3	413.0	-338.1	533.6	0.00	0.00	0.00
3,480.0	13.39	323.76	3,419.2	420.5	-343.5	542.9	0.00	0.00	0.00
3,520.0	13.39	323.76	3,458.1	428.0	-349.0	552.2	0.00	0.00	0.00
3,560.0	13.39	323.76	3,497.0	435.4	-354.5	561.4	0.00	0.00	0.00
3,600.0	13.39	323.76	3,535.9	442.9	-360.0	570.7	0.00	0.00	0.00
3,640.0	13.39	323.76	3,574.9	450.4	-365.4	579.9	0.00	0.00	0.00
3,680.0	13.39	323.76	3,613.8	457.8	-370.9	589.2	0.00	0.00	0.00
3,720.0	13.39	323.76	3,652.7	465.3	-376.4	598.4	0.00	0.00	0.00
3,760.0	13.39	323.76	3,691.6	472.8	-381.9	607.7	0.00	0.00	0.00
3,800.0	13.39	323.76	3,730.5	480.3	-387.3	617.0	0.00	0.00	0.00
3,840.0	13.39	323.76	3,769.4	487.7	-392.8	626.2	0.00	0.00	0.00
3,880.0	13.39	323.76	3,808.3	495.2	-398.3	635.5	0.00	0.00	0.00
3,920.0	13.39	323.76	3,847.2	502.7	-403.8	644.7	0.00	0.00	0.00
3,960.0	13.39	323.76	3,886.2	510.1	-409.2	654.0	0.00	0.00	0.00
4,000.0	13.39	323.76	3,925.1	517.6	-414.7	663.2	0.00	0.00	0.00
4,040.0	13.39	323.76	3,964.0	525.1	-420.2	672.5	0.00	0.00	0.00
4,080.0	13.39	323.76	4,002.9	532.5	-425.7	681.7	0.00	0.00	0.00
4,120.0	13.39	323.76	4,041.8	540.0	-431.1	691.0	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	13.39	323.76	4,080.7	547.5	-436.6	700.3	0.00	0.00	0.00
4,200.0	13.39	323.76	4,119.6	555.0	-442.1	709.5	0.00	0.00	0.00
4,240.0	13.39	323.76	4,158.5	562.4	-447.6	718.8	0.00	0.00	0.00
4,280.0	13.39	323.76	4,197.5	569.9	-453.0	728.0	0.00	0.00	0.00
4,320.0	13.39	323.76	4,236.4	577.4	-458.5	737.3	0.00	0.00	0.00
4,360.0	13.39	323.76	4,275.3	584.8	-464.0	746.5	0.00	0.00	0.00
4,400.0	13.39	323.76	4,314.2	592.3	-469.5	755.8	0.00	0.00	0.00
4,423.1	13.39	323.76	4,336.7	596.6	-472.6	761.1	0.00	0.00	0.00
4,440.0	13.05	323.76	4,353.1	599.7	-474.9	765.0	2.00	-2.00	0.00
4,480.0	12.25	323.76	4,392.2	606.8	-480.1	773.8	2.00	-2.00	0.00
4,520.0	11.45	323.76	4,431.3	613.4	-485.0	782.0	2.00	-2.00	0.00
4,560.0	10.65	323.76	4,470.6	619.6	-489.5	789.6	2.00	-2.00	0.00
4,600.0	9.85	323.76	4,509.9	625.4	-493.7	796.8	2.00	-2.00	0.00
4,640.0	9.05	323.76	4,549.4	630.7	-497.6	803.3	2.00	-2.00	0.00
4,680.0	8.25	323.76	4,588.9	635.5	-501.1	809.3	2.00	-2.00	0.00
4,720.0	7.45	323.76	4,628.5	639.9	-504.4	814.8	2.00	-2.00	0.00
4,760.0	6.65	323.76	4,668.2	643.9	-507.3	819.7	2.00	-2.00	0.00
4,800.0	5.85	323.76	4,708.0	647.4	-509.8	824.0	2.00	-2.00	0.00
4,840.0	5.05	323.76	4,747.8	650.4	-512.1	827.8	2.00	-2.00	0.00
4,880.0	4.25	323.76	4,787.7	653.1	-514.0	831.1	2.00	-2.00	0.00
4,920.0	3.45	323.76	4,827.6	655.2	-515.6	833.8	2.00	-2.00	0.00
4,960.0	2.65	323.76	4,867.5	656.9	-516.9	835.9	2.00	-2.00	0.00
5,000.0	1.85	323.76	4,907.5	658.2	-517.8	837.5	2.00	-2.00	0.00
5,040.0	1.05	323.76	4,947.5	659.0	-518.4	838.5	2.00	-2.00	0.00
5,080.0	0.25	323.76	4,987.5	659.4	-518.6	838.9	2.00	-2.00	0.00
5,092.5	0.00	0.00	5,000.0	659.4	-518.7	839.0	2.00	-2.00	0.00
TARGET BHL 150'FSL, 2490'FEL									
5,120.0	0.00	0.00	5,027.5	659.4	-518.7	839.0	0.00	0.00	0.00
5,160.0	0.00	0.00	5,067.5	659.4	-518.7	839.0	0.00	0.00	0.00
5,200.0	0.00	0.00	5,107.5	659.4	-518.7	839.0	0.00	0.00	0.00
5,240.0	0.00	0.00	5,147.5	659.4	-518.7	839.0	0.00	0.00	0.00
5,280.0	0.00	0.00	5,187.5	659.4	-518.7	839.0	0.00	0.00	0.00
5,320.0	0.00	0.00	5,227.5	659.4	-518.7	839.0	0.00	0.00	0.00
5,360.0	0.00	0.00	5,267.5	659.4	-518.7	839.0	0.00	0.00	0.00
5,400.0	0.00	0.00	5,307.5	659.4	-518.7	839.0	0.00	0.00	0.00
5,440.0	0.00	0.00	5,347.5	659.4	-518.7	839.0	0.00	0.00	0.00
5,480.0	0.00	0.00	5,387.5	659.4	-518.7	839.0	0.00	0.00	0.00
5,520.0	0.00	0.00	5,427.5	659.4	-518.7	839.0	0.00	0.00	0.00
5,560.0	0.00	0.00	5,467.5	659.4	-518.7	839.0	0.00	0.00	0.00
5,600.0	0.00	0.00	5,507.5	659.4	-518.7	839.0	0.00	0.00	0.00
5,640.0	0.00	0.00	5,547.5	659.4	-518.7	839.0	0.00	0.00	0.00
5,680.0	0.00	0.00	5,587.5	659.4	-518.7	839.0	0.00	0.00	0.00
5,720.0	0.00	0.00	5,627.5	659.4	-518.7	839.0	0.00	0.00	0.00
5,760.0	0.00	0.00	5,667.5	659.4	-518.7	839.0	0.00	0.00	0.00
5,800.0	0.00	0.00	5,707.5	659.4	-518.7	839.0	0.00	0.00	0.00
5,840.0	0.00	0.00	5,747.5	659.4	-518.7	839.0	0.00	0.00	0.00
5,880.0	0.00	0.00	5,787.5	659.4	-518.7	839.0	0.00	0.00	0.00
5,920.0	0.00	0.00	5,827.5	659.4	-518.7	839.0	0.00	0.00	0.00
5,960.0	0.00	0.00	5,867.5	659.4	-518.7	839.0	0.00	0.00	0.00
6,000.0	0.00	0.00	5,907.5	659.4	-518.7	839.0	0.00	0.00	0.00
6,040.0	0.00	0.00	5,947.5	659.4	-518.7	839.0	0.00	0.00	0.00
6,080.0	0.00	0.00	5,987.5	659.4	-518.7	839.0	0.00	0.00	0.00
6,120.0	0.00	0.00	6,027.5	659.4	-518.7	839.0	0.00	0.00	0.00
6,160.0	0.00	0.00	6,067.5	659.4	-518.7	839.0	0.00	0.00	0.00

Database: Landmark
Company: NOBLE ENERGY INC WELD COUNTY CO
Project: SEC.14-T4N-R64W
Site: Stinar C14-28D Pad Sec.14-T4N-R64W
Well: Stinar C14-28D
Wellbore: Wellbore #1
Design: Noble Stinar C14-28D Plan #1 (11-15-10)

Local Co-ordinate Reference: Well Stinar C14-28D
TVD Reference: WELL @ 4651.0ft (Original Well Elev)
MD Reference: WELL @ 4651.0ft (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)
6,200.0	0.00	0.00	6,107.5	659.4	-518.7	839.0	0.00	0.00	0.00
6,240.0	0.00	0.00	6,147.5	659.4	-518.7	839.0	0.00	0.00	0.00
6,280.0	0.00	0.00	6,187.5	659.4	-518.7	839.0	0.00	0.00	0.00
6,320.0	0.00	0.00	6,227.5	659.4	-518.7	839.0	0.00	0.00	0.00
6,360.0	0.00	0.00	6,267.5	659.4	-518.7	839.0	0.00	0.00	0.00
6,400.0	0.00	0.00	6,307.5	659.4	-518.7	839.0	0.00	0.00	0.00
6,440.0	0.00	0.00	6,347.5	659.4	-518.7	839.0	0.00	0.00	0.00
6,480.0	0.00	0.00	6,387.5	659.4	-518.7	839.0	0.00	0.00	0.00
6,520.0	0.00	0.00	6,427.5	659.4	-518.7	839.0	0.00	0.00	0.00
6,560.0	0.00	0.00	6,467.5	659.4	-518.7	839.0	0.00	0.00	0.00
6,581.5	0.00	0.00	6,489.0	659.4	-518.7	839.0	0.00	0.00	0.00
NIORARA - TARGET CIRCLE 150'FSL & 2490'FEL									
6,600.0	0.00	0.00	6,507.5	659.4	-518.7	839.0	0.00	0.00	0.00
6,640.0	0.00	0.00	6,547.5	659.4	-518.7	839.0	0.00	0.00	0.00
6,680.0	0.00	0.00	6,587.5	659.4	-518.7	839.0	0.00	0.00	0.00
6,720.0	0.00	0.00	6,627.5	659.4	-518.7	839.0	0.00	0.00	0.00
6,760.0	0.00	0.00	6,667.5	659.4	-518.7	839.0	0.00	0.00	0.00
6,800.0	0.00	0.00	6,707.5	659.4	-518.7	839.0	0.00	0.00	0.00
6,840.0	0.00	0.00	6,747.5	659.4	-518.7	839.0	0.00	0.00	0.00
6,868.5	0.00	0.00	6,776.0	659.4	-518.7	839.0	0.00	0.00	0.00
CODELL									
6,880.0	0.00	0.00	6,787.5	659.4	-518.7	839.0	0.00	0.00	0.00
6,920.0	0.00	0.00	6,827.5	659.4	-518.7	839.0	0.00	0.00	0.00
6,960.0	0.00	0.00	6,867.5	659.4	-518.7	839.0	0.00	0.00	0.00
7,000.0	0.00	0.00	6,907.5	659.4	-518.7	839.0	0.00	0.00	0.00
7,018.5	0.00	0.00	6,926.0	659.4	-518.7	839.0	0.00	0.00	0.00
HARD LINES 150'S & 140'W of BHL									

Targets

Target Name

- hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
HARD LINES 150'S & 140'W of BHL	0.00	0.00	6,926.0	509.4	-658.7	1,360,820.17	3,273,879.09	40° 19' 10.878 N	104° 31' 3.980 W
- plan misses by 205.2ft at 7018.5ft MD (6926.0 TVD, 659.4 N, -518.7 E)									
- Polygon									
Point 1			6,926.0	0.0	0.0	1,360,820.17	3,273,879.09		
Point 2			6,926.0	300.0	0.0	1,361,120.14	3,273,875.76		
Point 3			6,926.0	0.0	0.0	1,360,820.17	3,273,879.09		
Point 4			6,926.0	0.0	300.0	1,360,823.50	3,274,179.06		
TARGET BHL 150'FS	0.00	0.00	5,000.0	659.4	-518.7	1,360,971.72	3,274,017.45	40° 19' 12.360 N	104° 31' 2.172 W
- plan hits target									
- Point									
TARGET CIRCLE 150'FSL	0.00	0.00	6,489.0	659.4	-518.7	1,360,971.72	3,274,017.45	40° 19' 12.360 N	104° 31' 2.172 W
- plan hits target									
- Circle (radius 75.0)									

Database: Landmark
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Project: SEC.14-T4N-R64W
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Well: Stinar C14-28D
Wellbore: Wellbore #1
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Local Co-ordinate Reference: Well Stinar C14-28D
TVD Reference: WELL @ 4651.0ft (Original Well Elev)
MD Reference: WELL @ 4651.0ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
600.0	600.0	8 5/8"	8-5/8	12-1/4

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
6,581.5	6,489.0	NIOBRARA		0.00	
6,868.5	6,776.0	CODELL		0.00	