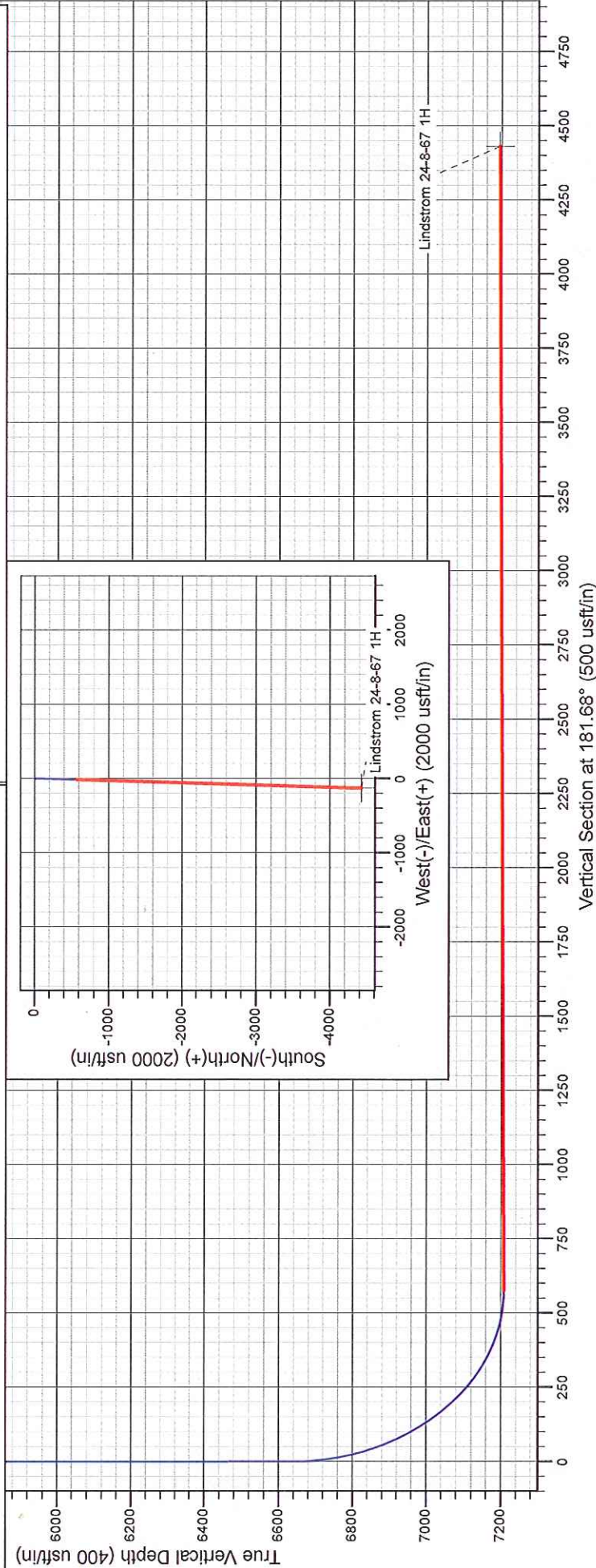


Project: Weld - DJ Basin
 Site: Lindstrom 24-8-67 1H
 Well: Lindstrom 24-8-67 1H
 Wellbore: Lindstrom 24-8-67 1H
 Design: Lindstrom 24-8-67 1H

PROJECT DETAILS: Weld - DJ Basin

Geodetic System: US State Plane 1927 (Exact solution)
 Datum: NAD 1927 (NADCON CONUS)
 Ellipsoid: Clarke 1866
 Zone: Colorado North 501

System Datum: Mean Sea Level



SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	6635.5	0.00	0.00	6635.5	0.0	0.0	0.00	0.00	0.0	
3	7537.5	90.20	181.68	7208.5	-574.7	-16.8	10.00	181.68	575.0	Lindstrom 24-8-67 1H
4	11393.7	90.20	181.68	7195.0	-4429.2	-129.6	0.00	0.00	4431.1	

Chesapeake Energy -Rockies District

Weld - DJ Basin

Lindstrom 24-8-67 1H

Lindstrom 24-8-67 1H

Lindstrom 24-8-67 1H

Plan: Lindstrom 24-8-67 1H

Standard Planning Report

27 July, 2011

Chesapeake Operating

Planning Report

Database:	Drilling Database	Local Co-ordinate Reference:	Well Lindstrom 24-8-67 1H
Company:	Chesapeake Energy -Rockies District	TVD Reference:	WELL @ 0.0usft (Original Well Elev)
Project:	Weld - DJ Basin	MD Reference:	WELL @ 0.0usft (Original Well Elev)
Site:	Lindstrom 24-8-67 1H	North Reference:	Grid
Well:	Lindstrom 24-8-67 1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Lindstrom 24-8-67 1H		
Design:	Lindstrom 24-8-67 1H		

Project	Weld - DJ Basin		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Colorado North 501		

Site	Lindstrom 24-8-67 1H		
Site Position:		Northing:	481,619.25 ft
From:	Map	Easting:	2,182,638.58 ft
Position Uncertainty:	0.0 usft	Slot Radius:	13.200 in
		Latitude:	40° 39' 12.96050979 N
		Longitude:	104° 50' 30.46356037 W
		Grid Convergence:	0.43 °

Well	Lindstrom 24-8-67 1H		
Well Position	+N/-S	0.0 usft	Northing:
	+E/-W	0.0 usft	Easting:
Position Uncertainty	0.0 usft	Wellhead Elevation:	Ground Level:
			0.0 usft

Wellbore	Lindstrom 24-8-67 1H		
Magnetics	Model Name	Sample Date	Declination
			(°)
	IGRF200510	7/27/2011	8.87
			Dip Angle
			(°)
			67.25
			Field Strength
			(nT)
			53,306

Design	Lindstrom 24-8-67 1H		
Audit Notes:			
Version:	Phase:	PROTOTYPE	Tie On Depth:
			0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.0	0.0	0.0
			Direction
			(°)
			181.68

Plan Sections										
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Dogleg	Build	Turn	TFO	Target
Depth	(°)	(°)	Depth	(usft)	(usft)	Rate	Rate	Rate	(°)	
(usft)			(usft)			(°/100usft)	(°/100usft)	(°/100usft)		
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
6,635.5	0.00	0.00	6,635.5	0.0	0.0	0.00	0.00	0.00	0.00	
7,537.5	90.20	181.68	7,208.5	-574.7	-16.8	10.00	10.00	0.00	181.68	
11,393.7	90.20	181.68	7,195.0	-4,429.2	-129.6	0.00	0.00	0.00	0.00	Lindstrom 24-8-67 1H

Chesapeake Operating

Planning Report

Database:	Drilling Database	Local Co-ordinate Reference:	Well Lindstrom 24-8-67 1H
Company:	Chesapeake Energy -Rockies District	TVD Reference:	WELL @ 0.0usft (Original Well Elev)
Project:	Weld - DJ Basin	MD Reference:	WELL @ 0.0usft (Original Well Elev)
Site:	Lindstrom 24-8-67 1H	North Reference:	Grid
Well:	Lindstrom 24-8-67 1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Lindstrom 24-8-67 1H		
Design:	Lindstrom 24-8-67 1H		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Bulld 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
100.0	0.00	0.00	100.0	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
300.0	0.00	0.00	300.0	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
500.0	0.00	0.00	500.0	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
700.0	0.00	0.00	700.0	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
900.0	0.00	0.00	900.0	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
1,100.0	0.00	0.00	1,100.0	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
1,300.0	0.00	0.00	1,300.0	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
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	0.00
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	0.00
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	0.00
4,600.0	0.00	0.00	4,600.0	0.0	0.0	0.0	0.00	0.00	0.00
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.0	0.00	0.00	0.00
4,800.0	0.00	0.00	4,800.0	0.0	0.0	0.0	0.00	0.00	0.00
4,900.0	0.00	0.00	4,900.0	0.0	0.0	0.0	0.00	0.00	0.00
5,000.0	0.00	0.00	5,000.0	0.0	0.0	0.0	0.00	0.00	0.00
5,100.0	0.00	0.00	5,100.0	0.0	0.0	0.0	0.00	0.00	0.00
5,200.0	0.00	0.00	5,200.0	0.0	0.0	0.0	0.00	0.00	0.00
5,300.0	0.00	0.00	5,300.0	0.0	0.0	0.0	0.00	0.00	0.00

Chesapeake Operating

Planning Report

Database:	Drilling Database	Local Co-ordinate Reference:	Well Lindstrom 24-8-67 1H
Company:	Chesapeake Energy -Rockies District	TVD Reference:	WELL @ 0.0usft (Original Well Elev)
Project:	Weld - DJ Basin	MD Reference:	WELL @ 0.0usft (Original Well Elev)
Site:	Lindstrom 24-8-67 1H	North Reference:	Grid
Well:	Lindstrom 24-8-67 1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Lindstrom 24-8-67 1H		
Design:	Lindstrom 24-8-67 1H		

Planned 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)	
5,400.0	0.00	0.00	5,400.0	0.0	0.0	0.0	0.00	0.00	0.00	
5,500.0	0.00	0.00	5,500.0	0.0	0.0	0.0	0.00	0.00	0.00	
5,600.0	0.00	0.00	5,600.0	0.0	0.0	0.0	0.00	0.00	0.00	
5,700.0	0.00	0.00	5,700.0	0.0	0.0	0.0	0.00	0.00	0.00	
5,800.0	0.00	0.00	5,800.0	0.0	0.0	0.0	0.00	0.00	0.00	
5,900.0	0.00	0.00	5,900.0	0.0	0.0	0.0	0.00	0.00	0.00	
6,000.0	0.00	0.00	6,000.0	0.0	0.0	0.0	0.00	0.00	0.00	
6,100.0	0.00	0.00	6,100.0	0.0	0.0	0.0	0.00	0.00	0.00	
6,200.0	0.00	0.00	6,200.0	0.0	0.0	0.0	0.00	0.00	0.00	
6,300.0	0.00	0.00	6,300.0	0.0	0.0	0.0	0.00	0.00	0.00	
6,400.0	0.00	0.00	6,400.0	0.0	0.0	0.0	0.00	0.00	0.00	
6,500.0	0.00	0.00	6,500.0	0.0	0.0	0.0	0.00	0.00	0.00	
6,600.0	0.00	0.00	6,600.0	0.0	0.0	0.0	0.00	0.00	0.00	
6,635.5	0.00	0.00	6,635.5	0.0	0.0	0.0	0.00	0.00	0.00	
6,650.0	1.45	181.68	6,650.0	-0.2	0.0	0.2	10.00	10.00	0.00	
6,700.0	6.45	181.68	6,699.9	-3.6	-0.1	3.6	10.00	10.00	0.00	
6,750.0	11.45	181.68	6,749.2	-11.4	-0.3	11.4	10.00	10.00	0.00	
6,800.0	16.45	181.68	6,797.7	-23.4	-0.7	23.5	10.00	10.00	0.00	
6,850.0	21.45	181.68	6,845.0	-39.7	-1.2	39.7	10.00	10.00	0.00	
6,900.0	26.45	181.68	6,890.7	-59.9	-1.8	60.0	10.00	10.00	0.00	
6,950.0	31.45	181.68	6,934.4	-84.1	-2.5	84.2	10.00	10.00	0.00	
7,000.0	36.45	181.68	6,975.9	-112.0	-3.3	112.1	10.00	10.00	0.00	
7,050.0	41.45	181.68	7,014.8	-143.4	-4.2	143.5	10.00	10.00	0.00	
7,100.0	46.45	181.68	7,050.8	-178.1	-5.2	178.2	10.00	10.00	0.00	
7,150.0	51.45	181.68	7,083.6	-215.8	-6.3	215.9	10.00	10.00	0.00	
7,200.0	56.45	181.68	7,113.0	-256.2	-7.5	256.3	10.00	10.00	0.00	
7,250.0	61.45	181.68	7,138.8	-299.0	-8.7	299.1	10.00	10.00	0.00	
7,300.0	66.45	181.68	7,160.7	-343.9	-10.1	344.0	10.00	10.00	0.00	
7,350.0	71.45	181.68	7,178.7	-390.5	-11.4	390.7	10.00	10.00	0.00	
7,400.0	76.45	181.68	7,192.5	-438.5	-12.8	438.7	10.00	10.00	0.00	
7,450.0	81.45	181.68	7,202.1	-487.6	-14.3	487.8	10.00	10.00	0.00	
7,500.0	86.45	181.68	7,207.4	-537.2	-15.7	537.5	10.00	10.00	0.00	
7,537.5	90.20	181.68	7,208.5	-574.7	-16.8	575.0	10.00	10.00	0.00	
7,600.0	90.20	181.68	7,208.2	-637.2	-18.6	637.5	0.00	0.00	0.00	
7,700.0	90.20	181.68	7,207.9	-737.1	-21.6	737.5	0.00	0.00	0.00	
7,800.0	90.20	181.68	7,207.5	-837.1	-24.5	837.4	0.00	0.00	0.00	
7,900.0	90.20	181.68	7,207.2	-937.0	-27.4	937.4	0.00	0.00	0.00	
8,000.0	90.20	181.68	7,206.8	-1,037.0	-30.3	1,037.4	0.00	0.00	0.00	
8,100.0	90.20	181.68	7,206.5	-1,137.0	-33.3	1,137.4	0.00	0.00	0.00	
8,200.0	90.20	181.68	7,206.1	-1,236.9	-36.2	1,237.4	0.00	0.00	0.00	
8,300.0	90.20	181.68	7,205.8	-1,336.9	-39.1	1,337.4	0.00	0.00	0.00	
8,400.0	90.20	181.68	7,205.4	-1,436.8	-42.0	1,437.4	0.00	0.00	0.00	
8,500.0	90.20	181.68	7,205.1	-1,536.8	-45.0	1,537.4	0.00	0.00	0.00	
8,600.0	90.20	181.68	7,204.8	-1,636.7	-47.9	1,637.4	0.00	0.00	0.00	
8,700.0	90.20	181.68	7,204.4	-1,736.7	-50.8	1,737.4	0.00	0.00	0.00	
8,800.0	90.20	181.68	7,204.1	-1,836.7	-53.7	1,837.4	0.00	0.00	0.00	
8,900.0	90.20	181.68	7,203.7	-1,936.6	-56.7	1,937.4	0.00	0.00	0.00	
9,000.0	90.20	181.68	7,203.4	-2,036.6	-59.6	2,037.4	0.00	0.00	0.00	
9,100.0	90.20	181.68	7,203.0	-2,136.5	-62.5	2,137.4	0.00	0.00	0.00	
9,200.0	90.20	181.68	7,202.7	-2,236.5	-65.4	2,237.4	0.00	0.00	0.00	
9,300.0	90.20	181.68	7,202.3	-2,336.4	-68.4	2,337.4	0.00	0.00	0.00	
9,400.0	90.20	181.68	7,202.0	-2,436.4	-71.3	2,437.4	0.00	0.00	0.00	
9,500.0	90.20	181.68	7,201.6	-2,536.4	-74.2	2,537.4	0.00	0.00	0.00	
9,600.0	90.20	181.68	7,201.3	-2,636.3	-77.1	2,637.4	0.00	0.00	0.00	

Chesapeake Operating

Planning Report

Database:	Drilling Database	Local Co-ordinate Reference:	Well Lindstrom 24-8-67 1H
Company:	Chesapeake Energy -Rockies District	TVD Reference:	WELL @ 0.0usft (Original Well Elev)
Project:	Weld - DJ Basin	MD Reference:	WELL @ 0.0usft (Original Well Elev)
Site:	Lindstrom 24-8-67 1H	North Reference:	Grid
Well:	Lindstrom 24-8-67 1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Lindstrom 24-8-67 1H		
Design:	Lindstrom 24-8-67 1H		

Planned 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)
9,700.0	90.20	181.68	7,200.9	-2,736.3	-80.1	2,737.4	0.00	0.00	0.00
9,800.0	90.20	181.68	7,200.6	-2,836.2	-83.0	2,837.4	0.00	0.00	0.00
9,900.0	90.20	181.68	7,200.2	-2,936.2	-85.9	2,937.4	0.00	0.00	0.00
10,000.0	90.20	181.68	7,199.9	-3,036.1	-88.8	3,037.4	0.00	0.00	0.00
10,100.0	90.20	181.68	7,199.5	-3,136.1	-91.7	3,137.4	0.00	0.00	0.00
10,200.0	90.20	181.68	7,199.2	-3,236.1	-94.7	3,237.4	0.00	0.00	0.00
10,300.0	90.20	181.68	7,198.8	-3,336.0	-97.6	3,337.4	0.00	0.00	0.00
10,400.0	90.20	181.68	7,198.5	-3,436.0	-100.5	3,437.4	0.00	0.00	0.00
10,500.0	90.20	181.68	7,198.1	-3,535.9	-103.4	3,537.4	0.00	0.00	0.00
10,600.0	90.20	181.68	7,197.8	-3,635.9	-106.4	3,637.4	0.00	0.00	0.00
10,700.0	90.20	181.68	7,197.4	-3,735.8	-109.3	3,737.4	0.00	0.00	0.00
10,800.0	90.20	181.68	7,197.1	-3,835.8	-112.2	3,837.4	0.00	0.00	0.00
10,900.0	90.20	181.68	7,196.7	-3,935.7	-115.1	3,937.4	0.00	0.00	0.00
11,000.0	90.20	181.68	7,196.4	-4,035.7	-118.1	4,037.4	0.00	0.00	0.00
11,100.0	90.20	181.68	7,196.0	-4,135.7	-121.0	4,137.4	0.00	0.00	0.00
11,200.0	90.20	181.68	7,195.7	-4,235.6	-123.9	4,237.4	0.00	0.00	0.00
11,300.0	90.20	181.68	7,195.3	-4,335.6	-126.8	4,337.4	0.00	0.00	0.00
11,393.7	90.20	181.68	7,195.0	-4,429.2	-129.6	4,431.1	0.00	0.00	0.00

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- hit/miss target									
- Shape									
Lindstrom 24-8-67 1H	0.00	0.00	7,195.0	-4,429.2	-129.6	477,190.00	2,182,509.00	0° 38' 29.20329150 N	4° 50' 32.57085867 W
- plan hits target center									
- Point									

Well: Lindstrom 24-8-67 1H
Zone of Interest: Niobrara Shale

Drill 12-1/4" surface hole to section TD at 1000'.

Set 9-5/8" 40# J-55 casing and cement with Lead and Tail cement (see details below). Cement will be circulated to surface.

Install 11" x 5,000 psi BOP and test as required

Drill 8-3/4" hole to KOP.

Kick off and drill 8-3/4" curve at 10 deg/100' to end of build.

Drill 7-7/8" open hole to well TD

Acquire shuttle logs: Triple combo and image logs in open hole

Set 4-1/2" casing cement as shown below.

Suspend well and move drilling rig out in preparation for well completion

CASING AND CEMENTING PROGRAM

The proposed casing program will be as follows:

<u>Purpose</u>	<u>Interval</u>		<u>Hole Size</u>	<u>Casing Size</u>	<u>Weight</u>	<u>Grade</u>	<u>Thread</u>	<u>Condition</u>
	<u>From</u>	<u>To</u>	<u>(")</u>	<u>(")</u>	<u>Lbs/Ft</u>			
Surface	0	1000	12 1/4	9 5/8	40	J-55	LTC	New
Production	0	11394	8 3/4	4 1/2	11.6	P-110	LTC	New

Casing design subject to revision based on geologic conditions encountered.

Casing Safety Factors:

Interval	Casing	Burst	Collapse	Axial
Surface	9 5/8	2.03	2.03	4.78
Production	4 1/2	1.32	2.26	1.63

Centralizer Program

Casing	9 5/8	4 1/2
# of Bow-type spring centralizer	8	41

Cement Program

Surface Casing	Slurry Volume			Weight	Yield	Mix H2O	TOC
	% Excess	(BBLs)	(Sacks)	(PPG)	(cuft/sk)	(GPS)	
Lead Slurry	100%	84	159	11.50	2.95	17.88	0
Tail Slurry	100%	33	163	15.80	1.15	4.96	750

	Lead	Tail
Surface Casing with TOC at surface	Rockies LT 0.2 % Versaset (Additive Material) 0.2 % D-AIR 3000 (Additive Material) 0.125 lbm/sk Poly-E-Flake (Additive Material) 0.25 lbm/sk Kwik Seal (Additive Material)	Premium Cement, 94 lbm/sk Premium Cement (Cement) 1 % Calcium Chloride, Pellet (Accelerator) 0.125 lbm/sk Poly-E-Flake (Lost Circulation Additive)

Cement must be circulated to surface

Production Casing Cement	Slurry Volume			Weight	Yield	Mix H2O	TOC
	% Excess	(BBLs)	(Sacks)	(PPG)	(cuft/sk)	(GPS)	
Lead Slurry	20%	340	867	12.00	2.20	12.30	950'
Tail Slurry	20%	281	1081	14.60	1.46	6.10	

	Lead	Tail
Production Casing Cement	Poz Type I-II 50/50 1 % Bentonite (Light Weight Additive) 3 lbm/sk Silicalite Compacted (Additive Material) 3 % Microbond HT (Additive Material) 0.2 % Halad(R)-322 (Low Fluid Loss Control) 0.4 % Halad(R)-344 (Low Fluid Loss Control) 0.3 % HR-5 (Retarder)	50/50 Poz Premium 2 % Bentonite (Light Weight Additive) 5 lbm/sk Silicalite Compacted (Light Weight Additive) 0.5 % Versaset (Thixotropic Additive) 0.5 % Econolite (Cement Material) 0.6 % HR-7 (Retarder) 0.5 % D-AIR 3000 (Defoamer) 0.125 lbm/sk Poly-E-Flake (Lost Circulation Additive) 0.25 lbm/sk Kwik Seal (Lost Circulation Additive)

The cement must achieve a compressive strength of at least 500 psi at the shoe prior to casing test and drilling out the shoe track. WOC time shall be recorded in the driller's log.

MUD PROGRAM

Purpose	Interval		Hole Size	Mud Type	Mud Weight	Viscosity	Fluid Loss	pH
	From	To	(")	(")	Lbs/Ft			
Surface	0'	1000'	12 1/4	WBM	8.4 – 8.8	28 – 32	N/C	9
Production	1000'	7537'	8 3/4	WBM	8.5 – 9.5	35 – 46	4 – 6	9
	7537'	11394'	7 7/8	WBM	9.0 - 10.0	36 – 46	4 – 6	9

WBM = Water Based Mud