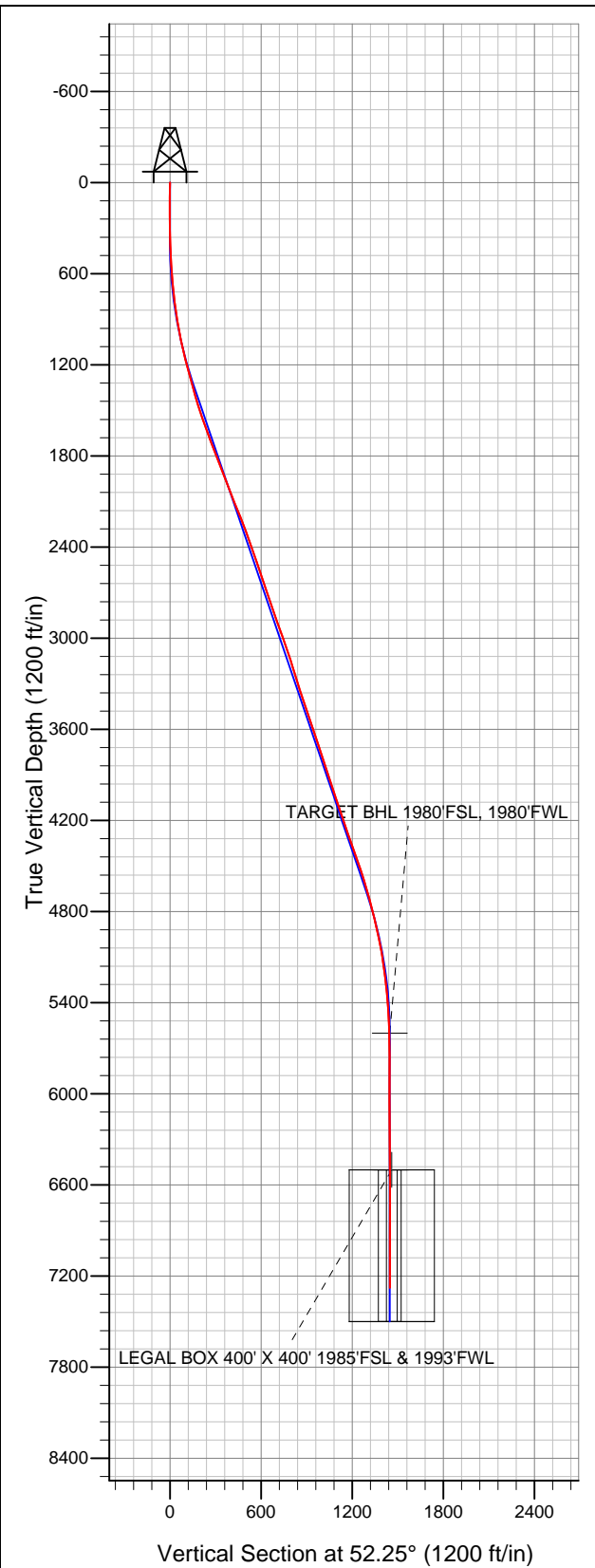


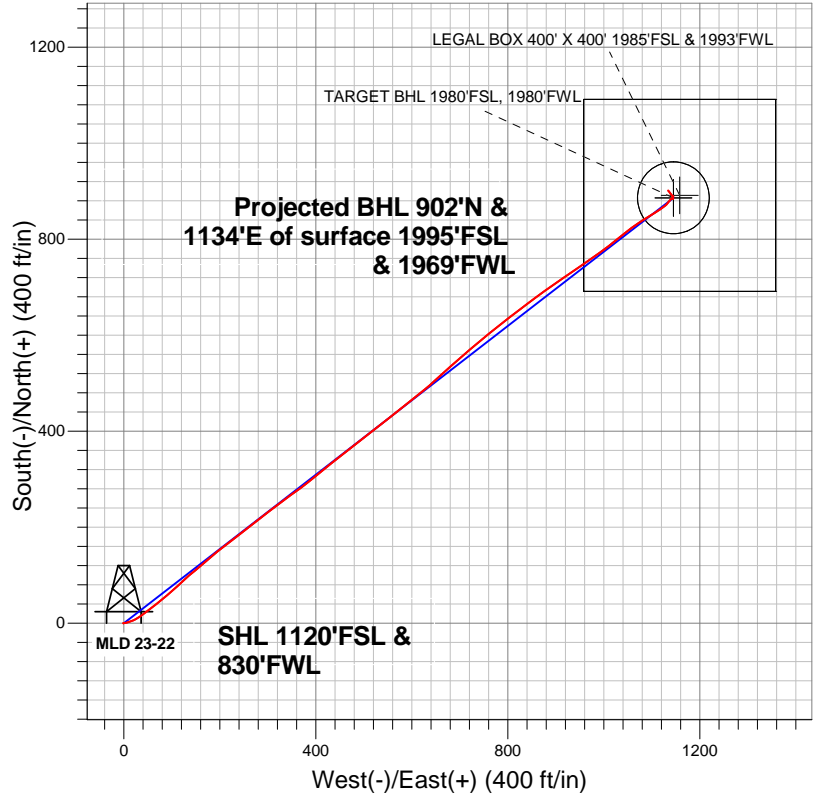
Well Name: MLD 23-22

Surface Location: HFE 14-22 Pad Sec.22-T4N-R68W
North American Datum 1983 US State Plane 1983Colorado Northern Zone
Ground Elevation: 4920.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1350598.02	3140646.47	40.294694	-104.995785	
Original Well Elev		WELL @ 4933.0ft (Original Well Elev)				



Sundance Energy, Weld County, CO



LEGEND

- Wellbore #1
- MLD 23-22, Wellbore #1, Plan #1 (4-10-12) V0
- Survey #1

Final Survey Plot

Projected Final Survey -
7500'MD & 7277'TVD @ 1449'VS
3.30 deg Inc 326.80 deg AZ

Project: SEC.22-T4N-R68W
Site: HFE 14-22 Pad Sec.22-T4N-R68W
Well: MLD 23-22
Plan: Wellbore #1



Sundance Energy, Weld County, CO

SEC.22-T4N-R68W

HFE 14-22 Pad Sec.22-T4N-R68W

MLD 23-22

Wellbore #1

Survey: Survey #1

Standard Survey Report

20 September, 2012

Company:	Sundance Energy, Weld County, CO	Local Co-ordinate Reference:	Well MLD 23-22
Project:	SEC.22-T4N-R68W	TVD Reference:	WELL @ 4933.0ft (Original Well Elev)
Site:	HFE 14-22 Pad Sec.22-T4N-R68W	MD Reference:	WELL @ 4933.0ft (Original Well Elev)
Well:	MLD 23-22	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Project	SEC.22-T4N-R68W, 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		HFE 14-22 Pad Sec.22-T4N-R68W			
Site Position:		Northing:	1,350,597.13 ft	Latitude:	40.294692 °
From:	Lat/Long	Easting:	3,140,616.63 ft	Longitude:	-104.995892 °
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.33 °

Well	MLD 23-22					
Well Position	+N/-S	0.0 ft	Northing:	1,350,598.02 ft	Latitude:	40.294694
	+E/-W	0.0 ft	Easting:	3,140,646.47 ft	Longitude:	-104.995785
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,920.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	4/11/2012	8.87	66.90	52,963

Design	Wellbore #1			
Audit Notes:				
Version:	1.0	Phase:	ACTUAL	Tie On Depth: 0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	52.25

Survey Program		Date	9/20/2012		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
95.0	7,500.0	Survey #1 (Wellbore #1)	MWD	MWD - Standard	

Survey	Wellbore Data									
	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)
Main Survey	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
	95.0	0.80	259.60	95.0	-0.1	-0.7	-0.6	0.84	0.84	0.00
	158.0	0.40	304.10	158.0	-0.1	-1.3	-1.0	0.93	-0.63	70.64
	218.0	0.40	2.50	218.0	0.3	-1.4	-1.0	0.65	0.00	97.33
	339.0	1.70	90.40	339.0	0.7	0.4	0.7	1.43	1.07	72.64
	462.0	2.70	80.50	461.9	1.1	5.1	4.7	0.87	0.81	-8.05
	551.0	3.90	71.90	550.7	2.4	10.0	9.4	1.45	1.35	-9.66
	597.0	3.90	71.90	596.6	3.4	13.0	12.3	0.00	0.00	0.00
	611.0	4.20	71.70	610.6	3.7	13.9	13.3	2.15	2.14	-1.43
	736.0	6.40	61.50	735.1	8.5	24.4	24.5	1.91	1.76	-8.16
	861.0	8.80	52.80	858.9	17.6	38.1	40.9	2.12	1.92	-6.96
	986.0	10.60	52.40	982.2	30.4	54.9	62.0	1.44	1.44	-0.32
1,110.0	13.00	52.40	1,103.5	45.8	74.9	87.3	1.94	1.94	0.00	

Company:	Sundance Energy, Weld County, CO	Local Co-ordinate Reference:	Well MLD 23-22
Project:	SEC.22-T4N-R68W	TVD Reference:	WELL @ 4933.0ft (Original Well Elev)
Site:	HFE 14-22 Pad Sec.22-T4N-R68W	MD Reference:	WELL @ 4933.0ft (Original Well Elev)
Well:	MLD 23-22	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

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)	
1,235.0	14.90	47.00	1,224.8	65.4	97.8	117.4	1.84	1.52	-4.32	
1,360.0	15.70	48.70	1,345.4	87.5	122.3	150.3	0.73	0.64	1.36	
1,485.0	17.10	49.80	1,465.3	110.5	149.0	185.5	1.15	1.12	0.88	
1,609.0	19.50	49.60	1,583.0	135.7	178.7	224.4	1.94	1.94	-0.16	
1,734.0	20.70	51.50	1,700.4	163.0	211.9	267.3	1.09	0.96	1.52	
1,859.0	21.10	53.60	1,817.2	190.1	247.3	311.9	0.68	0.32	1.68	
1,984.0	21.20	51.20	1,933.8	217.6	283.0	357.0	0.70	0.08	-1.92	
2,108.0	21.30	52.40	2,049.4	245.4	318.4	402.0	0.36	0.08	0.97	
2,233.0	22.80	54.90	2,165.2	273.2	356.2	448.9	1.42	1.20	2.00	
2,358.0	20.40	51.00	2,281.4	300.8	392.9	494.8	2.24	-1.92	-3.12	
2,483.0	18.90	50.10	2,399.1	327.5	425.4	536.9	1.22	-1.20	-0.72	
2,607.0	18.80	52.40	2,516.5	352.6	456.6	576.9	0.60	-0.08	1.85	
2,732.0	18.60	51.50	2,634.9	377.3	488.2	617.0	0.28	-0.16	-0.72	
2,857.0	19.80	52.60	2,752.9	402.6	520.6	658.1	1.00	0.96	0.88	
2,982.0	18.90	51.20	2,870.9	428.1	553.2	699.5	0.81	-0.72	-1.12	
3,106.0	19.30	51.00	2,988.1	453.6	584.8	740.1	0.33	0.32	-0.16	
3,231.0	18.80	52.10	3,106.2	479.0	616.7	780.9	0.49	-0.40	0.88	
3,356.0	17.10	47.00	3,225.1	503.9	646.1	819.3	1.85	-1.36	-4.08	
3,479.0	18.00	48.70	3,342.4	528.7	673.6	856.3	0.84	0.73	1.38	
3,603.0	18.70	48.00	3,460.1	554.7	702.7	895.2	0.59	0.56	-0.56	
3,728.0	19.10	50.50	3,578.4	581.1	733.4	935.7	0.72	0.32	2.00	
3,853.0	17.70	50.80	3,697.0	606.1	763.9	975.1	1.12	-1.12	0.24	
3,978.0	18.30	53.60	3,815.9	629.8	794.4	1,013.7	0.84	0.48	2.24	
4,102.0	18.30	50.80	3,933.6	653.6	825.2	1,052.6	0.71	0.00	-2.26	
4,227.0	18.80	54.20	4,052.1	677.8	856.7	1,092.4	0.95	0.40	2.72	
4,352.0	18.60	54.70	4,170.5	701.1	889.3	1,132.4	0.21	-0.16	0.40	
4,477.0	19.10	55.00	4,288.8	724.4	922.4	1,172.8	0.41	0.40	0.24	
4,601.0	19.80	56.40	4,405.7	747.6	956.5	1,214.0	0.68	0.56	1.13	
4,726.0	18.70	53.80	4,523.7	771.2	990.3	1,255.1	1.12	-0.88	-2.08	
4,851.0	16.20	51.70	4,643.0	793.8	1,020.1	1,292.6	2.06	-2.00	-1.68	
4,976.0	14.50	51.20	4,763.5	814.4	1,046.0	1,325.7	1.36	-1.36	-0.40	
5,100.0	13.20	55.60	4,883.9	832.2	1,069.8	1,355.3	1.35	-1.05	3.55	
5,225.0	11.40	59.30	5,006.0	846.5	1,092.2	1,381.9	1.57	-1.44	2.96	
5,350.0	8.30	56.60	5,129.2	857.8	1,110.4	1,403.1	2.51	-2.48	-2.16	
5,475.0	6.70	54.30	5,253.1	867.0	1,123.8	1,419.4	1.30	-1.28	-1.84	
5,599.0	5.20	38.00	5,376.4	875.7	1,133.1	1,432.1	1.81	-1.21	-13.15	
5,724.0	3.00	40.60	5,501.1	882.6	1,138.8	1,440.8	1.77	-1.76	2.08	
5,823.1	1.52	59.73	5,600.1	885.3	1,141.6	1,444.6	1.66	-1.50	19.31	
TARGET BHL 1980'FSL, 1980'FWL										
5,849.0	1.20	72.10	5,626.0	885.5	1,142.1	1,445.2	1.66	-1.22	47.73	
5,974.0	1.00	171.90	5,751.0	884.8	1,143.5	1,445.9	1.35	-0.16	79.84	
6,098.0	0.10	0.40	5,875.0	883.9	1,143.7	1,445.4	0.89	-0.73	-138.31	
6,223.0	0.40	32.20	6,000.0	884.4	1,143.9	1,445.9	0.26	0.24	25.44	
6,348.0	0.40	48.50	6,125.0	885.0	1,144.5	1,446.8	0.09	0.00	13.04	
6,473.0	0.40	293.90	6,250.0	885.5	1,144.4	1,447.0	0.54	0.00	-91.68	
6,598.0	0.80	346.70	6,375.0	886.5	1,143.8	1,447.1	0.51	0.32	42.24	
6,722.0	1.00	0.00	6,499.0	888.4	1,143.6	1,448.2	0.23	0.16	10.73	
6,723.0	0.99	0.19	6,500.0	888.5	1,143.6	1,448.2	0.89	-0.83	18.43	
TARGET CIRCLE 1980'FSL & 1980'FWL										
6,723.1	0.99	0.19	6,500.1	888.5	1,143.6	1,448.2	0.00	0.00	0.00	
LEGAL BOX 400' X 400' 1985'FSL & 1993'FWL										
6,847.0	0.40	94.60	6,624.0	889.5	1,144.0	1,449.2	0.89	-0.48	76.20	
6,972.0	0.10	173.00	6,749.0	889.3	1,144.5	1,449.4	0.31	-0.24	62.72	
7,097.0	0.60	288.50	6,874.0	889.4	1,143.9	1,449.0	0.52	0.40	92.40	

Company:	Sundance Energy, Weld County, CO	Local Co-ordinate Reference:	Well MLD 23-22
Project:	SEC.22-T4N-R68W	TVD Reference:	WELL @ 4933.0ft (Original Well Elev)
Site:	HFE 14-22 Pad Sec.22-T4N-R68W	MD Reference:	WELL @ 4933.0ft (Original Well Elev)
Well:	MLD 23-22	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

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)
7,221.0	1.90	318.50	6,997.9	891.2	1,141.9	1,448.5	1.14	1.05	24.19
7,346.0	2.60	319.60	7,122.8	894.9	1,138.7	1,448.2	0.56	0.56	0.88
7,454.0	3.30	326.80	7,230.7	899.4	1,135.4	1,448.4	0.73	0.65	6.67
7,500.0	3.30	326.80	7,276.6	901.6	1,134.0	1,448.6	0.00	0.00	0.00

Checked By: _____	Approved By: _____	Date: _____
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