

Well Name: **Nelson 44-32D**

Surface Location: Nelson 33-32D Pad Sec.32-T7N-R66W
 North American Datum 1983 US State Plane 1983 Colorado Northern Zone

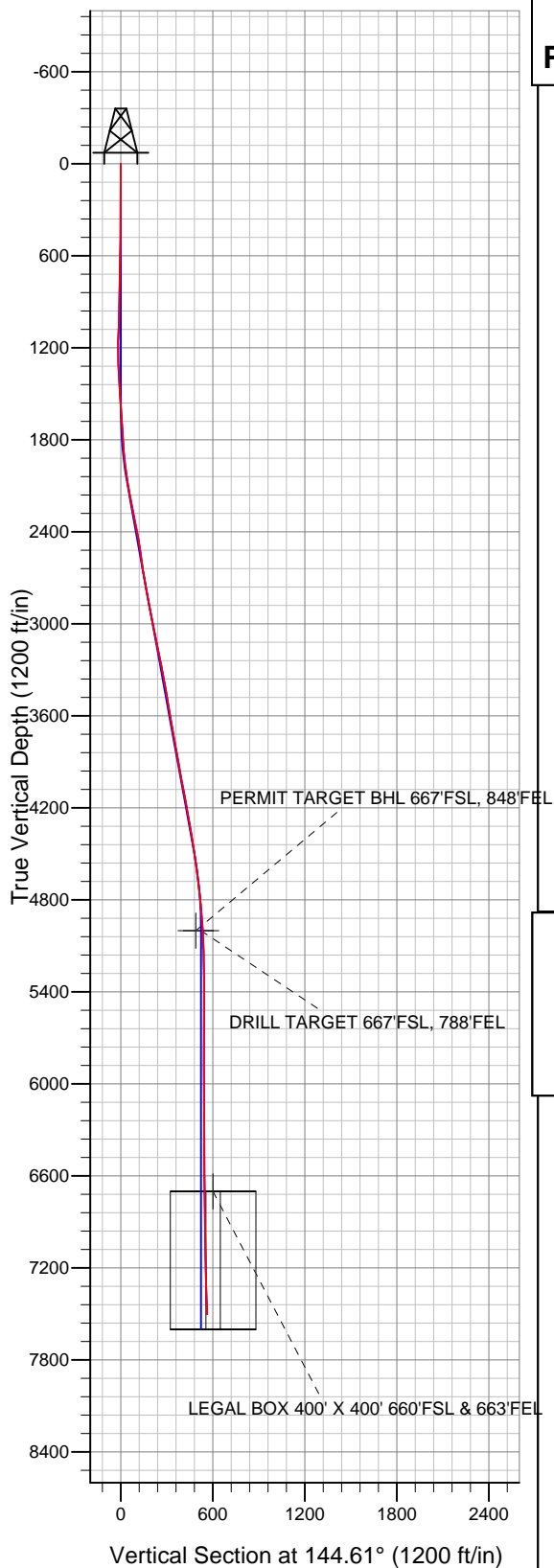
Ground Elevation: 4860.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	1435526.57	3195174.34	40.526800	-104.797900

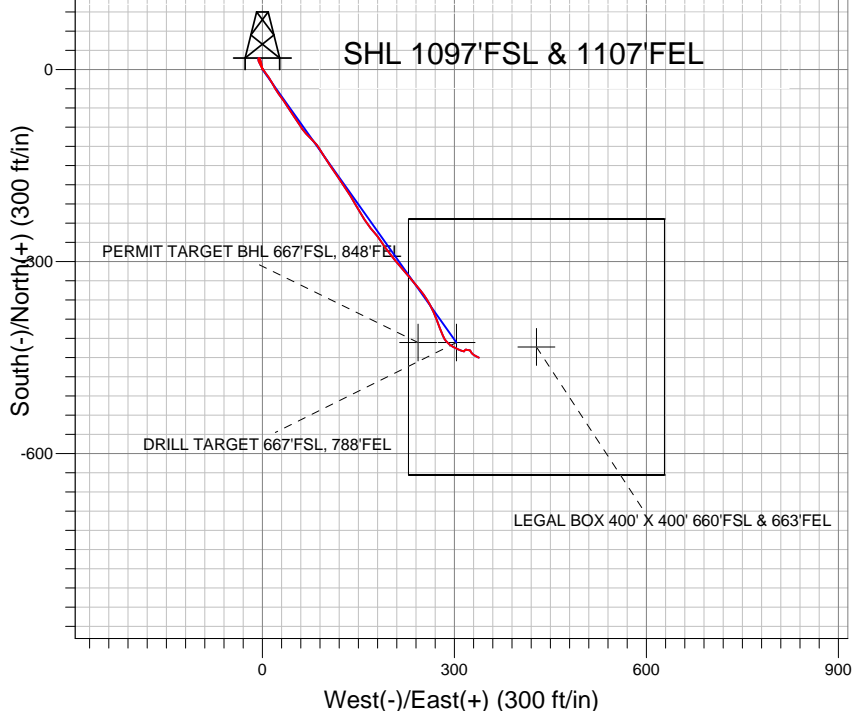
Original Well Elev WELL @ 4873.0ft (Original Well Elev)

Slot

PETROLEUM DEVELOPMENT CORP Weld County CO



Projected BHL 450'S & 338'E of
 surface 644'FSL & 813'FEL



LEGEND

- ◆ Nelson 44-32D, Wellbore #1, Plan #2 (1-31-11) V0
- Wellbore #1
- Survey #1

Final Survey Plot

Projected Final Survey -
 7547'MD & 7501'TVD @ 563'VS
 2.7 deg Inc 112.0 deg AZ

Project: SEC.32-T7N-R66W
 Site: Nelson 33-32D Pad Sec.32-T7N-R66W
 Well: Nelson 44-32D
 Plan: Wellbore #1



Directional

PETROLEUM DEVELOPMENT CORP Weld County CO

SEC.32-T7N-R66W

Nelson 33-32D Pad Sec.32-T7N-R66W

Nelson 44-32D

Wellbore #1

Survey: Survey #1

Standard Survey Report

28 June, 2011

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Nelson 44-32D
Project:	SEC.32-T7N-R66W	TVD Reference:	WELL @ 4873.0ft (Original Well Elev)
Site:	Nelson 33-32D Pad Sec.32-T7N-R66W	MD Reference:	WELL @ 4873.0ft (Original Well Elev)
Well:	Nelson 44-32D	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Project	SEC.32-T7N-R66W, 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	Nelson 33-32D Pad Sec.32-T7N-R66W				
Site Position:		Northing:	1,435,592.16ft	Latitude:	40.526980
From:	Lat/Long	Easting:	3,195,173.82ft	Longitude:	-104.797900
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.45 °

Well	Nelson 44-32D					
Well Position	+N-S	0.0 ft	Northing:	1,435,526.57 ft	Latitude:	40.526800
	+E-W	0.0 ft	Easting:	3,195,174.34 ft	Longitude:	-104.797900
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,860.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	2/14/2011	8.94	67.16	53,229

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	144.61	

Survey Program	Date 6/28/2011			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
990.0	7,547.0	Survey #1 (Wellbore #1)	MWD	MWD - Standard

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
990.0	1.40	347.60	989.9	11.8	-2.6	-11.1	0.14	0.14	0.00
1,085.0	2.40	346.00	1,084.8	14.9	-3.3	-14.1	1.05	1.05	-1.68
1,180.0	1.70	309.00	1,179.8	17.7	-4.9	-17.3	1.54	-0.74	-38.95
1,275.0	2.10	192.90	1,274.8	16.9	-6.4	-17.5	3.40	0.42	-122.21
1,370.0	3.30	158.20	1,369.7	12.6	-5.8	-13.6	2.08	1.26	-36.53
1,464.0	3.60	148.50	1,463.5	7.6	-3.2	-8.1	0.70	0.32	-10.32
1,559.0	4.00	157.90	1,558.3	2.0	-0.4	-1.9	0.78	0.42	9.89
1,654.0	3.60	138.20	1,653.1	-3.3	2.8	4.3	1.43	-0.42	-20.74
1,749.0	3.60	142.00	1,747.9	-7.9	6.6	10.3	0.25	0.00	4.00
1,844.0	3.90	151.60	1,842.7	-13.1	10.0	16.4	0.73	0.32	10.11
1,939.0	6.70	146.60	1,937.3	-20.5	14.6	25.2	2.98	2.95	-5.26

Company:	PETROLEUM DEVELOPMENT CORP Weld County CO	Local Co-ordinate Reference:	Well Nelson 44-32D
Project:	SEC.32-T7N-R66W	TVD Reference:	WELL @ 4873.0ft (Original Well Elev)
Site:	Nelson 33-32D Pad Sec.32-T7N-R66W	MD Reference:	WELL @ 4873.0ft (Original Well Elev)
Well:	Nelson 44-32D	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)
2,034.0	8.20	151.90	2,031.5	-31.1	20.9	37.5	1.74	1.58	5.58
2,129.0	9.30	141.90	2,125.4	-43.1	28.8	51.8	1.97	1.16	-10.53
2,224.0	11.40	148.30	2,218.8	-57.2	38.5	68.9	2.52	2.21	6.74
2,319.0	11.50	146.20	2,311.9	-73.0	48.7	87.7	0.45	0.11	-2.21
2,414.0	10.70	145.80	2,405.2	-88.2	58.9	106.0	0.85	-0.84	-0.42
2,509.0	9.30	137.80	2,498.7	-101.2	69.0	122.4	2.07	-1.47	-8.42
2,604.0	7.70	133.30	2,592.7	-111.2	78.8	136.3	1.82	-1.68	-4.74
2,699.0	8.90	147.20	2,686.7	-121.8	87.4	149.9	2.45	1.26	14.63
2,794.0	10.80	147.00	2,780.3	-135.4	96.2	166.1	2.00	2.00	-0.21
2,889.0	10.80	147.30	2,873.6	-150.4	105.9	183.9	0.06	0.00	0.32
2,984.0	11.10	145.60	2,966.9	-165.4	115.9	201.9	0.46	0.32	-1.79
3,079.0	12.00	145.70	3,059.9	-181.1	126.6	221.0	0.95	0.95	0.11
3,174.0	11.60	148.30	3,152.9	-197.4	137.2	240.4	0.70	-0.42	2.74
3,269.0	11.00	150.10	3,246.1	-213.4	146.7	258.9	0.73	-0.63	1.89
3,362.0	9.80	149.60	3,337.6	-227.9	155.1	275.6	1.29	-1.29	-0.54
3,457.0	10.30	143.70	3,431.1	-241.7	164.3	292.2	1.20	0.53	-6.21
3,552.0	9.60	139.30	3,524.7	-254.6	174.5	308.6	1.09	-0.74	-4.63
3,647.0	10.00	145.30	3,618.3	-267.4	184.3	324.7	1.15	0.42	6.32
3,741.0	10.00	143.40	3,710.9	-280.6	193.8	341.0	0.35	0.00	-2.02
3,836.0	9.80	141.90	3,804.4	-293.6	203.7	357.3	0.34	-0.21	-1.58
3,931.0	10.40	140.00	3,898.0	-306.5	214.2	374.0	0.72	0.63	-2.00
4,026.0	10.40	139.70	3,991.4	-319.6	225.3	391.1	0.06	0.00	-0.32
4,121.0	10.00	139.00	4,084.9	-332.4	236.2	407.8	0.44	-0.42	-0.74
4,216.0	10.20	141.80	4,178.4	-345.2	246.9	424.4	0.56	0.21	2.95
4,311.0	10.60	147.70	4,271.9	-359.2	256.7	441.5	1.20	0.42	6.21
4,406.0	9.80	155.40	4,365.4	-374.0	264.8	458.2	1.66	-0.84	8.11
4,501.0	9.50	158.00	4,459.0	-388.6	271.1	473.8	0.56	-0.32	2.74
4,596.0	8.50	159.50	4,552.9	-402.4	276.5	488.2	1.08	-1.05	1.58
4,691.0	7.70	157.20	4,646.9	-414.9	281.4	501.2	0.91	-0.84	-2.42
4,786.0	5.90	138.90	4,741.3	-424.4	287.1	512.3	2.94	-1.89	-19.26
4,881.0	4.70	128.00	4,835.9	-430.5	293.3	520.9	1.64	-1.26	-11.47
4,975.0	4.40	114.90	4,929.6	-434.4	299.7	527.7	1.15	-0.32	-13.94
5,041.2	4.19	115.66	4,995.6	-436.5	304.1	532.0	0.33	-0.32	1.15
PERMIT TARGET BHL 667°FSL, 848°FEL									
5,045.2	4.18	115.71	4,999.6	-436.6	304.4	532.3	0.33	-0.32	1.21
DRILL TARGET 667°FSL, 788°FEL									
5,069.0	4.10	116.00	5,023.3	-437.4	305.9	533.8	0.33	-0.32	1.23
5,164.0	3.00	103.10	5,118.1	-439.4	311.4	538.6	1.42	-1.16	-13.58
5,259.0	0.70	118.20	5,213.1	-440.3	314.3	541.0	2.45	-2.42	15.89
5,354.0	0.20	186.20	5,308.1	-440.7	314.8	541.6	0.69	-0.53	71.58
5,449.0	0.10	15.90	5,403.1	-440.8	314.8	541.7	0.31	-0.11	-179.26
5,544.0	0.90	25.90	5,498.1	-440.1	315.2	541.3	0.84	0.84	10.53
5,639.0	0.90	37.10	5,593.0	-438.8	316.0	540.7	0.18	0.00	11.79
5,733.0	0.80	68.00	5,687.0	-438.0	317.0	540.6	0.49	-0.11	32.87
5,828.0	0.30	69.00	5,782.0	-437.6	317.9	540.8	0.53	-0.53	1.05
5,923.0	0.30	129.00	5,877.0	-437.7	318.3	541.2	0.32	0.00	63.16
6,018.0	0.40	116.50	5,972.0	-438.0	318.8	541.7	0.13	0.11	-13.16
6,113.0	0.50	93.10	6,067.0	-438.2	319.5	542.2	0.22	0.11	-24.63
6,208.0	0.60	98.40	6,162.0	-438.3	320.4	542.8	0.12	0.11	5.58
6,303.0	0.60	98.10	6,257.0	-438.4	321.4	543.5	0.00	0.00	-0.32
6,398.0	0.50	92.80	6,352.0	-438.5	322.3	544.1	0.12	-0.11	-5.58
6,493.0	0.40	99.50	6,447.0	-438.6	323.0	544.6	0.12	-0.11	7.05
6,588.0	0.40	105.40	6,542.0	-438.7	323.7	545.1	0.04	0.00	6.21

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Survey									
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6,683.0	0.20	153.00	6,637.0	-438.9	324.1	545.5	0.32	-0.21	50.11
6,746.3	0.33	146.28	6,700.3	-439.2	324.2	545.8	0.21	0.21	-10.62
LEGAL BOX 400' X 400' 660'FSL & 663'FEL									
6,778.0	0.40	144.60	6,732.0	-439.4	324.3	546.0	0.21	0.21	-5.30
6,873.0	0.50	149.30	6,827.0	-440.0	324.7	546.8	0.11	0.11	4.95
6,969.0	0.70	144.50	6,923.0	-440.8	325.3	547.8	0.21	0.21	-5.00
7,063.0	0.80	147.90	7,017.0	-441.8	326.0	549.0	0.12	0.11	3.62
7,158.0	1.10	146.60	7,112.0	-443.2	326.8	550.6	0.32	0.32	-1.37
7,253.0	1.50	131.30	7,207.0	-444.8	328.3	552.7	0.55	0.42	-16.11
7,348.0	2.00	121.10	7,301.9	-446.4	330.6	555.4	0.62	0.53	-10.74
7,443.0	2.40	116.00	7,396.8	-448.2	333.8	558.7	0.47	0.42	-5.37
7,538.0	2.70	112.00	7,491.7	-449.9	337.7	562.3	0.37	0.32	-4.21
7,547.0	2.70	112.00	7,500.7	-450.0	338.1	562.7	0.00	0.00	0.00

Checked By: _____	Approved By: _____	Date: _____
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